WEITKOWITZ
KABELSCHUHE + WERKZEUGE

Worldwide: A safe connection.

Guaranteed!

CERTIFICATE

ISO 9001:2008

DEKRA Certification

hereby certifies that the company

WEITKOWITZ
KABELSCHUHE UND WERKZEUGE GMBH

business field:
Construction, production and sales of cable lugs, cable connectors, end sleeves, pressing tools and systems solutions for electrical connection and earthing technology

location:
Woltorfer Straße 125 * D-31224 Peine

has successfully implemented the above mentioned quality management system according to the standard (11/2008) and applies it effectively. The conformity was inspected during the certification audit documented in audit report no. A09041428. This certificate is only valid in connection with the successful performance of the surveillance audits.

This certificate is valid from:	28.10.2009	Date of the first certification:	17.02.1998
This certificate is valid until:	24.10.2012	Certificate registration no.:	50298143/4 duplicate
Last audit day:	20.10.2009		

DEKRA Certification GmbH
Stuttgart, 11.12.2009

QMS-TGA-ZM-05-91-00

DEKRA Certification GmbH · Handwerkstraße 15 · D-70565 Stuttgart · www.dekra-certification.com

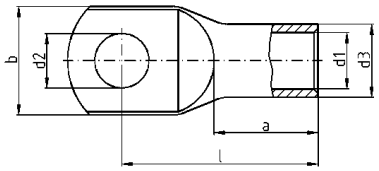
Index

page

Tubular cable lugs, copper
Tubular connectors, copper
Tubular T-connectors, copper
standard-series

Tubular cable lugs 0.5 – 6 mm² standard-series

material: Cu-ETP according to DIN EN 13600
surface: tin plated



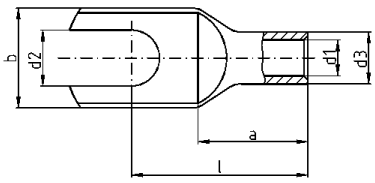
cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 –0.75	**3**	**13000**	1.4	3	3.2	6.5	12.5	6	0.07	100	
	4	13001			4.3	8.5	14		0.08	100	
	5	13002			5.3	10	15		0.10	100	
1.0 –1.5	3	13005	1.9	3.9	3.2	6.5	14	6	0.13	100	
	4	**13006**			4.3	8.5	15		0.14	100	
	5	13007			5.3	10	16		0.15	100	
	6	13008			6.4	11	18		0.17	100	
2.5	4	13010	2.4	4.4	4.3	8.5	15	6.5	0.16	100	
	5	**13011**			5.3	10	16		0.18	100	
	6	13012			6.4	11	18		0.20	100	
	8	13013			8.4	13	20		0.23	100	
4	4	13015	3	5	4.3	8.5	17	8	0.22	100	
	5	**13016**			5.3	10	18		0.24	100	
	6	13017			6.4	11	20		0.26	100	
	8	13018			8.4	14	22		0.30	100	
6	4	13020	3.7	5.5	4.3	8.5	17.5	8	0.24	100	PW 6/50 p.122 / DP 6/95 p. 122
	5	**13021**			5.3	10	19		0.26	100	
	6	13022			6.4	11	21		0.28	100	
	8	13023			8.4	14	23		0.31	100	
	10	13024			10.5	15	25.5		0.32	100	

WZ 22 page 104

WZ 6 page 103

Tubular cable lugs, fork type 0.5 – 16 mm² standard-series

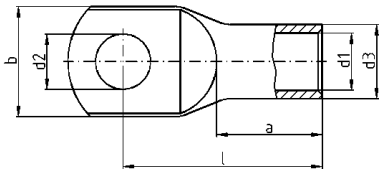
material: Cu-ETP (0.5 – 6 mm²) resp. Cu-HCP (from 10 mm²) according to DIN EN 13600
surface: tin plated



cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 0.75	**3**	**13050**	1.4	3	3.2	6.5	12.5	6	0.07	100	WZ 22 page 104
	4	13051			4.3	8.5	14		0.07	100	WZ 6 page 103
	5	13052			5.3	10	15		0.08	100	
1.0 – 1.5	3	13055	1.9	3.9	3.2	6.5	13.5	6	0.11	100	
	4	**13056**			4.3	8.5	15		0.12	100	
	5	13057			5.3	10	16		0.13	100	
	6	13058			6.4	11	18		0.14	100	
2.5	4	13060	2.4	4.4	4.3	8.5	15	6.5	0.15	100	
	5	**13061**			5.3	10	16		0.16	100	
	6	13062			6.4	11	18		0.16	100	
	8	13063			8.4	13	20		0.19	100	
4	4	13065	3	5	4.3	8.5	17	8	0.18	100	
	5	**13066**			5.3	10	18		0.21	100	
	6	13067			6.4	11	20		0.22	100	
	8	13068			8.4	14	22		0.23	100	
6	4	13070	3.7	5.5	4.3	8.5	17.5	8	0.21	100	DP 6/95 page 122, PW 6/50 page 122
	5	**13071**			5.3	10	19		0.23	100	
	6	13072			6.4	11	21		0.25	100	
	8	13073			8.4	14	23		0.26	100	
10	5	13076	4.3	6.7	5.3	10	20.5	10	0.40	100	
	6	**13077**			6.4	11	22.5		0.42	100	
	8	13078			8.4	15	25		0.46	100	
16	5	13081	5.4	7.8	5.3	12	22.5	11	0.53	100	
	6	13082			6.4	12	24.5		0.56	100	
	8	**13083**			8.4	15	26.5		0.60	100	
16 f	5	13086	6	9	5.3	14	25.5	13	0.82	100	FW 10/70 p. 124
	6	13087			6.4	14	27		0.86	100	
	8	**13088**			8.4	15	29.5		0.94	100	

Tubular cable lugs 10 – 35 mm² standard-series

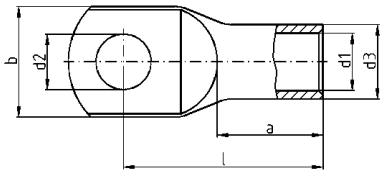
material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



cross section mm²	flat hole diameter M	without inspection hole art.-no.	d1	d3	d2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation
10	4	13204	4.3	6.7	4.3	10	19.5	10	0.41	100	13704	WZ 6 page 103 / MP 13 page 126, PW 6/50 page 122 / PW 6/70 p. 123, DP 6/95 p. 122, PW 10/120 p. 125, MP 1 p. 128, MP 2 p. 131 / AP 10 + HPi 10 p. 134, API 20 + HPi 20 p. 137, API 30 + HPi 30 p. 141, HPW 17 p. 143
	5	13205			5.3	10	20.5		0.43	100	13705	
	6	**13206**			6.4	11	22.5		0.47	100	13706	
	8	13207			8.4	15	25		0.52	100	13707	
	10	13208			10.5	18	27.5		0.57	100	13708	
	12	13209			13	19	28.5		0.58	100	13709	
16	5	13210	5.4	7.8	5.3	12	22.5	11	0.57	100	13710	
	6	13211			6.4	12	24.5		0.63	100	13711	
	8	**13212**			8.4	15	26.5		0.67	100	13712	
	10	13213			10.5	18	29		0.78	100	13713	
	12	13214			13	20	30		0.72	100	13714	
25	5	13296	6.9	9.4	5.3	14	25	13	0.87	100	13796	
	6	13215			6.4	14	27		0.94	100	13715	
	8	**13216**			8.4	15	29		1.00	100	13716	
	10	13217			10.5	18	31.5		1.07	100	13717	
	12	13218			13	20	32.5		1.08	100	13718	
	14	13219			15	22	34.5		1.16	100	13719	
35	5	13298	8.3	11.3	5.3	16.5	32.5	16	1.60	100	13798	
	6	13220			6.4	16.5	32.5		1.60	100	13720	
	8	**13221**			8.4	16.5	33		1.56	100	13721	
	10	13222			10.5	18	35.5		1.80	100	13722	
	12	13223			13	20	36.5		1.79	100	13723	
	14	13224			15	22	39		1.87	100	13724	
	16	13292			17	26	41.5		1.97	100	13792	

Tubular cable lugs 50 – 150 mm² standard-series

material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



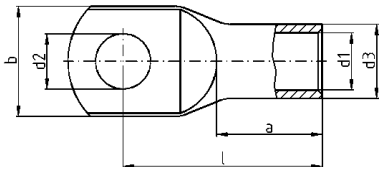
cross section mm²	diameter M	without inspection hole art.-no.	d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.
50	6	13281	9.6	13.1	6.4	19	36	18	2.35	100	13781
	8	13225			8.4	19	37		2.41	100	13725
	10	**13226**			10.5	20	39		2.53	100	13726
	12	13227			13	23	40.5		2.61	100	13727
	14	13282			15	25	42.5		2.79	100	13782
	16	13228			17	27	45.5		2.94	100	13728
	20	13297			21	28	50		2.95	100	13797
70	6	13229	11.5	15.3	6.4	22.5	41	21	3.46	100	13729
	8	13230			8.4	22.5	41		3.41	100	13730
	10	**13231**			10.5	22.5	42.5		3.59	100	13731
	12	13232			13	23	43.5		3.66	100	13732
	14	13283			15	26	46		3.93	100	13783
	16	13233			17	28	48.5		4.02	100	13733
	20	13234			21	29	53		4.21	100	13734
95	6	13299	13.5	17.5	6.4	25	46	23	4.71	50	13799
	8	13235			8.4	25	45.5		4.80	50	13735
	10	13236			10.5	25	47		4.99	50	13736
	12	**13237**			13	26	47		4.82	50	13737
	14	13284			15	26	49		5.16	50	13784
	16	13238			17	28	50		5.15	50	13738
	20	13239			21	31	54.5		5.66	50	13739
120	8	13285	15.5	20	8.4	29	50.5	26	6.60	50	13785
	10	13240			10.5	29	53		7.13	50	13740
	12	**13241**			13	29	52.5		7.14	50	13741
	14	13286			15	29	53.5		7.24	50	13786
	16	13242			17	29	55		7.21	50	13742
	20	13243			21	35	60		7.81	50	13743
150	8	13244	16.8	21.3	8.4	31	55.5	29	8.34	25	13744
	10	13245			10.5	31	56.5		8.34	25	13745
	12	**13246**			13	31	56		8.14	25	13746
	14	13287			15	31	57		8.12	25	13787
	16	13247			17	31	58		8.50	25	13747
	20	13248			21	35	63		8.84	25	13748

tool recommendation

MP 13 p. 126, PW 6/50 p.122
PW 6/70 page 123
PW 10/120 page 125, MP 1 page 128
AP 10 + HPi 10 p. 134, MP 2 p. 131, APi 20 + HPi 20 p.137, APi 30 + HPi 30 p. 141, HPW 17 p. 143

Tubular cable lugs 185 – 630 mm² standard-series

material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



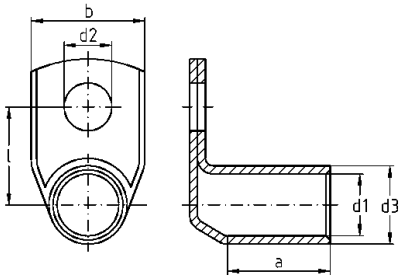
cross section mm²	diameter M	without inspection hole art.-no.	d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.
185	8	13293	19	24	8.4	35	58	30	10.37	25	13793
	10	13249			10.5	35	59		9.76	25	13749
	12	13250			13	35	58.5		10.62	25	13750
	14	13288			15	35	61		10.72	25	13788
	16	**13251**			17	35	63		10.86	25	13751
	20	13252			21	35	66		11.33	25	13752
240	8	13253	21	26	8.4	38	67	35	12.40	25	13753
	10	13254			10.5	38	67		12.97	25	13754
	12	13255			13	38	67		13.02	25	13755
	14	13289			15	38	69		13.36	25	13789
	16	**13256**			17	38	69.5		13.33	25	13756
	20	13257			21	38	71		13.80	25	13757
300	10	13259	24	30	10.5	44	79.5	42	20.45	20	13759
	12	13260			13	44	82		21.18	20	13760
	14	13290			15	44	84		22.15	20	13790
	16	13261			17	44	85		21.94	20	13761
	20	**13262**			21	44	85		22.40	20	13762
400	10	13263	27.5	33.5	10.5	49	92	47	27.90	15	13763
	12	13264			13	49	92		28.59	15	13764
	16	13265			17	49	92		27.90	15	13765
	20	**13266**			21	49	92		26.61	15	13766
500	12	13269	31	38	13	55.5	113	70	49.38	5	13769
	16	13270			17	55.5	113		49.38	5	13770
	20	**13271**			21	55.5	113		48.56	5	13771
630	16	13275	34	41	17	60	115	70	52.28	5	13775
	20	**13276**			21	60	115		51.96	5	13776

tool recommendation

MP 2 page 131, AP 10 + HPi 10 page 134
API 20 + HPi 20 page 137, API 35 + HPi 35 page 142
API 30 + HPi 30 page 141, HPW 17 page 143
HPW 18 page 156

Tubular cable lugs with 90° angle, 0.5 – 25 mm² standard-series

material: Cu-ETP (0.5 – 6 mm²) resp. Cu-HCP (10 - 25 mm²) according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



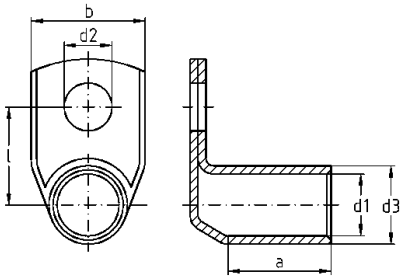
cross section mm²	flat hole diameter M	**without inspection hole art.-no.**	d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**with inspection hole.**
0.5 – 0.75	**3**	**13100**	1.4	3	3.2	6.5	7.5	5	0.09	100	–
	4	13101			4.3	8.5	8.5		0.10	100	–
	5	13102			5.3	10	9.5		0.10	100	–
1.0 – 1.5	3	13105	1.9	3.9	3.2	6.5	8	5	0.16	100	–
	4	**13106**			4.3	8.5	9		0.16	100	–
	5	13107			5.3	10	10		0.16	100	–
	6	13108			6.4	11	12		0.16	100	–
2.5	4	13110	2.4	4.4	4.3	8.5	9.2	5.5	0.18	100	–
	5	**13111**			5.3	10	10.2		0.18	100	–
	6	13112			6.4	11	12.2		0.22	100	–
	8	13113			8.4	14	14.2		0.23	100	–
4	4	13115	3	5	4.3	8.5	9.5	7	0.25	100	–
	5	**13116**			5.3	10	10.5		0.24	100	–
	6	13117			6.4	11	12.5		0.29	100	–
	8	13118			8.4	14	14.5		0.30	100	–
6	4	13120	3.7	5.5	4.3	8.5	9.8	7	0.27	100	–
	5	**13121**			5.3	10	10.8		0.25	100	–
	6	13122			6.4	11	12.8		0.29	100	–
	8	13123			8.4	14	14.8		0.34	100	–
10	5	13305	4.3	6.7	5.3	10	11.4	9	0.48	100	13805
	6	**13306**			6.4	11	13.4		0.54	100	13806
	8	13307			8.4	15	15.4		0.60	100	13807
	10	13308			10.5	18	17.4		0.63	100	13808
	12	13309			13	20	18.4		0.56	100	13809
16	5	13310	5.4	7.8	5.3	11	11.9	10	0.66	100	13810
	6	13311			6.4	11.5	13.9		0.70	100	13811
	8	**13312**			8.4	15	15.9		0.82	100	13812
	10	13313			10.5	18	17.9		0.83	100	13813
	12	13314			13	20	18.9		0.78	100	13814
25	5	13396	6.9	9.4	5.3	14	12.7	12	0.99	100	13896
	6	13315			6.4	14	14.7		1.13	100	13815
	8	**13316**			8.4	15	16.7		1.22	100	13816
	10	13317			10.5	18	18.7		1.19	100	13817
	12	13318			13	20	19.7		1.24	100	13818

tool recommendation

WZ 22 page 104
WZ 6 page 103
PW 6/70 page 123

Tubular cable lugs with 90° angle, 35 – 300 mm² standard-series

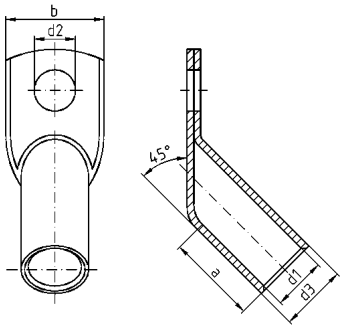
material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



cross section mm²	flat hole diameter M	**without inspection hole art.-no.**	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**with inspection hole art.-no.**	tool recommendation
35	6	13320	8.3	11.3	6.4	16.5	16.2	15	1.75	100	13820	PW 6/70 page 123
	8	**13321**			8.4	16.5	18.2		1.75	100	13821	PW 10/120 page 125, MP 1 page 128
	10	13322			10.5	18	20.2		1.93	100	13822	MP 2 page 131, AP 10 + HPi 10 page 134
	12	13323			13	20	21.2		1.88	100	13823	API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143, HPW 15 page 143
50	6	13381	9.6	13.1	6.4	19	17.1	17	2.63	100	13881	
	8	13325			8.4	19	19.1		2.80	100	13825	
	10	**13326**			10.5	20	21.1		2.99	100	13826	
	12	13327			13	23	23.5		3.00	100	13827	
	16	13328			17	28	25.1		2.94	100	13828	
70	8	13330	11.5	15.3	8.4	22	20.2	20	3.66	50	13830	
	10	**13331**			10.5	22	22.2		3.88	50	13831	
	12	13332			13	23	23.2		3.83	50	13832	
	16	13333			17	28	26.2		3.95	50	13833	
	20	13334			21	29	30.2		5.01	50	13834	
95	8	13335	13.5	17.5	8.4	25	21.3	22	4.87	50	13835	
	10	13336			10.5	25	23.3		5.27	50	13836	
	12	**13337**			13	25	24.3		5.06	50	13837	
	16	13338			17	28	27.3		5.22	50	13838	
	20	13384			21	31	31.3		6.85	50	13884	
120	8	13339	15.5	20	8.4	29	22.5	25	6.41	50	13839	
	10	13340			10.5	29	25		7.40	50	13840	
	12	**13341**			13	29	26		7.33	50	13841	
	16	13342			17	29	28.5		7.30	50	13842	
150	8	13344	16.8	21.3	8.4	31	25.7	28	8.03	25	13844	
	10	13345			10.5	31	25.7		8.07	25	13845	
	12	**13346**			13	31	26.7		8.29	25	13846	
	16	13347			17	31	29.7		8.50	25	13847	
	20	13348			21	35	33.7		8.89	25	13848	
185	10	13349	19	24	10.5	35	27	29	9.90	25	13849	
	12	13350			13	35	28		10.14	25	13850	
	16	**13351**			17	35	31		11.15	25	13851	
	20	13352			21	35	35		11.58	25	13852	
240	10	13354	21	26	10.5	38	28	34	13.71	25	13854	
	12	13355			13	38	29		12.69	25	13855	
	16	**13356**			17	38	32		13.46	25	13856	
	20	13357			21	38	36		14.02	25	13857	
300	12	13360	24	30	13	43	31	41	19.92	20	13860	
	16	13361			17	43	34		20.90	20	13861	
	20	**13362**			21	43	38		21.81	20	13862	

Tubular cable lugs with 45° angle, 10 – 70 mm² standard-series

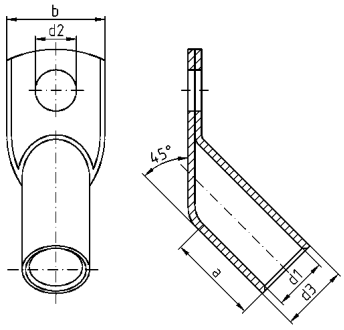
material: Cu-HCP according to DIN EN 13600
surface: tin plated



cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
10	5	13134	4.3	6.7	5.3	10	9	0.49	100	PW 6/70 page 123, DP 6/95 page 122 / PW 10/120 page 125, MP 1 page 128, AP 10 + HPi 10 page 134, API 35 + HPi 35 page 142 / APi 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143
	6	**13135**			6.4	11		0.54	100	
	8	13136			8.4	15		0.59	100	
16	6	13140	5.4	7.8	6.4	11.5	10	0.69	100	
	8	**13141**			8.4	15		0.71	100	
	10	13142			10.5	18		0.82	100	
25	5	13144	6.9	9.4	5.3	14	12	0.89	100	
	6	13145			6.4	14		1.10	100	
	8	**13146**			8.4	15		1.13	100	
	10	13147			10.5	18		1.20	100	
	12	13148			13	20		1.22	100	
35	6	13150	8.3	11.3	6.4	16.5	15	1.81	50	
	8	**13151**			8.4	16.5		1.88	50	
	10	13152			10.5	18		1.95	50	
	12	13153			13	20		1.93	50	
50	6	13154	9,6	13,1	6,4	19	17	2,42	50	
	8	13155			8,4	19		2,85	50	
	10	**13156**			10,5	20		3,27	50	
	12	13157			13	23		3,41	50	
70	6	13159	11.5	15.3	6.4	22	20	3.66	25	
	8	13160			8.4	22		3.92	25	
	10	**13161**			10.5	22		4.30	25	
	12	13162			13	23		4.25	25	

Tubular cable lugs 45° angle, 95 – 300 mm² standard-series

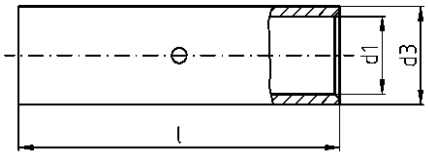
material: Cu-HCP according to DIN EN 13600
surface: tin plated



cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
95	8	13165	13.5	17.5	8.4	25	22	5.38	25	DP 6/95; PW 10/120 p. 125, MP 1 p. 128; MP 2 page 131, AP 10 + HPi 10 page 134; APi 20 + HPi 20 page 137, APi 30 + HPi 30 page 141, HPW 17 page 143, HPW 15 page 143
	10	13166			10.5	25		5.61	25	
	12	**13167**			13	25		5.74	25	
120	8	13169	15.5	20	8.4	29	25	7.65	25	
	10	13170			10.5	29		8.33	25	
	12	**13171**			13	29		8.15	25	
	16	13172			17	29		8.59	25	
150	8	13173	16.8	21.3	8.4	31	28	10.20	25	
	10	13174			10.5	31		9.87	25	
	12	**13175**			13	31		9.68	25	
	16	13176			17	31		10.12	25	
185	10	13178	19	24	10.5	35	29	12.52	20	
	12	13179			13	35		12.29	20	
	16	**13180**			17	35		11.96	20	
	20	13181			21	35		13.99	20	
240	10	13182	21	26	10.5	38	34	14.80	15	
	12	13183			13	38		15.46	15	
	16	**13184**			17	38		16.51	15	
	20	13185			21	38		17.04	15	
300	16	13188	24	30	17	43	41	25.68	15	
	20	13189			21	43		27.30	15	

Tubular butt-connectors 0.5 – 630 mm² standard-series

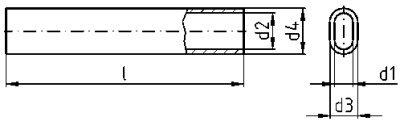
material: Cu-ETP (0.5 – 6 mm²) resp. Cu-HCP (from 10 mm² on) according to DIN EN 13600
surface: tin plated – type: with or without wirestop



cross section mm²	with wirestop art.-no.	dimensions in mm d_1	d_3	l	weight 100 pcs. approx. kg	packing unit pcs.	wirestop art.-no.	tool recommendation
0.5 – 0.75	13450	1.4	3	15	0.08	100	13554	WZ 22 p. 104, WZ 6 page 103, DP 6/95 p. 122, PW 6/70 p. 123, PW 10/120 p. 125, MP 2 p. 131, AP 10 + HPi 10 P. 134, HPW 17 p. 143, APi 30 + HPi 30 p. 141, HPW 18 page 156
1.0 – 1.5	13452	1.9	3.9	15	0.12	100	13555	
2.5	13454	2.4	4.4	16	0.15	100	13556	
4	13456	3	5	19	0.21	100	13557	
6	13458	3.7	5.5	19	0.22	100	13558	
10	13460	4.3	6.7	30	0.55	100	13560	
16	13462	5.4	7.8	35	0.80	100	13561	
25	13464	6.9	9.4	40	1.16	100	13562	
35	13466	8.3	11.3	45	1.91	100	13563	
50	13468	9.6	13.1	50	2.82	100	13564	
70	13470	11,5	15,3	55	4,15	50	13566	
95	13472	13,5	17,5	60	5,30	50	13567	
120	13474	15,5	20	65	7,47	50	13568	
150	13476	16,8	21,3	70	8,68	25	13569	
185	13478	19	24	75	11,63	25	13570	
240	13480	21	26	85	14.22	25	13572	
300	13482	24	30	100	22.40	10	13573	
400	13484	27.5	33.5	100	26.17	10	13574	
500	13486	31	38	140	49.68	5	13575	
630	13488	34	41	160	61.75	5	13576	

Tubular oval-connectors 0.5 – 10 mm²

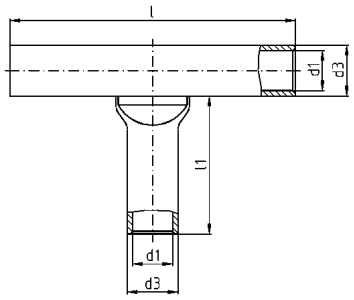
for connection of solid conductors
material: Cu-ETP according to DIN EN 13600
surface: tin plated



cross section mm²	art.-no.	dimensions in mm d_1	d_2	d_3	d_4	l	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5	13410	1.0	2.0	2.0	3.0	25	0.08	100	spezial crimping tool no. 99056, page 110
1.5	13412	1.6	3.2	2.6	4.2	25	0.11	100	
2.5	13414	2.1	4.2	3.1	5.2	25	0.14	100	
4	13416	2.5	5.0	3.5	6.0	25	0.16	100	
6	13418	3.0	6.0	5.0	8.0	40	0.65	100	MP 13 page 126, MP 1 page 128
10	13420	3.9	7.6	5.9	9.6	50	0.96	50	

Tubular T-connectors 1.0 – 300 mm² standard-series

material: Cu-ETP (1 – 6 mm²) resp. Cu-HCP (from 10 mm² on) according to DIN EN 13600
surface: tin plated



cross section mm²	art.-no.	dimensions in mm d_1	d_3	l	l_1	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
1.0 – 1.5	13952	1.9	3.9	30	16	0.36	50	WZ 6 p. 103 / DP 6/95 page 122 / PW 10/120 p. 125 / APi 30 + HPi 30 page 141
2.5	13954	2.4	4.4	30	16	0.45	50	
4	13956	3	5	35	16.5	0.57	50	
6	13958	3.7	5.5	35	17	0.66	50	
10	13960	4.3	6.7	45	25	1.34	50	
16	13962	5.4	7.8	50	26	1.71	50	
25	13964	6.9	9.4	50	27	2.20	25	
35	13966	8.3	11.3	60	31	3.82	25	
50	13968	9.6	13.1	72	35	6.13	10	
70	13970	11.5	15.3	77	37	8.00	10	
95	13972	13.5	17.5	88	45	11.82	10	
120	13974	15.5	20	106	53	18.27	10	
150	13976	16.8	21.3	120	58	23.42	5	
185	13978	19	24	110	42	25.62	5	
240	13980	21	26	135	55	33.94	5	
300	13982	24	30	140	55	47.70	3	

Assortment box with tubular cable lugs, standard-series

material: varnished steel, with 12 small compartments and 1 tool compartment
measurements: 405 x 250 x 50 mm

special filling on request

Contents of tubular cable lugs, stand-series:

25 pcs.	6 mm²	M 6	no. 13022
25 pcs.	6 mm²	M 8	no. 13023
25 pcs.	10 mm²	M 6	no. 13206
25 pcs.	10 mm²	M 8	no. 13207
25 pcs.	16 mm²	M 8	no. 13212
25 pcs.	16 mm²	M 10	no. 13213
25 pcs.	25 mm²	M 8	no. 13216
25 pcs.	25 mm²	M 10	no. 13217
20 pcs.	35 mm²	M 8	no. 13221
20 pcs.	35 mm²	M 10	no. 13222
20 pcs.	50 mm²	M 10	no. 13226
20 pcs.	50 mm²	M 12	no. 13227

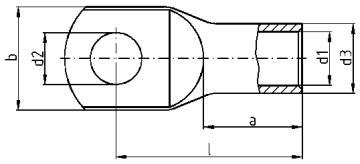
1 pc crimping tool PW 6/50 no. 90180
art.-no.: 90876

Assortment box without contents
art.-no.: 90877

Tubular cable lugs for finwiring conductors, copper
Tubular butt-connectors for finewiring conductors, copper

Tubular cable lugs 10 – 50 mm² for finewiring conductors

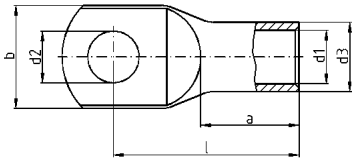
material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



cross section mm² min. cable Ø	flat hole diameter M	**without inspection hole art.-no.**	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**with inspection hole art.-no.**	tool recommendation
10 f	5	13510	5	8	5.3	12	23	12	0.70	100	13610	FW 10/70 page 124 / MP 1 page 128 / MP 2 page 131, API 35 +HPi 35 page 142, HPW 15 page 143 / AP 10 + HPi 10 page 134, API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143
.....	**6**	**13511**			6.4	12	25		0.76	100	13611	
4.0 mm	8	13512			8.4	15	28		0.89	100	13612	
	10	13513			10.5	18	31		0.97	100	13613	
	12	13514			13	20	32		1.00	100	13614	
16 f	5	13585	6	9	5.3	14	25.5	13	0.94	100	13685	
.....	6	13515			6.4	14	27		1.01	100	13615	
5.0 mm	**8**	**13516**			8.4	15	29.5		1.13	100	13616	
	10	13517			10.5	18	32		1.14	100	13617	
	12	13518			13	20	33		1.19	100	13618	
25 f	6	13520	7.7	10.7	6.4	16	32	16	1.48	100	13620	
.....	**8**	**13521**			8.4	16	34		1.49	100	13621	
6.5 mm	10	13522			10.5	18	35		1.56	100	13622	
	12	13523			13	20	36		1.65	100	13623	
35 f	6	13583	9.2	12.4	6.4	18	36	18	2.10	100	13683	
.....	8	13525			8.4	18	36		2.12	100	13625	
7.8 mm	**10**	**13526**			10.5	18	38		2.14	100	13626	
	12	13527			13	23	40		2.22	100	13627	
	16	13528			17	26	45		2.21	100	13628	
50 f	6	13584	11,2	14,8	6,4	22	42	21	3,20	100	13684	
.....	8	13530			8,4	22	42		3,22	100	13630	
9.0 mm	**10**	**13531**			10,5	22	43		3,33	100	13631	
	12	13532			13	23	44		3,38	100	13632	
	16	13533			17	28	48,5		3,65	100	13633	

Tubular cable lugs 70 – 240 mm² for finewiring conductors

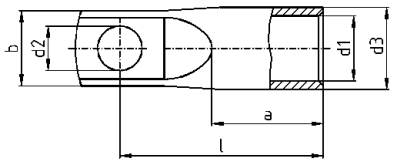
material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: without or optionally with inspection hole



cross section mm² min. cable Ø	flat hole diameter M	**without inspection hole art.-no.**	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**with inspection hole art.-no.**	tool recommendation
70 f	6	13534	13.5	17.5	6.4	25	46	23	4.43	50	13634	FW 10/70 p. 124
.....	8	13535			8.4	25	45.5		4.80	50	13635	AP 10 + HPi 10 page 134, MP 2 page 131
11.0 mm	10	13536			10.5	25	47		4.92	50	13636	API 20 + HPi 20 page 137, API 30 + HPi 30 page 141
	12	**13537**			13	26	47		4.89	50	13637	HPW 17 page 143, HPW 15 page 143, API 35 + HPi 35 page 142
	16	13538			17	28	50		5.14	50	13638	
	20	13539			21	31	54.5		5.52	50	13639	
95 f	6	13588	15.5	20	6.4	29	50.5	26	6.50	50	13688	
.....	8	13586			8.4	29	50.5		6.56	50	13686	
13.0 mm	10	13540			10.5	29	53		7.19	50	13640	
	12	**13541**			13	29	52.5		7.08	50	13641	
	16	13542			17	29	55		7.19	50	13642	
	20	13543			21	35	60		7.61	50	13643	
120 f	10	13545	16.8	21.3	10.5	31	56.5	29	8.19	50	13645	
.....	**12**	**13546**			13	31	56		8.07	50	13646	
15.0 mm	16	13547			17	31	58		8.36	50	13647	
	20	13548			21	35	63		8.75	50	13648	
150 f	10	13549	19	24	10.5	35	59	30	10.40	25	13649	
.....	12	13550			13	35	58.5		10.62	25	13650	
16.3 mm	**16**	**13551**			17	35	63		10.86	25	13651	
	20	13552			21	35	66		11.61	25	13652	
185 f	10	13589	21	26	10.5	38	67	35	13.59	25	13689	
.....	12	13590			13	38	67		12.48	25	13690	
18.5 mm	**16**	**13592**			17	38	69.5		12.88	25	13692	
	20	13593			21	38	71		13.95	25	13693	
240 f	12	13595	24	30	13	44	82	42	21.26	20	13695	
.....	16	13597			17	44	85		21.94	20	13697	
20.5 mm	**20**	**13598**			21	44	85		22.20	20	13698	

Tubular cable lugs 35 – 240 mm² with narrow flange, for finewiring conductors for switch gear connections

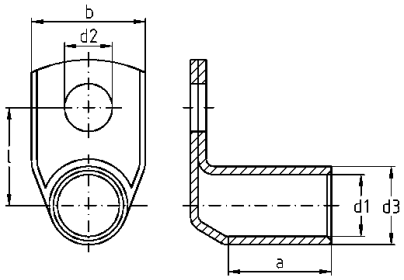
material: Cu-HCP according to DIN EN 13600, surface: tin plated



cross section mm² min. cable Ø	flat hole diameter M	without inspection hole art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation
35 f	6	18583	9.2	12.4	6.4	15	35	18	1.77	25	18683	FW 10/70 page 124
7.8 mm												AP 10 + HPi 10 page 134, MP 2 page 131
50 f	6	18584	11.0	14.8	6.4	15	38.5	21	2.69	25	18684	APi 20 + HPi 20 page 137, APi 30 + HPi 30 page 141, APi 35 + HPi 35 page 142
.....	8	18530			8.4	17	41		2.98	25	18630	HPW 15 page 143, HPW 17 page 143
9.0 mm	10	18531			10.5	19	45.5		3.30	25	18631	
	12	18532			13	19	46.5		3.30	25	18632	
70 f	6	18599	13.4	17.5	6.4	18	47.5	23	4.52	25	18699	
.....	8	18535			8.4	18	48		4.70	25	18635	
11.0 mm	10	18536			10.5	19	50		4.75	25	18636	
	12	18537			13	22	51		4.63	25	18637	
95 f	6	18580	14.9	20	6.4	19	50	26	6.25	25	18680	
.....	8	18586			8.4	19	51		6.44	25	18686	
13.0 mm	10	18540			10.5	19	53.5		6.54	25	18640	
	12	18541			13	22	55		6.55	25	18641	
120 f	6	18544	16.3	21.3	6.4	19	53	29	6.84	10	18644	
.....	8	18594			8.4	19	55		7.11	10	18694	
15.0 mm	10	18545			10.5	19	57		7.34	10	18645	
	12	18546			13	22	58		7.63	10	18646	
150 f	6	18595	18.7	24	6.4	26	56	30	8.57	10	18695	
.....	8	18593			8.4	26	58		9.18	10	18693	
16.3 mm	10	18549			10.5	26	60		10.32	10	18649	
	12	18550			13	26	59.5		9.78	10	18650	
	16	18551			17	26	62.5		10.50	10	18651	
185 f	8	18553	21	26	8.4	30	62	35	11.50	10	18653	
.....	10	18554			10.5	30	65		11.57	10	18654	
18.5 mm	12	18555			13	30	64		11.27	10	18655	
	16	18556			17	30	68		11.76	10	18656	
240 f	10	18559	23.5	30	10.5	30	76	42	19.66	5	18659	
.....	12	18560			13	30	79		20.08	5	18660	
20.5 mm	16	18561			17	30	81		20.32	5	18661	

Tubular cable lugs with 90° angle, 10 – 50 mm², for finewiring conductors

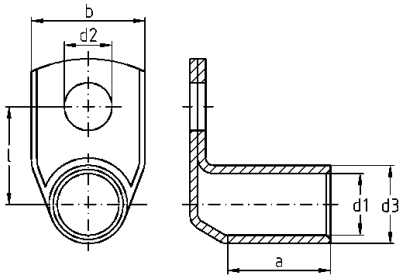
material: Cu-HCP according to DIN EN 13600
surface: tin plated



cross section mm² min. cable Ø	flat hole diameter M	art-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
10 f	5	11510	5	8	5.3	12	12	11	0.86	100	FW 10/70 page 124 / AP 10 + HPi 10 page 134. MP 2 page 131 / API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, API 35 + HPi 35 page 142 / HPW 15 page 143, HPW 17 page 143
.....	**6**	**11511**			6.4	13	14		0.87	100	
4.0 mm	8	11512			8.4	15	16		0.94	100	
	10	11513			10.5	18	18		0.97	100	
	12	11514			13	20	19		0.98	100	
16 f	5	11585	6	9	5.3	15	12.5	12	0.94	100	
.....	6	11515			6.4	15	14.5		1.05	100	
5.0 mm	**8**	**11516**			8.4	15	16.5		1.18	100	
	10	11517			10.5	18	18.5		1.25	100	
	12	11518			13	20	19.5		1.43	100	
25 f	6	11520	7.7	10.7	6.4	16	15.9	15	1.55	100	
.....	**8**	**11521**			8.4	16	17.9		1.80	100	
6.5 mm	10	11522			10.5	18	19.9		1.88	100	
	12	11523			13	20	20.9		1.69	100	
35 f	6	11583	9.2	12.4	6.4	18	16.7	17	1.97	100	
.....	**8**	**11525**			8.4	18	18.7		2.20	100	
7.8 mm	10	11526			10.5	18.5	20.7		2.34	100	
	12	11527			13	23	21.7		2.23	100	
	16	11528			17	28	24.7		2.25	100	
50 f	6	11584	11.2	14.8	6.4	22	17.9	20	2.90	100	
.....	8	11530			8.4	22	19.9		3.15	100	
9.0 mm	**10**	**11531**			10.5	22	21.9		3.30	100	
	12	11532			13	23	22.9		3.36	100	
	16	11533			17	28	25.9		3.57	100	

Tubular cable lugs with 90° angle, 70 – 240 mm², for finewiring conductors

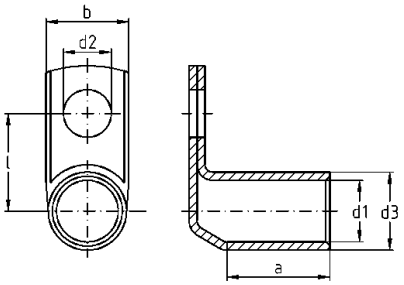
material: Cu-HCP according to DIN EN 13600
surface: tin plated



cross section mm² min. cable Ø	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
70 f	8	11535	13.5	17.5	8.4	25	21.3	22	4.53	50	FW 10/70 S. 124
.....	**10**	**11536**			10.5	25	23.3		4.85	50	MP 2 page 131, AP 10 + HPi 10 page 134
11.0 mm	12	11537			13	25	24.3		5.07	50	API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, API 35 + HPi 35 page 142
	16	11538			17	28	27.3		5.10	50	HPW 15 page 143, HPW 17 page 143
	20	11539			21	31	31.3		5.40	50	
95 f	10	11540	15.5	20	10.5	29	25	25	7.50	50	
.....	**12**	**11541**			13	29	26		7.22	50	
13.0 mm	16	11542			17	29	28.5		7.50	50	
	20	11543			21	35	32.5		7.70	50	
120 f	10	11545	16.8	21.3	10.5	31	25.7	28	7.86	50	
.....	**12**	**11546**			13	31	26.7		8.02	50	
15.0 mm	16	11547			17	31	29.7		8.33	50	
	20	11548			21	35	33.7		8.61	50	
150 f	10	11549	19	24	10.5	35	27	29	10.06	25	
.....	**12**	**11550**			13	35	28		10.70	25	
16.3 mm	16	11551			17	35	31		11.04	25	
	20	11552			21	35	35		11.96	25	
185 f	12	11555	21	26	13	38	29	34	12.69	25	
.....	**16**	**11556**			17	38	32		13.46	25	
18.5 mm	20	11557			21	38	36		14.02	25	
240 f	12	11560	24	30	13	43	31	41	19.92	20	
.....	16	11561			17	43	34		20.90	20	
20.5 mm	**20**	**11562**			21	43	38		21.81	20	

Tubular cable lugs 90° angle, 35 – 240 mm² with narrow flange, for finewiring conductors for switchgear connections

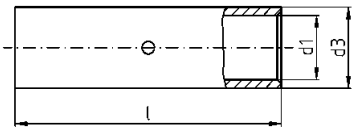
material: Cu-HCP according to DIN EN 13600, surface: tin plated



cross section mm² min. cable Ø	flat hole diameter M	without inspection hole art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	with inspection hole art.-no.	tool recommendation
35 f	6	18383	9.2	12.4	6.4	15	16.7	17	1.80	25	18483	FW 10/70 page 124
.....												MP 2 page 131, AP 10 + HPi 10 page 134
7.8 mm												API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, API 35 + HPi 35 page 142
50 f	6	18384	11.0	14.8	6.4	15	17.9	20	2.60	25	18484	HPW 15 page 143, HPW 17 page 143
.....	8	18330			8.4	17	19.9		2.90	25	18430	
9.0 mm	10	18331			10.5	19	21.9		3.00	25	18431	
70 f	6	18399	13.4	17.5	6.4	18	20	22	4.30	25	18499	
.....	8	18335			8.4	18	22		4.50	25	18435	
11.0 mm	10	18336			10.5	19	24		4.80	25	18436	
	12	18337			13	22	27		4.80	25	18437	
95 f	6	18380	14.9	20	6.4	19	21	25	6.40	25	18480	
.....	8	18386			8.4	19	23		6.70	25	18486	
13.0 mm	10	18340			10.5	19	25		7.00	25	18440	
	12	18341			13	22	26		6.90	25	18441	
120 f	6	18344	16.3	21.3	6.4	19	21.7	28	7.30	10	18444	
.....	8	18394			8.4	19	23.7		7.70	10	18494	
15.0 mm	10	18345			10.5	19	25.7		7.90	10	18445	
	12	18346			13	22	26.7		7.80	10	18446	
150 f	6	18395	18.7	24	6.4	26	23	29	9.20	10	18495	
.....	8	18393			8.4	26	25		9.80	10	18493	
16.3 mm	10	18349			10.5	26	27		9.96	10	18449	
	12	18350			13	26	28		10.20	10	18450	
	16	18351			17	26	31		10.50	10	18451	
185 f	10	18354	21	26	10.5	30	28	34	11.90	10	18454	
.....	12	18355			13	30	29		11.90	10	18455	
18.5 mm	16	18356			17	30	32		12.30	10	18456	
240 f	10	18359	23.5	30	10.5	30	30	41	18.60	5	18459	
.....	12	18360			13	30	31		18.70	5	18460	
20.5 mm	16	18361			17	30	34		19.20	5	18461	

Tubular butt-connectors 10 – 240 mm², for finewiring conductors

material: Cu-HCP according to DIN EN 13600
surface: tin plated – type: with wirestop



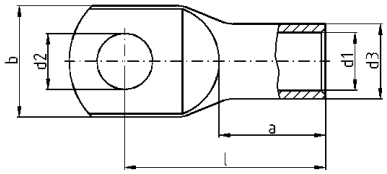
cross section mm²	min. cabel Ø	art.-no.	dimensions in mm d_1	d_3	weight l	packing 100 pcs. approx. kg	unit pcs.	tool recommendation
10 f	4.0 mm	13660	5	8	30	0.83	100	
16 f	5.0 mm	13661	6	9	35	1.10	100	
25 f	6.5 mm	13662	7.7	10.7	40	1.50	100	
35 f	7.8 mm	13663	9.2	12.4	45	2.18	100	
50 f	9.0 mm	13664	11.2	14.8	50	3.24	100	
70 f	11.0 mm	13665	13.5	17.5	60	5.10	50	
95 f	13.0 mm	13666	15.5	20	65	7.49	50	
120 f	15.0 mm	13667	16.8	21.3	65	8.44	50	
150 f	16.3 mm	13668	19	24	70	10.56	25	
185 f	18.5 mm	13669	21	26	85	14.01	25	
240 f	20.5 mm	13670	24	30	100	22.73	10	

FW 10/70 page 124
AP 10 + HPi 10 page 134, MP 2 page 131
APi 20 + HPi 20 page 137, APi 35 + HPi 35 page 142, HPW 15 page 143
APi 30 + HPi 30 page 141, HPW 17 page 143

Tubular cable lugs and connectors, copper
euro-series
compatible to many other products

Tubular cable lugs 0.5 – 25 mm² euro-series

Material: Cu-ETP (0.5 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600
Surface: tin plated – Type: without or optionally with inspection hole



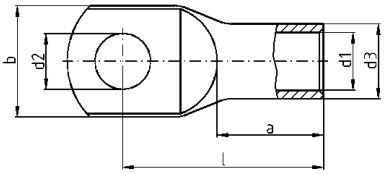
approvals:
E 318299

cross section mm²	flat hole diameter M	**without inspection hole art.-no.**	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**with inspection hole art.-no.**	tool recommendation
0.5 – 0.75	**3**	**13000***	1.4	3	3.2	6.5	12.5	6	0.07	100	–	WZ 21 page 104
	4	13001*			4.3	8.5	14		0.08	100	–	
	5	13002*			5.3	10	15		0.10	100	–	
1.0 – 1.5	3	13005*	1.9	3.9	3.2	6.5	14	6	0.13	100	–	
	4	**13006***			4.3	8.5	15		0.14	100	–	
	5	13007*			5.3	10	16		0.15	100	–	
	6	13008*			6.4	11	18		0.17	100	–	
2.5	4	13010*	2.4	4.4	4.3	8.5	15	6.5	0.16	100	–	
	5	**13011***			5.3	10	16		0.18	100	–	
	6	13012*			6.4	11	18		0.20	100	–	
	8	13013*			8.4	13	20		0.22	100	–	
4	4	13015*	3	5	4.3	8.5	17	8	0.22	100	–	
	5	**13016***			5.3	10	18		0.24	100	–	
	6	13017*			6.4	11	20		0.26	100	–	
	8	13018*			8.4	14	22		0.30	100	–	
6	4	16020	3.5	6.5	4.3	10	19	9	0.49	100	15215	WW 6/70 page 124
	5	**16021**			5.3	10	20		0.47	100	15216	AP 10 + HPi 10 S. 134, APi 20 + HPi 20 S. 137, HPW 17 S. 143
	6	16022			6.4	11	21.5		0.54	100	15217	
	8	16023			8.4	15	24		0.60	100	15218	
	10	16024			10.5	18	26		0.64	100	15219	
	12	16025			13	19	27.5		0.64	100	15220	
10	4	15204	4.5	7	4.3	12	20	10	0.43	100	15221	WW 10/120 page 125
	5	15205			5.3	12	21		0.49	100	15222	
	6	**15206**			6.4	12	22.5		0.51	100	15223	
	8	15207			8.4	15	25		0.57	100	15224	
	10	15208			10.5	18	27		0.63	100	15225	
	12	15209			13	20	28.5		0.63	100	15226	
16	4	15299	5.5	8.5	4.3	12	24	13	0.82	100	15227	
	5	15210			5.3	12	25		0.88	100	15228	
	6	15211			6.4	12	26.5		0.96	100	15229	
	8	**15212**			8.4	15	29		1.03	100	15230	
	10	15213			10.5	18	31		1.09	100	15231	
	12	15214			13	19	32		1.10	100	15232	
25	5	16296	7	10	5.3	15	33.5	15	1.35	100	15234	
	6	16215			6.4	15	31.5		1.31	100	15235	
	8	**16216**			8.4	16	33		1.30	100	15236	
	10	16217			10.5	18	34.5		1.46	100	15237	
	12	16218			13	20	36		1.55	100	15238	
	14	16219			15	22	39		1.66	100	15239	
	16	16295			17	24	42		1.62	100	15240	

* not UL-listed

Tubular cable lugs 35 – 120 mm² euro-series

Material: Cu-HCP according to DIN EN 13600
Surface: tin plated – Type: without or optionally with inspection hole

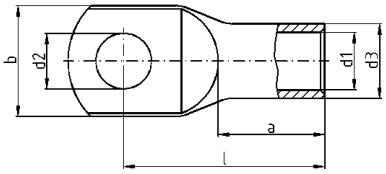


approvals:
E 318299

cross section mm²	flat hole diameter M	**without inspection hole art.-no.**	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**with inspection hole art.-no.**	tool recommendation
35	6	16220	8.5	12	6.4	17	33	17	2.07	100	15241	WW 6/70 page 124
	8	**16221**			8.4	17	34		2.18	100	15242	WW 10/120 page 125
	10	16222			10.5	20	36.5		2.23	100	15243	AP 10 + HPi 10 page 134, API 20 + HPi 20 page 137, HPW 17 page 143
	12	16223			13	22	37.5		2.33	100	15244	API 30 + HPi 30 page 141, API 35 + HPi 35 page 142, HPW 15 page 143, MP 2 page 131
	14	16281			15	23	40		2.44	100	15245	
	16	16292			17	28	44		2.60	100	15246	
50	6	16224	10	14	6.4	20	37	19	3.01	100	15248	
	8	16225			8.4	20	39		3.04	100	15249	
	10	**16226**			10.5	20	40.5		3.17	100	15250	
	12	16227			13	23	42		3.26	100	15251	
	14	16282			15	23	44		3.51	100	15252	
	16	16228			17	27	46		3.55	100	15253	
	20	16297			21	30.5	52.5		3.89	100	15254	
70	6	16229	12	16.5	6.4	24	40.5	21	4.12	25	15256	
	8	16230			8.4	24	42.5		4.46	25	15257	
	10	**16231**			10.5	24	43.5		4.64	25	15258	
	12	16232			13	24	45		4.64	25	15259	
	14	16283			15	25	46		4.91	25	15260	
	16	16233			17	28	48.5		4.96	25	15261	
	20	16234			21	29	52		5.18	25	15262	
95	6	16290	13.5	18	6.4	26	43	23	4.95	25	15263	
	8	16235			8.4	26	46		5.36	25	15264	
	10	16236			10.5	26	47		5.51	25	15265	
	12	**16237**			13	26	48		5.54	25	15266	
	14	16284			15	26	51.5		5.89	25	15267	
	16	16238			17	28	51		5.97	25	15268	
	20	16239			21	30	55		6.13	25	15269	
120	8	16285	15	20	8.4	29	49.5	26	6.88	25	15271	
	10	16240			10.5	29	52		7.42	25	15272	
	12	**16241**			13	29	51.5		7.84	25	15273	
	14	16286			15	30	53		7.99	25	15274	
	16	16242			17	30	55		8.07	25	15275	
	20	16243			21	35	60		8.90	25	15276	

Tubular cable lugs 150 – 630 mm² euro-series

Material: Cu-HCP according to DIN EN 13600
Surface: tin plated – Type: without or optionally with inspection hole



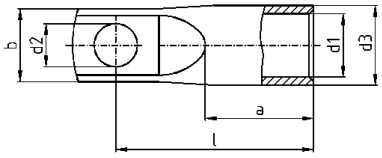
approvals:
E 318299

cross section mm²	flat hole diameter M	**without inspection hole art.-no.**	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	* **with inspection hole art.-no.**	tool recommendation
150	8	16244	16.8	21.3	8.4	31	55.5	29	8.34	25	15278	AP 10 + HPi 10 S. 134, MP 2 page 131
	10	16245			10.5	31	56.5		8.34	25	15279	
	12	**16246**			13	31	56		8.14	25	15280	
	14	16287			15	31	57		8.12	25	15281	
	16	16247			17	31	58		8.50	25	15282	
	20	16248			21	35	63		8.84	25	15283	
185	8	13293*	19	24	8.4	35	58	30	10.61	25	13793	
	10	13249			10.5	35	59		10.93	25	13749	
	12	13250			13	35	58.5		10.79	25	13750	
	14	13288			15	35	61		10.72	25	13788	
	16	**13251**			17	35	63		10.86	25	13751	
	20	13252			21	35	66		11.33	25	13752	
240	8	13253*	21	26	8.4	38	67	35	13.16	25	13753	
	10	13254			10.5	38	67		13.00	25	13754	
	12	13255			13	38	67		12.96	25	13755	
	14	13289			15	38	69		13.36	25	13789	
	16	**13256**			17	38	69.5		13.44	25	13756	
	20	13257			21	38	71		13.74	25	13757	
300	10	13259*	24	30	10.5	44	79.5	42	20.45	20	13759	API 20 + HPi 20 page 137, API 35 + HPi 35 page 142
	12	13260			13	44	82		21.72	20	13760	
	14	13290			15	44	84		22.47	20	13790	
	16	13261			17	44	85		21.94	20	13761	
	20	**13262**			21	44	85		22.92	20	13762	
400	10	13263	27.5	33.5	10.5	49	92	47	27.90	15	13763	API 30 + HPi 30 page 141, HPW 17 page 143
	12	13264			13	49	92		29.80	15	13764	
	16	13265			17	49	92		27.90	15	13765	
	20	**13266**			21	49	92		26.61	15	13766	
500	12	13269*	31	38	13	55.5	113	70	49.38	5	13769	HPW 18 page 156
	16	13270			17	55.5	113		49.38	5	13770	
	20	**13271**			21	55.5	113		48.56	5	13771	
630	16	13275*	34	41	17	60	115	70	52.28	5	13775	
	20	**13276***			21	60	115		51.96	5	13776	

* not UL-listed

Tubular cable lugs 35 – 240 mm² with narrow flange, euro-series for switchgear connections

material: Cu-HCP according to DIN EN 13600, surface: tin plated



approvals:

E 318299

Type with inspection hole or angle on request

cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.
35	6	18220	8.5	12	6.4	15	33	17	1.76	25
	8	18221*			8.4	15	35		2.16	25
50	6	18224	10	14	6.4	15	37	19	2.69	25
	8	18225			8.4	17	39		2.79	25
	10	18226			10.5	17	41		2.99	25
70	6	18229	11.8	16.5	6.4	17	41	21	3.99	25
	8	18230			8.4	17	43		4.06	25
	10	18231			10.5	17	45		4.40	25
	12	18232			13	19	46		4.48	25
95	6	18290	13.5	18	6.4	19	43	23	4.67	25
	8	18235			8.4	19	45		4.90	25
	10	18236			10.5	19	47		5.10	25
	12	18237			13	19	48		5.20	25
120	6	18280	14.7	20	6.4	20	49	26	6.43	10
	8	18285			8.4	20	51		7.03	10
	10	18240			10.5	20	53		6.70	10
	12	18241			13	20	54		7.12	10
150	6	18294	16.3	21.3	6.4	19	53	29	7.11	10
	8	18244			8.4	19	55		7.11	10
	10	18245			10.5	19	56		7.34	10
	12	18246			13	22	59		7.63	10
185	10	18249	18.7	24	10.5	26	60	30	10.47	10
	12	18250			13	26	59.5		10.29	10
	16	18251			17	26	64		10.81	10
240	10	18254	21	26	10.5	30	65	35	11.96	5
	12	18255			13	30	65		11.71	5
	16	18256			17	30	68		12.11	5
300	10	18259*	23.5	30	10.5	30	76	42	19.67	5
	12	18260*			13	30	79		20.08	5
	16	18261*			17	30	81		20.60	5

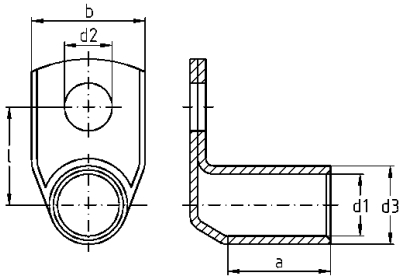
tool recommendation

WW 6/70 page 124
WW 10/120 page 125, MP 1 page 128
API 20 + HPi 20 page 137, API 35 + HPi 35 page 142
API 30 + HPi 30 page 141, HPW 17 page 143, HPW 15 page 143

* not UL-listed

Tubular cable lugs with 90° angle, 0.5 – 35 mm² euro-series

material: Cu-ETP (0.5 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600
surface: tin plated



approvals:
E 318299

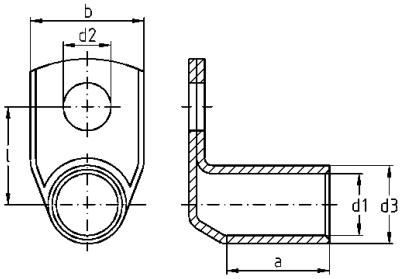
cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 0.75	**3**	**13100***	1.4	3	3.2	6.5	7.5	5	0.09	100	WZ 21 page 104
	4	13101*			4.3	8.5	8.5		0.10	100	
	5	13102*			5.3	10	9.5		0.10	100	
1.0 – 1.5	3	13105*	1.9	3.9	3.2	6.5	8	5	0.16	100	
	4	**13106***			4.3	8.5	9		0.16	100	
	5	13107*			5.3	10	10		0.16	100	
	6	13108*			6.4	11	12		0.16	100	
2.5	4	13110*	2.4	4.4	4.3	8.5	9.2	5.5	0.18	100	
	5	**13111***			5.3	10	10.2		0.18	100	
	6	13112*			6.4	11	12.2		0.22	100	
	8	13113*			8.4	14	14.2		0.23	100	
4	4	13115*	3	5	4.3	8.5	9.5	7	0.25	100	
	5	**13116***			5.3	10	10.5		0.24	100	
	6	13117*			6.4	11	12.5		0.29	100	
	8	13118*			8.4	14	14.5		0.30	100	
6	4	16120	3.5	6.5	4.3	10	10.3	8	0.60	100	
	5	**16121**			5.3	11	11.2		0.56	100	
	6	16122			6.4	11	13.3		0.62	100	
	8	16123			8.4	15	15.3		0.64	100	
	10	16124			10.5	18	17.2		0.68	100	
	12	16125			13	20	18.2		0.66	100	
10	5	15305	4.5	7	5.3	12	11.5	9	0.54	100	
	6	**15306**			6.4	12	12.5		0.59	100	
	8	15307			8.4	15	15.5		0.67	100	
	10	15308			10.5	18	17.5		0.70	100	
	12	15309			13	20	18.5		0.70	100	
16	5	15310	5.5	8.5	5.3	12	13.0	12	1.07	100	
	6	15311			6.4	12	14.3		1.15	100	
	8	**15312**			8.4	15	16.3		1.20	100	
	10	15313			10.5	18	18.3		1.23	100	
	12	15314			13	20	19.3		1.23	100	
25	6	16315	7	10	6.4	15	15.5	14	1.35	100	
	8	**16316**			8.4	16	17.5		1.43	100	
	10	16317			10.5	18	19.5		1.68	100	
	12	16318			13	20	20.5		1.51	100	
	14	16319			15	22	22.5		1.69	100	
35	6	16320	8.5	12	6.4	17	16.5	16	2.10	100	
	8	**16321**			8.4	17	18.5		2.31	100	
	10	16322			10.5	20	20.5		2.36	100	
	12	16323			13	22	21.5		2.37	100	
	14	16381			15	23	23.5		2.48	100	
	16	16392			17	28	24.5		2.48	100	

WW 6/70 page 124, APi 30 + HPi 30 page 141
WW 10/120 page 125
AP 10 + HPi 10 S. 134, APi 20 + HPi 20 S. 137, HPW 17 S. 143

* not UL-listed

Tubular cable lugs with 90° angle, 50 – 300 mm² euro-series

material: Cu-HCP according to DIN EN 13600
surface: tin plated



approvals:
E 318299

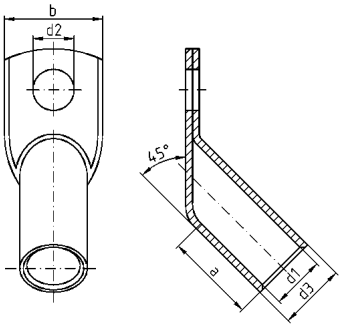
cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.
50	6	16324	10	14	6.4	20	17.5	18	3.00	100
	8	16325			8.4	20	19.5		3.22	100
	10	**16326**			10.5	20	21.5		3.32	100
	12	16327			13	23	22.5		3.28	100
	14	16382			15	23	24.5		3.37	100
	16	16328			17	27	28.5		3.63	100
	20	16397			21	30	32.5		3.89	100
70	6	16329	12	16.5	6.4	24	18.8	20	4.41	25
	8	16330			8.4	24	20.8		4.92	25
	10	**16331**			10.5	24	22.8		5.06	25
	12	16332			13	24	23.8		4.87	25
	14	16383			15	25	25.8		4.84	25
	16	16333			17	28	26.8		5.11	25
	20	16334			21	29	30.8		5.26	25
95	8	16335	13.5	18	8.4	26	21.5	22	5.33	25
	10	16336			10.5	26	23.5		5.59	25
	12	**16337**			13	26	24.5		5.53	25
	14	16384			15	26	26.5		5.89	25
	16	16338			17	28	27.5		6.00	25
120	8	16385	15	20	8.4	29	22.5	25	7.63	25
	10	16340			10.5	29	24.5		8.07	25
	12	**16341**			13	29	25.5		8.01	25
	16	16342			17	30	28.5		8.46	25
150	8	16344	16.8	21.3	8.4	31	25.7	28	8.03	25
	10	16345			10.5	31	25.7		8.07	25
	12	**16346**			13	31	26.7		8.29	25
	16	16347			17	31	29.7		8.50	25
	20	16348			21	35	33.7		8.89	25
185	10	16349	19	24	10.5	35	27	29	11.41	25
	12	16350			13	35	28		12.04	25
	16	**16351**			17	35	31		12.48	25
	20	16352			21	35	35		12.70	25
240	10	16354	21	26	10.5	38	28	34	13.32	25
	12	16355			13	38	29		13.28	25
	16	**16356**			17	38	32		13.76	25
	20	16357			21	38	36		14.15	25
300	12	13360	24	30	13	43	31	41	19.92	20
	16	13361			17	43	34		20.90	20
	20	**13362**			21	43	38		21.81	20

tool recommendation

WW 6/70 page 124
WW 10/120 page 125
AP 10 + HPi 10 page 134
APi 20 + HPi 20 page 137, APi 30 + HPi 30 page 141, HPW 17 page 143, APi 35 + HPi 35 page 142

Tubular cable lugs with 45° angle, 10 – 70 mm² euro-series

material: Cu-HCP according to DIN EN 13600
surface: tin plated



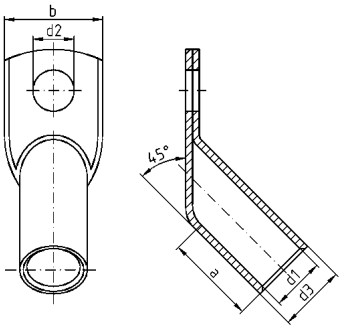
approvals:
E 318299

cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
10	5	15134	4.5	7	5.3	12	9	0.55	100	WW 6/70 page 124
	6	**15135**			6.4	12		0.58	100	WW 10/120 page 125, MP 1 page 128
	8	15136			8.4	15		0.65	100	AP 10 + HPi 10 page 134, API 20 + HPi 20 page 137, HPW 15 page 143
	10	15137*			10.5	18		0.66	100	API 30 + HPi 30 page 141, API 35 + HPi 35 page 142, HPW 17 page 143
16	5	15139	5.5	8.5	5.3	12	12	0.95	100	
	6	15140			6.4	12		1.02	100	
	8	**15141**			8.4	15		1.17	100	
	10	15142			10.5	18		1.17	100	
25	6	16145	7	10	6.4	15	14	1.39	100	
	8	**16146**			8.4	16		1.51	100	
	10	16147			10.5	18		2.05	100	
	12	16148			13	20		1.70	100	
35	6	16150	8.5	12	6.4	17	16	2.17	50	
	8	**16151**			8.4	17		2.23	50	
	10	16152			10.5	20		2.34	50	
	12	16153			13	22		2.40	50	
50	6	16154*	10	14	6.4	20	18	2.94	50	
	8	16155			8.4	20		3.34	50	
	10	**16156**			10.5	20		3.65	50	
	12	16157			13	23		3.65	50	
70	8	16160	12	16.5	8.4	24	20	4.90	25	
	10	**16161**			10.5	24		5.23	25	
	12	16162			13	24		5.17	25	
95	8	16165	13.5	18	8.4	26	22	6.32	25	
	10	16166			10.5	26		6.20	25	
	12	**16167**			13	26		6.20	25	
	16	16168*			17	28		6.80	25	
120	8	16169	15	20	8.4	29	25	7.80	25	
	10	16170			10.5	29		8.90	25	
	12	**16171**			13	29		8.91	25	
	16	16172			17	30		9.31	25	
150	8	16173*	16.8	21.3	8.4	31	28	10.20	25	
	10	16174			10.5	31		9.80	25	
	12	**16175**			13	31		9.68	25	
	16	16176			17	31		10.12	25	
	20	16177*			21	35		10.12	25	

* not UL-listet

Tubular cable lugs with 45° angle 185 – 240 mm² euro-series

material: Cu-HCP according to DIN EN 13600
surface: tin plated

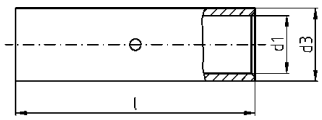


approvals:
E 318299

cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
185	10	13178	19	24	10.5	35	29	12.52	20	AP 10 + HPi 10 / API 20 + HPi 20 / API 30 + HPi 30 / HPW 15 + HPW 17
	12	13179			13	35		12.29	20	
	16	**13180**			17	35		11.96	20	
	20	13181			21	35		13.99	20	
240	12	13183	21	26	13	38	34	15.46	15	
	16	**13184**			17	38		16.51	15	
	20	13185			21	38		17.04	15	

Tubular butt-connectors 0.5 – 630 mm² euro-series

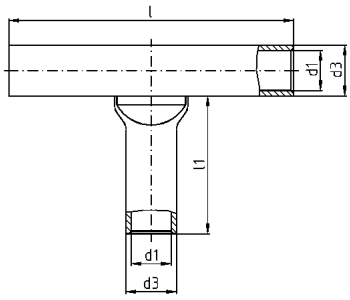
material: Cu-ETP (0.5 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600
surface: tin plated – type: with wirestop



cross section mm²	art.-no.	dimensions in mm d_1	d_3	l	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 0.75	13450	1.4	3	15	0.08	100	WZ 21 p. 104 / WW 10/120 p. 125 / DP 6/95 page 122 / AP 10 + HPi 10 page 134 / API 30 + HPi 30 p. 141, HPW 17 p. 143 / HPW 18 page 156
1.0 – 1.5	13452	1.9	3.9	15	0.12	100	
2.5	13454	2.4	4.4	16	0.15	100	
4	13456	3	5	19	0.21	100	
6	16458	3.5	6.5	25	0.51	100	
10	15460	4.5	7	30	0.60	50	
16	15462	5.5	8.5	35	1.00	50	
25	16464	7	10	40	1.41	50	
35	16466	8.5	12	45	2.17	50	
50	16468	10	14	50	3.32	50	
70	16470	12	16.5	55	4.91	50	
95	16472	13.5	18	60	6.09	50	
120	16474	15	20	65	7.88	25	
150	13476	16.8	21.3	70	8.68	25	
185	13478	19	24	75	11.63	25	
240	13480	21	26	85	14.22	25	
300	13482	24	30	100	22.40	10	
400	13484	27.5	33.5	100	26.17	10	
500	13486	31	38	140	49.68	5	
630	13488	34	41	160	61.75	5	

Tubular T-connectors 1.0 – 300 mm² euro-series

material: Cu-ETP (1 – 4 mm²) resp. Cu-HCP (from 6 mm² on) according to DIN EN 13600
surface: tin plated



cross section mm²	art.-no	dimensions in mm d_1	d_3	l	l_1	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
1.0 – 1.5	13952	1.9	3.9	30	16	0.36	50	WZ 21 / DP 6/95 page 122 / WW 10/120 p. 125 / APi 30 + HPi 30 page 141
2.5	13954	2.4	4.4	30	16	0.45	50	
4	13956	3	5	35	16.5	0.57	50	
6	16958	3.5	6.5	35	17	1.08	50	
10	15960	4.5	7	45	25	1.40	50	
16	15962	5.5	8.5	50	26	2.30	50	
25	16964	7	10	50	27	2.40	25	
35	16966	8.5	12	60	31	4.50	25	
50	16968	10	14	72	35	7.20	10	
70	16970	12	16.5	77	37	10.35	10	
95	16972	13.5	18	88	45	12.70	10	
120	16974	15	20	106	53	17.80	10	
150	13976	16.8	21.3	120	58	23.42	5	
185	13978	19	24	110	42	25.62	5	
240	13980	21	26	135	55	33.94	5	
300	13982	24	30	140	55	47.70	3	

Assortment box with tubular cable lugs euro-series

material: varnished steel, with 12 small compartments and 1 tool compartment
measurements: 405 x 250 x 50 mm

special filling on request

contents of tubular cable lugs, euro-series

25 pcs.	6 mm²	M 6	Nr. 16022
25 pcs.	6 mm²	M 8	Nr. 16023
25 pcs.	10 mm²	M 6	Nr. 15206
25 pcs.	10 mm²	M 8	Nr. 15207
25 pcs.	16 mm²	M 8	Nr. 15212
25 pcs.	16 mm²	M 10	Nr. 15213
25 pcs.	25 mm²	M 8	Nr. 16216
25 pcs.	25 mm²	M 10	Nr. 16217
20 pcs.	35 mm²	M 8	Nr. 16221
20 pcs.	35 mm²	M 10	Nr. 16222
20 pcs.	50 mm²	M 10	Nr. 16226
20 pcs.	50 mm²	M 12	Nr. 16227

1 pc. crimping tool WW 6/50 Nr. 90179
art.-no: 90891

assortment box without contents
art.-no.: 90877

Tubular compression cable lugs, copper, DIN 46235

Tubular compression cable lugs 90° angled, copper, tube measurements in accordance with DIN 46235

Tubular compression cable lugs, 1- and 2-conductor version, with 2 holes, copper

Compression bolts, copper

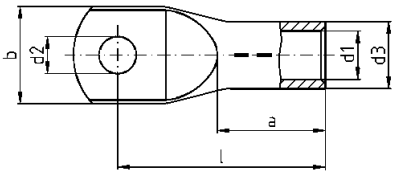
Tubular compression connectors, copper, DIN 46267 part 1

Tubular compression connectors with oil stop, copper, tube measurements according to DIN 46267 part 1

Compression tab-connectors, H-shape, copper

Tubular compression cable lugs 6 – 35 mm², DIN 46235

material: Cu-ETP (6 + 10 mm²) resp. Cu-HCP (from 16 mm² on) according to DIN EN 13600
surface: tin plated or optionally uncoated

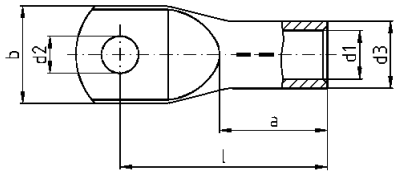


*not standardized,
tube measurements in accordance with DIN 46235

cross section mm²	flat hole diameter M	**tin plated art.-no.**	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
6	5	14021	5	3.7	5.5	5.3	8.5	24	10	0.31	100	14121	DW 6/70 page 123
	6	14022				6.4	9	24		0.34	100	14122	
	8*	14023				8.4	13	26		0.35	100	14123	
10	5	14205	6	4.4	6	5.3	10	27	10	0.35	100	14605	DW 10/120 page 125
	6	14206				6.4	10	27		0.37	100	14606	
	8*	14207				8.4	13	28		0.38	100	14607	
	10*	14208				10.5	15	29		0.38	100	14608	
16	5*	14210	8	5.5	8.5	5.3	13	36	20	1.22	100	14610	MP 1 page 128, MP 2 page 131, API 35 + HPi 35 page 142, HPW 15 page 143
	6	14211				6.4	13	36		1.27	100	14611	
	8	14212				8.4	13	37		1.30	100	14612	
	10	14213				10.5	16.5	38		1.32	100	14613	
	12*	14214				13	19	40		1.35	100	14614	
25	6	14215	10	7	10	6.4	14	39	20	1.62	100	14615	
	8	14216				8.4	17	39		1.76	100	14616	
	10	14217				10.5	17	40.5		1.76	100	14617	
	12	14218				13	18	40.5		1.73	100	14618	
	16*	14219				17	22	45		1.99	100	14619	
35	6*	14220	12	8.2	12.5	6.4	17.5	42.5	20	3.12	100	14620	AP 10 + HPi 10 page 134, API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143
	8	14221				8.4	18	42		3.24	100	14621	
	10	14222				10.5	20	42.5		3.19	100	14622	
	12	14223				13	21	44		3.17	100	14623	
	16*	14224				17	28	47		3.14	100	14624	

Tubular compression cable lugs 50 – 120 mm², DIN 46235

material: Cu-HCP according to DIN EN 13600
surface: tin plated or optionally uncoated

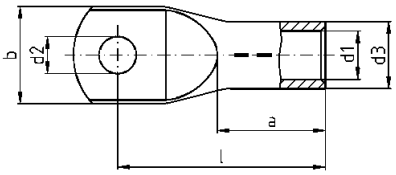


* not standardized, tube measurements in accordance with DIN 46235

cross section mm²	flat hole diameter M	**tin plates art.-no.**	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
50	6*	14284	14	9.8	14.5	6.4	20	52	28	4.60	100	14684	DW 6/70 page 123
	8	14225				8.4	20	52		4.95	100	14625	DW 10/120 page 125
	10	14226				10.5	22	52		4.75	100	14626	MP 1 page 128, MP 2 page 131, API 35 + HPi 35 page 142, HPW 15 page 143
	12	14227				13	24	52		4.72	100	14627	AP 10 + HPi 10 page 134, API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143
	14*	14293				15	26	53.5		4.84	100	14693	
	16	14228				17	28	55.5		5.00	100	14628	
	20*	14229				21	30	61.5		5.57	100	14629	
70	8	14230	16	11.3	16.5	8.4	24	56	28	6.54	50	14630	
	10	14231				10.5	24	56		6.54	50	14631	
	12	14232				13	24	56.5		6.01	50	14632	
	14*	14292				15	24	55.5		6.41	50	14692	
	16	14233				17	29	57		6.41	50	14633	
	20*	14234				21	31	61		6.40	50	14634	
95	8*	14235	18	13.5	19	8.4	28	65	35	9.36	50	14635	
	10	14236				10.5	28	65.5		9.55	50	14636	
	12	14237				13	28	65.5		9.45	50	14637	
	14*	14285				15	28	65.5		9.20	50	14685	
	16	14238				17	30	65.5		9.44	50	14638	
	20*	14239				21	33	71		9.86	50	14639	
120	8*	14282	20	15.5	21	8.4	31	70	35	11.35	50	14682	
	10	14240				10.5	31	70		11.40	50	14640	
	12	14241				13	31	70.5		11.44	50	14641	
	14*	14283				15	31	70		11.47	50	14683	
	16	14242				17	31.5	70		11.15	50	14642	
	20	14243				21	36	72		11.51	50	14643	

Tubular compression cable lugs 150 – 300 mm², DIN 46235

material: Cu-HCP according to DIN EN 13600
surface: tin plated or optionally uncoated

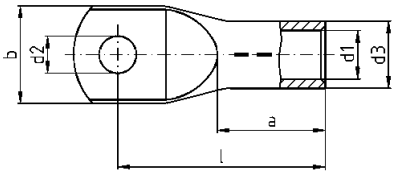


* not standardized,
tube measurements in accordance with DIN 46235

cross section mm²	flat hole diameter M	**tin plated art.-no.**	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
150	8*	14244	22	17	23.5	8.4	34	79	35	16.40	25	14644	AP 10 + HPi 10 page 134
	10	14245				10.5	34	79		16.41	25	14645	MP 2 page 131, API 35 + HPi 35 page 142, HPW 15 page 143
	12	14246				13	34	78.5		16.76	25	14646	API 20 + HPi 20 page 137, HPW 17 page 143
	14*	14294				15	34	78		15.66	25	14694	API 30 + HPi 30 page 141, HPW 18 page 156
	16	14247				17	34	78		16.35	25	14647	
	20	14248				21	38	78		15.98	25	14648	
185	8*	14288	25	19	25.5	8.4	37	83	40	18.50	25	14688	
	10	14249				10.5	37	83		18.50	25	14649	
	12	14250				13	37	82.5		18.95	25	14650	
	14*	14295				15	37	82		18.96	25	14695	
	16	14251				17	37	82		18.78	25	14651	
	20	14252				21	40	83		18.90	25	14652	
240	10*	14254	28	21.5	29	10.5	42	92	40	27.10	20	14654	
	12	14255				13	42.5	92		27.08	20	14655	
	14*	14287				15	42.5	92		26.40	20	14687	
	16	14256				17	42.5	92		27.45	20	14656	
	20	14257				21	45	92		27.06	20	14657	
300	10*	14259	32	24.5	32	10.5	48.5	104	50	34.80	10	14659	
	12*	14260				13	48.5	104		33.65	10	14660	
	14*	14291				15	48.5	104		34.60	10	14691	
	16	14261				17	48.5	100		33.72	10	14661	
	20	14262				21	48.5	100		34.37	10	14662	

Tubular compression cable lugs 400 – 1000 mm², DIN 46235

material: Cu-HCP according to DIN EN 13600
surface: tin plated or optionally uncoated

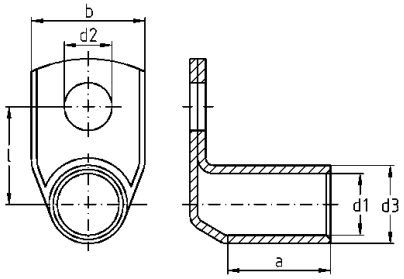


* not standardized,
tube measurements in accordance with DIN 46235

cross section mm²	flat hole diameter M	**tin plated art.-no.**	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
400	10*	14263	38	27.5	38.5	10.5	55	117	70	71.55	5	14663	HPW 18 page 156
	12*	14264				13	55	117		71.70	5	14664	
	14*	14296				15	55	117		71.98	5	14696	
	16	14265				17	55	117		70.28	5	14665	
	20	14266				21	55	117		70.60	5	14666	
500	12*	14269	42	31	42	13	60	130	70	86.92	5	14669	
	14*	14289				15	60	130		89.50	5	14689	
	16*	14270				17	60	130		88.90	5	14670	
	20	14271				21	60	130		87.66	5	14671	
625	12*	14273	44	34.5	44	13	63	135	80	84.27	5	14673	
	14*	14274				15	63	135		83.89	5	14674	
	16*	14275				17	63	135		83.35	5	14675	
	20	14276				21	63	135		82.05	5	14676	
800	14*	14279	52	40	52	15	75	165	100	148.60	2	14679	
	16*	14280				17	75	165		143.00	2	14680	
	20	14281				21	75	165		145.55	2	14681	
1000	16*	14297	58	44	58	17	83	167	100	193.70	2	14697	
	20	14286				21	83	167	100	189.00	2	14686	

Tubular compression cable lugs with 90° angle, 10 – 70 mm²
Tube measurements according to DIN 46235

surface: tin plated or optionally uncoated
material: Cu-ETP (10 mm²) resp. Cu-HCP (from 16 mm² on) according to DIN EN 13600

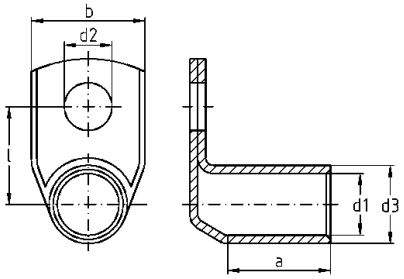


cross section mm²	flat hole diameter M	**tin plated art.-no.**	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
10	6	14306	6	4.4	6	6.4	10	13	10	0.35	100	14706	DW 6/70 page 123
	8	14307				8.4	13	15		0.37	100	14707	DW 10/120 page 125, MP 1 page 128
16	6	14311	8	5.5	8.5	6.4	13	14.3	20	1.27	100	14711	MP 2 page 131, AP 10 + HPi 10 page 134, API 35 + HPi 35 page 142
	8	14312				8.4	13	16.3		1.30	100	14712	API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143
	10	14313				10.5	16.5	18.3		1.41	100	14713	
	12	14314				13	19	19.3		1.38	100	14714	
25	6	14315	10	7	10	6.4	15	15.5	20	1.68	100	14715	
	8	14316				8.4	16	17.5		1.76	100	14716	
	10	14317				10.5	16	19.5		1.84	100	14717	
	12	14318				13	19	20.5		1.72	100	14718	
35	6	14320	12	8.2	12.5	6.4	17	16.8	20	2.74	100	14720	
	8	14321				8.4	17	18.8		3.04	100	14721	
	10	14322				10.5	19	20.8		3.12	100	14722	
	12	14323				13	21	21.8		3.26	100	14723	
50	8	14325	14	9.8	14.5	8.4	20	19.8	28	4.62	100	14725	
	10	14326				10.5	22	21.8		4.82	100	14726	
	12	14327				13	24	22.8		4.83	100	14727	
	16	14328				17	27	25.8		5.06	100	14728	
70	8	14330	16	11.3	16.5	8.4	24	20.8	28	5.93	25	14730	
	10	14331				10.5	24	22.8		6.55	25	14731	
	12	14332				13	24	23.8		6.56	25	14732	
	16	14333				17	29	26.8		6.31	25	14733	

Tubular compression cable lugs with 90° angle, 95 – 300 mm²
Tube measurements according to DIN 46 235

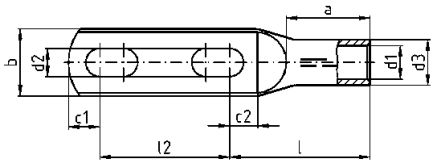
surface: tin plated or optionally uncoated

Material: Cu-ETP (10 mm²) resp. Cu-HCP (from 16 mm²) according to DIN EN 13600



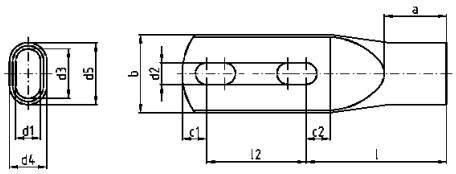
cross section mm²	flat hole diameter M	**tin plated art.-no.**	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
95	8	14335	18	13.5	19	8.4	28	22	35	8.50	25	14735	DW 10/120 p. 125, MP 1 p. 128
	10	14336				10.5	28	24		9.37	25	14736	AP 10 + HPi 10 page 134
	12	14337				13	28	25		9.49	25	14737	MP 2 page 131, API 35 + HPi 35 page 142, HPW 15 page 143
	16	14338				17	32	28		9.67	25	14738	API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143, HPW 18 page 156
120	10	14340	20	15.5	21	10.5	32	25.5	35	10.84	25	14740	
	12	14341				13	32	26.5		11.00	25	14741	
	16	14342				17	32	29.5		11.16	25	14742	
	20	14343				21	38	33.5		12.39	25	14743	
150	8	14344	22	17	23.5	8.4	34	26.8	35	13.87	25	14744	
	10	14345				10.5	34	26.8		14.16	25	14745	
	12	14346				13	34	27.8		14.41	25	14746	
	16	14347				17	34	30.8		14.83	25	14747	
	20	14348				21	34	34.8		15.51	25	14748	
185	8	14396	25	19	25.5	8.4	37	25.8	40	15.70	25	14796	
	10	14349				10.5	37	27.8		16.81	25	14749	
	12	14350				13	37	28.8		17.29	25	14750	
	16	14351				17	37	31.8		17.18	25	14751	
	20	14352				21	40	35.8		20.20	25	14752	
240	12	14355	28	21.5	29	13	42	30.5	40	22.61	20	14755	
	16	14356				17	42	33.5		24.46	20	14756	
	20	14357				21	42	37.5		25.59	20	14757	
300	12	14360	32	24.5	32	13	48.5	32	50	29.08	10	14760	
	16	14361				17	48.5	35		30.51	10	14761	
	20	14362				21	48.5	39		38.60	10	14762	

Compression cable lugs 70 – 120 mm²
with two holes á 13 x 24 mm, tube measurements according to DIN 46235
material: Cu-HCP according to DIN EN 13600, surface: tin plated



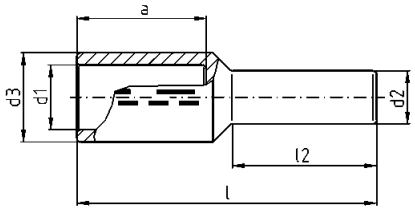
cross section mm²	flat hole diameter	art.-no.	die code no.	dimensions in mm d_1	d_3	d_2	b	l	l_2	a	c_1	c_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
70	2 x M 12	14032	16	11.3	16.5	13	24	61.5	38-60	28	14.5	14.5	10.88	25	DW 10/120 · AP 10, HPi 10 · API 30, HPW 17
95	2 x M 12	14037	18	13.5	19	13	28	63	38-60	35	14.5	15	14.30	25	
120	2 x M 12	14041	20	15.5	21	13	31	65	38-60	35	14.5	13	16.76	25	

Compression cable lugs, 2-conductor-version 2 x 70 – 2 x 120 mm²
with 2 holes á 13 x 24 mm
Material: Cu-HCP according to DIN EN 13600, surface: tin plated



cross section mm²	flat hole diameter	art.-no.	dimensions in mm d_1	d_3	d_4	d_5	d_2	b	l	l_2	a	c_1	c_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
2 x 70	2 x M 12	14132	11.5	23.3	18	29.8	13	37	71.5	38-60	28	14.5	14.5	26.00	10	API 30, HPi 30 · HPW 17
2 x 95	2 x M 12	14137	14	26.1	22	33.6	13	42	81.5	38-60	35	14.5	14.5	36.90	5	
2 x 120	2 x M 12	14141	14.9	30.8	22.4	38.0	13	47	84.5	38-60	35	14.5	14.5	43.80	5	

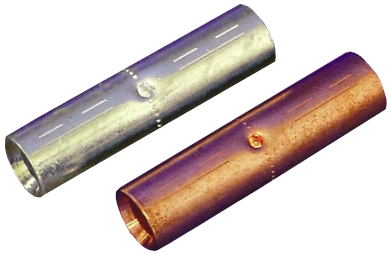
Compression bolts 120 – 240 mm²
Tube measurements according to DIN 46235
material: Cu-ETP according to DIN EN 13601, surface: tin plated

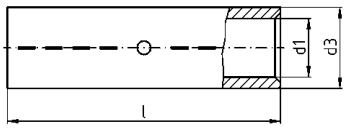


cross section mm²	art.-no.	die code no.	dimensions in mm d_1	d_3	d_2	l	l_2	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
120	14514	20	15.5	21	13	79	38	35	10.60	10	API 20, HPi 20 · API 30, HPi 30 · HPW 17
150	14516	22	17	23.5	14	79	38	35	13.30	10	
185	14518	25	19	25.5	16	90	44	40	17.65	5	
240	14520	28	21.5	29	18	90	44	40	23.00	5	

Tubular butt-connectors 6 – 1000 mm² DIN 46267 part 1

material: Cu-ETP (6 + 10 mm²) resp. Cu-HCP (from 16 mm²) according to DIN EN 13600
surface: tin plated or optionally uncoated





Tubular compression connectors for medium voltage conductors 10 – 30 kV are available on request!

cross section mm²	**tin plated art.-no.**	die code no.	dimensions in mm d_1	d_3	l	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
6	14458	5	3.7	5.5	30	0.35	100	14858	AP 10 + HPi 10 p. 134 / DW 10/120 p. 125 / APi 30 + HPi 30 p. 141, HPW 17 p. 143 / DW 6/70 p. 123 / HPW 18 page 156
10	14460	6	4.4	6	30	0.35	100	14860	
16	14462	8	5.5	8.5	50	1.51	100	14862	
25	14464	10	7	10	50	1.86	100	14864	
35	14466	12	8.2	12.5	50	3.20	100	14866	
50	14468	14	9.8	14.5	56	4.49	50	14868	
70	14470	16	11.3	16.5	56	5.64	50	14870	
95	14472	18	13.5	19	70	8.98	50	14872	
120	14474	20	15.5	21	70	10.27	25	14874	
150	14476	22	17	23.5	80	14.96	25	14876	
185	14478	25	19	25.5	85	16.78	25	14878	
240	14480	28	21.5	29	90	23.20	15	14880	
300	14482	32	24.5	32	100	29.50	10	14882	
400	14484	38	27.5	38.5	150	76.70	5	14884	
500	14486	42	31	42	160	92.08	5	14886	
625	14488	44	34.5	44	160	86.82	5	14888	
800	14490	52	40	52	200	152.00	3	14890	
1000	14492	58	44	58	200	197.00	3	14892	

Assortment box with tubular compression cable lugs, DIN 46235

Material: varnished steel, with 12 small compartments and 1 tool-compartment
Measurements: 405 x 250 x 50 mm

special filling on request

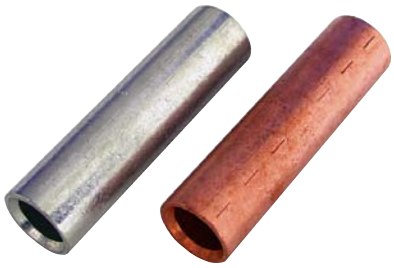
Contents of tubular compression cable lugs, DIN 46235:

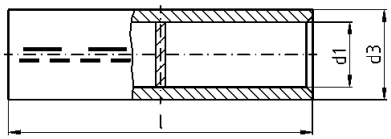
25 pcs.	6 mm²	M 6	no. 14022
25 pcs.	6 mm²	M 8	no. 14023
25 pcs.	10 mm²	M 6	no. 14206
25 pcs.	10 mm²	M 8	no. 14207
25 pcs.	16 mm²	M 8	no. 14212
25 pcs.	16 mm²	M 10	no. 14213
25 pcs.	25 mm²	M 8	no. 14216
25 pcs.	25 mm²	M 10	no. 14217
20 pcs.	35 mm²	M 8	no. 14221
20 pcs.	35 mm²	M 10	no. 14222
15 pcs.	50 mm²	M 10	no. 14226
15 pcs.	50 mm²	M 12	no. 14227

1 pc. crimping tool DW 6/50 no. 90178
art.-no.: 90893

assortment box without contents
art.-no.: 90877

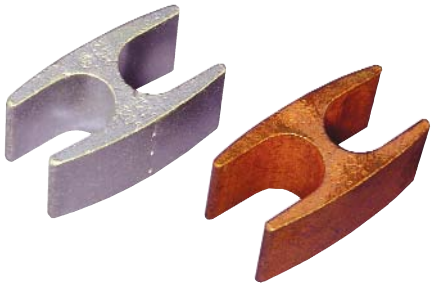
Tubular compression connectors 35 – 240 mm², with oil stop
Tube measurements according to DIN 46 267 part 1 The copper separation in the middle guarantees a complete oilstop
material: Cu-HCP according to DIN EN 13600, surface: tin plated or optionally uncoated

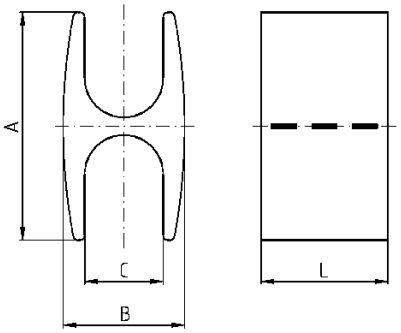




cross section mm²	**tin plated art.-no.**	die code no.l	dimensions in mm d_1	d_3	l	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
35	14566	12	8.2	12.5	50	3.18	100	14966	DW 10/120 page 125 / AP 10 + HPi 10 page 134 / APi 20 + HPi 20 page 137 / APi 30 + HPi 30 p. 141, HPW 17 p. 143
50	14568	14	9.8	14.5	56	4.65	50	14968	
70	14570	16	11.3	16.5	56	5.85	50	14970	
95	14572	18	13.5	19	70	9.15	50	14972	
120	14574	20	15.5	21	70	10.69	25	14974	
150	14576	22	17	23.5	80	15.73	25	14976	
185	14578	25	19	25.5	85	17.10	25	14978	
240	14580	28	21.5	29	90	25.34	15	14980	

Compression tab-connectors, H-shape
for copper conductors according to DIN 48 201
material: Cu-ETP according to DIN EN 13601, surface: tin plated or optionally uncoated





cross section main con ductor mm²	cross section tab con-ductor mm²	**tin plated art.-no.**	dimensions in mm A	B	C	L	weight 100 pcs. approx. kg	packing unit pcs.	**un-coated art.-no.**	tool recommendation
70	70	14420	34	17	10.8	28	6.19	25	14820	HPi 30 p. 141 / APi 30 p. 141 / HPW 17 p. 143
95	95	14422	40	22	13.0	30	9.69	25	14822	
120	120	14424	45	24	15.5	25	9.96	25	14824	

Tubular compression cable lugs, aluminium
Tubular compression connectors, aluminium
Tubular compression connectors, aluminium 10 - 30 kV

Bi-metallic compression cable lugs, aluminium/copper
Bi-metallic compression connectors, aluminium/copper
Bi-metallic washers

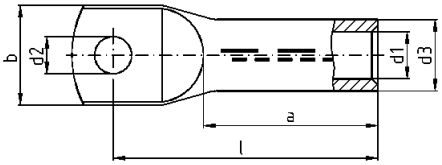
Tubular cable lugs, high grade nickel
Tubular connectors, high grade nickel

Tubular cable lugs, stainless steel

Tubular compression cable lugs 16 – 500 mm²

for aluminium conductors DIN 48 201

material: Al 99.5, surface: uncoated, sleeves are prefilled with compound

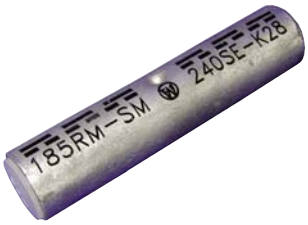


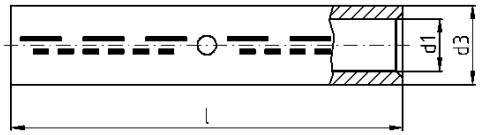
*rm = round stranded
sm = sector stranded

**se = sector solid (sector solid shaped conductors must be rounded with dies for round-forming

cross section mm² rm/sm*	cross section mm² se**	flat hole diameter M	art.-no.	die code no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
16	–	8	21212	10	5.6	10	8.4	16	52	26	0.94	50	AP 10 + HPi 10 page 134
		10	21213				10.5	18	52		1.01	50	
25	35	8	21216	12	7	12	8.4	16	60	34	1.48	50	
		10	21217				10.5	18	60		1.53	50	
35	50	10	21222	14	8	14	10.5	20	67	40	2.45	50	
		12	21223				13	20	67		2.35	50	
50	70	10	21226	16	10	16	10.5	23	74	42	3.35	25	
		12	21227				13	23	74		3.34	25	
70	95	10	21231	18	11.5	18.5	10.5	28	84	50	4.77	25	
		12	21232				13	28	87		4.73	25	
95	120	10	21236	22	13.4	22	10.5	32	90	55	7.01	10	
		12	21237				13	32	90		7.82	10	
		16	21238				17	32	90		7.69	10	
120	150	10	21240	22	15	23	10.5	32	98	60	8.38	10	
		12	21241				13	32	98		8.79	10	
		16	21242				17	32	98		8.64	10	
150	185	10	21245	25	16.5	25	10.5	35	104	64	10.00	10	MP 2 page 131, API 20 + HPi 20 page 137
		12	21246				13	35	104		10.03	10	
		16	21247				17	35	104		10.08	10	
		20	21248				21	35	104		10.02	10	
185	240	12	21250	28	18.5	28.5	13	40	109	66	13.39	10	
		16	21251				17	40	109		13.75	10	
		20	21252				21	40	109		13.76	10	
240	300	12	21255	32	21.3	32	13	46	119	70	17.58	10	
		16	21256				17	46	119		17.62	10	
		20	21257				21	46	119		17.90	10	
300	–	12	21260	34	23.3	34	13	50	125	70	18.00	5	APi 30 + HPi 30 page 141, HPW 17 page 143
		16	21261				17	50	125		22.10	5	
		20	21262				21	50	125		19.43	5	
400	–	12	21264	38	26	38.5	13	55	120	70	24.40	5	
		16	21266				17	55	120		24.40	5	
		20	21268				21	55	120		24.00	5	
500	–	12	21270	44	29	44	13	63	140	80	38.00	5	DW 6/70 page 123
		16	21272				17	63	140		37.80	5	
		20	21273				21	63	140		37.35	5	HPW 18 page 156

Tubular compression connectors 16 – 500 mm²
DIN 46267 part 2
material: Al 99.5, surface: uncoated, sleevs are prefilled with compound





*rm = round stranded
sm = sector stranded

**se = sector solid (sector solid shaped conductors must be rounded with dies for round-forming
*** = not standardized

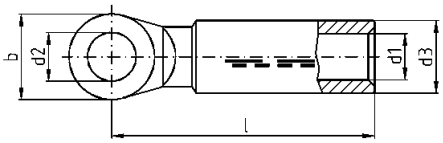
cross section mm² rm/sm*	se**	art.-no.	die code no.	dimensions in mm d_1	d_3	l	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
16* **	–	21462	10	5.6	10	55	0.92	50	AP 10 + HPi 10 p. 134 / MP 2 p. 131, API 20 + HPi 20 p. 137 / API 30 + HPi 30 p. 141, HPW 17 p. 143 / DW 6/70 / HPW 18 p. 156
25	35	21464	12	7.0	12	70	1.78	50	
35	50	21466	14	8.0	14	85	2.85	50	
50	70	21468	16	10.0	16	85	3.40	25	
70	95	21470	18	11.5	18.5	105	5.59	25	
95	120	21472	22	13.4	22	105	8.49	10	
120	150	21474	22	15.0	23	105	8.68	10	
150	185	21476	25	16.5	25	125	11.13	10	
185	240	21478	28	18.5	28.5	125	14.35	10	
240	300	21480	32	21.3	32	145	19.17	10	
300	–	21482	34	23.3	34	145	22.71	10	
400	–	21484	38	26.0	38.5	210	35.90	5	
500	–	21486	44	29.0	44.0	210	48.80	5	

Tubular compression connectors 10 - 30 kV 95 – 1000 mm²
material: Al 99,5
surface: uncoated, sleevs are prefilled with compound

cross section mm² rm/sm	art.-no.	die code no.	dimensions in mm d_1	d_3	l	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
95	21672	22	13.4	22.0	100	6.30	10	HPW 17 p. 143 / API 30, HPi 30 / HPW 18 page 156
120	21674	22	15.0	23.0	105	6.58	10	
150	21676	25	16.5	25.0	105	7.51	10	
185	21678	28	18.5	28.5	125	12.00	10	
240	21680	32	21.3	32.0	125	14.44	10	
300	21682	34	23.3	34.0	125	13.70	10	
400	21684	38	26.0	38.5	150	24.80	5	
500	21686	44	29.0	44.0	170	38.00	5	
625	21688	52	35.0	52.0	200	65.00	5	
800	21690	58	40.0	58.0	235	87.50	5	
1000	21692	60	44.0	60.0	235	82.50	5	on request

Bi-metallic tubular compression cable lugs 25 – 500 mm², for aluminium conductors DIN 48201

material: Al 99.5 and Cu-ETP according to DIN EN 13601, surface: uncoated
Al-sleeves are prefilled with compound

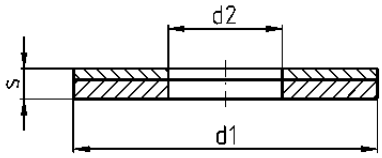


*rm = round stranded
sm = sector stranded
**se = sector solid (sector solid shaped conductors must be rounded with dies for round-forming

cross section mm² rm/sm*	cross section mm² se**	flat hole diameter M	art.-no.	die code no.	dimensions in mm d_1	d_3	d_2	b	l	weight 100 pcs. approx.kg whole	Cu	packing unit pcs.	tool recommendation
25	35	8	21716	12	6.8	12	8.4	20	65	3.57	2.68	25	DW 10/120 page 125
		10	21717				10.5	20	65	3.44	2.55	25	
35	50	10	21722	14	8	14	10.5	20	75	4.42	3.04	25	AP 10 + HPi 10 page 134
		12	21723				13	26	75	5.15	3.76	25	
50	70	10	21726	16	9.8	16	10.5	20	75	4.72	3.04	25	
		12	21727				13	26	75	5.95	4.24	25	
70	95	10	21731	18	11.2	18.5	10.5	26	85	7.37	4.60	10	
		12	21732				13	26	85	7.12	4.35	10	
95	120	12	21737	22	13.2	23	13	26	86	10.34	5.80	10	
		16	21738				17	30	88	10.99	6.48	10	
120	150	12	21741	22	14.7	23	13	26	88	10.45	6.41	10	
		16	21742				17	30	90	11.45	7.41	10	
150	185	12	21746	25	16.3	25.5	13	30	100	13.57	8.07	5	API 30 + HPi 30 page 141, HPW 17 page 143
		16	21747				17	30	100	12.88	7.18	5	
185	240	12	21750	28	18.3	28.5	13	30	102	17.31	10.00	5	
		16	21751				17	36	105	19.68	12.40	5	
240	300	12	21755	32	21.5	32.5	13	30	112	20.41	10.00	5	
		16	21756				17	36	115	22.58	12.00	5	
300	–	12	21760	34	23.5	34	13	30	115	21.84	10.80	5	
		16	21761				17	36	116	23.20	12.80	5	
		20	21762				21	36	116	22.49	12.10	5	
400	–	16	21765	38	26	38.5	17	36	125	31.99	16.80	5	HPW 18 page 156
		20	21766				21	36	125	31.25	16.05	5	
500	–	16	21770	44	29.5	44	17	44	140	42.83	20.70	1	
		20	21771				21	44	140	42.08	19.96	1	

Bi-metallic washers

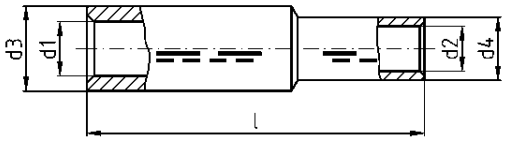
Aluminium sheet, one-sided copper plated
Material: Al 99.5 according to DIN EN 573-3 and Cu-DHP according to DIN EN 1652



flat hole diameter M	art.-no.	dimensions in mm d_1	d_2	s	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
6	**21903**	16	6.5	1	0.04	100	–
8	**21906**	18	8.5	1	0.04	100	–
10	**21909**	23	10.5	1	0.08	50	–
10	**21912**	26	11	1	0.10	50	–
12	**21915**	26	13	2	0.16	50	–
12	**21918**	30	13	2	0.24	50	–
16	**21921**	35	17	2	0.31	50	–
20	**21924**	37	21	2	0.30	25	–

Bi-metallic tubular compression connectors 25 – 300 mm², for aluminium conductors DIN 48201

material: Al 99.5 und Cu-ETP according to DIN EN 13601, surface: uncoated
Al-sleeves are prefilled with compound

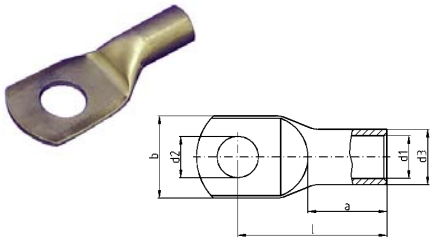


cross section mm² Al rm/sm	Cu rm/sm	art.-no.	die code no. Al	Cu	dimensions in mm d_1	d_3	d_2	d_4	l	weight 100 pcs. approx. kg whole	Cu	packing unit pcs.	tool recommendation
25	16	21810	12	8	6.8	12	5.5	8.5	61	1.61	0.84	25	DW 6/70 page 123
35	16	21814	14	8	8	14	5.5	8.5	71	2.12	0.89	25	AP 10 + HPi 10 page 134
35	25	21816	14	10	8	14	7	10	71	2.41	1.13	25	API 20 + HPi 20 page 137, MP 2 page 131
50	25	21820	16	10	9.8	16	7	10	71.5	2.66	1.03	25	API 30 + HPi 30 page 141, HPW 17 page 143
50	35	21822	16	12	9.8	16	8.2	12.2	71.5	3.34	1.71	25	
70	25	21826	18	10	11.2	18.5	7	10	79	3.62	1.06	10	
70	35	21828	18	12	11.2	18.5	8.2	12.2	79	4.22	1.55	10	
70	50	21830	18	14	11.2	18.5	10	14.5	85	5.33	2.65	10	
95	35	21834	22	12	13.2	23	8.2	12.2	79	5.74	1.66	10	
95	50	21836	22	14	13.2	23	10	14.5	85	6.91	2.65	10	
95	70	21838	22	16	13.2	23	11.5	16.5	87	7.89	3.68	10	
120	50	21842	22	14	14.7	23	10	14.5	87	6.65	2.73	10	
120	70	21844	22	16	14.7	23	11.5	16.5	89	7.61	3.58	10	
120	95	21846	22	18	14.7	23	13.5	19	97	9.77	5.62	10	
150	95	21852	25	18	16.3	25.5	13.5	19	108	11.66	5.62	5	
150	120	21854	25	20	16.3	25.5	15.5	21	108	12.59	6.61	5	
185	120	21860	28	20	18.3	28.5	15.5	21	108	14.01	6.61	5	
185	150	21862	28	22	18.3	28.5	17	23.5	113	16.93	9.47	5	
240	150	21866	32	22	21.5	32.5	17	23.5	124	20.08	9.27	5	
240	185	21868	32	25	21.5	32.5	19	25.5	127	21.84	10.97	5	
300	185	21874	34	25	23.3	34	19	25.5	128	22.58	11.19	5	
300	240	21876	34	28	23.3	34	21.5	29	128	25.63	13.71	5	

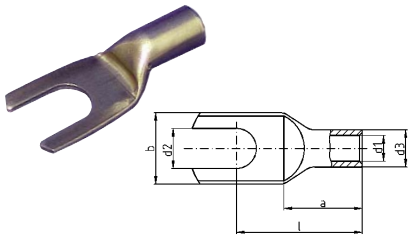
Tubular cable lugs and connectors 0.5 – 16 mm² high grade nickel

material: high grade nickel
heat resistance up to 500 °C

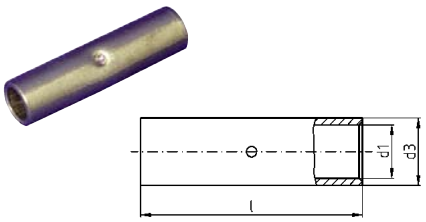
ring type



fork type



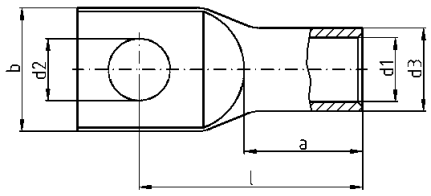
butt-connector



cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
ring type	3	12000	1.6	3.2	3.2	6.5	12.5	6	0.07	100	WZ 20 page 104 / WZ 6 page 103
0.5 – 1	4	12001			4.3	7	13.5		0.08	100	
	5	12002			5.3	7.5	14.5		0.09	100	
1.5 – 2.5	3	12009	2.3	3.9	3.2	7	14	6	0.11	100	
	4	12010			4.3	7	14		0.11	100	
	5	12011			5.3	8.5	15.5		0.12	100	
	6	12012			6.4	9.5	17		0.14	100	
4 – 6	4	12015	3.6	5.6	4.3	9.4	18	8	0.26	100	
	5	12016			5.3	10	18.5		0.28	100	
	6	12017			6.4	10.5	19.5		0.29	100	
	8	12018			8.4	12.5	23.5		0.32	100	
10	5	12205	4.5	6.5	5.3	10.8	20.5	10	0.34	100	
	6	12206			6.4	11.5	22.5		0.42	100	
	8	12207			8.4	13.3	25		0.42	100	
16	5	12210	5.5	7.5	5.3	12.8	22.5	11	0.44	100	
	6	12211			6.4	13.6	24.5		0.48	100	
	8	12212			8.4	15.7	26.5		0.54	100	
fork type	4	12101	1.6	3.2	4.3	6.5	13.5	6	0.08	100	WZ 20 p. 104 / WZ 6 page 103
0.5 – 1	5	12102			5.3	7.5	14.5		0.07	100	
1.5 – 2.5	4	12110	2.3	3.9	4.3	7	14	6	0.10	100	
	5	12111			5.3	8.5	15.5		0.11	100	
	6	12112			6.4	9.5	17		0.12	100	
4 – 6	4	12115	3.6	5.6	4.3	9.4	18	8	0.23	100	
	5	12116			5.3	10	18.5		0.24	100	
	6	12117			6.4	10.5	19.5		0.24	100	
	8	12118			8.4	13	23.5		0.30	100	
10	5	12076	4.5	6.5	5.3	10.8	20.5	10	0.34	100	
	6	12077			6.4	11.5	22.5		0.37	100	
	8	12078			8.4	13.3	25		0.41	100	
16	5	12081	5.5	7.5	5.3	12.8	22.5	11	0.44	100	
	6	12082			6.4	13.6	24.5		0.48	100	
	8	12083			8.4	15.7	26.5		0.53	100	
butt connectors											WZ 20 / WZ 6 p. 103
0.5 – 1	–	12450	1.6	3.2	–	–	15	–	0.08	100	
1.5 – 2.5	–	12454	2.3	3.9	–	–	15	–	0.10	100	
4 – 6	–	12458	3.6	5.6	–	–	15	–	0.19	100	
10	–	12460	4.5	6.5	–	–	25	–	0.38	100	
16	–	12462	5.5	7.5	–	–	30	–	0.54	100	

Tubular cable lugs out of stainless steel 1.5 – 95 mm²

material: stainless steel
heat resistance up to 400 °C, korrosion resistant



cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_3	d_2	b	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
1.5 - 2.5	4	12510	3	5	4.3	9	17	8	0.20	10	AP 10 + HPi 10 page 134
	5	12511			5.3	9	18		0.26	10	API 30 + HPi 30 page 141, HPW 17 page 143
	6	**12512**			6.4	10	20		0.24	10	API 35 + HPi 35 page 142, HPW 15 page 143
4 - 6	4	12515	4	6	4.3	9	18	9	0.26	10	
	5	12516			5.3	9	19		0.32	10	
	6	**12517**			6.4	10	21		0.31	10	
10	5	12705	5	8	5.3	12	21	10	0.61	10	
	6	**12706**			6.4	12	26		0.67	10	
	8	12707			8.4	13	25		0.76	10	
16	5	12710	6	8	5.3	12	28	16	0.50	10	
	6	12711			6.4	12	30		0.55	10	
	8	**12712**			8.4	13	32		0.61	10	
25	6	12715	7	10	6.4	14	29	15	1.08	10	
	8	**12716**			8.4	16	31		1.18	10	
35	6	12720	9	12	6.4	18	32	17	1.47	10	
	8	**12721**			8.4	18	34		1.59	10	
	10	12722			10.5	20	36		1.66	10	
50	8	12725	10	14	8.4	21	37	19	2.63	10	
	10	**12726**			10.5	21	39		2.71	10	
	12	12727			13	23	40		2.80	10	
70	8	12730	12	16	8.4	24	41	21	3.37	10	
	10	**12731**			10.5	24	43		3.48	10	
	12	12732			13	24	44		3.56	10	
	16	12733			17	28	47		3.78	10	
95	8	12735	14	18	8.4	26	46	25	4.25	10	
	10	**12736**			10.5	26	48		4.40	10	
	12	12737			13	26	49		4.50	10	
	16	12738			17	28	52		4.69	10	

Our service for trading

Small but representative configured packaging units simplify storage and distribution.

On all our labels you find our article number encoded as bar code (EAN 13). Therefore receipt and dispatch of goods are quick and faultless.

ETIM-Catalogue

ETIM is the basis classification model of the electric industry. We provide our ETIM product cataloge in BMEcat as xml-file on CD.

On request you obtain an individual catalogue with your article numbers and price conditions.

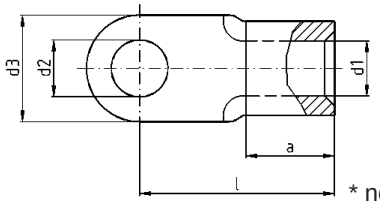
A price list on CD simplifies your data maintenance.

We place high quality, illuminated display boards with or without screen at our wholesale associate partner's disposal, free of cost.

Noninsulated ring- and fork-terminals, copper
Noninsulated pin-terminals, copper
Noninsulated parallel- and butt-connectors, copper
Assortment boxes with noninsulated terminals

Noninsulated terminals with brazed seam 0.1 – 6 mm² DIN 46234

material: Cu-HCP
surface: tin plated, s = small palm

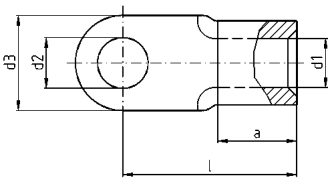


* not standardized, dimensions similar to DIN 46234

cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_2	d_3	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5	2	41001	1.0	2.2	5	10	4	0.02	100	WZ 5 p. 103
	3	41003		3.2	5	10		0.02	100	
	4	41005		4.3	6.5	12		0.03	100	
	5	41006		5.3	8	11		0.03	100	
0.5 – 1	2*	41010	1.6	2.2	6	11	5	0.06	100	WZ 20 page 104, WZ 12 page 100, WZ 1 page 103, WZ 6 page 103
	2.5	41011		2.7	6	11		0.06	100	
	3	41012		3.2	6	11		0.06	100	
	3.5	41013		3.7	6	11		0.06	100	
	4/S*	41014		4.3	7	11		0.06	100	
	4	41015		4.3	8	12		0.07	100	
	5/S*	41016		5.3	8	12		0.06	100	
	5	41017		5.3	10	13		0.08	100	
	6*	41018		6.5	10	13		0.07	100	
	8*	41019		8.4	12	17		0.10	100	
	10*	41009		10.5	14	17		0.09	100	
1.5 – 2.5	3	41020	2.3	3.2	6	11	5	0.06	100	
	3.5	41021		3.7	6	11		0.06	100	
	4/S*	41022		4.3	6.8	11		0.06	100	
	4	41023		4.3	8	12		0.08	100	
	5/S*	41024		5.3	8	12		0.07	100	
	5	41025		5.3	10	14		0.10	100	
	6	41026		6.5	11	16		0.11	100	
	8	41027		8.4	14	17		0.14	100	
	10*	41028		10.5	18	20		0.19	100	
	12*	41029		13	18	20		0.15	100	
4 – 6	4	41030	3.6	4.3	8	14	6	0.14	100	MP 13 p. 118
	5	41031		5.3	10	15		0.16	100	
	6	41032		6.5	11	16		0.17	100	
	8	41033		8.4	14	19		0.21	100	
	10	41034		10.5	18	21		0.27	100	
	12*	41035		13	18	21		0.23	100	

Noninsulated terminals with brazed seam 10 – 70 mm² DIN 46 234

material: Cu-HCP
surface: galvanisch verzinnt

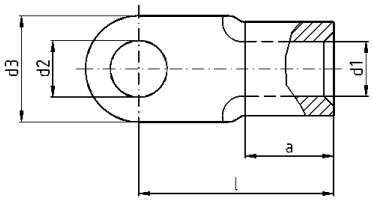


* not standardized, dimensions similar to DIN 46234

cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_2	d_3	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
10	4*	41039	4.5	4.3	10	16	8	0.23	100	DP 6/95 page 122, MP 1 page 128, AP 10 + HPi 10 page 134 / API 20 + HPi 20 page 137, API 30 + HPi 30 page 141, HPW 17 page 143, HPW 15 page 143 / MP 13 page 126 / WZ 6 page 103
	5	41040		5.3	10	16		0.22	100	
	6	41041		6.5	11	17		0.24	100	
	8	41042		8.4	14	20		0.29	100	
	10	41043		10.5	18	21		0.35	100	
	12	41044		13	22	23		0.41	100	
16	5	41045	5.8	5.3	11	20	10	0.40	100	
	6	41046		6.5	11	20		0.38	100	
	8	41047		8.4	14	22		0.42	100	
	10	41048		10.5	18	24		0.50	100	
	12	41049		13	22	26		0.59	100	
25	5	41050	7.5	5.3	12	25	11	0.70	50	
	6	41051		6.5	12	25		0.69	50	
	8	41052		8.4	16	25		0.75	50	
	10	41053		10.5	18	26		0.78	50	
	12	41054		13	22	31		0.97	50	
	16	41096		17	28	35		1.20	50	
35	6	41055	9	6.5	15	26	12	0.97	50	
	8	41056		8.4	16	26		0.96	50	
	10	41057		10.5	18	27		1.00	50	
	12	41058		13	22	31		1.17	50	
	16	41059		17	28	36		1.41	50	
	20*	41098		21	30	37.5	14	1.68	50	
50	6	41097	11	6.5	18	34	16	1.74	50	
	8	41060		8.4	18	34		1.70	50	
	10	41061		10.5	18	34		1.66	50	
	12	41062		13	22	36		1.80	50	
	16	41063		17	28	40		2.11	50	
	20*	41099		21	32	41.2	18	2.57	50	
70	6	41064	13	6.5	22	38	18	2.58	50	
	8	41065		8.4	22	38		2.63	50	
	10	41066		10.5	22	38		2.54	50	
	12	41067		13	22	38		2.47	50	
	16	41068		17	28	42		2.68	50	
	20*	41069		21	32	45	19	3.06	50	

Noninsulated terminals with brazed seam 95 – 240 mm² DIN 46 234

material: Cu-HCP
surface: tin plated



* not standardized, dimensions similar to DIN 46234

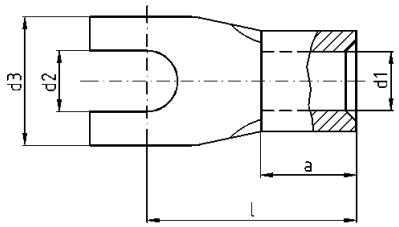
cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_2	d_3	l	a	weight 100 pcs. approx. kg	packing unit pcs.
95	8	41070	15	8.4	24	42	20	4.09	25
	10	41071		10.5	24	42		4.17	25
	12	41072		13	24	42		3.92	25
	16	41073		17	28	44		3.94	25
	20*	41074		21	32	51.8		4.25	25
120	8	41075	16.5	8.4	24	44	22	5.63	25
	10	41076		10.5	24	44		5.56	25
	12	41077		13	24	44		5.33	25
	16	41078		17	28	48		5.67	25
	20*	41079		21	32	53	21	5.60	25
150	10	41081	19	10.5	30	50	24	8.02	25
	12	41082		13	30	50		7.84	25
	16	41083		17	30	50		7.56	25
	20*	41084		21	36	63	27	7.35	25
185	10	41086	21	10.5	36	50	28	10.60	25
	12	41087		13	36	50		10.78	25
	16	41088		17	36	50		10.61	25
	20*	41089		21	36	50		10.17	25
240	10	41091	23.5	10.5	38	56	32	15.01	25
	12	41092		13	38	56		14.98	25
	16	41093		17	38	56		14.53	25

tool recommendation

DP 6/95 page 122
AP 10 + HPi 10 p. 134, APi 20 + HPi 20 p. 137
APi 30 + HPi 30 page 141, HPW 17 page 143

Noninsulated terminals with brazed seam 0.5 – 16 mm², fork-type

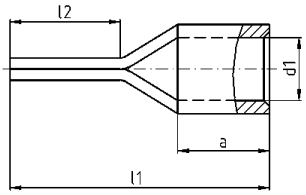
material: Cu-HCP (0.5 – 10 mm²) resp. Cu-ETP (16 mm²)
surface: tin plated, S = small palm



cross section mm²	flat hole diameter M	art.-no.	dimensions in mm d_1	d_2	d_3	l	a	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	C 3	41112	1.6	3.2	6	11	5	0.06	100	WZ 20 page 104, WZ 12 page 100, WZ 1 page 103 / WZ 6 page 103 / MP 13 page 126, AP 10 + HPi 10 page 134
	C 3.5	41113		3.7	6	11		0.05	100	
	C 4/S	41114		4.3	7	12		0.06	100	
	C 4	41115		4.3	8	12		0.07	100	
	C 5	41117		5.3	10	13		0.08	100	
	C 6	41118		6.5	12	17		0.09	100	
1.5 – 2.5	C 3	41120	2.3	3.2	6	11	5	0.06	100	
	C 3.5	41121		3.7	6.8	11		0.07	100	
	C 4/S	41122		4.3	6.8	11		0.06	100	
	C 4	41123		4.3	8	12		0.08	100	
	C 5	41125		5.3	10	14		0.10	100	
	C 6	41126		6.5	11	16		0.11	100	
4 – 6	C 4	41130	3.6	4.3	8	14	6	0.14	100	
	C 5	41131		5.3	10	15		0.16	100	
	C 6	41132		6.5	11	16		0.16	100	
	C 8	41133		8.4	14	19		0.19	100	
10	C 5	41140	4.5	5.3	10	16	8	0.23	100	
	C 6	41141		6.5	11	17		0.24	100	
16	C 6	41146	5.8	6.5	11	20	10	0.48	50	
	C 8	41147		8.4	14	22		0.50	50	

Noninsulated pin-terminals with brazed seam 0.1 – 95 mm² DIN 46230

material: Cu-HCP (0.1 – 6 mm²) resp. Cu-ETP (10 – 95 mm²)
surface: tin plated

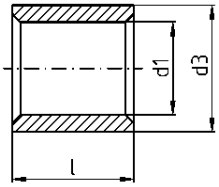


*not standardized

cross section mm²	art.-no.	dimensions in mm d1	l1	l2	a	Ø Stift	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5	41301	1.0	14	9	4	1.2	0.02	100	WZ 20 page 104 / WZ 5 / WZ 6 page 103 / DP 6/95 page 122, MP 2 page 131 / AP 10 + HPi 10 p. 134, API 20 + HPi 20 p. 137, HPW 15 p. 143
0.5 – 1	41302	1.6	17	10	5	1.9	0.06	100	
1.5 – 2.5	41304 41305*	2.3	17 22	10 15	5	1.9	0.07 0.09	100 100	
4 – 6	41306	3.6	20	11	6	2.6	0.15	100	
10	41308	4.5	22	12	8	2.3 x 4.2	0.25	100	
16	41310	5.8	26	13	10	2.5 x 5.6	0.41	100	
25	41312*	7.0	34.1	16	14	2.5 x 6.9	0.66	50	
35	41314*	8.4	41	20	16	3.2 x 8.1	1.19	50	
50	41316*	9.5	45.7	21	19	3.7 x 9.5	1.88	50	
70	41318*	11.2	55	24	24	4 x 11	3.01	50	
95	41320*	13.5	55.5	22	24	5.1 x 12.3	4.20	25	

Noninsulated parallel-connectors 0.1 – 150 mm² form A, DIN 46341 part 1

material: Cu-HCP
surface: tin plated

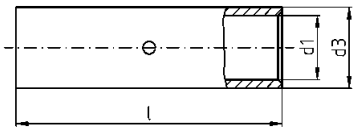


*not standardized

cross section mm²	art.-no.	dimensions in mm l	d_1	d_3	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5*	41400	5	1.2	2	0.01	100	DP 6/95 page 122 / WZ 20 p. 104 / WZ 12 p. 100 / WZ 6 p. 103 / AP 10 + HPi 10 p. 134 / APi 30 + HPi 30 p. 141
0.5 – 1	41401	7	1.6	3.3	0.04	100	
1.5 – 2.5	41404	7	2.3	4	0.05	100	
4 – 6	41408	7	3.6	5.7	0.09	100	
10	41410	9	4.6	6.8	0.15	100	
16	41412	10	5.9	8.3	0.23	100	
25	41414	14	7.7	10.7	0.53	100	
35	41416	16	9.2	12.4	0.73	100	
50	41418	19	11.2	14.8	1.24	100	
70	41420	19	13.5	17.5	1.66	100	
95	41422	20	15	20	2.41	50	
120	41424	22	16.7	22.7	3.64	50	
150	41426	26	19	25.5	5.03	50	

Noninsulated butt-connectors 0.1 – 150 mm² form B, DIN 46341 part 1

material: Cu-HCP
surface: tin plated



*not standardized

cross section mm²	art.-no.	dimensions in mm l	d_1	d_3	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5*	41450	12	1.2	2	0.02	100	DP 6/95 page 122 / WZ 20 p. 104 / WZ 12 p. 100 / WZ 6 p. 103 / AP 10 + HPi 10 p. 134 / APi 30 + HPi 30 p. 141
0.5 – 1	41451	15	1.6	3.3	0.09	100	
1.5 – 2.5	41454	15	2.3	4	0.11	100	
4 – 6	41458	15	3.6	5.7	0.18	100	
10	41460	20	4.6	6.8	0.36	100	
16	41462	26	5.9	8.3	0.61	100	
25	41464	29	7.7	10.7	1.13	100	
35	41466	32	9.2	12.4	1.55	100	
50	41468	38	11.2	14.8	2.44	100	
70	41470	42	13.5	17.5	3.73	50	
95	41472	48	15	20	6.08	50	
120	41474	52	16.7	22.7	8.67	50	
150	41476	56	19	25.5	11.25	50	

Assortment boxes
with noninsulated cable lugs
and connectors

Special filling on request

Assortment box out of varnished steel, with 12 small compartments and 1 tool-compartment. An inlay out of foam material prevents the content from mixing up.
Measurements: 350 x 160 x 35 mm

Contents:

200 pcs.	ring-terminals	3 – 1	no. 41012
300 pcs.	ring-terminals	4 – 1	no. 41015
200 pcs.	ring-terminals	5 – 1	no. 41017
300 pcs.	ring-terminals	4 – 2.5	no. 41023
200 pcs.	ring-terminals	5 – 2.5	no. 41025
50 pcs.	ring-terminals	5 – 6	no. 41031
100 pcs.	pin-terminals	1	no. 41302
100 pcs.	pin-terminals	2.5	no. 41304
50 pcs.	pin-terminals	6	no. 41306
50 pcs.	butt-connectors	1	no. 41451
50 pcs.	butt-connectors	2.5	no. 41454
25 pcs.	butt-connectors	6	no. 41458

art.-no.: 90848 without tool

assortment box **without** contents
art.-no.: 90821

Special filling on request

Assortment box out of varnished steel, with 7 small compartments and 1 tool-compartment for meter wiring.
Measurements: 350 x 160 x 35 mm

Inhalt:			
100 pcs.	cord-end-sleeves	10 – 18	no. 51434
50 pcs.	cord-end-sleeves	16 – 18	no. 51438
50 pcs.	fork-terminals	5 – 10	no. 41140
50 pcs.	fork-terminals	6 – 10	no. 41141
25 pcs.	fork-terminals	6 – 16	no. 41146
25 pcs.	fork-terminals	8 – 16	no. 41147
1 pc.	crimping tool WZ 6		no. 90706
1 pc.	crimping tool AZ 6		no. 90806

art.-no.: 90849

Assortment box **without** contents
art.-no.: 90823

Insulated ring-, fork- and pin-terminals
Insulated connectors
Male and female disconnectors, insulated and noninsulated
Assortment boxes

Quality advantages:

Brazed seam:

The seam of **WEITKOWITZ** ring-, fork- and pin-terminals is hard-soldered. This guarantees a defined deformation during crimping and a really good electric and mechanical connection.

Injected insulation sleeve

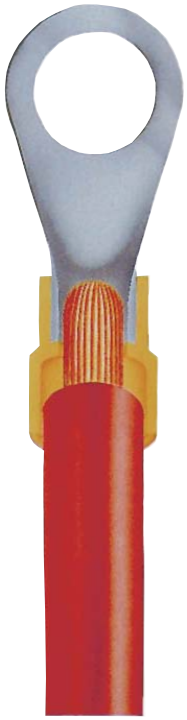
WEITKOWITZ ring-, fork- and pin-terminals have an injected easy-entry insulation sleeve that chamfers on the inside funnel shaped to the edge of the cable lug.

advantages for **you**:

– during crimping no white lines occur. Even after extreme deformation the colour of insulation does not change. Therefore the crimped cable lugs give an excellent and clean optical impression.

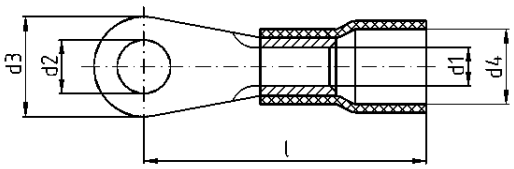
– due to the easy-entry insulation cables with a thicker insulation can be inserted without any problems. And what is more our products can be crimped with any common tool that is suitable for insulated terminals.

– furthermore the easy-entry insulation prevents wire turn-backs. Therefore you can work easier, faster and safer.



Insulated terminals with soldered seam and easy-entry insulation 0.1 – 6 mm² DIN 46 237

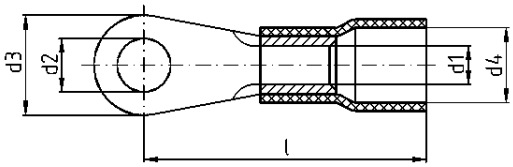
material: Cu-ETP, insulation: PC (resp. *polyamide)
surface: tin plated. S = small palm



cross section mm²	flat hole diameter M	art.-no.	colour of insu-lation	dimensions in mm d_1	d_4	d_2	d_3	l	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5	2	42001*	yellow	1.0	2.3	2.2	5	14	0.02	100	WZ 5 page 103
	3	42003*				3.2	5	14	0.02	100	
	4	42005*				4.3	6.5	16	0.03	100	
	5	42006*				5.3	8	16	0.03	100	
0.5 – 1	2	42010	red	1.6	4.0	2.2	6	17	0.06	100	WZ 12 page 100, WZ 1 page 103
	2.5	42011				2.7	6	17	0.06	100	
	3	42012				3.2	6	17	0.06	100	
	3.5	42013				3.7	6	17	0.06	100	
	4 S	42014				4.3	7	17.5	0.06	100	
	4	42015				4.3	8	18	0.07	100	
	5 S	42016				5.3	8	18.5	0.06	100	
	5	42017				5.3	10	19	0.08	100	
	6	42018				6.5	10	19	0.07	100	
	8	42019				8.4	14	23	0.10	100	
	10	42009				10.5	18	25	0.09	100	
1.5 – 2.5	3	42020	blue	2.3	4.4	3.2	6	17	0.06	100	WZ 9 page 106, WZ 24 page 107, WZ 23 page 107
	3.5	42021				3.7	6	17	0.06	100	
	4 S	42022				4.3	6.8	17.6	0.06	100	
	4	42023				4.3	8	18	0.08	100	
	5 S	42024				5.3	8	19.5	0.07	100	
	5	42025				5.3	10	20	0.10	100	
	6	42026				6.5	11	22	0.11	100	
	8	42027				8.4	14	23	0.14	100	
	10	42028				10.5	18	25.6	0.19	100	
	12	42029				13	18	26	0.16	100	
4 – 6	4	42030	yellow	3.6	6.4	4.3	8	21	0.14	100	
	5	42031				5.3	10	22	0.16	100	
	6	42032				6.5	11	23	0.17	100	
	8	42033				8.4	14	26	0.21	100	
	10	42034				10.5	18	28	0.27	100	
	12	42035				13	18	28	0.23	100	

Insulated terminals with soldered seam and easy-entry insulation 10 - 50 mm²

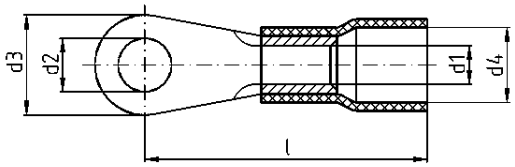
material: Cu-ETP, insulation: polyamide
surface: tin plated



cross section mm²	flat hole diameter M	art.-no.	colour of insu-lation	dimensions in mm d_1	d_4	d_2	d_3	l	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
10	5	42040	red	4.5	8	5.3	10	24.5	0.23	50	WZ 28 page 107, WZ 12 page 100
	6	42041				6.5	11	25.5	0.24	50	MP 13 page 126
	8	42042				8.4	14	28.5	0.29	50	MP 1 page 128, AP 10 + HPi 10 page 134, API 20 + HPi 20 page 137, HPW 15 page 143
	10	42043				10.5	18	29.5	0.35	50	MP 2 page 131, API 30 + HPi 30 page 141, HPW 17 page 143, API 35 + HPi 35 page 142
16	5	42045	blue	5.8	10.5	5.3	11	31.5	0.40	50	
	6	42046				6.5	11	31.5	0.38	50	
	8	42047				8.4	14	33.5	0.42	50	
	10	42048				10.5	18	35.5	0.50	50	
25	5	42050	yellow	7.5	13	5.3	12	38	0.70	50	
	6	42051				6.5	12	38	0.69	50	
	8	42052				8.4	16	38	0.75	50	
	10	42053				10.5	18	39	0.78	50	
	12	42054				13	22	44	0.97	50	
35	6	42055	red	9	14.5	6.5	15	41	0.97	50	
	8	42056				8.4	16	41	0.96	50	
	10	42057				10.5	18	42	1.00	50	
	12	42058				13	22	46	1.17	50	
50	6	42097	blue	11	16.5	6.5	18	47.5	1.74	50	
	8	42060				8.4	18	47.5	1.70	50	
	10	42061				10.5	18	47.5	1.66	50	
	12	42062				13	22	49.5	1.80	50	

Insulated terminals with soldered seam and easy-entry insulation 70 – 150 mm²

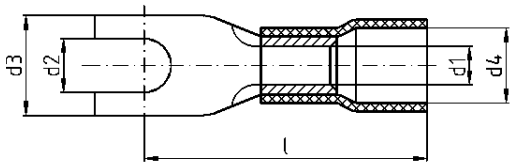
material: Cu-ETP, insulation: PA
surface: tin plated



cross section mm²	flat hole diameter M	art.-no.	colour of insu-lation	dimensions in mm d_1	d_4	d_2	d_3	l	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
70	6	42064	yellow	13	18.7	6.5	22	51	2.58	50	MP 1 p. 128, AP 10 + HPi 10 p. 134 / API 20 + HPi 20 page 137 / MP 2 page 131, API 35 + HPi 35 page 142, HPW 15 page 143 / API 30 + HPi 30 page 141, HPW 17 page 143
	8	42065				8.4	22	51	2.63	50	
	10	42066				10.5	22	51	2.54	50	
	12	42067				13	22	51	2.47	50	
	16	42068				17	28	55	2.68	50	
95	8	42070	red	15	21.7	8.4	24	57.5	4.09	50	
	10	42071				10.5	24	57.5	4.17	50	
	12	42072				13	24	57.5	3.92	50	
	16	42073				17	28	59.5	3.94	50	
120	8	42075	blue	16.5	24.2	8.4	24	62	5.63	25	
	10	42076				10.5	24	62	5.56	25	
	12	42077				13	24	62	5.33	25	
	16	42078				17	28	66	5.67	25	
150	10	42081	yellow	19	27.2	10.5	30	70	8.02	25	
	12	42082				13	30	70	7.84	25	
	16	42083				17	30	70	7.56	25	

Insulated terminals with soldered seam and easy-entry insulation 0.5 – 16 mm², fork type

material: Cu-ETP, insulation: PC (resp. * PA)
surface: tin plated, S = small palm



cross section mm²	flat hole diameter M	art.-no.	colour of insu-lation	dimensions in mm d_1	d_4	d_2	d_3	l	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	C 3	42112	red	1.6	4	3.2	6	17	0.06	100	WZ 12 page 100
	C 3.5	42113				3.7	6	17	0.05	100	
	C 4 S	42114				4.3	6.8	18	0.06	100	
	C 4	42115				4.3	8	18.1	0.07	100	
	C 5	42117				5.3	10	19	0.08	100	
	C 6	42118				6.5	11	21	0.09	100	
1.5 – 2.5	C 3	42120	blue	2.3	4.5	3.2	5.5	19	0.06	100	
	C 3.5	42121				3.7	6	17	0.07	100	
	C 4 S	42122				4.3	6.8	18.7	0.06	100	
	C 4	42123				4.3	8	18	0.08	100	
	C 5	42125				5.3	10	20	0.10	100	
	C 6	42126				6.5	11	22	0.12	100	
4 – 6	C 4	42130	yellow	3.6	6.4	4.3	8	21	0.14	100	
	C 5	42131				5.3	10	22	0.16	100	
	C 6	42132				6.5	11	23	0.17	100	
	C 8	42133				8.4	14	26	0.25	100	
	C 10	42134				10.5	18	28	0.34	100	
10	C 5	42140*	red	4.5	8	5.3	10.5	24.1	0.23	50	WZ 28 page 107
	C 6	42141*				6.5	10.8	24.6	0.24	50	
16	C 6	42146*	blue	5.8	11	6.5	11	32.2	0.50	50	
	C 8	42147*				8.4	13.8	32.2	0.50	50	

WZ 9 page 106, WZ 1 page 103

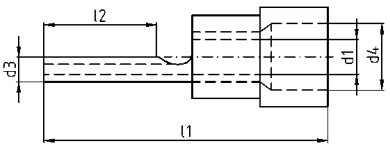
WZ 23 page 107, WZ 24 page 107

MP1 p. 128, MP2 p. 131

AP 10 + HPi 10 p. 134

Insulated pin-terminals with soldered seam 0.1 – 35 mm² DIN 46231

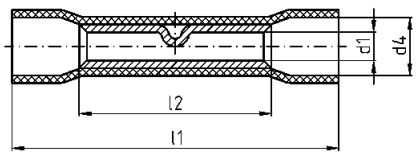
material: Cu-HCP (0.1 – 0.5 mm²) resp. Cu-ETP (0.5 – 35 mm²), insulation: PC (resp. * PA)
surface: tin plated



cross section mm²	art.-no.	colour of insulation	dimensions in mm d1	d4	d3	l1	l2	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5	42301*	yellow	1.0	2.2	1.2	18	9	0.02	100	**WZ 5 page 103**
0.5 – 1	42302	red	1.7	4.0	1.9	22.8	11	0.07	100	**WZ 9 p. 106** / **WZ 12 p. 100** / **WZ 24 p. 107** / **WZ 23 p. 107**
1.5 – 2.5	42304	blue	2.3	4.5	1.9	22.8	11	0.07	100	
	42305	blue				27	14	0.09	100	
4 – 6	42306	yellow	3.6	6.4	2.8	27	11	0.15	100	
10	42308*	red	4.5	7.8	2.4 x 4.3	34	12	0.25	50	**MP 13 p. 126**
16	42310*	blue	5.8	9.1	2.5 x 5.6	40.7	13.5	0.43	50	
25	42312*	yellow	7.0	12.4	2.5 x 6.9	44	16	0.69	50	**on request**
35	42314*	red	8.4	14	3.2 x 8.1	52.5	20	1.19	50	

Insulated butt-connectors 0.1 – 6 mm² with easy-entry insulation

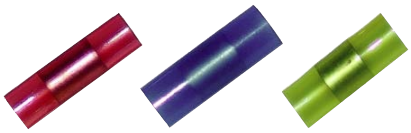
material: Cu-HCP (0.1 – 0.5 mm²) resp. Cu-ETP (0.5 – 6 mm²), insulation: PC (resp. * PA)
surface: tin plated

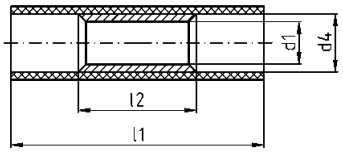


cross section mm²	art.-no.	colour of insulation	dimensions in mm d1	d4	l2	l1	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5	42450*	yellow	1.2	2.0	12	20	0.02	100	WZ 5 page 103
0.5 – 1	42451	red	1.6	4.1	15	25	0.09	100	WZ 1 page 103 WZ 12 page 100 WZ 9 page 106 WZ 23 page 107 WZ 24 page 107
1.5 – 2.5	42454	blue	2.3	4.5	15	26	0.11	100	
4 – 6	42458	yellow	3.6	6.4	15	27	0.18	100	

Insulated parallel-connectors 0.1 – 6 mm²

material: Cu-HCP, insulation: PA
surface: tin plated

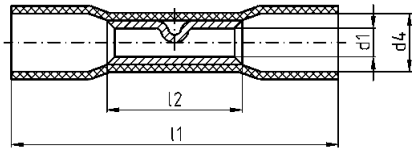




cross section mm²	art.-no.	colour of insulation	dimensions in mm d_1	d_4	l_2	l_1	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0,1 – 0,5	42400	yellow	1.2	2.0	5	12	0.01	100	WZ 5 p. 103
0.5 – 1	42401	red	1.7	3.2	7	17	0.04	100	WZ 12 p. 100, WZ 24 p. 107, WZ 23 p. 107, WZ 9 p. 106
1.5 – 2.5	42404	blue	2.3	4.0	7	17	0.05	100	
4 – 6	42408	yellow	3.6	5.4	7	21.2	0.09	100	

Heat shrinkable butt-splice-connectors 0.14 – 6 mm²

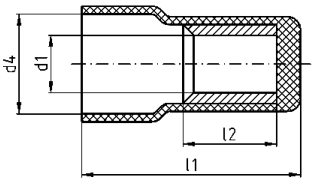
material: Cu-ETP, tin plated
shrink temperature approx. 120 °C
insulation: 0.14 – 0.5 mm² = Polyolefin
0.5 – 6 mm² = Polyethylen



cross section mm²	art.-no.	colour of insulation	dimensions in mm d_1	d_4	l_2	l_1	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.14 – 0.5	42430	yellow	1.4	3.1	11.5	24.5	0.04	50	WZ 5 p. 103, WZ 12 p. 100
0.5 – 1	42431	red	1.7	4.4	15	36	0.09	50	only: WZ 12 p. 100 and WZ 9 p. 106
1.5 – 2.5	42434	blue	2.3	5.2	15	36	0.11	50	
4 – 6	42436	yellow	3.6	6.5	15	41	0.18	20	

Insulated closed-end-connectors 1.5 – 10 mm²

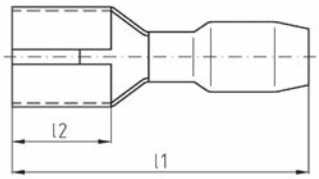
material: Cu-ETP, insulation: PA
surface: tin plated



cross section mm²	art.-no.	colour of insulation	dimensions in mm d_1	d_4	l_2	l_1	Cu-weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
1.5 – 2.5	42484	blue transparent	2.3	6.4	8	15.4	0.05	100	only WZ 9 p. 106
4 – 6	42486	yellow transparent	3.4	9.2	8.5	17.7	0.09	100	
10	42488	transparent	5.0	11.8	8	22	0.16	50	only WZ 28 p. 107

Female disconnectors 0.1 – 6 mm²

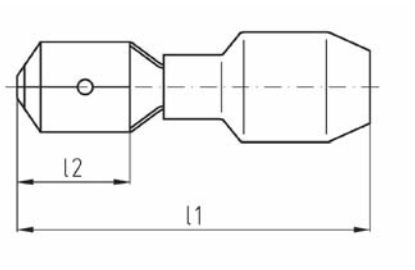
material: **brass**, insulation: **PVC** resp. **PC**
surface: tin plated



cross section mm²	art.-no. insulation PVC	art.-no. insulation PC	colour of insulation	dimensions in mm tab width	tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.1 – 0.5	44002	–	yellow	2.8	0.5	16	6.4	0.04	100	**WZ 5 p. 103**
	44003	–		2.8	0.8	16	6.4	0.04	100	
0.5 – 1	44010	44610	red	2.8	0.5	19	6.5	0.08	100	**WZ 24 p. 107, WZ 23 p. 107** / **WZ 9 p. 106**
	44011	44611		2.8	0.8	19	6.5	0.08	100	
	44012	44612		4.8	0.5	19.4	6.4	0.09	100	
	44013	44613		4.8	0.8	19.4	6.4	0.09	100	
	44014	44614		6.3	0.8	20.8	7.5	0.11	100	
1.5 – 2.5	44018	44618	blue	2.8	0.5	19	6.5	0.08	100	
	44019	44619		2.8	0.8	19	6.5	0.08	100	
	44015	44615		4.8	0.5	19.4	6.4	0.10	100	
	44016	44616		4.8	0.8	19.4	6.4	0.10	100	
	44017	44617		6.3	0.8	20.8	7.3	0.12	100	
4 – 6	44020	44620	yellow	6.3	0.8	23.3	7.3	0.18	100	
	44021	44621		9.5	1.2	28.6	12	0.26	100	

Male disconnectors 0.5 – 6 mm²

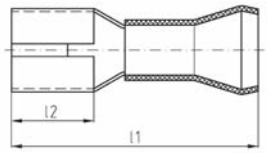
material: **brass**, insulation: **PVC** resp. **PC**
surface: tin plated



cross section mm²	art.-no. insulation PVC	art.-no. insulation PC	colour of insulation	dimensions in mm tab width	tab thickness	l_1	l_2	100 pcs. approx. kg	weight unit pcs.	packing tool recommendation
0.5 – 1	44031	44631	red	2.8	0.8	19.2	6.5	0.08	100	WZ 9 p. 106 WZ 24 p. 107 WZ 23 p. 107
	44033	44633		4.8	0.8	19.8	6.7	0.09	100	
	44034	44634		6.3	0.8	21.8	7.7	0.10	100	
1.5 – 2.5	44039	44639	blue	4.8	0.8	19.8	6.7	0.09	100	
	44035	44635		6.3	0.8	21.8	7.7	0.11	100	
4 – 6	44036	44636	yellow	6.3	0.8	24	7.7	0.18	100	

Female disconnectors 0.5 – 6 mm²

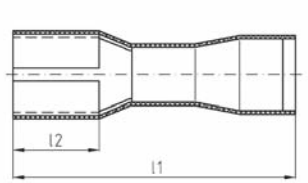
material: **phos. bronze,** insulation: PA
surface: tin plated



cross section mm²	art.-no.	colour of insulation	dimensions in mm tab width	tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44080	red	2.8	0.5	18.4	6.4	0.06	100	nur WZ 9 page 106
	44081		2.8	0.8	18.4	6.4	0.07	100	
	44083		4.8	0.8	19.0	6.2	0.08	100	
	44084		6.3	0.8	21.0	8.0	0.10	100	
1.5 – 2.5	44087	blue	6.3	0.8	21.0	8.0	0.11	100	
4 – 6	44090	yellow	6.3	0.8	24.7	8.0	0.14	100	

Female disconnectors 0.5 – 6 mm², completely insulated

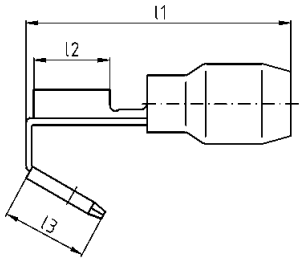
material: brass, insulation: PC
surface: tin plated



cross section mm²	art.-no.	colour of insulation	dimensions in mm tab width	tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44040	red	2.8	0.5	19.2	6.4	0.08	100	WZ 24 page 107, WZ 23 page 107 / WZ 9 page 106
	44041		2.8	0.8	19.2	6.4	0.10	100	
	44042		4.8	0.5	20.2	6.4	0.09	100	
	44043		4.8	0.8	20.2	6.4	0.10	100	
	44044		6.3	0.8	21.5	7.3	0.13	100	
1.5 – 2.5	44045	blue	4.8	0.5	20.2	6.5	0.11	100	
	44046		4.8	0.8	20.2	6.5	0.11	100	
	44047		6.3	0.8	21.5	7.3	0.13	100	
4 – 6	44049	yellow	6.3	0.8	24.2	7.3	0.20	100	

Piggy back disconnectors 0.5 – 2.5 mm²

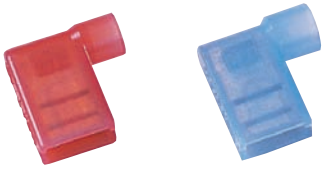
material: brass, insulation: **PVC** resp. **PC**
surface: tin plated

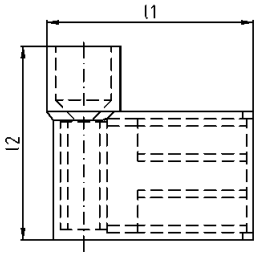


cross section mm²	art.-no. insulation PVC	art.-no. insulation PC	colour of insulation	tab width	dimensions in mm tab thickness	l_1	l_2	l_3	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44025	44625	red	6.3	0.8	23.9	8.0	8.2	0.15	100	WZ 24 + WZ 23 p. 107 WZ 9 p. 106
1.5 – 2.5	44026	44626	blue	6.3	0.8	23	8.0	8.2	0.15	100	

Flag female disconnectors 0.5 – 2.5 mm², completely insulated

material: brass, Insulation: PA
surface: tin plated

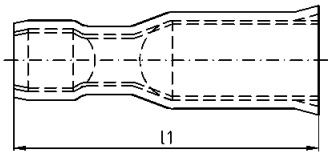




cross section mm²	art.-no.	colour of insulation	tab width	dimensions in mm tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44056	red	6.3	0.8	16.3	15	0.12	100	WZ 26 page 106
1.5 – 2.5	44060	blue	6.3	0.8	16.8	15	0.12	100	

Insulated receptacle disconnectors 0.5 – 6 mm²

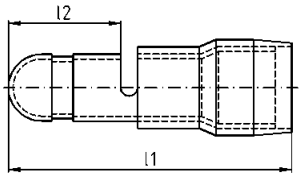
material: brass, insulation: **PVC**
surface: tin plated



cross section mm²	art.-no.	colour of insulation	pin Ø mm	l_1 mm	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44510	red	4	23.3	0.13	100	WZ 24 page 107 WZ 23 page 107 WZ 9 page 106
1.5 – 2.5	44512	blue	5	23.3	0.15	100	
4 – 6	44514	yellow	5	25.1	0.23	100	

Insulated bullet disconnectors 0.5 – 6 mm²

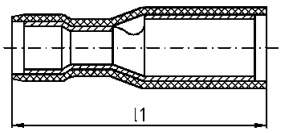
material: brass, insulation: **PVC** resp. **PC**
surface: tin plated



cross section mm²	art.-no. Isolation PVC	art.-no. Isolation PC	colour of insulation	dimensions in mm pin Ø	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44520	44560	red	4	21.5	8.5	0.09	100	WZ 24 page 107 WZ 23 page 107 WZ 9 page 106
1.5 – 2.5	44523	44563	blue	5	21.2	8.5	0.11	100	
4 – 6	44526	44566	yellow	5	24	8.5	0.17	100	

Fully insulated receptacle disconnectors 0.5 – 2.5 mm²

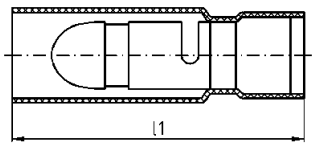
material: brass, insulation: polyamide
surface: tin plated



cross section mm²	art.-no.	colour of insulation	pin Ø mm	l_1 mm	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44516	red	4	25.2	0.12	100	nur WZ 9 page 106
1.5 – 2.5	44518	blue	4	25.2	0.13	100	

Fully insulated bullet disconnectors 0.5 – 2.5 mm²

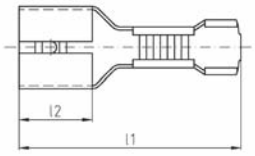
material: brass, insulation: polyamide
surface: tin plated



cross section mm²	art.-no.	colour of insulation	pin Ø mm	l_1 mm	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0,5 – 1	44528	red	4	27	0.13	100	only WZ 9 page 106
1.5 – 2.5	44530	blue	4	27	0.15	100	

Noninsulated female open barrel terminals 0.5 – 6 mm², DIN 46247

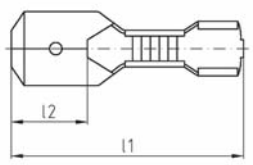
material: **brass**, tin plated resp. **steel**, nickel plated



cross section mm²	art.-no. brass tin plated	art.-no. steel nickel plated	tab width	dimensions in mm tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44110	–	2.8	0.5	14.6	6.2	0.03	100	WZ 1 page 103, WZ 12 page 100, WZ 8 page 105
	44111	–	2.8	0.8	14.6	6.2	0.03	100	
	44112	–	4.8	0.5	15.6	6.4	0.05	100	
	44113	–	4.8	0.8	15.6	6.4	0.05	100	
	44114	44314	6.3	0.8	19.7	7.7	0.09	100	
1.5 – 2.5	44116	–	4.8	0.8	15.9	6.6	0.05	100	
	44117	44317	6.3	0.8	19.7	7.7	0.09	100	
4 – 6	44120	44320	6.3	0.8	19.8	7.7	0.10	100	

Noninsulated male open barrel terminals 0.5 – 2.5 mm², DIN 46248

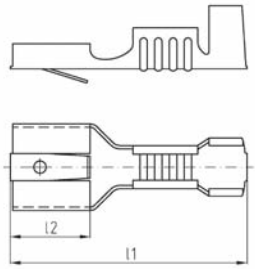
material: brass
surface: tin plated



cross section mm²	art.-no.	tab width	dimensions in mm tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44134	6.3	0.8	20.5	9.3	0.06	100	WZ 7 page 105 WZ 8 page 105 WZ 12 page 100
1.5 – 2.5	44135	6.3	0.8	20.7	8	0.07	100	

Noninsulated female open barrel terminals 0.5 – 6 mm², DIN 46340

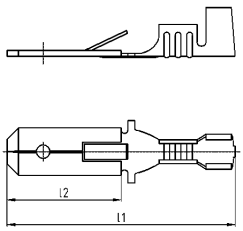
with latch to engage inhousings
material: brass, surface: tin plated



cross section mm²	art.-no.	dimensions in mm tab width	tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44214	6.3	0.8	20	7.6	0.07	100	WZ 7 page 105 WZ 8 page 105 WZ 12 page 100
1.5 – 2.5	44217	6.3	0.8	20	7.6	0.08	100	
4 – 6	44220	6.3	0.8	19.8	7.7	0.09	100	

Noninsulated male open barrel terminals 0.5 – 6 mm², DIN 46343

with latch to engage inhousings
material: brass, surface: tin plated



cross section mm²	art.-no.	dimensions in mm tab width	tab thickness	l_1	l_2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
0.5 – 1	44234	6.3	0.8	28	15	0.09	100	WZ 7 page 105 WZ 8 page 105 WZ 12 page 100
1.5 – 2.5	44235	6.3	0.8	28	15	0.09	100	
4 – 6	44236	6.3	0.8	28.7	15.4	0.10	100	

Insulated housings

for noninsulated female open barrel terminals without latch
colour: nature

* frontal insertion for afterwards slide on of the crimped terminal housing does snap in

art.-no.	for tab width mm	for cross section mm²	material	weight 100 pcs. approx. kg	packing unit pcs.
44142*	2.8	0.5 – 1	Polyamid 6.6	0.03	100
44143*	4.8	0.5 – 2.5	Polyamid 6.6	0.04	100
44145	6.3	0.5 – 2.5	Polyethylen	0.04	100
44147*	6.3	0.5 – 6	Polyamid 6.6	0.06	100

Noninsulated male terminals

material: brass
surface: tin plated


I


II


III


VII


V


VI


VIII

art.-no.	type	dimensions in mm tab width	tab thickness	hole Ø	weight 100 pcs. approx. kg	packing unit pcs.
44151	I	6.3	0.8	4.2	0.09	100
44152	II	6.3	0.8	4.2	0.09	100
44157	II	6.3	0.8	5.2	0.08	100
44153	III	6.3	0.8	4.2	0.09	100
44155	V	6.3	0.8	4.3	0.14	100
44158	V	6.3	0.8	6.2	0.16	100
44156	VI	6.3	0.8	4.3	0.14	100
44159	VII	2.8	0.8	–	0.04	100
44160	VII	6.3	0.8	–	0.09	100
44161	VIII	6.3	0.8	–	0.05	100

Noninsulated multi-way-adapters for tab dimensions 6.3 x 0.8 mm

material: brass
surface: tin plated

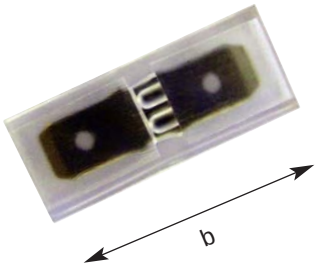

I


II


III

art.-no.	type	cross section mm^2	weight 100 pcs. approx. kg	packing unit pcs.	tool recommendation
44162	I	0.5 – 1	0.11	100	WZ 8 page 105
44163	I	1.5 – 2.5	0.12	100	
44166	II	–	0.12	100	–
44167	III	–	0.20	100	–

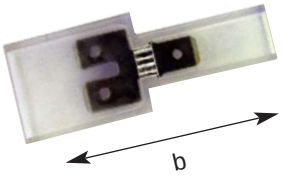
Fully insulated male tabs
1 pole and 12 poles
material of tabs: brass, colour of insulation: transparent



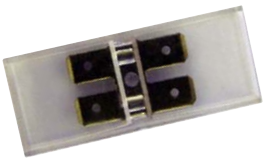
art.-no.	quantity of poles	dimensions in mm tab width	tab thickness	width b	insulation	surface of tab	weight 100 pcs. approx. kg	packing unit pcs.
44064	1	6.3	0.8	27.8	soft-PVC	tin plated	0.25	100
44065	12	6.3	0.8	25.8	soft-PP	tin plated	2.80	10
44067	12	6.3	0.8	42	soft-PVC	uncoated	3.68	10
44068	1	6.3	0.8	50	hard-Polyamide	tin plated	0.27	100
44069	12	6.3	0.8	50	soft-PVC	uncoated	4.48	10

Fully insulated male tabs
1/2-poles or 2/2-poles
material of tabs: brass, colour of insulation: transparent

1/2 poles



2/2 poles



art.-no.	quantity of poles	dimensions in mm tab width	tab thickness	width b	insulation	surface of tab	weight 100 pcs. approx. kg	packing unit pcs.
44071	1/2	6.3	0.8	42	soft-PVC	uncoated	0.52	20
44073	1/2	6.3	0.8	54	soft-PVC	tin plated	0.66	20
44075	2/2	6.3	0.8	50	soft-PVC	tin plated	0.64	20

Assortment boxes
with insulated terminals,
connectors and disconnectors

art.-no.: 90845 like above, but **without** crimping tool
art.-no.: 90825 Assortment box **without** contents

Special filling on request!

Assortment box out of vanished steel,
with 19 small compartments and 1 tool compartment

Measurements: 375 x 235 x 55 mm

contents:

50 pcs.	ring-terminals	4 – 1	no. 42015
50 pcs.	ring-terminals	5 – 1	no. 42017
50 pcs.	ring-terminals	4 – 2.5	no. 42023
50 pcs.	ring-terminals	5 – 2.5	no. 42025
50 pcs.	ring-terminals	6 – 2.5	no. 42026
25 pcs.	ring-terminals	5 – 6	no. 42031
25 pcs.	ring-terminals	6 – 6	no. 42032
50 pcs.	fork-terminals	4 – 1	no. 42114
50 pcs.	fork-terminals	4 – 2.5	no. 42122
25 pcs.	fork-terminals	6 – 6	no. 42132
50 pcs.	pin-terminals	1	no. 42302
50 pcs.	pin-terminals	2.5	no. 42304
25 pcs.	pin-terminals	6	no. 42306
50 pcs.	female disconnectors	6.3 x 1	no. 44014
25 pcs.	piggy-back disconnectors	6.3 x 1	no. 44025
50 pcs.	female disconnectors	6.3 x 2.5	no. 44017
50 pcs.	butt-connectors	1	no. 42451
50 pcs.	butt-connectors	2.5	no. 42454
25 pcs.	butt-connectors	6	no. 42458
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90844

Assortment box out of vanished steel, with 12 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

contents:

100 pcs.	ring-terminals	4 – 1	no. 42015
100 pcs.	ring-terminals	5 – 1	no. 42017
100 pcs.	ring-terminals	4 – 2.5	no. 42023
100 pcs.	ring-terminals	5 – 2.5	no. 42025
50 pcs.	ring-terminals	6 – 2.5	no. 42026
50 pcs.	ring-terminals	6 – 6	no. 42032
50 pcs.	pin-terminals	1	no. 42302
50 pcs.	pin-terminals	2.5	no. 42304
50 pcs.	butt-connectors	1	no. 42451
50 pcs.	butt-connectors	2.5	no. 42454
50 pcs.	female disconnectors	6.3 x 1	no. 44014
50 pcs.	female disconnectors	6.3 x 2.5	no. 44017
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90852
art.-no.: 90853 like above, but **without** crimping tool
art.-no.: 90821 Assortment box **without** contents

Assortment box out of vanished steel, with 12 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

contents:

100 pcs.	female disconnectors	2.8 x 1	no. 44011
100 pcs.	female disconnectors	6.3 x 1	no. 44014
100 pcs.	female disconnectors	6.3 x 2.5	no. 44017
50 pcs.	female disconnectors	6.3 x 6	no. 44020
50 pcs.	piggy-back disconnectors	6.3 x 1	no. 44025
50 pcs.	piggy-back disconnectors	6.3 x 2.5	no. 44026
50 pcs.	male disconnectors	6.3 x 1	no. 44034
50 pcs.	male disconnectors	6.3 x 2.5	no. 44035
20 pcs.	male tabs		no. 44064
50 pcs.	ring-terminals	4 – 1	no. 42015
50 pcs.	ring-terminals	5 – 2.5	no. 42025
50 pcs.	ring-terminals	6 – 6	no. 42032
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90855
art.-no.: 90856 like above, but **without** crimping tool
art.-no.: 90821 Assortment box **without** contents

Assortment boxes
with insulated terminals,
connectors and disconnectors

Assortment box out of vanished steel,
with 7 small compartments and 1 tool compartment
Measurements: 350 x 160 x 35 mm

contents:			
50 pcs.	ring-terminals	4 – 1	no. 42015
50 pcs.	ring-terminals	5 – 2.5	no. 42025
25 pcs.	ring-terminals	6 – 6	no. 42032
50 pcs.	fork-terminals	4 – 1	no. 42114
50 pcs.	fork-terminals	5 – 2.5	no. 42125
50 pcs.	pin-terminals	1	no. 42302
50 pcs.	pin-terminals	2.5	no. 42304
1 pcs.	crimping tool	WZ 9	no. 90709

art.-no.: 90857

Assortment box **without** contents
art.-no.: 90823

Assortment box out of vanished steel, with special products for **meter wiring**, with 7 small compartments and 1 tool compartment
Mesurements: 350 x 160 x 35 mm

contents:			
50 pcs.	cord-end-sleeves	10 – 18	no. 51368
25 pcs.	cord-end-sleeves	16 – 18	no. 51376
50 pcs.	fork-terminals	5 – 10	no. 42140
50 pcs.	fork-terminals	6 – 10	no. 42141
25 pcs.	fork-terminals	6 – 16	no. 42146
25 pcs.	fork-terminals	8 – 16	no. 42147
1 pcs.	crimping tool	WZ 28	no. 90728
1 pcs.	crimping tool	AZ 6	no. 90806

art.-no.: 90851

Assortment box **without** contents
art.-no.: 90823

Assortment box out of vanished steel,
with noninsulated male and female disconnectors,
with 7 small compartments and 1 tool compartment
Measurements: 350 x 160 x 35 mm

contents:			
100 pcs.	female disconnectors	2.8 x 1	no. 44111
100 pcs.	female disconnectors	4.8 x 1	no. 44113
100 pcs.	female disconnectors	6.3 x 1	no. 44114
100 pcs.	female disconnectors	6.3 x 2.5	no. 44117
50 pcs.	female disconnectors	6.3 x 6	no. 44120
50 pcs.	piggy-back disconnectors	6.3 x 1	no. 44162
50 pcs.	piggy-back disconnectors	6.3 x 2.5	no. 44163
1 pcs.	crimping tool	WZ 7	no. 90707

art.-no.: 90846

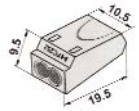
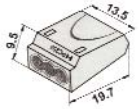
Assortment box **without** contents
art.-no.: 90823

Special filling on request!

Push-in wire connectors, pluggable, according to DIN EN 60998 part 1 and part 2-2

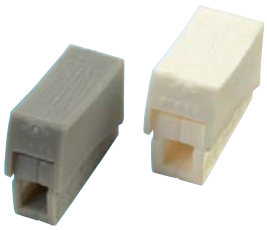
for solid conductors 1.0 - 2.5 mm², with test slot in back for easy testing witz voltage tester,
material: housing PC transparent, inset PA orange housing-flame retardant thermoplastic UL94V-2

approvals:

model	art.-no.	cross section mm²	poles	rated current VDE	rated voltage VDE	dimensions in mm lenght	width	height	packing unit pcs.
	63002	1.0 - 2.5	2	24 A	450 V	19.5	10.5	9.5	100
	63004	1.0 - 2.5	3	24 A	450 V	19.7	13.5	9.5	100
	63006	1.0 - 2.5	4	24 A	450 V	19.7	17.2	9.5	100
	63008	1.0 - 2.5	5	24 A	450 V	19.7	21.1	9.5	100
	63010	1.0 - 2.5	8	24 A	450 V	19.0	17.5	16.8	50

Lighting connectors, pluggable, according to DIN EN 60998 part 1 and part 2-2

1-pole-version and 2-pole-version available, with test slot for easy testing with voltage tester
material: housing PA, gripper clamp copper, tinned housing-flame retardant thermoplastic UL94V-2



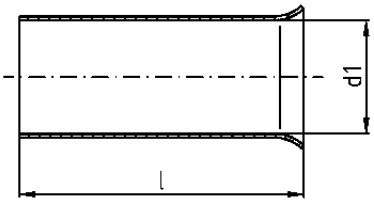
approvals:

model	art.-no.	for cross section mm² installation side solid	lighting side solid/stranded	colour	rated current VDE	rated voltage VDE	dimensions in mm length	width	height	packing unit pcs.
	63020	0.75 - 2.5 1-conductor-clamp	0.5 - 2.5	grey	24 A	450 V	20.8	8.1	15.8	100
	63022	0.75 - 2.5 2-conductor-clamp	0.5 - 2.5	white	24 A	450 V	20.8	9.5	15.8	100

Noninsulated cord-end-sleeves
Insulated cord-end-sleeves
Assortment boxes

Noninsulated cord-end-sleeves 0.25 – 6 mm² DIN 46 228 part 1

material: Cu-ETP according to DIN EN 13600 resp. Cu-DHP according to DIN EN 12449
surface: tin plated

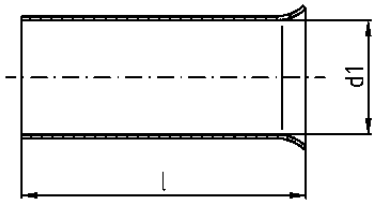


* not standardized

cross section mm²	length (l) mm	art.-no.	d_1 mm	weight 1000 pcs. approx. kg	packing unit pcs.	tool recommendation
0.25 – 0.34	5*	51402	0.8	0.03	1000	AZ 4 page 110 / AZ 10 page 109 / AZ 6 page 110 / AZ 7 page 108, AZ 8 page 108, AZ 14 page 109, WZ 12 page 100
	7*	51404		0.04	1000	
0.5	6	51410	1.1	0.04	1000	
	8*	51442		0.05	1000	
	10	51411		0.06	1000	
0.75	6	51412	1.3	0.04	1000	
	8*	51443		0.05	1000	
	10	51413		0.07	1000	
	12*	51444		0.08	1000	
	15*	51445		0.10	1000	
1	6	51414	1.5	0.05	1000	
	7*	51416		0.05	1000	
	8*	51446		0.06	1000	
	10	51415		0.08	1000	
	12*	51447		0.09	1000	
	15*	51448		0.11	1000	
1.5	7	51418	1.9	0.07	1000	
	8*	51450		0.08	1000	
	10	51419		0.10	1000	
	12	51420		0.11	1000	
	15*	51449		0.15	500	
	18	51421		0.17	500	
2.5	7	51422	2.3	0.08	1000	
	8*	51456		0.09	1000	
	10	51451		0.10	1000	
	12	51423		0.14	1000	
	15*	51452		0.18	500	
	18	51424		0.21	500	
4	9	51425	2.9	0.17	1000	AZ 10 page 109 / AZ 6 page 110 / AZ 7 page 108, AZ 8 page 108, AZ 14 page 109, WZ 12 page 100
	12	51426		0.22	1000	
	15	51427		0.29	500	
	18	51453		0.34	500	
	20*	51454		0.39	500	
6	10	51428	3.7	0.23	500	AP 10 + HPi 10 / AZ 16 p. 108 / AZ 6 page 110 / AZ 7 page 108, AZ 8 page 108, AZ 14 page 109, WZ 12 page 100
	12	51429		0.28	500	
	15	51430		0.36	500	
	18	51431		0.41	500	
	20*	51457		0.47	500	

Noninsulated cord-end-sleeves 10 – 240 mm² DIN 46 228 part 1

material: Cu-ETP according to DIN EN 13600 resp. Cu-DHP according to DIN EN 12449
surface: tin plated

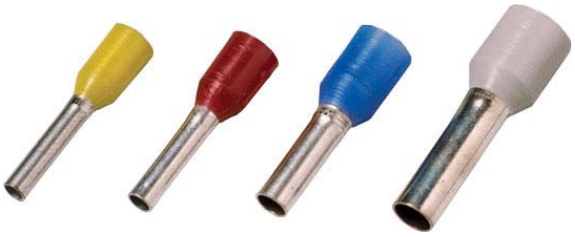


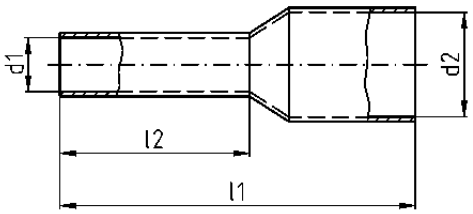
* not standardized

cross section mm²	length (l) mm	art.-no.	d_1 mm	weight 1000 pcs. approx. kg	packing unit pcs.	tool recommendation
10	10*	51458	4,6	0.30	500	AZ 6, AZ 8, AZ 16 / WZ 12 page 100, MP1 page 128 / MP 2 page 131, AP 10 + HPi 10 page 134 / APi 30 + HPi 30 page 141, HPW 15 page 143, HPW 17 page 143, APi 35 + HPi 35 page 142
	12	51432		0.39	500	
	15	51433		0.45	500	
	18	51434		0.58	100	
	20*	51459		0.59	100	
16	12	51436	6.0	0.50	100	
	15	51437		0.56	100	
	18	51438		0.74	100	
	25	51439		1.00	100	
	32	51440		1.25	100	
25	12*	51406	7.5	0.61	100	
	15	51463		0.78	100	
	18	51464		0.93	100	
	22*	51407		1.14	100	
	25	51465		1.26	100	
	32	51462		1.56	100	
35	18	51466	8.5	1.04	100	
	22*	51408		1.23	100	
	25	51467		1.38	100	
	32	51460		1.84	100	
50	18	51468	10.5	1.94	100	
	22*	51409		2.31	100	
	25	51469		2.59	100	
	32	51461		3.02	100	
70	25*	51470	12.7	3.68	100	
	32*	51471		4.85	100	
95	25*	51472	14.7	4.24	100	
	32*	51473		5.30	100	
120	32*	51474	16.7	7.87	100	
	40*	51475		10.11	100	
150	32*	51476	18.7	8.89	100	
	40*	51477		10.70	100	
185	40*	51455	20.2	14.37	100	
240	34*	51502	23.1	13.04	50	
	40*	51504		15.34	50	

Insulated cord-end-sleeves 0.14 – 2.5 mm² * = DIN 46 228 part 4

material: Cu-DHP according to DIN EN 12449, Insulation: polypropylen
surface: tin plated



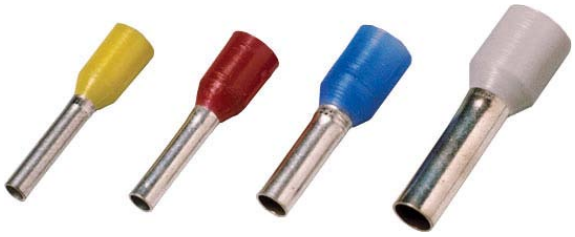


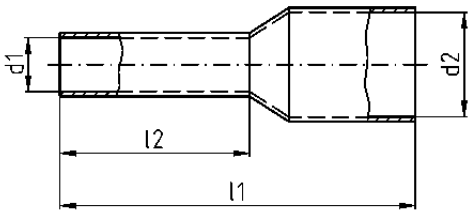
Small packagings with 100 pcs./bag are available at additional costs!

cross section mm²	length mm (l_2)	colour of insulation	* art.-no.	colour of insulation	art.-no.	colour of insulation	art.-no.	dimensions in mm l_1	d_1	d_2	Cu-weight 1000 pcs. approx. kg	packing unit pcs.	tool recommendation
0.14	6	–	–	grey	51600	brown	51300	10	0.7	1.6	0.03	500	AZ 14 page 109
	8	–	–		51601		51301	12			0.04	500	
0.25	6	–	–	violet	51602	light blue	51302	10	0.75	1.8	0.03	500	
	8	–	–		51603		51303	12			0.04	500	
0.34	6	–	–	pink	51605	turquoise	51305	10	0.8	2.0	0.03	500	
	8	–	–		51606		51306	12			0.04	500	
0.5	6	white	51311	orange	51611	white	51311	12	1.0	2.6	0.04	500	AZ 6 page 110
	8		51479		51612		51479	14			0.05	500	
	10		51478		51613		51478	16			0.06	500	
0.75	6	grey	51317	white	51616	light blue	–	12	1.2	2.8	0.04	500	
	8		51318		51617		51480	14			0.05	500	
	10		51320		51618		–	16			0.07	500	
	12		51322		51619		51481	18			0.08	500	
1	6	red	51325	yellow	51622	red	51325	12	1.4	3.0	0.05	500	
	8		51482		51623		51482	14			0.06	500	
	10		51328		51624		51328	16			0.08	500	
	12		51483		51625		51483	18			0.09	500	
1.5	8	black	51484	red	51630	black	51484	14	1.7	3.5	0.08	500	AZ 4 page 110, AZ 7 page 108, AZ 10 page 109
	10		51335		51631		51335	16			0.10	500	
	12		51336		51632		51336	18			0.11	500	
	18		51485		51635		51485	24			0.17	500	
2.5	8	blue	51342	blue	51342	grey	51486	14	2.2	4.2	0.09	500	
	12		51344		51344		–	18			0.14	500	
	18		51346		51346		51487	24			0.21	500	

Insulated cord-end-sleeves 4 – 150 mm² * = DIN 46 228 part 4

material: Cu-DHP according to DIN EN 12449, Insulation: Polypropylen
surface: tin plated





Small packagings with 100 pcs./bag are available at additional costs!

cross section mm²	length mm (l_2)	colour of insulation	* art.-no.	colour of insulation	art.-no.	colour of insulation	art.-no.	dimensions in mm l_1	d_1	d_2	Cu-weight 1000 pcs. approx. kg	packing unit pcs.
4	10	grey	51348	grey	51348	orange	51488	17	2.8	4.8	0.19	500
	12		51350		51350		–	20			0.22	500
	18		51352		51352		51489	26			0.34	100
6	12	yellow	51356	black	51654	green	51490	20	3.5	6.3	0.28	100
	18		51360		51656		51491	26			0.41	100
10	12	red	51364	ivory	51660	brown	51492	22	4.5	7.6	0.39	100
	18		51368		51662		51493	28			0.58	100
16	12	blue	51372	green	51668	ivory	51494	24	5.8	8.8	0.50	100
	18		51376		51670		51495	28			0.74	100
25	16	yellow	51379	brown	51679	black	51496	30	7.3	11.2	0.80	50
	18		51380		51680		51497	32			0.93	50
	22		51381		51681		51498	36			1.14	50
35	16	red	51382	beige	51682			30	8.3	12.7	0.80	50
	18		51383		–			32			1.04	50
	25		51384		51684			39			1.38	50
50	20	blue	51387	olive	51687			36	10.3	15.0	2.20	50
	25		51388		–			40			2.59	50
70	21			yellow	51689			37	13.5	16.0	2.94	25
95	25			red	51691			44	14.5	18.0	4.24	25
120	27			blue	51693			48	16.5	20.0	6.90	25
150	32			yellow	51695			58	19.5	23.0	8.89	25

tool recommendation

AZ 8 page 108, AZ 6 page 110

AZ 7 page 108

AZ 16 page 108

AZ 10, p.109

AP 10 + HPi 10 page 134

AZ 14 page 109

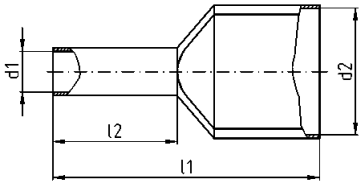
API 30 + HPi 30 page 141, HPW 15 + HPW 17 page 143, API 35 + HPi 35 page 142

Insulated twin cord-end-sleeves 2 x 0.5 – 2 x 16 mm²

with rectangular insulation for two conductors

material: Cu-DHP according to DIN EN 12449, surface: tin plated, insulation: polypropylen

Small packagings with 100 pcs./bag are available at additional costs!



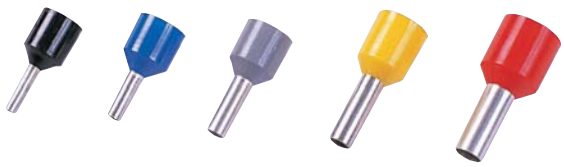
cross section mm²	length mm (l_2)	art.-no.	colour of insulation	dimensions in mm l_1	d_1	d_2	Cu-weight 1000 pcs. approx. kg	packing unit pcs.	tool recommendation
2 x 0.25	8	51220	light blue	15	1.15	1.8/3.4	0.08	500	
2 x 0.34	8	51222	turquoise	15	1.15	1.8/3.4	0.08	500	
2 x 0.5	8	51390	white	15	1.5	2.5/4.7	0.08	500	
2 x 0.75	8	51392	grey	15	1.8	2.8/5.0	0.08	500	
	10	51393		17			0.10	500	
2 x 1	8	51394	red	15	2.0	3.4/5.4	0.09	500	
	10	51395		17			0.12	500	
	18	51224		25			0.24	500	
2 x 1.5	8	51396	black	16	2.3	3.6/6.6	0.17	500	
	12	51397		20			0.23	500	
	18	51226		26			0.28	500	
2 x 2.5	10	51398	blue	18.5	2.9	4.2/7.8	0.22	250	
	13	51216		21.5			0.28	250	
2 x 4	12	51399	grey	23	3.8	4.9/8.8	0.38	100	
2 x 6	14	51400	yellow	26	4.9	6.9/10	0.52	100	
2 x 10	14	51401	red	26	6.5	7.2/13	0.70	100	
2 x 16	14	51228	blue	30	8.3	9.6/18.4	1.04	50	

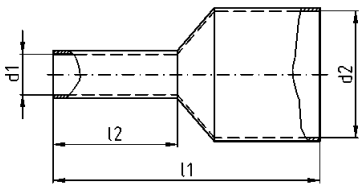
tool recommendation cp. page 178

Insulated cord-end-sleeves with large plastic collar 1.5 – 16 mm²

suitable for all short circuit resistant conductors according to VDE 0250 part 602. NSGAFÖU 1,8 kV/3 kV/6kV

material: Cu-DHP according to DIN EN 12449, surface: tin plated, insulation: polypropylen





cross section mm²	length mm (l_2)	art.-no.	colour of insulation	dimensions in mm l_1	d_1	d_2	Cu-weight 1000 pcs. approx. kg	packing unit pcs.	tool recommendation
1.5	8	51510	black	17.5	1.8	7.5	0.08	100	
	10	51511		19.5			0.10	100	
2.5	8	51512	blue	17.5	2.3	8.0	0.09	100	
	12	51513		21.5			0.14	100	
4	10	51514	grey	19.5	2.9	9.5	0.18	100	
6	12	51516	yellow	23.0	3.6	10.0	0.28	100	
10	12	51518	red	24.0	4.6	11.5	0.39	100	
16	12	51520	blue	25.5	6.0	13.5	0.50	100	

AZ 4 p. 110
AZ 14 p. 109
AZ 10 p. 109
AZ 16 p. 108
AZ 8 p. 108, WZ 12 p. 100

Dispenser boxes

Dispenser boxes with insulated cord-end-sleeves

Assortment 1

50 pcs.	0.50 mm²	no. 51479
100 pcs.	0.75 mm²	no. 51480
100 pcs.	1.00 mm²	no. 51482
100 pcs.	1.50 mm²	no. 51484
50 pcs.	2.50 mm²	no. 51486

art.-no.: 90881

Assortment 2

50 pcs.	4 mm²	no. 51488
20 pcs.	6 mm²	no. 51490
20 pcs.	10 mm²	no. 51492
10 pcs.	16 mm²	no. 51494

art.-no.: 90882

Assortment 3 **(DIN-colours)**

50 pcs.	0.50 mm²	no. 51479
100 pcs.	0.75 mm²	no. 51318
100 pcs.	1.00 mm²	no. 51482
100 pcs.	1.50 mm²	no. 51484
50 pcs.	2.50 mm²	no. 51342

art.-no.: 90883

Assortment 4 **(DIN-colours)**

50 pcs.	4 mm²	no. 51348
20 pcs.	6 mm²	no. 51356
20 pcs.	10 mm²	no. 51364
10 pcs.	16 mm²	no. 51372

art.-no.: 90884

Assortment 7 with twin cord-end-sleeves

50 pcs.	2 x 0.5	no. 51390
100 pcs.	2 x 0.75	no. 51392
75 pcs.	2 x 1	no. 51394
50 pcs.	2 x 1.5	no. 51396
50 pcs.	2 x 2.5	no. 51398

art.-no.: 90887

Dispenser boxes with noninsulated cord-end-sleeves

Assortment 5

500 pcs.	0.50 mm²	no. 51410
500 pcs.	0.75 mm²	no. 51412
500 pcs.	1.00 mm²	no. 51414
300 pcs.	1.50 mm²	no. 51418
200 pcs.	2.50 mm²	no. 51422

art.-no.: 90885

Assortment 6

100 pcs.	4 mm²	no. 51425
100 pcs.	6 mm²	no. 51428
50 pcs.	10 mm²	no. 51434
25 pcs.	16 mm²	no. 51438

art.-no.: 90886

Dispenser boxes without contents

with 4 compartments

art.-no.: 90879

with 5 compartments

art.-no.: 90880

Special filling on request!

Assortment boxes

with insulated cord-end-sleeves DIN 46 228 part 4

Assortment box out of vanished steel, with 6 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 245 x 160 x 45 mm

Contents:		
300 pcs.	0.75 mm²	no. 51318
300 pcs.	1.00 mm²	no. 51482
300 pcs.	1.50 mm²	no. 51484
200 pcs.	2.50 mm²	no. 51342
200 pcs.	4.00 mm²	no. 51348
100 pcs.	6.00 mm²	no. 51356
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90869

art.-no.: 90872 like above, but **without** crimping tool

art.-no.: 90824 assortment box **without** contents

Assortment box out of vanished steel, with 7 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

Contents:		
300 pcs.	0.75 mm²	no. 51318
300 pcs.	1.00 mm²	no. 51482
300 pcs.	1.50 mm²	no. 51484
200 pcs.	2.50 mm²	no. 51342
200 pcs.	4.00 mm²	no. 51348
100 pcs.	6.00 mm²	no. 51356
50 pcs.	10.00 mm²	no. 51368
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90854

art.-no.: 90860 like above, but **without** crimping tool

art.-no.: 90823 assortment box **without** contents

Special filling on request!

Assortment box out of vanished steel, with 12 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

Contents:		
100 pcs.	0.75 mm²	no. 51318
100 pcs.	1.00 mm²	no. 51482
100 pcs.	1.50 mm²	no. 51484
100 pcs.	1.50 mm²	no. 51485
100 pcs.	2.50 mm²	no. 51342
100 pcs.	2.50 mm²	no. 51346
100 pcs.	4.00 mm²	no. 51348
50 pcs.	6.00 mm²	no. 51356
50 pcs.	10.00 mm²	no. 51364
50 pcs.	10.00 mm²	no. 51368
30 pcs.	16.00 mm²	no. 51372
50 pcs.	16.00 mm²	no. 51376
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90873

art.-no.: 90874 like above, but **without** crimping tool

art.-no.: 90821 assortment box **without** contents

Assortment boxes

with noninsulated cord-end-sleeves DIN 46 228 part 1

Assortment box out of vanished steel, with 6 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 245 x 160 x 45 mm

Contents:		
1000 pcs.	0.75 mm²	no. 51412
1000 pcs.	1.00 mm²	no. 51414
1000 pcs.	1.50 mm²	no. 51418
500 pcs.	2.50 mm²	no. 51422
500 pcs.	4.00 mm²	no. 51425
500 pcs.	6.00 mm²	no. 51428
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90863

art.-no.: 90866 like above, but **without** crimping tool

art.-no.: 90824 assortment box **without** contents

Assortment box out of vanished steel, with 7 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

Contents:		
1000 pcs.	0.75 mm²	no. 51412
1000 pcs.	1.00 mm²	no. 51414
1000 pcs.	1.50 mm²	no. 51418
500 pcs.	2.50 mm²	no. 51422
500 pcs.	4.00 mm²	no. 51425
500 pcs.	6.00 mm²	no. 51428
200 pcs.	10.00 mm²	no. 51434
1 pcs.	crimping tool AZ 6	no. 90806

art.-no.: 90875

art.-no.: 90878 like above, but **without** crimping tool

art.-no.: 90823 assortment box **without** contents

special filling on request

Assortment box out of vanished steel, with 12 small compartments, 1 tool compartment and an inlay out of foam material

Measurements: 350 x 160 x 35 mm

Contents:		
1000 pcs.	0.75 mm²	no. 51412
1000 pcs.	1.00 mm²	no. 51414
500 pcs.	1.00 mm²	no. 51415
1000 pcs.	1.50 mm²	no. 51418
500 pcs.	1.50 mm²	no. 51420
800 pcs.	2.50 mm²	no. 51422
400 pcs.	4.00 mm²	no. 51425
200 pcs.	6.00 mm²	no. 51428
100 pcs.	10.00 mm²	no. 51432
100 pcs.	10.00 mm²	no. 51434
100 pcs.	16.00 mm²	no. 51436
100 pcs.	16.00 mm²	no. 51438
1 pcs.	crimping tool AZ 6	no. 90806

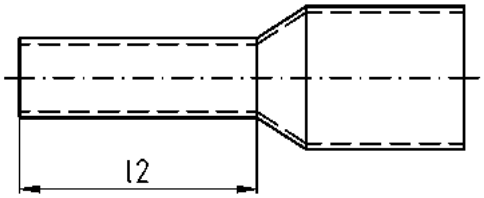
art.-no.: 90864

art.-no.: 90865 like above, but **without** crimping tool

art.-no.: 90821 assortment box **without** contents

Insulated cord-end-sleeves 0.5 – 2.5 mm², strip form

material Cu-DHP according to DIN EN 12449, insulation: polypropylen
surface: tin plated **strips with 50 pcs.**



cross section mm²	length mm (l_2)	colour of insulation	art.-no.	colour of insulation	art.-no.	colour of insulation	art.-no.	Cu-weight 1000 St. approx.kg	packing unit pcs.
0.5	8	**white**	50011	**orange**	50111	–	–	0.05	500
0.75	8	**grey**	50016	**white**	50116	**light blue**	50216	0.05	500
1	8	**red**	50021	**yellow**	50121	–	–	0.06	500
1.5	8	**black**	50026	**red**	50126	–	–	0.08	500
2.5	8	**blue**	50031	–	–	**grey**	50231	0.09	500

Stripping and crimping tool “Stripax Plus”

art.-no.: 91010

Crimping tool for crimping insulated cord-end-sleeves in strip form with cross section 0.5 - 2.5 mm².

With stripping- and cutting unit for wires up to 2.5 mm².

Working principle:

– Put cord-end-sleeves in strip form into upper part of the grip

– Insert the end of the cable into the front of the tool and strip the insulation

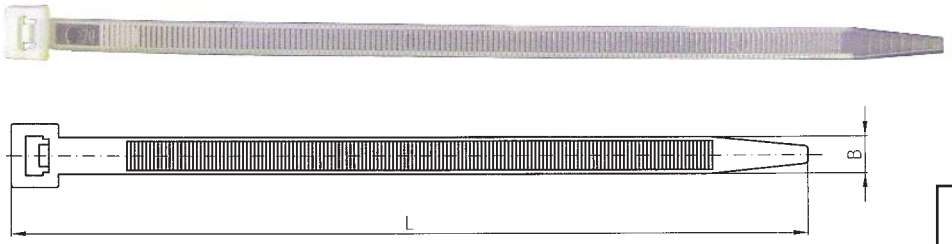
– Now put the stripped cable into the crimp opening from the side and press the grips together. A cord-end-sleeve is pressed onto the cable and the next sleeve is transported into its crimping position automatically.

Cable ties, colour nature + black, polyamide
Cable ties with steel clip, colour nature + black, polyamide
Cable ties, heat stabilized, polyamide
Cable ties out of stainless steel
Cable tie mounts, polyamide
Clips, self adhesive, polyamide

Heat shrink tubings in miniboxes
Heat shrink tubings

Cable ties

material: polyamide 6.6, **colour nature**
temperature of every-day usage: – 40 °C up to + 85 °C



approvals:

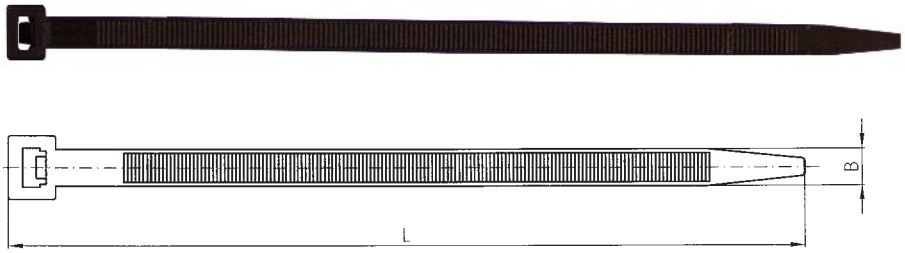
cable ties can be printed with your additional text, see catalogue page 183. Please send us your inquiry!

length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packing unit pcs.	tool recommendation
100	2.5	**61051**	24	100	100	KB 1 page 117 / KB 3 page 117
135	2.5	**61053**	35	100	100	
200	2.5	**61057**	55	100	100	
140	3.5	**61059**	36	190	100	
200	3.5	**61062**	55	190	100	
280	3.5	**61065**	80	190	100	
360	3.5	**61068**	103	190	100	
160	4.5	**61071**	38	270	100	
180	4.5	**61073**	45	270	100	
200	4.5	**61075**	51	270	100	
250	4.5	**61077**	68	270	100	
280	4.5	**61080**	76	270	100	
360	4.5	**61083**	101	270	100	
430	4.5	**61086**	123	270	100	
180	7.5	**61090**	44	630	100	
240	7.5	**61091**	62	630	100	
320	7.5	**61095**	88	630	100	
360	7.5	**61098**	101	630	100	
450	7.5	**61101**	130	630	100	
540	7.5	**61104**	160	630	100	
750	7.5	**61106**	220	630	100	
776	9.0	**61110**	235	780	100	
500	12.5	**61116**	140	1170	50	
750	12.5	**61119**	222	1170	50	
1000	12.5	**61122**	300	1170	50	

coloured cable ties are available on request!

Cable ties

material: polyamide 6.6, **colour black, UV-stabilized***
temperature of every-day usage: – 40 °C up to + 85 °C



approvals:

details on page 182

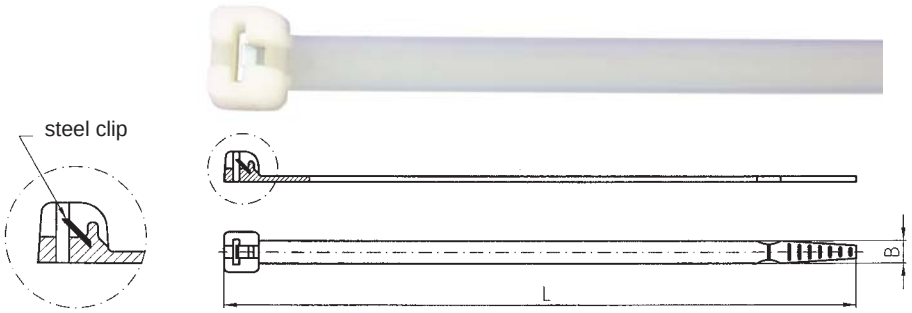
Cable ties can be printed with your additional text, see catalogue page 183. Please send us your inquiry!

length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packing unit pcs.	tool recommendation
100	2.5	**61151**	24	100	100	KB 1 page 117 / KB 3 page 117
135	2.5	**61153**	35	100	100	
200	2.5	**61157**	55	100	100	
140	3.5	**61159**	36	190	100	
200	3.5	**61162**	55	190	100	
280	3.5	**61165**	80	190	100	
360	3.5	**61168**	103	190	100	
160	4.5	**61171**	38	270	100	
180	4.5	**61173**	45	270	100	
200	4.5	**61175**	51	270	100	
250	4.5	**61177**	68	270	100	
280	4.5	**61180**	76	270	100	
360	4.5	**61183**	101	270	100	
430	4.5	**61186**	123	270	100	
180	7.5	**61190**	44	630	100	
240	7.5	**61191**	62	630	100	
320	7.5	**61195**	88	630	100	
360	7.5	**61198**	101	630	100	
450	7.5	**61201**	130	630	100	
540	7.5	**61204**	160	630	100	
750	7.5	**61206**	220	630	100	
780	9.0	**61210**	228	780	100	
500	12.5	**61216**	140	1170	50	
750	12.5	**61219**	222	1170	50	
1000	12.5	**61222**	300	1170	50	

*** 1 – 2 years outdoor- and weather resistent**

Cable ties with steel clip according to DIN EN 50146 version 2000

material: polyamide 6.6, **colour nature, steel clip out of stainless steel for high tensile strength**
temperature of every-day usage: – 40 °C up to + 85 °C



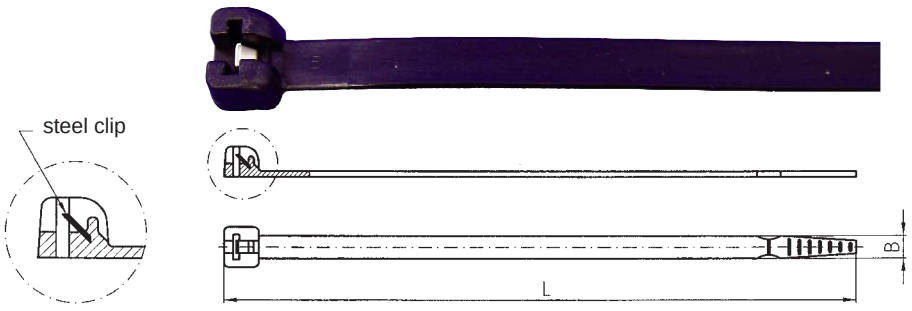
approvals:

Cable ties can be printed with your additional text, see catalogue page 183. Please send us your inquiry!

length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packing unit pcs.	tool recommendation
100	2.5	**61251**	24	180	100	KB 1 page 117 / KB 3 page 117
200	2.5	**61257**	55	180	100	
140	3.5	**61259**	36	280	100	
200	3.5	**61262**	55	280	100	
280	3.5	**61265**	80	280	100	
200	4.5	**61275**	51	400	100	
290	4.5	**61280**	76	400	100	
360	4.5	**61283**	101	400	100	
220	7.5	**61291**	56	800	50	
360	7.5	**61298**	101	800	50	

Cable ties with steel clip according to DIN EN 50146 version 2000

material: polyamide 6.6, **colour black, steel clip out of stainless steel for high tensile strength**
temperature of every-day usage: – 40 °C up to + 85 °C



approvals:

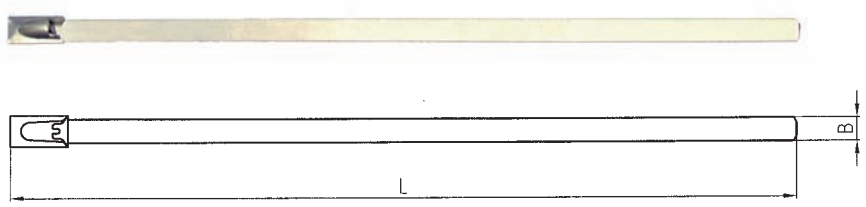
Cable ties can be printed with your additional text, see catalogue page 183. Please send us your inquiry!

length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packing unit pcs.	tool recommendation
100	2,5	**61351**	24	180	100	KB 1 page 117 / KB 3 page 117
200	2,5	**61357**	55	180	100	
140	3,5	**61359**	36	280	100	
200	3,5	**61362**	55	280	100	
280	3,5	**61365**	80	280	100	
200	4,5	**61375**	51	400	100	
290	4,5	**61380**	76	400	100	
360	4,5	**61383**	101	400	100	
220	7,5	**61391**	56	800	50	
360	7,5	**61398**	101	800	50	

*** 1 - 2 years outdoor- and weather resistent**

Cable ties out of stainless steel

material: stainless steel 316L (thickness: 0,3 mm)
heat resistance: – 80 °C up to + 538 °C



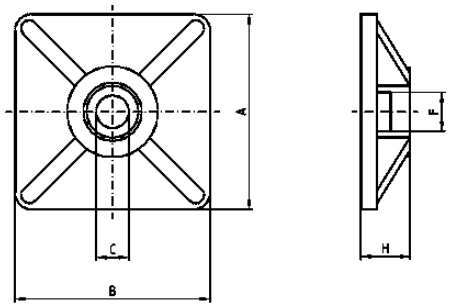
Approvals:

length mm	width mm	art.-no.	max. bundle-Ø mm	tensile strength Newton	packing unit pcs.	tool recommendation
152	4.5	**61300**	25	444	10	KB 7 page 117
200	4.5	**61302**	50	444	10	
360	4.5	**61304**	102	444	10	
520	8.0	**61320**	152	1111	10	
840	8.0	**61324**	254	1111	10	
1050	8.0	**61326**	318	1111	10	
520	12.0	**61330**	152	2646	10	
680	12.0	**61332**	203	2646	10	

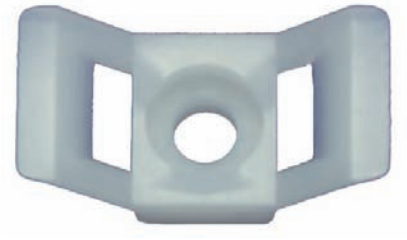
KB 7 page 117

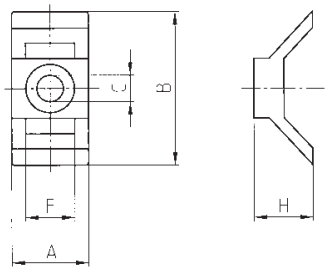
Cable tie mounts

material: polyamide 6.6, **colour nature**



art.-no. 61038 und 61040



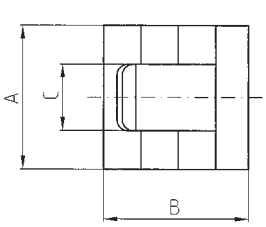


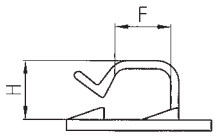
art.-no. 61044

art.-no.	dimensions in mm A	B	C	F	H	packing unit pcs.	remarks
61038	19	19	4.8	4	5.3	100	self adhesive
61040	26.5	26.5	4.9	5.5	6.7	100	self adhesive
61044	14.7	30.0	5.2	9.4	11.5	100	screw fixing

Cord-Clips, self adhesive

applicable for fixing cables, hoses, tubes, etc.
material: polyamide 6.6, **colour nature**





art.-no.	dimensions in mm A	B	C	F	H	packing unit pcs.
61020	19	19	10.1	5.5	5.3	100
61022	26.4	26.7	12.2	11.5	10	100
61024	25.7	25.7	16.0	17.5	15	100

Heat shrink tubings in miniboxes type: W 135 B

material: polyolefin, colour black**, shrink ratio 2 : 1**
flame-retardant, thin walled

Approvals:

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	in m
3.2	1.6	65056	0.44	15
4.8	2.4	65059	0.51	10
6.4	3.2	65062	0.56	10
9.5	4.8	65065	0.56	10
12.7	6.4	65068	0.65	5
19.1	9.6	65071	0.80	5
25.4	12.7	65074	0.90	5

Heat shrink tubings in miniboxes type: W 135 gr/ge B

material: polyolefin, colour green-yellow**, shrink ratio 2 : 1**
flame-retardant, thin walled

Approvals:

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	in m
3.2	1.6	65456	0.44	15
4.8	2.4	65459	0.51	10
6.4	3.2	65462	0.56	10
9.5	4.8	65465	0.56	10
12.7	6.4	65468	0.65	5
19.1	9.6	65471	0.80	5
25.4	12.7	65474	0.90	5

Heat shrink tubings type: W 135

material: polyolefin, **colour: black, shrink ratio: 2 : 1**
flame-retardant, thin walled

Approvals:

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	m/coil
1.6	0.8	65001	0.4	150
2.4	1.2	65003	0.5	150
3.2	1.6	65006	0.5	150
4.8	2.4	65009	0.5	75
6.4	3.2	65012	0.6	75
9.5	4.8	65015	0.6	75
12.7	6.4	65018	0.6	50
19.0	9.5	65021	0.8	30
25.4	12.7	65024	0.9	30
31.8	15.9	65027	0.9	30
38.0	19.0	65030	1.0	30

Heat shrink tubings type: W 135 tr

material: polyolefin, **colour: transparent, shrink ratio 2 : 1**
thin walled

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	m/coil
1.6	0.8	65701	0.4	150
2.4	1.2	65703	0.5	150
3.2	1.6	65706	0.5	150
4.8	2.4	65709	0.5	75
6.4	3.2	65712	0.6	75
9.5	4.8	65715	0.6	75
12.7	6.4	65718	0.6	50
19.0	9.5	65721	0.8	30
25.4	12.7	65724	0.9	30
31.8	15.9	65727	0.9	30
38.0	19.0	65730	1.0	30

Heat shrink tubings type: W 135 3 : 1

material: polyolefin, **colour: black, shrink ratio 3 : 1**
flame retardent, thin walled

Approvals:

MIL
VG DEF STAN 59/97
DVE

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	m/coil
3.2	1.0	65106	0.55	150
6.4	2.0	65112	0.65	75
9.5	3.0	65115	0.75	75
12.7	4.0	65118	0.75	50
19.0	6.0	65121	0.85	30
25.4	8.0	65124	1.00	30
39.0	13.0	65130	1.15	30

Heat shrink tubings type: WKS 3 : 1

material: polyolefin, **colour: black, shrink ratio 3 : 1**
flame retardent (outer jacket), thin walled, **adhesive-lined**

inside-Ø in mm		art.-no.	wall thickness mm*	packing unit
before shrinking	after shrinking		after shrinking	in length à 1.22 m
6.0	2.0	65212	1.2	1/10
9.0	3.0	65215	1.4	1/10
12.0	4.0	65218	1.7	1/10
19.0	6.0	65221	2.1	1/10
24.0	8.0	65224	2.4	1/10
40.0	13.0	65227	2.4	1/10

*encluded adhesive coating

Heat shrink tubings type: WDW

material: polyolefin, colour: black, **shrink ratio: 3 : 1**
thick-walled, not protected against fire, **with inside glue**

Approvals:

*not listet

inside-Ø in mm		art.-no.	wall thickness mm	** packing unit
before shrinking	after shrinking		after shrinking	in length à 1.22 m
13.0	4.1	65318	2.4	1/75
19.1	6.1	65321	2.4	1/75
27.9	8.9	65324	3.0	1/75
38.1	11.9	65325	4.1	1/40
50.8	16.0	65327	4.1	1/25
68.1	22.1	65330	4.1	1/15
89.9	30.0	65333*	4.1	1/10
119.9	39.9	65336*	4.3	1/5

**encluded adhesive coating

Heat shrink tubings type: W 135 gr/ye

material: polyolefin, **colour: green/yellow, shrink ratio: 3 : 1**
flame retardent, thin walled

Approvals:
DEF STAN 59/97

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	in length à 1.22 m
3.2	1.0	65406	0.55	1/25
6.4	2.0	65412	0.65	1/10
9.5	3.0	65415	0.75	1/10
12.7	4.0	65418	0.75	1/10
19.0	6.0	65421	0.85	1/10
25.4	8.0	65424	1.00	1/10

Heat shrink tubings type: W 135 bl

material: polyolefin, **colour: blue, shrink ratio: 3 : 1**
flame retardent, thin walled

Approvals:
VG DEF STAN 59/97

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	in length à 1.22 m
3.2	1.0	65506	0.55	1/25
6.4	2.0	65512	0.65	1/10
9.5	3.0	65515	0.75	1/10
12.7	4.0	65518	0.75	1/10
19.0	6.0	65521	0.85	1/10
25.4	8.0	65524	1.00	1/10

Heat shrink tubings type: WHF

material: polyolefin, **colour: black, shrink ratio 2 : 1**
halogen free, protected against fire (low smoke generation at burnings)

Approvals:
DEF STAN 59/97

inside-Ø in mm		art.-no.	wall thickness mm	packing unit
before shrinking	after shrinking		after shrinking	m/coil
3.2	1.6	65606	0.51	300
4.8	2.4	65609	0.51	300
6.4	3.2	65612	0.64	300
9.5	4.8	65615	0.64	150
12.7	6.4	65618	0.64	100
19.0	9.5	65621	0.76	50
25.4	12.7	65624	0.89	50
38.0	19.0	65630	1.02	50

Assortment box

Heat shrink tubing set with different coloured lengths, **shrink ratio: 2 : 1**
flame-retardent, thin walled

assortment box out of high quality plastic, filled with coloured heat-shrink tubes of size 1,2/0,6 mm – 12,7/6,4 mm
colours: black, red, yellow, blue, white.
Exactly content see following table.

Continous operating temperature: -55 °C bis + 125 °C
Shrink temperature: 110 °C

art.-no.: 90859

approvals:

content:

box	inside-Ø in mm		wall thickness mm	length	quantity	colours
no.	before shrinking	after shrinking	after shrinking	mm	pcs.	
1	1.2	0.6	0.4	40	25 each	black, yellow, white, red, blue
2	1.6	0.8	0.4	40	25 each	black, yellow, white, red, blue
3	2.4	1.2	0.5	40	25 each	black, yellow, white, red, blue
4	3.2	1.6	0.5	40	20 each	black, yellow, red, blue
5	4.8	2.4	0.5	40	10 each	black, yellow, red, blue
6	6.4	3.2	0.6	40	5 each	black, yellow, red, blue
7	1.2	0.6	0.4	250	5	blue
	1.6	0.8	0.4	250	5	red
	3.2	1.6	0.5	250	5	blue
	4.8	2.4	0.5	250	5	yellow
	6.4	3.2	0.6	250	5	black
	9.5	4.8	0.6	250	3	black
8	9.5	4.8	0.6	125	4 each	yellow, red, blue
9	12.7	6.4	0,6	125	3 each	yellow, red, blue

Hand-operated crimping tools

Pneumatic crimping machine PA 3
without dies

Pneumatic crimping machine with safety control for working without two-hand trip or protective cover.

The crimping machine has one new developed safety mechanism. This safety mechanism is also registered to the patent. The safety valve opens only when the pressing dies are less than 5.9 mm open. The release of crimping occurs through operating a double foot pedal. A safety cover is not necessary.
Because of the parallel swage location you get an optimally result.
A big choice of pressing dies for small contacts (catalogue page 101 – 102) is available.

technical data:		
	– air pressure:	6 bar
	– air consumption per stroke:	2,3 litres
	– noise:	62 dB (A)
	– weight incl. pedal:	26,5 kgs
	– measurements (l x b x h):	280 x 160 x 300 mm
	– with CE-licence	

art.-no. (without dies): 90950

assortment box for keeping equipment and dies
art.-no.: 90824

System crimping tool WZ 12
without dies

System crimping tool with changeable dies for crimping nearly every common small electric contact

advantages:
– parallel crimping, therefore optimal press quality
– ratchet with release function for reliable crimping
– possibility to adjust the crimping force by a central pin
– 30% reduced hand force due to optimal transmission by toggle transmission
– delivery including plastic case

art.-no. (without dies): 90712

Crimping dies for PA3 and WZ 12
further dies are available on request!

dies mandrel shape
for crimping noninsulated ring terminals and connectors and WEITKOWITZ cable lugs and connectors from 0.5 to 10 mm^2.

art.-no.: 90772

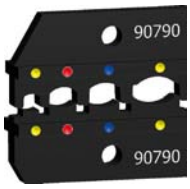
dies for insulated terminals
for crimping insulated ring- and fork terminals, pin-terminals, connectors, etc. from **0.5 to 6 mm^2**, contact and insulation crimping in one step.

art.-no.: 90773

for crimping insulated ring- and fork-terminals and pin-terminals with cross sections from **10 to 16 mm^2**

(PA 3 16 mm^2 ring form only)

art.-no.: 90774



dies for heat shrinkable butt splice connectors
for crimping heat shrinkable butt splice connectors (WEITKOWITZ products) with cross sections from **0.14 to 6 mm^2**, catalogue page 67.

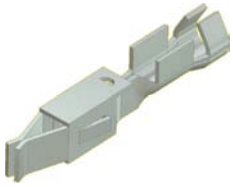
art.-no.: 90790

dies for noninsulated open barrel terminals
for crimping noninsulated open barrel male and female terminals (rolled version only) with cross sections from 0.1 to 2.5 mm² and tab width 2.8 and 4.8 mm; contact and insulation crimping in one step.

art.-no.: 90775

dies for noninsulated open barrel terminals
for crimping noninsulated open barrel male and female terminals (rolled version only) with cross sections from 0.5 to 6 mm² and tab width 4.8 and 6.3 mm; contact and insulation crimping in one step

art.-no.: 90776



dies for modular plugs
for crimping modular plugs 0.5 - 2.5 mm^2; contact and insulation crimping in one step.

art.-no.: 90777

dies for rolled contacts
for crimping rolled contacts 0.14 - 1.5 mm^2; contact and insulation crimping in one step.

art.-no.: 90778

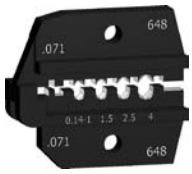
Crimping dies for PA3 and WZ 12

further dies are available on request!

dies for D-sub-connectors

for crimping D-sub-connectors 0.08 - 0.56 mm^2; contact and insulation crimping in one step.

art.-no.: 90779



dies for turned contacts

or crimping turned contacts (multipin plug connections)
plug-in-Ø 1.6 mm, 2.4 mm and 2.5 mm, cross section : 0.14 - 4.0 mm^2

art.-no.: 90781

dies for turned contacts

for crimping turned contacts (multipin plug connections)
plug-in-Ø 1.6 mm, 2.4 mm and 2.5 mm, cross section: 1.5 - 6.0 mm^2

art.-no.: 90782

dies square-shape

for crimping insulated and noninsulated cord-end-sleeves 0.25 - 6 mm^2, pressing width 12 mm

art.-no.: 90784

for crimping insulated and noninsulated cord-end-sleeves 10 - 25 mm^2. pressing width 12 mm

art.-no.: 90785

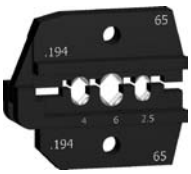
for crimping insulated and noninsulated cord-end-sleeves 35 - 50 mm^2. pressing width 12 mm

art.-no.: 90786

dies square-shape

for crimping insulated twin-cord-end-sleeves 2 x 6 mm^2 up to 2 x 16 mm^2, pressing width 12 mm.

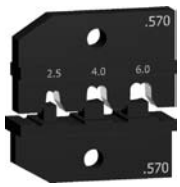
art.-no.: 90780



dies for turned solar-connectors MC 3

for crimping turned solar-connectors Multi-Contact MC 3, cross section: 2,5 / 4 / 6 mm^2.

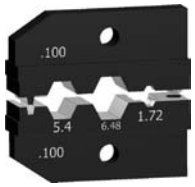
art.-no. 90783



dies for rolled solar-connectors MC 4

for crimping rolled solar-connectors Multi-Contact MC 4, cross section: 2,5 / 4 / 6 mm^2.

art.-no. 90787



dies hexagonal shape

for crimping coax-connectors RG 58, RG 59, RG 62 und RG 71

art.-no.: 90788

for crimping coax-connectors RG 58 und RG 174

art.-no.: 90789

Crimping tools

Crimping tool set WZ 1

art.-no.: 90701

Crimping tool set with changeable dies for crimping all common crimp contacts.

advantages:
- very good cost-performance ratio
- **quick and easy change of dies because of quick-locking mechanism**
- all components of the set are kept in a high quality transport box with inlay out of foam material

Set consists of:

- **basic tool:** matt chromium-plated, with releaseable locking device, adjustable crimping pressure, 2-components-handle
- **dies:**
  - for insulated terminals, connectors and disconnectors, etc. from 0.5 to 6 mm²
  - for noninsulated terminals , etc. from 0.5 to 10 mm²
  - for cord-end-sleeves from 0.5 to 16 mm²
  - for noninsulated male and female disconnectors from 0.5 to 2.5 mm², tab width 4.8 mm² + 6.3 mm²
  - and for BNC and TNC coax connectors RG58, RG59, RG62 and RG71 conductors
- **transport box** out of stable plastic with a high quality inlay out of foam material

Crimping tool WZ 5

art.-no.: 90705

Tool for crimping insulated and noninsulated terminals, connectors and insulated male and female disconnectors with cross sections from 0.1 to 0.5 mm². The ratchet guarantees a permanent high quality crimping result. When crimping insulated terminals and male and female disconnectors contact and insulation crimping are performed in one step.
length: 190 mm

Crimping tool WZ 6

art.-no.: 90706

Crimping tool for crimping noninsulated terminals, tubular cable lugs and connectors of the standard-series from 0.5 to 16 mm^2. The ratchet guarantees a permanent high quality crimping result.
length: 240 mm

Crimping tools

Crimping tool WZ 21
art.-no.: 90721

Crimping tool for crimping tubular cable lugs and connectors of the euro-series from 0.5 to 6 mm^2.

The ratchet guarantees a permanent high quality crimping result.

The parallel crimping motion leads to optimal pressing results.

length: 210 mm

Crimping tool WZ 22
art.-no.: 90722

Crimping tool for crimping tubular cable lugs and connectors of the standard-series from 0,5 to 10 mm^2.

The ratchet guarantees a permanent high quality crimping result.

length: 225 mm

Crimping tool WZ 20
art.-no.: 90720

Crimping tool for crimping noninsulated terminals from 0.1 to 10 mm^2.

The ratchet guarantees a permanent high quality crimping result.

length: 225 mm

Crimping tools

Special crimping tool series for solid conductors 4, 6, 10 or 16 mm²

Special crimping tool for crimping solid conductors in combination with the following series of cable lugs and connectors. A releaseable ratchet guarantees a permanent high quality crimping result. The extremely small crimping head enables convenient working even in areas difficult to reach.
Crimping shape: special mandrel-shape length: 275 mm

Four different versions are available:

cross section mm²	die code no.	applicable for series	art.-no.
4	-	standard - series	99903
6	5	DIN 46235/DIN 46267 part 1	99907
10	6	DIN 46235/DIN 46267 part 1	99904
16	8	DIN 46235/DIN 46267 part 1	99905

Crimping tool WZ 7

art.-no.: 90707

Crimping tool with end-point-locking for crimping noninsulated open barrel terminals with cross sections from 0.5 to 6 mm² and a tab width of 6.3 mm. Contact and insulation crimping are perfromed in one step. This tool has a cutting and stripping unit for cables up to 6 mm².

length: 210 mm

Crimping tool WZ 8

art.-no.: 90708

Crimping tool with end-point-locking for crimping noninsulated open barrel terminals with cross sections from 0.5 to 6 mm² and tab width of 4.3 and 6.3 mm. Contact and insulation crimping are perfromed in one step. The parallel crimping motion leads to optimal pressing results.

length: 205 mm

Crimping tools

Crimping tool WZ 26
art.-no.: 90726

Crimping tool with releaseable locking device for crimping WEITKOWITZ insulated flag female disconnectors from 0.5 to 2.5 mm² (catalogue page 70).

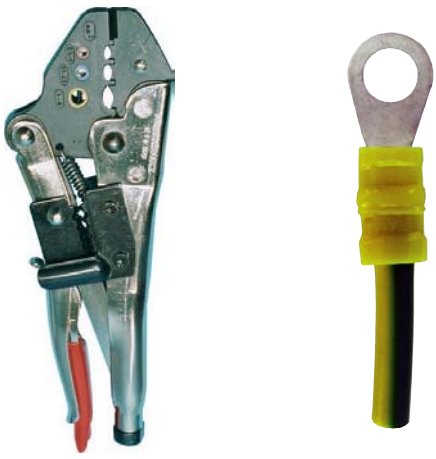
length: 260 mm

Crimping tool WZ 10
art.-no.: 90710

Crimping tool with a simple design for crimping insulated terminals, male and female disconnectors, etc. from 0.5 to 6 mm². Cable cutter, stripping unit and screw cutter as well as dies for spark-plugs and ignition distributor contacts make these pliers an universal tool.

The WZ 10 is made of high resistance steel with fine grain microstructure. All parts of the tool are case hardened and subsequently tempered.

length: 210 mm



Crimping tool WZ 9
art.-no.: 90709

Crimping tool with end-point-locking for crimping insulated terminals, connectors, male and female disconnectors, receptacles and bullet disconnectors from 0.5 to 6 mm².

This tool has a cutting and stripping unit for cables up to 6 mm².

length: 210 mm

Crimping tools

Crimping tool WZ 23
art.-no.: 90723

High-performance crimping tool with releaseable locking device for crimping insulated terminals, connectors, male and female disconnectors, receptacle and bullet disconnectors from 0.5 to 6 mm². Contact and insulation crimping are performed in one step. The optimized lever transmission guarantees an easy, power-saving working.

length: 255 mm

Crimping tool WZ 24
art.-no.: 90724

Crimping tool with releaseable locking device for crimping insulated terminals, connectors, male and female disconnectors, receptacles and bullet disconnectors from 0.5 to 6 mm². Contact and insulation crimping are performed in one step.

The toggle transmission enables an advantageous opening angle and reduced hand forces during crimping.

length: 225 mm

Crimping tool WZ 28
art.-no.: 90728

Crimping tool for crimping insulated terminals with cross sections of 10 mm² and 16 mm² and closed-end-connectors 10 mm² The releaseable locking device guarantees a permanent high quality crimping result.

length: 245 mm

Crimping tools for cord-end-sleeves

Crimping tool AZ 7
art.-no.: 90807

Crimping tool with releaseable locking device for crimping cord-end-sleeves from von 0.14 to 6 mm^2. It points by an automatic die with registered design protected springs.

Cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

The ergonimically formed, soft cushioned 2-components-handle guarantees a convenient usage.

length: 210 mm

Crimping tool AZ 8
art.-no.: 90808

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.08 to 16 mm^2. The cord-end-sleeves are inserted into the universal die from the front and are equally pressed from four sides. This results in optimal contact zones for clamping. The adjustment to the cross section being crimped is performed fully automatically.

length: 190 mm

Crimping tool AZ 16
art.-no.: 90752

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 6 to 16 mm^2. Press length: 13 mm

length: 260 mm

Crimping tools for cord-end-sleeves

Crimping tool AZ 14
art.-no.: 90814

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.08 to 10 mm^2.

Cord-end-sleeves are inserted into the universal die and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

The ergonimically formed, soft cushioned 2-components-handle guarantees a convenient usage

Length: 175 mm

Crimping tool AZ 10
art.-no.: 90810

Crimping tool with releaseable locking device for crimping cord-end-sleeves from 0.14 to 4 mm^2. Cord-end-sleeves are inserted into the universal die and are equally pressed from four sides. This square crimping guarantees optimal contact zones for clamping.

The ergonimically formed, soft cushioned 2-components-handle guarantees a convenient usage.

Length: 190 mm

Electric hand crimping tool CRIMMBOSS

Electric hand crimping tool for crimping cord-end-sleeves

Forceful advantages:
·**powerful:** electric drive 220 V (110 V available on request)
·**universal:** for crimping insulated cord-end-sleeves 0.5 – 2.5 mm^2 without changing dies; press length 12 mm
·**simple:** automatic release after inserting a cord-end-sleeve
·**practical:** easily mounted at nearly any place due to magnet holder
·**safe:** safe handling, of course with CE-sign
·**good value:** very good cost-performance ratio

Crimmboss	**art.-no.: 90755**
Magnet holder for Crimmboss	**art.-no.: 90756**
Conversion set for crimping cord-end-sleeves 0.14 – 1.0 mm^2	**art.-no.: 90757**

Crimping tools for cord-end-sleeves

Cord-end-sleeve crimping pliers AZ 4
art.-no.: 90804

Crimping pliers for crimping cord-end-sleeves from 0.14 to 2.5 mm^2, square-shaped crimping.

length: 165 mm

Cord-end-sleeve crimping pliers AZ 6
art.-no.: 90806

Crimping pliers for crimping cord-end-sleeves from 0.5 to 16 mm^2, in transverse direction notching. Easy handling because of optimal lever transmission.

length: 190 mm

Special crimping tools for tubular oval-connectors

Special crimping tools for tubular oval-connectors
art.-no.: 99056

Special crimping tool with toggle transmission and releaseable locking device for crimping tubular oval-connectors from 0.5 to 4 mm².
The parallel crimping and the wave-shaped dies (specially designed for WEITKOWITZ oval-connectors) guarantee optimal crimping results (catalogue page 15).

length: 210 mm

Wire strippers
Cable cutters

Stripping tools

Stripax-automatic wire stripping tool AB 13
art.-no.: 90713

Stripping tool with automatic insulation slip off. For wires from 0.08 to 6 mm². The elastically mounted, lamellated wire stripper adjusts automatically to the respective conductor cross section. The AB 13 is equipped with a touch protected wire cutter for finewiring copper cables up to 4 mm² and a stop in order to adjust easily the insulation length to be stripped off.
length: 180 mm

Replacemant stripping-unit for AB 13
art.-no.: 90792

Automatic wire stripping tool AB 14
art.-no.: 90714

Stripping tool with automatic insulation slip off. For wires from 0.2 to 6 mm². Small, slim design for convenient usage even in areas difficult to reach. The ergonomic, slim design enables working easily without any efforts. Because of the blade's design damaging the inner conductrors during working can be excluded. The AB 14 is provided with a wire cutter for cables up to 2.5 mm², an adjustable length stop and a locking lever for transportation.

Automatic wire stripping tool AB 15
art.-no.: 90715

Stripping tool with automatic insulation slip off. For wires from von 0,03 bis 10 mm². The tool does automatically adjust to wire size and insulation for optimal stripping. Applicable for single or multiwire PVC-and a large variety of Teflon®-, Radox®- or rubber-insulated cables. With build-in wire cutter for Cu and Al multi-wire cables up to 10 mm² and single wire cables up to 6 mm². The blade and length stop are easy to replace. The tool body is made of glass fibre reinforced plastic. The ergonomically formed, soft cushioned 2-components-handle guarantees a convenient usage.
Length: 195 mm

Replacemant stripping-unit for AB 15
art.-no.: 90798

Automatic wire stripping tool AB 19
art.-no.: 90719

Stripping tool with automatic insulation slip off. For wires from 0.08 to 6 mm². The elastically mounted, lamellated wire stripper adjusts automatically to the respective conductor cross section. The blades consist of metal completely. The AB 19 is equipped with a touch protected wire cutter for finewiring copper cables up to 4 mm² and a stop in order to adjust easily the insulation length to be stripped off. The ergonomic handgrip make this tool convenient to use even for people with small hands.
length: 180 mm

Replacemant stripping-unit for AB 19
art.-no.: 90794

Stripping tools and cable cutters

Automatic wire stripping tool AB 4
art.-no.: 90704

Ergonomic wire stripping tool with automatical insulation slip off. Stripping range: 0,1 - 4 mm^2. With V-blades, for harder insulations like AWG-wires at shipbuilding and a multiplicity of PTFE (Teflon®)-wires. The build-in cable cutter has a cutting range up to 6 mm^2 for stranded conductors and up to 1.5 mm^2 for single solid conductors. An adjustable cable-stopper is excisting. A specially designed movable handle with a soft rubber inlay, low friction, optimised handle opening width, an angled head and low weight safeguard comfortable work with lowest work load.
length: 191 mm

Replacement stripping-unit for AB 4
art.-no.: 90795

Automatic wire stripping tool AB 16
art.-no.: 90716

Wire stripping tool with automatic insulation slip off. For wires from 1 to 25 mm².
length: 220 mm

Replacemant stripping-unit for AB 16
art.-no.: 90796

Wire stripping tool for solar cable AB 2
art.-no.: 90702

Special insulation stripping tool with length stop for high quality stripping and dismantling of solar-cable 1.5 to 6 mm².
No pinching or deforming of cable ends by special cutting mode.
Model: chrome plated, with ergonomically designed two-components handles.
length: 200 mm

Replacemant stripping-blades for AB 2
art.-no.: 90797

Round cable stripper no. 13
art.-no.: 90812

For round and continental type cables of 8 - 13 mm outside-Ø (NYM 3 x 1.5 mm² to 5 x 2.5 mm²). Flush stripping even in areas hard to reach. No damages of the inner conductors. An adjustment of the cutting depth is not necessary.

Coaxial cable stripper no. 2
art.-no.: 90813

Two- or three-level stripping of all common coaxial cables (e.g. antenna and transmission cables) from 4.8 to 7.5 mm outside-Ø. An adjustment of cutting depth is not necessary.

Stripping tools

Swivel-blade cable stippers with knife

Cable stripper for accurate, fast and safe stripping of all common round cables from 4 to 28 mm outside-Ø. No damages of the inner conductors due to variable adjustment of the cutting depth.

with hook knife (illustration)
art.-no.: 90818

Replacement cutting blade for cable stripper
art.-no.: 90826

Skinning tool AM 2

art.-no.: 90816

Skinning tool for round cables from 4.5 to 40 mm Ø and a max. insulation strength of 4.5 mm. Because of defined locking positions it is possible to perform circle, longitudinal and spiral cuttings. Two interchangeable cable hooks (small hook for 4.5 - 25 mm Ø and big hook for 20 - 40 mm Ø) make the AM2 an universal skinning tool. It is an extremely ergonomic tool and consists of a modern, high-resistant plastic material. Replacement cutting blades are available and can be stored inside the tool.

Replacement cutting blade for AM 2
art.-no.: 90793

Cable stripping knife KM 1

art.-no.: 91811

cable stripping knife with special grinding. The special blade prevented a damage of the conductor. The knife has blade protection, sinking into the handle. The changeable blade is made of stainless steel according to DIN EN 10020, hardness minimun 50 HRC.

The high-quality, ergonomically formed handle is out of impact plastic (PA). With admission of the VDE up to 1000 volt according to EN/IEC 60900:2004 and GS-sign.

length: 200 mm

spare blade with moulded plastic insert for KM 1
art-no.: 91891

Cable stripping knife KM 3

art.-no.: 91813

cable stripping knife with changeable and customary trapeze blade. The knife has blade protection. The protection is sinkable into the handle.

The high-quality, ergonomically formed handle is out of impact resistant plastic (PA). With admission of the VDE up to 1000 volt according to EN/IEC 60900:2004 and GS-sign.

length: 200 mm

spare trapeze blade for KM 3
art.-no.: 91893

Cable tension tools

Skinning tool AM 1
art.-no.: 90815

Skinning tool for round cables from 25 mm Ø on, suitable for longitudinal and round section. The depth of the cut is adjustable from 0 to 5 mm. The cutting blade can be used double-sided. Delivery including plastic box.

Replacement cutting blade for AM 1
art.-no.: 90791

Outside cleading cutter AMX
art.-no. 91821

The outside cleading cutter with rapid clamping system can be used to strip the outer sheath from NS and MS conductors with an outside diameter of 16 up to 54 mm.
A switch lever between longitudinal section and round cut as well as an additional claw for breaking the insulation are available. The positioning on the cable is made by a clamping system. The cut depth is adjustable from 0 – 5 mm in steps of 0.1 mm. The feed rate is made by a ratchet wrench. The maximum rotation diameter is 300 mm.
The components are produced from aluminum and stainless steel. The moldings are made of impact-resistant plastic material. The blades are from alloyed steel according to EN 10020 with a hardness of least 50 HRC.

weight: 1.32 kg

delivery completely with AMX-device, ratchet wrench and nylon case.

Spare blade with screw and hex-wrench for AMX
art.-no. 91881

Cable stripper for vulcanized semi conductive layer FBS
art.-no. 91822

The device is for stripping the vulcanized semi conductive layer of NS and MS conductors. The maximum layer thickness is 1.5 mm. The stripper can be used for insulation diameter of 10 up to 52 mm. The positioning on the cable is made by a clamping system. The stripping process can be started and stopped in every position of the cable. A switch lever to activate/inactivate the axial traverse speed is available. The device has optimum gliding properties through coated contact surfaces. The maximum rotation diameter is 200 mm.
The components are made of aluminium, steel and brass, with anodized, chromium-plated and nickel-plated surfaces. The form parts are of impact resistant plastic. The blades are from alloyed steel according to EN 10020 with a hardness of least 55 HRC.

weight: 0.79 kg
delivery completely with FBS-device, silicone paste, allen wrench 2.5mm, plastic case

spare blade 17° for FBS
art.-no. 91882

spare tube – silicone paste 100 ml
art.-no. 91899

Cable tension tools

Inside cleading cutter (universal) IMS II

art.-no. 91823

The inside cleading cutter IMS II can be used for stripping-off the primary insulation on the ends of medium voltage conductors of 6 up 45 kV with outside diameters of 15 up to 52 mm and a maximum insulation thickness of 15 mm.
The positioning on the cable is made by a clamping system. Spiral and circle cuts are possible. The cut depth is adjustable of 0 up to 15 mm and the feed rate is selectable in 5 steps. The stripping can be stopped in every position of the cable. The stripping length is unlimited. The device has optimum gliding properties through coated contact surfaces. The maximum rotation diameter is 220 mm.
The components are made of aluminium, steel and brass, with anodized, chromium-plated and nickel-plated surfaces. The blades are from alloyed steel according to EN 10020 with a hardness of least 55 HRC.

weight: 1.0 kg

delivery completely with IMS II device, silicone paste, allen wrench 2.5mm, plastic case,

spare blade for IMS II
art.-no. 91883

spare tube – silicone paste 100 ml
art.-no. 91899

Chamfer cutter UFS

art.-no. 91824

The chamfer cutter UFS is for chamfering the primary insulation of medium voltage conductors with outside diameter from 15 up to 60 mm.
The positioning on the cable is made by a clamping system. The device has PTFE-plates for optional gliding properties on the cable. A silicone paste is not necessary.

Size of the chamfer: 2 mm x 60°.
The maximum rotation diameter is 220 mm.

The device is light and has a robust construction form. The components are made of aluminium and steel. The blades are from alloyed steel according to EN 10020 with a hardness of least 55 HRC.

weight: 0.39 kg

delivery completely with UFS device, allen wrench 2.5mm, nylon case

spare blade for UFS
art.-no. 91884

Cable tension tools

Cable tie tension tool for plastic-cable ties KB 1

art.-no.: 90888

For tensioning and cutting plastic cable ties in one step. The tractive force is steplessly adjustable. By cutting of the cable tie aligned with the clasp, sharp edges are avoided. Applicable for cable ties up to 4.8 mm width.

length: 165 mm

Cable tie tension tool for plastic-cable ties KB 3

art.-no.: 90895

For tensioning and cutting platic cable ties up to 9.5 mm width and a maximum strength of 2.3 mm.

Handy, robust tool.

length: 190 mm

Cable tie tension tool for cable ties out of stainless steel KB 7

art.-no.: 90897

For tensioning and cutting cable ties out of stainless steel in one step. The tractive force is steplessly adjustable. Applicable for cable ties up to 8 mm width and maximum strength of 0.3 mm.

length: 180 mm

Cable cutters

Cable cutter scissor KS 1

high quality cable cutter electrician scissor for cutting and stripping of fine wiring copper and aluminium cables.

art.-no.: 91831

cutting area:
straight blade area 0.5 - 6 mm²
integrated cable cutter up to 50 mm²

- ergonomical and extremely robust
- high cutting performance
- loose-free screw/pin fixing
- 2-component-handles
- with special safety box

scope of delivery: cable cutter scissor KS 1, safety box

Cable cutter KS 35

art.-no.: 90842

High quality forged cable cutter for cutting stranded aluminium and copper cables up to 35 mm², resp. up to 11 mm outside-Ø.

Long life cycle, low efforts during cutting and a clean, round cut make the KS 35 a convenient tool.

length: 165 mm

Cable cutter KS 50

art.-no.: 90829

High quality forged cable cutter for cutting stranded aluminium and copper cables up to 50 mm², resp. up to 15 mm outside-Ø.

Long life cycle, low efforts during cutting and a clean, round cut make the KS 50 a convenient tool.

length: 215 mm

Cable cutter KS 120

art.-no.: 90832

Cable cutter for cutting stranded aluminium and copper cables up to 27 mm outside-Ø (max. 1 x 120 mm²).

Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 500 mm
weight: 1.0 kg

Cable cutters

Cable cutter KS 30
art.-no.: 90833

Cable cutter for cutting stranded aluminium and copper cables up to 30 mm outside-Ø. Cutting area for copper cables for example:

- finewiring cables up to 1 x 240 mm²
- stranded cables up to 1 x 70 mm²
- PVC insulated power cable NYY up to 4 x 25 mm²

The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 440 mm, weight: 1,25 kg

Cable cutter KS 32
art.-no.: 90835

Cable cutter for cutting stranded aluminium and copper cables up to 32 mm outside-Ø. Cutting area for copper cables for example:

- finewiring cables up to 1 x 240 mm²
- stranded cables up to 1 x 70 mm²
- PVC insulated power cable NYY up to 4 x 25 mm²

The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 600 mm, weight: 1,5 kg

Cable cutter KS 42
art.-no.: 90834

Cable cutter for cutting stranded aluminium and copper cables up to 32 mm outside-Ø. Cutting area for copper cables for example:

- finewiring cables up to 1 x 500 mm²
- stranded cables up to 1 x 300 mm²
- PVC insulated power cable NYY up to 4 x 70 mm²

The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 800 mm, weight: 3,3 kg

Cable cutters

Cable cutter KS 34 S
art.-no.: 90910

Very robust and smooth running cable cutter for cutting stranded aluminium and copper cables up to 4 x 70 approx. 1 x 185 mm² and finewiring conductors up to 34 mm outside-diameter. The double needle beared and patented excentric dive compined with a special blade design guarantees the excellent efficiency of this cable cutter.
Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 250 mm weight: 0.9 kg

Cable cutter KS 52 S
art.-no.: 90913

Very robust and smooth running cable cutter for cutting stranded aluminium and copper cables up to 4 x 120 approx. 1 x 300 mm² and finewiring conductors up to 52 mm outside-diameter. The double needle beared and patented excentric dive compined with a special blade design guarantees the excellent efficiency of this cable cutter.
Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 325 mm weight: 1.2 kg

Cable cutter KS 60
art.-no.: 90916

Very stable and smooth hand-operated cable cutter for cutting stranded aluminium and copper cables with a coat of hard rubber or plastic up to 60 mm outside-Ø, e.g. 4 x 240 mm² NAYY.
No squeezing, no deformation of the conductor, easy clean cut due to ratchet gearing. It is possible to open the cutter in any cutting position. The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 720 mm weight: 5.0 kgg

Cable cutter KS 100
art.-no.: 90919

Very stable and smooth hand-operated cable cutter for cutting stranded aluminium and copper cables with a coat of hard rubber or plastic up to 100 mm outside-Ø, e.g. 4 x 400 mm² NAYY.
No squeezing, no deformation of the conductor, easy clean cut due to ratchet gearing. It is possible to open the cutter in any cutting position. The cutting blades consist of a hardened special tool steel.

Not applicable for cutting **steel-wires,** cables with **steel-insertion** and **solid conductors**.

length: 870 mm weight: 5.6 kg

Mechanical crimping tools

Hydraulic crimping and cutting tools

Crimping tools

Crimping tool KW 50/120
art.-no.: 90160

Crimping tool KW 70/150
art.-no.: 90165

Crimping tool KW 120/240
art.-no.: 90170

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard- and euro-series**.

application range:
KW 50/120 = 50 - 120 mm²
KW 70/150 = 70 - 150 mm²
KW 120/240 = 120 - 240 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Extension spars are provided.

length: 630 mm, with extension spars 950 mm
weight: 5.2 kg

Crimping tool DP 6/95
art.-no.: 90131

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the standard- and euro-series, for crimping terminals DIN 46 234, pin terminals DIN 46 230 and connectors DIN 46351 with cross sections from 6 mm² to 95 mm².

- with two threads for mounting on a workbench
- easy adjustment of cross section by an adjustable, self-locking-gearing. So there is no need of changing dies
- with telescopical tubes
- with locking device, the tool opens not unitl a started crimping process has been finished

length: 535 mm - 730 mm
weight: 3.5 kg

Crimping tool PW 6/50
art.-no.: 90180

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard-series** (catalogue page 6 - 16).
application range: 6 - 50 mm²

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 380 mm
weight: 1.3 kg

Crimping tools

Crimping tool WW 6/50

art.-no.: 90179

Crimping tool for crimping tubular cable lugs and connectors of the **euro-series** (catalogue page 26 - 34).
application range: 6 - 50 mm^2

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 380 mm
weight: 1.3 kg

Crimping tool DW 6/50

art.-no.: 90178

Crimping tool for crimping compression cable lugs DIN 46235, compression connectors DIN 46267, aluminium cable lugs and connectors (catalogue page 36 - 49).

application range:	Cu	6 - 50 mm^2	(K 5 - K 14)
	Alu	16 - 35 mm^2	(K 10 - K 14)

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to hexagonal-shape-crimping.

length: 380 mm
weight: 1.3 kg

Crimping tool PW 6/70

art.-no.: 90181

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard-series** (catalogue page 6 - 16).
application range: 6 - 70 mm^2

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.
crimping profile: WM-crimping

length: 515 mm
weight: 2.0 kg

Crimping tools

Crimping tool DW 6/70
art.-no.: 90182

Crimping tool for crimping compression cable lugs DIN 46235, compression connectors DIN 46267, aluminium cable lugs and connectors (catalogue page 36 - 49).

application range:	Cu	von 6 - 70 mm^2	(K 5 - K 16)
	Alu	von 16 - 50 mm^2	(K 10 - K 16)

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.
crimping profile: hexagonal-shape with control embossing

length: 515 mm
weight: 2.0 kg

Crimping tool WW 6/70
art.-no.: 90186

Crimping tool for crimping tubular cable lugs and connectors of the **euro-series** (catalogue page 26 - 34).
application range: 6 - 70 mm^2

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.
crimping profile: WM-crimping

length: 515 mm
weight: 2.0 kg

Crimping tool FW 10/70
art.-no.: 90184

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors for **finewiring conductors** (catalogue page 18 - 24).
application range: 10 - 70 mm^2

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight, optimized transmission ratio and an extremely high crimping quality due to precisely guided dies.
crimping profile: WM-crimping

length: 515 mm
weight: 2.1 kg

Crimping tools

Crimping tool PW 10/120

art.-no.: 90185

Crimping tool for crimping WEITKOWITZ tubular cable lugs and connectors of the **standard-series** (catalogue page 7 - 16).
application range: 10 - 120 mm^2

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 660 mm
weight: 4.1 kg

Crimping tool WW 10/120

art.-no.: 90188

Crimping tool for crimping tubular cable lugs and connectors of the **euro-series** (catalogue page 26 - 34).
application range: 10 - 120 mm^2

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies. Furthermore this tool points by small measurements, light weight and an extremely high crimping quality due to WM-crimping.

length: 660 mm
weight: 4.1 kg

Crimping tool DW 10/120

art.-no.: 90189

Crimping tool for crimping compression cable lugs DIN 46235, compression connectors DIN 46267, aluminium cable lugs and connectors (catalogue page 36 - 49).

application range:			
	Cu	von 10 - 120 mm^2	(K 6 - K 20)
	Alu	von 16 - 70 mm^2	(K 10 - K 18)

The cross section can be adjusted by turning the in-built revolving dies. So there is no need of changing dies.
crimpng shape: hexagonal-shape with control embossing

length: 660 mm
weight: 4.1 kg

Hand-operated mechanical compression tool MP 13
without dies

Robust and handy precision tool with **ratchet gearing** for crimping cable lugs and connectors up to 50 mm². The looking device guarantees a constantly optimal crimping depth and quality.

Advantages:

– compact construction form, only 270 mm long
– small weight, only 1.45 kg
– press capacity: approx. 27 kN
– hinged head
– low efforts due to ratchet gearing
– mechanical, therefore no problems because of dirt or oil leckage

art.-no.: 90200

Dies WM-shape
for crimping WEITKOWITZ cable lugs
and connectors of the **standard-series** (page 7 - 16).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.
10	90202
16	90203
25	90204

mm²	art.-no.
35	90205
50	90206

Dies WM-shape
for crimping cable lugs and
connectors of the **euro-series** (page 26 – 34).

mm²	art.-no.
6	90432
10	90251
16	90252

mm²	art.-no.
25	90253
35	90254
50	90255

Dies hexagonal-shape
for crimping compression copper cable lugs DIN 46 235 (p.36 – 41), compression copper connectors DIN 46 267 part 1 (page 43) and compression aluminium and aluminium/ copper cable lugs and connectors (page 46 – 49)

die code no.	Cu mm²	Al mm²	art.-no.
5	6	–	90208
6	10	–	90209
8	16	–	90210
10	25	16	90211
12	35	25	90212
14	50	35	90213

Compression dies for MP 13

Dies mandrel-shape

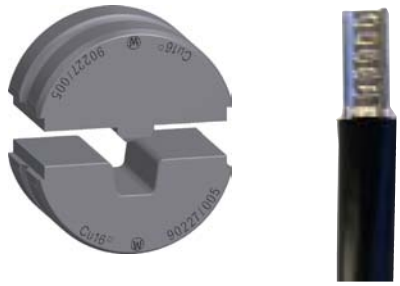
for crimping noninsulated terminals DIN 46 234 (page 54 – 57), pin terminals DIN 46 230 (page 58) and connectors DIN 46 341 part 1 (page 59).

mm²	art.-no.
6	90243
10	90244
16	90245
25	90246
35	90247

Dies

for crimping insulated terminals (page 63 und 65).

mm²	art.-no.
10	90221
16	90222
25	90223

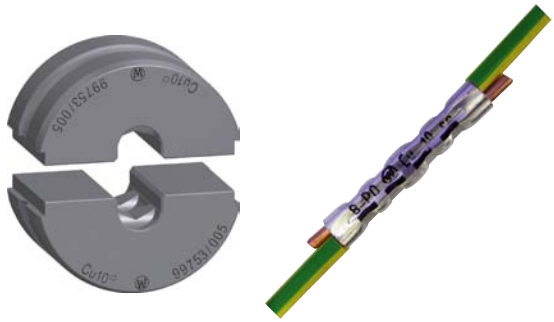


Dies square-shape

for crimping cord-end-sleeves (page 80 – 84)
crimping width: 18 mm

mm²	art.-no.
6	90225
10	90226
16	90227

mm²	art.-no.
25	90228
35	90229
50	90230



Dies

for crimping WEITKOWITZ oval-connectors (page 15).
crimping profile: wave-shape crimping

mm²	art.-no.
6	99752
10	99753

Transport case

art.-no.: 90248

Varnished steel box for keeping the MP 13 and up to 16 pairs of dies.

measurements: 295 x 180 x 55 mm

Hand-operated mechanical compression tool MP 1
without dies

Robust and handy precision tool with **ratchet gearing** for crimping cable lugs and connectors up to 120 mm². The looking device guarantees a constantly optimal crimping depth and quality.

Advantages:

– compact construction form, only 420 mm long

– small weight, only 2.4 kg

– press capacity: approx. 55 kN

– hinged head

– low effort due to ratchet gearing

– mechanical, therefore no problems because of dirt or oil leckage

art.-no.: 90300

Dies WM-shape
for crimping WEITKOWITZ cable lugs
and connectors of the **standard-series** (page 7 - 16).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.
10/70	90301
16/35	90302
25/50	90303
95	90304
120	90305

Dies WM-shape
for crimping cable lugs and
connectors of the **euro-series** (page 26 – 34).

mm²	art.-no.
6	90430
10/70	90390
16/35	90398
25/50	90393
95	90394
120	90395

Compression dies for MP 1

Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors** (page 18 - 24). Not suitable for cable lugs of other manufacturers!

mm²	art.-no.
10f/25f	90331
16f/35f	90332
50f	90333
70f	90334
95f	90335

Dies hexagonal-shape

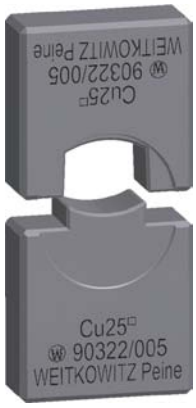
for crimping compression copper cable lugs DIN 46 235 (p. 36 – 41), compression copper connectors DIN 46 267 part 1 (page 43) and compression aluminium and aluminium/ copper cable lugs and connectors (page 46 – 49)

die code no.	Cu mm²	Al mm²	art.-no.
5	6	–	90310
6/16	10/70	–/50	90311
8/12	16/35	–/25	90312
10/14	25/50	16/35	90313
18	95	70	90314
20	120	–	90315

Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 54 – 57), pin terminals DIN 46 230 (page 54) and connectors DIN 46 341 part 1 (page 59).

mm²	art.-no.
6	90491
10	90492
16	90493
25	90494
35	90495
50	90496
70	90497



Dies

for crimping insulated terminals
(page 63 – 65)

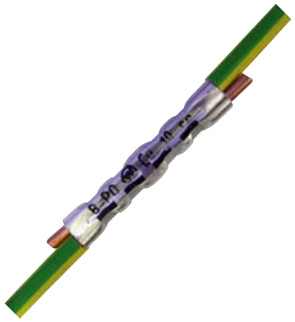
mm²	art.-no.
10	90320
16	90321
25	90322
35	90323
50	99696
70	99697

Compression dies for MP 1

Dies square-shape

for crimping cord-end-sleeves (page 80 – 84)
crimping width: 19 mm

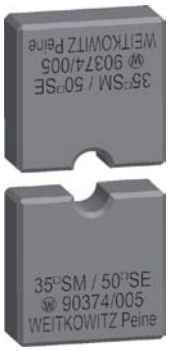
mm²	art.-no.
6	90324
10	90325
16	90326
25	90327
35	90328
50	90329



Dies

for crimping WEITKOWITZ oval-connectors (page 15).
crimping profile: wave-shape crimping

mm²	art.-no.
6	99754
10	99755



Dies for round forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 12 mm

mm² sm	mm² se	art.-no.
10	–	90371
16	–	90372
25	35	90373
35	50	90374
50	70	90375
70	95	90376
95	120	90377
120	150	90378

sm = stranded conductors se = solid conductors

Transport case

art.-no.: 91112

Varnished steel box for keeping the
MP 1 and up to 21 pairs of dies.

measurements: 480 x 230 x 60 mm

Hand-operated mechanical compression tool MP 2
without dies

Robust and handy precision tool with **ratchet gearing** for crimping cable lugs and connectors up to 240 mm². The looking device guarantees a constantly optimal crimping depth and quality.

Advantages:

– compact construction form, only 530 mm long

– small weight, only 4.7 kg

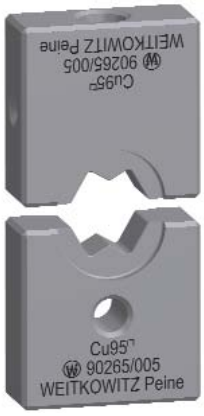
– press capacity: approx. 100 kN

– hinged head

– low effort due to ratchet gearing

– mechanical, therefore no problems because of dirt or oil leckage

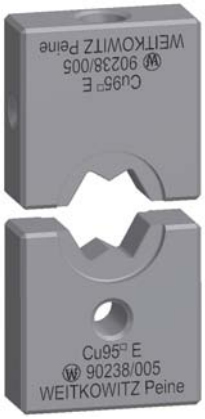
art.-no.: 90260



Dies WM-shape
for crimping WEITKOWITZ cable lugs
and connectors of the **standard-series** (page 7 - 16).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.
10	90604
16	90605
25	90606
35	90607
50	90263
70	90264

mm²	art.-no.
95	90265
120	90266
150	90267
185	90268
240	90269



Dies WM-shape
for crimping cable lugs and
connectors of the **euro-series** (page 26 – 34).

mm²	art.-no.
6	90431
10	90272
16	90273
25	90234
35	90235
50	90236

mm²	art.-no.
70	90237
95	90238
120	90239
150	90267
185	90268
240	90269

Compression dies for MP 2

Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors** (page 18 - 24). Not suitable for cable lugs from other manufacturers!

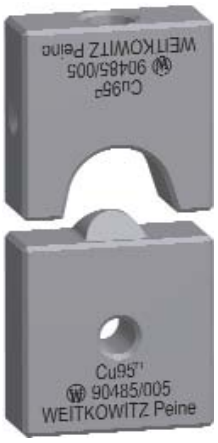
mm²	art.-no.
10 f	90440
16 f	90441
25 f	90442
35 f	90443
50 f	90444

mm²	art.-no.
70 f	90445
95 f	90446
120 f	90447
150 f	90448
185 f	90449

Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (page 36 - 41), compression copper connectors DIN 46 267 part 1 (page 43) and compression aluminium and aluminium/ copper cable lugs and connectors (page 46 - 49)

die code no.l	Cu mm²	Al mm²	art.-no.
5	6	–	90278
6	10	–	90279
8	16	–	90280
10	25	16	90281
12	35	25	90282
14	50	35	90283
16	70	50	90284
18	95	70	90285
20	120	–	90286
22	150	95 + 120	90287
25	185	150	90288
28	240	185	90289
32	–	240	90291



Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 54 - 57), pin terminals DIN 46 230 (page 58) and connectors DIN 46 341 part 1 (page 59)

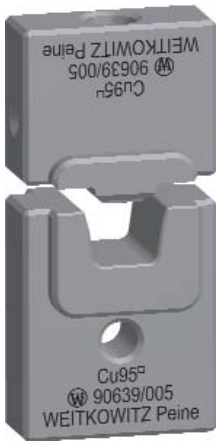
mm²	art.-no.
6	90478
10	90479
16	90480
25	90481
35	90482
50	90483
70	90484
95	90485
120	90476
150	90477

Compression dies fo MP 2

Dies

for crimping insulated terminals
(page 63 - 65)

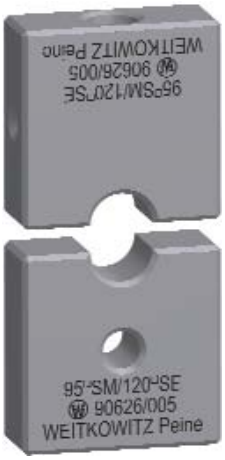
mm²	art.-no.	mm²	art.-no.
10	90461	**50**	90465
16	90462	**70**	90466
25	90463	**95**	90467
35	90464	**120**	90468



Dies square-shape

for crimping cord-end-sleeves (page 81 - 84).
crimping width: 24 mm

mm²	art.-no.	mm²	art.-no.
10	90633	**70**	90638
16	90634	**95**	90639
25	90635	**120**	90640
35	90636		
50	90637		



Dies for round forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 16 mm

mm² sm	mm² se	art.-no.
10	–	90620
16	–	90621
25	35	90622
35	50	90623
50	70	90624
70	95	90625
95	120	90626
120	150	90627
150	185	90628
185	240	90629
240	300	90630

sm = stranded conductors se = solid conductors

Transport case

art.-no.: 90299
Varnished steel box for keeping the MP 2 and up to 33 pairs of dies.

measurements: 625 x 250 x 70 mm

Battery-powered compression tool AP 10
without dies

Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 240 mm²

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- 360° revolving head with quick opening and closing
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- lithium-ionen-battery without memory effect, self discharges very low
- high capacity due 3.0 Ah battery
- fastening eye for balance and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- universal usage: dies for all versions of cable lugs and connectors are available
- **integrated electronic module for:**
  - permanent accumulator-loading state control
  - supervision of the working process and state announcement
  - announcement of the next service intervall
  - mistake announcement at possible disturbances
- **delivery completely with battery, battery charger and supporting loop for transport and safety, transport plastic case (without dies)**

technical data:

press capacity:	approx. 55 kN
operating pressure:	700 bar (70 MPa)
operating voltage:	14.4 Volt
tool measurements:	B 95 x L 360 x H 330 mm
weight:	3.6 kg (incl. battery)
battery charger:	220 – 240 V 50–60Hz 7.2-18V
time of loading:	approx. 50 minutes

art.-no.: 91120

Hand-operated hydraulic compression tool HPi 10
without dies

Hand-operated hydraulic compression tool for crimping cable lugs and connectors up to 240 mm².

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- extremely light, handy and compact construction form
- 180° revolving head with quick opening and closing
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- universal usage: dies for all versions of cable lugs are available
- **delivery completely transport plastic case (without dies)**

technical data:

press capacity:	approx. 55 kN
operating pressure:	650 bar (65 MPa)
weight:	2.6 kg
length:	400 mm

art.-no.: 91111

Compression dies for AP 10 and HPi 10

Dies WM-shape

for crimping WEITKOWITZ cable lugs
and connectors of the **standard-series** (page 7 - 16).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.	mm²	art.-no.
10/70	91302	**120**	91306
16/35	91303	**150**	91307
25/50	91304	**185**	91308
95	91305	**240**	91309

Dies WM-shape

for crimping cable lugs and connectors of the **euro-series**
euro-Serie (p. 26 - 34).

mm²	art.-no.	mm²	art.-no.
6	91315	**120**	91320
10/70	91316	**150**	91307
16/35	91317	**185**	91308
25/50	91318	**240**	91309
95	91319		

Dies WM-shape

for crimping WEITKOWITZ cable lugs and
connectors for **finewiring conductors** (page 18 - 24)
Not suitable for cable lugs from other manufacturers

mm²	art.-no.	mm²	art.-no.
10f/25f	91330	**95f**	91334
16f/35f	91331	**120f**	91335
50f	91332	**150f**	91336
70f	91333	**185f**	91337

Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235, compression copper connectors DIN 46 267 part 1 and compression aluminium and aluminium/copper cable lugs and connectors (p. 36 - 49).

die code no.	Cu mm²	Al mm²	art.-no.
5	6	–	91343
6/16	10/70	–/50	91344
8/12	16/35	–/25	91345
10/14	25/50	16/35	91346
18	95	70	91347
20	120	–	91348
22	150	95 + 120	91349
25	185	150	91350

Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234.
pin terminals DIN 46 230 and connectors DIN 46 341
(p. 54 - 59)

mm²	art.-no.
6	91465
10	91466
16	91467
25	91468
35	91469
50	91470
70	91471
95	91472
120	91473

Compression dies for AP 10 and HPi 10

Dies

for crimping insulated terminals (p. 63 - 65)

mm²	art.-no.
10	91372
16	91373
25	91374

mm²	art.-no.
35	91375
50	91376
70	91377

Dies square-shape

for crimping cord-end-sleeves
(p. 80 - 84) crimping width: 19 mm

mm²	art.-no.
6	91383
10	91384
16	91385
25	91386
35	91387

mm²	art.-no.
50	91388
70	91389
95	91390
120	91391

Dies mandrel-shape

for stainless steel cable lugs (p. 51)

mm²	for use*	art.-no.
1,5 - 2,5	VA / Cu	91480
4-6	VA / Cu	91481
10	VA / Cu	91482
16	VA / Cu	91483
25	VA / Cu	91484
35	VA	91485
35	Cu	91486

* = VA / Cu: for stainless steel ropes and copper-conductors (finewiring and stranded-precompressed)
VA: only for stainless steel ropes
Cu: only for copper conductors (finewiring and stranded-precompressed)

Dies for round forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 12 mm

mm² sm	mm² se	art.-no.
10	–	91450
16	–	91451
25	35	91452
35	50	91453
50	70	91454

mm² sm	mm² se	art.-no.
70	95	91455
95	120	91456
120	150	91457
150	185	91458
185	240	91459
240	300	91460

Cutting die

art.-no. 91354
for coarsewiring aluminium and copper cables without steel insertion up to 12 mm Ø.

Battery-powered compression tool APi 20
without dies

Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 300 mm².

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- wide application range up to 300 mm²
- 360° revolving head with quick opening and closing
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- lithium-ionen-battery without memory effect, self-discharges very low
- high capacity due to 3.0 Ah-battery
- eyelet for balancer and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- universal usage: dies for all versions of cable lugs are available
- integrated electronic module for:
  • permanent accumulator-loading state control
  • supervision of the working process and state announcement
  • announcement of the next service interval
  • mistake announcement at possible disturbances
- **delivery complety with battery, battery charger, supporting loop for transport and safety, transport plastic case (without dies)**

technical data:

press capacity:	approx. 62 kN
operating pressure:	700 bar (70 MPa)
operating voltage:	14.4 Volt
tool measurements:	B 95 x L 350 x H 310 mm
weight:	3.90 kg (incl. battery)
battery charger:	220–240V 50–60Hz 7.2-18V
loading time:	approx. 50 minutes

art.-no.: 91142

Hand-operated hydraulic compression tool HPi 20
without dies

hand-operated hydraulic compression tool for crimping cable lugs and connectors up to 300 mm²².

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- wide application range up to 300 mm²
- 180° revolving head with quick opening and closing
- light, handy and short construction form
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- universal usage: dies for all versions of cable lugs are available
- **delivery completely with transport case out of plastic (without dies)**

technical data:

press capacity:	approx. 62 kN
operating pressure:	640 bar (64 MPa)
weight:	2.8 kg
length:	396 mm

art.-no.: 91132

Hand-operated mechanical compression tool MPi 20
without dies

Hand-operated mechanical compression tool for crimping cable lugs and connectors up to 300 mm^2

advantages:
- light and compactly construction form
- universal usage: dies for all versions af cable lugs are available
- 360° revolving head with quick opening and closing
- continous moveable telescopic handle
- **delivery completely with transport case out of plastic**

technical data:

Press capacity:	approx. 60 kN
weight:	3.6 kg
length:	560–830 mm

art.-no.: 90250

Storage box for pressing inserts

transport case for dies, out of varnished steel,
measurements 375 x 235 x 55 mm

for keeping 19 pair of dies and 1 big case for special dies or dies with extremely press width.
The sturdy box has two locks and a sturdy carrying handle.

For dies on catalogue page 126 – 146.

art.-no.: 90825

Compression dies for APi 20, HPi 20 and MPi 20

Dies WM-shape

for crimping WEITKOWITZ cable lugs
and connectors of the **standard-series** (page 7 - 16).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.	mm²	art.-no.	mm²	art.-no.
10	91602	**50**	91606	**150**	91610
16	91603	**70**	91607	**185**	91611
25	91604	**95**	91608	**240**	91612
35	91605	**120**	91609	**300**	91613

Dies WM-shape

for crimping cable lugs and
connectors of the **euro-series** (page. 26 - 31).

mm²	art.-no.	mm²	art.-no.	mm²	art.-no.
6	91619	**50**	91624	**185**	91611
10	91620	**70**	91625	**240**	91612
16	91621	**95**	91626	**300**	91613
25	91622	**120**	91627		
35	91623	**150**	91610		

Dies WM-shape

for crimping WEITKOWITZ cable lugs and
connectors for **finewiring conductors** (page 18 - 24)
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.	mm²	art.-no.	mm²	art.-no.
10f	91638	**50f**	91642	**150f**	91646
16f	91639	**70f**	91643	**185f**	91647
25f	91640	**95f**	91644	**240f**	91648
35f	91641	**120f**	91645		

Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46235, compression copper connectors DIN 46267 part 1,compression aluminium and aluminium/ copper cable lugs and connectors (page 36 - 49).

die code no.	Cu mm²	Al mm²	art.-no.
5	6	–	91654
6	10	–	91655
8	16	–	91656
10	25	16	91657
12	35	25	91658
14	50	35	91659
16	70	50	91660
18	95	70	91661
20	120	–	91662
22	150	95 + 120	91663
25	185	150	91664
28	240	185	91665
32	300	240	91666

Compression dies for APi 20, HPi 20 and MPi 20

Dies mandrel-shape

for crimping noninsulated terminals DIN 46234,
pin-terminals DIN 46230 and connectors DIN 46341 part 1
(page 54 - 59)

mm²	art.-no.	mm²	art.-no.
6	91731	**50**	91736
10	91732	**70**	91737
16	91733	**95**	91738
25	91734	**120**	91739
35	91735		

Dies

for crimping insulated terminals (page 63 - 65)

mm²	art.-no.	mm²	art.-no.
10	91693	**50**	91697
16	91694	**70**	91698
25	91695	**95**	91699
35	91696		

dies square-shape

for crimping insulated and noninsulated cord-end-sleeves
(page 80 - 84) crimping width: 22 mm

mm²	art.-no.	mm²	art.-no.
6	91705	**70**	91711
10	91706	**95**	91712
16	91707	**120**	91713
25	91708	**150**	91714
35	91709	**185**	91715
50	91710	**240**	91716

Dies for round-forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 22 mm

mm² sm	mm² se	art.-no.	mm² sm	mm² se	art.-no.
10	–	91718	**95**	120	91724
16	–	91719	**120**	150	91725
25	35	91720	**150**	185	91726
35	50	91721	**185**	240	91727
50	70	91722	**240**	300	91728
70	95	91723			

sm = stranded conductors

se = solid conductors

Battery-powered compression tool APi 30
without dies

Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 400 mm².

Advantages:
- extremely quick processing due to a two-stage hydraulic pump
- 360° revolving head with quick opening and closing
- wide application range up to 400 mm
  suitable for cutting cables up to 28 mm outside diameter
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- lithium-ionen-battery without memory effect, self-discharges very low
- high capacity due to 3.0 Ah-battery
- eyelet balancer and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- integrated electronic module for:
  • permanent accumulator-loading state control
  • supervision of the working process and state announcement
  • announcement of the next service interval
  • mistake announcement at possible disturbances
- **delivery completely with battery, battery charger, supporting loop for transport and safety, transport plastic case (without dies)**

technical data:

press capacity:	approx. 80 kN
operating pressure:	700 bar (70 MPa)
operating voltage:	14.4 Volt
tool measurements:	B 95 x L 406 x H 310 mm
weight:	5.4 kg (incl. battery)
battery charger:	220–240V 50–60Hz 7.2-18V
loading time:	approx. 50 minutes

art.-no.: 91162

hand-operated hydraulic compression tool HPi 30
without dies

hand-operated hydraulic compression tool for crimping cable lugs and connectors up to 400 mm²².

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- wide application range up to 400 mm²
- 360° revolving head with quick opening and closing
- hinged head, therefore trouble-free working even at heavely accessible places
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- universal usage: dies for all versions of cable lugs are available
- **delivery completely with transport case out of plastic (without dies)**

technical data:

press capacity:	approx. 80 kN
operating pressure:	700 bar (70 MPa)
weight:	5.3 kg
length:	550 mm

art.-no.: 91152

Battery-powered compression tool APi 35
without dies

Battery-powered hydraulic compression tool for crimping cable lugs and connectors up to 300 mm².

advantages:
- C-head, ideally for continous quick working (side loading of connectors)
- ideal for series-production
- extremely quick processing due to a two-stage hydraulicpump
- 360° revolving head
- application range from 6 up to 300 mm²
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- lithium-ionen-battery without memory effect, self-discharges
- very low
- high capacity due to 3.0 Ah battery
- eyelet balancer and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- integrated electronic module for:
  • permanent accumulator-loading state control
  • supervision of the working process and state announcement
  • announcement of the next service interval
  • mistake announcement at possible disturbances
- **delivery completely with battery, battery charger, supporting loop for transport and safety, transport plastic case (without dies)**

technical data:

press capacity:	approx. 80 kN
operating pressure:	700 bar (70 MPa)
operating voltage:	14.4 Volt
tool measurements:	B 95 x L 440 x H 310 mm
weight:	5.4 kg (incl. battery)
battery charger:	220–240V 50–60Hz 7.2-18V
loading time:	approx. 50 minutes

art.-no.: 91167

Hand-operated hydraulic compression tool HPi 35
without dies

Hand-operated hydraulic compression tool for crimping cable lugs and connectors up to 300mm².

advantages:
- C-head, ideally for continuous quick working
- extremely quick processing due to a two-stage hydraulic pump wide application range up to 300mm²
- 360° revolving head
- ideal for series-production
- integrated pressure relief valve, false pressings cause no damage at tool nor dies
- universal usage: dies for all versions of cable lugs are available
- delivery completely with transport case out of plastic

technical data:

press capacity:	approx. 80kN
operating pressure:	700 bar (70MPa)
weight:	5.3 kg
length:	580 mm

art.-no.: 91157

Hydraulic compression head HPW 15

Hydraulic compression head for crimping
cable lugs and connectors up to 300 mm².

advantages:

– C-head for a quick and easy insertion and removal of cable lugs and connectors,
  perfectly suitable for serial crimping
– quick connection because of plug-in coupling free of leakage

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 80 kN
length:	335 mm
weight:	3.6 kg

art.-no.: 90602

Hydraulic compression head HPW 17

Hydraulic compression head for crimping cable lugs and connectors up to 400 mm².
Cutting dies for coarsewiring and finewiring cables up to 28 mm outside diameter are available.

advantages:

– wide application range: cable lugs and conectors 6 - 400 mm²
– light and handy, compact construction
– hinged head, therefore quick insertion and removal of cable lugs and dies
– cutting dies for cables up to 28 mm outside diameter are available
– quick connection via plug-in coupling free of leakage

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 80 kN
length:	300 mm
weight:	3.8 kg

art.-no.: 90651

Clamping jaws for HPW 15 and HPW 17

Clamping jaws for a trouble free clamping
of HPW 15 and HPW 17 into a vice.

art.-no.: 90601

Compression dies APi 30, HPi 30, APi 35, HPi 35, HPW 15 and HPW 17

Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 7 – 16).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.
10	90604
16	90605
25	90606
35	90607
50	90263
70	90264
95	90265

mm²	art.-no.
120	90266
150	90267
185	90268
240	90269
300	90270
400	90271

APi 35, HPi 35, HPW 15 only from 10 up to 300 mm²!

Dies WM-shape

for crimping cable lugs and connectors of the **euro-series** (page 26 – 34).

mm²	art.-no.
6	90431
10	90272
16	90273
25	90234
35	90235
50	90236
70	90237

mm²	art.-no.
95	90238
120	90239
150	90267
185	90268
240	90269
300	90270
400	90271

APi 35, HPi 35, HPW 15 only from 6 up to 300 mm²!

Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors for **finewiring conductors** (page 18 – 24).
Not suitable for cable lugs from other manufacturers!

mm²	art.-no.
10f	90440
16f	90441
25f	90442
35f	90443
50f	90444
70f	90445

mm²	art.-no.
95f	90446
120f	90447
150f	90448
185f	90449
240f	90450

Dies

for crimping insulated terminals (page 63 – 65).

mm²	art.-no.
10	90461
16	90462
25	90463
35	90464
50	90465

mm²	art.-no.
70	90466
95	90467
120	90468
150	90469

APi 35, HPi 35, HPW 15 only from 10 up to 120 mm²!

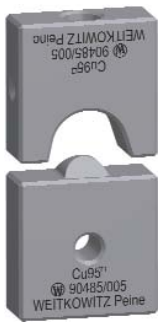
Compression dies APi 30, HPi 30, APi 35, HPi 35, HPW 15 and HPW 17

Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46 235 (p. 36 – 41), compression copper connectors DIN 46 267 part 1 (p. 43 – 44) and compression aluminium and aluminium/copper cable lugs and connectors (p. 46 – 49)

die code no.	Cu mm²	Al mm²	art.-no.
5	6	–	90278
6	10	–	90279
8	16	–	90280
10	25	16	90281
12	35	25	90282
14	50	35	90283
16	70	50	90284
18	95	70	90285
20	120	–	90286
22	150	95 + 120	90287
25	185	150	90288
28	240	185	90289
32	300	240	90290
34	–	300	90292

APi 35, HPi 35, HPW 15 only from K 5 to K 28 !



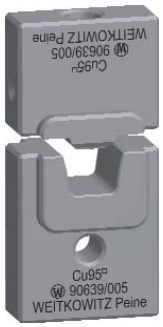
Dies mandrel-shape

for crimping noninsulated terminals DIN 46 234 (page 54 – 57), pin terminals DIN 46 230 (page 58) and connectors DIN 46 341 part 1 (page 59)

mm²	art.-no.
6	90478
10	90479
16	90480
25	90481
35	90482
50	90483

mm²	art.-no.
70	90484
95	90485
120	90476
150	90477
185	90488
240	90489

APi 35, HPi 35, HPW 15 only from 6 to 150 mm² !



Dies square-shape

for crimping insulated/ noninsulated cord-end-sleeves (page 81 – 84)
Crimping width: 24 mm (from 10–120 mm²)
38 mm (from 150–240 mm²)

mm²	art.-no.
10	90633
16	90634
25	90635
35	90636
50	90637
70	90638

mm²	art.-no.
95	90639
120	90640
150	90641
185	90642
240	90643

Dies for compression copper cable lugs 2-conductor-version

for crimping compression copper cable lugs 2-conductor-version (page 42)
crimping width: 12 mm (2 crimpings at each cable lug necessary)

mm²	art.-no.
2 x 70	99805
2 x 95	99640
2 x 120	99641

Compression dies for APi 30, HPi 30, APi 35, HPi 35, HPW 15 and HPW 17

Dies for compression tab-connectors, H-shape, copper

for crimping compression tab connectors, H-shape (page 44)

crimping width: 70/70 mm² = 12 mm
95/95 mm² = 5 mm
120/120 mm² = 5 mm

mm²	art.-no.
70/70	99805
95/95	99782
120/120	99633

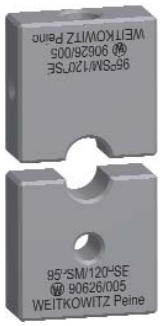
Not suitable for APi 35, HPi 35 and HPW 15 !

Dies mandrel-shape

for cable lugs out of stainless steel (page 51)

mm²	for use*	art.-no.	mm²	for use*	art.-no.
1.5-2.5	VA / Cu	91901	**50**	VA	91908
4-6	VA / Cu	91902	**50**	Cu	91909
10	VA / Cu	91903	**70**	VA	91910
16	VA / Cu	91904	**70**	Cu	91911
25	VA / Cu	91905	**95**	VA	91912
35	VA	91906	**95**	Cu	91913
35	Cu	91907			

* = VA / Cu: for stainless steel ropes und copper-conductors (finewiring and stranded-precompressed)
VA: only for stainless steel ropes
Cu: only for copper-conductors (finewiring and stranded-precompressed)



Dies for round forming

for rounding sector-shaped copper and aluminium conductors
crimping width: 16 mm

mm² sm	mm² se	art.-no.	mm² sm	mm² se	art.-no.
10	–	90620	**95**	120	90626
16	–	90621	**120**	150	90627
25	35	90622	**150**	185	90628
35	50	90623	**185**	240	90629
50	70	90624	**240**	300	90630
70	95	90625			

sm = stranded conductors se = solid conductors

Cutting die
art.-no.: 90654

for coarsewiring Al- and Cu cables without steel insertion up to 28 mm Ø

Cutting die
art.-no.: 90655

for finewiring copper cables up to 28 mm Ø.

These dies are not suited for cutting solid conductors. Please ask for our special solutions.

Not suitable for APi 35, HPi 35 and HPW 15 !

Special crimping tools

for example

battery-powered compression tool APi 40

with a press capacity of 130 kN developed
specially for big cross-sections and for heavy use.

- C-head for quick and easy insertion and removal of cable lugs and connectors
- knowingly robust designed crimping head, for example for special made crimping dies with big crimping width for quick working, also with big cross-sections of cable lugs and connectors
- handy tool, suitable just for small workrooms

technical data:

maximum piston stroke:	42 mm
head notch:	42 mm
operating pressure:	700 bar (70 MPa)
total measurements:	B 95 mm x L 430 mm x H 310 mm
weight:	6.5 kg
battery:	lithium-ionen-technology 14.4v 3.0Ah
battery charger:	220 -240 V 50 -60Hz 7,2-18V
time of loading:	approx. 50 minutes

Hydraulic compression head HPW 40

The press head has a press capacity of 130 kN.
This special product is perfectly suitable for serial crimping of big cross sections and strong use.
Actuation with electro-pump or foot pump.

or our
compact hydraulic pump with accumulator CP700EC

Characteristics:

- rapid return of piston, thanks to high return capacity
- possibility to carry the special transportation bag with additional (optional) pockets, with shoulder strap or attached to a belt (optional)
- remote control
- Control by a microcontroller
- LED indicators for pressure OK, battery and display error present in any interference
- storage of all press processes and error messages on flash memory, read-through USB port

Technical data:		
	operating pressure:	630 bar (63 MPa)
	measurements:	290 x 190 x 205 mm
	weight:	approx. 4.6 kg (incl. Accu)
	power:	200 W
	accu voltage/capacity:	Li-Ion 18V DC 3,0 Ah
	range of use:	-20°C / +55°C continuous operation

Mention your processing problem to us.
You give the specifications, we offer the solution!

Battery-powered hydraulic cable cutter ASi 45

Battery-powered hydraulic cable cutter for cut off aluminium and copper cables as well as ALU-steel-wire up to 45 mm outside diameter.

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- 360° revolving head with quick opening and closing
- large cutting range, see chart below
- lithium-ionen-battery without memory effect,self-discharges very low
- high capacity due to 3.0 Ah battery
- fastening eye for balance and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- integrated electronic module for:
  - permanent accumulator-loading state control
  - supervision of the working process and state announcement
  - announcement of the next service interval
  - mistake announcement at possible disturbances
- delivery completely with battery, battery charger, supporting loop for transport and safety, transport plastic case

technical data:

cutting force:	approx. 60 kN
operating pressure:	700 bar (70MPa)
operating voltage:	14.4 Volt
total measurements:	B 95 x L 360 x H 330 mm
weight:	5.4 kg (incl. battery)
battery charger:	220-240 V 50-60Hz 7.2-18V
time of loading:	approx. 50 minutes

art.-no. 91182

Hydraulic cable cutter HSi 45

Hydraulic cable cutter for cutting aluminium and copper cables, as well as ALU-steel-wire up to 45 mm outside diameter.

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- snap closing head, 270° revolving
- large cutting range, see chart below
- single-hand control in the high-speed pushing forward by an inner handle
- delivery with transport plastic case

technical data:

cutting force:	approx. 60 kN
operating pressure:	700 bar (70 MPa)
weight:	5.7 kg
length:	600 mm

art.-no. 91172

Application area: ASi 45 and HSi 45		tensile strength N/mm²	ø 9 mm	ø 11 mm	ø 13 mm	ø 15 mm	ø 17 mm	ø 19 mm	ø 21 mm	ø 23 mm	ø 25 mm	ø 27 mm	ø 29 mm	ø 31 mm	ø 33 mm	ø 35 mm	ø 37 mm	ø 39 mm	ø 41 mm	ø 43 mm	ø 45 mm	ø 47 mm
copper	wires and cables	< 410																				
	round stock	< 300																				
	round stock	< 250																				
aluminium	round stock	< 340																				
	wires and cables	< 200																				
	round stock	< 160																				
aldrey	cables	< 340																				
alu/steel	wires	< 1800																				
steel	wires	< 2200																				
	round stock	< 600																				
	round stock	< 420																				
	wires (>200 conductors)	< 180																				

Battery-powered hydraulic cable cutter ASi 50 F

Battery-powered hydraulic cable cutter for cut of fine wiring aluminium and copper cables (without steel insertion) up to 50 mm outside diameter

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- 360° revolving head with quick opening and closing
- large cutting range, see chart below
- lithium-ion-battery without memory effect, self-discharges very low
- high capacity due to 3.0 Ah battery
- fastening eye for balance and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- integrated electronic module for:
  - permanent accumulator-loading state control
  - supervision of the working process and state announcement
  - announcement of the next service interval
  - mistake announcement at possible disturbances
- **delivery completely with battery, battery charger, supporting loop for transport and safety, transport plastic case**

technical data:

cutting force:	approx. 60 kN
operating pressure:	700 bar (70 MPa)
operating voltage:	14.4 Volt
tool measurements:	B 95 x L 465 x H 310 mm
weight:	5.4 kg (incl. battery)
battery charger:	220-240 V 50-60Hz 7.2-18V
time of loading:	approx. 50 minutes

art.-no. 91185

Hydraulic hand-operated cable cutter HSi 50 F

Hydraulic cable cutter for cut of fine wiring aluminium and copper cables (without steel insertion) up to 50 mm outside diameter.

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- snap closing head, 270° revolving
- large cutting range, see chart below
- single-hand control in the high-speed pushing forward by an inner handle
- **delivery with transport plastic case**

technical data:

cutting force:	approx. 60 kN
operating pressure:	700 bar (70 MPa)
weight:	5.13 kg
length:	610 mm

art.-no. 91175

Application area: ASi 50 F and HSi 50 F		tensile strength N/mm²	≤ ø 20 mm	ø 25 mm	ø 30 mm	ø 35 mm	ø 40 mm	ø 45 mm	ø 50 mm	ø 55 mm
copper	cable	< 410								
aluminium	cable	< 210								

Battery-powered hydraulic cable cutter ASi 85

Battery-powered hydraulic cable cutter for cut of fine wiring aluminium and copper cables (without steel insertion) up to 85 mm outside diameter

advantages:
- extremely quick processing due to a two-stage hydraulic pump
- 360° revolving head with quick opening and closing
- large cutting range, see chart below
- lithium-ion-battery without memory effect, self-discharges very low
- high capacity due to 3.0 Ah battery
- fastening eye for balance and carrying strap available
- ergonomic handle with a balanced weight distribution for sure work free of tiredness
- case, handle shell and pressure discharge key completely from isolated and push-firm plastic material
- integrated electronic module for:
  - permanent accumulator-loading state control
  - supervision of the working process and state announcement
  - announcement of the next service interval
  - mistake announcement at possible disturbances
- **delivery completely with battery, battery charger, supporting loop for transport and safety, transport plastic case**

technical data:

cutting force:	approx. 70 kN
operating pressure:	700 bar (70 MPa)
operating voltage:	14.4 Volt
tool measurements:	B 95 x L 550 x H 310 mm
weight:	7.0 kg (incl. battery)
battery charger:	220-240 V 50-60Hz 7.2-18V
time of loading:	approx. 50 minutes

Application area:		tensile strength N/mm²	ø 50 mm	ø 55 mm	ø 60 mm	ø 65 mm	ø 70 mm	ø 75 mm	ø 80 mm	ø 85 mm	ø 90 mm
copper	cables	< 410									
aluminium	cables	< 210									

art.-no. 97028

Accessories to hydraulic battery-powered tools

Replacement battery
Li-Ion 14.4V 3.0Ah
weight: 0.56 kg
art.-no.: 91124

battery-adapter for mains-operation 230V AC
input: 220V–240V 50–60Hz
output: 14.4V
cable: EU-connector with supply line 5 m protection
device: short-circuit-protection and temperature protection
weight: 0.80 kg
art.-no.: 91126

battery charger 220V–240V 50–60Hz 7.2–18V
time of loading: approx. 50 minutes
weight: 0.55 kg
art.-no.: 91127

car-battery charger, connectable in cigarette lighter 12V
voltage range: 7.2V–18V
time of loading: approx. 50 minutes
weight: 0.58 kg
art.-no.: 91128

carrying srap for all battery tools from high quality nylon material
art.-no.: 91129

Hydraulic pumps and accessories

Two stage hydraulic pump
art.-no.: 90401

Hydraulic pressure max. 630 bar,
with safety valve und 3 m high pressure hose
weight: 8.7 kg, length: 63 cm, width: 17 cm

Electro-hydraulic 3-cylinder-radial-piston-pump with transport cart
art.-no.: 90407

Delivery rate 0.82 l/min., hydraulic pressure 630 bar,
voltage **3 x 400 V**. **50 Hz**, nominal capacity 0.75 kW,
delivery complete with transport cart, electric control, motor protection switch, pedal switch with 3-point-safety control, safety valve, magnetic valve and 3 m high-pressure hose.
Without press head.
weight: 30.4 kg

like above, but **version 230, 50 Hz,** delivery rate 0.64 l/min.
art.-no.: 90418

like above, but with **positioning** = as soon as the pedal isn't pedaled any more the pump stops. But the oil reflux starts not until a second pedal is pressed. So the bus bar punching unit and the bus bar bending unit can be positioned exactly by repeated pressings of the foot pedal.
Voltage: **3x400 V, 50 Hz**, delivery rate 0.82 l/min., **art.-no.: 90404**
Voltage: **230 V, 50 Hz**, delivery rate 0.64 l/min., **art.-no.: 90413**

Further versions are available on request.

Electro-hydraulic 3-cylinder-radial-piston-pump with rack
art.-no.: 90406

Delivery rate 0.82 l/min., hydraulic pressure 630 bar,
Voltage **3 x 400 V, 50 Hz**, nominal capacity 0.75 kW,
Delivery complete with rack for carrying, electric control, motor protection switch, pedal switch with 3-point-safety control, safety valve, magnetic valve and 3 m high-pressure hose.
Without press head.
weight: 24 kg

like above, but **version 230 V, 50 Hz,** oil delivery 0.64 l/min.
art.-no.: 90415

High pressure hose with steel mesh inlay, buckling protector and coupling

length: 3 m **art.-no.: 90409**
length: 5 m **art.-no.: 99955**
length: 10 m **art.-no.: 99956**

extension tube
available on request

hydraulic oil, 1-litre-tin
art.-no.: 90593

hydraulic oil, 5-litre-canister **art.-no.: 90594**
For replacement of oil.
Please use this special oil only.

Hydraulic cable cutter PS 50 F

Hydraulic cable cutter for cutting stranded copper - and aluminium conductors (without steel insertion) up to 50 mm outside diameter

advantages:

- light and compactly construction form
- cutting head with hinged breech block and knife guide
- large cutting range, see chart below
- clean cut
- delivery with transport case

technical data:	- cutting force:	approx. 60 kN
	- hydraulic pressure:	630 bar
	- weight:	2.89 kg
	- length:	305 mm

art.-no.: 90577

Application area:		tensile strength N/mm²	≤ ø 20 mm	ø 25 mm	ø 30 mm	ø 35 mm	ø 40 mm	ø 45 mm	ø 50 mm	ø 55 mm
copper	cable	< 410								
aluminium	cable	< 210								

Hydraulic cutter head HKW 700

Hydraulic cable cutter for cutting copper- and aluminium conductors **even with steel insertion** up to 70 mm outside diameter (e.g. coar-sewiring copper cables up to about 4x240 mm²)

advantages:

- hinged head
- extremely stable construction
- very big press capacity

technical data:	press capacity:	approx. 150 kN
	hydraulic pressure:	630 bar
	weight:	8.5 kg
	length:	430 mm

art.-no.: 90578

Hydraulic cutter PS 95

Hydraulic cutter for cutting copper- and aluminium conductors without steel insertion up to 95 mm outside diameter

advantages:

- easy handling by an open form
- open cutting head with knife guide
- with rugged handhold
- big cutting range, see chart below
- clean cut
- delivery with transport steel case

technical data:	- cutting force:	approx. 100 kN
	- hydraulic pressure:	630 bar
	- weight:	8.4 kg
	- length:	395 mm

art.-no.: 90589

Application area:		tensile strength N/mm²	≤ ø 50 mm	ø 55 mm	ø 60 mm	ø 65 mm	ø 70 mm	ø 75 mm	ø 80 mm	ø 85 mm	ø 90 mm	ø 95 mm	ø100 mm
copper	cable	< 410											
aluminium	cable	< 210											

Hydraulic cutter head HKW 1000

Hydraulic cable cutter for cutting stranded copper- and aluminium conductors **without steel insertion** up to 95 mm outside diameter or coarsewiring copper cables up to about 3 x 185 mm^2

advantages:

– head can be foulded
– big cutting range
– clean cut

technical data:	press capacity:	approx. 80 kN
	hydraulic pressure:	630 bar
	weight:	6.8 kg
	length:	530 mm

art.-no.: 90590

like above but stronger version for cutting copper and aluminium conductors, with or without steel jacket up to 95 mm outside diameter. Output force like above.
Attention: aluminium conductors with steel-core, steel cables or cables with steel-core cannot be cut.

art.-no.: 90591

Hydraulic safety cutting system SSA 95

Safety cutting system

Description of the safety cutting system:

The safety cutting system is a device for safe cable cutting when the cable may be live and the absence of tension cannot be checked with complete safety. Such a check is particularly difficult in metallic screened cables. Therefore, before proceeding with any cutting operations, it is essential to take adequate measure to guarantee the operator´s safety. One such measure is the use of an insulated cable cutter. This device – according to DIN EN 50340 (VDE 0682 part 661) – is made up essentially of a hydraulic pump and a cutting head to which a high pressure non-metallic hose of length 10.5 m is connected by a steady fitting.

Field of application:

According to § 6.2 of the safety regulations “Electric Systems and Materials” (BGV A 2, ex VGB 4) and § 6.2 of EN 50 110 (VDE 0105 part 100), before carrying out any work on grounding systems for voltages up to 30kV the absence of tension must be guaranteed for the entire duration of the operations.

As it is not always possible to make sure there is no tension at the point where we must operate, especially for ground cables, it is essential to avoid the problem by cutting the cable with a special insulated cable cutter and a the same time carrying out a check at the point of interruption, e.g. by checking at the main switchboard.

Potential balance connection - earthing:

For safety cutting system the DIN EN 50340 standard requires grounding the cutter head and establishing an equipotential connection between the pump and the ground. These regulations must however be implemented while respecting directives currently applicable in single countries. According to the BGI 845-ZH1/ 437 directives, for instance in Germany the cutting head cannot be individually grounded because the networks themselves are already grounded.

There must be however an equipotential connection between the pump and the ground.

Maintenance:

To guarantee correct operation, constant availability and long life of the safety cutting system, Weitkowitz suggests maintenance intervals of 2 years and the work to be done only by authorized technicians. If a cut must be made under tension, it is however always necessary to carry out a check on the entire system.

In according to DIN VDE 0105 part 100, clause 4.6 and VGB 4, safety cutting system must be checked by a qualified expert in measured time periods. According to GB regulations, the maintenance intervals must be defined and described by the manufacturer in the instructions for use.

Electric arc at the short circuit test

picture 1: 200 ms

picture 2: 800 ms

picture 3: 1.200 ms

picture 4: 1.600 ms

Pictures:

The pictures show the development in the course of a short circuit test and demonstrate considerable the danger for person at work under tension.Damage of persons can be avoided only by using the safety cutting system.

Hydraulic safety cutting system SSA 95 according to DIN EN 50340

30.000V
EN50340 . 2001

We are able to offer you also a 60 kV variant. Please send us your enquiry.

Hydraulic safety cutting system according to DIN EN 50340 to safe cutting of aluminium and copper cables without steel insertion up to 95 mm outside diameter.

the system contains:
- two stage hydraulic pump
- hydraulic cable cutter PS 95
- high pressure hose 10.5 m
- earthing bolt for SSA 95
- earthing cable for SSA 95
- transport case from plastic

30.000V
EN50340 . 2001

advantages:
- checked security with GS sign
- extremely quick processing due to a two-stage foot operated pump
- low weight by the use of light metal alloys and materials which are free of corrosion
- open cutting head with knife guide
- with rugged handhold
- big cutting range, see chart below
- clean cut
- delivery include transport case for the transport all components

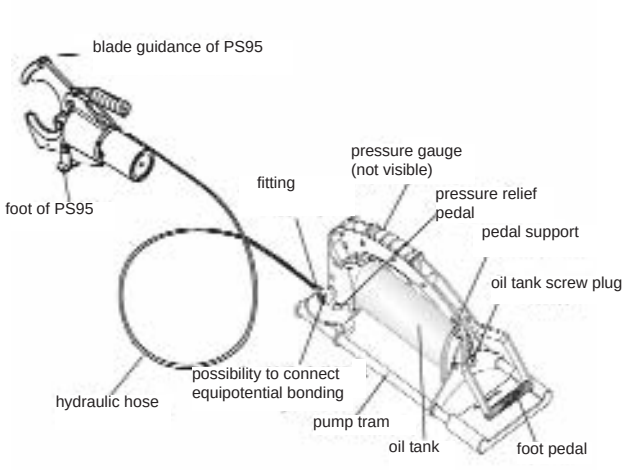
technical data:

cutting capacity:	approx. 100 kN
operating pressure:	625 bar
weight:	27 kg
operating temperature:	- 20°C to + 40°C
measures trolley:	640 x 520 x 365 mm

art.-no.: 90570

Application area:		tensile strength N/mm²	< ø 50 mm	ø 55 mm	ø 60 mm	ø 65 mm	ø 70 mm	ø 75 mm	ø 80 mm	ø 85 mm	ø 90 mm	ø 95 mm	ø100 mm
copper	cable	< 410											
aluminium	cable	< 210											

Configuration of the safety cutting system:



Hydraulic compression system HPW 18

Hydraulic compression head for crimping cable lugs and connectors up to 1000 mm². With the help of an adaptor all dies of HPW 15 and 17 (up to 95 mm²) can be used

advantages:

- small weight compared to the range of application
- excellent cost-performance ratio
- hinged head, therefore quick insertion and removal of cable lugs and dies
- extendable system for bending, punching and cutting copper and aluminium bus bars
- quick connection via plug-in coupling, free of leakage

technical data:
hydraulic pressure: max. 630 bar
press capacity: approx. 200 kN
length: 385 mm
weight: 7.5 kg

The press head can be uncoupled from the cylinder. Both parts are delivered separately (therefore please order separately by using the article numbers named below). The cylinder is also suitable for being connected to the units for punching, bending and cutting aluminium and copper bus bars.

cylinder HPZ 25 **art.-no.: 90662**
press head HPK 18 **art.-no.: 90663**

Clamping jaws for a trouble free clamping
of the cylinder HPW 25 into a vice

art.-no.: 90661

Dies WM-shape

for crimping WEITKOWITZ cable lugs and connectors of the **standard-series** (page 9 – 16).
Not suitable for cable lugs from other manufacturers

mm²	art.-no.	mm²	art.-no.
120	90670	**300**	90674
150	90671	**400**	90675
185	90672	**500**	90676
240	90673	**630**	90677

Dies WM-shape

only for processing cable lugs and conntectors of the **euro-series** (page 27, 28, 29, 31, 32, 33, 34).

mm²	art.-no.	mm²	art.-no.
120	90695	**300**	90674
150	90671	**400**	90675
185	90672	**500**	90676
240	90673	**630**	90677

Compression dies for HPW 18

Dies hexagonal-shape

for crimping compression copper cable lugs DIN 46235 (p.37,38,39,41) compression copper connectors DIN 46 267 part 1(p.43,44) and compression aluminium and alu/copper cable lugs and connectors (p.46,49)

die code no.	Cu mm²	Al mm²	art.-no.
20	120	–	90681
22	150	95 + 120	90682
25	185	150	90683
28	240	185	90684
32	300	240	90685
34	–	300	90686
38	400	–	90687
38	–	400	90678
42	500	–	90688
44	–	500	90679
44	625	–	90690
52	–	625	90680
52	800	–	90691
58	–	800	90689
58	1000	–	90692

Adapter dies

art.-no.: 90693

With the help of this adaptors all crimping dies of HPW 15 and HPW 17 up to 95 mm² (catalogue page 144 - 146) can be used with the compression system HPW 18.
(This doesn't apply for cutting dies and dies for h-shape)

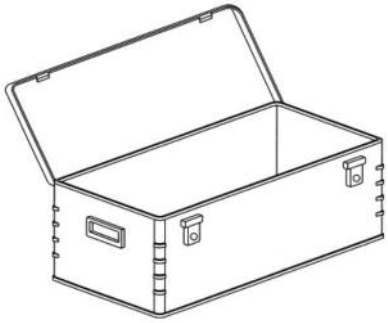
Cutting dies

art.-no.: 90694

Cutting dies for HPK 18, applicable for
- coarsewiring aluminium and copper cables without steel insertion up to 36 mm Ø
- finewiring copper cables up to 36 mm Ø

These dies are not suited for cutting solid conductors. Please ask-for our special solutions

Transport case



Transport case

art.-no.: 90799

Stable transport case made of aluminium sheet for keeping the footpump no. 90401 and hydraulic tools.

measurements inside approx. mm:	750 x 350 x 310
measurements outside approx. mm:	800 x 400 x 330
weight approx.:	6.0 kg

Special tools do we produce to your instructions

for example

Hydraulic compression system with C-head

Special made crimping head with an output force of 200 kN respectively 400 kN for series-production of big cross-sections, for heavy duty developed.

- C-head, ideally for continious quick working (side loading of connectors)
- knowingly robust designed crimping head, for example for special made crimping dies with big crimping width for quick working, also with big cross-sections of cable lugs and connectors

or our

Profile cutter with integral hand pump HPS 50

for cutting steel-profile up to 2 mm thickness

You give us your job-profile, we offer the solution!

hydraulic punching, bending and cutting tools for bus bars

Hydraulic working system 200 kN

Hydraulic working system, developed by WEITKOWITZ and protected with registered design. It allows the crimping of cable lugs up to 1000 mm² as well as the punching, bending and cutting of copper and aluminium bus bars.

Basic item is a cylinder with a hydraulic pressure of 630 bar and a press capacity of 200 kN. This cylinder can be easily connected to:

a) Press head with changeable dies for cable lugs up to 1000 mm².

b) Punching unit for punching holes up to 22 mm diameter into solid copper and aluminium bus bars with max. thickness of 12 mm. The immersion depth is 60 mm at the middle of the hole. Therefore bus bars with 120 mm width can be punched concentrically. Two millimetre long, precise depth stops and a tip at the punching pins enable a most precisely puchning and a high repeat accuracy.

c) Bending unit for bending copper and aluminium bus bars up to 120 mm width and 12 mm thickness. The tight bending radius enables a space-saving bending. The currently achieved bending angle can be read of a scale fixed at the tool.

d) Cutting unit for cutting copper and aluminium bus bars up to 120 mm width and 12 mm thickness.

All components are delivered separately. Since the cylinder is needed only once our customers can assemble a flexible system with an excellent cost-performance ratio for crimping cable lugs as well as bending, cutting and punching bus bars.

Special design on request!

Hydraulic punching unit HLW 120

Hydraulic punching unit for punching holes into copper or aluminium bus bars up to 12 mm thickness. The maximum hole depth is 60 mm. Therefore bus bars with 120 mm width can be punched concentrically.

Advantages:

– with tapped holes for screwing on a workbench
– for nearly all existing bus bars
– two accurate to a millimetre adjustable depth stops, exact centre marks and punching pins with tip enable a precise punching with a high repeat accuracy

Technical data:

hydraulic pressure:	max. 630 bar
press capacity:	ca. 200 kN
length including cylinder:	410 mm
weight including cylinder:	12.0 kg

The cylinder can be uncoupled from the punching unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the press head HPK 18, to the bending unit HBW 120 and the cutting unit HSW 120. As a driving unit we recommend our two stage hydraulic pump no. 90401 or our electro-hydraulic 3-cylinder-radial-piston-pump with positioning no. 90404.

cylinder HPZ 25, art.-no.: 90662
punching unit HLW 120, art.-no.: 90560

Punching pins with matrix for hydraulic punching unit HLW 120, only for punching copper or aluminium bus bars.
pin with tip, surface: coated

hole diameter in mm	max. thickness of bus bars from - to	art.-no
5.5	2 – 6 mm	90561
6.6	4 – 8 mm	90562
9.0	5 – 10 mm	90563
11.0	5 – 12 mm	90564
13.5	5 – 12 mm	90565
15.5	5 – 12 mm	90566
17.5	5 – 12 mm	90567
21.5	5 – 12 mm	90568

Hydraulic bending unit HBW 120

Hydraulic bending unit for bending solid copper or aluminium bus bars up to 120 mm width and 12 mm thickness.

advantages:

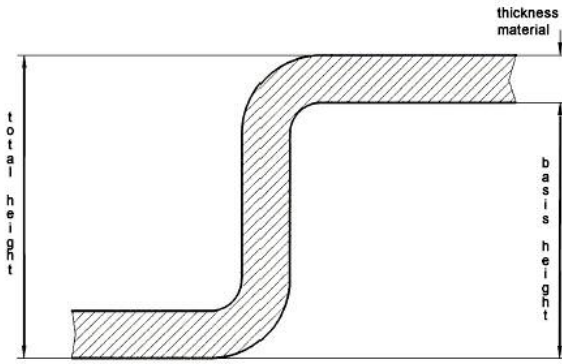
– with tapped holes for screwing on a workbench
– with two lateral parallel-stops for exact angulary positioning of bus bars
– with scale for reading off the current bending angle

technical data:

hydraulic pressure:	max. 630 bar
press capacity:	ca. 200 kN
length including cylinder:	345 mm
weight including cylinder:	13.7 kg

The cylinder can be uncoupled from the bending unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the press head HPK 18, to the punching unit HLW 120 and to the cutting unit HSW 120. As a driving unit we recommend our two stage hydraulic pump no. 90401 or our electro-hydraulic 3-cylinder-radial-piston-pump with positioning no. 90404.

cylinder HPZ 25,	**art.-no.: 90662**
hydraulic bending unit HBW 120,	**art.-no.: 90556**



Dimensional limit for bending steps with the bending unit HBW 120:

basis height at least 66 mm

total height = basis height + thickness of material

bending angle: 8 mm

Hydraulic cutting unit HSW 120

Hydraulic cutting unit for cutting solid copper and aluminum bus bars up to 120 width and 12 mm thickness.

advantages:

– great cutting capacity
– level and precise cut

technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 200 kN
length including Zylinder:	400 mm
weight including Zylinder:	13.1 kg

The cylinder can be uncoupled from the cutting unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the press head HPK 18, to the punching unit HLW 120 and to the bending unit HBW 120.

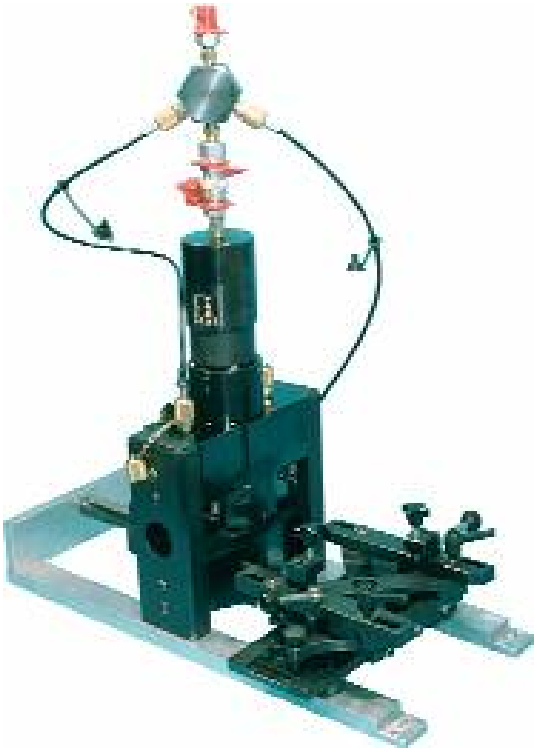
cylinder HPZ 25, **art.-no.: 90662**
cutting unit HSW 120, **art.-no.: 90558**

Work bench for HSW 120

Work bench for precise, right angled cutting of copper and aluminium bus bars up to 120 mm width, with scale for segments up to 500 mm length, total length: 925 mm.

art.-no. (without HSW 120): 90559

Hydraulic punching unit HLF 100



Hydraulic punching unit for punching holes into solid and flexible bus bars up to 100 mm width and 12 mm thickness, with positioning table and hole-templates for DIN-master gauge for holes.

advantages:

– Two additionally assembled clamping cylinders automatically press the flexible bus bars together before the process of cutting intrinsically starts. This enables punching precise holes free of burr.

– The positioning table combined with the hole template guarantee an exact positioning of bus bars and therefore an absolute repeat accuracy of punchings.

technical data:

hydraulic pressure:	max. 630 bar
press capacity:	approx. 200 kN

The cylinder can be uncoupled from the punching unit. Both parts are sold separately and therefore must be ordered separately. The cylinder can also be connected to the bending unit HBW 120, to the cutting unit HSW 120 (only suitable for solid bus bars). As a driving unit we recommend our two stage hydraulic pump no. 90401 or our electro-hydraulic 3-cylinder-radial-piston-pump with positioning no. 90404.

cylinder HPZ 25, art.-no.: 90662
hydraulic punching unit HLF 100, art.-no.: 90581

Punching pins with matrix

for hydraulic punching unit HLF 100, only for punching copper- or aluminium bus bars

hole-Ø in mm	max. thickness of bus bars from - to	art.-no.
5,5	3 mm – 5 mm	90579
6,6	3 mm – 6 mm	90582
9,0	3 mm – 8 mm	90583
11,0	3 mm – 10 mm	90584
13,5	3 mm – 12 mm	90585
15,5	3 mm – 12 mm	90586
17,5	3 mm – 12 mm	90587

Hydraulic bus conductor work system BLS 120

Hydraulic bus conductor work system for bending, punching, cutting and cranking of copper and aluminium bus bars up to 120 mm width and 12 mm thickness

advantages:
- robust and compact design, suitable for work in the factory and the building sit
- universal tool system: basic device (without accessories)
- suitable for every application case
- around different working tools expandable
- the electrical proximity switch guarantees 100 % bending repeatability
- the work bench adjusts in height with a side stop to make holes without tracing and measuring
- exact crank around the material thickness in one single work step possible
- an easy and quick tool change
- clean and burr-free cut by a special cutter blade geometry
- punching and cutting also of laminated bus bars and earth band possible

hydraulic pumps see catalogue page 151

technical data:

press capacity:	max. 185 kN
hydraulic pressure:	630 bar
measurements:	approx. 519 x 481 x 343 mm
weight:	55 kg

basic device (without accessories)
art.-no.: 91201

Accessories for hydraulic bus conductor work system BLS 120

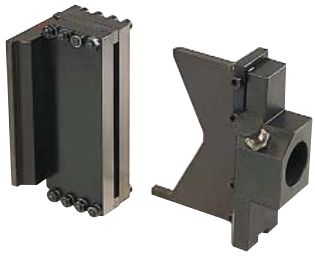
bending die bending punch

Bending tool for copper and aluminium bus bars up to max. 120 x 12 mm

	bending radius	bending angle	weight	art.-no.
bending punch *	R5	max. 110°	4.0 kg	91211
bending punch *	R8	max. 110°	4.1 kg	91212
bending punch *	R10	max. 110°	4.4 kg	91213
bending punch *	R20	max. 110°	5.0 kg	91214
back bending punch			3.8 kg	91215
bending die, suitable for stamps R5 to R20			3.3 kg	91210

* bending die “91210” is necessary

Accessories for
hydraulic bus conductor work system BLS 120



Cutting tool for solid copper and aluminium bus bars up to max. 120 x 12 mm

	weight	art.-no.
cutting tool complete	5.8 kg	91220

Cutting tool for laminated copper and aluminium bus bars up to max. 120 x 12 mm

	weight	art.-no.
cutting tool complete	9.0 kg	91225

please note: This cutting tool cannot be used for solid bus bars

Cranking tool for soild copper and aluminium bus bars up to max. 120 x 12 mm

	weight	art.-no.
Cranking tool complete with plates	11.0 kg	91230

Accessories for
hydraulic bus conductor work system BLS 120

Punching tool
for punching solid and laminated copper- and aluminium bus bars up to max. 120 x 12 mm
- for round holes of ø 6.5 up to 21 mm
- for long holes of ø 6.5 x 13 up to 17 x 20 mm

	weight	art.-no.
punching tool complete without stamps and matrices	4.3 kg	91235

Round hole puncher for above-named punching tool
for solid and laminated copper- and aluminum bus bars up to max. 12 mm

	hole ø in mm	art.-no.
round hole puncher include matrices and blank holder	6.5	91241
	7.0	91243
	8.5	91245
	9.0	91247
	10.0	91249
	10.5	91251
	11.0	91253
	12.0	91255
	12.5	91257
	13.0	91259
	14.0	91261
	14.5	91263
	15.0	91265
	17.0	91267
	18.0	91269
	19.0	91271
	21.0	91273

Long hole puncher for above-named punching tool for solid
and laminated copper- and aluminum bus bars up to max. 12 mm thickness

	hole ø in mm	art.-no.
long hole puncher include matrices and blank holder	6.5 x 13.0	91277
	6.5 x 21.0	91279
	8.0 x 20.0	91281
	8.5 x 16.0	91283
	9.0 x 20.0	91285
	10.5 x 13.0	91287
	11.0 x 20.0	91289
	13.0 x 17.0	91291
	13.0 x 20.0	91293
	14.0 x 20.0	91295
	17.0 x 20.0	91297

Hydraulic puncher HLW 138

Hydraulic puncher HLW 138 for punching holes into sheet steel. Working cylinder complete with tie screw 19 mm and 9.5 mm and a distance bush for the punchers listened below.

Technical data: hydraulic pressure: max. 700 bar
weight without puncher: 3.6 kg

art.-no.: 90500

Spare tie screw: 9.5 mm **art.-no.: 90550** 19 mm **art.-no.: 90551**

Ball-bearing screws for hand operation

9.5 x 50 mm **art.-no.: 90553**
19.0 x 55 mm **art.-no.: 90554**
19.0 x 75 mm **art.-no.: 90555**

Anti-abrasion paste
This special paste prevents corosion and jamming and therefore the premature abrasion of heavy-duty parts. Please apply thinly to all puncher screws with a brush. tube 7 Gramm **art.-no.: 90548**
can 120 Gramm **art.-no.: 90549**

Round punchers

hole-Ø mm	PG-size	metric size	rough drill Ø mm	max.thickness of sheet steel St 37 mm	art.-no.
12.7	PG 7	M 12	11.0	2.0	90502
15.2	PG 9	–	11.0	2.0	90504
16.2	–	M 16	11.0	2.0	90505
18.6	PG 11	–	11.0	2.0	90506
20.4	PG 13	M 20	11.0	2.0	90508
22.5	PG 16	–	11.0	2.0	90510
25.4	–	M 25	11.0	2.0	90511
28.3	PG 21	–	11.0	2.0	90512
32.5	–	M 32	20.4	3.0	90513
37.0	PG 29	–	20.4	3.0	90514
40.5	–	M 40	20.4	3.0	90515
47.0	PG 36	–	20.4	3.0	90516
50.5	–	M 50	20.4	3.0	90517
54.0	PG 42	–	20.4	3.0	90518
60.0	PG 48	–	20.4	3.0	90520
63.5	–	M 63	20.4	3.0	90521

Square punchers

measurement of hole in mm	rough-drill Ø mm	max. thickness of sheet steel St 37 mm	art.-no.
46.0 x 46.0	28.3	3.0	90522
50.8 x 50.8	28.3	3.0	90524
68.0 x 68.0	28.3	3.0	90528
92.0 x 92.0	28.3	3.0	90530

Rectangular punchers

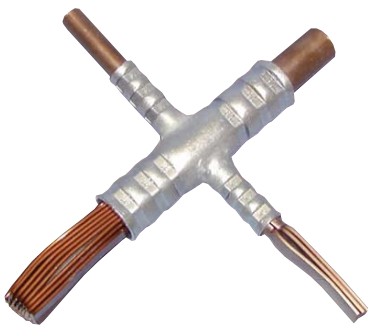
measurement of hole in mm	rough-drill Ø mm	max. thickness of sheet steel St 37 mm	art.-no.
22.0 x 30.0	16.2	2.0	90534
22.0 x 42.0	16.2	2.0	90536
31.7 x 34.9	16.2	2.0	90538
68.0 x 138.0	30.5	2.5	90540

The standard punchers listened above are not suitable for punching high grade steel (V2A) or similar materials! Punchers for high grade steel and special measurements on request!

Connection systems for special applications

For connecting massive conductors to several massive flat-copper-conductors securely we supply connectors and the referring crimping-systems especially designed for your field of application.
Before delivery we examine and document the quality of each connection carefully.

We produce round-forming tools for rounding or reforming one or several flat-copper-conductors which are especially designed for your needs.



Cross- or T-connectors with various pipe tees for connecting different types of conductors as well as thereon adjusted crimping tools are designed on customers request.

Innovative earthing terminals with DB and ÖBB certification

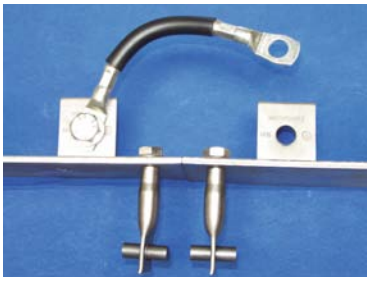
press technique earthing

earthing terminals at
base elements

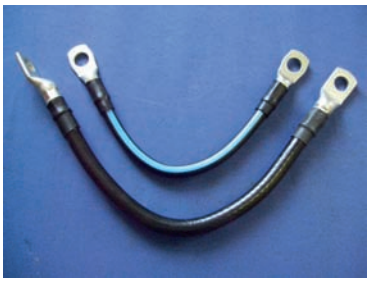
earthing terminals
WEB 1 and WEB 12

WEB 19 with
distance socket

WEB 12 with flat bar
underground construction



V4A 1.4571 stop rail



earthing terminals
with CuStAl 70 mm²
resp. steel rope 95 mm²

WEB 12 with O-type ring
at a tunnel wall

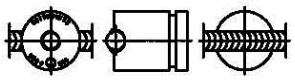
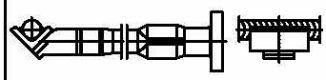
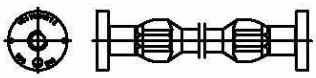
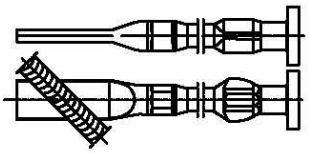
WEB 0 and cable lug
after saltspray test

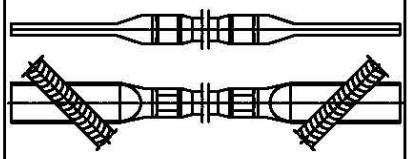
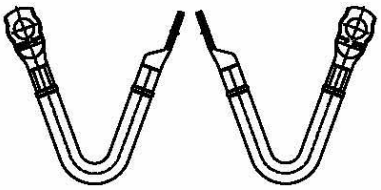
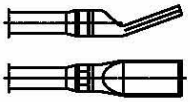
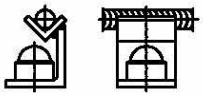
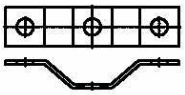
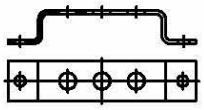
construction vehicle
earthing

high flexible
cable connection

screwed track connector
4 Ebs 15.13.51

Overview

designation	drawing
WEB 0 connection sleeve out of stainless steel V2A Ø 50mm	
WEB 1/ 8 connection sleeve out of Cu-ETP, tin plated and angle-connection out of steel with crimped power cable NYY-O 95mm² / 70mm², alternatively PVC- stranded conductor H07V-K 95mm² / 70mm²	
WEB 2 connecton sleeve out of Cu-ETP, tin plated, with crimped iron-rod Ø 16mm	
WEB 3 connecton sleeve out of Cu-ETP, tin plated, with crimped iron-rod Ø 16mm	
WEB 6 / 9 2 connection sleeves out of Cu-ETP tin plated, with crimped power cable NYY-O 95mm² / 70mm², alternatively PVC- stranded conductor H07V-K 95mm² / 70mm²	
WEB 7/10 2 angle-connectors out of steel with crimped power cable NYY-O 95mm² / 70mm², alternatively PVC-stranded conductor H07V-K 95mm² / 70mm²	
WEB 11/12 connection sleeve out of Cu-ETP, tin plated and cable lug out of steel with long flange and crimped power cable NYY-O 95mm² / 70mm², alternatively PVC- stranded conductor H07V-K 95mm² / 70mm²	

designation	drawing
WEB 13 / 14 2 cable lugs out of steel with long flange and crimped power cable NYY-O 95mm² /70mm², alternatively PVC- stranded conductor H07V-K 95mm² / 70mm²	
Cu-earthing connector: 4 EBS 15.03.17 2 compression cable lugs according to DIN 46235 with crimped power cable NYY-O 50mm² / 70mm² / 95mm²	
WEB 15 cable lug out of steel with long flange and crimped power cable NYY-O 50mm²	
WEB 16 connection sleeve out of stainless steel V2A Ø 50mm	
bus bar out of Cu-ETP, tin plated	
earthing bus (potential equalization) out of Cu-ETP, tin plated	

Innovative earthing terminals with EBA and DB certification.

Ask for our special catalogue in print-version or as pdf-file

Crimping instructions

Minimum necessary crimping quantity of WEITKOWITZ
cable lugs and connectors for **standard-series**.

		Weitkowitz type classifications and product numbers																	
cross-section	pressing	PW6/50	PW6/70	PW10/120	MP13	MP1	HPi10	AP10	HPW15	MP 2	HPi20	APi20	MPi20	HPW17	HPi30	HPi35	APi30	APi35	HPK18
in mm²	quantity x width	90180	90181	90185	90200	90300	91111	91120	90602	90260	91132	91142	90250	90651	91152	91157	91162	911675	90663
6	1 x 5 mm	■	■																
10	1 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
	1 x 7 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
16	1 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
	1 x 7 mm						■	■	■	■	■	■	■	■	■	■	■	■	
25	2 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
	1 x 9 mm					■	■	■	■	■				■	■	■	■	■	
	1 x 10 mm										■	■	■						
35	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
50	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
70	2 x 5 mm		■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
95	2 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 7 mm																		
	1 x 12 mm								■	■				■	■	■	■	■	
120	3 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 7 mm																		■
	1 x 12 mm								■	■				■	■	■	■	■	
150	3 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 7 mm																		■
185	3 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 7 mm																		■
240	3 x 5 mm						■	■			■	■	■						
	3 x 7 mm								■	■				■	■	■	■	■	■
	2 x 10 mm																		■
300	4 x 5 mm										■	■	■						
	3 x 7 mm													■	■	■	■	■	
	2 x 13 mm																		■
400	4 x 7 mm													■	■	■	■	■	
	2 x 13 mm																		■
500	3 x 13 mm																		■
630	3 x 13 mm																		■

Attention: Take care of the ' Assembly of cable lugs and connectors ' when processing.
Connectors: Minimum quantity of pressing for each side.

Crimping instructions

Minimum necessary crimping quantity of WEITKOWITZ
cable lugs and connectors for DIN46235/DIN46267-series.

			Weitkowitz type classifications and product numbers																	
cross-section in mm²	die-code	pressing quantity x width	DW6/50 90178	DW6/70 90182	DW10/120 90189	MP13 90200	MP1 90300	HPi10 91111	AP10 91120	HPW15 90602	MP 2 90260	HPi20 91132	APi20 91142	MPi20 90250	HPW17 90651	HPi30 91152	HPi35 91157	APi30 91162	APi35 91167	HPK18 90663
6	5	1 x 5 mm	■	■		■	■	■	■	■	■				■	■	■	■	■	
		1 x 7 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
10	6	1 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
		1 x 7 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
16	8	2 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
		1 x 12 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
25	10	2 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
		1 x 12 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
35	12	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		1 x 12 mm								■	■				■	■	■	■	■	
50	14	3 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		1 x 12 mm								■	■				■	■	■	■	■	
70	16	3 x 5 mm		■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	
		1 x 12 mm								■	■				■	■	■	■	■	
95	18	3 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
		2 x 10 mm								■	■				■	■	■	■	■	
120	20	3 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
		2 x 10 mm								■	■				■	■	■	■	■	■
150	22	4 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
		2 x 10 mm																		■
185	25	4 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
		2 x 10 mm																		■
240	28	4 x 5 mm								■	■	■	■	■	■	■	■	■	■	
		2 x 13 mm																		■
300	32	4 x 5 mm										■	■	■						
		4 x 7 mm													■	■	■	■	■	
		2 x 13 mm																		■
400	38	3 x 13 mm																		■
500	42	4 x 10 mm																		■
625	44	5 x 10 mm																		■
800	52	6 x 10 mm																		■
1000	58	6 x 10 mm																		■

Attention: Take care of the ' Assembly of cable lugs and connectors ' when processing.
Connectors: Minimum quantity of pressing for each side.

Crimping instructions

Minimum necessary crimping quantity of WEITKOWITZ
cable lugs and connectors for **euro-series**.

		Weitkowitz type classifications and product numbers																	
cross-section	pressing	WW6/50	WW6/70	WW10/120	MP13	MP1	HPi10	AP10	HPW15	MP 2	HPi20	APi20	MPi20	HPW17	HPi30	HPi35	APi30	APi35	HPK18
in mm²	quantity x width	90179	90186	90188	90200	90300	91111	91120	90602	90260	91132	91142	90250	90651	91152	91157	91162	91167	90663
6	1 x 5 mm	■	■		■	■	■	■	■	■				■	■	■	■	■	
	1 x 7 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
10	1 x 5 mm	■	■	■	■														
	1 x 7 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
16	2 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
	1 x 7 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
25	2 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
	1 x 12 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
35	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
50	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
70	2 x 5 mm		■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
95	2 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
	1 x 12 mm								■	■				■	■	■	■	■	
120	3 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 7 mm																		■
	1 x 10 mm								■	■				■	■	■	■	■	
150	3 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 7 mm																		■
185	3 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
	2 x 10 mm																		■
240	3 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
	3 x 7 mm								■	■				■	■	■	■	■	■
	2 x 10 mm																		■
300	4 x 5 mm										■	■	■						
	3 x 7 mm													■	■	■	■	■	
	2 x 13 mm																		■
400	4 x 7 mm													■	■	■	■	■	
	2 x 13 mm																		■
500	3 x 13 mm																		■
630	3 x 13 mm																		■

Attention: Take care of the ' Assembly of cable lugs and connectors ' when processing.
Connectors: Minimum quantity of pressing for each side.

Crimping instructions

Minimum necessary crimping quantity of WEITKOWITZ
cable lugs and connectors for finewiring conductors.

		Weitkowitz type classifications and product numbers													
cross-section in mm²	pressing quantity x width	FW10/70 90184	MP1 90300	HPi10 91111	AP10 91120	HPW15 90602	MP 2 90260	HPi20 91132	APi20 91142	MPi20 90250	HPW17 90651	HPi30 91152	HPi35 91157	APi30 91162	APi35 91167
10	1 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■
16	1 x 5 mm		■	■	■	■	■	■	■	■	■	■	■	■	■
	2 x 5 mm	■													
25	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■
35	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■
50	2 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■
70	2 x 5 mm		■	■	■	■	■	■	■	■	■	■	■	■	■
	3 x 5 mm	■													
95	3 x 5 mm		■	■	■	■	■	■	■	■	■	■	■	■	■
120	3 x 5 mm			■	■	■	■	■	■	■	■	■	■	■	■
150	3 x 5 mm			■	■	■	■	■	■	■	■	■	■	■	■
185	3 x 5 mm			■	■			■	■	■					
	3 x 7 mm					■	■				■	■	■	■	■
240	4 x 5 mm							■	■	■					
	3 x 7 mm										■	■	■	■	■

Attention: Take care of the ' Assembly of cable lugs and connectors ' when processing.
Connectors: Minimum quantity of pressing for each side.

Crimping instructions

Minimum necessary crimping quantity of WEITKOWITZ
cable lugs and connectors for **aluminium-series**.

			Weitkowitz type classifications and product numbers																	
cross-section in mm²	die-code	pressing quantity x width	DW6/50 90178	DW6/70 90182	DW10/120 90189	MP13 90200	MP 1 90300	HPi10 91111	AP10 91120	HPW15 90602	MP 2 90260	HPi20 91132	API20 91142	MPi20 90250	HPW17 90651	HPi30 91152	HPi35 91157	API30 91162	API35 91167	HPK18 90663
16	10	3 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
		1 x 12 mm					■	■	■	■	■	■	■	■	■	■	■	■	■	
25	12	4 x 5 mm	■	■	■	■	■	■	■	■	■				■	■	■	■	■	
		2 x 12 mm								■	■	■	■	■	■	■	■	■	■	
35	14	5 x 5 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
		2 x 12 mm								■	■				■	■	■	■	■	
50	16	5 x 5 mm		■	■		■	■	■	■	■	■	■	■	■	■	■	■	■	
		2 x 12 mm								■	■				■	■	■	■	■	
70	18	6 x 5 mm			■		■	■	■	■	■	■	■	■	■	■	■	■	■	
		3 x 10 mm								■	■				■	■	■	■	■	
95	22	6 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
		3 x 10 mm																		■
120	22	6 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
		3 x 10 mm																		■
150	25	6 x 5 mm						■	■	■	■	■	■	■	■	■	■	■	■	
		3 x 10 mm																		■
185	28	6 x 5 mm								■	■	■	■	■	■	■	■	■	■	
		3 x 13 mm																		■
240	32	6 x 5 mm										■	■	■						
		5 x 7 mm									■				■	■	■	■	■	
		3 x 13 mm																		■
300	34	3 x 13 mm													■	■	■	■	■	■
400	38	3 x 16 mm																		■
500	44	3 x 16 mm																		■
625	52	4 x 20 mm																		■
800	58	5 x 20 mm																		■

Attention: Take care of the ' Assembly of cable lugs and connectors ' when processing.
Connectors: Minimum quantity of pressing for each side.

Assembly of cable lugs and connectors

– in general –

1. Take the measurements of the cable lugs/ connectors and their allocation of cross section out of this catalogue.

2. Cut the cable right-angled to the conductor. Strip off the insulation of the cable. The part to be stripped of has to be as long as the sleeve (measurement a) of the cable lug/ connector + about 10%.

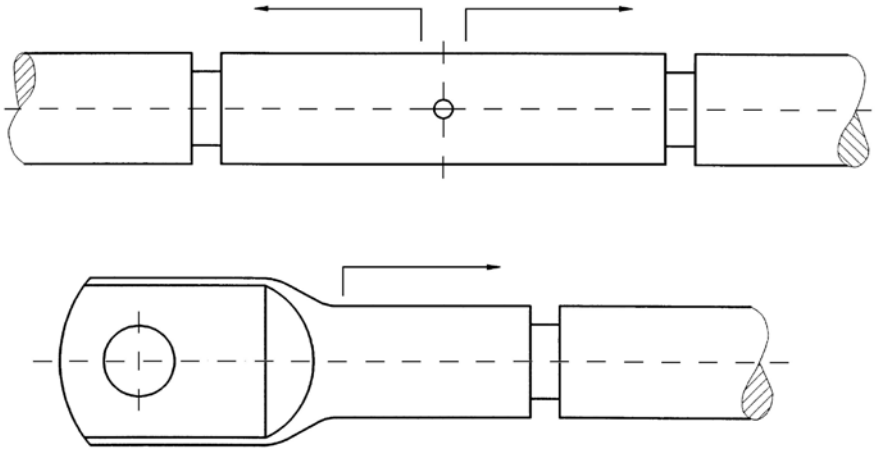
3. Before crimping clean the conductor with a wire brush in order to remove dirt and oxidation. Sector-shaped conductors must be rounded before crimping!

4. Insert the noninsulated conductor into the compression sleeve until it reaches the wire stop.

5. Before starting to crimp please check whether conductor and cable lug respectively connector have the same cross section and do fit to each other according to our catalogue.

6. Please check whether crimping tool and crimping dies are suitable for the cable lugs/ connectors you want to crimp. You can take this information for each series and cross section from the manufacturer's catalogue or the operating instructions of the tool.

7. Please pay attention to the quantity and the direction of crimping. If several crimpings are necessary (cp. catalogue and/ or operating instruction of the used tool) please follow the illustration below. Start crimping from the end of the cable and proceed in direction to the end of the sleeve (cp. illustration).



For the quantity of crimpings take notice of the charts on page 172 - 176

Crimping tool recommendation for twin cord-end-sleeves
(catalogue page 84)
checked in alliance with wire LiYV. H-05-K and H-07V-K (other wires on request)

cross section mm²	AZ 8 Nr. 90808	AZ 10 no. 90810	AZ 14 no. 90814	WZ 1 no. 90701	WZ 12 no. 90712	MP 13 no. 90200	AP 10 and HPi 10 no.: 91120/91111
2 x 0.25	position 0.08 - 10 mm²	X	X	die for end sleeves 0.5-16² die 0.5 - 0.75²			
2 x 0.34	position 0.08 - 10 mm²	X	X	die for end sleeves 0,5-16² die 0,5 - 0,75²			
2 x 0.5	position 0.08 - 10 mm²	X	X	die for end sleeves 0,5-16² die 1,0 - 1,5²			
2 x 0.75	position 0.08 - 10 mm²	X	X	die for end sleeves 0,5-16² die 1,0 - 1,5²			
2 x 1.0	position 0.08 - 10 mm²	X	X	die for end sleeves 0,5-16² die 2,5²			
2 x 1.5	position 0.08 - 10 mm²	X	X	die for end sleeves 0,5-16² die 2,5²			
2 x 2.5	position 0.08 - 10 mm²		X	die for end sleeves 0,5-16² die 4²		with die Nr. 90225	with die Nr. 91383
2 x 4.0	position 0.08 - 10 mm²			die for end sleeves 0,5-16² die 6²		with die Nr. 90226	with die Nr. 91384
2 x 6.0	position 16 mm²			die for end sleeves 0,5-16² die 10²	with die Nr. 90780	with die Nr. 90227	with die Nr. 91385
2 x 10.0					with die Nr. 90780	with die Nr. 90228	with die Nr. 91386
2 x 16.0					with die Nr. 90780	with die Nr. 90229	with die Nr. 91387

Electrical characteristics
Maximum allowable current load of cable lugs and connectors in conjunction with insulated conductors (at ambient temperature 30°C)

nominal cross section (mm²)	**Single cor cable** • rubber insulated • PVC insulated • TPE insulated • heat resistant Cu Current rating in A	**Multicore cables + cords, excl. home- and portable apparatus** • rubber insulated • PVC insulated • TPE insulated • heat resistant Cu Current rating in A	**Multicore heavy duty rubber cables** minimum 0,6 / 1 kV Cu Current rating in A
0.75	15	12	-
1	19	15	-
1.5	24	18	23
2.5	32	26	30
4	42	34	41
6	54	44	53
10	73	61	74
16	98	82	99
25	129	108	131
35	158	135	162
50	198	168	202
70	245	207	250
95	292	250	301
120	344	292	-
150	391	335	-
185	448	382	-
240	528	453	-
300	608	523	-
400	726	-	-
500	830	-	-
Sources of current ratings:	DIN VDE 0298-4, 2003-08 Table 11 Column 2	DIN VDE 0298-4, 2003-08 Table 11 Column 5	DIN VDE 0298-4. 2003-08 Tabelle15 Spalte 4+2

Note:
Design of these tables deviates from VDE 0298-4 design. In case of doubt, appliance of the current issue of the DIN VDE 0298-4 is obligatory.
Above Table values have to be taken into consideration of further applicable converting / derating factors:
- other ambient temperatures: DIN VDE 0298-4
- pay attention to the maximum electric current of the used equipment
- pay attention to the maximum current load of the used cable under consideration of the laying procedure

Temperature resistance:

Copper-cable lugs and -connectors without insulation:	up to max. 120°C (according to DIN 46 234)
Copper-cable lugs and -connectors with pa-insulation:	–55°C to +120°C
Copper-cable lugs and -connectors with PC-insulation:	–40°C to +120°C
Butt-connectors with shrink insulation: (S. 63):	–10°C to +105°C
Terminals with PVC (polyvinyl chloride) insulation:	–10°C to + 70°C
Terminals with PC (polycarbonate=makrolon) insulation:	–40°C to + 100°C
Terminals with PA (polyamide)-insulation:	–55°C to + 100°C
Brass terminals, tin plated, without insulation:	–55°C to + 100°C
Steel terminals, nickel-plated:	up to max. 250°C
Cord-end-sleeves with insulation:	up to max. 105°C
Nickel cable lugs and connectors:	up to max. 500°C
Cable lugs out of stainless steel:	up to max. 400°C
Push-in wire connectors with insulation:	up to max. 110°C

Silicone and halogen concentration of insulated connecting material

The following chart shows the concentration of silicone and halogen of insulated connection material delivered by us:

article description	catalogue page	free of silicone	free of halogen
Terminals, ring type	62 - 64	yes	yes
Terminals, fork type	65	yes	yes
Pin-terminals	66	yes	yes
Butt-connectors	66	yes	yes
Parallel-connectors	67	yes	yes
Heat shrinkable-butt splice connectors	67	yes	yes
Closed end connectors	67	yes	yes
Male und female disconnectors partly PVC - insulated	68	yes	no
Male und female disconnectors partly PC - insulated	68	yes	yes
Female disconnectors partly PA - insulated	69	yes	yes
Female disconnectors, fully insulated	69	yes	yes
Piggy back disconnectors PVC - insulated	70	yes	no
Piggy back disconnectors PC - insulated	70	yes	yes
Flag female disconnectors	70	yes	yes
Receptacle disconnectors PVC - insulated	70	yes	no
Bullet disconnectors partly PVC - insulated	71	yes	no
Bullet disconnectors partly PC - insulated	71	yes	yes
Receptacle and bullet disconnectors, fully insulated	71	yes	yes
Insulated housings	73	yes	yes
Insulated male tabs no. 44064, 44067, 44069, 44071, 44073, 44075	75	yes	no
Insulated male tabs no. 44065	75	yes	yes
Insulated male tabs no. 44068	75	yes	yes
Cord-end-sleeves	82 + 83	yes	yes
Twin cord-end-sleeves	84	yes	yes
Cord-end-sleeves for short circuit resistant conductors	84	yes	yes
Cord-end-sleeves, strip form	88	yes	yes

Technical information for shrinkable tubings

technical information	type W 135	type W 135 tr	type W 135 3:1	type WKS 3:1	type WDW	type W 135 gr/ge
material	polyolefin	polyolefin	polyolefin	polyolefin	polyolefin	polyolefin
colour	black	transparent	black	black	black	green/yellow
shrinking proportion	2:1	2:1	3:1	3:1	3:1	3:1
heat resistance	–55°C to + 135°C	–55°C to + 135°C	–55°C to + 135°C	–55°C to + 110°C (outer casing)	–55°C to + 110°C	–55°C to + 135°C
shrinking temperature	min. 110°C	min. 110°C	min. 90°C	min. 95°C	min. 120°C	min. 90°C
dielectric break-down strength/norm	24kV/mm according VDE 0303T.2	26kV/mm according VDE 0303T.2	24kV/mm according VDE 0303T.2	22kV/mm according VDE 0303T.2	20kV/mm according ASTM-D149	24kV/mm according VDE 0303T.2
further information	UL224 accredited free of silicone	free of silicone	UL224 accredited free of silicone	free of silicone	free of silicone	free of silicone

technical information	type W 135 bl	type WHF	type W 135 B	type W 135 gr/ge B	shrinkable tubing set no. 90859
material	polyolefin	polyolefin	polyolefin	polyolefin	polyolefin
colour	blue	black	black	green/yellow	diff. colours
shrinking proportion	3:1	2:1	2:1	2:1	2:1
heat resistance	–55°C to + 135°C	–40°C to + 105°C	–55°C to + 125°C	–55°C to + 125°C	–55°C to + 135°C
shrinking temperature	min. 90°C	min. 115°C	min. 90°C	min. 90°C	min. 110°C
dielectric break-down strength/ norm	24kV/mm according VDE 0303T.2	24kV/mm according IEC 243	20kV/mm according IEC 243	20kV/mm according IEC 243	24kV/mm according VDE 0303T.2
further information	UL224 accredited free of silicone	free of silicone	UL224/VW1 accredited free of silicone	UL224/VW1 accredited free of silicone	UL224 accredited free of silicone

technical changes reserved

The specified wall thickness (mm) on pages 95 - 98 are refer to the wall-thickness after completely shrinking!

copper notations

In line with the harmonisation of European standards the DIN 40500, DIN1787 and DIN 1754 page 1 had been cancelled and replaced by the European standards EN 13599, EN 13600, EN 13601 and EN 13605. Simultaneously the notations of copper materials have changed. The following chart gives an overview:

former notation	new notation	EN-number	standard	copper content at least
E-Cu 58	Cu-ETP	CW004A	DIN EN 13599 DIN EN 13600 DIN EN 13601	99,90 %
E-Cu 57	-	-	-	99,90 %
SE-Cu	Cu-HCP	CW021A	DIN EN 13600 DIN EN 13599	99,95 %
	Cu-PHC	CW020A	DIN EN 13600	99,95 %
SF-Cu	Cu-DHP	CW024A	DIN EN 12449	99,90 %

We have all our copper notations adjusted to the new European standard. Therefore the names of the materials have changed but our high quality standard hasn't been affected in any way. Furthermore we will exclusively use copper with a copper concentration from at

cross section	Values for crimpings up to 10mm² except cord-end-sleeves (EN 60352 part 2 10/2002)			Values for blade terminals copper-conductors DIN EN 61210 (VDE 0613 part 6) release 9/1995		
	traction 100%	130%	150%	traction 100%		
0,2 mm²						
0,34 mm²						
0,5 mm²	60 N	78 N	90 N	56 N		
0,75 mm²	85 N	111 N	128 N	84 N		
1 mm²	108 N	140 N	162 N	108 N		
1,5 mm²	150 N	195 N	225 N	150 N		
2,5 mm²	230 N	299 N	345 N	230 N		
4 mm²	310 N	403 N	465 N	310 N		
6 mm²	360 N	468 N	540 N	360 N		
10 mm²	380 N	494 N	570 N			
	Values for copper crimpings from 10mm² DIN EN 61238-1 release 3/2004 except cord-end-sleeves (VDE 0220 Teil 100)			Values for aluminium crimpings from 16mm² (VDE 0220 Teil 100)		
	traction 100%	130%	150%	traction 100%	130%	150%
10 mm²	600 N	780 N	900 N			
16 mm²	960 N	1248 N	1440 N	640 N	832 N	960 N
25 mm²	1500 N	1950 N	2250 N	1000 N	1300 N	1500 N
35 mm²	2100 N	2730 N	3150 N	1400 N	1820 N	2100 N
50 mm²	3000 N	3900 N	4500 N	2000 N	2600 N	3000 N
70 mm²	4200 N	5460 N	6300 N	2800 N	3640 N	4200 N
95 mm²	5700 N	7410 N	8550 N	3800 N	4940 N	5700 N
120 mm²	7200 N	9360 N	10800 N	4800 N	6240 N	7200 N
150 mm²	9000 N	11700 N	13500 N	6000 N	7800 N	9000 N
185 mm²	11100 N	14430 N	16650 N	7400 N	9620 N	11100 N
240 mm²	14400 N	18720 N	21600 N	9600 N	12480 N	14400 N
300 mm²	18000 N	23400 N	27000 N	12000 N	15600 N	18000 N
400 mm²	24000 N*			16000 N	20800 N	24000 N
500 mm²	30000 N*			20000 N	26000 N	30000 N
625 mm²	37500 N*			25000 N*		
800 mm²	48000 N*			32000 N*		
1000 mm²	60000 N*			40000 N*		

cross section	cord-end-sleeves EN 60947-1 (VDE 0660 part 100) release 04/2008	EN 60999-1 release 12/2000
0,2 mm²	10 N	10 N
0,34 mm²	15 N	15 N
0,5 mm²	20 N	20 N
0,75 mm²	30 N	30 N
1 mm²	35 N	35 N
1,5 mm²	40 N	40 N
2,5 mm²	50 N	50 N
4 mm²	60 N	60 N
6 mm²	80 N	80 N
10 mm²	90 N	90 N
16 mm²	100 N	100 N
25 mm²	135 N	135 N
35 mm²	190 N	190 N
		EN 60999-2 release 4/2004
50 mm²	236 N	236 N
70 mm²	285 N	285 N
95 mm²	351 N	351 N
120 mm²	427 N	427 N
150 mm²	427 N	427 N
185 mm²	503 N	503 N
240 mm²	578 N	578 N
300 mm²	578 N	578 N

To pass the test according to the norm, the conductor in the crimping connection may not slide by 100% of the traction during 60 seconds holding time.

* The maximum Value of VDE 0220 part 100 is 20.000 N

Technical data / Authorisation of cable ties

General information
WEITKOWITZ polyamide cable ties are qualitative high-standard products made in the European Union. We only use pure polyamide 6.6 without adding any recycling compounds. Material and products subject to strict quality controls.

Features
The used polyamide 6.6 is self-extinguishing according to UL 94-V2 and free of halogen and silicon. Water absorption is approx. 2,5% at 23°C and 50% atmospheric moisture.

Resistance against chemicals
Among other things polyamide are resistant against dissolver, oils, benzin, hydrocarbon, sea water, alcohol, soap- and detergent agents.

Condition of processing
Temperature of processing during installation: –15 °C up to +60 °C

Application conditions
Regularly usage temperature after installation for
- Standard cable ties nature and black and cable ties with steel clip: –40 °C up to +85 °C
- Heat stabilized cable ties: –40 °C up to + 130 °C (temporary up to +145 °C)

Package and advice for storage
Usually we supply polymide cable ties in welded plastic bags á 100 or 50 pieces. To prevent the cable ties from desiccation the packages should remain close until processing. The ideal storage conditions are a temperature of about 20 oC and an air humidity of about 50%.

Authorisation
With WEITKOWITZ cable ties you choose certificated quality:

Certification-institute	Standard
POLYAMIDE-CABLE TIES	
Underwriters Laboratories UL (U.S.A.)	U.L. 94 – Flammability of Plastic Materials (raw material) U.L. 1565 – Wire Positioning Devices (finished product)
Germanischer Lloyd	IEC 60092-101, MIL-23190 E UL 1565
RINA	IEC 60092-101 flame retardant
DET NORSKE VERITAS	IEC 60092-101 BV Rules for the Classification
BUREAU VERITAS	IEC 60092 series, BV Rules for the Classification of Steel Ships
Lloyd's Register	UL 94-V2, UL 1565, MIL-S-23190E, IEC 60092-101
Military Standard (U.S.A.) American Defense Dept.	MIL-C-23190 Military Standard
IMQ	CEI EN 50146-I Ed.2000 and so to the essential requirements of the Policy B.T. 73/23 CEE and 93/68 CEE (mentioned for cable ties nature + black page 90+91)
IMQ	EN 50146:2000 and so to the essential requirements of the Policy B.T.73/23 CEE and further modifications (mentioned for cable ties with steel clip page 92)
	ROHS-conformity tested
CABLE TIES OUT OF STAINLESS STEEL	
Underwriters Laboratories UL (U.S.A.)	Wire Positioning Devices
DET NORSKE VERITAS	Rules for Classification of Ships and Mobile Offshore Units

The specific classification of a special kind of cable tie can be taken from the respective product pages.
Technical changes reserved.

Handling instructions for cable ties

Whenever working with cable ties the power you use to tighten a cable tie is very important. This power added with the load you want to fix results in the so called working load.

working load = tightening power + constant load

The tightening power should be approx.10 % of the working load. The working load can be calculated as follows:

$$\text{working load} = \frac{\text{tensile strength according to catalogue}}{\text{safety factor}}$$

Under normal conditions it is sufficient to calculate with a safety factor of two. But if the connection has to stand vibrations, pushes, strong strain or extensions the safety factor must be higher. If the temperature is usually below 0°C or above 40°C a safety factor of 10 is required.

If the constant load (+ 10% tightening power) is higher than the calculated working load of the used cable tie, it is necessary either to use several cable ties or a different cable tie with a higher tensile strength.

If cable ties are tightened by hand it is possible that especially when handling small cable ties, the forces, which occur during tightening the cable tie, are higher than its tensile strength. In this case the cable tie will open up or tear immediately or after a short time. Therefore we recommend using a special cable tie tension tool in order to guarantee a constant and adequate tightening power.

If you have any further questions don’t hesitate to contact us.

Technical data / general information

Pull-out-forces conductor/ cable lug:

WEITKOWITZ cable lugs/ -connectors which are processed with **WEITKOWITZ** crimping tools according to our crimping instructions have pull-out-forces look on page 181.

Please note, that a proper connection can only be guaranteed when using **WEITKOWITZ** crimping solderless cable connections in conjunction with **WEITKOWITZ** tools.

Crimping of solid conductors:

Cable lugs, connectors and crimping tools are designed for crimping stranded conductors unless differently indicated in our catalogue. For crimping on solid conductors, please clarify the processing with WEITKOWITZ before starting to crimp.

Tightening torques for fixture screws:

in accordance to EN60947-1, DIN 43673-1 oder DIN 46200:

size of thread	**brass (Cu M10 and more) (Nm)**	**steel 8.8 (Nm)**	**stainless steel (Nm)**
M5	2	2.5	3
M6	3	4.5	5.5
M8	6	10	15
M10	10	20	30
M12	14	40	60
M14	19	80	120
M16	25		
M20	36		
M24	50		

Examination of your WEITKOWITZ crimping tools:

We recommend a yearly examination (with permanent use shorter periods after agreement) of your WEITKOWITZ-crimping tools by our service-department. The fixed price contains a test certificate including an annual test badge.

Repair at crimping and cutting tools/ modification at tools:

Tools delivered by WEITKWOTIZ may not be changed in any way. In particular it is not allowed to make diameter holes. For troublefree clamping of hydraulic cylinders into a vice use only the suitable WEITKOWITZ jaws. Repairs of tools may only be executed by WEITKOWITZ service-departement.

Lending-service:

For special problems of connection or the management of special order situations we offer a wide range of lending-tools

Conductor cross section comparison

comparable ISO-cross section in mm²	AWG/ MCM	
	AWG	cross section mm²
0.14	26	0.128
0.2	24	0.205
0.34	22	0.325
0.5	20	0.519
0.75	18	0.823
1	-	-
1.5	16	1.31
2.5	14	2.08
4	12	3.31
6	10	5.27
10	8	8.35
16	6	13.3
25	4	21.2
35	2	33.6
-	1	42.4
50	0	53.4
70	00	67.5
95	000	85.0
-	0000	107.2
120	250 MCM	127
150	300 MCM	152
185	350 MCM	177
240	500 MCM	253
300	600 MCM	304

Colour of insulation

cross section mm²	colour of insulation
0.1 – 0.5	yellow
0.5 – 1	red
1.5 – 2.5	blue
4 – 6	yellow
10	red
16	blue
25	yellow
35	red
50	blue
70	yellow
95	red
120	blue
150	yellow

Numerical index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
11510	21	12017	50	13000	6, 26	13111	11, 30	13205	8
11511	21	12018	50	13001	6, 26	13112	11, 30	13206	8
11512	21	12076	50	13002	6, 26	13113	11, 30	13207	8
11513	21	12077	50	13005	6, 26	13115	11, 30	13208	8
11514	21	12078	50	13006	6, 26	13116	11, 30	13209	8
11515	21	12081	50	13007	6, 26	13117	11, 30	13210	8
11516	21	12082	50	13008	6, 26	13118	11, 30	13211	8
11517	21	12083	50	13010	6, 26	13120	11	13212	8
11518	21	12101	50	13011	6, 26	13121	11	13213	8
11520	21	12102	50	13012	6, 26	13122	11	13214	8
11521	21	12110	50	13013	6, 26	13123	11	13215	8
11522	21	12111	50	13015	6, 26	13134	13	13216	8
11523	21	12112	50	13016	6, 26	13135	13	13217	8
11525	21	12115	50	13017	6, 26	13136	13	13218	8
11526	21	12116	50	13018	6, 26	13140	13	13219	8
11527	21	12117	50	13020	6	13141	13	13220	8
11528	21	12118	50	13021	6	13142	13	13221	8
11530	21	12205	50	13022	6	13144	13	13222	8
11531	21	12206	50	13023	6	13145	13	13223	8
11532	21	12207	50	13024	6	13146	13	13224	8
11533	21	12210	50	13050	7	13147	13	13225	9
11535	22	12211	50	13051	7	13148	13	13226	9
11536	22	12212	50	13052	7	13150	13	13227	9
11537	22	12450	50	13055	7	13151	13	13228	9
11538	22	12454	50	13056	7	13152	13	13229	9
11539	22	12458	50	13057	7	13153	13	13230	9
11540	22	12460	50	13058	7	13154	13	13231	9
11541	22	12462	50	13060	7	13155	13	13232	9
11542	22	12510	51	13061	7	13156	13	13233	9
11543	22	12511	51	13062	7	13157	13	13234	9
11545	22	12512	51	13063	7	13159	13	13235	9
11546	22	12515	51	13065	7	13160	13	13236	9
11547	22	12516	51	13066	7	13161	13	13237	9
11548	22	12517	51	13067	7	13162	13	13238	9
11549	22	12705	51	13068	7	13165	14	13239	9
11550	22	12706	51	13070	7	13166	14	13240	9
11551	22	12707	51	13071	7	13167	14	13241	9
11552	22	12710	51	13072	7	13169	14	13242	9
11555	22	12711	51	13073	7	13170	14	13243	9
11556	22	12712	51	13076	7	13171	14	13244	9
11557	22	12715	51	13077	7	13172	14	13245	9
11560	22	12716	51	13078	7	13173	14	13246	9
11561	22	12720	51	13081	7	13174	14	13247	9
11562	22	12721	51	13082	7	13175	14	13248	9
11583	21	12722	51	13083	7	13176	14	13249	10, 28
11584	21	12725	51	13086	7	13178	14, 33	13250	10, 28
11585	21	12726	51	13087	7	13179	14, 33	13251	10, 28
12000	50	12727	51	13088	7	13180	14, 33	13252	10, 28
12001	50	12730	51	13100	11, 30	13181	14, 33	13253	10, 28
12002	50	12731	51	13101	11, 30	13182	14	13254	10, 28
12009	50	12732	51	13102	11, 30	13183	14, 33	13255	10, 28
12010	50	12733	51	13105	11, 30	13184	14, 33	13256	10, 28
12011	50	12735	51	13106	11, 30	13185	14, 33	13257	10, 28
12012	50	12736	51	13107	11, 30	13188	14	13259	10, 28
12015	50	12737	51	13108	11, 30	13189	14	13260	10, 28
12016	50	12738	51	13110	11, 30	13204	8	13261	10, 28

Numerischer Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
13262	10, 28	13338	12	13516	18	13586	19	13668	24
13263	10, 28	13339	12	13517	18	13588	19	13669	24
13264	10, 28	13340	12	13518	18	13589	19	13670	24
13265	10, 28	13341	12	13520	18	13590	19	13683	18
13266	10, 28	13342	12	13521	18	13592	19	13684	18
13269	10, 28	13344	12	13522	18	13593	19	13685	18
13270	10, 28	13345	12	13523	18	13595	19	13686	19
13271	10, 28	13346	12	13525	18	13597	19	13688	19
13275	10, 28	13347	12	13526	18	13598	19	13689	19
13276	10, 28	13348	12	13527	18	13610	18	13690	19
13281	9	13349	12	13528	18	13611	18	13692	19
13282	9	13350	12	13530	18	13612	18	13693	19
13283	9	13351	12	13531	18	13613	18	13695	19
13284	9	13352	12	13532	18	13614	18	13697	19
13285	9	13354	12	13533	18	13615	18	13698	19
13286	9	13355	12	13534	19	13616	18	13704	8
13287	9	13356	12	13535	19	13617	18	13705	8
13288	10, 28	13357	12	13536	19	13618	18	13706	8
13289	10, 28	13360	12, 31	13537	19	13620	18	13707	8
13290	10, 28	13361	12, 31	13538	19	13621	18	13708	8
13292	8	13362	12, 31	13539	19	13622	18	13709	8
13293	10, 28	13381	12	13540	19	13623	18	13710	8
13296	8	13384	12	13541	19	13625	18	13711	8
13297	9	13396	11	13542	19	13626	18	13712	8
13298	8	13410	15	13543	19	13627	18	13713	8
13299	9	13412	15	13545	19	13628	18	13714	8
13305	11	13414	15	13546	19	13630	18	13715	8
13306	11	13416	15	13547	19	13631	18	13716	8
13307	11	13418	15	13548	19	13632	18	13717	8
13308	11	13420	15	13549	19	13633	18	13718	8
13309	11	13450	15, 33	13550	19	13634	19	13719	8
13310	11	13452	15, 33	13551	19	13635	19	13720	8
13311	11	13454	15, 33	13552	19	13636	19	13721	8
13312	11	13456	15, 33	13554	15	13637	19	13722	8
13313	11	13458	15	13555	15	13638	19	13723	8
13314	11	13460	15	13556	15	13639	19	13724	8
13315	11	13462	15	13557	15	13640	19	13725	9
13316	11	13464	15	13558	15	13641	19	13726	9
13317	11	13466	15	13560	15	13642	19	13727	9
13318	11	13468	15	13561	15	13643	19	13728	9
13320	12	13470	15	13562	15	13645	19	13729	9
13321	12	13472	15	13563	15	13646	19	13730	9
13322	12	13474	15	13564	15	13647	19	13731	9
13323	12	13476	15, 33	13566	15	13648	19	13732	9
13325	12	13478	15, 33	13567	15	13649	19	13733	9
13326	12	13480	15, 33	13568	15	13650	19	13734	9
13327	12	13482	15, 33	13569	15	13651	19	13735	9
13328	12	13484	15, 33	13570	15	13652	19	13736	9
13330	12	13486	15, 33	13572	15	13660	24	13737	9
13331	12	13488	15, 33	13573	15	13661	24	13738	9
13332	12	13510	18	13574	15	13662	24	13739	9
13333	12	13511	18	13575	15	13663	24	13740	9
13334	12	13512	18	13576	15	13664	24	13741	9
13335	12	13513	18	13583	18	13665	24	13742	9
13336	12	13514	18	13584	18	13666	24	13743	9
13337	12	13515	18	13585	18	13667	24	13744	9

Numerischer Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
13745	9	13820	12	14021	36	14250	38	14327	40
13746	9	13821	12	14022	36	14251	38	14328	40
13747	9	13822	12	14023	36	14252	38	14330	40
13748	9	13823	12	14032	42	14254	38	14331	40
13749	10, 28	13825	12	14037	42	14255	38	14332	40
13750	10, 28	13826	12	14041	42	14256	38	14333	40
13751	10, 28	13827	12	14121	36	14257	38	14335	41
13752	10, 28	13828	12	14122	36	14259	38	14336	41
13753	10, 28	13830	12	14123	36	14260	38	14337	41
13754	10, 28	13831	12	14132	42	14261	38	14338	41
13755	10, 28	13832	12	14137	42	14262	38	14340	41
13756	10, 28	13833	12	14141	42	14263	39	14341	41
13757	10, 28	13834	12	14205	36	14264	39	14342	41
13759	10, 28	13835	12	14206	36	14265	39	14343	41
13760	10, 28	13836	12	14207	36	14266	39	14344	41
13761	10, 28	13837	12	14208	36	14269	39	14345	41
13762	10, 28	13838	12	14210	36	14270	39	14346	41
13763	10, 28	13839	12	14211	36	14271	39	14347	41
13764	10, 28	13840	12	14212	36	14273	39	14348	41
13765	10, 28	13841	12	14213	36	14274	39	14349	41
13766	10, 28	13842	12	14214	36	14275	39	14350	41
13769	10, 28	13844	12	14215	36	14276	39	14351	41
13770	10, 28	13845	12	14216	36	14279	39	14352	41
13771	10, 28	13846	12	14217	36	14280	39	14355	41
13775	10, 28	13847	12	14218	36	14281	39	14356	41
13776	10, 28	13848	12	14219	36	14282	37	14357	41
13781	9	13849	12	14220	36	14283	37	14360	41
13782	9	13850	12	14221	36	14284	37	14361	41
13783	9	13851	12	14222	36	14285	37	14362	41
13784	9	13852	12	14223	36	14286	39	14396	41
13785	9	13854	12	14224	36	14287	38	14420	44
13786	9	13855	12	14225	37	14288	38	14422	44
13787	9	13856	12	14226	37	14289	39	14424	44
13788	10, 28	13857	12	14227	37	14291	38	14458	43
13789	10, 28	13860	12	14228	37	14292	37	14460	43
13790	10, 28	13861	12	14229	37	14293	37	14462	43
13792	8	13862	12	14230	37	14294	38	14464	43
13793	10, 28	13881	12	14231	37	14295	38	14466	43
13796	8	13884	12	14232	37	14296	39	14468	43
13797	9	13896	11	14233	37	14297	39	14470	43
13798	8	13952	16, 34	14234	37	14306	40	14472	43
13799	9	13954	16, 34	14235	37	14307	40	14474	43
13805	11	13956	16, 34	14236	37	14311	40	14476	43
13806	11	13958	16	14237	37	14312	40	14478	43
13807	11	13960	16	14238	37	14313	40	14480	43
13808	11	13962	16	14239	37	14314	40	14482	43
13809	11	13964	16	14240	37	14315	40	14484	43
13810	11	13966	16	14241	37	14316	40	14486	43
13811	11	13968	16	14242	37	14317	40	14488	43
13812	11	13970	16	14243	37	14318	40	14490	43
13813	11	13972	16	14244	38	14320	40	14492	43
13814	11	13974	16	14245	38	14321	40	14514	42
13815	11	13976	16, 34	14246	38	14322	40	14516	42
13816	11	13978	16, 34	14247	38	14323	40	14518	42
13817	11	13980	16, 34	14248	38	14325	40	14520	42
13818	11	13982	16, 34	14249	38	14326	40	14566	44

Numerischer Index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
14568	44	14656	38	14733	40	15136	32	15257	27
14570	44	14657	38	14735	41	15137	32	15258	27
14572	44	14659	38	14736	41	15139	32	15259	27
14574	44	14660	38	14737	41	15140	32	15260	27
14576	44	14661	38	14738	41	15141	32	15261	27
14578	44	14662	38	14740	41	15142	32	15262	27
14580	44	14663	39	14741	41	15204	26	15263	27
14605	36	14664	39	14742	41	15205	26	15264	27
14606	36	14665	39	14743	41	15206	26	15265	27
14607	36	14666	39	14744	41	15207	26	15266	27
14608	36	14669	39	14745	41	15208	26	15267	27
14610	36	14670	39	14746	41	15209	26	15268	27
14611	36	14671	39	14747	41	15210	26	15269	27
14612	36	14673	39	14748	41	15211	26	15271	27
14613	36	14674	39	14749	41	15212	26	15272	27
14614	36	14675	39	14750	41	15213	26	15273	27
14615	36	14676	39	14751	41	15214	26	15274	27
14616	36	14679	39	14752	41	15215	26	15275	27
14617	36	14680	39	14755	41	15216	26	15276	27
14618	36	14681	39	14756	41	15217	26	15278	28
14619	36	14682	37	14757	41	15218	26	15279	28
14620	36	14683	37	14760	41	15219	26	15280	28
14621	36	14684	37	14761	41	15220	26	15281	28
14622	36	14685	37	14762	41	15221	26	15282	28
14623	36	14686	39	14796	41	15222	26	15283	28
14624	36	14687	38	14820	44	15223	26	15299	26
14625	37	14688	38	14822	44	15224	26	15305	30
14626	37	14689	39	14824	44	15225	26	15306	30
14627	37	14691	38	14858	43	15226	26	15307	30
14628	37	14692	37	14860	43	15227	26	15308	30
14629	37	14693	37	14862	43	15228	26	15309	30
14630	37	14694	38	14864	43	15229	26	15310	30
14631	37	14695	38	14866	43	15230	26	15311	30
14632	37	14696	39	14868	43	15231	26	15312	30
14633	37	14697	39	14870	43	15232	26	15313	30
14634	37	14706	40	14872	43	15234	26	15314	30
14635	37	14707	40	14874	43	15235	26	15460	33
14636	37	14711	40	14876	43	15236	26	15462	33
14637	37	14712	40	14878	43	15237	26	15960	34
14638	37	14713	40	14880	43	15238	26	15962	34
14639	37	14714	40	14882	43	15239	26	16020	26
14640	37	14715	40	14884	43	15240	26	16021	26
14641	37	14716	40	14886	43	15241	27	16022	26
14642	37	14717	40	14888	43	15242	27	16023	26
14643	37	14718	40	14890	43	15243	27	16024	26
14644	38	14720	40	14892	43	15244	27	16025	26
14645	38	14721	40	14966	44	15245	27	16120	30
14646	38	14722	40	14968	44	15246	27	16121	30
14647	38	14723	40	14970	44	15248	27	16122	30
14648	38	14725	40	14972	44	15249	27	16123	30
14649	38	14726	40	14974	44	15250	27	16124	30
14650	38	14727	40	14976	44	15251	27	16125	30
14651	38	14728	40	14978	44	15252	27	16145	32
14652	38	14730	40	14980	44	15253	27	16146	32
14654	38	14731	40	15134	32	15254	27	16147	32
14655	38	14732	40	15135	32	15256	27	16148	32

Numerical index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
16150	32	16247	28	16383	31	18344	23	18545	20
16151	32	16248	28	16384	31	18345	23	18546	20
16152	32	16281	27	16385	31	18346	23	18549	20
16153	32	16282	27	16392	30	18349	23	18550	20
16154	32	16283	27	16397	31	18350	23	18551	20
16155	32	16284	27	16458	33	18351	23	18553	20
16156	32	16285	27	16464	33	18354	23	18554	20
16157	32	16286	27	16466	33	18355	23	18555	20
16160	32	16287	28	16468	33	18356	23	18556	20
16161	32	16290	27	16470	33	18359	23	18559	20
16162	32	16292	27	16472	33	18360	23	18560	20
16165	32	16295	26	16474	33	18361	23	18561	20
16166	32	16296	26	16958	34	18380	23	18580	20
16167	32	16297	27	16964	34	18383	23	18583	20
16168	32	16315	30	16966	34	18384	23	18584	20
16169	32	16316	30	16968	34	18386	23	18586	20
16170	32	16317	30	16970	34	18393	23	18593	20
16171	32	16318	30	16972	34	18394	23	18594	20
16172	32	16319	30	16974	34	18395	23	18595	20
16173	32	16320	30	18220	29	18399	23	18599	20
16174	32	16321	30	18221	29	18430	23	18630	20
16175	32	16322	30	18224	29	18431	23	18631	20
16176	32	16323	30	18225	29	18435	23	18632	20
16177	32	16324	31	18226	29	18436	23	18635	20
16215	26	16325	31	18229	29	18437	23	18636	20
16216	26	16326	31	18230	29	18440	23	18637	20
16217	26	16327	31	18231	29	18441	23	18640	20
16218	26	16328	31	18232	29	18444	23	18641	20
16219	26	16329	31	18235	29	18445	23	18644	20
16220	27	16330	31	18236	29	18446	23	18645	20
16221	27	16331	31	18237	29	18449	23	18646	20
16222	27	16332	31	18240	29	18450	23	18649	20
16223	27	16333	31	18241	29	18451	23	18650	20
16224	27	16334	31	18244	29	18454	23	18651	20
16225	27	16335	31	18245	29	18455	23	18653	20
16226	27	16336	31	18246	29	18456	23	18654	20
16227	27	16337	31	18249	29	18459	23	18655	20
16228	27	16338	31	18250	29	18460	23	18656	20
16229	27	16340	31	18251	29	18461	23	18659	20
16230	27	16341	31	18254	29	18480	23	18660	20
16231	27	16342	31	18255	29	18483	23	18661	20
16232	27	16344	31	18256	29	18484	23	18680	20
16233	27	16345	31	18259	29	18486	23	18683	20
16234	27	16346	31	18260	29	18493	23	18684	20
16235	27	16347	31	18261	29	18494	23	18686	20
16236	27	16348	31	18280	29	18495	23	18693	20
16237	27	16349	31	18285	29	18499	23	18694	20
16238	27	16350	31	18290	29	18530	20	18695	20
16239	27	16351	31	18294	29	18531	20	18699	20
16240	27	16352	31	18330	23	18532	20	21212	46
16241	27	16354	31	18331	23	18535	20	21213	46
16242	27	16355	31	18335	23	18536	20	21216	46
16243	27	16356	31	18336	23	18537	20	21217	46
16244	28	16357	31	18337	23	18540	20	21222	46
16245	28	16381	30	18340	23	18541	20	21223	46
16246	28	16382	31	18341	23	18544	20	21226	46

Numerical index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
21227	46	21726	48	41010	54	41069	55	41318	58
21231	46	21727	48	41011	54	41070	56	41320	58
21232	46	21731	48	41012	54	41071	56	41400	59
21236	46	21732	48	41013	54	41072	56	41401	59
21237	46	21737	48	41014	54	41073	56	41404	59
21238	46	21738	48	41015	54	41074	56	41408	59
21240	46	21741	48	41016	54	41075	56	41410	59
21241	46	21742	48	41017	54	41076	56	41412	59
21242	46	21746	48	41018	54	41077	56	41414	59
21245	46	21747	48	41019	54	41078	56	41416	59
21246	46	21750	48	41020	54	41079	56	41418	59
21247	46	21751	48	41021	54	41081	56	41420	59
21248	46	21755	48	41022	54	41082	56	41422	59
21250	46	21756	48	41023	54	41083	56	41424	59
21251	46	21760	48	41024	54	41084	56	41426	59
21252	46	21761	48	41025	54	41086	56	41450	59
21255	46	21762	48	41026	54	41087	56	41451	59
21256	46	21765	48	41027	54	41088	56	41454	59
21257	46	21766	48	41028	54	41089	56	41458	59
21260	46	21770	48	41029	54	41091	56	41460	59
21261	46	21771	48	41030	54	41092	56	41462	59
21262	46	21810	49	41031	54	41093	56	41464	59
21264	46	21814	49	41032	54	41096	55	41466	59
21266	46	21816	49	41033	54	41097	55	41468	59
21268	46	21820	49	41034	54	41098	55	41470	59
21270	46	21822	49	41035	54	41099	55	41472	59
21272	46	21826	49	41039	55	41112	57	41474	59
21273	46	21828	49	41040	55	41113	57	41476	59
21462	47	21830	49	41041	55	41114	57	42001	62
21464	47	21834	49	41042	55	41115	57	42003	62
21466	47	21836	49	41043	55	41117	57	42005	62
21468	47	21838	49	41044	55	41118	57	42006	62
21470	47	21842	49	41045	55	41120	57	42009	62
21472	47	21844	49	41046	55	41121	57	42010	62
21474	47	21846	49	41047	55	41122	57	42011	62
21476	47	21852	49	41048	55	41123	57	42012	62
21478	47	21854	49	41049	55	41125	57	42013	62
21480	47	21860	49	41050	55	41126	57	42014	62
21482	47	21862	49	41051	55	41130	57	42015	62
21484	47	21866	49	41052	55	41131	57	42016	62
21486	47	21868	49	41053	55	41132	57	42017	62
21672	47	21874	49	41054	55	41133	57	42018	62
21674	47	21876	49	41055	55	41140	57	42019	62
21676	47	21903	48	41056	55	41141	57	42020	62
21678	47	21906	48	41057	55	41146	57	42021	62
21680	47	21909	48	41058	55	41147	57	42022	62
21682	47	21912	48	41059	55	41301	58	42023	62
21684	47	21915	48	41060	55	41302	58	42024	62
21686	47	21918	48	41061	55	41304	58	42025	62
21688	47	21921	48	41062	55	41305	58	42026	62
21690	47	21924	48	41063	55	41306	58	42027	62
21692	47	41001	54	41064	55	41308	58	42028	62
21716	48	41003	54	41065	55	41310	58	42029	62
21717	48	41005	54	41066	55	41312	58	42030	62
21722	48	41006	54	41067	55	41314	58	42031	62
21723	48	41009	54	41068	55	41316	58	42032	62

Numerical index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
42033	62	42134	65	44045	69	44320	72	51306	82
42034	62	42140	65	44046	69	44510	70	51311	82
42035	62	42141	65	44047	69	44512	70	51317	82
42040	63	42146	65	44049	69	44514	70	51318	82
42041	63	42147	65	44056	70	44516	71	51320	82
42042	63	42301	66	44060	70	44518	71	51322	82
42043	63	42302	66	44064	75	44520	71	51325	82
42045	63	42304	66	44065	75	44523	71	51328	82
42046	63	42305	66	44067	75	44526	71	51335	82
42047	63	42306	66	44068	75	44528	71	51336	82
42048	63	42308	66	44069	75	44530	71	51342	82
42050	63	42310	66	44071	75	44560	71	51344	82
42051	63	42312	66	44073	75	44563	71	51346	82
42052	63	42314	66	44075	75	44566	71	51348	83
42053	63	42400	67	44080	69	44610	68	51350	83
42054	63	42401	67	44081	69	44611	68	51352	83
42055	63	42404	67	44083	69	44612	68	51356	83
42056	63	42408	67	44084	69	44613	68	51360	83
42057	63	42430	67	44087	69	44614	68	51364	83
42058	63	42431	67	44090	69	44615	68	51368	83
42060	63	42434	67	44110	72	44616	68	51372	83
42061	63	42436	67	44111	72	44617	68	51376	83
42062	63	42450	66	44112	72	44618	68	51379	83
42064	64	42451	66	44113	72	44619	68	51380	83
42065	64	42454	66	44114	72	44620	68	51381	83
42066	64	42458	66	44116	72	44621	68	51382	83
42067	64	42484	67	44117	72	44625	70	51383	83
42068	64	42486	67	44120	72	44626	70	51384	83
42070	64	42488	67	44134	72	44631	68	51387	83
42071	64	44002	68	44135	72	44633	68	51388	83
42072	64	44003	68	44142	73	44634	68	51390	84
42073	64	44010	68	44143	73	44635	68	51392	84
42075	64	44011	68	44145	73	44636	68	51393	84
42076	64	44012	68	44147	73	44639	68	51394	84
42077	64	44013	68	44151	74	50011	88	51395	84
42078	64	44014	68	44152	74	50016	88	51396	84
42081	64	44015	68	44153	74	50021	88	51397	84
42082	64	44016	68	44155	74	50026	88	51398	84
42083	64	44017	68	44156	74	50031	88	51399	84
42097	63	44018	68	44157	74	50111	88	51400	84
42112	65	44019	68	44158	74	50116	88	51401	84
42113	65	44020	68	44159	74	50121	88	51402	80
42114	65	44021	68	44160	74	50126	88	51404	80
42115	65	44025	70	44161	74	50216	88	51406	81
42117	65	44026	70	44162	74	50231	88	51407	81
42118	65	44031	68	44163	74	51216	84	51408	81
42120	65	44033	68	44166	74	51220	84	51409	81
42121	65	44034	68	44167	74	51222	84	51410	80
42122	65	44035	68	44214	73	51224	84	51411	80
42123	65	44036	68	44217	73	51226	84	51412	80
42125	65	44039	68	44220	73	51228	84	51413	80
42126	65	44040	69	44234	73	51300	82	51414	80
42130	65	44041	69	44235	73	51301	82	51415	80
42131	65	44042	69	44236	73	51302	82	51416	80
42132	65	44043	69	44314	72	51303	82	51418	80
42133	65	44044	69	44317	72	51305	82	51419	80

Numerical index

Numerical index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
65630	98	90246	127	90327	130	90480	132, 145	90566	161
65701	96	90247	127	90328	130	90481	132, 145	90567	161
65703	96	90248	127	90329	130	90482	132, 145	90568	161
65706	96	90250	138	90331	129	90483	132, 145	90570	155
65709	96	90251	126	90332	129	90484	132, 145	90577	152
65712	96	90252	126	90333	129	90485	132, 145	90578	152
65715	96	90253	126	90334	129	90488	145	90579	164
65718	96	90254	126	90335	129	90489	145	90581	164
65721	96	90255	126	90371	130	90491	129	90582	164
65724	96	90260	131	90372	130	90492	129	90583	164
65727	96	90263	131, 144	90373	130	90493	129	90584	164
65730	96	90264	131, 144	90374	130	90494	129	90585	164
90131	122	90265	131, 144	90375	130	90495	129	90586	164
90160	122	90266	131, 144	90376	130	90496	129	90587	164
90165	122	90267	131, 144	90377	130	90497	129	90589	153
90170	122	90268	131, 144	90378	130	90500	168	90590	153
90178	123	90269	131, 144	90390	128	90502	168	90591	153
90179	123	90270	144	90393	128	90504	168	90593	151
90180	122	90271	144	90394	128	90505	168	90594	151
90181	123	90272	131, 144	90395	128	90506	168	90601	143
90182	124	90273	131, 144	90398	128	90508	168	90602	143
90184	124	90278	132, 145	90401	151	90510	168	90604	131, 144
90185	125	90279	132, 145	90404	151	90511	168	90605	131, 144
90186	124	90280	132, 145	90406	151	90512	168	90606	131, 144
90188	125	90281	132, 145	90407	151	90513	168	90607	131, 144
90189	125	90282	132, 145	90409	151	90514	168	90620	133, 146
90200	126	90283	132, 145	90413	151	90515	168	90621	133, 146
90202	126	90284	132, 145	90415	151	90516	168	90622	133, 146
90203	126	90285	132, 145	90418	151	90517	168	90623	133, 146
90204	126	90286	132, 145	90430	128	90518	168	90624	133, 146
90205	126	90287	132, 145	90431	131, 144	90520	168	90625	133, 146
90206	126	90288	132, 145	90432	126	90521	168	90626	133, 146
90208	126	90289	132, 145	90440	132, 144	90522	168	90627	133, 146
90209	126	90290	145	90441	132, 144	90524	168	90628	133, 146
90210	126	90291	132	90442	132, 144	90528	168	90629	133, 146
90211	126	90292	145	90443	132, 144	90530	168	90630	133, 146
90212	126	90299	133	90444	132, 144	90534	168	90633	133, 145
90213	126	90300	128	90445	132, 144	90536	168	90634	133, 145
90221	127	90301	128	90446	132, 144	90538	168	90635	133, 145
90222	127	90302	128	90447	132, 144	90540	168	90636	133, 145
90223	127	90303	128	90448	132, 144	90548	168	90637	133, 145
90225	127	90304	128	90449	132, 144	90549	168	90638	133, 145
90226	127	90305	128	90450	144	90550	168	90639	133, 145
90227	127	90310	129	90461	133, 144	90551	168	90640	133, 145
90228	127	90311	129	90462	133, 144	90553	168	90641	145
90229	127	90312	129	90463	133, 144	90554	168	90642	145
90230	127	90313	129	90464	133, 144	90555	168	90643	145
90234	131, 144	90314	129	90465	133, 144	90556	162	90651	143
90235	131, 144	90315	129	90466	133, 144	90558	163	90654	146
90236	131, 144	90320	129	90467	133, 144	90559	163	90655	146
90237	131, 144	90321	129	90468	133, 144	90560	161	90661	156
90238	131, 144	90322	129	90469	144	90561	161	90662	156, 161,
90239	131, 144	90323	129	90476	132, 145	90562	161		162, 163,
90243	127	90324	130	90477	132, 145	90563	161		164
90244	127	90325	130	90478	132, 145	90564	161	90663	156
90245	127	90326	130	90479	132, 145	90565	161	90670	156

Numerical index

Numerical index

art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page	art.-no.	catalogue page
91603	139	91710	140	99633	146				
91604	139	91711	140	99640	145				
91605	139	91712	140	99641	145				
91606	139	91713	140	99696	129				
91607	139	91714	140	99697	129				
91608	139	91715	140	99752	127				
91609	139	91716	140	99753	127				
91610	139	91718	140	99754	130				
91611	139	91719	140	99755	130				
91612	139	91720	140	99782	146				
91613	139	91721	140	99805	145, 146				
91619	139	91722	140	99903	105				
91620	139	91723	140	99904	105				
91621	139	91724	140	99905	105				
91622	139	91725	140	99907	105				
91623	139	91726	140	99955	151				
91624	139	91727	140	99956	151				
91625	139	91728	140						
91626	139	91731	140						
91627	139	91732	140						
91638	139	91733	140						
91639	139	91734	140						
91640	139	91735	140						
91641	139	91736	140						
91642	139	91737	140						
91643	139	91738	140						
91644	139	91739	140						
91645	139	91811	114						
91646	139	91813	114						
91647	139	91821	115						
91648	139	91822	115						
91654	139	91823	116						
91655	139	91824	116						
91656	139	91831	118						
91657	139	91881	115						
91658	139	91882	115						
91659	139	91883	116						
91660	139	91884	116						
91661	139	91891	114						
91662	139	91893	114						
91663	139	91899	115, 116						
91664	139	91901	146						
91665	139	91902	146						
91666	139	91903	146						
91693	140	91904	146						
91694	140	91905	146						
91695	140	91906	146						
91696	140	91907	146						
91697	140	91908	146						
91698	140	91909	146						
91699	140	91910	146						
91705	140	91911	146						
91706	140	91912	146						
91707	140	91913	146						
91708	140	97028	150						
91709	140	99056	110						

Allgemeine Geschäftsbedingungen

1. Allgemeines
Angebote sind stets freibleibend und unverbindlich. Für alle Verträge ist unsere schriftliche Auftragsbestätigung in Verbindung mit unseren allgemeinen Geschäftsbedingungen maßgebend. Dieses gilt auch für durch Vertreter abgeschlossene Verkäufe. Einkaufsbedingungen des Bestellers verpflichten uns auch dann nicht, wenn wir nicht ausdrücklich widersprechen. Nebenabreden bedürfen der Schriftform. Die Unwirksamkeit einzelner Vertragsteile berührt nicht die Rechtswirksamkeit des übrigen Vertrages. Alle Angaben im Katalog sind ohne Gewähr. Technische Änderungen vorbehalten. Bei Sonderanfertigungen behalten wir uns eine Überlieferung von 10% der Auftragsmenge vor. Generell müssen die in unserem Katalog aufgeführten Verarbeitungshinweise beachtet werden.

2. Preise
Alle Preise verstehen sich in Euro und gelten, sofern keine anderen Vereinbarungen getroffen werden, ab Werk ausschließlich Verpackung. Den Preisen aller Kupfererzeugnissen liegt eine MK-Notierung von 128,– Euro per 100 kg zugrunde. Der Cu-Zuschlag berechnet sich aus der Differenz zwischen dieser Preisbasis und der am Tage des Auftrageingangs gültigen MK-Notierung.

3. Verpackung
Wenn nichts anderes vereinbart, werden die Verpackungskosten in Rechnung gestellt. Verpackungsmaterial wird bei frachtfreier Anlieferung zur Verwertung zurückgenommen. Eine frachtfreie Anlieferung gilt auch dann als vereinbart, wenn der Erfüllungsort für die Warenlieferung von unserer Firmenanschrift abweicht.

4. Lieferzeit
Vereinbarte Liefertermine werden möglichst eingehalten. Sie sind jedoch nicht verbindlich. Ersatzansprüche irgendwelcher Art wegen verspäteter Lieferung können nicht geltend gemacht werden. Soweit vom Besteller nicht ausdrücklich untersagt, können Teillieferungen vorgenommen werden.

5. Gefahrenübergang
Der Versand erfolgt auf Gefahr des Bestellers, auch dann, wenn frachtfreie Lieferung vereinbart wurde. Die Gefahr geht auf den Besteller über, wenn die Sendung das Werk verlassen hat. Verzögert sich der Versand auf Wunsch oder durch Verschulden des Kunden, so geht die Gefahr mit Meldung der Versandbereitschaft über. Für Warenrücksendungen trägt der Kunde jede Gefahr bis zum Eingang in unserem Werk.

6. Haftung für Mängel
Für Mängel, zu denen auch das Fehlen zugesicherter Eigenschaften zählt, haftet der Lieferer wie folgt:

a) Alle diejenigen Teile oder Leistungen sind nach Wahl des Lieferers unentgeltlich nachzubessern, neu zu liefern oder neu zu erbringen, die innerhalb von 12 Monaten – ohne Rücksicht auf Betriebsdauer – vom Tage des Gefahrüberganges an gerechnet, infolge eines vor dem Gefahrübergang liegenden Umstandes, insbesondere wegen fehlerhafter Bauart, schlechten Materials oder mangelhafter Ausführung unbrauchbar werden oder deren Brauchbarkeit erheblich beeinträchtigt wurde. Die Feststellung solcher Mängel muss dem Lieferer unverzüglich schriftlich gemeldet werden.

b) Der Besteller hat die ihm obliegenden Vertragsverpflichtungen, insbesondere die vereinbarten Zahlungsbedingungen einzuhalten. Wenn eine Mängelrüge geltend gemacht wird, dürfen Zahlungen des Bestellers in einem Umfang zurückgehalten werden, die in einem angemessenen Verhältnis zu den aufgetretenen Mängeln stehen. Gehört jedoch der Vertrag zum Betrieb seines Handelsgewerbes, so kann der Besteller Zahlungen nur zurückhalten, wenn eine Mängelrüge geltend gemacht wird, über deren Berechtigung kein Zweifel bestehen kann.

c) Zur Mängelbeseitigung hat der Besteller dem Lieferer die nach billigem Ermessen erforderliche Zeit und Gelegenheit zu gewähren. Verweigert er diese, so ist der Lieferer von der Mängelhaftung befreit.

d) Wenn der Lieferer eine ihm gestellte angemessene Nachfrist verstreichen lässt, ohne den Mangel zu beheben, kann der Besteller Rückgängigmachung des Vertrages (Wandlung) oder Herabsetzung der Vergütung (Minderung) verlangen.

e) Das Recht des Bestellers, Ansprüche aus Mängeln geltend zu machen, verjährt in allen Fällen vom Zeitpunkt der Rüge an in 12 Monaten. Wird innerhalb dieser Frist keine Einigung erzielt, so können Lieferer und Besteller eine Verlängerung dieser Verjährungsfrist vereinbaren.

f) Die Mängelhaftung bezieht sich nicht auf natürliche Abnutzung, ferner nicht auf Schäden, die nach dem Gefahrübergang infolge fehlerhafter oder nachlässiger Behandlung, übermäßiger Beanspruchung, ungeeigneter Betriebsmittel, mangelhafter Bauarbeiten, ungeeigneten Baugrundes und solcher chemischer, elektrochemischer oder elektrischer Einflüsse entstehen, die nach dem Vertrag nicht vorausgesetzt sind.

g) Durch etwa seitens des Bestellers oder Dritter unsachgemäß vorgenommene Änderungen und Instandsetzungsarbeiten wird die Haftung für die daraus entstehenden Folgen aufgehoben.

h) Die Gewährleistungsfrist beträgt für Nachbesserungen 3 Monate, für Ersatzlieferungen oder Ersatzleistungen 6 Monate. Sie läuft mindestens bis zum Ablauf der ursprünglichen Gewährleistungsfrist für den Liefergegenstand. Die Frist für die Mängelhaftung verlängert sich um die Dauer der Betriebsunterbrechung, die dadurch eintritt, dass Nachbesserungen, Ersatzlieferungen oder Ersatzleistungen erforderlich werden, für diejenigen Teile, die wegen der Unterbrechung nicht zweckdienlich betrieben werden können.

i) Die Bestimmungen über Gewährleistungsfristen in Ziffer a, e und h gelten nicht, soweit das Gesetz zwingend längere Fristen vorschreibt.

j) Weitere Ansprüche des Bestellers gegen den Lieferer und dessen Erfüllungsgehilfen sind ausgeschlossen, insbesondere ein Anspruch auf Ersatz von Schäden, die nicht an dem Liefergegenstand selbst entstanden sind. Dies gilt nicht, soweit z. B. bei Personenschäden oder Schäden an privat genutzten Sachen nach dem Produkthaftungsgesetz oder in Fällen des Vorsatzes der groben Fahrlässigkeit oder des Fehlens zugesicherter Eigenschaften zwingend gehaftet wird.

k) Die Ziffern a bis j gelten entsprechend für solche Ansprüche des Bestellers auf Nachbesserung, Ersatzlieferung oder Schadenersatz, die durch im Rahmen des Vertrages erfolgende Vorschläge oder Beratungen oder durch Verletzung vertraglicher Nebenpflichten entstanden sind.

7. Eigentumsvorbehalt
Die gelieferten Waren bleiben bis zur vollständigen Erfüllung aller gegen den Besteller gerichteten Forderungen unser Eigentum. Der Besteller darf die Ware nur im regulären Geschäftsverkehr veräußern, verarbeiten, verbinden oder vermischen. Werden die Waren verarbeitet, verbunden oder vermischt, so erwerben wir anteiliges Eigentum an den durch Verarbeitung, Verbindung oder Vermischung entstandenen Sachen. Veräußert der Besteller die gelieferte Ware – gleich in welchem Zustand – so tritt er hiermit schon jetzt die ihm aus der Veräußerung entstandenen Forderungen gegen seine Abnehmer mit allen Nebenrechten und Sicherungen in Höhe des Wertes der von uns erbrachten Leistung ab. Die Abtretung ist so lange wirksam bis unsere sämtlichen gegen den Besteller gerichteten Forderungen erfüllt sind. Auf Verlangen ist der Besteller verpflichtet, uns die Namen und Anschriften seiner Abnehmer bekanntzugeben.
Der Käufer kann, solange er seinen Zahlungsverpflichtungen dem Verkäufer gegenüber nachkommt, bis zum Widerruf die Außenstände für sich einziehen. Mit einer Zahlungseinstellung, der Beantragung oder Eröffnung des Konkurses, eines gerichtlichen oder außergerichtlichen Vergleichsverfahrens, einem Scheck- oder Wechselprotest oder einer erfolgten Pfändung erlischt das Recht zum Weiterverkauf oder Verarbeitung der Waren und zum Einzug der Außenstände. Danach eingehende abgetretene Außenstände sind sofort auf einem Sonderkonto anzusammeln.
Verliert der vorstehende Eigentumsvorbehalt bei Lieferung unserer Waren im Ausland oder verliert der Eigentumsvorbehalt aus sonstigen Gründen seine Gültigkeit, so verpflichtet sich der Besteller, uns unverzüglich eine Sicherung an den gelieferten Gegenständen oder eine Sicherheit in sonstiger Form für unsere Forderung zu gewähren, die nach dem Recht des Bestellers gültig ist und die dem nach deutschem Recht vereinbarten Eigentumsvorbehalt gleichkommt oder nach dem Recht des Bestellerlandes wirtschaftlich dem deutschen Eigentumsvorbehalt gleichzusetzen ist.

8. Rücktritt vom Vertrag
Bei Zweifeln an der Zahlungsfähigkeit des Kunden behalten wir uns vor, vom Vertrag zurückzutreten oder Vorauszahlung zu verlangen.

9. Rücknahme gelieferter Artikel
Auftragsgemäß gelieferte, fehlerfreie Artikel können nur innerhalb von 3 Wochen nach Lieferung zurückgenommen werden. Sonderanfertigungen oder Artikel, die nicht in unserem Katalog enthalten sind, werden nicht zurückgenommen. Die Rücknahme erfolgt gegen Gutschrift. Die Kosten der Eingangskontrolle und Wiedereinlagerung werden vom Warenwert abgesetzt. Eine Auszahlung des Gutschriftbetrages ist nicht möglich.

10. Zahlungsbedingungen
Alle Rechnungen sind innerhalb von 10 Tagen nach Rechnungsdatum unter Abzug von 2% Skonto oder innerhalb von 30 Tagen nach Rechnungsdatum rein netto zahlbar. Wechsel werden nicht angenommen. Bei Überschreitung der Zahlungsfrist können Verzugszinsen in Höhe des jeweils gültigen Basiszinssatzes berechnet werden.

11. Anzuwendendes Recht, Erfüllungsort, Gerichtsstand und salvatorische Klausel
Unsere Geschäftsbedingungen sind auf alle Rechtsbeziehungen im In- und Ausland anzuwenden. Im übrigen kommt für die im Inland geführten Verfahren ausschließlich deutsches Recht zur Anwendung. Alle im Ausland geführten Rechtsstreitigkeiten sind von den zuständigen ausländischen Gerichten auf der Grundlage unserer Geschäftsbedingungen und ergänzend nach den einheitlichen Gesetzen vom 17. 7. 1973 über den Abschluss von internationalen Kaufverträgen und über den internationalen Kauf beweglicher Sachen zu beurteilen.
Unsere Geschäftsbedingungen gelten bei vertraglichen Beziehungen mit Kunden, die keine Kaufleute sind, nur insoweit, als die Bestimmungen des AGB-Gesetzes vom 9. 12. 1976 nicht entgegenstehen.
Erfüllungsort ist Peine.
Peine wird als Gerichtsstand auch für Wechsel-, Scheck- und Urkundenverfahren vereinbart. Hat der Besteller seinen Geschäfts- und/oder Wohnsitz im Ausland, so sind wir berechtigt, einen gegen ihn gerichteten Rechtsstreit an dem für ihn zuständigen ausländischen Gericht anhängig zu machen. Will ein ausländischer Kunde einen gegen uns gerichteten Rechtsstreit führen, so sind nur die Gerichte in Peine örtlich zuständig.

12. Bearbeitungskostenzuschlag
Für Aufträge mit einem Nettowarenwert unter 25,– Euro berechnen wir einen Bearbeitungskostenzuschlag von 5,– Euro.

WEITKOWITZ

Kabelschuhe und Werkzeuge GmbH

Selection list for special cable lugs

send to WEITKOWITZ, PEINE
fax no. +49(0)5171 / 7061 - 58

Anschrift: _____ Telefon: _____

Fax: _____

E-mail: _____ Ansprechpartner: _____

Leiter-Typ: _____ Oberfläche: Werkstoff:

Querschnitt: _____ verzinnt ☐ Cu-ETP / Cu-HCP ☐

vernickelt ☐

Rohrkabelschuh / -verbinder ☐ blank ☐ E-Al 99,5 ☐

Presskabelschuh / -verbinder ☐ sonstiges ☐

Liefermenge: _____ Datum: _____

Jahresbedarf: _____

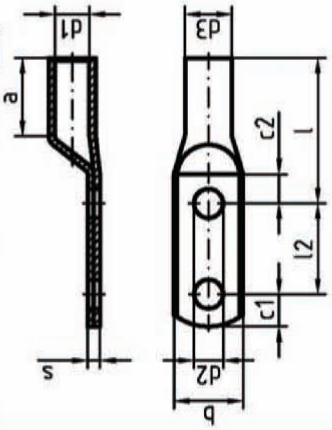
Liefertermin: _____ Unterschrift: _____

Sonstige Wünsche (bitte Skizze oder Zusatzinformationen):

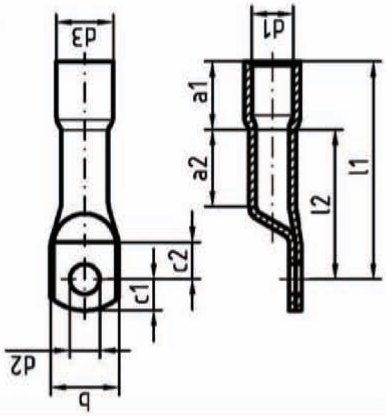
Maße bitte in "mm" angeben:

Maß d1	Maß l	Maß c1	
Maß d2	Maß l2	Maß c2	
Maß d3	Maß l3	Maß b	
Maß d4	Maß a	Maß s	
Maß d5	Maß a2	Maß h	
		Winkel w	

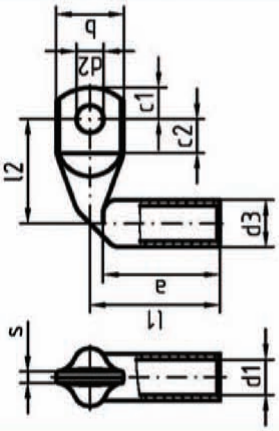
☐ Gerader Kabelschuh mit zwei Bohrungen



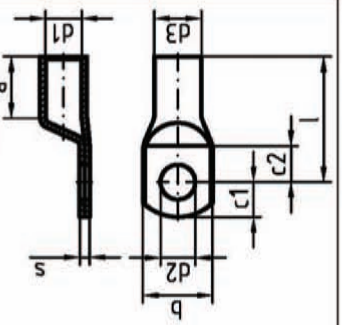
☐ Rohrkabelschuh mit aufgeweiteter Hülse



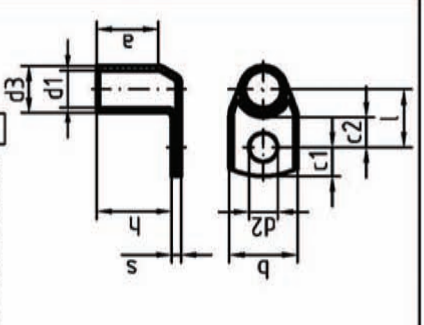
☐ Fahnenkerbkabelschuh



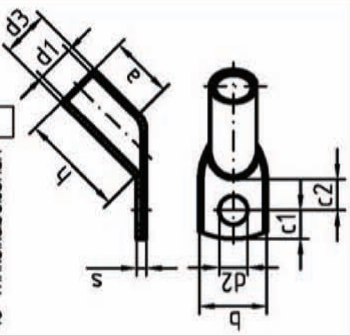
☐ Gerader Kabelschuh



☐ 90°-Winkelkabelschuh



☐ 45°-Winkelkabelschuh



Selection list for special cable lugs

send to WEITKOWITZ, PEINE
fax no. +49(0)5171 / 7061 - 58

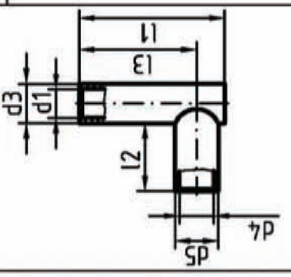
Kunde:
Anschrift:
Kunden-Nr.:
Telefon:
Fax:
E-mail:
Ansprechpartner:

Leiter-Typ:
Querschnitt:
Rohrkabelschuh / -verbinder ☐
Presskabelschuh / -verbinder ☐
Oberfläche: verzinnt ☐ vernickelt ☐ blank ☐
Werkstoff: Cu-ETP / Cu-HCP ☐ E-Al 99,5 ☐ sonstiges ☐
Liefermenge:
Jahresbedarf:
Liefertermin:
Datum:
Unterschrift:
Sonstige Wünsche (bitte Skizze oder Zusatzinformationen):

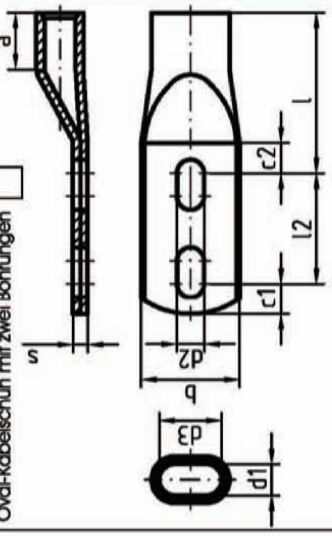
Maße bitte in "mm" angeben:

Maß d1 ____ Maß l ____ Maß c1 ____
Maß d2 ____ Maß l2 ____ Maß c2 ____
Maß d3 ____ Maß l3 ____ Maß b ____
Maß d4 ____ Maß a ____ Maß s ____
Maß d5 ____ Maß a2 ____ Maß h ____
Winkel w ____

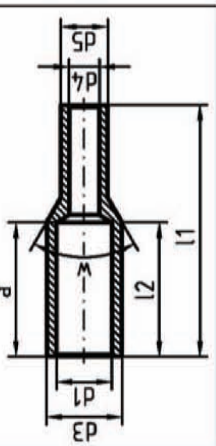
L-Verbinder ☐



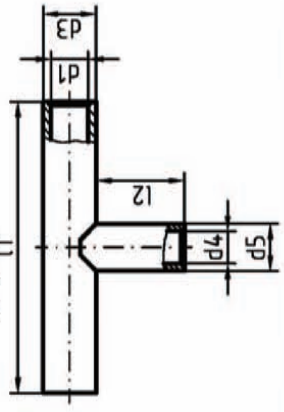
Oval-Kabelschuh mit zwei Bohrungen ☐



Reduzierverbinder ☐

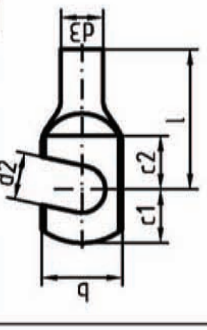


T-Verbinder ☐

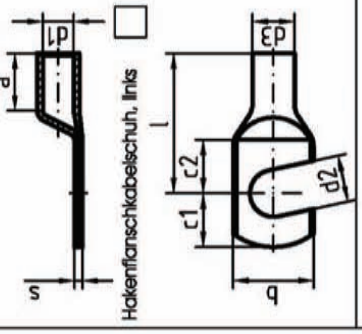


Aderendhülse ☐

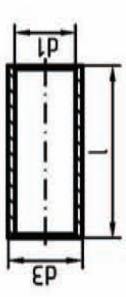
Hakenflanschkabelschuh, rechts ☐



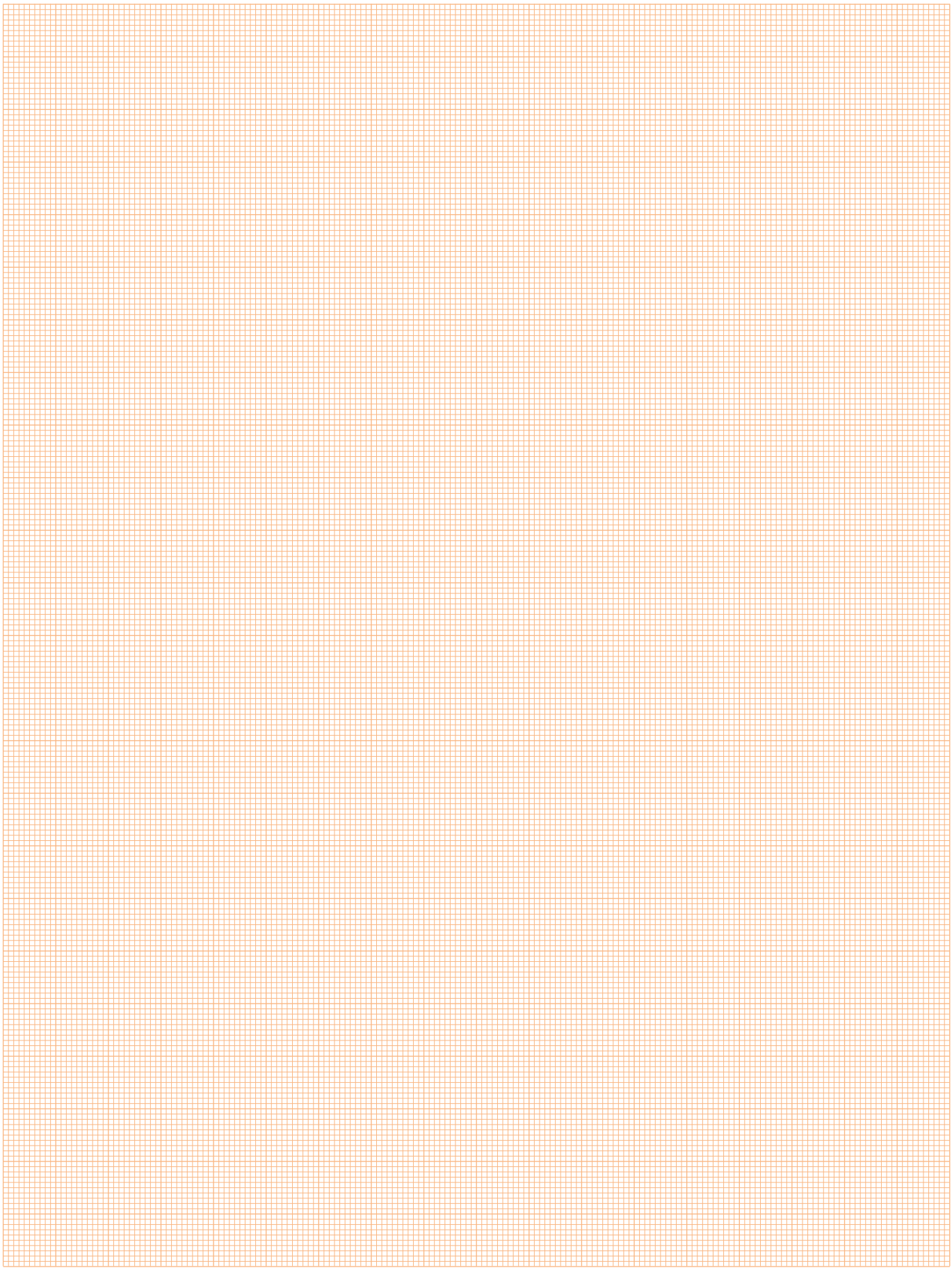
Hakenflanschkabelschuh, links ☐



Parallelverbinder ☐



Notice



Notice

We make cable lugs out of copper or aluminium to your drawings or samples