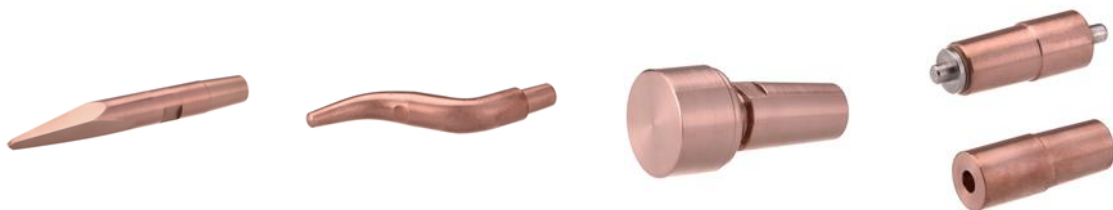


KATALOG ELEKTROD ZGRZEWALNICZYCH

ELEKTRODY



TRZPIENIE ELEKTRODOWE



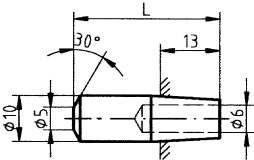
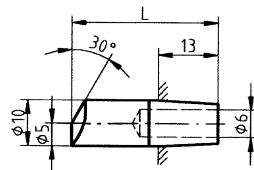
UCHWYTY ELEKTROD



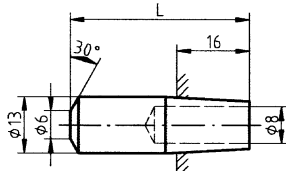
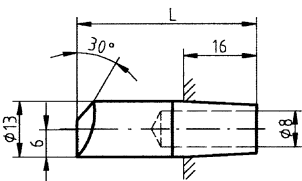
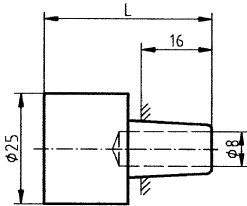
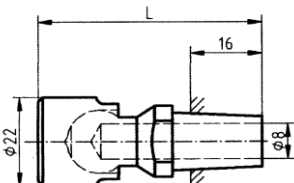
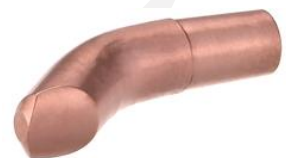
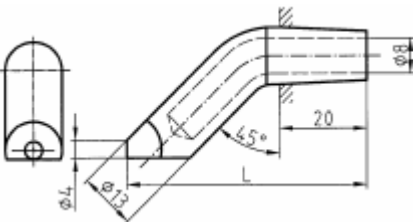
Materiał podstawowy: CuCr1Zr. Inne materiały dostępne na życzenie (np. CuCoBe, WCu, W).
Elektrody niestandardowe spoza katalogu na życzenie wg indywidualnej kalkulacji.
Elektrody wahlowe dostępne w wersji z chłodzeniem pośrednim i bezpośrednim
oraz w wersji specjalnej (mały stożek-duża główka $\varnothing 30$, lub duży stożek-mała główka $\varnothing 22$)
„G” przy nazwie i numerze elektrody oznacza ochronę gazową.

Zapytania kierować na adres mailowy: biuro@heller-polska.pl

Elektrody Punktowe**Średnica Ø9,8, Stożek 1:10, DIN 44750**

		Typ	Art. Nr	Dł. „L”
		BG 10-32	9805 1801	32
		EG 10-32	9805 1803	32

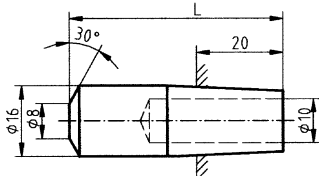
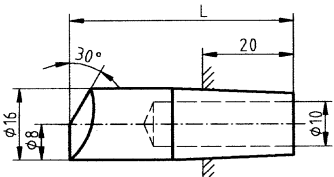
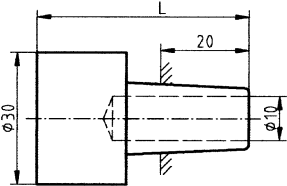
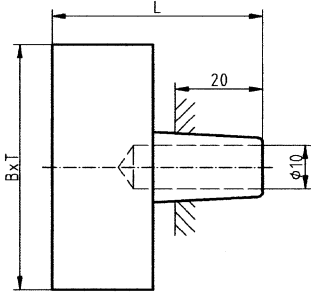
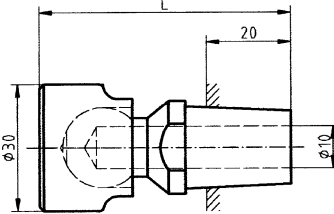
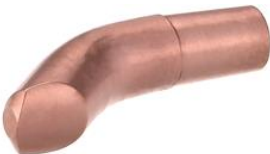
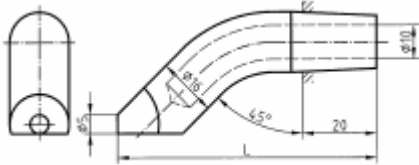
Elektrody Punktowe
Średnica Ø12,7, Stożek 1:10, DIN 44750

		Typ	Art. Nr	Dł. „L”
		BG 13-40	9805 0326	40
		EG 13-32	9805 0371	40
		KM 13	9805 1401	38
		KE 13	9805 1407	43
		KE 13 G	9805 1407 G	43
		GE 13-55	9805 2045	55

wg normy DIN 44750

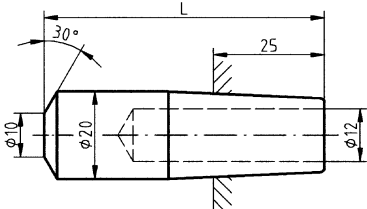
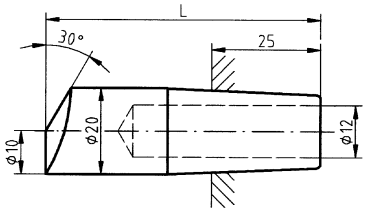
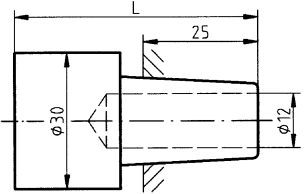
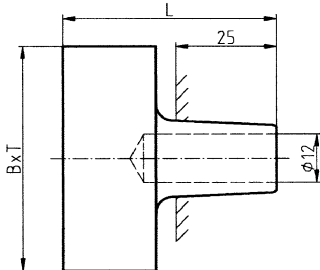
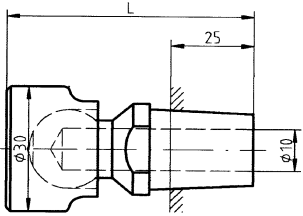
Elektrody Punktowe

Średnica Ø15,5, Stożek 1:10, DIN 44750

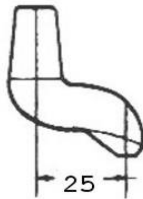
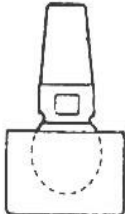
		Typ	Art. Nr	Dł. „L”
		BG 16-50	9805 0627	50
		EG 16-50	9805 0672	50
		KM 16	9805 1402	48
		BxT FKM 16 56x30 FKM 16 70x30	9805 1431 9805 1448	48 48
		KE 16 KE 16 G	9805 1408 9805 1408 G	55 55
		GE 16-70	9805 2055	70

Elektrody Punktowe

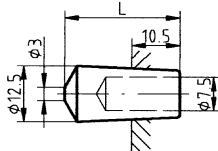
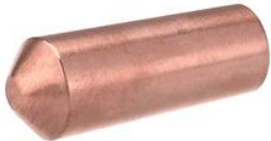
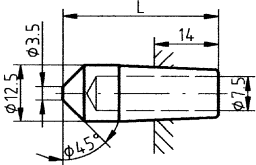
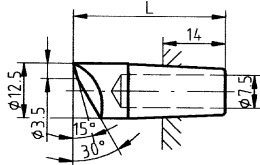
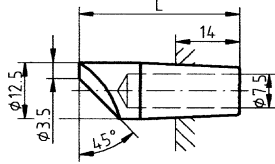
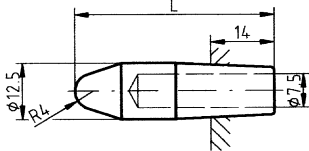
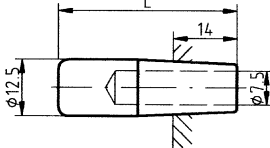
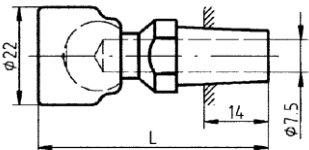
Średnica Ø19, Stożek 1:10, DIN 44750

		Typ	Art. Nr	Dł. „L”
		BG 20-63	9805 1871	63
		EG 20-63	9805 1873	63
		KM 20	9805 1403	53
		BxT FKM 20 56X30 FKM 20 70X30	9805 1432 9805 1433	53 53
		KE 20 KE 20 G	9805 1409 9805 1409 G	61 61

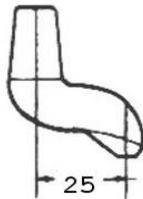
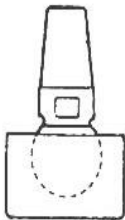
TECNA**ZGRZEWARKI: 7903, 7903P, 7913, 7913P, 7915, 7915P****Elektrody Punktowe****Średnica Ø10,8, Stożek BS**

		Typ	Art. Nr	Dł. „L”
		3830 (5211/2)	6001 3830	30
		3831 (5212/2)	6001 3831	30
		3833	6001 3833	57
		3834 (5214/2)	6001 3834	30
		3835 3535 G	6001 3835 6001 3835 G	44 44

Elektrody Punktowe
Średnica Ø11,8, Stożek 1:10

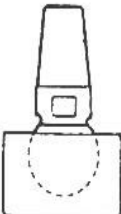
		Typ	Art. Nr	Dł. „L”
		E1/101	9805 0101	25,5
		E1/102	9805 0102	34
		E1/103	9805 0103	44
		E1/104	9805 0104	59
		E1/105	9805 0105	74
		E1/110	9805 0110	34
		E1/111	9805 0111	44
		E1/120	9805 0120	34
		E1/121	9805 0121	44
		E1/122	9805 0122	59
		E1/123	9805 0123	74
		E1/131	9805 0131	44
		E1/132	9805 0132	59
		E1/133	9805 0133	74
		E1/140	9805 0140	34
		E1/141	9805 0141	44
		E1/142	9805 0142	59
		E1/143	9805 0143	74
		E1/150	9805 0150	43
		E1/150 G	9805 0150 G	43

TECNA**ZGRZEWARKI: 4602N, 4607N, 2101N, 2102N, 7915, 7915P****Elektrody Punktowe****Średnica Ø12,7, Stożek BS**

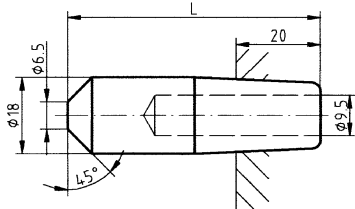
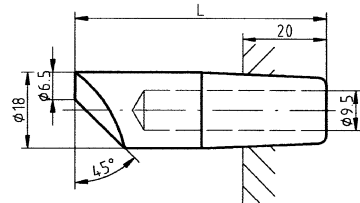
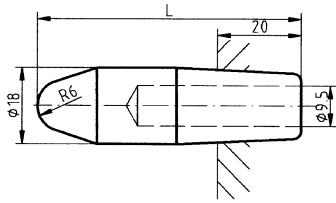
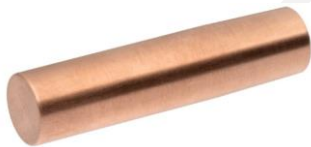
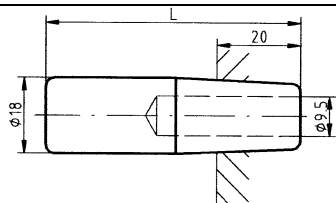
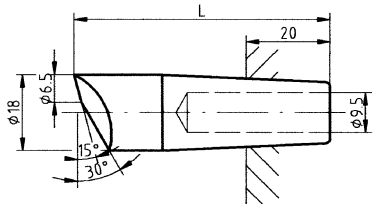
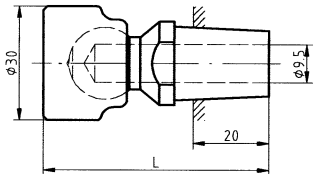
		Typ	Art. Nr	Dł. „L”
		3720	6001 3720	39
		3721	6001 3721	39
		3723	6001 3723	74
		3724	6001 3724	39
		3725 3725 G	6001 3725 6001 3725 G	51 51

TECNA**ZGRZEWARKI:** 4603N, 4604N, 4605N, 4606N, 4608N, 4609N, 4610N, 4611N,
4620N, 4621N, 4622N, 4623N, 4625N, 4626N, 4627N, 4628N,
4629N, 4630N**Elektrody Punktowe**

Średnica Ø14,8, Stożek BS

		Typ	Art. Nr	Dł. „L”
		3620	6001 3620	43
		3621	6001 3621	39
		3623	6001 3623	74
		3624	6001 3624	43
		3625 3625 G	6001 3625 6001 3625 G	51 51

Elektrody Punktowe
Średnica Ø17,8, Stożek 1:10

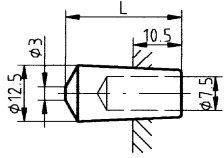
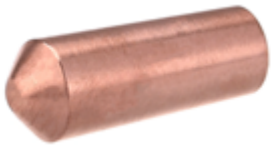
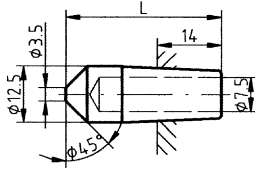
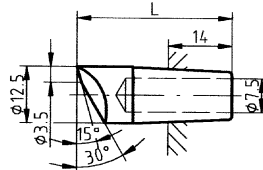
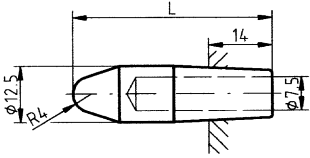
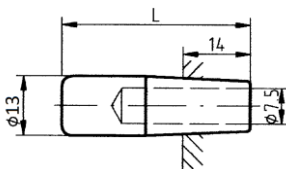
		Typ	Art. Nr	Dł. „L”
		E2/101	9805 101	45
		E2/102	9805 102	60
		E2/103	9805 103	75
		E2/110	9805 110	45
		E2/111	9805 111	60
		E2/112	9805 112	75
		E2/120	9805 120	45
		E2/121	9805 121	60
		E2/122	9805 122	75
		E2/130	9805 130	45
		E2/131	9805 131	60
		E2/132	9805 132	75
		E2/133	9805 133	90
		E2/140	9805 140	45
		E2/141	9805 141	60
		E2/150	9805 150	55
		E2/150 G	9805 150 G	55

TECNA

ZGRZEWARKI: 3321, 3322, 3323, 3324

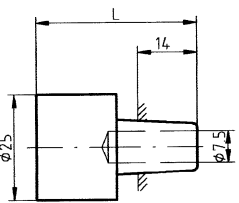
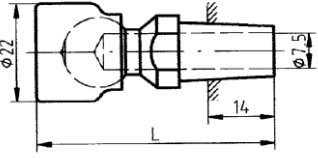
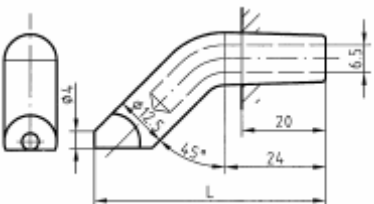
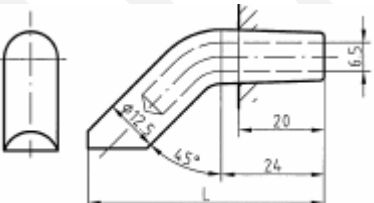
Elektrody Punktowe

Średnica Ø12,065, Stożek Morse'a MK 1

		Typ	Art. Nr	Dł. „L”
		E1/001	9805 0001	25,5
		E1/002 E1/003 E1/004 E1/005 E1/006 E1/007	9805 2101 9805 2102 9805 2103 9805 2104 9805 2105 9805 2106	34 44 59 74 95 110
		E1/020 E1/021 E1/022 E1/023	9805 0020 9805 2112 9805 0022 9805 0023	34 44 59 74
		E1/030 E1/031 E1/032 E1/033 E1/034	9805 0030 9805 0031 9805 0032 9805 2133 9805 2134	34 44 59 74 90
		E1/040 E1/041 E1/042 E1/043	9805 0040 9805 2122 9805 0042 9805 0043	34 44 59 74

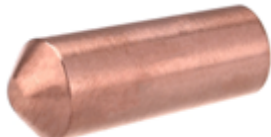
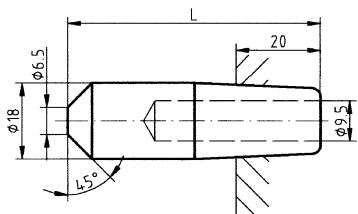
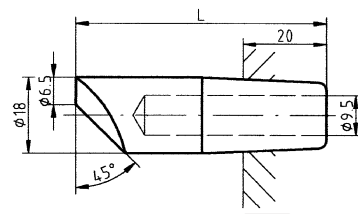
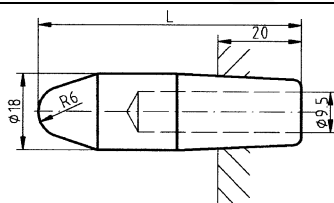
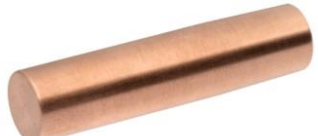
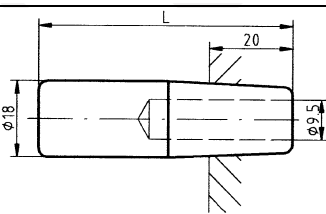
Elektrody Punktowe

Średnica Ø12,065, Stożek Morse'a MK 1

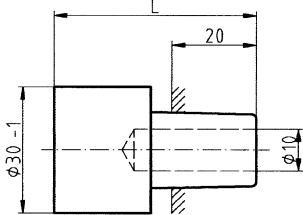
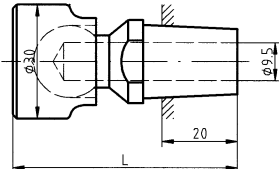
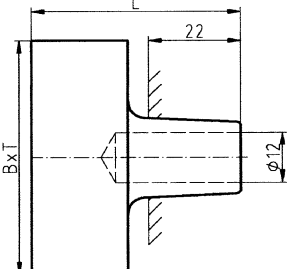
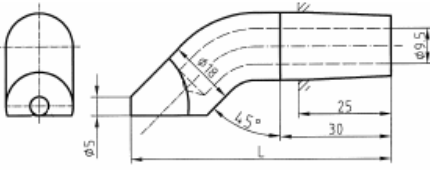
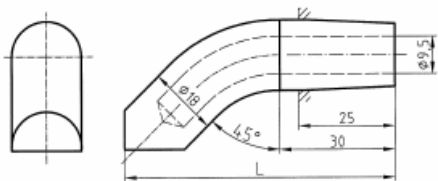
		Typ	Art. Nr	Dł. „L”
		KM 12	9805 1486	38
		E1/050	9805 2172	43
		E1/050 G	9805 2172 G	43
		E1/015	9805 2175	55
		E1/016	9805 0016	55

TECNA ZGRZEWARKI: 3327, 3328

Elektrody Punktowe Średnica Ø17,781, Stożek Morse'a MK 2

		Typ	Art. Nr	Dł. „L”
		E2/001	9805 2211	45
		E2/002	9805 2212	60
		E2/003	9805 2213	75
		E2/004	9805 2214	90
		E2/010	9805 010	45
		E2/011	9805 011	60
		E2/012	9805 2221	75
		E2/013	9805 2222	90
		E2/020	9805 020	45
		E2/021	9805 021	60
		E2/022	9805 022	75
		E2/023	9805 023	90
		E2/030	9805 2251	45
		E2/031	9805 2252	60
		E2/032	9805 032	75
		E2/033	9805 033	90

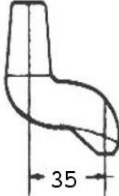
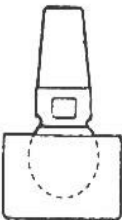
TECNA
ZGRZEWARKI: 3327, 3328
Elektrody Punktowe
Średnica Ø17,781, Stożek Morse'a MK 2

		Typ	Art. Nr	Dł. „L”
		KM 18	9805 1485	50
		E2/050 E2/050 G	9805 2272 9805 2272 G	50 50
		BxT FKM 18 56x30 FKM 18 70x30 FKM 18 100x30	9805 1447 9805 1443 9805 1451	54 54 54
		E2/040	9805 2275	70
		E2/041	9805 041	70

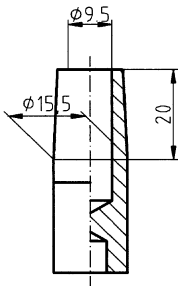
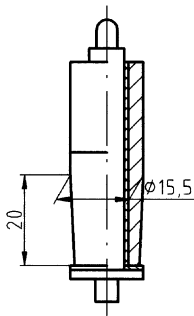
TECNA

ZGRZEWARKI: 6101N, 6102N, 6103N,
8001, 8002, 8003, 8004, 8005, 8006, 8007, 8008, 8009
8201, 8202, 8203, 8204, 8205, 8206, 8207, 8208,
8209, 8210, 8211, 8212, 8213, 8214

Elektrody Punktowe
Średnica Ø19,05, Stożek BS

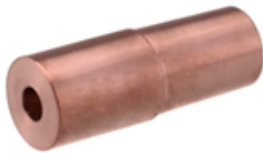
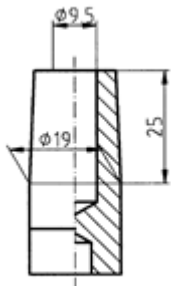
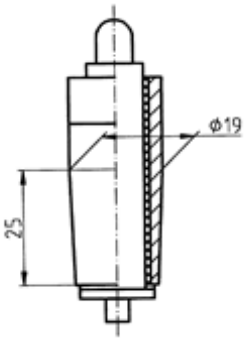
		Typ	Art. Nr	Dł. „L”
		8701	6001 8701	62
		8703	6001 8703	62
		8706	6001 8706	100
		8702	6001 8702	62
		8725 8725 G	6001 8725 6001 8725 G	54 54

Elektrody do zgrzewania nakrętek**Średnica Ø15,5, Stożek 1:10, Nakrętki sześciokątne**

		Typ	Art. Nr	Nakrętka wielkość gwintu
Górna				
 		2070-3	9801 20703	M3
		2070-4	9801 20704	M4
		2070-5	9801 20705	M5
		2070-6	9801 20706	M6
Dolna				
 		2071-3	9801 20713	M3
		2071-4	9801 20714	M4
		2071-5	9801 20715	M5
		2071-6	9801 20716	M6

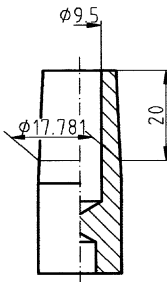
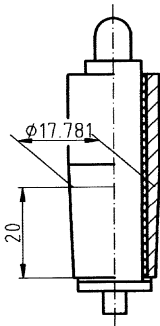
Elektrody do zgrzewania nakrętek

Średnica Ø19, Stożek 1:10, Nakrętki sześciokątne

	Typ	Art. Nr	Nakrętka wielkość gwintu
 	Górna		
	2074-3	9801 20743	M3
	2074-4	9801 20744	M4
	2074-5	9801 20745	M5
	2074-6	9801 20746	M6
	2074-8	9801 20748	M8
	2074-10	9801 207410	M10
	2074-12	9801 207412	M12
 	Dolna		
	2075-3	9801 20753	M3
	2075-4	9801 20754	M4
	2075-5	9801 20755	M5
	2075-6	9801 20756	M6
	2075-8	9801 20758	M8
	2075-10	9801 207510	M10
	2075-12	9801 207512	M12

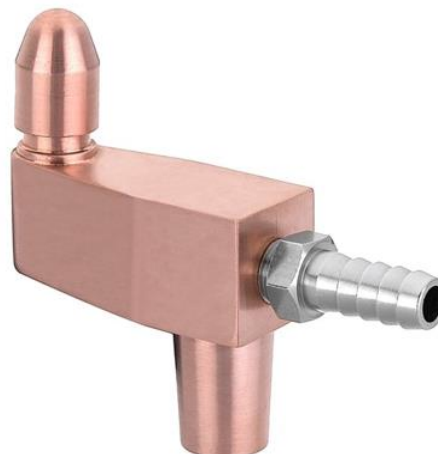
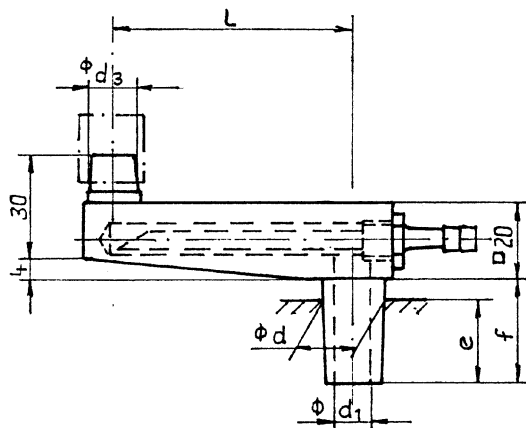
Elektrody do zgrzewania nakrętek

Średnica Ø17,781, Stożek Morse'a MK 2, Nakrętki sześciokątne

		Typ	Art. Nr	Nakrętka wielkość gwintu
Górna				
		2082-3	9801 20823	M3
		2082-4	9801 20824	M4
		2082-5	9801 20825	M5
		2082-6	9801 20826	M6
		2082-8	9801 20828	M8
		2082-10	9801 208210	10
Dolna				
		2083-3	9801 20833	M3
		2083-4	9801 20834	M4
		2083-5	9801 20835	M5
		2083-6	9801 20836	M6
		2083-8	9801 20838	M8
		2083-10	9801 208310	M10
Górna				
		2090-12 z pilotem stałym	9801 209012	M12
Dolna				
		2091-12 z pilotem stałym	9801 209112	M12

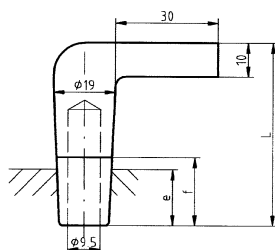
 bez
rysunku

Elektrody specjalne

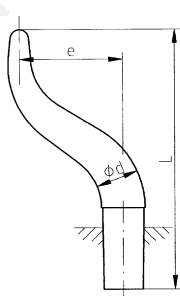


Typ	Art. Nr	Stożek	„Ød”	„L”	„e”	„f”	„d1”	„d3”
E 1-30	9805 1-30	MK 1	12,065	40	14	20	7,5	10
E 2-31	9805 2-31	MK 2	17,781	40	25	31	9,5	12
E 2-37	9805 2-37	MK 2	17,781	70	25	31	9,5	12
E 16-32	9805 16-32	K 1:10	15,5	40	21	31	8,5	12
E 16-38	9805 16-38	K 1:10	15,5	70	21	31	8,5	12

Kapturki elektrodowe wg normy DIN 44750 (str. 27). Typ od „A” do „F”

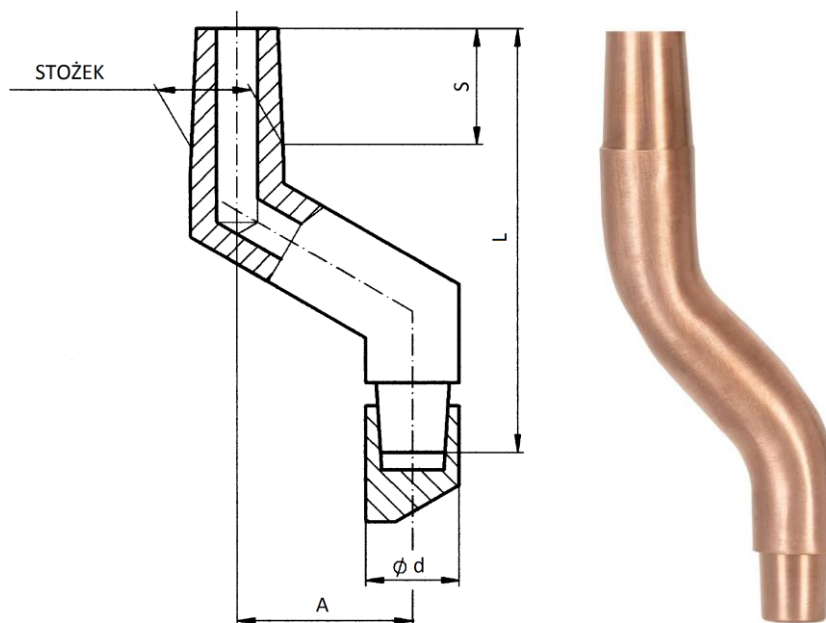


Typ	Art. Nr	Stożek	„Ød“	„L”	„e”	„f”	„d1”
E 199 kowadełkowa	9805 0199S	MK 1	12,065	50	14	18	7,0
E 200 kowadełkowa	9805 0200S	MK 2	17,781	50	22	28	9,5
E 201 kowadełkowa	9805 0201S	K 1:10	15,5	50	15	25	9,5

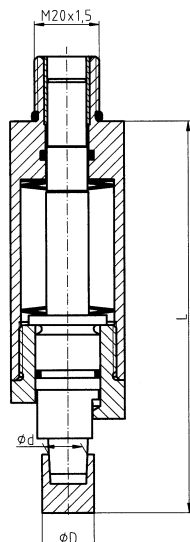


Typ	Art. Nr	Stożek	„Ød“	„L”	„e”
ŁABĘDZIA SZYJA	9805 SHE12	Ø12/1:10	16	100	40
	9805 SHEMK1	MK 1	16	100	40
	9805 SHE16	Ø15,5/1:10	18	90	30
	9805 SHE18	Ø17,8/1:10	19	125	45
	9805 SHEMK2	MK 2	19	130	45

Trzpień elektrodowy odsadzony



Typ	Art. nr	Stożek	A	Ø d	L	s
17111-30	9805 17111-30	Ø 15,5/1:10	30	13	64	20
17112-30	9805 17112-30	Ø 15,5/1:10	30	16	67	20
17111-60	9805 17111-60	Ø 15,5/1:10	60	13	69	20
17112-60	9805 17112-60	Ø 15,5/1:10	60	16	72	20
17113-30	9805 17113-30	MK1	30	13	64	14
17114-30	9805 17114-30	MK1	30	16	67	14
17113-60	9805 17113-60	MK1	60	13	70	14
17114-60	9805 17114-60	MK1	60	16	74	14
17115-30	9805 17115-30	MK2	30	13	63,5	20
17116-30	9805 17116-30	MK2	30	16	67	20
17117-30	9805 17117-30	MK2	30	20	69	20
17115-60	9805 17115-60	MK2	60	13	68,5	20
17116-60	9805 17116-60	MK2	60	16	72	20
17117-60	9805 17117-60	MK2	60	20	74	20

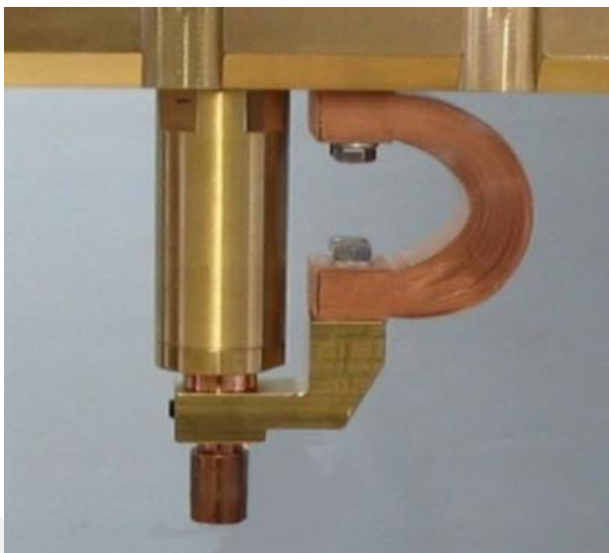
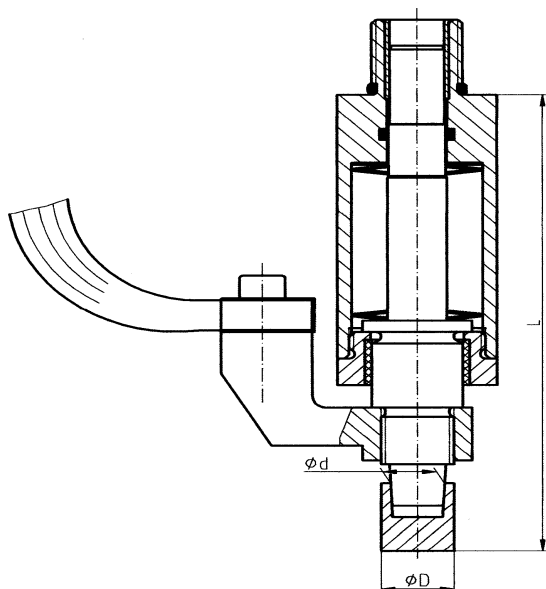
Elektroda wyrównawcza z kapturkiem**Wersja bez przyłącza prądowego elastycznego****Części prądowe srebrzone, obciążalność prądowa max. 8 kA****Stożek 1:10**

Typ	Art. Nr	Siła	„ ϕd ”	„ ϕD ”	„L”
AE-200-20	9805 25081	200 daN	15	20	122
AE-400-20	9805 25080	400 daN	15	20	122
AE-600-20	9805 25082	600 daN	15	20	122
AE-100-16	9805 2506	100 daN	12	16	122
AE-200-16	9805 2500	200 daN	12	16	122
AE-400-16	9805 2501	400 daN	12	16	122
AE-600-16	9805 2502	600 daN	12	16	122
AE-100-13	9805 2507	100 daN	10	13	122
AE-200-13	9805 2503	200 daN	10	13	122
AE-400-13	9805 2504	400 daN	10	13	122

Elektroda wyrównawcza z przyłączem szyny prądowej i kapturkiem

Cena bez elastycznej szyny prądowej

Stożek 1:10

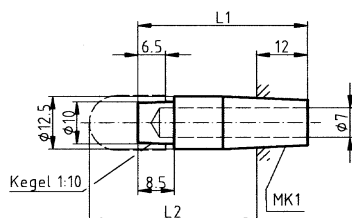


Typ	Art. Nr	Siła	„ ϕd ”	„ ϕD ”	„L”
AE-200-20-S	9805 25081-1	200 daN	15	20	122
AE-400-20-S	9805 25080-1	400 daN	15	20	122
AE-600-20-S	9805 25082-1	600 daN	15	20	122
AE-100-16-S	9805 2506-1	100 daN	12	16	122
AE-200-16-S	9805 2500-1	200 daN	12	16	122
AE-400-16-S	9805 2501-1	400 daN	12	16	122
AE-600-16-S	9805 2502-1	600 daN	12	16	122
AE-100-13-S	9805 2507-1	100 daN	10	13	122
AE-200-13-S	9805 2503-1	200 daN	10	13	122
AE-400-13-S	9805 2504-1	400 daN	10	13	122

Trzpień elektrodowy

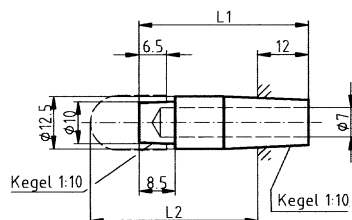
	Typ	Art. Nr	„L1”	„L2”
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Stożek MK1 Obsada stożka $\varnothing 12,065$; na kapturki 13



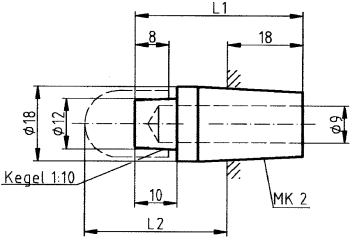
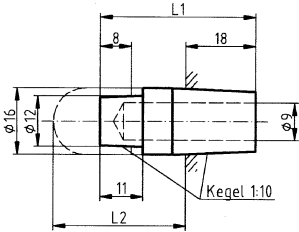
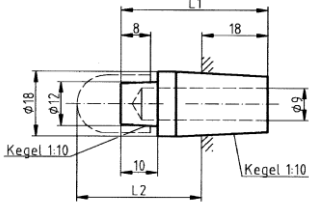
ES 1/001	9805 ES1001	40	37,5
ES 1/002	9805 ES1002	50	47,5
ES 1/003	9805 ES1003	60	57,5
ES 1/004	9805 ES1004	70	67,5
ES 1/005	9805 ES1005	80	77,5
ES 1/006	9805 ES1006	90	87,5
ES 1/007	9805 ES1007	100	97,5

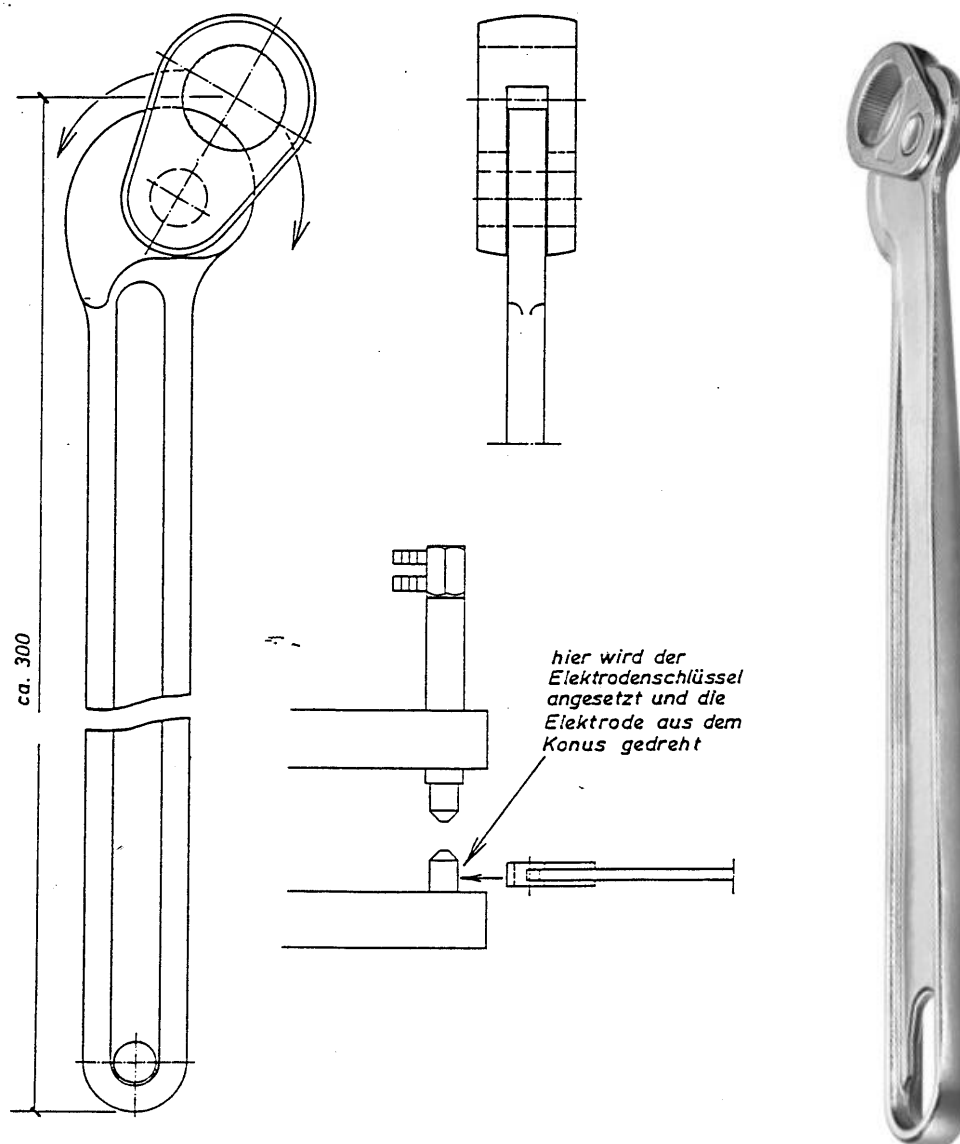
Stożek 1:10 Obsada stożka $\varnothing 11,8$; na kapturki 13



ES 1/011	9805 1540	40	37,5
ES 1/012	9805 ES1012	50	47,5
ES 1/013	9805 ES1013	60	57,5
ES 1/014	9805 ES1014	70	67,5
ES 1/015	9805 ES1015	80	77,5
ES 1/016	9805 ES1016	90	87,5
ES 1/017	9805 ES1017	100	97,5

Trzpień elektrodowy

	Typ	Art. Nr	„L1”	„L2”
MK2 Obsada stożka Ø17,781; na kapturki 16				
 	ES 2/001	9805 1671	40	32
	ES 2/002	9805 1673	50	42
	ES 2/003	9805 1675	60	52
	ES 2/004	9805 1677	70	62
	ES 2/005	9805 1679	80	72
	ES 2/006	9805 1681	90	82
	ES 2/007	9805 1683	100	92
Stożek 1:10 Obsada stożka Ø15,5; na kapturki 16				
 	ES 2/011	9805 1550	40	32
	ES 2/012	9805 9991	50	42
	ES 2/013	9805 9992	60	52
	ES 2/014	9805 9993	70	62
	ES 2/015	9805 9994	80	72
	ES 2/016	9805 9995	90	82
	ES 2/017	9805 9996	100	92
Stożek 1:10 Obsada stożka Ø17,8; na kapturki 16				
 	ES 2/111	9805 ES111	40	32
	ES 2/112	9805 ES112	50	42

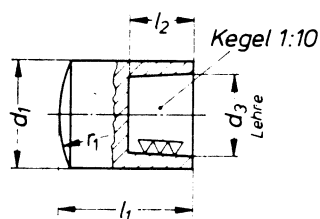
Klucz do elektrod
Dla elektrod do Ø 20 mm

Art. nr: 4080 DN 20mm

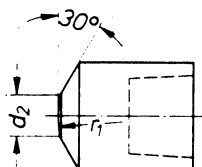
Kapturki do zgrzewania punktowego

▽ (▽▽) Oberflächen Reihe 2 DIN 3141

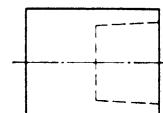
Form A



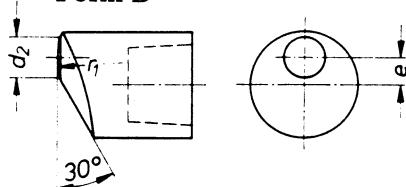
Form B



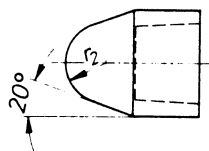
Form C



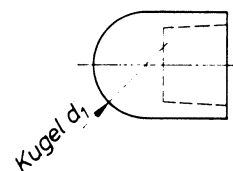
Form D



Form E



Form F

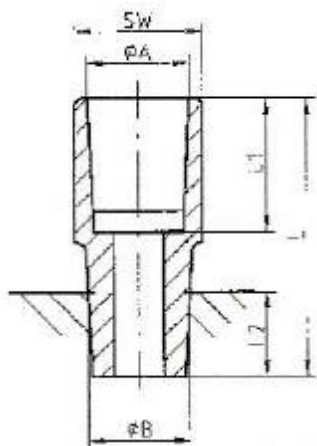


Übrige Maße wie Form A

„d1“ „h11“	„d2“	„d3“	„l1“	l2 +0,5 0	„e“	„r1“	„r2“	Max siła nacisku kN
13	5	10	18	8	3	32	5	4,0
16	6	12	20	9,5	4	40	6	6,3
20	8	15	22	11,5	5	50	8	10,0

Adapter stożkowy

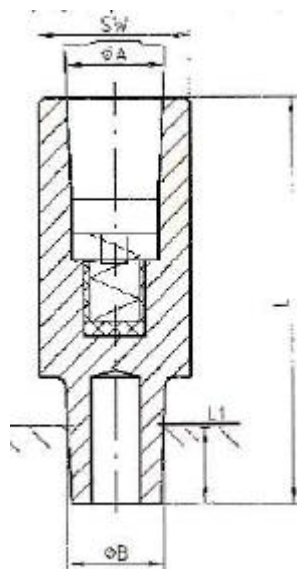
Dla elektrod standardowych



Art. Nr	Stożek A	Stożek B	„L1”	„L2”	„L”	„SW”
4000 001	Ø12,7 – 1:10	Ø17,8 – 1:10	20	20	50	19
4000 002	Ø15,5 – 1:10	Ø12,065 – MK1	26	20	55	22
4000 003	Ø17,8 – 1:10	Ø15,5 – MK2	26	20	55	24
4000 004	Ø12,065 – MK1	Ø15,5 – MK2	20	20	50	19
4000 005	Ø17,781 – MK2	Ø15,5 – MK3	26	30	65	27
4000 006	Ø15,5 – 1:10	Ø12,7 – 1:10	26	20	55	22
4000 007	Ø11,8 – 1:10	Ø17,8 – 1:10	20	20	55	22
4000 011	Ø12,065 – MK1	Ø14,8 – 1:10	20	20	55	24

Adapter stożkowy

Do elektrod z ruchomym pinem do zgrzewania elektrod



Art. Nr	Stożek A	Stożek B	„L1”	„L”	„SW”
9805 92401:01	Ø15,5 – 1:10	Ø15,5 – 1:10	20	80	22
9805 92402:02	Ø19 – 1:10	Ø19 – 1:10	25	80	27
9805 92403:03	Ø17,78 – MK2	Ø17,78 – MK2	20	80	24
9805 92404:03	Ø17,78 – MK2	Ø23,82 – MK3	30	90	27

Uchwyt elektrody (świeca)

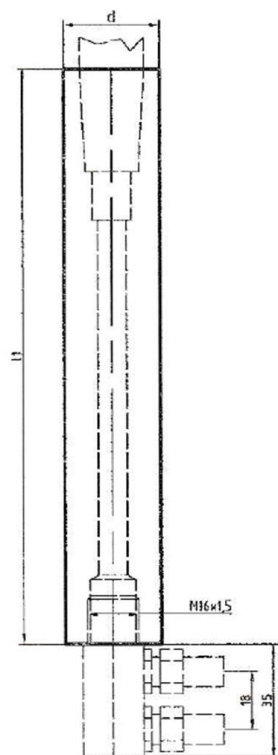


Abb. Ausführung für Standardelektroden



„d”	„l1”
22	180
25	140
25	215
25	250
30	250
30	300
30	350
32	250
32	300
32	350
35	300
35	350