



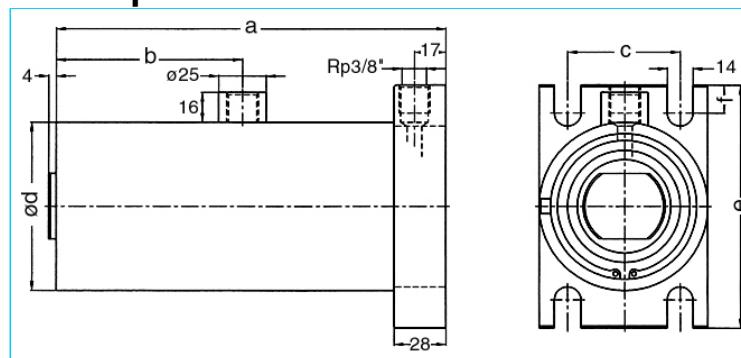
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



**Nominal size 070**  
short model!

Stroke	a	b	c	d	e	f	Force*	Order-number
36	177	95	60	90	130	15	0.72 kN	101.112.121.070.036.
50	205	109	60	90	130	15	0.72 kN	101.112.121.070.050.
65	235	124	60	90	130	15	0.72 kN	101.112.121.070.065.
80	265	139	60	90	130	15	0.72 kN	101.112.121.070.080.
100	305	159	60	90	130	15	0.72 kN	101.112.121.070.100.
130	365	189	60	90	130	15	0.72 kN	101.112.121.070.130.
150	405	209	60	90	130	15	0.72 kN	101.112.121.070.150.

\*at 1 bar pressure

**Complete the Order-number: Example: 101.112.121.070.036.???** No. Force connection (S.8).???. No. Cylinder rod (S.9), write at the end a little k!

**Nominal size 070**

Stroke	a	b	c	d	e	f	Force*	Order-number
36	206	99	60	90	130	15	0.72 kN	101.112.121.070.036.
50	234	113	60	90	130	15	0.72 kN	101.112.121.070.050.
65	264	128	60	90	130	15	0.72 kN	101.112.121.070.065.
80	294	143	60	90	130	15	0.72 kN	101.112.121.070.080.
100	334	163	60	90	130	15	0.72 kN	101.112.121.070.100.
130	394	193	60	90	130	15	0.72 kN	101.112.121.070.130.
150	434	213	60	90	130	15	0.72 kN	101.112.121.070.150.

\*at 1 bar pressure

**Complete the Order-number:**

Example: 101.112.121.070.050.???

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Cylinder-Ground plate-1



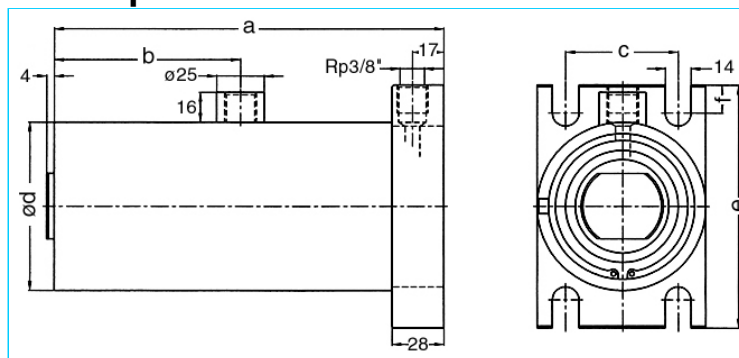
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



**Nominal size 080**  
short model!

Stroke	a	b	c	d	e	f	Force*	Order-number
36	177	95	70	100	140	17,5	0.95 kN	101.112.121.080.036.
50	205	109	70	100	140	17,5	0.95 kN	101.112.121.080.050.
65	235	124	70	100	140	17,5	0.95 kN	101.112.121.080.065.
80	265	139	70	100	140	17,5	0.95 kN	101.112.121.080.080.
100	305	159	70	100	140	17,5	0.95 kN	101.112.121.080.100.
130	365	189	70	100	140	17,5	0.95 kN	101.112.121.080.130.
150	405	209	70	100	140	17,5	0.95 kN	101.112.121.080.150.

\*at 1 bar pressure

**Complete the Order-number: Example: 101.112.121.080.036.???** No. Force connection (S.8).???. No. Cylinder rod (S.9), write at the end a little k!

**Nominal size 080**

Stroke	a	b	c	d	e	f	Force*	Order-number
36	206	99	70	100	140	17,5	0.95 kN	101.112.121.080.036.
50	234	113	70	100	140	17,5	0.95 kN	101.112.121.080.050.
65	264	128	70	100	140	17,5	0.95 kN	101.112.121.080.065.
80	294	143	70	100	140	17,5	0.95 kN	101.112.121.080.080.
100	334	163	70	100	140	17,5	0.95 kN	101.112.121.080.100.
130	394	193	70	100	140	17,5	0.95 kN	101.112.121.080.130.
150	434	213	70	100	140	17,5	0.95 kN	101.112.121.080.150.

\*at 1 bar pressure

**Complete the Order-number:**

Example: 101.112.121.080.050.???

**No. Force connection (S.8).?? No. Cylinder rod (S.9)!**

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Cylinder-Ground plate-2



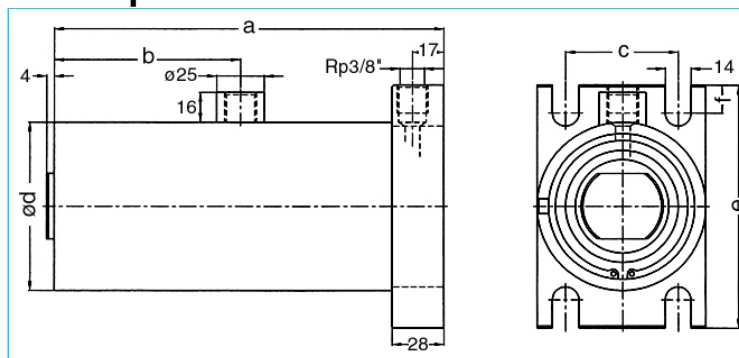
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



**Nominal size 090**  
short model!

Stroke	a	b	c	d	e	f	Force*	Order-number
36	177	95	80	110	150	20	1.2 kN	101.112.121.090.036.
50	205	109	80	110	150	20	1.2 kN	101.112.121.090.050.
65	235	124	80	110	150	20	1.2 kN	101.112.121.090.065.
80	265	139	80	110	150	20	1.2 kN	101.112.121.090.080.
100	305	159	80	110	150	20	1.2 kN	101.112.121.090.100.
130	365	189	80	110	150	20	1.2 kN	101.112.121.090.130.
150	405	209	80	110	150	20	1.2 kN	101.112.121.090.150.

\*at 1 bar pressure

**Complete the Order-number: Example: 101.112.121.090.036.???** No. Force connection (S.8).???. No. Cylinder rod (S.9), write at the end a little k!

**Nominal size 090**

Stroke	a	b	c	d	e	f	Force*	Order-number
36	206	99	80	110	150	20	1.2 kN	101.112.121.090.036.
50	234	113	80	110	150	20	1.2 kN	101.112.121.090.050.
65	264	128	80	110	150	20	1.2 kN	101.112.121.090.065.
80	294	143	80	110	150	20	1.2 kN	101.112.121.090.080.
100	334	163	80	110	150	20	1.2 kN	101.112.121.090.100.
130	394	193	80	110	150	20	1.2 kN	101.112.121.090.130.
150	434	213	80	110	150	20	1.2 kN	101.112.121.090.150.

\*at 1 bar pressure

**Complete the Order-number:**

Example: 101.112.121.090.050.???

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Cylinder-Ground plate-3



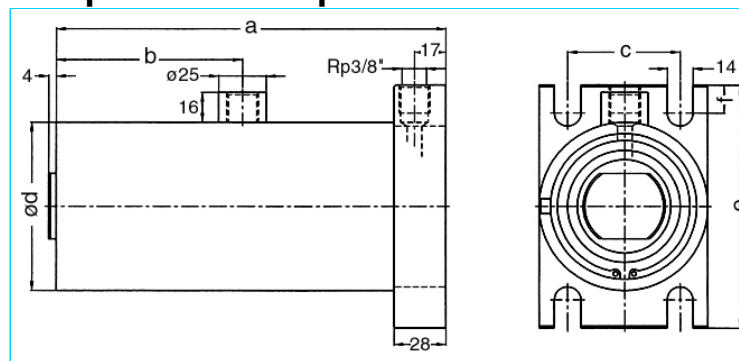
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
double-stage pressurized

end position damped



## Nominal size 070

Stroke	a	b	c	d	e	f	Force*	Order-number
36	234	113	60	90	130	15	0.72 kN	101.112.122.070.036.
50	264	128	60	90	130	15	0.72 kN	101.112.122.070.050.
65	294	143	60	90	130	15	0.72 kN	101.112.122.070.065.
80	334	163	60	90	130	15	0.72 kN	101.112.122.070.080.
100	394	193	60	90	130	15	0.72 kN	101.112.122.070.100.
130	434	213	60	90	130	15	0.72 kN	101.112.122.070.130.

\*at 1 bar pressure

## Nominal size 080

Stroke	a	b	c	d	e	f	Force*	Order-number
36	234	113	70	100	140	17,5	0.95 kN	101.112.122.080.036.
50	264	128	70	100	140	17,5	0.95 kN	101.112.122.080.050.
65	294	143	70	100	140	17,5	0.95 kN	101.112.122.080.065.
80	334	163	70	100	140	17,5	0.95 kN	101.112.122.080.080.
100	394	193	70	100	140	17,5	0.95 kN	101.112.122.080.100.
130	434	213	70	100	140	17,5	0.95 kN	101.112.122.080.130.

\*at 1 bar pressure

## Nominal size 090

Stroke	a	b	c	d	e	f	Force*	Order-number
36	234	113	80	110	150	20	1.2 kN	101.112.122.090.036.
50	264	128	80	110	150	20	1.2 kN	101.112.122.090.050.
65	294	143	80	110	150	20	1.2 kN	101.112.122.090.065.
80	334	163	80	110	150	20	1.2 kN	101.112.122.090.080.
100	394	193	80	110	150	20	1.2 kN	101.112.122.090.100.
130	434	213	80	110	150	20	1.2 kN	101.112.122.090.130.

\*at 1 bar pressure

**Complete the Order-number:**

**Example: 101.112.122.090.050.???** No. Force connection (S.8).?? No. Cylinder rod (S.9)!

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Cylinder-Ground plate-4



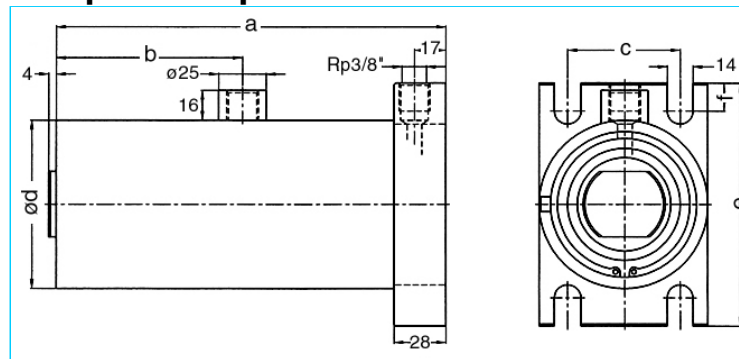
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
double-stage pressurized

damped independent of stroke



## Nominal size 070

Stroke	a	b	c	d	e	f	Force*	Order-number
36	206	99	60	90	130	15	0.72 kN	101.112.123.070.036.
50	234	113	60	90	130	15	0.72 kN	101.112.123.070.050.
65	264	128	60	90	130	15	0.72 kN	101.112.123.070.065.
80	294	143	60	90	130	15	0.72 kN	101.112.123.070.080.
100	334	163	60	90	130	15	0.72 kN	101.112.123.070.100.
130	394	193	60	90	130	15	0.72 kN	101.112.123.070.130.
150	434	213	60	90	130	15	0.72 kN	101.112.123.070.150.

\*at 1 bar pressure

## Nominal size 080

Stroke	a	b	c	d	e	f	Force*	Order-number
36	206	99	70	100	140	17,5	0.95 kN	101.112.123.080.036.
50	234	113	70	100	140	17,5	0.95 kN	101.112.123.080.050.
65	264	128	70	100	140	17,5	0.95 kN	101.112.123.080.065.
80	294	143	70	100	140	17,5	0.95 kN	101.112.123.080.080.
100	334	163	70	100	140	17,5	0.95 kN	101.112.123.080.100.
130	394	193	70	100	140	17,5	0.95 kN	101.112.123.080.130.
150	434	213	70	100	140	17,5	0.95 kN	101.112.123.080.150.

\*at 1 bar pressure

## Nominal size 090

Stroke	a	b	c	d	e	f	Force*	Order-number
36	206	99	80	110	150	20	1.2 kN	101.112.123.090.036.
50	234	113	80	110	150	20	1.2 kN	101.112.123.090.050.
65	264	128	80	110	150	20	1.2 kN	101.112.123.090.065.
80	294	143	80	110	150	20	1.2 kN	101.112.123.090.080.
100	334	163	80	110	150	20	1.2 kN	101.112.123.090.100.
130	394	193	80	110	150	20	1.2 kN	101.112.123.090.130.
150	434	213	80	110	150	20	1.2 kN	101.112.123.090.150.

\*at 1 bar pressure

**Complete the Order-number:**

**Example: 101.112.123.090.036.???** No. Force connection (S.8).?? No. Cylinder rod (S.9)!

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Cylinder-Ground plate-5



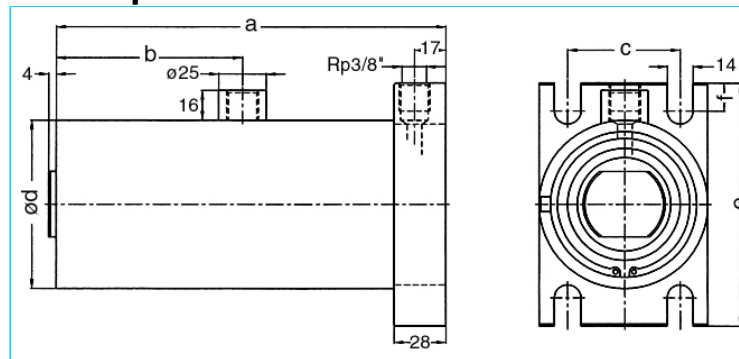
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
three-stage pressurized

undamped



## Nominal size 070

Stroke	a	b	c	d	e	f	Force*	Order-number
36	276	169	60	90	130	15	1.04 kN	101.112.131.070.036.
50	318	197	60	90	130	15	1.04 kN	101.112.131.070.050.
65	363	227	60	90	130	15	1.04 kN	101.112.131.070.065.
80	408	257	60	90	130	15	1.04 kN	101.112.131.070.080.
100	468	297	60	90	130	15	1.04 kN	101.112.131.070.100.
130	558	357	60	90	130	15	1.04 kN	101.112.131.070.130.
150	618	397	60	90	130	15	1.04 kN	101.112.131.070.150.

\*at 1 bar pressure

## Nominal size 080

Stroke	a	b	c	d	e	f	Force*	Order-number
36	276	169	70	100	140	17,5	1.4 kN	101.112.131.080.036.
50	318	197	70	100	140	17,5	1.4 kN	101.112.131.080.050.
65	363	227	70	100	140	17,5	1.4 kN	101.112.131.080.065.
80	408	257	70	100	140	17,5	1.4 kN	101.112.131.080.080.
100	468	297	70	100	140	17,5	1.4 kN	101.112.131.080.100.
130	558	357	70	100	140	17,5	1.4 kN	101.112.131.080.130.
150	618	397	70	100	140	17,5	1.4 kN	101.112.131.080.150.

\*at 1 bar pressure

## Nominal size 090

Stroke	a	b	c	d	e	f	Force*	Order-number
36	276	169	80	110	150	20	1.8 kN	101.112.131.090.036.
50	318	197	80	110	150	20	1.8 kN	101.112.131.090.050.
65	363	227	80	110	150	20	1.8 kN	101.112.131.090.065.
80	408	257	80	110	150	20	1.8 kN	101.112.131.090.080.
100	468	297	80	110	150	20	1.8 kN	101.112.131.090.100.
130	558	357	80	110	150	20	1.8 kN	101.112.131.090.130.
150	618	397	80	110	150	20	1.8 kN	101.112.131.090.150.

\*at 1 bar pressure

**Complete the Order-number:**

**Example: 101.112.131.090.050.???** No. Force connection (S.8).?? No. Cylinder rod (S.9)!

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Cylinder-Ground plate-6



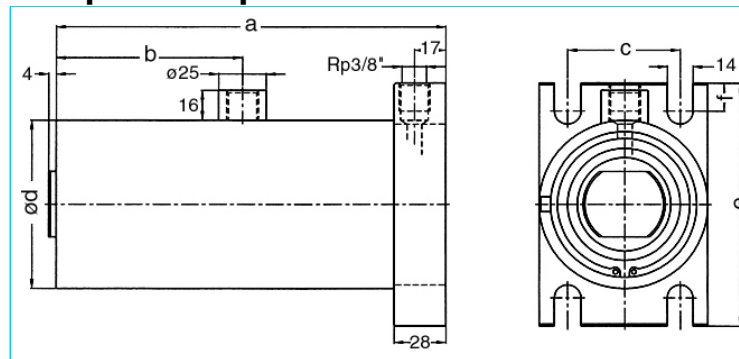
# Welding cylinder

with ground plate

Version: 2011-01

unilateral air connection,  
three-stage pressurized

damped independent of stroke



## Nominal size 070

Stroke	a	b	c	d	e	f	Force*	Order-number
36	276	169	60	90	130	15	1.04 kN	101.112.132.070.036.
50	318	197	60	90	130	15	1.04 kN	101.112.132.070.050.
65	363	227	60	90	130	15	1.04 kN	101.112.132.070.065.
80	408	257	60	90	130	15	1.04 kN	101.112.132.070.080.
100	468	297	60	90	130	15	1.04 kN	101.112.132.070.100.
130	558	357	60	90	130	15	1.04 kN	101.112.132.070.130.
150	618	397	60	90	130	15	1.04 kN	101.112.132.070.150.

\*at 1 bar pressure

## Nominal size 080

Stroke	a	b	c	d	e	f	Force*	Order-number
36	276	169	70	100	140	17,5	1.4 kN	101.112.132.080.036.
50	318	197	70	100	140	17,5	1.4 kN	101.112.132.080.050.
65	363	227	70	100	140	17,5	1.4 kN	101.112.132.080.065.
80	408	257	70	100	140	17,5	1.4 kN	101.112.132.080.080.
100	468	297	70	100	140	17,5	1.4 kN	101.112.132.080.100.
130	558	357	70	100	140	17,5	1.4 kN	101.112.132.080.130.
150	618	397	70	100	140	17,5	1.4 kN	101.112.132.080.150.

\*at 1 bar pressure

## Nominal size 090

Stroke	a	b	c	d	e	f	Force*	Order-number
36	276	169	80	110	150	20	1.8 kN	101.112.132.090.036.
50	318	197	80	110	150	20	1.8 kN	101.112.132.090.050.
65	363	227	80	110	150	20	1.8 kN	101.112.132.090.065.
80	408	257	80	110	150	20	1.8 kN	101.112.132.090.080.
100	468	297	80	110	150	20	1.8 kN	101.112.132.090.100.
130	558	357	80	110	150	20	1.8 kN	101.112.132.090.130.
150	618	397	80	110	150	20	1.8 kN	101.112.132.090.150.

\*at 1 bar pressure

**Complete the Order-number:**

**Example: 101.112.132.090.050.???** No. Force connection (S.8)?? No. Cylinder rod (S.9)!

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Cylinder-Ground plate-7



# Welding cylinder

with ground plate

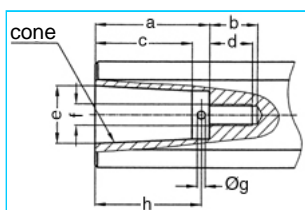
Version: 2011-01

## Force connection

Write the number (with point) from the selected Force connection direct behind the Order-number of the cylinder and complete the whole Order-number with the chosen number of the Cylinder rod.

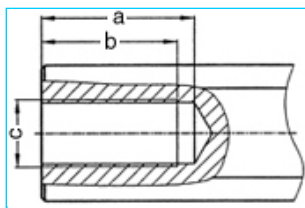
**Example:** 101.112.121.070.036.303.?? No. Cylinder rod (S.9)

### Internal cone



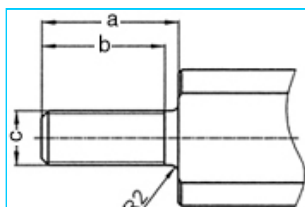
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	101.
42	18	35.5	16	21.806	MK3	M8	3	39	102.
42	18	35.5	16	21.750	1:10	M8	3	39	103.

### Female thread



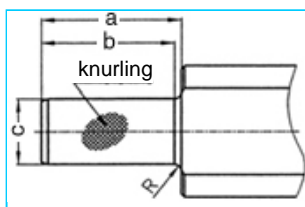
a	b	c	No.
45	40	M20 x 1.5	201.
62	58	M20 x 1.5	202.

### Male thread



a	b	c	No.
40	36	M16 x 1.5	301.
40	36	M20 x 1.5	302.
40	36	M24 x 1.5	303.

### Knurl



a	b	c	Knurling	R	No.
42	40	20 <sup>17</sup>	1 x 0.2 DIN 82	2	401.
42	42	25 <sup>17</sup>	1 x 0.2 DIN 82	-	402.



# Welding cylinder

with ground plate

Version: 2011-01

## Cylinder rod

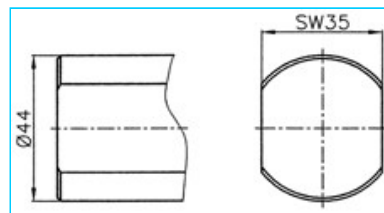
flattened and rotation locked

Complete the Order-number with the selected number of the chosen cylinder rod.

**Example: 101.112.121.070.036.303.00**

### For piston diameter

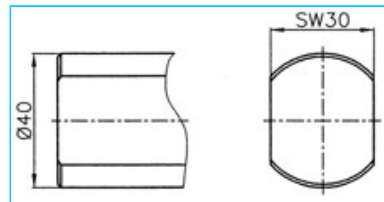
70, 80, 90



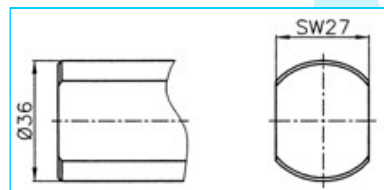
**No. 00**

### For piston diameter

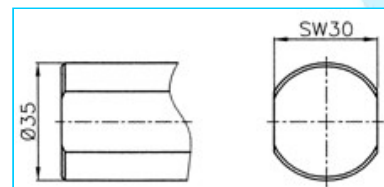
38, 44, 58



**No. 01**



**No. 02**



**No. 03**

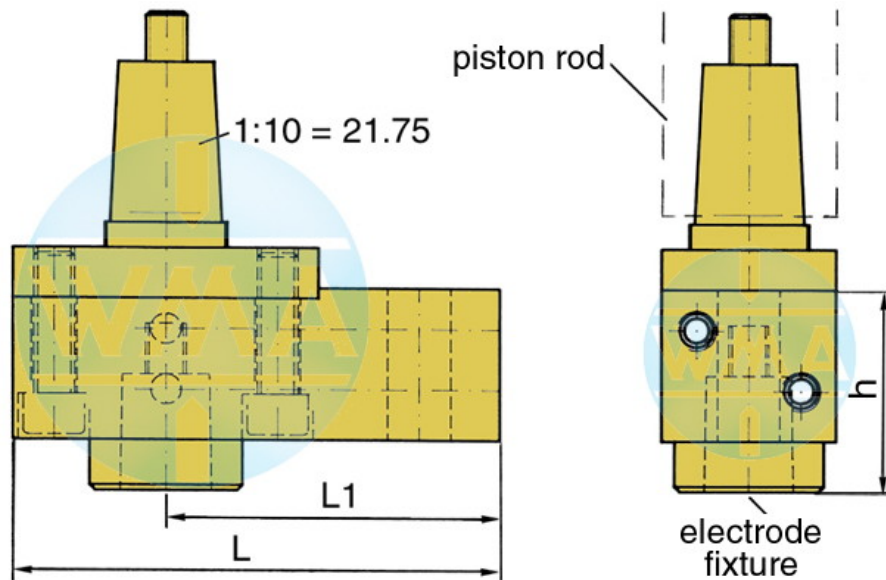


# Welding cylinder

with ground plate

Version: 2011-01

## Electrode holder for welding cylinders



Piston Ø	L	L1	Water connection
38	95	65	possible on both sides
44	95	65	possible on both sides
58	110	80	possible on both sides
70	110	80	possible on both sides
80	120	90	possible on both sides
90	120	90	possible on both sides

## Available cones for the electrode fixture

cone	Ø d	h
1 : 10	9.8	39
1 : 10	12.0	39
1 : 10	12.7	39
1 : 10	15.5	39
1 : 10	15.75	39
1 : 10	17.75	50
1 : 10	19.0	50
MK 1	12.065	39
MK 2	17.781	50

Further cones available on request!

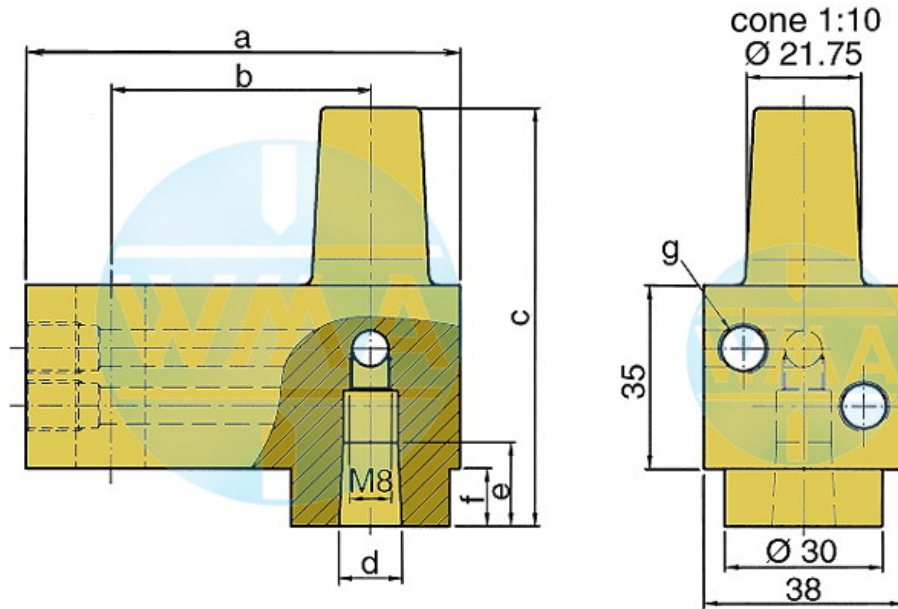


# Welding cylinder

with ground plate

Version: 2011-01

## Electrode holder



This electrode holder is main used in welding machines with variable and fast-change electrode shafts.

a	b	c	d	e	f	g	Order-number	
82	49	80	1:10=12.00	16	16	11	M10 x 1 or R 1/8"	L60051080-000
82	49	80	MK1	16	16	11	M10 x 1 or R 1/8"	L60091080-000
82	49	80	1:10=15.75	20	20	11	M10 x 1 or R 1/8"	L60131080-001
82	49	80	1:10=18	20	20	11	M10 x 1 or R 1/8"	L60061080-000
82	49	80	MK2	20	20	11	M10 x 1 or R 1/8"	L60101080-000
82	49	90	1:10=21.75	31	31	21	M10 x 1 or R 1/8"	L60221080-000
82	49	90	MK3	31	31	21	M10 x 1 or R 1/8"	L60111080-000
97	64	90	1:10=21.75	31	31	21	M10 x 1 or R 1/8"	L60221090-000
97	64	90	MK3	31	31	21	M10 x 1 or R 1/8"	L60111090-000
107	74	90	1:10=21.75	31	31	21	M10 x 1 or R 1/8"	L60221090-001
107	74	90	MK3	31	31	21	M10 x 1 or R 1/8"	L60111090-001

We reserve the right to make changes which are in the interest of technical progress.

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Cylinder-Ground plate-11