

EN

# haupa<sup>®</sup>

## Gross Price-List 2024



[haupa.com](https://www.haupa.com)

valid from 01.02.2024

# HAUPA | Quality tools and connection technology for the electrical trade and the electrical industry.

HAUPA stands for hand tools of the highest quality and safety for the electrical engineer. With our products, we always pay attention to the **HAUPAplus**; the special advantage for our customers. Our passion is to build a good, reliable and safe tool, which the user will enjoy for a long time.

## Trust for over 60 years

Hans-Udo Paas founded **HAUPA** in 1961 in Remscheid, the heart of the tool industry. Over more than 60-year history of the company, our medium-sized, value-oriented family business has developed into a globally active company. The recipe for success and our stable growth is the combination of **tradition, experience, expertise and innovation**. It is our constant endeavour to develop products of the highest precision, which offer the electrical engineer added value.



## QUALITY and SAFETY are hugely important to us!

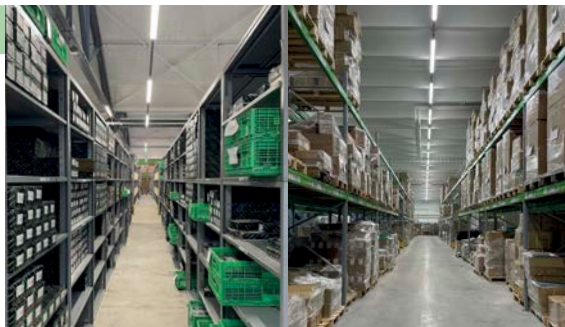
Our product portfolio includes high-quality system tools and certified cable connection technology for the electrical trade and the electrical industry. In addition, we produce and market a wide range of basic tools for professional use in electrical engineering. The high **quality** of the products is the top priority at **HAUPA**. To ensure this, we constantly carry out **quality checks** in-house.

In recent years, our range has been expanded many times over. In order to be able to serve and satisfy our customers beyond electrical engineering, we are always busy adding new tools and accessories to our portfolio. This allows us to provide a central point of contact in the most diverse fields of the electrical trade.



## Logistics and shipping

Thanks to our modern warehouse in Remscheid, we always have a large proportion of our products in stock. Our experienced logistics team strives to ensure that our goods usually make their way to the customer on the day of the order. **Customer satisfaction, your trust and on-time delivery** are our most important goals!



## Competent contact person

We personally take care of the questions and problems of our customers. When you get in touch with us, you can be sure that we will help you. Our on-site employees are **professionals in the field**, and some have worked as electrical engineers themselves, making them the **perfect contact person for you**.

If you are not sure which materials you can process with which tool, we would be delighted to help - and answer all other questions, too!



## PVC pipe cutters

### PVC pipe cutter



Art. No.	∅	kg	PU	EUR
200214	0 - 35	0,235	1	<b>72,05</b>
200215	spare blades	0,040	1	<b>32,42</b>

### PVC pipe cutter



Art. No.	∅	kg	PU	EUR
200216	0 - 42	0,270	1	<b>92,72</b>
200217	spare blades	0,055	1	<b>38,31</b>

### PVC pipe cutter (with ratchet)



Art. No.	∅	kg	PU	EUR
200218	0 - 63	0,270	1	<b>127,43</b>
200219	replacement blade	0,055	1	<b>67,17</b>

### Corrugated tube cutter



Art. No.	∅	kg	PU	EUR
200208	14 - 45	0,111	1	<b>54,45</b>

## Cable cutters

### Allround soft-grip scissors



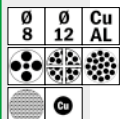
Art. No.	mm <sup>2</sup>	kg	PU	EUR	
200155 *	140	25	0,086	1	<b>15,96</b>

### Allround soft-grip scissors



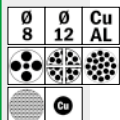
Art. No.	mm <sup>2</sup>	kg	PU	EUR	
200185 *	150	50	0,083	1	<b>29,73</b>

## Cable cutter



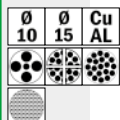
Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
201085 *	160	8 16	0,177	1	<b>18,29</b>
201087	200	12 35	0,289	1	<b>20,55</b>

## Cable cutter



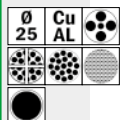
Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
201086	180	8 16	0,216	1	<b>35,23</b>
201088	240	12 35	0,361	1	<b>37,75</b>

## Cable cutters with spring joint



Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200086 *	170	10 25	0,266	1	<b>42,93</b>
200088 *	230	15 70	0,475	1	<b>61,72</b>

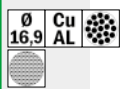
## Cable cutter



Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200105	215	25 70	0,281	1	<b>71,76</b>

## Cable cutter with a snap

for fine wired cable



Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
201002 *	180	16,9 70	0,241	1	<b>29,46</b>

## Cable cutter with a snap

for fine wired cable

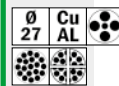


Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
201000	230	18,9 120	0,514	1	<b>107,22</b>

	single wire		wire rope
	multi-wire		armoured steel cable (SWA)
	sector-shaped		ACSR
	fine wire		bolt
	communication		solid steel
			solid Cu

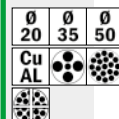
## Cable cutters

### Cable cutter



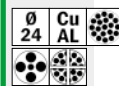
Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200087	500	27 150	1,026	1	<b>160,33</b>

### Cable cutters



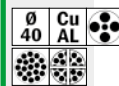
Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200073	300	20 120	0,620	1	<b>60,57</b>
200073/MK	cutting head		0,190	1	<b>44,23</b>
200095	530	35 185	1,652	1	<b>129,39</b>
200095/MK	cutting head		0,610	1	<b>83,57</b>
200099	780	50 400	3,380	1	<b>191,62</b>
200099/MK	cutting head		1,202	1	<b>122,89</b>

### Cable cutters „Super light“



Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200197	700	24 120	1,839	1	<b>157,30</b>

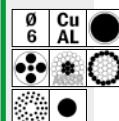
### Cable cutter



Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200100	980	40 400	3,920	1	<b>497,98</b>
200104	cutting head		0,606	1	<b>324,52</b>

## Wire cutters (ACSR)

### Wire cutter

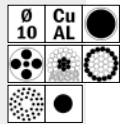


Art. No.	∅	mm <sup>2</sup>	kg	PU	EUR
200173 *	180	6 10	0,306	1	<b>17,69</b>

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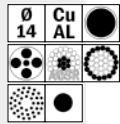
... convincing solutions

**Wire cutter**



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200175	180	10	95	0,752	1 <b>68,83</b>

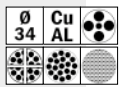
**Wire cutter**



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200181	700	14	150	2,390	1 <b>142,57</b>

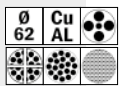
**Cable cutters**

**Hand cable cutter**



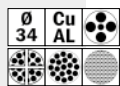
Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200089-1 *	260	34	300	0,6	1 <b>300,74</b>

**Hand cable cutter**



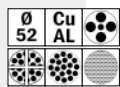
Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200183-1 *	297	62	480	0,82	1 <b>315,31</b>

**Cable cutter**



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200111	250	34	185	0,790	1 <b>347,41</b>

**Cable cutter**

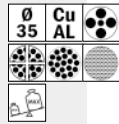


Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200112	320	52	400	1,122	1 <b>432,56</b>

	single wire		wire rope
	multi-wire		armoured steel cable (SWA)
	sector-shaped		ACSR
	fine wire		bolt
	communication		solid steel
			solid Cu

**Cable cutter**

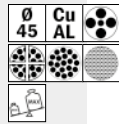
leveraged, power saving of up to 50%



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200113	250	35	240	0,976	1 <b>440,92</b>

**Cable cutter**

leveraged, power saving of up to 50%

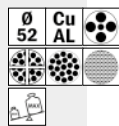


Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200177	260	45	300	0,900	1 <b>526,00</b>

**Cable cutters with eccentric drive**

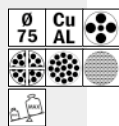
**Cable cutter**

leveraged, power saving of up to 50%



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200114	325	52	400	1,340	1 <b>627,87</b>

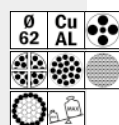
**Special cable cutter**



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200116	370	75	300	1,585	1 <b>805,61</b>

**Cable cutter**

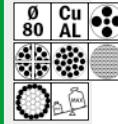
leveraged



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200115	410	62	750	2,224	1 <b>1.211,97</b>

**Cable cutter**

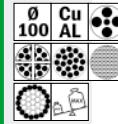
also suitable for cables with steel sheet jacket and soft steel wire reinforcement, ST 52



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200119	610	80	1000	3,322	1 <b>1.538,15</b>

**Cable cutter**

leveraged, also suitable for cables with steel sheet jacket and softsteel wire reinforcement, ST 52



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200179	610	100	1400	3,000	1 <b>1.720,57</b>

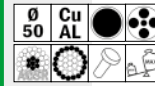
**Special cable cutters**

**Universal cable cutter with eccentric drive**

leveraged

Complete set:

- Universal cable cutter
- 1 pair of cutting segments S1 (Art. 200178/S1)
- Cleaner
- ACSR



PDF 200178



Art. No.	↔	Ø mm <sup>2</sup>	kg	PU	EUR
200178	230	50	300	1,140	1 <b>769,83</b>

**Further accessories for cable cutter item no. 200178**



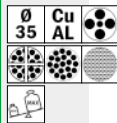
Art. No.	Ø	mm <sup>2</sup>	kg	PU	EUR
200178/B	30	150	0,100	1	<b>51,31</b>
200178/C	30	150	0,100	1	<b>51,31</b>
200178/S	50	350	0,100	1	<b>51,31</b>
200178/S1	50	300	0,100	1	<b>51,31</b>
200178/S2	50	200	0,100	1	<b>51,31</b>



## Front cable cutters with eccentric drive

### Front cable cutter with eccentric drive

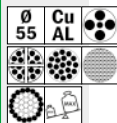
leveraged



Art. No.	mm	mm <sup>2</sup>	Ø	kg	PU	EUR
200131	330	240	35	1,673	1	<b>836,74</b>

### Front cable cutter with eccentric drive

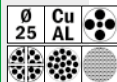
leveraged,  
also suitable for cables with steel sheet jacket  
and softsteel wire reinforcement, ST 52



Art. No.	mm	mm <sup>2</sup>	Ø	kg	PU	EUR
200151	485	550	55	3,493	1	<b>1.614,27</b>

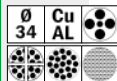
## Front cable cutters

### Front cable cutter



Art. No.	mm	Ø	mm <sup>2</sup>	kg	PU	EUR
200124	245	25	120	1,020	1	<b>405,35</b>

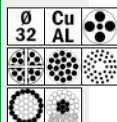
### Front cable cutter



Art. No.	mm <sup>2</sup>	mm	Ø	kg	PU	EUR
200126	185	330	34	1,541	1	<b>518,39</b>

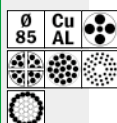
## Hydraulic cable cutters

### Hydraulic cutter „HH 85-ST“



Art. No.	mm	Ø	kg	PU	EUR
216402	580	32	5,300	1	<b>1.956,51</b>

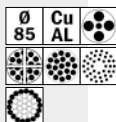
### Hydraulic cutter „HH 85-ST“



Art. No.	mm	Ø	kg	PU	EUR
216404	690	85	6,830	1	<b>4.544,10</b>

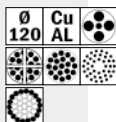
## Hydraulic cutting headstocks

### Hydraulic cutting headstock



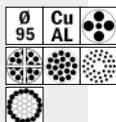
Art. No.	Ø	kg	PU	EUR
216408	85	5,020	1	<b>3.221,54</b>

### Hydraulic cutting headstock



Art. No.	Ø	kg	PU	EUR
216410	120	14,600	1	<b>3.921,34</b>

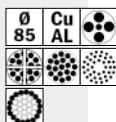
### Hydraulic cutting headstock



Art. No.	Ø	kg	PU	EUR
216415	95	11,300	1	<b>3.839,13</b>

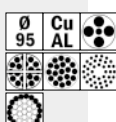
## Safety cutting equipment

### Hydraulic safety life line cable cutter



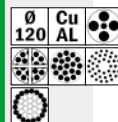
Art. No.	Ø	bar	kg	PU	EUR
216417	85	625	32,000	1	<b>6.787,99</b>

### Hydraulic safety life line cable cutter



Art. No.	Ø	bar	kg	PU	EUR
216421	95	625	33,000	1	<b>8.998,01</b>

## Hydraulic safety life line cable cutter

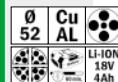


Art. No.	Ø	bar	kg	PU	EUR
216416	120	625	36,600	1	<b>9.014,76</b>
216416/850	120	850	36,600	1	<b>9.014,76</b>

## Battery powered cable cutters

### Battery powered cable cutter „AS-52“

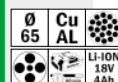
- for copper and aluminium cable
- diameter up to 52 mm



Art. No.	Ø	kg	PU	EUR
216434-1	52	7,130	1	<b>1.755,84</b>
216434-1-NO	52	3,100	1	<b>1.547,15</b>
216434-1-N	52	3,000	1	<b>1.293,94</b>

### Battery powered cable cutter „AS-65“

- for copper and aluminium cable
- diameter up to 65 mm



Art. No.	Ø	kg	PU	EUR
216435-1	65	7,130	1	<b>2.978,89</b>
216435-1-NO	65	3,100	1	<b>2.594,03</b>
216435-1-N	65	3,000	1	<b>2.345,19</b>

Scope of delivery for all battery-hydraulic cable cutters:  
1 tool, 1 quick charger and 1 rechargeable battery in  
SysCon or system case incl. Insert.

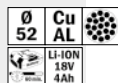
For versions -NO: no battery, no charger  
For versions -N: only machine in transport packaging

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... convincing solutions

### Battery powered cable cutter „AS-52F“

- for copper and aluminium cable
- with blades for fine-stranded cables



Art. No.	Ø	kg	PU	EUR
216436/F-1	52	7,480	1	<b>1.956,46</b>
216436/F-1-NO	52	3,500	1	<b>1.755,10</b>
216436/F-1-N	52	8,100	1	<b>1.494,56</b>

### Battery powered cable cutter „AS-52ACSR“

- Diameter 18,6 mm / 120 mm<sup>2</sup>
- ACSR 19 mm
- not suitable for Cu/Al



Art. No.	Ø	kg	PU	EUR
216436-1	18,6	8,100	1	<b>1.956,46</b>
216436-1-NO	18,6	3,500	1	<b>1.755,10</b>
216436-1-N	18,6	3,300	1	<b>1.494,56</b>

### Hydraulic cable cutters

#### Battery powered universal cable cutter universal „AS6-S20“

- Pressing force kN: 60 kN
- Working pressure in bar: 700
- Cutting width Ø: 20
- Battery charging time in minutes: 30
- Battery type: Li-Ion, 18 V, 2 Ah
- With the new HAUPA battery item no. 215523 and charger item no. 215527
- ACSR
- Sheet and wire armouring Cu
- Wire rope, bracing wire
- Soft rod steel
- Lead sleeve cable



Art. No.	Ø	kg	PU	EUR
216418-1	20	8,100	1	<b>2.782,55</b>
216418-1-NO	20	3,000	1	<b>2.640,20</b>
216418-1-N	20	2,700	1	<b>2.285,07</b>

	single wire		wire rope
	multi-wire		armoured steel cable (SWA)
	sector-shaped		ACSR
	fine wire		bolt
	communication		solid steel
			solid Cu

### Battery powered cable cutter „AS6-S32“

- Pressing force kN: 60 kN
- Working pressure in bar: 700
- Cutting width Ø: 32
- Battery charging time in minutes: 30
- Battery type: Li-Ion, 18 V, 2 Ah
- With the new HAUPA battery item no. 215523 and charger item no. 215527



Art. No.	Ø	kg	PU	EUR
216419-1	32	7,900	1	<b>2.832,42</b>
216419-1-NO	32	3,900	1	<b>2.570,79</b>
216419-1-N	32	7,900	1	<b>2.323,85</b>

#### Battery-hydraulic cable cutter „AS6-S32ACSR“

- Diameter 32 mm
- ACSR 32 mm
- not suitable for Cu/Al



Art. No.	Ø	kg	PU	EUR
216426-1	32	480	7,900	<b>1.5.989,60</b>
216426-1-NO	32	480	3,900	<b>1.5.725,25</b>
216426-1-N	32	480	7,900	<b>1.5.450,00</b>

#### Battery-hydraulic cable cutter „AS6-S50“

- Precise cut with little conductor deformation
- Cutting force kN: 60
- Work pressure in bar: 700
- Cutting width Ø: 50
- Cutting head 180° rotating
- Battery charging time in minutes: 30
- Battery type: Li-Ion, 18 V, 2 Ah
- Compatible with battery Art. No. 215523 and charger Art. No. 215527
- Compatible with MAKITA 18 V charging equipment
- LED front lamp for work area illumination



Art. No.	Ø	kg	PU	EUR
216420-1	50	480	8,424	<b>1.3.633,08</b>
216420-1-NO	50	480	4,550	<b>1.2.995,06</b>
216420-1-N	50	480	7,900	<b>1.2.754,01</b>

### Battery-hydraulic cable cutter „AS6-S65“

- Precise cut with little conductor deformation
- Cutting force kN: 60
- Work pressure in bar: 700
- Cutting width Ø: 65
- Cutting head 180° rotating
- Battery charging time in minutes: 30
- Battery type: Li-Ion, 18 V, 2 Ah
- Compatible with battery Art. No. 215523 and charger Art. No. 215527
- Compatible with MAKITA 18 V charging equipment
- LED front lamp for work area illumination



Art. No.	Ø	kg	VE	EUR
216423-1	500	65	7,900	<b>1.4.479,60</b>
216423-1-NO	500	65	4,520	<b>1.4.215,25</b>
216423-1-N	500	65	4,520	<b>1.3.940,00</b>

#### Battery powered cable cutter „AS6-40“

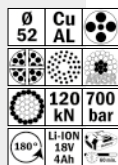
- Pressing force kN: 60
- Working pressure in bar: 700
- Cutting width Ø: 40
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah



Art. No.	Ø	kg	PU	EUR
216422-1	385	40	11,100	<b>1.3.075,39</b>
216422-1-NO	385	40	6,200	<b>1.2.758,30</b>
216422-1-N	385	40	5,700	<b>1.2.979,60</b>

#### Battery powered cable cutter „AS12-52“ (ACSR)

- Pressing force kN: 120
- Working pressure in bar: 700
- Cutting width Ø: 52
- ACSR
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah

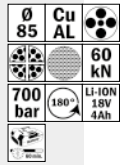


Art. No.	Ø	kg	PU	EUR
216424-1	385	52	13,200	<b>1.3.964,55</b>
216424-1-NO	385	52	9,100	<b>1.3.634,62</b>
216424-1-N	385	52	8,500	<b>1.3.152,67</b>



### Battery powered cable cutter „AS6-85“

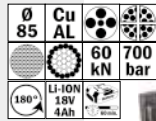
- Pressing force kN: 60
- Working pressure in bar: 700
- Cutting width Ø: 85
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah



Art. No.	→←	Ø	kg	PU	EUR
216428-1		385	85	13,820	1 <b>3.136,13</b>
216428-1-NO		385	85	8,900	1 <b>2.844,74</b>
216428-1-N		385	85	8,300	1 <b>2.419,06</b>

### Battery powered cable cutter „SAS6-85“

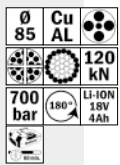
- Pressing force kN: 60
- Working pressure in bar: 700
- Cutting width Ø: 85
- Armoured steel cable
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah



Art. No.	→←	Ø	kg	PU	EUR
216430-1		385	85	12,900	1 <b>5.323,94</b>
216430-1-NO		385	85	8,900	1 <b>5.032,54</b>
216430-1-N		385	85	8,300	1 <b>4.747,48</b>

### Battery powered cable cutter „AS12-S85“

- Pressing force kN: 120
- Working pressure in bar: 700
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah



Art. No.	→←	Ø	kg	PU	EUR
216425-1		385	85	16,150	1 <b>5.923,19</b>
216425-1-NO		385	85	13,000	1 <b>5.593,26</b>
216425-1-N		385	85	11,800	1 <b>5.111,30</b>

## Cable sheath strippers

### Cable stripper „Kabifix“



Art. No.	Ø	kg	PU	EUR
200022	6 - 28	0,100	1	<b>66,81</b>
200024	spare blades	0,007	1	<b>18,18</b>

### Cable stripper „Kabifix LWL“



Art. No.	Ø	kg	PU	EUR
200023	6 - 25	0,136	1	<b>102,32</b>
200023/M	spare blades	0,003	1	<b>10,88</b>

### „System 4 - 70“ cable stripper

Cable stripping knife system with interchangeable bracket



Art. No.	Ø	kg	PU	EUR
201040	4 - 70	0,123	1	<b>68,56</b>

### Interchangeable bracket

Suitable for cable stripping system 4 - 70 (Art. No. 201040)



Art. No.	Ø	kg	PU	EUR
201042	4 - 16	0,031	1	<b>19,48</b>
201044	8 - 28	0,031	1	<b>19,48</b>
201046	27 - 35	0,060	1	<b>22,92</b>
201048	35 - 50	0,100	1	<b>22,92</b>
201050	50 - 70	0,100	1	<b>22,92</b>

### Replacement hook blades

Suitable for cable stripping system 4 - 70 (Art. No. 201040)



Art. No.	Ø	kg	PU	EUR
201052	4 - 70	0,100	1	<b>16,77</b>

### „Profi set“ cable stripping system 4 - 70

Contents:

- 201040
- 201042
- 201044
- 201046
- 201048
- 201050



Art. No.	Ø	kg	PU	EUR
201054	4 - 70	0,100	1	<b>176,06</b>

### Cable stripping knife



Art. No.	Ø	kg	PU	EUR
200031 *	8 - 28	0,100	1	<b>20,18</b>
200046	spare blades	0,004	10	<b>2,28</b>

### Cable stripping knife



Art. No.	Ø	kg	PU	EUR
200038 *	4 - 16	0,090	1	<b>18,67</b>
200040	8 - 28	0,091	1	<b>18,67</b>
200042	28 - 35	0,101	1	<b>22,26</b>
200044	35 - 50	0,108	1	<b>22,64</b>
200046	spare blades	0,004	10	<b>2,28</b>

### Stripper „All-rounder“

- Cable stripper for round cables from Ø 4 - 15 mm and flat cables up to 15 mm width
- Stripping 1.5 - 2.5 mm<sup>2</sup> single wire
- Lengthwise cut



Art. No.	Ø	kg	PU	EUR
200050 *	4 - 15	0,111	1	<b>30,92</b>

### Universal strippers



Art. No.	Ø	kg	PU	EUR
200036	8 - 13	0,065	1	<b>26,45</b>

### Universal stripper



Art. No.	Ø	kg	PU	EUR
200043 *	8 - 13	0,063	1	<b>45,76</b>

### „XL“ cable stripper

For stripping round cables with a round cut, extra long for deep flush-mounted boxes



Art. No.	Ø	kg	PU	EUR
201045	8 - 13	0,100	1	<b>34,51</b>

### Flatcable stripper

For stripping flat cables up to 12 mm in width Stripping tool 0.8 - 2.5 mm<sup>2</sup>



Art. No.	Ø	kg	PU	EUR
200037	4 - 13	0,068	1	<b>26,45</b>

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**„Top Coax Plus“ cable stripper**



Art. No.	∅	kg	PU	EUR
201058	4.8 - 7.5	0,100	1	<b>29,01</b>

**Hex socket wrench for coax**

for items 201058 and 200035



Art. No.	SW	kg	PU	EUR
201059	11	0,100	1	<b>3,45</b>

**Stripper for coaxial cable**

CAT 5, CAT 6, CAT 7, twisted pair



Art. No.	∅	kg	PU	EUR
200636 *	4.8 - 7,5	0,041	1	<b>23,88</b>

**Cable strippers for short-circuit proof lines**



Art. No.	∅	kg	PU	EUR
200630	1,5	0,054	1	<b>68,97</b>
200632	2,5 - 6	0,054	1	<b>68,97</b>
200634	10 - 16	0,054	1	<b>68,97</b>

**PC-Strip**

for data cables



Art. No.	∅	kg	PU	EUR
200039	5 - 13	0,064	1	<b>70,60</b>

**Cable stripper HUPstripPV**

Solar 2,5 - 6 mm<sup>2</sup> | ∅ 7,5 - 9,5 mm



Art. No.	∅	kg	PU	EUR
201060	7,5 - 9,5	0,054	1	<b>59,85</b>

**Stripper for coaxial cable**



Art. No.	RJ	kg	PU	EUR
200069	RG 58-59-62-6	0,048	1	<b>34,23</b>

**PC-Cat**

CAT 5, CAT 6, CAT 7, twisted pair



Art. No.	∅	kg	PU	EUR
200637	4,5 - 10	0,062	1	<b>44,41</b>

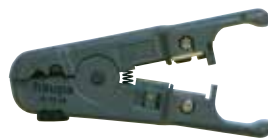
**No.1-Cat**

CAT 5, CAT 6, CAT 7, twisted pair



Art. No.	∅	kg	PU	EUR
200638	4,5 - 10	0,050	1	<b>70,75</b>

**Stripper for UTP-/STP-data cable**



Art. No.	∅	kg	PU	EUR
200068	3.5 - 9	0,060	1	<b>34,66</b>

**Precision stripper PWS Plus**



Art. No.	∅	kg	PU	EUR
200033	0,25 - 0,8	0,039	1	<b>46,72</b>

**Sensor Tool LSA**



Art. No.	∅	kg	PU	EUR
300322	0,35 - 0,9	0,078	1	<b>54,30</b>

**Wire strippers**

**Cable stripper, manual**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210620 *	175 0.5 - 2,5	0,158	1	<b>15,68</b>
210622	175 0.5 - 1,5	0,158	1	<b>15,68</b>
210624	175 0.25 - 0,75	0,161	1	<b>15,68</b>

**Cable stripper, manual optical fibre**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
200057 *	150 0 - 0,18	0,120	1	<b>21,18</b>

**Cable stripper, automatic**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210691	165 0.5 - 2	0,340	1	<b>33,46</b>
210692 *	165 1 - 4	0,350	1	<b>33,56</b>

**Wire stripper „High Strip“**

Rubber, silicone, TPE etc.



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210684	170 0.5 - 4	0,130	1	<b>93,57</b>

**Automatic wire stripper Super Plus**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210695 *	170 0.2 - 6	0,088	1	<b>38,21</b>
210695/E	spare blades	0,010	1	<b>11,44</b>

**Automatic wire stripper Super4Pro**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210698	165 0,2 - 6	0,111	1	<b>62,78</b>

**Automatic wire stripper**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210696 *	180 0.2 - 6	0,151	1	<b>57,39</b>
210696/2	spare blades	0,030	1	<b>18,19</b>



### Wire stripper / Solar



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
210685	160	6 - 16	0,147	1	<b>137,41</b>

### Flat cable pliers



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
210686	160	0.75 - 2,5	0,148	1	<b>103,45</b>

### Wire stripper Sensor Mini



Art. No.	∅	kg	PU	EUR
210730	3.2 - 4.4	0,122	1	<b>150,78</b>

### Wire stripper sensor special



Art. No.	↔	∅	kg	PU	EUR
210729	180	4.4 - 7,0	0,122	1	<b>151,66</b>

### Cable stripper ASI, automatic

Special formed blades with integrated side scale



Art. No.	↔	kg	PU	EUR
210693	160	0,117	1	<b>215,32</b>
210693/1	spare blades	0,030	1	<b>93,89</b>

### Automatic cable stripper

#### Automatic cable stripper



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
211928	160	0,08 - 2,5	0,156	1	<b>98,16</b>
211928/1	spare blades		0,008	1	<b>73,68</b>

#### Automatic cable stripper



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
211930 *	205	0,08 - 6	0,255	1	<b>103,98</b>
211930/1	spare blades		0,009	1	<b>56,20</b>

#### Automatic cable stripper



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
211932	205	6 - 16	0,250	1	<b>150,72</b>
211932/1		6 - 16	0,011	1	<b>59,80</b>

#### Automatic cable stripper



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
211934	205	0.03 - 10	0,130	1	<b>128,36</b>

### Cable sheath strippers

#### Cable sheath cutter



Art. No.	∅	kg	PU	EUR
110581	>25	0,220	1	<b>165,65</b>

### Stripping pliers



Art. No.	↔	∅	kg	PU	EUR
200187	260	26 - 52	0,760	1	<b>611,19</b>
200188	290	47 - 75	1,100	1	<b>723,48</b>

### Stripping tool for medium-high voltage cable



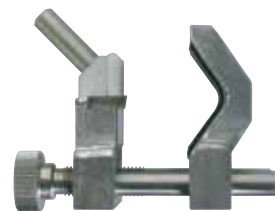
Art. No.	∅	kg	PU	EUR
200520	10 - 50	0,800	1	<b>1.369,87</b>
200520/1	spare blades	0,800	1	<b>815,15</b>

### Cable Sheath Stripper



Art. No.	mm <sup>2</sup>	∅	kg	PU	EUR
200524	35 - 500	15 - 55	0,800	1	<b>1.566,54</b>
200524/1	spare blades		0,020	5	<b>129,96</b>

### Edge cutter



Art. No.	∅	kg	PU	EUR
200526	0 - 40	0,100	1	<b>458,56</b>
200528	0 - 60	0,100	1	<b>649,91</b>

### Complete assembly case

Contents:

- Sleeve cutter
- Plastic prism
- Stripping device
- Silicone paste
- Edge cutter
- Key for changing blades



Art. No.	mm <sup>2</sup>	kg	PU	EUR
200522	35 - 500	2,704	1	<b>3.424,66</b>

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## Crimping pliers systems for photovoltaics

### HUPcompact "HC06" for MC4 connectors



Art. No.	mm <sup>2</sup>	kg	PU	EUR
213110	4 - 10	0,300	1	<b>222,00</b>

### Crimping pliers

211657: square crimping (MC3) / 211659: roll crimping (MC4)



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211657	2,5 - 6	0,560	1	<b>75,77</b>
211659 *	2,5 - 6	0,560	1	<b>74,63</b>

### Crimpset „MULTI Photovoltaik“

MC3: art. 212007, MC4: art. 212008



Art. No.		kg	PU	EUR
212005	MC3 + MC4	1,150	1	<b>339,47</b>

### Crimping pliers HUPstar Photovoltaic

Pressing star 213084/E

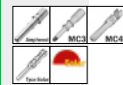
#### Photovoltaics:

Amphenol Helios H4: 2,5 / 4 / 6

Multi-Contact MC3: 2,5 / 4 / 6

Multi-Contact MC4: 2,5 / 4 / 6

Tyco Solarlok: 1,5 / 2,5 / 4 / 6

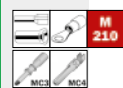


Art. No.	mm <sup>2</sup>	kg	PU	EUR
213084	230 1,5 - 6	0,300	1	<b>632,15</b>
213084/E	crimp star	0,175	1	<b>389,92</b>

### Crimpset X-Crimp for photovoltaics

Supplied in robust nylon bag (article 220260).

Content: Art. 211690, Art. 211657/E, Art. 211659/E, Art. 210842/E, Art. 210761/E



Art. No.	Set	kg	PU	EUR
211697	4	0,900	1	<b>262,47</b>

## HAUPA Crimp System for Photovoltaics



Art. No.	mm <sup>2</sup>	kg	PU	EUR
212200	6	0,998	1	<b>403,55</b>

### Crimp insert for „Hirschmann“ contacts

Art. No.		EUR
212218	2,5 + 4 + 6 mm <sup>2</sup> , AWG 13/11/10	<b>276,91</b>

### Crimp inserts for „Huber & Suhner“ contacts

Art. No.		EUR
212206	2,5 + 4 mm <sup>2</sup> , AWG 13/11	<b>311,14</b>
212208	4 + 6 mm <sup>2</sup> , AWG 11/10	<b>306,10</b>

### Crimp inserts for „multi-contact“ contacts

Art. No.		EUR
212210	MC3, 2,5 + 4 + 6 mm <sup>2</sup> , AWG	<b>318,74</b>
212212	MC3, Locator	<b>159,50</b>
212214	MC4, 2,5 + 4 + 6 mm <sup>2</sup> , AWG	<b>344,65</b>
212216	MC4, Locator	<b>163,43</b>

### Crimp insert for „Tyco“ contacts

Art. No.		EUR
212220	Tyco 1,5 + 2,5 + 4 + 6 mm <sup>2</sup>	<b>484,70</b>
212222	Locator for Tyco	<b>156,28</b>

### Dies for Solar contacts Amphenol

Art. No.		EUR
212226	2,5 + 4 mm <sup>2</sup> , AWG 13/11	<b>318,74</b>
212228	Locator for Amphenol	<b>218,21</b>

### Assembly tool MC4



Art. No.		kg	PU	EUR
110806	MC 4	0,048	1	<b>12,38</b>

### HUPsolarKit3

Contents:  
 211225 Cable cutters VDE "HUPtriCut" | 160 mm for Ø 8 mm  
 201060 Cable stripper "HUPstripPV" | 2,5 - 6,0 mm<sup>2</sup>  
 110806 MC4 assembly tool (2 pieces)  
 211659 Crimping pliers photovoltaic | MC4 2,5 - 6 mm<sup>2</sup>  
 330046/K Case with insert



Art. No.	Set	kg	PU	EUR
330046	5	1,320	1	<b>267,30</b>

### HUPsolarKit4

Contents:  
 211225 Cable cutters VDE "HUPtriCut" | 160 mm for Ø 8 mm  
 201060 Cable stripper "HUPstripPV" | 2,5 - 6,0 mm<sup>2</sup>  
 110806 MC4 assembly tool (2 pieces)  
 213110 HUPcompact "HC06" for MC4 connector | 4 - 10 mm<sup>2</sup>  
 330048/K Case with insert



Art. No.	Set	kg	PU	EUR
330048	5	1,320	1	<b>355,20</b>

### HUPsolarKit5

Contents:  
 201085 Cable cutter "HUPtriCut" dip-insulated | 160 mm for Ø 8 mm  
 201060 Cable stripper "HUPstripPV" | 2,5 - 6,0 mm<sup>2</sup>  
 110806 MC4 assembly tool (2 pieces)  
 213110 HUPcompact "HC06" for MC4 connector | 4 - 10 mm<sup>2</sup>  
 220105 Belt bag "ToolBelt" with 8 compartments



Art. No.	Set	kg	PU	EUR
330050	5	0,700	1	<b>297,90</b>

## Crimping pliers for end sleeves

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210818	0,25 - 2,5	0,210	1	<b>25,63</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210820 *	140 0,25 - 2,5	0,202	1	<b>40,03</b>
210824 *	220 0,75 - 16	0,304	1	<b>52,96</b>
210826 *	225 10 - 35	0,277	1	<b>52,96</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211650	0,14 - 2,5	0,371	1	<b>78,57</b>
210841 *	0,25 - 6	0,380	1	<b>78,57</b>
211652	6 - 16	0,374	1	<b>78,57</b>

### Crimping pliers for twin end sleeves



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211676	0,5 - 6	0,576	1	<b>78,80</b>
211678	6 - 16	0,604	1	<b>91,06</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210763 *	0,5 - 4	0,578	1	<b>61,18</b>
210842 *	1 - 10	0,553	1	<b>60,34</b>
210765	6 - 16	0,582	1	<b>61,18</b>
211672	10 - 25	0,580	1	<b>78,80</b>
210768	10 - 35	0,606	1	<b>114,37</b>
211674	25 - 50	0,600	1	<b>91,06</b>

### HUPcompact „HC02”



Art. No.	mm <sup>2</sup>	kg	PU	EUR
213088	0,25 - 16	0,480	1	<b>218,28</b>

### Crimping pliers “HUPsquare 10”



Art. No.	mm <sup>2</sup>	kg	PU	EUR
212804	0,08 - 10	0,566	1	<b>161,06</b>

### Crimping pliers “HUPsquare 16”



Art. No.	mm <sup>2</sup>	kg	PU	EUR
212806	0,5 - 16	0,566	1	<b>166,36</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210804	0,08 - 10	0,360	1	<b>285,07</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211816 *	0,08 - 16	0,413	1	<b>265,46</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211818	0,08 - 16	0,413	1	<b>338,10</b>

### Front-Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210819	0,08 - 10	0,489	1	<b>351,55</b>
211810	0,08 - 16	0,489	1	<b>307,87</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210788 *	10 - 50	0,732	1	<b>273,53</b>
210789	50 - 95	0,800	1	<b>291,77</b>

### Quadro complete set in case



Art. No.	mm <sup>2</sup>	kg	PU	EUR	
210682	170	0,5 - 2,5	0,713	1	<b>598,96</b>

### Pneumatic crimpers

#### HAUPA Pneumatic Crimpers



Art. No.	mm <sup>2</sup>	kg	PU	EUR	
217030	200	0,25 - 2,5	0,720	1	<b>702,19</b>
217040	200	4 - 10	0,739	1	<b>912,26</b>

#### HAUPA Pneumatic crimpers table top versions



Art. No.	mm <sup>2</sup>	kg	PU	EUR	
217010	200	0,25 - 2,5	5,000	1	<b>928,52</b>
217020	200	4 - 10	5,000	1	<b>1.142,04</b>

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### Crimping pliers for insulated crimp terminals

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210845	0,08 - 2,5	0,343	1	<b>114,56</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210761 *	0,5 - 6	0,566	1	<b>61,18</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211695	0,5 - 10	0,566	1	<b>63,99</b>

#### HUPcompact „HC01“



Art. No.	mm <sup>2</sup>	kg	PU	EUR
213090	0,1 - 6	0,480	1	<b>192,26</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210827	10 - 16	0,472	1	<b>190,86</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210802	1,5 - 6	0,178	1	<b>7,40</b>

#### Combi-Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210808 *	1,5 - 6	0,198	1	<b>9,93</b>

### Crimping pliers for coaxial connections

#### Crimping pliers



Art. No.	kg	PU	EUR	
210849	RG 55-58-59-62	0,303	1	<b>114,56</b>

#### Crimping pliers



Art. No.	kg	PU	EUR	
210767 *	RG 55-58-59-62	0,567	1	<b>83,26</b>
211680	RG 55-58-59-62-5-6	0,578	1	<b>63,97</b>

#### Crimping pliers HUPstar Coax

Pressing star 213082/E

Coax:

Hexagon pressure bonding, BNC, TNC, SNB, SNC, SMS, SMA, MCX, 1.07 to 10.9 mm



Art. No.	kg	PU	EUR	
213082	230	0,300	1	<b>649,85</b>

### Crimping pliers for contacts and connectors

#### Crimping pliers

twisted contacts



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211656	0,14 - 4	0,367	1	<b>78,57</b>
211658	1,5 - 6	0,372	1	<b>78,57</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211660	0,14 - 1,5	0,370	1	<b>78,57</b>

#### Crimping pliers

D-Sub-connectors



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211662	0,08 - 0,56	0,365	1	<b>84,58</b>

### Crimping pliers for uninsulated open brass cable lugs

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210777	0,5 - 1,5	0,366	1	<b>100,28</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211682	0,5 - 2,5	0,568	1	<b>78,51</b>
210762 *	0,5 - 6	0,575	1	<b>85,91</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210785	0,5 - 1	0,537	1	<b>124,85</b>
210786	1,5 - 2,5	0,535	1	<b>124,85</b>

#### HUPcompact „HC04“



Art. No.	mm <sup>2</sup>	kg	PU	EUR
213094	0,5 - 6	0,490	1	<b>244,24</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210778	0,25 - 2,5	0,363	1	<b>100,28</b>
210779	0,5 - 6	0,366	1	<b>78,57</b>

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210764	1,5 - 10	0,565	1	<b>71,37</b>

### HUPcompact „HC03“



Art. No.	mm <sup>2</sup>	kg	PU	EUR
213092	0,75 - 10	0,480	1	192,26

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210771	1,5 - 6	0,111	1	57,34

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210772	1 - 10	0,478	1	66,33
210774	1 - 16	0,503	1	77,16

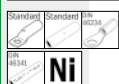
### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210799	0,5 - 16	0,640	1	151,65

### Crimping pliers for uninsulated tubular cable lugs, connectors

### Crimping pliers



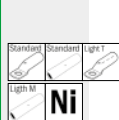
Art. No.	mm <sup>2</sup>	kg	PU	EUR
210771	1,5 - 6	0,111	1	57,34

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210772	1 - 10	0,478	1	66,33
210774	1 - 16	0,503	1	77,16

### Crimping pliers



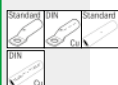
Art. No.	mm <sup>2</sup>	kg	PU	EUR
210830 *	0,75 - 16	0,574	1	148,18

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210791	10 - 120	3,040	1	324,19

### Crimping pliers



Art. No.	Typ	mm <sup>2</sup>	kg	PU	EUR
210805 *	standard	6 - 50	1,351	1	220,91
210805 K *	DIN	6 - 50	1,352	1	220,91
210850 *	standard	10 - 120	3,970	1	310,39
210853 *	DIN	10 - 120	4,016	1	310,39

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210836	50 - 120	5,280	1	505,42
210838	120 - 240	5,200	1	551,06
210840	185 - 400	5,200	1	591,26

### Crimping pliers for modular plugs

### Crimping pliers for modular plugs



Art. No.	RJ	kg	PU	EUR
210867	RJ10 4(4), RJ14	0,218	1	31,40
210865	RJ11 6(4), RJ12 6(4)	0,220	1	31,40
210869	RJ45	0,233	1	36,77

### Crimping pliers for modular plugs



Art. No.	RJ	kg	PU	EUR
213050 *	RJ11 6(4), RJ12 6(4), RJ45, RJ10 4(4), RJ14	0,300	1	78,71

### Crimping pliers for modular plugs



Art. No.	RJ	kg	PU	EUR
210857	RJ11 6(4), RJ12 6(4), RJ45	0,471	1	144,59

### Crimping pliers for modular plugs



Art. No.	kg	PU	EUR	
210871	RJ11 6(4), RJ12 6(4), RJ45, RJ10 4(4), RJ14	0,520	1	219,21

### Crimping pliers for modular plugs



Art. No.	kg	PU	EUR
213000	0,420	1	192,24

### Dies



for crimping pliers 213000



PDF 213000



Art. No.	RJ	kg	PU	EUR
213002	RJ10 4(4)	0,082	1	66,90
213004	RJ11 6(4), RJ12 6(4)	0,081	1	66,90
213006	6DEC	0,080	1	66,90
213008	2pole, unshielded RJ45	0,076	1	66,90
213010	10pole, unshielded RJ50	0,074	1	66,90
213012	8pole, shielded	0,076	1	83,60
213014	10pole plug, shielded	0,071	1	83,60

### Crimping pliers for modular plugs



without dies



Art. No.	kg	PU	EUR
213020	0,474	1	220,18

## Dies

for crimping pliers 213020



Art. No.	RJ	kg	PU	EUR
213022	8pole, shielded	0,103	1	<b>208,98</b>
213024	10pole, shielded	0,102	1	<b>216,58</b>
213026	RJ10 4(4)	0,096	1	<b>245,53</b>
213028	RJ11 6(4), RJ12 6(4)	0,093	1	<b>249,58</b>
213030	6DEC	0,091	1	<b>249,58</b>
213032	RJ45	0,106	1	<b>254,14</b>
213034	RJ50	0,102	1	<b>258,50</b>
213036	8pole, CAT 5	0,106	1	<b>254,14</b>
213038	6pole, shielded	0,106	1	<b>208,98</b>
213040	8pole, shielded	0,113	1	<b>334,39</b>
213042	Ø 3,7 mm	0,030	1	<b>78,27</b>
213044	Ø 4,5 mm	0,030	1	<b>69,65</b>
213046	Ø 5,2 mm	0,030	1	<b>69,65</b>
213048	Ø 6,0 mm	0,030	1	<b>78,27</b>

## Network range

- Content:
- 1 x 213050
  - 1 x 200068
  - 1 x 300322



Art. No.	set	kg	PU	EUR
300033	3	0,700	1	<b>225,68</b>

## HUPstar Multifunction Pliers

### Tool frame „HUPstar“ – open

Tool frame without star crimp, open design specifically for connectors



Art. No.	kg	PU	EUR
213078	0,510	1	<b>207,88</b>

### Tool frame „HUPstar“ – closed

Tool frame without star crimp, enclosed design



Art. No.	kg	PU	EUR
213077	0,530	1	<b>207,88</b>

## Crimping pliers „HUPstar“

Pressing star 213086/E:

- End sleeves: 0,5 / 0,75 / 1,5 / 2,5 / 4 / 6 / 10
- Insulated crimp cable lugs: 0.1-0.25 / 0.5-1 / 1.5 / 2.5 / 4 / 6
- Non-insulated crimp cable lugs: 0.25 / 0.5 / 1 / 1.5 / 2.5 / 4 / 6 / 10



Art. No.	kg	PU	EUR
213086	0,300	1	<b>649,85</b>

## Crimping pliers „HUPstar“

Pressing star 213080/E:

- End sleeves: 0.14-0.25 / 0.25-0.5 / 1 / 1.5 / 2.5 / 4 / 6 / 10 / 16
- Open non-insulated brass cable lugs: 0.14-0.25 / 0.25-0.5 / 1 / 1.5 / 2.5 / 2.54 / 6



Art. No.	kg	PU	EUR
213080	0,300	1	<b>649,85</b>

## Crimping pliers HUPstar Coax

Pressing star 213082/E

- Coax: Hexagon pressure bonding, BNC, TNC, SNB, SNC, SMS, SMA, MCX, 1.07 to 10.9 mm

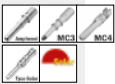


Art. No.	kg	PU	EUR
213082	0,300	1	<b>649,85</b>

## Crimping pliers HUPstar Photovoltaic

Pressing star 213084/E

- Photovoltaics:** Amphenol Helios H4: 2,5 / 4 / 6
- Multi-Contact MC3: 2,5 / 4 / 6
- Multi-Contact MC4: 2,5 / 4 / 6
- Tyco Solarlok: 1,5 / 2,5 / 4 / 6



Art. No.	mm <sup>2</sup>	kg	PU	EUR
213084	1.5 - 6	0,300	1	<b>632,15</b>

## HUPstar „Fibre Optic Connector“

Fiber Optic Connector

- 1.69; 2.5; 3; 3.25; 3.65; 4.2; 4.52; 4.95; 5; 6.5; 10.9



Art. No.	kg	PU	EUR
213098	0,650	1	<b>493,09</b>

## HUPstar „Twisted contacts“

Twisted contacts, square

- 0,1; 0,14; 0,25; 0,34; 0,5 1; 1,5; 2,5; 4; 6; 10
- Locator for Ø 1,6; 2,5; 4



Art. No.	kg	PU	EUR
213102	0,300	1	<b>493,09</b>

## HUPstar „Automotive“

Automotive contacts

- Hirose DF1B-2428SC UL1007 / Litz wire
- Hirose DF1B-2428PC UL1007 / Litz wire 0,08; 0,14; 0,25
- Hirose DF1B-30SC UL1007 / Litz wire
- Hirose DF1B-30PC UL1007 / Litz wire 0,05
- Hirose DF1B-2022SC, Hirose DF1B-2022PC 0,34; 0,50

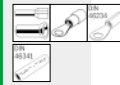


Art. No.	kg	PU	EUR
213100	0,300	1	<b>856,43</b>

## Dies for HUPstar

### HUPstar

- End sleeves 0.5 – 10 mm<sup>2</sup>
- Insulated crimp-style cable lugs 0.1 – 6 mm<sup>2</sup>
- Ring cable lugs (DIN 46234 / DIN 46341) 0.25 – 10 mm<sup>2</sup>



Art. No.	kg	PU	EUR
213086/E	0,175	1	<b>389,92</b>

### HUPstar

- End sleeves 0.14 – 16 mm<sup>2</sup>
- flat push-on receptacles 0.14 – 6 mm



Art. No.	kg	PU	EUR
213080/E	0,175	1	<b>389,92</b>

### HUPstar „Coaxial“

Coaxial

- BNC, TNC, SNB, SNC, SMS, SMA, MCX, 1.07 – 10.9 mm

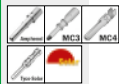


Art. No.	kg	PU	EUR
213082/E	0,175	1	<b>389,92</b>

### HUPstar „Photovoltaic“



Photovoltaics / Solar  
Amphenol Helios H4, multi-contact MC3/ MC4 2.5 - 6.0  
Tyco Solarlok, 1.5 - 4.6 mm<sup>2</sup>  
Only for closed frame Art. No. 21307



Art. No.	kg	PU	EUR
213084/E	dies	0,175	1 <b>389,92</b>

### HUPstar „Fibre Optic Connector“



Fibre Optic Connector  
1.69; 2.5; 3; 3.25; 3.65; 4.2; 4.52; 4.95; 5; 6.5; 10.9



Art. No.	kg	PU	EUR
213098/E	dies	0,175	1 <b>285,83</b>

### HUPstar „Twisted contacts, square“



Twisted contacts, square  
0.1; 0.14; 0.25; 0.34; 0.5 1; 1.5; 2.5; 4; 6; 10  
Locator for Ø 1.6; 2.5; 4



Art. No.	kg	PU	EUR
213102/E	dies	0,175	1 <b>285,83</b>

## Multi-function pliers

### Crimping pliers Combi-Crimp



crimping pliers for insulated terminals 0,5 - 2,5 mm<sup>2</sup> and end sleeves 0,5 - 6 mm<sup>2</sup>



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210784 *	0,5 - 6	0,560	1	<b>60,67</b>

### Crimpset X-Crimp including nylon bag



Supplied in robust nylon bag (article 220260).

**Content:**  
art. 211690, 210763/E, 210764/E, 210765/E, 210761/E



Art. No.	kg	PU	EUR
211692 *	Set	0,860	1 <b>263,44</b>

### Crimping pliers X-Crimp



Crimping pliers used to quickly change HAUPA precision pressing inserts



Art. No.	kg	PU	EUR
211690	210761/E	0,566	1 <b>102,90</b>

### Crimping dies for insulated crimp cable lugs



for insulated crimp cable lugs, oval crimping



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210761/E	0,5 - 6,0	0,053	1	<b>27,44</b>

### Crimping dies for uninsulated terminals



for uninsulated terminals, mandrel shape crimping



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210764/E	1 - 10	0,111	1	<b>27,44</b>

### Crimping dies for end sleeves



for end sleeves, trapezoid crimping

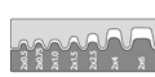


Art. No.	mm <sup>2</sup>	kg	PU	EUR
210763/E	0,5 - 4	0,072	1	<b>27,44</b>
210842/E	1 - 10	0,054	1	<b>27,44</b>
210765/E	6 - 16	0,111	1	<b>27,44</b>
211672/E	10 - 25	0,050	1	<b>27,44</b>

### Crimping dies for TWIN end sleeves



for TWIN-end sleeves, trapezoid crimping

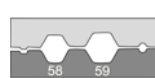


Art. No.	mm <sup>2</sup>	kg	PU	EUR
211676/E	0,5 - 6	0,050	1	<b>31,19</b>

### Crimping dies for coaxial cable



for coaxial cable, hexagon crimping



Art. No.	kg	PU	EUR
210767/E	RG 58-59-62-6	0,050	1 <b>27,44</b>

### Crimping dies for flat connectors



for flat connectors, uninsulated open brass cable lugs, roll crimping

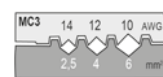


Art. No.	mm <sup>2</sup>	kg	PU	EUR
210762/E	0,5 - 6	0,111	1	<b>29,13</b>

### Crimping dies for Photovoltaik



for „multi-contact“ contacts

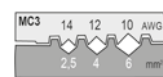


Art. No.	mm <sup>2</sup>	kg	PU	EUR
211657/E	2,5 - 6	0,050	1	<b>27,44</b>

### Crimping dies for Photovoltaik MC4



for „multi-contact“ contacts



Art. No.	mm <sup>2</sup>	kg	PU	EUR
211659/E	2,5 - 6	0,050	1	<b>27,44</b>

### Crimping dies for cable lugs / end sleeves



for end sleeves 0,5 - 6 mm<sup>2</sup> / cable lugs 0,5 - 2,5 mm<sup>2</sup>



Art. No.	mm <sup>2</sup>	kg	PU	EUR
210784/E	0,5 - 6,0	0,560	1	<b>60,58</b>

### Crimpset MULTI

4 dies for:

- (1) 211963 (2) 211998 (3) 211999 (4) 212000
1. insulated terminals 0,5 - 6 mm<sup>2</sup>
2. insulated and uninsulated end sleeves 0,5 - 16 mm<sup>2</sup>
3. uninsulated terminals 0,5 - 10 mm<sup>2</sup>
4. BNC and TNC coaxial connectors RG 58-59-62-71



Art. No.	kg	PU	EUR
211960	1,119	1	<b>287,39</b>

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### Crimping pliers „Multi“



Art. No.	kg	PU	EUR
211962	0,582	1	<b>112,71</b>

### Dies for crimp pliers „Multi“

211963	End sleeves 0,5 - 16 mm <sup>2</sup>	<b>42,78</b>
211964	End sleeves 16 - 35 mm <sup>2</sup>	<b>43,35</b>
211965	Sockets 0,5 - 2,5 mm <sup>2</sup>	<b>47,02</b>
211990	Coax, Thinnet, Mini-UHF, BNC/TNC RG 58, RG 174	<b>37,95</b>
211991	Coax RG 174, 179	<b>37,95</b>
211992	SMA, SMB, Mini-59, Mini-UHF, BNC/TNC RG 6, RG 6 Quad	<b>38,06</b>
211993	Coax, CATV "F" Typ, BNC/TNC RG 6, RG 6 Quad	<b>38,06</b>
211994	N-Typ RG 8, RG 11	<b>38,06</b>
211995	Coax, N-Typ RG 8, RG 11, RG 213, RG 216	<b>37,95</b>
211996	Fibre Optic, SMA Typ	<b>48,81</b>
211997	Fibre Optic, SMA, SMB, SFR, ST, SC Typ	<b>50,53</b>
211968	RJ 45 - 8P8K, Steward Connectors, 22-24 AWG	<b>47,62</b>
211969	RJ11, RJ12, Steward	<b>47,62</b>
211970	Telephon 4P4K, AMP+Steward Connectors, 22-24 AWG	<b>46,98</b>
211971	RJ45 8P8K, AMP	<b>47,62</b>
211972	RJ11, RJ12 6P6C, AMP	<b>46,98</b>
211973	RJ11, DEC MMJ 6P6C, AMP	<b>46,98</b>
211980	RJ 45 - 8P8K, short, Steward Connectors, STP 22-24 AWG	<b>72,27</b>
211981	RJ 45 - 8P8K, long, Hirose, STP 22-24 AWG	<b>72,27</b>
211982	RJ 45 - 8P8K, short, Hirose, STP 22-24 AWG	<b>68,44</b>
211985	RJ 45 - 8P8K, AMP, Molex, for Ø 6,0 mm, STP 22-24 AWG	<b>70,50</b>
211998	insulated terminals 0,5-6,0 mm <sup>2</sup>	<b>35,85</b>
211999	uninsulated terminals 0,5-6,0 mm <sup>2</sup>	<b>35,97</b>
212000	Coax RG58-59-62-71	<b>35,97</b>
212007	MC3	<b>93,16</b>
212008	MC4	<b>95,61</b>

### Elektric crimper

#### HAUPA electric crimper

with foot pedal



Art. No.	mm <sup>2</sup>	kg	PU	EUR
217050	6 - 50	10,000	1	<b>7.827,49</b>

#### Dies for elektro crimper 217050

Art. No.	EUR
217052	Rolled contacts 0,14-1/1,5/2,5/4 mm <sup>2</sup> <b>289,78</b>
217056	Rolled contacts 0,14-1/1,5/2,5/4 mm <sup>2</sup> <b>332,70</b>
217058	Rolled crimp contacts 0,1-1,5 mm <sup>2</sup> <b>339,43</b>
217060	Rolled crimp contacts 0,5-6 mm <sup>2</sup> <b>332,70</b>
217062	End sleeves 0,25-6 mm <sup>2</sup> <b>289,78</b>
217064	Insolated terminals 0,5-6 mm <sup>2</sup> symetric <b>208,89</b>
217066	Insolated terminals 0,5-6 mm <sup>2</sup> asymmetric <b>355,92</b>
217068	Tube terminals 0,34-2,5 mm <sup>2</sup> <b>256,67</b>
217070	Tube terminals "super flex" 4-10 mm <sup>2</sup> <b>208,89</b>
217072	Tube terminals "standard" 4-10 mm <sup>2</sup> <b>208,89</b>
217074	Crimping terminals 4-10 mm <sup>2</sup> <b>208,89</b>
217076	Crimping terminals 0,5-10 mm <sup>2</sup> <b>208,89</b>
217078	Protection cover to 217056/60 <b>78,32</b>
217080	Protection cover to 217070/72/74/76 <b>78,32</b>
217082	Protection cover to 217068 <b>78,32</b>
217084	Protection cover to 217062 <b>78,32</b>
217086	Protection cover to 217064/66 <b>78,32</b>
217088	Locator to 217060, socket sleeves 6,3 mm <b>176,02</b>
217090	Locator to 217056/58/60, socket sleeves 4,8 mm <b>288,16</b>
217092	Locator to 217056, socket sleeves 2,8x5 mm <b>176,02</b>
217094	Locator to 217056, socket sleeves 2,8x6 mm <b>176,02</b>
217096	Locator to 217060, socket sleeves 6,3 mm <b>176,02</b>
217098	Locator to 217060, socket sleeves 6,3 mm HN <b>176,02</b>

### Mechanical crimping pliers for tubular cable lugs

#### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215000	6 - 50	1,531	1	<b>889,38</b>

#### Metal box



Art. No.	kg	PU	EUR
215002	0,934	1	<b>93,68</b>

### Crimping dies for standard cable lugs and compacted cables



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215004	10	0,041	1	<b>132,65</b>
215006	16	0,040	1	<b>132,65</b>
215008	25	0,037	1	<b>132,25</b>
215010	35	0,036	1	<b>132,25</b>
215012	50	0,033	1	<b>132,04</b>

### Crimping dies for insulated crimping terminals

Please order top and bottom tools separately



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215014	6	0,018	1	<b>101,22</b>
215016	10	0,190	1	<b>101,22</b>
215018	16	0,190	1	<b>101,22</b>
215020	25	0,190	1	<b>101,23</b>
215022	35	0,020	1	<b>101,22</b>
215024	6 - 35	0,020	1	<b>101,73</b>

### Crimping dies for insulated crimping terminals



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215026	10	0,039	1	<b>176,56</b>
215028	16	0,039	1	<b>176,59</b>

### Crimping dies



Art. No.	Cu	Al	I/no.	kg	PU	EUR
215030	6		5	0,100	1	<b>132,65</b>
215032	10		6	0,100	1	<b>132,65</b>
215034	16	10	8	0,100	1	<b>132,65</b>
215036	25	16	10	0,150	1	<b>132,65</b>
215038	35	25	12	0,150	1	<b>132,25</b>
215040	50	35	14	0,150	1	<b>132,65</b>

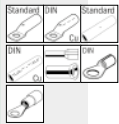
### Crimping dies



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215042	6	0,150	1	<b>203,40</b>
215044	10	0,150	1	<b>203,40</b>
215046	16	0,150	1	<b>204,62</b>
215048	25	0,200	1	<b>204,62</b>
215050	35	0,200	1	<b>204,62</b>



### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215100	6 - 120	2,100	1	<b>1.126,24</b>

### Crimping dies for terminals DIN



Art. No.	Cu	Al	l/no.	kg	PU	EUR
215142	10 - 70	10 - 50	6 - 16	0,128	1	<b>147,72</b>
215144	16 - 35	16 - 25	8 - 12	0,130	1	<b>147,72</b>
215146	25 - 50	25 - 35	10 - 14	0,130	1	<b>147,72</b>
215148	95	70	18	0,130	1	<b>141,10</b>
215150	120	-	20	0,130	1	<b>141,10</b>

### Metal box



Art. No.	kg	PU	EUR
215102	1,700	1	<b>126,64</b>

### Crimping dies for crimping terminals DIN



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215104	10 - 70	0,130	1	<b>147,72</b>
215106	16 - 35	0,132	1	<b>147,72</b>
215108	25 - 50	0,126	1	<b>147,72</b>
215110	95	0,138	1	<b>142,37</b>
215112	120	0,136	1	<b>147,83</b>

### Crimping dies for unisulated terminals, up to four diameter, DIN 46234 & DIN 46341

Please order top and bottom tools separately



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215114	6 - 70	0,080	1	<b>147,72</b>
215116	10 - 35	0,060	1	<b>155,60</b>
215118	16 - 50	0,055	1	<b>160,59</b>
215120	6 - 50	0,150	1	<b>109,53</b>
215122	70	0,150	1	<b>99,97</b>

### Crimping dies for insulated crimping terminals



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215124	10	0,147	1	<b>261,27</b>
215126	16	0,152	1	<b>261,27</b>
215128	25	0,153	1	<b>261,27</b>
215130	35	0,154	1	<b>289,81</b>

### Crimping dies for rounding of square copper and aluminium



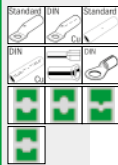
Art. No.	mm <sup>2</sup>	kg	PU	EUR
215152	25 - 35	0,155	1	<b>141,02</b>
215154	35 - 70	0,150	1	<b>147,72</b>
215156	95	0,150	1	<b>141,02</b>

### Crimping dies for terminals DIN



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215164	25	0,059	1	<b>257,49</b>
215166	35	0,059	1	<b>257,49</b>
215168	50	0,059	1	<b>257,49</b>
215170	70	0,059	1	<b>273,52</b>
215172	95	0,059	1	<b>273,74</b>

### Crimping pliers



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215200	10 - 240	4,500	1	<b>1.903,68</b>

### Metal box



Art. No.	kg	PU	EUR
215202	3,700	1	<b>172,35</b>

### Crimping dies for standard cable lugs and compacted cables



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215204	10 - 25	0,221	1	<b>187,05</b>
215206	16 - 35	0,320	1	<b>187,05</b>
215208	50	0,349	1	<b>176,56</b>
215210	70	0,331	1	<b>176,56</b>
215212	95	0,330	1	<b>176,56</b>
215201	120	2,486	1	<b>176,56</b>
215203	150	0,308	1	<b>176,56</b>
215205	185	0,317	1	<b>176,56</b>
215207	240	0,300	1	<b>176,56</b>

### Crimping dies for unisulated crimping terminals, DIN 46234 + DIN 46341



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215214	10 - 70	0,178	1	<b>147,72</b>
215216	95 - 150	0,169	1	<b>147,72</b>
215218	10 - 70	0,163	1	<b>143,91</b>
215220	16 - 35	0,170	1	<b>143,91</b>
215222	25 - 50	0,163	1	<b>143,91</b>
215224	95	0,161	1	<b>143,91</b>
215226	120	0,152	1	<b>143,91</b>
215228	150	0,144	1	<b>143,91</b>

### Crimping dies for terminals DIN



Art. No.	Cu	Al	l/no.	kg	PU	EUR
215230	10	-	6	0,350	1	<b>176,56</b>
215232	16	-	8	0,330	1	<b>176,56</b>
215234	25	16	10	0,328	1	<b>176,56</b>
215236	35	25	12	0,330	1	<b>176,56</b>
215238	50	35	14	0,326	1	<b>185,38</b>
215240	70	50	16	0,326	1	<b>176,56</b>
215242	95	70	18	0,321	1	<b>176,56</b>
215244	120	-	20	0,300	1	<b>176,56</b>
215246	150	95 - 120	22	0,305	1	<b>190,65</b>
215248	185	150	25	0,305	1	<b>185,38</b>
215250	240	185	28	0,290	1	<b>176,56</b>

### Battery powered crimping tool

#### Smart Battery powered crimping tool universal „US-6M“

Sensor



- For 6 different interchangeable heads (item no. 216761, item no. 216762, item no. 216763, item no. 216764, item no. 216665-U, item no. 216666-U)
- Heads can be changed easily
- Can be locked using 2 extractable pins
- With the new HAUPA battery item no. 215523 and charger item no. 215527
- Pressing load kN: 60
- Working pressure in bar: 700

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.



Video 216760-1



Art. No.	kg	PU	EUR
216760-1	315	6,180	1 <b>2.083,08</b>
216760-1-NO	315	2,990	1 <b>1.862,53</b>
216760-1-N	315	2,400	1 <b>1.660,31</b>

haupa®

... convincing solutions

### Hydraulic hand pliers Universal "HUS-6"

- Hand pliers for interchangeable pressing tools
- Pressing load kN: 60
- Working pressure in bar: 700

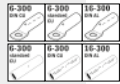


Art. No.	l	kg	PU	EUR
216768	315	2,200	1	<b>1.510,04</b>

### Crimping headstock „U-K0-6“

Pressing head for interchangeable pressing applications, with quick opening, without inserts.

- Head can be opened
- Opening / Hub: 17 mm
- Pressing width: slim
- Cable lugs: standard Cu 6-300 / DIN Cu 6-300 / DIN Al 16-300
- Connectors: standard Cu 6-300 / DIN Cu 6-300 / DIN Al 16-300

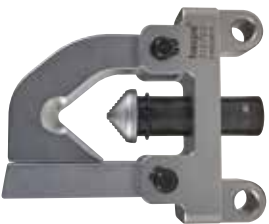
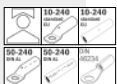


Art. No.	l	mm <sup>2</sup>	kg	PU	EUR
216761	140	6 - 300	1,700	1	<b>596,31</b>

### Crimping headstock „U-KDE240-6“

Pressing head with quick opening, indent v-shape pressing, no inserts required.

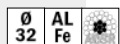
- Head can be opened
- Cable lugs/Connectors standard Cu: 10-240 mm<sup>2</sup>
- Cable lugs/Connectors DIN Al: 50-240 mm<sup>2</sup>
- DIN 46234: 10-240 mm<sup>2</sup>



Art. No.	mm <sup>2</sup>	l	kg	PU	EUR
216763	16 - 240	130	1,200	1	<b>705,11</b>

### Cutting headstock U-KS6-S32ACSR

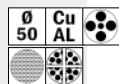
- for copper and aluminium cable
- stranded
- sector-shaped



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216762/32ACSR	32	2,800	1	<b>2.450,00</b>

### Cutting headstock „U-KS6-S50“

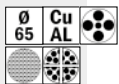
for copper and aluminium cable



Art. No.	l	Ø	kg	PU	EUR
216762	233	50	2,800	1	<b>815,11</b>

### Cutting headstock „U-KS6-S65“

for copper and aluminium cable



Art. No.	Ø	kg	PU	EUR
216762/65	65	3,300	1	<b>1.840,00</b>

### Punching headstock „U-S-6“

without inserts

- Head can be rotated by 360°
- Flexible aluminium head



Art. No.	l	kg	PU	EUR
216764	180	2,700	1	<b>556,02</b>

### Crimping headstock „U-D300-6“



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216665-U	16 - 300	3,000	1	<b>1.376,14</b>

### Crimping headstock „U-D400-6“



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216666-U	180 25 - 400	3,000	1	<b>1.462,16</b>

Scope of delivery for all battery-hydraulic cable cutters: 1 tool, 1 quick charger and 1 rechargeable battery in SysCon or system case incl. Insert.

For versions -NO: no battery, no charger  
For versions -N: only machine in transport packaging

### Adapter for pumps

For hydraulic pump item 216357 so the interchangeable heads for art. 216760-1 can be used (items 216761, 216762, 216763, 216764, 216665-U, 216666-U)

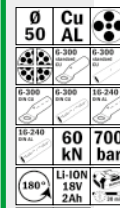
700 bar



Art. No.	l	kg	PU	EUR
216765	155	1,700	1	<b>604,39</b>

### Universal set 2

Art. 216760-1, art. 216761 and art. 216762  
Technical data and scope of delivery see 216760-1, 216761 und 216762



Art. No.	Set	kg	PU	EUR
216767	3	15,000	1	<b>3.319,31</b>

### Universal set 4

Made up of item 216760-1, item 216761 and item 216762/65.  
Technical data and scope of delivery see item 216760-1, item 216761 and item 216762/65.



Art. No.	Set	kg	PU	EUR
216767/65	3	10,180	1	<b>3.888,00</b>

### Universal set 1

Art. 216760-1, art. 216763 and art. 216762  
Technical data and scope of delivery see 216760-1, 216763 und 216762



Art. No.	Set	kg	PU	EUR
216766	3	10,180	1	<b>3.422,52</b>

## Hydraulic crimping tools

### Hydraulic hand pliers „HHs-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Head can be opened
- Pressing width: slim
- Cable lugs: standard Cu 10-240
- DIN Cu 10-185
- DIN Al 16-150
- Connectors: standard Cu 10-240
- DIN Cu 10-185
- DIN Al 16-150



**185-H6**

Art. No.	mm <sup>2</sup>	kg	PU	EUR
215765	370 10-240	4,600	1	<b>1.028,36</b>

### Battery powered crimping tool „SHs-6“

- Pressing force in kN: 60 kN
- Working pressure in bar: 700
- Head can be opened
- Pressing width: slim
- Cable lugs: standard Cu 10-240
- DIN Cu 10-185
- DIN Al 16-150
- Connectors: standard Cu 10-240
- DIN Cu 10-185
- DIN Al 16-150
- Pressing time, battery-operated in seconds: 5
- Battery charging time in minutes: 30
- Battery type: Li-Ion, 18 V, 2 Ah

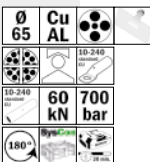


**185-H6**

Art. No.	mm <sup>2</sup>	kg	PU	EUR
215770-1	398 10-240	7,900	1	<b>2.046,95</b>
215770-1-NO	398 10-240	7,900	1	<b>1.844,13</b>
215770-1-N	398 10-240	3,000	1	<b>1.635,31</b>

### Universal set 3

Made up of item 216760-1, item 216763 and item 216762/65. Technical data and scope of delivery see item 216760-1, item 216763 and item 216762/65.



**NEW**

Art. No.	Set	kg	PU	EUR
216766/65	3	10,180		<b>4.032,30</b>

Scope of delivery for all battery-hydraulic cable cutters: 1 tool, 1 quick charger and 1 rechargeable battery in SysCon or system case incl. Insert.

For versions -NO: no battery, no charger  
For versions -N: only machine in transport packaging

### Battery powered crimping tool „SHs-6M“ **Sensor**

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred. Technical data and scope of delivery see 215770-1



**185-H6**

Art. No.	mm <sup>2</sup>	kg	PU	EUR
215770/M-1	398 10-240	7,900	1	<b>2.651,37</b>
215770/M-1-NO	398 10-240	3,100	1	<b>2.435,08</b>
215770/M-1-N	398 10-240	3,000	1	<b>2.248,16</b>

### Crimping dies standard



**185-H6**

Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
215641	10-16	5	0,157	1	<b>91,11</b>
215642	25-35	5	0,155	1	<b>91,11</b>
215643	50-70	5	0,150	1	<b>91,11</b>
215644	95-120	5	0,145	1	<b>91,11</b>
215645	150	5	0,159	1	<b>75,25</b>
215646	185	5	0,156	1	<b>75,25</b>
215648	240	5	0,156	1	<b>75,25</b>

### Crimping dies DIN

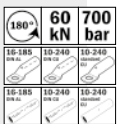


**185-H6**

Art. No.	mm <sup>2</sup>	PW	l/no.	kg	PU	EUR
215650	10-16	5	6-8,0,155	1	<b>91,11</b>	
215651	25-35	5	10-12,0,151	1	<b>90,49</b>	
215652	50-70	5	14-16,0,149	1	<b>90,49</b>	
215653	95-120	5	18-20,0,129	1	<b>90,49</b>	
215654	150	5	22,0,145	1	<b>75,25</b>	
215655	185	5	25,0,147	1	<b>75,25</b>	

### Hydraulic hand pliers „HH-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Opening/ Hub: 17 mm
- Head can be opened
- Pressing width: slim
- Crimping range cable lugs: standard Cu 10-240
- DIN Cu 10-240
- DIN Al 16-185
- Crimping range connectors: standard Cu 10-240
- DIN Cu 10-240
- DIN Al 16-185
- Dual-piston pump



**240-H6**

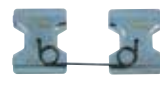
Art. No.	mm <sup>2</sup>	kg	PU	EUR	
215800	10-240	400	4,500	1	<b>1.885,28</b>

### Crimping dies



Art. No.	mm <sup>2</sup>	kg	PU	EUR
215852	10-16	0,157	1	<b>90,12</b>
215854	25-35	0,155	1	<b>90,12</b>
215856	50-70	0,150	1	<b>85,31</b>
215858	95-120	0,145	1	<b>90,12</b>
215859	150	0,159	1	<b>90,12</b>
215860	185	0,156	1	<b>90,12</b>
215861	240	0,156	1	<b>90,12</b>

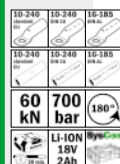
### Crimping dies DIN Cu + Al



Art. No.	mm <sup>2</sup>	l/no.	kg	PU	EUR
215862	10-16	6-8	0,155	1	<b>90,16</b>
215864	25-35	10-12	0,151	1	<b>90,12</b>
215866	50-70	14-16	0,149	1	<b>90,12</b>
215868	95-120	18-20	0,129	1	<b>90,12</b>
215869	150	22	0,145	1	<b>90,12</b>
215870	185	25	0,147	1	<b>90,12</b>
215872	240	28	0,114	1	<b>90,12</b>

### Battery powered crimping tool „SH-6“

- Pressing force in kN: 60 kN
- Working pressure in bar: 700
- Head can be opened yes
- Opening/ Hub: 17 mm
- Pressing width: slim
- Crimping range cable lugs: standard Cu 10-240
- DIN Cu 10-240
- DIN Al 16-185
- Crimping range connectors: standard Cu 10-240
- DIN Cu 10-240
- DIN Al 16-185
- Pressing time, battery-operated in seconds: ca. 5
- Battery charging time in minutes: 30
- Battery type: Li-Ion, 18 V, 2 Ah

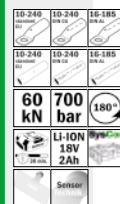


**240-H6**

Art. No.	mm <sup>2</sup>	kg	PU	EUR
215881-1	415 10-240	6,700	1	<b>2.237,15</b>
215881-1-NO	415 10-240	2,900	1	<b>2.012,44</b>
215881-1-N	415 10-240	2,600	1	<b>1.815,02</b>

### Battery powered crimping tool „SH-6M“ **Sensor**

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred. Technical data and scope of delivery see 215881-1



**240-H6**

Art. No.	mm <sup>2</sup>	kg	PU	EUR
215881/M-1	415 10-240	6,700	1	<b>2.752,09</b>
215881/M-1-NO	415 10-240	2,900	1	<b>2.535,22</b>
215881/M-1-N	415 10-240	2,600	1	<b>2.348,86</b>



**haupa**

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### Battery powered crimping tool „S0-6“

- Pressing force in kN: 60 kN
- Working pressure in bar: 700
- Head can be opened
- Opening/ Hub: 17 mm
- Pressing width: slim
- Pressing time, battery-operated in seconds: ca. 5
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 2 Ah
- Cable lugs: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Connectors: Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216801-1	383 6 - 300	7,100	1	<b>2.237,15</b>
216801-1-NO	383 6 - 300	7,100	1	<b>2.005,70</b>
216801-1-N	383 6 - 300	7,100	1	<b>1.763,49</b>

### Battery powered crimping tool „S0-6M“

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred. Technical data and scope of delivery see 216801-1



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216801/M-1	383 6 - 300	7,900	1	<b>2.385,42</b>
216801/M-1-NO	383 6 - 300	7,900	1	<b>2.656,17</b>
216801/M-1-N	383 6 - 300	7,900	1	<b>2.405,50</b>

Scope of delivery for all battery-hydraulic cable cutters: 1 tool, 1 quick charger and 1 rechargeable battery in SysCon or system case incl. Insert.

For versions -NO: no battery, no charger  
For versions -N: only machine in transport packaging

### Battery powered crimping tool „A0-6“

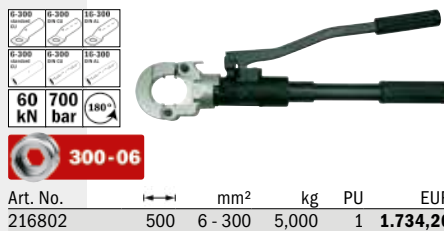
- With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.
- Pressing force in kN: 60
- Working pressure in bar: 700
- Opening/ Hub: 17 mm
- Head can be opened
- Pressing width: slim
- Crimping range cable lugs: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Pressing time, battery-operated in seconds: 4
- Battery charging time in minutes: 120
- Battery type: Li-Ion 18 V, 4 Ah
- Dual-piston pump



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216800-1	375 6 - 300	9,500	1	<b>2.892,44</b>
216800-1-NO	375 6 - 300	9,500	1	<b>2.378,20</b>
216800-1-N	375 6 - 300	9,500	1	<b>2.065,09</b>

### Hydraulic hand pliers „HO-6“

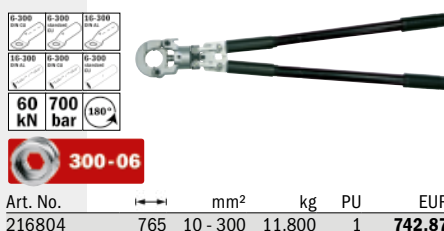
- Pressing force in kN: 60
- Working pressure in bar: 700
- Head can be opened
- Opening/ Hub: 17 mm
- Pressing width: slim
- Crimping range cable lugs: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Dual-piston pump



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216802	500 6 - 300	5,000	1	<b>1.734,26</b>

### Hand pliers „MO-6“ for exchangeable dies

- Pressure: 60 kN
- Crimping range cable lugs: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216804	765 10 - 300	11,800	1	<b>742,87</b>

### Crimping headstock „KO-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Head can be opened
- Opening/ Hub: 17 mm
- Pressing width: slim
- Crimping range cable lugs: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 6-300
- DIN Cu 6-300
- DIN Al 16-300
- Quick coupling

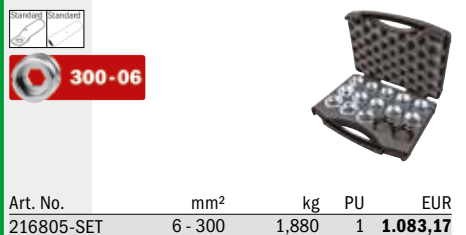


Art. No.	mm <sup>2</sup>	kg	PU	EUR
216807	235 6 - 300	4,200	1	<b>1.055,13</b>

### Dies

#### Crimping dies set Standard Cu

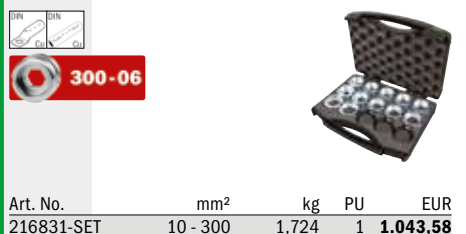
13 standard crimping dies in practical transport case  
Set contains:  
216806 CU 6, 216808 CU 10, 216810 CU 16, 216812 CU 25, 216814 CU 35, 216816 CU 50, 216818 CU 70, 216820 CU 95, 216822 CU 120, 216824 CU 150, 216826 CU 185, 216828 CU 240, 216830 CU 300



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216805-SET	6 - 300	1,880	1	<b>1.083,17</b>

#### Crimping dies set DIN Cu

12 DIN-Crimping dies in practical transport case  
Set contains:  
216834 DIN 10, 216836 DIN 16, 216838 DIN 25, 216840 DIN 35, 216842 DIN 50, 216844 DIN 70, 216846 DIN 95, 216848 DIN 120, 216850 DIN 150, 216852 DIN 185, 216854 DIN240, 216856 DIN 300



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216831-SET	10 - 300	1,724	1	<b>1.043,58</b>

### Crimping dies set Standard Aluminium

9 standard crimping dies in practical transport case  
Set contains:  
216812/AL AL 25, 216814/AL AL 35, 216816/AL AL 50,  
216818/AL AL 70, 216820/AL AL 95, 216822/AL AL 120,  
216824/AL AL 150, 216826/AL AL 185, 216828/AL AL 240



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216812/AL-SET	25 - 240	1,470	1	<b>978,59</b>

### Crimping dies set DIN Aluminium

9 DIN-Crimping dies in practical transport case  
Set contains:  
216840/AL DIN 16-25, 216842/AL DIN 35, 216844/AL DIN 50,  
216846/AL DIN 70, 216850/AL DIN 95-120, 216852/  
AL DIN 150, 216854/AL DIN 185, 216856/AL DIN 240,  
216858/AL DIN 300



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216840/AL-SET	16 - 300	1,430	1	<b>883,02</b>

### Dies for terminals and compacted connectors

for standard tube terminals and compacted connectors,  
also for thinned, compacted conductors, in practical transport case. Set contains: 216806/V, 216808/V, 216810/V,  
216812/V, 216814/V, 216816/V, 216818/V, 216820/V,  
216822/V, 216824/V, 216826/V, 216828/V, 216830/V



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216806/V-SET	6 - 300	1,880	1	<b>1.036,85</b>

### Dies for terminals and connectors DIN



Art. No.	Cu	l/no.	PW	kg	PU	EUR
216832	6	5	0,123	1	1	<b>82,59</b>
216834	10	6	0,122	1	1	<b>82,59</b>
216836	16	8	0,125	1	1	<b>82,59</b>
216838	25	10	0,120	1	1	<b>82,59</b>
216840	35	12	0,120	1	1	<b>82,59</b>
216842	50	14	0,119	1	1	<b>82,59</b>
216844	70	16	0,120	1	1	<b>82,59</b>
216846	95	18	0,120	1	1	<b>82,59</b>
216848	120	20	0,120	1	1	<b>82,59</b>
216850	150	22	0,120	1	1	<b>82,59</b>
216852	185	25	0,120	1	1	<b>82,59</b>
216854	240	28	0,115	1	1	<b>82,59</b>
216856	300	32	0,120	1	1	<b>82,59</b>

### Dies for terminals and connectors standard



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216806	6	5	0,139	1	<b>75,25</b>
216808	10	5	0,136	1	<b>82,59</b>
216810	16	5	0,136	1	<b>82,59</b>
216812	25	5	0,135	1	<b>82,59</b>
216814	35	5	0,135	1	<b>82,59</b>
216816	50	5	0,134	1	<b>82,59</b>
216818	70	5	0,132	1	<b>82,59</b>
216820	95	5	0,132	1	<b>82,59</b>
216822	120	5	0,130	1	<b>82,59</b>
216824	150	5	0,128	1	<b>82,59</b>
216826	185	5	0,125	1	<b>82,59</b>
216828	240	5	0,121	1	<b>82,59</b>
216830	300	5	0,118	1	<b>82,59</b>

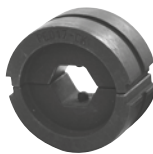
### Dies for terminals and compacted connectors

for standard tube terminals and compacted connectors, also for thinned, compacted conductors



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216806/V	6	5	0,139	1	<b>91,11</b>
216808/V	10	5	0,136	1	<b>82,59</b>
216810/V	16	5	0,136	1	<b>82,59</b>
216812/V	25	5	0,135	1	<b>82,59</b>
216814/V	35	5	0,135	1	<b>82,59</b>
216816/V	50	5	0,134	1	<b>82,59</b>
216818/V	70	5	0,132	1	<b>82,59</b>
216820/V	95	5	0,132	1	<b>82,59</b>
216822/V	120	5	0,130	1	<b>82,59</b>
216824/V	150	5	0,128	1	<b>82,59</b>
216826/V	185	5	0,125	1	<b>82,59</b>
216828/V	240	5	0,121	1	<b>82,59</b>
216830/V	300	5	0,118	1	<b>82,59</b>

### Dies for tubular terminals „F-Type“



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216878	10	8	0,146	1	<b>200,71</b>
216880	16	9	0,153	1	<b>200,71</b>
216882	25	11	0,162	1	<b>200,71</b>
216884	35	13	0,171	1	<b>200,71</b>
216886	50	13	0,167	1	<b>200,71</b>
216888	70	13	0,160	1	<b>200,71</b>
216890	95	13	0,164	1	<b>200,71</b>
216892	120	20	0,174	1	<b>200,71</b>
216894	150	20	0,162	1	<b>200,71</b>
216896	185	8	0,124	1	<b>155,53</b>
216898	240	8	0,119	1	<b>155,53</b>
216899	300	8	0,089	1	<b>155,53</b>

### Dies for end sleeves

also for thinned conductors



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216952	10	21	0,120	1	<b>82,59</b>
216954	16	21	0,120	1	<b>82,59</b>
216956	25	21	0,120	1	<b>82,59</b>
216958	35	21	0,120	1	<b>82,59</b>
216960	50	21	0,120	1	<b>82,59</b>
216962	70	21	0,120	1	<b>82,59</b>
216964	95	21	0,120	1	<b>82,59</b>
216966	120	21	0,120	1	<b>82,59</b>
216968	150	21	0,120	1	<b>82,59</b>
216970	185	21	0,120	1	<b>82,59</b>
216972	240	21	0,120	1	<b>82,59</b>

### Dies for rounding of round conductors



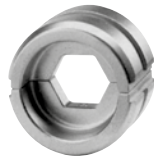
Art. No.	mm <sup>2</sup>	sm	se	kg	PU	EUR
216926	10	10	- 0,120	1	1	<b>180,26</b>
216928	16	16	- 0,120	1	1	<b>180,26</b>
216930	25 - 35	25	35	0,120	1	<b>180,26</b>
216932	35 - 50	35	50	0,120	1	<b>180,26</b>
216934	50 - 70	50	70	0,120	1	<b>180,26</b>
216936	70 - 95	70	95	0,120	1	<b>180,26</b>
216938	95 - 120	95	120	0,120	1	<b>180,26</b>
216940	120 - 150	120	150	0,240	1	<b>180,26</b>
216942	150 - 185	150	185	0,197	1	<b>180,26</b>
216944	185 - 240	185	240	0,120	1	<b>180,26</b>
216946	240 - 300	240	300	0,120	1	<b>180,26</b>

### Oval crimp for stripped pipe cable lugs



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216670	10	5	0,132	1	<b>86,64</b>
216672	16	5	0,132	1	<b>86,64</b>
216674	25	5	0,132	1	<b>86,64</b>
216676	35	5	0,132	1	<b>86,64</b>
216678	50	5	0,132	1	<b>86,64</b>
216680	70	5	0,132	1	<b>86,64</b>
216682	95	5	0,132	1	<b>86,64</b>
216684	120	5	0,132	1	<b>86,64</b>
216686	150	5	0,132	1	<b>86,64</b>

### Dies for standard aluminium pipe cable lugs



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216812/AL	25	7	0,135	1	<b>97,87</b>
216814/AL	35	7	0,135	1	<b>80,28</b>
216816/AL	50	7	0,135	1	<b>80,28</b>
216818/AL	70	7	0,135	1	<b>80,28</b>
216820/AL	95	7	0,135	1	<b>80,28</b>
216822/AL	120	7	0,135	1	<b>80,28</b>
216824/AL	150	7	0,135	1	<b>80,28</b>
216826/AL	185	7	0,135	1	<b>80,28</b>
216828/AL	240	7	0,135	1	<b>80,28</b>

### Dies for connectors with notch



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216813	25	0,143	1	<b>85,14</b>
216815	35	0,143	1	<b>85,14</b>
216817	50	0,143	1	<b>85,14</b>
216819	70	0,143	1	<b>85,14</b>
216821	95	0,143	1	<b>85,14</b>
216823	120	0,135	1	<b>85,62</b>

### Dies for DIN aluminium pipe cable lugs



Art. No.	mm <sup>2</sup>	l/no.	PW	kg	PU	EUR
216840/AL	16 - 25	12	7	0,120	1	<b>80,28</b>
216842/AL	35	14	7	0,120	1	<b>80,28</b>
216844/AL	50	16	7	0,120	1	<b>80,28</b>
216846/AL	70	18	7	0,120	1	<b>80,28</b>
216850/AL	95 - 120	22	7	0,120	1	<b>80,28</b>
216852/AL	150	25	7	0,120	1	<b>80,28</b>
216854/AL	185	28	7	0,120	1	<b>80,28</b>
216856/AL	240	32	5	0,120	1	<b>80,28</b>
216858/AL	300	34	5	0,135	1	<b>80,28</b>

### Dies for indent crimping for compacted cables



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216863	16	0,135	1	<b>96,32</b>
216865	25	0,135	1	<b>96,32</b>
216867	35	0,135	1	<b>96,32</b>
216869	50	0,135	1	<b>96,32</b>
216871	70	0,135	1	<b>96,32</b>
216873	95	0,135	1	<b>96,32</b>
216875	120	0,135	1	<b>96,32</b>
216877	150	0,135	1	<b>96,32</b>

### Dies for C-connectors



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216984	16	5	0,135	1	<b>78,28</b>
216984/25	25	5	0,140	1	<b>91,75</b>
216985	35	5	0,135	1	<b>78,28</b>
216986	50	5	0,134	1	<b>78,28</b>
216986/70	70	5	0,140	1	<b>91,75</b>
216986/70C	70	5	0,140	1	<b>87,50</b>
216987	95	5	0,132	1	<b>78,28</b>
216988	120	5	0,132	1	<b>78,28</b>
216989	10	5	0,140	1	<b>91,75</b>

### Hydraulic crimping tools

#### Battery-hydraulic Base Tool US-12M Sensor

- for 3 different interchangeable heads (Art. No. 216626, Art. No. 216627, Art. No. 216628)
- easy change of heads
- lockable by 2 extractable bolts
- Head 180° rotatable
- Selector switch for
  - automatic return
  - 50% automatic return
  - manual return
- Sensor mode switchable for pressing and cutting
- 2 white LEDs for workspace illumination
- Crimping force in kN: 120
- Working pressure in bar: 700
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah

The different colors of the sensor LED indicate if the operation has been completed successfully or if an error occurred.

- LED green: crimping completed in accordance with standards, motor stopped
- LED orange: battery voltage insufficient
- LED red: crimping not correctly completed



Art. No.	l	kg	PU	EUR
216625-1	420	6,544	1	<b>5.078,01</b>
216625-1-NO	420	5,800	1	<b>4.763,96</b>
216625-1-N	420	5,316	1	<b>4.430,58</b>

### Crimping head U-KDE500-12

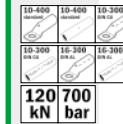
- Crimping force in kN: 120
- Working pressure in bar: 700
- Hinged head
- Cable lugs: standard Cu 35-500
- DIN AL 95-500
- Connectors: standard Cu 35-500
- DIN AI 95-500
- Weight in kg: 1,284



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216626	35 - 500	1,284	1	<b>995,31</b>

### Crimping head U-K0400-12

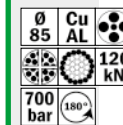
- Crimping force in kN: 120
- Working pressure in bar: 700
- Opening / Stroke: 53 mm
- Hinged head
- Pressing width: wide
- Cable lugs: standard Cu 10-400 • DIN Cu 10-300 • DIN AI 16-300
- Connectors: standard Cu 10-400 • DIN Cu 10-300 • DIN AI 16-300
- Use of all dies in the 400-C12 series possible
- Weight in kg: 1,332



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216627	10 - 400	1,323	1	<b>1.106,44</b>

### Cutting head U-KS12-S85

- Crimping force in kN: 120
- Working pressure in bar: 700
- Cutting width Ø: 85 mm
- Weight in kg: 5,483



Art. No.	Ø	kg	PU	EUR
216628	85	5,483	1	<b>2.159,73</b>

Scope of delivery for all battery-hydraulic cable cutters: 1 tool, 1 quick charger and 1 rechargeable battery in SysCon or system case incl. Insert.

For versions -NO: no battery, no charger  
For versions -N: only machine in transport packaging

### Battery powered crimping tool „AC25-12“ Sensor

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 25 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-185
- DIN Cu 10-150
- DIN Al 16-120
- Pressing time, battery-operated in sec.: 6 - 12
- Battery charging time in min.: 120
- Battery type: Li-Ion, 18 V, 4 Ah
- Dual-piston pump



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216601-1	375	10 - 400	10,550	1	<b>4.081,16</b>
216601-1-NO	375	10 - 400	7,100	1	<b>3.791,36</b>
216601-1-N	375	10 - 400	7,100	1	<b>3.368,03</b>

### Hydraulic hand pliers „HC25-12“

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 25 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-185
- DIN Cu 10-150
- DIN Al 16-120
- Dual-piston pump



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216124	585	10 - 400	7,700	1	<b>2.125,04</b>

### Hydraulic crimping headstock „KC25-12“

- Pressing force in kN: 120
- Working pressure in bar: 700
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-185
- DIN Cu 10-150
- DIN Al 16-120
- Opening / Hub: 25 mm
- Quick coupling



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216004	245	10 - 400	4,600	1	<b>636,86</b>

### Battery powered crimping tool „AC42-12“ Sensor

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 42 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Pressing time, battery-operated in sec.: 7 - 13
- Battery charging time in min.: 120
- Battery type: Li-Ion, 18 V, 4 Ah
- Dual-piston pump



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216622-1	430	10 - 400	11,830	1	<b>4.215,18</b>
216622-1-NO	430	10 - 400	7,800	1	<b>4.075,20</b>
216622-1-N	430	10 - 400	7,100	1	<b>3.435,26</b>

### Hydraulic hand pliers „HC42-12“

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 42 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Dual-piston pump



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216125	640	10 - 400	9,700	1	<b>1.848,47</b>

### Hydraulic crimping headstock „KC42-12“

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 42 mm
- Pressing width: wide
- Crimping range cable lugs: Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Quick coupling



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216005	320	10 - 400	6,300	1	<b>807,23</b>

### Battery powered crimping tool „AH-12“ Sensor

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 20 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Pressing time, battery-operated in sec.: 6 - 13
- Battery charging time in minutes: 60
- Battery type: Li-Ion, 18 V, 4 Ah
- Dual-piston pump



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
216503-1	405	10 - 400	11,000	1	<b>5.797,50</b>
216503-1-NO	405	10 - 400	6,900	1	<b>5.467,57</b>
216503-1-N	405	10 - 400	6,400	1	<b>5.116,54</b>

### Hydraulic hand pliers „HH-12“

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 20 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Dual-piston pump



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
215946	615	10 - 400	7,500	1	<b>2.130,45</b>

### Crimping headstock „KH-12“

- Pressing force in kN: 120
- Working pressure in bar: 700
- Opening / Hub: 20 mm
- Pressing width: wide
- Crimping range cable lugs: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Crimping range connectors: standard Cu 10-400
- DIN Cu 10-300
- DIN Al 16-300
- Quick coupling



Art. No.	mm	mm <sup>2</sup>	kg	PU	EUR
215980	275	10 - 400	5,000	1	<b>1.018,39</b>

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### Crimping dies for C-connectors

oval pressing

400-  
C12



Art. No.	mm <sup>2</sup>	PW	kg	PU	EUR
216148	16 - 25	16	0,218	1	<b>265,65</b>
216149	25	17	0,260	1	<b>91,75</b>
216150	35	20	0,208	1	<b>265,65</b>
216152	50 - 70	20	0,260	1	<b>265,65</b>
216154	95	30	0,217	1	<b>265,65</b>
216156	120	30	0,261	1	<b>265,65</b>
216153	70	20	0,260	1	<b>91,75</b>
216157	120	20	0,260	1	<b>91,75</b>

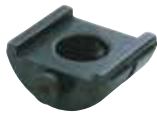
### Pressing inserts „Deep Indend“ (AH-12/KH-12/HH-12)

for conduit terminals and connectors, **thorn pressing**



Art. No.		mm <sup>2</sup>	kg	PU	EUR
216552	cable lugs	50 - 70	0,211	1	<b>272,35</b>
216554	cable lugs	95 - 185	0,211	1	<b>272,35</b>
216556	cable lugs	240	0,211	1	<b>272,35</b>
216562	connectors	50 - 70	0,211	1	<b>356,91</b>
216564	connectors	95 - 185	0,211	1	<b>356,91</b>
216566	connectors	240	0,211	1	<b>356,91</b>

### Adapter pressing thorn



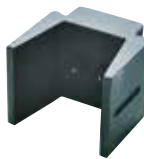
Art. No.		kg	PU	EUR
216570		0,211	1	<b>52,73</b>

### Pressing thorn



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216574	50 - 70	0,211	1	<b>52,73</b>
216576	95 - 185	0,211	1	<b>52,73</b>
216578	240	0,211	1	<b>52,73</b>

### Holder for „Deep Indend“ pressing inserts



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216580	50 - 185	0,211	1	<b>225,12</b>
216582	240	0,211	1	<b>225,12</b>

## Hydraulic crimping tools

### Battery powered crimping tool „SDE240-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Cable lugs: standard Cu 10-240
- Connectors: standard Cu 10-240
- Cable lugs: DIN AI 50-240
- Connectors: DIN AI 50-240
- Pressing time, battery-operated in sec.: 6-12
- Battery charging time in min.: 30
- Battery type: Li-Ion, 18 V, 2 Ah



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216669-1	455 10 - 240	7,900	1	<b>1.863,11</b>
216669-1-NO	455 16 - 240	3,600	1	<b>1.910,94</b>
216669-1-N	455 10 - 240	3,200	1	<b>1.530,73</b>

### Battery powered crimping tool „SDE240-6M“

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

Technical data and scope of delivery, see 216669-1



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216669/M-1	455 10 - 240	7,900	1	<b>2.223,79</b>
216669/M-1-NO	455 10 - 240	3,600	1	<b>2.059,57</b>
216669/M-1-N	455 10 - 240	3,200	1	<b>1.891,85</b>

### Battery powered crimping tool „SD300-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Cable lugs: standard Cu 16-300
- Connectors: standard Cu 16-120
- Pressing time, battery-operated in sec.: 6-12
- Battery charging time in min.: 30
- Battery type: Li-Ion, 18 V, 2 Ah



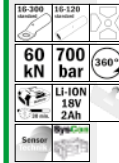
Art. No.	mm <sup>2</sup>	kg	PU	EUR
216663-1	443 16 - 300	7,900	1	<b>2.603,00</b>
216663-1-NO	443 16 - 300	4,500	1	<b>2.373,88</b>
216663-1-N	443 16 - 300	4,200	1	<b>2.175,91</b>

### Battery powered crimping tool „SD300-6M“

Sensor

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

Technical data and scope of delivery, see 216663-1



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216663/M-1	443 16 - 300	7,900	1	<b>3.126,84</b>
216663/M-1-NO	443 16 - 300	4,500	1	<b>2.899,94</b>
216663/M-1-N	443 16 - 300	4,200	1	<b>2.705,85</b>

### Hydraulic hand pliers „HD300-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Crimping range cable lugs: standard Cu 16-300
- Crimping range connectors: standard Cu 16-120
- Dual-piston pump



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216660	570 16 - 300	6,500	1	<b>2.565,24</b>

### Crimping headstock „KD300-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Crimping range cable lugs: standard Cu 16-300
- Crimping range connectors: standard Cu 16-120
- Quick coupling



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216665	275 16 - 300	3,800	1	<b>969,49</b>



Scope of delivery for all battery-hydraulic cable cutters:  
1 tool, 1 quick charger and 1 rechargeable battery in SysCon or system case incl. Insert.

For versions -NO: no battery, no charger  
For versions -N: only machine in transport packaging

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### Battery powered crimping tool „SD400-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Head can be opened
- Cable lugs: standard Cu 25-400
- Connectors: standard Cu 25-400
- Pressing time, battery-operated in sec.: 6-12
- Battery charging time in min.: 30
- Battery type: Li-Ion, 18 V, 2 Ah



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216667-1	455 25 - 400	7,900	1	<b>2.723,89</b>
216667-1-NO	455 25 - 400	4,400	1	<b>2.494,97</b>
216667-1-N	455 25 - 400	4,000	1	<b>2.295,34</b>

### Battery powered crimping tool „SD400-6M“ Sensor

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

Technical data and scope of delivery, see 216667-1



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216667/M-1	455 25 - 400	8,500	1	<b>3.247,72</b>
216667/M-1-NO	455 25 - 400	4,400	1	<b>3.023,98</b>
216667/M-1-N	455 25 - 400	4,000	1	<b>2.828,20</b>

### Hydraulic hand pliers „HD400-6“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Head can be opened
- Crimping range cable lugs: standard Cu 25-400
- Crimping range connectors: standard Cu 25-400
- Dual-piston pump



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216661	585 25 - 400	7,900	1	<b>2.256,87</b>

Scope of delivery for all battery-hydraulic cable cutters:  
1 tool, 1 quick charger and 1 rechargeable battery in SysCon or system case incl. Insert.

For versions -NO: no battery, no charger

For versions -N: only machine in transport packaging

### Crimping headstock „HKD400“

- Pressing force in kN: 60
- Working pressure in bar: 700
- Head can be opened
- Crimping range cable lugs: standard Cu 25-400
- Crimping range connectors: standard Cu 25-400
- Quick coupling



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216666	300 25 - 400	4,000	1	<b>1.018,39</b>

### Battery powered crimping tool „ADE500-M12“ Sensor

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred.

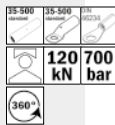
- Pressing force in kN: 120
- Working pressure in bar: 700
- Kopf aufklappbar
- Cable lugs: standard Cu 35-500
- Connectors: standard Cu 35-500
- Pressing time, battery-operated in sec.: 6-12
- Battery charging time in min: 60
- Battery type: Li-Ion, 18 V, 4 Ah



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216668/M-1	405 35 - 500	11,420	1	<b>5.772,99</b>
216668/M-1-NO	405 35 - 500	7,300	1	<b>5.483,20</b>
216668/M-1-N	405 35 - 500	7,180	1	<b>5.059,87</b>

### Headstock „KDE500-12“

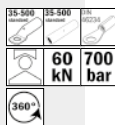
- Pressing force in kN: 120
- Working pressure in bar: 700
- Hinged Head
- Cable Lugs: standard Cu 35-500
- Connectors: standard Cu 35-500
- Weight in kg: 3,5



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216690	330 35 - 500	3,500	1	<b>1.662,83</b>

### Hydraulic hand pliers „HDE500-12“

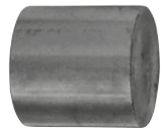
- Pressing force in kN: 120
- Working pressure in bar: 700
- Hinged head
- Cable Lugs: standard Cu 35-500
- Connectors: standard Cu 35-500
- Weight in kg: 7,7



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216691	600 35 - 500	7,700	1	<b>3.354,35</b>

### Test pin

Test pin for hydraulic four mandrel pressing tools



Art. No.	kg	PU	EUR
216660/B	0,566	1	<b>8,58</b>

### Template for four mandrel pressing

Template for hydraulic four mandrel pressing tools



Art. No.	kg	PU	EUR
216660/L	0,566	1	<b>2,87</b>

### Pressure testing tool

#### Pressure testing tool C-head

Dies and indicating manometer for monitoring the pressing force of article 216601, 216124, 216004, 216622, 216125, 216005



Art. No.	kg	PU	EUR
217100	1,900	1	<b>1.586,06</b>

#### Pressure testing tool pistol-format

Dies and indicating manometer for monitoring the pressing force, only for battery-operated pressing tools in the 400-C12 and 216800 series



Art. No.	kg	PU	EUR
217101	0,800	1	<b>566,44</b>

#### Pressure testing tool H-head

Dies and indicating manometer for monitoring the pressing force of article 215946, 215980, 216503



Art. No.	kg	PU	EUR
217102	5,000	1	<b>1.711,93</b>

### Pressure testing tool 0-head

Dies and indicating manometer for monitoring the pressing force of article 216801, 216801/M, 216800, 216802, 216804, 216807

300-06



Art. No.	kg	PU	EUR
217103	2,000	1	<b>1.586,06</b>

### Pressure testing tool 240-H6

Dies and indicating manometer for monitoring the pressing force of article 215881, 215881/M, 215800

240-H6



Art. No.	kg	PU	EUR
217104	3,400	1	<b>1.586,06</b>

### Pressure testing tool 185-H6

Dies and indicating manometer for monitoring the pressing force of article 215765, 215770, 215770/M

185-H6



Art. No.	kg	PU	EUR
217105	3,300	1	<b>1.586,06</b>

### Pressure testing tool recorder

for all accumulator hydraulics with sensor technology



Art. No.	kg	PU	EUR
217107	0,700	1	<b>818,22</b>

## Accessories

### Battery Li-Ion 18 V 2 Ah

Compatible with all Li-Ion 18 V battery devices, charging possible using the HAUPA compact charger item 215527 or original Makita charging technology



Art. No.	kg	PU	EUR
215523	0,350	1	<b>136,89</b>

### Battery Li-Ion 18 V 4 Ah

Compatible with all Li-Ion 18 V battery devices, charging possible using the HAUPA compact charger item 215527 or original Makita charging technology



Art. No.	kg	PU	EUR
215525	0,580	1	<b>176,00</b>

### Li-Ion 18 V compact charger

for Art. 215523 & 215525



Art. No.	kg	PU	EUR
215527	0,164	1	<b>117,32</b>

### Battery Li-Ion 18 V 2 Ah

compatible with all Li-Ion, 18 Volt Battery powered tools build before 2018



Art. No.	kg	PU	EUR
215503	0,383	1	<b>382,07</b>

### Battery Li-Ion 18 V 4 Ah

compatible with all Li-Ion, 18 Volt Battery powered tools build before 2018



Art. No.	kg	PU	EUR
215511	0,651	1	<b>434,08</b>

### Quick charger Li-Ion 18 V

for art. 215503 & 215511



Art. No.	kg	PU	EUR
215513	0,819	1	<b>317,87</b>

### Hydraulic oil

0,5 l



Art. No.	kg	PU	EUR
216254	1,000	1	<b>20,62</b>

### 18V Battery Adapter



Art. No.	kg	PU	EUR	
215529	BOSCH	0,350	1	<b>130,48</b>
215531	MILWAUKEE	0,350	1	<b>130,48</b>
215533	DEWALT	0,350	1	<b>149,08</b>

## Hydraulic crimping headstocks

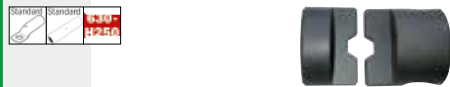
### Hydraulic crimping headstock „KH-25“

- Pressing force in kN: 250
- Working pressure in bar: 700
- Pressing width: wide
- Pressing area Cu/Al: 95-630
- Quick coupling



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216236	185 95 - 630	9,000	1	<b>2.290,34</b>

### Crimping dies, standard, Cu



Art. No.	mm <sup>2</sup>	kg	PU	EUR
212580	95	1,300	1	<b>416,61</b>
212581	120	1,300	1	<b>416,61</b>
212582	150	1,300	1	<b>416,61</b>
212583	185	1,300	1	<b>416,61</b>
212584	240	1,300	1	<b>416,61</b>
212585	300	1,300	1	<b>416,61</b>
212586	400	1,300	1	<b>416,61</b>
212587	500	1,300	1	<b>416,61</b>
212588	625	1,300	1	<b>416,61</b>

### Crimping dies DIN-connection, Cu/Al



Art. No.	Cu	Al	l/no.	kg	PU	EUR
212372	95	70	18	1,194	1	<b>402,34</b>
212376	120	-	20	2,000	1	<b>402,34</b>
212380	150	95 - 120	22	1,700	1	<b>438,53</b>
212382	185	150	25	1,300	1	<b>402,34</b>
212384	240	185	28	1,300	1	<b>402,34</b>
212388	300	240	32	1,300	1	<b>402,34</b>
212390	300	300	34	1,300	1	<b>438,31</b>
212392	400	400	38	1,300	1	<b>418,46</b>
212394	500	-	42	1,300	1	<b>438,53</b>
212396	625	500	44	1,113	1	<b>441,90</b>

### Hydraulic crimping headstock set

Content:  
 Hydraulic crimping headstock „KH-25“  
 Hydraulic high-pressure hose, 2 m  
 Hydraulic foot pump  
 Carrycase



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216250	95 - 630	21,000	1	<b>5.192,24</b>

## Hydraulic crimping headstock + cylinder „KH-45“

- Pressing force in kN: 450
- Working pressure in bar: 700
- Pressing width: wide
- Pressing area Cu/Al: 120-1000
- Quick coupling



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216355	185 120 - 1000	9,320	1	<b>4.835,78</b>

### Crimping dies, standard



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216304	120	2,635	1	<b>638,25</b>
216306	150	2,600	1	<b>638,25</b>
216308	185	2,620	1	<b>638,25</b>
216310	240	2,580	1	<b>638,25</b>
216312	300	2,580	1	<b>638,25</b>
216314	400	2,235	1	<b>638,25</b>
216316	500	1,200	1	<b>638,25</b>
216318	625	2,300	1	<b>638,25</b>

### Crimping dies, DIN



Art. No.	Cu	Al	l/no.	kg	PU	EUR
216320	120	-	20	1,115	1	<b>638,25</b>
216322	150	95 - 120	22	1,063	1	<b>638,25</b>
216324	185	150	25	1,058	1	<b>638,25</b>
216326	240	185	28	1,096	1	<b>638,25</b>
216328	300	240	32	0,900	1	<b>638,25</b>
216330	300	300	34	1,070	1	<b>638,25</b>
216332	400	-	38	2,320	1	<b>638,25</b>
216334	500	-	42	2,280	1	<b>638,25</b>
216336	625	-	44	2,260	1	<b>638,25</b>
216338	800	-	52	1,051	1	<b>638,25</b>
216340	1000	-	58	2,060	1	<b>638,25</b>

### Hydraulic foot pump „F-700“

without hose, quick coupling



Art. No.	Bar	kg	PU	EUR
216348	700	7,860	1	<b>2.295,87</b>

## Electro-hydraulic pump „PN700 I“

electric foot switch, completely self-acting, also the release of the dies at the end of the operation, 2 m high pressure tube and hydraulic connectors, for industrial uses, where a high level of production is needed, 230 volt, with foot switch control, pump for working outside



Art. No.	Bar	kg	PU	EUR
216352	230 V 700	20,000	1	<b>9.778,27</b>

## Battery-hydraulic pump „PA-700“

2 stage hydraulics, manual control switch, manual return flow after perfect pressure, LED for battery control, 1 quick charger, 1 battery Li-Ion, 4 Ah, carrying belt, max. operating pressure: 700 bar with 1,8 m hose, with quick coupling.

With the different colours of the sensor LED, it shows whether the pressing has been completed successfully or which errors have occurred:

Light is green: Pressing completed as standard, motor stopped.

Light is orange: Battery voltage not sufficient

Light is red: Pressing interrupted before completed

### Cutting/Pressing/Punching



Art. No.	Bar	kg	PU	EUR
216357	700	10,420	1	<b>5.403,99</b>

## Hydraulic high pressure hose

steel reinforced with quick coupling to foot pump Art. No. 216348 and electro-hydraulic pump Art. No. 216352



Art. No.	mm <sup>2</sup>	kg	PU	EUR
216364	5	1,260	1	<b>855,65</b>

## Hydraulic punching tools

### Hydraulic hand-punching tool „HS-8“

Extent of supply: 1 hydraulic hand punch, 1 connecting rod 3/8-24 UNF (article no. 217660), 1 connecting rod 3/4-16 UNF (article no. 217662), 1 adapter (article no. 217664), 1 spacer bushing (article no. 217666), 1 transport case.

- Punching performance: Steel sheet of up to a maximum of 3 mm
- Pressing force: 80 kN

80  
kN



Art. No.	kg	PU	EUR
217604	3,800	1	<b>1.357,89</b>

### Hydraulic hand-punch-cutter „HS-6“

Extent of supply: 1 hydraulic punching tool, 1 rod 3/8-24 UNF (art. 217660), 1 rod 3/4-16 UNF (art. 217662), 1 adapter (art. 217664), 1 sleeve (art. 217666), 1 plastic case with insert.

- Pressing force: 60 kN
- Punching capacity: Steel plates up to max. 3 mm

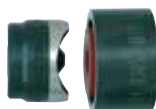
60  
kN



Art. No.	kg	PU	EUR
217602	3,800	1	<b>1.165,20</b>

### Punching dies, metric

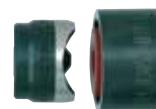
- ST37, 3 mm
- compatible with art. 216764



Art. No.	PG	Hole Ø	kg	PU	EUR
217610	ISO 16	16,5	0,070	1	<b>61,76</b>
217612	ISO 20	20,5	0,090	1	<b>80,09</b>
217614	ISO 25	25,5	0,150	1	<b>84,37</b>
217616	ISO 32	32,5	0,220	1	<b>99,36</b>
217618	ISO 40	40,5	0,900	1	<b>123,50</b>
217620	ISO 50	50,5	0,640	1	<b>185,27</b>
217622	ISO 63	63,5	0,950	1	<b>228,98</b>

### Punching dies, PG

- ST37, 3 mm
- compatible with art. 216764



Art. No.	PG	Hole Ø	kg	PU	EUR
217630	PG 9	15,2	0,060	1	<b>61,76</b>
217632	PG 11	18,6	0,084	1	<b>78,18</b>
217634	PG 13,5	20,4	0,091	1	<b>80,09</b>
217636	PG 16	22,5	0,120	1	<b>82,33</b>
217638	PG 21	28,3	0,170	1	<b>90,04</b>
217640	PG 29	37	0,330	1	<b>117,40</b>
217642	PG 36	47	0,536	1	<b>175,90</b>
217644	PG 42	54	0,731	1	<b>205,80</b>
217646	PG 48	60	0,896	1	<b>225,77</b>

## Punching dies, square

- ST37, 2,5 mm
- UNF
- compatible with art. 216764



Art. No.	H	kg	PU	EUR
217650	46	1,862	1	<b>1.725,63</b>
217652	68	1,500	1	<b>2.235,45</b>
217654	92	2,000	1	<b>3.104,69</b>

## Connecting rod

Art. 217660 - 3/8-24 UNF

Art. 217662 - 3/4-16 UNF

- compatible with art. 216764



Art. No.	kg	PU	EUR
217660	1	0,040	<b>27,97</b>
217662	2	0,220	<b>64,95</b>

## Adapter

for connecting rod art. 217660

- UNF
- compatible with art. 216764



Art. No.	kg	PU	EUR
217664	0,100	1	<b>18,32</b>

## Spacer bushing

- compatible with art. 216764



Art. No.	kg	PU	EUR
217666	0,110	1	<b>22,81</b>

## Punch and bending centre

### Basic unit

Basic unit to accommodate bending, hole-making, cutting and cranking tools. The processing of lamellar copper rails is possible! Hydraulic tool for connection to a hydraulic pump with 700 bar (10,000 PSI)



Art. No.	kg	PU	EUR
216770	51,000	1	<b>17.775,83</b>

## Hole-making tools

For punching round and slotted holes.

216776:

Hole tool for solid copper and aluminium rails

216777:

Hole-making tool for solid copper and aluminium rails as well as for laminated copper rails and grounding bands



Art. No.	kg	PU	EUR
216776	4,300	1	<b>2.884,84</b>
216777	4,300	1	<b>3.188,51</b>

## Hole inserts for round holes

For both hole-making tools, the following diameters can be supplied

Art. No.	Ø	kg	PU	EUR
216778	6,5 M6 > 216776	1,500	1	<b>278,06</b>
216778/L	6,5 M6 > 216777	1,500	1	<b>561,78</b>
216779	9 M8 > 216776	0,114	1	<b>278,06</b>
216779/L	9 M8 > 216777	0,420	1	<b>561,78</b>
216780	10,5 M8 > 216776	0,110	1	<b>278,06</b>
216780/L	10,5 M8 > 216777	0,419	1	<b>561,78</b>
216781	11 M10 > 216776	0,106	1	<b>278,06</b>
216781/L	11 M10 > 216777	0,418	1	<b>561,78</b>
216782	12,7 M10 > 216776	0,102	1	<b>345,26</b>
216782/L	12,7 M10 > 216777	0,416	1	<b>561,78</b>
216783	13 M12 > 216776	0,098	1	<b>278,06</b>
216783/L	13 M12 > 216777	0,414	1	<b>561,78</b>
216784	17 M16 > 216776	0,094	1	<b>278,06</b>
216784/L	17 M16 > 216777	0,412	1	<b>561,78</b>
216785	21 M20 > 216776	0,090	1	<b>278,06</b>
216785/L	21 M20 > 216777	0,411	1	<b>561,78</b>

## Hole inserts for slotted holes

For both hole-making tools, the following diameters can be supplied

Art. No.	mm	kg	PU	EUR
216786	9 x 18 M8 > 216776	0,098	1	<b>344,28</b>
216786/L	9 x 18 M8 > 216777	0,423	1	<b>789,52</b>
216787	11 x 20 M10 > 216776	0,095	1	<b>344,28</b>
216787/L	11 x 20 M10 > 216777	0,421	1	<b>789,52</b>
216788	13 x 20 M12 > 216776	0,092	1	<b>344,28</b>
216788/L	13 x 20 M12 > 216777	0,419	1	<b>789,52</b>
216789	17 x 20 M16 > 216776	0,089	1	<b>344,28</b>
216789/L	17 x 20 M16 > 216777	0,417	1	<b>789,52</b>

## Bending tool

For bending of solid copper or aluminium rails up to 12 x 120 mm. The bending matrix suits all bending radii.



Art. No.	kg	PU	EUR
216772	4,100	1	<b>1.518,35</b>
216775	3,200	1	<b>1.062,86</b>

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### Cutting tool

for separating solid copper and aluminium rails up to 12 x 120 mm



Art. No.	∅	kg	PU	EUR
216790	12 x 120	5,686	1	<b>3.947,68</b>

### Cutting tool for lamellar rails

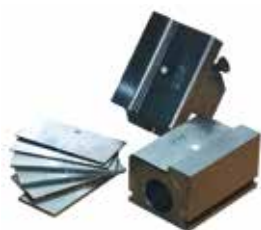
for separating lamellar rails made from copper, maximum dimensions: 12 x 120 mm



Art. No.	kg	PU	EUR
216791	9,000	1	<b>4.555,00</b>

### Cranking tool for stepped bending of power rails

for creating a material offset in rail thicknesses on a length of just 30 mm. Possible offset 5, 6, 8, 10 and 12 mm



Art. No.	kg	PU	EUR
216792	10,000	1	<b>3.340,35</b>

### Tool cases

Stable metal sheet case for accommodation of hole-making tool with inserts (1) or two tools (2)

Art. No.	kg	PU	EUR
216793	2,000	1	<b>470,69</b>
216794	2,000	1	<b>470,69</b>

### Electro-hydraulic pump „Special“

for punching and bending centre, with angle sensor



Art. No.	Bar	kg	PU	EUR
216359	230 V 700	22,000	1	<b>8.084,85</b>

## Fish tapes

### Steel fish tapes

with eyelet and brass rolling ball, without additional pilot spring



Art. No.	∅	↔	kg	PU	EUR
150152	3.5	10 m	0,131	1	<b>10,89</b>
150154	3.5	15 m	0,208	1	<b>11,48</b>
150156	3.5	20 m	0,268	1	<b>12,31</b>
150158	3.5	25 m	0,323	1	<b>15,05</b>

### Spiral fish tapes

made from steel spirals, fourfold twisted, with solid steel end pieces, strip size 4 mm



Art. No.	∅	↔	kg	PU	EUR
150200	4	5 m	0,312	1	<b>12,33</b>
150202	4	10 m	0,691	1	<b>20,05</b>
150204	4	15 m	0,988	1	<b>21,07</b>
150206	4	20 m	1,343	1	<b>36,29</b>
150208	4	25 m	1,820	1	<b>43,04</b>
150210	4	30 m	1,859	1	<b>52,11</b>

### Perlon fish tapes

made from stretched „Bayer-Perlon wire“, black, with solid steel end pieces, with additional pilot spring, approx. 120 mm length



Art. No.	∅	↔	kg	PU	EUR
150220 *	3	5 m	0,060	1	<b>4,08</b>
150222 *	3	10 m	0,103	1	<b>5,62</b>
150224 *	3	15 m	0,141	1	<b>7,37</b>
150226 *	3	20 m	0,188	1	<b>8,41</b>
150228 *	3	25 m	0,246	1	<b>9,67</b>
150230 *	3	30 m	0,244	1	<b>10,77</b>
150241 *	4	10 m	0,160	1	<b>7,11</b>
150243 *	4	15 m	0,234	1	<b>9,13</b>
150245 *	4	20 m	0,303	1	<b>11,11</b>
150247 *	4	25 m	0,386	1	<b>15,63</b>

### Perlon fish tapes

made from stretched „Bayer-Perlon wire“, black, with solid steel end pieces, without additional pilot spring, strip size 4 mm



Art. No.	∅	↔	kg	PU	EUR
150232	4	10 m	0,152	1	<b>6,88</b>
150234	4	15 m	0,236	1	<b>8,18</b>
150236	4	20 m	0,303	1	<b>10,77</b>
150238	4	25 m	0,402	1	<b>13,13</b>
150239	4	30 m	0,445	1	<b>16,15</b>

## Perlon fish tapes

made from stretched „Bayer-Perlon wire“, black, with solid steel end pieces, with 2 eyes, strip size 3 mm



Art. No.	∅	↔	kg	PU	EUR
150450	3	5 m	0,048	1	<b>3,91</b>
150452	3	10 m	0,099	1	<b>5,52</b>
150454	3	15 m	0,139	1	<b>7,21</b>
150456	3	20 m	0,163	1	<b>8,24</b>
150458	3	25 m	0,218	1	<b>9,54</b>
150462	4	5 m	0,080	1	<b>5,04</b>
150464	4	10 m	0,158	1	<b>6,88</b>
150466	4	15 m	0,240	1	<b>8,74</b>
150468	4	20 m	0,292	1	<b>10,77</b>
150470	4	25 m	0,389	1	<b>13,13</b>

### Perlon fish tapes

made from stretched „Bayer-Perlon wire“, black, with solid steel end pieces, with 2 spring and 2 eyes, strip size 4 mm



Art. No.	∅	↔	kg	PU	EUR
150476	4	10 m	0,180	1	<b>7,50</b>
150478	4	15 m	0,260	1	<b>9,74</b>
150480	4	20 m	0,332	1	<b>11,40</b>
150482	4	25 m	0,412	1	<b>13,65</b>

## Fibreglas section fish rods kits

### Fibre glass push rod set

in plastic bag.

Scope of delivery:

Push rod length: 7 m

5 rods 8 mm ∅ black

2 rods 8 mm ∅ white

Accessories:

1 hook, 1 chain, 1 magnet, 1 starting block, 1 pulling knob



Art. No.	kg	PU	EUR
150560	12 pcs.	0,500	1 <b>139,42</b>

### Fibre glass push rod set

in nylon bag.

Scope of delivery:

Push rod length: 10 m

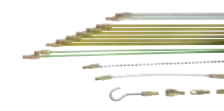
2 rods 6 mm ∅ white

6 rods 5 mm ∅ yellow

2 rods 4 mm ∅ green

Accessories:

1 hook, 1 chain, 1 magnet, 1 starting block, 1 pulling knob, 1 LED lamp



Art. No.	kg	PU	EUR
150562 *	16 pcs.	0,700	1 <b>191,72</b>

## HAUPA PullTec

### Cable pulling device HAUPA PullTec

with special plastic coating, M5 thread and probe, in durable plastic housing, colour: black. „Single Composite“, 4 mm green



Art. No.	∅	↔	kg	PU	EUR
143502 *	4	30 m	M5 1,300	1	265,41
143500	4	20 m	M5 1,040	1	226,36

### Replacement Rod HAUPA PullTec

„Single Composite“ 4 mm, green



Art. No.	∅	↔	kg	PU	EUR
143503	4	30 m	M5 1,300	1	204,48
143501	4	20 m	M5 1,000	1	149,75

### Cable pulling device HAUPA PullTec



Art. No.	∅	kg	PU	EUR
143508	6	M5 0,010	1	9,68

### Cable pulling device HAUPA PullTec

with special plastic coating, M5 thread and probe, in durable plastic housing, colour: black. „Single Composite“, 5,2 mm black



Art. No.	∅	↔	kg	PU	EUR
143506 *	5.2	M5 30 m	1,780	1	295,88

### Cable pulling device HAUPA PullTec



Art. No.	∅	kg	PU	EUR
143509	6	M5 0,020	1	9,68

### Replacement rod HAUPA-PullTec

„Single Composite“ 5,2 mm, black



Art. No.	∅	kg	PU	EUR
143505	5.2	M5 1,540	1	192,94
143507	5.2	M5 1,780	1	247,68

## Cable pulling device, accessories

### Cable pulling device HAUPA-FIBRE

Cable pulling device with glass fibre rod ∅ 3 mm, with PP casing, including front/end sleeve M5, 143010, 143024.143000/143002 inclusive: 143008 (2x), 143016 (2x), 143018 (2x), 143012, 143014, 143020, 143026 143002/ECO inclusive: 43008 (1x)



Art. No.	∅	↔	kg	PU	EUR
143000	3	M5 20 m	1,199	1	195,94
143002	3	M5 30 m	1,500	1	219,16
143002/ECO	3	M5 30 m	1,198	1	197,11

### Pulling unit with loop M5



Art. No.	∅	kg	PU	EUR
143008	6	M5 0,020	1	3,96

### Guiding head with loop M5



Art. No.	∅	kg	PU	EUR
143010	6	M5 0,200	1	8,33

### Guiding head M5



Art. No.	∅	kg	PU	EUR
143012	7	M5 0,010	1	8,36

### Guiding head M5



Art. No.	∅	kg	PU	EUR
143014	10	M5 0,011	1	8,58

### Guiding head M5



Art. No.	∅	kg	PU	EUR
143030	13	M5 0,017	1	8,78

### Front/end sleeve M5



Art. No.	kg	PU	EUR
143016	M5 0,005	1	3,96

### Connection sleeve for probes ∅ 3 mm



Art. No.	∅	kg	PU	EUR
143018	3	M5 0,003	1	3,91

### Cable grips



Art. No.	∅	↔	kg	PU	EUR
143020	4 - 6	200	M5 0,007	1	22,57

## Special pulling aid

for fast pulling of glass fibre rods ∅ 3 mm



Art. No.	∅	kg	PU	EUR
143024	3-6	0,047	1	7,40

## Special fast glue for glass fibre rod ∅ 3 mm



Art. No.	kg	PU	EUR
143026	0,012	1	12,37

## Replacement glass fibre rod

including front/end sleeve M5



Art. No.	∅	↔	kg	PU	EUR
143004	3	20 m	0,022	1	75,26
143006	3	30 m	0,034	1	99,57

## Service set for HAUPA-FIBRE

5 front sleeves, 5 guiding heads, 3 connection sleeves, 1 special fast glue



Art. No.	kg	PU	EUR
143028	M5 0,041	1	60,51

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### Cable pulling device FOX



Art. No.	∅		kg	PU	EUR
143050	4.5	<b>M5</b> 40 m	3,900	1	<b>399,81</b>
143052 *	4.5	<b>M5</b> 60 m	4,400	1	<b>485,56</b>
143054	4.5	<b>M5</b> 80 m	4,800	1	<b>526,94</b>

### Replacement glass fibre rod FOX

complete with front/end sleeve M5



Art. No.	∅		kg	PU	EUR
143056	4.5	<b>M5</b> 40 m	0,900	1	<b>192,13</b>
143058	4.5	<b>M5</b> 60 m	1,400	1	<b>277,42</b>
143060	4.5	<b>M5</b> 80 m	1,800	1	<b>362,71</b>

### Guiding head with loop M5



Art. No.		kg	PU	EUR
143062	<b>M5</b>	0,011	1	<b>11,69</b>

### Front bulb with shackle M5



Art. No.		kg	PU	EUR
143064	<b>M5</b>	0,100	1	<b>15,66</b>

### Guiding role made from aluminium M5



Art. No.		kg	PU	EUR
143066	<b>M5</b>	0,100	1	<b>22,03</b>

### Guiding head M5



Art. No.	∅		kg	PU	EUR
143012	7	<b>M5</b>	0,010	1	<b>8,36</b>
143014	10	<b>M5</b>	0,011	1	<b>8,58</b>
143030	13	<b>M5</b>	0,017	1	<b>8,78</b>

### Guiding head set with heads ∅ 7, 10, 13 mm M5

Set!



Art. No.		kg	PU	EUR
143068	<b>M5</b>	0,038	1	<b>29,82</b>

### Front/end sleeve M5



Art. No.		kg	PU	EUR
143070	<b>M5</b>	0,100	1	<b>6,28</b>

### Connection sleeve for probes ∅ 4.5 mm



Art. No.	∅	kg	PU	EUR
143072	4.5	0,010	1	<b>6,28</b>

### Cable pulling device SIX

lying version



Art. No.	∅		kg	PU	EUR
143100	6	40 m <b>M6</b>	5,200	1	<b>499,21</b>
143102	6	60 m <b>M6</b>	5,900	1	<b>614,90</b>
143104	6	80 m <b>M6</b>	6,800	1	<b>755,90</b>
143105	6	100 m <b>M6</b>	7,700	1	<b>882,62</b>

### Cable pulling device SIX

standing version



Art. No.	∅		kg	PU	EUR
143106	6	<b>M6</b> 40 m	7,200	1	<b>518,27</b>
143108	6	<b>M6</b> 60 m	8,300	1	<b>646,81</b>
143110	6	<b>M6</b> 80 m	9,400	1	<b>774,88</b>
143111	6	<b>M5</b> 100 m	10,300	1	<b>903,03</b>

### Cable pulling device SIX

standing version with wheels



Art. No.	∅		kg	PU	EUR
143112	6	40 m <b>M6</b>	7,400	1	<b>555,32</b>
143114	6	60 m <b>M6</b>	8,500	1	<b>683,45</b>
143116	6	80 m <b>M6</b>	9,600	1	<b>812,00</b>
143117	6	100 m <b>M6</b>	10,500	1	<b>940,09</b>

### Replacement glass fibre rod SIX

complete with front/end sleeve M5



Art. No.	∅		kg	PU	EUR
143118	6	40 m <b>M6</b>	1,700	1	<b>256,23</b>
143120	6	60 m <b>M6</b>	2,500	1	<b>384,33</b>
143122	6	80 m <b>M6</b>	3,250	1	<b>512,02</b>
143124	6	100 m <b>M6</b>	4,150	1	<b>640,18</b>

### Guiding head with loop M6



Art. No.	∅		kg	PU	EUR
143126	6	<b>M6</b>	0,018	1	<b>10,88</b>

### Front bulb with shackle M6



Art. No.	∅		kg	PU	EUR
143128	6	<b>M6</b>	0,022	1	<b>22,65</b>

### Guiding role made from aluminium M6



Art. No.	∅		kg	PU	EUR
143130	6	<b>M6</b>	0,026	1	<b>27,61</b>

### Guiding head M6



Art. No.	∅		kg	PU	EUR
143132	6	<b>M6</b>	0,017	1	<b>9,07</b>

### Front/end sleeve M6



Art. No.	∅		kg	PU	EUR
143134	6	<b>M6</b>	0,013	1	<b>8,41</b>

### Connection shackle for probes ∅ 6 mm



Art. No.	∅		kg	PU	EUR
143136	6		0,012	1	<b>10,85</b>



### Cable pulling device FIX

standing version



Art. No.	∅	→	kg	PU	EUR
143150	7.5 <b>M12</b>	40 m	8,100	1	<b>667,98</b>
143152	7.5 <b>M12</b>	60 m	9,400	1	<b>823,94</b>
143154	7.5 <b>M12</b>	80 m	10,700	1	<b>979,86</b>
143156	7.5 <b>M12</b>	100 m	11,900	1	<b>1.135,40</b>

### Cable pulling device FIX

standing version with wheels



Art. No.	∅	→	kg	PU	EUR
143160	7.5 <b>M12</b>	40 m	9,100	1	<b>705,09</b>
143162	7.5 <b>M12</b>	60 m	10,400	1	<b>861,04</b>
143164	7.5 <b>M12</b>	80 m	11,700	1	<b>1.017,01</b>
143166	7.5 <b>M12</b>	100 m	12,900	1	<b>1.172,95</b>
143168 *	7.5 <b>M12</b>	120 m	14,100	1	<b>1.329,77</b>

### Replacement glass fibre rod FIX

including front/end sleeve M12



Art. No.	∅	→	kg	PU	EUR
143170	7.5 <b>M12</b>	40 m	1,500	1	<b>333,06</b>
143172	7.5 <b>M12</b>	60 m	2,000	1	<b>460,78</b>
143174	7.5 <b>M12</b>	80 m	3,000	1	<b>588,49</b>
143176	7.5 <b>M12</b>	100 m	3,700	1	<b>716,13</b>
143178	7.5 <b>M12</b>	120 m	4,500	1	<b>803,83</b>

### Front bulb with shackle M12



Art. No.	kg	PU	EUR
143180	<b>M12</b>	0,010	1 <b>41,63</b>

### Guiding role made from aluminium M12



Art. No.	kg	PU	EUR
143182	<b>M12</b>	0,200	1 <b>60,44</b>

### Guiding role made from aluminium, length 80 mm M12



Art. No.	∅	kg	PU	EUR
143184	40 <b>M12</b>	0,220	1	<b>44,05</b>

### Front/end sleeve M12



Art. No.	kg	PU	EUR
143186	<b>M12</b>	0,004	1 <b>16,50</b>

### Connection sleeve for probes ∅ 9 + 11 mm



Art. No.	∅	kg	PU	EUR
143187	7.5	0,003	1	<b>16,54</b>

### Connection sleeve with rotator

with M12 connections on both sides



Art. No.	∅	→	kg	PU	EUR
143190	30 <b>M12</b>	83	0,006	1	<b>79,03</b>

### Pipe cleaning brush



Art. No.	∅	kg	PU	EUR
143200	80	0,200	1	<b>188,10</b>
143202	97	0,098	1	<b>193,19</b>
143204	117	0,400	1	<b>198,19</b>

### Cable pulling device STRONG

standing version



Art. No.	∅	→	kg	PU	EUR
143210	9 <b>M12</b>	40 m	9,100	1	<b>972,35</b>
143212	9 <b>M12</b>	60 m	12,900	1	<b>1.143,72</b>
143214	9 <b>M12</b>	80 m	14,820	1	<b>1.315,62</b>

### Cable pulling device STRONG

standing version with wheels



Art. No.	∅	→	kg	PU	EUR
143216	9 <b>M12</b>	100 m	29,400	1	<b>1.608,99</b>
143218	9 <b>M12</b>	120 m	31,300	1	<b>1.734,86</b>
143220	9 <b>M12</b>	150 m	33,900	1	<b>2.037,96</b>

### Replacement glass fibre rod STRONG

including front/end sleeve M12



Art. No.	∅	→	kg	PU	EUR
143222	9 <b>M12</b>	40 m	3,800	1	<b>398,02</b>
143224	9 <b>M12</b>	60 m	5,500	1	<b>553,60</b>
143226	9 <b>M12</b>	80 m	7,500	1	<b>709,51</b>
143228	9 <b>M12</b>	100 m	9,400	1	<b>860,60</b>
143230	9 <b>M12</b>	120 m	11,300	1	<b>1.021,41</b>
143232	9 <b>M12</b>	150 m	13,900	1	<b>1.155,71</b>

### Cable pulling device POWER



Art. No.	∅	→	kg	PU	EUR
143250	11 <b>M12</b>	150 m	43,000	1	<b>1.965,95</b>
143252	11 <b>M12</b>	200 m	50,000	1	<b>2.393,58</b>
143254	11 <b>M12</b>	250 m	56,500	1	<b>2.821,25</b>
143256	11 <b>M12</b>	300 m	64,500	1	<b>3.248,87</b>

### Replacement glass fibre rod POWER

including front/end sleeve M12



Art. No.	∅	→	kg	PU	EUR
143258	11 <b>M12</b>	150 m	21,900	1	<b>1.366,46</b>
143260	11 <b>M12</b>	200 m	29,200	1	<b>1.793,21</b>
143262	11 <b>M12</b>	250 m	36,400	1	<b>2.220,01</b>
143264	11 <b>M12</b>	300 m	43,900	1	<b>2.644,10</b>

### Cable pulling device KING



Art. No.	Ø	→	kg	PU	EUR
143270	14.5	<b>M12</b> 150 m	85,000	1	<b>3.903,62</b>
143272	14.5	<b>M12</b> 200 m	99,000	1	<b>5.114,14</b>
143274	14.5	<b>M12</b> 250 m	113,000	1	<b>6.113,90</b>
143276	14.5	<b>M12</b> 300 m	127,000	1	<b>7.113,70</b>
143278	14.5	<b>M12</b> 350 m	141,000	1	<b>8.113,45</b>
143280	14.5	<b>M12</b> 400 m	156,000	1	<b>9.112,76</b>

### Cable pulling device, accessories

#### Front bulb with shackle M12



Art. No.	kg	PU	EUR
143180	<b>M12</b> 0,010	1	<b>41,63</b>

#### Guiding role made from aluminium M12



Art. No.	kg	PU	EUR
143182	<b>M12</b> 0,200	1	<b>60,44</b>

#### Guiding role made from aluminium, length 80 mm M12



Art. No.	Ø	kg	PU	EUR
143184	40	<b>M12</b> 0,220	1	<b>44,05</b>

#### Front/end sleeve M12



Art. No.	kg	PU	EUR
143185	<b>M12</b> 0,004	1	<b>16,50</b>

#### Connection sleeve for probes



Art. No.	Ø	kg	PU	EUR
143188	9	0,150	1	<b>16,54</b>
143266	11	0,075	1	<b>16,54</b>

#### Connection sleeve with rotator

with M12 connections on both sides



Art. No.	Ø	→	kg	PU	EUR
143190	30	<b>M12</b> 83	0,006	1	<b>79,03</b>

### Pipe cleaning brush



Art. No.	Øbr.	kg	PU	EUR
143200	80	0,200	1	<b>188,10</b>
143202	97	0,098	1	<b>193,19</b>
143204	117	0,400	1	<b>198,19</b>

### Cable pulling device, accessories

#### Cable grips for electrical installations



Art. No.	Ø	→	kg	PU	EUR
143300	4 - 6	<b>M5</b> 200	0,009	1	<b>22,61</b>
143302	6 - 9	<b>M5</b> 210	0,013	1	<b>25,40</b>
143304	9 - 12	<b>M5</b> 350	0,024	1	<b>34,32</b>
143306	12 - 15	<b>M5</b> 350	0,029	1	<b>37,67</b>
143308	15 - 19	<b>M5</b> 500	0,200	1	<b>41,31</b>
143310	19 - 25	<b>M5</b> 500	0,052	1	<b>42,46</b>
143312	25 - 31	<b>M5</b> 450	0,400	1	<b>45,19</b>

#### Cable grips for subterranean cable laying



Art. No.	Ø	→	kg	PU	EUR
143314	10 - 20	1 1250	0,378	1	<b>86,81</b>
143318	20 - 30	1 1250	0,380	1	<b>95,53</b>
143322	30 - 40	1 1250	0,424	1	<b>105,35</b>
143326	40 - 50	1 1250	0,430	1	<b>113,14</b>
143330	50 - 65	1 1250	0,388	1	<b>123,26</b>
143334	65 - 80	1 1250	1,120	1	<b>139,58</b>

#### Cable grips for subterranean cable laying



Art. No.	Ø	→	kg	PU	EUR
143316	10 - 20	1250 2	0,465	1	<b>100,68</b>
143320	20 - 30	1250 2	0,460	1	<b>109,52</b>
143324	30 - 40	1250 2	0,510	1	<b>119,53</b>
143328	40 - 50	1250 2	0,200	1	<b>127,10</b>
143332	50 - 65	1250 2	0,520	1	<b>130,59</b>

### Cord und cable grips



Art. No.	Ø	→	kg	PU	EUR
143336	10 - 15	2000	0,250	1	<b>130,50</b>
143338	15 - 20	2000	0,250	1	<b>139,56</b>
143340	20 - 30	2000	0,250	1	<b>148,86</b>
143342	30 - 40	2000	0,250	1	<b>157,75</b>

### Decoiler

#### Decoiler 600

Technical data  
 Maximum drum weight: 50 kg  
 Maximum drum diameter: 600 mm  
 Maximum drum width: 330 mm  
 Length: 350 mm  
 Width: 350 mm  
 Height: 105 mm



Art. No.	max. kg	Ø	B	kg	PU	EUR
143398	50	600	330	3,500	1	<b>156,55</b>

#### Decoiler 1200

Technical data  
 Capacity: 175 kg  
 Max reel diameter: 1200 mm  
 Max reel width: 560 mm  
 Length: 610 mm  
 Width: 570 mm  
 Height: 115 mm



Art. Nr.	max. kg	Ø	B	kg	VE	EUR
143400 *	175	1200	560	9,000	1	<b>487,73</b>

#### Decoiler 1200 +

Technical data  
 Capacity: 300 kg  
 Max reel diameter: 1200 mm  
 Max reel width: 660 mm  
 Length: 705 mm  
 Width: 570 mm  
 Height: 115 mm



Art. No.	max. kg	Ø	B	kg	PU	EUR
143402	300	1200	660	10,500	1	<b>442,24</b>

#### Cable unwinder

4 box cable unwinder.  
 Carton size 240 x 240 mm



Art. No.	max. kg	Ø	B	kg	PU	EUR
143406	50	130	600	5,500	1	<b>223,57</b>

#### Cable unwinder

Length: 400 mm  
 Width: 400 mm  
 Height: 390 mm



Art. No.	max. kg	kg	PU	EUR
143404	50	8,000	1	<b>454,68</b>

## CableGo

### Cable pulling device „CableGo starter“

Content in plastic case:

- 1 x basic module „CableGo“ + 3 wire brackets
- 1 x table clamp „CableGo“
- 1 x mounting bracket „CableGo“



Art. No.	Cont.	kg	PU	EUR
143420	6-pieces		1	205,27

### Cable pulling device „CableGo profi“

Content in plastic case:

- 3 x basic module „CableGo“ + 3 wire brackets
- 3 x table clamp „CableGo“
- 3 x mounting bracket „CableGo“



1 x connection set and several mounting parts „CableGo“



Art. No.	Cont.	kg	PU	EUR
143422	14-pieces	5,000	1	429,31

### Cable pulling device „CableGo master“

Content in plastic case:

- 5 x basic module „CableGo“ + 3 wire brackets
- 5 x table clamp „CableGo“
- 5 x mounting bracket „CableGo“
- 1 x connection set and several mounting parts „CableGo“



Art. No.	Cont.	kg	PU	EUR
143424	17-pieces	7,000	1	640,33



## SysCon CableGo

### SysCon cable pulling device „CableGo starter“

Content in SysCon stacking box art. 220372:

- 1 x basic module „CableGo“ + 3 wire brackets
- 1 x table clamp „CableGo“
- 1 x connection set and several mounting parts „CableGo“



Art. No.	Cont.	kg	PU	EUR
143430	6-pieces	7,000	1	313,60

### SysCon cable pulling device „CableGo profi“

Content in SysCon stacking box art. 220372:

- 3 x basic module „CableGo“ + 3 wire brackets
- 3 x table clamp „CableGo“
- 3 x mounting bracket „CableGo“
- 1 x connection set and several mounting parts „CableGo“



Art. No.	Cont.	kg	PU	EUR
143432	14-pieces	8,000	1	531,92

### SysCon cable pulling device „CableGo master“

Content in SysCon stacking box art. 220372:

- 5 x basic module „CableGo“ + 3 wire brackets
- 5 x table clamp „CableGo“
- 5 x mounting bracket „CableGo“
- 1 x connection set basic module „CableGo“



Art. No.	Cont.	kg	PU	EUR
143434	17-pieces	9,000	1	742,94

## CableGo, accessories

### Basic module „CableGo“ + 3 wire brackets

Basic module for easy cable penetrations in corners and roundings.



Art. No.	Cont.	kg	PU	EUR
143440	4 pcs.	0,495	1	94,60

### Table clamp „CableGo“

Table clamp for fixing basic modules.



Art. No.	Cont.	kg	PU	EUR
143441	1 pcs.	0,085	1	16,97

### Mounting bracket „CableGo“

Mounting bracket for fixing basic modules.



Art. No.	Cont.	kg	PU	EUR
143442	7 pcs.	0,350	1	78,83

### Connection set basic module „CableGo“

Connection set for connecting several basic modules.



Art. No.	Cont.	kg	PU	EUR
143443	2 pcs.	0,010	1	14,31

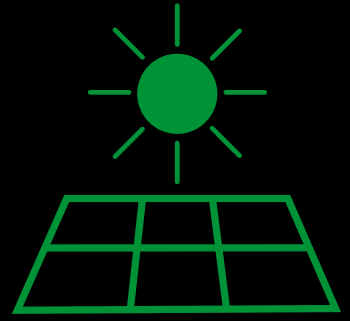
### Set 3 wire brackets „CableGo“

Wire brackets for basic modules.



Art. No.	Cont.	kg	PU	EUR
143444	3 pcs.	0,045	1	19,16

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## Connecting clamps

### Connecting clamps, Nylon

**Nylon**

Connecting clamps, 2-5 pin, Nylon



Art. No.	CSS	Pol	Volt	A	PU	EUR
265033	1 - 2,5	2	450	24	100	<b>15,48</b>
265034	1 - 2,5	3	450	24	100	<b>21,13</b>
265035	1 - 2,5	4	450	24	100	<b>23,80</b>
265036	1 - 2,5	5	450	24	100	<b>28,48</b>

## End sleeves

### End sleeves

**CU**

- of electrolytic copper, bare;
- Dimensions to DIN 46228, Part 1



Art. No.	CSS	PU	PrU	EUR
270141	<b>0,34</b>	5	1000	<b>14,27</b>
270140	<b>0,5</b>	6	1000	<b>11,98</b>
270140/500		6	500	<b>10,70</b>
270142	<b>0,75</b>	6	1000	<b>11,59</b>
270142/500		6	500	<b>11,59</b>
270143		10	1000	<b>14,35</b>
270143/500		10	500	<b>14,35</b>
270144		12	1000	<b>17,34</b>
270146	<b>1</b>	6	1000	<b>12,32</b>
270146/500		6	500	<b>12,32</b>
270148		10	1000	<b>14,55</b>
270148/500		10	500	<b>14,55</b>
270149		12	1000	<b>17,49</b>
270149/500		12	500	<b>17,49</b>
270150	<b>1,5</b>	7	1000	<b>13,71</b>
270150/500		7	500	<b>13,71</b>
270152		10	1000	<b>15,02</b>
270152/500		10	500	<b>15,02</b>
270154		12	1000	<b>18,35</b>
270154/500		12	500	<b>18,35</b>
270156		18	1000	<b>28,17</b>
270156/500		18	500	<b>28,17</b>
270158	<b>2,5</b>	7	1000	<b>15,00</b>
270158/500		7	500	<b>15,00</b>
270159		10	1000	<b>17,43</b>
270159/500		10	500	<b>17,43</b>
270160		12	1000	<b>18,71</b>
270160/500		12	500	<b>18,71</b>
270164	<b>4</b>	9	1000	<b>26,99</b>
270164/500		9	500	<b>26,99</b>
270166		12	1000	<b>28,77</b>
270166/500		12	500	<b>28,77</b>
270168		18	1000	<b>37,85</b>
270168/500		18	500	<b>37,85</b>
270170	<b>6</b>	10	250	<b>29,93</b>
270172		12	250	<b>32,74</b>
270174		15	250	<b>37,54</b>
270176		18	250	<b>43,45</b>
270178	<b>10</b>	12	250	<b>42,16</b>
270180		15	250	<b>54,86</b>
270182		18	250	<b>57,56</b>
270184	<b>16</b>	12	250	<b>51,74</b>
270186		15	250	<b>58,85</b>
270188		18	250	<b>66,56</b>
270190	<b>25</b>	12	250	<b>66,21</b>
270192		18	250	<b>84,58</b>
270194	<b>35</b>	18	100	<b>99,81</b>
270195		20	100	<b>109,47</b>
270196		22	100	<b>109,54</b>
270198		26	100	<b>122,84</b>

## End sleeves

**CU**

- of electrolytic copper, tin-plated
- Dimensions to DIN 46228, Part 1



Art. No.	CSS	PU	PrU	EUR
270066	<b>0,25</b>	5	1000	<b>14,92</b>
270066/500		5	500	<b>15,63</b>
270068	<b>0,34</b>	5	1000	<b>31,10</b>
270068/500		5	500	<b>13,21</b>
270070	<b>0,5</b>	6	1000	<b>11,41</b>
270070/500		6	500	<b>11,41</b>
270072	<b>0,75</b>	6	1000	<b>11,96</b>
270072/500		6	500	<b>11,96</b>
270074		12	1000	<b>20,42</b>
270074/500		12	500	<b>20,42</b>
270076	<b>1</b>	6	1000	<b>12,32</b>
270077		8	1000	<b>13,17</b>
270078		10	1000	<b>15,40</b>
270078/500		10	500	<b>15,40</b>
270079		12	1000	<b>18,35</b>
270079/500		12	500	<b>18,35</b>
270080	<b>1,5</b>	7	1000	<b>13,71</b>
270082		10	1000	<b>15,80</b>
270082/500		10	500	<b>15,80</b>
270084		12	1000	<b>19,25</b>
270084/500		12	500	<b>19,25</b>
270086		18	1000	<b>28,17</b>
270086/500		18	500	<b>28,17</b>
270087		20	1000	<b>31,42</b>
270088	<b>2,5</b>	7	1000	<b>15,47</b>
270089		10	1000	<b>18,30</b>
270089/500		10	500	<b>18,30</b>
270090		12	1000	<b>23,26</b>
270090/500		12	500	<b>23,26</b>
270091		15	1000	<b>27,30</b>
270091/500		15	500	<b>27,30</b>
270092		18	1000	<b>33,15</b>
270092/500		18	500	<b>33,15</b>
270093		20	1000	<b>36,36</b>
270093/500		20	500	<b>36,36</b>
270094	<b>4</b>	9	1000	<b>26,99</b>
270096		12	1000	<b>28,77</b>
270097		15	1000	<b>35,46</b>
270098		18	1000	<b>37,85</b>
270100	<b>6</b>	10	250	<b>29,93</b>
270102		12	250	<b>32,74</b>
270104		15	250	<b>37,54</b>
270106		18	250	<b>43,45</b>
270107		20	250	<b>44,88</b>
270108	<b>10</b>	12	250	<b>42,16</b>
270110		15	250	<b>54,86</b>
270112		18	250	<b>57,56</b>
270114	<b>16</b>	12	250	<b>51,74</b>
270116		15	250	<b>58,85</b>
270118		18	250	<b>66,56</b>
270119		24	250	<b>126,18</b>
270120	<b>25</b>	12	250	<b>70,58</b>
270121		15	250	<b>72,02</b>
270122		18	250	<b>85,09</b>
270123		25	100	<b>226,38</b>
270124	<b>35</b>	18	100	<b>99,81</b>
270126		22	100	<b>115,43</b>
270128		25	100	<b>133,40</b>
270130		30	100	<b>295,48</b>
270131	<b>50</b>	22	100	<b>225,20</b>
270132	<b>70</b>	25	100	<b>521,84</b>
270134	<b>95</b>	30	50	<b>843,36</b>
270135	<b>120</b>	32	50	<b>871,44</b>
270136	<b>150</b>	38	50	<b>1.116,45</b>
270137	<b>185</b>	40	25	<b>1.769,74</b>

Around the cable

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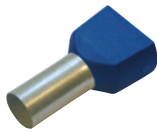
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### Twin-end sleeves two cables DIN

**Cu**

- tube section of electrolytic copper
- galvanically tin-plated
- plastic collar of PP
- heat-resistant to 105°C



Art. No.	CSS	L	PU	PrU	EUR
270778 *	0,5	15	8	100 1000	36,36
270780 *	0,75	15	8	100 1000	36,37
270782		17	10	100 1000	45,64
270784 *	1	15	8	100 1000	36,37
270787		17	10	100 1000	49,79
270788 *	1,5	16	8	100 1000	36,37
270790		20	12	100 1000	49,71
270792 *	2,5	18,5	10	100 1000	43,54
270794 *		21,5	13	100 1000	53,90
270796 *	4	23	12	100 1000	132,30
270797 *	6	25	14	100 1000	154,34
270798 *	10	26	14	100 1000	193,79
270799 *	16	31	16	50 1000	336,51

### Twin-end sleeves two cables DIN "SmallPack"

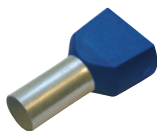
- tube section of electrolytic copper
- galvanically tin-plated
- plastic collar of PP
- heat-resistant to 105°C



Art. No.	CSS	L	PU	PrU	EUR
270778/25	0,5	15	8	25 1000	48,14
270780/25	0,75	15	8	25 1000	50,33
270784/25	1	15	8	25 1000	52,52
270788/25	1,5	16	8	25 1000	53,06
270792/25	2,5	18,5	10	25 1000	67,21
270796/10	4	23	12	10 1000	123,79
270797/10	6	25	14	10 1000	147,57
270798/5	10	26	14	5 1000	182,27
270799/5	16	31	16	5 1000	277,49

### Twin-end sleeves two cables, colour range I, (french)

- tube section of electrolytic copper
- galvanically tin-plated
- plastic collar of PP
- heat-resistant to 105°C

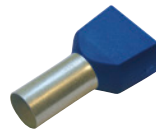


Art. No.	CSS	L	PU	PrU	EUR
273400	0,75	15	8	100 1000	25,52
273402		17	10	100 1000	33,40
270784 *	1	15	8	100 1000	36,37
270787		17	10	100 1000	49,79
270788 *	1,5	16	8	100 1000	36,37
270790		20	12	100 1000	49,71
273404	2,5	18,5	10	100 1000	33,88
273406		21,5	13	100 1000	36,61
273408	4	23	12	100 1000	76,47
273410	6	26	14	100 1000	110,62
273412	10	26	14	100 1000	145,16
273414	16	31	16	50 1000	225,28

### Twin-end sleeves, colour range II, german

**Cu**

- insulated
- Electrolytic copper, tin-plated
- Dimensions to DIN 46228. Part 4
- heat-resistant to 105°C



Art. No.	CSS	L	PU	PrU	EUR
273350	0,5	15	8	100 1000	32,31
273352	0,75	15	8	100 1000	32,31
273354		17	10	100 1000	40,61
273356	1	15	8	100 1000	32,31
273358		17	12	100 1000	44,30
273360	1,5	16	8	100 1000	32,31
273362		20	12	100 1000	44,33
273392	2,5	18,5	10	100 1000	43,54
273394		21,5	13	100 1000	52,96
273396	4	23	12	100 1000	132,30
273364	6	25	14	100 1000	116,39
273366	10	26	14	100 1000	146,07
273368	16	31	16	50 1000	202,94

### Empty dispenser box



Art. No.	set	kg	PU	EUR
270870	0	0,049	5	6,22

### Dispenser box with uninsulated end sleeves

Contents: tin-plated end sleeves



Art. No.	set	kg	PU	EUR
270217	3450	0,240	1	52,61

### Dispenser box with uninsulated end sleeves

Contents: tin-plated end sleeves



Art. No.	set	kg	PU	EUR
270218	395	0,158	1	21,49

### Dispenser box with insulated end sleeves (DIN)

Contents: Colour range III, DIN, white, grey, red, black, blue



Art. No.	set	kg	PU	EUR
270854 *	400	0,090	1	20,97

### Dispenser box with insulated end sleeves (DIN)

Contents: Colour range III, DIN grey, yellow, red, blue



Art. No.	set	kg	PU	EUR
270858	100	0,089	1	16,48

### Dispenser box with Twin end sleeves (DIN)

Content: Colour range DIN, grey, red, black, blue



Art. No.	set	kg	PU	EUR
270795 *	200	0,080	1	21,74

### Dispenser box with insulated end sleeves (german)

Contents: Colour range II, orange, white, yellow, red, blue



Art. No.	set	kg	PU	EUR
270852	400	0,089	1	20,90

### Dispenser box with insulated end sleeves (german)

Contents: Colour range II, grey, black, ivory, green



Art. No.	set	kg	PU	EUR
270856	100	0,087	1	16,48

### Dispenser box with insulated end sleeves (french)

Contents: Colour range I, white, blue, red, black, grey



Art. No.	set	kg	PU	EUR
270850	400	0,090	1	20,90

### Slide Box with DIN end sleeves

Contents:

Colour range III, DIN  
white, grey, red, black, blue



Art. No.	set	kg	PU	EUR
270864	400	0,109	1	23,64
270866	225	0,104	1	24,56

**haupa**

... convincing solutions

### Assortments of wire-end sleeves

**Contents:** 5.000 insulated wire-end sleeves  
1 crimping pliers (21 08 04), crimping range 0,08 - 10 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
270888	5100	2,150	1	<b>460,83</b>
270890	5100	2,150	1	<b>461,51</b>

### Assortments of wire-end sleeves

**Contents:** 5.300 insulated wire-end sleeves  
1 crimping pliers (21 08 42), crimping range 1 - 10 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
270891	5300	2,100	1	<b>221,17</b>
270892	5300	2,100	1	<b>220,74</b>
270893	5300	2,100	1	<b>220,89</b>

### End sleeve assortment - serie DIN

**Contents:** 1.150 insulated end sleeves  
crimping pliers (art. no. 210824), crimp 0,75 - 16,0 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
270882/DIN	1150	1,740	1	<b>131,21</b>
270882	1150	1,700	1	<b>131,16</b>
270894	1150	2,150	1	<b>131,05</b>

### End sleeve assortment - serie DIN

**Contents:** 4.700 insulated end sleeves, color range DIN, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
270899	4700	2,150	1	<b>159,02</b>

### Assortment for Combi-Crimp

**Contents:** 1 crimping pliers (210784) for insulated terminals 0,5 - 2,5 mm<sup>2</sup> and end sleeves 0,5 - 6 mm<sup>2</sup>, 2.700 insulated end sleeves, 1.100 insulated terminals in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
270895 *	3800	4,300	1	<b>219,42</b>
270896	3800	4,300	1	<b>218,97</b>
270897	3800	4,300	1	<b>219,08</b>

### Assortments of end sleeves - SysCon

#### SysCon end sleeves & 210804

**Contents:** 4100 insulated end sleeves

220370 ABS plastic box "SysCon S"  
220375 Assortment insert "SysCon"  
220399 Foam "SysCon" 400 x 300 x 10 mm  
210804 Crimping pliers for end sleeves 0,08 - 10 mm<sup>2</sup>



Art. No.	set	kg	PU	EUR
220382	4100	4,300	1	<b>590,68</b>

#### SysCon end sleeves & 210842

**Contents:** 4950 insulated end sleeves

220370 ABS plastic box "SysCon S"  
220399 Foam "SysCon" 400 x 300 x 10 mm  
220375 Assortment insert "SysCon"  
210842 Crimping pliers for end sleeves 1 - 10 mm<sup>2</sup>



Art. No.	set	kg	PU	EUR
220390	4950	4,300	1	<b>334,46</b>

### Crimp terminals, PVC-insulated

**PVC**  
-75°/600V

#### Ring terminals DIN 46237

- of electrolytic copper, tin-plated
- PVC-insulated, with expanded insulating sleeve, suitable for harmonised cables
- Easy Entry



Art. No.	CSS	M	W	PU	PrU	EUR
260250	<b>0,5 - 1,0</b>	2,5	8	100	100	<b>5,87</b>
260252		3	5,5	100	100	<b>5,87</b>
260254		3,5	8	100	100	<b>5,87</b>
260256 *		4	8	100	100	<b>6,51</b>
260258 *		5	8	100	100	<b>7,58</b>
260260 *		6	10	100	100	<b>8,58</b>
260262		8	14	100	100	<b>10,99</b>
260264		10	14	100	100	<b>14,62</b>
260267	<b>1,5 - 2,5</b>	3	6,4	100	100	<b>6,48</b>
260268		3,5	8	100	100	<b>6,48</b>
260270 *		4	8	100	100	<b>7,29</b>
260272 *		5	10	100	100	<b>8,41</b>
260274 *		6	11	100	100	<b>9,26</b>
260276		8	15	100	100	<b>11,29</b>
260278		10	15	100	100	<b>14,10</b>
260282	<b>4 - 6</b>	3,5	8	100	100	<b>14,45</b>
260284		4	8	100	100	<b>12,69</b>
260286		5	10	100	100	<b>13,97</b>
260288 *		6	11	100	100	<b>13,97</b>
260290 *		8	15	100	100	<b>15,17</b>
260292		10	19	100	100	<b>18,59</b>

#### Fork terminals DIN 46237

- of electrolytic copper, tin-plated
- PVC-insulated, with expanded insulating sleeve, suitable for harmonised cables
- Easy Entry



Art. No.	CSS	M	W	PU	PrU	EUR
260300	<b>0,5 - 1,0</b>	3	5,6	100	100	<b>5,91</b>
260302		3,5	6,5	100	100	<b>5,91</b>
260304 *		4	6,4	100	100	<b>6,05</b>
260306		5	8	100	100	<b>7,70</b>
260308		6	9,2	100	100	<b>7,83</b>
260310	<b>1,5 - 2,5</b>	3	5,6	100	100	<b>6,63</b>
260312		3,5	6,6	100	100	<b>6,82</b>
260314 *		4	6,6	100	100	<b>6,69</b>
260316		5	9,1	100	100	<b>8,34</b>
260318		6	10	100	100	<b>9,13</b>
260320	<b>4 - 6,0</b>	4	8,1	100	100	<b>11,24</b>
260322 *		5	9	100	100	<b>12,05</b>
260324		6	11	100	100	<b>14,07</b>
260326		8	15,2	100	100	<b>16,35</b>
260328		10	19	100	100	<b>20,53</b>

#### Socket sleeves (male) DIN 46231

- of electrolytic copper, tin-plated
- PVC-insulated, with expanded insulating sleeve, suitable for harmonised cables
- Easy Entry



Art. No.	CSS	W	PU	PrU	EUR
260330	<b>0,5 - 1,0</b>	2,8	100	100	<b>7,98</b>
260331		3	100	100	<b>8,35</b>
260332	<b>1,5 - 2,5</b>	2,8	100	100	<b>7,84</b>
260333		2,8	100	100	<b>9,76</b>
260334	<b>4 - 6</b>	2,8	100	100	<b>15,73</b>
260335		4,5	100	100	<b>19,40</b>

#### Butt connectors

- of electrolytic copper, tin-plated
- PVC-insulated, with expanded insulating sleeve, suitable for harmonised cables
- Easy Entry



Art. No.	CSS	PU	PrU	EUR
260350 *	<b>0,5 - 1,0</b>	100	100	<b>10,79</b>
260352 *	<b>1,5 - 2,5</b>	100	100	<b>12,29</b>
260354 *	<b>4 - 6,0</b>	100	100	<b>17,50</b>









### Ring terminals

- Copper, tin-plated
- RoHS-conform
- Insulating cover: Polyolefin with inside adhesiver



Art. No.	CSS	M	PU	PrU	EUR
363530	<b>0,5 - 1,0</b>	4	28,5	100	<b>26,26</b>
363532		5	28,5	100	<b>26,26</b>
363534		6	34,5	100	<b>27,61</b>
363536		8	34,5	100	<b>27,61</b>
363538		10	37,5	100	<b>27,61</b>
363540	<b>1,5 - 2,5</b>	4	30,5	100	<b>27,61</b>
363542		5	30,5	100	<b>27,61</b>
363544		6	35,5	100	<b>28,26</b>
363546		8	35,5	100	<b>28,98</b>
363548		10	37,5	100	<b>29,66</b>
363550	<b>4 - 6,0</b>	4	34,2	100	<b>31,68</b>
363552		5	34	100	<b>31,68</b>
363554		6	37,5	100	<b>32,38</b>
363556		8	42	100	<b>33,75</b>
363558		10	42	100	<b>33,75</b>

### Butt connectors "SmallPack"

- Copper, tin-plated
- RoHS-conform
- Insulating cover: Polyolefin with inside adhesiver



Art. No.	CSS	PU	PrU	EUR
363500/10	<b>0,5 - 1,0</b>	10	100	<b>42,03</b>
363502/10	<b>1,5 - 2,5</b>	10	100	<b>43,46</b>
363504/5	<b>4 - 6,0</b>	5	100	<b>68,54</b>

### Welded shrink connector

#### Welded shrink connectors

- Copper, tin-plated
- RoHS conform
- Insulating cover: Polyolefin with inside adhesive



Art. No.	CSS	PU	PrU	EUR
363600	<b>0,5 - 1,0</b>	100	100	<b>170,50</b>
363602	<b>1,5 - 2,5</b>	100	100	<b>216,04</b>
363604	<b>4 - 6,0</b>	100	100	<b>316,96</b>

#### Welded shrink connector, transparent

- Copper, tin-plated
- Insulating cover: Polyolefin with inside adhesive
- RoHS conform
- transparent



Art. No.	CSS	PU	PrU	EUR
363606	<b>0,5 - 1</b>	100	100	<b>104,26</b>
363607	<b>1,5 - 2,5</b>	100	100	<b>114,67</b>
363608	<b>4 - 6</b>	100	100	<b>121,47</b>

### Assortment of insulated terminals

Contents: 1.250 crimping terminals, crimping pliers (art. no. 210761), crimp 0,5 - 6,0 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
260762	1250	3,139	1	<b>297,93</b>

### Assortment of insulated terminals

Containing: 1250 insulated terminals  
1 crimping pliers (Art. 21 08 02), press range 1.5 - 6 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
260764	1250	3,2776	1	<b>226,09</b>
262048	1250	3,400	1	<b>197,46</b>

### Assortment of insulated terminals

Contents: 1.200 Crimping terminals  
1 crimping pliers (Art. 21 07 61), press range 0.5 - 6 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
260765 *	1200	3,367	1	<b>208,59</b>

### Assortment of insulated terminals

Contents: 1.200 crimping terminals, crimping pliers (art. no. 210802), crimp 0,5 - 6,0 mm<sup>2</sup>, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
260777 *	1200	2,980	1	<b>164,09</b>

### SysCon insulated terminals & 210761

Contents: 1500 insulated terminals  
220370 ABS plastic box „SysCon S“  
220375 Assortment insert „SysCon“  
220399 Foam „SysCon“ 400 x 300 x 10 mm  
210761 Crimping pliers for insulated terminals 0,5 - 6 mm<sup>2</sup>



Art. No.	set	kg	PU	EUR
220381	1500	4,300	1	<b>376,35</b>

### SysCon insulated terminals / end sleeves & 210784

Contents: insulated terminals and end sleeves  
220370 ABS plastic box „SysCon S“  
220375 Assortment insert „SysCon“  
220399 Foam „SysCon“ 400 x 300 x 10 mm  
210784 Crimping pliers for insulated terminals and end sleeves



Art. No.	set	kg	PU	EUR
220391	3700	4,300	1	<b>389,74</b>



















## Screw terminals 10 - 30 KV

### AL screw terminals medium voltage 10-30 KV **AI**

- for tension relief connections of Al medium-voltage cables
- Material: AL 99,5%
- Tin-plated surface



Art. No.	CSS	M	↔	PU	PrU	EUR
293140	16-95	12	60	1	100	1.478,62
293142	50-150	12	79	1	100	1.913,91
293144	16	79	1	100	1.913,91	
293146	95-240	12	95	1	100	2.831,30
293148	16	95	1	100	2.831,30	
293150	120-300	12	100	1	100	3.543,54
293152	16	100	1	100	3.543,54	
293154	185-400	12	115	1	100	4.919,20
293156	16	115	1	100	4.919,20	

### AL screw connectors medium voltage **AI**

- Material: AL 99,5%;
- Screws: Tin-galvanised brass
- Tin-plated surface



Art. No.	CSS	↔	PU	PrU	EUR
293130	16-95	70	1	100	1.478,62
293132	50-150	85	1	100	2.275,62
293134	95-240	120	1	100	3.397,43
293136	120-300	142	1	100	4.430,14
293138	185-400	170	1	100	7.249,51

## Safety tools

### Alignment tool for sector conductor 1000 V **3/8"**



Art. No.	mm <sup>2</sup>	kg	PU	EUR
110704	95 - 150	0,068	1	142,19
110705	185 - 240	0,088	1	217,05

### Universal alignment tool for sector conductor 1000 V

50, 70, 95, 150, 185, 240 mm<sup>2</sup>



1000 V IEC 60900

Art. No.	kg	PU	EUR
110709	1,051	1	285,77

### Counterholder 1000 V for Screw cable shoes



1000 V IEC 60900

Art. No.	↕	↕	↔	kg	PU	EUR
120101	0	15	240	0,680	1	160,76
120103	15	40	220	0,424	1	186,94
120104	25	50	300	0,680	1	452,61

## Assortments

### Tubular cable lugs assortment standard

Contents: 380 crimping terminals, crimping pliers (art. no. 210805), crimp standard 6 - 50 mm<sup>2</sup>, hexagon crimping, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
290380	380	6,000	1	474,67

### Tubular cable lugs assortment DIN 46235

Contents: 380 crimping terminals, crimping pliers (art. no. 210805K), crimp DIN 6 - 50 mm<sup>2</sup>, hexagon crimping, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	set	kg	PU	EUR
290382	380	6,600	1	507,39

### SysCon cable lugs DIN & 210805 K

Contents: 380 cable lugs DIN 46235, tinned  
220370 ABS plastic box "SysCon S"  
2 x 220376 Foam "SysCon" 400 x 300 x 15 mm  
500270 Foam for sets 160 x 400 mm  
210805 K Crimping pliers hexagonal crimping 6 - 50 mm<sup>2</sup>



Art. No.	set	kg	PU	EUR
220385	380	4,300	1	659,54

## SysCon cable lugs standard & 210805

Contents: 380 cable lugse standard, tinned  
220370 ABS plastic box "SysCon S"  
2 x 220376 Foam "SysCon" 400 x 300 x 15 mm  
500270 Foam for sets 160 x 400 mm  
210805 Crimping plier hexagonal crimping 6 - 50 mm<sup>2</sup>



Art. No.	set	kg	PU	EUR
220386	380	4,300	1	627,22

## SysCon cable lugs DIN 46235

Contents: 389 lugs DIN/standard, tinned  
220370 ABS plastic box "SysCon S"  
2 x 220376 Foam "SysCon" 400 x 300 x 15 mm



Art. No.	set	kg	PU	EUR
220387	389	4,300	1	830,17

## SysCon cable lugs standard

Contents: 389 cable lugs DIN/standard, tinned  
220370 ABS plastic box „SysCon S“  
2 x 220376 Foam „SysCon“ 400 x 300 x 15 mm

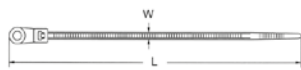


Art. No.	set	kg	PU	EUR
220388	389	4,300	1	643,50



### Cable ties with fixing eye

material: nylon, colour natural, -40° to +85° C



Art. No.	W	L	E	PU	PrU	EUR
262820	100	2,5	25	80	100	<b>3,40</b>
262822	170	3,7	40	180	100	<b>4,62</b>
262824	170	3,7	40	180	100	<b>11,36</b>
262826 *	205	4,2	60	220	100	<b>7,45</b>
262828 *	300	4,8	85	220	100	<b>13,76</b>
262830	300	7,8	80	540	100	<b>15,62</b>
262832	370	4,8	102	220	100	<b>18,92</b>
262834	398	7,9	122	540	100	<b>28,74</b>

### Cable ties with marking space

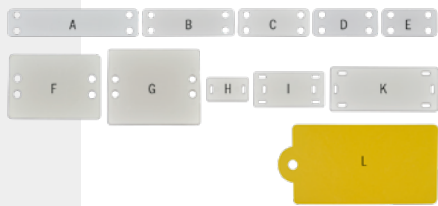
material: nylon, colour natural, -40° to +85° C



Art. No.	W	L	E	PU	PrU	EUR
262840 *	100	2,5	25	80	100	<b>4,60</b>
262842 *	130	2,5	25	80	100	<b>5,13</b>
262844	110	2,5	25	80	100	<b>4,69</b>
262846	200	4,6	50	220	100	<b>10,36</b>
262848 *	200	2,5	50	80	100	<b>8,53</b>
262850	270	4,6	75	220	100	<b>21,07</b>

### Identification label for cable ties / marking cables

Material PE, for marking cables, pipes and lines, low weight, permanent labelling



Art. No.	W	H	PU	PrU	EUR	
262179	26	15	1,2	<b>H</b>	100	<b>7,84</b>
262180	42,2	21	1,2	<b>I</b>	100	<b>6,50</b>
262181	60,8	25	1,2	<b>K</b>	100	<b>13,08</b>
262182	62,2	51	1,3	<b>G</b>	100	<b>19,78</b>
262183	38,5	19	0,4	<b>E</b>	100	<b>11,60</b>
262184	45,3	19,1	0,4	<b>D</b>	100	<b>12,21</b>
262185	50,5	19,1	0,4	<b>C</b>	100	<b>13,80</b>
262186	65	19,1	0,4	<b>B</b>	100	<b>17,28</b>
262187	63,8	44,8	0,4	<b>F</b>	100	<b>26,14</b>
262188	90	19,1	0,4	<b>A</b>	100	<b>24,06</b>
262189	160	80	0,6	<b>L</b>	100	<b>111,31</b>

### Labelling box

Material PE, for attaching using cable ties (widths up to 4.8mm)



Art. No.	W	H	PU	PrU	EUR	
262190	11,5	32,6	3	<b>1</b>	100	<b>30,09</b>
262191	19,1	43,5	4,6	<b>2</b>	100	<b>39,93</b>

### Self adhesive sockets



Art. No.	W	PU	PrU	EUR
262160 *	19	100	100	<b>12,06</b>
262161	19	100	100	<b>12,06</b>
262162 *	28	100	100	<b>13,68</b>
262163	28	100	100	<b>16,93</b>

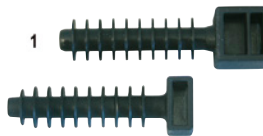
### Screw type sockets



Art. No.	W	PU	PrU	EUR
262164 *	1,5	1	100	<b>8,85</b>
262165 *	1,5	1	100	<b>8,85</b>

### Dowel Mounting sockets/Christmas trees

colour: black



Art. No.	W	PU	PrU	EUR
262170 *	37	10	100	<b>11,50</b>
262172	37	10	100	<b>13,29</b>

### Tensioning tools for cable ties



Art. No.	W	kg	PU	EUR	
262151 *	plastic	5	0,240	1	<b>22,79</b>
262152 *	metal	5	0,334	1	<b>130,37</b>
262153	metal	5	0,334	1	<b>104,68</b>
262154	metal	13	0,365	1	<b>102,94</b>
262158 *	metal	10	0,303	1	<b>33,81</b>

### Hook-and-loop cable ties

made from extruded polyamide-velour laminate, Colours: black and green, Hook-and-loop cable ties with loop



Art. No.	W	PU	PrU	EUR	
262750	125	12	20	100	<b>45,58</b>
262752	135	12	20	100	<b>51,16</b>
262754	180	12	20	100	<b>60,44</b>
262756	210	16	20	100	<b>83,60</b>
262758	310	16	20	100	<b>124,15</b>
262760	125	12	20	100	<b>45,58</b>
262762	135	12	20	100	<b>51,16</b>
262764	180	12	20	100	<b>60,44</b>
262768	310	16	20	100	<b>124,15</b>

### Hook-and-loop cable ties

made from extruded polyamide-velour laminate, Colours: black, coil



Art. No.	Col.	W	PU	PrU	EUR	
262780	black	10000	15	1	1	<b>20,95</b>
262782	black	10000	20	1	1	<b>22,14</b>

### Cable ties, accessories

#### Polyethene spiral binding

natural, non-flame resistant



Art. No.	d1	kg	PU	EUR		
262060	30 m	1,5	10	0,141	1	<b>13,43</b>
262062 *	30 m	4	25	0,390	1	<b>13,43</b>
262064 *	30 m	9	32	0,780	1	<b>29,90</b>

#### Polyethene spiral binding

white, flame resistant



Art. No.	d1	kg	PU	EUR		
262066	30 m	1,5	10	0,156	1	<b>16,81</b>
262068 *	30 m	4	25	0,360	1	<b>16,81</b>
262069	30 m	9	32	0,964	1	<b>37,28</b>

#### Polyethene spiral binding

white, flame resistant



Art. No.	d1	kg	PU	EUR		
262030	2 m	8	18	0,141	1	<b>9,45</b>
262031	2 m	15	31	0,141	1	<b>11,50</b>
262032	2 m	20	43	0,141	1	<b>14,22</b>
262033	2 m	25	54	0,141	1	<b>17,71</b>

#### Polyethene spiral binding

black, flame resistant



Art. No.	d1	kg	PU	EUR		
262034	2 m	8	18	0,141	1	<b>9,45</b>
262035	2 m	15	31	0,141	1	<b>11,50</b>
262036	2 m	20	43	0,141	1	<b>14,22</b>
262037	2 m	25	54	0,141	1	<b>17,71</b>











## Electro insulating tape

### Electrical insulating tape "HUPtape-15"

- VDE tested
- DIN EN 60454-3-1
- Water, weather and UV resistant



Art. No.	W	ST	PU	PrU	EUR	
263800 *	15	10 m	0,15	10	1	<b>0,78</b>
263802 *	15	10 m	0,15	10	1	<b>0,80</b>
263804	15	10 m	0,15	10	1	<b>0,80</b>
263806	15	10 m	0,15	10	1	<b>0,80</b>
263808 *	15	10 m	0,15	10	1	<b>0,80</b>
263810 *	15	10 m	0,15	10	1	<b>0,80</b>
263812	15	10 m	0,15	10	1	<b>0,80</b>
263814	15	10 m	0,15	10	1	<b>0,80</b>
263816	15	10 m	0,15	10	1	<b>0,80</b>
263818 *	15	10 m	0,15	10	1	<b>0,80</b>

Art. No.	W	ST	PU	PrU	EUR	
263822	15	20 m	0,15	10	1	<b>1,42</b>
263824	15	20 m	0,15	10	1	<b>1,47</b>
263826	15	20 m	0,15	10	1	<b>1,47</b>
263828	15	20 m	0,15	10	1	<b>1,47</b>
263830	15	20 m	0,15	10	1	<b>1,47</b>
263832	15	20 m	0,15	10	1	<b>1,47</b>
263834	15	20 m	0,15	10	1	<b>1,47</b>
263836	15	20 m	0,15	10	1	<b>1,47</b>
263838	15	20 m	0,15	10	1	<b>1,47</b>
263840	15	20 m	0,15	10	1	<b>1,47</b>

Art. No.	W	ST	PU	PrU	EUR	
263842 *	19	20 m	0,15	8	1	<b>1,78</b>
263844 *	19	20 m	0,15	8	1	<b>1,85</b>
263846	19	20 m	0,15	8	1	<b>1,85</b>
263848	19	20 m	0,15	8	1	<b>1,85</b>
263850 *	19	20 m	0,15	8	1	<b>1,85</b>
263852 *	19	20 m	0,15	8	1	<b>1,85</b>
263854	19	20 m	0,15	8	1	<b>1,85</b>
263856	19	20 m	0,15	8	1	<b>1,85</b>
263858	19	20 m	0,15	8	1	<b>1,85</b>
263860 *	19	20 m	0,15	8	1	<b>1,85</b>

Art. No.	W	ST	PU	PrU	EUR	
263902	19	25 m	0,15	10	1	<b>2,23</b>
263904	19	25 m	0,15	10	1	<b>2,31</b>
263906	19	25 m	0,15	10	1	<b>2,31</b>
263908	19	25 m	0,15	10	1	<b>2,31</b>
263910	19	25 m	0,15	10	1	<b>2,31</b>
263912	19	25 m	0,15	10	1	<b>2,31</b>
263914	19	25 m	0,15	10	1	<b>2,31</b>
263916	19	25 m	0,15	10	1	<b>2,31</b>
263918	19	25 m	0,15	10	1	<b>2,31</b>
263920	19	25 m	0,15	10	1	<b>2,31</b>

Art. No.	W	ST	PU	PrU	EUR	
263882	19	33 m	0,15	8	1	<b>2,22</b>
263884	19	33 m	0,15	8	1	<b>2,34</b>
263886	19	33 m	0,15	8	1	<b>2,34</b>
263888	19	33 m	0,15	8	1	<b>2,34</b>
263890	19	33 m	0,15	8	1	<b>2,34</b>
263892	19	33 m	0,15	8	1	<b>2,34</b>
263894	19	33 m	0,15	8	1	<b>2,34</b>
263896	19	33 m	0,15	8	1	<b>2,34</b>
263898	19	33 m	0,15	8	1	<b>2,34</b>
263900	19	33 m	0,15	8	1	<b>2,34</b>

Art. No.	W	ST	PU	PrU	EUR	
263862	25	20 m	0,15	6	1	<b>2,34</b>
263864	25	20 m	0,15	6	1	<b>2,45</b>
263866	25	20 m	0,15	6	1	<b>2,45</b>
263868	25	20 m	0,15	6	1	<b>2,45</b>
263870	25	20 m	0,15	6	1	<b>2,45</b>
263872	25	20 m	0,15	6	1	<b>2,45</b>
263874	25	20 m	0,15	6	1	<b>2,45</b>
263876	25	20 m	0,15	6	1	<b>2,45</b>
263878	25	20 m	0,15	6	1	<b>2,45</b>
263880	25	20 m	0,15	6	1	<b>2,45</b>

## Rainbow-Pack

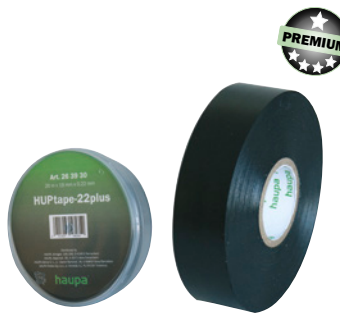
- VDE tested
- DIN EN 60454-3-1
- Water, weather and UV resistant
- 10 pieces



Art. No.	W	ST	PU	PrU	EUR	
263820	15	10 m	0,15	1	1	<b>7,96</b>
263861	19	20 m	0,15	1	1	<b>18,12</b>

### Cold-resistant insulation tape "HUPtape-22plus"

- Excellent wrapping properties
- Can be processed even at very low temperatures
- Extreme weather proof (UV resistant)
- Resistant to corrosion, acids and lyes
- Processing temperature: -18°C to + 60°C
- Individually packaged in plastic box



Art. No.	W	ST	PU	PrU	EUR
263930	19	0,215	1	1	<b>8,07</b>

### Self-welding insulation tape "HUPtape76seal"

- Forms homogenous welding wraps
- Excellent dielectric properties
- Weather proof (UV resistant)
- Insulation on medium voltage cables up to 69 kV
- Resistant to corrosion, acids and lyes
- Individual in box packaging



Art. No.	W	ST	PU	PrU	EUR
263940	19	0,76	1	1	<b>15,55</b>

## Textile tape

- 50 m

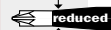


Art. No.	W	Col.	kg	PU	EUR	
393016	50	50 m	grey	0,269	1	<b>20,79</b>



## VDE screwdrivers „HUPslim“ 1000 V

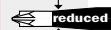
### Screwdriver „HUPslim“ 1000 V with PZ slot profile



Art. No.	size	BL	kg	PU	EUR
102870	1	80 205	0,060	1	<b>10,78</b>
102872	2	100 270	0,094	1	<b>13,50</b>

### Screwdriver set „HUPslim“ 1000 V with PZ slot profile

- Content:**
- 102870
  - 102872



Art. No.	Fo.	set	kg	PU	EUR
102879	PZ/FL	2	0,200	1	<b>18,81</b>

### Electricians' screwdrivers „HUPslim“ 1000 V Slot



Art. No.	CW	KSt	BL	kg	PU	EUR
102914	3,5	0,6	100 185	0,035	1	<b>5,94</b>
102916	4	0,8	100 195	0,052	1	<b>6,40</b>
102918	5,5	1	125 230	0,070	1	<b>8,56</b>
102920	6,5	1,2	150 255	0,108	1	<b>10,80</b>

### Electricians' screwdrivers „HUPslim“ 1000 V Slot



Art. No.	CW	KSt	BL	kg	PU	EUR
102917	4	1	100 195	0,052	1	<b>5,61</b>

### Cross slotted screwdrivers „HUPslim“ 1000 V Phillips



Art. No.	size	BL	kg	PU	EUR
102942	1	80 175	0,061	1	<b>7,55</b>
102944	2	100 205	0,100	1	<b>10,69</b>

## Cross slotted screwdrivers „HUPslim“ 1000 V Pozidriv



Art. No.	size	BL	kg	PU	EUR
102952	1	80 175	0,061	1	<b>8,94</b>
102954	2	100 205	0,095	1	<b>11,76</b>

## Screwdrivers set „HUPslim“ 1000 V



- Content:**
- 102914
  - 102916
  - 102918
  - 102920
  - 102942
  - 102944



Art. No.	Fo.	set	kg	PU	EUR
102999	PH	6	0,414	1	<b>41,86</b>

## Screwdrivers set „HUPslim“ 1000 V



- Content:**
- 102914
  - 102916
  - 102918
  - 102920
  - 102952
  - 102954



Art. No.	Fo.	set	kg	PU	EUR
102999/PZ	PZ	6	0,416	1	<b>42,39</b>

## Screwdrivers set „HUPslimPlus“ 1000 V



- Content:**
- 102870
  - 102872
  - 102914
  - 102916
  - 102917
  - 102918
  - 102942
  - 102944
  - 102952
  - 102954
  - 100647



Art. No.	Fo.	set	kg	PU	EUR
102980	Mix	12	0,850	1	<b>101,48</b>

## VDE screwdrivers 1000 V

### Screwdriver with PZ slot profile



Art. No.	size	BL	kg	PU	EUR
101870	1	80 205	0,060	1	<b>9,58</b>
101872	2	100 270	0,094	1	<b>11,97</b>

### Screwdriver set with PZ slot profile

- Content:**
- 101870
  - 101872



Art. No.	Fo.	set	kg	PU	EUR
101879	PZ/FL	2	0,200	1	<b>15,39</b>

### Electricians screwdrivers Slot



Art. No.	CW	KSt	BL	kg	PU	EUR
101910	2,5	0,4	75 155	0,027	1	<b>4,81</b>
101912	3	0,5	100 185	0,029	1	<b>4,87</b>
101914	3,5	0,6	100 185	0,035	1	<b>5,15</b>
101916	4	0,8	100 195	0,052	1	<b>5,44</b>
101918	5,5	1	125 230	0,070	1	<b>7,32</b>
101920	6,5	1,2	150 255	0,108	1	<b>9,69</b>
101922	8	1,2	175 295	0,177	1	<b>12,95</b>
101924	10	1,6	200 320	0,245	1	<b>16,07</b>

### Electricians screwdrivers Slot



Art. No.	CW	KSt	BL	kg	PU	EUR
101917	4	1	100 195	0,052	1	<b>5,44</b>

### Cross slotted screwdrivers Phillips



Art. No.	size	BL	kg	PU	EUR
101940	0	60 145	0,034	1	<b>6,09</b>
101942	1	80 175	0,061	1	<b>6,81</b>
101944	2	100 205	0,100	1	<b>9,90</b>
101946	3	150 270	0,165	1	<b>13,71</b>

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### Cross slotted screwdrivers Pozidriv



Art. No.	size	BL	kg	PU	EUR
101950	0 60 135	0,033	1	<b>7,05</b>	
101952 *	1 80 175	0,061	1	<b>8,06</b>	
101954 *	2 100 205	0,095	1	<b>10,89</b>	
101956	3 150 270	0,166	1	<b>15,77</b>	

### Screwdrivers Tx



Art. No.	size	BL	kg	PU	EUR
101850	8 100 185	0,053	1	<b>10,25</b>	
101852	9 100 185	0,051	1	<b>10,25</b>	
101854	10 100 195	0,053	1	<b>10,49</b>	
101856 *	15 100 195	0,053	1	<b>10,74</b>	
101858 *	20 100 195	0,052	1	<b>11,36</b>	
101860	25 125 220	0,070	1	<b>11,90</b>	
101862	27 125 230	0,072	1	<b>13,30</b>	
101864	30 150 255	0,109	1	<b>14,54</b>	
101866	40 175 295	0,178	1	<b>17,83</b>	

### Screwdrivers Square



Art. No.	size	BL	kg	PU	EUR
102550	0 60 145	0,034	1	<b>5,08</b>	
102552	1 80 175	0,061	1	<b>5,96</b>	
102554	2 100 205	0,095	1	<b>7,29</b>	
102556	3 150 270	0,166	1	<b>11,18</b>	

### Screwdrivers set 1000 V



#### Content:

- 101910
- 101916
- 101918
- 101920
- 101952
- 101954



Art. No.	Fo.	set	kg	PU	EUR
101999/PZ	PZ	6	0,416	1	<b>41,08</b>

### Screwdrivers set 1000 V



#### Content:

- 101910
- 101916
- 101918
- 101920
- 101942
- 101944



Art. No.	Fo.	set	kg	PU	EUR
101999 *	PH	6	0,414	1	<b>40,53</b>

### Screwdrivers set „Plus“ 1000 V



#### Content:

- 101870
- 101872
- 101910
- 101912
- 101916
- 101918
- 101942
- 101944
- 101952
- 101954
- 101854
- 101856
- 101858
- 101860
- 100647



Art. No.	Fo.	set	kg	PU	EUR
101980	Mix	15	0,414	1	<b>101,48</b>

### VDE socket wrenches 1000 V

#### Socket wrenches DIN 7445



Art. No.	size	BL	kg	PU	EUR
102520	4	125 220	0,105	1	<b>18,13</b>
102522	5	125 220	0,109	1	<b>18,13</b>
102524	5,5	125 220	0,116	1	<b>18,58</b>
102526	6	125 220	0,111	1	<b>18,58</b>
102528	7	125 230	0,116	1	<b>18,58</b>
102530	8	125 230	0,119	1	<b>19,63</b>
102532	9	125 230	0,122	1	<b>21,17</b>
102534	10	125 230	0,125	1	<b>21,36</b>
102536	11	125 245	0,167	1	<b>25,83</b>
102538	12	125 245	0,165	1	<b>27,43</b>
102540	13	125 245	0,175	1	<b>29,09</b>

#### Socket wrenches set DIN 7445

#### Content:

- 102522
- 102524
- 102528
- 102530
- 102534
- 102536
- 102540

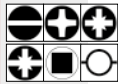


Art. No.	set	kg	PU	EUR
102512	7	1,065	1	<b>153,63</b>



## „Vario“ 1000 V replaceable blade system

### „Vario“ 1000 V replaceable blade system



Art. No.	Fo.	set	kg	PU	EUR
102000-1	PH	8	0,340	1	<b>44,57</b>
102000/PZ-1	PZ	8	0,334	1	<b>44,57</b>

### „Vario“ nylon bag - empty



Art. No.	W	H	D	kg	PU	EUR
102042-1	215	290	30	0,088	1	<b>11,65</b>

### Exchangeable „Vario“ 1000 V handle



Art. No.	Fo.	l	kg	PU	EUR
102040	HEX	120	0,058	1	<b>7,92</b>

### „Vario“ screw cap



Art. No.	l	kg	PU	EUR
102044	10	0,002	1	<b>1,07</b>

### „Vario“ replaceable blade - pozidrive blade/ slotted



Art. No.	size	BL	l	kg	PU	EUR
102010	1	85	165	0,035	1	<b>4,81</b>
102012	2	85	165	0,045	1	<b>4,81</b>

### „Vario“ replaceable blade - slotted blade



Art. No.	CW	KSt	BL	l	kg	PU	EUR
102014	2,5	0,4	85	165	0,013	1	<b>3,23</b>
102016	3	0,5	85	165	0,015	1	<b>3,23</b>
102017	3,5	0,6	85	165	0,080	1	<b>3,87</b>
102018	4	0,8	85	165	0,022	1	<b>3,23</b>
102020	5,5	1	85	165	0,034	1	<b>3,23</b>
102022	6,5	1,2	85	165	0,045	1	<b>3,23</b>

### „Vario“ replaceable blade - Phillips blade



Art. No.	size	BL	l	kg	PU	EUR
102001	0	85	165	0,023	1	<b>3,98</b>
102002	1	85	165	0,035	1	<b>3,98</b>
102004	2	85	165	0,044	1	<b>3,98</b>

### „Vario“ replaceable blade - pozidrive blade



Art. No.	size	BL	l	kg	PU	EUR
102005	0	85	165	0,023	1	<b>3,98</b>
102006	1	85	165	0,035	1	<b>3,98</b>
102008	2	85	165	0,045	1	<b>3,98</b>

### „Vario“ replaceable blade - torx blade



Art. No.	size	BL	l	kg	PU	EUR
102060	8	85	165	0,016	1	<b>3,98</b>
102062	9	85	165	0,016	1	<b>3,98</b>
102064	10	85	165	0,016	1	<b>3,98</b>
102066	15	85	165	0,021	1	<b>3,98</b>
102068	20	85	165	0,021	1	<b>3,98</b>
102070	25	85	165	0,034	1	<b>3,98</b>
102072	30	85	165	0,041	1	<b>3,98</b>

### „Vario“ switch cabinet key - Square



Art. No.	l	kg	PU	EUR	
102030	6	47	0,010	1	<b>1,70</b>
102032	8	47	0,009	1	<b>1,70</b>

### „Vario“ switch cabinet key - Triangular




Art. No.	l	kg	PU	EUR	
102034	9	47	0,009	1	<b>1,70</b>

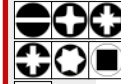
### „Vario“ switch cabinet key - Double-bit



Art. No.	l	kg	PU	EUR	
102036	5,3	47	0,009	1	<b>1,70</b>

## „VarioPro“ 1000 V replaceable blade system

Placeholders for torque handle 



Art. No.	set	W	H	D	kg	PU	EUR
102052	30	410	310	85	3,100	1	<b>345,97</b>

### Tool case „ElektroCombo“



Art. No.	set	W	H	D	kg	PU	EUR
104090 *	78	490	375	100	6,240	1	<b>599,58</b>

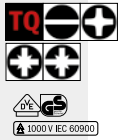
Working under tension

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## „VarioTQ“ 1000 V replaceable blade system

### „VarioTQ“ 1000 V dynamometric screwdriver with replaceable blades - PH/PZ



Art. No.	Fo.	Nm	kg	PU	EUR
102700-1	PH	1 - 6	0,800	1	<b>209,07</b>
102701-1	PH	0,5 - 3,5	0,800	1	<b>209,07</b>
102700/PZ-1	PZ	1 - 6	0,800	1	<b>209,07</b>
102701/PZ-1	PZ	0,5 - 3,5	0,800	1	<b>209,07</b>

### „VarioTQ“ 1000 V nylon bag - empty



Art. No.	W	H	D	kg	PU	EUR
102785-1	215	290	30	0,115	1	<b>20,47</b>

### „VarioTQ“ 1000 V dynamometric screwdriver with replaceable blades - Tx / Hex



Art. No.	Fo.	Nm	kg	PU	EUR
102702-1	TX	1 - 6	0,760	1	<b>201,79</b>
102703-1	TX	0,5 - 3,5	0,760	1	<b>207,36</b>
102706-1	TX+HEX	1 - 6	0,800	1	<b>207,36</b>
102707-1	TX+HEX	0,5 - 3,5	0,800	1	<b>207,36</b>

### „VarioTQ“ 1000 V dynamometric screwdriver with replaceable blades - Hex



Art. No.	Fo.	Nm	kg	PU	EUR
102704-1	HEX	1 - 6	0,340	1	<b>200,06</b>
102705-1	HEX	0,5 - 3,5	0,340	1	<b>207,36</b>

## Exchangeable „VarioTQ“ 1000 V handle



1000 V IEC 60900

Art. No.	Fo.	Nm	kg	PU	EUR
102790	122	1 - 6	0,050	1	<b>99,59</b>
102792	122	0,5 - 3,5	0,200	1	<b>99,59</b>

## Square socket key



Art. No.	Fo.	BL	CW	kg	PU	EUR
102784	SQ	40	8	0,050	1	<b>4,04</b>

## Exchangeable „Vario“ 1000 V handle



1000 V IEC 60900

Art. No.	Fo.	size	kg	PU	EUR
102040	HEX	120	0,058	1	<b>7,92</b>

## „VarioTQ“ 1000 V replaceable blade - PZ/FL



Art. No.	Fo.	size	kg	PU	EUR	
102780	PZ/FL	1	195	0,050	1	<b>7,40</b>
102782	PZ/FL	2	195	0,050	1	<b>7,40</b>

## „VarioTQ“ 1000 V replaceable blade - slotted blade



Art. No.	Fo.	CW	Kst	kg	PU	EUR	
102710	SL	2,5	0,4	195	0,050	1	<b>7,29</b>
102712	SL	3	0,5	195	0,050	1	<b>7,29</b>
102714	SL	4	0,8	195	0,050	1	<b>7,40</b>
102716	SL	5,5	1	195	0,050	1	<b>7,40</b>
102718	SL	6,5	1,2	195	0,050	1	<b>7,40</b>

## „VarioTQ“ 1000 V replaceable blade - Phillips blade



Art. No.	Fo.	size	kg	PU	EUR	
102720	PH	0	195	0,050	1	<b>6,15</b>
102722	PH	1	195	0,050	1	<b>6,15</b>
102724	PH	2	195	0,050	1	<b>6,15</b>
102726	PH	3	195	0,050	1	<b>6,15</b>

## „VarioTQ“ 1000 V replaceable blade - pozidrive blade



Art. No.	Fo.	size	kg	PU	EUR	
102730	PZ	0	195	0,050	1	<b>6,15</b>
102732	PZ	1	195	0,050	1	<b>6,15</b>
102734	PZ	2	195	0,050	1	<b>6,15</b>
102736	PZ	3	195	0,050	1	<b>6,15</b>

## „VarioTQ“ 1000 V replaceable blade - torx blade



Art. No.	Fo.	size	kg	PU	EUR	
102740	TX	8	195	0,050	1	<b>6,76</b>
102742	TX	9	195	0,050	1	<b>6,76</b>
102744	TX	10	195	0,050	1	<b>6,76</b>
102746	TX	15	195	0,050	1	<b>6,76</b>
102748	TX	20	195	0,050	1	<b>6,76</b>
102750	TX	25	195	0,050	1	<b>6,76</b>
102752	TX	30	195	0,050	1	<b>6,76</b>

## „VarioTQ“ 1000 V replaceable blade - hex blade



Art. No.	Fo.	size	kg	PU	EUR	
102760	HEX	2	195	0,050	1	<b>7,06</b>
102762	HEX	3	195	0,050	1	<b>7,06</b>
102764	HEX	3,5	195	0,050	1	<b>7,06</b>
102766	HEX	4	195	0,050	1	<b>7,06</b>
102768	HEX	4,5	195	0,050	1	<b>7,06</b>
102770	HEX	5	195	0,050	1	<b>7,06</b>
102772	HEX	5,5	195	0,050	1	<b>7,06</b>



## VDE pliers, sheathed handles 1000 V

### Combination pliers DIN ISO 5746 VDE

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211198	160	IEC 60900	0,287	1	25,97
211200 *	180	VDE	0,287	1	26,89
211202	200	VDE	0,364	1	29,40

### Side cutters DIN ISO 5749 VDE

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211199	140	IEC 60900	0,237	1	26,43
211204 *	160	VDE	0,237	1	28,39
211206	180	VDE	0,296	1	31,30

### Side cutting pliers with stripping function 1000 V

art. 211207, leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211203	160	IEC 60900	0,296	1	39,23
211207	180	IEC 60900	0,296	1	51,26

### Wire stripping pliers VDE



Art. No.	↔	∅	kg	PU	EUR	
211214 *	160	0,2-6	VDE	0,202	1	29,23

## Heavy duty side cutters DIN ISO 5745 VDE

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211211	160	IEC 60900	0,268	1	36,66
211217 *	170	VDE	0,268	1	37,53

## Heavy duty side cutters DIN ISO 5749 VDE

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211219 *	200	VDE	0,322	1	40,36

## Long chain nose pliers DIN ISO 5745 VDE, straight

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211213	160	IEC 60900	0,255	1	31,54
211208 *	200	VDE	0,255	1	32,32

## Long chain nose pliers DIN ISO 5745 VDE, 45° angled nose

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR	
211209	160	IEC 60900	0,260	1	34,35
211210	200	VDE	0,260	1	35,42

## Short flat nose pliers DIN ISO 5745 VDE



Art. No.	↔	kg	PU	EUR	
211212	160	VDE	0,168	1	24,87

## Short round nose pliers DIN ISO 5745 VDE



Art. No.	↔	kg	PU	EUR	
211216	160	VDE	0,161	1	25,00

## Water pump pliers DIN ISO 8976 VDE



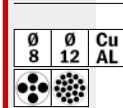
Art. No.	↔	kg	PU	EUR	
211221	240	VDE	0,392	1	47,53

## Pliers wrench VDE



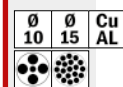
Art. No.	↔	∅	kg	PU	EUR	
211224	280	50	VDE	0,392	1	97,94

## Cable cutters VDE



Art. No.	↔	∅ mm <sup>2</sup>	kg	PU	EUR	
211225 *	160	8 16	VDE	0,215	1	29,14
211223	200	12 35	VDE	0,352	1	44,25

## Cable cutters VDE with spring joint



Art. No.	↔	∅ mm <sup>2</sup>	kg	PU	EUR	
211226	170	10 25	VDE	0,268	1	57,28
211228 *	230	15 70	VDE	0,457	1	68,57



**High leverage | perfected cutting force performance**

High leverage pliers offer power saving of up to 50%.

**haupa**

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### Pliers set VDE, sheathed handles

#### Content:

- 211200
- 211204
- 211208
- 211214



Art. No.	set	kg	PU	EUR
220123 *	4 VDE	1,063	1	<b>114,08</b>

### Fully insulating 1000 V PVC flat nose pliers



Art. No.	l	kg	PU	EUR
120051	190	0,109	1	<b>79,09</b>

### Flat nose pliers 1000 V



Art. No.	l	kg	PU	EUR
120052	160	0,084	1	<b>58,90</b>

## VDE-pliers, 2-coloured coating-insulation 1000 V

### Combination pliers DIN ISO 5746 VDE



Art. No.	l	kg	PU	EUR
210056	180	0,300	1	<b>51,32</b>
210058	200	0,418	1	<b>56,38</b>

### Side cutters DIN ISO 5749 VDE



Art. No.	l	kg	PU	EUR
210100	160	0,253	1	<b>52,69</b>
210102	180	0,303	1	<b>63,72</b>

### Heavy duty side cutters DIN ISO 5749 VDE



Art. No.	l	kg	PU	EUR
210110	240	0,489	1	<b>125,98</b>
210117	180	0,274	1	<b>51,50</b>
210119	200	0,368	1	<b>57,44</b>

### Front cutters 1000 V



Art. No.	l	kg	PU	EUR
210303	160	0,3282	1	<b>63,93</b>

### Long chain nose pliers DIN ISO 5745 VDE



Art. No.	l	kg	PU	EUR
210388	200	0,270	1	<b>57,85</b>

### Long chain nose pliers DIN ISO 5745 VDE, 45°



Art. No.	l	Fo.	kg	PU	EUR
210390	200	45°	0,256	1	<b>61,24</b>

### Short round nose pliers DIN ISO 5745 VDE



Art. No.	l	kg	PU	EUR
210296	160	0,180	1	<b>49,93</b>

### Short flat nose pliers DIN ISO 5745 VDE



Art. No.	l	kg	PU	EUR
210270	160	0,187	1	<b>51,66</b>

### Wire stripping pliers VDE



Art. No.	l	Ø	kg	PU	EUR
210648	160	0,2-6	0,232	1	<b>54,25</b>

### Water pump pliers DIN ISO 8976 1000 V



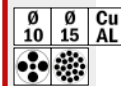
Art. No.	l	kg	PU	EUR
210588	260	0,590	1	<b>107,81</b>

### Water pump pliers DIN ISO 8976 1000 V



Art. No.	l	kg	PU	EUR
210583	240	0,423	1	<b>70,71</b>

### Cable cutters 1000 V with spring joint



Art. No.	l	Ø mm <sup>2</sup>	kg	PU	EUR
200086/VDE	200	10 25	0,274	1	<b>72,79</b>
200088/VDE	230	15 70	0,479	1	<b>77,25</b>

### Pliers set VDE, 2-coloured coating-insulation

**Content:**

- 210056
- 210100
- 210388
- 210648

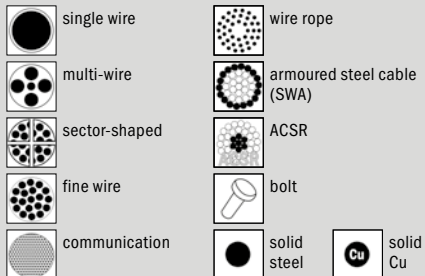


Art. No.	set	kg	PU	EUR
220126	4	1,000	1	<b>197,45</b>

### Tool case „Real“ 1000 V



Art. No.	set	kg	PU	EUR
220148	20	4,300	1	<b>773,47</b>



### VDE pliers, coating-insulated 1000 V, head insulated

#### Combination pliers DIN ISO 5746 1000 V



Art. No.	l	kg	PU	EUR
210263	180	0,306	1	<b>114,26</b>
210264	200	0,372	1	<b>122,62</b>

#### Side cutters DIN ISO 5749 1000 V



Art. No.	l	kg	PU	EUR
210301	160	0,270	1	<b>128,84</b>
210302	180	0,309	1	<b>144,77</b>

#### Long chain nose pliers DIN ISO 5745 1000 V



Art. No.	l	kg	PU	EUR
210266	160	0,182	1	<b>120,08</b>
210267	200	0,236	1	<b>126,31</b>

#### Long chain nose pliers DIN ISO 5745 1000 V, 45°



Art. No.	l	Fo.	kg	PU	EUR
210297	200	45°	0,228	1	<b>134,80</b>

#### Plan grip pliers 1000 V



Art. No.	l	kg	PU	EUR
210298	200	0,215	1	<b>204,55</b>

#### Short flat nose pliers DIN ISO 5745 1000 V



Art. No.	l	kg	PU	EUR
210299	160	0,216	1	<b>108,63</b>

### Long chain nose pliers DIN ISO 5745 1000 V



Art. No.	l	kg	PU	EUR
210300	160	0,191	1	<b>105,73</b>

### Wire stripping pliers 1000 V



Art. No.	l	∅	kg	PU	EUR
210265	160	0,2-6	0,180	1	<b>128,19</b>

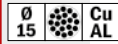
Working under tension

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## Cable cutters, stripping pliers 1000 V

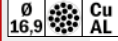
### Cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200127	160	15	50	0,289	1	<b>83,08</b>

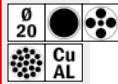
### Cable cutter with a snap 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
201002/VDE	180	16,9	70	0,247	1	<b>74,07</b>

### Cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200120	215	20	70	0,403	1	<b>123,21</b>

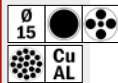
### Double edged cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200128	200	20	50	0,382	1	<b>130,95</b>

### Cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200129	240	15	50	0,484	1	<b>130,83</b>

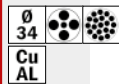
### Allround soft-grip scissors VDE



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
200201	160	70	0,083	1	<b>41,08</b>

## Cable cutters 1000 V

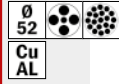
### Ratchet cable cutter with cover 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200109	290	34	240	1,308	1	<b>1.023,07</b>

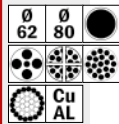
### Ratchet cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	Ø	mm <sup>2</sup>	kg	PU	EUR
200198	52	400	0,942	1	<b>776,83</b>

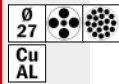
### Ratchet cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	Ø	mm <sup>2</sup>	kg	PU	EUR
200193	62	840	2,200	1	<b>2.049,24</b>
200195	80	1000	3,150	1	<b>2.655,45</b>

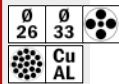
### Cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200123	500	27	150	1,389	1	<b>280,81</b>

### Cable cutter Super light 1000 V

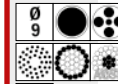


⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200110	600	26	150	2,327	1	<b>421,91</b>
200141	700	33	185	3,292	1	<b>511,35</b>

## Wire cutters 1000 V

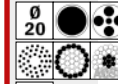
### Wire rope and cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200081	700	9	16	2,880	1	<b>454,07</b>
200081/MK	Spare cutting head		0,350	1		<b>231,44</b>

### Wire rope and cable cutter 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	Ø	mm <sup>2</sup>	kg	PU	EUR
200130	600	20	120	2,348	1	<b>1.054,89</b>
200132	Spare cutting head		0,340	1		<b>661,67</b>

	single wire		wire rope
	multi-wire		armoured steel cable (SWA)
	sector-shaped		ACSR
	fine wire		bolt
	communication		solid steel
			Cu

## Hacksaw frames 1000 V

### Hacksaw frame 1000 V



1000 V IEC 60900

Art. No.	l	Sbl.	kg	PU	EUR
110558	200	150	0,248	1	<b>78,76</b>

### Hacksaw frame 1000 V



1000 V IEC 60900

Art. No.	l	Sbl.	ST	kg	PU	EUR
110559	350	300	18	0,732	1	<b>107,63</b>

## Cable sheath strippers 1000 V

### Cable sheath cutter 1000 V

Video 110561\_67



1000 V IEC 60900

Art. No.	∅	kg	PU	EUR
110561	> 25	0,250	1	<b>297,12</b>
110569	Replacement blade	0,040	1	<b>90,30</b>

### Stripping plier 1000 V



1000 V IEC 60900

Art. No.	∅	kg	PU	EUR
200149	26 - 52	0,739	1	<b>2.558,93</b>

## VDE cable knives 1000 V

### Cable knife VDE

with strong, straight blade



1000 V IEC 60900

Art. No.	BL	kg	PU	EUR
200000 *	50	0,110	1	<b>18,02</b>

### Cable knife VDE with sliding block

with hook blade, specially for slitting



1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200007 *	50	0,120	1	<b>42,49</b>

### Cable knife VDE

with a hook-shaped blade

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200002	35	0,093	1	<b>19,52</b>

### Cable knife VDE

with a hook-shaped insulated blade

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200003	35	0,074	1	<b>28,03</b>

### Cable knife VDE

with a curved blade

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200004	35	0,087	1	<b>20,04</b>

## Cable knife VDE

with a straight, partially-insulated, strong blade

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200005	40	0,106	1	<b>25,91</b>

## Cable knife VDE

with straight, part insulated, strong blade, replaceable blades.

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
201010 *	50	0,067	1	<b>19,10</b>

## Replacement blades, 4-pcs.

suitable for article 201010



Art. No.	BL	kg	PU	EUR
201012	50	0,087	1	<b>25,50</b>

## Cable stripping knife VDE

with a straight, strong blade

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200009	50	0,094	1	<b>19,65</b>

## Cable stripping knife VDE

blade with a slim, straight blade for fine tasks

1000 V IEC 60900



Art. No.	BL	kg	PU	EUR
200013	50	0,094	1	<b>20,15</b>

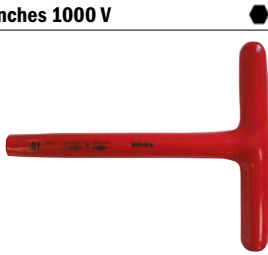
Working under tension

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## Allen keys, spanners 1000 V

### T-Handle socket wrenches 1000 V



1000 V IEC 60900

Art. No.	↕	BL	hdl.	kg	PU	EUR
110000	10	200	160	0,300	1	<b>61,64</b>
110002	11	200	160	0,315	1	<b>61,64</b>
110004	12	200	160	0,320	1	<b>61,64</b>
110006	13	200	160	0,320	1	<b>61,64</b>
110008	14	200	160	0,426	1	<b>62,67</b>
110010	17	200	160	0,401	1	<b>63,39</b>
110012	19	200	160	0,430	1	<b>65,67</b>
110022	11	300	160	0,429	1	<b>72,66</b>
110024	12	300	160	0,375	1	<b>72,72</b>
110026	13	300	160	0,417	1	<b>72,72</b>
110028	14	300	160	0,425	1	<b>72,72</b>
110030	17	300	160	0,530	1	<b>75,32</b>
110032	19	300	160	0,556	1	<b>77,32</b>
110034	22	300	160	0,662	1	<b>79,92</b>
110036	24	300	160	0,990	1	<b>79,92</b>

### Cross type socket wrenches 1000 V



1000 V IEC 60900

Art. No.	↕	BL	kg	PU	EUR
110070	10-11-14-17	200	0,451	1	<b>114,26</b>
110074	11-12-13-17	200	0,225	1	<b>114,22</b>
110076	10-13-14-17	200	0,455	1	<b>114,26</b>
110078	11-13-14-17	200	0,449	1	<b>114,22</b>
110080	13-17-19-22	200	0,502	1	<b>114,26</b>

### Counter hold spanners 1000 V



1000 V IEC 60900

Art. No.	↕	↔	kg	PU	EUR
110081	10	200	0,118	1	<b>79,99</b>
110083	12	200	0,120	1	<b>85,82</b>
110084	13	200	0,171	1	<b>86,80</b>
110085	14	250	0,150	1	<b>89,53</b>
110087	16	260	0,249	1	<b>94,56</b>
110089	17	270	0,255	1	<b>94,56</b>
110091	18	265	0,250	1	<b>94,56</b>
110093	19	270	0,275	1	<b>96,42</b>
110095	20	275	0,300	1	<b>103,23</b>
110097	22	275	0,300	1	<b>103,23</b>
110099	24	270	0,350	1	<b>109,80</b>

## Right angle allen keys 1000 V



1000 V IEC 60900

Art. No.	↕	kg	PU	EUR
110042	3	0,016	1	<b>12,72</b>
110044	4	0,029	1	<b>13,22</b>
110046	5	0,045	1	<b>14,96</b>
110048	6	0,051	1	<b>17,30</b>
110050	8	0,103	1	<b>19,41</b>
110052	10	0,222	1	<b>23,82</b>
110054	12	0,352	1	<b>30,63</b>

### T-handle allen keys 1000 V



1000 V IEC 60900

Art. No.	↕	kg	PU	EUR
110060	5	0,222	1	<b>42,59</b>
110062	6	0,227	1	<b>42,59</b>
110064	8	0,224	1	<b>43,64</b>

### Single ended spanners 1000 V



1000 V IEC 60900

Art. No.	↕	↔	ST	kg	PU	EUR
110260	6	75	3	0,021	1	<b>23,99</b>
110262	7	80	3,5	0,021	1	<b>23,99</b>
110264	8	85	3,5	0,032	1	<b>23,99</b>
110266	9	100	4	0,035	1	<b>23,99</b>
110268	10	120	5	0,037	1	<b>26,67</b>
110270	11	130	5,5	0,044	1	<b>28,90</b>
110272	12	140	5,5	0,064	1	<b>29,13</b>
110274	13	155	6	0,061	1	<b>29,46</b>
110276	14	170	6	0,084	1	<b>32,36</b>
110278	17	185	6,5	0,121	1	<b>34,94</b>
110280	19	210	7,5	0,140	1	<b>36,70</b>
110282	22	230	8,5	0,215	1	<b>40,83</b>
110284	24	250	9,5	0,247	1	<b>46,80</b>
110286	27	290	11,5	0,272	1	<b>60,89</b>
110288	30	345	13	0,390	1	<b>61,94</b>
110290	32	350	15	0,503	1	<b>62,43</b>

### Single ended tool set acc. to VDE 1000 V

#### Content:

- WS: 10, 11, 12, 13, 14, 17, 19,



1000 V IEC 60900

Art. No.	set	empty	kg	PU	EUR
220017	8	220002	1,181	1	<b>280,61</b>

## Ring spanners 1000 V



1000 V IEC 60900

Art. No.	↕	↔	kg	PU	EUR
110300	6	140	0,058	1	<b>31,62</b>
110302	7	140	0,055	1	<b>31,62</b>
110304	8	150	0,070	1	<b>31,62</b>
110306	9	155	0,090	1	<b>31,62</b>
110308	10	160	0,089	1	<b>33,11</b>
110310	11	170	0,085	1	<b>33,11</b>
110312	12	180	0,120	1	<b>34,37</b>
110314	13	195	0,125	1	<b>39,68</b>
110316	14	205	0,152	1	<b>43,48</b>
110318	17	240	0,186	1	<b>46,93</b>
110320	19	260	0,267	1	<b>50,53</b>
110322	22	280	0,284	1	<b>57,17</b>
110324	24	280	0,382	1	<b>65,03</b>

### Ratchet ring spanners 1000 V



1000 V IEC 60900

Art. No.	↕	kg	PU	EUR
110870	8	0,032	1	<b>44,15</b>
110872	9	0,040	1	<b>44,15</b>
110874	10	0,050	1	<b>44,15</b>
110876	11	0,059	1	<b>44,15</b>
110878	12	0,065	1	<b>46,53</b>
110880	13	0,076	1	<b>47,24</b>
110882	14	0,086	1	<b>48,23</b>
110884	15	0,105	1	<b>48,85</b>
110886	16	0,130	1	<b>50,28</b>
110888	17	0,161	1	<b>50,28</b>
110890	18	0,179	1	<b>53,27</b>
110892	19	0,215	1	<b>53,27</b>

### Adjustable wrenches to DIN 3117 A 1000 V



1000 V IEC 60900

Art. No.	↕	↔	kg	PU	EUR
110555	26	200	0,325	1	<b>80,26</b>
110556	31	250	0,512	1	<b>93,55</b>
110557	36	300	0,809	1	<b>124,88</b>

## Reversible ratchets, torque wrenches, extensions, 1/4"



### Reversible ratchet VDE



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
220577	1/4"	150	0,300	1 69,65

### Socket T-wrench VDE



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
220578	1/4"	125	0,241	1 53,17

### Extensions VDE



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
220579	1/4"	100	0,150	1 30,60
220580	1/4"	150	0,250	1 34,39

### Hexagon sockets VDE



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
220581	5 1/4"	40	0,027	1 8,50
220582	6 1/4"	40	0,027	1 8,50
220583	7 1/4"	40	0,029	1 8,50
220584	8 1/4"	40	0,032	1 8,50
220585	9 1/4"	40	0,035	1 8,50
220586	10 1/4"	40	0,047	1 8,50
220587	11 1/4"	40	0,051	1 8,73
220588	12 1/4"	40	0,063	1 8,81
220589	13 1/4"	40	0,036	1 8,91
220590	14 1/4"	40	0,040	1 9,12

### Fittings for hexagon socket screws VDE



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
220591	3 1/4"	55	0,041	1 10,27
220592	4 1/4"	55	0,042	1 10,27
220593	5 1/4"	55	0,042	1 10,27
220594	6 1/4"	55	0,042	1 10,27

## Tool case VDE 1/4"



1000 V IEC 60900

Video 220576



Art. No.	set	drive	kg	PU	EUR
220576 *	18	1/4"	1,250	1	366,09

## Torque wrenches, extensions, hexagon sockets, 1/4"



### Reversible ratchet 1000 V



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110810	1/4"	135	0,122	1 175,47

### Torque wrench 1000 V



1000 V IEC 60900

Art. No.	drive	Nm	kg	PU	EUR
110812	1/4"	2 - 12	200	0,250	1 840,32
110813	1/4"	5 - 25	200	0,420	1 830,26

### Socket T-wrench 1000 V



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110818	1/4"	115	0,156	1 45,65

## Extensions 1000 V



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110814	1/4"	75	0,043	1 31,67
110816	1/4"	150	0,054	1 33,11

### Extension with bit adapter 1000 V



1000 V IEC 60900

Art. No.	Bit drive	kg	PU	EUR
110860	1/4" 1/4"	40	0,023	1 31,12

### Hexagon sockets 1000 V



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110820	5 25 1/4"	0,012	1	19,03
110822	6 25 1/4"	0,012	1	18,49
110824	7 25 1/4"	0,014	1	19,21
110826	8 25 1/4"	0,011	1	19,21
110828	9 25 1/4"	0,016	1	19,21
110830	10 25 1/4"	0,014	1	19,21
110832	11 25 1/4"	0,020	1	19,59
110834	12 25 1/4"	0,021	1	19,79
110836	13 25 1/4"	0,021	1	19,89
110838	14 25 1/4"	0,034	1	20,29

### Inserts for hexagon socket screws 1000 V



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110840	3 1/4"	0,010	1	22,19
110842	4 1/4"	0,014	1	22,14
110844	5 1/4"	0,014	1	22,14
110846	6 1/4"	0,015	1	22,69
110848	8 1/4"	0,021	1	22,69

### Handles with bit adapter 1000 V



1000 V IEC 60900

Art. No.	Bit drive	kg	PU	EUR
110864	1/4" 1/4"	120	0,160	1 47,31
110866	1/4" 1/4"	160	0,248	1 51,77
110868	1/4" 1/4"	250	0,310	1 54,26

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### Tool case for household connections 1000 V TQ 1/4"

Torque key 1000 V, 5 - 25 Nm

**TQ**

1000 V IEC 60900



Art. No.	set	drive	kg	PU	EUR
110869	21	1/4"	1,000	1	<b>1.133,99</b>

### Tool case 1000 V 1/4"

1000 V IEC 60900



Art. No.	set	drive	kg	PU	EUR
110871	22	1/4"	1,600	1	<b>722,99</b>

### Reversible ratchets, torque wrenches, extensions, 3/8"

**3/8"**

#### Reversible ratchet VDE 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220410	3/8"	200	0,300	1 <b>109,30</b>

#### Torque wrench 1000 V TQ 3/8"

**TQ**

1000 V IEC 60900



Art. No.	drive	Nm	kg	PU	EUR
220415	3/8"	390 10 - 50	0,950	1	<b>588,87</b>

#### Socket T-wrench VDE 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220412	3/8"	200	0,241	1 <b>86,89</b>

#### Extensions VDE 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220414	3/8"	125	0,150	1 <b>57,87</b>
220416	3/8"	250	0,250	1 <b>70,34</b>

#### Hexagon sockets VDE 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220418	8 3/8"	44,5	0,027	1 <b>10,86</b>
220420	10 3/8"	44,5	0,027	1 <b>10,86</b>
220422	12 3/8"	44,5	0,029	1 <b>11,27</b>
220424	13 3/8"	44,5	0,032	1 <b>11,50</b>
220426	14 3/8"	44,5	0,035	1 <b>12,26</b>
220428	17 3/8"	44,5	0,047	1 <b>13,45</b>
220430	19 3/8"	46	0,051	1 <b>14,73</b>
220432	22 3/8"	46	0,063	1 <b>16,37</b>

### Hexagon sockets 1000 V, 80 mm 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220418/80	8 3/8"	80	0,052	1 <b>20,75</b>
220420/80	10 3/8"	80	0,060	1 <b>21,28</b>
220422/80	12 3/8"	80	0,068	1 <b>23,28</b>
220424/80	13 3/8"	80	0,074	1 <b>24,45</b>
220426/80	14 3/8"	80	0,076	1 <b>24,45</b>
220428/80	17 3/8"	80	0,096	1 <b>26,91</b>
220430/80	19 3/8"	80	0,110	1 <b>28,76</b>

#### Fittings for hexagon socket screws VDE 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220434	4 3/8"	60	0,036	1 <b>12,69</b>
220436	5 3/8"	60	0,040	1 <b>12,69</b>
220438	6 3/8"	60	0,041	1 <b>12,92</b>
220440	8 3/8"	60	0,042	1 <b>14,73</b>
220353	10 3/8"	60	0,052	1 <b>22,67</b>

#### Fittings for hexagon socket screws 1000 V, 122 mm 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220434/122	4 3/8"	122	0,0055	1 <b>22,67</b>
220436/122	5 3/8"	122	0,056	1 <b>22,67</b>
220438/122	6 3/8"	122	0,056	1 <b>22,67</b>
220440/122	8 3/8"	122	0,072	1 <b>22,67</b>
220353/122	10 3/8"	122	0,094	1 <b>27,07</b>

#### VDE-sockets 3/8", XZN 3/8"

1000 V IEC 60900



Art. No.	drive	kg	PU	EUR
220357/8	8 3/8"	100	0,087	1 <b>25,68</b>
220357/10	10 3/8"	100	0,091	1 <b>25,68</b>
220357/12	12 3/8"	100	0,101	1 <b>27,29</b>

#### Tool case VDE 3/8" 3/8"

1000 V IEC 60900



Art. No.	set	drive	kg	PU	EUR
220402 *	16	3/8"	2,500	1	<b>449,84</b>





## Reversible ratchets, torque wrenches, extensions, 1/2"



### Reversible ratchet VDE



Art. No.	drive	mm	kg	PU	EUR
220450	1/2"	250	0,550	1	143,70

### Socket T-wrench VDE



Art. No.	drive	mm	kg	PU	EUR
220452	1/2"	200	0,330	1	91,33

### Extensions VDE



Art. No.	drive	mm	kg	PU	EUR
220454	1/2"	125	0,208	1	61,60
220456	1/2"	250	0,411	1	76,31

### Hexagon sockets VDE



Art. No.	drive	mm	kg	PU	EUR
220458	10 1/2"	55	0,055	1	14,07
220460	11 1/2"	55	0,055	1	14,07
220462	12 1/2"	55	0,058	1	14,07
220464	13 1/2"	55	0,058	1	14,07
220466	14 1/2"	55	0,061	1	14,22
220468	17 1/2"	55	0,069	1	15,11
220470	19 1/2"	57	0,072	1	15,84
220478	22 1/2"	57	0,087	1	18,58
220480	24 1/2"	57	0,095	1	19,18
220482	27 1/2"	57	0,125	1	23,91
220484	32 1/2"	57	0,170	1	29,32

### Fittings for hexagon socket screws VDE



Art. No.	drive	mm	kg	PU	EUR
220486	4 1/2"	120	0,113	1	20,33
220488	5 1/2"	120	0,113	1	20,33
220490	6 1/2"	120	0,113	1	20,33
220492	8 1/2"	120	0,115	1	20,33
220494	10 1/2"	120	0,134	1	22,14

## Tool case VDE 1/2"



1000 V IEC 60900



Art. No.	set	drive	kg	PU	EUR
220404 *	20	1/2"	4,000	1	593,50

### SysCon S „VDE-Socket“ 1/2"



1000 V IEC 60900



Art. No.	set	empty	kg	PU	EUR
220612	20	220370	4,300	1	679,68

## Torque wrenches, extensions, hexagon sockets, 1/2"



### Reversible ratchet 1000 V



1000 V IEC 60900

Art. No.	drive	mm	kg	PU	EUR
110332/EN	1/2"	255	0,687	1	261,40

### Locked torque wrench 1000 V



Torque must be specified when ordering!



TQ



1000 V IEC 60900

Art. No.	drive	Nm	kg	PU	EUR	
300312/EN	1/2"	5 - 27	280	1,052	1	528,69

### Torque wrenches 1000 V



TQ



1000 V IEC 60900

Art. No.	drive	Nm	kg	PU	EUR	
110058/EN	1/2"	2 - 27	280	1,035	1	888,12
110066/EN	1/2"	5 - 50	370	1,121	1	892,58
110067/EN	1/2"	20 - 100	460	1,493	1	927,33
110068/EN	1/2"	60 - 220	530	1,300	1	1.011,14

### Socket T-wrench 1000 V



1000 V IEC 60900

Art. No.	drive	BL	hdl.	kg	PU	EUR
110040/EN	12,5	200	160	0,452	1	60,22

### Extensions 1000 V



1000 V IEC 60900

Art. No.	drive	mm	kg	PU	EUR
110336/EN	1/2"	125	0,197	1	67,95
110338/EN	1/2"	250	0,389	1	62,19

### Extensions with bit adapter 1000 V



1000 V IEC 60900

Art. No.	Bit drive	kg	PU	EUR
110862	1/4" 1/2"	250	0,165	1 <b>65,98</b>

### Hexagon sockets 1000 V, 50 mm



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110339/EN	8 1/2"	50	0,080	1 <b>25,87</b>
110340/EN	10 1/2"	50	0,056	1 <b>25,78</b>
110342/EN	11 1/2"	50	0,062	1 <b>25,78</b>
110344/EN	12 1/2"	50	0,062	1 <b>25,78</b>
110346/EN	13 1/2"	50	0,066	1 <b>25,78</b>
110348/EN	14 1/2"	50	0,063	1 <b>26,09</b>
110350/EN	17 1/2"	50	0,076	1 <b>26,35</b>
110352/EN	19 1/2"	50	0,072	1 <b>26,35</b>
110354/EN	22 1/2"	50	0,104	1 <b>29,84</b>
110356/EN	24 1/2"	50	0,141	1 <b>31,32</b>
110358/EN	27 1/2"	50	0,191	1 <b>32,36</b>
110360/EN	30 1/2"	50	0,224	1 <b>32,87</b>
110362/EN	32 1/2"	50	0,268	1 <b>33,46</b>

### Hexagon sockets DIN 7448, 1000 V, 80 mm



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110373/EN	10 1/2"	80	0,085	1 <b>60,27</b>
110374/EN	11 1/2"	80	0,110	1 <b>60,27</b>
110375/EN	13 1/2"	80	0,123	1 <b>60,27</b>
110376/EN	14 1/2"	80	0,119	1 <b>60,79</b>
110377/EN	17 1/2"	80	0,157	1 <b>61,68</b>
110378/EN	19 1/2"	80	0,168	1 <b>61,68</b>
110379/EN	22 1/2"	80	0,230	1 <b>66,10</b>

### Hexagon sockets 1000 V, 125 mm



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110346/125	13 1/2"	125	0,250	1 <b>84,13</b>
110348/125	14 1/2"	125	0,260	1 <b>84,13</b>
110350/125	17 1/2"	125	0,280	1 <b>84,56</b>
110352/125	19 1/2"	125	0,295	1 <b>84,56</b>
110354/125	22 1/2"	125	0,310	1 <b>87,58</b>
110356/125	24 1/2"	125	0,330	1 <b>88,35</b>
110358/125	27 1/2"	125	0,350	1 <b>90,30</b>
110360/125	30 1/2"	125	0,380	1 <b>91,24</b>
110362/125	32 1/2"	125	0,410	1 <b>89,13</b>

### Hexagon sockets 1000 V, 250 mm



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
110346/250	13 1/2"	250	0,485	1 <b>87,71</b>
110348/250	14 1/2"	250	0,500	1 <b>87,71</b>
110350/250	17 1/2"	250	0,530	1 <b>88,35</b>
110352/250	19 1/2"	250	0,530	1 <b>88,35</b>
110354/250	22 1/2"	250	0,580	1 <b>88,72</b>
110356/250	24 1/2"	250	0,605	1 <b>91,99</b>
110358/250	27 1/2"	250	0,635	1 <b>94,07</b>
110360/250	30 1/2"	250	0,660	1 <b>94,88</b>
110362/250	32 1/2"	250	0,670	1 <b>95,28</b>

### Fittings for hexagon socket screws 1000 V



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
300294/EN	4 1/2"	70	0,094	1 <b>43,27</b>
300297/EN	5 1/2"	70	0,096	1 <b>43,40</b>
300295/EN	6 1/2"	70	0,101	1 <b>43,40</b>
300303/EN	8 1/2"	70	0,100	1 <b>42,89</b>
300306/EN	10 1/2"	70	0,106	1 <b>46,93</b>

### Tool case 1000 V



with locking system



1000 V IEC 60900



Art. No.	set	drive	kg	PU	EUR
220205/EN	16	1/2"	4,080	1	<b>1.038,92</b>

### Tool case „Biber“ 1000 V



with locking system



1000 V IEC 60900



Art. No.	set	drive	kg	PU	EUR
220146	26	1/2"	5,000	1	<b>1.159,96</b>

### Safety tools

#### Alignment tool for sector conductor 1000 V



Art. No.	mm <sup>2</sup>	kg	PU	EUR
110704	95 - 150	0,068	1	<b>142,19</b>
110705	185 - 240	0,088	1	<b>217,05</b>

#### Universal alignment tool for sector conductor 1000 V

50, 70, 95, 150, 185, 240 mm<sup>2</sup>



1000 V IEC 60900

Art. No.	kg	PU	EUR
110709	1,051	1	<b>285,77</b>

#### Counterholder 1000 V for Screw cable shoes



1000 V IEC 60900

Art. No.	drive	kg	PU	EUR
120101	0 15 240	0,680	1	<b>160,76</b>
120103	15 40 220	0,424	1	<b>186,94</b>
120104	25 50 300	0,680	1	<b>452,61</b>

#### Plastic wedges 1000 V



1000 V IEC 60900

Art. No.	W	kg	PU	EUR
120102	225 45 300	0,234	1	<b>56,42</b>

#### Plastic wedges 1000 V



1000 V IEC 60900

Art. No.	W	kg	PU	EUR
120100	200 25 300	0,085	1	<b>38,68</b>

#### Plastic wedges 1000 V



1000 V IEC 60900

Art. No.	groove	kg	PU	EUR
120094	without	0,051	1	<b>23,25</b>

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### Cleaning brushes Safety Line



Art. No.	W	kg	PU	EUR
150036	420	25	0,053	1 <b>18,15</b>
150037	420	28	0,061	1 <b>19,82</b>
150038	420	50	0,100	1 <b>21,86</b>

### Electrician's safety levels



Art. No.	W	kg	PU	EUR
240057	400	0,188	1	<b>25,16</b>
240058	600	0,274	1	<b>20,62</b>

### PVC hammer 1000 V



1000 V IEC 60900

Art. No.	Ø	kg	PU	EUR
180295	290	25	0,570	1 <b>162,13</b>
180297	290	35	0,825	1 <b>179,92</b>

### Combined dowel and contact spanners



Art. No.	TMA	kg	PU	EUR
120002 *	105	0,046	1	<b>13,61</b>

### Insulated tweezers VDE 1000 V

pointed



1000 V IEC 60900

Art. No.	W	kg	PU	EUR
211060	130	0,029	1	<b>31,32</b>

### Insulated tweezers VDE 1000 V

pointed round, bent



1000 V IEC 60900

Art. No.	W	kg	PU	EUR
211062	150	0,031	1	<b>32,50</b>

### Insulated tweezers VDE 1000 V

wide round, flat

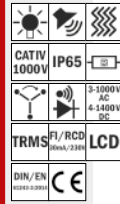


1000 V IEC 60900

Art. No.	W	kg	PU	EUR
211064	145	0,042	1	<b>30,63</b>

## Voltage testers

### Voltage tester "Profi LCDplus II"



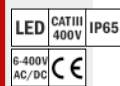
Art. No.	TMA	kg	PU	EUR
103826	3 - 1000	300	0,600	1 <b>214,40</b>

### Voltage tester "Profi LEDplus II"



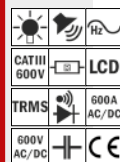
Art. No.	TMA	kg	PU	EUR
103824	6 - 1000	300	0,280	1 <b>139,50</b>

### Voltage tester "Basic +"



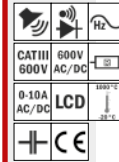
Art. No.	TMA	kg	PU	EUR
103800	6 - 400	210	0,097	1 <b>48,68</b>

### "Multi Clamp II" - digital miniature clamp transducer AC/DC 600 V



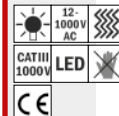
Art. No.	kg	PU	EUR
103809	0,433	1	<b>259,16</b>

### "Multi Check III" - digital high-capacity multimeter



Art. No.	kg	PU	EUR
103815	0,433	1	<b>201,83</b>

### Voltage tester "TestPen Profi"



Art. No.	TMA	kg	PU	EUR
103817	12 - 1000	140	0,190	1 <b>55,96</b>

### Voltage tester VDE/GS



Art. No.	TMA	kg	PU	EUR
100700 *	125 - 250	190	0,036	1 <b>3,53</b>

## Personal protection equipment

### HUPsafetyGloves - Insulating finger gloves according to DIN EN 60903

Note: The insulating gloves HUPsafetyGloves must be stored in their original packaging in order to avoid damage to the product.\*



DIN EN 60903

Art. No.	Class	ST size	kg	PU	EUR
120004	00	360 1,1	9 0,270	1	57,17
120005	00	360 1,1	10 0,293	1	57,17
120006 *	0	360 1,6	9 0,270	1	68,01
120007 *	0	360 1,6	10 0,400	1	68,01
120007/1	0	360 1,6	11 0,300	1	68,01
120006 561	1	360 2,1	10 0,646	1	103,92
120006 564 S	2	360 2,9	10 0,727	1	122,92
120006 587	3	360 3,5	10 0,947	1	144,35

### HUPflashGloves - Insulating finger gloves according to DIN EN 60903, Arc flash tested

Note: The insulating gloves HUPflashGloves must be stored in their original packaging in order to avoid damage to the product.\*



IEC 61482-1-2



DIN EN 60903



Art. No.	Class	ST size	kg	PU	EUR
121020/9	0	410 2,9	9 0,510	1	150,02
121020/10	0	410 2,9	10 0,520	1	150,02
121020/11	0	410 2,9	11 0,530	1	150,02
121021/10	1	410 3,4	10 0,670	1	184,63
121022/10	2	410 3,9	10 0,770	1	217,22
121023/10	3	410 4,2	10 0,800	1	281,49
121024/10	4	410 4,8	10 0,940	1	390,03

Class	Alternating Current	Direct Current
00	500	750
0	1.000	1.500
1	7.500	11.250
2	17.000	25.500
3	26.500	39.700
4	36.000	54.000

### Glove tester

Pneumatic tester for electrician's protective gloves. It is recommended to carry out a test of this nature before starting work.



Art. No.	kg	PU	EUR
120109	0,800	1	625,26

### Cotton gloves for putting underneath



Art. No.	size	kg	PU	EUR
120003	275	0,041	1	8,94

### Heat protection gloves acc. to EN 407



Art. No.	size	kg	PU	EUR
120011	260	0,039	1	52,16

### Outer gloves



Art. No.	size	ST	kg	PU	EUR
120028	L 10	300	0,8	0,070	1 80,83

### Set with protective gloves EN 60903

Content: 120006, 120028, 120003



Art. No.	set	kg	PU	EUR
120029	400 4	0,900	1	176,05

### Set with protective gloves EN 60903 light

Content: 120006, 120003



Art. No.	set	kg	PU	EUR
120037	400 3	0,640	1	95,15

### Safety fuse grips



Art. No.	kg	PU	EUR
120012 *	0,563	1	85,74

### Leather working glove



Art. No.	size	size	kg	PU	EUR
120310	L	10,5	250	0,106	12 3,76

### PU textile glove



Art. No.	size	size	kg	PU	EUR
120300/6	XXS	6	250	0,027	12 1,53
120300/7	XS	7	250	0,027	12 1,53
120300/8	S	8	250	0,027	12 1,53
120300/9	M	9	250	0,027	12 1,53
120300/10	L	10	250	0,027	12 1,53
120300/11	XL	11	250	0,027	12 1,53

### PU cut-protection glove, level 3



Art. No.	size	size	kg	PU	EUR
120302/9	M	9	260	0,049	1 8,77
120302/10	L	10	260	0,049	1 8,77
120302/11	XL	11	260	0,049	1 8,77

### PU cut-protection glove, level 5



Art. No.	size	size	kg	PU	EUR
120304/9	M	9	260	0,069	1 9,52
120304/10	L	10	260	0,069	1 9,52
120304/11	XL	11	260	0,069	1 9,52

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### Electricians' protection helmets acc. to DIN EN 50365

⚡ 1000 V | Class 0



Art. No.	Col.	kg	PU	EUR
120008	green	0,558	1	<b>30,35</b>
120008 GELB	yellow	0,343	1	<b>30,35</b>
120008 ROT *	red	0,343	1	<b>30,35</b>
120008 WEISS	white	0,343	1	<b>30,35</b>

### Electricians' protection helmets acc. to DIN EN 50365, Arc flash tested

⚡ 1000 V | Class 0



Art. No.	Col.	kg	PU	EUR
120041	red	0,370	1	<b>66,16</b>

### Electricians' protection visor acc. to EN 166



Art. No.	kg	PU	EUR
150377	0,373	1	<b>219,02</b>

### Electricians' safety face mask class II



Art. No.	kg	PU	EUR
120034	0,275	1	<b>313,61</b>

### Electricians' protection visor acc. to EN 166



Art. No.	kg	PU	EUR
120010 *	0,275	1	<b>89,10</b>

### Safety glasses acc. to EN 166



Art. No.	kg	PU	EUR
120087 *	0,031	1	<b>8,31</b>

### Safety glasses acc. to EN 166



Art. No.	kg	PU	EUR
120088 *	0,029	1	<b>9,26</b>

### Ear defenders acc. to EN 352



Art. No.	dB	Col.	kg	PU	EUR
120112	26	blue	0,184	1	<b>51,32</b>

### Ear defenders acc. to EN 352



Art. No.	dB	Col.	kg	PU	EUR
120111	23	red	0,143	1	<b>29,22</b>

### Ear muffs for helmet

Ear muffs including helmet holder, SNR 23 for all currently available protective helmets.



Art. No.	dB	Col.	kg	PU	EUR
120116	23	green	0,184	1	<b>51,32</b>

### Ear protection plugs



Art. No.	dB	Col.	kg	PU	EUR
120115	38	blue	0,010	1	<b>4,21</b>

### Dust masks



Art. No.	FFP	kg	PU	EUR
120120	FFP1	0,010	1	<b>3,17</b>
120122	FFP2	0,014	1	<b>8,19</b>

### Electricians' boots acc. to EN 50321 Class 0



Art. No.	size	Col.	kg	PU	EUR
120014	42	white	2,160	1	<b>199,09</b>
120015	43	white	2,235	1	<b>199,09</b>
120016	44-45	white	2,400	1	<b>199,09</b>
120017	46	white	2,550	1	<b>199,09</b>
120018	47	white	2,160	1	<b>199,09</b>

### Security bag, empty



Art. No.	H	W	D	kg	PU	EUR
300420	600	390	50	0,680	1	<b>47,61</b>

### Safety-sets VDE/GS

#### Content:

- 300420
- 120007\*
- 120008 ROT
- 120010
- 120012
- 120030



Art. No.	set	kg	PU	EUR
300228 *	6	6,860	1	<b>386,40</b>
300229	5 without mat	3,480	1	<b>319,43</b>

### SysCon XL „SafetySet“



#### Content:

- 220650
- 120007\*
- 120008 ROT
- 120010
- 120012



Art. No.	set	empty	kg	PU	EUR
220652	5	220650	6,620	1	<b>450,99</b>

### Climping irons acc. to DIN 48 345

wide counter



Art. No.	kg	PU	EUR
150280	4,050	1	<b>1.215,39</b>

### Safety belts acc. EN 358



Art. No.	kg	PU	EUR
150240	1,210	1	<b>193,45</b>

### Fallstop acc. to EN 354



Art. No.	kg	PU	EUR
150274	1,090	1	<b>161,94</b>

### Travelling safety device DIN 353-2, Type ASK 1



Art. No.	Ø	kg	PU	EUR
150275	12 5 m	1,953	1	<b>401,17</b>
150276	12 10 m	2,482	1	<b>429,14</b>
150277	12 15 m	3,062	1	<b>525,64</b>
150278	12 20 m	3,174	1	<b>485,81</b>
150279	12 25 m	3,675	1	<b>507,85</b>

### Safety harness DIN EN 361



Art. No.	kg	PU	EUR
150270	1,614	1	<b>191,38</b>

### Personal safety set



Art. No.	set	kg	PU	EUR
150258	4	4,961	1	<b>681,47</b>

## Safety tools

### Insulating floor mats acc. to IEC-61111

with anti-skid surfaces, colour: grey,  
art: 120030, 120031 = Class 2 / 17.000 Volt  
art: 120033 = Class 4 / 36.000 Volt



Art. No.	KV	W	ST	kg	PU	EUR
120030 *	17	1000	1000	3	3,754	1 <b>94,74</b>
120031	17	1000	1000	3	33,000	1 <b>947,40</b>
120033	36	1000	1000	4,5	63,800	1 <b>1.147,95</b>

### Isolating magnetic rubber towels

1000V



Art. No.	WSTmagn.	kg	PU	EUR
120160	300 500 1 6	0,037	1	<b>429,38</b>
120162	500 700 1 12	0,037	1	<b>955,65</b>
120164	300 700 1 8	0,037	1	<b>544,56</b>
120166	1100 1100 1 20	0,037	1	<b>1.454,99</b>

### VDE magnet for rubber cloth

1000V



Art. No.	W	ST magn.	kg	PU	EUR
120168	70 70	1 1	0,037	1	<b>38,96</b>

### Rubber towels acc. to VDE 0680/1

1000V



Art. No.	W	ST	kg	PU	EUR
120040	120 120	1,6	0,037	1	<b>9,98</b>
120042	350 250	1,6	0,193	1	<b>35,91</b>
120044	600 600	1,6	1,000	1	<b>134,00</b>
120046 *	1000 1000	1,6	2,485	1	<b>126,81</b>
120048	1200 1200	1,6	3,200	1	<b>445,81</b>

### Covering blankets transparent



Art. No.	W	ST	kg	PU	EUR
120200	50000 1300	0,5	41,500	1	<b>6.528,79</b>
150322	25000 1200	1	38,000	1	<b>4.389,73</b>

### Covering blankets transparent



Art. No.	W	ST	kg	PU	EUR
150302	1000 600	1	0,750	1	<b>296,38</b>
150304	1000 600	0,5	0,332	1	<b>288,30</b>
150306	1000 400	1	0,520	1	<b>240,56</b>
150308	1000 400	0,5	0,260	1	<b>230,04</b>
150310	1000 300	1	0,380	1	<b>219,47</b>
150312	1000 300	0,5	0,190	1	<b>216,39</b>
150314	600 400	1	0,340	1	<b>177,31</b>
150316	600 400	0,5	0,171	1	<b>169,26</b>
150318	400 300	1	0,170	1	<b>133,95</b>
150320	400 300	0,5	0,100	1	<b>127,11</b>

### Plastic clips 1000 V

1000V



Art. No.	kg	PU	EUR
120049	80 25	0,029	1 <b>18,33</b>
120050 *	160 40	0,069	1 <b>18,85</b>

### Self adhesive PVC tape

1000V



Art. No.	Col.	kg	PU	EUR
120095	10000 grey	0,192	1	<b>45,56</b>
120096	10000 red	0,190	1	<b>45,56</b>

### Slip on bushes 1000 V

1000V IEC 60900



Art. No.	Ø	No.	kg	PU	EUR
120060 *	80 10	1	0,008	1	<b>1,85</b>
120062	80 10	2	0,008	1	<b>1,85</b>
120064	80 10	3	0,008	1	<b>1,85</b>

### Slip on bushes 1000 V

1000V IEC 60900



Art. No.	Ø	kg	PU	EUR
120070	75 10	0,011	1	<b>5,33</b>
120072	100 20	0,024	1	<b>6,00</b>
120074	120 30	0,0458	1	<b>6,88</b>
120071	135 40	0,372	1	<b>10,04</b>
120069	155 50	0,172	1	<b>16,20</b>
120073	150 60	0,144	1	<b>20,29</b>

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### Insulator cover for gable insulators 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	W	kg	PU	EUR
120079		245 270	0,900	1	<b>59,78</b>

### Insulator cover for gable insulators 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	W	kg	PU	EUR
120089		115 270	1,100	1	<b>58,41</b>

### Insulating and protecting covers 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	kg	PU	EUR
120057	80	0,400	1	<b>41,55</b>
120059	300	0,775	1	<b>49,79</b>

### NH-protecting caps 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	W	kg	PU	EUR
120058	315	170	0,390	1	<b>44,08</b>

### NH-protecting caps 1000 V



⚠ 1000 V IEC 60900

Art. No.	↔	W	kg	PU	EUR
120077	170	140	0,155	1	<b>40,32</b>
120078	255	135	0,205	1	<b>41,35</b>



## Lockout/Tagout & access control systems

### Security lock hasp-Ø 4.7 mm

Contents: 1 key (1 operator = 1 padlock = 1 key)

NEW



Art. No.	Ø	W	H	kg	PU	EUR
120155	4,76	35	86	0,0951	1	41,72

### Security lock hasp-Ø 6 mm

Contents: 1 key (1 operator = 1 padlock = 1 key)

NEW



Art. No.	Ø	W	H	kg	PU	EUR
120156	6	38	82	0,0951	1	41,68

### Lockout hasp made of aluminium

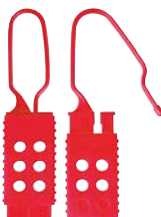
NEW



Art. No.	Ø	kg	PU	EUR
120157	6	0,045	1	15,28

### Lockout hasp made of plastic

NEW



Art. No.	Ø	kg	PU	EUR
120158	6	0,0272	1	14,40

### Safety lockout for circuit breakers

NEW



Art. No.	Ø	kg	PU	EUR
120159	6	0,021	1	32,84

### Lockout for standard circuit breakers

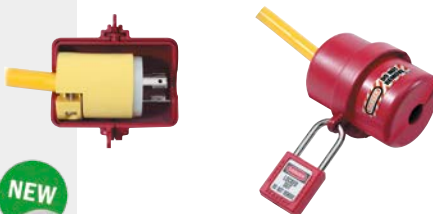
NEW



Art. No.	Ø	kg	PU	EUR
120170	6	0,068	1	18,24

### Lockout device for 120 - 240 V plugs

NEW



Art. No.	kg	PU	EUR
120171	0,0997	1	27,76

### Lockout device for 16 - 32 A CEE plugs

NEW



Art. No.	kg	PU	EUR
120172	0,1993	1	45,12

### Adjustable multi-lock cable

NEW



Art. No.	Ø	kg	PU	EUR
120173	6	0,2265	1	55,56

### Security lockout set

NEW



Art. No.	set	kg	PU	EUR
120174	9	0,506	1	150,56

### Sign "Do not operate" | English

Lockout tags in English (each bag contains 12 tags)

NEW



Art. No.	W	kg	PU	EUR	
120175	146	80	0,118	1	57,24

### Sign "Do not operate" | German

Lockout tags in German (each bag contains 12 tags)

NEW



Art. No.	W	kg	PU	EUR	
120176	146	80	0,118	1	57,24

### Sign "Do not operate" | Spanish

Lockout tags in Spanish (each bag contains 12 tags)

NEW



Art. No.	W	kg	PU	EUR	
120177	146	80	0,118	1	57,24

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## Sealing pliers and accessories

### Sealing pliers



Art. No.	↔	∅	kg	PU	EUR
210700 *	125	8	0,243	1	<b>137,16</b>
210702	145	9	0,316	1	<b>146,38</b>
210704	165	10	0,448	1	<b>163,18</b>

### Dies for sealing pliers



Art. No.	∅	kg	PU	EUR
210710	8	0,004	1	<b>5,41</b>
210712	9	0,004	1	<b>5,41</b>
210714	10	0,006	1	<b>5,28</b>

### Engraving for sealing pliers

Special engraving on request

Art. No.		PU	EUR
210731	up to 3 letters	1	<b>36,51</b>
210732	every further letter	1	<b>12,17</b>
210733	every border	1	<b>36,39</b>

### Lead seals



Art. No.	∅	Quant. per kg	kg	PU	EUR
150340	8	850	1,080	1	<b>47,95</b>
150342	9	600	1,110	1	<b>43,22</b>
150344	10	400	1,010	1	<b>42,48</b>

### Plastic seals



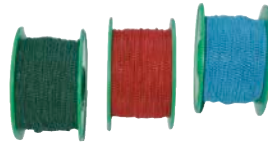
Art. No.	∅	kg	PU	EUR
150343 *	9	0,00020	1000	<b>58,35</b>
150345	10	0,00030	1000	<b>64,62</b>

### Seal wire



Art. No.	↔	∅1	∅2	kg	PU	EUR
150360 *	115 m	0,5	0,5	0,532	1	<b>22,33</b>
150362	230 m	0,5	0,5	1,041	1	<b>39,40</b>
150364	190 m	0,5	0,3	0,530	1	<b>25,95</b>
150366	380 m	0,5	0,3	1,035	1	<b>45,89</b>
150368	300 m	0,3	0,3	0,533	1	<b>36,03</b>
150370	600 m	0,3	0,3	1,037	1	<b>66,08</b>

## Plastic seal wire



Art. No.	↔	∅1	∅2	kg	PU	EUR
150375 BLAU	100 m	0,5	0,6	0,199	1	<b>26,41</b>
150375 GRÜN	100 m	0,5	0,6	0,220	1	<b>26,42</b>
150375 ROT	100 m	0,5	0,6	0,207	1	<b>26,42</b>

## Accessories

### Parallel rope tension clamps



Art. No.	mm <sup>2</sup>	∅	load	kg	PU	EUR
130064	6 - 35	3 - 8	1000	0,890	1	<b>182,01</b>
130066	16 - 70	4 - 12	1400	1,262	1	<b>211,91</b>
130068	50 - 100	8 - 16	2500	1,920	1	<b>293,81</b>

### Tackle blocks



Art. No.	↔	∅	load	kg	PU	EUR
130004	50	8	200	1,820	1	<b>221,99</b>
130006	60	10	250	1,700	1	<b>255,45</b>

### Hemp tackle block ropes



Art. No.	↔	∅	kg	PU	EUR
130042	20000	8	0,950	1	<b>39,02</b>
130044	20000	10	1,519	1	<b>54,63</b>

## Screwdrivers

### Electricians' screwdrivers Slot



Art. No.	SB	KSt	BL	kg	PU	EUR
101604 *	2,5	0,4	75	160	0,027	1 <b>4,27</b>
101606	4	0,8	100	195	0,051	1 <b>5,02</b>
101608	4	0,8	125	220	0,054	1 <b>5,58</b>
101610	5	1	150	245	0,067	1 <b>7,32</b>
101612	5	1	175	270	0,069	1 <b>7,74</b>
101614	5	1	200	295	0,074	1 <b>8,17</b>

### Engineers' screwdrivers Slot



Art. No.	SB	KSt	BL	kg	PU	EUR
101640	5	0,4	75	170	0,056	1 <b>6,22</b>
101642 *	6	1,2	100	205	0,090	1 <b>8,44</b>
101644	7	1,2	125	230	0,109	1 <b>9,34</b>
101646	8	1,2	150	270	0,160	1 <b>12,11</b>
101648	9	1,6	175	295	0,170	1 <b>14,16</b>
101650	10	1,6	200	320	0,238	1 <b>14,61</b>

### Cross slotted screwdrivers Phillips



Art. No.	size	BL	kg	PU	EUR
101684	0	60	145	0,032	1 <b>5,29</b>
101686	1	80	175	0,055	1 <b>6,53</b>
101688 *	2	100	205	0,087	1 <b>8,44</b>
101690	3	150	270	0,161	1 <b>12,21</b>

### Cross slotted screwdrivers Pozidriv



Art. No.	size	BL	kg	PU	EUR
102612	1	80	175	0,055	1 <b>8,06</b>
102614 *	2	100	205	0,088	1 <b>9,96</b>
102616	3	150	270	0,160	1 <b>14,62</b>

### Screwdrivers Tx



Art. No.	size	BL	kg	PU	EUR
101229/6	6	100	185	0,036	1 <b>8,34</b>
101230	8	100	185	0,036	1 <b>8,34</b>
101200	9	100	185	0,036	1 <b>10,39</b>
101202	10	100	195	0,057	1 <b>10,93</b>
101204	15	100	195	0,054	1 <b>10,93</b>
101206	20	100	195	0,058	1 <b>11,80</b>
101208	25	125	195	0,064	1 <b>11,88</b>
101210	27	125	230	0,093	1 <b>12,65</b>
101211	30	150	255	0,093	1 <b>14,09</b>

### Screwdrivers Square



Art. No.	size	BL	kg	PU	EUR
103130	0	60	145	0,032	1 <b>4,51</b>
103132	1	80	175	0,055	1 <b>5,27</b>
103134	2	100	205	0,087	1 <b>6,27</b>
103136	3	150	270	0,161	1 <b>9,63</b>

## Screwdriver set Tx

### Content:

- 101202
- 101204
- 101206
- 101208
- 101211



Art. No.	Fo.	set	kg	PU	EUR
101212/S *	TX	5	0,337	1	<b>60,65</b>

## Screwdrivers - blade PCV covered

### Electricians' screwdrivers Slot

blade PCV covered



Art. No.	SB	KSt	BL	kg	PU	EUR
101520 *	2,5	0,4	75	160	0,027	1 <b>4,78</b>
101521	3	0,5	100	195	0,030	1 <b>4,87</b>
101522	4	0,8	100	195	0,051	1 <b>5,96</b>
101524	4	0,8	125	220	0,054	1 <b>6,47</b>
101526	5	1	150	245	0,068	1 <b>8,34</b>
101528	5	1	175	270	0,072	1 <b>8,61</b>
101530	5	1	200	295	0,078	1 <b>9,56</b>

### Engineers' screwdrivers Slot

blade PCV covered



Art. No.	SB	KSt	BL	kg	PU	EUR
101532	5	1	75	170	0,057	1 <b>6,81</b>
101534	6	1,2	100	205	0,091	1 <b>9,43</b>
101536	7	1,2	125	230	0,114	1 <b>10,14</b>
101538	8	1,2	150	270	0,146	1 <b>13,06</b>
101540	9	1,6	175	295	0,210	1 <b>15,46</b>
101541	10	1,6	200	320	0,214	1 <b>16,28</b>

### Cross slotted screwdrivers Phillips

blade PCV covered



Art. No.	size	BL	kg	PU	EUR
101542	0	60	145	0,032	1 <b>6,18</b>
101544	1	80	175	0,059	1 <b>7,64</b>
101546 *	2	100	205	0,091	1 <b>9,26</b>
101548	3	150	270	0,147	1 <b>13,64</b>

### Cross slotted screwdrivers Pozidriv

blade PCV covered



Art. No.	size	BL	kg	PU	EUR
101550	1	80	175	0,056	1 <b>8,50</b>
101552 *	2	100	205	0,088	1 <b>10,29</b>
101554	3	150	270	0,146	1 <b>16,28</b>

## Screwdriver set

blade PCV covered

- ### Content:
- 101520
  - 101524
  - 101534
  - 101536
  - 101544
  - 101547



Art. No.	Fo.	set	kg	PU	EUR
101560	PH	6	0,431	1	<b>39,25</b>

## Screwdriver set

blade PCV covered

- ### Content:
- 101520
  - 101524
  - 101534
  - 101536
  - 101550
  - 101553



Art. No.	Fo.	set	kg	PU	EUR
101562	PZ	6	0,429	1	<b>40,53</b>

## Screwdrivers

### Stubby gasifier screwdrivers



Art. No.	SB	BL	kg	PU	EUR
103120	6	30	80	0,050	1 <b>5,46</b>
103122	8	40	90	0,051	1 <b>5,92</b>

### Stubby gasifier cross slot screwdrivers Phillips



Art. No.	size	BL	kg	PU	EUR
103080	1	30	80	0,051	1 <b>5,59</b>
103082	2	40	90	0,051	1 <b>6,09</b>

### Piercing awls



Art. No.	Fo.	ØBL	BL	kg	PU	EUR
103470	○	6	100	0,083	1	<b>6,28</b>
103472	□	6	100	0,085	1	<b>6,81</b>

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## Socket wrenches

### Socket wrenches



Art. No.	⌀	BL	↔	kg	PU	EUR
101484	5	125	220	0,105	1	<b>10,50</b>
101486	5,5	125	220	0,107	1	<b>10,50</b>
101488	6	125	220	0,110	1	<b>10,50</b>
101490	7	125	230	0,113	1	<b>11,04</b>
101492	8	125	230	0,115	1	<b>11,45</b>
101494	9	125	230	0,120	1	<b>11,95</b>
101496	10	125	230	0,124	1	<b>12,35</b>
103498	11	125	245	0,111	1	<b>24,53</b>
101500	12	125	245	0,165	1	<b>15,18</b>
101502	13	125	245	0,171	1	<b>17,01</b>

### Socket wrenches set

#### Content:

- 101484
- 101486
- 101490
- 101492
- 101496
- 103498
- 101502



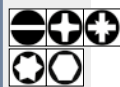
Art. No.	set	kg	PU	EUR
101510	7	0,898	1	<b>92,73</b>

## HAUPA replaceable blade system

### Industrial screwdriver set „Vario S2“ with replaceable dual blades.

#### Blade types:

- Slotted 3, 4, 5, 7
- Phillips 0, 1, 2, 3
- Pozidriv 0, 1, 2, 3
- Tx 10, 15, 20, 25
- Hexagonal 2, 3, 4, 5



Art. No.	set	kg	PU	EUR
104008-1	11	1,060	1	<b>92,09</b>

## HAUPA replaceable blade system „VarioTQ“

### „VarioTQ“ dynamometric screwdriver with replaceable blades

VarioTQ



Art. No.	Fo.	Nm	kg	PU	EUR
103000-1	Mix	1 - 6	0,835	1	<b>159,25</b>
103002-1	Mix	0,5 - 3,5	0,835	1	<b>207,36</b>

### „VarioTQ“ nylon bag - empty



Art. No.	W	H	D	kg	PU	EUR
103034-1	250	135	30	0,080	1	<b>18,43</b>

### Exchangeable „VarioTQ“ handle



Art. No.	↔	Nm	kg	PU	EUR
103070	125	1 - 6	0,350	1	<b>96,12</b>
103072	125	0,5 - 3,5	0,350	1	<b>96,12</b>

### Square socket key



Art. No.	Fo.	BL	CW	kg	PU	EUR
102784	SQ	40	8	0,050	1	<b>4,04</b>

### Replaceable blade - slotted blade

VarioTQ



Art. No.	Fo.	KB	BL	kg	PU	EUR
103010	SL	3 + 4	175	0,040	1	<b>4,82</b>
103012	SL	5,5 + 6,5	175	0,040	1	<b>4,82</b>

### Replaceable blade - Phillips blade

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103014	PH	0 + 1	175	0,040	1	<b>3,83</b>

### Replaceable blade - pozidrive blade

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103016	PZ	0 + 1	175	0,040	1	<b>3,83</b>

### Replaceable blade - Phillips blade/pozidrive blade

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103018	PH + PZ	2 + 2	175	0,040	1	<b>3,83</b>

### Replaceable blade - pozidrive blade/slotted

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103028	PZ/FL	1 + 2	175	0,040	1	<b>4,52</b>

### Replaceable blade - torx blade

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103020	TX	10 + 15	175	0,040	1	<b>4,04</b>
103022	TX	20 + 25	175	0,040	1	<b>4,04</b>

### Replaceable blade - hex blade

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103024	HEX	2 + 3	175	0,040	1	<b>4,04</b>
103026	HEX	4 + 5	175	0,040	1	<b>4,04</b>

### Replaceable blade - Square

VarioTQ



Art. No.	Fo.	size	BL	kg	PU	EUR
103030	SQ	0 + 2	175	0,040	1	<b>4,50</b>
103032	SQ	1 + 3	175	0,040	1	<b>4,50</b>

Replacement blades suitable for the "VarioTQ" and "Vario S2" systems

## Electronic screwdrivers

### ESD electronic screwdrivers

Blade made from chrome molybdenum vanadium steel, chromed with black tip, slotted



Art. No.	SB KSt	BL	kg	PU	EUR
100704	0,8 0,2	60 150	0,023	1	<b>5,01</b>
100250	1 0,4	50 150	0,014	1	<b>5,01</b>
100704 A	1,2 0,2	60 150	0,021	1	<b>5,01</b>
100241	2,5 0,4	60 150	0,015	1	<b>5,13</b>
100243	3,5 0,5	100 150	0,018	1	<b>5,01</b>
100252	1,6 0,4	50 150	0,014	1	<b>5,01</b>
100257	2 0,5	50 150	0,015	1	<b>5,01</b>
100259	2,4 0,4	75 175	0,017	1	<b>5,68</b>
100261	3 0,4	100 200	0,020	1	<b>5,86</b>

### ESD electronic screwdrivers

Blade made from chrome molybdenum vanadium steel, chromed with black tip, Tx/S-Tx



Art. No.	Fo. size	BL	kg	PU	EUR
100741	TX 4	50 150	0,017	1	<b>5,01</b>
100742	TX 5	50 150	0,018	1	<b>5,01</b>
100718 A	TX 6	50 150	0,018	1	<b>5,01</b>
100720	S-TX 7	50 150	0,014	1	<b>5,01</b>
100721	S-TX 8	50 150	0,018	1	<b>5,01</b>
100712	S-TX 9	50 150	0,018	1	<b>5,01</b>
100713	S-TX 10	50 150	0,016	1	<b>5,01</b>
100723	S-TX 15	50 150	0,020	1	<b>5,01</b>
100734	S-TX 20	50 150	0,020	1	<b>5,01</b>

### ESD electronic screwdrivers

Blade made from chrome molybdenum vanadium steel, chromed with black tip, hexagonal



Art. No.	size	BL	kg	PU	EUR
100728	1,5	50 150	0,014	1	<b>5,01</b>
100729	2	50 150	0,015	1	<b>5,01</b>
100729 A	2,5	50 150	0,017	1	<b>5,01</b>
100736	3	50 150	0,020	1	<b>5,01</b>

### ESD electronic screwdrivers

Blade made from chrome molybdenum vanadium steel, chromed with black tip, cross recess (Phillips)



Art. No.	size	BL	kg	PU	EUR
100714	000	50 150	0,015	1	<b>5,01</b>
100715	00	50 150	0,022	1	<b>5,01</b>
100716	0	50 150	0,024	1	<b>5,01</b>
100249	1	50 150	0,017	1	<b>5,01</b>

### ESD electronic screwdrivers

Blade made from chrome molybdenum vanadium steel, chromed with black tip, Tri-Wing



Art. No.	size	BL	kg	PU	EUR
100738	Tri 2,4	50 150	0,017	1	<b>5,01</b>

## ESD electronic screwdriver set

Content: 1 ESD electronic screwdriver each 1.6 x 50, 2.0 x 50, 2.4 x 50, 3.0 x 50 and 1 Phillips size 1.0 and 00 x 50 each



Art. No.	set	kg	PU	EUR
104010	7	0,225	1	<b>37,05</b>

## HAUPA Electronic screwdriver set standard

Content: 1 Electricians' screwdriver size 1.6 x 50, 2.0 x 50, 2.4 x 50, 3.0 x 50 and 1 Phillips size 1, 0 and 00 x 50



Art. No.	set	kg	PU	EUR
104000 *	7	0,221	1	<b>25,36</b>

## Electronic screwdriver set

Content: 4 x hex head 3, 4, 5, 6 and 8 exchangeable screwdriver blades (slot/Phillips/Tx /hex head)



Art. No.	set	kg	PU	EUR
104004	13	0,288	1	<b>36,83</b>

## Electronic screwing bit set

Content: 1 bitholder, 2 nuts of 5 + 6 mm, 30 bits for slot/Phillips/Pozidriv/Tx/hex head: 4 Bits PH 000, 00, 0, 1 2 Bits PZ 0, 1 7 Bits Slot 1, 1.5, 2, 2.5, 3, 3.5, 4 8 Bits Hex 0.7, 0.9, 1.3, 1.5, 2, 2.5, 3, 4 9 Bits Tx 4, 5, 6, 7, 8, 9, 10, 15, 20



Art. No.	set	kg	PU	EUR
104002 *	34	0,230	1	<b>36,42</b>

## Precision screwdrivers

### Claw retrievers



Art. No.	kg	PU	EUR
100366	0,060	1	<b>4,97</b>

### Checking mirrors



Art. No.	kg	PU	EUR
100680	0,028	1	<b>13,51</b>

### Magnetic retriever



Art. No.	kg	PU	EUR
100694	0,097	1	<b>19,88</b>

## Allen keys

### Allen keys set

chrome vanadium steel, (59 Cr-Mo-V 4), DIN 911, chrome plated, on key ring.

#### Content:

size 2 - 2,5 - 3 - 4 - 5 - 6 - 8 - 10



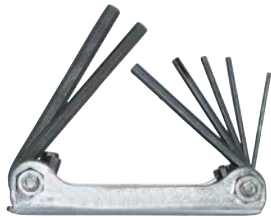
Art. No.	set	kg	PU	EUR	
100640 *	2 - 10	8	0,250	1	<b>9,63</b>

### Allen keys set

chrome vanadium steel, (59 Cr-Mo-V 4), im metal clip, key bronzed, DIN 911.

#### Content:

Art. 100633: 1,5-2,5-3-4-5-6-8 mm  
Art. 100634: 2,5-3-4-5-6-8-10 mm



Art. No.	set	kg	PU	EUR	
100633	1,5 - 6	7	0,145	1	<b>11,55</b>
100634	2,5 - 10	7	0,335	1	<b>16,62</b>

### Allen keys set

Content: size 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10



Art. No.	set	kg	PU	EUR	
100585	2 - 10	8	0,303	1	<b>11,84</b>

## Ball point allen keys

Content: size 2 - 2.5 - 3 - 4 - 5 - 6 - 8 - 10



Art. No.	set	kg	PU	EUR	
100915	2 - 10	8	0,301	1	<b>18,86</b>

## Allen keys set Tx

Content: TX 9 - 10 - 15 - 20 - 25 - 27 - 30 - 40



Art. No.	size	set	kg	PU	EUR
100941	TX9 - 40	8	0,205	1	<b>29,79</b>

## Hexagon screwdriver set T-handle, with spherical head

Content: size 2, 2.5, 3, 4, 5, 6, 8, 10



Art. No.	set	kg	PU	EUR	
100961	2 - 10	8	0,860	1	<b>68,70</b>

## Hexagon angle screwdriver set, with spherical head

Content: size 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10



Art. No.	set	kg	PU	EUR	
100921 *	1,5 - 10	9	0,301	1	<b>34,10</b>

## Hexagon angle screwdriver set, with spherical head

Content: Hex 1.5 / 2 / 2.5 / 3 / 4 / 5 / 6 / 8 / 10  
Hex 1/16 - 5/64 - 3/32 - 1/8 - 5/32 - 3/16 - 1/4 - 5/16 - 3/8"



Art. No.	set	kg	PU	EUR	
100965 *	1,5 - 10	9	0,303	1	<b>24,70</b>
100967	1/16" - 3/8"	9	0,303	1	<b>22,77</b>

## Hexagon angle screwdriver set, with spherical head

Content: Hex 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10



Art. No.	set	kg	PU	EUR	
100927	1,5 - 10	9	0,301	1	<b>17,48</b>

## Allen keys DIN 911

chrome vanadium steel, (59 Cr-Mo-V 4), DIN 911, chrome plated



Art. No.	set	kg	PU	EUR
100590	1,5 45x14	0,008	1	<b>0,15</b>
100592	2 50x16	0,025	1	<b>0,16</b>
100594	2,5 56x18	0,034	1	<b>0,19</b>
100596	3 63x20	0,040	1	<b>0,37</b>
100598	4 70x25	0,080	1	<b>0,45</b>
100600	5 80x28	0,190	1	<b>0,67</b>
100602	6 90x32	0,280	1	<b>0,90</b>
100606	8 100x36	0,580	1	<b>1,69</b>
100610	10 112x40	0,990	1	<b>2,81</b>
100612	12 125x45	0,160	1	<b>4,36</b>
100614	13 132x50	2,020	1	<b>5,88</b>

## Ball point allen keys

chrome vanadium steel, (59 Cr-Mo-V 4), DIN 911, chrome plated



Art. No.	set	kg	PU	EUR
100902	2,5 56x18	0,003	1	<b>1,44</b>
100903	3 63x20	0,005	1	<b>1,44</b>
100904	4 70x25	0,011	1	<b>1,98</b>
100905	5 80x28	0,019	1	<b>1,53</b>
100906	6 90x32	0,029	1	<b>1,99</b>
100908	8 100x36	0,058	1	<b>3,16</b>
100909	10 112x40	0,102	1	<b>4,06</b>

## Voltage testers

### Voltage tester 120-250 V



Art. No.	TMA	BL	kg	PU	EUR
100646	120 - 250	50x3	140	0,020	1 <b>2,55</b>
100647 *	120 - 250	50x3	140	0,016	1 <b>1,83</b>
100648	120 - 250	100x3,5	190	0,037	1 <b>3,36</b>
100649	120 - 250	100x3,5	190	0,032	1 <b>2,69</b>

### Voltage tester



Art. No.	TMA	BL	kg	PU	EUR
100645	120 - 250	50x3	140	0,016	1 <b>1,96</b>

### Voltage tester VDE/GS



Art. No.	TMA	kg	PU	EUR
100700 *	125 - 250	190	0,036	1 <b>3,53</b>

## Ratchet screwdriver, bits

### Screwdriver bits

(1 box = 10 bits = 1 PU)



Art. No.	size	kg	PU	EUR
102110	0,6x4,5	50	0,104	10 <b>10,03</b>
102112	0,8x5,5	50	0,115	10 <b>10,03</b>

### Screwdriver bits



Art. No.	size	kg	PU	EUR
102152	PH 1 25	0,062	10	<b>5,99</b>
102154	PH 2 25	0,067	10	<b>5,99</b>
102114	PH 1 50	0,105	10	<b>10,03</b>
102116	PH 2 50	0,124	10	<b>10,03</b>
102166	PH 2 90	0,097	10	<b>24,53</b>
102172	PH 1 150	0,251	10	<b>29,40</b>
102174	PH 2 150	0,358	10	<b>29,40</b>

### Screwdriver bits, reduced



Art. No.	size	kg	PU	EUR
102155	2 25	0,064	10	<b>5,99</b>

### Screwdriver bits



Art. No.	size	kg	PU	EUR
102176	PZ 1 25	0,062	10	<b>5,99</b>
102178 *	PZ 2 25	0,065	10	<b>5,99</b>
102118	PZ 1 50	0,107	10	<b>10,03</b>
102120	PZ 2 50	0,123	1	<b>10,03</b>
102188	PZ 1 90	0,179	1	<b>22,01</b>
102190	PZ 2 90	0,231	1	<b>24,53</b>
102198	PZ 2 150	0,360	1	<b>29,35</b>

### Screwdriver bits Tx



Art. No.	size	kg	PU	EUR
102200	TX 15 25	0,061	1	<b>5,99</b>
102204	TX 25 25	0,065	1	<b>5,99</b>
102124	TX 20 50	0,110	1	<b>10,03</b>
102126	TX 25 50	0,112	1	<b>10,03</b>

### Bits for PZ slot profile

Screwdriver bits (1 box = 2 bits = 1 PU)



Art. No.	size	kg	PU	EUR
101874	1 60	0,012	1	<b>5,78</b>
101876	2 60	0,013	1	<b>5,78</b>
101880	1 90	0,045	1	<b>4,97</b>
101882	2 90	0,046	1	<b>4,97</b>

## Magnetic holder



Art. No.	kg	PU	EUR
102130	75 0,056	1	<b>9,11</b>

## SDS magnetic holder



Art. No.	kg	PU	EUR
102131	55 0,045	1	<b>23,01</b>

## Magnetic holder



Art. No.	kg	PU	EUR
102132	75 0,045	1	<b>4,97</b>
102134	60 0,040	1	<b>4,62</b>

## „BitBox“, 25 mm, 17-pieces



### Content:

Screwdriver bits, form E 6.3, shank 1/4", 25 mm;  
 slotted 4,0 (0,5), 5,0 (0,8), 5,0 (1,0), 6,0 (1,0);  
 PH 1, PH 2, PH 3;  
 PZ 1, PZ 2, PZ 3;  
 T 10, T 15, T 20, T 25;  
 hexagon 4,0, 5,0, 6,0;  
 Magnetic holder 60 mm



Art. No.	set	kg	PU	EUR
102210 *	17 Bit = 25 mm	0,170	1	<b>13,57</b>

## „BitBox S“, 50 mm, 7-pieces



### Content:

1 bit PH 1, 2  
 1 bit PZ 1, 2  
 1 bit PZ/FL 1, 2  
 1 bit Slot 4



360° | 102216



Art. No.	set	kg	PU	EUR
102216	7 Bit = 50 mm	0,105	1	<b>9,93</b>

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### HAUPA „BitBox+“

**BitBox+**

**Content:**

- 1/4" 25 mm Power bits PH: 2x 0, 2x 1, 4x 2, 2x 3
- 1/4" 25 mm Power bits PZ: 2x 0, 2x 1, 4x 2, 2x 3
- 1/4" 25 mm Power bits TX: T10, T15, T20, T25
- 1/4" 25 mm Power bits HEX: H3, H4, H5, H6
- 1/4" 25 mm Power bits R: 1, 2, 3



Art. No.	set	kg	PU	EUR
102212	32 Bit = 25 mm	0,540	1	28,03

### Ratchet screwdriver „FlexPlus“, for all bits

**FlexPlus**



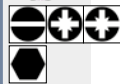
Art. No.	kg	PU	EUR
104009	Bit > 25 mm	0,111	1 17,33

### Ratchet screwdriver set „FlexBox“

**FlexBox**

**Content:**

- 1/4" 50 mm Power bits SL: 4, 6
- 1/4" 50 mm Power bits PZ: 1, 2
- 1/4" 50 mm Power bits PZ/FL 1 + 2
- 1/4" 50 mm Power bits Hex: H5, H6
- 1 pc of „FlexPlus“ ratcheting driver



Art. No.	set	kg	PU	EUR
104030	9 Bit = 50 mm	0,410	1	46,52

### Ratchet screwdriver set „Flex“

**Flex**

**Advantages:**

- Ratchet function
- Left/clockwise rotation adjustable
- Bending bar: 0°- 45°- 90°
- Ergonomic working within restrained ranges
- S2 steel industry bit for nearly all applications
- 2-components handle
- 55 bits 1/4" 25 mm and 1 adapter for 1/4" nut



Art. No.	set	kg	PU	EUR
104006 *	58 Bit = 25 mm	0,810	1	51,77

### Ratchet screwdriver set „FlexBag“ with 50 mm S2 bits and reduced shank

**FlexBag**

**Content:**

- 1/4" 50 mm Power bits Tx: T5, T6, T7, T8, T9, T10, T15, T20, T25, T30, T40
- 1/4" 50 mm Power bits Hex (hole): H2, H2.5, H3, H4, H5, H6
- 1/4" 50 mm Power bits PH: 0, 1, 2, 3
- 1/4" 50 mm Power bits PZ: 0, 1, 2, 3
- 1/4" 50 mm Power bits slot: 3, 4, 5, 6, 7, 8
- 1/4" 50 mm Power bits SQ: 0, 1, 2, 3
- 1/4" 50 mm Power bits Tri-Wing: 1, 2, 3
- 1/4" 50 mm Power bits PZ/FL 1, 2
- Above bits are in reduced shank except T40, H6, flat: 6, 7, 8 in full hex shank
- 2 pcs. Adapters: 1/4" 50 mm, 1/4" 80 mm
- 8 pcs. sockets: 5, 5.5, 6, 7, 8, 10, 12, 13
- 1 pc of „FlexPlus“ ratcheting driver



Art. No.	set	kg	PU	EUR
104020-1 *	51 Bit = 50 mm	0,810	1	85,09

### Ratchet screwdriver set „FlexBagPro“

**FlexBag**

**Content:**

- 1/4" 50 mm torsion bits S-TX (hole), color coded: T10, T10, T15, T15, T20, T25, T27, T30, T40
- 1/4" 50 mm torsion bits Hex, color coded: H3, H4, H5, H6
- 1/4" 50 mm torsion bits PH, color coded: 1, 2, 2, 3
- 1/4" 50 mm torsion bits PZ, color coded: 1, 2, 2, 2
- 1/4" 50 mm torsion bits slot, color coded: 3, 4, 4, 5, 6
- 1/4" 50 mm torsion bits SQ, color coded: 1, 2, 3
- 1/4" 50 mm standard bits PZ/FL: 1, 1, 2, 2
- 1/4" 50 mm standard bits PH/FL: 1, 1, 2, 2
- 8 pcs. sockets: 5, 5.5, 6, 7, 8, 10, 12, 13
- 5 pcs. drills: 2, 3, 4, 5, 6
- 1 pc of „FlexPlus“ ratcheting driver



with colour coding



Art. No.	set	kg	PU	EUR
104022-1	51 Bit = 50 mm	0,810	1	125,82





## Spanners

### Double ended spanners acc. to DIN 3110

chrome plated



Art. No.	↕	ST	↔	kg	PU	EUR
110090	6 - 7	3,2	120	0,0214	1	<b>3,03</b>
110092	8 - 9	3,5	140	0,0356	1	<b>3,97</b>
110094	10 - 11	4	157	0,050	1	<b>4,58</b>
110096	12 - 13	4,5	172	0,071	1	<b>4,37</b>
110100	14 - 15	5	190	0,100	1	<b>5,82</b>
110104	16 - 17	5,5	205	0,144	1	<b>5,57</b>
110108	18 - 19	6	223	0,182	1	<b>8,57</b>
110112	21 - 23	7	250	0,239	1	<b>12,52</b>
110114	24 - 26	7	250	0,273	1	<b>11,51</b>
110120	27 - 32	8,2	302	0,519	1	<b>19,16</b>

### Double ended spanners set acc. to DIN 3110

chrome plated



Art. No.	↕	set	kg	PU	EUR
110130	6 - 22	8	1,026	1	<b>40,93</b>
110132	6 - 32	12	2,353	1	<b>97,79</b>

### Combination spanners similar to DIN 3113

chrome plated



Art. No.	↕	↔	kg	PU	EUR
110180	6	100	0,018	1	<b>2,17</b>
110182	7	110	0,023	1	<b>2,17</b>
110184	8	120	0,030	1	<b>2,87</b>
110186	9	130	0,032	1	<b>2,41</b>
110188	10	140	0,041	1	<b>3,27</b>
110190	11	150	0,053	1	<b>3,01</b>
110192	12	160	0,068	1	<b>4,11</b>
110194	13	170	0,075	1	<b>4,24</b>
110196	14	180	0,089	1	<b>3,82</b>
110198	15	190	0,096	1	<b>4,63</b>
110202	17	210	0,142	1	<b>5,61</b>
110204	18	220	0,134	1	<b>5,87</b>
110206	19	230	0,185	1	<b>8,08</b>
110212	22	260	0,263	1	<b>10,05</b>
110216	24	280	0,333	1	<b>13,64</b>
110222	27	310	0,407	1	<b>15,36</b>

### Combination spanners similar to DIN 3113

chrome plated



Art. No.	↕	set	kg	PU	EUR
110250 *	6 - 22	12	1,271	1	<b>46,06</b>

### Combination spanners similar to DIN 3113

chrome plated



Art. No.	↕	set	kg	PU	EUR
110252	6 - 27	16	1,948	1	<b>84,62</b>

### Double ended ring spanners to DIN 838

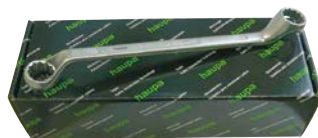
chrome plated



Art. No.	↕	↔	kg	PU	EUR
110140	6 - 7	170	0,035	1	<b>3,67</b>
110142	8 - 9	185	0,066	1	<b>4,37</b>
110144	10 - 11	205	0,075	1	<b>5,71</b>
110146	12 - 13	220	0,107	1	<b>6,51</b>
110148	14 - 15	240	0,154	1	<b>6,19</b>
110152	16 - 17	265	0,175	1	<b>8,08</b>
110154	18 - 19	280	0,297	1	<b>10,54</b>
110160	24 - 26	335	0,468	1	<b>17,62</b>
110164	27 - 32	370	0,611	1	<b>28,78</b>

### Double ended ring spanner sets DIN 838

chrome plated



Art. No.	↕	set	kg	PU	EUR
110170	6 - 22	8	1,289	1	<b>60,28</b>
110172	6 - 32	12	3,575	1	<b>140,25</b>

### Open-jawed ring wrench with ratch function

wrench size 8 - 9 - 10 - 12 - 13 - 14 - 17 - 19 mm



Art. No.	↕	set	kg	PU	EUR
110900 *	8 - 19	8	1,255	1	<b>116,38</b>

### Open-jawed ring wrench with ratch function

chrome plated



Art. No.	↔	↕	kg	PU	EUR
110900/8	134	8	0,034	1	<b>13,61</b>
110900/9	152	9	0,056	1	<b>14,04</b>
110900/10	157	10	0,060	1	<b>14,04</b>
110900/12	167	12	0,079	1	<b>15,26</b>
110900/13	175	13	0,096	1	<b>15,80</b>
110900/14	190	14	0,120	1	<b>16,92</b>
110900/17	223	17	0,183	1	<b>21,44</b>
110900/19	245	19	0,200	1	<b>23,93</b>

### Ratchet wrench 4 in 1

Sizes: 8 x 10 mm and 12 x 13 mm | 10 x 13 mm and 17 x 19 mm



Art. No.	↕	↔	kg	PU	EUR
110780	8-13	150	0,060	1	<b>32,60</b>
110782	10-19	200	0,060	1	<b>38,29</b>

### „Flex“ hinged ratchet combination wrench set

WS: 8 - 9 - 10 - 12 - 13 - 14 - 17 - 19 mm



Art. No.	↕	set	kg	PU	EUR
110902	8 - 19	8	1,255	1	<b>148,55</b>

### „Flex“ hinged ratchet combination wrench

chrome plated



Art. No.	↕	↔	kg	PU	EUR
110902/8	8	140	0,183	1	<b>24,00</b>
110902/9	9	148	0,183	1	<b>24,73</b>
110902/10	10	162	0,183	1	<b>25,41</b>
110902/12	12	175	0,183	1	<b>27,15</b>
110902/13	13	178	0,183	1	<b>28,49</b>
110902/14	14	190	0,414	1	<b>30,55</b>
110902/17	17	227	0,183	1	<b>34,63</b>
110902/19	19	246	0,183	1	<b>37,71</b>

Standard program

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## Adjustable single-head wrench



Art. No.	⌀	↔	kg	PU	EUR
110590	6 - 19	150	0,410	1	<b>26,19</b>
110592 *	9 - 24	200	0,342	1	<b>33,20</b>
110594	10 - 29	240	0,410	1	<b>42,76</b>
110596	10 - 34	300	0,111	1	<b>54,94</b>

## Adjustable single-head wrench with ratch function

Video 110583



Art. No.	⌀	↔	kg	PU	EUR
110583	6 - 19	150	0,160	1	<b>32,82</b>
110585	9 - 24	200	0,342	1	<b>39,24</b>

## Express wrench M10



Art. No.	WS	↔	kg	PU	EUR
110798	17 - 19	223	0,111	1	<b>19,00</b>

## Socket sets

### Socket set



Art. No.	set	drive	kg	PU	EUR
110674 *	33	1/4"	1,051	1	<b>90,16</b>

### Reversible ratchet 1/4"



Art. No.	drive	↔	kg	PU	EUR
110674/K	1/4"	140	0,118	1	<b>23,99</b>

### Extension 1/4"



Art. No.	↔	drive	kg	PU	EUR
110700	50	1/4"	0,024	1	<b>1,82</b>
110701	100	1/4"	0,063	1	<b>2,68</b>

### Flexible extension bar 1/4"



Art. No.	↔	drive	kg	PU	EUR
110702	100	1/4"	0,059	1	<b>5,46</b>

## Sockets 1/4"



Art. No.	⌀	kg	PU	EUR
110703/4	4	0,010	1	<b>1,01</b>
110703/45	4,5	0,010	1	<b>1,01</b>
110703/5	5	0,010	1	<b>1,01</b>
110703/55	5,5	0,011	1	<b>1,01</b>
110703/6	6	0,011	1	<b>1,01</b>
110703/7	7	0,014	1	<b>1,01</b>
110703/8	8	0,012	1	<b>1,05</b>
110703/9	9	0,016	1	<b>1,17</b>
110703/10	10	0,016	1	<b>1,19</b>
110703/11	11	0,024	1	<b>1,31</b>
110703/12	12	0,024	1	<b>1,36</b>
110703/13	13	0,028	1	<b>1,44</b>

## Sliding adapter 3/8" x 1/4"



Art. No.	kg	PU	EUR
110706	0,029	1	<b>3,09</b>

## Spinner handle for screwdriver 1/4"



Art. No.	drive	kg	PU	EUR
110725	1/4"	0,064	1	<b>5,52</b>

## Universal joint 1/4"



Art. No.	kg	PU	EUR
110726	0,024	1	<b>5,61</b>

## Insert bit sockets PH 1/4"



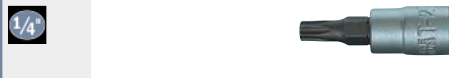
Art. No.	size	kg	PU	EUR
110711	1	0,015	1	<b>1,21</b>
110727	2	0,015	1	<b>1,21</b>
110728	3	0,016	1	<b>1,21</b>

## Insert bit sockets HEX 1/4"



Art. No.	⌀	kg	PU	EUR
110729	3	0,015	1	<b>1,21</b>
110747	4	0,015	1	<b>1,21</b>
110749	5	0,016	1	<b>1,21</b>
110754	6	0,017	1	<b>1,21</b>
110718	8	0,018	1	<b>1,37</b>

## Insert bit sockets TX 1/4"



Art. No.	size	kg	PU	EUR
110719	10	0,013	1	<b>1,37</b>
110720	15	0,015	1	<b>1,37</b>
110721	20	0,015	1	<b>1,37</b>
110722	25	0,015	1	<b>1,37</b>
110723	27	0,015	1	<b>1,37</b>
110724	30	0,015	1	<b>1,37</b>

## Insert bit sockets slot 1/4"



Art. No.	CW	kg	PU	EUR
110759	5,5	0,015	1	<b>1,21</b>
110760	4	0,014	1	<b>1,21</b>

## Socket sets

### Socket set



Art. No.	set	drive	kg	PU	EUR
110676	26	3/8"	2,309	1	<b>97,65</b>

### Reversible ratchet 3/8"



Art. No.	↔	drive	kg	PU	EUR
110676/K	185	3/8"	0,260	1	<b>31,82</b>

### Extension 3/8"



Art. No.	↔	drive	kg	PU	EUR
110731	20	3/8"	0,045	1	<b>2,40</b>
110733	75	3/8"	0,075	1	<b>3,14</b>
110735	150	3/8"	0,143	1	<b>5,07</b>

## Sockets 3/8"



Art. No.	⌀	kg	PU	EUR
110737/6	6	0,019	1	<b>1,41</b>
110737/7	7	0,020	1	<b>1,41</b>
110737/8	8	0,021	1	<b>1,41</b>
110737/9	9	0,023	1	<b>1,41</b>
110737/10	10	0,023	1	<b>1,41</b>
110737/11	11	0,024	1	<b>1,41</b>
110737/12	12	0,024	1	<b>1,41</b>
110737/13	13	0,024	1	<b>1,45</b>
110737/14	14	0,031	1	<b>1,63</b>
110737/15	15	0,040	1	<b>1,88</b>
110737/16	16	0,035	1	<b>1,88</b>
110737/17	17	0,046	1	<b>2,18</b>
110737/18	18	0,061	1	<b>2,44</b>
110737/19	19	0,056	1	<b>2,44</b>
110737/20	20	0,066	1	<b>3,20</b>
110737/21	21	0,060	1	<b>3,20</b>
110737/22	22	0,078	1	<b>3,29</b>
110737/24	24	0,085	1	<b>4,03</b>

## Spark plug sockets 3/8"



Art. No.	⌀	kg	PU	EUR
110738	16	0,092	1	<b>3,77</b>
110739	21	0,139	1	<b>5,14</b>

### Sliding adapter 1/2" x 3/8"

1/2" 3/8"

3/8"



Art. No.	kg	PU	EUR
110741	0,070	1	<b>4,26</b>

### Universal joint 3/8"

3/8"

3/8"



Art. No.	kg	PU	EUR
110745	0,067	1	<b>7,34</b>

### 3/8" internal hexagonal bolt set

U 3/8"

Sizes: 3 - 4 - 5 - 6 - 7 - 8 - 10, extra long 150 mm

3/8"



Art. No.	set	kg	PU	EUR
111737	7	0,019	1	<b>39,29</b>

### Socket sets

1/2"

#### Socket set

1/2"

1/2"



Art. No.	set	drive	kg	PU	EUR
110677	25	1/2"	4,739	1	<b>146,14</b>

#### Reversible ratchet 1/2"

1/2"

1/2"



Art. No.	drive	kg	PU	EUR
110677/K	260 1/2"	0,560	1	<b>36,13</b>

#### Extension 1/2"

1/2"

1/2"



Art. No.	drive	kg	PU	EUR
110751	75 1/2"	0,137	1	<b>4,89</b>
110752	125 1/2"	0,200	1	<b>6,18</b>
110753	250 1/2"	0,388	1	<b>11,77</b>

### Sockets 1/2"

1/2"

1/2"



Art. No.	kg	PU	EUR
110754/10	0,046	1	<b>2,43</b>
110754/11	0,051	1	<b>2,43</b>
110754/12	0,052	1	<b>2,43</b>
110754/13	0,053	1	<b>2,43</b>
110754/14	0,055	1	<b>2,34</b>
110754/15	0,052	1	<b>2,34</b>
110754/16	0,052	1	<b>2,34</b>
110754/17	0,060	1	<b>2,79</b>
110754/18	0,060	1	<b>3,05</b>
110754/19	0,066	1	<b>3,05</b>
110754/20	0,066	1	<b>3,71</b>
110754/21	0,080	1	<b>3,71</b>
110754/22	0,094	1	<b>4,16</b>
110754/24	0,100	1	<b>4,88</b>
110754/26	0,120	1	<b>6,83</b>
110754/27	0,150	1	<b>6,83</b>
110754/28	0,165	1	<b>7,86</b>
110754/30	0,177	1	<b>8,49</b>
110754/32	0,206	1	<b>8,98</b>

### Spark plug sockets 1/2"

1/2"

1/2"



Art. No.	kg	PU	EUR
110755	0,092	1	<b>3,93</b>
110756	0,141	1	<b>5,33</b>

### Sliding adapter 3/8" x 1/2"

3/8" 1/2"

1/2"



Art. No.	kg	PU	EUR
110757	0,069	1	<b>5,33</b>

### Universal joint 1/2"

1/2"

1/2"



Art. No.	kg	PU	EUR
110758	0,152	1	<b>10,63</b>

### Socket sets

#### „SocketFlex“ socket wrench box

1/4" 1/2"



Art. No.	set	drive	kg	PU	EUR
110672	59	1/4"+1/2"	4,500	1	<b>192,08</b>

#### Socket set

1/4" 1/2"

1/2" 1/4"



Art. No.	set	drive	kg	PU	EUR
110678 *	53	1/4"+1/2"	4,385	1	<b>210,78</b>

#### SysCon

SysCon

#### „SocketMax“ 1/2", 1/4"



1/2" 1/4" Flex2Plus



Art. No.	set	empty	kg	PU	EUR
220600	55	220370	4,300	1	<b>348,89</b>

## Torque wrenches

### Torque wrenches

1/4" TQ



Art. No.	drive	Nm	kg	PU	EUR
110607 *	1/4"	5 - 25	1,000	1	<b>124,75</b>

### Torque wrenches

3/8" TQ



Art. No.	drive	Nm	kg	PU	EUR
110605	3/8"	5 - 50	1,000	1	<b>109,24</b>

### Torque wrenches

3/8" TQ



Art. No.	drive	Nm	kg	PU	EUR
110608	3/8"	20 - 120	0,900	1	<b>109,33</b>

### Torque wrenches

1/2" TQ



Art. No.	drive	Nm	kg	PU	EUR
110610	1/2"	20 - 120	1,500	1	<b>114,15</b>

### Torque wrenches

1/2" TQ



Art. No.	drive	Nm	kg	PU	EUR
110609	1/2"	42 - 210	1,750	1	<b>158,03</b>

## SysCon socket wrench set "Torque" 1/4"

SysCon



inclusive torque wrenches 1/4", 5 - 25 Nm

1/4" TQ



Art. No.	set	empty	kg	PU	EUR
220640	51	220370	4,300	1	<b>487,58</b>

## SysCon socket wrench set "Torque" 1/2"

SysCon



inclusive torque wrenches 1/2", 20 - 120 Nm

1/2" TQ

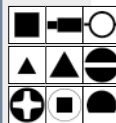


Art. No.	set	empty	kg	PU	EUR
220642	32	220370	7,950	1	<b>520,15</b>

## Switch cabinet keys

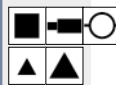
### Switch cabinet key, „HUPkey“ with converting bit

Not available in GB and FR!



Art. No.	kg	PU	EUR
110692	0,059	1	<b>27,11</b>

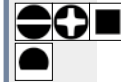
### Switch cabinet key, „HUPkey“



Art. No.	kg	PU	EUR
110691	0,059	1	<b>20,06</b>

## Converting bit for bleeding

Not available in GB and FR!



Art. No.	kg	PU	EUR
110693	0,059	1	<b>6,39</b>

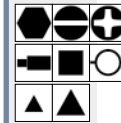
## Universal switch cabinet key with crescent, „HUPkey“



Art. No.	kg	PU	EUR
110697	0,111	1	<b>22,06</b>

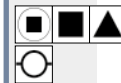
## Spanners for switch cabinet key, „HUPkey Uni“

Not available in GB and FR!



Art. No.	kg	PU	EUR
110698	0,059	1	<b>35,36</b>

## Spanners for switch-cabinets, „HUPkey“



Art. No.	size	kg	PU	EUR
110696 *	72 x 72	0,059	1	<b>17,63</b>

## Pliers Black Line

### Combination pliers DIN ISO 5746

leveraged, perfected cutting force performance



Art. No.	↔	soft	hard	kg	PU	EUR
210052	160	4	2	0,197	1	<b>24,81</b>
210053 *	180	4	2,2	0,286	1	<b>26,30</b>
210054	200	4,2	2,5	0,410	1	<b>26,39</b>

### Side cutters DIN ISO 5749

leveraged, perfected cutting force performance



Art. No.	↔	soft	hard	kg	PU	EUR
210067	140	4	1,8	0,172	1	<b>23,90</b>
210068 *	160	4	2	0,237	1	<b>26,03</b>
210069	180	4	2	0,237	1	<b>30,03</b>

### Heavy duty side cutters DIN ISO 5749

leveraged, perfected cutting force performance



Art. No.	↔	soft	hard	kg	PU	EUR
210156	160	4	2,7	0,264	1	<b>33,04</b>
210157	180	4	2,7	0,264	1	<b>34,35</b>

### Heavy duty side cutters DIN ISO 5749

leveraged, perfected cutting force performance



Art. No.	↔	soft	hard	kg	PU	EUR
210158 *	200	4,2	3	0,326	1	<b>35,99</b>

### Long flat nose pliers DIN ISO 5745



Art. No.	↔	kg	PU	EUR
210313	160	0,155	1	<b>19,60</b>

### Long round nose pliers DIN ISO 5745



Art. No.	↔	kg	PU	EUR
210350	160	0,153	1	<b>20,73</b>

### Long chain nose pliers DIN ISO 5745

leveraged, perfected cutting force performance



Art. No.	↔	kg	PU	EUR
210394	170	0,154	1	<b>27,28</b>
210396 *	200	0,253	1	<b>28,49</b>

### Long chain nose pliers DIN ISO 5745

leveraged, perfected cutting force performance



Art. No.	↔	Fo.	kg	PU	EUR
210397	160	45°	0,251	1	<b>25,94</b>
210398 *	200	45°	0,251	1	<b>31,00</b>

### Wire stripping pliers



Art. No.	↔	mm <sup>2</sup>	kg	PU	EUR
210644	175	0,2 - 6	0,196	1	<b>25,38</b>

### Water pump pliers DIN ISO 8976



Art. No.	↔	kg	PU	EUR
210584	240	0,368	1	<b>32,42</b>

### Water pump pliers DIN ISO 8976



Art. No.	↔	kg	PU	EUR
210616	170	0,185	1	<b>31,75</b>
210617 *	240	0,330	1	<b>34,86</b>
210618	300	0,545	1	<b>51,59</b>

### Pliers wrench



Art. No.	↔	⌀	kg	PU	EUR
210615	180	36	0,111	1	<b>62,98</b>
210619	260	50	0,368	1	<b>70,98</b>

### Pliers set

Content:

- 210053
- 210068
- 210396
- 210644



Art. No.	set	kg	PU	EUR
220128	4	1,044	1	<b>99,73</b>

### Pliers set

Content:

- 210053
- 210157
- 210396
- 210644



Art. No.	set	kg	PU	EUR
220129	4	1,082	1	<b>108,09</b>



**High leverage | perfected cutting force performance**

High leverage pliers offer power saving of up to 50%.

## Special pliers

### Grip pliers



Art. No.	Length	Opening	kg	PU	EUR
210556	250	0 - 40	0,518	1	<b>51,03</b>

### Grip pliers



Art. No.	Length	Opening	kg	PU	EUR
210562	250	0 - 40	0,565	1	<b>35,26</b>

### Pipe wrenches



Art. No.	Length	Opening	tube	kg	PU	EUR
210592	320	0 - 45	1"	0,798	1	<b>46,66</b>
210594	435	0 - 59	1 1/2"	0,800	1	<b>69,55</b>
210596	560	0 - 76	2"	2,460	1	<b>107,22</b>

### Riveting pliers



Art. No.	Length	kg	PU	EUR
210770	250	0,552	1	<b>13,06</b>

### Riveting tool set



Art. No.	Length	kg	PU	EUR
210776	250	0,840	1	<b>27,76</b>

## Electronic pliers

### Tweezers



Art. No.	Length	kg	PU	EUR
211080	130	0,017	1	<b>26,80</b>

### Microelectronic side cutters

without cutting-facet, clearance angle: 50°,  
with clip, for soft wires up to 0,8 mm<sup>2</sup>



Art. No.	Length	kg	PU	EUR
211708	118	0,069	1	<b>23,76</b>

### Microelectronic side cutters

without cutting-facet, clearance angle: 21°,  
with clip, for soft wires up to 1,3 mm<sup>2</sup>



Art. No.	Length	kg	PU	EUR
211720 *	132	0,086	1	<b>24,22</b>
211722	158	0,087	1	<b>28,76</b>

## ESD electronic pliers

### ESD Electronic needle nose pliers

with wire cutter, special tool steel



Art. No.	Length	kg	PU	EUR
211850	130	0,091	1	<b>17,63</b>

### ESD Electronic needle nose pliers, 45° angle

with wire cutter, special tool steel



Art. No.	Length	Fo.	kg	PU	EUR
211852	130	45°	0,089	1	<b>18,79</b>

### ESD Electronic needle nose pliers

straight construction, special tool steel



Art. No.	Length	kg	PU	EUR
211854	130	0,082	1	<b>17,63</b>

### ESD Electronic needle nose pliers, 45° angle

45° angle, special tool steel



Art. No.	Length	Fo.	kg	PU	EUR
211856	130	45°	0,081	1	<b>18,79</b>

**ESD Electronic thin needle nose pliers, 45° angle** 

45° angle, special tool steel



Art. No.	l	Fo.	kg	PU	EUR
211860	140	45°	0,084	1	<b>19,89</b>

**ESD Electronic thin needle nose pliers** 

straight construction, special tool steel



Art. No.	l	kg	PU	EUR
211862	150	0,087	1	<b>18,21</b>

**ESD Electronic thin needle nose pliers, 45° angle** 

45° angle, special tool steel



Art. No.	l	Fo.	kg	PU	EUR
211864	150	45°	0,087	1	<b>19,36</b>

**ESD Electronic flat nose pliers** 

special tool steel



Art. No.	l	kg	PU	EUR
211866	130	0,090	1	<b>17,06</b>

**ESD Electronic round nose pliers** 

straight construction, special tool steel



Art. No.	l	kg	PU	EUR
211868	130	0,091	1	<b>19,89</b>

**ESD Electronic side cutter** 

normal construction, head width 14 mm, special tool steel



Art. No.	l	kg	PU	EUR
211870 *	115	0,078	1	<b>18,21</b>

**ESD Electronic side cutters** 

slim construction, head width 10 mm, special tool steel



Art. No.	l	kg	PU	EUR
211872	110	0,075	1	<b>18,21</b>

**ESD Electronic side cutter without cutting-facet** 

normal construction, head width 14 mm without chamfer, special tool steel



Art. No.	l	kg	PU	EUR
211875 *	115	0,075	1	<b>19,63</b>

**ESD Electronic front cutter** 

special tool steel



Art. No.	l	kg	PU	EUR
211874	115	0,093	1	<b>18,79</b>

**ESD Electronic combination pliers** 

with wire cutter, special tool steel



Art. No.	l	kg	PU	EUR
211876	115	0,077	1	<b>17,63</b>

**ESD Electronic pliers set** 

special tool steel

**Content:** art. 211862, 211870, 211874, 211876



Art. No.	set	kg	PU	EUR
211880	4	0,585	1	<b>74,10</b>

## LED lamps/torches

### LED „Mini Torch“

LED 3W CREE XM-L	↑ 820+ 150 mm ↓	50 Lm
Lifetime 30000 h	Aircraft Grade Aluminium	
IP68	1xAAA	



Art. No.	∅	→	kg	PU	EUR
130310	20	92,5	0,080	1	<b>32,13</b>

### LED „Pen Torch“

LED 1W CREE	↑ 820+ 150 mm ↓	50 Lm
Lifetime 30000 h	Aircraft Grade Aluminium	
IP68	2xAAA	



Art. No.	∅	→	kg	PU	EUR
130328 *	14	143	0,200	1	<b>25,50</b>

### LED „Focus Torch“

LED 3W CREE XP-G	↑ 820+ 150 mm ↓	120 Lm
Lifetime 30000 h	Aircraft Grade Aluminium	
IP68	3xAAA	



Art. No.	∅	→	kg	PU	EUR
130312 *	34,4	115	0,200	1	<b>41,32</b>

### LED „IP67 Torch“

LED 5W CREE XP-G	↑ 820+ 150 mm ↓	250 Lm
Lifetime 30000 h	Aircraft Grade Aluminium	
IP68	4xAAA	



Art. No.	∅	→	kg	PU	EUR
130314	40,5	141	0,440	1	<b>80,96</b>

### LED „RC Torch“

LED 5W CREE XP-G	↑ 820+ 150 mm ↓	250 Lm
Lifetime 30000 h	Aircraft Grade Aluminium	
IP68	Li-Ion 2200 mAh 3.7V	100-240V AC 13-24V DC



Art. No.	∅	→	kg	PU	EUR
130316	40,5	180	0,440	1	<b>127,05</b>



## Holster for LED torches

Suitable for item numbers: 130312, 130314



Art. No.	W	H	D	kg	PU	EUR
130322	30	100	10	0,180	1	<b>13,65</b>

## Mini working light „HUPlight4“

LED 4W	↑ 100+ 200 mm ↓	200 Lm
Lifetime 30000 h	Li-Ion 1800 mAh 3.7V	ABS
IP68	100-240V AC 12-24V DC	



Art. No.	W	H	→	kg	PU	EUR
130336 *	25	120	60	0,260	1	<b>52,44</b>

## LED working light „HUPlight10+3“

LED 10+3 W	↑ 100+ 200 mm ↓	800 + 220 Lm
Lifetime 30000 h	Li-Ion 2200 mAh 3.7V	100-240V AC 12-24V DC
IP68	CR1 50	30%



Art. No.	W	H	→	kg	PU	EUR
130348	57	40	220	0,380	1	<b>84,46</b>

## LED Headlamps

### LED „HUPflash155“ headlamp

LED 3W	↑ 80+ 100 mm ↓	155 Lm
Lifetime 30000 h	ABS PC	80 g
2,5h	3xAAA	
IP68	30%	100%



Art. No.	W	H	→	kg	PU	EUR
130319	45	38	60	0,250	1	<b>56,51</b>

### LED Headlight „HUPflash155+“

LED 3W	↑ 80+ 100 mm ↓	155 Lm
Lifetime 30000 h	ABS PC	73 g
2,5h	3xAAA	
IP68	30%	100%



Art. No.	W	H	→	kg	PU	EUR
130321	45	38	60	0,073	1	<b>68,29</b>

### LED head lamp „HUPflash250“

CREE XML2	↑ 80+ 100 mm ↓	250 Lm
Lifetime 30000 h	Li-Ion 2200 mAh 3.7V	149 g
2,5h	AI	
IP68	30%	100%



Art. No.	W	→	kg	PU	EUR
130323	28	107	0,149	1	<b>138,92</b>



## Compact floodlight

### Compact floodlight „HUPlight10pro“

<b>LED 10W</b>	2000-2400 lm	<b>900 Lm</b>
Lifetime 30000 h	Akku Li-Ion 1800 mAh 7,4V	000-240V AC 13-24V DC
IP54	USB	3h
360°	CRI 90	90% 100%



Art. No.	W	H	kg	PU	EUR	
130344	121	43	170	1,000	1	<b>64,99</b>

### Compact floodlight „HUPlight20pro“

<b>LED 20W</b>	2000-2400 lm	<b>1800 Lm</b>
Lifetime 30000 h	Akku Li-Ion 3000 mAh 7,4V	000-240V AC 13-24V DC
IP54	USB	3h
360°	CRI 90	90% 100%



Art. No.	W	H	kg	PU	EUR	
130346	135	43	185	1,320	1	<b>119,88</b>

### Compact floodlight „HUPlight30pro“

<b>LED 30W</b>	2000-2400 lm	<b>2500 Lm</b>
Lifetime 30000 h	Akku Li-Ion 3000 mAh 7,4V	000-240V AC 13-24V DC
IP54	USB	3h
360°	CRI 90	90% 100%



Art. No.	W	H	kg	PU	EUR	
130352	135	43	185	1,320	1	<b>153,07</b>

### Magnetic lamp holder



Art. No.	W	H	kg	PU	EUR	
130343	85	85	40	0,470	1	<b>14,14</b>

## Domed luminaire “HUPlight50combi“

<b>LED 50W</b>	2000-2400 lm	<b>4000 Lm</b>
Lifetime 30000 h	Akku Li-Ion 6600 mAh 7,4V	000-240V AC 13-24V DC
IP54	USB	3h
360°	CRI 90	90% 100%



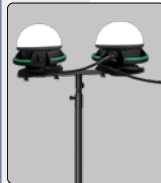
Akku Li-Ion 6600 mAh 7,4 V



Art. No.	W	H	kg	PU	EUR
130360	280	260	3,400	1	<b>233,12</b>

### Stand for “HUPlight50combi“

3m
----



Art. No.	W	H	kg	PU	EUR	
130361	1150	3000	1150	7,660	1	<b>138,92</b>

### HUPlightpro Crashtest



## LED Light Strips

### LED light strip “HUPlightStripe15“

<b>LED 180W</b>	2000-2400 lm	<b>19500 Lm</b>
4000K	IP65	220-240V 50/60 Hz
3h	CRI 90	90% 100%



Art. No.	W	H	kg	PU	EUR	
130364	16	8	15000	4,400	1	<b>287,26</b>

### LED light strip “HUPlightStripe25“

<b>LED 300W</b>	2000-2400 lm	<b>32500 Lm</b>
4000K	IP65	220-240V 50/60 Hz
3h	CRI 90	90% 100%



Art. No.	W	H	kg	PU	EUR	
130366	16	8	25000	6,500	1	<b>481,62</b>

### Adjustable cable clip with adhesive socket

Material: Polyamide 6.6, halogen-free, UL94V-2, for fast and secure attachment of the HUPlightStripes, all 0.5 m. Contents: 100 units



Art. No.	W	H	Ø	kg	PU	EUR	
262192	90	12	7,6	3,4	0,00078	1	<b>66,55</b>

### Adjustable cable clip with adhesive socket

Material: Polyamide 6.6, halogen-free, UL94V-2, for fast and secure attachment of the HUPlightStripes, all 0.5 m. Contents: 100 units



Art. No.	W	H	Ø	kg	PU	EUR	
262193	90	12	7,6	3,4	0,00075	1	<b>66,55</b>

## Measuring tools

### Folding rules



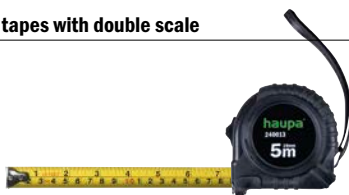
Art. No.	Typ	W	kg	PU	EUR	
240002 *	wood	2 m	16	0,100	1	<b>6,04</b>
240005	fibre glass	2 m	16	0,138	1	<b>8,61</b>

### Measuring tapes



Art. No.	W	kg	PU	EUR	
240011	3 m	13	0,104	1	<b>4,66</b>
240012 *	5 m	16	0,179	1	<b>8,35</b>

### Measuring tapes with double scale



Art. No.	W	kg	PU	EUR	
240013	5 m	16	0,179	1	<b>8,35</b>

### Measuring tapes



Art. No.	W	kg	PU	EUR	
240018	20 m	16	0,432	1	<b>27,10</b>
240020	25 m	16	0,544	1	<b>31,27</b>
240022	30 m	16	0,586	1	<b>34,77</b>
240024	50 m	16	0,857	1	<b>51,10</b>

### Aluminium spirit levels



Art. No.	Spirit level	kg	PU	EUR	
240041	300	2	0,168	1	<b>29,82</b>
240042 *	400	2	0,198	1	<b>31,76</b>
240044	600	2	0,282	1	<b>39,47</b>
240046	800	2	0,406	1	<b>43,52</b>
240048	1000	2	0,534	1	<b>47,19</b>

### Electrician's safety levels



Art. No.	Spirit level	kg	PU	EUR	
240057	400	2	0,188	1	<b>25,16</b>
240058	600	2	0,274	1	<b>20,62</b>

### Cabinet levels



Art. No.	Spirit level	kg	PU	EUR	
240059 *	200	3	0,078	1	<b>25,18</b>

## Acrylic „HUPmini“ spirit level



Art. No.	Spirit level	kg	PU	EUR	
240061	100	2	0,085	1	<b>15,27</b>

## Precision pocket vernier calipers „Stainless“



Art. No.	TMA	kg	PU	EUR
240071	232 0 - 150	0,157	1	<b>54,58</b>

## Precision pocket vernier calipers „digital“



Art. No.	TMA	kg	PU	EUR
240073	235 0 - 150	0,150	1	<b>83,62</b>

## Engineers' squares



Art. No.	W	kg	PU	EUR	
240132	150x100	20	0,181	1	<b>11,12</b>
240134	200x130	20	0,237	1	<b>11,95</b>
240136	250x160	25	0,378	1	<b>13,82</b>
240138	300x180	25	0,445	1	<b>15,74</b>

## Engineers' squares



Art. No.	W	kg	PU	EUR	
240152	150x100	20	0,170	1	<b>15,82</b>
240154	200x130	20	0,340	1	<b>19,05</b>
240156	250x160	25	0,511	1	<b>24,44</b>
240158	300x180	25	0,440	1	<b>30,38</b>
240160	400x230	30	0,783	1	<b>33,53</b>

## Steel point scribers



Art. No.	kg	PU	EUR	
240234	250	0,046	1	<b>6,55</b>

## Carpenters' pencils



Art. No.	kg	PU	EUR	
150090	150	0,007	12	<b>0,45</b>

## Multigraph, black, refill 7B, triangular



Art. No.	kg	PU	EUR	
150041	240	0,017	1	<b>3,61</b>

## Deep hole marker



Art. No.	kg	PU	EUR	
150025	160	0,020	1	<b>33,95</b>
150027	spare lead 10 pc	0,291	1	<b>22,65</b>

## Deep-hole marker 2-in-1 with a sharpener



Art. No.	kg	PU	EUR	
150044	155	0,022	1	<b>22,02</b>
150045	125 spare lead 6 pc	0,021	6	<b>11,02</b>

## Marking chalk

12 items per packaging unit



Art. No.	Col.	kg	PU	EUR
150015 B *	blue	0,017	1	<b>1,04</b>
150015 G	yellow	0,017	1	<b>1,04</b>
150015 R	red	0,016	1	<b>1,04</b>

## Holder for marking chalk

suitable for marking chalk art. 150015



Art. No.	Col.	kg	PU	EUR
150015/1	black	0,034	1	<b>22,61</b>

## Chalk line roller Squid, 15 m



Art. No.	Length	kg	PU	EUR
150019 *	15 Squid	0,291	1	<b>21,59</b>

## Chalk

in plastic bottles, 250 g



Art. No.	Content g	Col.	kg	PU	EUR
140510	50	red	0,284	1	<b>5,81</b>
140520 *	50	blue	0,276	1	<b>5,81</b>
140530	50	yellow	0,279	1	<b>5,81</b>

## Maintenance / Workshop equipment

### Hand brush „Prestige“ short

- Soft Elaston PET bristles
- Unvarnished wooden body
- 29 cm
- Handle with hole for hanging up



Art. No.	↔	kg	PU	EUR
393000 *	290	0,180	1	<b>5,53</b>

### Hand brush „Prestige“ short

- Soft coconut bristles
- Unvarnished wooden body
- 29 cm
- Handle with hole for hanging up



Art. No.	↔	kg	PU	EUR
393038	290	0,180	1	<b>2,83</b>

### Hand brush „Prestige“ long

- Soft Elaston PET bristles
- Unvarnished wooden body
- 43 cm
- Handle with hole for hanging up



Art. No.	↔	kg	PU	EUR
393002	430	0,240	1	<b>7,94</b>

### Hand brush „Prestige“ long

- Soft coconut bristles
- Unvarnished wooden body
- 43 cm
- Handle with hole for hanging up



Art. No.	↔	kg	PU	EUR
393040	430	0,180	1	<b>5,84</b>

### Street broom

- Elaston
- 40 cm
- 6/15 rows



Art. No.	↔	kg	PU	EUR
393008	400	0,269	1	<b>9,94</b>

### Broom, for rough dirt

- Elaston
- 40 cm
- For coarse dirt
- Made from wooden corbel
- With hole for handle



Art. No.	↔	kg	PU	EUR
393012	400	0,269	1	<b>10,48</b>

### Broom, for rough dirt

- Soft coconut bristles
- 40 cm / 60 cm
- For coarse dirt
- Made from wooden corbel
- With hole for handle



Art. No.	↔	kg	PU	EUR
393034	400	0,269	1	<b>9,41</b>
393036	600	0,269	1	<b>13,14</b>

### Broom, for smooth ground

- 40 cm
- For smooth floors and fine dirt
- Made from wooden corbel
- With hole for handle



Art. No.	↔	kg	PU	EUR
393010	400	0,269	1	<b>10,42</b>

### Metal dustpan with wooden handle

- Made from metal
- Painted black
- Wooden handle with hole for hanging up
- Robust version
- 450 x 230 mm



Art. No.	↔	W	kg	PU	EUR
393006 *	450	230	0,269	1	<b>8,27</b>

### Bucket

- Made from plastic
- 12 l / 20 l
- With carry handle



Art. No.	L	Col.	kg	PU	EUR
300102 *	12	black	0,450	1	<b>6,64</b>
300115	20	black	1,300	1	<b>12,22</b>

### Broomstick

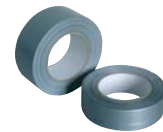
- Sanded cleanly
- Rounded head
- 1400 mm



Art. No.	↔	kg	PU	EUR
393004	1400	0,269	1	<b>6,00</b>

### Textile tape

- 50 m



Art. No.	W	↔	Col.	kg	PU	EUR
393016	50	50 m	gray	0,269	1	<b>20,79</b>

### Tarpaulin premium

- 12 my
- 4 x 12,5 m



Art. No.	↔	W	kg	PU	EUR
393026	12500	4000	0,269	1	<b>12,02</b>

### Tarpaulin, strong

- 30 my
- 4 x 5 m



Art. No.	↔	W	kg	PU	EUR
393022	5000	4000	0,520	1	<b>10,73</b>

### Tarpaulin, strong

- 30 my
- 4 x 12,5 m



Art. No.	W	H	kg	PU	EUR
393024	12500	4000	1,280	1	<b>26,03</b>

### Dust protection door, multi-fleece



Art. No.	W	H	kg	PU	EUR
393032	1200	2200	0,269	1	<b>22,07</b>

### Builders waste sack

- LDPE
- Roll containing 5 sacks
- 75 l
- 100 my
- 575 x 1000 mm



Art. No.	W	L	kg	PU	EUR
393018	1000	575	75	0,269	<b>10,21</b>

### Waste sack, extra

- LDPE
- Roll containing 10 sacks
- 120 l
- 50 my
- 700 x 1100 mm



Art. No.	W	L	kg	PU	EUR
393020 *	1100	700	120	0,020	<b>10,40</b>

### Construction foil „Profi“

- 3 x 10 m
- 200g/m131



Art. No.	W	kg	PU	EUR
393030	10000	3000	5,500	<b>66,86</b>

### Multi-fleece

- 1 x 10 m



Art. No.	W	kg	PU	EUR
393028 *	10000	1000	2,200	<b>32,20</b>

### Maintenance set with bucket



Art. No.	set	kg	PU	EUR
393107	6	0,800	1	<b>42,44</b>

### Wire brushes



Art. No.	W	kg	PU	EUR
150002	300	0,131	1	<b>3,07</b>

### Water brushes



Art. No.	W	kg	PU	EUR
150004	24	0,036	1	<b>6,46</b>

### Plaster cups



Art. No.	Ø	D	kg	PU	EUR
150006 *	125	90	0,105	1	<b>1,86</b>

### Plaster pan

with wooden handle



Art. No.	Ø	D	kg	PU	EUR
150008	160	40	0,341	1	<b>13,64</b>
150010	180	60	0,369	1	<b>16,69</b>

### Paint scrapers



Art. No.	W	kg	PU	EUR
150024	185	40	0,043	<b>2,55</b>
150026 *	205	50	0,051	<b>2,71</b>
150028	205	60	0,047	<b>2,84</b>

### Trowel

high quality stainless steel, rustproof, with red lacquered handle, 3 point rib welding



Art. No.	W	kg	PU	EUR
150012	160	0,341	1	<b>15,93</b>
150029	180	0,341	1	<b>16,89</b>

### Trowel „Profi“

Trowel blade and handle forged from a blank, guaranteed not welded, blade hardened, conical ground



Art. No.	W	kg	PU	EUR
150033	160	0,341	1	<b>32,16</b>
150039	180	0,341	1	<b>33,79</b>

### Warning sign, plastic „Caution, Wet floor“, yellow

Only for German- and English-speaking countries.



Art. No.	W	kg	PU	EUR
300117	30,5 x 62 cm	3,850	1	<b>69,83</b>

## Lashing belts

### DIN lashing belt 400 daN, one-piece



Art. No.	W	kN	kg	PU	EUR
393150	8000	25	4	0,350	1 <b>12,70</b>

### DIN lashing belt 400 daN, two-piece with hook



Art. No.	W	kN	kg	PU	EUR
393152	8000	25	4	0,450	1 <b>20,68</b>

### DIN lashing belt 1000 daN, one-piece



Art. No.	W	kN	kg	PU	EUR
393154	8000	35	10	1,000	1 <b>22,38</b>

### DIN lashing belt 1000 daN, two-piece with hook



Art. No.	W	kN	kg	PU	EUR
393156	8000	35	10	1,400	1 <b>31,36</b>

## Telescoping ladders



### Aluminium telescoping stepladder

Rungs: 6+2  
Retracted: 0,74 m



Art. No.	W	kg	PU	EUR
392804	2.3	690	14,500	1 <b>968,40</b>

### Aluminium telescoping stepladder

Rungs: 8+2  
Retracted: 0,79 m



Art. No.	W	kg	PU	EUR
392806	3	760	20,000	1 <b>1.223,24</b>

### Aluminium telescoping single-ladder

Rungs: 9  
Retracted: 0,72 m



Art. No.	W	kg	PU	EUR
392800	2.6	490	8,100	1 <b>626,92</b>

## Aluminium telescoping single-ladder

Rungs: 13  
Retracted: 0,86 m



Art. No.	W	kg	PU	EUR
392802	3.8	880	15,000	1 <b>866,46</b>

## Chisels, centre punches



### Flat chisels to DIN 6453 A, flat oval shank

Art. No.	↔	CW	Mat/S	Mat/S	kg	PU	EUR
180008	200	28	23	13	0,392	1	<b>14,37</b>
180010	250	28	23	13	0,490	1	<b>15,70</b>
180012	300	32	26	13	0,606	1	<b>17,24</b>

### Stone chisels, flat oval shank

Art. No.	↔	CW	Mat/S	Mat/S	kg	PU	EUR
180042	250	28	20	12	0,394	1	<b>13,76</b>
180044 *	300	32	23	13	0,584	1	<b>15,70</b>

### Stone chisels, octagonal shank

Art. No.	↔	CW	Mat/S	Mat/S	kg	PU	EUR
180062	250	28	16	16	0,387	1	<b>14,24</b>
180064	300	30	18	18	0,595	1	<b>16,48</b>

### Jointing chisel

Art. No.	↔	CW	Mat/S	Mat/S	kg	PU	EUR
180076 *	250	26	26	7	0,302	1	<b>14,44</b>

### Stone chisels, octagonal shank

Art. No.	↔	CW	Mat/S	Mat/S	kg	PU	EUR
180082	250	14	14	14	0,358	1	<b>14,24</b>
180084	300	16	16	16	0,573	1	<b>16,20</b>

### Electricians' chisels

Art. No.	↔	CW	Mat/S	Mat/S	kg	PU	EUR
180090	200	8	6	6	0,052	1	<b>8,49</b>
180092 *	250	10	8	8	0,119	1	<b>8,94</b>
180094	250	12	8	8	0,121	1	<b>9,71</b>

### Centre punch to DIN 7250

Art. No.	↔	Ø1	kg	PU	EUR
180120	120	12	0,091	1	<b>5,79</b>

### Rubber hand guard

for chisels flat oval shank



Art. No.	size	Mat/S	Mat/S	kg	PU	EUR
180110	3	23	13	0,125	1	<b>9,06</b>

### Firmer chisels DIN 5139

Art. No.	↔	SB	BL	kg	PU	EUR
180464	280	14	150	0,120	1	<b>44,69</b>
180466	280	16	150	0,132	1	<b>43,48</b>
180468	280	18	150	0,161	1	<b>50,02</b>
180470	280	20	150	0,170	1	<b>50,02</b>
180474	280	24	150	0,193	1	<b>56,84</b>

## Pin punch set



Art. No.	Ø	kg	PU	EUR
180170	3/4/5/6/8/10	0,502	1	<b>56,48</b>

## Hatchets, hammers

### Household hatchet



Art. No.	kg	PU	EUR
180173	0,600	1	<b>22,94</b>

### Claw hammer

wood handle



Art. No.	Oz	kg	PU	EUR
180321	16	0,621	1	<b>9,46</b>

### Claw hammer

fibre glass handle



Art. No.	Oz	kg	PU	EUR
180323	16	0,748	1	<b>12,47</b>

### Engineers' hammer DIN 1041

with polished hickory handle



Art. No.	HG	kg	PU	EUR
180182	200	0,288	1	<b>8,80</b>
180184 *	300	0,462	1	<b>11,18</b>
180186	400	0,561	1	<b>11,71</b>
180188	500	0,684	1	<b>12,55</b>

### Engineers' hammer DIN 1041



Art. No.	HG	kg	PU	EUR
180200	300	0,552	1	<b>17,24</b>
180202	500	0,740	1	<b>18,21</b>

## Fitter's hammer with 3-component handle



Art. No.	HG	↔	kg	PU	EUR
180214	300	320	0,533	1	<b>53,03</b>
180218	500	320	0,733	1	<b>63,78</b>
180222	1000	320	1,233	1	<b>88,54</b>

## Engineers' hammer



Art. No.	HG	HG ibs	kg	PU	EUR
180274	340	3/4	0,416	1	<b>5,87</b>
180276	450	1	0,485	1	<b>7,79</b>



## Hammers

### Sledge hammer to DIN 6475



Art. No.	HG	kg	PU	EUR
180290	1000	1,210	1	<b>24,80</b>
180292	1250	1,504	1	<b>27,56</b>

### Sledge hammer to DIN 6475



Art. No.	HG	kg	PU	EUR
180300 *	1000	1,093	1	<b>15,46</b>
180302	1250	1,375	1	<b>19,14</b>

### Club hammer with 3-component handle



NEW

Art. No.	HG	↔	kg	PU	EUR
180301	1000	260	1,230	1	<b>70,62</b>

### Soft-head hammer



Art. No.	Ø1	kg	PU	EUR
180334	32	0,328	1	<b>20,47</b>
180346	replacement heads	0,460	1	<b>6,26</b>

### Soft-faced hammer with 3-component handle



NEW

Art. No.	Ø1	kg	PU	EUR
180336	32	0,690	1	<b>77,69</b>
180337	replacement heads	0,017	1	<b>14,14</b>
180338	40	0,710	1	<b>109,75</b>
180339	replacement heads	0,035	1	<b>19,79</b>

## Steel stamps

### Steel stamp, figures (0 - 9) DIN 1451



Art. No.	size	set	kg	PU	EUR
130200	3	0-9	0,160	1	<b>13,01</b>
130201	4	0-9	0,243	1	<b>14,59</b>
130202	5	0-9	0,300	1	<b>16,15</b>
130203	6	0-9	0,450	1	<b>20,49</b>
130204	8	0-9	0,650	1	<b>26,74</b>
130206	10	0-9	0,800	1	<b>36,69</b>

### Steel stamp, letters (A - Z), DIN 1451



Art. No.	size	set	kg	PU	EUR
130208	3	A-Z	0,461	1	<b>42,87</b>
130209	4	A-Z	0,650	1	<b>46,03</b>
130210	5	A-Z	0,850	1	<b>49,20</b>
130211	6	A-Z	1,200	1	<b>61,58</b>
130212	8	A-Z	1,950	1	<b>74,00</b>
130214	10	A-Z	2,479	1	<b>114,92</b>

## Files

### Contact files



Art. No.	↔	set	kg	PU	EUR
190126	130	6	0,078	1	<b>9,14</b>

### File assortments

190130 | bastard cut 1  
190132 | smooth cut 3



Art. No.	↔	set	kg	PU	EUR
190130	100	5	0,784	1	<b>37,53</b>
190132 *	200	5	0,799	1	<b>43,47</b>

## Cable stripping knives

### Cable stripping or lead tube knives



Art. No.	BL	pcs	kg	PU	EUR
200008	40	1	0,047	1	<b>7,12</b>

### Cable stripping knives



Art. No.	BL	pcs	kg	PU	EUR
200010	60	1	0,073	1	<b>8,23</b>

### Cable stripping knives



Art. No.	BL	pcs	kg	PU	EUR
200011 *	60	1	0,082	1	<b>23,45</b>

### Cable stripping knives



Art. No.	BL	pcs	kg	PU	EUR
200012	60	1	0,079	1	<b>9,45</b>

### Cable stripping knives



Art. No.	BL	pcs	kg	PU	EUR
200014	60	2	0,078	1	<b>18,57</b>

### Cable stripping knives



Art. No.	BL	pcs	kg	PU	EUR
200016	60	3	0,089	1	<b>21,32</b>

### Cable stripping knives



Art. No.	BL	pcs	kg	PU	EUR
200018	60	4	0,092	1	<b>22,85</b>

## Utility knives

### Utility metal knives



Art. No.	BL	kg	PU	EUR
200025	9	0,072	1	<b>5,43</b>

### Snap blades

10-pieces, suitable for article 200025



Art. No.	BL	kg	PU	EUR
200025/KL	9	0,050	1	<b>1,74</b>

### Utility metal knives



Art. No.	BL	kg	PU	EUR
200027 *	18	0,150	1	<b>9,82</b>

### Safety knife



Art. No.	BL	kg	PU	EUR
200209	18	0,150	1	<b>12,13</b>

### Snap blades

10-pieces, suitable for article 200027 | 200209



Art. No.	BL	kg	PU	PrU	EUR
200032	18	0,054	1	1	<b>2,07</b>

### „Safety“ safety knife



Art. No.	BL	kg	PU	EUR
200021	148	0,111	1	<b>9,19</b>

### Loose knife, hooked blade

10-pieces, suitable for article 200021



Art. No.	kg	PU	PrU	EUR
200028	0,0038	1	1	<b>7,37</b>

## Loose knife, trapezoidal blade

10-pieces, suitable for article 200021



Art. No.	kg	PU	PrU	EUR
200030	0,0046	10	1	<b>0,95</b>

## Utility knife professional HUPblackSeries9



Art. No.	BL	W	ØBL	kg	PU	EUR
200220	145	80	9	0,38	0,111	<b>7,79</b>

## Blade dispenser HUPblades9

suitable for Art. No. 200220 | 200025



Art. No.	BL	W	ØBL	kg	PU	PrU	EUR
200221	80	9	0,38	0,111	10	1	<b>7,79</b>

## Utility knife professional HUPblackSeries18



Art. No.	BL	W	ØBL	kg	PU	EUR
200222	167	100	18	0,6	0,111	<b>11,44</b>

## Blade dispenser HUPblades18

suitable for Art. No. 200222 | 200027 | 200209



Art. No.	BL	W	ØBL	kg	PU	PrU	EUR
200223	100	18	0,6	0,111	10	1	<b>9,69</b>



## Tin snips, tube cutters

### Hole-cutting tin snips

large radii



Art. No.	l	kg	PU	EUR
200140	250	0,523	1	<b>40,41</b>

### Small tube cutter



Art. No.	∅	kg	PU	EUR
200190	3-16	0,107	1	<b>35,59</b>
200192	loose spare wheels	0,025	1	<b>8,10</b>

### Tube cutter



Art. No.	∅	kg	PU	EUR
200194	3-35	0,401	1	<b>36,91</b>
200196	loose spare wheels	0,006	1	<b>8,10</b>

## Saws, saw blades

### Junior hacksaw

type: metal



Art. No.	Sbl.	kg	PU	EUR
200280	150	0,149	1	<b>13,76</b>

### Junior hacksaw DIN 6473 C

type: metal



Art. No.	Sbl.	kg	PU	EUR
200284	150	0,069	1	<b>1,35</b>

### Junior hacksaw

type: metal



Art. No.	Sbl.	kg	PU	EUR
200285	150	0,164	1	<b>17,97</b>

### Junior hacksaw

type: metal



Art. No.	Sbl.	kg	PU	EUR
200287	150	0,164	1	<b>16,51</b>

### Hand saw „PUK“

type: metal



Art. No.	Sbl.	kg	PU	EUR
200290 *	150	0,100	1	<b>11,76</b>

### Hand saw „PUK“

type: metal



Art. No.	Sbl.	kg	PU	EUR
200292	150	0,119	1	<b>22,49</b>

### PUK saw

type: metal



Art. No.	Sbl.	kg	PU	EUR
200282	300	0,100	1	<b>29,81</b>

### Hacksaw blades „PUK“

DIN 6494C - for Art. No. 200292, 200280, 200290, 200284, 200285, 110558  
type: wood/plastic



Art. No.	Sbl.	kg	PU	PrU	EUR
200286	150	0,0036	12	1	<b>0,96</b>

### Hacksaw blades „PUK“

DIN 6494C - for Art. No. 200292, 200280, 200290, 200284, 200285, 110558  
type: metal/universal



Art. No.	Sbl.	kg	PU	PrU	EUR
200288	150	0,0036	12	1	<b>1,01</b>

### Hacksaw frame

type: metal



Art. No.	Sbl.	kg	PU	EUR
200304 *	300	0,408	1	<b>15,94</b>

### Hacksaw blades to DIN 6494

type A, single sided blade HSS-Bi-metal  
type: metal



Art. No.	Sbl.	kg	PU	EUR
200310	300	0,016	1	<b>2,62</b>

### Twist drills, ground

#### Twist drills DIN 338/HSS type N

Packaging unit in blister pack:  
 0,5 - 3,0 mm; 1 SPU = 3 pieces  
 3,2 - 6,0 mm; 1 SPU = 2 pieces  
 6,5 - 13,0 mm; 1 SPU = 1 piece  
**xxxxxx/CO = Cobalt**  
 Packaging unit in blister pack:  
 1,0 - 3,0 mm; 1 SPU = 2 pieces  
 3,2 - 13,0 mm; 1 SPU = 1 piece



Art. No.	Ø-hole	SL	kg	PU	EUR
230010	0,5	6 22	0,004	1	<b>1,47</b>
230020	1	12 34	0,003	1	<b>1,55</b>
230020/CO	1	12 34	0,004	1	<b>1,19</b>
230030	1,5	18 40	0,003	1	<b>1,86</b>
230030/CO	1,5	18 40	0,004	1	<b>1,34</b>
230032	1,6	<b>M2</b> 20 43	0,003	1	<b>1,86</b>
230032/CO	1,6	<b>M2</b> 20 43	0,004	1	<b>2,08</b>
230040	2	24 49	0,005	1	<b>1,86</b>
230040/CO	2	24 49	0,004	1	<b>2,08</b>
230050	2,5	<b>M3</b> 30 57	0,005	1	<b>2,01</b>
230050/CO	2,5	<b>M3</b> 30 57	0,009	1	<b>2,65</b>
230060	3	33 61	0,005	1	<b>2,71</b>
230060/CO	3	33 61	0,004	1	<b>3,94</b>
230064	3,2	36 65	0,005	1	<b>2,31</b>
230064/CO	3,2	36 65	0,004	1	<b>1,82</b>
230066	3,3	<b>M4</b> 36 65	0,006	1	<b>2,17</b>
230066/CO	3,3	<b>M4</b> 36 65	0,011	1	<b>2,45</b>
230070	3,5	39 70	0,007	1	<b>2,17</b>
230070/CO	3,5	39 70	0,004	1	<b>2,45</b>
230080	4	43 75	0,008	1	<b>2,35</b>
230080/CO	4	43 75	0,004	1	<b>2,89</b>
230084	4,2	<b>M5</b> 43 75	0,008	1	<b>2,62</b>
230084/CO	4,2	<b>M5</b> 43 75	0,011	1	<b>3,29</b>
230090	4,5	47 80	0,010	1	<b>2,62</b>
230090/CO	4,5	47 80	0,004	1	<b>3,82</b>
230100	5	<b>M6</b> 52 86	0,010	1	<b>3,70</b>
230100/CO	5	<b>M6</b> 52 86	0,011	1	<b>4,88</b>
230110	5,5	57 93	0,015	1	<b>4,04</b>
230110/CO	5,5	57 93	0,004	1	<b>5,71</b>
230120	6	<b>M7</b> 57 93	0,018	1	<b>4,49</b>
230120/CO	6	<b>M7</b> 57 93	0,004	1	<b>7,05</b>
230130	6,5	63 101	0,022	1	<b>2,35</b>
230130/CO	6,5	63 101	0,004	1	<b>7,92</b>
230136	6,8	<b>M8</b> 69 101	0,026	1	<b>9,16</b>
230136/CO	6,8	<b>M8</b> 69 101	0,029	1	<b>9,53</b>
230140	7	69 109	0,027	1	<b>2,97</b>
230140/CO	7	69 109	0,004	1	<b>9,16</b>
230160	8	75 117	0,036	1	<b>4,12</b>
230160/CO	8	75 117	0,004	1	<b>12,69</b>
230170	8,5	<b>M10</b> 75 117	0,040	1	<b>4,42</b>
230170/CO	8,5	<b>M10</b> 75 117	0,044	1	<b>13,45</b>
230180	9	81 125	0,048	1	<b>5,28</b>
230180/CO	9	81 125	0,004	1	<b>15,70</b>
230190	9,5	81 125	0,054	1	<b>5,71</b>
230190/CO	9,5	81 125	0,004	1	<b>15,00</b>
230200	10	87 133	0,060	1	<b>8,35</b>
230200/CO	10	87 133	0,004	1	<b>18,87</b>
230204	10,2	<b>M12</b> 87 133	0,067	1	<b>8,35</b>
230204/CO	10,2	<b>M12</b> 87 133	0,069	1	<b>20,71</b>
230210	10,5	87 133	0,070	1	<b>8,35</b>
230210/CO	10,5	87 133	0,004	1	<b>19,65</b>
230220	11	87 133	0,078	1	<b>8,35</b>
230220/CO	11	87 133	0,004	1	<b>22,63</b>
230230	11,5	94 142	0,086	1	<b>8,80</b>
230230/CO	11,5	94 142	0,004	1	<b>22,63</b>
230240	12	<b>M14</b> 101 151	0,103	1	<b>10,42</b>
230240/CO	12	<b>M14</b> 101 151	0,004	1	<b>27,32</b>
230244	12,5	101 151	0,109	1	<b>10,69</b>
230244/CO	12,5	101 151	0,004	1	<b>28,12</b>
230250	13	101 151	0,100	1	<b>12,24</b>
230250/CO	13	101 151	0,004	1	<b>30,14</b>

### Twist drills DIN 338/HSS type N



Art. No.	set	Ø	kg	PU	EUR
230312	19	1 - 10	0,540	1	<b>38,63</b>
230312/R	19	1 - 10	0,284	1	<b>28,26</b>
230312/TIN	19	1 - 10	0,345	1	<b>46,13</b>
230314	25	1 - 13	1,270	1	<b>74,67</b>
230314/R	25	1 - 13	1,213	1	<b>54,05</b>
230314/TIN	25	1 - 13	1,290	1	<b>88,85</b>

#### Bulk storage chest for twist drills



Art. No.	set	kg	PU	EUR
230301/TIN	170	4,550	1	<b>298,89</b>

### Drills

#### Auger bit, type Lewis



Art. No.	Ø	kg	PU	EUR
231502	460	6	0,005	<b>6,85</b>
231508	235	10	0,098	<b>9,44</b>
231516	235	14	0,160	<b>12,70</b>
231524	235	18	0,200	<b>17,56</b>
231526	460	18	0,468	<b>31,01</b>
231528	235	20	0,005	<b>18,75</b>
231530	460	20	0,005	<b>31,48</b>
231532	235	22	0,300	<b>17,78</b>
231540	235	26	0,005	<b>22,49</b>
231544	235	28	0,005	<b>22,81</b>
231546	460	28	0,005	<b>49,64</b>

#### Drill type machine bits for wood



Art. No.	Ø	kg	PU	EUR
230616	70	3	0,005	<b>0,58</b>
230618	80	4	0,008	<b>0,61</b>
230620	90	5	0,011	<b>0,69</b>
230622	100	6	0,015	<b>0,72</b>
230626	120	8	0,031	<b>1,06</b>
230628	130	9	0,039	<b>1,05</b>
230630	137	10	0,047	<b>1,58</b>
230634	150	12	0,075	<b>1,86</b>
230636	170	13	0,088	<b>5,50</b>

### Flat bits



Art. No.	Ø	kg	PU	EUR
230732	10 150	6	0,049	<b>2,22</b>
230734	12 150	6	0,049	<b>2,56</b>
230736	14 150	6	0,047	<b>2,78</b>
230738	16 150	6	0,051	<b>2,78</b>
230740	18 150	6	0,047	<b>3,15</b>
230742	20 150	6	0,045	<b>3,33</b>
230746	24 150	6	0,045	<b>3,79</b>

#### Casing drill



Art. No.	Ø	kg	PU	EUR
231750	400	6	0,100	<b>13,53</b>
231752	400	8	0,005	<b>13,62</b>
231754	400	10	0,160	<b>15,26</b>
231756	400	12	0,200	<b>15,74</b>
231758	400	13	0,200	<b>19,91</b>
231760	400	17	0,005	<b>31,75</b>
231766	400	22	0,200	<b>48,27</b>

### Masonry drills

#### Masonry drills DIN 8039



Art. No.	Ø	SL	kg	PU	EUR
230330	70	3	40	0,011	<b>1,44</b>
230331	75	3,5	45	0,056	<b>1,78</b>
230332	80	4	45	0,008	<b>3,07</b>
230334	85	4,5	50	0,008	<b>1,55</b>
230338	95	5,5	55	0,012	<b>1,77</b>
230340	100	6	60	0,018	<b>1,86</b>
230342	105	6,5	65	0,018	<b>2,01</b>
230344	110	7	65	0,018	<b>2,01</b>
230346	120	8	70	0,027	<b>2,47</b>
230352	140	10	90	0,035	<b>3,05</b>
230354	150	11	95	0,082	<b>2,01</b>
230356	160	12	105	0,090	<b>4,12</b>
230358	170	13	110	0,100	<b>5,20</b>
230360	180	14	115	0,120	<b>5,20</b>
230362	190	15	125	0,165	<b>2,84</b>
230364	190	16	125	0,091	<b>6,19</b>

#### Masonry drills DIN 8039



Art. No.	Ø	SL	kg	PU	EUR
230370	400	8	300	0,130	<b>3,73</b>
230372	400	10	300	0,124	<b>4,42</b>
230376	400	14	300	0,316	<b>6,35</b>
230378	400	16	300	0,232	<b>7,28</b>
230380	400	18	300	0,460	<b>8,07</b>
230382	400	20	300	0,608	<b>9,94</b>
230400	600	8	500	0,222	<b>13,48</b>
230402	600	10	500	0,222	<b>16,80</b>
230404	600	12	500	0,330	<b>19,69</b>
230406	600	14	500	0,463	<b>21,92</b>
230408	600	16	500	0,568	<b>38,02</b>
230410	600	18	500	0,715	<b>30,77</b>
230412	600	20	500	0,896	<b>36,30</b>
230414	600	22	500	1,164	<b>42,98</b>

Standard program

**Masonry drill bit**



Art. No.	↔	∅	kg	PU	EUR
231700	70	3	0,007	1	1,04
231702	85	4	0,010	1	1,10
231704	95	5	0,016	1	1,15
231706	100	6	0,018	1	1,48
231708	100	7	0,020	1	1,37
231710	120	8	0,027	1	2,24
231712	120	9	0,030	1	2,45
231714	120	10	0,035	1	2,89
231716	150	11	0,090	1	4,04
231718	150	12	0,100	1	4,27

**SDS hammer drill bits**



Art. No.	↔	∅	SL	kg	PU	EUR
230430	110	5	50	0,037	1	4,97
230431	160	5	100	0,042	1	5,78
230432	110	5,5	50	0,037	1	4,97
230433	160	5,5	100	0,045	1	5,99
230434	110	6	50	0,039	1	5,00
230436	160	6	100	0,045	1	5,37
230438	110	6,5	50	0,038	1	5,10
230438/A	160	7	100	0,050	1	6,26
230440	110	7	50	0,041	1	5,42
230442	110	8	50	0,046	1	5,95
230442/A	160	8	100	0,056	1	6,40
230444	210	8	150	0,064	1	9,14
230444/A	460	8	400	0,150	1	21,18
230448	160	10	100	0,065	1	8,84
230450	210	10	150	0,087	1	8,61
230450/A	260	10	150	0,118	1	10,48
230451	460	10	400	0,192	1	24,72
230453	210	12	150	0,107	1	10,38
230454	160	12	100	0,097	1	10,06
230456	260	12	200	0,159	1	12,58
230457	460	12	400	0,263	1	20,90
230458	160	13	85	0,111	1	14,47
230459	600	12	540	0,286	1	38,25
230460	160	14	100	0,087	1	11,12
230460/A	260	14	200	0,179	1	15,49
230461	460	14	400	0,257	1	22,03
230464	210	16	150	0,197	1	19,26
230466	460	16	400	0,418	1	27,38
230467	600	14	540	0,339	1	38,87
230473	600	16	540	0,561	1	43,53
230474	210	20	150	0,246	1	29,70
230475	460	18	400	0,475	1	42,19
230478/1	600	10	540	0,270	1	34,94
230395	460	20	400	0,585	1	51,52
230396	600	20	540	0,737	1	63,89
230397	460	22	400	0,669	1	76,21
230398	460	25	400	0,998	1	60,27

**SDS-Nut-hammer drill sets**

Content: 5, 6, 8 x 110 / 6, 8, 10, 12 x 160



Art. No.	set	kg	PU	EUR
230479	7	0,679	1	75,11

**SDS-hammer drill sets**

Content: 5, 6 x 110 / 6, 8, 10 x 160



Art. No.	set	kg	PU	EUR
230979	5	0,261	1	15,09

**SDS hammer drill bits**



Art. No.	↔	∅	SL	kg	PU	EUR
230900 *	110	5	50	0,036	1	2,31
230902	160	5	100	0,042	1	2,54
230904	110	5,5	50	0,036	1	2,45
230906/1	160	5,5	100	0,043	1	2,57
230908 *	110	6	50	0,040	1	2,37
230910 *	160	6	100	0,045	1	2,70
230912	110	6,5	50	0,041	1	2,55
230914	160	6,5	100	0,045	1	2,73
230916 *	110	7	50	0,040	1	2,81
230918	160	7	100	0,045	1	2,89
230920	110	8	50	0,045	1	2,74
230922 *	160	8	100	0,055	1	3,13
230924	210	8	150	0,067	1	3,79
230926 *	160	10	100	0,068	1	3,61
230928	210	10	150	0,095	1	4,38
230930/1	260	10	150	0,107	1	4,18
230932	450	10	400	0,155	1	8,44
230934	600	10	540	0,365	1	9,71
230936	260	11	210	0,070	1	6,48
230938	160	12	100	0,077	1	3,55
230940	210	12	150	0,106	1	4,89
230942	310	12	260	0,120	1	4,82
230944	460	12	400	0,250	1	8,44
230946	600	12	540	0,315	1	9,90
230948	160	13	100	0,085	1	4,33
230950	160	14	100	0,200	1	5,84
230952	260	14	210	0,250	1	7,96
230954/1	460	14	400	0,300	1	9,41
230956	600	14	540	0,365	1	11,48
230958	160	15	100	0,120	1	6,40
230960	210	16	150	0,195	1	10,03
230962/1	460	16	400	0,346	1	11,89
230964	600	16	540	0,418	1	13,86
230966	200	18	140	0,180	1	10,60
230968	460	18	400	0,395	1	16,90
230970	210	20	150	0,221	1	8,61
230972	310	20	250	0,383	1	10,69
230974	460	20	400	0,503	1	15,39
230976	460	22	400	0,583	1	22,32
230978	460	25	400	0,753	1	22,81

**Step drills**

**Combination step drills/HSS**



Art. No.	c-hole	∅ min.	∅ max.	kg	PU	EUR
231319 *	10,5-38,5	8,5	40,5	0,269	1	153,17

**Step drills /HSS**



Art. No.	∅ min.	∅ max.	kg	PU	EUR
231324	8,5	40,5	0,199	1	157,30

**Step drills /HSS**



Art. No.	∅ min.	∅ max.	kg	PU	EUR
231326	8,5	30,5	0,208	1	146,49

**Step drills /HSS**



Art. No.	∅ min.	∅ max.	kg	PU	EUR
231320	7	40	0,237	1	159,29
231322	7	30	0,151	1	133,22

**Step drills /HSS**



Art. No.	∅ min.	∅ max.	⊕	kg	PU	EUR
231336	4	12	6	0,027	1	42,27
231338	12	20	10	0,079	1	69,81
231340	20	30	12	0,203	1	122,89
231342	30	40	12	0,371	1	213,35
231350	4	12	6	0,027	1	51,13
231352	4	20	8	0,059	1	58,02
231354	6	30	10	0,162	1	87,01

**Step drills assortment/HSS**

Content: ∅ 4 - 12 mm, ∅ 12 - 20 mm, ∅ 20 - 30 mm



Art. No.	set	∅	kg	PU	EUR
231327	3	4 - 30	0,597	1	267,41

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## Cone drills

### Cone drills/Aerial drills/HSS



Art. No.	∅ min.	∅ max.	∩	kg	PU	EUR
231300	3	14	6	0,027	1	<b>31,95</b>
231301	6	20	8	0,055	1	<b>37,86</b>
231330	6	22,5	8	0,085	1	<b>54,05</b>
231302	16	30	10	0,139	1	<b>66,36</b>
231304	26	40	12	0,265	1	<b>133,22</b>
231305 *	6	30	10	0,166	1	<b>74,73</b>
231306	36	50	12	0,350	1	<b>223,69</b>
231307	46	60	13	0,551	1	<b>328,88</b>

### Set of cone drills/HSS

Content: 1 piece each No. 1, 2, 3 (∅ 3 - 30 mm)



Art. No.	∅	set	kg	PU	EUR
231312	3 - 30	3	0,510	1	<b>148,96</b>

## Screw punches

### Screw punches



Art. No.	PG	screws	kg	PU	EUR
180513	ISO 16	180530	0,101	1	<b>51,39</b>
180515	ISO 20	180530	0,115	1	<b>56,74</b>
180517	ISO 25	180530	0,154	1	<b>60,94</b>
180519	ISO 32	180532	0,320	1	<b>84,83</b>
180521	ISO 40	180532	0,950	1	<b>128,71</b>
180523	ISO 50	180534	0,636	1	<b>166,72</b>
180525	ISO 63	180534	0,974	1	<b>196,36</b>
180500	PG9	180530	0,097	1	<b>51,66</b>
180502	PG11	180530	0,106	1	<b>55,79</b>
180504	PG13,5	180530	0,115	1	<b>57,41</b>
180506	PG16	180530	0,100	1	<b>58,51</b>
180508	PG21	180530	0,176	1	<b>68,07</b>
180510	PG29	180532	0,400	1	<b>108,67</b>
180512	∅ 30,5	180534	0,202	1	<b>75,17</b>
180514	PG36	180534	0,590	1	<b>162,10</b>
180516	PG42	180534	1,250	1	<b>188,85</b>
180518	PG48	180534	0,319	1	<b>210,12</b>
180520	∅ 28,6	180530	0,250	1	<b>68,07</b>

### Spare screws

metric



Art. No.	size	kg	PU	EUR
180530	10 x 1,0	0,048	1	<b>6,99</b>
180532	12 x 1,5	0,070	1	<b>7,87</b>
180534	16 x 1,5	0,139	1	<b>9,50</b>

## Diamond hollow core cutters

### Diamond hollow core cutters



Art. No.	∅	kg	PU	EUR
230676	68	0,453	1	<b>94,28</b>
230677	82	0,590	1	<b>104,75</b>

### Diamond hollow core cutters



Art. No.	∅	∅	kg	PU	EUR	
230676/K	68	SDS-plus	8	0,672	1	<b>141,95</b>
230677/K	82	SDS-plus	8	0,764	1	<b>152,42</b>

### Diamond hollow core cutter special

laser-welded



Art. No.	∅	∅	kg	PU	EUR	
230885/K	68	SDS-plus	8	0,450	1	<b>264,27</b>
230886/K	82	SDS-plus	8	0,787	1	<b>215,27</b>

### Drill for Diamond hollow core cutters



Art. No.	∅	∅	kg	PU	EUR
230679	120	9	0,044	1	<b>11,51</b>

### Shank for hollow core cutters, SDS-Plus



Art. No.	∅	kg	PU	EUR	
230681/K	100	SDS-plus	0,150	1	<b>36,13</b>

## Cutting discs

### Diamond cutting disk „Spezial“

These HAUPA discs can cut everything but stone!



LONG LIFE



Art. No.	∅	kg	PU	EUR
230727	115	0,120	1	<b>69,13</b>
230731 *	125	0,140	1	<b>70,71</b>

### Diamond cutting blades



Art. No.	∅	kg	PU	EUR
230689	115	0,100	1	<b>28,80</b>
230691	125	0,149	1	<b>34,06</b>
230720	135	0,193	1	<b>109,52</b>
230721	140	0,219	1	<b>156,91</b>
230704	150	0,245	1	<b>60,23</b>
230705	180	0,317	1	<b>123,50</b>
230706	230	0,700	1	<b>78,56</b>
230711	300	1,256	1	<b>226,18</b>

### Diamond cutting blades



Art. No.	∅	kg	PU	EUR
230701	115	0,132	1	<b>21,00</b>
230702	125	0,169	1	<b>14,16</b>
230708	180	0,339	1	<b>83,35</b>
230709	230	0,681	1	<b>40,85</b>

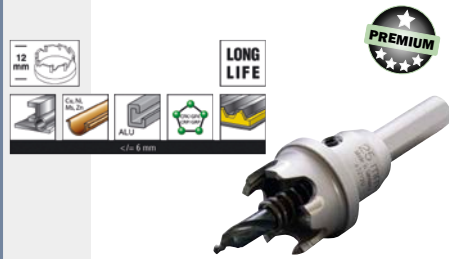
### Diamond cutting blades, TBM Turbo



Art. No.	∅	kg	PU	EUR
230722	115	0,120	1	<b>42,85</b>
230723	125	0,134	1	<b>52,38</b>
230725	230	0,706	1	<b>116,69</b>

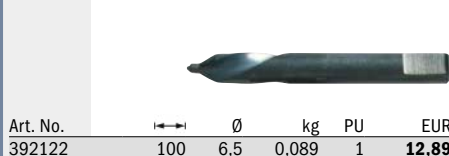
### Hollow saws

#### T.C.T. Hole Saw



Art. No.	Ø	ST	Ø	kg	PU	EUR
392100	16	12	6,5	0,046	1	<b>62,43</b>
392102	20	31	6,5	0,046	1	<b>62,43</b>
392104	22	31	6,5	0,046	1	<b>63,54</b>
392106	22,5	31	6,5	0,0978	1	<b>63,54</b>
392108	25	31	6,5	0,046	1	<b>64,73</b>
392110	30	31	6,5	0,046	1	<b>72,84</b>
392112	32	31	6,5	0,046	1	<b>80,30</b>
392114	35	31	6,5	0,046	1	<b>84,38</b>
392116	40	31	6,5	0,046	1	<b>96,80</b>
392118	50	31	6,5	0,046	1	<b>117,63</b>
392120	60	31	6,5	0,046	1	<b>164,42</b>

#### T.C.T. center drill for hole saw arbors



Art. No.	Ø	kg	PU	EUR
392122	100	6,5	0,089	1 <b>12,89</b>

#### Spring for hole saw arbors



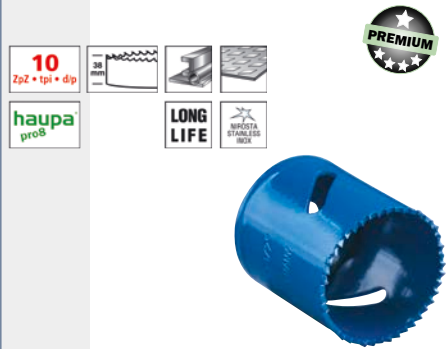
Art. No.	kg	PU	EUR
392124	0,046	1	<b>1,24</b>

#### T.C.T. Hole Saw Fastcut



Art. No.	Ø Inch	Ø ST	Ø	kg	PU	EUR
231942	3/4	19	50	6,35	0,047	1 <b>16,67</b>
231944	7/8	22	50	6,35	0,062	1 <b>17,22</b>
231946	1	25	50	6,35	0,077	1 <b>17,22</b>
231950	1 3/16	30	50	6,35	0,115	1 <b>18,63</b>
231952	1 1/4	32	50	6,35	0,122	1 <b>19,11</b>
231954	1 3/8	35	50	6,35	0,133	1 <b>19,11</b>
231956	1 9/16	40	50	6,35	0,123	1 <b>19,88</b>
231958	1 3/4	44	50	6,35	0,144	1 <b>20,74</b>
231960	2	51	50	6,35	0,179	1 <b>24,93</b>
231962	2 1/8	54	50	6,35	0,198	1 <b>25,45</b>
231964	2 3/8	60	50	6,35	0,206	1 <b>27,21</b>
231966	2 1/2	64	50	6,35	0,267	1 <b>31,26</b>
231968	2 9/16	65	50	6,35	0,279	1 <b>31,26</b>
231970	2 11/16	68	50	6,35	0,275	1 <b>33,02</b>
231972	2 3/4	70	50	6,35	0,316	1 <b>33,50</b>
231974	3	76	50	6,35	0,298	1 <b>35,48</b>
231976	3 1/8	79	50	6,35	0,379	1 <b>39,13</b>
231978	3 1/4	83	50	6,35	0,428	1 <b>40,16</b>
231980	4	102	50	6,35	0,591	1 <b>49,14</b>
231982	4 1/2	114	50	6,35	0,773	1 <b>52,13</b>

### Bi-Metal Hole Saws 10 tpi, 8% Cobalt



Art. No.	Ø	ST	Ø	kg	PU	EUR
392050	16	31	6,5	0,046	1	<b>14,83</b>
392052	19	31	6,5	0,046	1	<b>14,83</b>
392054	20	31	6,5	0,046	1	<b>15,37</b>
392056	21	31	6,5	0,046	1	<b>15,70</b>
392058	22	31	6,5	0,046	1	<b>15,70</b>
392060	24	31	6,5	0,046	1	<b>16,67</b>
392062	25	31	6,5	0,046	1	<b>16,67</b>
392064	29	31	6,5	0,046	1	<b>17,91</b>
392066	30	31	6,5	0,046	1	<b>17,91</b>
392070	38	31	6,5	0,046	1	<b>19,37</b>
392072	40	31	6,5	0,046	1	<b>20,15</b>

### Bi-Metal Hole Saws 4 - 6 tpi, 8% Cobalt



Art. No.	Ø Inch	Ø ST	Ø	kg	PU	EUR
231803	9/16	14	30	6,35	0,036	1 <b>12,97</b>
231900	3/4	19	35	6,35	0,036	1 <b>14,37</b>
231901/21	21	30	6,5	0,046	1	<b>14,24</b>
231902	7/8	22	35	6,35	0,046	1 <b>14,88</b>
231904	1	25	35	6,35	0,071	1 <b>15,37</b>
231904/29	29	30	6,5	0,046	1	<b>15,76</b>
231906	1 1/6	27	35	6,35	0,075	1 <b>15,64</b>
231908	1 3/16	30	35	6,35	0,079	1 <b>16,36</b>
231910	1 1/4	32	35	6,35	0,085	1 <b>17,08</b>
231912	1 3/8	35	35	6,35	0,092	1 <b>17,67</b>
231912/38	38	30	6,5	0,046	1	<b>17,30</b>
231914	1 9/16	40	35	6,35	0,086	1 <b>18,05</b>
231914/46	46	30	6,5	0,046	1	<b>18,79</b>
231916	1 3/4	44	35	6,35	0,105	1 <b>18,81</b>
231918	2	51	35	6,35	0,133	1 <b>19,41</b>
231920	2 1/8	54	35	6,35	0,145	1 <b>20,95</b>
231922	2 3/8	60	35	6,35	0,168	1 <b>21,44</b>
231924	2 1/2	64	35	6,35	0,192	1 <b>23,62</b>
231926	2 9/16	65	35	6,35	0,198	1 <b>23,89</b>
231928	2 11/16	68	35	6,35	0,214	1 <b>24,25</b>
231930	2 3/4	70	35	6,35	0,223	1 <b>25,42</b>
231931	2 7/8	73	35	6,35	0,236	1 <b>26,18</b>
231932	3	76	35	6,35	0,253	1 <b>26,84</b>
231934	3 1/8	79	35	6,35	0,275	1 <b>28,08</b>
231936	3 1/4	83	35	6,35	0,304	1 <b>29,33</b>
231938	4	102	35	6,35	0,429	1 <b>41,84</b>
231939/111	111	30	6,5	0,046	1	<b>47,73</b>
231940	4 1/2	114	35	6,35	0,549	1 <b>48,85</b>
231940/127	127	30	6,5	0,046	1	<b>53,16</b>
231940/152	152	30	6,5	0,046	1	<b>72,30</b>
231940/210	210	30	6,5	0,046	1	<b>118,47</b>

### Hole saw with edge countersink and board ejector



Art. No.	Ø Inch	Ø ST	Ø	kg	PU	EUR
231929	2 11/16	68	35	6,35	0,036	1 <b>73,65</b>

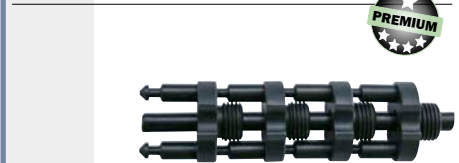
### Adapter for hollow saws

#### Quick change holder for hole saws „RE-LOAD“



Art. No.	Ø	Shank Ø	kg	PU	EUR
392010	14 - 210	9,5	0,046	1	<b>52,64</b>

#### Adapter assortment for holder „RE-LOAD“



Art. No.	Ø	Shank Ø	kg	PU	EUR
392012	14 - 30	9,5	0,046	1	<b>45,82</b>
392014	32 - 210	9,5	0,046	1	<b>51,11</b>
392016	14 - 210	9,5	0,046	1	<b>47,62</b>

#### Adapter assortment for hole enlarger „RE-LOAD“



Art. No.	Ø	Shank Ø	kg	PU	EUR
392018	14 - 210	9,5	0,046	1	<b>57,93</b>

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### Centre drill for holder „RE-LOAD“

RE-LOAD



Art. No.	∅	kg	PU	EUR
392020	100 6,5	0,046	1	7,73

### Centre drill for holder 392024 | 392026 | 392028



Art. No.	∅	kg	PU	EUR
392022	100 6,5	0,046	1	15,52

### Hex shank with plug ejection



Art. No.	∅	Shank ∅	kg	PU	EUR
392028	32 - 210	9,5	0,046	1	98,22

### SDS-shank



Art. No.	∅	Shank ∅	kg	PU	EUR
392024	14 - 30	11	0,046	1	18,41

### SDS-shank



Art. No.	∅	Shank ∅	kg	PU	EUR
392026	32 - 210	11	0,046	1	19,93

### Adapter „QuickLock“



Art. No.	∅	Shank ∅	kg	PU	EUR
231998	14 - 30	8	0,067	1	21,17
231999 *	32 - 210	11	0,107	1	28,27

### Centre drills for 231998 / 231999



Art. No.	∅	kg	PU	EUR
232007	120 9	0,020	1	9,08

### Hollow saws

#### Compass saw set bi-metal

Set in black plastic case, dimensions: 255 x 210 x 72 mm

#### Content:

- HSS bi-metal compass saws ∅ 22mm (231902), ∅ 27mm (231906), ∅ 32mm (231910), ∅ 44mm (231916), ∅ 68mm (231928), ∅ 76mm (231932), ∅ 83mm (231936)
- Drill holder, "QuickLock" with hexagonal receiver: Size 14-30 (231998) and size 32-152 (231999)



Art. No.	set	kg	PU	EUR
232011	9	1,850	1	275,68

#### Bi-metal hole saw set

RE-LOAD

Set in black plastic case, dimensions: 255 x 210 x 72 mm

#### Content:

- Hole saws bi-metal 35 mm
- Hole saws bi-metal 68 mm
- Hole saws bi-metal 76 mm
- Quick change holder for hole saws "RE-LOAD"
- 3 adapters for holder "RE-LOAD" 32 - 210 mm



Art. No.	set	kg	PU	EUR
231984	6	0,900	1	163,47

### Bi-metal hole saw set „QuickChange“

Set in black plastic case, dimensions: 255 x 210 x 72 mm

#### Content:

- Hole saws bi-metal 35 mm
- Hole saws bi-metal 40 mm
- Hole saws bi-metal 51 mm
- Hole saws bi-metal 68 mm
- Hole saws bi-metal 73 mm
- Hole saws bi-metal 83 mm
- Adapter „QuickLock“



Art. No.	set	kg	PU	EUR
230002	7	1,785	1	206,99

## Threading bits, taps

### HSS taps "Direct cutter"



Art. No.	Ø	WS	kg	PU	EUR
230982	4	4,5	0,008	1	<b>8,12</b>
230984	5	6	0,014	1	<b>8,35</b>
230986	6	6	0,017	1	<b>8,35</b>
230988	8	6	0,012	1	<b>10,34</b>

### Taps for armoured steel conduits, metric thread



Art. No.	Ø	kg	PU	EUR
140236	16	0,040	1	<b>29,84</b>
140238	20	0,060	1	<b>34,92</b>
140240	25	0,206	1	<b>52,80</b>
140242	32	0,359	1	<b>72,21</b>
140244	40	0,648	1	<b>113,94</b>
140246	50	0,230	1	<b>246,74</b>
140248	63	1,688	1	<b>341,83</b>

### Adjustable tap wrenches



Art. No.	thd.	tap wrench	kg	PU	EUR
140180	M 7-25	PG 7-21	0,850	1	<b>324,46</b>

### Adjustable tap wrenches DIN 1814



Art. No.	thd.	tap wrench	kg	PU	EUR
231050	M1 - 8	0	0,050	1	<b>7,55</b>
231052	M1 - 10	1	0,099	1	<b>7,81</b>
231054	M1 - 12	1,5	0,097	1	<b>7,81</b>
231056	M4 - 12	2	0,285	1	<b>13,18</b>
231058	M5 - 21	3	0,700	1	<b>23,10</b>
231060	M9 - 27	4	1,270	1	<b>35,45</b>
231062	M12 - 33	5	1,630	1	<b>63,92</b>
231064	M19 - 38	6	4,520	1	<b>118,98</b>

### Nipple threading dies



Art. No.	thd.	kg	PU	EUR
140190	M 10	0,100	1	<b>63,72</b>
140192	M 10	0,130	1	<b>69,28</b>

### Nipple threading dies



Art. No.	thd.	kg	PU	EUR
140210	M 10, M 13	0,210	1	<b>142,03</b>

## Ratchet wrenches



Art. No.	thd.	WS	kg	PU	EUR
231070	85 M3 - 10	2,4 - 5,5	0,174	1	<b>15,74</b>
231072	100 M5 - 12	4,5 - 8,0	0,271	1	<b>18,68</b>
231074	250 M3 - 10	2,4 - 5,5	0,026	1	<b>24,57</b>
231076	300 M5 - 12	4,5 - 8,0	0,420	1	<b>31,95</b>

### Complete stocks, metric thread



Art. No.	thd.	kg	PU	EUR
140214	M 16, M 20, M 25	1,000	1	<b>179,19</b>
140216	M 10	1,350	1	<b>142,78</b>

### Complete stocks, metric thread



Art. No.	thd.	kg	PU	EUR
140218	M 32, M 40	2,850	1	<b>299,24</b>
140220	M 50, M 63	3,500	1	<b>641,27</b>

### Dies, metric thread



Art. No.	thd.	kg	PU	EUR
140222	M16	0,175	1	<b>33,15</b>
140224	M 10	0,138	1	<b>32,51</b>
140226	M 10, M 13	0,145	1	<b>32,51</b>
140228	M32	0,477	1	<b>92,04</b>
140230	M 40	0,130	1	<b>90,11</b>
140232	M 50	0,980	1	<b>164,16</b>
140234	M 63	0,791	1	<b>160,25</b>

### Guides, metric



Art. No.	Ø	kg	PU	EUR
140250	16	0,037	1	<b>8,74</b>
140252	20	0,040	1	<b>7,66</b>
140254	25	0,035	1	<b>8,76</b>
140256	32	0,030	1	<b>12,70</b>
140258	40	0,060	1	<b>12,58</b>
140260	50	0,070	1	<b>21,64</b>
140262	63	0,134	1	<b>19,87</b>

## Screw extractor set



Art. No.	size	set	kg	PU	EUR
230682	1-5/M3-18	5	0,111	1	<b>16,90</b>
230683	1-6/M3-24	6	0,231	1	<b>25,83</b>

## Hand taps DIN 352, type N/HSS



Art. No.	Ø	WS	kg	PU	EUR
230800	1	2,5	0,010	1	<b>31,27</b>
230802	1,4	2,5	0,010	1	<b>34,02</b>
230804	1,6	2,5	0,002	1	<b>31,27</b>
230806	1,8	2,5	0,002	1	<b>66,51</b>
230808	2	2,8	0,002	1	<b>34,02</b>
230810	2,2	2,8	0,002	1	<b>28,22</b>
230812	2,5	2,8	0,002	1	<b>26,65</b>
230814	3	3,5	0,033	1	<b>11,30</b>
230816	3,5	4	0,004	1	<b>26,21</b>
230818	4	4,5	0,017	1	<b>11,30</b>
230820	4,5	5,5	0,005	1	<b>36,27</b>
230822	5	6	0,034	1	<b>11,30</b>
230824	6	6	0,035	1	<b>11,30</b>
230826	7	6	0,039	1	<b>22,18</b>
230828	8	6	0,046	1	<b>13,76</b>
230830	9	7	0,065	1	<b>32,26</b>
230832	10	7	0,071	1	<b>18,18</b>
230834	11	8	0,025	1	<b>39,32</b>
230836	12	9	0,115	1	<b>21,64</b>
230838	14	11	0,052	1	<b>29,49</b>
230840	16	12	0,062	1	<b>29,49</b>
230842	18	14	0,102	1	<b>42,76</b>
230844	20	16	0,125	1	<b>46,69</b>
230846	22	18	0,182	1	<b>54,05</b>
230848	24	18	0,205	1	<b>73,74</b>
230850	27	20	0,260	1	<b>141,09</b>
230852	30	22	0,395	1	<b>181,38</b>
230854	33	25	0,480	1	<b>221,70</b>
230856	36	28	0,645	1	<b>302,32</b>
230858	39	32	2,400	1	<b>352,73</b>
230860	42	32	0,930	1	<b>403,11</b>
230862	45	36	1,140	1	<b>503,87</b>
230864	48	36	1,370	1	<b>745,73</b>
230866	52	40	1,650	1	<b>854,57</b>
230868	56	45	2,800	1	<b>1.257,68</b>
230870	60	45	2,900	1	<b>1.693,02</b>

### HSS taps set

**Contents:** M 3, M 4, M 5, M 6, M 8, M 10, M 12, with taps to DIN 352, in metal box,



Art. No.	set	kg	PU	EUR
231080	23	0,696	1	<b>100,77</b>

### Combi, threading bit set, made of HSSG SGE-Bit (DBGM)

**Contents:** M 3, M 4, M 5, M 6, M 8, M 10



Art. No.	set	kg	PU	EUR
231082	7	0,188	1	<b>108,15</b>

### HSS Tap set

**Contents:**

hand tap (DIN 352) M 3, 4, 5, 6, 8, 10, 12  
 Dies (DIN 223) M 3, 4, 5, 6, 8, 10, 12,  
 Dies stock 20 x 5/20 x 7/25 x 9/30 x 11/38 x 14 mm  
 tape holder size 1 + 2



Art. No.	set	kg	PU	EUR
231280	37	2,520	1	<b>273,96</b>

### HSS Tap set

**Contents:**

Hand tap (DIN 352) M 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20  
 Dies (DIN 223) M 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20  
 Dies holder 20 x 7/25 x 9/30 x 11/38 x 14/ 45 x 18 mm  
 Tap holder size 1 + 2 + 3



Art. No.	set	kg	PU	EUR
231282	55	8,200	1	<b>653,81</b>



### Wood screws

#### Universal countersunk screw

Chipboard screw, galvanised, counter-sunk head, Pozidriv



Art. No.	↳	Ø	Antr.	PU	PrU	EUR	
790005	15	3	PZ	2	200	100	<b>1,88</b>
790006	25	3	PZ	2	200	100	<b>2,14</b>
790008	40	3	PZ	2	200	100	<b>2,89</b>
790015	20	3,5	PZ	2	200	100	<b>2,23</b>
790016	25	3,5	PZ	2	200	100	<b>2,42</b>
790017	30	3,5	PZ	2	200	100	<b>2,24</b>
790018	35	3,5	PZ	2	200	100	<b>2,76</b>
790079	40	3,5	PZ	2	200	100	<b>3,08</b>
790027	30	4	PZ	2	200	100	<b>2,96</b>
790029 *	40	4	PZ	2	200	100	<b>3,60</b>
790030	45	4	PZ	2	200	100	<b>3,97</b>
790031	50	4	PZ	2	200	100	<b>3,98</b>
790040	35	4,5	PZ	2	200	100	<b>4,19</b>
790041 *	40	4,5	PZ	2	200	100	<b>4,46</b>
790043	50	4,5	PZ	2	200	100	<b>5,09</b>
790051	30	5	PZ	2	100	100	<b>4,37</b>
790053	40	5	PZ	2	100	100	<b>5,10</b>
790054	50	5	PZ	2	100	100	<b>6,82</b>
790055	60	5	PZ	2	100	100	<b>7,18</b>
790056	80	5	PZ	2	100	100	<b>9,53</b>
790063	50	6	PZ	3	100	100	<b>9,05</b>
790064	60	6	PZ	3	50	100	<b>10,89</b>
790065	80	6	PZ	3	50	100	<b>14,30</b>

#### Universal pan head screw

Fibreboard screws, galvanised, pan head Pozidriv



Art. No.	↳	Ø	Antr.	PU	PrU	EUR	
790090	25	3,5	PZ	2	200	100	<b>2,77</b>
790091	30	3,5	PZ	2	200	100	<b>3,09</b>
790093	40	3,5	PZ	2	200	100	<b>3,69</b>
790100	30	4	PZ	2	200	100	<b>3,58</b>
790101	35	4	PZ	2	200	100	<b>3,91</b>
790102	40	4	PZ	2	200	100	<b>4,13</b>
790103	45	4	PZ	2	200	100	<b>4,68</b>
790104	50	4	PZ	2	200	100	<b>5,09</b>
790111	40	4,5	PZ	2	200	100	<b>5,65</b>
790112	45	4,5	PZ	2	200	100	<b>6,80</b>
790113	50	4,5	PZ	2	200	100	<b>6,51</b>
790118	30	5	PZ	2	200	100	<b>5,10</b>
790120	40	5	PZ	2	200	100	<b>6,04</b>
790121	50	5	PZ	2	200	100	<b>9,25</b>

#### Hexagonal wood screws, hot zinc dipped

in accordance with DIN 571, hot zinc dipped, general requirements according to DIN 267 Part 1



Art. No.	↳	Ø	⌀	PU	PrU	EUR
790212/V	80	6	10	25	100	<b>63,67</b>
790223/V	60	8	13	25	100	<b>66,68</b>
790224/V	80	8	13	25	100	<b>101,09</b>
790235/V	60	10	17	10	100	<b>134,03</b>

#### Dry wall screws

galvanised, counter-sunk head, Tx



Art. No.	↳	Ø	Antr.	PU	PrU	EUR	
790920	32	3,9	TX	20	200	100	<b>2,84</b>
790922	41	3,9	TX	20	200	100	<b>3,51</b>

### Hexagonal wood screws

in accordance with DIN 571, galvanised, general requirements according to DIN 267 Part 1



Art. No.	↳	Ø	⌀	PU	PrU	EUR
790210	40	6	10	50	100	<b>10,20</b>
790211	60	6	10	25	100	<b>16,79</b>
790212	80	6	10	25	100	<b>20,91</b>
790222	50	8	13	25	100	<b>21,53</b>
790223	60	8	13	25	100	<b>25,47</b>
790224	80	8	13	25	100	<b>32,96</b>
790225	100	8	13	25	100	<b>39,58</b>
790235	60	10	17	10	100	<b>47,10</b>
790236	80	10	17	10	100	<b>57,34</b>
790237	100	10	17	10	100	<b>66,17</b>

#### Hooks

galvanised



Art. No.	Ø	SftL	PU	PrU	EUR
790900	4,2	50 mm	50	100	<b>15,68</b>
790902	5,8	80 mm	10	100	<b>52,76</b>

### Tin screws, assembly screws

#### TwinSpeed self tapping screw

galvanised, pan head, Philips cross-head and double helix thread, considerably shortened screw-in times when compared to traditional screws thanks to the double start thread. Uses: Wood, plywood, plasterboard, rawlplugs



Art. No.	↳	Ø	Antr.	PU	PrU	EUR	
790303	19	3,5	PH	2	100	100	<b>3,57</b>
790311	32	3,5	PH	2	100	100	<b>3,75</b>
790325	13	4,2	PH	2	100	100	<b>3,16</b>
790326	16	4,2	PH	2	100	100	<b>3,43</b>
790327	19	4,2	PH	2	100	100	<b>3,66</b>
790329	25	4,2	PH	2	100	100	<b>4,37</b>
790332	31	4,2	PH	2	100	100	<b>5,41</b>
790333	38	4,2	PH	2	100	100	<b>5,57</b>
790334	45	4,2	PH	2	100	100	<b>6,13</b>
790335	65	4,2	PH	2	100	100	<b>8,58</b>

#### Plate screw DIN 7504

in accordance with DIN 7504M (formerly N), self-tapping, hardened steel, galvanised, pan head with Phillips slot, plate screw thread according to DIN 7970



Art. No.	↳	Ø	Antr.	PU	PrU	EUR	
790411	13	3,5	PH	2	200	100	<b>2,21</b>
790413	19	3,5	PH	2	200	100	<b>6,63</b>
790416	13	3,9	PH	2	200	100	<b>2,81</b>
790417	16	3,9	PH	2	200	100	<b>2,91</b>
790419	25	3,9	PH	2	200	100	<b>4,14</b>
790422	13	4,2	PH	2	200	100	<b>2,95</b>
790423	16	4,2	PH	2	200	100	<b>3,50</b>
790424	19	4,2	PH	2	200	100	<b>3,66</b>
790426	25	4,2	PH	2	200	100	<b>4,07</b>
790428	32	4,2	PH	2	200	100	<b>8,16</b>
790432	13	4,8	PH	2	200	100	<b>4,20</b>
790433	16	4,8	PH	2	200	100	<b>4,54</b>
790434	19	4,8	PH	2	200	100	<b>5,91</b>
790436	25	4,8	PH	2	200	100	<b>5,74</b>

#### Plate screw DIN 7504, Tx

in accordance with DIN 7504M (formerly N), self-tapping, hardened steel, galvanised, Tx, plate screw thread according to DIN 7970



Art. No.	↳	Ø	Antr.	PU	PrU	EUR	
790510	13	4,2	TX	20	100	100	<b>3,87</b>
790512	16	4,2	TX	20	100	100	<b>4,24</b>
790514	19	4,2	TX	20	100	100	<b>5,53</b>
790516	25	4,2	TX	20	100	100	<b>5,09</b>

Standard program

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### Mounting screws



galvanised with washer, Philips cross-head, self-cutting



Art. No.	↔	∅	Antr.	PU	PrU	EUR
790450	13	4,2 PH	2	100	100	<b>4,86</b>
790452	25	4,2 PH	2	100	100	<b>3,59</b>
790454	31	4,2 PH	2	100	100	<b>4,37</b>
790456	45	4,2 PH	2	100	100	<b>5,56</b>

### Mounting screws



self-cutting and self-boring, galvanised with washer, Tx



Art. No.	↔	∅	Antr.	PU	PrU	EUR
790500	13	4,2 TX	20	100	100	<b>4,08</b>
790502	19	4,2 TX	20	100	100	<b>4,62</b>
790504	25	4,2 TX	20	100	100	<b>5,18</b>

### Mounting screws



self-cutting and self-boring, galvanised with washer, Philips cross-head



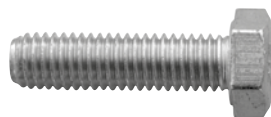
Art. No.	↔	∅	Antr.	PU	PrU	EUR
790470	13	4,2 PH	2	100	100	<b>4,47</b>

### Machinery screws, cylinder screws

#### Hexagonal machine screws



according to DIN 933, continuous thread, galvanised, 8.8 quality



Art. No.	↔	∅	∅	PU	PrU	EUR
790540	20	6	10	100	100	<b>12,75</b>
790542	25	6	10	100	100	<b>10,29</b>
790544	30	6	10	100	100	<b>12,17</b>
790562	20	8	13	100	100	<b>15,26</b>
790564	25	8	13	100	100	<b>19,17</b>
790566	30	8	13	100	100	<b>18,43</b>
790588	20	10	17	100	100	<b>25,14</b>
790592	30	10	17	100	100	<b>37,13</b>
790616	30	12	19	50	100	<b>44,94</b>
790618	40	12	19	50	100	<b>53,25</b>

#### Socket cup screw DIN 84 Form A



in accordance with ISO 1207, EN 21207 or DIN 84, Form A, with slit, made of hardened steel, galvanised, 4.8 quality



Art. No.	↔	∅	drive	PU	PrU	EUR
790806	16	3	5,5x0,8	200	100	<b>2,28</b>
790808	20	3	5,5x0,8	200	100	<b>2,54</b>
790832	16	4	7,0x1,2	200	100	<b>3,58</b>
790834	20	4	7,0x1,2	200	100	<b>4,04</b>
790837	30	4	7,0x1,2	200	100	<b>5,17</b>
790862	16	5	8,5x1,2	200	100	<b>5,62</b>
790864	20	5	8,5x1,2	200	100	<b>6,35</b>
790867	30	5	8,5x1,2	200	100	<b>8,17</b>
790882	16	6	10,0x1,6	200	100	<b>8,54</b>
790884	20	6	10,0x1,6	200	100	<b>9,56</b>
790888	30	6	10,0x1,6	200	100	<b>12,18</b>

#### Machine screw counter sunk



continuous thread, zinc-plated, pan headed Pozidriv

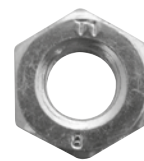


Art. No.	↔	∅	Antr.	PU	PrU	EUR	
790700	20	3	PZ	2	100	100	<b>2,20</b>
790702	30	3	PZ	2	100	100	<b>2,82</b>
790704	40	3	PZ	2	100	100	<b>6,80</b>
790706	50	3	PZ	2	100	100	<b>4,67</b>
790710	20	4	PZ	2	100	100	<b>4,51</b>
790712	30	4	PZ	2	100	100	<b>3,98</b>
790714	40	4	PZ	2	100	100	<b>4,80</b>
790716	50	4	PZ	2	100	100	<b>9,66</b>
790721	25	5	PZ	2	100	100	<b>4,92</b>
790722	30	5	PZ	2	100	100	<b>6,62</b>
790724	40	5	PZ	2	100	100	<b>6,92</b>
790726	50	5	PZ	2	100	100	<b>8,17</b>

### Hexagonal nuts, washers

#### Hexagonal nut DIN 934

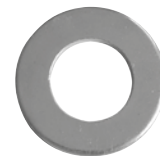
in accordance with ISO 4032, EN 24032 or DIN 934, steel galvanised, 8 quality



Art. No.	∅	∅	PU	PrU	EUR
792000	5,5	M3	200	100	<b>1,31</b>
792001	7	M4	200	100	<b>1,69</b>
792002	8	M5	200	100	<b>2,04</b>
792003	10	M6	200	100	<b>3,72</b>
792005	13	M8	200	100	<b>8,44</b>
792006	17	M10	200	100	<b>16,15</b>
792008	19	M12	100	100	<b>19,62</b>

#### Washers DIN 125

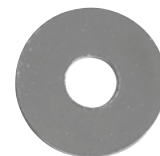
in accordance with ISO 7089, EN 27089 or DIN 125, Form A without chamfer, steel galvanised



Art. No.	M	d1	d4	PU	PrU	EUR
792600	M3	3,2	7	200	100	<b>1,42</b>
792602	M4	4,3	9	200	100	<b>1,68</b>
792603	M5	5,3	10	200	100	<b>2,01</b>
792604	M6	6,4	12	200	100	<b>2,24</b>
792606	M8	8,4	16	200	100	<b>3,43</b>
792607	M10	10,5	20	200	100	<b>6,50</b>

#### Washers

in accordance with ISO 7093, DIN 9021N, zinc-plated steel



Art. No.	M	d1	d4	ST	PU	PrU	EUR
792650	4	4,3	12	1	100	100	<b>5,95</b>
792651	5	5,3	15	1,6	100	100	<b>7,96</b>
792652	6	6,4	20	2	100	100	<b>8,53</b>
792654	8	8,4	25	2	100	100	<b>12,57</b>
792656	10	10,5	40	2	100	100	<b>31,41</b>
792658	12	13	40	2	100	100	<b>28,49</b>

#### Spring washers

according to DIN 127, form A, curved, zinc-plate steel



Art. No.	M	d1	d4	ST	PU	PrU	EUR
792756	6	6,4	11,8	2	100	100	<b>2,13</b>
792758	8	8,4	14,8	2	100	100	<b>2,89</b>
792760	10	10,5	18,1	2	100	100	<b>4,12</b>
792762	12	13	21,1	2	100	100	<b>6,08</b>



## Screws assortments

### “Mix” Screws assortment box

Content: 1.425 screws, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	Cont.	empty	kg	PU	EUR
792802	1425	221131	5,022	1	<b>109,54</b>

### “Pan head” Screws assortment box

Content: 1.700 screws, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	Cont.	empty	kg	PU	EUR
792804	1700	221131	6,000	1	<b>130,85</b>

### “Countersunk” Screws assortment box

Content: 1.800 screws, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	Cont.	empty	kg	PU	EUR
792806	1800	220131	5,000	1	<b>132,18</b>

### “Countersunk” Screws assortment box

Content: 1.800 screws, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	Cont.	empty	kg	PU	EUR
792810	1800	221131	5,760	1	<b>114,52</b>

### “Mix Tx” Screws assortment box

Content: 1.475 screws, in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	Cont.	empty	kg	PU	EUR
792816	1475	221131	5,022	1	<b>164,05</b>

### Screws and dowel assortment box „Mix“

Content: 700 screws, 425 dowel in plastic bulk storage chest 415 x 335 x 90 mm



Art. No.	Cont.	empty	kg	PU	EUR
792821	1125	221131	6,000	1	<b>140,04</b>

## SysCon screws assortments

### SysCon universal countersunk screws

Content: 1650 universal countersunk screws



Art. No.	Cont.	empty	kg	PU	EUR
220389	1650	220370	7,000	1	<b>217,06</b>

### SysCon plate screws

Content: 2000 universal screws



Art. No.	Cont.	empty	kg	PU	EUR
220398	2000	220370	2,600	1	<b>176,80</b>

## Dowel assortment

### Push-through expansion dowel

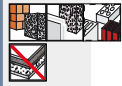
- For all concrete and masonry building materials, with limitations for cavity building materials
- For fixing all items which can be attached using wood and chipboard screws



Art. No.	Ø	screws	D	PU	PrU	EUR
794002	6	30	3.5-5.0	40	100	<b>4,80</b>
794004	8	40	4.5-6.0	50	100	<b>8,45</b>

### Expansion dowel sleeve

- For all concrete and masonry building materials, with limitations for cavity building materials
- For fixing all items which can be attached using wood and chipboard screws



Art. No.	Ø	screws	D	PU	PrU	EUR
794012	5	25	2.5-4.0	35	100	<b>4,75</b>
794014	6	30	3.5-5.0	40	100	<b>5,07</b>
794016	8	40	4.5-6.0	50	100	<b>11,49</b>
794018	10	50	6.0-8.0	65	25	<b>21,36</b>

### Countersunk nail dowel

- For concrete, solid brick, with limitations for aerated concrete and hollow concrete blocks



Art. No.	Ø	screws	ST	PU	PrU	EUR
794020	5	30	PZ 5	100	100	<b>8,07</b>
794022	5	50	PZ 25	100	100	<b>10,31</b>
794024	6	40	PZ 10	50	100	<b>10,74</b>
794026	6	60	PZ 30	50	100	<b>13,52</b>
794028	6	80	PZ 50	50	100	<b>17,72</b>
794030	8	60	PZ 20	50	100	<b>25,39</b>

### Aerated concrete dowel with setting tool

- For porous concrete (aerated concrete)



Art. No.	Ø	screws	D	PU	PrU	EUR
794040	10	50	4.0-6.0	60	50	<b>69,49</b>

### Universal metal dowel

- Concrete, solid brick, porous concrete, limitations for perforated bricks and hollow concrete blocks



Art. No.	Ø	screws	D	PU	PrU	EUR
794050	8	32	5.0-6.0	40	200	<b>13,01</b>
794052	11	60	6.0-8.0	70	100	<b>28,39</b>

## Spring toggle

- Plasterboard and gypsum fibreboard, chipboard, fibre cement board, cavity brick covers, hollow body covers



Art. No.	Ø	Ø	D	D	PU	PrU	EUR
794060	4	100	14	35	80	25	<b>72,47</b>
794062	5	100	16	45	80	20	<b>101,90</b>

## Plasterboard dowel with setting tool

- Plasterboard, limitations for full plasterboard and porous concrete



Art. No.	screws	D	D	PU	PrU	EUR
794070	24	4.0-6.0	35	80	50	<b>35,63</b>

Concrete	
Natural stone	
Full bricks	
Porous concrete (aerated concrete)	
Full plasterboard panels	
Perforated bricks	
Hollow concrete blocks	
Plasterboard panels	
Boards/panels	

## Nylonbags

### HAUPA "ToolPouch"



Art. No.	W	H	D	kg	PU	EUR
220103	150	260	30	0,102	1	<b>13,44</b>

### HAUPA "ToolBelt"



Art. No.	W	H	D	kg	PU	EUR
220105	200	300	100	0,326	1	<b>33,80</b>

## Tool belts

### Tool belt



Art. No.	W	H	D	kg	PU	EUR
220224	880	280	30	0,350	1	<b>43,46</b>

## Backpacks

### HAUPA "Backpack"



Art. No.	W	H	D	kg	PU	EUR
220265	440	500	220	1,990	1	<b>191,16</b>

## Nylonbags

### HAUPA "ToolBag"



Art. No.	W	H	D	kg	PU	EUR
220061 *	320	280	190	1,507	1	<b>95,01</b>

### HAUPA "ToolBag XL"



Art. No.	W	H	D	kg	PU	EUR
220366	420	310	220	1,507	1	<b>112,15</b>

### HAUPA "BigBox"



Art. No.	W	H	D	kg	PU	EUR
220095	410	320	240	1,937	1	<b>138,62</b>

### HAUPA "ProBag"



Art. No.	W	H	D	kg	PU	EUR
220368	420	430	300	1,500	1	<b>229,26</b>

### "Supply" service bag



Art. No.	W	H	D	kg	PU	EUR
220292	510	335	220	3,600	1	<b>176,84</b>

## HAUPA "SquareBag"



Art. No.	W	H	D	kg	PU	EUR
220703 *	260	260	230	1,500	1	<b>84,64</b>

## HAUPA „ToolContainer“



Art. No.	W	H	D	kg	PU	EUR
220704	510	320	250	1,500	1	<b>142,89</b>

## Tool sets

### Tool wallets



Art. No.	W	D	kg	PU	EUR
220006	600	310	0,452	1	<b>35,36</b>

### VDE/GS - Tool wallets "Rebell"



Art. No.	W	H	D	kg	PU	EUR
220016	300	230	50	0,814	1	<b>107,26</b>

### Tool holder for construction buckets

Supplied without buckets!



Art. No.	W	H	D	kg	PU	EUR
220313 *	305	357	80	0,560	1	<b>37,61</b>

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... convincing solutions

## Nylonbags

### HAUPA "ToolPouch"



Art. No.	set	empty	kg	PU	EUR
220506	5	220103	0,789	1	<b>66,81</b>

### HAUPA "ToolBelt Standard"



Art. No.	set	empty	kg	PU	EUR
220213	8	220105	2,222	1	<b>145,39</b>

### HAUPA "ToolBelt VDE" 1000 V



Art. No.	set	empty	kg	PU	EUR
220211 *	7	220105	1,723	1	<b>205,58</b>

## Tool belts 1000 V

### Tool belt "Basic"



Art. No.	set	empty	kg	PU	EUR
220280	10	220224	2,120	1	<b>169,39</b>

### Tool belt "VDE Plus" 1000 V



Art. No.	set	empty	kg	PU	EUR
220281 *	16	220224	2,740	1	<b>330,77</b>

### Tool belt "VDE" 1000 V



Art. No.	set	empty	kg	PU	EUR
220282	8	220224	2,020	1	<b>205,79</b>

## Backpacks 1000 V

### BackpackPro "Basic 1000 V"

221277 | 360°



Art. No.	set	empty	kg	PU	EUR
221277	11	220265	3,710	1	<b>375,43</b>

### BackpackPro "Start 1000 V"

221280 | 360°



Art. No.	set	empty	kg	PU	EUR
221280	20	220265	5,200	1	<b>437,04</b>

### BackpackPro "Basic plus 1000 V"

221278 | 360°



Art. No.	set	empty	kg	PU	EUR
221278	19	220265	4,650	1	<b>476,81</b>

### BackpackPro "Operator 1000 V"

221279 | 360°



Art. No.	set	empty	kg	PU	EUR
221279	22	220265	5,570	1	<b>872,82</b>

### Tool bag 1000 V

#### HAUPA "ToolBag"



Art. No.	set	empty	kg	PU	EUR
220500	23	220061	6,350	1	<b>325,23</b>

#### HAUPA "ToolBag" 1000 V



Art. No.	set	empty	kg	PU	EUR
220510 *	13	220061	3,919	1	<b>381,01</b>

#### HAUPA "ToolBag XL Classic"



Art. No.	set	empty	kg	PU	EUR
220802	22	220366	6,080	1	<b>355,72</b>

#### HAUPA "ToolBag XL Go"



Art. No.	set	empty	kg	PU	EUR
220804 *	14	220366	4,400	1	<b>338,01</b>

### HAUPA "ToolBag XL 1000 V"



Art. No.	set	empty	kg	PU	EUR
220800	13	220366	4,600	1	<b>349,11</b>

### HAUPA "TrendBox Plus"



Art. No.	set	empty	kg	PU	EUR
220556 *	25	220095	6,430	1	<b>566,06</b>

### HAUPA "TrendBox"



Art. No.	set	empty	kg	PU	EUR
220550	20	220095	5,540	1	<b>385,34</b>

### HAUPA "ProBag Max"



Art. No.	set	empty	kg	PU	EUR
220810	29	220368	9,180	1	<b>1.229,46</b>

### HAUPA "ProBag Start VDE"



Art. No.	set	empty	kg	PU	EUR
220814	20	220368	9,180	1	<b>439,61</b>

### HAUPA "ProBag Go 1000 V"



Art. No.	set	empty	kg	PU	EUR
220812 *	14	220368	6,400	1	<b>458,95</b>

## Service bags

### Service bag "HUPsmartHome"



Art. No.	set	empty	kg	PU	EUR
220805	30	220292	7,550	1	<b>938,06</b>

### "Supply Max" service bag



Art. No.	set	empty	kg	PU	EUR
220293	30	220292	6,350	1	<b>1.157,30</b>

### "Supply Plus" service bag



Art. No.	set	empty	kg	PU	EUR
220294 *	24	220292	6,350	1	<b>548,90</b>

### "Supply Basic" service bag



Art. No.	set	empty	kg	PU	EUR
220298	14	220292	6,350	1	<b>329,13</b>

## HAUPA „SquareBag Basic 1000 V“



Art. No.	set	empty	kg	PU	EUR
220706	11	220703	3,800	1	<b>277,87</b>

## HAUPA „ToolContainer Work“



Art. No.	set	empty	kg	PU	EUR
220705	29	220704	4,000	1	<b>676,32</b>

## Tool sets 1000 V

### VDE security set 1000 V



Art. No.	set	empty	kg	PU	EUR
220014	10	220004	1,688	1	<b>237,62</b>

### VDE/GS - Tool sets 1000 V



Art. No.	set	empty	kg	PU	EUR
220130	11	220016	2,216	1	<b>315,74</b>

## Leather tool cases

### Tool case "Tradition" and "Fan"



Art. No.	W	H	D	kg	PU	EUR
220022	340	170	110	0,821	1	<b>117,51</b>

### Tool case "Favorit - Admiral - Profi"

220060: Favorit  
220064: Admiral  
220066: Profi



Art. No.	W	H	D	kg	PU	EUR
220060	365	250	150	2,126	1	<b>231,99</b>
220064	470	315	145	2,990	1	<b>284,86</b>
220066	420	250	150	2,378	1	<b>253,59</b>

### Tool case "Comet"



Art. No.	W	H	D	kg	PU	EUR
220070	420	320	165	3,939	1	<b>338,51</b>

### Tool case "Magister"



Art. No.	W	H	D	kg	PU	EUR
220142	440	260	165	2,700	1	<b>360,30</b>



### Brass padlocks



Art. No.	size	kg	PU	EUR
220110	30	0,085	1	<b>5,92</b>
220112	40	0,135	1	<b>7,22</b>

### Carrying belts



Art. No.	kg	PU	EUR
220054	0,114	1	<b>21,08</b>

## Leather tool cases

### Tool case "Phoenix"



Art. No.	set	empty	kg	PU	EUR
220156	39	220070	9,900	1	<b>1.067,31</b>

### Tool case "Saphir"



Art. No.	set	empty	kg	PU	EUR
220154	31	220070	8,150	1	<b>826,31</b>

### Tool case "Novelle 1"



Art. No.	set	empty	kg	PU	EUR
220152/1	26	220066	6,500	1	<b>755,53</b>

### Tool case "Alpha"



Art. No.	set	empty	kg	PU	EUR
220169	19	220060	5,200	1	<b>506,04</b>

### Tool case "Start"



Art. No.	set	empty	kg	PU	EUR
220168 *	20	220060	6,100	1	<b>445,19</b>

### Tool case "Start VDE"



Art. No.	set	empty	kg	PU	EUR
220168/VDE	20	220060	6,700	1	<b>471,93</b>

### Tool case "Delux" 1000 V



Art. No.	set	empty	kg	PU	EUR
220135	54	220142	9,460	1	<b>1.876,70</b>

### Tool case "Rotor" 1000 V



Art. No.	set	empty	kg	PU	EUR
220140	46	220142	6,400	1	<b>989,75</b>

## Hard-top tool cases

### Tool case "Start-up S"

ABS



Art. No.	W	H	D	kg	PU	EUR
220028	460	180	310	4,500	1	<b>222,36</b>

### Tool case "Start-up Profi"

ABS



Art. No.	W	H	D	kg	PU	EUR
220031 *	500	210	430	6,740	1	<b>254,29</b>

### Tool case trolley "Start-up Profi"

ABS



Art. No.	W	H	D	kg	PU	EUR
220023 *	470	360	220	8,400	1	<b>321,01</b>

### Tool case "OmegaMax"

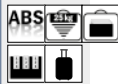
ABS



Art. No.	W	H	D	kg	PU	EUR
220042	470	360	200	6,500	1	<b>563,40</b>

### Tool case trolley "OmegaMax Trolley"

ABS



Art. No.	W	H	D	kg	PU	EUR
220048 *	470	360	220	7,000	1	<b>703,77</b>

### Tool case "Aktion"

ABS



Art. No.	W	H	D	kg	PU	EUR
220038	460	310	160	4,580	1	<b>345,24</b>

### Tool case "Omega"

ABS



Art. No.	W	H	D	kg	PU	EUR
220068	460	310	180	5,039	1	<b>450,73</b>

### Tool case trolley "Fly"

HDPE



Art. No.	W	H	D	kg	PU	EUR
220248	470	220	360	6,900	1	<b>954,84</b>

### Tool case "Pendant"

ABS



Art. No.	W	H	D	kg	PU	EUR
220076	460	310	180	5,107	1	<b>457,32</b>

ABS hard shell	With document compartment
Maximum case payload 20 kg	With number lock
Maximum case payload 25 kg	Flight-suitable
Maximum case payload 40 kg	TSA lock

## Hard-top tool cases

### Tool case „ElektroCombo“



Art. No.	set	W	H	D	kg	PU	EUR
104090 *	78	490	375	100	6,240	1	599,58

### Tool case "Start-up Light"



Art. No.	set	empty	kg	PU	EUR
220269	14	220028	9,180	1	402,09

### Tool case "Start-up Go"



Art. No.	set	empty	kg	PU	EUR
220267	18	220028	9,180	1	477,53

### Tool case "Jobstarter Plus"



Art. No.	set	empty	kg	PU	EUR
220027	24	220028	10,000	1	495,08

### Tool case „HUPactive“



Art. No.	set	empty	kg	PU	EUR
220255	24	220030	9,620	1	514,00

### Tool case "Start-up Max"



Art. No.	set	empty	kg	PU	EUR
220268 *	24	220028	9,180	1	745,80

### Tool case "Start-up"



Art. No.	set	empty	kg	PU	EUR
220221	20	220031	9,180	1	471,86

### Tool case "Start-up VDE"



Art. No.	set	empty	kg	PU	EUR
220235 *	19	220031	9,300	1	487,84

### Tool case „Elektro Plus“



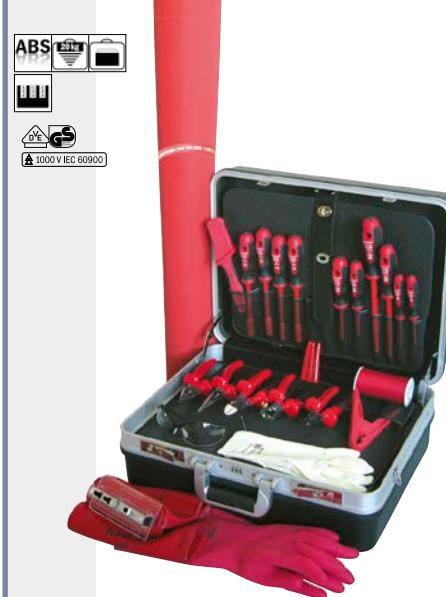
Art. No.	set	empty	kg	PU	EUR
220257	24	220036	6,500	1	527,93

### Tool case "EXTRA"



Art. No.	set	empty	kg	PU	EUR
220309	33	220031	8,680	1	1.137,86

### Tool case "Profi VDE" 1000 V



Art. No.	set	empty	kg	PU	EUR
220232	35	220031	12,920	1	1.013,07

**Tool case trolley "Profi mobil"**

ABS



Art. No.	set	empty	kg	PU	EUR
220273	51	220023	14,700	1	946,42

**Tool case trolley "Start-up"**

ABS



Art. No.	set	empty	kg	PU	EUR
220252	19	220023	10,940	1	553,50

**Tool case trolley "Master"**

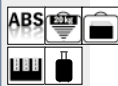
ABS



Art. No.	set	empty	kg	PU	EUR
220254 *	38	220023	14,700	1	1.203,94

**Tool case trolley "Master Mobil HUPslim" 1000 V**

ABS



Art. No.	set	empty	kg	PU	EUR
220329	37	220023	14,700	1	1.355,83

**Tool case trolley "EXTRA"**

ABS



Art. No.	set	empty	kg	PU	EUR
220307	33	220023	15,000	1	1.199,75

**Service trolley „HUPeMobility“**

ABS



Art. No.	set	empty	kg	PU	EUR
220171	40	220023	19,800	1	1.685,96

**Service trolley „HUPeMobility eco“**

ABS



Art. No.	set	empty	kg	PU	EUR
220327	42	220023	19,000	1	1.372,60

**Tool case trolley "Secure mobil" 1000 V**

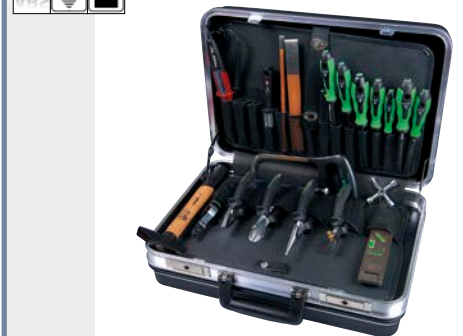
ABS



Art. No.	set	empty	kg	PU	EUR
220272	57	220023	14,700	1	1.461,28

**Tool case "Panther"**

ABS+



Art. No.	set	empty	kg	PU	EUR
220040	21	220038	7,460	1	666,40

**Tool case "2 component"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220170	19	220038	7,000	1	<b>549,97</b>

**Network service case**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220141	21	220038	8,800	1	<b>1.013,14</b>

**Tool case "Compact"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220229	47	220038	7,700	1	<b>795,04</b>

**Tool case "Basic"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220153 *	19	220038	6,600	1	<b>560,51</b>

**Tool case "Basic VDE"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220244	19	220038	7,140	1	<b>591,19</b>

**Tool case "Inspektor"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220176	25	220068	8,980	1	<b>844,17</b>

**Tool case "Akkurat"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220179	32	220068	8,180	1	<b>1.094,73</b>

**Tool case "Diamant"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220192	23	220068	8,500	1	<b>916,67</b>

**The ideal tool assortment**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220177 *	32	220068	10,260	1	<b>1.105,79</b>

**Tool case "OmegaMax Start VDE"**

**ABS+ ::**



Art. No.	set	empty	kg	PU	EUR
220043	19	220042	11,000	1	<b>787,04</b>

**Tool case trolley "OmegaMax Trolley Start VDE"**

**ABS+ ::**



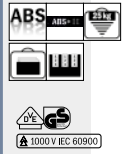
Art. No.	set	empty	kg	PU	EUR
220137	19	220048	11,500	1	<b>951,24</b>

Standard program

**haupa®**

**... convincing solutions**

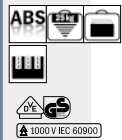
### Tool case "Delux Plus" 1000 V



Art. No.	set	empty	kg	PU	EUR
220239 *	54	220076	11,780	1	<b>2.046,06</b>

### Tool case "Leopard" 1000 V

ABS+



Art. No.	set	empty	kg	PU	EUR
220136	32	220076	9,400	1	<b>1.420,96</b>

### Tool case "Power Pack" 1000 V

ABS+



Art. No.	set	empty	kg	PU	EUR
220303	21	220076	8,680	1	<b>1.095,36</b>

### Tool case "Venus Plus" 1000 V

ABSfly



Art. No.	set	empty	kg	PU	EUR
220033	32	220032	10,160	1	<b>1.466,75</b>

### Laser marking for your individual tool case



Art. No.	Label	kg	PU	EUR
220193		0,002	1	<b>49,61</b>

### Tool case "HAUPA - Lifesaver" 1000 V



Art. No.	set	W	H	D	kg	PU	EUR
220400	54	830	550	300	37,0	1	<b>4.829,89</b>
220079	0	830	550	300	18,6	1	<b>2.203,84</b>

### Tool case "Start-up Sanitär"

ABS



Art. No.	set	empty	kg	PU	EUR
220263	23	220031	9,300	1	<b>611,21</b>

### Tool case "Start-up SHK"

ABS



Art. No.	set	empty	kg	PU	EUR
220264	24	220031	14,700	1	<b>777,78</b>

## Assortment boxes

### Assortment boxes with metal catch and pick boxes

#### Content:

- 6 Boxes (S) | 49 x 49 x 72 mm
- 11 Boxes (M) | 49 x 98 x 72 mm
- 2 Boxes (L) | 98 x 98 x 72 mm
- 2 Boxes (XL) | 98 x 148 x 72 mm



Art. No.	W	H	D	kg	PU	EUR	
221131 *	21	415	90	335	1,630	1	<b>53,90</b>
221133	0	415	90	335	1,200	1	<b>29,73</b>

## Systemcontainer

### ABS plastic box „SysCon S“

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220370	400	80	300	2,200	1	<b>112,27</b>

### ABS plastic box „SysCon M“

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220372	400	150	300	3,340	1	<b>125,40</b>

### ABS plastic box „SysCon XL“

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220650	400	312	300	2,800	1	<b>161,59</b>

### SysCon transport system

**SysCon**

Max. load: 200 kg



Art. No.	W	H	D	kg	PU	EUR
220653	470	240	105	3,300	1	<b>150,76</b>



### SysCon S for assortment inserts, empty

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220620	400	80	300	3,440	1	<b>104,13</b>

### SysCon S for assortment inserts, empty

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220628	400	80	300	4,300	1	<b>101,54</b>

### SysCon M for assortment inserts, empty

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220770	400	150	300	4,300	1	<b>118,24</b>

### SysCon M tool box, empty

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220622	400	150	300	3,640	1	<b>135,02</b>

### SysCon S tool box, empty

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220626	400	80	300	4,300	1	<b>131,50</b>

### ABS plastic box „SysCon XL“ variable

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220654	400	312	300	3,640	1	<b>231,63</b>

Standard program

**haupa**<sup>®</sup>

... convincing solutions

**Tool plate**

**SysCon**



Art. No.	W	H	kg	PU	EUR
220655	275	285	0,200	1	<b>37,19</b>

**Tool plate SysCon**

**SysCon**

11 compartments



Art. No.	W	H	D	kg	PU	EUR
220379	400	20	300	0,200	1	<b>38,57</b>

**Tools insert SysCon**

**SysCon**

Polypropylen, 5 compartments



Art. No.	W	H	D	kg	PU	EUR
220374	400	80	300	0,200	1	<b>18,07</b>

**Tools insert SysCon**

**SysCon**

Polypropylen, 10 compartments



Art. No.	W	H	D	kg	PU	EUR
220375	400	80	300	0,200	1	<b>18,07</b>

**Tools insert SysCon**

**SysCon**

Polypropylen, 18 compartments



Art. No.	W	H	D	kg	PU	EUR
220355	400	80	300	0,230	1	<b>16,41</b>

**Tools insert SysCon**

**SysCon**

Polypropylen, with 12 adjustable compartments



Art. No.	W	H	D	kg	PU	EUR
220356	400	80	300	0,320	1	<b>19,85</b>

**Box S**

**SysCon**

ABS, conical design for stacking with snap on base plate



Art. No.	W	H	D	kg	PU	EUR
221134	49	72	49	0,012	1	<b>0,87</b>

**Box M**

**SysCon**

ABS, conical design for stacking with snap on base plate



Art. No.	W	H	D	kg	PU	EUR
221135	98	72	49	0,012	1	<b>1,24</b>

**Box L**

**SysCon**

ABS, conical design for stacking with snap on base plate



Art. No.	W	H	D	kg	PU	EUR
221136	98	72	98	0,050	1	<b>2,11</b>

**Box XL**

**SysCon**

ABS, conical design for stacking with snap on base plate

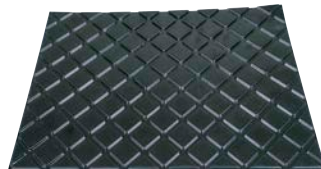


Art. No.	W	H	D	kg	PU	EUR
221137	148	72	98	0,060	1	<b>2,68</b>

**Baseplate for fixing**

**SysCon**

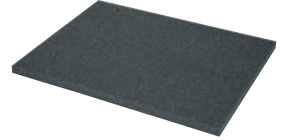
Polypropylene, grids for even better non-slip grip



Art. No.	W	D	kg	PU	EUR
221138	400	300	1,200	1	<b>7,41</b>

**Foam insert SysCon**

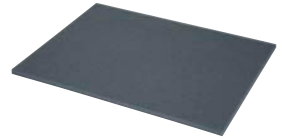
**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220376	395	15	300	0,030	1	<b>2,41</b>

**Foam insert SysCon**

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220399	395	10	300	0,020	1	<b>1,70</b>

**Foam insert SysCon**

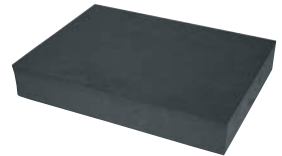
**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220377	395	20	300	0,055	1	<b>10,84</b>

**Foam insert SysCon**

**SysCon**



Art. No.	W	H	D	kg	PU	EUR
220378	395	65	300	0,200	1	<b>26,23</b>



### SysCon hand truck

**SysCon**

- up to 60 kg
- sturdy aluminum frame
- Hand truck shovel: 390 x 280 mm



Art. No.	max. kg	kg	PU	EUR
220602	60	3,230	1	<b>83,07</b>

### SysCon load securing "SysConCar"

**SysCon**

#### Properties:

- 21 slots (rear side)
- 3 round holes each side, left and right
- 5 round holes in floor plate
- Width: 475 mm, height: 1080 mm, depth: 360 mm
- Volume for contents:  
max. 5 ABS boxes „SysCon M“  
max. 8 ABS boxes „SysCon S“



Art. No.	W	H	D	kg	PU	EUR
220644	475	1080	360	5,000	1	<b>750,71</b>

### SysCon tool case set

**SysCon**



Art. No.	set	empty	kg	PU	EUR
220392	17	220372	4,300	1	<b>345,62</b>

### SysCon tool case set „Start VDE“

**SysCon**



Art. No.	set	empty	kg	PU	EUR
220608	22	220372	4,300	1	<b>490,73</b>

### SysCon „HUPeMobility“

**SysCon**



Art. No.	set	empty	kg	PU	EUR
220610	52	220650	19,500	1	<b>2.220,48</b>

## HUPchemie - Adhesion+Sealing

### Construction Glue HUPfix+

- Extrem High Initial Adhesion
- Bond Cabel-Trunks, Distriubution-Boxes and Cables to Walls, Wood and Metal
- No Retaining of the to be Bonded Parts at Overhead and Vertical Places
- Paintable



Art. No.	kg	PU	EUR
170206 *	310 ml	0,530	1 <b>24,50</b>

### MS-Polymer HUPfix

- High-Standard Glue and Sealant based on MS-Polymer
- UV-, Weather-, Sea-Water- and Chlorine-Resistant
- Food grade certificate
- Paintable



Art. No.	Col.	kg	PU	EUR
170216	310 ml transp.	0,390	1	<b>24,81</b>
170210	310 ml gray	0,390	1	<b>23,89</b>
170212	310 ml black	0,390	1	<b>23,89</b>
170214	310 ml white	0,390	1	<b>23,89</b>

### HUPsilicon

- Suitable for Internal and External Expansion Grooves
- In Accordance to DIN 18545 Part 2
- Aging-, Weather- and UV-Resistant, Permanent Elastic



Art. No.	Col.	kg	PU	EUR
170200	310 ml transp.	0,450	1	<b>15,06</b>
170202	310 ml white	0,450	1	<b>15,88</b>

### High temperature silicon HUPsilicon

- High temperature resistance
- Oil and grease resistant
- Ageing, weather, and UV-resistant, permanently elastic



Art. No.	Col.	kg	PU	EUR
170250	310 ml black	0,450	1	<b>33,15</b>

### Cartridge tip



Art. No.	kg	PU	EUR
300116	0,003	12	<b>0,70</b>

### Cartridge gun „Profi“

- for 310 ml cartridges
- for processing silicone and polymer cartridges



Art. No.	kg	PU	EUR
170254	0,450	1	<b>44,58</b>

### 2 Component High-Performance-Adhesive HUPmega

- High-Tensile Two Component Adhesive with automatic Mixer
- Excellent Impact-, Peeling- and Sheer-Strength
- For Plasic, Wood, Glass, Steel, Stainless-Steel and Aluminium



Art. No.	kg	PU	EUR
170220	25 ml	0,075	1 <b>15,70</b>

### Mixing nozzle

- for 2-component adhesive



Art. No.	kg	PU	EUR
170234	0,009	1	<b>7,75</b>

### 2 Component-epoxyd glue HUPepoxyd

- Reach extrem strength
- Sealing compound
- Universal use



Art. No.	kg	PU	EUR
170222	25 ml	0,051	1 <b>10,04</b>

### 2 Component liquid metal HUPfastMetal

- Repair of steel and castings
- Repair of dry holes
- Fast curing



Art. No.	kg	PU	EUR
170224	25 ml	0,059	1 <b>11,28</b>

### HUPsuperglue

- Super-Glue from Cyanoacrylate
- For High-Strength Bonding of Metals and Plastic Combinations
- Low-Viscosity



Art. No.	kg	PU	EUR
170226 *	20 ml	0,028	1 <b>9,63</b>

### Fine droplet tip

- for superglue



Art. No.	kg	PU	EUR
170236	0,003	1	<b>1,21</b>

### Double-Sided Acryl Tape HUPtapeDouble

- Double-Sided Transparent Acryl-Tape
- Extreme Strong Adhesive on smooth Surfaces
- Moisture-Resistant, Does not Damage Surfaces



Art. No.	kg	PU	EUR
170232	0,053	1	12,89

### Screw-Locking Medium-Strength HUPlockM

- Medium Strength Highly-Viscous, Srew-Locking up to M36
- Removable
- Temperature-Resistant form -55°C up to +150°C
- Pump dosing feeder



Art. No.	kg	PU	EUR
170238	50 ml	0,083	1 24,68

### Screw-Locking High-Strength HUPlockH

- High Strength Medium-Viscous, Srew-Locking up to M20
- For Heavily Vibration and Impact Stressed Threads
- Temperature-Resistant form -55°C up to +150°C
- Pump dosing feeder

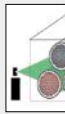


Art. No.	kg	PU	EUR
170240	50 ml	0,083	1 24,68

## HUPchemie - Coating+Lubrication

### Anti-Friction-Coating HUPcable

- Easy Pulling of Cables into Hoses
- Extreme Friction Reduction
- Save up to 50% of Time and Force



Art. No.	kg	PU	EUR
170174 *	400 ml	0,360	1 11,46

### Water-based lubricants and slip agents

This prevents 80% of friction and facilitates cable laying through excellent slippage in every situation. As soon as the water is evaporated, the main part of the lubricant remains und ensures that old cables can easily be pulled out and new ones inserted, for many years and at different temperatures.

Gel lubricant art. 143344: plastic bottle 500 ml  
Gel lubricant art. 143345: plastic bottle 1.000 ml



Art. No.	kg	PU	EUR
143344	500 ml	0,572	1 11,07
143345	1000 ml	1,100	1 13,74

### Dispenser for plastic bottle



Art. No.	kg	PU	EUR
143346	0,016	1	3,50

### Water-based lubricants and slip agents

This prevents 80% of friction and facilitates cable laying through excellent slippage in every situation. As soon as the water is evaporated, the main part of the lubricant remains und ensures that old cables can easily be pulled out and new ones inserted, for many years and at different temperatures.

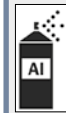
Foam lubricant, spray can 400 ml



Art. No.	kg	PU	EUR
143348	400 ml	0,457	1 15,82

### Aluminium-Spray HUPalu

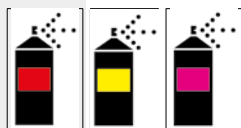
- Pure Aluminium Spray 99,5%
- High-Temperature-Resistant up to 900°C
- Scratch-, Brushing-, Abrasion- and Weather-Resistant



Art. No.	kg	PU	EUR
170154	400 ml	0,450	1 14,57

### Marking Paint HUPmark

- High luminosity and opacity
- Work in any position
- Fast-drying, abrasion- and weather-resistant



Art. No.	Col.	kg	PU	EUR
170140	500 ml red	0,600	1	17,77
170141	500 ml yellow	0,600	1	17,77
170142	500 ml pink	0,600	1	17,77

### Zinc-Spray HUPzinc

- Heat-Resistant, Weather-Resistant and Quick-Drying
- Forms a Water-Insoluble Zinc-Oxide Layer



Art. No.	Col.	kg	PU	EUR
170150	400 ml Dark	0,450	1	14,57
170152 *	400 ml Light	0,450	1	13,31

### Zinc spray 550 HUPzincKorro

- Protects Surfaces after Welding, Repair and Damages
- Heat-Resistant, Weather-Resistant and Quick-Drying
- Forms a Water-Insoluble Zinc-Oxide Layer



Art. No.	kg	PU	EUR
170153	400 ml	0,450	1 14,56

### Stainless-Steel-Spray HUPinox

- Stainless Steel Coating with alloy of Cr, Ni, Mn
- Heat Resistant up to 300°C
- Weather Resistant



Art. No.	kg	PU	EUR
170156	400 ml	0,450	1 15,81

### Silicone-Spray HUPsil

- Universal Lubricant based on Silicone
- Water- and Temperature-Resistant from -30°C up to +200°C
- Antistatic, Anti-Corrosive and Waterproof



Art. No.	kg	PU	EUR
170162	400 ml	0,450	1 9,63

### Universal-Lubricant HUP40

- Silicone-Free Oil Based Lubricant
- Loosens all kind of Mechanical Connection due to Rust
- Effective against Surface Moisture and Creepage
- Current, Lubricate and Maintain



Art. No.	kg	PU	EUR
170166	400 ml	0,450	1 11,46

### PTFE-Spray HUPptfe

- Oil-free Universal Lubrication for all kind of Materials
- High-Temperature Resistant from -60°C up to +250°C
- Quick Drying, Highly-Adhesive, Grease-Free and Colorless



Art. No.	kg	PU	EUR
170158	400 ml	0,450	1 16,42

### Allround PTFE-Spray HUPptfeSynt

- Lubricant for Precision and Pressure-Loaded Parts
- Long lasting Lubrication under very strong Pressure
- Releases jammed Screws



Art. No.	kg	PU	EUR
170160	400 ml	0,450	1 16,42

### Polymer-Spray HUPpolymer

- Universal Lubricant based on Polymer
- Long-term care for Rubber, EPDM, PP, PVC
- Coefficients of Friction are reduced up to 40%



Art. No.	kg	PU	EUR
170170	400 ml	0,450	1 32,56

### Cutting-Oil HUPdrill

- Alloyed Oil with EP-Additives and Polar Substances
- Very Economical and Efficient
- Suitable for Steel and Non-Ferrous Metals



Art. No.	kg	PU	EUR
170172	400 ml	0,450	1 <b>13,31</b>

### Anti-Rust-Spray HUPrustEX

- Penetrates and dissolves extremely effective rust
- Protects against new rust attack
- Releases jammed Screws



Art. No.	kg	PU	EUR
170164	400 ml	0,450	1 <b>9,05</b>

### Contact spray HUPwetBlock

- Protection of all kind of Electrical Contacts against moisture
- Blocks Wet
- Long Time Elimination of Creeping Current and Oxidation



Art. No.	kg	PU	EUR
170180 *	400 ml	0,4166	1 <b>30,03</b>

## HUPchemie - Cleaning

### Fast degreaser HUPdegreaser

- Intensive Cleaner and Degreaser
- Removes Dust, Dirt, Oil and Grease
- Residue-Free and Fast Evaporation



Art. No.	kg	PU	EUR
170102 *	500 ml	0,600	1 <b>9,00</b>

### Electric-Engine-Cleaner HUPelectroClean

- Cleans Relays, Wires, Coils, Contacts and Engines
- Removes Dust, Dirt, Grease und Coal Dust
- Evaporates without Residue



Art. No.	kg	PU	EUR
170114 *	400 ml	0,550	1 <b>9,63</b>

### Multi Cleaner HUPcleanMulti

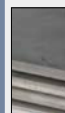
- Multifunctional Cleaner
- Best Cleanliness by Oil, Grease and Wax
- Buildings, Vehicles and Machines



Art. No.	kg	PU	EUR
170104	500 ml	0,550	1 <b>11,46</b>

### Metal Degreaser HUPmetalClean

- Intensive Cleaner and Degreaser
- Removes Dust, Dirt, Oil and Grease
- Residue-Free and Fast Evaporation



Art. No.	kg	PU	EUR
170103	500 ml	0,600	1 <b>11,76</b>

### Foam Cleaner HUPclean

- Intensive Foam-Cleaner for Windows, Monitors and Plastic Surfaces
- Streak-Free and Spotless Cleaning
- Highly Concentrated and Skin-Sensitive



Art. No.	kg	PU	EUR
170100	500 ml	0,550	1 <b>13,31</b>
170101	1000 ml	1,000	1 <b>18,27</b>

### Label-Remover HUPIableEx

- Residue-Free removal of Adhesive Residues and Labels.
- Removes Bitumen and fresh PU Foam
- Powerful and Gentle on the Material



Art. No.	kg	PU	EUR
170112	400 ml	0,450	1 <b>15,18</b>

### Compressed Air HUPair

- Removes Dust, Dirt and other Deposits
- For Cooling and Debugging of overheated Parts



Art. No.	kg	PU	EUR
170106 *	400 ml	0,450	1 <b>15,81</b>

### Compressed Air non-flammable HUPairXtra

- Cleaning of electrical Contacts, Devices and Parts
- Removes Dust and Dirt in Cabinets and Instrumentation and Control Units
- Cleaning of ITC Devices and Moduls



Art. No.	kg	PU	EUR
170108	400 ml	0,450	1 <b>63,07</b>

### Dosage cap „Target Control System“

- Not for sprays art: 170106, 170150, 170152, 170400



Art. No.	kg	PU	EUR
170406	0,015	1	<b>4,37</b>

### HUPskinProtect

- Protects the Skin by a Protective Film
- Avoids Contact with Oil, Grease, Tar, Paint and other Dirt
- Skin remains breathable and does not dry out



Art. No.	kg	PU	EUR
170116	250 ml	0,300	1 <b>30,69</b>

### Cleaning Wipes HUPwipe

- Cleans Maschines, Devices and Plastic Surfaces
- Removes Rust, Grease, Edding Lines and Nicotine
- For heaviest Soiling in Industrial and Craft



Art. No.	kg	PU	EUR
170118	0,200	1	<b>61,06</b>

### Hand cleaning cream HUPsoap, 500 ml

- with inlaid, fine scrubbers on PU-flour-base
- pore-deep and gentle cleaning
- refatting
- economical
- good biodegradability



Art. No.	kg	PU	EUR
170126	500 ml	0,500	1 <b>24,46</b>
170127	3000 ml	3,000	1 <b>43,06</b>
170128	10000 ml	10,000	1 <b>120,80</b>

### Dispenser for hand cleaning cream HUPsoap, 3l

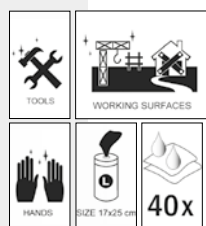
- compatible for art. 170127
- Stainless steel tube



Art. No.	kg	PU	EUR
170129	0,800	1	<b>88,67</b>

### Industrial cleaning wipes HUPwipeMini

- Effortlessly removes: Grease, Paint, Oil, Tar, Ink, Silicone, Glue and more...
- Suitable for hand cleaning



Art. No.	W	kg	PU	EUR
150601	170 250	0,135	1	<b>12,84</b>

### HUPchemie - Testing

#### Freeze-Spray HUPcool

- Fault-Finding in electronics
- Shock-Freezing down to -50°C
- Frees from Bonding



Art. No.	kg	PU	EUR
170400	400 ml	0,455	1 <b>15,81</b>

#### Smoke-Detector-Test-Spray HUPdetect

- Simulated Fire Smoke
- About 150 to 200 Test Operations
- Fast and Reliable



Art. No.	kg	PU	EUR
170404	250 ml	0,180	1 <b>24,50</b>

## Soldering accessoires

### Soldering irons



Art. No.	∅	Volt	Watt	kg	PU	EUR	
160142	265	5	220	60	0,322	1	<b>53,88</b>
160144	315	3	220	80	0,319	1	<b>60,51</b>
160146	320	5	220	100	0,324	1	<b>57,10</b>

### Soldering irons



Art. No.	∅	Volt	Watt	kg	PU	EUR	
160150	250	1,5	220	30	0,264	1	<b>45,65</b>

### Soldering irons



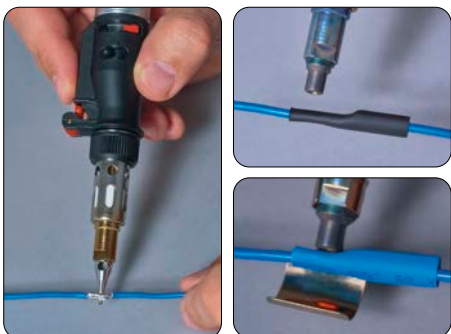
Art. No.	∅	Volt	Watt	kg	PU	EUR	
160190	200	2,5	220	15	0,257	1	<b>51,90</b>

### Torch brazing set SolderingKit

12-pieces, for pocket lighter butane gas, with Piezo ignition, heating time: +/- 25 seconds (peak), performance can be infinitely regulated, temperatures with naked flame up to 1200 °C, brazing up to 550 °C, heat shrinking up to 680 °C, burn time approximately 60 minutes, in black plastic case.



Art. No.	set	kg	PU	EUR
262098	12	0,670	1	<b>133,86</b>



## Solder in triangular sticks DIN 1707

Art. No.	Sn%	kg	PU	EUR
160112	30	0,275	1	<b>14,96</b>
160114	40	0,247	1	<b>17,95</b>

### Soldering stone



Art. No.	size	kg	PU	EUR
160130	65 x 45 x 20	0,070	1	<b>6,80</b>

### Soldering paste acc. to DIN 8511-F-SW 26



Art. No.	kg	PU	EUR
160090	0,073	1	<b>10,20</b>

### Soldering fluid acc. to DIN 8511-F-SW 32



Art. No.	size	kg	PU	EUR
160092	50 ml	0,054	1	<b>10,20</b>

### Grease for soft-soldering acc. to DIN 8511-F-SW 21



Art. No.	size	kg	PU	EUR
160094	50 ml	0,072	1	<b>6,46</b>
160096	100 ml	0,132	1	<b>9,18</b>

### Soldering grease for fittings acc. to DIN 8511-F-W 22



Art. No.	size	kg	PU	EUR
160100	70 ml	0,080	1	<b>12,92</b>

### Soldering fluid acc. to DIN 8511-F-W 21



Art. No.	size	kg	PU	EUR
160102	50 ml	0,065	1	<b>5,78</b>

## Solder for electronic work

### Solder for electronic work acc. to DIN EN 29453



Art. No.	Sn%	∅	kg	PU	EUR
160020	60	1	0,104	1	<b>15,23</b>
160022	60	1	0,253	1	<b>36,28</b>
160024	60	1	0,529	1	<b>71,83</b>
160026	60	1	1,008	1	<b>141,91</b>
160028	60	1,5	0,016	1	<b>2,07</b>
160030	60	1,5	0,106	1	<b>15,10</b>
160042	60	1,5	0,247	1	<b>35,93</b>
160044	60	1,5	0,528	1	<b>71,13</b>
160046	60	1,5	1,022	1	<b>126,48</b>
160050	60	2	0,108	1	<b>15,03</b>
160052	60	2	0,250	1	<b>35,93</b>
160054	60	2	0,529	1	<b>69,02</b>

### Solder for electronic work acc. to DIN EN 29453



Art. No.	Sn%	∅	kg	PU	EUR
160000	60	1	0,009	1	<b>1,69</b>
160002	60	1	0,106	1	<b>15,23</b>
160004	60	1	0,259	1	<b>36,28</b>
160006	60	1	0,528	1	<b>63,41</b>
160008	60	1	1,015	1	<b>141,91</b>
160012	60	1,5	0,102	1	<b>15,10</b>
160014	60	1,5	0,255	1	<b>35,93</b>
160016	60	1,5	0,523	1	<b>71,13</b>
160018	60	1,5	1,024	1	<b>117,27</b>

### Solder for electronic work acc. to DIN EN 29453



Art. No.	Sn%	∅	kg	PU	EUR
160060	40	2	0,106	1	<b>10,60</b>
160062	40	2	0,257	1	<b>24,06</b>

### Fittings' solder acc. to DIN EN 29453



Art. No.	Sn%	∅	kg	PU	EUR
160070	40	1,5	0,018	1	<b>1,66</b>
160072	40	2	0,103	1	<b>11,96</b>
160074	40	2	0,258	1	<b>24,01</b>

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## Solder lead-free (RoHS-directive)

### Solder wire according to DIN EN 29453



Art. No.	Sn%	Ø	kg	PU	EUR
160420	99	1	0,114	1	<b>23,94</b>
160422	99	1	0,262	1	<b>58,02</b>
160424	99	1	0,536	1	<b>115,34</b>
160426	99	1	1,000	1	<b>204,08</b>
160430	99	1,5	0,112	1	<b>23,94</b>
160442	99	1,5	0,266	1	<b>57,67</b>
160444	99	1,5	0,500	1	<b>111,52</b>
160446	99	1,5	1,000	1	<b>228,94</b>
160450	99	2	0,109	1	<b>23,74</b>
160452	99	2	0,257	1	<b>57,67</b>
160454	99	2	0,527	1	<b>111,52</b>

### Solder wire according to Din EN 29453



Art. No.	Sn%	Ø	kg	PU	EUR
160402	99	1	0,114	1	<b>23,94</b>
160404	99	1	0,250	1	<b>52,03</b>
160406	99	1	0,500	1	<b>115,34</b>
160408	99	1	1,000	1	<b>204,08</b>
160414	99	1,5	0,258	1	<b>51,59</b>
160416	99	1,5	0,535	1	<b>102,43</b>
160418	99	1,5	1,000	1	<b>205,11</b>



## Pipe Pliers

### Pipe pliers 45°

forged, finger pinch protection



Art. No.	↔	⊙	⊙"	kg	PU	EUR
618/1	310	49	1	0,725	1	<b>78,64</b>
618/11/2	425	65	1 1/2	1,572	1	<b>101,49</b>
618/2	540	84	2	2,648	1	<b>158,75</b>
618/3	685	120	3	4,100	1	<b>291,88</b>
618/4	815	135	4	5,650	1	<b>397,28</b>

### Corner pipe pliers

forged, special hardened teeth, S-opening, polished, finger pinch protection



Art. No.	↔	⊙	⊙"	kg	PU	EUR
619/1/2	245	39	1/2	0,443	1	<b>70,83</b>
619/1 *	320	49	1	0,821	1	<b>57,54</b>
619/11/2 *	440	68	1 1/2	1,416	1	<b>75,66</b>
619/2	560	85	2	2,380	1	<b>130,08</b>
619/3	675	120	3	2,700	1	<b>230,99</b>

### Pipe pliers set

Consisting of:

- 1 corner pipe pliers 1"
- 1 corner pipe pliers 1 1/2"
- 1 water pump pliers 240 mm
- 1 corner pipe pliers 1 1/2"
- 1 water pump pliers 240 mm



Art. No.	set	kg	PU	EUR
9001	3	2,581	1	<b>130,93</b>

### Chain pipe wrench

pipes 3/4 - 4"



Art. No.	↔	⊙	⊙"	kg	PU	EUR
623/3/4-4	320	30-200	4	0,940	1	<b>162,61</b>

### Replacement chain



Art. No.	↔	⊙	⊙"	kg	PU	EUR
623-1/3/4-4	30-200	4	0,359	1	<b>70,63</b>	

## Water Pump Pliers

### Water pump pliers

heavy duty, high quality finish, with 7 position box joint, finger pinch protection



Art. No.	↔	⊙	⊙"	kg	PU	EUR	
685/175	175	32	33	1 2/7	0,152	1	<b>35,88</b>
685/240	240	39	40	1 4/7	0,308	1	<b>39,25</b>
685/300	300	52	53	2	0,528	1	<b>51,57</b>

### Water pump pliers

Grip surfaces are hardened inductively, INOX pushbutton and spring. Self-clamping to tubes and nuts. With finger clamp protection, 11-level fine adjustment



Art. No.	↔	⊙	⊙"	kg	PU	EUR	
687/150	150	30	32	1 1/4	0,135	1	<b>43,54</b>
687/180 *	180	36	36	1 1/2	0,191	1	<b>43,57</b>
687/250 *	250	46	50	2	0,326	1	<b>53,98</b>
687/300 *	300	60	70	2 3/4	0,550	1	<b>67,52</b>

### Water pump pliers „BR!powerXL“

Grip surfaces are hardened inductively, INOX pushbutton and spring. Self-clamping to tubes and nuts. With finger clamp protection, 27-level fine adjustment



Art. No.	↔	⊙	⊙"	kg	PU	EUR	
687/400	400	100	104	3 1/2	1,376	1	<b>156,78</b>

### Water pump pliers | automatic

special hardened teeth, burner hole, finger pinch protection, patented technology



Art. No.	↔	⊙	⊙"	kg	PU	EUR	
682/250	250	42	46	1 1/2	0,361	1	<b>56,07</b>

## Instrument Keys

### Fittings pliers | Key pliers

automatic jaw width adjustment, with push-button single hand adjuster, finger pinch protection, replaces open-end wrench set



Art. No.	↔	⊙	⊙"	kg	PU	EUR
689/180 *	180	36	1	0,267	1	<b>71,49</b>
689/240 *	240	50	2	0,534	1	<b>70,01</b>
689/300 *	300	68	2 1/2	0,725	1	<b>81,48</b>

## Instrument key

Chrome vanadium steel, inner roller



Art. No.	↔	⊙	kg	PU	EUR
22-1/300	300	80	0,867	1	<b>103,18</b>

## Instrument key

Chrome vanadium steel, inner roller, protective jaws made of plastic



Art. No.	↔	⊙	kg	PU	EUR
27/300	300	80	0,832	1	<b>100,73</b>

## More Pliers

### Folding pliers

forged steel, straight shape



Art. No.	↔	Width	kg	PU	EUR
1608/60	260	60	0,575	1	<b>89,54</b>

### Folding pliers

forged steel, 45° angled shape



Art. No.	↔	Width	kg	PU	EUR
1609/60	260	60	0,600	1	<b>95,67</b>

### Folding pliers

forged steel, 90° angled shape



Art. No.	↔	Width	kg	PU	EUR
1609-1/60	260	60	0,602	1	<b>124,95</b>

### Gutter brackets bending pliers

with feed roller, also suitable for plastic-coated gutter brackets



Art. No.	↔	kg	PU	EUR
1616/620	620	3,200	1	<b>281,49</b>

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### Siphon pliers

chrome-plated, 4 adjustment options



Art. No.	←→	⌀	kg	PU	EUR
663	240	80	0,280	1	<b>19,58</b>

### Revolving punch pliers

special sheet steel, with 6 pipes



Art. No.	←→	Hole ⌀	kg	PU	EUR
516/220	220	2,0 - 4,5	0,336	1	<b>34,87</b>

### Blind riveting pliers

for rivets



Art. No.	←→	∅	kg	PU	EUR
522	200	5	0,625	1	<b>112,44</b>

### Schaffner control pliers

polished, nickel-plated, 3 mm round mandrel



Art. No.	←→	∅	kg	PU	EUR
543/120	120	3	0,173	1	<b>186,83</b>

### Lead pipe sizing pliers

pipes ∅ 1 1/2"



Art. No.	←→	∅	kg	PU	EUR
696/240	240	40	0,434	1	<b>65,48</b>

### Strap wrench

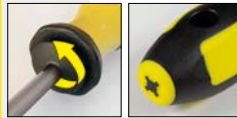


Art. No.	W	∅	kg	PU	EUR
660	20	170	0,233	1	<b>34,64</b>

## Screwing tools

### Screwdriver set

6 pieces:  
4 slot-head screwdrivers 80 x 3, 100 x 4, 125 x 5.5, 150 x 6.5 mm  
2 cross-head screwdrivers PZ 1, PZ 2



Roll repressive



Art. No.	set	kg	PU	EUR
2122 *	6	0,430	1	<b>57,34</b>

### Workshop screwdriver

matt chrome-plated blade, 2-component handle with a hole



Art. No.	BL	CW	kg	PU	EUR
2070/125	125	6	0,087	1	<b>12,82</b>
2070/150	150	8	0,120	1	<b>17,53</b>

### Screwdriver

matt chrome-plated blade, 2-component handle with a hole



Art. No.	BL	CW	kg	PU	EUR
2066/80	80	3	0,022	1	<b>8,68</b>
2066/100	100	3,5	0,026	1	<b>8,93</b>

### Screwdriver | PZ

matt chrome-plated blade, 2-component handle with a hole



Art. No.	BL size	kg	PU	EUR
2080/1	80 1	0,049	1	<b>13,64</b>
2080/2	100 2	0,081	1	<b>15,29</b>

### Screwdriver | PH

matt chrome-plated blade, 2-component handle with a hole



Art. No.	BL size	kg	PU	EUR
2080-1/1	80 1	0,048	1	<b>11,90</b>
2080-1/2	100 2	0,076	1	<b>14,36</b>

### Screwdriver set 1000 V

7 pieces, 1000 V:  
4 slot-head screwdrivers 1000 V  
75 x 2.5, 100 x 4, 125 x 5.5, 150 x 6.5 mm  
2 cross-head screwdrivers 1000 V PZ 1, PZ 2  
1 safety voltage tester 150 - 250 Volt (GS-certified)

⚠ 1000 V IEC 60900



Roll repressive



Art. No.	set	kg	PU	EUR
2126/7 *	7	0,514	1	<b>66,25</b>

### Screwdriver 1000 V

1000 V, matt chrome-plated blade with protective insulation, individually tested to IEC 60900

⚠ 1000 V IEC 60900



Art. No.	BL	CW	kg	PU	EUR
2073-8/75	75	2,5	0,035	1	<b>8,76</b>
2073-8/100	100	4	0,056	1	<b>10,24</b>
2073-8/125	125	5,5	0,088	1	<b>11,57</b>
2073-8/150	150	6,5	0,110	1	<b>13,55</b>

### Screwdriver 1000 V | PZ

1000 V, matt chrome-plated blade with protective insulation, 2-component handle with a hole, individually tested to IEC 60900

⚠ 1000 V IEC 60900



Art. No.	BL size	kg	PU	EUR
2079-18/1	80 1	0,060	1	<b>13,06</b>
2079-18/2	100 2	0,090	1	<b>15,68</b>

### Screwdriver 1000 V | PH

1000 V, matt chrome-plated blade with protective insulation, 2-component handle with a hole, individually tested to IEC 60900

⚠ 1000 V IEC 60900



Art. No.	BL size	kg	PU	EUR
2079-8/1	80 1	0,059	1	<b>11,16</b>
2079-8/2	100 2	0,090	1	<b>14,05</b>

### Safety voltage tester 1000 V

for 150 - 250 Volt, with clip



Art. No.	←→	CW	kg	PU	EUR
2088/145	145	4	0,016	1	<b>2,76</b>

### Voltage tester set 1000 V

for 150 – 250 Volt, with clip



Art. No.	set	kg	PU	EUR
2088-1/145	12	0,018	1	<b>3,17</b>

### Screwdriver set with striking cap

Screwdriver set with striking cap  
2 K impact screwdrivers  
Slot-head and cross-head PH with hexagonal shaft  
for attachment point with continuous blade and strike plate  
made of CV steel for direct impact transfer from plate to tip

Sizes: slot-head 1 x 3.5 | 1 x 4.5 | 1 x 5.5 | 1 x 6.5 cross-head 1 x PH1 size 5 | 1 x PH2 size 6 striking cap



Roll repressive



Art. No.	set	kg	PU	EUR
2128	6	0,887	1	<b>91,75</b>

### TX-Screwdriver-Set

6 pieces:  
Torx screwdrivers with a centre hole  
STX 10, 15, 20, 25, 30, 40  
black tips



Art. No.	set	kg	PU	EUR
2036 *	6	0,569	1	<b>74,09</b>

### Claw-type gripper magnetic

flexible claw-type gripper, length 60 cm, ideal for gripping screws, nuts etc. that are difficult to reach



Art. No.	kg	PU	EUR
1830	0,124	1	<b>28,03</b>

### Bit tools

#### Bit holder

with magnet and circlip



Art. No.	kg	PU	EUR
2142	0,170	1	<b>30,30</b>

#### Bit holder

with magnet and circlip



Art. No.	kg	PU	EUR
2142-1	0,107	1	<b>11,86</b>

### Wheel ratchet for bits

Easy to handle in tight spaces



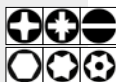
LOOSEN TIGHTEN



Art. No.	Ø	H	kg	PU	EUR
2139	40	20	0,099	1	<b>31,09</b>

### Bit set | 32 pieces | colour-coded

32 pieces:  
1 bit holder with quick release  
1 adaptor for 1/4"  
30 bits



Art. No.	set	kg	PU	EUR
2145	32	0,247	1	<b>34,91</b>

### Open-End & Point Ring Wrenches | Ratchet wrenches

#### Ratchet wrenches 4 in 1

4 in 1  
The ratchet wrench handles 4 different nut sizes



Art. No.	span w.	span w.	kg	PU	EUR
83 *	200	10 x 13 17 x 19	0,283	1	<b>44,59</b>

#### Open-end wrench 6 x 7 mm

lange, schlanke Form, sehr hohe Belastbarkeit



Art. No.	span w.	span w.	kg	PU	EUR
56/6X7	6	7	0,020	1	<b>4,79</b>
56/8x9	8	9	0,096	1	<b>4,79</b>
56/10x11	10	11	0,133	1	<b>5,30</b>
56/10x13 *	10	13	0,049	1	<b>5,43</b>
56/12x13	12	13	0,061	1	<b>5,61</b>
56/14x15	14	15	0,082	1	<b>7,46</b>
56/14x17	14	17	0,110	1	<b>7,93</b>
56/16x17	16	17	0,114	1	<b>9,00</b>
56/17x19 *	17	19	0,180	1	<b>10,03</b>
56/18x19	18	19	0,151	1	<b>9,86</b>
56/20x22	20	22	0,203	1	<b>13,27</b>
56/21x23	21	23	0,230	1	<b>12,06</b>
56/22x24	22	24	0,248	1	<b>13,01</b>
56/24x27 *	24	27	0,302	1	<b>16,48</b>
56/25x28	25	28	0,400	1	<b>17,11</b>
56/30x32	30	32	0,498	1	<b>22,20</b>
56/36x41	36	41	1,014	1	<b>47,88</b>
56/41x46	41	46	1,625	1	<b>80,21</b>
56/46x50	46	50	1,570	1	<b>94,03</b>

#### Combination wrench

long, slimline shape, very high strength, ring end at 15° angle



Art. No.	span width	kg	PU	EUR
64/10 *	10	0,043	1	<b>7,28</b>
64/13 *	13	0,790	1	<b>8,74</b>
64/17 *	17	0,163	1	<b>12,39</b>
64/19	19	0,208	1	<b>14,23</b>
64/24	24	0,350	1	<b>21,19</b>

#### Open-end wrench set

long, slimline shape, very high strength



Art. No.	set span width	kg	PU	EUR
58-1/8	8 6-22	0,797	1	<b>57,98</b>
58-1/10 *	10 6-27	1,363	1	<b>92,56</b>
58-1/12	12 6-32	2,300	1	<b>116,34</b>

### Combination wrench set

long, slimline shape, very high strength



Art. No.	set	span width	kg	PU	EUR
66-1/8	7	6-19	0,890	1	<b>66,61</b>
66-1/10 *	10	8-22	1,112	1	<b>107,23</b>

### Twelve-point ring wrench set

width across flats 6 x 7 - 24 x 27 mm  
long, slimline shape, very high strength, at 75° angle



Art. No.	set	span width	kg	PU	EUR
81-1/10	10	6-27	2,196	1	<b>167,89</b>

### Adjustable wrench

opening 22° angled, adjustable



Art. No.	span width	Degrees °	kg	PU	EUR
49/250	250	30	0,421	1	<b>21,44</b>
49/310	310	36	0,657	1	<b>29,22</b>

## Socket Wrenches & Inserts

### Socket wrench set "BRImultiLock" | 87 pieces <sup>1/2" 1/4"</sup>

Troubleshooter!  
BRINKO „BRImultiLock“ for damaged, contorted Hex-Bolts  
1/2" reversible ratchet with internal and external hexagon, 12-tooth profile, 1/2" and 1/4" drive, long sockets, sockets, 32 bit inserts and other accessories



Art. No.	set	kg	PU	EUR
127-1 *	87	5,931	1	<b>243,38</b>

### Socket wrench set "BRImultiLock" | 55 pieces <sup>1/4"</sup>

Troubleshooter!  
BRINKO „BRImultiLock“ for damaged, contorted Hex-Bolts  
27 Bit-Einsätze und weiteres Zubehör, Supplied in a plastic case, 55 pieces, twelve-tooth profile, 1/4" drive



Art. No.	set	kg	PU	EUR
122 *	55	1,836	1	<b>95,31</b>

### Reversible ratchet Plumbing <sup>1/2"</sup>

1/2" drive, with square socket and square drive bit



Art. No.	span width	kg	PU	EUR
129-3/250	250	0,520	1	<b>74,21</b>

### Reversible ratchet <sup>1/4"</sup>

1/4" drive, with connecting square



Art. No.	span width	kg	PU	EUR
123-1/110	110	0,140	1	<b>43,76</b>

### Universal screw insert <sup>1/2"</sup>

the steel pins automatically adjust to every shape from Ø 9 - 21 mm



Art. No.	span width	kg	PU	EUR
128 *	22	0,138	1	<b>54,79</b>

### "BRImultiLock" insert <sup>1/2"</sup>

hexagon, 1/2" drive, also for loosening rounded and damaged Hex-Bolts



Art. No.	span width	kg	PU	EUR
129-12/10	10	0,046	1	<b>6,87</b>
129-12/11	11	0,058	1	<b>8,34</b>
129-12/13	13	0,050	1	<b>6,87</b>
129-12/14	14	0,063	1	<b>8,34</b>
129-12/17	17	0,061	1	<b>6,87</b>
129-12/19	19	0,065	1	<b>8,04</b>
129-12/22	22	0,085	1	<b>8,21</b>
129-12/24	24	0,104	1	<b>8,96</b>
129-12/26	26	0,116	1	<b>14,58</b>
129-12/29	29	0,167	1	<b>10,40</b>
129-12/32	32	0,215	1	<b>11,65</b>

### Reversible ratchet <sup>1/2"</sup>

with 1/2" square drive, inside



Art. No.	span width	kg	PU	EUR
672/265	265	0,459	1	<b>47,47</b>

### Hexagonal insert <sup>1/4"</sup>

1/4" drive



Art. No.	WS	kg	PU	EUR
123-7/6	6	0,011	1	<b>8,01</b>
123-7/8	8	0,012	1	<b>8,01</b>
123-7/10	10	0,014	1	<b>8,01</b>
123-7/13	13	0,024	1	<b>6,16</b>

### Hexagonal insert XL <sup>1/2"</sup>

1/2" drive, extra long design for problem-free assembly of inside wall installation rails



Art. No.	span width	kg	PU	EUR	
129-13/13	75	13	0,110	1	<b>6,38</b>

### Allen insert <sup>1/2"</sup>

allen key 6 mm, 1/2" drive



Art. No.	WS	kg	PU	EUR
129-14/6	6	0,065	1	<b>21,70</b>

### Adaptor

3/4" 1/2"

square socket 3/4", square bit drive 1/2"



Art. No.	kg	PU	EUR
129-100	0,171	1	<b>48,57</b>

### Extension | bendy

1/4"

1/4" drive



Art. No.	span width	kg	PU	EUR
127-2	150	0,068	1	<b>12,38</b>

### Extension

1/2"

1/2" drive



Art. No.	span width	kg	PU	EUR
129-7/125	125	0,192	1	<b>13,52</b>

### Connecting square

1/2"

1/2" drive



Art. No.	kg	PU	EUR
129-9/1/2	0,044	1	<b>16,41</b>

### Socket wrench

precision steel pipe (DIN 896B), drawn seamlessly, chrome-plated



Art. No.	sp. width	sp. width	kg	PU	EUR
92/6x7	6	7	0,026	1	<b>4,94</b>
92/8x9	8	9	0,042	1	<b>5,58</b>
92/10x11	10	11	0,052	1	<b>5,30</b>
92/12x13	12	13	0,071	1	<b>6,08</b>
92/14x15	14	15	0,090	1	<b>6,40</b>
92/17x19	17	19	0,155	1	<b>9,51</b>
92/19x22	19	22	0,248	1	<b>11,71</b>
92/20x22	20	22	0,248	1	<b>12,74</b>
92/22x24	22	24	0,276	1	<b>14,74</b>
92/24x27	24	27	0,296	1	<b>16,54</b>
92/30x32	30	32	0,416	1	<b>22,61</b>
92/32x36	32	36	0,539	1	<b>37,82</b>

### Socket wrench set

6 pieces, precision steel pipe (DIN 896B), drawn seamlessly, chrome-plated



Art. No.	set	kg	PU	EUR
92-1	6	1,140	1	<b>72,21</b>

### Socket wrench

Precision hexagonal steel pipe, chrome-plated



Art. No.	span width	kg	PU	EUR
94/10	10	0,080	1	<b>8,34</b>
94/13	13	0,860	1	<b>9,38</b>
94/17	17	0,809	1	<b>14,00</b>
94/19	19	0,914	1	<b>16,20</b>
94/22	22	1,190	1	<b>19,85</b>
94/36	36	1,366	1	<b>47,68</b>

### Hexagon socket wrench

for installing mixers and taps on washbasins, as well as for door opening at elevators



Art. No.	span width	kg	PU	EUR	
90/9	400	9	0,224	1	<b>11,44</b>
90/10	400	10	0,224	1	<b>11,44</b>
90/11	400	11	0,250	1	<b>12,47</b>
90/12	400	12	0,250	1	<b>12,47</b>
90/13	400	13	0,250	1	<b>12,47</b>

### Triangular socket wrench

for explosion-endangered lighting systems, junction boxes as well as for door opening at elevators



Art. No.	span width	kg	PU	EUR	
104/3	90	3	0,025	1	<b>6,47</b>
104/4	90	4	0,028	1	<b>6,47</b>
104/5	100	5	0,030	1	<b>7,10</b>
104/6	112	6	0,060	1	<b>8,47</b>
104/8	125	8	0,083	1	<b>9,58</b>
104/10	140	10	0,159	1	<b>12,62</b>

### Torque wrench

### Torque wrench

automatic with advance setting, reversible ratchet with 1/4" drive, 3 inserts: 6, 8, 10 mm



Art. No.	span width	Nm	kg	PU	EUR
129-30	300	6 - 30	0,935	1	<b>197,50</b>

### Hex Keys

### Hex key set

long design, even easy to reach greatly recessed screws



Art. No.	set	size	kg	PU	EUR
110	9	1,5 - 10	0,418	1	<b>30,33</b>

### Hex key set

hex/ball-end combined, the ball-end allows you to screw up to a 30° angle



Art. No.	set	size	kg	PU	EUR
114 *	9	1,5 - 10	0,422	1	<b>27,55</b>

### Hex key set

practical removable handle to work comfortably - as T- or angled handle or screwdriver



T-HANDLE

SCREWDRIVER-HANDLE



ANGLED HANDLE



Art. No.	set	size	kg	PU	EUR
115/2	9	1,5 - 10	0,513	1	<b>49,69</b>

**BRINKO**

powered by **haupa**

### Tap extension wrench

socket wrench for tap extensions and pipe plugs



Art. No.	WS	kg	PU	EUR
109/1	3/8 x 3/4"   3/8"	0,219	1	<b>17,51</b>
109/2	1/2 x 3/4"   3/8"	0,252	1	<b>18,32</b>

### Hex key

Chrome vanadium steel, bright nickel-plated



Art. No.	span width	kg	PU	EUR
112/1,5	1,5	0,090	1	<b>0,67</b>
112/2	2	0,100	1	<b>0,67</b>
112/2,5	2,5	0,003	1	<b>0,72</b>
112/3	3	0,005	1	<b>0,72</b>
112/4	4	0,010	1	<b>0,97</b>
112/5	5	0,016	1	<b>1,04</b>
112/6	6	0,028	1	<b>1,32</b>
112/7	7	0,035	1	<b>1,93</b>
112/8	8	0,050	1	<b>2,21</b>
112/9	9	0,075	1	<b>2,89</b>
112/10	10	0,120	1	<b>4,86</b>
112/11	11	0,130	1	<b>4,12</b>
112/12	12	0,150	1	<b>7,24</b>
112/13	13	0,203	1	<b>5,52</b>
112/14	14	0,283	1	<b>6,90</b>
112/15	15	0,307	1	<b>8,27</b>
112/17	17	0,466	1	<b>11,99</b>
112/19	19	0,660	1	<b>16,54</b>
112/22	22	0,950	1	<b>37,05</b>
112/24	24	1,200	1	<b>60,82</b>

### Switch cabinet key

with adapter for 1/4" bit, hexagonal drive, with reversible bit: length 39 mm, slot 1.0 x 7 mm, cross PH 2



Art. No.	kg	PU	EUR
119	0,085	1 on request	

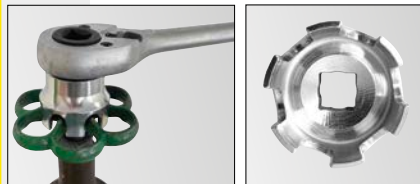
### Sanitary special tools

#### Handwheel socket „BRIwheelNut“

Now even the most stubborn barriers are solved with ease!

The special tool, which is protected with a design pattern, consists of a basic body with protruding webs that engage in the openings of almost all handwheels and that can be driven with a 1/2" ratchet.

Due to the force applied centrally from above and the distribution of the pressure points over several surfaces, a non-destructive actuation of valves and slides is made possible.



Art. No.	kg	PU	EUR
129-50 *	0,141	1	<b>86,90</b>

#### Bath installation set "deluxe" | 16 pieces

- 16-part set
- S-bend connector assembly tool
- Corner valve screwing aid
- Universal screw bit up to 21 mm
- Valve holder for eccentric and standard valves
- Toilet seat assembly wrench
- Ratchet wrench, 4 in 1
- Combination basin cock wrench 13 mm with 5 bits 9, 10, 11, 12, 14 mm and 1 claw
- Deep hole marker for all surfaces
- Reversible ratchet, 1/2", CV steel, with internal and external square drive bit
- Hanger bolt screwdriver Ø 10 mm



Art. No.	set	kg	PU	EUR
677-1 *	16	3,200	1	<b>407,75</b>

### Bath installation set "basic" | 6 pieces

- 6-part set
- 1 S-bend connector assembly tool, square socket for 1/2" drive
- 1 angle valve screw-in aid, square socket for 1/2" drive
- 1 universal screw insert, 1/2" drive
- 1 valve holder for rotary control and standard valves
- 1 open-end wrench 17 x 19 mm
- 1 reversible ratchet, square socket and square drive bit, 1/2" drive



Art. No.	set	kg	PU	EUR
677 *	6	3,794	1	<b>231,91</b>

#### WC seat installation wrench

simple to install and remove WC seats, universal bung wrench with more than 19 possible applications suitable for virtually all fastening systems



Art. No.	kg	PU	EUR
661 *	0,060	1	<b>35,68</b>

#### Toilet seat & sanitary installation wrench BRImultiKey 19 in 1

The BRINKO Toilet seat & sanitary installation wrench 'BRImultiKey' 19 in 1 is a multi-talent for the different screw connections on toilet seats, and adapters on water taps and fittings (Perlators/aerators).

WITHOUT an adapter:

Up to 11 different wing nuts of the toilet seat can be opened or screwed on.

WITH adapter:

Open and/or screw on 10 mm nuts (M6 threaded rods) or 13 mm nuts (M8 threaded rods).



Art. No.	kg	PU	EUR
662	200	0,100	1 <b>32,35</b>

#### Combination washbasin tap wrench

for all fittings up to 14 mm, size 32 mm



Art. No.	set	kg	PU	EUR
655 *	6	0,527	1	<b>64,99</b>

### Washbasin tap wrench insert



Art. No.	span width	kg	PU	EUR
655-1/9	9	0,011	1	<b>12,56</b>
655-1/10	10	0,011	1	<b>12,56</b>
655-1/11	11	0,016	1	<b>12,56</b>
655-1/12	12	0,016	1	<b>12,56</b>
655-1/14	14	0,018	1	<b>12,56</b>
655-1/32		0,151	1	<b>26,29</b>

### Washbasin tap wrench

for fixing nuts up to size 32 mm



Art. No.	span width	kg	PU	EUR
665/235	235 8-32	0,495	1	<b>54,96</b>

### S-connection assembly set

Consisting of:  
1 reversible ratchet, CV steel, with 1/2" drive, with connecting square  
1 S-connection assembly tool



Art. No.	set	kg	PU	EUR
676-1 *	2	0,873	1	<b>96,84</b>

### S-connection assembly tool

inserting and removing tool, turns to left and right + SW 36



Art. No.	kg	PU	EUR
676	0,267	1	<b>45,87</b>

### Angle valve screw-in aid

to screw angle valves in and out without causing any damage, also suitable for places which are difficult to access



Art. No.	kg	PU	EUR
659	0,230	1	<b>39,51</b>

### Combination angle valve key

The right tool, especially in tight spaces.  
To screw angle valves in and out without causing any damage with double connection. (e.g. for dishwasher).  
Common 1/2" ratchets or socket wrenches are used for driving.



**NEW**

Art. No.	kg	PU	EUR
659-1	0,241	1	<b>52,65</b>

### Valve holder

to lock eccentric and standard valves in place, when installing siphons and drains, on washbasins and sinks etc.



Art. No.	span width	kg	PU	EUR
725 *	120	0,195	1	<b>40,77</b>

### Duo valve holder

Now, holding it during installation is no longer a problem, and there's no risk of slipping that could damage the chrome plating.



**NEW**

Art. No.	kg	PU	EUR
726	0,195	1	<b>64,80</b>

### Assembly Connection Gauge

the installation connection gauge is a measuring tool for the optimal alignment of standardized fittings, such as bathtub and shower batteries, corner and recessed valves, pipe connectors, and vents, dimensional and spatial alignment of all common installation inside dimensions 1/2" in bare brickwork



Art. No.	kg	PU	EUR
2845 *	1,245	1	<b>168,20</b>

### Valve extension cutter with chip collection

for trimming 1/2" valve extensions made of red brass



Art. No.	kg	PU	EUR
705/1/2 *	0,112	1	<b>94,30</b>

### Tap reseating tool

with two compression springs



Art. No.	size	kg	PU	EUR
714/1	1	0,350	1	<b>82,99</b>
714/2	2	0,338	1	<b>82,99</b>

### Replacement milling cutters



Art. No.	Inch	kg	PU	EUR
718/3/8		0,006	1	<b>9,51</b>
718/1/2		0,010	1	<b>9,85</b>
718/3/4		0,021	1	<b>10,40</b>
718/1		0,030	1	<b>10,96</b>

### Tap reseating tool

supplied in a metal case:  
1 tap reseating tool, cylindrical shape, with two compressed springs



Art. No.	set	kg	PU	EUR
715/2		0,877	1	<b>134,50</b>

## Plumbing Wrenches

### Plumbing installation wrench

for attaching washbasins and angle valves



Art. No.	WS	kg	PU	EUR
105/10 *	17 - 19	0,242	1	<b>34,08</b>

### Plumbing four-way socket wrench

for valve extensions up to 100 mm: 3/8", 1/2", 3/4", 1"



Art. No.	span width	kg	PU	EUR
106 *	10 - 22	0,570	1	<b>69,36</b>

### Plumbing four-way socket wrench

for valve extensions up to 80 mm: 3/8", 1/2", 3/4", 1"



Art. No.	span width	kg	PU	EUR
106-2	10 - 22	0,540	1	<b>38,46</b>

## Hanger bolt spanner

### Hanger bolt nut

for fast and effortless screwing and unscrewing of stay bolts, express and hanger bolts without damaging the thread



Art. No.	∅	kg	PU	EUR
101/10	10	0,188	1	<b>19,11</b>

### Hanger bolt driver

Multidirectional hanger bolt driver, with hexagonal driver for power tools



Art. No.	∅	kg	PU	EUR
102/8 *	8	0,084	1	<b>16,06</b>
102/10 *	10	0,114	1	<b>16,06</b>

### Hanger bolt wrench

with adjustable chuck, for M6, M8, M10, M12 thread



Art. No.	kg	PU	EUR
103	0,288	1	<b>54,00</b>

## Step Wrenches

### Step wrench set

1 reversible ratchet, 1 step wrench 105 mm



Art. No.	span width	kg	PU	EUR
674 *	105	0,679	1	<b>83,34</b>

### Step wrench set

1 reversible ratchet, 1 step wrench 86 mm



Art. No.	span width	kg	PU	EUR
675 *	86	0,556	1	<b>73,11</b>

### Step wrench for radiator

for radiator screw connections, with square bit drive 18 mm



Art. No.	span width	kg	PU	EUR
670/170	170	0,237	1	<b>24,37</b>

### Turning tool

square drive 18 mm



Art. No.	span width	kg	PU	EUR
671/240	240	0,280	1	<b>22,74</b>

### Step wrench for radiator and water

for radiator screw connections and short valve extensions, with 1/2" square drive



Art. No.	span width	WS	kg	PU	EUR
673/86 *	86	9,5 - 17	0,097	1	<b>28,79</b>



### Step wrench for radiator and water

1/2"

for radiator screw connections and short valve extensions, with 1/2" square drive



Art. No.	WS	kg	PU	EUR
673/105 *	105 8 - 22	0,136	1	<b>38,98</b>

### Step wrench for gas

for gas tap connection fittings



Art. No.	WS	kg	PU	EUR
673-1/1	86 12 - 15	0,138	1	<b>49,96</b>

### Step wrench for gas

for gas tap connection fittings



Art. No.	WS	WS	kg	PU	EUR
673-1/2	86 19 24	0,175	1	<b>60,54</b>	

### Step wrench for gas and water

combined use for tap extensions and gas tap connection fittings



Art. No.	WS	kg	PU	EUR
673-2/2	86 15 - 24	0,181	1	<b>66,65</b>

### Step wrench

small design for valve nipples



Art. No.	WS	kg	PU	EUR
666/1	9,5 - 17	0,106	1	<b>20,58</b>

### Step wrench

small design for valve nipples



Art. No.	WS	kg	PU	EUR
666/2	10 - 17	0,195	1	<b>21,23</b>

### Sleeve extractor

#### Sleeve extractor set

1/2"

For the extraction of threaded pipe connections, sleeves and nipples 3/8" and 1/2 - 3/4"



Art. No.	set	kg	PU	EUR
1088 *	5	1,426	1	<b>180,94</b>

#### Sleeve extractor

For the extraction of threaded pipe connections, sleeves and nipples



Art. No.	Ø"	kg	PU	EUR
1087/5	3/8	0,096	1	<b>27,02</b>
1087/7	1/2 - 3/4	0,262	1	<b>49,94</b>

### Hole Saws

#### Metal saw bow

with quick dowel pin



Art. No.	Sbl.	kg	PU	EUR
1724/300	300	0,750	1	<b>19,21</b>

#### Universal bow saw

with all-purpose saw blade



Art. No.	Sbl.	kg	PU	EUR
1726/146	146	0,168	1	<b>18,14</b>

#### Universal bow saw

with all-purpose saw blade



Art. No.	Sbl.	kg	PU	EUR
1728/146	146	0,095	1	<b>10,64</b>

### Universal bow saw | fold-down

with all-purpose saw blade



Art. No.	Sbl.	kg	PU	EUR
1729/146	146	0,133	1	<b>20,33</b>

### Hand saw blades

#### Saw blade Universal

for universal, precise sawing work



Art. No.	WS	TPI	kg	PU	EUR
1730/146 *	146	24	0,002	12	<b>1,11</b>

#### Saw blade Metal

for high quality sawn edges



Art. No.	WS	TPI	kg	PU	EUR
1732/146	146	32	0,002	12	<b>1,11</b>

#### Saw blade Wood

for effortless sawing work in wood



Art. No.	WS	TPI	kg	PU	EUR
1731/146	146	14	0,029	12	<b>1,05</b>

#### Metal cutting saw blade HSS

HSS, flexible, for plastics and metal



Art. No.	WS	TPI	kg	PU	EUR
1738/300	300	24	0,017	10	<b>3,03</b>

#### Metal cutting saw blade HSS-Bi-metal

HSS-Bi-metal, flexible



Art. No.	WS	TPI	kg	PU	EUR
1739/300 *	300	24	0,017	10	<b>3,14</b>

#### Metal cutting saw blade

spring steel (C 75)



Art. No.	WS	TPI	kg	PU	EUR
1740/300 *	300	24	0,044	10	<b>2,49</b>

## Knives

### Universal knife

"Das Original" BRINKO cutter knife, blade feed with automatic lock



**"Das Original"**  
BRINKO cutter knife

Art. No.	kg	PU	EUR
2980 *	0,103	1	12,82

### Blade dispenser „Black Blades“

"Original" BRINKO "Black Blades" super sharp blade for precise cuts, maximum lifespan thanks to flame hardening process



10x



**"Original"**  
BRINKO „Black Blades“

Art. No.	kg	PU	EUR
2982 *	0,081	1	10,20

### Cable knife



Art. No.	kg	PU	EUR
3525	0,083	1	19,22

### Cable knife



Art. No.	kg	PU	EUR
3526	0,057	1	19,22

## Universal knife

blade depot for 5 blades



Art. No.	kg	PU	EUR
2991	0,170	1	13,23

### Cable stripping knife

cast steel blade with scraper



Art. No.	BL	kg	PU	EUR
3520	111	0,071	1	11,23

### Blade dispenser trapezoidal

10x



Art. No.	kg	PU	EUR
2992	0,025	1	3,87

### Blade dispenser hook

10x



Art. No.	kg	PU	EUR
2993	0,031	1	8,41

## Shears

### Ideal scissors



Art. No.	kg	PU	EUR	
762/260 *	260	0,581	1	63,45

### Ideal scissors



Art. No.	kg	PU	EUR	
786/260	260	0,609	1	51,16

### Punching scissors



Art. No.	kg	PU	EUR	
792/250	250	0,500	1	33,28

### Punching scissors



Art. No.	kg	PU	EUR	
793/250	250	0,514	1	33,28

### Shaped punching scissors



Art. No.	kg	PU	EUR	
794/250	250	0,470	1	33,80

### Straight cutting scissors



Art. No.	kg	PU	EUR	
798/300	300	0,726	1	52,48

## Hammers

### Club hammer

with hickory handle



Art. No.	↔	kg	PU	EUR
1409/1000	260	1,128	1	<b>26,27</b>
1409/1250	260	1,388	1	<b>28,77</b>
1409/1500	280	1,650	1	<b>31,18</b>

### Cross peen hammer

with hickory handle



Art. No.	↔	kg	PU	EUR
1470/300	300	0,373	1	<b>20,18</b>
1470/500	320	0,601	1	<b>20,73</b>

## Chisels

### Chisel



Art. No.	SW	kg	PU	EUR
2174/26	26	0,203	1	<b>28,60</b>

### Sharp chisel SDS-Plus



Art. No.	↔	kg	PU	EUR
1340/250	250	0,171	1	<b>30,69</b>

### Flat chisel SDS Plus



Art. No.	↔	SW	kg	PU	EUR
1341/250 *	250	20	0,253	1	<b>30,14</b>

### Spade chisel SDS Plus



Art. No.	↔	SW	kg	PU	EUR
1342/200 *	200	40	0,264	1	<b>48,12</b>

### Nail setter



Art. No.	Length	kg	PU	EUR
1391/6	6	0,162	1	<b>10,20</b>

### Pointed punch



Art. No.	↔	Thickness	kg	PU	EUR
1315/120-10	120	10	0,062	1	<b>3,86</b>
1315/120-12	120	12	0,089	1	<b>4,12</b>

## Brushes

### Wire brush



Art. No.	↔	Rows	kg	PU	EUR
1708/3	295	3	0,103	1	<b>3,46</b>
1708/4 *	295	4	0,151	1	<b>3,96</b>
1708/5	295	5	0,145	1	<b>4,45</b>

### Wire brush



Art. No.	↔	Rows	kg	PU	EUR
1708-1/3	295	3	0,116	1	<b>10,80</b>
1708-1/4	295	4	0,137	1	<b>12,29</b>

### Burner brush

wooden body



Art. No.	↔	Rows	kg	PU	EUR
1709-1/80 *	200	2	0,027	1	<b>7,44</b>

### Burner brush

with plastic handle



Art. No.	↔	Rows	kg	PU	EUR
1710	225	2 x 13	0,130	1	<b>20,18</b>

### Fitting brush

for cleaning the inside of pipe ends



Art. No.	↔	∅"	kg	PU	EUR
1706/12	12	3/8	0,027	1	<b>12,38</b>
1706/15 *	15	1/2	0,025	1	<b>12,08</b>
1706/18	18	5/8	0,027	1	<b>12,08</b>
1706/22	22	3/4	0,028	1	<b>12,08</b>
1706/28	28	1	0,038	1	<b>12,08</b>

### Fitting brush

for cleaning the inside of pipe ends



Art. No.	↔	∅"	kg	PU	EUR
1706-1/15	15	1/2	0,055	1	<b>20,35</b>
1706-1/18	18	5/8	0,055	1	<b>20,35</b>
1706-1/22	22	3/4	0,060	1	<b>20,35</b>

### Fitting brush

for cleaning the outside of copper pipe ends



Art. No.	↔	↕	kg	PU	EUR
1705/12	12	3/8	0,021	1	<b>22,20</b>
1705/15	15	1/2	0,026	1	<b>38,29</b>
1705/18	18	5/8	0,034	1	<b>38,29</b>
1705/22	22	3/4	0,032	1	<b>35,01</b>
1705/28	28	1	0,040	1	<b>35,01</b>

### Brass brush

in three rows



Art. No.	↔	Rows	kg	PU	EUR
1709/40x20 *	175	3	0,023	1	<b>3,10</b>

### Files

#### Engineer's file half round



Art. No.	BL	CW	kg	PU	EUR
1654-1/250	250	7	0,290	1	<b>23,16</b>

#### Engineer's file round



Art. No.	BL	CW	kg	PU	EUR
1653-1/250	250	10	0,165	1	<b>14,60</b>

#### Installation rasp



Art. No.	BL	CW	kg	PU	EUR
1658-1/250	250	7	0,262	1	<b>50,86</b>

#### Engineer's file flat



Art. No.	BL	CW	kg	PU	EUR
1655-1/250	250	6,3	0,339	1	<b>16,11</b>

#### Wood rasp



Art. No.	BL	CW	kg	PU	EUR
1666-1/250	250	23,8	0,247	1	<b>28,20</b>

#### File rasp



Art. No.	BL	CW	kg	PU	EUR
1664/200	200	23,5	0,170	1	<b>14,46</b>

### Plaster's Tools

#### Plaster ladle



Art. No.	Ø	kg	PU	EUR
2994/160	160	0,340	1	<b>28,11</b>

#### Plaster cup



Art. No.	Ø	kg	PU	EUR
2996/135	135	0,161	1	<b>7,27</b>

#### Painter's spatula



Art. No.	W	kg	PU	EUR
2952/30	30	0,050	1	<b>4,12</b>
2952/40	40	0,058	1	<b>4,35</b>
2952/50	50	0,060	1	<b>5,05</b>
2952/70	70	0,080	1	<b>5,28</b>

#### Plasterer's spatula



Art. No.	W	kg	PU	EUR
2900/60	60	0,075	1	<b>10,78</b>

#### Trowel



Art. No.	↔	kg	PU	EUR
2904/140	140	0,166	1	<b>10,93</b>

#### Tongue trowel



Art. No.	↔	kg	PU	EUR
2908/160	160	0,139	1	<b>16,82</b>

### Brushes

#### Water brush



Art. No.	Ø	kg	PU	EUR
2998	30	0,026	1	<b>5,17</b>

#### Flat brush



Art. No.	Width	kg	PU	EUR
2999-1/25	25	0,016	1	<b>3,00</b>
2999-1/50	50	0,031	1	<b>4,87</b>

#### Radiator brush



Art. No.	Width	kg	PU	EUR
2997/25	25	0,021	1	<b>4,36</b>
2997/40	40	0,021	1	<b>5,57</b>

## Tool cases

### Tool case "plumbing"

ABS

Hard-top case



Art. No.	W	H	D	kg	PU	EUR
7410	480	370	225	6,500	1	<b>407,75</b>

### Tool case "BRlactive"

ABS

Hard-top case, black, fitted with 23 special tools



Art. No.	set	empty	kg	PU	EUR
7419	23	7410	11,700	1	<b>824,10</b>

### Tool case "Plumbing CLASSIC"

ABS

Hard-top case, black, fitted with 22 special tools



Art. No.	set	empty	kg	PU	EUR
7418	22	7410	11,809	1	<b>741,59</b>

### Tool case "Plumbing EXCLUSIVE"

ABS

Hard-top case, black, fitted with 37 special tools



Art. No.	set	empty	kg	PU	EUR
7438	37	7410	16,489	1	<b>1.195,21</b>

### Tool case "Plumbing Swimming pool EXCLUSIVE"

ABS

Hard-top case, black, fitted with 35 special tools



Art. No.	set	empty	kg	PU	EUR
7530	35	7410	14,963	1	<b>1.465,34</b>

### Young technician toolbox - Plumbing/heating

ABS

Hard-top case, black, fitted with 23 special tools



Art. No.	set	empty	kg	PU	EUR
7421	23	7410	11,000	1	<b>700,85</b>

NEW

**Apprentice case „BRbasic“**

ABS

Hard case, black, fitted with 14 special tools



Art. No.	set	empty	kg	PU	EUR
7416	14	220030	8,880	1	<b>438,05</b>

**“Skater” tool trolley**

Hardshell case made of PP plastic

HDPE



INSENSITIVE CORROSION FIRMLY SHOCK-RESISTANT BIKES

Art. No.	W	H	D	kg	PU	EUR
7413	470	360	220	9,300	1	<b>801,08</b>

**Tool bags**

**Construction bucket set | 15 pieces**

Tool bag made of extra strong polyester 1680D including bucket 12 litres and 13 other products



Art. No.	set	empty	kg	PU	EUR
9025	15	220313	2,620	1	<b>207,05</b>

**Tool wallet**



Art. No.	W	H	kg	PU	EUR
7000/5	250	300	0,126	1	<b>26,80</b>
7000/15	680	330	0,260	1	<b>37,50</b>

**HDPE tool case extra deep**

Tool case made of a combination of cowhide and ABS plastic



Art. No.	W	H	D	kg	PU	EUR
7360	450	340	190	3,800	1	<b>544,16</b>

**Cowhide & ABS tool case Premium “Plumbing EXCLUSIVE”**

Tool case made of a combination of cowhide and ABS plastic



Art. No.	set	empty	kg	PU	EUR
7362	45	7360	11,815	1	<b>1.317,54</b>

**Service bag**

Strong tool bag made of hard-wearing 600D Polyester



Art. No.	W	H	D	kg	PU	EUR
7515	450	350	190	2,157	1	<b>99,39</b>

**Service bag “Plumbing CLASSIC”**

Strong tool bag made of hard-wearing 600D Polyester, fitted with 22 special tools



Art. No.	set	empty	kg	PU	EUR
7516	22	7515	7,366	1	<b>484,20</b>



## Pencils & Marker

### Pressure testing pump

for safe tightness testing on water pipes, brass piston, 1/2" hose connection



Art. No.	bar	kg	PU	EUR
7640	60	7,800	1	<b>286,70</b>
7640-1	manometer	0,070	1	<b>90,75</b>
7640-2	pressure hose Ø 1/2"	0,727	1	<b>119,62</b>

### Pressure testing pump stainless steel

for safe tightness testing on pipes, in particular with chemically contaminated, aggressive liquids, also suitable for solar panel systems and underfloor heating systems



Art. No.	bar	kg	PU	EUR
7641	60	6,400	1	<b>458,71</b>
7641-1	manometer	0,070	1	<b>106,76</b>

## Pencils & Marker

### DRY Profi

Effective pressing mechanism for automatic lead propulsion in robust stainless steel tube



Art. No.	kg	PU	EUR
2513	0,018	1	<b>19,94</b>

### DRY Profi LED

Integrated LED lamp for precise markings in poorly-lit areas



Art. No.	kg	PU	EUR
2514	0,029	1	<b>30,96</b>

### Deep-hole marker 2-in-1 with a sharpener

One pen - two functions

With a cap: Retractable pencil for precise marking and writing

Without a cap: Deep-hole marker for drilling and installation tasks



Art. No.	kg	PU	EUR
2528	0,021	1	<b>26,75</b>

### Duo marker sanitary

1 pen, 2 colours

made of high-quality lime wood this soft hardwood can be sharpened very well and offers an optimal combination of stability and flexibility), for marking different measuring points, hot and cold water pipes or for corrections



Art. No.	kg	PU	EUR
2510	0,012	1	<b>4,93</b>

### DRY construction marker

integrated tip, ideal single hand operation



Art. No.	kg	PU	EUR
2511	0,028	1	<b>17,08</b>

### DRY leads | Graphite



Art. No.	set	kg	PU	EUR
2511-1	12	0,029	1	<b>14,45</b>

### DRY leads | Basic

graphite, red, yellow



Art. No.	set	kg	PU	EUR
2511-2	12	0,028	1	<b>14,45</b>

### DRY leads | Special

white, green, blue



Art. No.	set	kg	PU	EUR
2511-3	12	0,026	1	<b>14,45</b>

### INK deep hole marker black



Art. No.	kg	PU	EUR
2515/1	0,019	1	<b>13,13</b>

### INK deep hole marker red



Art. No.	kg	PU	EUR
2515/2	0,019	1	<b>13,13</b>

### INK deep hole marker blue



Art. No.	kg	PU	EUR
2515/3	0,019	1	<b>13,13</b>

### All-purpose pencil

also writes on greasy or damp surfaces



Art. No.	kg	PU	EUR
2524/235	0,014	1	<b>3,96</b>

### Carpenter's pencil



Art. No.	kg	PU	EUR
2523/240	0,012	1	<b>2,76</b>

### Sharpener



Art. No.	kg	PU	EUR
2522	0,010	1	<b>6,68</b>

**BRINKO**<sup>®</sup>  
powered by **haupa**

### Marking chalk red



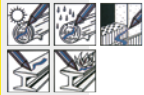
Art. No.	l	kg	PU	EUR
2525	120	0,010	1	<b>1,62</b>

### Marking chalk yellow



Art. No.	l	kg	PU	EUR
2525-1	120	0,010	1	<b>1,62</b>

### Marking chalk blue



Art. No.	l	kg	PU	EUR
2525-2	120	0,010	1	<b>1,62</b>

### Soapstone crayon



Art. No.	l	kg	PU	EUR
2526/100	100	0,026	1	<b>1,37</b>

### Set of numbers

normal quality, to be hammered into steel and iron  
3 mm, 7 mm, 70 mm



Art. No.	size	set	kg	PU	EUR
3552/3	3	9	0,266	1	<b>25,04</b>
3552/4	4	9	0,320	1	<b>22,12</b>
3552/6	6	9	0,555	1	<b>28,46</b>
3552/8	8	9	0,869	1	<b>37,49</b>

### Letter set



Art. No.	size	set	kg	PU	EUR
3562/6	6	27	1,615	1	<b>80,97</b>

## Spirit Levels

### Lightweight metal spirit level



Art. No.	l	kg	PU	EUR
2836/300	300	0,180	1	<b>42,70</b>
2836/400	400	0,267	1	<b>44,19</b>
2836/600	600	0,378	1	<b>50,98</b>
2836/800	800	0,505	1	<b>53,32</b>
2836/1000	1000	0,646	1	<b>57,15</b>

### Magnetic spirit level

with extra strong magnets for a secure hold on pipes, metal in inside walls, installations and other steel components



Art. No.	l	kg	PU	EUR
2836-1/400	400	0,299	1	<b>57,04</b>
2836-1/600	600	0,451	1	<b>81,24</b>
2836-1/800	800	0,560	1	<b>92,35</b>
2836-1/1000	1000	0,670	1	<b>100,09</b>

## Brackets

### Bracket



Art. No.	TL long	TL short	kg	PU	EUR
2550/700	700	300	0,448	1	<b>55,90</b>

### Bracket



Art. No.	TL long	TL short	kg	PU	EUR
2562/1000	1000	500	2,214	1	<b>289,30</b>

## Measuring Tools

### Feeler gauge



Art. No.	TL	TMA	kg	PU	EUR
2814/20	100	0.05-1	0,089	1	<b>10,26</b>

## Plumblines



Art. No.	Ø	l	kg	PU	EUR
2861/50	1	50	0,040	1	<b>5,37</b>

## Plumblines



Art. No.	Ø	l	kg	PU	EUR
2862/50	1,7	50	0,046	1	<b>6,82</b>

## Gloves

### Breathable protective gloves

very comfortable to wear, hands remain cool and dry



Art. No.	size	size	kg	PU	EUR
3454/9	9	L	0,043	1	<b>6,69</b>
3454/10	10	XL	0,043	1	<b>6,69</b>
3454/11	11	XXL	0,043	1	<b>6,69</b>

### Work gloves „BRIGecko“

latex-coated glove palm, repels liquid



Art. No.	size	size	kg	PU	EUR
3458/9	9	L	0,063	1	<b>4,60</b>
3458/10	10	XL	0,063	1	<b>4,60</b>



### Work gloves

PU-coating



Art. No.	size	size	kg	PU	EUR
3459/10	10	XL	0,105	1	<b>3,57</b>

### Cut-protection gloves

excellent grip, comfortable, close fit and elastic, excellent protection (Cat. 5) when working with sharp-edged objects



Art. No.	size	size	kg	PU	EUR
3451/10	10	XL	0,105	1	<b>25,48</b>

### Safety Glasses

#### Safety glasses

especially for spectacle wearers



Art. No.	kg	PU	EUR
4255	0,062	1	<b>10,91</b>

#### Safety glasses

3M reflective strips at edge of glasses



Art. No.	kg	PU	EUR
4258	0,045	1	<b>16,06</b>

#### Safety glasses

3M reflective strips at edge of glasses



Art. No.	kg	PU	EUR
4259	0,030	1	<b>17,84</b>

### Safety glasses



Art. No.	kg	PU	EUR
4266	0,060	1	<b>18,48</b>

### Safety glasses

attractive design



Art. No.	Col.	kg	PU	EUR
4278-1		0,023	1	<b>11,58</b>
4278-3		0,023	1	<b>11,58</b>

### Welder's Goggles

#### Welder's tightly fitting safety goggles

bead made of PVC



Art. No.	kg	PU	EUR
4250	0,077	1	<b>16,20</b>

#### Welder's goggles

with fold-out, well ventilated side protection meshes



Art. No.	kg	PU	EUR
4260	0,049	1	<b>18,56</b>

### Replacement lenses



Art. No.	Col.	kg	PU	EUR
4262	transparently	0,034	1	<b>6,55</b>

### Replacement lenses



Art. No.	kg	PU	EUR
4263	0,031	1	<b>16,67</b>

### Protection

#### Ear muffs



Art. No.	dB	kg	PU	EUR
4210	24	0,170	1	<b>11,83</b>

#### Ear plugs



Art. No.	dB	kg	PU	EUR
4207	25	0,011	1	<b>3,29</b>

#### Siphon

Guaranteed the right siphon for your application with the highest degree of security, up to max. 80 kg horizontally, 40 kg vertically



Art. No.	kN	kg	PU	EUR
1180	0,39	0,600	1	<b>70,08</b>

#### Tension cable | 8 mm, length 1 m

versatile and practical



Art. No.	ST	kg	PU	EUR	
1140/8	1000	8	0,695	10	<b>5,19</b>

## Pipe cutter

### Carbon steel, stainless steel pipe cutter

Special pipe cutter for INOX, C-steel and Cu pipes, pipes with Ø 3-35 mm or 1", up to 3 mm wall thickness



Art. No.	Ø	kg	PU	EUR
633-71/35 *	3 - 35	0,333	1	<b>96,84</b>

### Replacement parts for INOX pipe cutter 633-71/35

633-75A	Cutting wheel with needle bearing   Stainless steel, carbon steel	1		<b>28,62</b>
633-76	Guide roller set	1		<b>46,40</b>
633-2	Deburrer	1		<b>10,34</b>
633-4	Wheel bolt	1		<b>6,90</b>

### Ratchet cut | stainless steel, carbon steel

Problem-solver for pipes that are already installed



Art. No.	Ø	kg	PU	EUR
622/28	8 - 28	0,479	1	<b>152,90</b>

### Replacement parts for ratchet cut 622/28

622-1	Cutting wheel Stainless steel, carbon steel	1		<b>17,59</b>
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### Mini pipe cutter

For stainless steel, copper and brass pipes Ø 3 - 16 mm, 1/8 - 5/8"



Art. No.	Ø	kg	PU	EUR
631 *	3 - 16	0,138	1	<b>24,51</b>

### Replacement parts for mini pipe cutter 631

632-1	Cutting wheel   Stainless steel, copper, brass	1		<b>6,13</b>
632-11	Cutting wheel   Copper, brass	1		<b>6,13</b>
631-2	Roller	1		<b>6,35</b>
631-3	Roller bolts	1		<b>3,17</b>
631-4	Wheel bolt	1		<b>4,49</b>

## Miniature pipe cutter

For stainless steel, copper and brass pipes



Art. No.	Ø	kg	PU	EUR
631-5	3-25	0,188	1	<b>29,57</b>

### Replacement parts for miniature pipe cutter 631-5

632-1	Cutting wheel   Stainless steel, copper, brass	1		<b>6,13</b>
632-11	Cutting wheel   Copper, brass	1		<b>6,13</b>
631-52	Roller	1		<b>6,35</b>
631-53	Roller bolts	1		<b>3,17</b>
631-54	Wheel bolt	1		<b>4,49</b>

## Compact pipe cutter

For pipes Ø 3 - 30 mm, 1/8 - 1 1/8"



Art. No.	Ø	kg	PU	EUR
631-10	3 - 30	0,230	1	<b>41,54</b>

### Replacement parts for compact pipe cutter 631-10

632-1	Cutting wheel   Stainless steel, copper, brass	1		<b>6,13</b>
632-11	Cutting wheel   Copper, brass	1		<b>6,13</b>
631-12	Roller	1		<b>6,35</b>
631-13	Roller bolts	1		<b>3,17</b>
631-14	Wheel bolt	1		<b>4,49</b>

## Pipe cutter with deburrer for stainless steel, copper and brass pipes, plastic and composite pipes

With extra strong fast running spindle  
4-roller guide with groove for beading  
integrated rotation deburrer  
made of die-cast magnesium, particularly light



Art. No.	Ø	kg	PU	EUR
633/35 *	3 - 32	0,336	1	<b>55,20</b>
633/45	9 - 45	0,620	1	<b>63,71</b>

## Replacement parts for pipe cutter with deburrer 633

633-1	Cutting wheel   Plastic, composite	1		<b>9,31</b>
632-1	Cutting wheel   Stainless steel, copper, brass	1		<b>6,13</b>
632-11	Cutting wheel   Copper, brass	1		<b>6,13</b>
633-2	Deburrer	1		<b>10,34</b>
633-3	Roller	1		<b>6,35</b>
633-4	Wheel bolt	1		<b>6,90</b>

## Combination pipe cutter

For pipes Ø 6 - 67 mm, 1/4 - 2 1/2"  
for copper and brass pipes, plastic - two cutting wheels



Art. No.	Ø	kg	PU	EUR
627	6 - 76	0,540	1	<b>133,79</b>

### Replacement parts for combination pipe cutter 627

627-5	Cutting wheel   Plastic, composite (up to 8 mm)	1		<b>16,60</b>
627-2	Cutting wheel   Stainless steel, copper, brass, steel	1		<b>8,37</b>
627-4	Wheel bolt	1		<b>5,79</b>

## INOX pipe cutter Plus with deburring unit

Special pipe cutter for INOX pipes  
Ø 6 - 76 mm, 1/4 - 3"  
fast feeder system  
guide rolls with needle bearings | 2 needle bearings per roll - stainless steel rolls



Art. No.	Ø	kg	PU	EUR
627-70	6 - 76	0,944	1	<b>151,85</b>

### Replacement parts for INOX pipe cutter plus 627-70

627-71	Cutting wheel   Stainless steel	1		<b>31,09</b>
627-4	Wheel bolt	1		<b>5,79</b>

## Pipe cutter

For steel pipes with up to 2 mm wall thickness, in particular for galvanised pipes



Art. No.	Ø	kg	PU	EUR
629/2	10 - 60	2,173	1	<b>162,01</b>
629/4	32 - 115	5,300	1	<b>532,84</b>

### Replacement parts for pipe cutter 629-2

629-1/2	Cutting wheel   Steel	1	<b>13,65</b>
629-2/2	Roller	1	<b>14,33</b>
629-3/2	Roller bolts	1	<b>6,90</b>
629-4/2	Wheel bolt	1	<b>6,13</b>

### Replacement parts for pipe cutter 629-4

629-1/4	Cutting wheel   Steel	1	<b>38,69</b>
629-2/4	Roller	1	<b>22,74</b>
629-3/4	Roller bolts	1	<b>7,59</b>
629-4/4	Wheel bolt	1	<b>22,74</b>

### Plastic pipe cutter

for thick-walled plastic pipes (PE, PP, PVDF) Ø 50 - 140 mm



Art. No.	Ø	kg	PU	EUR
628/140	50 - 140	1,480	1	<b>232,12</b>

### Replacement parts for plastic pipe cutter 628/140

628-1	Cutting wheel   Plastic, multi-layer composite	1	<b>55,27</b>
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## Cutting wheel

### Cutting wheel | Stainless steel

replacement cutting wheel suitable for stainless steel suitable for:  
Art. no. 627-70



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
627-71	19	5	5	0,005	1	<b>31,09</b>

### Cutting wheel | Plastic

for plastic and composite pipes up to 8 mm wall thickness suitable for:  
Art. no. 627



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
627-5	30	5	6	0,006	1	<b>16,60</b>

### Cutting wheel | Stainless steel

for stainless steel, copper, brass, steel



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
627-2	20	5	6	0,006	1	<b>8,37</b>

### Cutting wheel | Stainless steel, carbon steel, copper

replacement cutting wheel suitable for stainless steel and carbon steel suitable for:  
Art. no. 622/28



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
622-1	19	6	3	0,003	1	<b>17,59</b>

### Cutting wheel | Stainless steel, carbon steel, copper

replacement cutting wheel with needle bearing suitable for stainless steel, carbon steel, copper suitable for:  
Art. no. 633-71/35



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
633-75A	19	5	5	0,005	1	<b>28,62</b>

### Cutting wheel | Stainless steel, carbon steel, copper

replacement cutting wheel with needle bearing suitable for stainless steel, carbon steel, copper suitable for:  
Art. no. 633-70/35



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
633-75	19	5	8	0,011	1	<b>20,14</b>

### Cutting wheel | Stainless steel, copper, brass

replacement cutting wheel suitable for stainless steel, copper and brass suitable for:  
Art. no. 631  
Art. no. 631-5  
Art. no. 631-10  
Art. no. 633/35  
Art. no. 633/45



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
632-1	20	5	5	0,005	1	<b>6,13</b>

### Cutting wheel | Copper, brass

replacement cutting wheel suitable for Kupfer und Messing suitable for:  
Art. no. 631  
Art. no. 631-5  
Art. no. 631-10  
Art. no. 633/35  
Art. no. 633/45



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
632-11	20	5	5	0,055	1	<b>6,13</b>

### Cutting wheel | Plastic, composite

replacement cutting wheel suitable for plastic, composite suitable for:  
Art. no. 633/35  
Art. no. 633/45



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
633-1	12	5	5	0,005	1	<b>9,31</b>

### Cutting wheel | Steel

suitable for:  
Art. no. 629



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
629-1/2	31	9	19	0,029	1	<b>13,65</b>
629-1/4	41,5	9	19	0,054	1	<b>38,69</b>

### Cutting wheel | Plastic

especially for thick-walled, hard plastic and multi-layer composite pipe suitable for:  
Art. no. 628



Art. No.	Outer Ø	Inner Ø	ST	kg	PU	EUR
628-1	53	8	11	0,026	1	<b>55,27</b>

## Plastic Pipe Shears

### Plastic pipe scissors

For one-hand operation with automatic blade retraction for Ø 6 - 35 mm



Art. No.	Ø	kg	PU	EUR
634/35	6 - 35	0,500	1	<b>68,81</b>

### Replacement blade | Plastic pipe scissors



Art. No.	kg	PU	EUR
634-1/35	0,094	1	<b>38,17</b>

### Automatic plastic tube shears

with lever transmission  
for tubes in PVC, PE, PD, PEX, PVDF with a wall thickness of up to 2 mm and composite tubes  
single-hand operation and recoil-free ratchet mechanism, high safety standard  
durable blade made of tempered steel with a precise angle for easy cutting of plastic tubes, with V-cut  
little power required thanks to special teeth design



Art. No.	∅	kg	PU	EUR
635/35 *	35	0,407	1	<b>68,81</b>
635/42	42	0,360	1	<b>76,45</b>

### Replacement blade | Plastic pipe scissors



Art. No.	∅	kg	PU	EUR
635-10/35	35	0,083	1	<b>33,21</b>
635-10/42	42	0,093	1	<b>35,05</b>

### Pipe Deburrer

#### Pipe deburrer plastic pipes

for internal and external deburring of hard and thick-walled plastic pipes, ∅ 25 - 63 mm



Art. No.	∅	kg	PU	EUR
647/63	25-63	0,378	1	<b>99,11</b>

#### Pipe deburrer

for internal and external deburring of copper, aluminium and plastic pipes ∅ 4 - 35 mm



Art. No.	∅	kg	PU	EUR
646	4-35	0,033	1	<b>17,90</b>

### Pipe deburrer

for internal and external deburring of stainless steel, brass, aluminium and plastic pipes



Art. No.	∅	kg	PU	EUR
648/35	8-35	0,193	1	<b>82,82</b>
648/54	10-54	0,480	1	<b>94,30</b>

### Calibration tool

calibrator and punch, for copper pipes without true size



Art. No.	kg	PU	EUR
638/12	0,085	1	<b>81,85</b>
638/15	0,170	1	<b>104,29</b>
638/18	0,214	1	<b>120,00</b>
638/22	0,298	1	<b>131,20</b>

### Pipe Bending Tools

#### Hydraulic pipe bending set | Basic metal

Supplied in a strong plastic case:  
1 hydraulic hand pipe bending tool  
5 bending segments, die-cast aluminium, 10, 12, 15, 18, 22 mm  
3 dollies



Art. No.	set	∅	kg	PU	EUR
637	9	10 - 22	5,620	1	<b>848,62</b>

#### Hydraulic pipe bending set | Combined

Supplied in a strong plastic case:  
1 hydraulic hand pipe bending tool  
9 bending segments, aluminium pressure die-casting, 10, 12, 15, 16, 18, 20, 22, 26, 32 mm  
5 dollies



Art. No.	set	∅	kg	PU	EUR
637-10	15	10 - 32	8,404	1	<b>1.210,50</b>

### Hydraulic pipe bending set | Basic composite

Supplied in a strong plastic case:  
1 hydraulic hand pipe bending tool  
4 bending segments, die-cast aluminium, 16, 20, 26, 32 mm  
4 dollies



Art. No.	set	∅	kg	PU	EUR
637-20	9	16 - 32	7,433	1	<b>1.070,33</b>

### Dollies

dollies for hydraulic pipe bending devices



Art. No.	∅	kg	PU	EUR
637-6/1	10 - 12	0,334	1	<b>122,23</b>
637-6/2	14 - 17	0,363	1	<b>122,23</b>
637-6/3	18 - 22	0,452	1	<b>148,81</b>
637-6/4	26	0,452	1	<b>163,43</b>
637-6/5	32	0,452	1	<b>413,24</b>
637-2	replacement nuts	0,010	1	<b>4,40</b>
637-4	replacement screws	2,295	1	<b>16,96</b>

### Bending segment pipes

bending radius 4x diameter



Art. No.	∅	kg	PU	EUR
637-1/10	10	0,099	1	<b>99,65</b>
637-1/12	12	0,112	1	<b>99,65</b>
637-1/14	14	0,125	1	<b>99,65</b>
637-1/15	15	0,127	1	<b>99,65</b>
637-1/16	16	0,140	1	<b>99,65</b>
637-1/17	17	0,142	1	<b>99,65</b>
637-1/18	18	0,187	1	<b>103,64</b>
637-1/20	20	0,190	1	<b>103,64</b>
637-1/22	22	0,200	1	<b>103,64</b>
637-1/26	26	0,099	1	<b>166,09</b>
637-1/32	32	0,099	1	<b>276,38</b>

### Copper pipe bending pliers

for soft copper pipes and chrome-plated copper pipes



Art. No.	∅	kg	PU	EUR
636-1/10	10	0,799	1	<b>42,84</b>
636-1/12	12	0,828	1	<b>48,79</b>

### Copper pipe bending springs

for bending by hand, for soft and soft chrome-plated copper



Art. No.	∅	TL	kg	PU	EUR
701/8	8	250	0,107	1	<b>4,45</b>
701/10	10	250	0,123	1	<b>5,16</b>
701/12	12	300	0,170	1	<b>6,71</b>
701/15	15	300	0,268	1	<b>7,56</b>
701/16	16	300	0,272	1	<b>8,12</b>

### Pipe Cleaning

#### Sealing balloon

pneumatic sealing system for various pipe diameters



Art. No.	TL	∅	kg	PU	EUR
3800-1/1	140	30 - 50	0,137	1	<b>213,30</b>
3800-1/2	135	50 - 80	0,210	1	<b>241,85</b>
3800-1/3	120	70 - 100	0,276	1	<b>291,28</b>
3800-1/4	230	90 - 150	0,722	1	<b>629,21</b>

#### Compressed air hose

Extension hose for sealing bubbles



Art. No.	TL	kg	PU	EUR
3800-2	3 m	0,330	1	<b>127,43</b>

#### Air pump with manometer

suitable for sealing bubbles Art. no. 3800-1



Art. No.	kg	PU	EUR
3800-3	1,554	1	<b>231,39</b>

### Pipe Cleaning

#### Plug for inner pipe

Mechanical pipe sealing system for inner pipe



Art. No.	∅	kg	PU	EUR
3806/1	96-103	0,237	1	<b>83,93</b>
3806/2	147-154	0,802	1	<b>165,51</b>
3806/3	196-204	1,002	1	<b>297,39</b>

#### Plug for end pipe

Mechanical pipe sealing system for end pipe



Art. No.	∅	kg	PU	EUR
3805/1	39-42	0,075	1	<b>40,90</b>
3805/2	49-55	0,100	1	<b>48,19</b>
3805/3	71-79	0,229	1	<b>62,53</b>
3805/4	96-103	0,295	1	<b>83,93</b>
3805/5	147-154	0,812	1	<b>165,51</b>

### Pipe Cleaning

#### Pipe cleaning pump

Suction and pressure cleaner for blocked pipes



Art. No.	kg	PU	EUR
3722 *	1,700	1	<b>190,76</b>

#### Pipe cleaning tool

Cleaning tool for manual and machine operation, for pipes ∅ 30 - 50 mm



Art. No.	TL	∅	kg	PU	EUR
3720	7,5 m	30-50	3,500	1	<b>269,14</b>

### Replacement shaft

galvanised spring steel



Art. No.	TL	∅	kg	PU	EUR
3720-1	7,5 m	30-50	2,000	1	<b>109,63</b>

#### Quick release chuck

suitable for pipe cleaning device Art. no. 3720



Art. No.	kg	PU	EUR
3720-2	0,177	1	<b>55,16</b>

#### Pipe cleaning shaft

single layer, for household use and simple work



Art. No.	Shank ∅	kg	PU	EUR	
3700/3 *	3 m	5	0,279	1	<b>14,00</b>
3700/5	5 m	5	0,652	1	

#### Pipe cleaning shaft

single layer, for simple work



Art. No.	Shank ∅	kg	PU	EUR	
3701/3	3 m	9	1,085	1	<b>42,28</b>
3701/5	5 m	9	1,398	1	<b>45,27</b>
3701/10	10 m	9	3,472	1	<b>63,56</b>

#### Pipe cleaning shaft

3/8" Whitworth thread



Art. No.	Shank ∅	kg	PU	EUR	
3714/5	5 m	8	1,700	1	<b>94,89</b>
3714/10	10 m	8	3,200	1	<b>159,08</b>

### Pipe cleaning shaft

double layer, adjustable handle



Art. No.	Shank Ø	kg	PU	EUR
3702/5 *	5 m	7	1,250	1 <b>77,55</b>
3702/8	8 m	7	1,897	1 <b>139,53</b>

### Pipe cleaning shaft

1/2" Whitworth thread, claw and crank can be replaced



Art. No.	Ø	kg	PU	EUR
3712/5x10	5 m	10	2,750	1 <b>144,86</b>
3712/5x15	5 m	15	3,740	1 <b>316,27</b>
3712/10x12	10 m	12	7,200	1 <b>225,57</b>
3712/10x15	10 m	15	11,300	1 <b>401,67</b>

### Pipe cleaning shaft

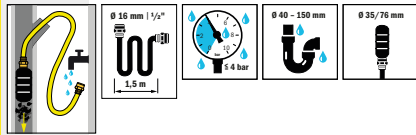
1/2" Whitworth thread



Art. No.	Ø	kg	PU	EUR
3713/5x10	5 m	10	2,750	1 <b>91,18</b>
3713/5x12	5 m	12	3,400	1 <b>104,97</b>
3713/10x10	10 m	10	4,700	1 <b>195,85</b>
3713/10x12	10 m	12	6,500	1 <b>182,28</b>

### Water pressure drain cleaner

Ingenuously removes blockages in drainpipes with high pressure water



Art. No.	Balloon Ø	Ø	kg	PU	EUR
3730/1	35	40-80	0,370	1	<b>109,58</b>
3730/2	76	80-150	0,627	1	<b>210,76</b>

### Inspection systems

#### Pipe inspection camera system „BRicamL“

360°/210° rotating/swivelling camera head Ø 28 mm

Camera cable: Ø 7mm/40 metres long  
Steel coil, Meter counter, 6-pin camera connection, Cleaning brush

512 Hz sender

IP68 Multifunctional control device in the IP66 case, 10"

TFT monitor with USB/SD recording

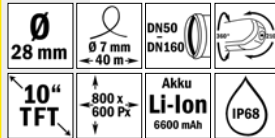
Text and voice input using the QWERTZ keyboard

Control buttons for swivelling camera head

Operated with 6600 mAh Li-Ion battery or current

Mains adapter, Guide ball and star for camera head

Video cable 1 metres 6-pin, Remote operation



NEW

Art. No.	kg	PU	EUR
3741	17,080	1	<b>12.600,00</b>

### HD-Hand Inspection Camera „BRicamS“

5 inch LCD HD high resolution screen for real time display. High-quality CMOS sensor (camera) with a resolution of 1280 x 720 pixels (camera head Ø 8 mm) HD resolution screen with 1920 x 1080 and 1280 x 720 options Photo and video recording to Micro SD-card Triple LED brightness adjustment of camera light and screen illumination 1 meter swan-neck camera with IP67 waterproofing 4000 mAh, 3.7 volt lithium-ion battery provides up to 5 hours of standby time



NEW

Art. No.	kg	PU	EUR
3780	1,390	1	<b>324,50</b>



## Pressing tools

### Pressing Tool EFP203

Basic Line EFP203 - strong performance in a slimline design supplied in the case: pressing tool, storage space for up to 6 press jaws PB2



Art. No.	∅ set	kg	PU	EUR
625-2PG/EFP203	400 12-110	1	8,482	1 2.925,17
625-2SE/EFP203	400 12-110	4	14,193	1 4.069,06

### Case EFP203



Art. No.	kg	PU	EUR
625-2KO/EFP203	3,378	1	277,68

### Pressing Tool ECO203

Comfort Line ECO203 - a new generation of pressing technology  
Supplied in case: pressing unit, storage space for up to 6 press jaws PB2



Art. No.	∅ set	kg	PU	EUR
625-4PG/ECO203	400 12-110	1	7,300	1 3.455,68
625-4SE/ECO203	400 12-110	4	14,114	1 4.599,57

### Case ECO203



Art. No.	kg	PU	EUR
625-4KO/ECO203	3,348	1	310,85

### Cordless Pressing Tool ACO103 BT | 4.0 Ah

Comfort Line ACO102 - compact and powerful efficiency - NEW WITH BLUETOOTH  
Supplied in case:  
cordless pressing tool, 1 battery 12 V 4.0 Ah Li-Ion, 1 charger storage space for up to 6 press jaws PB1



Art. No.	∅ set	kg	PU	EUR
625-1PM/ACO103	320 12-40	3	5,261	1 3.218,80
625-1SE/ACO103	320 12-40	6	9,149	1 4.222,08

### 12 V rechargeable battery 4.0

Extremely high performance 12 V 4.0 Ah Red Li-Ion rechargeable battery for pressing tool ACO103



Art. No.	kg	PU	EUR
625-1AK/ACO103	0,415	1	440,85

### 12 V charger

about ACO103



Art. No.	kg	PU	EUR
625-1LA/ACO103	0,513	1	329,34

### Case ACO103



Art. No.	kg	PU	EUR
625-1KO/ACO103	2,414	1	242,94

### Cordless Pressing Tool ACO203 BT | 5.0 Ah

Comfort Line ACO203 - a new generation of pressing technology - NEW WITH BLUETOOTH  
Supplied in case: cordless pressing unit, 1 rechargeable battery 18 V 5.0 Ah Li-Ion, 1 charger, storage space for up to 6 press jaws PB2



Art. No.	∅ set	kg	PU	EUR
625-5PM/ACO203	390 12-110	3	8,300	1 3.978,12
625-5SE/ACO203	390 12-110	6	12,000	1 5.457,72

### Case ACO203



Art. No.	kg	PU	EUR
625-5KO/ACO203	2,100	1	310,85
625-5KO/ACOXL	4,000	1	310,85

**Cordless Pressing Tool ACO203XL BT | 5.0 Ah**

Comfort Line ACO203XL - the all-round expert - NEW WITH BLUETOOTH  
 Supplied in case: cordless pressing tool, 2x battery 18 V 5.0 Ah Li-Ion, 1 charger space for up to 6 press jaws PB2



Art. No.	∅ set	kg	PU	EUR
625-5XL/ACO203	460 12-110	4	12,000	1 5.702,97

**18 V rechargeable battery 5.0**

about ACO203



Art. No.	kg	PU	EUR
625-5AK/ACO203	0,650	1	903,07

**12 - 18 V charger**

about ACO203



Art. No.	kg	PU	EUR
625-5LA/ACO203	0,683	1	on request

**Cordless Pressing Tool ACO403 BT | 5.0 Ah**

Comfort Line ACO403 - Highly efficient powerhouse - NEW WITH BLUETOOTH  
 Supplied in the case: cordless pressing unit, 2 rechargeable batteries 18 V 5.0 Ah Red Li-Ion, 1 charger



Art. No.	∅ set	kg	PU	EUR
625-8PG/ACO403	650 76,1-168,3	4	12,800	1 9.338,93

**Case**

**Case PB1**

pressing jaws 12 - 35 mm



Art. No.	kg	PU	EUR
625-KO/PB1	2,100	1	233,36

**Case PB2**

pressing jaws 12 - 40 mm



Art. No.	kg	PU	EUR
625-KO/PB2	2,100	1	261,43

**Case PS2**

press collars 42 + 54 mm



Art. No.	kg	PU	EUR
625-KO/PS2	2,100	1	283,78

**Case PS3 | small**

for press collars and press jaws



Art. No.	kg	PU	EUR
625-7KO/PS323	2,100	1	313,46

**Case PS3 | large**

for press collars and press jaws



Art. No.	kg	PU	EUR
625-7KO/PS324	2,100	1	313,46

**Case ZB2XL**

ZB221 + ZB222



Art. No.	kg	PU	EUR
625-KO/ZBXL	1,650	1	313,46



## Press Jaws

### V-Press jaw set

BRINKO box made of plastic, robust with low weight, compatible with the metaBOX system

Contents: V-pressing jaws V15, V22, V28 and V35  
Space for 6 pressing jaws and other individual tools



**NEW**

Art. No.	kg	PU	EUR
625-10SE	9,200	1	<b>1.216,80</b>

### M-Press jaw set

BRINKO box made of plastic, robust with low weight, compatible with the metaBOX system

Contents: M-pressing jaws M15, M22, M28 and M35  
Space for 6 pressing jaws and other individual tools



**NEW**

Art. No.	kg	PU	EUR
625-13SE	9,200	1	<b>1.216,80</b>

### Press Jaws PB1 type V

for all pressing contours type V 12 - 35 mm



Art. No.	∅	kg	PU	EUR
625-20/PB1V12	12	1,282	1	<b>334,40</b>
625-20/PB1V15	15	1,272	1	<b>334,40</b>
625-20/PB1V18	18	1,277	1	<b>334,40</b>
625-20/PB1V22	22	1,328	1	<b>334,40</b>
625-20/PB1V28	28	1,359	1	<b>334,40</b>
625-20/PB1V35	35	1,282	1	<b>398,50</b>

### Press Jaws PB1 type M

for all pressing contours type M 12 - 35 mm



Art. No.	∅	kg	PU	EUR
625-23/PB1M12	12	1,280	1	<b>334,40</b>
625-23/PB1M15	15	1,281	1	<b>334,40</b>
625-23/PB1M18	18	1,265	1	<b>334,40</b>
625-23/PB1M22	22	1,326	1	<b>334,40</b>
625-23/PB1M28	28	1,375	1	<b>334,40</b>
625-23/PB1M35	35	1,282	1	<b>398,50</b>

### Press Jaws PB1 type TH

for all pressing contours type TH 16 - 40 mm



Art. No.	∅	kg	PU	EUR
625-24/PB1T16	16	1,096	1	<b>329,78</b>
625-24/PB1T20	20	1,156	1	<b>329,78</b>
625-24/PB1T26	26	1,245	1	<b>309,65</b>
625-24/PB1T32	32	1,476	1	<b>329,78</b>
625-24/PB1T40	40	1,551	1	<b>423,89</b>

### Press Jaws PB1 type U

for all pressing contours type U 16 - 40 mm



Art. No.	∅	kg	PU	EUR
625-25/PB1U16	16	1,247	1	<b>329,78</b>
625-25/PB1U20	20	1,250	1	<b>329,78</b>
625-25/PB1U25	26	1,229	1	<b>329,78</b>
625-25/PB1U32	32	1,412	1	<b>329,78</b>
625-25/PB1U40	40	1,601	1	<b>423,89</b>

### Press Jaws PB2 type V

for all pressing contours type V 12 - 54 mm



Art. No.	∅	kg	PU	EUR
625-30/PB2V12	12	1,888	1	<b>380,32</b>
625-30/PB2V15	15	1,935	1	<b>380,32</b>
625-30/PB2V18	18	1,935	1	<b>380,32</b>
625-30/PB2V22	22	2,032	1	<b>383,31</b>
625-30/PB2V28	28	1,912	1	<b>383,31</b>
625-30/PB2V35	35	1,959	1	<b>387,25</b>
625-30/PB2V42	42	3,335	1	<b>984,67</b>
625-30/PB2V54	54	4,537	1	<b>1.067,91</b>

### Press Jaws PB2 type M

for all pressing contours type M 12 - 35 mm



Art. No.	∅	kg	PU	EUR
625-33/PB2M12	12	1,270	1	<b>380,32</b>
625-33/PB2M15	15	1,879	1	<b>380,32</b>
625-33/PB2M18	18	1,882	1	<b>380,32</b>
625-33/PB2M22	22	1,975	1	<b>383,27</b>
625-33/PB2M28	28	1,935	1	<b>383,31</b>
625-33/PB2M35	35	2,031	1	<b>387,25</b>

### Press Jaws PB2 type TH

for all pressing contours type TH 16 - 32 mm



Art. No.	∅	kg	PU	EUR
625-34/PB2T16	16	1,880	1	<b>380,32</b>
625-34/PB2T20	20	1,931	1	<b>383,31</b>
625-34/PB2T26	26	1,955	1	<b>383,31</b>
625-34/PB2T32	32	2,083	1	<b>387,25</b>

### Press Jaws PB2 type

for all pressing contours type U 16 – 32 mm



Art. No.	∅	kg	PU	EUR
625-35/PB2U16	16	1,899	1	<b>404,16</b>
625-35/PB2U20	20	1,885	1	<b>404,16</b>
625-35/PB2U25	25	1,971	1	<b>404,16</b>
625-35/PB2U32	32	2,089	1	<b>404,16</b>

### Press Collars

#### Press Collars PS2 type V

press collars with „snap-on“ technology, for pressing contours type V 42 – 54 mm



Art. No.	∅	kg	PU	EUR
625-40/PS2V42	42	1,297	1	<b>1.588,53</b>
625-40/PS2V54	54	1,578	1	<b>1.588,53</b>

#### Press Collars PS2 type M

press collars with „snap-on“ technology, for pressing contours type M 42 – 54 mm



Art. No.	∅	kg	PU	EUR
625-43/PS2M42	42	1,335	1	<b>1.588,53</b>
625-43/PS2M54	54	1,570	1	<b>1.588,53</b>

### Press Collars PS2 type TH

press collars with „snap-on“ technology, for pressing contours type TH 40 – 63 mm



Art. No.	∅	kg	PU	EUR
625-44/PS2T40	40	2,080	1	<b>1.438,22</b>
625-44/PS2T50	50	2,560	1	<b>1.438,22</b>
625-44/PS2T63	63	3,040	1	<b>1.841,62</b>

#### Press Collars PS3 type M

press collars with „snap-on“ technology, for pressing contours type M 42 – 108 mm



Art. No.	∅	kg	PU	EUR
625-53/PS3M42	42	1,345	1	<b>1.588,53</b>
625-53/PS3M54	54	3,600	1	<b>1.588,53</b>
625-53/PS3M64	64	3,820	1	<b>2.318,21</b>
625-53/PS3M76	76.1	4,425	1	<b>2.071,55</b>
625-53/PS3M88	88.9	4,340	1	<b>2.271,30</b>
625-53/PS3M08	108	5,560	1	<b>3.033,04</b>

#### Press Collars PS2 type U

press collars with „snap-on“ technology, for pressing contours type U 40 – 63 mm



Art. No.	∅	kg	PU	EUR
625-45/PS2U40	40	2,080	1	<b>1.661,76</b>
625-45/PS2U50	50	2,560	1	<b>1.661,76</b>
625-45/PS2U63	63	3,040	1	<b>1.754,06</b>

### Press Collars PS4 type HP

press collars with „snap-on“ technology, for pressing contours type HP 76,1 mm, 88,9 mm, 108 mm



Art. No.	∅	kg	PU	EUR
625-63/PS4H76	76.1	7,400	1	<b>2.861,76</b>
625-63/PS4H88	88.9	8,000	1	<b>2.928,59</b>
625-63/PS4H08	108	9,100	1	<b>3.673,01</b>

### Adaptor Jaws

#### Adaptor Jaw ZB204

high quality intermediate jaw for novopress PS3 press collars



Art. No.	∅	kg	PU	EUR
625-ZB/PS203	40 – 63	2,032	1	<b>500,75</b>

#### Adaptor Jaw ZB2XL

high quality intermediate jaws especially for pressing units ACO202XL | 203XL, suitable for the Novopress press collars PS3



Art. No.	∅	kg	PU	EUR
625-ZB/221XL	64 – 108	4,400	1	<b>1.418,26</b>
625-ZB/222XL	108	4,600	1	<b>1.418,26</b>
625-ZB/SETXL	64 – 108	10,800	1	<b>3.142,54</b>

## Piston brazing

### Propane soldering iron

Consisting of: handle, hose connection, iron stand, soldering torch, wind protection, copper piece



Art. No.	set	kg	PU	EUR
4426	5	0,296	1	<b>196,79</b>

### Propan handle

hose connection G 3/8" LH



Art. No.	kg	PU	EUR
4427	0,302	1	<b>97,58</b>

### Soldering torch



Art. No.	kg	PU	EUR
4429	0,059	1	<b>31,49</b>

### Soft solder insert



Art. No.	Ø	kg	PU	EUR
4429-1/5	5	0,087	1	<b>50,45</b>

### Iron stand



Art. No.	kg	PU	EUR
4428	0,082	1	<b>33,17</b>

## Wind protection



Art. No.	kg	PU	EUR
4430	0,087	1	<b>20,97</b>

### Copper piece

angled hammer shape



Art. No.	kg	PU	EUR
4435/250	0,296	1	<b>29,59</b>
4435/350	0,388	1	<b>41,94</b>

### Copper piece

pointed shape



Art. No.	kg	PU	EUR
4436/250	0,298	1	<b>58,82</b>
4436/350	0,388	1	<b>66,34</b>

## Soldering Torches

### Propane handle

hose connection G 3/8" LH



Art. No.	kg	PU	EUR
4400	0,352	1	<b>110,37</b>

### Soft solder insert

with union nut M14 x 1



Art. No.	Ø CU pipe Ø	kg	PU	EUR
4405/5	5 15 - 22	0,103	1	<b>69,52</b>
4405/7	7 22 - 28	0,170	1	<b>68,28</b>

## Propane hard solder insert

gas outlet Ø 16 mm, for Cu pipes up to Ø 18 mm



Art. No.	Ø CU pipe Ø	kg	PU	EUR
4406	16 0 - 18	0,096	1	<b>56,32</b>
4407	19 0 - 22	0,103	1	<b>58,95</b>
4408	22 0 - 28	0,247	1	<b>62,07</b>

## Accessories For Pressure Bottles

### Miniature propane bottle

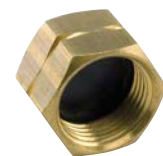
connection G 3/8 „ LH



Art. No.	kg	PU	EUR
4443	2,500	1	<b>179,26</b>

### Sealing cap

legally required as transport safeguard



Art. No.	kg	PU	EUR
4443-1	0,014	1	<b>10,11</b>

### Protective bracket



Art. No.	kg	PU	EUR
4443-2	0,482	1	<b>25,58</b>

### Miniature propane bottle valve

connection G 3/8" LH, outer Ø 1/2"



Art. No.	kg	PU	EUR
4444	0,253	1	<b>61,59</b>

### Propane filler pipe

large connection W 21.8 x 1/14" LH, small connection G 3/8" LH



Art. No.	kg	PU	EUR
4446	0,149	1	<b>33,55</b>

### Propane medium pressure regulator

outlet outer thread G 3/8" LH, for miniature bottles



Art. No.	kg	PU	EUR
4447-0	0,340	1	<b>63,27</b>

### Propane medium pressure regulator

outlet outer thread G 3/8" LH



Art. No.	kg	PU	EUR
4447	0,260	1	<b>58,63</b>

### Propane medium pressure regulator

outlet outer thread G 3/8" LH, with manometer



Art. No.	kg	PU	EUR
4447-1	0,310	1	<b>87,15</b>

### Propane working manometer



Art. No.	kg	PU	EUR
4447-11	0,042	1	<b>64,96</b>

### High pressure hose

connections G 3/8" LH



Art. No.	↔ m	kg	PU	EUR
4452/1,5	1,5	0,280	1	<b>26,04</b>
4452/2	2	0,364	1	<b>46,69</b>
4452/3	3	0,660	1	<b>51,57</b>
4452/5	5	0,774	1	<b>65,74</b>

## Solder Sets & Blowtorches

### Propane soft solder set

Consisting of:

- propane handle G 3/8" LH
- soft solder insert 40° curved, Ø 5 mm
- high pressure hose 3 m
- miniature propane bottle 425 g



Art. No.	set	kg	PU	EUR
4399	4	3,549	1	<b>352,05</b>

### Propane soft solder set

Consisting of:

- propane handle G 3/8" LH
- soft solder insert 40° curved, Ø 5 mm
- high pressure hose 3 m
- miniature propane bottle 425 g, filler pipe
- gas lighting tongs



Art. No.	set	kg	PU	EUR
4394	6	5,500	1	<b>489,17</b>

### Propane soft solder set

Consisting of:

- soldering iron G 3/8" LH with copper piece 250 g
- high pressure hose 3 m
- miniature propane bottle 425 g



Art. No.	set	kg	PU	EUR
4398	3	3,456	1	<b>409,63</b>

### Propane soft solder set

Consisting of:

- soldering iron G 3/8" LH
- copper piece 250 g
- soft solder inserts 40° curved, Ø 5 and 7 mm
- miniature propane bottle 425 g, filler pipe
- high pressure hose 3 m and gas lighting tongs



Art. No.	set	kg	PU	EUR
4395	7	6,300	1	<b>582,20</b>

### Soldering tool

with automatic Piezo ignition, temperature 1800 °C



Art. No.	°C	kg	PU	EUR
5000 *	1800	0,488	1	<b>107,95</b>

### Gas cartridge

mixed gas (butane/propane) 330 g | 600 ml



Art. No.	kg	PU	EUR
5100/350 *	0,488	1	<b>10,99</b>

### Blowtorch

Piezo ignition, temperature up to 1200 °C



Art. No.	°C	kg	PU	EUR
5205	1200	0,277	1	<b>98,33</b>

### Blowtorch

temperature up to 1750 °C



Art. No.	°C	kg	PU	EUR
5200 *	1750	0,277	1	<b>49,48</b>

### Mixed gas cartridge

mixed gas filling (butane/propane), 190 g



Art. No.	kg	PU	EUR
5210 *	0,277	1	<b>4,76</b>

### Solder Accessories

#### Ammonia stone



Art. No.	kg	PU	EUR
1649	0,100	1	<b>3,88</b>

#### Flame protection mat

high quality, non melting fibre fleece, asbestos-free



Art. No.	W	H	kg	PU	EUR
8080	500	330	0,330	1	<b>51,74</b>

### Magnetic control mirror

with permanent magnet, holding surface flat and prismatic, flexible metal hose with ball joint



Art. No.	ST	W	H	kg	PU	EUR
8030/1,0	1	70	80	0,466	1	<b>40,18</b>
8030/1,5	1,5	70	80	0,450	1	<b>40,86</b>

### Steel mirror



Art. No.	ST	W	H	kg	PU	EUR
8061/1,0	1	70	80	0,066	1	<b>4,76</b>
8061/1,5	1,5	70	80	0,066	1	<b>5,30</b>

### Solder water brush

with sheet metal sheath and natural bristles



Art. No.	kg	PU	EUR
2999	0,002	1	<b>0,76</b>

### Gas lighting tongs



Art. No.	kg	PU	EUR
4200	0,051	1	<b>8,10</b>

**Solder wire**



Art. No.	mSn %	∅	kg	PU	EUR
1644/250	10	40	2	0,259	1 <b>24,70</b>
1644/500	20	40	2	0,518	1 <b>49,52</b>

**Resin quick solder**

special solder wire (radio solder) for electrical engineering, with prepared resin core



Art. No.	Sn %	∅	kg	PU	EUR
1645/20	40	2	0,021	1	<b>4,97</b>

**Resin quick solder**

special solder wire (radio solder) for electrical engineering, with prepared resin core



Art. No.	mSn %	∅	kg	PU	EUR
1646/500	20	40	2	0,530	1 <b>66,39</b>

**Resin quick solder**

special solder wire (radio solder) for electrical engineering, with prepared resin core



Art. No.	mSn %	∅	kg	PU	EUR
1646-1/250-1,0	10	60	1	0,259	1 <b>42,46</b>
1646-1/500-1,0	20	60	1	0,529	1 <b>67,27</b>
1646-1/500-1,5	15	60	1,5	0,528	1 <b>67,04</b>

**Solder water bottle**

made of unbreakable, acid and chemical-resistant polyethylene



Art. No.	mL	kg	PU	EUR
1638/150	150	0,037	1	<b>18,51</b>

**Hydrochloric acid bottle**

made of unbreakable, acid and chemical-resistant polyethylene



Art. No.	mL	kg	PU	EUR
1640/150	150	0,040	1	<b>18,51</b>

**Welding Tools**

**Pressure relief valve | Oxygen**

for oxygen



Art. No.	kg	PU	EUR
4080	1,330	1	on request

**Working manometer**

for oxygen



Art. No.	kg	PU	EUR
4081	0,136	1	on request

**Content manometer**

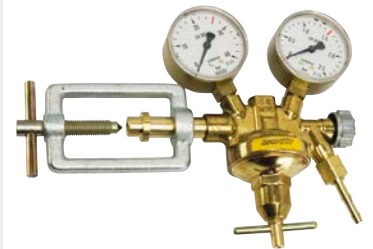
for oxygen



Art. No.	kg	PU	EUR
4082	0,138	1	on request

**Pressure relief valve | Acetylene**

for fuel gas (acetylene)



Art. No.	kg	PU	EUR
4090	1,630	1	<b>197,39</b>

**Working manometer**

for fuel gas (acetylene)



Art. No.	kg	PU	EUR
4091	0,133	1	on request

**Content manometer**

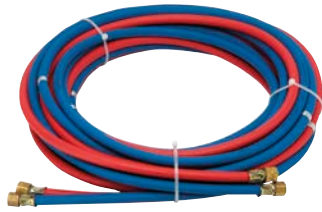
for fuel gas (acetylene)



Art. No.	kg	PU	EUR
4092	0,141	1	on request

### Double oxyacetylene hose

installed connections: G 3/8" LH, red for fuel gas (acetylene), G 1/4", blue for oxygen



Art. No.	l	m	kg	PU	EUR
4073/10	10		3,500	1	<b>313,99</b>
4073/20	20		6,900	1	<b>508,73</b>

### Handle

valve handwheel for single handed use



Art. No.	kg	PU	EUR
3902	0,639	1	<b>343,44</b>

### Connection nut



Art. No.	kg	PU	EUR
3902-3	0,049	1	<b>32,61</b>

### Explosion protection safeguard

for oxygen



Art. No.	kg	PU	EUR
4070	0,250	1	<b>103,17</b>

### Explosion protection safeguard

for fuel gas (acetylene)



Art. No.	kg	PU	EUR
4071	0,250	1	<b>103,17</b>

### Nozzle cleaning drill set

for cutting nozzles and welding inserts



Art. No.	kg	PU	EUR
4005	0,030	1	<b>35,99</b>

### Welding insert

welding range 1 - 2 mm



Art. No.	WR	kg	PU	EUR
3922/1-2	1 - 2	0,116	1 on request	
3923/2-4	2 - 4	0,133	1 on request	
3924/4-6	4 - 6	0,142	1 on request	
3925/6-9	6 - 9	0,215	1 on request	
3926/9-14	9 - 14	0,230	1 on request	

### Pipe welding insert

welding range 1 - 2 mm



Art. No.	WR	kg	PU	EUR
3936/1-2	1 - 2	0,080	1 on request	
3937/2-4	2 - 4	0,081	1	<b>177,85</b>
3938/4-6	4 - 6	0,080	1 on request	
3939/6-9	6 - 9	0,079	1 on request	

### Replacement tip

welding range 1 - 2 mm



Art. No.	WR	kg	PU	EUR
3946/1-2	1 - 2	0,038	1	<b>54,28</b>
3947/2-4	2 - 4	0,039	1	<b>54,28</b>
3948/4-6	4 - 6	0,039	1	<b>54,28</b>
3949/6-9	6 - 9	0,043	1	<b>57,01</b>

## Drills & Sets

### Twist drill

HSS, DIN 338, fully ground, split point



Art. No.	∅	kg	PU	EUR
1044/1,0	1	0,005	10	<b>0,97</b>
1044/1,5	1,5	0,008	10	<b>0,97</b>
1044/2,0	2	0,001	10	<b>0,97</b>
1044/2,5	2,5	0,018	10	<b>0,97</b>
1044/3,0	3	0,003	10	<b>1,04</b>
1044/3,5	3,5	0,004	10	<b>1,35</b>
1044/4,0	4	0,005	10	<b>1,69</b>
1044/4,5	4,5	0,007	10	<b>1,91</b>
1044/5,0	5	0,009	10	<b>2,13</b>
1044/5,5	5,5	0,011	10	<b>2,29</b>
1044/6,0	6	0,014	10	<b>2,53</b>
1044/6,5	6,5	0,017	10	<b>3,00</b>
1044/7,0	7	0,021	10	<b>3,59</b>
1044/7,5	7,5	0,024	10	<b>4,04</b>
1044/8,0	8	0,029	10	<b>5,05</b>
1044/8,5	8,5	0,033	10	<b>5,37</b>
1044/9,0	9	0,042	10	<b>5,94</b>
1044/9,5	9,5	0,046	10	<b>6,39</b>
1044/10,0	10	0,010	10	<b>7,12</b>
1044/10,5	10,5	0,060	5	<b>7,91</b>
1044/11,0	11	0,070	5	<b>8,64</b>
1044/11,5	11,5	0,076	5	<b>9,53</b>
1044/12,0	12	0,082	5	<b>10,65</b>
1044/12,5	12,5	0,096	5	<b>10,93</b>
1044/13,0	13	0,102	5	<b>12,33</b>

### Twist drill set

HSS twist drills, DIN 338



Art. No.	set	∅	kg	PU	EUR
1060/2	19	1-10	0,694	1	<b>66,62</b>
1060/3	25	1-13	1,307	1	<b>122,66</b>

### Twist drill set

HSS twist drills, DIN 338



Art. No.	set	∅	kg	PU	EUR
1065	19	1-10	0,449	1	<b>54,70</b>

### T.C.T. stone drill

HSS, DIN 338, milled and ground special design, particularly strong carbide small plate



Art. No.	∅	kg	PU	EUR	
1366-2/6	120	6	0,019	10	<b>8,15</b>
1366-2/8	130	8	0,032	10	<b>10,25</b>
1366-2/10	140	10	0,052	10	<b>12,63</b>
1366-2/14	155	14	0,120	5	<b>18,32</b>

### T.C.T. hammer drill

crosshead, 4 edges: long tool life, easy, quick work, avoids drill bit tilting, effective drilling dust removal



Art. No.	∅	kg	PU	EUR	
1374/110x6 *	110	6	0,033	10	<b>5,79</b>
1374/160x6 *	160	6	0,048	10	<b>5,52</b>
1374/160x8 *	160	8	0,053	10	<b>5,99</b>
1374/160x10 *	160	10	0,070	10	<b>7,31</b>
1374/160x12 *	160	12	0,083	5	<b>8,41</b>
1374/160x14	160	14	0,114	5	<b>9,58</b>
1374/160x15	160	15	0,114	5	<b>11,10</b>
1374/210x8	210	8	0,074	5	<b>7,59</b>
1374/210x10	210	10	0,090	5	<b>8,13</b>
1374/210x12 *	210	12	0,110	5	<b>9,24</b>
1374/210x14	210	14	0,150	5	<b>13,49</b>
1374/210x16	210	16	0,164	5	<b>12,62</b>
1374/210x18 *	210	18	0,192	5	<b>15,09</b>
1374/460x10 *	460	10	0,195	1	<b>13,41</b>
1374/460x12	460	12	0,242	1	<b>14,41</b>
1374/460x14 *	460	14	0,316	1	<b>17,51</b>
1374/460x16	460	16	0,383	1	<b>20,46</b>
1374/460x18	460	18	0,512	1	<b>22,74</b>
1374/460x20	460	20	0,574	1	<b>26,47</b>
1374/460x24 *	460	24	0,790	1	<b>37,00</b>
1374/600x12	600	12	0,260	1	<b>28,03</b>
1374/600x16	600	16	0,506	1	<b>44,92</b>

### Double-ended drill bit

HSS, for predrilling, e.g. aluminium rivets and copper rivets



Art. No.	∅	kg	PU	EUR
1045/3,2	3,2	0,004	10	<b>2,34</b>

### Glass tile drill

pointed chisel edge enables precision drilling, can be re-sharpened, shaft diameter 6.35 mm 1/4" hexagonal shaft



Art. No.	∅	kg	PU	EUR
1368-1/5	5	0,009	1	<b>13,13</b>
1368-1/6 *	6	0,011	1	<b>13,79</b>
1368-1/8 *	8	0,015	1	<b>19,11</b>
1368-1/10 *	10	0,258	1	<b>25,48</b>
1368-1/13	13	0,300	1	<b>29,31</b>
1368-1/14	14	0,350	1	<b>34,40</b>

### Glass tile drill set

5-piece, Sizes: 2 x 6, 2 x 8.1 x 10 mm, optimally designed for cordless power tools, shaft diameter 6.35 mm, 1/4" hexagonal shaft



Art. No.	set	∅	kg	PU	EUR
1368 *	5	6-10	0,126	1	<b>86,64</b>

## DIAMOND core drills

### DIAMOND core drills "BRIdiamondDrill"

Drilling without a centring aid, connector M14 to be used with the angle grinder

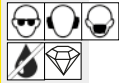


Art. No.	∅	kg	PU	EUR
1381-1/6 *	6	0,044	1	<b>20,87</b>
1381-1/8 *	8	0,047	1	<b>21,72</b>
1381-1/12	12	0,055	1	<b>24,59</b>
1381-1/14	14	0,062	1	<b>24,87</b>
1381-1/18	18	0,100	1	<b>58,35</b>
1381-1/10 *	10	0,054	1	<b>23,33</b>
1381-1/20	20	0,100	1	<b>60,44</b>
1381-1/25	25	0,120	1	<b>70,85</b>
1381-1/32	32	0,150	1	<b>79,19</b>
1381-1/35	35	0,160	1	<b>95,28</b>
1381-1/40	40	0,190	1	<b>182,62</b>
1381-1/45	45	0,250	1	<b>106,27</b>
1381-1/55	55	0,300	1	<b>116,70</b>
1381-1/60	60	0,281	1	<b>141,63</b>
1381-1/68	68	0,339	1	<b>158,71</b>
1381-1/50	50	0,290	1	<b>218,33</b>
1381-1/75	75	0,407	1	<b>141,70</b>
1381-1/82	82	0,474	1	<b>150,04</b>
1381-1/110	110	0,900	1	<b>472,31</b>



### DIAMOND core drills set "BRIdiamondDrill"

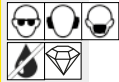
Drilling without a centring aid  
7-pieces: Ø 2 x 6, 2 x 8, 10, 12, 14 mm



Art. No.	set	Ø	kg	PU	EUR
1381	7	6-14	0,442	1	<b>168,71</b>

### DIAMOND core drills set "BRIdiamondDrill"

Drilling without a centring aid,  
7-pieces: Ø 3 x 6, 3 x 8, 10 mm



Art. No.	set	Ø	kg	PU	EUR
1381-7	7	6-10	0,414	1	<b>213,04</b>

### DIAMOND core drills set "BRIdiamondDrill"

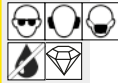
7-pieces: Ø 2 x 6, 8, 10, 12, 14 mm, 1 Centering Guide stainless 5 - 40 mm



Art. No.	set	Ø	kg	PU	EUR
1381-6	7	6-14	0,836	1	<b>247,19</b>

### DIAMOND core drills set "BRIdiamondDrill"

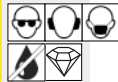
drilling without a centring aid,  
4-pieces: Ø 2 x 6, 8, 10 mm



Art. No.	set	Ø	kg	PU	EUR
1381-4	4	6-10	0,257	1	<b>115,32</b>

### DIAMOND core drills "BRIdiamondDrill"

precise positioning, minimum risk of slipping off,  
Safety, Fast, Efficiency & Sophisticated design



Art. No.	l	Ø	kg	PU	EUR
1379-3/5	67	5	0,012	1	<b>40,77</b>
1379-3/6 *	67	6	0,013	1	<b>23,73</b>
1379-3/8 *	80	8	0,018	1	<b>23,73</b>
1379-3/10 *	80	10	0,027	1	<b>26,17</b>
1379-3/12	80	12	0,034	1	<b>30,16</b>

### DIAMOND core drills set "BRIdiamondDrill"

drilling without a centring aid;  
4-pieces: Ø 2 x 6, 8, 10 mm



Art. No.	set	Ø	kg	PU	EUR
1379-4	4	6-10	0,700	1	<b>115,32</b>

### DIAMOND core drills set "BRIdiamondDrill"

drilling without a centring aid;  
7-pieces: Ø 2 x 6, 8, 10, 12, 14 mm,  
1 Centering Guide stainless 5 - 40 mm



Art. No.	set	Ø	kg	PU	EUR
1379-6	7	6-14	0,658	1	<b>198,18</b>

### Centering Guide stainless "BRIdiamondDrill"

Stainless steel Centering guide for diamond core drills, Suitable for Diamond tools with a diameter of 5 - 40 mm



Art. No.	kg	PU	EUR
1385-6	1,500	1	<b>58,41</b>

### DIAMOND tile drill

diamond encrusted, durable blades, for pinpoint accuracy and sharp-edged bores in hard and valuable materials



Art. No.	Ø	kg	PU	EUR
1385-1/5	5	0,009	1	<b>47,87</b>
1385-1/6	6	0,010	1	<b>50,43</b>
1385-1/8	8	0,011	1	<b>53,87</b>
1385-1/10	10	0,011	1	<b>58,09</b>
1385-1/12	12	0,013	1	<b>62,83</b>
1385-1/14	14	0,015	1	<b>67,03</b>

### DIAMOND Core bit

SDS-plus chuck adaptor, internal thread M16, diamond-encrusted cutting

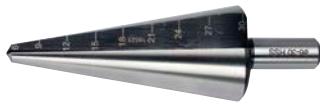


Art. No.	Ø	kg	PU	EUR
1386/68	68	0,625	1	<b>185,15</b>
1386/82	82	0,820	1	<b>222,42</b>

## Sheet metal punch and drill

### Sheet taper drill

HSS, for steel, Nirosta and V2A sheet metal



Art. No.	Shank Ø	Ø	kg	PU	EUR
915/1	6	14	0,028	1	<b>41,16</b>
915/2	8	20	0,053	1	<b>48,66</b>
915/7	10	30,5	0,170	1	<b>99,14</b>

### Sheet taper drill set

3 sheet taper drills

1x drilling Ø 3 - 14 mm, shank 6 mm

1x drilling Ø 6 - 20 mm, shank 8 mm

1x drilling Ø 16 - 30 mm, shank 10 mm



Art. No.	set	kg	PU	EUR
917	4	0,543	1	<b>197,92</b>

### Step drill

7 (11) steps for through punch

PG: 7 - 29

Ø: 7 - 40



Art. No.	min. Ø	max. Ø	kg	PU	EUR
918	7	40	0,240	1	<b>205,67</b>

### Step drill

11 steps



Art. No.	min. Ø	max. Ø	kg	PU	EUR
918-1	6,5	40,5	0,278	1	<b>222,03</b>

## Double-hole punch

The double-hole punch is suitable for the following thicknesses:

Iron, steel, copper, and aluminium sheets up to 2 mm

Stainless steel sinks and other stainless steel sheets up to 1.5 mm



Art. No.	kg	PU	EUR
914	0,349	1	<b>103,15</b>

## Sheet metal punch

for punching sheet metal made of Nirosta, aluminium, copper, brass, iron etc. as well as plastics



Art. No.	Hole Ø	kg	PU	EUR
912/15	15	0,100	1	<b>47,28</b>
912/16	16	0,102	1	<b>49,49</b>
912/17	17	0,102	1	<b>49,49</b>
912/18	18	0,104	1	<b>49,49</b>
912/19	19	0,104	1	<b>53,91</b>
912/20	20	0,115	1	<b>53,91</b>
912/21	21	0,128	1	<b>53,91</b>
912/22	22	0,138	1	<b>57,98</b>
912/23	23	0,136	1	<b>57,98</b>
912/24	24	0,145	1	<b>57,98</b>
912/25	25	0,153	1	<b>66,35</b>
912/26	26	0,153	1	<b>66,35</b>
912/27	27	0,165	1	<b>66,35</b>
912/28	28	0,173	1	<b>66,35</b>
912/30	30	0,193	1	<b>73,59</b>
912/31	31	0,193	1	<b>73,59</b>
912/33	33	0,218	1	<b>83,12</b>
912/34	34	0,235	1	<b>83,92</b>
912/36	36	0,317	1	<b>71,08</b>
912/38	38	0,311	1	<b>94,24</b>
912/39	39	0,311	1	<b>112,49</b>
912/40	40	0,373	1	<b>112,49</b>
912/41	41	0,373	1	<b>112,49</b>
912/42	42	0,415	1	<b>127,80</b>
912/43	43	0,420	1	<b>130,39</b>
912/44	44	0,476	1	<b>130,39</b>
912/45	45	0,598	1	<b>133,95</b>
912/46	46	0,598	1	<b>133,95</b>
912/48	48	0,601	1	<b>147,50</b>
912/49	49	0,620	1	<b>147,50</b>
912/50	50	0,650	1	<b>153,63</b>
912/51	51	0,678	1	<b>162,54</b>
912/52	52	0,699	1	<b>162,54</b>
912/53	53	0,707	1	<b>167,06</b>
912/55	55	0,725	1	<b>175,34</b>

## Sheet metal punch | Plumbing

for sanitary installations



Art. No.	Hole Ø	kg	PU	EUR
910/11/8	28,5	0,192	1	<b>56,27</b>
910/11/4	31,7	0,249	1	<b>57,86</b>

## Sheet metal punch | Electric

for punching sheet metal made of Nirosta, aluminium, copper, brass, iron etc. as well as plastics



Art. No.	Hole Ø	PG	kg	PU	EUR
900/9	15,2	PG9	0,096	1	<b>46,11</b>
900/11	18,6	PG11	0,150	1	<b>54,70</b>
900/13,5	20,4	PG13,5	0,126	1	<b>57,01</b>
900/16	22,5	PG16	0,128	1	<b>59,19</b>
900/21	28,3	PG21	0,122	1	<b>56,13</b>
900/29	37	PG29	0,189	1	<b>90,51</b>
900/36	47	PG36	0,587	1	<b>135,40</b>
900/42	53,9	PG42	0,682	1	<b>170,08</b>
900/48	60	PG48	0,959	1	<b>204,60</b>

## Sheet metal punch | Electric

for electric through-holes



Art. No.	Hole Ø	kg	PU	EUR
905/16,5	16,5	0,112	1	<b>50,56</b>
905/20,5	20,5	0,117	1	<b>59,78</b>
905/25,5	25,5	0,120	1	<b>73,45</b>
905/32,5	32,5	0,217	1	<b>84,66</b>
905/40,5	40,5	0,372	1	<b>122,23</b>
905/50,5	50,5	0,626	1	<b>166,52</b>
905/63,5	63,5	0,753	1	<b>231,57</b>

### Replacement screw



Art. No.	Hole Ø	kg	PU	EUR
913/10x1	10	0,041	1	<b>8,41</b>
913/12x1,5	12	0,067	1	<b>11,10</b>
913/16x1,5	16	0,151	1	<b>14,34</b>

### HSS-bi-metal hole saw set | Plumbing standard

For sanitary work, 6 pieces: 5 HSS-bi-metal hole saws Ø 44, 57, 68, 75, 114 mm, 1 SDS chuck adaptor with HSS drill



Art. No.	set	kg	PU	EUR
1384 *	6	3,665	1	<b>188,59</b>

### HSS-bi-metal hole saw set | Electro

For electrical work, 8 pieces: 6 HSS-bi-metal hole saws Ø 22, 29, 35, 44, 51, 64 mm, 1 SDS chuck adaptor with HSS drill 14 - 30 mm, 1 SDS chuck adaptor with HSS drill 32 - 152 mm



Art. No.	set	kg	PU	EUR
1382	8	0,933	1	<b>225,80</b>

### HSS-bi-metal hole saw

with variable teething, 4 - 6 tpi



Art. No.	Ø	kg	PU	EUR
1380/22	22	0,054	1	<b>17,23</b>
1380/25	25	0,052	1	<b>17,49</b>
1380/29	29	0,084	1	<b>29,96</b>
1380/32	32	0,085	1	<b>19,68</b>
1380/35	35	0,099	1	<b>19,69</b>
1380/38	38	0,093	1	<b>20,17</b>
1380/44 *	44	0,112	1	<b>21,24</b>
1380/51	51	0,117	1	<b>27,32</b>
1380/57 *	57	0,146	1	<b>23,07</b>
1380/64	64	0,148	1	<b>34,47</b>
1380/68 *	68	0,198	1	<b>26,22</b>
1380/75	75	0,239	1	<b>27,70</b>
1380/114 *	114	0,415	1	<b>63,66</b>
1380/121	121	0,538	1	<b>79,25</b>

### HSS guide drill



Art. No.	Ø	kg	PU	EUR
1380-1/70	70 SDS chuck	0,014	1	<b>10,35</b>
1380-1/105	105 hexagonal	0,020	1	<b>16,56</b>

### SDS chuck adaptor with drill

with HSS guide drill



Art. No.	Ø	kg	PU	EUR
1380-2/1	14-30	0,086	1	<b>34,47</b>
1380-2/2	32-152	0,240	1	<b>36,66</b>

### Hexagonal chuck with drill

with HSS guide drill



Art. No.	Ø	kg	PU	EUR
1380-3/1	14-30	0,077	1	<b>25,42</b>
1380-3/2	32-152	0,190	1	<b>40,18</b>

### Thread cutting

#### Screw remover

twist drill



Art. No.	Ø	kg	PU	EUR	
1085/1	50,8	3,6	0,003	1	<b>2,61</b>
1085/2	60,3	6,8	0,006	1	<b>2,49</b>

#### Screw remover set

twist drill



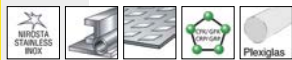
Art. No.	set	size	kg	PU	EUR
1086/1-5	5	1-5	0,107	1	<b>19,07</b>
1086/1-6	6	1-6	0,224	1	<b>28,03</b>
1086/1-8	8	1-8	0,723	1	<b>69,52</b>

## Sabre saw blade

### Sabre saw blade INOX Profi

Without stroke action

Special saw blade for sheets and profiles made of stainless steel, glass-fibre, CRP, GRP, epoxy and Perspex



Art. No.	toothL	TPI	kg	PU	EUR
1751/115	115	95	18	0,025	1 18,36

### Sabre saw blade Metal

Without stroke action

TopSeller - Standard saw blade for steel, stainless steels (INOX), profiles and non-ferrous metals from 3 to 12 mm



Art. No.	toothL	TPI	kg	PU	EUR
1745/150 *	150	130	14	0,015	25 5 2,95
1745/200 *	200	180	14	0,022	25 5 3,67
1745/300 *	300	280	10	0,033	25 5 5,15

### Sabre saw blade Metal

Without stroke action

TopSeller - Standard saw blade for steel and stainless steel (1.5 - 4.0 mm)



Art. No.	toothL	TPI	kg	PU	EUR
1746/100 *	100	80	18	0,009	25 5 2,20
1746/150 *	150	130	18	0,016	25 5 2,95

### Sabre saw blades Metal POWER CURVE

Without stroke action

Flexible all-round blade for steel and stainless steel from 1.5 - 2.5 mm



Art. No.	toothL	TPI	kg	PU	EUR
1761/150	150	130	18	0,026	25 5 3,13
1761/225	225	205	18	0,039	25 5 3,96

## Sabre saw blades Metal POWER CURVE

Without stroke action

Flexible all-round blade for steel and stainless steel from 2,0 - 8,0 mm and non-ferrous metals

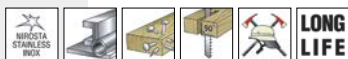


Art. No.	toothL	TPI	kg	PU	EUR
1762/150	150	130	14	0,026	25 5 3,13
1762/225	225	205	14	0,039	25 5 3,96

## Sabre saw blades Metal DEMOLITION

Without stroke action

Especially for dismantling, rescue and salvage. Special thick and robust blade for fast and straight cuts in steel thicker than 3 mm and all types of wood with metal residues



Art. No.	toothL	TPI	kg	PU	EUR
1757/150	150	130	10	0,027	15 3 6,77
1757/225	225	205	10	0,061	15 3 8,68
1757/300	300	280	10	0,084	15 3 11,30

## Sabre saw blades Metal TWIN-CUT

Without stroke action

but can also withstand pendulum strokes. With innovative Twin-Cut tooth geometry for better performance and longer lifetime. For steelpipes and -profiles thicker than 2.5 mm, non-ferrous metals, aluminum and wood with metal residues



Art. No.	toothL	TPI	kg	PU	EUR
1759/150	150	130	10	0,026	25 5 3,38
1759/225	225	205	10	0,040	25 5 4,46
1759/280	280	260	10	0,034	25 5 5,69

## Sabre saw blade Universal SHARK

Without stroke action

Considerably longer durability by a better heat dissipation due to the cooling slots

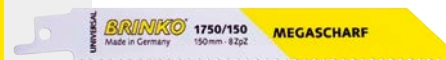
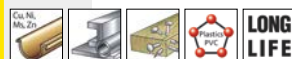


Art. No.	toothL	TPI	kg	PU	EUR
1755/150	150	130	9	0,024	25 5 3,85

## Sabre saw blades Universal MEGASHARP

Best results at highest machine speed with pendulum stroke

Universal blade, in particular for steel from 1.5 - 6 mm wall thickness



Art. No.	toothL	TPI	kg	PU	EUR
1750/150 *	150	130	8	0,020	25 5 5,36
1750/200 *	200	180	8	0,025	25 5 6,16

## Sabre saw blade HM CAST SPECIAL

Without stroke action

Hard-metal toothing, Especially suitable for difficult-to-cut metals, e.g. cast steel pipes (black pipes), cast, iron (red SML)



Art. No.	toothL	TPI	kg	PU	EUR
1754/225	225	205	8	0,063	1 1 42,55

## Sabre saw blade CAST CHAMPION

Without stroke action

Diamant carbide gritted. Special saw blade for cast steel-pipes, cast iron, brick, ceramics and glass-fibre reinforced products (GRP) diamond coating, clean and straight cut

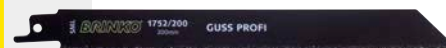
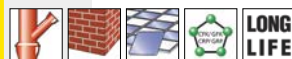


Art. No.	toothL	kg	PU	EUR
1753/200 *	200	0,040	1 1	18,94

## Sabre saw blade CAST PROFI

With/without stroke action

With carbide granulate coating special for SML pipes (cast), glass, ceramics, GRP materials



Art. No.	toothL	kg	PU	EUR
1752/200 *	200	0,040	10 2	8,53

### Sabre saw blade Wood

With/without stroke action  
Standard blade for wood, but now new cross-ground tooting  
For quick, straight cuts on all types of wood, plastic and drywall (6 - 100 mm)



Art. No.	toothL	TPI	kg	PU	EUR		
1747/225 *	225	205	6	0,031	20	5	<b>3,31</b>

### Sabre saw blade HM SPECIAL

Premium reciprocating saw blade in craftsman quality with standard 1/2" mount and carbide tooting.  
The large recesses in the saw blade body ensure a quiet, low-vibration and straight cut. At the same time, the chipped material is quickly removed so that a consistently high cutting speed is guaranteed during the cut.



Art. No.	toothL	TPI	kg	PU	EUR		
1763/305	305	250	2	0,095	25	1	<b>41,04</b>
1763/455	455	410	2	0,165	25	1	<b>58,43</b>

### Sabre saw blade WELLENSCHLIFF

Premium reciprocating saw blade in craftsman quality with standard 1/2" mount and high-quality serrated edge ground on both sides, with a 10 mm shaft distance for special use on soft fabrics and non-abrasive soft materials



Art. No.	toothL	kg	PU	EUR		
1764/300	300	280	0,047	25	1	<b>40,43</b>

### Handle „BRImultiTool“

The „BRImultiTool“ handle is a universal tool for sawing and screwing and can be used flexibly. The angled handle increases power transmission and enables ergonomic working.



Art. No.	kg	PU	EUR
1737 *	0,158	1	<b>33,19</b>

### Sabre saw blade

#### Sabre saw blades (U-shank)

For pipes, steel, stainless steel, nonferrous metals, cast iron, hard plastic



Art. No.	toothL	TPI	kg	PU	EUR	
1743/150	150	130	14	0,021	5	<b>8,18</b>
1743/200	200	180	14	0,032	5	<b>9,81</b>

#### Jigsaw blade Wood

Fast cut in all wood types (5.0 - 50 mm)



Art. No.	toothL	TPI	kg	PU	EUR	
1756/75	100		6,35	0,020	5	<b>2,48</b>

#### Jigsaw blade Metal

Flexible blade for steel and stainless steel (1.2 - 3.0 mm)



Art. No.	toothL	TPI	kg	PU	EUR
1758/55	76,5	21	0,005	5	<b>2,27</b>
1758/105	126,5	21	0,010	5	<b>2,77</b>

### Cutting Discs

#### Cut-off disk | Steel

for separating steel and other metals



Art. No.	Ø	kg	PU	EUR
6200/115 *	115	0,074	1	<b>3,09</b>
6200/125 *	125	0,087	1	<b>3,30</b>
6200/178	178	0,180	1	<b>3,86</b>
6200/230 *	230	0,305	1	<b>5,89</b>

#### Cut-off disk | INOX

for cutting stainless steel, steel and other metals



Art. No.	Ø	kg	PU	EUR
6215/115 *	115	0,025	1	<b>2,94</b>
6215/125 *	125	0,030	1	<b>3,26</b>
6215/150 *	150	0,030	1	<b>4,10</b>
6215/230 *	230	0,200	1	<b>8,27</b>

#### Diamond cutting and chamfering disc

Diamond coating, for cutting and chamfering all plastic pipes in one work process



Art. No.	Ø	kg	PU	EUR
6219/125	125	0,400	1	<b>191,14</b>

#### Diamond cutting disc

universal use for wet and dry cutting of almost all materials



Art. No.	Ø	kg	PU	EUR
6240/115 *	115	0,112	1	<b>26,23</b>
6240/125 *	125	0,142	1	<b>33,07</b>
6240/180	180	0,364	1	<b>69,97</b>
6240/230	230	0,637	1	<b>102,66</b>

## Sealing Tools

### Sealing pliers

polished, nickel-plated, with a stamp



Art. No.	↔	∅	kg	PU	EUR
546/130	130	8	0,246	1	<b>158,44</b>
546/150	150	9	0,330	1	<b>169,63</b>
546/170	170	10	0,484	1	<b>192,49</b>

### Sealing stamp

signatures according to customer request



Art. No.	∅	kg	PU	EUR
546-1/8	8	0,003	1	<b>9,53</b>
546-1/9	9	0,003	1	<b>9,53</b>
546-1/10	10	0,003	1	<b>9,53</b>

### Sealing stamp



Art. No.	Digits	kg	PU	EUR
546-10	1	0,000	1	<b>19,92</b>
546-20	2	0,000	1	<b>34,17</b>
546-30	3	0,000	1	<b>51,13</b>
546-40	4	0,000	1	<b>68,44</b>
546-50	5	0,000	1	<b>85,48</b>
546-60	6	0,000	1	<b>99,40</b>

### Lead seal



Art. No.	∅	kg	PU	EUR
548/8	8 mm	1,005	1	<b>48,69</b>
548/9	9 mm	1,012	1	<b>48,69</b>
548/10	10 mm	1,016	1	<b>51,39</b>
548/12	12 mm	1,018	1	<b>54,53</b>

## Seal wire

grouped together 1000 units



Art. No.	↔	kg	PU	EUR
550/180	180	0,484	1	<b>31,90</b>

## Seal wire



Art. No.	↔ m	kg	PU	EUR
551/500	115	0,578	1	<b>36,37</b>

## Cartridge guns

### Cartridge gun

integrated needle to clean the tip of the cartridge



Art. No.	∅	max. L	kg	PU	EUR
1362 *	51	340	0,555	1	<b>19,40</b>

### Cartridge gun

wear-free, hardened and specially chrome-plated drives V=4 mm/stroke, thrust 1000 N



Art. No.	∅	max. L	kg	PU	EUR
1365	51	340	0,985	1	<b>140,09</b>

## Sealing accessories

### Hemp dispenser



Art. No.	kg	PU	EUR
3820	0,104	1	<b>13,41</b>

## Hemp coil



Art. No.	kg	PU	EUR
3825	0,090	1	<b>7,92</b>

## Aluminium support brackets



Art. No.	W	kg	PU	EUR
231/135	135	0,158	1	<b>21,04</b>
231/150	150	0,183	1	<b>21,04</b>

## Rope tools

### Wire Grips | Insulated

Wire Grips for bundle assembled aerial cables (single or more core), aerial bundled conductors



Art. No.	Ø	Load kg	kg	PU	EUR
3466/1	8 - 25	1.250	0,950	1	<b>376,23</b>
3466/2	16 - 34	3.000	2,190	1	<b>564,91</b>
3466/3	28 - 45	4.500	3,200	1	<b>849,62</b>

### Wire Grips | Universal

Wire Grips for profile bar, flat bar and rail systems



Art. No.	Ø	Load kg	kg	PU	EUR
3467/1	1 - 9	2.500	0,850	1	<b>210,34</b>
3467/3	1 - 18	7.000	1,850	1	<b>371,77</b>

### Wire Grips | Copper and Steel

Wire Grips for copper and steel cables



Art. No.	Ø	Load kg	kg	PU	EUR
3468/0	1 - 5	1.250	0,260	1	<b>139,07</b>
3468/1	3 - 9	2.500	0,845	1	<b>218,54</b>
3468/2	4 - 12	4.500	1,255	1	<b>254,26</b>
3468/3	6 - 18	7.000	1,665	1	<b>363,50</b>
3468/4	10 - 28	8.000	4,000	1	<b>677,12</b>
3468/5	20 - 40	9.000	6,000	1	<b>1.203,86</b>

## Wire Grips | Aluminium

Wire Grips for aluminium cables with and without a steel core



Art. No.	Ø	Load kg	kg	PU	EUR
3469/1	5.4 - 8.5	2.000	0,830	1	<b>225,63</b>
3469/2	5 - 12	3.400	1,270	1	<b>263,32</b>
3469/3	8 - 18	6.000	1,800	1	<b>370,32</b>
3469/4	15 - 28	7.000	4,000	1	<b>692,54</b>
3469/5	20 - 40	9.000	6,000	1	<b>1.050,19</b>

### Wire stretcher

Wire stretcher for tensioning clamping ropes, wire and rods



Art. No.	Ø	Load kg	kg	PU	EUR
3462/1-3	1 - 3	400	0,110	1	<b>40,10</b>
3462/1-4	1 - 4	500	0,260	1	<b>55,74</b>
3462/1-6	1 - 6	800	0,480	1	<b>43,04</b>
3462/1-8	1 - 8	1.200	0,620	1	<b>72,45</b>
3462/1-12	1 - 12	1.800	1,000	1	<b>104,02</b>
3462/10-25	10 - 25	3.000	2,620	1	<b>517,57</b>

### Hand pulley rope

21 m x 10 mm



Art. No.	↔m	ST	kg	PU	EUR
3495/10	10	10	1,271	1	<b>78,44</b>





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Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR
100241	85	2	1	<b>5,13</b>	101494	84	2	1	<b>11,95</b>	102008	63	1	1	<b>3,98</b>	102720	64	1	1	<b>6,15</b>
100243	85	2	1	<b>5,01</b>	101496	84	2	1	<b>12,35</b>	102010	63	1	1	<b>4,81</b>	102722	64	1	1	<b>6,15</b>
100249	85	2	1	<b>5,01</b>	101500	84	2	1	<b>15,18</b>	102012	63	1	1	<b>4,81</b>	102724	64	1	1	<b>6,15</b>
100250	85	2	1	<b>5,01</b>	101502	84	2	1	<b>17,01</b>	102014	63	1	1	<b>3,23</b>	102726	64	1	1	<b>6,15</b>
100252	85	2	1	<b>5,01</b>	101510	84	2	1	<b>92,73</b>	102016	63	1	1	<b>3,23</b>	102730	64	1	1	<b>6,15</b>
100257	85	2	1	<b>5,01</b>	101520	83	2	1	<b>4,78</b>	102017	63	1	1	<b>3,87</b>	102732	64	1	1	<b>6,15</b>
100259	85	2	1	<b>5,68</b>	101521	83	2	1	<b>4,87</b>	102018	63	1	1	<b>3,23</b>	102734	64	1	1	<b>6,15</b>
100261	85	2	1	<b>5,86</b>	101522	83	2	1	<b>5,96</b>	102020	63	1	1	<b>3,23</b>	102736	64	1	1	<b>6,15</b>
100366	85	2	1	<b>4,97</b>	101524	83	2	1	<b>6,47</b>	102022	63	1	1	<b>3,23</b>	102740	64	1	1	<b>6,76</b>
100585	86	2	1	<b>11,84</b>	101526	83	2	1	<b>8,34</b>	102030	63	1	1	<b>1,70</b>	102742	64	1	1	<b>6,76</b>
100590	86	2	1	<b>0,15</b>	101528	83	2	1	<b>8,61</b>	102032	63	1	1	<b>1,70</b>	102744	64	1	1	<b>6,76</b>
100592	86	2	1	<b>0,16</b>	101530	83	2	1	<b>9,56</b>	102034	63	1	1	<b>1,70</b>	102746	64	1	1	<b>6,76</b>
100594	86	2	1	<b>0,19</b>	101532	83	2	1	<b>6,81</b>	102036	63	1	1	<b>1,70</b>	102748	64	1	1	<b>6,76</b>
100596	86	2	1	<b>0,37</b>	101534	83	2	1	<b>9,43</b>	102040	63,64	1	1	<b>7,92</b>	102750	64	1	1	<b>6,76</b>
100598	86	2	1	<b>0,45</b>	101536	83	2	1	<b>10,14</b>	102042-1	63	1	1	<b>11,65</b>	102752	64	1	1	<b>6,76</b>
100600	86	2	1	<b>0,67</b>	101538	83	2	1	<b>13,06</b>	102044	63	1	1	<b>1,07</b>	102760	64	1	1	<b>7,06</b>
100602	86	2	1	<b>0,90</b>	101540	83	2	1	<b>15,46</b>	102052	63	1	1	<b>345,97</b>	102762	64	1	1	<b>7,06</b>
100606	86	2	1	<b>1,69</b>	101541	83	2	1	<b>16,28</b>	102060	63	1	1	<b>3,98</b>	102764	64	1	1	<b>7,06</b>
100610	86	2	1	<b>2,81</b>	101542	83	2	1	<b>6,18</b>	102062	63	1	1	<b>3,98</b>	102766	64	1	1	<b>7,06</b>
100612	86	2	1	<b>4,36</b>	101544	83	2	1	<b>7,64</b>	102064	63	1	1	<b>3,98</b>	102768	64	1	1	<b>7,06</b>
100614	86	2	1	<b>5,88</b>	101546	83	2	1	<b>9,26</b>	102066	63	1	1	<b>3,98</b>	102770	64	1	1	<b>7,06</b>
100630	86	2	1	<b>13,65</b>	101548	83	2	1	<b>13,64</b>	102068	63	1	1	<b>3,98</b>	102772	64	1	1	<b>7,06</b>
100632	86	2	1	<b>14,46</b>	101550	83	2	1	<b>8,50</b>	102070	63	1	1	<b>3,98</b>	102780	64	1	1	<b>7,40</b>
100633	86	2	1	<b>11,55</b>	101552	83	2	1	<b>10,29</b>	102072	63	1	1	<b>3,98</b>	102782	64	1	1	<b>7,40</b>
100634	86	2	1	<b>16,62</b>	101554	83	2	1	<b>16,28</b>	102110	87	2	1	<b>10,03</b>	102784	64,84	1	1	<b>4,04</b>
100635	86	2	1	<b>12,77</b>	101560	83	2	1	<b>39,25</b>	102112	87	2	1	<b>10,03</b>	102785-1	64	1	1	<b>20,47</b>
100636	86	2	1	<b>16,62</b>	101562	83	2	1	<b>40,53</b>	102114	87	2	1	<b>10,03</b>	102790	64	1	1	<b>99,59</b>
100640	86	2	1	<b>9,63</b>	101604	83	2	1	<b>4,27</b>	102116	87	2	1	<b>10,03</b>	102792	64	1	1	<b>99,59</b>
100645	87	2	1	<b>1,96</b>	101606	83	2	1	<b>5,02</b>	102118	87	2	1	<b>10,03</b>	102870	61	1	1	<b>10,78</b>
100646	87	2	1	<b>2,55</b>	101608	83	2	1	<b>5,58</b>	102120	87	2	1	<b>10,03</b>	102872	61	1	1	<b>13,50</b>
100647	87	2	1	<b>1,83</b>	101610	83	2	1	<b>7,32</b>	102124	87	2	1	<b>10,03</b>	102879	61	1	1	<b>18,81</b>
100648	87	2	1	<b>3,36</b>	101612	83	2	1	<b>7,74</b>	102126	87	2	1	<b>10,03</b>	102914	61	1	1	<b>5,94</b>
100649	87	2	1	<b>2,69</b>	101614	83	2	1	<b>8,17</b>	102130	87	2	1	<b>9,11</b>	102916	61	1	1	<b>6,40</b>
100680	85	2	1	<b>13,51</b>	101640	83	2	1	<b>6,22</b>	102131	87	2	1	<b>23,01</b>	102917	61	1	1	<b>5,61</b>
100694	85	2	1	<b>19,88</b>	101642	83	2	1	<b>8,44</b>	102132	87	2	1	<b>4,97</b>	102918	61	1	1	<b>8,56</b>
100700	76,87	2	1	<b>3,53</b>	101644	83	2	1	<b>9,34</b>	102134	87	2	1	<b>4,62</b>	102920	61	1	1	<b>10,80</b>
100704	85	2	1	<b>5,01</b>	101646	83	2	1	<b>12,11</b>	102152	87	2	1	<b>5,99</b>	102942	61	1	1	<b>7,55</b>
100704 A	85	2	1	<b>5,01</b>	101648	83	2	1	<b>14,16</b>	102154	87	2	1	<b>5,99</b>	102944	61	1	1	<b>10,69</b>
100712	85	2	1	<b>5,01</b>	101650	83	2	1	<b>14,61</b>	102155	87	2	1	<b>5,99</b>	102952	61	1	1	<b>8,94</b>
100713	85	2	1	<b>5,01</b>	101684	83	2	1	<b>5,29</b>	102166	87	2	1	<b>24,53</b>	102954	61	1	1	<b>11,76</b>
100714	85	2	1	<b>5,01</b>	101686	83	2	1	<b>6,53</b>	102172	87	2	1	<b>29,40</b>	102980	61	1	1	<b>101,48</b>
100715	85	2	1	<b>5,01</b>	101688	83	2	1	<b>8,44</b>	102174	87	2	1	<b>29,40</b>	102999	61	1	1	<b>41,86</b>
100716	85	2	1	<b>5,01</b>	101690	83	2	1	<b>12,21</b>	102176	87	2	1	<b>5,99</b>	102999/PZ	61	1	1	<b>42,39</b>
100718 A	85	2	1	<b>5,01</b>	101850	62	1	1	<b>10,25</b>	102178	87	2	1	<b>5,99</b>	103000-1	84	2	1	<b>159,25</b>
100720	85	2	1	<b>5,01</b>	101852	62	1	1	<b>10,25</b>	102188	87	2	1	<b>22,01</b>	103002-1	84	2	1	<b>207,36</b>
100721	85	2	1	<b>5,01</b>	101854	62	1	1	<b>10,49</b>	102190	87	2	1	<b>24,53</b>	103010	84	2	1	<b>4,82</b>
100723	85	2	1	<b>5,01</b>	101856	62	1	1	<b>10,74</b>	102198	87	2	1	<b>29,35</b>	103012	84	2	1	<b>4,82</b>
100728	85	2	1	<b>5,01</b>	101858	62	1	1	<b>11,36</b>	102200	87	2	1	<b>5,99</b>	103014	84	2	1	<b>3,83</b>
100729	85	2	1	<b>5,01</b>	101860	62	1	1	<b>11,90</b>	102204	87	2	1	<b>5,99</b>	103016	84	2	1	<b>3,83</b>
100729 A	85	2	1	<b>5,01</b>	101862	62	1	1	<b>13,30</b>	102210	87	2	1	<b>13,57</b>	103018	84	2	1	<b>3,83</b>
100734	85	2	1	<b>5,01</b>	101864	62	1	1	<b>14,54</b>	102212	88	2	1	<b>28,03</b>	103020	84	2	1	<b>4,04</b>
100736	85	2	1	<b>5,01</b>	101866	62	1	1	<b>17,83</b>	102216	87	2	1	<b>9,93</b>	103022	84	2	1	<b>4,04</b>
100738	85	2	1	<b>5,01</b>	101870	61	1	1	<b>9,58</b>	102512	62	1	1	<b>153,63</b>	103024	84	2	1	<b>4,04</b>
100741	85	2	1	<b>5,01</b>	101872	61	1	1	<b>11,97</b>	102520	62	1	1	<b>18,13</b>	103026	84	2	1	<b>4,04</b>
100742	85	2	1	<b>5,01</b>	101874	87	1	1	<b>5,78</b>	102522	62	1	1	<b>18,13</b>	103028	84	2	1	<b>4,52</b>
100902	86	2	1	<b>1,44</b>	101876	87	1	1	<b>5,78</b>	102524	62	1	1	<b>18,58</b>	103030	84	2	1	<b>4,50</b>
100903	86	2	1	<b>1,44</b>	101879	61	1	1	<b>15,39</b>	102526	62	1	1	<b>18,58</b>	103032	84	2	1	<b>4,50</b>
100904	86	2	1	<b>1,98</b>	101880	87	2	1	<b>4,97</b>	102528	62	1	1	<b>18,58</b>	103034-1	84	2	1	<b>18,43</b>
100905	86	2	1	<b>1,53</b>	101882	87	2	1	<b>4,97</b>	102530	62	1	1	<b>19,63</b>	103070	84	1	1	<b>96,12</b>
100906	86	2	1	<b>1,99</b>	101910	61	1	1	<b>4,81</b>	102532	62	1	1	<b>21,17</b>	103072	84	1	1	<b>96,12</b>
100908	86	2	1	<b>3,16</b>	101912	61	1	1	<b>4,87</b>	102534	62	1	1	<b>21,36</b>	103080	83	2	1	<b>5,59</b>
100909	86	2	1	<b>4,06</b>	101914	61	1	1	<b>5,15</b>	102536	62	1	1	<b>25,83</b>	103082	83	2	1	<b>6,09</b>
100915	86	2	1	<b>18,86</b>	101916	61	1	1	<b>5,44</b>	102538	62	1	1	<b>27,43</b>	103120	83	2	1	<b>5,46</b>
100917	86	2	1	<b>26,32</b>	101917	61	1	1	<b>5,44</b>	102540	62	1	1	<b>29,09</b>	103122	83	2	1	<b>5,92</b>
100921	86	2	1	<b>34,10</b>	101918	61	1	1	<b>7,32</b>	102550	62	1	1	<b>5,08</b>	103130	83	2	1	<b>4,51</b>
100927	86	2	1	<b>17,48</b>	101920	61	1	1	<b>9,69</b>	102552	62	1	1	<b>5,96</b>	103132	83	2	1	<b>5,27</b>
100941	86	2	1	<b>29,79</b>	101922	61	1	1	<b>12,95</b>	102554	62	1	1	<b>7,29</b>	103134	83	2	1	<b>6,27</b>
100943	86	2	1	<b>26,32</b>	101924	61	1	1	<b>16,07</b>	102556	62								

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104030	88	2	1	<b>46,52</b>	110196	89	2	1	<b>3,82</b>	110375/EN	75	1	1	<b>60,27</b>	110737/11	90	2	1	<b>1,41</b>
104090	63,123	1	1	<b>599,58</b>	110198	89	2	1	<b>4,63</b>	110376/EN	75	1	1	<b>60,79</b>	110737/12	90	2	1	<b>1,41</b>
110000	70	1	1	<b>61,64</b>	110202	89	2	1	<b>5,61</b>	110377/EN	75	1	1	<b>61,68</b>	110737/13	90	2	1	<b>1,45</b>
110002	70	1	1	<b>61,64</b>	110204	89	2	1	<b>5,87</b>	110378/EN	75	1	1	<b>61,68</b>	110737/14	90	2	1	<b>1,63</b>
110004	70	1	1	<b>61,64</b>	110206	89	2	1	<b>8,08</b>	110379/EN	75	1	1	<b>66,10</b>	110737/15	90	2	1	<b>1,88</b>
110006	70	1	1	<b>61,64</b>	110212	89	2	1	<b>10,05</b>	110456/EN	73	1	1	<b>264,21</b>	110737/16	90	2	1	<b>1,88</b>
110008	70	1	1	<b>62,67</b>	110216	89	2	1	<b>13,64</b>	110457/EN	73	1	1	<b>264,21</b>	110737/17	90	2	1	<b>2,18</b>
110010	70	1	1	<b>63,39</b>	110222	89	2	1	<b>15,36</b>	110458/EN	73	1	1	<b>264,21</b>	110737/18	90	2	1	<b>2,44</b>
110012	70	1	1	<b>65,67</b>	110250	89	2	1	<b>46,06</b>	110555	70	1	1	<b>80,26</b>	110737/19	90	2	1	<b>2,44</b>
110022	70	1	1	<b>72,66</b>	110252	89	2	1	<b>84,62</b>	110556	70	1	1	<b>93,55</b>	110737/20	90	2	1	<b>3,20</b>
110024	70	1	1	<b>72,72</b>	110260	70	1	1	<b>23,99</b>	110557	70	1	1	<b>124,88</b>	110737/21	90	2	1	<b>3,20</b>
110026	70	1	1	<b>72,72</b>	110262	70	1	1	<b>23,99</b>	110558	69	1	1	<b>78,76</b>	110737/22	90	2	1	<b>3,29</b>
110028	70	1	1	<b>72,72</b>	110264	70	1	1	<b>23,99</b>	110559	69	1	1	<b>107,63</b>	110737/24	90	2	1	<b>4,03</b>
110030	70	1	1	<b>75,32</b>	110266	70	1	1	<b>23,99</b>	110561	69	1	1	<b>297,12</b>	110737/6	90	2	1	<b>1,41</b>
110032	70	1	1	<b>77,32</b>	110268	70	1	1	<b>26,67</b>	110569	69	3	1	<b>90,30</b>	110737/7	90	2	1	<b>1,41</b>
110034	70	1	1	<b>79,92</b>	110270	70	1	1	<b>28,90</b>	110581	9	3	1	<b>165,65</b>	110737/8	90	2	1	<b>1,41</b>
110036	70	1	1	<b>79,92</b>	110272	70	1	1	<b>29,13</b>	110583	90	2	1	<b>32,82</b>	110737/9	90	2	1	<b>1,41</b>
110039/EN	73	1	1	<b>58,09</b>	110274	70	1	1	<b>29,46</b>	110585	90	2	1	<b>39,24</b>	110738	90	2	1	<b>3,77</b>
110040/EN	74	1	1	<b>60,22</b>	110276	70	1	1	<b>32,36</b>	110590	90	2	1	<b>26,19</b>	110739	90	2	1	<b>5,14</b>
110042	70	1	1	<b>12,72</b>	110278	70	1	1	<b>34,94</b>	110592	90	2	1	<b>33,20</b>	110741	91	2	1	<b>4,26</b>
110044	70	1	1	<b>13,22</b>	110280	70	1	1	<b>36,70</b>	110594	90	2	1	<b>42,76</b>	110745	91	2	1	<b>7,34</b>
110046	70	1	1	<b>14,96</b>	110282	70	1	1	<b>40,83</b>	110596	90	2	1	<b>54,94</b>	110747	90	2	1	<b>1,21</b>
110048	70	1	1	<b>17,30</b>	110284	70	1	1	<b>46,80</b>	110605	92	2	1	<b>109,24</b>	110749	90	2	1	<b>1,21</b>
110050	70	1	1	<b>19,41</b>	110286	70	1	1	<b>60,89</b>	110607	92	2	1	<b>124,75</b>	110751	91	2	1	<b>4,89</b>
110052	70	1	1	<b>23,82</b>	110288	70	1	1	<b>61,94</b>	110608	92	2	1	<b>109,33</b>	110752	91	2	1	<b>6,18</b>
110054	70	1	1	<b>30,63</b>	110290	70	1	1	<b>62,43</b>	110609	92	2	1	<b>158,03</b>	110753	91	2	1	<b>11,77</b>
110055/EN	73	1	1	<b>862,27</b>	110300	70	1	1	<b>31,62</b>	110610	92	2	1	<b>114,15</b>	110754	90	2	1	<b>1,21</b>
110056/EN	73	1	1	<b>864,56</b>	110302	70	1	1	<b>31,62</b>	110672	91	1	1	<b>192,08</b>	110754/10	91	2	1	<b>2,43</b>
110058/EN	74	1	1	<b>888,12</b>	110304	70	1	1	<b>31,62</b>	110674	90	2	1	<b>90,16</b>	110754/11	91	2	1	<b>2,43</b>
110060	70	1	1	<b>42,59</b>	110306	70	1	1	<b>31,62</b>	110674/K	90	2	1	<b>23,99</b>	110754/12	91	2	1	<b>2,43</b>
110062	70	1	1	<b>42,59</b>	110308	70	1	1	<b>33,11</b>	110676	90	2	1	<b>97,65</b>	110754/13	91	2	1	<b>2,43</b>
110064	70	1	1	<b>43,64</b>	110310	70	1	1	<b>33,11</b>	110676/K	90	2	1	<b>31,82</b>	110754/14	91	2	1	<b>2,34</b>
110065/EN	73	1	1	<b>892,58</b>	110312	70	1	1	<b>34,37</b>	110677	91	2	1	<b>146,14</b>	110754/15	91	2	1	<b>2,34</b>
110066/EN	74	1	1	<b>892,58</b>	110314	70	1	1	<b>39,68</b>	110677/K	91	2	1	<b>36,13</b>	110754/16	91	2	1	<b>2,34</b>
110067/EN	74	1	1	<b>927,33</b>	110316	70	1	1	<b>43,48</b>	110678	91	2	1	<b>210,78</b>	110754/17	91	2	1	<b>2,79</b>
110068/EN	74	1	1	<b>1.011,14</b>	110318	70	1	1	<b>46,93</b>	110691	92	2	1	<b>20,06</b>	110754/18	91	2	1	<b>3,05</b>
110070	70	1	1	<b>114,26</b>	110320	70	1	1	<b>50,53</b>	110692	92	2	1	<b>27,11</b>	110754/19	91	2	1	<b>3,71</b>
110071	73	1	1	<b>328,17</b>	110322	70	1	1	<b>57,17</b>	110693	92	2	1	<b>6,39</b>	110754/20	91	2	1	<b>3,71</b>
110073	73	1	1	<b>328,17</b>	110324	70	1	1	<b>65,03</b>	110696	92	2	1	<b>17,63</b>	110754/21	91	2	1	<b>4,16</b>
110074	70	1	1	<b>114,22</b>	110331/EN	73	1	1	<b>242,92</b>	110697	92	2	1	<b>22,06</b>	110754/22	91	2	1	<b>4,16</b>
110075	73	1	1	<b>328,17</b>	110332/EN	74	1	1	<b>261,40</b>	110698	92	2	1	<b>35,36</b>	110754/24	91	2	1	<b>4,88</b>
110076	70	1	1	<b>114,26</b>	110335/EN	73	1	1	<b>62,33</b>	110700	90	2	1	<b>1,82</b>	110754/26	91	2	1	<b>6,83</b>
110078	70	1	1	<b>114,22</b>	110336/EN	74	1	1	<b>67,95</b>	110700/EN	73	1	1	<b>31,75</b>	110754/27	91	2	1	<b>6,83</b>
110080	70	1	1	<b>114,26</b>	110337/EN	73	1	1	<b>66,04</b>	110701	90	2	1	<b>2,68</b>	110754/28	91	2	1	<b>7,86</b>
110081	70	1	1	<b>79,99</b>	110338/EN	74	1	1	<b>62,19</b>	110702	90	2	1	<b>5,46</b>	110754/30	91	2	1	<b>8,49</b>
110083	70	1	1	<b>85,82</b>	110339/EN	75	1	1	<b>25,87</b>	110702/EN	73	1	1	<b>37,64</b>	110754/32	91	2	1	<b>8,98</b>
110084	70	1	1	<b>86,80</b>	110340/EN	75	1	1	<b>25,78</b>	110703/10	90	2	1	<b>1,19</b>	110755	91	2	1	<b>3,93</b>
110085	70	1	1	<b>89,53</b>	110342/EN	75	1	1	<b>25,78</b>	110703/11	90	2	1	<b>1,31</b>	110756	91	2	1	<b>5,33</b>
110087	70	1	1	<b>94,56</b>	110344/EN	75	1	1	<b>25,78</b>	110703/12	90	2	1	<b>1,36</b>	110757	91	2	1	<b>5,33</b>
110089	70	1	1	<b>94,56</b>	110346/125	75	1	1	<b>84,13</b>	110703/13	90	2	1	<b>1,44</b>	110758	91	2	1	<b>10,63</b>
110090	89	2	1	<b>3,03</b>	110346/250	75	1	1	<b>87,71</b>	110703/4	90	2	1	<b>1,01</b>	110759	90	2	1	<b>1,21</b>
110091	70	1	1	<b>94,56</b>	110346/EN	75	1	1	<b>25,78</b>	110703/45	90	2	1	<b>1,01</b>	110760	90	2	1	<b>1,21</b>
110092	89	2	1	<b>3,97</b>	110348/125	75	1	1	<b>84,13</b>	110703/5	90	2	1	<b>1,01</b>	110780	89	2	1	<b>32,60</b>
110093	70	1	1	<b>96,42</b>	110348/250	75	1	1	<b>87,71</b>	110703/55	90	2	1	<b>1,01</b>	110782	89	2	1	<b>38,29</b>
110094	89	2	1	<b>4,58</b>	110348/EN	75	1	1	<b>26,09</b>	110703/6	90	2	1	<b>1,01</b>	110798	90	2	1	<b>19,00</b>
110095	70	1	1	<b>103,23</b>	110350/125	75	1	1	<b>84,56</b>	110703/7	90	2	1	<b>1,01</b>	110806	10	3	1	<b>12,38</b>
110096	89	2	1	<b>4,37</b>	110350/250	75	1	1	<b>88,35</b>	110703/8	90	2	1	<b>1,05</b>	110810	71	1	1	<b>175,47</b>
110097	70	1	1	<b>103,23</b>	110350/EN	75	1	1	<b>26,35</b>	110703/9	90	2	1	<b>1,17</b>	110812	71	1	1	<b>840,32</b>
110099	70	1	1	<b>109,80</b>	110352/125	75	1	1	<b>84,56</b>	110704	53,75	1	1	<b>142,19</b>	110813	71	1	1	<b>830,26</b>
110100	89	2	1	<b>5,82</b>	110352/250	75	1	1	<b>88,35</b>	110705	53,75	1	1	<b>217,05</b>	110814	71	1	1	<b>31,67</b>
110104	89	2	1	<b>5,57</b>	110352/EN	75	1	1	<b>26,35</b>	110706	90	2	1	<b>3,09</b>	110816	71	1	1	<b>33,11</b>
110108	89	2	1	<b>8,57</b>	110354/125	75	1	1	<b>87,58</b>	110709	53,75	2	1	<b>285,77</b>	110818	71	1	1	<b>45,65</b>
110112	89	2	1	<b>12,52</b>	110354/250	75	1	1	<b>88,72</b>	110710	73	2	1	<b>93,02</b>	110820	71	1	1	<b>19,03</b>
110114	89	2	1	<b>11,51</b>	110354/EN	75	1	1	<b>29,84</b>	110711	90	2	1	<b>1,21</b>	110822	71	1	1	<b>18,49</b>
110120	89	2	1	<b>19,16</b>	110356/125	75	1	1	<b>88,35</b>	110712	73	2	1	<b>93,02</b>	110824	71	1	1	<b>19,21</b>
110130	89	2	1	<b>40,93</b>	110356/250	75	1	1	<b>91,99</b>	110713	73								

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110872	70	1	1	44,15	120088	78	1	1	9,26	130344	97	2	1	64,99	143130	32	3	1	27,61
110873	73	1	1	1.898,35	120089	80	1	1	58,41	130346	97	2	1	119,88	143132	32	3	1	9,07
110874	70	1	1	44,15	120094	75	1	1	23,25	130348	96	2	1	84,46	143134	32	3	1	8,41
110876	70	1	1	44,15	120095	79	1	1	45,56	130352	97	2	1	153,07	143136	32	3	1	10,85
110878	70	1	1	46,53	120096	79	1	1	45,56	130360	97	2	1	233,12	143150	33	3	1	667,98
110880	70	1	1	47,24	120100	75	1	1	38,68	130361	97	2	1	138,92	143152	33	3	1	823,94
110882	70	1	1	48,23	120101	53,75	1	1	160,76	130364	97	2	1	287,26	143154	33	3	1	979,86
110884	70	1	1	48,85	120102	75	1	1	56,42	130366	97	2	1	481,62	143156	33	3	1	1.135,40
110886	70	1	1	50,28	120103	53,75	1	1	186,94	140180	111	2	1	324,46	143160	33	3	1	705,09
110888	70	1	1	50,28	120104	53,75	1	1	452,61	140190	111	2	1	63,72	143162	33	3	1	861,04
110890	70	1	1	53,27	120109	77	1	1	625,26	140192	111	2	1	69,28	143164	33	3	1	1.017,01
110892	70	1	1	53,27	120111	78	1	1	29,22	140210	111	2	1	142,03	143166	33	3	1	1.172,95
110900	89	2	1	116,38	120112	78	1	1	51,32	140214	111	2	1	179,19	143168	33	3	1	1.329,77
110900/10	89	2	1	14,04	120115	78	1	1	4,21	140216	111	2	1	142,78	143170	33	3	1	333,06
110900/12	89	2	1	15,26	120116	78	1	1	51,32	140218	111	2	1	299,24	143172	33	3	1	460,78
110900/13	89	2	1	15,80	120120	78	1	1	3,17	140220	111	2	1	641,27	143174	33	3	1	588,49
110900/14	89	2	1	16,92	120122	78	1	1	8,19	140222	111	2	1	33,15	143176	33	3	1	716,13
110900/17	89	2	1	21,44	120155	81	2	1	41,72	140224	111	2	1	32,51	143178	33	3	1	803,83
110900/19	89	2	1	23,93	120156	81	2	1	41,68	140226	111	2	1	32,51	143180	33	3	1	41,63
110900/8	89	2	1	13,61	120157	81	2	1	15,28	140228	111	2	1	92,04	143182	33	3	1	60,44
110900/9	89	2	1	14,04	120158	81	2	1	14,40	140230	111	2	1	90,11	143184	33	3	1	44,05
110902	89	2	1	148,55	120159	81	2	1	32,84	140232	111	2	1	164,16	143185	34	3	1	16,50
110902/10	89	2	1	25,41	120160	79	1	1	429,38	140234	111	2	1	160,25	143186	33	3	1	16,50
110902/12	89	2	1	27,15	120162	79	1	1	955,65	140236	111	2	1	29,84	143187	33	3	1	16,54
110902/13	89	2	1	28,49	120164	79	1	1	544,56	140238	111	2	1	34,92	143188	34	3	1	16,54
110902/14	89	2	1	30,55	120166	79	1	1	1.454,99	140240	111	2	1	52,80	143190	34	3	1	79,03
110902/17	89	2	1	34,63	120168	79	1	1	38,96	140242	111	2	1	72,21	143200	34	3	1	188,10
110902/19	89	2	1	37,71	120170	81	2	1	18,24	140244	111	2	1	113,94	143202	34	3	1	193,19
110902/8	89	2	1	24,00	120171	81	2	1	27,76	140246	111	2	1	246,74	143204	34	3	1	198,19
110902/9	89	2	1	24,73	120172	81	2	1	45,12	140248	111	2	1	341,83	143210	33	3	1	972,35
111737	91	2	1	39,29	120173	81	2	1	55,56	140250	111	2	1	8,74	143212	33	3	1	1.143,72
120002	76	1	1	13,61	120174	81	2	1	150,56	140252	111	2	1	7,66	143214	33	3	1	1.315,62
120003	77	1	1	8,94	120175	81	2	1	57,24	140254	111	2	1	8,76	143216	33	3	1	1.608,99
120004	77	1	1	57,17	120176	81	2	1	57,24	140256	111	2	1	12,70	143218	33	3	1	1.734,86
120005	77	1	1	57,17	120177	81	2	1	57,24	140258	111	2	1	12,58	143220	33	3	1	2.037,96
120006	77	1	1	68,01	120200	79	1	1	6.528,79	140260	111	2	1	21,64	143222	33	3	1	398,02
120006 561	77	1	1	103,92	120300/10	77	1	1	1,53	140262	111	2	1	19,87	143224	33	3	1	553,60
120006 564 S	77	1	1	122,92	120300/11	77	1	1	1,53	140510	98	2	1	5,81	143226	33	3	1	709,51
120006 587	77	1	1	144,35	120300/6	77	1	1	1,53	140520	98	2	1	5,81	143228	33	3	1	860,60
120007	77	1	1	68,01	120300/7	77	1	1	1,53	140530	98	2	1	5,81	143230	33	3	1	1.021,41
120007/1	77	1	1	68,01	120300/8	77	1	1	1,53	143000	31	3	1	195,94	143232	33	3	1	1.155,71
120008	78	1	1	30,35	120300/9	77	1	1	1,53	143002	31	3	1	219,16	143250	33	3	1	1.965,95
120008 GELB	78	1	1	30,35	120302/10	77	1	1	8,77	143002/ECO	31	3	1	197,11	143252	33	3	1	2.393,58
120008 ROT	78	1	1	30,35	120302/11	77	1	1	8,77	143004	31	3	1	75,26	143254	33	3	1	2.821,25
120008 WEISS	78	1	1	30,35	120302/9	77	1	1	8,77	143006	31	3	1	99,57	143256	33	3	1	3.248,87
120010	78	1	1	89,10	120304/10	77	1	1	9,52	143008	31	3	1	3,96	143258	33	3	1	1.366,46
120011	77	1	1	52,16	120304/11	77	1	1	9,52	143010	31	3	1	8,33	143260	33	3	1	1.793,21
120012	77	1	1	85,74	120304/9	77	1	1	9,52	143012	31	3	1	8,36	143262	33	3	1	2.220,01
120014	78	1	1	199,09	120310	77	1	1	3,76	143014	31	3	1	8,58	143264	33	3	1	2.644,10
120015	78	1	1	199,09	121020/10	77	1	1	150,02	143016	31	3	1	3,96	143266	34	3	1	16,54
120016	78	1	1	199,09	121020/11	77	1	1	150,02	143018	31	3	1	3,91	143270	34	3	1	3.903,62
120017	78	1	1	199,09	121020/9	77	1	1	150,02	143020	31	3	1	22,57	143272	34	3	1	5.114,14
120018	78	1	1	199,09	121021/10	77	1	1	184,63	143024	31	3	1	7,40	143274	34	3	1	6.113,90
120028	77	1	1	80,83	121022/10	77	1	1	217,22	143026	31	3	1	12,37	143276	34	3	1	7.113,70
120029	77	1	1	176,05	121023/10	77	1	1	281,49	143028	31	3	1	60,51	143278	34	3	1	8.113,45
120030	79	1	1	94,74	121024/10	77	1	1	390,03	143030	31	3	1	8,78	143280	34	3	1	9.112,76
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120037	77	1	1	95,15	130044	82	2	1	54,63	143056	32	3	1	192,13	143306	34	3	1	37,67
120040	79	1	1	9,98	130064	82	2	1	182,01	143058	32	3	1	277,42	143308	34	3	1	41,31
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120042	79	1	1	35,91	130068	82	2	1	293,81	143062	32	3	1	11,69	143312	34	3	1	45,19
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120046	79	1	1	126,81	130201	103	2	1	14,59	143066	32	3	1	22,03	143316	34	3	1	100,68
120048	79	1	1	445,81	130202	103	2	1	16,15	143068	32	3	1	29,82	143318	34	3	1	95,53
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120050	79	1	1	18,85	130204	103	2	1	26,74	143072	32	3	1	6,28	143322	34	3	1	105,35
120051	66	1	1	79,09	130206	103	2	1	36,69	143100	32	3	1	499,21	143324	34	3	1	119,53
120052	66	1	1	58,90	130208	103	2	1	42,87	143102	32	3	1	614,90	143326	34	3	1	113,14
120057	80	1	1	41,55	130209	103	2	1	46,03	143104	32	3	1	755,90	143328	34	3	1	127,10
120058	80	1	1	44,08	130210	103	2	1											

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143406	34	3	1	223,57	150310	79	1	1	219,47	160420	136	2	1	23,94	180200	102	2	1	17,24
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143422	35	3	1	429,31	150314	79	1	1	177,31	160424	136	2	1	115,34	180214	102	2	1	53,03
143424	35	3	1	640,33	150316	79	1	1	169,26	160426	136	2	1	204,08	180218	102	2	1	63,78
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143432	35	3	1	531,92	150320	79	1	1	127,11	160442	136	2	1	57,67	180232	102	2	1	44,78
143434	35	3	1	742,94	150322	79	1	1	4.389,73	160444	136	2	1	111,52	180274	102	2	1	5,87
143440	35	3	1	94,60	150340	82	2	1	47,95	160446	136	2	1	228,94	180276	102	2	1	7,79
143441	35	3	1	16,97	150342	82	2	1	43,22	160450	136	2	1	23,74	180290	103	2	1	24,80
143442	35	3	1	78,83	150343	82	2	1000	58,35	160452	136	2	1	57,67	180292	103	2	1	27,56
143443	35	3	1	14,31	150344	82	2	1	42,48	160454	136	2	1	111,52	180295	76	1	1	162,13
143444	35	3	1	19,16	150345	82	2	1000	64,62	170100	133	2	1	13,31	180297	76	1	1	179,92
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143501	31	3	1	149,75	150362	82	2	1	39,40	170102	133	2	1	9,00	180301	103	2	1	70,62
143502	31	3	1	265,41	150364	82	2	1	25,95	170103	133	2	1	11,76	180302	103	2	1	19,14
143503	31	3	1	204,48	150366	82	2	1	45,89	170104	133	2	1	11,46	180321	102	2	1	9,46
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143506	31	3	1	295,88	150370	82	2	1	66,08	170108	134	2	1	63,07	180334	103	2	1	20,47
143507	31	3	1	247,68	150375 BLAU	82	2	1	26,41	170112	133	2	1	15,18	180336	103	2	1	77,69
143508	31	3	1	9,68	150375 GRÜN	82	2	1	26,42	170114	133	2	1	9,63	180337	103	2	1	14,14
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150002	100	2	1	3,07	150377	78	1	1	219,02	170118	134	2	1	61,06	180339	103	2	1	19,79
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150006	100	2	1	1,86	150452	30	3	1	5,52	170127	134	2	1	43,06	180464	102	2	1	44,69
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150015 G	98	2	1	1,04	150464	30	3	1	6,88	170142	132	2	1	17,77	180500	108	2	1	51,66
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150015/1	98	2	1	22,61	150468	30	3	1	10,77	170152	132	2	1	13,31	180504	108	2	1	57,41
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150037	76	1	1	19,82	160002	135	2	1	15,23	170172	133	2	1	13,31	180518	108	2	1	210,12
150038	76	1	1	21,86	160004	135	2	1	36,28	170174	131	2	1	11,46	180519	108	2	1	84,83
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150158	30	3	1	15,05	160024	135	2	1	71,83	170220	130	2	1	15,70	190130	103	2	1	37,53
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150240	79	1	1	193,45	160096	135	2	1	9,18	180042	102	2	1	13,76	200022	7	3	1	66,81
150241	79	3	1	7,11	160100	135	2	1	12,92	180044	102	2	1	15,70	200023	7	3	1	102,32
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200073/MK	3	3	1	44,23	200304	105	2	1	15,94	210619	93	2	1	70,98	211060	76	1	1	31,32
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200087	3	3	1	160,33	200524	9	3	1	1.566,54	210648	66	1	1	54,25	211199	65	1	1	26,43
200088	3	3	1	61,72	200524/1	9	3	1	129,96	210682	11	3	1	598,96	211200	65	1	1	26,89
200088/VDE	66	1	1	77,25	200526	9	3	1	458,56	210684	8	3	1	93,57	211202	65	1	1	29,40
200089-1	4	3	1	300,74	200528	9	3	1	649,91	210685	9	3	1	137,41	211203	65	1	1	39,23
200095	3	3	1	129,39	200630	8	3	1	68,97	210686	9	3	1	103,45	211204	65	1	1	28,39
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200105	3	3	1	71,76	201000	3	3	1	107,22	210695/E	8	3	1	11,44	211211	65	1	1	36,66
200109	68	1	1	1.023,07	201002	3	3	1	29,46	210696	8	3	1	57,39	211212	65	1	1	24,87
200110	68	1	1	421,91	201002/VDE	68	1	1	74,07	210696/2	8	3	1	18,19	211213	65	1	1	31,54
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200112	4	3	1	432,56	201012	69	1	1	25,50	210700	82	2	1	137,16	211216	65	1	1	25,00
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200114	4	3	1	627,87	201042	7	3	1	19,48	210704	82	2	1	163,18	211219	65	1	1	40,36
200115	4	3	1	1.211,97	201044	7	3	1	19,48	210710	82	2	1	5,41	211221	65	1	1	47,53
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200120	68	1	1	123,21	201048	7	3	1	22,92	210729	9	3	1	151,66	211225	65	1	1	29,14
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200129	68	1	1	130,83	201060	8	3	1	59,85	210761/E	15	3	1	27,44	211657	10	3	1	75,77
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200132	68	1	1	661,67	201087	3	3	1	20,55	210763	11	3	1	61,18	211659	10	3	1	74,63
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200141	68	1	1	511,35	210052	93	2	1	24,81	210764	12	3	1	71,37	211660	12	3	1	78,57
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200155	3	2	1	15,96	210056	66	1	1	51,32	210765/E	15	3	1	27,44	211672/E	15	3	1	27,44
200170	3	2	1	34,50	210058	66	1	1	56,38	210767	12	3	1	83,26	211674	11	3	1	91,06
200173	3	3	1	17,69	210067	93	2	1	23,90	210767/E	15	3	1	27,44	211676	11	3	1	78,80
200175	4	3	1	68,83	210068	93	2	1	26,03	210768	11	3	1	114,37	211676/E	15	3	1	31,19
200177	4	3	1	526,00	210069	93	2	1	30,03	210770	94	2	1	13,06	211678	11	3	1	91,06
200178	4	3	1	769,83	210100	66	1	1	52,69	210771	13	3	1	57,34	211680	12	3	1	63,97
200178/B	4	3	1	51,31	210102	66	1	1	63,72	210772	13	3	1	66,33	211682	12	3	1	78,51
200178/C	4	3	1	51,31	210110	66	1	1	125,98	210774	13	3	1	77,16	211690	15	3	1	102,90
200178/S	4	3	1	51,31	210117	66	1	1	51,50	210776	94	2	1	27,76	211692	15	3	1	263,44
200178/S1	4	3	1	51,31	210119	66	1	1	57,44	210777	12	3	1	100,28	211695	12	3	1	63,99
200178/S2	4	3	1	51,31	210156	93	2	1	33,04	210778	12	3	1	100,28	211697	10	3	1	262,47
200179	4	3	1	1.720,57	210157	93	2	1	34,35	210779	12	3	1	78,57	211708	94	2	1	23,76
200181	4	3	1	142,57	210158	93	2	1	35,99	210784	15	3	1	60,67	211720	94	2	1	24,22
200183-1	4	3	1	315,31	210263	67	1	1	114,26	210784/E	15	3	1	60,58	211722	94	2	1	28,76
200185	3	2	1	29,73	210264	67	1	1	122,62	210785	12	3	1	124,85	211810	11	3	1	307,87
200187	9	3	1	611,19	210265	67	1	1	128,19	210786	12	3	1	124,85	211816	11	3	1	265,46
200188	9	3	1	723,48	210266	67	1	1	120,08	210788	11	3	1	273,53	211818	11	3	1	338,10
200190	105	2	1	35,59	210267	67	1	1	126,31	210789	11	3	1	291,77	211850	94	2	1	17,63
200192	105	2	1	8,10	210270	66	1	1	51,66	210791	13	3	1	324,19	211852	94	2	1	18,79
200193	68	1	1	2.049,24	210296	66	1	1	49,93	210799	13	3	1	151,65	211854	94	2	1	17,63
200194	105	2	1	36,91	210297	67	1	1	134,80	210802	12	3	1	7,40	211856	94	2	1	18,79
200195	68	1	1	2.655,45	210298	67	1	1	204,55	210804	11	3	1	285,07	211860	95	2	1	19,89
200196	105	2	1	8,10	210299	67	1	1	108,63	210805	13	3	1	220,91	211862	95	2	1	18,21
200197	3	3	1	157,30	210300	67	1	1	105,73	210805 K	13	3	1	220,91	211864	95	2	1	19,36
200198	68	1	1	776,83	210301	67	1	1	128,84	210808	12	3	1	9,93	2				

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211934	9	3	1	<b>128,36</b>	213050	13	3	1	<b>78,71</b>	215212	17	3	1	<b>176,56</b>	216016/V	24	3	1	<b>75,25</b>
211960	15	3	1	<b>287,39</b>	213077	14	3	1	<b>207,88</b>	215214	17	3	1	<b>147,72</b>	216018	24	3	1	<b>75,25</b>
211962	16	3	1	<b>112,71</b>	213078	14	3	1	<b>207,88</b>	215216	17	3	1	<b>147,72</b>	216018/AL	24	3	1	<b>95,39</b>
211963	16	3	1	<b>42,78</b>	213080	14	3	1	<b>649,85</b>	215218	17	3	1	<b>143,91</b>	216018/V	24	3	1	<b>75,25</b>
211964	16	3	1	<b>43,35</b>	213080/E	14	3	1	<b>389,92</b>	215220	17	3	1	<b>143,91</b>	216020	24	3	1	<b>75,25</b>
211965	16	3	1	<b>47,02</b>	213082	14	3	1	<b>649,85</b>	215222	17	3	1	<b>143,91</b>	216020/AL	24	3	1	<b>95,39</b>
211968	16	3	1	<b>47,62</b>	213082/E	14	3	1	<b>389,92</b>	215224	17	3	1	<b>143,91</b>	216020/V	24	3	1	<b>75,25</b>
211969	16	3	1	<b>47,62</b>	213084	14	3	1	<b>632,15</b>	215226	17	3	1	<b>143,91</b>	216022	24	3	1	<b>75,25</b>
211970	16	3	1	<b>46,98</b>	213084/E	15	3	1	<b>389,92</b>	215228	17	3	1	<b>143,91</b>	216022/AL	24	3	1	<b>95,39</b>
211971	16	3	1	<b>47,62</b>	213086	14	3	1	<b>649,85</b>	215230	17	3	1	<b>176,56</b>	216022/V	24	3	1	<b>75,25</b>
211972	16	3	1	<b>46,98</b>	213086/E	14	3	1	<b>389,92</b>	215232	17	3	1	<b>176,56</b>	216024	24	3	1	<b>75,25</b>
211973	16	3	1	<b>46,98</b>	213088	11	3	1	<b>218,28</b>	215234	17	3	1	<b>176,56</b>	216024/AL	24	3	1	<b>95,39</b>
211980	16	3	1	<b>72,27</b>	213090	12	3	1	<b>192,26</b>	215236	17	3	1	<b>176,56</b>	216024/V	24	3	1	<b>75,25</b>
211981	16	3	1	<b>72,27</b>	213092	13	3	1	<b>192,26</b>	215238	17	3	1	<b>185,38</b>	216026	24	3	1	<b>75,25</b>
211982	16	3	1	<b>68,44</b>	213094	12	3	1	<b>244,24</b>	215240	17	3	1	<b>176,56</b>	216026/AL	24	3	1	<b>95,39</b>
211985	16	3	1	<b>70,50</b>	213098	14	3	1	<b>493,09</b>	215242	17	3	1	<b>176,56</b>	216026/V	24	3	1	<b>75,25</b>
211990	16	3	1	<b>37,95</b>	213098/E	15	3	1	<b>285,83</b>	215244	17	3	1	<b>176,56</b>	216028	24	3	1	<b>75,25</b>
211991	16	3	1	<b>37,95</b>	213100	14	3	1	<b>856,43</b>	215246	17	3	1	<b>190,65</b>	216028/AL	24	3	1	<b>95,39</b>
211992	16	3	1	<b>38,06</b>	213102	14	3	1	<b>493,09</b>	215248	17	3	1	<b>185,38</b>	216028/V	24	3	1	<b>75,25</b>
211993	16	3	1	<b>38,06</b>	213102/E	15	3	1	<b>285,83</b>	215250	17	3	1	<b>176,56</b>	216030	24	3	1	<b>75,25</b>
211994	16	3	1	<b>38,06</b>	213110	10	3	1	<b>222,00</b>	215503	27	6	1	<b>382,07</b>	216030/V	24	3	1	<b>75,25</b>
211995	16	3	1	<b>37,95</b>	215000	16	6	1	<b>889,38</b>	215511	27	6	1	<b>434,08</b>	216032	24	3	1	<b>75,25</b>
211996	16	3	1	<b>48,81</b>	215002	16	3	1	<b>93,68</b>	215513	27	6	1	<b>317,87</b>	216032/V	24	3	1	<b>75,25</b>
211997	16	3	1	<b>50,53</b>	215004	16	3	1	<b>132,65</b>	215523	27	6	1	<b>136,89</b>	216036	24	3	1	<b>75,25</b>
211998	16	3	1	<b>35,85</b>	215006	16	3	1	<b>132,65</b>	215525	27	6	1	<b>176,00</b>	216038	24	3	1	<b>75,25</b>
211999	16	3	1	<b>35,97</b>	215008	16	3	1	<b>132,25</b>	215527	27	6	1	<b>117,32</b>	216040	24	3	1	<b>74,67</b>
212000	16	3	1	<b>35,97</b>	215010	16	3	1	<b>132,25</b>	215529	27	6	1	<b>130,48</b>	216042	24	3	1	<b>74,67</b>
212005	10	3	1	<b>339,47</b>	215012	16	3	1	<b>132,04</b>	215531	27	6	1	<b>130,48</b>	216042/AL	24	6	1	<b>131,19</b>
212007	16	3	1	<b>93,16</b>	215014	16	3	1	<b>101,22</b>	215533	27	6	1	<b>149,08</b>	216044	24	3	1	<b>75,25</b>
212008	16	3	1	<b>95,61</b>	215016	16	3	1	<b>101,22</b>	215641	19	3	1	<b>91,11</b>	216044/AL	24	6	1	<b>131,19</b>
212200	10	3	1	<b>403,55</b>	215018	16	3	1	<b>101,22</b>	215642	19	3	1	<b>91,11</b>	216046	24	3	1	<b>75,25</b>
212206	10	3	1	<b>311,14</b>	215020	16	3	1	<b>101,23</b>	215643	19	3	1	<b>91,11</b>	216046/AL	24	6	1	<b>131,19</b>
212208	10	3	1	<b>306,10</b>	215022	16	3	1	<b>101,22</b>	215644	19	3	1	<b>91,11</b>	216048	24	3	1	<b>75,25</b>
212210	10	3	1	<b>318,74</b>	215024	16	3	1	<b>101,73</b>	215645	19	3	1	<b>75,25</b>	216048/AL	24	6	1	<b>131,19</b>
212212	10	3	1	<b>159,50</b>	215026	16	3	1	<b>176,56</b>	215646	19	3	1	<b>75,25</b>	216050	24	3	1	<b>75,25</b>
212214	10	3	1	<b>344,65</b>	215028	16	3	1	<b>176,59</b>	215648	19	3	1	<b>75,25</b>	216052	24	3	1	<b>75,25</b>
212216	10	3	1	<b>163,43</b>	215030	16	3	1	<b>132,65</b>	215650	19	3	1	<b>91,11</b>	216052/AL	24	6	1	<b>131,19</b>
212218	10	3	1	<b>276,91</b>	215032	16	3	1	<b>132,65</b>	215651	19	3	1	<b>90,49</b>	216054	24	3	1	<b>75,25</b>
212220	10	3	1	<b>484,70</b>	215034	16	3	1	<b>132,65</b>	215652	19	3	1	<b>90,49</b>	216054/AL	24	6	1	<b>131,19</b>
212222	10	3	1	<b>156,28</b>	215036	16	3	1	<b>132,65</b>	215653	19	3	1	<b>90,49</b>	216056	24	3	1	<b>75,25</b>
212226	10	3	1	<b>318,74</b>	215038	16	3	1	<b>132,25</b>	215654	19	3	1	<b>75,25</b>	216056/AL	24	6	1	<b>131,19</b>
212228	10	3	1	<b>218,21</b>	215040	16	3	1	<b>132,65</b>	215655	19	3	1	<b>75,25</b>	216060	24	3	1	<b>75,25</b>
212372	28	3	1	<b>402,34</b>	215042	16	3	1	<b>203,40</b>	215765	19	6	1	<b>1.028,36</b>	216060/AL	24	6	1	<b>131,19</b>
212376	28	3	1	<b>402,34</b>	215044	16	3	1	<b>203,40</b>	215770-1	19	6	1	<b>2.046,95</b>	216062/AL	24	3	1	<b>95,39</b>
212380	28	3	1	<b>438,53</b>	215046	16	3	1	<b>204,62</b>	215770-1-N	19	6	1	<b>1.635,31</b>	216064	24	3	1	<b>36,40</b>
212382	28	3	1	<b>402,34</b>	215048	16	3	1	<b>204,62</b>	215770-1-NO	19	6	1	<b>1.844,13</b>	216065	24	3	1	<b>36,40</b>
212384	28	3	1	<b>402,34</b>	215050	16	3	1	<b>204,62</b>	215770/M-1	19	6	1	<b>2.651,37</b>	216066	24	3	1	<b>36,40</b>
212388	28	3	1	<b>402,34</b>	215100	17	6	1	<b>1.126,24</b>	215770/M-1-N	19	6	1	<b>2.248,16</b>	216067	24	3	1	<b>36,40</b>
212390	28	3	1	<b>438,31</b>	215102	17	3	1	<b>126,64</b>	215770/M-1-NO	19	6	1	<b>2.435,08</b>	216068	24	3	1	<b>36,40</b>
212392	28	3	1	<b>418,46</b>	215104	17	3	1	<b>147,72</b>	215800	19	6	1	<b>1.885,28</b>	216069	24	3	1	<b>36,40</b>
212394	28	3	1	<b>438,53</b>	215106	17	3	1	<b>147,72</b>	215852	19	3	1	<b>90,12</b>	216070	24	3	1	<b>36,40</b>
212396	28	3	1	<b>441,90</b>	215108	17	3	1	<b>147,72</b>	215854	19	3	1	<b>90,12</b>	216071	24	3	1	<b>36,40</b>
212580	28	3	1	<b>416,61</b>	215110	17	3	1	<b>142,37</b>	215856	19	3	1	<b>85,31</b>	216072	24	3	1	<b>36,40</b>
212581	28	3	1	<b>416,61</b>	215112	17	3	1	<b>147,83</b>	215858	19	3	1	<b>90,12</b>	216074	24	3	1	<b>36,40</b>
212582	28	3	1	<b>416,61</b>	215114	17	3	1	<b>147,72</b>	215859	19	3	1	<b>90,12</b>	216076	24	3	1	<b>36,40</b>
212583	28	3	1	<b>416,61</b>	215116	17	3	1	<b>155,60</b>	215860	19	3	1	<b>90,12</b>	216078	24	3	1	<b>36,40</b>
212584	28	3	1	<b>416,61</b>	215118	17	3	1	<b>160,59</b>	215861	19	3	1	<b>90,12</b>	216080	24	3	1	<b>36,40</b>
212585	28	3	1	<b>416,61</b>	215120	17	3	1	<b>109,53</b>	215862	19	3	1	<b>90,16</b>	216082	24	3	1	<b>36,40</b>
212586	28	3	1	<b>416,61</b>	215122	17	3	1	<b>99,97</b>	215864	19	3	1	<b>90,12</b>	216084	24	3	1	<b>36,40</b>
212587	28	3	1	<b>416,61</b>	215124	17	3	1	<b>261,27</b>	215866	19	3	1	<b>90,12</b>	216086	24	3	1	<b>36,40</b>
212588	28	3	1	<b>416,61</b>	215126	17	3	1	<b>261,27</b>	215868	19	3	1	<b>90,12</b>	216088	24	3	1	<b>71,35</b>
212804	11	3	1	<b>161,06</b>	215128	17	3	1	<b>261,27</b>	215869	19	3	1	<b>90,12</b>	216090	24	3	1	<b>71,35</b>
212806	11	3	1	<b>166,36</b>	215130	17	3	1	<b>289,81</b>	215870	19	3	1	<b>90,12</b>	216092	24	3	1	<b>71,35</b>
213000	13	3	1	<b>192,24</b>	215142	17	3	1	<b>147,72</b>	215872	19	3	1	<b>90,12</b>	216094	24	3	1	<b>71,35</b>
213002	13	3	1	<b>66,90</b>	215144	17	3	1	<b>147,72</b>	215881-1	19	6	1	<b>2.237,15</b>	216096	24	3	1	<b>71,35</b>
213004	13	3	1	<b>66,90</b>	215146	17	3	1	<b>147,72</b>	215881-1									

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216149	25	3	1	<b>91,75</b>	216435-1	5	6	1	<b>2.978,89</b>	216766	18	6	1	<b>3.422,52</b>	216824/V	21	3	1	<b>82,59</b>
216150	25	3	1	<b>265,65</b>	216435-1-N	5	6	1	<b>2.345,19</b>	216766/65	19	6	1	<b>4.032,30</b>	216826	21	3	1	<b>82,59</b>
216152	25	3	1	<b>265,65</b>	216435-1-NO	5	6	1	<b>2.594,03</b>	216767	18	6	1	<b>3.319,31</b>	216826/AL	22	3	1	<b>80,28</b>
216153	25	3	1	<b>91,75</b>	216436-1	6	6	1	<b>1.956,46</b>	216767/65	18	6	1	<b>3.888,00</b>	216826/V	21	3	1	<b>82,59</b>
216154	25	3	1	<b>265,65</b>	216436-1-N	6	6	1	<b>1.494,56</b>	216768	18	6	1	<b>1.510,04</b>	216828	21	3	1	<b>82,59</b>
216156	25	3	1	<b>265,65</b>	216436-1-NO	6	6	1	<b>1.755,10</b>	216770	29	6	1	<b>17.775,83</b>	216828/AL	22	3	1	<b>80,28</b>
216157	25	3	1	<b>91,75</b>	216436/F-1	6	6	1	<b>1.956,46</b>	216772	29	6	1	<b>1.518,35</b>	216828/V	21	3	1	<b>82,59</b>
216160	24	3	1	<b>219,61</b>	216436/F-1-N	6	6	1	<b>1.494,56</b>	216775	29	6	1	<b>1.062,86</b>	216830	21	3	1	<b>82,59</b>
216162	24	3	1	<b>219,61</b>	216436/F-1-NO	6	6	1	<b>1.755,10</b>	216776	29	6	1	<b>2.884,84</b>	216830/V	21	3	1	<b>82,59</b>
216164	24	3	1	<b>219,61</b>	216503-1	23	6	1	<b>5.797,50</b>	216777	29	6	1	<b>3.188,51</b>	216831-SET	20	6	1	<b>1.043,58</b>
216166	24	3	1	<b>219,61</b>	216503-1-N	23	6	1	<b>5.116,54</b>	216778	29	6	1	<b>278,06</b>	216832	21	3	1	<b>82,59</b>
216168	24	3	1	<b>219,61</b>	216503-1-NO	23	6	1	<b>5.467,57</b>	216778/L	29	6	1	<b>561,78</b>	216834	21	3	1	<b>82,59</b>
216170	24	3	1	<b>208,33</b>	216552	25	3	1	<b>272,35</b>	216779	29	6	1	<b>278,06</b>	216836	21	3	1	<b>82,59</b>
216172	24	3	1	<b>219,61</b>	216554	25	3	1	<b>272,35</b>	216779/L	29	6	1	<b>561,78</b>	216838	21	3	1	<b>82,59</b>
216174	24	3	1	<b>219,61</b>	216556	25	3	1	<b>272,35</b>	216780	29	6	1	<b>278,06</b>	216840	21	3	1	<b>82,59</b>
216176	24	3	1	<b>219,61</b>	216562	25	3	1	<b>356,91</b>	216780/L	29	6	1	<b>561,78</b>	216840/AL	22	3	1	<b>80,28</b>
216178	24	3	1	<b>155,53</b>	216564	25	3	1	<b>356,91</b>	216781	29	6	1	<b>278,06</b>	216840/AL-SET	21	6	1	<b>883,02</b>
216180	24	3	1	<b>155,53</b>	216566	25	3	1	<b>356,91</b>	216781/L	29	6	1	<b>561,78</b>	216842	21	3	1	<b>82,59</b>
216182	24	3	1	<b>155,53</b>	216570	25	3	1	<b>52,73</b>	216782	29	6	1	<b>345,26</b>	216842/AL	22	3	1	<b>80,28</b>
216236	28	6	1	<b>2.290,34</b>	216574	25	3	1	<b>52,73</b>	216782/L	29	6	1	<b>561,78</b>	216844	21	3	1	<b>82,59</b>
216250	28	6	1	<b>5.192,24</b>	216576	25	3	1	<b>52,73</b>	216783	29	6	1	<b>278,06</b>	216844/AL	22	3	1	<b>80,28</b>
216254	27	3	1	<b>20,62</b>	216578	25	3	1	<b>52,73</b>	216783/L	29	6	1	<b>561,78</b>	216846	21	3	1	<b>82,59</b>
216304	28	3	1	<b>638,25</b>	216580	25	3	1	<b>225,12</b>	216784	29	6	1	<b>278,06</b>	216846/AL	22	3	1	<b>80,28</b>
216306	28	3	1	<b>638,25</b>	216582	25	3	1	<b>225,12</b>	216784/L	29	6	1	<b>561,78</b>	216848	21	3	1	<b>82,59</b>
216308	28	3	1	<b>638,25</b>	216601-1	23	6	1	<b>4.081,16</b>	216785	29	6	1	<b>278,06</b>	216850	21	3	1	<b>82,59</b>
216310	28	3	1	<b>638,25</b>	216601-1-N	23	6	1	<b>3.368,03</b>	216785/L	29	6	1	<b>561,78</b>	216850/AL	22	3	1	<b>80,28</b>
216312	28	3	1	<b>638,25</b>	216601-1-NO	23	6	1	<b>3.791,36</b>	216786	29	6	1	<b>344,28</b>	216852	21	3	1	<b>82,59</b>
216314	28	3	1	<b>638,25</b>	216622-1	23	6	1	<b>4.215,18</b>	216786/L	29	6	1	<b>789,52</b>	216852/AL	22	3	1	<b>80,28</b>
216316	28	3	1	<b>638,25</b>	216622-1-N	23	6	1	<b>3.435,26</b>	216787	29	6	1	<b>344,28</b>	216854	21	3	1	<b>82,59</b>
216318	28	3	1	<b>638,25</b>	216622-1-NO	23	6	1	<b>4.075,20</b>	216787/L	29	6	1	<b>789,52</b>	216854/AL	22	3	1	<b>80,28</b>
216320	28	3	1	<b>638,25</b>	216625-1	22	6	1	<b>5.078,01</b>	216788	29	6	1	<b>344,28</b>	216856	21	3	1	<b>82,59</b>
216322	28	3	1	<b>638,25</b>	216625-1-N	22	6	1	<b>4.430,58</b>	216788/L	29	6	1	<b>789,52</b>	216856/AL	22	3	1	<b>80,28</b>
216324	28	3	1	<b>638,25</b>	216625-1-NO	22	6	1	<b>4.763,96</b>	216789	29	6	1	<b>344,28</b>	216858/AL	22	3	1	<b>80,28</b>
216326	28	3	1	<b>638,25</b>	216626	22	6	1	<b>995,31</b>	216789/L	29	6	1	<b>789,52</b>	216863	22	3	1	<b>96,32</b>
216328	28	3	1	<b>638,25</b>	216627	22	6	1	<b>1.106,44</b>	216790	30	6	1	<b>3.947,68</b>	216865	22	3	1	<b>96,32</b>
216330	28	3	1	<b>638,25</b>	216628	22	6	1	<b>2.159,73</b>	216791	30	6	1	<b>4.555,00</b>	216867	22	3	1	<b>96,32</b>
216332	28	3	1	<b>638,25</b>	216660	25	6	1	<b>2.565,24</b>	216792	30	6	1	<b>3.340,35</b>	216869	22	3	1	<b>96,32</b>
216334	28	3	1	<b>638,25</b>	216660/B	26	3	1	<b>8,58</b>	216793	30	6	1	<b>470,69</b>	216871	22	3	1	<b>96,32</b>
216336	28	3	1	<b>638,25</b>	216660/L	26	3	1	<b>2,87</b>	216794	30	6	1	<b>470,69</b>	216873	22	3	1	<b>96,32</b>
216338	28	3	1	<b>638,25</b>	216661	26	6	1	<b>2.256,87</b>	216800-1	20	6	1	<b>2.892,44</b>	216875	22	3	1	<b>96,32</b>
216340	28	3	1	<b>638,25</b>	216663-1	25	6	1	<b>2.603,00</b>	216800-1-N	20	6	1	<b>2.065,09</b>	216877	22	3	1	<b>96,32</b>
216348	28	6	1	<b>2.295,87</b>	216663-1-N	25	6	1	<b>2.175,91</b>	216800-1-NO	20	6	1	<b>2.378,20</b>	216878	21	3	1	<b>200,71</b>
216352	28	6	1	<b>9.778,27</b>	216663-1-NO	25	6	1	<b>2.373,88</b>	216801-1	20	6	1	<b>2.237,15</b>	216880	21	3	1	<b>200,71</b>
216355	28	6	1	<b>4.835,78</b>	216663/M-1	25	6	1	<b>3.126,84</b>	216801-1-N	20	6	1	<b>1.763,49</b>	216882	21	3	1	<b>200,71</b>
216357	28	6	1	<b>5.403,99</b>	216663/M-1-N	25	6	1	<b>2.705,85</b>	216801-1-NO	20	6	1	<b>2.005,70</b>	216884	21	3	1	<b>200,71</b>
216359	30	6	1	<b>8.084,85</b>	216663/M-1-NO	25	6	1	<b>2.899,94</b>	216801/M-1	20	6	1	<b>2.385,42</b>	216886	21	3	1	<b>200,71</b>
216364	28	3	1	<b>855,65</b>	216665	25	6	1	<b>969,49</b>	216801/M-1-N	20	6	1	<b>2.405,50</b>	216888	21	3	1	<b>200,71</b>
216402	5	6	1	<b>1.956,51</b>	216665-U	18	6	1	<b>1.376,14</b>	216801/M-1-NO	20	6	1	<b>2.656,17</b>	216890	21	3	1	<b>200,71</b>
216404	5	6	1	<b>4.544,10</b>	216666	26	6	1	<b>1.018,39</b>	216802	20	6	1	<b>1.734,26</b>	216892	21	3	1	<b>200,71</b>
216408	5	6	1	<b>3.221,54</b>	216666-U	18	6	1	<b>1.462,16</b>	216804	20	3	1	<b>742,87</b>	216894	21	3	1	<b>200,71</b>
216410	5	6	1	<b>3.921,34</b>	216667-1	26	6	1	<b>2.723,89</b>	216805-SET	20	6	1	<b>1.083,17</b>	216896	21	3	1	<b>155,53</b>
216415	5	6	1	<b>3.839,13</b>	216667-1-N	26	6	1	<b>2.295,34</b>	216806	21	3	1	<b>75,25</b>	216898	21	3	1	<b>155,53</b>
216416	5	6	1	<b>9.014,76</b>	216667-1-NO	26	6	1	<b>2.494,97</b>	216806/V	21	3	1	<b>91,11</b>	216899	21	3	1	<b>155,53</b>
216417	5	6	1	<b>6.787,99</b>	216667/M-1	26	6	1	<b>3.247,72</b>	216806/V-SET	21	3	1	<b>1.036,85</b>	216926	21	3	1	<b>180,26</b>
216418-1	6	6	1	<b>2.782,55</b>	216667/M-1-N	26	6	1	<b>2.828,20</b>	216807	20	6	1	<b>1.055,13</b>	216928	21	3	1	<b>180,26</b>
216418-1-N	6	6	1	<b>2.285,07</b>	216667/M-1-NO	26	6	1	<b>3.023,98</b>	216808	21	3	1	<b>82,59</b>	216930	21	3	1	<b>180,26</b>
216418-1-NO	6	6	1	<b>2.640,20</b>	216668/M-1	26	6	1	<b>5.772,99</b>	216808/V	21	3	1	<b>82,59</b>	216932	21	3	1	<b>180,26</b>
216419-1	6	6	1	<b>2.832,42</b>	216668/M-1-N	26	6	1	<b>5.059,87</b>	216810	21	3	1	<b>82,59</b>	216934	21	3	1	<b>180,26</b>
216419-1-N	6	6	1	<b>2.323,85</b>	216668/M-1-NO	26	6	1	<b>5.483,20</b>	216810/V	21	3	1	<b>82,59</b>	216936	21	3	1	<b>180,26</b>
216419-1-NO	6	6	1	<b>2.570,79</b>	216669-1	26	6	1	<b>1.863,11</b>	216812	21	3	1	<b>82,59</b>	216938	21	3	1	<b>180,26</b>
216420-1	6	6	1	<b>3.633,08</b>	216669-1-N	25	6	1	<b>1.530,73</b>	216812/AL	21	3	1	<b>97,87</b>	216940	21	3	1	<b>180,26</b>
216420-1-N	6	6	1	<b>2.754,01</b>	216669-1-NO	25	6	1	<b>1.910,94</b>	216812/AL-SET	21	6	1	<b>978,59</b>	216942	21	3	1	<b>180,26</b>
216420-1-NO	6	6	1	<b>2.995,06</b>	216669/M-1	25	6	1	<b>2.223,79</b>	216812/V	21	3	1	<b>82,59</b>	216944	21	3	1	<b>180,26</b>
216421	5	6	1	<b>8.998,01</b>	216669/M-1-N	2													



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Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR
217030	11	6	1	702,19	220112	121	2	1	7,22	220386	53	3	1	627,22	220608	129	3	1	490,73
217040	11	6	1	912,26	220123	66	1	1	114,08	220387	53	3	1	830,17	220610	129	3	1	2.220,48
217050	16	6	1	7.827,49	220126	67	1	1	197,45	220388	53	3	1	643,50	220612	74	3	1	679,68
217052	16	3	1	289,78	220128	93	2	1	99,73	220389	115	3	1	217,06	220620	127	3	1	104,13
217056	16	3	1	332,70	220129	93	2	1	108,09	220390	40	3	1	334,46	220622	127	3	1	135,02
217058	16	3	1	339,43	220130	120	1	1	315,74	220391	44	3	1	389,74	220626	127	3	1	131,50
217060	16	3	1	332,70	220135	121	1	1	1.876,70	220392	129	3	1	345,62	220628	127	2	1	101,54
217062	16	3	1	289,78	220136	126	1	1	1.420,96	220398	115	3	1	176,80	220640	92	3	1	487,58
217064	16	3	1	208,89	220137	125	2	1	951,24	220399	128	2	1	1,70	220642	92	3	1	520,15
217066	16	3	1	355,92	220140	121	1	1	989,75	220400	126	1	1	4.829,89	220644	129	2	1	750,71
217068	16	3	1	256,67	220141	125	2	1	1.013,14	220402	72	1	1	449,84	220650	127	2	1	161,59
217070	16	3	1	208,89	220142	120	1	1	360,30	220404	74	1	1	593,50	220652	78	2	1	450,99
217072	16	3	1	208,89	220146	75	1	1	1.159,96	220410	72	1	1	109,30	220653	127	2	1	150,76
217074	16	3	1	208,89	220147	73	1	1	1.229,94	220412	72	1	1	86,89	220654	127	3	1	231,63
217076	16	3	1	208,89	220148	67	1	1	773,47	220414	72	1	1	57,87	220655	128	2	1	37,19
217078	16	3	1	78,32	220152/1	121	2	1	755,53	220415	72	1	1	588,87	220703	117	1	1	84,64
217080	16	3	1	78,32	220153	125	2	1	560,51	220416	72	1	1	70,34	220704	117	1	1	142,89
217082	16	3	1	78,32	220154	121	2	1	826,31	220418	72	1	1	10,86	220705	120	2	1	676,32
217084	16	3	1	78,32	220156	121	2	1	1.067,31	220418/80	72	1	1	20,75	220706	120	2	1	277,87
217086	16	3	1	78,32	220168	121	2	1	445,19	220420	72	1	1	10,86	220770	127	3	1	118,24
217088	16	3	1	176,02	220168/VDE	121	2	1	471,93	220420/80	72	1	1	21,28	220800	119	2	1	349,11
217090	16	3	1	288,16	220169	121	2	1	506,40	220422	72	1	1	11,27	220802	119	2	1	355,72
217092	16	3	1	176,02	220170	125	2	1	549,97	220422/80	72	1	1	23,28	220804	119	2	1	338,01
217094	16	3	1	176,02	220171	124	2	1	1.685,96	220424	72	1	1	11,50	220805	120	2	1	938,06
217096	16	3	1	176,02	220176	125	2	1	844,17	220424/80	72	1	1	24,45	220810	119	2	1	1.229,46
217098	16	3	1	176,02	220177	125	2	1	1.105,79	220426	72	1	1	12,26	220812	119	2	1	458,95
217100	26	6	1	1.586,06	220179	125	2	1	1.094,73	220426/80	72	1	1	24,45	220814	119	2	1	439,61
217101	26	6	1	566,44	220192	125	2	1	916,67	220428	72	1	1	13,45	221131	126	2	1	53,90
217102	26	6	1	1.711,93	220193	126	2	1	49,61	220428/80	72	1	1	26,91	221133	126	2	1	29,73
217103	27	6	1	1.586,06	220205/EN	75	1	1	1.038,92	220430	72	1	1	14,73	221134	128	2	1	0,87
217104	27	6	1	1.586,06	220211	118	2	1	205,58	220430/80	72	1	1	28,76	221135	128	2	1	1,24
217105	27	6	1	1.586,06	220212	73	1	1	750,52	220432	72	1	1	16,37	221136	128	2	1	2,11
217107	27	6	1	818,22	220213	118	2	1	145,39	220434	72	1	1	12,69	221137	128	2	1	2,68
217602	29	6	1	1.165,20	220221	123	2	1	471,86	220434/122	72	1	1	22,67	221138	128	2	1	7,41
217604	29	6	1	1.357,89	220224	117	2	1	43,46	220436	72	1	1	12,69	221277	118	2	1	375,43
217610	29	3	1	61,76	220229	125	2	1	795,04	220436/122	72	1	1	22,67	221278	118	2	1	476,81
217612	29	3	1	80,09	220232	123	1	1	1.013,07	220438	72	1	1	12,92	221279	118	2	1	872,82
217614	29	3	1	84,37	220235	123	2	1	487,84	220438/122	72	1	1	22,67	221280	118	2	1	437,04
217616	29	3	1	99,36	220239	126	1	1	2.046,06	220440	72	1	1	14,73	230002	110	2	1	206,99
217618	29	3	1	123,50	220244	125	2	1	591,19	220440/122	72	1	1	22,67	230010	106	2	1	1,47
217620	29	3	1	185,27	220248	122	2	1	954,84	220450	74	1	1	143,70	230020	106	2	1	1,55
217622	29	3	1	228,98	220252	124	2	1	553,50	220452	74	1	1	91,33	230020/CO	106	2	1	1,19
217630	29	3	1	61,76	220254	124	2	1	1.203,94	220454	74	1	1	61,60	230030	106	2	1	1,86
217632	29	3	1	78,18	220255	123	2	1	514,00	220456	74	1	1	76,31	230030/CO	106	2	1	1,34
217634	29	3	1	80,09	220257	123	2	1	527,93	220458	74	1	1	14,07	230032	106	2	1	1,86
217636	29	3	1	82,33	220263	126	2	1	611,21	220460	74	1	1	14,07	230032/CO	106	2	1	2,08
217638	29	3	1	90,04	220264	126	2	1	777,78	220462	74	1	1	14,07	230040	106	2	1	1,86
217640	29	3	1	117,40	220265	117	2	1	191,16	220464	74	1	1	14,07	230040/CO	106	2	1	2,08
217642	29	3	1	175,90	220267	123	2	1	477,53	220466	74	1	1	14,22	230050	106	2	1	2,01
217644	29	3	1	205,80	220268	123	2	1	745,80	220468	74	1	1	15,11	230050/CO	106	2	1	2,65
217646	29	3	1	225,77	220269	123	2	1	402,09	220470	74	1	1	15,84	230060	106	2	1	2,71
217650	29	3	1	1.725,63	220272	124	2	1	1.461,28	220478	74	1	1	18,58	230060/CO	106	2	1	3,94
217652	29	3	1	2.235,45	220273	124	2	1	946,42	220480	74	1	1	19,18	230064	106	2	1	2,31
217654	29	3	1	3.104,69	220280	118	2	1	169,39	220482	74	1	1	23,91	230064/CO	106	2	1	1,82
217660	29	3	1	27,97	220281	118	2	1	330,77	220484	74	1	1	29,32	230066	106	2	1	2,17
217662	29	3	1	64,95	220282	118	2	1	205,79	220486	74	1	1	20,33	230066/CO	106	2	1	2,45
217664	29	3	1	18,32	220292	117	2	1	176,84	220488	74	1	1	20,33	230070	106	2	1	2,17
217666	29	3	1	22,81	220293	120	2	1	1.157,30	220490	74	1	1	20,33	230070/CO	106	2	1	2,45
220006	117	2	1	35,36	220294	120	2	1	548,90	220492	74	1	1	20,33	230080	106	2	1	2,35
220014	120	1	1	237,62	220298	120	2	1	329,13	220494	74	1	1	22,14	230080/CO	106	2	1	2,89
220016	117	1	1	107,26	220303	126	2	1	1.095,36	220500	119	2	1	325,23	230084	106	2	1	2,62
220017	70	1	1	280,61	220307	124	2	1	1.199,75	220506	118	2	1	66,81	230084/CO	106	2	1	3,29
220022	120	2	1	117,51	220309	123	2	1	1.137,86	220510	119	2	1	381,01	230090	106	2	1	2,62
220023	122	2	1	321,01	220313	117	2	1	37,61	220550	119	2	1	385,34	230090/CO	106	2	1	3,82
220027	123	2	1	495,08	220327	124	2	1	1.372,60	220556	119	2	1	566,06	230100	106	2	1	3,70
220028	122	2	1	222,36	220329	124	2	1	1.355,83	220576	71	1	1	366,09	230100/CO	106	2	1	4,88
220031	122	2	1	254,29	220353	72	1	1	22,67	220577	71	1	1	69,65	230110	106	2	1	4,04
220033	126	1	1	1.466,75	220353/122	72	1	1	27,07	220578	71	1	1	53,17	230110/CO	106	2	1	5,71
220038	122	2	1	345,24	220355	128	2	1	16,41	220579	71	1	1	30,60	230120	106	2	1	4,49
220040	124	2	1	666,40	220356	128	2	1	19,85	220580	71	1	1	34,39	230120/CO	106	2	1	7,05
220042	122	2	1	563,40	220357/10	72	1	1	25,68	220581	71	1	1	8,50	230130	106	2		

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230204	106	2	1	8,35	230475	107	2	1	42,19	230908	107	2	1	2,37	231532	106	2	1	17,78
230204/CO	106	2	1	20,71	230478/1	107	2	1	34,94	230910	107	2	1	2,70	231540	106	2	1	22,49
230210	106	2	1	8,35	230479	107	2	1	75,11	230912	107	2	1	2,55	231544	106	2	1	22,81
230210/CO	106	2	1	19,65	230616	106	2	1	0,58	230914	107	2	1	2,73	231546	106	2	1	49,64
230220	106	2	1	8,35	230618	106	2	1	0,61	230916	107	2	1	2,81	231700	107	2	1	1,04
230220/CO	106	2	1	22,63	230620	106	2	1	0,69	230918	107	2	1	2,89	231702	107	2	1	1,10
230230	106	2	1	8,80	230622	106	2	1	0,72	230920	107	2	1	2,74	231704	107	2	1	1,15
230230/CO	106	2	1	22,63	230626	106	2	1	1,06	230922	107	2	1	3,13	231706	107	2	1	1,48
230240	106	2	1	10,42	230628	106	2	1	1,05	230924	107	2	1	3,79	231708	107	2	1	1,37
230240/CO	106	2	1	27,32	230630	106	2	1	1,58	230926	107	2	1	3,61	231710	107	2	1	2,24
230244	106	2	1	10,69	230634	106	2	1	1,86	230928	107	2	1	4,38	231712	107	2	1	2,45
230244/CO	106	2	1	28,12	230636	106	2	1	5,50	230930/1	107	2	1	4,18	231714	107	2	1	2,89
230250	106	2	1	12,24	230676	108	2	1	94,28	230932	107	2	1	8,44	231716	107	2	1	4,04
230250/CO	106	2	1	30,14	230676/K	108	2	1	141,95	230934	107	2	1	9,71	231718	107	2	1	4,27
230301/TIN	106	2	1	298,89	230677	108	2	1	104,75	230936	107	2	1	6,48	231750	106	2	1	13,53
230312	106	2	1	38,63	230677/K	108	2	1	152,42	230938	107	2	1	3,55	231752	106	2	1	13,62
230312/R	106	2	1	28,26	230679	108	2	1	11,51	230940	107	2	1	4,89	231754	106	2	1	15,26
230312/TIN	106	2	1	46,13	230681/K	108	2	1	36,13	230942	107	2	1	4,82	231756	106	2	1	15,74
230314	106	2	1	74,67	230682	111	2	1	16,90	230944	107	2	1	8,44	231758	106	2	1	19,91
230314/R	106	2	1	54,05	230683	111	2	1	25,83	230946	107	2	1	9,90	231760	106	2	1	31,75
230314/TIN	106	2	1	88,85	230689	108	2	1	28,80	230948	107	2	1	4,33	231766	106	2	1	48,27
230330	106	2	1	1,44	230691	108	2	1	34,06	230950	107	2	1	5,84	231803	109	2	1	12,97
230331	106	2	1	1,78	230701	108	2	1	21,00	230952	107	2	1	7,96	231900	109	2	1	14,37
230332	106	2	1	3,07	230702	108	2	1	14,16	230954/1	107	2	1	9,41	231901/21	109	2	1	14,24
230334	106	2	1	1,55	230704	108	2	1	60,23	230956	107	2	1	11,48	231902	109	2	1	14,88
230338	106	2	1	1,77	230705	108	2	1	123,50	230958	107	2	1	6,40	231904	109	2	1	15,37
230340	106	2	1	1,86	230706	108	2	1	78,56	230960	107	2	1	10,03	231904/29	109	2	1	15,76
230342	106	2	1	2,01	230708	108	2	1	83,35	230962/1	107	2	1	11,89	231906	109	2	1	15,64
230344	106	2	1	2,01	230709	108	2	1	40,85	230964	107	2	1	13,86	231908	109	2	1	16,36
230346	106	2	1	2,47	230711	108	2	1	226,18	230966	107	2	1	10,60	231910	109	2	1	17,08
230352	106	2	1	3,05	230720	108	2	1	109,52	230968	107	2	1	16,90	231912	109	2	1	17,67
230354	106	2	1	2,01	230721	108	2	1	156,91	230970	107	2	1	8,61	231912/38	109	2	1	17,30
230356	106	2	1	4,12	230722	108	2	1	42,85	230972	107	2	1	10,69	231914	109	2	1	18,05
230358	106	2	1	5,20	230723	108	2	1	52,38	230974	107	2	1	15,39	231914/46	109	2	1	18,79
230360	106	2	1	5,20	230725	108	2	1	116,69	230976	107	2	1	22,32	231916	109	2	1	18,81
230362	106	2	1	2,84	230727	108	2	1	69,13	230978	107	2	1	22,81	231918	109	2	1	19,41
230364	106	2	1	6,19	230731	108	2	1	70,71	230979	107	2	1	15,09	231920	109	2	1	20,95
230370	106	2	1	3,73	230732	106	2	1	2,22	230982	111	2	1	8,12	231922	109	2	1	21,44
230372	106	2	1	4,42	230734	106	2	1	2,56	230984	111	2	1	8,35	231924	109	2	1	23,62
230376	106	2	1	6,35	230736	106	2	1	2,78	230986	111	2	1	8,35	231926	109	2	1	23,89
230378	106	2	1	7,28	230738	106	2	1	2,78	230988	111	2	1	10,34	231928	109	2	1	24,25
230380	106	2	1	8,07	230740	106	2	1	3,15	231050	111	2	1	7,55	231929	109	2	1	73,65
230382	106	2	1	9,94	230742	106	2	1	3,33	231052	111	2	1	7,81	231930	109	2	1	25,42
230395	107	2	1	51,52	230746	106	2	1	3,79	231054	111	2	1	7,81	231931	109	2	1	26,18
230396	107	2	1	63,89	230800	111	2	1	31,27	231056	111	2	1	13,18	231932	109	2	1	26,84
230397	107	2	1	76,21	230802	111	2	1	34,02	231058	111	2	1	23,10	231934	109	2	1	28,08
230398	107	2	1	60,27	230804	111	2	1	31,27	231060	111	2	1	35,45	231936	109	2	1	29,33
230400	106	2	1	13,48	230806	111	2	1	66,51	231062	111	2	1	63,92	231938	109	2	1	41,84
230402	106	2	1	16,80	230808	111	2	1	34,02	231064	111	2	1	118,98	231939/111	109	2	1	47,73
230404	106	2	1	19,69	230810	111	2	1	28,22	231070	111	2	1	15,74	231940	109	2	1	48,85
230406	106	2	1	21,92	230812	111	2	1	26,65	231072	111	2	1	18,68	231940/127	109	2	1	53,16
230408	106	2	1	38,02	230814	111	2	1	11,30	231074	111	2	1	24,57	231940/152	109	2	1	72,30
230410	106	2	1	30,77	230816	111	2	1	26,21	231076	111	2	1	31,95	231940/210	109	2	1	118,47
230412	106	2	1	36,30	230818	111	2	1	11,30	231080	112	2	1	100,77	231942	109	2	1	16,67
230414	106	2	1	42,98	230820	111	2	1	36,27	231082	112	2	1	108,15	231944	109	2	1	17,22
230430	107	2	1	4,97	230822	111	2	1	11,30	231280	112	2	1	273,96	231946	109	2	1	17,22
230431	107	2	1	5,78	230824	111	2	1	11,30	231282	112	2	1	653,81	231950	109	2	1	18,63
230432	107	2	1	4,97	230826	111	2	1	22,18	231300	108	2	1	31,95	231952	109	2	1	19,11
230433	107	2	1	5,99	230828	111	2	1	13,76	231301	108	2	1	37,86	231954	109	2	1	19,11
230434	107	2	1	5,00	230830	111	2	1	32,26	231302	108	2	1	66,36	231956	109	2	1	19,88
230436	107	2	1	5,37	230832	111	2	1	18,18	231304	108	2	1	133,22	231958	109	2	1	20,74
230438	107	2	1	5,10	230834	111	2	1	39,32	231305	108	2	1	74,73	231960	109	2	1	24,93
230438/A	107	2	1	6,26	230836	111	2	1	21,64	231306	108	2	1	223,69	231962	109	2	1	25,45
230440	107	2	1	5,42	230838	111	2	1	29,49	231307	108	2	1	328,88	231964	109	2	1	27,21
230442	107	2	1	5,95	230840	111	2	1	29,49	231312	108	2	1	148,96	231966	109	2	1	31,26
230442/A	107	2	1	6,40	230842	111	2	1	42,76	231319	107	2	1	153,17	231968	109	2	1	31,26
230444	107	2	1	9,14	230844	111	2	1	46,69	231320	107	2	1	159,29	231970	109	2	1	33,02
230444/A	107	2	1	21,18	230846	111	2	1	54,05	231322	107	2	1	133,22	231972	109	2	1	33,50
230448	107	2	1	8,84	230848	111	2	1	73,74	231324	107	2	1	157,30	231974	109	2	1	35,48
230450	107	2	1	8,61	230850	111	2	1	141,09	231326	107	2	1	146,49	231976	109	2	1	39,13
230450/A	107	2	1	10,48	230852	111	2	1	181,38	231327	107	2	1	267,41	231978	109	2	1	40,16
230451	107	2	1	24,72	230854	111	2	1	221,70	231330	108	2	1	54,05	231980	109	2	1	49,14
230453	107	2																	

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240024	98	2	1	<b>51,10</b>	250180	57	3	100	<b>21,70</b>	260274/10	41	3	100	<b>16,21</b>	260426	41	3	100	<b>15,61</b>
240041	98	2	1	<b>29,82</b>	250182	57	3	100	<b>27,08</b>	260276	40	3	100	<b>11,29</b>	260426/10	42	3	100	<b>22,31</b>
240042	98	2	1	<b>31,76</b>	250184	57	3	100	<b>32,48</b>	260278	40	3	100	<b>14,10</b>	260427	43	3	100	<b>8,89</b>
240044	98	2	1	<b>39,47</b>	250186	57	3	100	<b>37,86</b>	260282	40	3	100	<b>14,45</b>	260428	43	3	100	<b>9,48</b>
240046	98	2	1	<b>43,52</b>	250188	57	3	100	<b>46,56</b>	260284	40	3	100	<b>12,69</b>	260430	43	3	100	<b>18,38</b>
240048	98	2	1	<b>47,19</b>	250190	57	3	100	<b>59,53</b>	260286	40	3	100	<b>13,97</b>	260431	43	3	100	<b>36,46</b>
240057	76,98	2	1	<b>25,16</b>	250192	57	3	100	<b>85,83</b>	260288	40	3	100	<b>13,97</b>	260440	41	3	100	<b>12,52</b>
240058	76,98	2	1	<b>20,62</b>	250194	57	3	100	<b>92,19</b>	260288/10	41	3	100	<b>22,45</b>	260442	41	3	100	<b>15,64</b>
240059	98	2	1	<b>25,18</b>	250196	57	3	100	<b>16,23</b>	260290	40	3	100	<b>15,17</b>	260442/10	42	3	100	<b>16,21</b>
240061	98	2	1	<b>15,27</b>	250198	57	3	100	<b>21,70</b>	260290/10	41	3	100	<b>26,48</b>	260443	41	3	100	<b>15,48</b>
240071	98	2	1	<b>54,58</b>	250200	57	3	100	<b>27,08</b>	260292	40	3	100	<b>18,59</b>	260444	41	3	100	<b>25,96</b>
240073	98	2	1	<b>83,62</b>	250202	57	3	100	<b>32,48</b>	260300	40	3	100	<b>5,91</b>	260446	41	3	100	<b>11,39</b>
240132	98	2	1	<b>11,12</b>	250204	57	3	100	<b>37,86</b>	260302	40	3	100	<b>5,91</b>	260448	41	3	100	<b>12,05</b>
240134	98	2	1	<b>11,95</b>	250206	57	3	100	<b>45,87</b>	260304	40	3	100	<b>6,05</b>	260448/10	42	3	100	<b>13,19</b>
240136	98	2	1	<b>13,82</b>	250208	57	3	100	<b>59,82</b>	260304/10	41	3	100	<b>10,06</b>	260449	41	3	100	<b>11,42</b>
240138	98	2	1	<b>15,74</b>	250210	57	3	100	<b>85,83</b>	260306	40	3	100	<b>7,70</b>	260450	41	3	100	<b>21,27</b>
240152	98	2	1	<b>15,82</b>	250212	57	3	100	<b>16,23</b>	260306/10	41	3	100	<b>11,66</b>	260500	41	3	100	<b>21,72</b>
240154	98	2	1	<b>19,05</b>	250214	57	3	100	<b>18,92</b>	260308	40	3	100	<b>7,83</b>	260502	41	3	100	<b>21,72</b>
240156	98	2	1	<b>24,44</b>	250216	57	3	100	<b>21,70</b>	260310	40	3	100	<b>6,63</b>	260504	41	3	100	<b>23,66</b>
240158	98	2	1	<b>30,38</b>	250218	57	3	100	<b>27,08</b>	260312	40	3	100	<b>6,82</b>	260510	41	3	100	<b>10,40</b>
240160	98	2	1	<b>33,53</b>	250220	57	3	100	<b>32,48</b>	260314	40	3	100	<b>6,69</b>	260512	41	3	100	<b>10,40</b>
240234	98	2	1	<b>6,55</b>	250222	57	3	100	<b>37,86</b>	260314/10	41	3	100	<b>10,67</b>	260514	41	3	100	<b>10,38</b>
250040	57	3	100	<b>43,36</b>	250224	57	3	100	<b>46,56</b>	260316	40	3	100	<b>8,34</b>	260516	41	3	100	<b>10,38</b>
250042	57	3	100	<b>50,10</b>	250226	57	3	100	<b>59,53</b>	260316/10	41	3	100	<b>12,06</b>	260516/10	42	3	100	<b>14,59</b>
250044	57	3	100	<b>58,53</b>	250228	57	3	100	<b>85,83</b>	260318	40	3	100	<b>9,13</b>	260518	41	3	100	<b>11,14</b>
250046	57	3	100	<b>62,72</b>	250230	57	3	100	<b>92,19</b>	260320	40	3	100	<b>11,24</b>	260520	41	3	100	<b>11,14</b>
250048	57	3	100	<b>62,72</b>	250600	57	3	100	<b>144,65</b>	260322	40	3	100	<b>12,05</b>	260520/10	42	3	100	<b>15,04</b>
250050	57	3	100	<b>92,77</b>	250602	57	3	100	<b>196,02</b>	260324	40	3	100	<b>14,07</b>	260650	42	3	100	<b>8,19</b>
250052	57	3	100	<b>154,48</b>	250604	57	3	100	<b>258,72</b>	260324/10	41	3	100	<b>17,25</b>	260651	42	3	100	<b>7,85</b>
250054	57	3	100	<b>288,40</b>	250606	57	3	100	<b>393,01</b>	260326	40	3	100	<b>16,35</b>	260654	42	3	100	<b>10,69</b>
250056	57	3	100	<b>311,71</b>	250608	57	3	100	<b>681,84</b>	260328	40	3	100	<b>20,53</b>	260656	42	3	100	<b>10,53</b>
250058	57	3	100	<b>333,67</b>	250610	57	3	100	<b>1.033,35</b>	260330	40	3	100	<b>7,98</b>	260658	42	3	100	<b>11,35</b>
250060	57	3	100	<b>43,36</b>	250611	57	3	100	<b>1.071,37</b>	260331	40	3	100	<b>8,35</b>	260660	42	3	100	<b>11,35</b>
250062	57	3	100	<b>55,53</b>	250612	57	3	100	<b>1.602,09</b>	260332	40	3	100	<b>7,84</b>	260662	42	3	100	<b>15,28</b>
250064	57	3	100	<b>50,10</b>	250614	57	3	100	<b>3.099,51</b>	260333	40	3	100	<b>9,76</b>	260664	42	3	100	<b>20,53</b>
250066	57	3	100	<b>62,72</b>	250630	57	3	100	<b>139,72</b>	260334	40	3	100	<b>15,73</b>	260666	42	3	100	<b>13,42</b>
250068	57	3	100	<b>62,72</b>	250632	57	3	100	<b>179,69</b>	260335	40	3	100	<b>19,40</b>	260667	42	3	100	<b>13,43</b>
250070	57	3	100	<b>92,73</b>	250634	57	3	100	<b>218,72</b>	260336	41	3	100	<b>11,39</b>	260670	42	3	100	<b>10,88</b>
250072	57	3	100	<b>154,63</b>	250636	57	3	100	<b>249,32</b>	260337	41	3	100	<b>11,39</b>	260672	42	3	100	<b>12,34</b>
250074	57	3	100	<b>285,97</b>	250638	57	3	100	<b>288,30</b>	260338	41	3	100	<b>19,22</b>	260674	42	3	100	<b>13,31</b>
250076	57	3	100	<b>373,10</b>	250640	57	3	100	<b>358,96</b>	260350	40	3	100	<b>10,79</b>	260676	42	3	100	<b>15,57</b>
250078	57	3	100	<b>401,31</b>	250642	57	3	100	<b>816,11</b>	260350/10	41	3	100	<b>14,67</b>	260678	42	3	100	<b>23,33</b>
250080	57	3	100	<b>43,36</b>	250644	57	3	100	<b>1.543,82</b>	260352	40	3	100	<b>12,29</b>	260682	42	3	100	<b>16,69</b>
250082	57	3	100	<b>50,10</b>	250646	57	3	100	<b>2.090,87</b>	260352/10	41	3	100	<b>15,26</b>	260684	42	3	100	<b>16,68</b>
250084	57	3	100	<b>58,53</b>	250648	57	3	100	<b>2.986,98</b>	260354	40	3	100	<b>17,50</b>	260686	42	3	100	<b>18,06</b>
250086	57	3	100	<b>62,72</b>	250650	57	3	100	<b>175,25</b>	260354/10	41	3	100	<b>21,67</b>	260688	42	3	100	<b>18,76</b>
250088	57	3	100	<b>62,72</b>	250652	57	3	100	<b>224,65</b>	260360	41	3	100	<b>9,81</b>	260690	42	3	100	<b>21,89</b>
250090	57	3	100	<b>92,77</b>	250654	57	3	100	<b>293,26</b>	260362	41	3	100	<b>11,26</b>	260692	42	3	100	<b>25,77</b>
250092	57	3	100	<b>154,48</b>	250656	57	3	100	<b>439,40</b>	260364	41	3	100	<b>18,43</b>	260700	42	3	100	<b>9,80</b>
250094	57	3	100	<b>288,40</b>	250658	57	3	100	<b>763,26</b>	260370	41	3	100	<b>8,45</b>	260702	42	3	100	<b>11,05</b>
250096	57	3	100	<b>311,71</b>	250660	57	3	100	<b>1.174,05</b>	260371	41	3	100	<b>7,84</b>	260704	42	3	100	<b>9,95</b>
250098	57	3	100	<b>333,67</b>	250661	57	3	100	<b>1.283,66</b>	260372	41	3	100	<b>9,63</b>	260706	42	3	100	<b>11,94</b>
250100	57	3	100	<b>43,36</b>	250662	57	3	100	<b>2.347,61</b>	260373	41	3	100	<b>13,42</b>	260708	42	3	100	<b>13,00</b>
250102	57	3	100	<b>55,53</b>	250664	57	3	100	<b>3.913,21</b>	260374	41	3	100	<b>14,64</b>	260710	42	3	100	<b>13,42</b>
250104	57	3	100	<b>50,10</b>	250666	57	3	100	<b>218,21</b>	260376	42	3	100	<b>62,05</b>	260712	42	3	100	<b>11,54</b>
250106	57	3	100	<b>69,50</b>	250668	57	3	100	<b>218,21</b>	260380	41	3	100	<b>9,58</b>	260714	42	3	100	<b>11,54</b>
250108	57	3	100	<b>62,72</b>	250670	57	3	100	<b>263,62</b>	260382	41	3	100	<b>9,58</b>	260716	42	3	100	<b>13,35</b>
250110	57	3	100	<b>92,73</b>	250672	57	3	100	<b>293,26</b>	260384	41	3	100	<b>10,05</b>	260718	42	3	100	<b>14,96</b>
250112	57	3	100	<b>154,63</b>	250674	57	3	100	<b>365,38</b>	260386	41	3	100	<b>10,05</b>	260721	42	3	100	<b>18,09</b>
250114	57	3	100	<b>285,97</b>	250676	57	3	100	<b>538,16</b>	260386/10	41	3	100	<b>12,84</b>	260722	42	3	100	<b>19,97</b>
250116	57	3	100	<b>373,10</b>	250678	57	3	100	<b>962,76</b>	260388	41	3	100	<b>10,51</b>	260724	42	3	100	<b>20,42</b>
250118	57	3	100	<b>401,31</b>	250680	57	3	100	<b>1.816,87</b>	260390	41	3	100	<b>10,51</b>	260726	42	3	100	<b>22,68</b>
250120	57	3	100	<b>43,63</b>	250682	57	3	100	<b>2.564,34</b>	260390/10	41	3	100	<b>13,30</b>	260728	42	3	100	<b>27,24</b>
250122	57	3	100	<b>50,30</b>	250684	57	3	100	<b>3.602,11</b>	260392	41	3	1						

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260904	46	3	100	<b>37,98</b>	262158	55	3	1	<b>33,81</b>	262304	56	4	100	<b>12,32</b>	262760	55	4	100	<b>45,58</b>
260906	46	3	100	<b>40,80</b>	262159	56	3	1	<b>206,34</b>	262306	56	4	100	<b>12,77</b>	262762	55	4	100	<b>51,16</b>
260908	46	3	100	<b>45,12</b>	262160	55	4	100	<b>12,06</b>	262308	56	4	100	<b>15,69</b>	262764	55	4	100	<b>60,44</b>
260910	46	3	100	<b>53,63</b>	262161	55	4	100	<b>12,06</b>	262310	56	4	100	<b>28,28</b>	262768	55	4	100	<b>124,15</b>
260912	46	3	100	<b>49,53</b>	262162	55	4	100	<b>13,68</b>	262500	54	4	100	<b>0,80</b>	262782	55	4	1	<b>22,14</b>
260914	46	3	100	<b>50,67</b>	262163	55	4	100	<b>16,93</b>	262500/1	54	4	100	<b>0,75</b>	262820	55	4	100	<b>3,40</b>
260916	46	3	100	<b>54,37</b>	262164	55	4	100	<b>8,85</b>	262501	54	4	100	<b>0,90</b>	262822	55	4	100	<b>4,62</b>
260918	46	3	100	<b>62,80</b>	262165	55	4	100	<b>8,85</b>	262502	54	4	100	<b>0,82</b>	262824	55	4	100	<b>11,36</b>
260920	46	3	100	<b>72,83</b>	262170	55	4	100	<b>11,50</b>	262503	54	4	100	<b>0,93</b>	262826	55	4	100	<b>7,45</b>
260922	46	3	100	<b>80,21</b>	262172	55	4	100	<b>13,29</b>	262504	54	4	100	<b>1,57</b>	262828	55	4	100	<b>13,76</b>
260924	46	3	100	<b>81,96</b>	262179	55	4	100	<b>7,84</b>	262505	54	4	100	<b>1,47</b>	262830	55	4	100	<b>15,62</b>
260926	46	3	100	<b>84,14</b>	262180	55	4	100	<b>6,50</b>	262506	54	4	100	<b>1,95</b>	262832	55	4	100	<b>18,92</b>
260928	46	3	100	<b>89,84</b>	262181	55	4	100	<b>13,08</b>	262507	54	4	100	<b>1,80</b>	262834	55	4	100	<b>28,74</b>
260930	46	3	100	<b>102,04</b>	262182	55	4	100	<b>19,78</b>	262508	54	4	100	<b>1,98</b>	262840	55	4	100	<b>4,60</b>
260932	46	3	100	<b>122,96</b>	262183	55	4	100	<b>11,60</b>	262509	54	4	100	<b>1,94</b>	262842	55	4	100	<b>5,13</b>
260934	46	3	100	<b>88,80</b>	262184	55	4	100	<b>12,21</b>	262509/1	54	4	100	<b>2,99</b>	262844	55	4	100	<b>4,69</b>
260936	46	3	100	<b>114,22</b>	262185	55	4	100	<b>13,80</b>	262510	54	4	100	<b>4,08</b>	262846	55	4	100	<b>10,36</b>
260938	46	3	100	<b>115,12</b>	262186	55	4	100	<b>17,28</b>	262510/1	54	4	100	<b>3,35</b>	262848	55	4	100	<b>8,53</b>
260940	46	3	100	<b>129,93</b>	262187	55	4	100	<b>26,14</b>	262511	54	4	100	<b>4,12</b>	262850	55	4	100	<b>21,07</b>
260942	46	3	100	<b>151,31</b>	262188	55	4	100	<b>24,06</b>	262511/1	54	4	100	<b>6,89</b>	262940/125	56	4	100	<b>38,12</b>
260944	46	3	100	<b>141,91</b>	262189	55	4	100	<b>111,31</b>	262512	54	4	100	<b>3,73</b>	262940/152	56	4	100	<b>41,24</b>
260946	46	3	100	<b>141,91</b>	262190	55	4	100	<b>30,09</b>	262512/1	54	4	100	<b>2,16</b>	262940/200	56	4	100	<b>46,77</b>
260948	46	3	100	<b>177,39</b>	262191	55	4	100	<b>39,93</b>	262513	54	4	100	<b>3,65</b>	262940/250	56	4	100	<b>53,07</b>
260950	46	3	100	<b>192,22</b>	262192	97	4	100	<b>66,55</b>	262515	54	4	100	<b>2,89</b>	262940/300	56	4	100	<b>58,86</b>
260952	46	3	100	<b>242,30</b>	262193	97	4	100	<b>66,55</b>	262516	54	4	100	<b>3,73</b>	262940/360	56	4	100	<b>68,45</b>
260954	46	3	100	<b>233,61</b>	262200	56	4	100	<b>3,87</b>	262517	54	4	100	<b>4,25</b>	262940/520	56	4	100	<b>91,48</b>
260956	46	3	100	<b>233,85</b>	262202	56	4	100	<b>3,87</b>	262518	54	4	100	<b>5,49</b>	262942/125	56	4	100	<b>104,57</b>
260960	46	3	100	<b>305,38</b>	262204	56	4	100	<b>3,87</b>	262520	54	4	100	<b>6,66</b>	262942/152	56	4	100	<b>107,80</b>
260962	46	3	100	<b>244,27</b>	262206	56	4	100	<b>4,74</b>	262522	54	4	100	<b>7,75</b>	262942/200	56	4	100	<b>145,80</b>
260964	46	3	100	<b>405,16</b>	262208	56	4	100	<b>4,10</b>	262523	54	4	100	<b>9,29</b>	262942/250	56	4	100	<b>153,86</b>
260966	46	3	100	<b>324,12</b>	262209	56	4	100	<b>5,14</b>	262528	54	4	100	<b>8,86</b>	262942/300	56	4	100	<b>181,62</b>
260968	46	3	100	<b>324,12</b>	262210	56	4	100	<b>4,10</b>	262530	54	4	100	<b>12,17</b>	262942/360	56	4	100	<b>213,97</b>
260970	46	3	100	<b>324,44</b>	262212	56	4	100	<b>5,45</b>	262532	54	4	100	<b>16,64</b>	262942/520	56	4	100	<b>314,34</b>
260972	46	3	100	<b>493,18</b>	262214	56	4	100	<b>5,45</b>	262534	54	4	100	<b>25,55</b>	262950	54	4	100	<b>1,40</b>
260974	46	3	100	<b>641,23</b>	262215	56	4	100	<b>5,71</b>	262534/1	54	4	100	<b>26,82</b>	262950/1050	56	4	100	<b>248,52</b>
260976	46	3	100	<b>492,54</b>	262216	56	4	100	<b>5,45</b>	262535	54	4	100	<b>42,94</b>	262950/152	56	4	100	<b>67,36</b>
260978	46	3	100	<b>607,10</b>	262218	56	4	100	<b>4,63</b>	262536	54	4	100	<b>26,05</b>	262950/200	56	4	100	<b>77,60</b>
260980	46	3	100	<b>616,37</b>	262219	56	4	100	<b>11,82</b>	262537	54	4	100	<b>34,18</b>	262950/300	56	4	100	<b>98,11</b>
260982	46	3	100	<b>616,17</b>	262220	56	4	100	<b>9,46</b>	262538	54	4	100	<b>37,90</b>	262950/360	56	4	100	<b>113,62</b>
260984	46	3	100	<b>616,17</b>	262222	56	4	100	<b>8,05</b>	262540	54	4	100	<b>47,26</b>	262950/520	56	4	100	<b>150,99</b>
262030	55	3	1	<b>9,45</b>	262223	56	4	100	<b>9,27</b>	262542	54	4	100	<b>57,97</b>	262950/680	56	4	100	<b>185,17</b>
262031	55	3	1	<b>11,50</b>	262224	56	4	100	<b>13,86</b>	262543	54	4	100	<b>115,54</b>	262950/840	56	4	100	<b>221,47</b>
262032	55	3	1	<b>14,22</b>	262226	56	4	100	<b>11,85</b>	262545	54	4	100	<b>22,72</b>	262952	54	4	100	<b>3,04</b>
262033	55	3	1	<b>17,71</b>	262227	56	4	100	<b>12,18</b>	262546	54	4	100	<b>47,19</b>	262952/1050	56	4	100	<b>688,64</b>
262034	55	3	1	<b>9,45</b>	262228	56	4	100	<b>14,85</b>	262547	54	4	100	<b>89,64</b>	262952/152	56	4	100	<b>143,67</b>
262035	55	3	1	<b>11,50</b>	262230	56	4	100	<b>12,77</b>	262600	54	4	100	<b>1,02</b>	262952/200	56	4	100	<b>158,03</b>
262036	55	3	1	<b>14,22</b>	262231	56	4	100	<b>18,32</b>	262600/1	54	4	100	<b>0,90</b>	262952/300	56	4	100	<b>254,82</b>
262037	55	3	1	<b>17,71</b>	262232	56	4	100	<b>18,33</b>	262602	54	4	100	<b>0,93</b>	262952/360	56	4	100	<b>276,60</b>
262048	44	3	1	<b>197,46</b>	262234	56	4	100	<b>16,45</b>	262604	54	4	100	<b>1,78</b>	262952/520	56	4	100	<b>397,09</b>
262060	55	3	1	<b>13,43</b>	262235	56	4	100	<b>12,92</b>	262606	54	4	100	<b>2,22</b>	262952/680	56	4	100	<b>467,67</b>
262062	55	3	1	<b>13,43</b>	262236	56	4	100	<b>3,87</b>	262608	54	4	100	<b>2,25</b>	262952/840	56	4	100	<b>563,26</b>
262064	55	3	1	<b>29,90</b>	262238	56	4	100	<b>3,87</b>	262609/1	54	4	100	<b>3,41</b>	262954	54	4	100	<b>3,05</b>
262066	55	3	1	<b>16,81</b>	262240	56	4	100	<b>4,03</b>	262610	54	4	100	<b>4,67</b>	262956	54	4	100	<b>4,47</b>
262068	55	3	1	<b>16,81</b>	262242	56	4	100	<b>4,47</b>	262610/1	54	4	100	<b>3,86</b>	262958	54	4	100	<b>6,03</b>
262069	55	3	1	<b>37,28</b>	262243	56	4	100	<b>4,42</b>	262611/1	54	4	100	<b>7,21</b>	262960	54	4	100	<b>5,67</b>
262085	58	3	1	<b>1,86</b>	262244	56	4	100	<b>4,74</b>	262612/1	54	4	100	<b>2,47</b>	262960/1000	56	4	100	<b>511,93</b>
262086	58	3	1	<b>2,00</b>	262245	56	4	100	<b>4,74</b>	262615	54	4	100	<b>3,35</b>	262960/1200	56	4	100	<b>604,68</b>
262087	58	3	1	<b>2,73</b>	262246	56	4	100	<b>6,04</b>	262616	54	4	100	<b>4,28</b>	262960/290	56	4	100	<b>204,15</b>
262088	58	3	1	<b>3,22</b>	262247	56	4	100	<b>5,97</b>	262618	54	4	100	<b>6,32</b>	262960/360	56	4	100	<b>236,08</b>
262089	58	3	1	<b>4,58</b>	262248	56	4	100	<b>10,64</b>	262620	54	4	100	<b>7,61</b>	262960/520	56	4	100	<b>304,89</b>
262090	58	3	1	<b>7,14</b>	262249	56	4	100	<b>8,23</b>	262622	54	4	100	<b>8,94</b>	262960/680	56	4	100	<b>373,17</b>
262098	59,135	3	1	<b>133,86</b>	262254	56	4	100	<b>3,22</b>	262623	54	4	100	<b>10,67</b>	262960/840	56	4	100	<b>442,29</b>
262100	54	4	100	<b>2,62</b>	262256	56	4	100	<b>4,10</b>	262628	54	4	100	<b>9,06</b>	262962	54	4	100	<b>7,74</b>
262101	54	4	100	<b>7,90</b>	262258	56	4	100											

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263012	54	4	100	13,44	263854	60	3	1	1,85	267098	59	3	1	40,63	267360	59	3	1	1,27
263022	54	4	100	2,87	263856	60	3	1	1,85	267100	59	3	1	58,05	267362	59	3	1	1,50
263024	54	4	100	3,11	263858	60	3	1	1,85	267102	59	3	1	8,75	267364	59	3	1	1,87
263026	54	4	100	6,07	263860	60	3	1	1,85	267104	59	3	1	11,96	267366	59	3	1	4,10
263028	54	4	100	9,67	263861	60	3	1	18,12	267106	59	3	1	16,21	267368	59	3	1	6,58
263030	54	4	100	25,05	263862	60	3	1	2,34	267108	59	3	1	18,15	267372	59	3	1	0,47
263100	54	4	100	7,59	263864	60	3	1	2,45	267110	59	3	1	23,35	267374	59	3	1	0,57
263102	54	4	100	12,22	263866	60	3	1	2,45	267112	59	3	1	24,83	267376	59	3	1	0,70
263104	54	4	100	12,22	263868	60	3	1	2,45	267114	59	3	1	30,26	267378	59	3	1	0,90
263106	54	4	100	15,93	263870	60	3	1	2,45	267116	59	3	1	39,91	267380	59	3	1	1,15
263108	54	4	100	25,02	263872	60	3	1	2,45	267118	59	3	1	53,47	267382	59	3	1	1,36
263110	54	4	100	31,57	263874	60	3	1	2,45	267120	59	3	1	66,28	267384	59	3	1	1,73
263112	54	4	100	87,85	263876	60	3	1	2,45	267132	58	3	1	7,12	267386	59	3	1	3,73
263200	54	4	100	23,23	263878	60	3	1	2,45	267134	58	3	1	8,13	267388	59	3	1	5,96
263204	54	4	100	24,42	263880	60	3	1	2,45	267136	58	3	1	9,00	267392	59	3	1	1,01
263208	54	4	100	26,36	263882	60	3	1	2,22	267138	58	3	1	7,91	267394	59	3	1	1,34
263360	42	3	100	10,19	263884	60	3	1	2,34	267140	58	3	1	8,86	267396	59	3	1	1,07
263362	42	3	100	11,71	263886	60	3	1	2,34	267142	58	3	1	9,99	267398	59	3	1	1,31
263364	42	3	100	19,26	263888	60	3	1	2,34	267144	58	3	1	14,37	267400	59	3	1	1,48
263380	42	3	100	12,49	263890	60	3	1	2,34	267146	58	3	1	20,21	267402	59	3	1	1,78
263382	42	3	100	13,89	263892	60	3	1	2,34	267200	58	3	1	23,73	267404	59	3	1	2,51
263384	42	3	100	14,15	263894	60	3	1	2,34	267202	58	3	1	27,32	267406	59	3	1	4,49
263386	42	3	100	14,15	263896	60	3	1	2,34	267204	58	3	1	29,48	267408	59	3	1	6,88
263388	42	3	100	15,08	263898	60	3	1	2,34	267206	58	3	1	31,28	267410/25	58	3	1	485,70
263392	42	3	100	15,68	263900	60	3	1	2,34	267250	58	3	1	0,72	267411/25	58	3	1	284,93
263393	42	3	100	15,05	263902	60	3	1	2,23	267250/200	58	3	1	92,81	267412/25	58	3	1	554,74
263394	42	3	100	16,60	263904	60	3	1	2,31	267252	58	3	1	0,47	267413/25	58	3	1	789,68
263396	42	3	100	22,30	263906	60	3	1	2,31	267252/200	58	3	1	58,38	267430	58	3	1	2,18
263400	42	3	100	13,63	263908	60	3	1	2,31	267254	58	3	1	0,57	267432	58	3	1	3,42
263402	42	3	100	14,42	263910	60	3	1	2,31	267254/200	58	3	1	82,99	267434	58	3	1	4,37
263404	42	3	100	32,71	263912	60	3	1	2,31	267256	58	3	1	0,70	267436	58	3	1	5,84
263410	42	3	100	19,80	263914	60	3	1	2,31	267256/200	58	3	1	87,89	267438	58	3	1	11,05
263412	42	3	100	20,95	263916	60	3	1	2,31	267258	58	3	1	0,90	267440	58	3	1	18,00
263413	42	3	100	33,71	263918	60	3	1	2,31	267258/100	58	3	1	56,23	267442	58	3	1	2,09
263414	42	3	100	21,94	263920	60	3	1	2,31	267260	58	3	1	1,15	267444	58	3	1	3,23
263415	42	3	100	20,12	263930	60	3	1	8,07	267260/50	58	3	1	68,21	267446	58	3	1	4,14
263416	42	3	100	21,94	263940	60	3	1	15,55	267262	58	3	1	1,36	267448	58	3	1	4,61
263417	42	3	100	20,12	265033	37	3	100	15,48	267262/50	58	3	1	85,42	267450	58	3	1	9,18
263418	42	3	100	28,71	265034	37	3	100	21,13	267264	58	3	1	1,73	267452	58	3	1	11,29
263422	42	3	100	12,57	265035	37	3	100	23,80	267264/100	58	3	1	109,69	267460	59	3	1	6,51
263424	42	3	100	13,63	265036	37	3	100	28,48	267266	58	3	1	3,73	267462	59	3	1	10,64
263426	42	3	100	21,94	267000	58	3	1	1,50	267266/50	58	3	1	270,71	267464	59	3	1	15,76
263440	42	3	100	17,82	267002	58	3	1	1,86	267268	58	3	1	5,96	267466	59	3	1	19,62
263442	42	3	100	19,95	267004	58	3	1	2,23	267268/50	58	3	1	229,69	267468	59	3	1	41,35
263443	42	3	100	19,18	267006	58	3	1	3,03	267272	59	3	1	0,51	267470	59	3	1	56,10
263446	43	3	100	15,02	267008	58	3	1	1,86	267274	59	3	1	0,63	267472	59	3	1	104,28
263448	43	3	100	15,92	267010	58	3	1	1,07	267276	59	3	1	0,77	267480/100	58	3	1	341,33
263449	43	3	100	15,00	267012	58	3	1	2,44	267278	59	3	1	0,97	267500	59	3	100	193,31
263450	43	3	100	28,23	267014	58	3	1	3,54	267280	59	3	1	1,27	267502	59	3	100	353,24
263451	42	3	100	21,50	267016	58	3	1	7,12	267282	59	3	1	1,50	267506	59	3	100	523,77
263452	42	3	100	21,50	267018	58	3	1	8,13	267282/50	58	3	1	93,97	267508	59	3	100	695,79
263453	42	3	100	20,12	267020	58	3	1	9,00	267284	59	3	1	1,87	267510	59	3	100	825,74
263456	42	3	100	20,12	267022	58	3	1	7,91	267284/100	58	3	1	120,68	267512	59	3	100	1.343,29
263510	42	3	100	17,25	267024	58	3	1	8,86	267286	59	3	1	4,10	267514	59	3	100	1.585,92
263512	42	3	100	15,66	267026	58	3	1	9,99	267288	59	3	1	6,58	270014	38	5	1000	23,89
263514	42	3	100	16,21	267028	58	3	1	14,37	267292	59	3	1	0,51	270015	38	5	1000	23,89
263516	42	3	100	20,40	267030	58	3	1	20,21	267294	59	3	1	0,63	270016	38	5	1000	23,89
263518	42	3	100	17,28	267032	58	3	1	7,12	267296	59	3	1	0,77	270021	38	5	1000	16,18
263520	42	3	100	18,38	267034	58	3	1	8,13	267298	59	3	1	0,97	270022	38	5	1000	16,18
263800	60	3	1	0,78	267036	58	3	1	9,00	267300	59	3	1	1,27	270027	38	5	1000	28,33
263802	60	3	1	0,80	267038	58	3	1	7,91	267302	59	3	1	1,50	270028	38	5	1000	28,33
263804	60	3	1	0,80	267040	58	3	1	8,86	267304	59	3	1	1,87	270029	38	5	1000	19,05
263806	60	3	1	0,80	267042	58	3	1	9,99	267306	59	3	1	4,10	270030	38	5	1000	19,05
263808	60	3	1	0,80	267044	58	3	1	14,37	267308	59	3	1	6,58	270031	38	5	1000	31,72
263810	60	3	1	0,80	267046	58	3	1	20,21	267312	59	3	1	0,51	270032	38	5	1000	31,72
263812	60	3	1	0,80	267048	58	3	1	9,50	267314	59	3	1	0,63	270033	38	5	1000	33,64
263814	60	3	1	0,80	267050	58	3	1	11,65	267316	59	3	1	0,77	270034	38	5	1000	34,77
263816	60	3	1	0,80	267052	58	3	1	13,80	267318	59	3	1	0,97	270036	38	5	1000	48,17
263818	60	3	1	0,80	267054	58	3	1	16,38	267320	59	3	1	1,27	270038	38	5	1000	47,08
263820	60	3	1	7,96	267056	58	3	1	20,06	267322	59	3	1	1,50	270040	38	5	1000	56,37
263822	60	3	1	1,42	267058	58	3	1	24,81	267324	59	3	1	1,87	270042	38	5	1000	66,68
263824	60	3	1	1,47	267060	58	3	1	53,64	267326	59	3	1	4,10	270044	38	5	1000	72,68
263826	60	3	1	1,47	267062	58	3	1	80,82	267328	5								

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270076	37	3	1000	<b>12,32</b>	270166/500	37	3	1000	<b>28,77</b>	270812	38	5	1000	<b>23,88</b>	273402	39	5	1000	<b>33,40</b>
270077	37	3	1000	<b>13,17</b>	270168	37	3	1000	<b>37,85</b>	270813	38	5	1000	<b>27,54</b>	273404	39	5	1000	<b>33,88</b>
270078	37	3	1000	<b>15,40</b>	270168/500	37	3	1000	<b>37,85</b>	270814	38	5	1000	<b>33,64</b>	273406	39	5	1000	<b>36,61</b>
270078/500	37	3	1000	<b>15,40</b>	270170	37	3	1000	<b>29,93</b>	270814/25	38	5	1000	<b>57,67</b>	273408	39	5	1000	<b>76,47</b>
270079	37	3	1000	<b>18,35</b>	270172	37	3	1000	<b>32,74</b>	270815	38	5	1000	<b>33,64</b>	273410	39	5	1000	<b>110,62</b>
270079/500	37	3	1000	<b>18,35</b>	270174	37	3	1000	<b>37,54</b>	270816	38	5	1000	<b>48,17</b>	273412	39	5	1000	<b>145,16</b>
270080	37	3	1000	<b>13,71</b>	270176	37	3	1000	<b>43,45</b>	270818	38	5	1000	<b>47,08</b>	273414	39	5	1000	<b>225,28</b>
270082	37	3	1000	<b>15,80</b>	270178	37	3	1000	<b>42,16</b>	270818/10	38	5	1000	<b>108,15</b>	280000	45	3	100	<b>10,29</b>
270082/500	37	3	1000	<b>15,80</b>	270180	37	3	1000	<b>54,86</b>	270820	38	5	1000	<b>56,66</b>	280000/20	46	3	100	<b>15,40</b>
270084	37	3	1000	<b>19,25</b>	270182	37	3	1000	<b>57,56</b>	270822	38	5	1000	<b>66,68</b>	280004	45	3	100	<b>10,97</b>
270084/500	37	3	1000	<b>19,25</b>	270184	37	3	1000	<b>51,74</b>	270822/10	38	5	1000	<b>127,86</b>	280004/20	46	3	100	<b>16,46</b>
270086	37	3	1000	<b>28,17</b>	270186	37	3	1000	<b>58,85</b>	270824	38	5	1000	<b>72,68</b>	280008	45	3	100	<b>7,82</b>
270086/500	37	3	1000	<b>28,17</b>	270188	37	3	1000	<b>66,56</b>	270826	38	5	1000	<b>88,71</b>	280008/20	46	3	100	<b>12,79</b>
270087	37	3	1000	<b>31,42</b>	270190	37	3	1000	<b>66,21</b>	270826/10	38	5	1000	<b>153,70</b>	280012	45	3	100	<b>8,78</b>
270088	37	3	1000	<b>15,47</b>	270192	37	3	1000	<b>84,58</b>	270828	38	5	1000	<b>95,49</b>	280016	45	3	100	<b>6,69</b>
270089	37	3	1000	<b>18,30</b>	270194	37	3	1000	<b>99,81</b>	270830	38	5	1000	<b>150,61</b>	280020	45	3	100	<b>6,02</b>
270089/500	37	3	1000	<b>18,30</b>	270195	37	3	1000	<b>109,47</b>	270830/5	38	5	1000	<b>270,68</b>	280030	45	3	100	<b>10,89</b>
270090	37	3	1000	<b>23,26</b>	270196	37	3	1000	<b>109,54</b>	270832	38	5	1000	<b>171,35</b>	280034	45	3	100	<b>11,12</b>
270090/500	37	3	1000	<b>23,26</b>	270198	37	3	1000	<b>122,84</b>	270834	38	5	1000	<b>182,54</b>	280038	45	3	100	<b>7,82</b>
270091	37	3	1000	<b>27,30</b>	270217	39	3	1	<b>52,61</b>	270836	38	5	1000	<b>185,53</b>	280042	45	3	100	<b>9,34</b>
270091/500	37	3	1000	<b>27,30</b>	270218	39	3	1	<b>21,49</b>	270836/5	38	5	1000	<b>308,80</b>	280046	45	3	100	<b>7,33</b>
270092	37	3	1000	<b>33,15</b>	270714	38	5	1000	<b>21,15</b>	270838	38	5	1000	<b>210,63</b>	280050	45	3	100	<b>6,45</b>
270093	37	3	1000	<b>36,36</b>	270715	38	5	1000	<b>21,15</b>	270840	38	5	1000	<b>234,87</b>	280060	45	3	100	<b>17,40</b>
270093/500	37	3	1000	<b>36,36</b>	270716	38	5	1000	<b>21,15</b>	270842	38	5	1000	<b>312,39</b>	280064	45	3	100	<b>17,69</b>
270094	37	3	1000	<b>26,99</b>	270719	38	5	1000	<b>15,90</b>	270844	38	5	1000	<b>394,66</b>	280070	45	3	100	<b>18,33</b>
270096	37	3	1000	<b>28,77</b>	270720	38	5	1000	<b>15,90</b>	270850	39	5	1	<b>20,90</b>	280074	45	3	100	<b>17,20</b>
270097	37	3	1000	<b>35,46</b>	270721	38	5	1000	<b>15,90</b>	270852	39	5	1	<b>20,90</b>	280080	45	3	100	<b>20,17</b>
270098	37	3	1000	<b>37,85</b>	270722	38	5	1000	<b>15,90</b>	270854	39	5	1	<b>20,97</b>	280084	45	3	100	<b>19,33</b>
270100	37	3	1000	<b>29,93</b>	270723	38	5	1000	<b>15,90</b>	270856	39	5	1	<b>16,48</b>	280084/20	46	3	100	<b>25,18</b>
270102	37	3	1000	<b>32,74</b>	270724	38	5	1000	<b>15,90</b>	270858	39	5	1	<b>16,48</b>	280090	45	3	100	<b>21,83</b>
270104	37	3	1000	<b>37,54</b>	270725	38	5	1000	<b>15,90</b>	270859	38	5	1000	<b>928,04</b>	280094	45	3	100	<b>20,58</b>
270106	37	3	1000	<b>43,45</b>	270726	38	5	1000	<b>16,02</b>	270861	38	5	1000	<b>1.275,93</b>	280100	45	3	100	<b>9,87</b>
270107	37	3	1000	<b>44,88</b>	270727	38	5	1000	<b>25,61</b>	270863	38	5	1000	<b>1.754,21</b>	280100/20	46	3	100	<b>15,03</b>
270108	37	3	1000	<b>42,16</b>	270728	38	5	1000	<b>25,61</b>	270864	39	5	1	<b>23,64</b>	280101	45	3	100	<b>10,49</b>
270110	37	3	1000	<b>54,86</b>	270738	38	5	1000	<b>47,08</b>	270866	39	5	1	<b>24,56</b>	280104	45	3	100	<b>9,12</b>
270112	37	3	1000	<b>57,56</b>	270740	38	5	1000	<b>53,87</b>	270870	39	3	1	<b>6,22</b>	280104/20	46	3	100	<b>14,22</b>
270114	37	3	1000	<b>51,74</b>	270742	38	5	1000	<b>60,57</b>	270882	40	3	1	<b>131,16</b>	280105	45	3	100	<b>22,41</b>
270116	37	3	1000	<b>58,85</b>	270744	38	5	1000	<b>70,73</b>	270882/DIN	40	3	1	<b>131,21</b>	280110	45	3	100	<b>9,30</b>
270118	37	3	1000	<b>66,56</b>	270746	38	5	1000	<b>88,71</b>	270888	40	3	1	<b>460,83</b>	280111	45	3	100	<b>10,37</b>
270119	37	3	1000	<b>126,18</b>	270748	38	5	1000	<b>95,49</b>	270890	40	3	1	<b>461,51</b>	280114	45	3	100	<b>9,32</b>
270120	37	3	1000	<b>70,58</b>	270750	38	5	1000	<b>150,61</b>	270891	40	3	1	<b>221,17</b>	280115	45	3	100	<b>12,52</b>
270121	37	3	1000	<b>72,02</b>	270754	38	5	1000	<b>195,52</b>	270892	40	3	1	<b>220,74</b>	280120	45	3	100	<b>11,59</b>
270122	37	3	1000	<b>85,09</b>	270756	38	5	1000	<b>234,87</b>	270893	40	3	1	<b>220,89</b>	280124	45	3	100	<b>7,58</b>
270123	37	3	1000	<b>226,38</b>	270758	38	5	1000	<b>312,40</b>	270894	40	3	1	<b>131,05</b>	280128	45	3	100	<b>9,79</b>
270124	37	3	1000	<b>99,81</b>	270760	38	5	1000	<b>394,78</b>	270895	40	3	1	<b>219,42</b>	280132	45	3	100	<b>13,21</b>
270126	37	3	1000	<b>115,43</b>	270762	38	5	1000	<b>599,93</b>	270896	40	3	1	<b>218,97</b>	280136	45	3	100	<b>7,67</b>
270128	37	3	1000	<b>133,40</b>	270778	39	5	1000	<b>36,36</b>	270897	40	3	1	<b>219,08</b>	280140	45	3	100	<b>10,26</b>
270130	37	3	1000	<b>295,48</b>	270778/25	39	5	1000	<b>48,14</b>	270899	40	3	1	<b>159,02</b>	280150	45	3	100	<b>12,95</b>
270131	37	3	1000	<b>225,20</b>	270780	39	5	1000	<b>36,37</b>	270900	38	5	1000	<b>77,55</b>	280154	45	3	100	<b>8,07</b>
270132	37	3	1000	<b>521,84</b>	270780/25	39	5	1000	<b>50,33</b>	270902	38	5	1000	<b>106,27</b>	280158	45	3	100	<b>11,30</b>
270134	37	3	1000	<b>843,36</b>	270782	39	5	1000	<b>45,64</b>	270904	38	5	1000	<b>135,58</b>	280162	45	3	100	<b>16,79</b>
270135	37	3	1000	<b>871,44</b>	270784	39	5	1000	<b>36,37</b>	270906	38	5	1000	<b>156,01</b>	280166	45	3	100	<b>8,07</b>
270136	37	3	1000	<b>1.116,45</b>	270784/25	39	5	1000	<b>52,52</b>	270908	38	5	1000	<b>158,23</b>	280170	45	3	100	<b>10,40</b>
270137	37	3	1000	<b>1.769,74</b>	270787	39	5	1000	<b>49,79</b>	270910	38	5	1000	<b>161,57</b>	280180	45	3	100	<b>8,22</b>
270140	37	3	1000	<b>11,98</b>	270788	39	5	1000	<b>36,37</b>	270912	38	5	1000	<b>212,82</b>	280182	45	3	100	<b>12,77</b>
270140/500	37	3	1000	<b>10,70</b>	270788/25	39	5	1000	<b>53,06</b>	270914	38	5	1000	<b>292,50</b>	280184	45	3	100	<b>10,36</b>
270141	37	3	1000	<b>14,27</b>	270790	39	5	1000	<b>49,71</b>	272250	38	5	1000	<b>34,55</b>	280186	45	3	100	<b>19,73</b>
270142	37	3	1000	<b>11,59</b>	270792	39	5	1000	<b>43,54</b>	272254	38	5	1000	<b>34,55</b>	280188	45	3	100	<b>16,21</b>
270142/500	37	3	1000	<b>11,59</b>	270792/25	39	5	1000	<b>67,21</b>	272260	38	5	1000	<b>34,55</b>	280190	45	3	100	<b>7,72</b>
270143	37	3	1000	<b>14,35</b>	270794	39	5	1000	<b>53,90</b>	272264	38	5	1000	<b>34,55</b>	280192	45	3	100	<b>13,62</b>
270143/500	37	3	1000	<b>14,35</b>	270795	39	5	1	<b>21,74</b>	272268	38	5	1000	<b>39,92</b>	280194	45	3	100	<b>11,02</b>
270144	37	3	1000	<b>17,34</b>	270796	39	5	1000	<b>132,30</b>	272280	38	5	1000	<b>34,55</b>	280196	45	3	100	<b>17,67</b>
270146	37	3	1000	<b>12,32</b>	270796/10	39	5	1000	<b>123,</b>										

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290006/90	48	3	100	<b>654,73</b>	290084	49,50	3	100	<b>12.881,94</b>	290440	50	3	100	<b>325,38</b>	290692	46	3	100	<b>159,34</b>
290007	49,50	3	100	<b>44,41</b>	290250	49	3	100	<b>76,80</b>	290442	50	3	100	<b>327,56</b>	290694	46	3	100	<b>137,33</b>
290008	48	3	100	<b>480,89</b>	290252	49	3	100	<b>83,88</b>	290444	50	3	100	<b>330,56</b>	290696	46	3	100	<b>134,25</b>
290008/90	48	3	100	<b>654,73</b>	290254	49	3	100	<b>83,88</b>	290446	50	3	100	<b>330,40</b>	290698	46	3	100	<b>154,29</b>
290009	48	3	100	<b>483,93</b>	290256	49	3	100	<b>95,59</b>	290448	50	3	100	<b>429,52</b>	290700	46	3	100	<b>197,59</b>
290010	48	3	100	<b>493,13</b>	290258	49	3	100	<b>106,84</b>	290450	50	3	100	<b>433,07</b>	290701	46	3	100	<b>204,62</b>
290010/90	48	3	100	<b>754,03</b>	290260	49	3	100	<b>96,36</b>	290452	50	3	100	<b>428,79</b>	290702	46	3	100	<b>204,72</b>
290011	49,50	3	100	<b>44,30</b>	290262	49	3	100	<b>117,26</b>	290454	50	3	100	<b>437,10</b>	290704	46	3	100	<b>215,23</b>
290012	48	3	100	<b>577,82</b>	290264	49	3	100	<b>127,14</b>	290456	50	3	100	<b>636,36</b>	290707	46	3	100	<b>321,72</b>
290013	49,50	3	100	<b>68,36</b>	290266	49	3	100	<b>159,98</b>	290458	50	3	100	<b>632,64</b>	290708	46	3	100	<b>317,87</b>
290014	48	3	100	<b>582,99</b>	290268	49	3	100	<b>143,02</b>	290460	50	3	100	<b>642,66</b>	290710	46	3	100	<b>312,47</b>
290014/90	48	3	100	<b>920,88</b>	290270	49	3	100	<b>165,86</b>	290462	50	3	100	<b>787,30</b>	290712	46	3	100	<b>484,58</b>
290015	49,50	3	100	<b>88,24</b>	290272	49	3	100	<b>166,31</b>	290464	50	3	100	<b>784,33</b>	290713	46	3	100	<b>447,22</b>
290016	48	3	100	<b>586,78</b>	290276	49	3	100	<b>207,27</b>	290466	50	3	100	<b>798,78</b>	290714	46	3	100	<b>447,43</b>
290016/90	48	3	100	<b>942,00</b>	290278	49	3	100	<b>207,27</b>	290468	50	3	100	<b>800,50</b>	290716	46	3	100	<b>519,76</b>
290017	48	3	100	<b>573,87</b>	290280	49	3	100	<b>223,57</b>	290470	50	3	100	<b>1.138,21</b>	290717	46	3	100	<b>701,80</b>
290018	48	3	100	<b>576,49</b>	290282	49	3	100	<b>327,41</b>	290472	50	3	100	<b>1.135,09</b>	290718	46	3	100	<b>722,00</b>
290018/90	48	3	100	<b>936,37</b>	290284	49	3	100	<b>301,50</b>	290474	50	3	100	<b>1.163,47</b>	290719	46	3	100	<b>592,49</b>
290019	49,50	3	100	<b>90,24</b>	290286	49	3	100	<b>327,41</b>	290476	50	3	100	<b>1.158,04</b>	290720	46	3	100	<b>869,12</b>
290020	48	3	100	<b>662,87</b>	290288	49	3	100	<b>327,41</b>	290478	50	3	100	<b>1.314,13</b>	290721	46	3	100	<b>589,60</b>
290020/90	48	3	100	<b>949,06</b>	290290	49	3	100	<b>425,60</b>	290480	50	3	100	<b>1.311,77</b>	290730	47	3	100	<b>7,45</b>
290021	49,50	3	100	<b>93,64</b>	290292	49	3	100	<b>385,71</b>	290482	50	3	100	<b>1.316,13</b>	290731	47	3	100	<b>7,45</b>
290022	48	3	100	<b>875,37</b>	290294	49	3	100	<b>354,29</b>	290484	50	3	100	<b>1.336,35</b>	290732	47	3	100	<b>7,62</b>
290022/90	48	3	100	<b>1.173,63</b>	290296	49	3	100	<b>333,46</b>	290486	50	3	100	<b>1.856,22</b>	290734	47	3	100	<b>9,58</b>
290023	48	3	100	<b>860,97</b>	290300	49	3	100	<b>605,45</b>	290488	50	3	100	<b>1.902,93</b>	290735	47	3	100	<b>10,65</b>
290024	48	3	100	<b>844,57</b>	290302	49	3	100	<b>592,08</b>	290490	50	3	100	<b>1.894,88</b>	290736	47	3	100	<b>10,93</b>
290024/90	48	3	100	<b>1.173,63</b>	290304	49	3	100	<b>471,60</b>	290492	50	3	100	<b>2.277,65</b>	290738	47	3	100	<b>8,34</b>
290025	49,50	3	100	<b>94,60</b>	290306	49	3	100	<b>644,48</b>	290494	50	3	100	<b>2.284,79</b>	290739	47	3	100	<b>9,71</b>
290026	48	3	100	<b>894,06</b>	290308	49	3	100	<b>634,22</b>	290496	50	3	100	<b>4.582,80</b>	290740	47	3	100	<b>10,04</b>
290027	49,50	3	100	<b>95,08</b>	290310	49	3	100	<b>595,36</b>	290498	50	3	100	<b>4.532,41</b>	290742	47	3	100	<b>11,28</b>
290028	48	3	100	<b>1.075,58</b>	290316	49	3	100	<b>1.087,13</b>	290516	50	3	100	<b>5.428,44</b>	290744	47	3	100	<b>12,92</b>
290028/90	48	3	100	<b>1.271,47</b>	290318	49	3	100	<b>844,54</b>	290518	50	3	100	<b>5.558,47</b>	290746	47	3	100	<b>12,16</b>
290029	48	3	100	<b>1.061,85</b>	290320	49	3	100	<b>818,38</b>	290520	50	3	100	<b>9.607,34</b>	290748	47	3	100	<b>15,26</b>
290030	48	3	100	<b>1.045,09</b>	290322	49	3	100	<b>1.031,08</b>	290522	50	3	100	<b>12.881,94</b>	290750	47	3	100	<b>19,37</b>
290030/90	48	3	100	<b>1.278,54</b>	290324	49	3	100	<b>1.010,72</b>	290561	50	3	100	<b>20,87</b>	290751	47	3	100	<b>30,68</b>
290031	49,50	3	100	<b>114,87</b>	290326	49	3	100	<b>984,42</b>	290562	50	3	100	<b>22,97</b>	290752	47	3	100	<b>55,08</b>
290033	49,50	3	100	<b>117,16</b>	290328	49	3	100	<b>1.517,34</b>	290563	50	3	100	<b>24,99</b>	290754	47	3	100	<b>60,50</b>
290034	48	3	100	<b>1.744,61</b>	290330	49	3	100	<b>1.228,40</b>	290564	50	3	100	<b>29,20</b>	290756	47	3	100	<b>79,83</b>
290035	49,50	3	100	<b>120,41</b>	290332	49	3	100	<b>1.198,25</b>	290565	50	3	100	<b>31,29</b>	290770	47	3	100	<b>9,60</b>
290036	48	3	100	<b>1.727,67</b>	290334	49	3	100	<b>2.126,72</b>	290566	50	3	100	<b>33,42</b>	290771	47	3	100	<b>26,85</b>
290037	49,50	3	100	<b>118,52</b>	290336	49	3	100	<b>2.497,93</b>	290567	50	3	100	<b>37,54</b>	290773	47	3	100	<b>10,33</b>
290038	48	3	100	<b>1.708,18</b>	290338	49	3	100	<b>1.807,34</b>	290568	50	3	100	<b>41,76</b>	290775	47	3	100	<b>10,33</b>
290039	49,50	3	100	<b>211,62</b>	290350	49	3	100	<b>80,86</b>	290569	50	3	100	<b>54,22</b>	290776	47	3	100	<b>43,72</b>
290040	48	3	100	<b>1.661,95</b>	290352	49	3	100	<b>107,12</b>	290570	50	3	100	<b>189,16</b>	290777	47	3	100	<b>19,11</b>
290041	48	3	100	<b>5.193,19</b>	290354	49	3	100	<b>130,82</b>	290571	50	3	100	<b>450,11</b>	290778	47	3	100	<b>79,32</b>
290042	49,50	3	100	<b>220,17</b>	290356	49	3	100	<b>185,35</b>	290572	50	3	100	<b>642,15</b>	290780	47	3	100	<b>159,38</b>
290043	48	3	100	<b>5.171,83</b>	290358	49	3	100	<b>260,39</b>	290617	46	3	100	<b>15,91</b>	290782	47	3	100	<b>236,66</b>
290044	49,50	3	100	<b>221,54</b>	290360	49	3	100	<b>352,92</b>	290619	46	3	100	<b>6,92</b>	290784	47	3	100	<b>311,80</b>
290045	48	3	100	<b>5.511,83</b>	290362	49	3	100	<b>424,22</b>	290620	46	3	100	<b>5,82</b>	290786	47	3	100	<b>521,13</b>
290046	48	3	100	<b>2.374,05</b>	290364	49	3	100	<b>563,16</b>	290621	46	3	100	<b>6,21</b>	290788	47	3	100	<b>703,73</b>
290047	48	3	100	<b>5.463,86</b>	290366	49	3	100	<b>803,39</b>	290622	46	3	100	<b>6,61</b>	290800	49	3	100	<b>55,04</b>
290048	48	3	100	<b>2.319,45</b>	290368	49	3	100	<b>832,89</b>	290623	46	3	100	<b>8,51</b>	290801	49	3	100	<b>55,18</b>
290049	49,50	3	100	<b>223,32</b>	290370	49	3	100	<b>1.247,12</b>	290624	46	3	100	<b>7,37</b>	290802	49	3	100	<b>146,07</b>
290050	49,50	3	100	<b>325,38</b>	290372	49	3	100	<b>1.385,75</b>	290625	46	3	100	<b>12,00</b>	290804	49	3	100	<b>63,55</b>
290051	49,50	3	100	<b>327,56</b>	290374	49	3	100	<b>2.222,37</b>	290626	46	3	100	<b>6,47</b>	290806	49	3	100	<b>78,58</b>
290052	49,50	3	100	<b>330,56</b>	290380	53	3	1	<b>474,67</b>	290627	46	3	100	<b>6,32</b>	290810	49	3	100	<b>82,18</b>
290053	49,50	3	100	<b>330,40</b>	290382	53	3	1	<b>507,39</b>	290628	46	3	100	<b>7,05</b>	290812	49	3	100	<b>88,52</b>
290054	49,50	3	100	<b>429,52</b>	290404	50	3	100	<b>49,29</b>	290630	46	3	100	<b>8,29</b>	290814	49	3	100	<b>94,33</b>
290055	49,50	3	100	<b>433,07</b>	290404/10	50	3	100	<b>71,25</b>	290632	46	3	100	<b>9,04</b>	290816	49	3	100	<b>98,66</b>
290056	49,50	3	100	<b>428,79</b>	290406	50	3	100	<b>50,79</b>	290634	46	3	100	<b>11,68</b>	290818	49	3	100	<b>110,65</b>
290057	49,50	3	100	<b>514,09</b>	290406/10	50	3	100	<b>72,70</b>	290635	46	3	100	<b>15,04</b>	290820	49	3	100	<b>118,69</b>
290058	49,50	3	100	<b>636,36</b>	290408	50	3	100	<b>45,67</b>	290636	46	3	100	<b>11,03</b>	290822	49	3	100	<b>125,77</b>
290059	49,50	3																	

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290876	49	3	100	548,50	290996/90	48	3	100	572,39	291527	51	3	100	136,07	292596	51	3	100	226,35
290878	49	3	100	761,88	290998	48	3	100	418,50	291528	50	3	100	233,58	292598	51	3	100	322,81
290880	49	3	100	641,96	290998/90	48	3	100	606,85	291529	51	3	100	233,58	292600	51	3	100	299,36
290882	49	3	100	712,58	290999	48	3	100	431,26	291530	50	3	100	323,26	292770	52	3	100	111,62
290884	49	3	100	714,96	291000	48	3	100	449,44	291531	51	3	100	323,26	292772	52	3	100	110,55
290886	49	3	100	831,62	291000/90	48	3	100	601,24	291532	50	3	100	407,27	292774	52	3	100	136,85
290900	48	3	100	25,36	291002	48	3	100	502,44	291533	51	3	100	407,27	292776	52	3	100	135,76
290902	48	3	100	27,16	291002/90	48	3	100	682,22	291534	50	3	100	634,44	292778	52	3	100	196,06
290904	48	3	100	25,22	291004/90	48	3	100	1.173,63	291535	51	3	100	634,44	292780	52	3	100	196,20
290906	48	3	100	25,19	291050	48	3	100	26,92	291536	50	3	100	723,62	292782	52	3	100	258,72
290908	48	3	100	19,18	291052	48	3	100	28,50	291537	51	3	100	723,62	292784	52	3	100	257,47
290910	48	3	100	19,21	291054	48	3	100	32,09	291538	50	3	100	1.081,99	292786	52	3	100	315,04
290912	48	3	100	27,57	291056	48	3	100	33,30	291539	51	3	100	1.081,99	292788	52	3	100	312,09
290914	48	3	100	20,31	291058	48	3	100	42,46	291540	50	3	100	1.253,02	292790	52	3	100	367,82
290916	48	3	100	20,32	291060	48	3	100	65,56	291541	51	3	100	1.253,02	292792	52	3	100	366,24
290918	48	3	100	20,29	291062	48	3	100	83,62	291542	50	3	100	1.724,38	292794	52	3	100	363,11
290920	48	3	100	38,09	291064	48	3	100	116,04	291543	51	3	100	1.724,38	292796	52	3	100	472,10
290922	48	3	100	28,53	291066	48	3	100	183,62	291544	50	3	100	2.140,43	292798	52	3	100	470,54
290924	48	3	100	31,66	291068	48	3	100	272,96	291545	51	3	100	2.140,43	292800	52	3	100	467,45
290926	48	3	100	31,71	291070	48	3	100	401,19	291546	50	3	100	5.428,64	292802	52	3	100	671,01
290928	48	3	100	37,58	291072	48	3	100	483,69	291547	51	3	100	5.428,64	292804	52	3	100	666,66
290930	48	3	100	34,99	291074	48	3	100	573,91	291548	50	3	100	6.368,39	292806	52	3	100	661,93
290932	48	3	100	44,00	291076	48	3	100	671,82	291549	51	3	100	6.368,39	292808	52	3	100	801,70
290932/90	48	3	100	62,67	291078	48	3	100	978,20	291550	50	3	100	5.929,05	292810	52	3	100	2.289,00
290934	48	3	100	40,53	291080	48	3	100	1.202,85	291551	51	3	100	5.929,05	292812	52	3	100	1.687,40
290934/90	48	3	100	64,75	291082	48	3	100	1.808,54	291552	50	3	100	11.040,96	292814	52	3	100	1.034,09
290936	48	3	100	46,16	291084	48	3	100	2.428,50	291553	51	3	100	11.040,96	292816	52	3	100	1.028,49
290936/90	48	3	100	68,30	291090	47	3	100	10,12	291554	50	3	100	14.274,69	292818	52	3	100	1.021,50
290938	48	3	100	40,95	291092	47	3	100	11,57	291555	51	3	100	14.274,69	292820	52	3	100	4.347,20
290938/90	48	3	100	65,48	291096	47	3	100	13,83	291700	51	3	100	89,59	292822	52	3	100	1.411,41
290940	48	3	100	40,08	291098	47	3	100	20,80	291702	51	3	100	90,03	292824	52	3	100	1.411,41
290940/90	48	3	100	70,41	291100	47	3	100	29,44	291704	51	3	100	88,96	292904	52	3	100	61,82
290942	48	3	100	47,13	291102	47	3	100	48,10	291706	51	3	100	88,93	292906	52	3	100	61,24
290942/90	48	3	100	79,57	291104	47	3	100	69,40	291708	51	3	100	236,70	292908	52	3	100	62,72
290944	48	3	100	51,45	291106	47	3	100	110,31	291710	51	3	100	117,25	292910	52	3	100	62,22
290944/90	48	3	100	78,86	291108	47	3	100	147,31	291712	51	3	100	121,05	292912	52	3	100	84,42
290946	48	3	100	53,67	291110	47	3	100	184,34	291714	51	3	100	122,14	292914	52	3	100	83,54
290948	48	3	100	68,97	291112	47	3	100	252,60	291716	51	3	100	122,66	292916	52	3	100	105,21
290948/90	48	3	100	102,78	291114	47	3	100	307,56	291718	51	3	100	147,68	292918	52	3	100	104,28
290950	48	3	100	68,39	291119	47	3	100	16,22	291720	51	3	100	150,05	292920	52	3	100	151,29
290950/90	48	3	100	117,56	291120	47	3	100	16,26	291722	51	3	100	153,66	292922	52	3	100	150,16
290952	48	3	100	73,73	291124	47	3	100	24,85	291724	51	3	100	151,58	292924	52	3	100	210,84
290952/90	48	3	100	118,25	291126	47	3	100	36,50	291726	51	3	100	264,71	292926	52	3	100	209,46
290954	48	3	100	79,06	291128	47	3	100	66,03	291728	51	3	100	266,32	292928	52	3	100	212,93
290954/90	48	3	100	120,37	291130	47	3	100	89,43	291730	51	3	100	268,26	292930	52	3	100	247,13
290956	48	3	100	83,10	291132	47	3	100	138,82	291732	51	3	100	390,43	292932	52	3	100	244,40
290956/90	48	3	100	118,25	291134	47	3	100	278,57	291734	51	3	100	393,07	292934	52	3	100	293,12
290958	48	3	100	94,79	291136	47	3	100	372,20	291736	51	3	100	396,71	292936	52	3	100	290,04
290958/90	48	3	100	132,37	291138	47	3	100	411,36	291738	51	3	100	396,43	292938	52	3	100	291,56
290960	48	3	100	102,15	291140	47	3	100	450,53	291740	51	3	100	515,43	292940	52	3	100	374,68
290960/90	48	3	100	152,05	291142	47	3	100	489,71	291742	51	3	100	519,72	292942	52	3	100	371,13
290962	48	3	100	106,88	291330	48	3	100	370,15	291744	51	3	100	514,56	292944	52	3	100	378,74
290962/90	48	3	100	152,78	291332	48	3	100	383,66	291746	51	3	100	524,49	292946	52	3	100	520,15
290964	48	3	100	105,10	291334	48	3	100	519,68	291748	51	3	100	763,59	292948	52	3	100	516,27
290964/90	48	3	100	155,60	291336	48	3	100	571,74	291750	51	3	100	759,17	292950	52	3	100	511,36
290966	48	3	100	142,16	291338	48	3	100	911,07	291752	51	3	100	771,22	293130	53	3	100	1.478,62
290966/90	48	3	100	215,43	291340	48	3	100	681,93	291754	51	3	100	944,72	293132	53	3	100	2.275,62
290968	48	3	100	153,62	291342	48	3	100	956,95	291756	51	3	100	941,19	293134	53	3	100	3.397,43
290968/90	48	3	100	231,63	291344	48	3	100	1.176,31	291758	51	3	100	958,51	293136	53	3	100	4.430,14
290970	48	3	100	165,52	291348	48	3	100	1.243,02	291760	51	3	100	960,60	293138	53	3	100	7.249,51
290970/90	48	3	100	240,78	291350	48	3	100	1.662,53	291762	51	3	100	1.365,85	293140	53	3	100	1.478,62
290972	48	3	100	162,28	291352	48	3	100	2.233,57	291764	51	3	100	1.362,13	293142	53	3	100	1.913,91
290972/90	48	3	100	267,53	291354	48	3	100	3.125,76	291766	51	3	100	1.396,14	293144	53	3	100	1.913,91
290974	48	3	100	172,47	291356	48	3	100	4.298,12	291768	51	3	100	1.389,67	293146	53	3	100	2.831,30
290976	48	3	100	229,24	291358	48	3	100	4.958,47	291770	51	3	100	1.576,97	293148	53	3	100	2.831,30
290976/90	48	3	100	356,24	291360	48	3	100	7.026,92	291772	51	3	100	1.574,11	293150	53	3	100	3.543,54
290978	48	3	100	222,95	291440	50	3	100	213,85	291774	51	3	100	1.579,36	293152	53	3	100	3.543,54
290978/90	48	3	100	400,62	291442	50	3	100	222,39	291776	51								



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293332	52	3	100	1.421,14	294086	47	3	100	134,67	294570	51	3	100	227,53	363606	44	3	100	104,26
293334	52	3	100	1.438,67	294088	47	3	100	144,74	294580	51	3	100	15,21	363607	44	3	100	114,67
293336	52	3	100	1.436,39	294094	47	3	100	204,15	294582	51	3	100	20,39	363608	44	3	100	121,47
293338	52	3	100	1.667,25	294096	47	3	100	214,55	294584	51	3	100	28,26	370256	43	3	100	4,56
293542	52	3	100	53,19	294098	47	3	100	203,69	294586	51	3	100	43,57	370258	43	3	100	5,21
293544	52	3	100	77,11	294100	47	3	100	247,13	294588	51	3	100	56,39	370270	43	3	100	5,33
293546	52	3	100	90,65	294102	47	3	100	236,61	294590	51	3	100	74,33	370272	43	3	100	6,27
293548	52	3	100	148,12	294106	47	3	100	278,47	294592	51	3	100	92,89	370274	43	3	100	9,21
293550	52	3	100	202,80	294108	47	3	100	271,46	294594	51	3	100	127,53	370288	43	3	100	13,78
293552	52	3	100	206,11	294110	47	3	100	260,53	294596	51	3	100	155,19	370290	43	3	100	16,46
293554	52	3	100	270,94	294112	47	3	100	311,55	294598	51	3	100	251,62	370304	43	3	100	5,03
293556	52	3	100	371,74	294114	47	3	100	301,02	300033	14	2	1	225,68	370314	43	3	100	6,02
293558	52	3	100	498,44	294118	47	3	100	516,07	300102	99	2	1	6,64	370322	43	3	100	10,74
293578	52	3	100	2.867,87	294120	47	3	100	502,61	300115	99	2	1	12,22	370350	43	3	100	6,14
293582	52	3	100	3.044,47	294122	47	3	100	494,95	300116	130	2	1	0,70	370352	43	3	100	7,48
293584	52	3	100	3.307,52	294124	47	3	100	487,91	300117	100	2	1	69,83	370354	43	3	100	10,26
293598	52	3	100	3.657,36	294128	47	3	100	609,96	300228	78	1	1	386,40	370392	43	3	100	6,87
293600	52	3	100	3.056,11	294130	47	3	100	596,16	300229	78	1	1	319,43	370394	43	3	100	7,18
293606	52	3	100	3.027,70	294132	47	3	100	588,38	300294/EN	75	1	1	43,27	370396	43	3	100	9,38
293608	52	3	100	3.458,20	294134	47	3	100	575,04	300295/EN	75	1	1	43,40	370414	43	3	100	7,87
293610	52	3	100	4.034,01	294138	47	3	100	855,61	300296/EN	73	1	1	42,49	370416	43	3	100	8,12
293622	52	3	100	4.405,83	294140	47	3	100	839,63	300297/EN	75	1	1	43,40	370422	43	3	100	5,34
293624	52	3	100	4.596,02	294142	47	3	100	830,67	300298/EN	73	1	1	42,49	370424	43	3	100	5,42
293626	52	3	100	4.679,19	294144	47	3	100	815,19	300299/EN	73	1	1	42,78	370426	43	3	100	7,67
293634	52	3	100	5.039,83	294150	47	3	100	1.018,00	300302/EN	73	1	1	42,49	392010	109	2	1	52,64
293636	52	3	100	4.461,87	294152	47	3	100	1.009,07	300303/EN	75	1	1	42,89	392012	109	2	1	45,82
293638	52	3	100	5.236,30	294154	47	3	100	993,78	300305/EN	73	1	1	44,78	392014	109	2	1	51,11
293652	52	3	100	5.943,05	294160	47	3	100	1.193,19	300306/EN	75	1	1	46,93	392016	109	2	1	47,62
293654	52	3	100	4.059,28	294162	47	3	100	1.184,30	300310/EN	73	1	1	528,69	392018	109	2	1	57,93
293656	52	3	100	6.647,36	294164	47	3	100	1.169,01	300312/EN	74	1	1	528,69	392020	110	2	1	7,73
293664	52	3	100	7.130,29	294174	47	3	100	1.705,32	300322	8	3	1	54,30	392022	110	2	1	15,52
293666	52	3	100	6.469,08	294176	47	3	100	1.700,94	300420	78	2	1	47,61	392024	110	2	1	18,41
293678	52	3	100	9.957,95	294184	47	3	100	3.114,14	330046	10	3	1	267,30	392026	110	2	1	19,93
293680	52	3	100	7.214,72	294196	47	3	100	4.929,00	330048	10	3	1	355,20	392028	110	2	1	98,22
293688	52	3	100	12.194,87	294200	47	3	100	12,22	330050	10	3	1	297,90	392050	109	2	1	14,83
293690	52	3	100	9.974,52	294202	47	3	100	13,04	340256	43	3	100	11,95	392052	109	2	1	14,83
293810	52	3	100	246,35	294204	47	3	100	17,54	340258	43	3	100	13,45	392054	109	2	1	15,37
293812	52	3	100	370,56	294206	47	3	100	20,56	340270	43	3	100	12,54	392056	109	2	1	15,70
293814	52	3	100	1.126,39	294208	47	3	100	32,54	340272	43	3	100	14,29	392058	109	2	1	15,70
293816	52	3	100	609,76	294210	47	3	100	43,41	340274	43	3	100	14,81	392060	109	2	1	16,67
293960	52	3	100	2.802,30	294212	47	3	100	57,86	340288	43	3	100	25,16	392062	109	2	1	16,67
293962	52	3	100	3.207,78	294214	47	3	100	93,89	340290	43	3	100	31,16	392064	109	2	1	17,91
293964	52	3	100	3.288,89	294218	47	3	100	115,20	340304	43	3	100	11,16	392066	109	2	1	17,91
293966	52	3	100	3.451,08	294220	47	3	100	205,60	340314	43	3	100	13,10	392070	109	2	1	19,37
293968	52	3	100	4.676,52	294222	47	3	100	246,98	340322	43	3	100	28,97	392072	109	2	1	20,15
293970	52	3	100	5.185,62	294224	47	3	100	396,55	340350	43	3	100	25,55	392100	109	2	1	62,43
293972	52	3	100	5.352,33	294226	47	3	100	484,58	340352	43	3	100	28,97	392102	109	2	1	62,43
293974	52	3	100	6.487,67	294228	47	3	100	690,69	340354	43	3	100	29,87	392104	109	2	1	63,54
293976	52	3	100	8.776,36	294230	47	3	100	893,66	340392	43	3	100	10,76	392106	109	2	1	63,54
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294000	47	3	100	9,13	294234	47	3	100	1.824,17	340396	43	3	100	14,51	392110	109	2	1	72,84
294002	47	3	100	9,13	294500	51	3	100	14,11	340414	43	3	100	19,22	392112	109	2	1	80,30
294004	47	3	100	9,13	294502	51	3	100	14,11	340416	43	3	100	19,58	392114	109	2	1	84,38
294006	47	3	100	9,74	294504	51	3	100	14,11	340422	43	3	100	8,51	392116	109	2	1	96,80
294008	47	3	100	9,74	294506	51	3	100	20,02	340424	43	3	100	8,47	392118	109	2	1	117,63
294010	47	3	100	9,74	294508	51	3	100	20,02	340426	43	3	100	10,17	392120	109	2	1	164,42
294012	47	3	100	9,74	294510	51	3	100	20,02	363500	43	3	100	34,46	392122	109	2	1	12,89
294014	47	3	100	13,43	294512	51	3	100	26,51	363500/10	44	3	100	42,03	392124	109	2	1	1,24
294016	47	3	100	12,65	294514	51	3	100	26,51	363502	43	3	100	34,46	392800	101	1	1	626,92
294018	47	3	100	12,84	294516	51	3	100	40,67	363502/10	44	3	100	43,46	392802	101	1	1	866,46
294020	47	3	100	13,89	294518	51	3	100	40,67	363504	43	3	100	42,59	392804	101	1	1	968,40
294022	47	3	100	19,55	294520	51	3	100	40,67	363504/5	44	3	100	68,54	392806	101	1	1	1.223,24
294024	47	3	100	18,80	294522	51	3	100	40,67	363510	43	3	100	27,61	393000	99	2	1	5,53
294026	47	3	100	17,69	294524	51	3	100	51,61	363512	43	3	100	27,61	393002	99	2	1	7,94
294028	47	3	100	17,69	294526	51	3	100	51,61	363514	43	3	100	33,05	393004	99	2	1	6,00
294034	47	3	100	32,26	294528	51	3	100	51,61	363520	43	3	100	27,61	393006	99	2	1	8,27
294036	47	3	100	30,90	294530	51	3	100	51,61	363522	43	3	100	27,61	393008	99	2	1	9,94
294038	47	3	100	31,65	294532	51	3	100	61,28	363524	43	3	100	33,05	393010	99	2	1	10,42
294040	47	3	100	27,15	294534	51	3	100	61,28	363530	44	3	100	26,26	393012	99	2	1	10,48
294044	47	3	100																

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393156	101	1	1	<b>31,36</b>	790514	113	2	100	<b>5,53</b>
790005	113	2	100	<b>1,88</b>	790516	113	2	100	<b>5,09</b>
790006	113	2	100	<b>2,14</b>	790540	114	2	100	<b>12,75</b>
790008	113	2	100	<b>2,89</b>	790542	114	2	100	<b>10,29</b>
790015	113	2	100	<b>2,23</b>	790544	114	2	100	<b>12,17</b>
790016	113	2	100	<b>2,42</b>	790562	114	2	100	<b>15,26</b>
790017	113	2	100	<b>2,24</b>	790564	114	2	100	<b>19,17</b>
790018	113	2	100	<b>2,76</b>	790566	114	2	100	<b>18,43</b>
790027	113	2	100	<b>2,96</b>	790588	114	2	100	<b>25,14</b>
790029	113	2	100	<b>3,60</b>	790592	114	2	100	<b>37,13</b>
790030	113	2	100	<b>3,97</b>	790616	114	2	100	<b>44,94</b>
790031	113	2	100	<b>3,98</b>	790618	114	2	100	<b>53,25</b>
790040	113	2	100	<b>4,19</b>	790700	114	2	100	<b>2,20</b>
790041	113	2	100	<b>4,46</b>	790702	114	2	100	<b>2,82</b>
790043	113	2	100	<b>5,09</b>	790704	114	2	100	<b>6,80</b>
790051	113	2	100	<b>4,37</b>	790706	114	2	100	<b>4,67</b>
790053	113	2	100	<b>5,10</b>	790710	114	2	100	<b>4,51</b>
790054	113	2	100	<b>6,82</b>	790712	114	2	100	<b>3,98</b>
790055	113	2	100	<b>7,18</b>	790714	114	2	100	<b>4,80</b>
790056	113	2	100	<b>9,53</b>	790716	114	2	100	<b>9,66</b>
790063	113	2	100	<b>9,05</b>	790721	114	2	100	<b>4,92</b>
790064	113	2	100	<b>10,89</b>	790722	114	2	100	<b>6,62</b>
790065	113	2	100	<b>14,30</b>	790724	114	2	100	<b>6,92</b>
790079	113	2	100	<b>3,08</b>	790726	114	2	100	<b>8,17</b>
790090	113	2	100	<b>2,77</b>	790806	114	2	100	<b>2,28</b>
790091	113	2	100	<b>3,09</b>	790808	114	2	100	<b>2,54</b>
790093	113	2	100	<b>3,69</b>	790832	114	2	100	<b>3,58</b>
790100	113	2	100	<b>3,58</b>	790834	114	2	100	<b>4,04</b>
790101	113	2	100	<b>3,91</b>	790837	114	2	100	<b>5,17</b>
790102	113	2	100	<b>4,13</b>	790862	114	2	100	<b>5,62</b>
790103	113	2	100	<b>4,68</b>	790864	114	2	100	<b>6,35</b>
790104	113	2	100	<b>5,09</b>	790867	114	2	100	<b>8,17</b>
790111	113	2	100	<b>5,65</b>	790882	114	2	100	<b>8,54</b>
790112	113	2	100	<b>6,80</b>	790884	114	2	100	<b>9,56</b>
790113	113	2	100	<b>6,51</b>	790888	114	2	100	<b>12,18</b>
790118	113	2	100	<b>5,10</b>	790900	113	2	100	<b>15,68</b>
790120	113	2	100	<b>6,04</b>	790902	113	2	100	<b>52,76</b>
790121	113	2	100	<b>9,25</b>	790920	113	2	100	<b>2,84</b>
790210	113	2	100	<b>10,20</b>	790922	113	2	100	<b>3,51</b>
790211	113	2	100	<b>16,79</b>	792000	114	2	100	<b>1,31</b>
790212	113	2	100	<b>20,91</b>	792001	114	2	100	<b>1,69</b>
790212/V	113	2	100	<b>63,67</b>	792002	114	2	100	<b>2,04</b>
790222	113	2	100	<b>21,53</b>	792003	114	2	100	<b>3,72</b>
790223	113	2	100	<b>25,47</b>	792005	114	2	100	<b>8,44</b>
790223/V	113	2	100	<b>66,68</b>	792006	114	2	100	<b>16,15</b>
790224	113	2	100	<b>32,96</b>	792008	114	2	100	<b>19,62</b>
790224/V	113	2	100	<b>101,09</b>	792600	114	2	100	<b>1,42</b>
790225	113	2	100	<b>39,58</b>	792602	114	2	100	<b>1,68</b>
790235	113	2	100	<b>47,10</b>	792603	114	2	100	<b>2,01</b>
790235/V	113	2	100	<b>134,03</b>	792604	114	2	100	<b>2,24</b>
790236	113	2	100	<b>57,34</b>	792606	114	2	100	<b>3,43</b>
790237	113	2	100	<b>66,17</b>	792607	114	2	100	<b>6,50</b>
790303	113	2	100	<b>3,57</b>	792650	114	2	100	<b>5,95</b>
790311	113	2	100	<b>3,75</b>	792651	114	2	100	<b>7,96</b>
790325	113	2	100	<b>3,16</b>	792652	114	2	100	<b>8,53</b>
790326	113	2	100	<b>3,43</b>	792654	114	2	100	<b>12,57</b>
790327	113	2	100	<b>3,66</b>	792656	114	2	100	<b>31,41</b>
790329	113	2	100	<b>4,37</b>	792658	114	2	100	<b>28,49</b>
790332	113	2	100	<b>5,41</b>	792756	114	2	100	<b>2,13</b>
790333	113	2	100	<b>5,57</b>	792758	114	2	100	<b>2,89</b>
790334	113	2	100	<b>6,13</b>	792760	114	2	100	<b>4,12</b>
790335	113	2	100	<b>8,58</b>	792762	114	2	100	<b>6,08</b>
790411	113	2	100	<b>2,21</b>	792802	115	2	1	<b>109,54</b>
790413	113	2	100	<b>6,63</b>	792804	115	2	1	<b>130,85</b>
790416	113	2	100	<b>2,81</b>	792806	115	2	1	<b>132,18</b>
790417	113	2	100	<b>2,91</b>	792810	115	2	1	<b>114,52</b>
790419	113	2	100	<b>4,14</b>	792816	115	2	1	<b>164,05</b>
790422	113	2	100	<b>2,95</b>	792821	115	2	1	<b>140,04</b>
790423	113	2	100	<b>3,50</b>	794002	116	2	100	<b>4,80</b>
790424	113	2	100	<b>3,66</b>	794004	116	2	100	<b>8,45</b>
790426	113	2	100	<b>4,07</b>	794012	116	2	100	<b>4,75</b>
790428	113	2	100	<b>8,16</b>	794014	116	2	100	<b>5,07</b>
790432	113	2	100	<b>4,20</b>	794016	116	2	100	<b>11,49</b>
790433	113	2	100	<b>4,54</b>	794018	116	2	100	<b>21,36</b>
790434	113	2	100	<b>5,91</b>	794020	116	2	100	<b>8,07</b>
790436	113	2	100	<b>5,74</b>	794022	116	2	100	<b>10,31</b>
790450	114	2	100	<b>4,86</b>	794024	116	2	100	<b>10,74</b>
790452	114	2	100	<b>3,59</b>	794026	116	2	100	<b>13,52</b>
790454	114	2	100	<b>4,37</b>	794028	116	2	100	<b>17,72</b>
790456	114	2	100	<b>5,56</b>	794030	116	2	100	<b>25,39</b>
790470	114	2	100	<b>4,47</b>	794040	116	2	100	<b>69,49</b>
790500	114	2	100	<b>4,08</b>	794050	116	2	100	<b>13,01</b>
790502	114	2	100	<b>4,62</b>	794052	116	2	100	<b>28,39</b>
790504	114	2	100	<b>5,18</b>	794060	116	2	100	<b>72,47</b>
790510	113	2	100	<b>3,87</b>	794062	116	2	100	<b>101,90</b>
790512	113	2	100	<b>4,24</b>	794070	116	2	100	<b>35,63</b>

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102/10	144	8	1	16,06	127-2	141	8	1	12,38	1380/57	171	8	1	23,07	1710	147	8	1	20,18
102/8	144	8	1	16,06	128	140	8	1	54,79	1380/64	171	8	1	34,47	1724/300	145	8	1	19,21
103	144	8	1	54,00	129-100	141	8	1	48,57	1380/68	171	8	1	26,22	1726/146	145	8	1	18,14
104/10	141	8	1	12,62	129-12/10	140	8	1	6,87	1380/75	171	8	1	27,70	1728/146	145	8	1	10,64
104/3	141	8	1	6,47	129-12/11	140	8	1	8,34	1381	169	8	1	168,71	1729/146	145	8	1	20,33
104/4	141	8	1	6,47	129-12/13	140	8	1	6,87	1381-1/10	168	8	1	23,33	1730/146	145	8	1	1,11
104/5	141	8	1	7,10	129-12/14	140	8	1	8,34	1381-1/110	168	8	1	472,31	1731/146	145	8	1	1,05
104/6	141	8	1	8,47	129-12/17	140	8	1	6,87	1381-1/12	168	8	1	24,59	1732/146	145	8	1	1,11
104/8	141	8	1	9,58	129-12/19	140	8	1	8,04	1381-1/14	168	8	1	24,87	1737	173	8	1	33,19
1044/1,0	168	8	1	0,97	129-12/22	140	8	1	8,21	1381-1/18	168	8	1	58,35	1738/300	145	8	1	3,03
1044/1,5	168	8	1	0,97	129-12/24	140	8	1	8,96	1381-1/20	168	8	1	60,44	1739/300	145	8	1	3,14
1044/10,0	168	8	1	7,12	129-12/26	140	8	1	14,58	1381-1/25	168	8	1	70,85	1740/300	145	8	1	2,49
1044/10,5	168	8	1	7,91	129-12/29	140	8	1	10,40	1381-1/32	168	8	1	79,19	1743/150	173	8	1	8,18
1044/11,0	168	8	1	8,64	129-12/32	140	8	1	11,65	1381-1/35	168	8	1	95,28	1743/200	173	8	1	9,81
1044/11,5	168	8	1	9,53	129-13/13	140	8	1	6,38	1381-1/40	168	8	1	182,62	1745/150	172	8	1	2,95
1044/12,0	168	8	1	10,65	129-14/6	140	8	1	21,70	1381-1/45	168	8	1	106,27	1745/200	172	8	1	3,67
1044/12,5	168	8	1	10,93	129-3/250	140	8	1	74,21	1381-1/50	168	8	1	218,33	1745/300	172	8	1	5,15
1044/13,0	168	8	1	12,33	129-30	141	8	1	197,50	1381-1/55	168	8	1	116,70	1746/100	172	8	1	2,20
1044/2,0	168	8	1	0,97	129-50	142	8	1	86,90	1381-1/6	168	8	1	20,87	1746/150	172	8	1	2,95
1044/2,5	168	8	1	0,97	129-7/125	141	8	1	13,52	1381-1/60	168	8	1	141,63	1747/225	173	8	1	3,31
1044/3,0	168	8	1	1,04	129-9/1/2	141	8	1	16,41	1381-1/68	168	8	1	158,71	1750/150	172	8	1	5,36
1044/3,5	168	8	1	1,35	1315/120-10	147	8	1	3,86	1381-1/75	168	8	1	141,70	1750/200	172	8	1	6,16
1044/4,0	168	8	1	1,69	1315/120-12	147	8	1	4,12	1381-1/8	168	8	1	21,72	1751/115	172	8	1	18,36
1044/4,5	168	8	1	1,91	1340/250	147	8	1	30,69	1381-1/82	168	8	1	150,04	1752/200	172	8	1	8,53
1044/5,0	168	8	1	2,13	1341/250	147	8	1	30,14	1381-4	169	8	1	115,32	1753/200	172	8	1	18,94
1044/5,5	168	8	1	2,29	1342/200	147	8	1	48,12	1381-6	169	8	1	247,19	1754/225	172	8	1	42,55
1044/6,0	168	8	1	2,53	1362	174	8	1	19,40	1381-7	169	8	1	213,04	1755/150	172	8	1	3,85
1044/6,5	168	8	1	3,00	1365	174	8	1	140,09	1382	171	8	1	225,80	1756/75	173	8	1	2,48
1044/7,0	168	8	1	3,59	1366-2/10	168	8	1	12,63	1384	171	8	1	188,59	1757/150	172	8	1	6,77
1044/7,5	168	8	1	4,04	1366-2/14	168	8	1	18,32	1385-1/10	169	8	1	58,09	1757/225	172	8	1	8,68
1044/8,0	168	8	1	5,05	1366-2/6	168	8	1	8,15	1385-1/12	169	8	1	62,83	1757/300	172	8	1	11,30
1044/8,5	168	8	1	5,37	1366-2/8	168	8	1	10,25	1385-1/14	169	8	1	67,03	1758/105	173	8	1	2,77
1044/9,0	168	8	1	5,94	1368	168	8	1	86,64	1385-1/5	169	8	1	47,87	1758/55	173	8	1	2,27
1044/9,5	168	8	1	6,39	1368-1/10	168	8	1	25,48	1385-1/6	169	8	1	50,43	1759/150	172	8	1	3,38
1045/3,2	168	8	1	2,34	1368-1/13	168	8	1	29,31	1385-1/8	169	8	1	53,87	1759/225	172	8	1	4,46
105/10	144	8	1	34,08	1368-1/14	168	8	1	34,40	1385-6	169	8	1	58,41	1759/280	172	8	1	5,69
106	144	8	1	69,36	1368-1/5	168	8	1	13,13	1386/68	169	8	1	185,15	1761/150	172	8	1	3,13
106-2	144	8	1	38,46	1368-1/6	168	8	1	13,79	1386/82	169	8	1	222,42	1761/225	172	8	1	3,96
1060/2	168	8	1	66,62	1368-1/8	168	8	1	19,11	1391/6	147	8	1	10,20	1762/150	172	8	1	3,13
1060/3	168	8	1	122,66	1374/110x6	168	8	1	5,79	1409/1000	147	8	1	26,27	1762/225	172	8	1	3,96
1065	168	8	1	54,70	1374/160x10	168	8	1	7,31	1409/1250	147	8	1	28,77	1763/305	173	8	1	41,04
1085/1	171	8	1	2,61	1374/160x12	168	8	1	8,41	1409/1500	147	8	1	31,18	1763/455	173	8	1	58,43
1085/2	171	8	1	2,49	1374/160x14	168	8	1	9,58	1470/300	147	8	1	20,18	1764/300	173	8	1	40,43
1086/1-5	171	8	1	19,07	1374/160x15	168	8	1	11,10	1470/500	147	8	1	20,73	1830	139	8	1	28,03
1086/1-6	171	8	1	28,03	1374/160x6	168	8	1	5,52	1608/60	137	8	1	89,54	2036	139	8	1	74,09
1086/1-8	171	8	1	69,52	1374/160x8	168	8	1	5,99	1609/1/60	137	8	1	124,95	2066/100	138	8	1	8,93
1087/5	145	8	1	27,02	1374/210x10	168	8	1	8,13	1609/60	137	8	1	95,67	2066/80	138	8	1	8,68
1087/7	145	8	1	49,94	1374/210x12	168	8	1	9,24	1616/620	137	8	1	281,49	2070/125	138	8	1	12,82
1088	145	8	1	180,94	1374/210x14	168	8	1	13,49	1638/150	166	8	1	18,51	2070/150	138	8	1	17,53
109/1	142	8	1	17,51	1374/210x16	168	8	1	12,62	1640/150	166	8	1	18,51	2073-8/100	138	8	1	10,24
109/2	142	8	1	18,32	1374/210x18	168	8	1	15,09	1644/250	166	8	1	24,70	2073-8/125	138	8	1	11,57
110	141	8	1	30,33	1374/210x8	168	8	1	7,59	1644/500	166	8	1	49,52	2073-8/150	138	8	1	13,55
112/1,5	142	8	1	0,67	1374/460x10	168	8	1	13,41	1645/20	166	8	1	4,97	2073-8/75	138	8	1	8,76
112/10	142	8	1	4,86	1374/460x12	168	8	1	14,41	1646-1/250-1,0	166	8	1	42,46	2079-18/1	138	8	1	13,06
112/11	142	8	1	4,12	1374/460x14	168	8	1	17,51	1646-1/500-1,0	166	8	1	67,27	2079-18/2	138	8	1	15,68
112/12	142	8	1	7,24	1374/460x16	168	8	1	20,46	1646-1/500-1,5	166	8	1	67,04	2079-8/1	138	8	1	11,16
112/13	142	8	1	5,52	1374/460x18	168	8	1	22,74	1646/500	166	8	1	66,39	2079-8/2	138	8	1	14,05
112/14	142	8	1	6,90	1374/460x20	168	8	1	26,47	1649	165	8	1	3,88	2080-1/1	138	8	1	11,90
112/15	142	8	1	8,27	1374/460x24	168	8	1	37,00	1653-1/250	148	8	1	14,60	2080-1/2	138	8	1	14,36
112/17	142	8	1	11,99	1374/600x12	168	8	1	28,03	1654-1/250	148	8	1	23,16	2080/1	138	8	1	13,64
112/19	142	8	1	16,54	1374/600x16	168	8	1	44,92	1655-1/250	148	8	1	16,11	2080/2	138	8	1	15,29
112/2	142	8	1	0,67	1379-3/10	169	8	1	26,17	1658-1/250	148	8	1	50,86	2088-1/145	139	8	1	3,17
112/2,5	142	8	1	0,72	1379-3/12	169	8	1	30,16	1664/200	148	8	1	14,46	2088/145	138	8	1	2,76
112/22	142	8	1	37,05	1379-3/5	169	8	1	40,77	1666-1/250	148	8	1	28,20	2122	138	8	1	57,34
112/24	142	8	1	60,82	1379-3/6	169	8	1	23,73	1705/12	148	8	1	22,20	2126/7	138	8	1	66,25
112/3	142	8	1	0,72	1379-3/8	169	8	1	23,73	1705/15	148	8	1	38,29	2128	139	8	1	91,75
112/4	142	8	1	0,97	1379-4	169	8	1	115,32	1705/18	148	8	1	38,29	2139	139	8	1	31,09
112/5	142	8	1	1,04	1379-6	169	8	1	198,18	1705/22	148	8	1	35,01	2142	139	8	1	30

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2522	151	8	1	6,68	3701/10	157	8	1	63,56	4405/7	163	8	1	68,28	619/11/2	137	8	1	75,66
2523/240	151	8	1	2,76	3701/3	157	8	1	42,28	4406	163	8	1	56,32	619/2	137	8	1	130,08
2524/235	151	8	1	3,96	3701/5	157	8	1	45,27	4407	163	8	1	58,95	619/3	137	8	1	230,99
2525	152	8	1	1,62	3702/5	158	8	1	77,55	4408	163	8	1	62,07	6200/115	173	8	1	3,09
2525-1	152	8	1	1,62	3702/8	158	8	1	139,53	4426	163	8	1	196,79	6200/125	173	8	1	3,30
2525-2	152	8	1	1,62	3712/10x12	158	8	1	225,57	4427	163	8	1	97,58	6200/178	173	8	1	3,86
2526/100	152	8	1	1,37	3712/10x15	158	8	1	401,67	4428	163	8	1	33,17	6200/230	173	8	1	5,89
2528	151	8	1	26,75	3712/5x10	158	8	1	144,86	4429	163	8	1	31,49	6215/115	173	8	1	2,94
2550/700	152	8	1	55,90	3712/5x15	158	8	1	146,27	4429-1/5	163	8	1	50,45	6215/125	173	8	1	3,26
2562/1000	152	8	1	289,30	3713/10x10	158	8	1	195,85	4430	163	8	1	20,97	6215/150	173	8	1	4,10
27/300	137	8	1	100,73	3713/10x12	158	8	1	182,28	4435/250	163	8	1	29,59	6215/230	173	8	1	8,27
2814/20	152	8	1	10,26	3713/5x10	158	8	1	91,18	4435/350	163	8	1	41,94	6219/125	173	8	1	191,14
2836-1/1000	152	8	1	100,09	3713/5x12	158	8	1	104,97	4436/250	163	8	1	58,82	622-1	155	8	1	17,59
2836-1/400	152	8	1	57,04	3714/10	157	8	1	159,08	4436/350	163	8	1	66,34	622/28	154	8	1	152,90
2836-1/600	152	8	1	81,24	3714/5	157	8	1	94,89	4443	163	8	1	179,26	623-1/3/4-4	137	8	1	70,63
2836-1/800	152	8	1	92,35	3720	157	8	1	269,14	4443-1	163	8	1	10,11	623/3/4-4	137	8	1	162,61
2836/1000	152	8	1	57,15	3720-1	157	8	1	109,63	4443-2	163	8	1	25,58	6240/115	173	8	1	26,23
2836/300	152	8	1	42,70	3720-2	157	8	1	55,16	4444	164	8	1	61,59	6240/125	173	8	1	33,07
2836/400	152	8	1	44,19	3722	157	8	1	190,76	4446	164	8	1	33,55	6240/180	173	8	1	69,97
2836/600	152	8	1	50,98	3730/1	158	8	1	109,58	4447	164	8	1	58,63	6240/230	173	8	1	102,66
2836/800	152	8	1	53,32	3730/2	158	8	1	210,76	4447-0	164	8	1	63,27	625-10SE	161	8	1	1.216,80
2845	143	8	1	168,20	3741	158	8	1	12.600,00	4447-1	164	8	1	87,15	625-13SE	161	8	1	1.216,80
2861/50	152	8	1	5,37	3780	158	8	1	324,50	4447-11	164	8	1	64,96	625-1AK/AC0103	159	8	1	440,85
2862/50	152	8	1	6,82	3800-1/1	157	8	1	213,30	4452/1,5	164	8	1	26,04	625-1KO/AC0103	159	8	1	242,94
2900/60	148	8	1	10,78	3800-1/2	157	8	1	241,85	4452/2	164	8	1	46,69	625-1LA/AC0103	159	8	1	329,34
2904/140	148	8	1	10,93	3800-1/3	157	8	1	291,28	4452/3	164	8	1	51,57	625-1PM/AC0103	159	8	1	3.218,80
2908/160	148	8	1	16,82	3800-1/4	157	8	1	629,21	4452/5	164	8	1	65,74	625-1SE/AC0103	159	8	1	4.222,08
2952/30	148	8	1	4,12	3800-2	157	8	1	127,43	49/250	140	8	1	21,44	625-20/PB1V12	161	8	1	334,40
2952/40	148	8	1	4,35	3800-3	157	8	1	231,39	49/310	140	8	1	29,22	625-20/PB1V15	161	8	1	334,40
2952/50	148	8	1	5,05	3805/1	157	8	1	40,90	5000	165	8	1	107,95	625-20/PB1V18	161	8	1	334,40
2952/70	148	8	1	5,28	3805/2	157	8	1	48,19	5100/350	165	8	1	10,99	625-20/PB1V22	161	8	1	334,40
2980	146	8	1	12,82	3805/3	157	8	1	62,53	516/220	138	8	1	34,87	625-20/PB1V28	161	8	1	334,40
2982	146	8	1	10,20	3805/4	157	8	1	83,93	5200	165	8	1	49,48	625-20/PB1V35	161	8	1	398,50
2991	146	8	1	13,23	3805/5	157	8	1	165,51	5205	165	8	1	98,33	625-23/PB1M12	161	8	1	334,40
2992	146	8	1	3,87	3806/1	157	8	1	83,93	5210	165	8	1	4,76	625-23/PB1M15	161	8	1	334,40
2993	146	8	1	8,41	3806/2	157	8	1	165,51	522	138	8	1	112,44	625-23/PB1M18	161	8	1	334,40
2994/160	148	8	1	28,11	3806/3	157	8	1	297,39	543/120	138	8	1	186,83	625-23/PB1M22	161	8	1	334,40
2996/135	148	8	1	7,27	3820	174	8	1	13,41	546-1/10	174	8	1	9,53	625-23/PB1M28	161	8	1	334,40
2997/25	148	8	1	4,36	3825	174	8	1	7,92	546-1/8	174	8	1	9,53	625-23/PB1M35	161	8	1	398,50
2997/40	148	8	1	5,57	3902	167	8	1	343,44	546-1/9	174	8	1	9,53	625-24/PB1T16	161	8	1	329,78
2998	148	8	1	5,17	3902-3	167	8	1	32,61	546-10	174	8	1	19,92	625-24/PB1T20	161	8	1	329,78
2999	165	8	1	0,76	3922/1-2	167	8	1	on request	546-20	174	8	1	34,17	625-24/PB1T26	161	8	1	309,65
2999-1/25	148	8	1	3,00	3923/2-4	167	8	1	on request	546-30	174	8	1	51,13	625-24/PB1T32	161	8	1	329,78
2999-1/50	148	8	1	4,87	3924/4-6	167	8	1	on request	546-40	174	8	1	68,44	625-24/PB1T40	161	8	1	423,89
3451/10	153	8	1	25,48	3925/6-9	167	8	1	on request	546-50	174	8	1	85,48	625-25/PB1U16	161	8	1	329,78
3454/10	152	8	1	6,69	3926/9-14	167	8	1	on request	546-60	174	8	1	99,40	625-25/PB1U20	161	8	1	329,78
3454/11	152	8	1	6,69	3936/1-2	167	8	1	on request	546/130	174	8	1	158,44	625-25/PB1U25	161	8	1	329,78
3454/9	152	8	1	6,69	3937/2-4	167	8	1	177,85	546/150	174	8	1	169,63	625-25/PB1U32	161	8	1	329,78
3458/10	152	8	1	4,60	3938/4-6	167	8	1	on request	546/170	174	8	1	192,49	625-25/PB1U40	161	8	1	423,89
3458/9	152	8	1	4,60	3939/6-9	167	8	1	on request	548/10	174	8	1	51,39	625-2KO/EFP203	159	8	1	277,68
3459/10	153	8	1	3,57	3946/1-2	167	8	1	54,28	548/12	174	8	1	54,53	625-2PG/EFP203	159	8	1	2.925,17
3462/1-12	175	8	1	104,02	3947/2-4	167	8	1	54,28	548/8	174	8	1	48,69	625-2SE/EFP203	159	8	1	4.069,06
3462/1-3	175	8	1	40,10	3948/4-6	167	8	1	54,28	548/9	174	8	1	48,69	625-30/PB2V12	161	8	1	380,32
3462/1-4	175	8	1	55,74	3949/6-9	167	8	1	57,01	550/180	174	8	1000	31,90	625-30/PB2V15	161	8	1	380,32
3462/1-6	175	8	1	43,04	4005	167	8	1	35,99	551/500	174	8	1	36,37	625-30/PB2V18	161	8	1	380,32
3462/1-8	175	8	1	72,45	4070	167	8	1	103,17	56/10x11	139	8	1	5,30	625-30/PB2V22	161	8	1	383,31
3462/10-25	175	8	1	517,57	4071	167	8	1	103,17	56/10x13	139	8	1	5,43	625-30/PB2V28	161	8	1	383,31
3466/1	175	8	1	376,23	4073/10	167	8	1	313,99	56/12x13	139	8	1	5,61	625-30/PB2V35	161	8	1	387,25
3466/2	175	8	1	564,91	4073/20	167	8	1	508,73	56/14x15	139	8	1	7,46	625-30/PB2V42	161	8	1	984,67
3466/3	175	8	1	849,62	4080	166	8	1	on request	56/14x17	139	8	1	7,93	625-30/PB2V54	161	8	1	1.067,91
3467/1	175	8	1	210,34	4081	166	8	1	on request	56/16x17	139	8	1	9,00	625-33/PB2M12	161	8	1	380,32
3467/3	175	8	1	371,77	4082	166	8	1	on request	56/17x19	139	8	1	10,03	625-33/PB2M15	161	8	1	380,32
3468/0	175	8	1	139,07	4090	166	8	1	197,39	56/18x19	139	8	1	9,86	625-33/PB2M18	161	8	1	380,32
3468/1	175	8	1	218,54	4091	166	8	1	on request	56/20x22	139	8	1	13,27	625-33/PB2M22	161	8	1	383,27
3468/2	175	8	1	254,26	4092	166	8	1	on request	56/21x23	139	8	1	12,06	625-33/PB2M28	161	8	1	383,31
3468/3	175	8	1	363,50	4200	165	8	1	8,10	56/22x24	139	8	1	13,01	625-33/PB2M35	161	8	1	387,25
3468/4	175	8	1	677,12	4207	153	8	1	3,29	56/24x27	139	8	1	16,48	625-34/PB2T16	161	8	1	380,32
3468/5	175	8	1	1.203,86	4210	153	8	1	11,83	56/25x28	139	8	1	17					

Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR	Art. no.	Page	PG	PU	EUR
625-45/PS2U63	162	8	1	1.754,06	637-1/12	156	8	1	99,65	705/1/2	143	8	1	94,30	912/34	170	8	1	83,92
625-4KO/ECO203	159	8	1	310,85	637-1/14	156	8	1	99,65	714/1	144	8	1	82,99	912/36	170	8	1	71,08
625-4PG/ECO203	159	8	1	3.455,68	637-1/15	156	8	1	99,65	714/2	144	8	1	82,99	912/38	170	8	1	94,24
625-4SE/ECO203	159	8	1	4.599,57	637-1/16	156	8	1	99,65	715/2	144	8	1	134,50	912/39	170	8	1	112,49
625-53/PS3M08	162	8	1	3.033,04	637-1/17	156	8	1	99,65	718/1	144	8	1	10,96	912/40	170	8	1	112,49
625-53/PS3M42	162	8	1	1.588,53	637-1/18	156	8	1	103,64	718/1/2	144	8	1	9,85	912/41	170	8	1	112,49
625-53/PS3M54	162	8	1	1.588,53	637-1/20	156	8	1	103,64	718/3/4	144	8	1	10,40	912/42	170	8	1	127,80
625-53/PS3M64	162	8	1	2.318,21	637-1/22	156	8	1	103,64	718/3/8	144	8	1	9,51	912/43	170	8	1	130,39
625-53/PS3M76	162	8	1	2.071,55	637-1/26	156	8	1	166,09	725	143	8	1	40,77	912/44	170	8	1	130,39
625-53/PS3M88	162	8	1	2.271,30	637-1/32	156	8	1	276,38	726	143	8	1	64,80	912/45	170	8	1	133,95
625-5AK/ACO203	160	8	1	903,07	637-10	156	8	1	1.210,50	7360	150	8	1	544,16	912/46	170	8	1	133,95
625-5KO/ACO203	159	8	1	310,85	637-2	156	8	1	4,40	7362	150	8	1	1.317,54	912/48	170	8	1	147,50
625-5KO/ACOXL	159	8	1	310,85	637-20	156	8	1	1.070,33	7410	149	8	1	407,75	912/49	170	8	1	147,50
625-5LA/ACO203	160	8	1	on request	637-4	156	8	1	16,96	7413	150	8	1	801,08	912/50	170	8	1	153,63
625-5PM/ACO203	159	8	1	3.978,12	637-6/1	156	8	1	122,23	7416	150	8	1	438,05	912/51	170	8	1	162,54
625-5SE/ACO203	159	8	1	5.457,72	637-6/2	156	8	1	122,23	7418	149	8	1	741,59	912/52	170	8	1	162,54
625-5XL/ACO203	160	8	1	5.702,97	637-6/3	156	8	1	148,81	7419	149	8	1	824,10	912/53	170	8	1	167,06
625-63/PS4H08	162	8	1	3.673,01	637-6/4	156	8	1	163,43	7420/1	150	8	1	281,34	912/55	170	8	1	175,34
625-63/PS4H76	162	8	1	2.861,76	637-6/5	156	8	1	413,24	7420/2	150	8	1	298,47	913/10x1	171	8	1	8,41
625-63/PS4H88	162	8	1	2.928,59	638/12	156	8	1	81,85	7421	149	8	1	700,85	913/12x1,5	171	8	1	11,10
625-7KO/PS323	160	8	1	313,46	638/15	156	8	1	104,29	7438	149	8	1	1.195,21	913/16x1,5	171	8	1	14,34
625-7KO/PS324	160	8	1	313,46	638/18	156	8	1	120,00	7515	150	8	1	99,39	914	170	8	1	103,15
625-8PG/ACO403	160	8	1	9.338,93	638/22	156	8	1	131,20	7516	150	8	1	484,20	915/1	170	8	1	41,16
625-KO/PB1	160	8	1	233,36	64/10	139	8	1	7,28	7530	149	8	1	1.465,34	915/2	170	8	1	48,66
625-KO/PB2	160	8	1	261,43	64/13	139	8	1	8,74	762/260	146	8	1	63,45	915/7	170	8	1	99,14
625-KO/PS2	160	8	1	283,78	64/17	139	8	1	12,39	7640	151	8	1	286,70	917	170	8	1	197,92
625-KO/ZBXL	160	8	1	313,46	64/19	139	8	1	14,23	7640-1	151	8	1	90,75	918	170	8	1	205,67
625-ZB/221XL	162	8	1	1.418,26	64/24	139	8	1	21,19	7640-2	151	8	1	119,62	918-1	170	8	1	222,03
625-ZB/222XL	162	8	1	1.418,26	646	156	8	1	17,90	7641	151	8	1	458,71	92-1	141	8	1	72,21
625-ZB/PS203	162	8	1	500,75	647/63	156	8	1	99,11	7641-1	151	8	1	106,76	92/10x11	141	8	1	5,30
625-ZB/SETXL	162	8	1	3.142,54	648/35	156	8	1	82,82	786/260	146	8	1	51,16	92/12x13	141	8	1	6,08
627	154	8	1	133,79	648/54	156	8	1	94,30	792/250	146	8	1	33,28	92/14x15	141	8	1	6,40
627-1	155	8	1	9,16	655	142	8	1	64,99	793/250	146	8	1	33,28	92/17x19	141	8	1	9,51
627-2	155	8	1	8,37	655-1/10	143	8	1	12,56	794/250	146	8	1	33,80	92/19x22	141	8	1	11,71
627-4	154	8	1	5,79	655-1/11	143	8	1	12,56	798/300	146	8	1	52,48	92/20x22	141	8	1	12,74
627-5	155	8	1	16,60	655-1/12	143	8	1	12,56	8030/1,0	165	8	1	40,18	92/22x24	141	8	1	14,74
627-70	154	8	1	151,85	655-1/14	143	8	1	12,56	8030/1,5	165	8	1	40,86	92/24x27	141	8	1	16,54
627-71	155	8	1	31,09	655-1/32	143	8	1	26,29	8061/1,0	165	8	1	4,76	92/30x32	141	8	1	22,61
628-1	155	8	1	55,27	655-1/9	143	8	1	12,56	8061/1,5	165	8	1	5,30	92/32x36	141	8	1	37,82
628/140	155	8	1	232,12	659	143	8	1	39,51	8080	165	8	1	51,74	92/6x7	141	8	1	4,94
629-1/2	155	8	1	13,65	659-1	143	8	1	52,65	81-1/10	140	8	1	167,89	92/8x9	141	8	1	5,58
629-1/4	155	8	1	38,69	66-1/10	140	8	1	107,23	83	139	8	1	44,59	94/10	141	8	1	8,34
629-2/2	155	8	1	14,33	66-1/8	140	8	1	66,61	90/10	141	8	1	11,44	94/13	141	8	1	9,38
629-2/4	155	8	1	22,74	660	138	8	1	34,64	90/11	141	8	1	12,47	94/17	141	8	1	14,00
629-3/2	155	8	1	6,90	661	142	8	1	35,68	90/12	141	8	1	12,47	94/19	141	8	1	16,20
629-3/4	155	8	1	7,59	662	142	8	1	32,35	90/13	141	8	1	12,47	94/22	141	8	1	19,85
629-4/2	155	8	1	6,13	663	138	8	1	19,58	90/9	141	8	1	11,44	94/36	141	8	1	47,68
629-4/4	155	8	1	22,74	665/235	143	8	1	54,96	900/11	170	8	1	54,70					
629/2	154	8	1	162,01	666/1	145	8	1	20,58	900/13,5	170	8	1	57,01					
629/4	154	8	1	532,84	666/2	145	8	1	21,23	900/16	170	8	1	59,19					
631	154	8	1	24,51	670/170	144	8	1	24,37	900/21	170	8	1	56,13					
631-10	154	8	1	41,54	671/240	144	8	1	22,74	900/29	170	8	1	90,51					
631-12	154	8	1	6,35	672/265	140	8	1	47,47	900/36	170	8	1	135,40					
631-13	154	8	1	3,17	673-1/1	145	8	1	49,96	900/42	170	8	1	170,08					
631-14	154	8	1	4,49	673-1/2	145	8	1	60,54	900/48	170	8	1	204,60					
631-2	154	8	1	6,35	673-2/2	145	8	1	66,65	900/9	170	8	1	46,11					
631-3	154	8	1	3,17	673/105	145	8	1	38,98	9001	137	8	1	130,93					
631-4	154	8	1	4,49	673/86	144	8	1	28,79	9025	150	8	1	207,05					
631-5	154	8	1	29,57	674	144	8	1	83,34	905/16,5	170	8	1	50,56					
631-52	154	8	1	6,35	675	144	8	1	73,11	905/20,5	170	8	1	59,78					
631-53	154	8	1	3,17	676	143	8	1	45,87	905/25,5	170	8	1	73,45					
631-54	154	8	1	4,49	676-1	143	8	1	96,84	905/32,5	170	8	1	84,66					
632-1	155	8	1	6,13	677	142	8	1	231,91	905/40,5	170	8	1	122,23					
632-11	155	8	1	6,13	677-1	142	8	1	407,75	905/50,5	170	8	1	166,52					
633-1	155	8	1	9,31	682/250	137	8	1	56,07	905/63,5	170	8	1	231,57					
633-2	154	8	1	10,34	685/175	137	8	1	35,88	910/11/4	170	8	1	57,86					
633-3	154	8	1	6,35	685/240	137	8	1	39,25	910/11/8	170	8	1	56,27					
633-4	154	8	1	6,90	685/300	137	8	1	51,57	912/15	170	8	1	47,28					
633-71/35	154	8	1	96,84	687/150	137	8	1	43,54	912/16	170	8	1	49,49					
633-75	155	8	1	20,14	687/180	137	8	1	43,57	912/17	170	8	1	49,49					
633-75A	155	8	1	28,62	687/250	137	8	1	53,98	912/18	170	8	1	49,49					
633-76	154	8	1	46,40	687/300	137	8	1	67,52	912/19	170	8	1	53,91					
633/35	154	8	1	55,20	687/400	137	8	1	156,78	912/20	170	8	1	53,91					
633/45	154	8	1	63,															

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Fax: 0091 0253 2354948  
Mobil: 9850888866  
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## Contact



## HAUPA GmbH & Co. KG General Terms and Conditions of Business and Delivery

### 1 General/ provisions/Scope

1.1 These HAUPA GmbH & Co. KG (hereinafter referred to as "HAUPA") General Terms of Business and Delivery apply exclusively. Terms and conditions of a HAUPA contractual partner (hereinafter referred to as a "Customer") that contradict or deviate from these Terms and Conditions of Sale and Delivery will not be recognised unless HAUPA has expressly agreed in writing to the applicability of such deviating terms and conditions. These Terms and Conditions of Business and Delivery shall also apply if HAUPA makes a delivery to a Customer without reservation with knowledge that the Customer's terms and conditions conflict with or deviate from these Terms and Conditions of Business and Delivery.

1.2 These Terms and Conditions of Business and Delivery also apply to all future transactions with the Customer.

1.3 These Terms and Conditions of Business and Delivery only apply in dealings with business enterprises.

### 2 Offer and acceptance

2.1 All offers from HAUPA are subject to confirmation. This is subject to reservation of the right to discontinue articles and to make price changes. The scope of HAUPA's delivery obligation is determined by its order confirmation or offer. Verbal and telephonic agreements only become effective upon written confirmation.

2.2 If an order qualifies as an offer according to section 145 German Civil Code (BGB), HAUPA may accept such an offer within four weeks. A contract is concluded at the latest upon dispatch of the order confirmation, shipment of ordered goods or, in the case of partial delivery, upon shipment of the first delivery.

2.3 Documents, drawings, weight and measurement data, samples, etc. contained in offers are only approximate information and do not represent guaranteed characteristics. HAUPA is entitled to deviate from descriptions in an offer, provided that such deviations are not of a fundamental or essential nature and do not impair the contractually intended use.

2.4 If parts are manufactured by HAUPA according to Customer drawings, drawings prepared by HAUPA and approved by the Customer are deemed to be authoritative. Deviations from approved drawings must be agreed separately and any additional costs incurred as a result must be reimbursed.

2.5 If the Customer requests customised cost estimates, any associated expenses must be reimbursed. If an order is placed, any respective expenses in this regard will be offset against the purchase price.

### 3 Intellectual property rights

3.1 HAUPA reserves ownership and copyright to all illustrations, drawings, calculations and other documents. Without limitation, this applies to written documents that are designated as "confidential". They may only be disclosed to third parties by the Customer with the prior written consent of HAUPA.

3.2 If supplies of goods and services are made on the basis of drawings or other information provided by the Customer, and if third-party industrial property rights are asserted in this regard, as between the parties, the Customer shall indemnify HAUPA against all such claims.

### 4 Delivery/Delay in delivery

4.1 Delivery periods and delivery dates shall only be deemed to have been agreed as binding if they are expressly agreed in writing in the offer. HAUPA shall not be bound by the delivery date or the delivery period if the Customer does not fulfil its obligations (instalment payments, provision of necessary documents, etc.) on a timely basis. The right to assert the defence of non-performance of the contract remains reserved.

4.2 Delivery periods shall commence on the day on which the contract was concluded in writing at the earliest. The commencement of such period presupposes clarification of all technical questions.

4.3 In the event of subsequent changes requested by the Customer, HAUPA is released from the obligation to comply with the delivery date or delivery period.

4.4 The delivery period shall be deemed to have been complied with if the delivery item has left HAUPA's works, or HAUPA has provided notice that goods are ready for dispatch, by the end of the delivery period.

4.5 The Customer cannot assert any claims due to delays in delivery which are not due to intent or gross negligence on the part of HAUPA. This applies in particular to delays in delivery due to a force majeure event. In such cases, the agreed delivery date or delivery period shall be postponed in accordance with the duration of the respective impediment to delivery.

4.6 Returns can only be made with the express prior consent of HAUPA. Parts from the current delivery programme must be returned in their original packaging free of defects and in salable condition. Returns must be carriage paid and at the risk of the sender with deduction of a 20% return fee. Processing fees will be deducted on a time and materials basis. Such costs may include recoding, cleaning and repackaging expenses.

4.7 If the Customer is in default of acceptance or violates other duties to cooperate, HAUPA is entitled to demand compensation for damages incurred in this respect, including any additional expenses. HAUPA is also entitled to set a reasonable acceptance period for the Customer and to withdraw from the contract after its expiry without success and may claim damages in lieu of performance.

4.8 In the case of special articles, HAUPA reserves the right to make over or underdeliveries of up to 10%.

### 5 Passage of risk/Packaging

5.1 Risk shall pass to the Customer upon dispatch of the goods at the latest, even if partial deliveries are made.

5.2 Deliveries are made ex works. HAUPA will insure the goods against insurable risks at the expense of the Customer only on the Customer's express request.

5.3 Transport packaging and all other packaging in accordance with the Packaging Ordinance shall not be taken back. The Customer is obliged to arrange for the disposal of such packaging at its own expense.

### 6 Prices/Payment terms

6.1 Unless otherwise stated in the order confirmation, prices quoted are ex works in all cases, excluding packaging, which shall be charged separately.

6.2 Quoted prices are net prices; statutory value added tax will be added at the applicable rate.

6.3 HAUPA may charge the Customer for any additional costs incurred as a result of subsequent change requests.

6.4 Invoices are due for payment within 30 days of the invoice date without deduction. Discounts shall only be deemed agreed if expressly confirmed in writing by HAUPA.

6.5 HAUPA is entitled, even in the event of conflicting payment terms of the Customer, to apply payment first to the oldest obligation not yet reduced to judgement. If costs or interest have already been incurred, HAUPA is entitled to set off payments first against the costs, then against interest and finally against the principal obligation.

6.6 HAUPA is entitled to assign claims within the HAUPA Group.

6.7 The Customer is only entitled to apply a set-off if and insofar as its counterclaims have been reduced to final judgement, are undisputed or have been acknowledged in writing by HAUPA. The Customer's right of retention is limited to claims arising from the contractual relationship.

### 7 Liability

7.1 HAUPA is not liable for damages caused by improper handling, wear, storage or other actions of the Customer or third parties.

7.2 Statutory claims arising from liability for material defects shall become time-barred 24 months after delivery of the goods. This does not constitute a guarantee of liability. Batteries are excluded from this limitations period. For supplies of batteries, we only recognise a period of six months from delivery. This does not constitute a guarantee of durability.

7.3 The Customer is obliged to comply with its duty of inspection according to section 377 German Commercial Code (HGB) even if the goods are resold.

7.4 HAUPA has the right to choose between repair or replacement.

7.5 HAUPA shall not bear expenses required for the purpose of tracking if such expenses are increased by the fact that the goods were taken to a place other than the Customer's place of business after delivery. This does not apply if moving the product conforms to its intended use.

7.6 The Customer's right of recourse against HAUPA on account of claims arising from liability for material defects asserted against the Customer by its customers is excluded if the Customer has not fulfilled its obligation to inspect and give notice of defects or if the goods have been modified by means of processing.

7.7 HAUPA's liability for damages according to applicable statutory provisions is unlimited if a breach of duty attributable to HAUPA is based on intent or gross negligence. To the extent that the respective breach of duty attributable to HAUPA is due to ordinary negligence, and an essential contractual obligation has been culpably breached, liability for damages is limited to foreseeable damages typically occurring in comparable cases. Liability is excluded all other cases.

7.8 This is without prejudice to liability according to the provisions of the Product Liability Act. This is likewise without prejudice to liability for injury to life, limb and health.

### 8 Retention of title

8.1 HAUPA retains title to all parts that have been delivered until receipt of all payments under the delivery contract. If the Customer is in breach of contract, in particular by being in default of payment, HAUPA is entitled to repossess the goods.

8.2 The Customer is obliged to treat all goods delivered to it with care and to insure them, at its own expense, against any form of destruction at their replacement value for the period during which title is retained.

8.3 Costs for maintenance and inspection work shall also be borne by the Customer during the period during which title is retained even if such work carried out by HAUPA.

8.4 In the event of seizures or other forms of attachment by third parties, the Customer must inform HAUPA immediately in writing so that HAUPA may intervene as a third party. In the event that a third party is not in a position to reimburse the judicial and extrajudicial costs of such an action, the Customer shall be liable for such costs.

8.5 The Customer is entitled to resell purchased items in the ordinary course of business. However, the Customer hereby assigns to HAUPA all claims that accrue to it from resales to their customers or third parties in the amount of HAUPA's final invoice amount (including VAT), irrespective of whether the object of sale has been resold without or after processing. The Customer remains entitled to collect such claim even after delivery. This is without prejudice to HAUPA's authority to collect such claims itself. However, HAUPA undertakes not to collect such claims as long as the Customer meets its payment obligations from the proceeds collected, is not in default of payment and, in particular, no petition for the opening of insolvency proceedings has been filed or payments have not been suspended.

8.6 If delivered goods are inseparably mixed or combined with other objects not belonging to HAUPA, HAUPA shall acquire co-ownership of the new or combined object in the ratio of the value of the delivered goods (final invoice amount including value added tax) to the other object(s) at the time of mixing

or combining. The Customer shall safeguard sole ownership or co-ownership thus created on behalf of HAUPA.

8.7 Payment of cost allocations for tools do not entitle the Customer to such tools; they remain the sole property of HAUPA.

## **9 Prohibition of assignment**

No claims of the Customer against HAUPA arising from the contractual relationship may be assigned.

## **10 Product liability**

10.1 The Customer may only use the goods as intended and must ensure that such goods are resold only to persons familiar with the product hazards and risks.

10.2 When using the goods as raw materials and component products for its own products, the Customer is likewise obliged to comply with its warning obligation with regard to goods delivered by HAUPA when placing the end product on the market. As between the parties, the Customer shall, upon first request, indemnify and hold HAUPA harmless against the assertion of claims in the event of a breach of this obligation.

## **11 Miscellaneous/Final provisions**

11.1 The place of performance is the location of HAUPA's registered office.

11.2 The place of jurisdiction for all disputes arising under or in connection with this contract is the location of HAUPA's registered office. However, HAUPA is also entitled to sue the Customer at the court located at the location of the registered office the Customer with general jurisdiction over the Customer or at the place where the Customer has a branch office.






11.3 The domestic law of the country in which HAUPA has its registered applies exclusively to the exclusion of the UN Convention on Contracts for the International Sale of Goods.

## **12 Data protection**

12.1 In accordance with section 4 of the German Federal Data Protection Act, the Customer agrees that personal data may be processed by the contractor using electronic means. It is aware that data will not be transferred to third parties outside the HAUPA Group and that it may refuse or withdraw consent with effect for the future.

Last updated: August 2022

# Legend

	total length in mm	role/G	role weight in g
 m	total length in m	rope mm <sup>2</sup>	Cable cross-section
 mm	span width in mm	rope Ø	Suitable for lanyard diameter
 "	Tube diameter	rope-Ø	rope diameter in mm
 mm	span width in mm	s	material thickness
Ø	diameter in mm	Sbl.	saw blade length
A	sleeve length	se	single core sector
Al	aluminium	Shaft Ø	Shaft diameter
B	flange width	size	size in mm
Balloon Ø	Balloon diameter	sm	multiple core sector
BL	blade length	span Ø	Jaw width
c	flange length	strength (St.)	strength in mm
c1	flange length 1	Tin %	Tin percentage
c2	flange length 2	TL	total length in m
CL	cutting length	TM	thread metric
Col.	colour	TMA	tested/Measured area
Cont.	content	TPI	Teeth Per Inch
content ml	content in ml	Tube Ø	Tube diameter
crimp	crimping range	v1	slim pressing
crimp coaxial	crimping range coaxial	v2	width in mm
crimp modular	crimping range modular	width (B)	width in mm
CSS	cross-section in mm	WS	wrench size
CSS rm/sm	cross-section rm/sm		
CSS/red.	conductor cross-section reduced		
Cu	copper		
Cu Ø	Copper pipe diameter		
CW	cutting width		
d1	internal diameter		
d1/red.	internal diameter reduced		
d2	hole diameter		
d4	external diameter		
db	Insulation value SNR		
depth (D)	depth in mm		
Drill Ø	Diameter drill		
drum/kg	drum weight in kg		
drum/Ø	drum diameter in mm		
drum/width	drum width in mm		
E	length to middle of hole		
H1	height 1 in mm		
height (H)	height in mm		
Hole Ø	Hole diameter		
HW	hammer weight in g		
Id.	identification number		
Id. Al	identification number Al		
Id. Cu	identification number Cu		
Inner Ø	Inner diameter		
kg/100	weight in kg/100 pcs.		
kg/h	Gas quantity in kg/h		
KIBr	Blade width		
kN	Lifting capacity		
l	length in mm		
Loc.	locator		
mat.	material		
max. ml	Cartridge capacity		
max. Ø	Max. cartridge diameter		
mm <sup>2</sup>	diameter in mm <sup>2</sup>		
N/Ø	nail diameter		
NL	nail length		
No.	number		
NP	nominal pressure in bar		
Ø	cross-section in mm		
Ø after	diameter after shrinkage		
Ø before	diameter before shrinkage		
Ø mm <sup>2</sup>	Max. cable cross section		
Ø/Inch	diameter in inch		
Ø bo.	bolt diameter in mm		
Outer Ø	Outer diameter		
PE/PU	pricing/packing unit		
PU	packing unit		
PW	pressing width		



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Point of sales





# HAUPA | Sales promotion

On request, HAUPA also naturally supplies individual cabinets and wall displays fitted out with your own choice of tools. Our different resenatation models offer possibilities for your sales area which are both interesting and variable.



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