



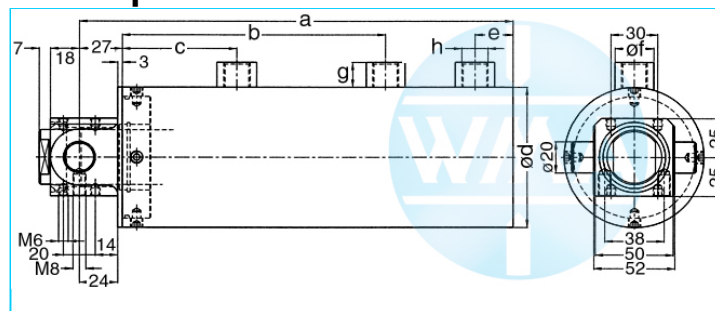
# Welding cylinder

Pivot pin, retract and working stroke

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



## Nominal size 044

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	394	252	124	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.050.
60	20	404	252	124	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.060.
70	30	454	292	144	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.070.
80	20	464	292	144	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.080.
90	40	534	352	174	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.090.
100	30	544	352	174	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.100.
110	40	594	392	194	55	18	20	13	Rp1/4"	0.28 kN	104.113.124.044.110.

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

## Nominal size 058

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	394	252	124	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.050.
60	20	404	252	124	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.060.
70	30	454	292	144	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.070.
80	20	464	292	144	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.080.
90	40	534	352	174	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.090.
100	30	544	352	174	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.100.
110	40	594	392	194	70	18	20	13	Rp1/4"	0.5 kN	104.113.124.058.110.

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

## Nominal size 070

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	442	288	138	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.050.
60	20	452	288	138	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.060.
70	30	502	328	158	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.070.
80	20	512	328	158	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.080.
90	40	582	388	188	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.090.
100	30	592	388	188	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.100.
110	40	642	428	208	90	24	25	16	Rp3/8"	0.72 kN	104.113.124.070.110.

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

**Complete the Order-number:**

**Example: 104.113.124.058.050.???** 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-pivot pin-1



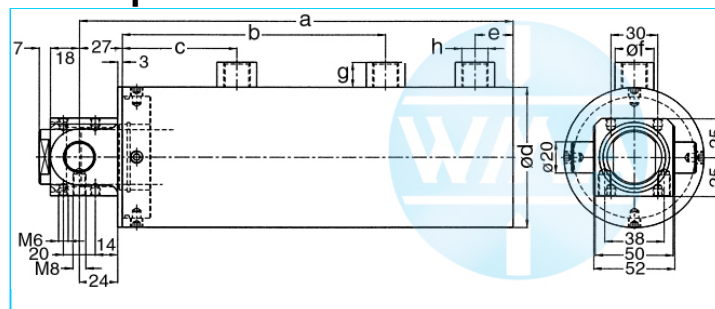
# Welding cylinder

Pivot pin, retract and working stroke

Version: 2011-01

unilateral air connection,  
double-stage pressurized

undamped



## Nominal size 080

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	442	288	138	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.050.
60	20	452	288	138	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.060.
70	30	502	328	158	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.070.
80	20	512	328	158	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.080.
90	40	582	388	188	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.090.
100	30	592	388	188	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.100.
110	40	642	428	208	100	24	25	16	Rp3/8"	0.95 kN	104.113.124.080.110.

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

## Nominal size 090

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	442	288	138	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.050.
60	20	452	288	138	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.060.
70	30	502	328	158	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.070.
80	20	512	328	158	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.080.
90	40	582	388	188	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.090.
100	30	592	388	188	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.100.
110	40	642	428	208	110	24	25	16	Rp3/8"	1.2 kN	104.113.124.090.110.

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

Complete the Order-number:

Example: 104.113.124.080.050.??? No. Force connection (S.5).?? No. Cylinder rod (S.6)!

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Cylinder-pivot pin-2



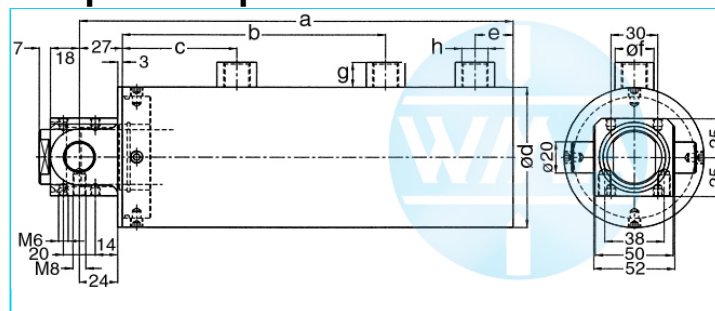
# Welding cylinder

Pivot pin, 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	Force*	Order-number
50	30	394	252	124	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.050.
60	20	404	252	124	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.060.
70	30	454	292	144	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.070.
80	20	464	292	144	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.080.
90	40	534	352	174	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.090.
100	30	544	352	174	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.100.
110	40	594	392	194	55	18	20	13	Rp1/4"	0.28 kN	104.113.125.044.110.

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

## Nominal size 058

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	394	252	124	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.050.
60	20	404	252	124	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.060.
70	30	454	292	144	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.070.
80	20	464	292	144	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.080.
90	40	534	352	174	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.090.
100	30	544	352	174	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.100.
110	40	594	392	194	70	18	20	13	Rp1/4"	0.5 kN	104.113.125.058.110.

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

## Nominal size 070

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	442	288	138	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.050.
60	20	452	288	138	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.060.
70	30	502	328	158	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.070.
80	20	512	328	158	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.080.
90	40	582	388	188	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.090.
100	30	592	388	188	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.100.
110	40	642	428	208	90	24	25	16	Rp3/8"	0.72 kN	104.113.125.070.110.

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

**Complete the Order-number:**

**Example:** 104.113.125.058.050.??? 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-pivot pin-3



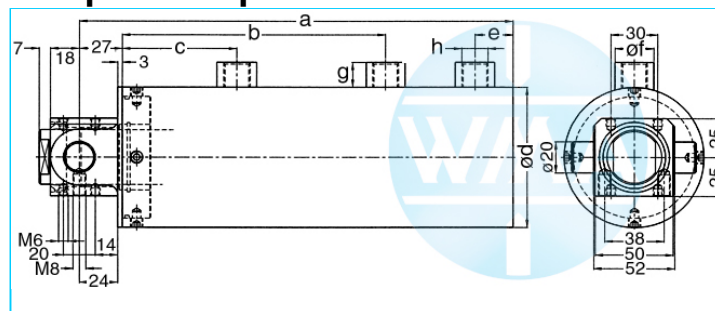
# Welding cylinder

Pivot pin, 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	Force*	Order-number
50	30	442	288	138	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.050.
60	20	452	288	138	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.060.
70	30	502	328	158	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.070.
80	20	512	328	158	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.080.
90	40	582	388	188	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.090.
100	30	592	388	188	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.100.
110	40	642	428	208	100	24	25	16	Rp3/8"	0.95 kN	104.113.125.080.110.

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

## Nominal size 090

S	WS	a	b	c	d	e	f	g	h	Force*	Order-number
50	30	442	288	138	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.050.
60	20	452	288	138	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.060.
70	30	502	328	158	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.070.
80	20	512	328	158	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.080.
90	40	582	388	188	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.090.
100	30	592	388	188	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.100.
110	40	642	428	208	110	24	25	16	Rp3/8"	1.2 kN	104.113.125.090.110.

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

**Complete the Order-number:**

**Example: 104.113.125.080.050.???** No. Force connection (S.5).?? No. Cylinder rod (S.6)!

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Cylinder-pivot pin-4



# Welding cylinder

## Pivot pin, retract and working stroke

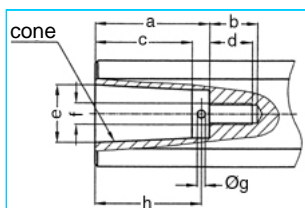
Version: 2011-01

### 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.

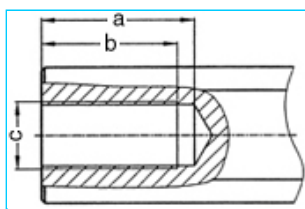
**Example:** 104.113.125.058.050.202.?? No. Cylinder rod (S.6)

#### Internal cone



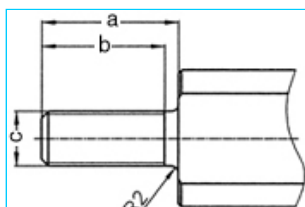
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	101.
42	18	35.5	16	21.806	MK3	M8	3	39	102.
42	18	35.5	16	21.750	1:10	M8	3	39	103.

#### Female thread



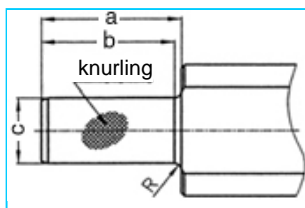
a	b	c	No.
45	40	M20 x 1.5	201.
62	58	M20 x 1.5	202.

#### 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	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.

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Cylinder-pivot pin-5



# Welding cylinder

Pivot pin, retract and working stroke

Version: 2011-01

## Cylinder rod

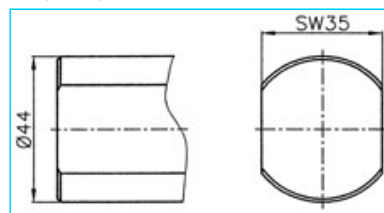
flattened and rotation locked

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

**Example: 104.113.125.058.050.202.01**

### For piston diameter

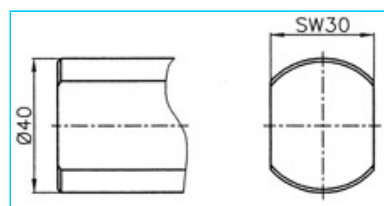
70, 80, 90



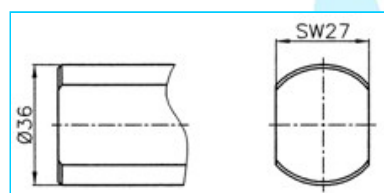
**No. 00**

### For piston diameter

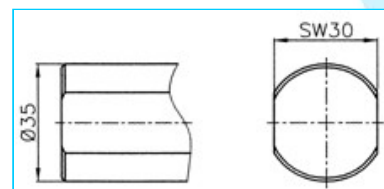
38, 44, 58



**No. 01**



**No. 02**



**No. 03**

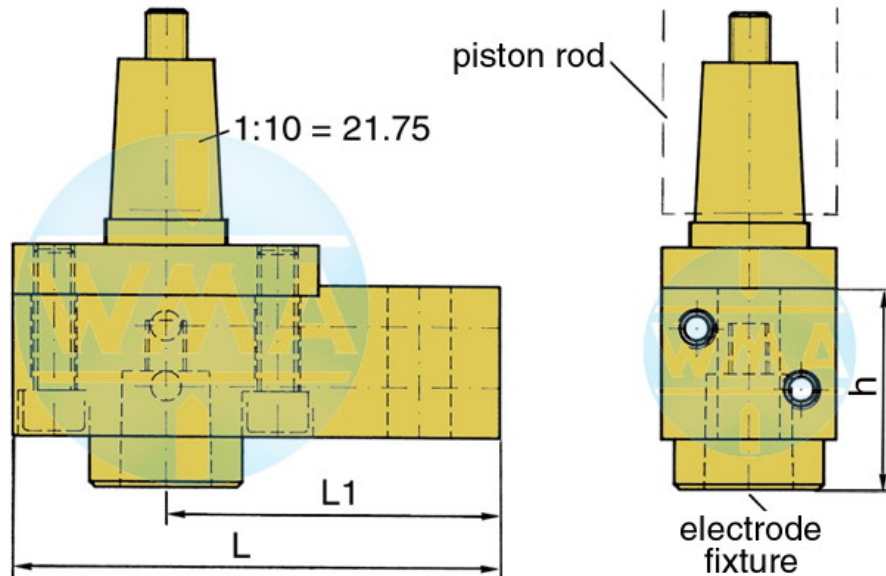


# Welding cylinder

Pivot pin, 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!

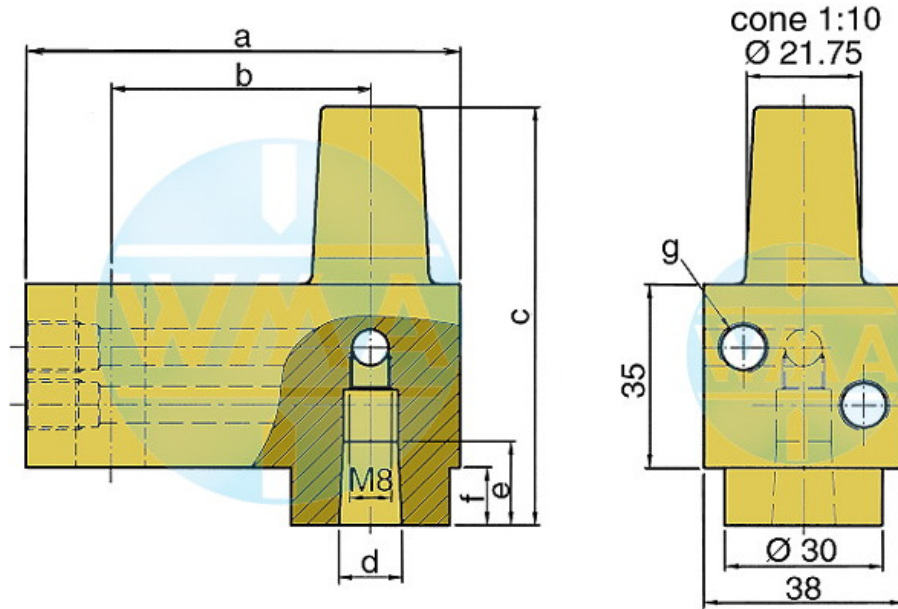


# Welding cylinder

## Pivot pin, 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

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Cylinder-pivot pin-8