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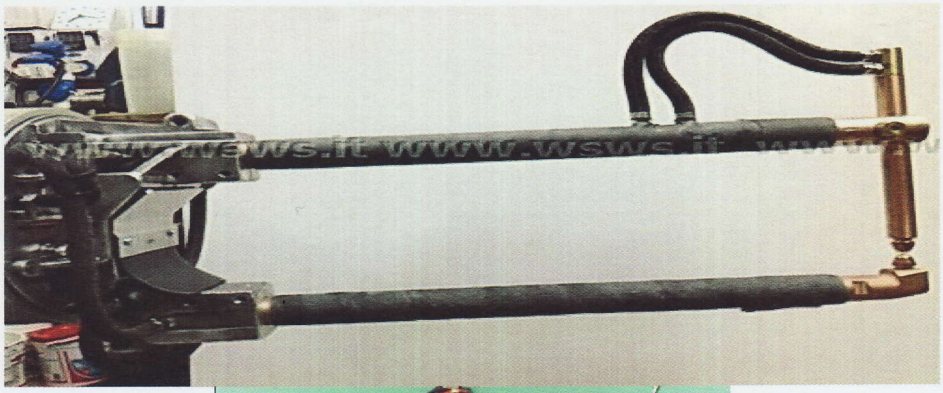
Catalogo Elettrodi e accessori

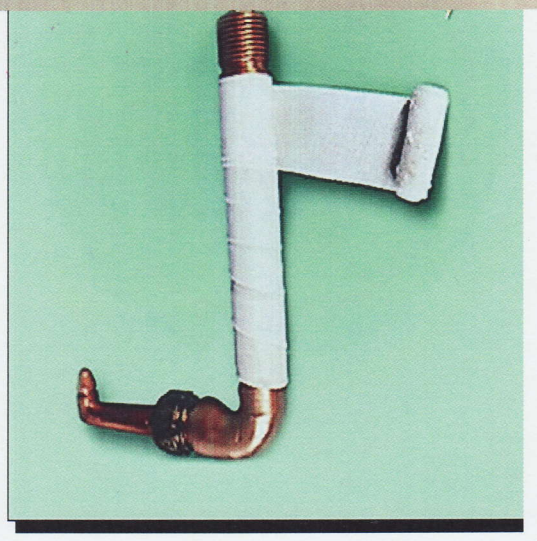
VENDITA – ASSISTENZA
PUNTATRICI E ACCESSORI

DISTRIBUTORE AUTORIZZATO TECNA ®

BENDA ISOLANTE IN CONFEZIONE MONOUSO

Prodotto ideale per proteggere ed evitare il deterioramento precoce di bracci , portaelettrodi barre secondarie in Rame dovuto a profusioni (spruzzi) di materiale sui componenti saldanti delle macchine





Esempi di applicazione su bracci per puntatice pensile

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info@wsws.it commerciale@wsws.it www.wsws.it Vat Nr: IT 02020540429

LEGHE E LORO CARATTERISTICHE (I dati menzionati si riferiscono a valori medi)

Lega	Composizione nominale in %	Densità	Durezza Brinnel	Resistenza a 20 °C Ωμ cm ²/cm	Allungamento A5 %	Resistenza alla trazione MPa (N/mm²)
AZ 15	Cr : 0,60 Zr : 0,05 Cu : Resto	8,9	165	2,10	22	500
AZ 21	Co : 2.50 Be : 0,50 Cu : Resto	8,9	255	3,70	16	900
AZ 22	Ni : 2.30 Si : 0,60 Cu : Resto	8,6	205	3,70	12	720

ALLOYS AND THEIR TECHNICAL FEATURES (The indicated figures represent average values)

Alloy grade designation	Nominal composition %	Density	Hardness 30 D²			Electrical conductivity % IACS	Elongation A5 %	Tensile strength MPa (N/mm²)
			HB	HV	HRB			
AZ 15	Cr : 0.60 Zr : 0.05 Cu : Balance	8,9	165	164	85	82	22	500
AZ 21	Co : 2.50 Be : 0,50 Cu : Balance	8,9	255	255	101	47	16	900
AZ 22	Ni : 2.30 Si : 0,60 Cu : Balance	8,6	205	210	95	47	12	720

DIE LEGIERUNGEN UND HAUPTDATEN (Die u.g. Daten sind Mittelwerte)

Legierung	Nennanalyse in Gaw %	Dichte	Brinnel Härte HB	Elektrische Leitfähigkeit	Zugfestigkeit MPa (N/mm²)
AZ 15	Cr : 0,60 Zr : 0,05 Cu : Rest	8,9	165	82	500
AZ 21	Co : 2.50 Be : 0.50 Cu : Rest	8,9	255	47	900
AZ 22	Ni : 2.30 Si : 0,60 Cu : Rest	8.6	205	47	720

LISTA MATERIALE NORMALMENTE A MAGAZZENO
STOCK LIST - LAGERLISTE

●	■	▬	○	⬢
Tondi Round Rundmaterial	Quadri Square Vierkantmaterial	Piatti Flat Flachmaterial	Dischi Disc Scheiben	Esagoni Hexagonal Sechskantmaterial

AZ 15

● mm Ø	● mm Ø	■ mm	▬ mm	▬ mm	○ mm Ø	⬢ mm
3	35	10	15x6	60x50	172x16	7
4	36	15	20x8	65x20	190x16	8
5	37	16	20x10	68x60	200x16	12
6	38	18	20x15	70x15	200x20	13
8	40	20	24.5x8	70x20	200x30	14
9	42	25	25x5	70x30	220x16	17
10	45	30	25x8	70x40	220x18	19
12	47	32	25x10	75x50	220x20	22
12.5	50	35	25x15	80x10	225x25	24
12.7	52	36	25x20	80x20	230x16	27
13	55	40	30x10	80x25	250x16	30
14	60	45	30x15	80x30	250x20	32
15	65	50	30x20	80x40	270x18	
16	70	60	30x25	80x50	270x20	
18	75	65	35x20	80x60	300x16	
19	80	70	40x8	100x10	300x20	
20	85	80	40x10	100x12	300x22	
21	90	90	40x12	100x15	315x10	
22	100	100	40x15	100x20	320x18	
23	120	130	40x20	100x30		
24	130		40x25	100x40	400780x25	
25	135		40x30	10050	400/115x18	
26	152		50x8	120x30		
28	180		50x10	120x40		
30	190		50x12	120x60		
31	210		50x15	150x10		
32			50x20	150x15		
			50x25	150x50		
			50x30	150x75		
			50x32	200x30		
			50x40	200x40		
			60x6	200x50		
			60x10	200x60		
			60x15	200x80		
			60x20	200x100		
			60x25	200x120		
			60x30	400x40		
			60x40	400x50		
			60x45			

LISTA MATERIALE NORMALMENTE A MAGAZZENO
STOCK LIST - LAGERLISTE

AZ 21

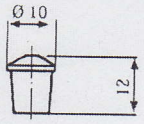
● mm Ø	● mm Ø	■ mm	▬ mm	▬ mm	▬ mm	○ mm Ø	⬢ mm
6	65	13x13	20x10	50x40	150x85	200x10	12
8	67	16x16	20x16	60x15	200x80	200x16	17
12	72	20x20	25x15	60x20	210x56	220x20	19
12.5	75	25x25	25x16	60x25	220x45	225x16	22
13	82	30x30	25x20	60x30	250x80	250x12.7	24
14	85	32x32	30x10	60x40	250x100	250x16	27
15	87	40x40	30x15	60x45	250x105	250x20	36
16	92	50x50	30x20	70x15	250x120	300x20	
18	95	60x60	30x25	70x20	255x65	300x22	
19	102	70x70	35x20	70x30	305x60	320x20	
20	105	80x80	38x25	80x20	305x65		
22	111	100x100	40x10	80x30	305x70		
25	117		40x15	80x40	305x75		
28	127		40x20	80x60	305x85		
30	128		40x25	100x30	315x60		
32	132		40x30	100x40	350x55		
35	137		45x20	100x50	400x40		
36	142		50x15	106x77	400x45		
40	147		50x20	120x50	400x50		
45	152		50x25	120x60	400x55		
50	160		50x30	150x50			
52	162						
57	172						
60	190						
62	200						

AZ 22

● mm Ø	● mm Ø	■ mm	▬ mm	▬ mm	▬ mm	⬢ mm
10	40	10x10	20x10	50x10	60x50	14
12	45	15x15	20x15	50x15	70x30	17
12.5	47	20x20	25x10	50x20	80x20	19
13	50	22x22	25x20	50x25	80x30	22
14	60	25x25	30x10	50x30	80x40	24
16	70	30x30	30x15	50x35	80x50	27
18	75	35x35	30x20	50x40	100x20	32
20	80	50x50	38x25	52x32	100x25	
22	85	60x60	40x15	60x15	100x30	
25	90	70x70	40x20	60x20	100x40	
26	95	100x100	40x30	60x30	100x50	
28	100		45x20	60x40	130x45	
30	120					
32	160					
35						

ELETTRODI CONO Ø 9 mm - 10%
SPOT WELDING ELECTRODES CONE Ø 9 mm - 10%
PUNKTSCHWEISSELEKTRODEN KONUS Ø 9 mm - 10%

ALTRE FORME A RICHIESTA
OTHER FORMS UPON REQUEST
ANDERE SCHABLONEN AUF ANFRAGE



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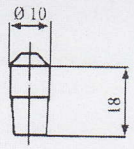

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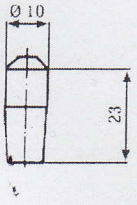

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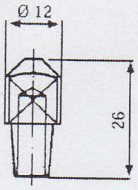

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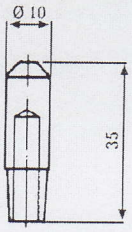

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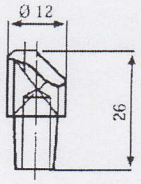

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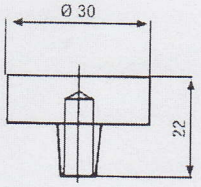

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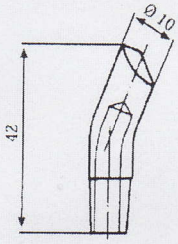

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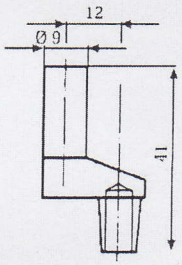

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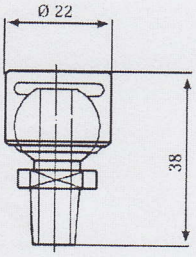

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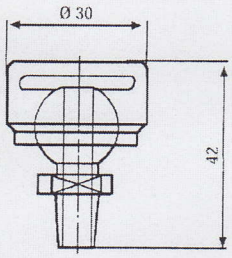

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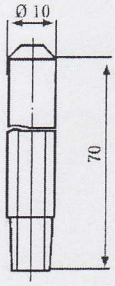

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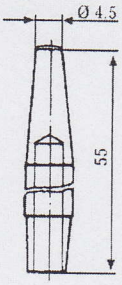

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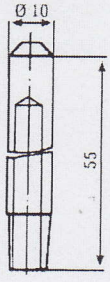

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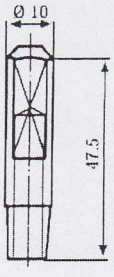
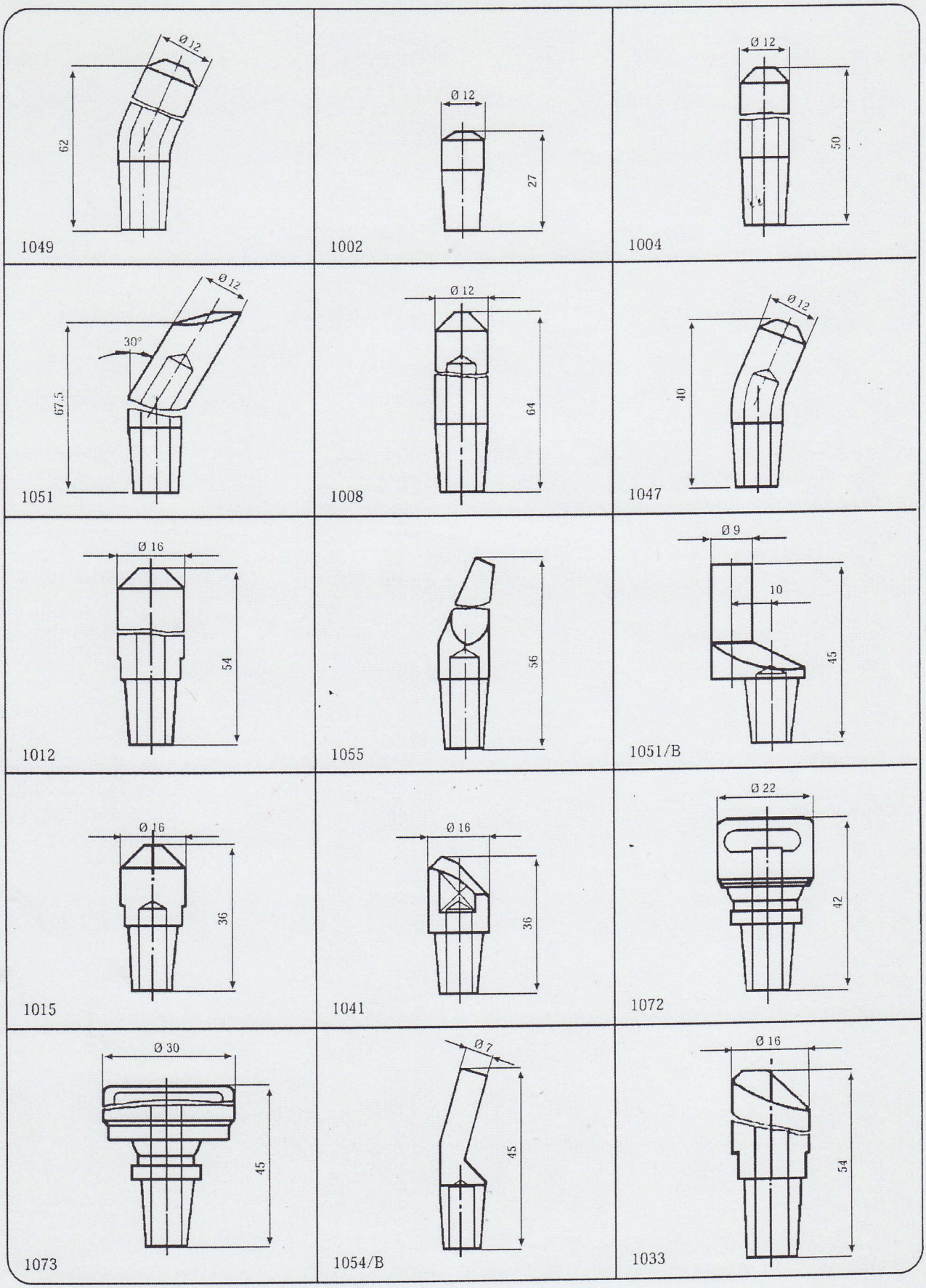


9011

ELETTRODI CONO Ø 12 mm - 10%
SPOT WELDING ELECTRODES CONE Ø 12 mm - 10%
PUNKTSCHWEISSELEKTRODEN KONUS Ø 12 mm - 10%

ALTRE FORME A RICHIESTA
OTHER FORMS UPON REQUEST
ANDERE SCHABLONEN AUF ANFRAGE



ELETTRODI CONO Ø 12 mm - 10%
SPOT WELDING ELECTRODES CONE Ø 12 mm - 10%
PUNKTSCHWEISSELEKTRODEN KONUS Ø 12 mm - 10%

ALTRE FORME A RICHIESTA
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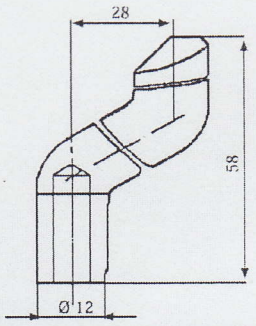

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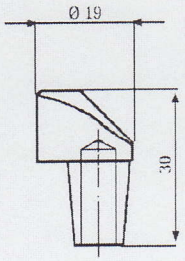

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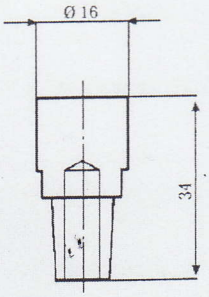

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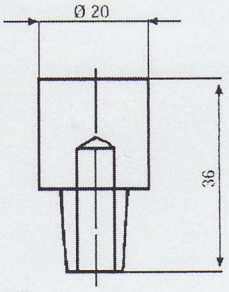

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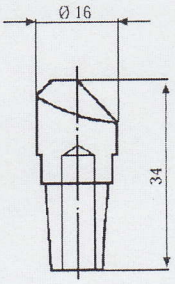

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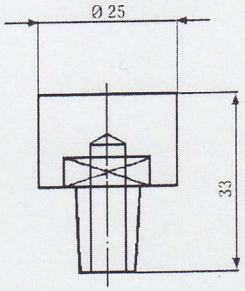

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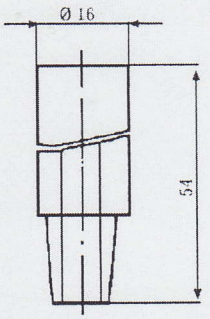

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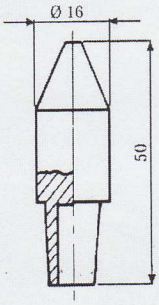

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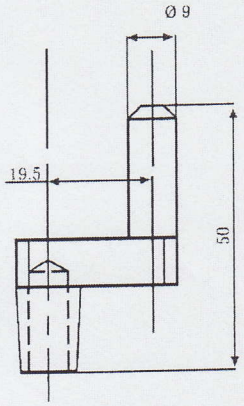

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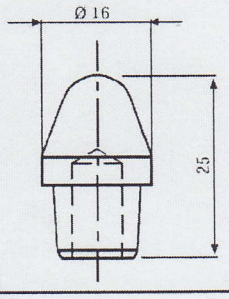

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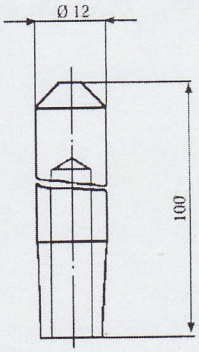

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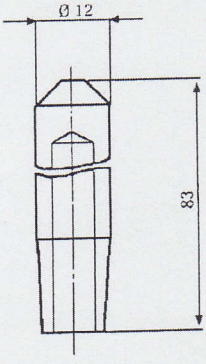

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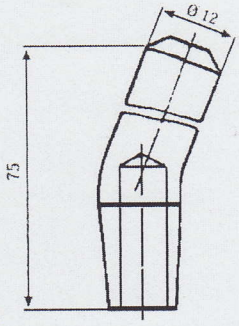

1050

ELETTRODI STAMPATI CAPS - DIN ISO 5821
CAP ELECTRODES - DIN ISO 5821
ELEKTRODENKAPPEN - DIN ISO 5821

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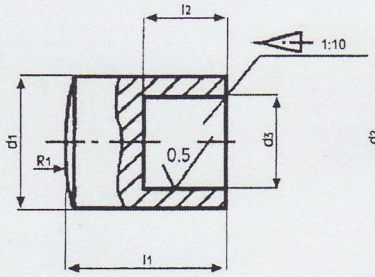

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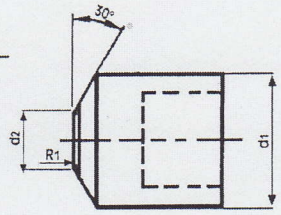

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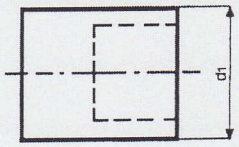

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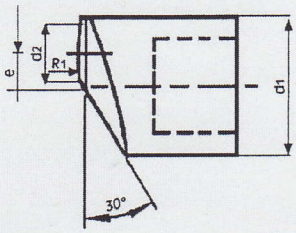

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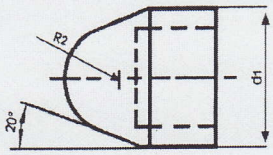

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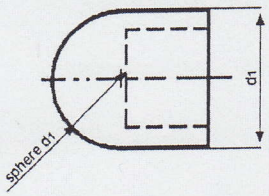
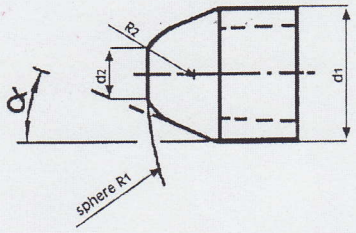


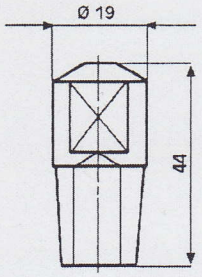
Form: G



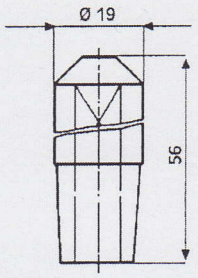
d_1 h 11	d_2	d_3	l_1	$l_2 + 0.5\ 0$	e	R_1	R_2	α	force Fmax/kN
13	5	10	18	8	3	32	5	-	2,5
16	6	12	20	10,5	4	40	6	15°	4
20	8	15	22	11,5	5	50	8	22,5°	6,3

ELETTRODI CONO Ø 18 mm - 10%
SPOT WELDING ELECTRODES CONE Ø 18 mm - 10%
PUNKTSCHWEISSELEKTRODEN KONUS Ø 18 mm - 10%

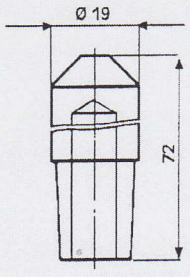
ALTRE FORME A RICHIESTA
OTHER FORMS UPON REQUEST
ANDERE SCHABLONEN AUF ANFRAGE



2012



2013



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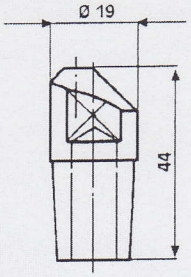
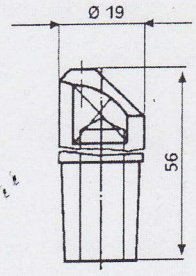
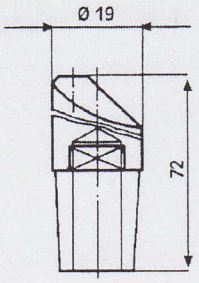


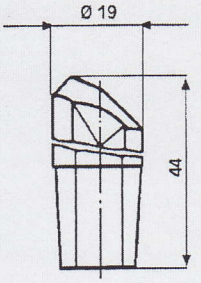
2017



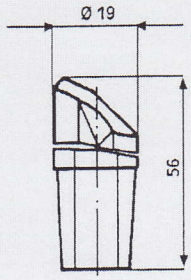
2018



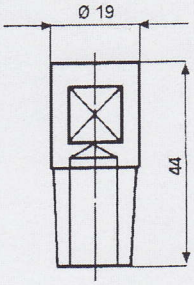
2019



2027



2028



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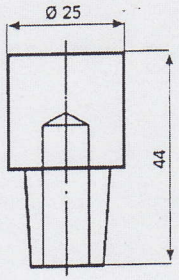

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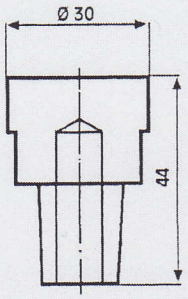

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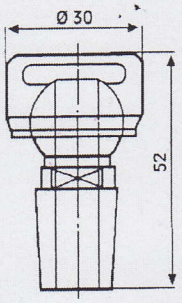

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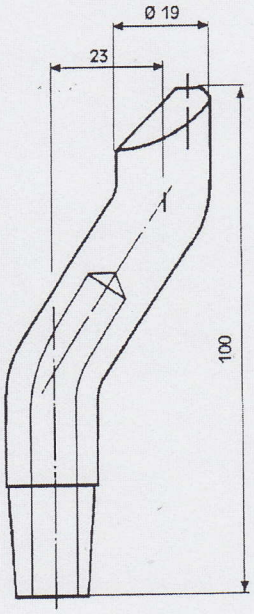

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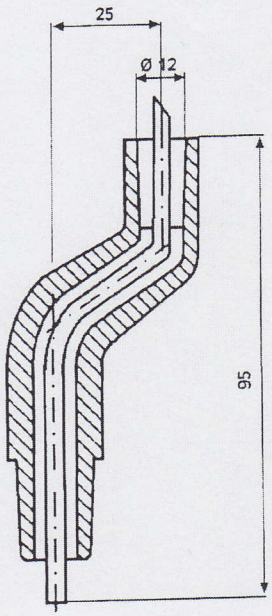

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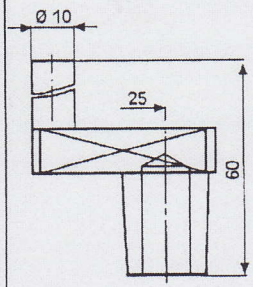
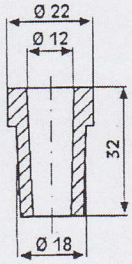


2052

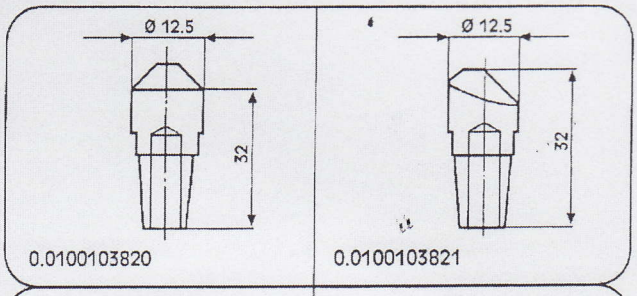


2094

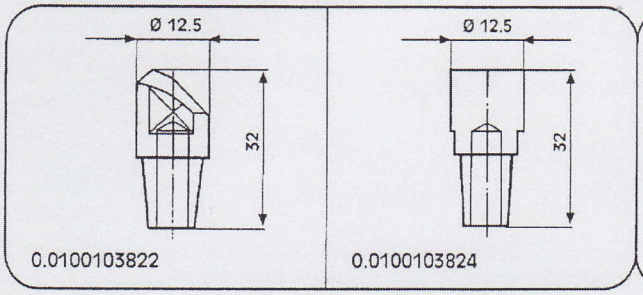
ELETTRODI CONO Ø 10.7 mm - 2°30'

SPOT WELDING ELECTRODES
CONE Ø 10.7 mm - 2°30'

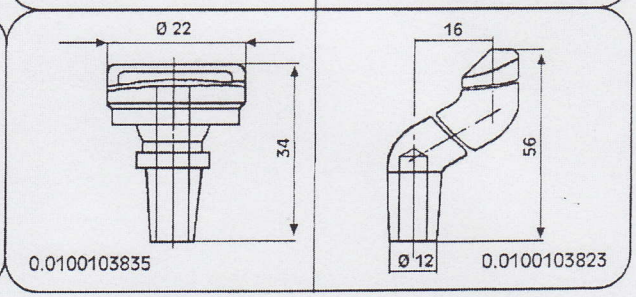
PUNKTSCHWEISSELEKTRODEN
KONUS Ø 10.7 mm - 2°30'



0.0100103820 0.0100103821



0.0100103822 0.0100103824

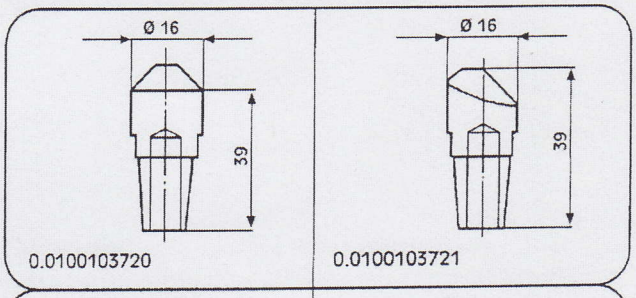


0.0100103835 0.0100103823

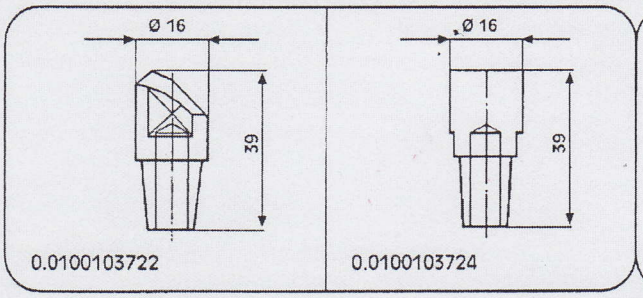
ELETTRODI CONO Ø 12.7 mm - 2°30'

SPOT WELDING ELECTRODES
CONE Ø 12.7 mm - 2°30'

PUNKTSCHWEISSELEKTRODEN
KONUS Ø 12.7 mm - 2°30'



0.0100103720 0.0100103721



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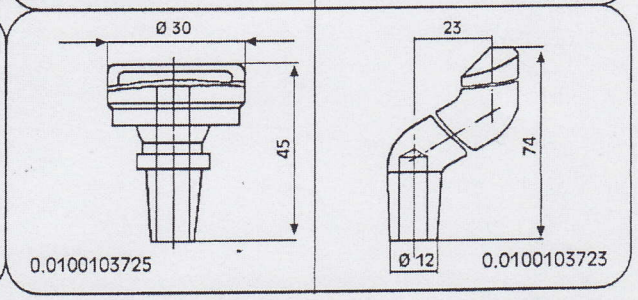
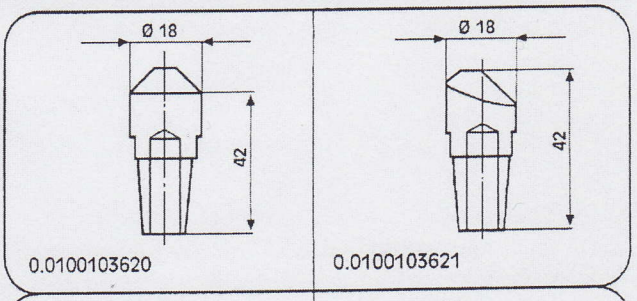


0.0100103725 0.0100103723

ELETTRODI CONO Ø 14.8 mm - 2°30'

SPOT WELDING ELECTRODES
CONE Ø 14.8 mm - 2°30'

PUNKTSCHWEISSELEKTRODEN
KONUS Ø 14.8 mm - 2°30'



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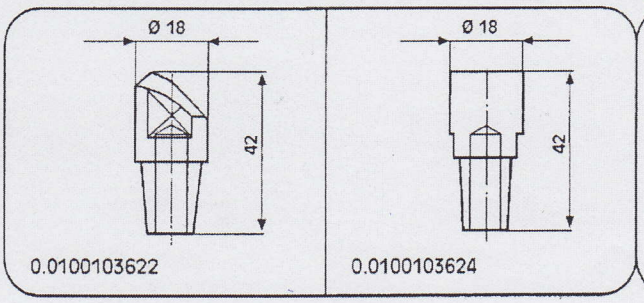

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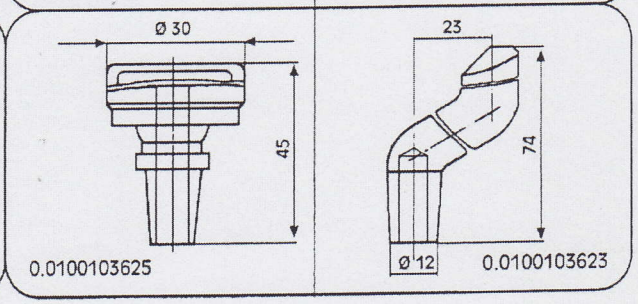
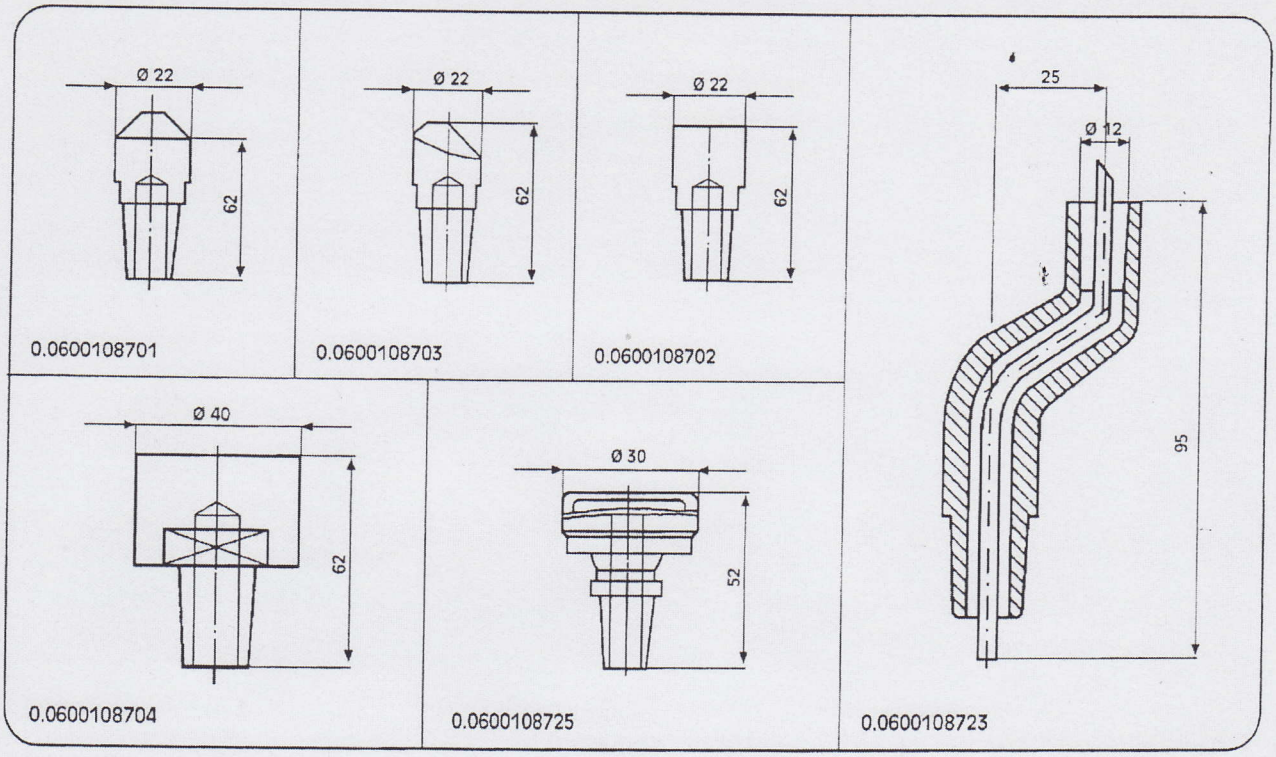


0.0100103625 0.0100103623

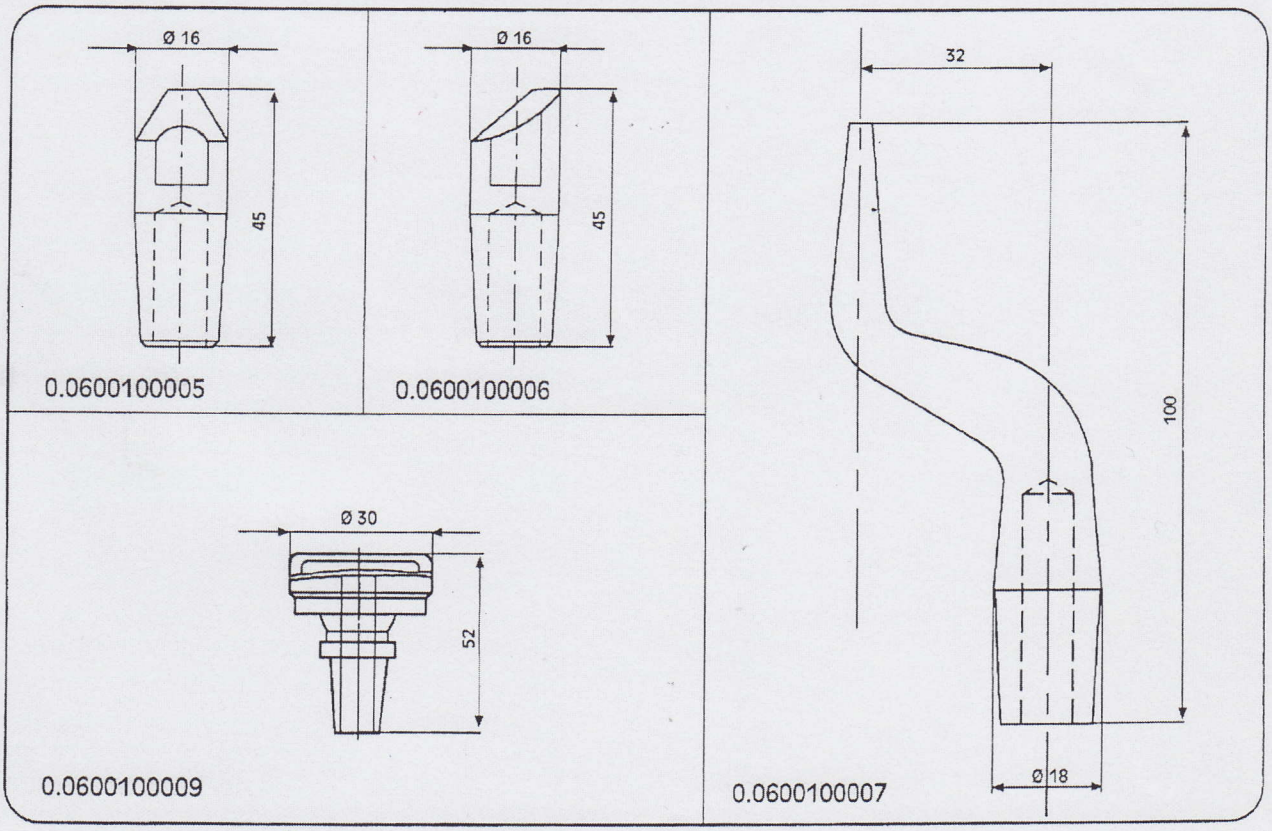
ELETTRODI CONO Ø 19 mm - 2°30'
SPOT WELDING ELECTRODES CONE Ø 19 mm - 2°30'
PUNKTSCHWEISSELEKTRODEN KONUS Ø 19 mm - 2°30'

ALTRE FORME A RICHIESTA
OTHER FORMS UPON REQUEST
ANDERE SCHABLONEN AUF ANFRAGE



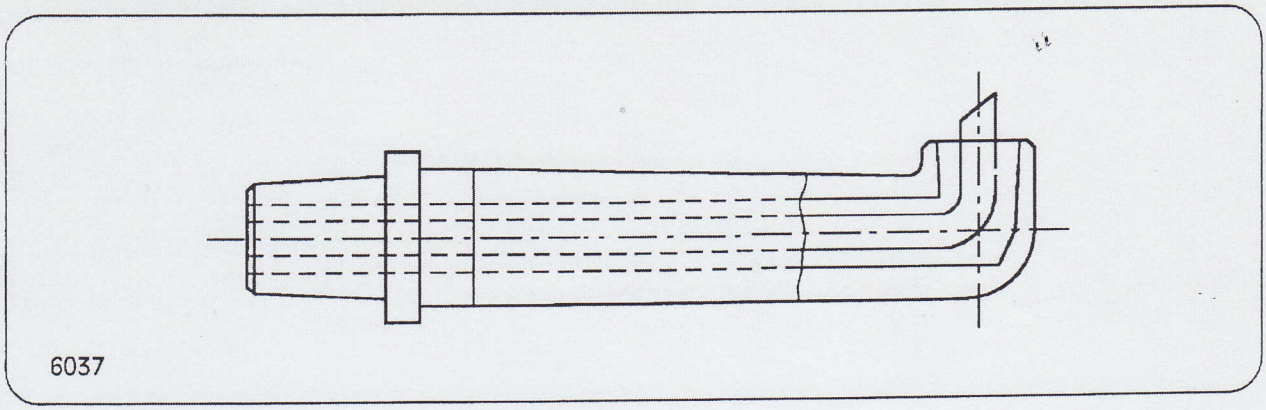
ELETTRODI CONO Ø 15.5 mm - 10%
SPOT WELDING ELECTRODES CONE Ø 15.5 mm - 10%
PUNKTSCHWEISSELEKTRODEN KONUS Ø 15.5mm - 10%

ALTRE FORME A RICHIESTA
OTHER FORMS UPON REQUEST
ANDERE SCHABLONEN AUF ANFRAGE

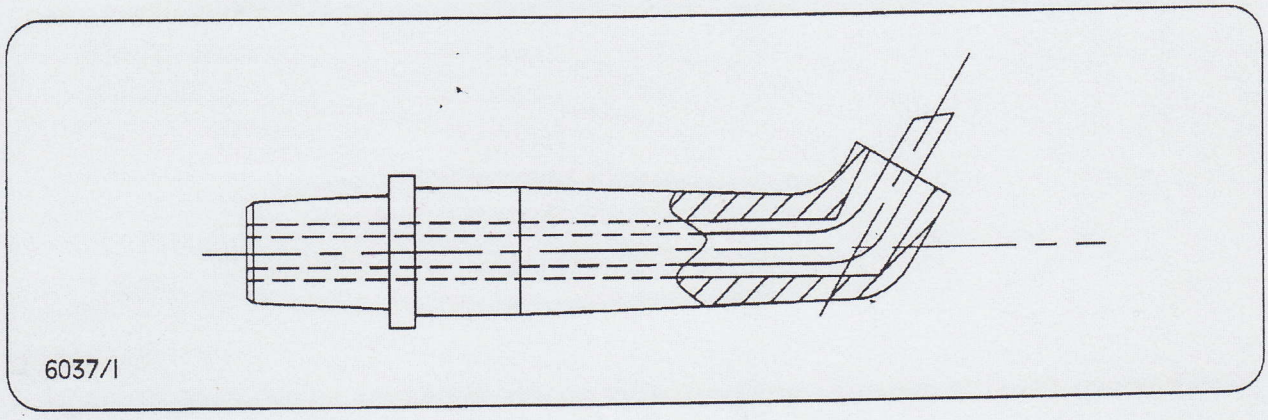


ELETTRODO DI TESTA
FINGER ELECTRODE
FINGERELEKTRODE

ELETTRODI CONO Ø 18 mm - 5°
SPOT WELDING ELECTRODES CONE Ø 18 mm - 5°
PUNKTSCHWEISSELEKTRODEN KONUS Ø 18 mm - 5°

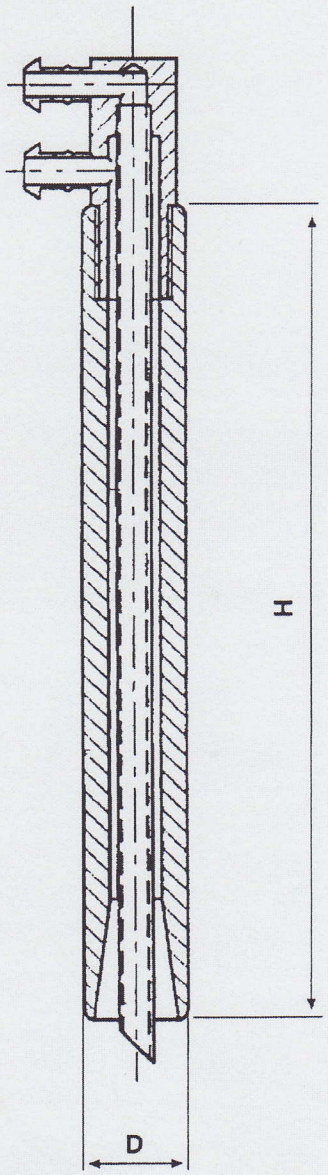


6037



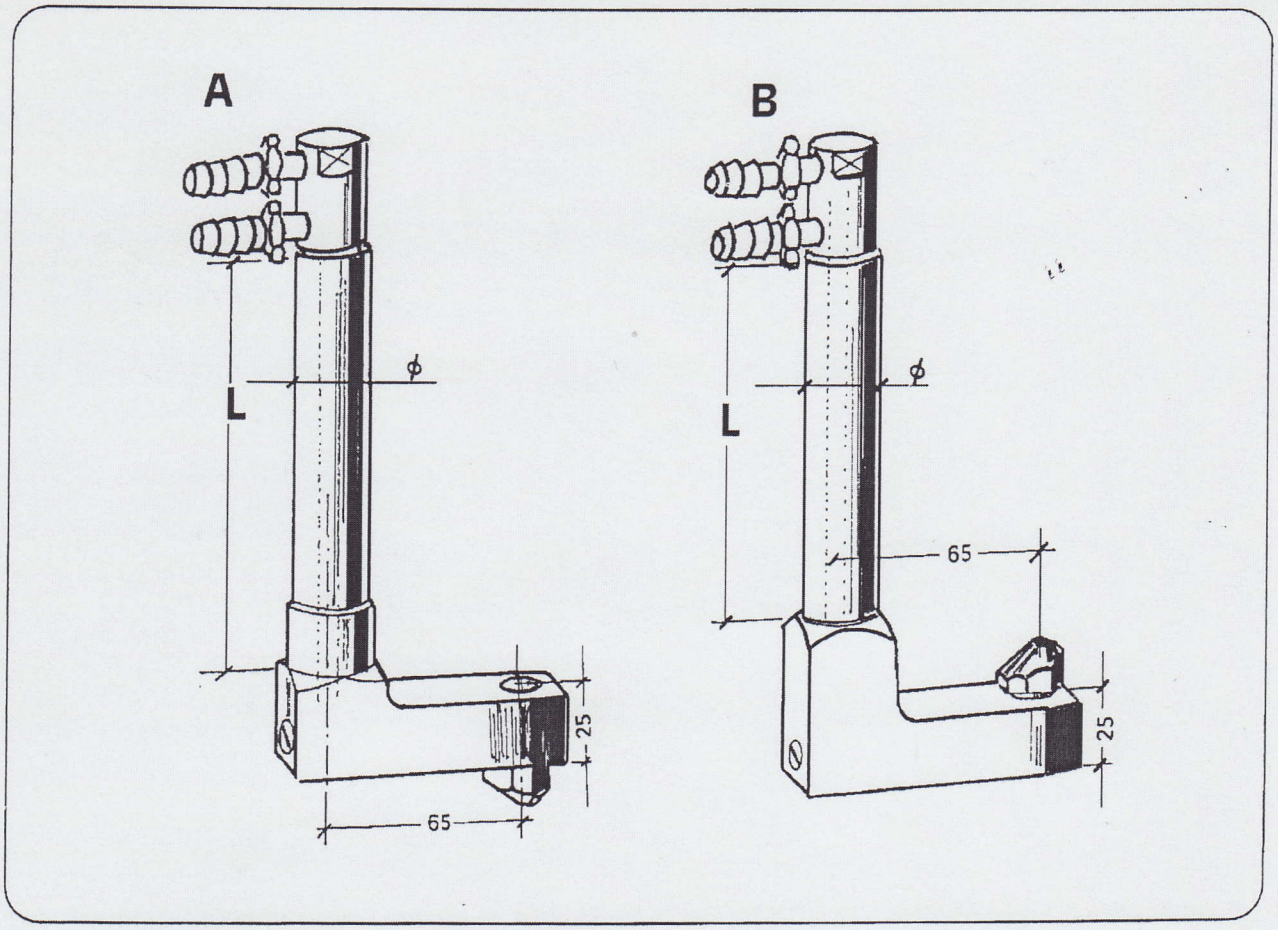
6037/I

ALTRE FORME A RICHIESTA - OTHER FORMS UPON REQUEST - ANDERE SCHABLONEN AUF ANFRAGE



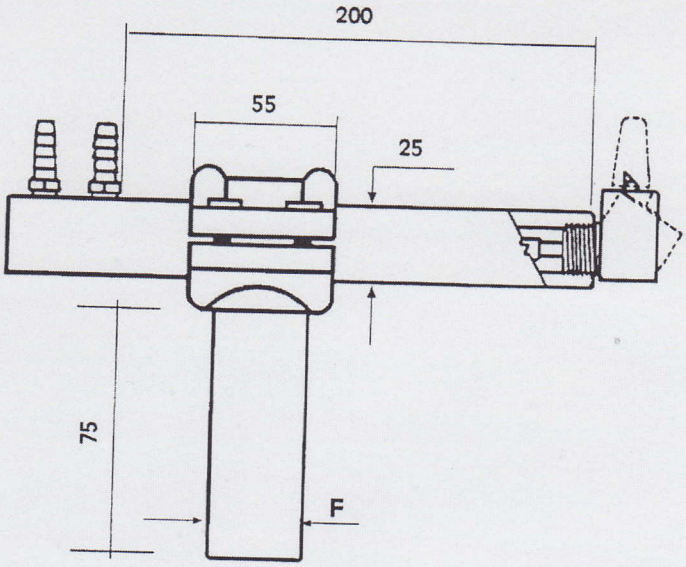
Ø D	H	Art. - Item - Art.
19	150	22012
19	200	22013
19	240	22014
19	300	22015
20	130	22020
20	200	22021
21	150	0.0100220027
21	200	0.0100220028
22	150	0.0100271064
22	260	0.0100271063
22	410	0.0100271066
25	150	22036
25	200	22037
25	240	22038
25	300	22039
30	150	22050
30	200	22051
30	240	22052
30	300	22053
30	400	22054
32	165	0.0100220061
32	200	0.0100220062
32	300	0.0100220063
35	240	22071
35	400	22072

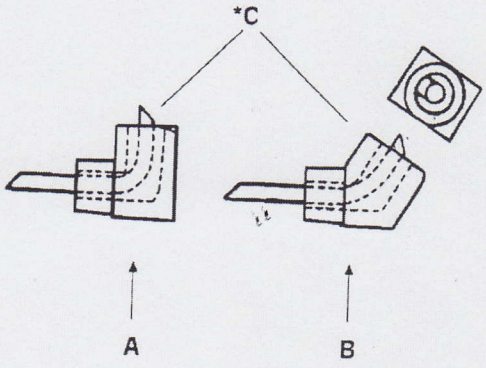
SPECIFICARE CONICITÀ - INDICATE TAPER - KONIZITÄT ANGEBEN



Cono - Cone - Konus
Ø 12 - 10%

Ø D	L	Art. A Item A Art. A	Art. B Item B Art. B
19	160	32500 A	32501 B
19	260	32502 A	32503 B
25	160	32504 A	32505 B
25	260	32506 A	32507 B
30	160	32508 A	32509 B
30	260	32510 A	32511 B

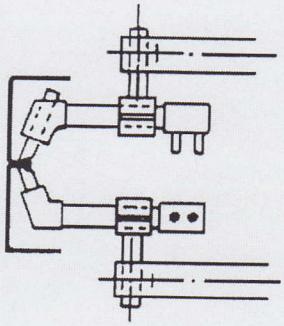


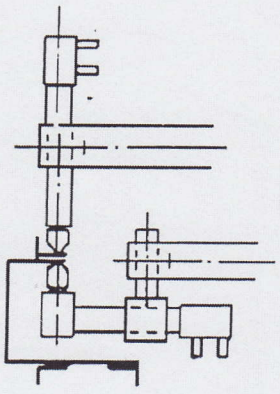


Cono - Cone - Konus
Ø 12 - 10%

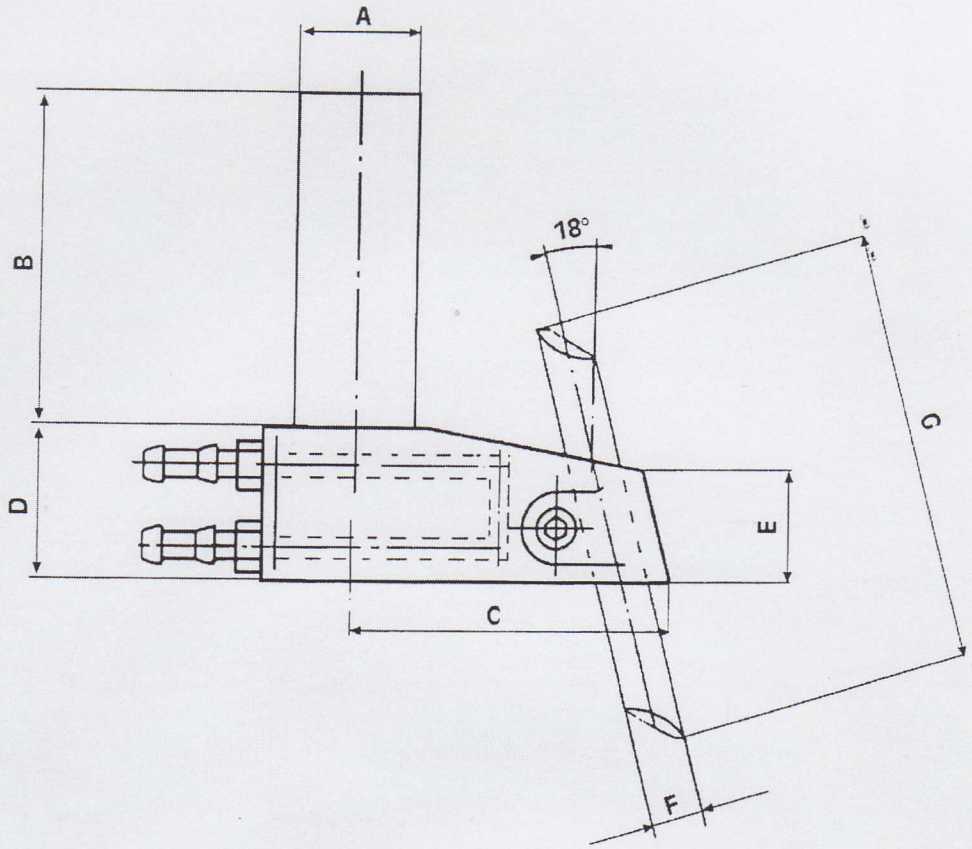
F = Ø	Con art. A With item A Mit Art. A	Con art. B With item B Mit Art. B
19	32512 A	32513 B
20	32514 A	32515 B
21	32516 A	32517 B
22	32518 A	32519 B
25	32520 A	32521 B
30	32522 A	32523 B

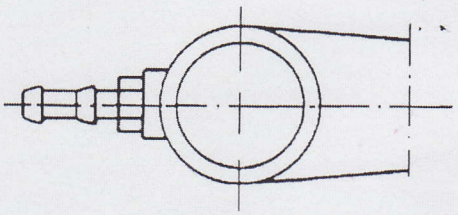
N.B. Altri diametri su richiesta
Other diameters upon request
Andere Durchmesser auf Anfrage





Esempi di applicazione
Examples of application
Anwendungsbeispiele

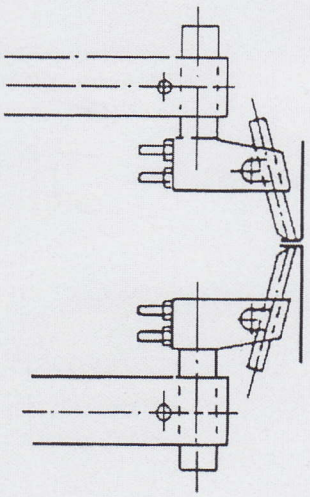




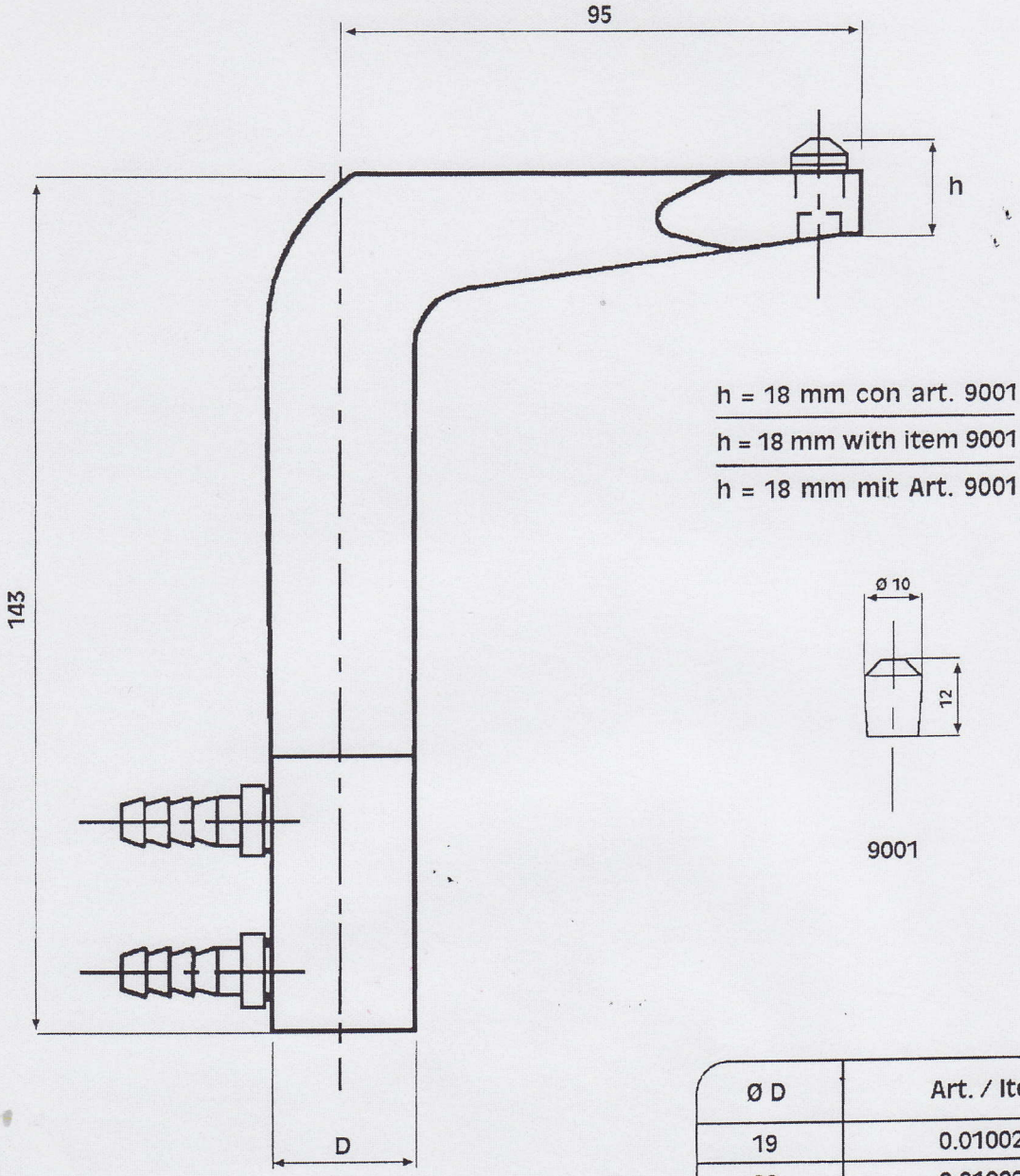
A	B	C	D	E	F Ø	G	Art. Item Art.
*	65	70	39	26	12,7	75	32530
*	150	128	39	26	12,7	75	32531
*	120	128	39	26	12,7	75	32532
*	150	70	39	26	12,7	75	32533

* Quota A da specificare all'ordine
* Please, indicate the measure A in the order
* Bitte das Mass A in der Bestellung angeben

N.B. Altri diametri su richiesta
Other diameters upon request
Andere Durchmesser auf Anfrage



Esempi di applicazione
Examples of application
Anwendungsbeispiele

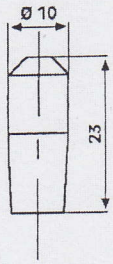


h = 18 mm con art. 9001

h = 18 mm with item 9001

h = 18 mm mit Art. 9001

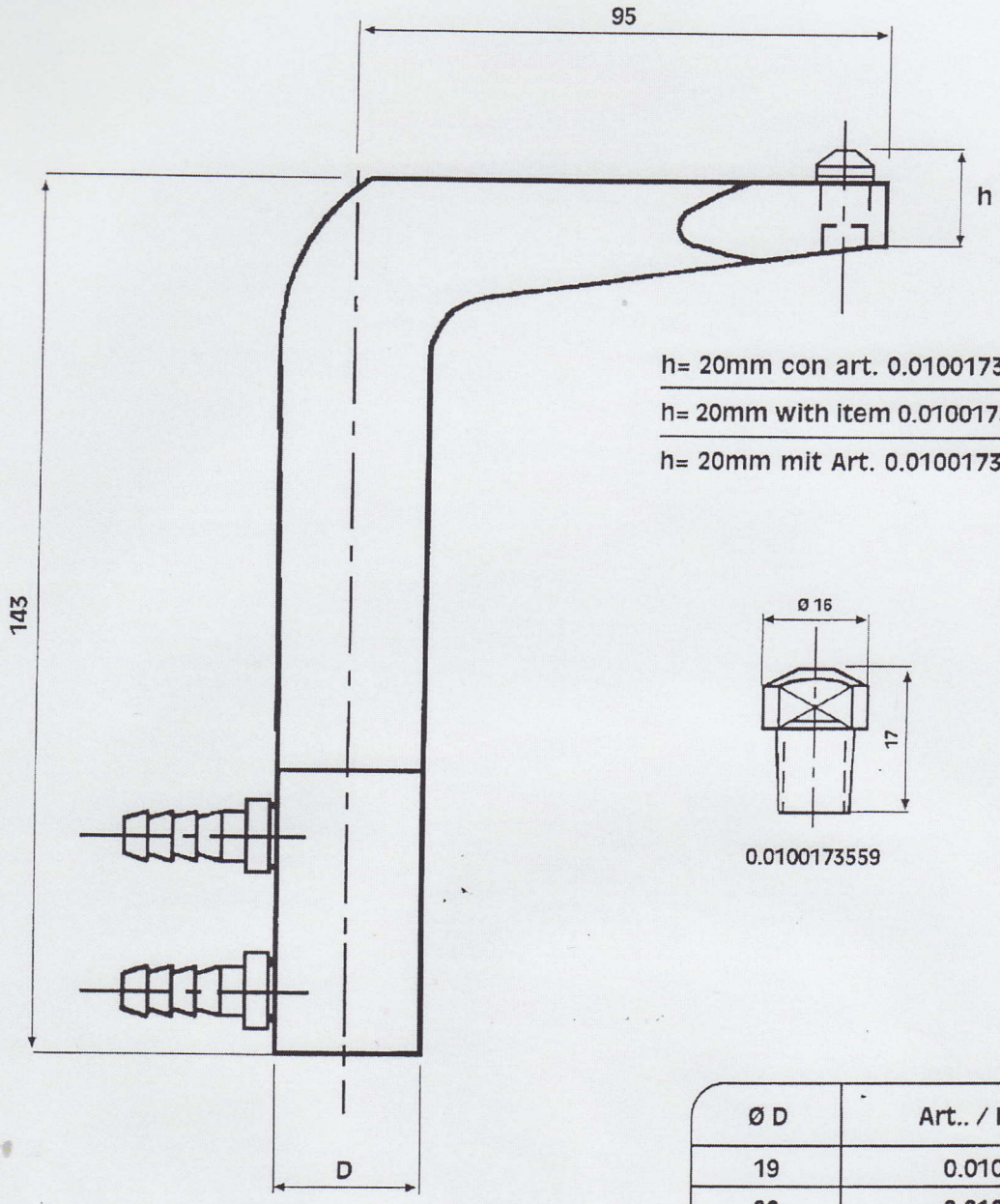
9001



9003

Ø D	Art. / Item / Art.
19	0.0100220070
20	0.0100220071
21	0.0100220072
22	0.0100220073
25	0.0100220074
30	0.0100220075

N.B. Altri diametri su richiesta
Other diameters upon request
Andere Durchmesser auf Anfrage

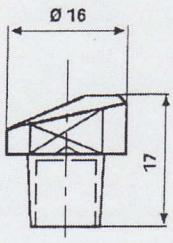


h= 20mm con art. 0.0100173559/ 0.0100173554

h= 20mm with item 0.0100173559/ 0.0100173554

h= 20mm mit Art. 0.0100173559/ 0.0100173554

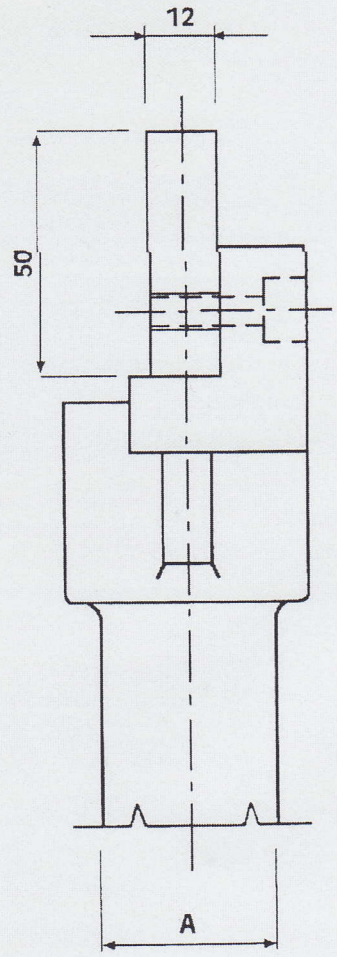
0.0100173559

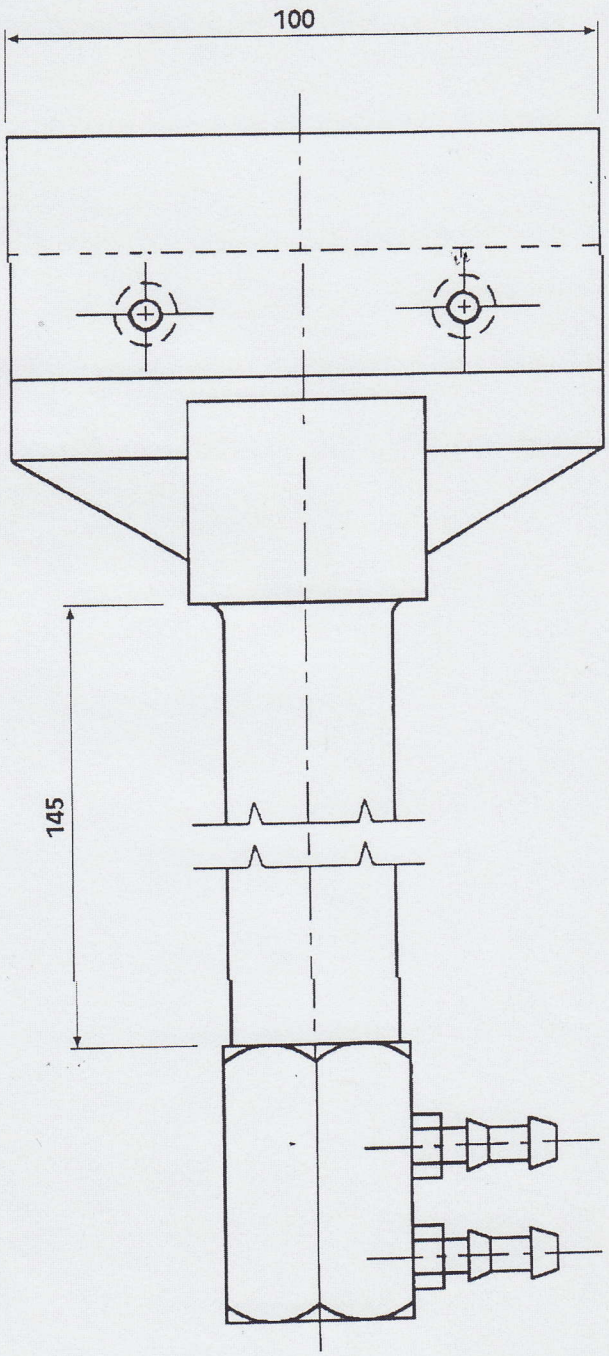


0.0100173554

Ø D	Art.. / Item / Art.
19	0.0100220080
20	0.0100220081
21	0.0100220082
22	0.0100220083
25	0.0100220084
30	0.0100220085

N.B. Altri diametri su richiesta
Other diameters upon request
Andere Durchmesser auf Anfrage

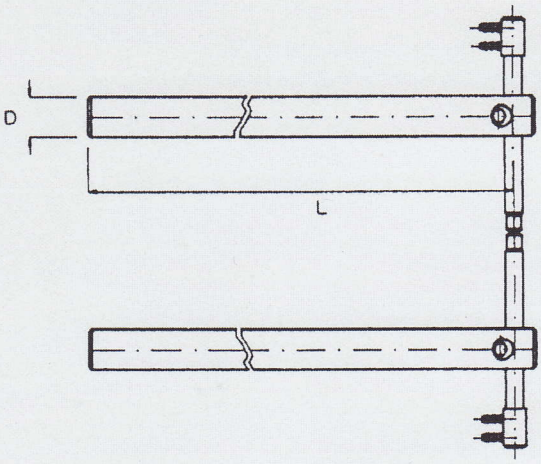




A	Art. / Item / Art.
Ø 19	32400
Ø 20	32401
Ø 22	32402
Ø 25	32403
Ø 30	32404

N.B. Altri diametri su richiesta
Other diameters upon request
Andere Durchmesser auf Anfrage

BRACCI PER PUNTATRICI FISSE
ARMS FOR STATIONARY SPOT WELDING MACHINES
ARME FÜR STATIONÄRE PUNKTSCHWEISSMASCHINEN



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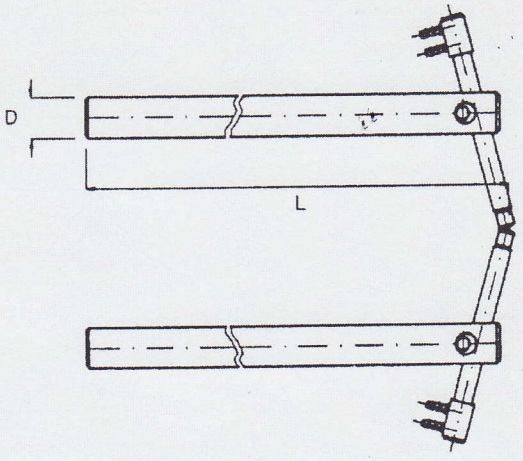

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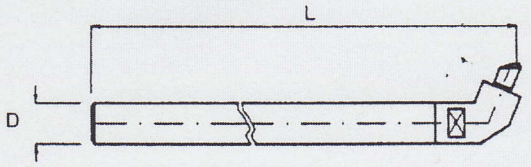

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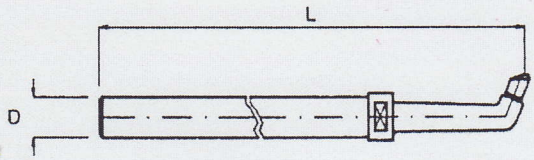

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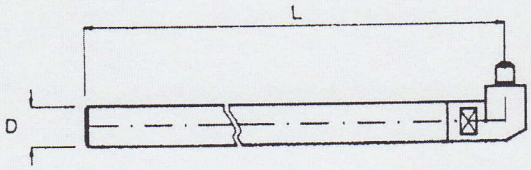

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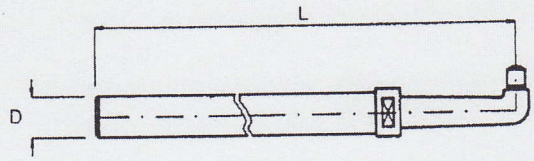
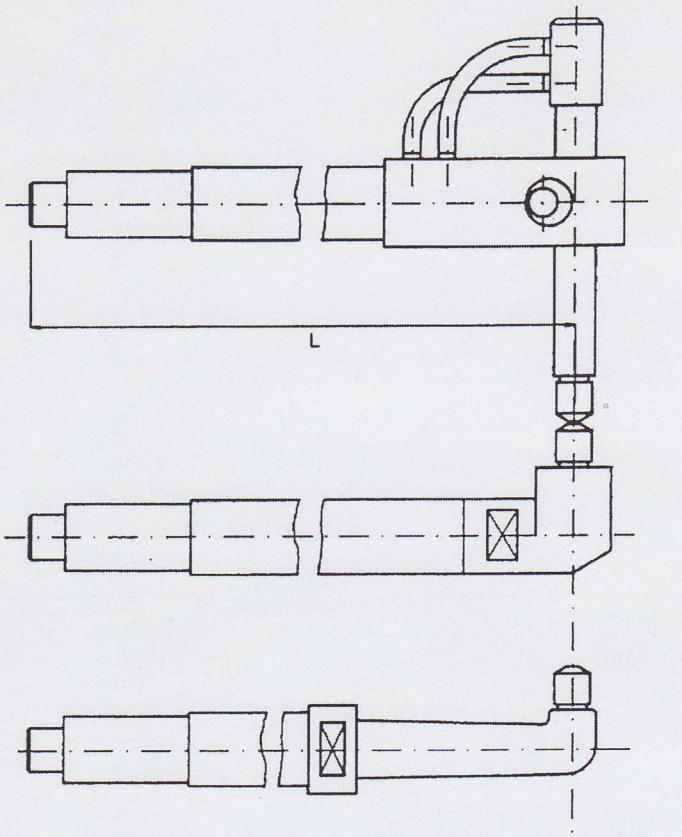


6

All'ordine specificare dimensioni "D" e "L"
On the order, please specify the dimensions "D" and "L"
Bei der Bestellung bitte die Abmessungen "D" und "L" angeben

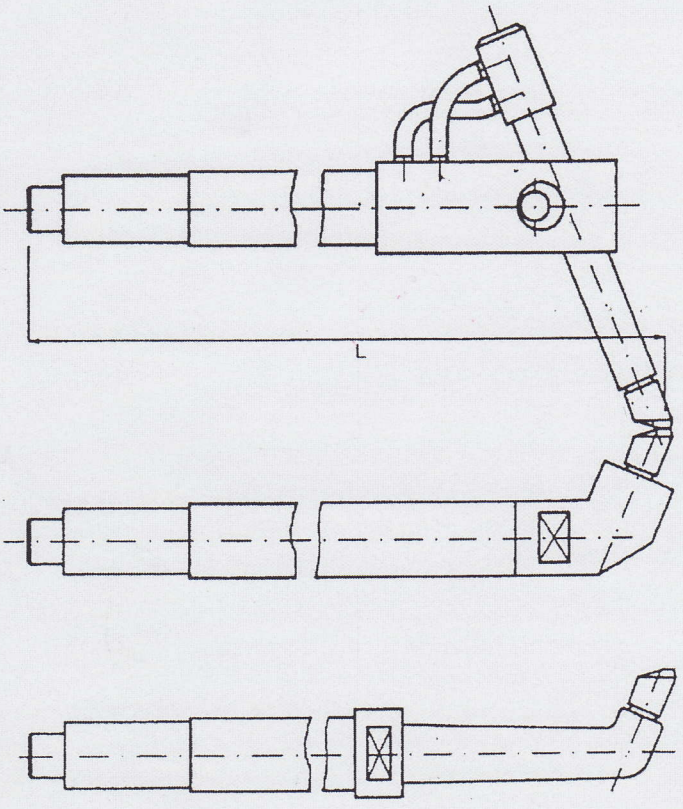


A

B

C

L = mm
200
300
400
500
600
700
800



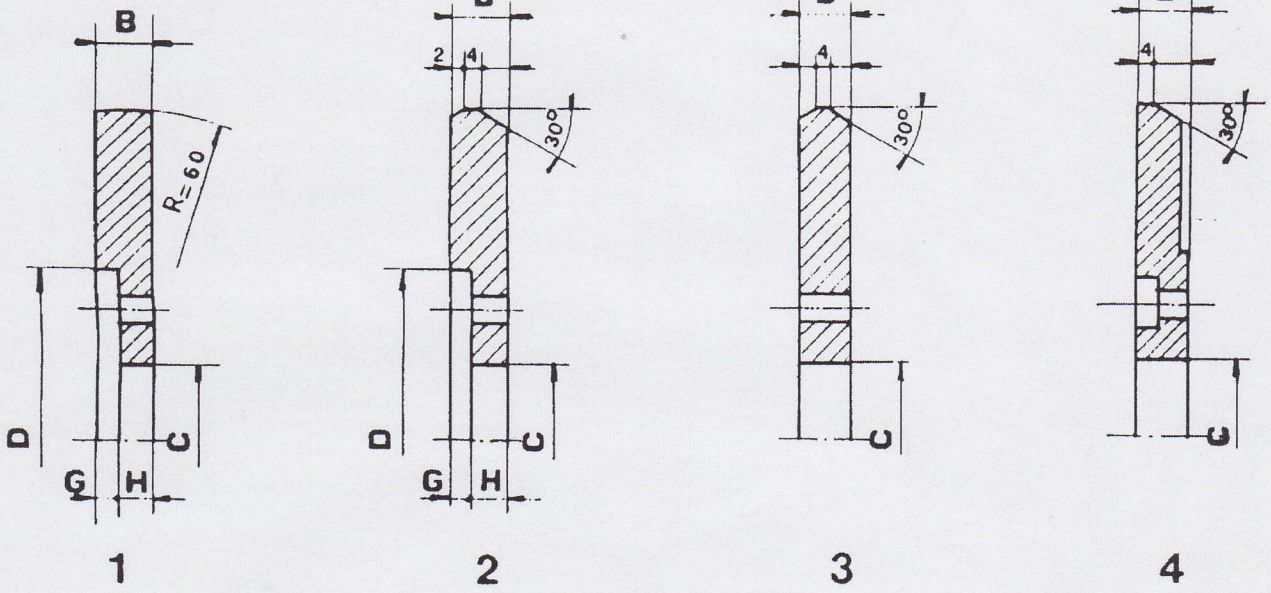
D

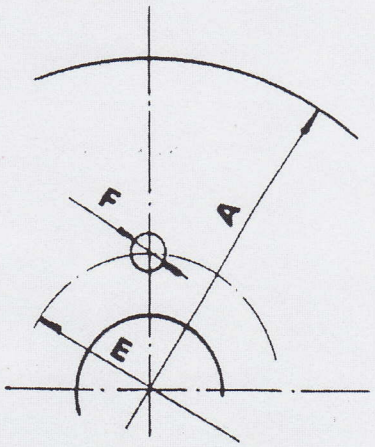
E

F

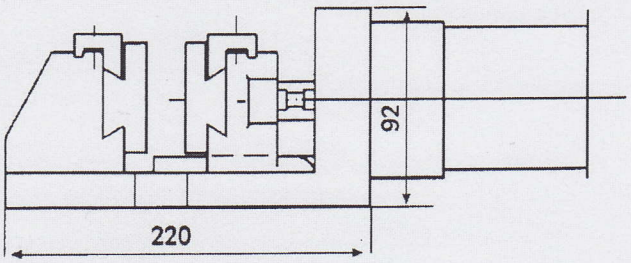
L = mm
200
300
400
500
600
700
800

All'ordine specificare marca, modello e quota "L"
On the order, please specify trade-mark, model and measure "L"
Bei der Bestellung bitte das Fabrikat, das Modell und die Abmessung "L" angeben

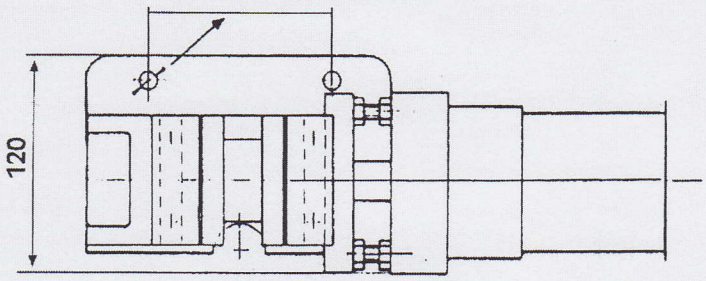




Esempi di profili
Examples of profiles
Beispiele von Profilen



a richiesta
upon request
auf Anfrage



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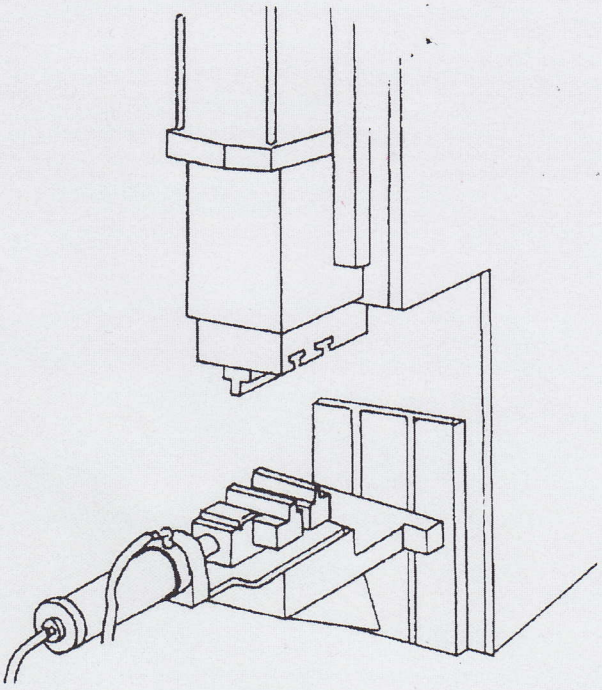

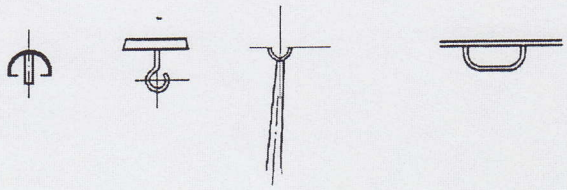

Esempi di applicazione
Examples of application
Anwendungsbeispiele