



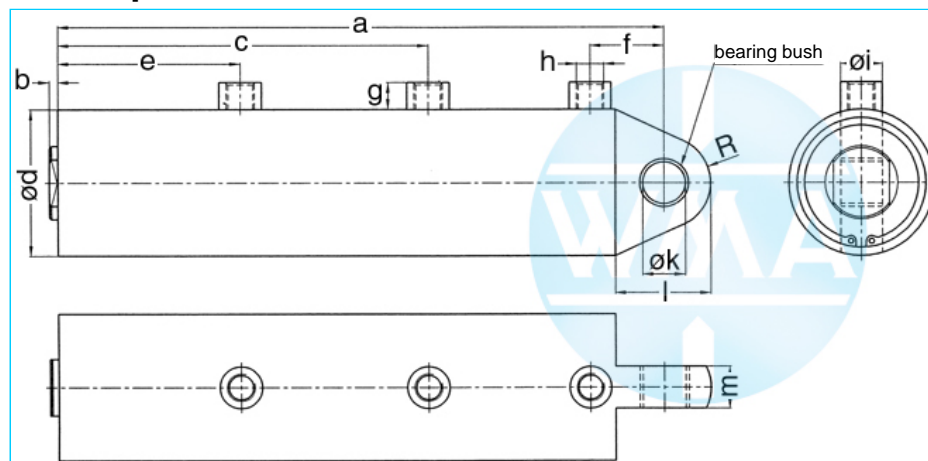
# Welding cylinder

Ground hinge, retract and working stroke

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



## Nominal size 038

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	386	4	254	48	126	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.050.
60	20	396	4	254	48	126	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.060.
70	30	446	4	294	48	146	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.070.
80	20	456	4	294	48	146	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.080.
90	40	526	4	354	48	176	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.090.
100	30	536	4	354	48	176	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.100.
110	40	586	4	394	48	196	35	13	Rp1/4"	20	16	39.5	20	17.5	0.2 kN	100.111.124.038.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 044

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	386	4	254	55	126	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.050.
60	20	396	4	254	55	126	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.060.
70	30	446	4	294	55	146	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.070.
80	20	456	4	294	55	146	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.080.
90	40	526	4	354	55	176	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.090.
100	30	536	4	354	55	176	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.100.
110	40	586	4	394	55	196	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.124.044.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 058

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	386	4	254	70	126	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.050.
60	20	396	4	254	70	126	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.060.
70	30	446	4	294	70	146	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.070.
80	20	456	4	294	70	146	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.080.
90	40	526	4	354	70	176	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.090.
100	30	536	4	354	70	176	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.100.
110	40	586	4	394	70	196	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.124.058.110.

S = retract, WS = working stroke, \*at 1 bar pressure

Complete the Order-number:

Example: 100.111.124.044.060.??? No. Force connection (S.5).?? No. Cylinder rod (S.6)

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Cylinder-Ground hinge-1



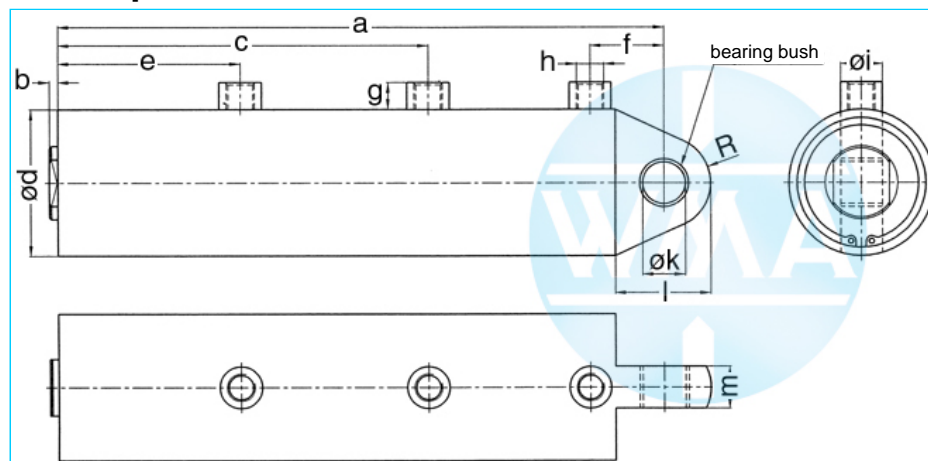
# Welding cylinder

Ground hinge, retract and working stroke

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



## Nominal size 070

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	456	4	293	90	143	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.050.
60	20	466	4	293	90	143	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.060.
70	30	516	4	333	90	163	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.070.
80	20	526	4	333	90	163	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.080.
90	40	596	4	393	90	193	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.090.
100	30	606	4	393	90	193	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.100.
110	40	656	4	433	90	213	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.124.070.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 080

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	456	4	293	100	143	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.050.
60	20	466	4	293	100	143	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.060.
70	30	516	4	333	100	163	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.070.
80	20	526	4	333	100	163	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.080.
90	40	596	4	393	100	193	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.090.
100	30	606	4	393	100	193	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.100.
110	40	656	4	433	100	213	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.124.080.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 090

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	456	4	293	110	143	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.050.
60	20	466	4	293	110	143	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.060.
70	30	516	4	333	110	163	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.070.
80	20	526	4	333	110	163	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.080.
90	40	596	4	393	110	193	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.090.
100	30	606	4	393	110	193	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.100.
110	40	656	4	433	110	213	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.124.090.110.

S = retract, WS = working stroke, \*at 1 bar pressure

Complete the Order-number:

Example: 100.111.124.070.080.??? No. Force connection (S.5).?? No. Cylinder rod (S.6)

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

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Cylinder-Ground hinge-2



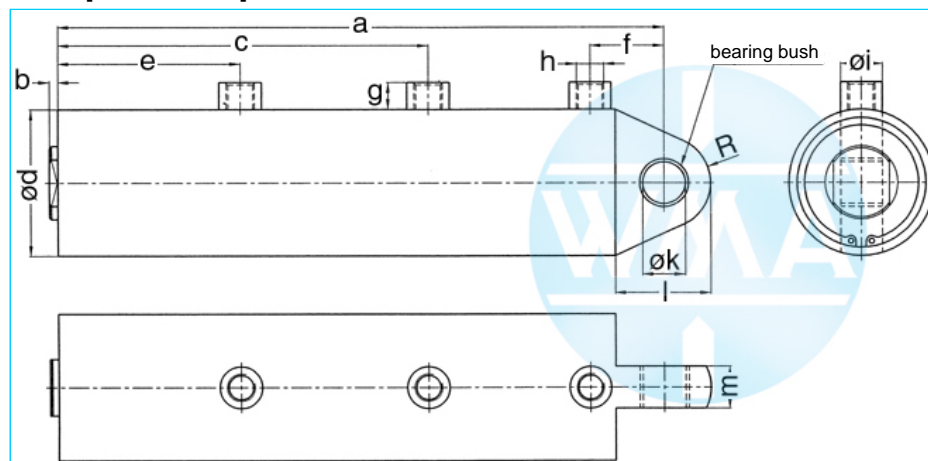
# Welding cylinder

Ground hinge, retract and working stroke

Version: 2011-01

unilateral air connection,  
double-stage pressurized

damped independent of stroke



## Nominal size 044

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	386	4	254	55	126	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.050.
60	20	396	4	254	55	126	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.060.
70	30	446	4	294	55	146	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.070.
80	20	456	4	294	55	146	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.080.
90	40	526	4	354	55	176	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.090.
100	30	536	4	354	55	176	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.100.
110	40	586	4	394	55	196	35	13	Rp1/4"	20	16	42	20	20	0.28 kN	100.111.125.044.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 058

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	386	4	254	70	126	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.050.
60	20	396	4	254	70	126	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.060.
70	30	446	4	294	70	146	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.070.
80	20	456	4	294	70	146	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.080.
90	40	526	4	354	70	176	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.090.
100	30	536	4	354	70	176	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.100.
110	40	586	4	394	70	196	35	13	Rp1/4"	20	20	45	20	22	0.5 kN	100.111.125.058.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 070

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	456	4	293	90	143	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.050.
60	20	466	4	293	90	143	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.060.
70	30	516	4	333	90	163	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.070.
80	20	526	4	333	90	163	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.080.
90	40	596	4	393	90	193	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.090.
100	30	606	4	393	90	193	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.100.
110	40	656	4	433	90	213	54	16	Rp3/8"	25	25	67	25	30	0.72 kN	100.111.125.070.110.

S = retract, WS = working stroke, \*at 1 bar pressure

**Complete the Order-number:**

**Example:** 100.111.125.058.070.??? No. Force connection (S.5).?? No. Cylinder rod (S.6)

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Cylinder-Ground hinge-3



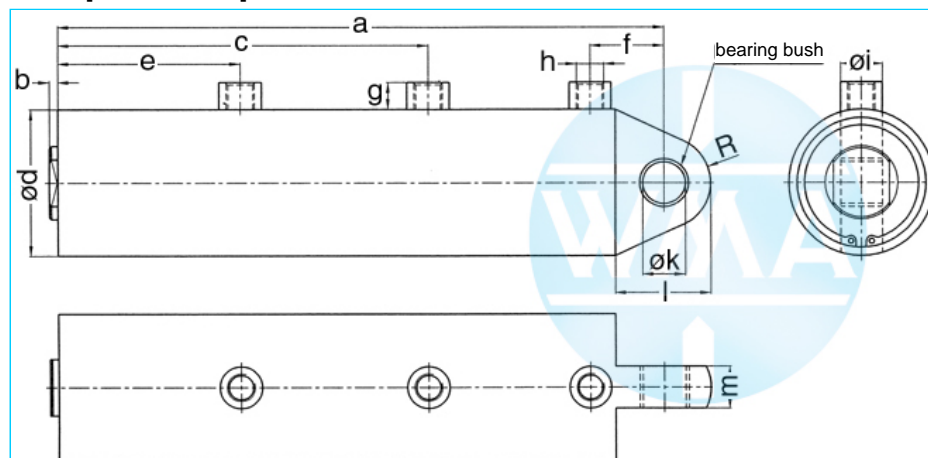
# Welding cylinder

Ground hinge, retract and working stroke

Version: 2011-01

unilateral air connection,  
double-stage pressurized

damped independent of stroke



## Nominal size 080

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	456	4	293	100	143	54	136	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.050.
60	20	466	4	293	100	143	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.060.
70	30	516	4	333	100	163	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.070.
80	20	526	4	333	100	163	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.080.
90	40	596	4	393	100	193	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.090.
100	30	606	4	393	100	193	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.100.
110	40	656	4	433	100	213	54	16	Rp3/8"	25	25	67	25	30	0.95 kN	100.111.125.080.110.

S = retract, WS = working stroke, \*at 1 bar pressure

## Nominal size 090

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	R	Force*	Order-number
50	30	456	4	293	110	143	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.050.
60	20	466	4	293	110	143	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.060.
70	30	516	4	333	110	163	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.070.
80	20	526	4	333	110	163	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.080.
90	40	596	4	393	110	193	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.090.
100	30	606	4	393	110	193	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.100.
110	40	656	4	433	110	213	54	16	Rp3/8"	25	25	67	25	30	1.2 kN	100.111.125.090.110.

S = retract, WS = working stroke, \*at 1 bar pressure

**Complete the Order-number:**

**Example: 100.111.125.080.060.???** No. Force connection (S.5).?? No. Cylinder rod (S.6)

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Cylinder-Ground hinge-4



# Welding cylinder

Ground hinge, retract and working stroke

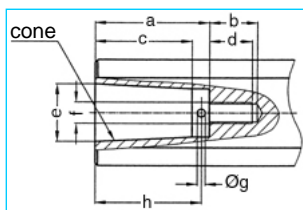
Version: 2011-01

## 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.

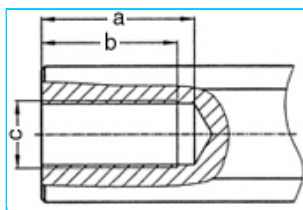
**Example:** 100.111.125.058.070.201.?? No. Cylinder rod (S.6)

### Internal cone



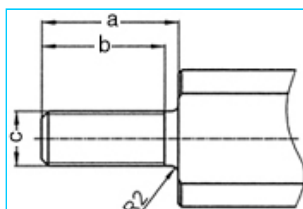
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	101.
42	18	35.5	16	21.806	MK3	M8	3	39	102.
42	18	35.5	16	21.750	1:10	M8	3	39	103.

### Female thread



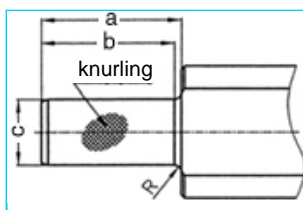
a	b	c	No.
45	40	M20 x 1.5	201.
62	58	M20 x 1.5	202.

### 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	2017	1 x 0.2 DIN 82	2	401.
42	42	2517	1 x 0.2 DIN 82	-	402.

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Cylinder-Ground hinge-5



# Welding cylinder

Ground hinge, retract and working stroke

Version: 2011-01

## Cylinder rod

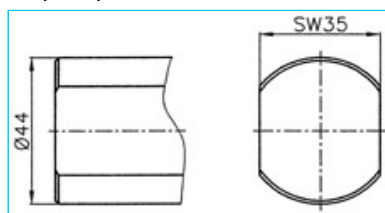
flattened and rotation locked

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

**Example:** 100.111.125.058.070.201.02

### For piston diameter

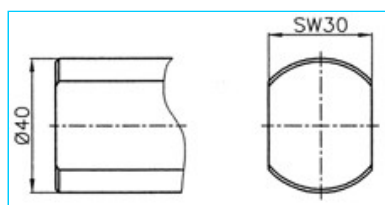
70, 80, 90



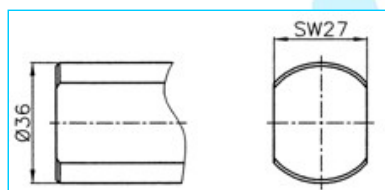
**No. 00**

### For piston diameter

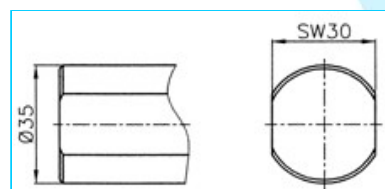
38, 44, 58



**No. 01**



**No. 02**



**No. 03**

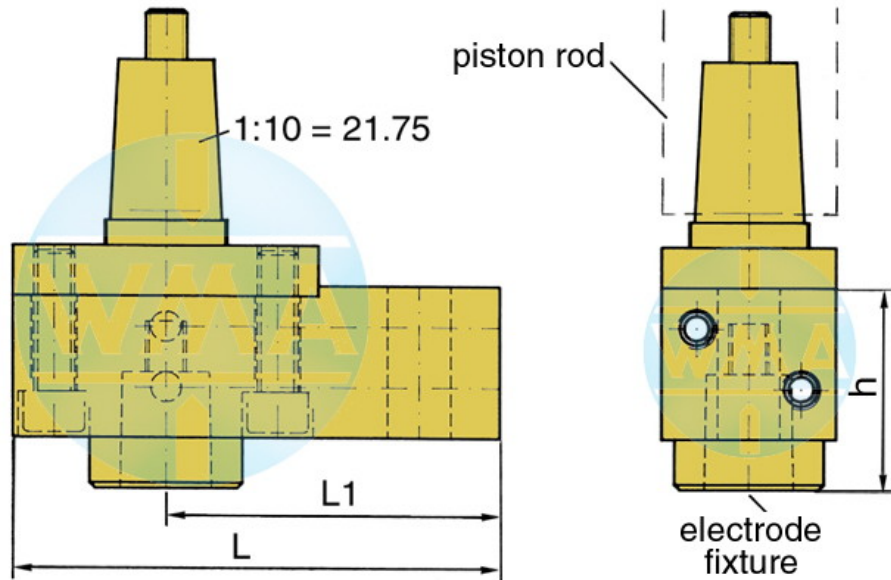


# Welding cylinder

Ground hinge, retract and working stroke

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!

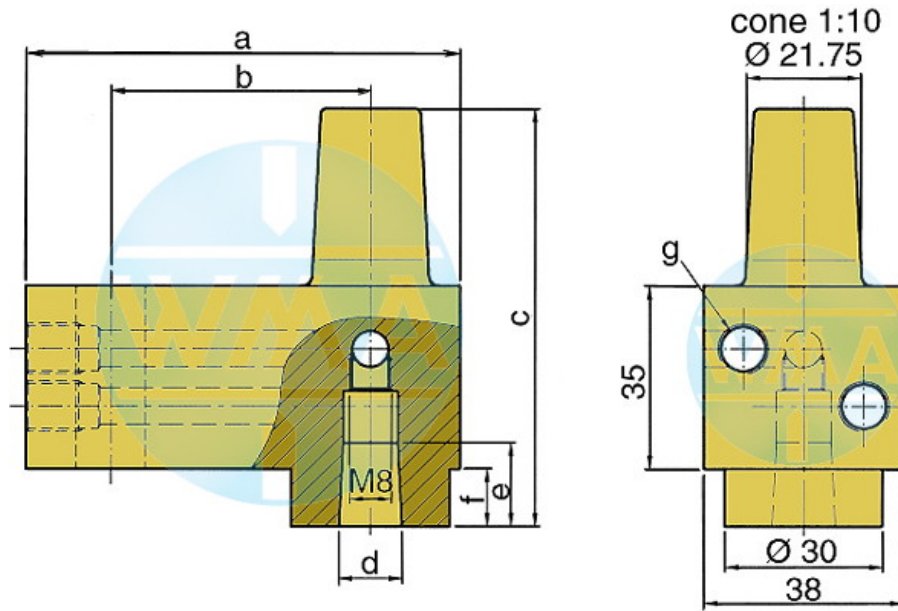


# Welding cylinder

Ground hinge, retract and working stroke

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 hinge-8