



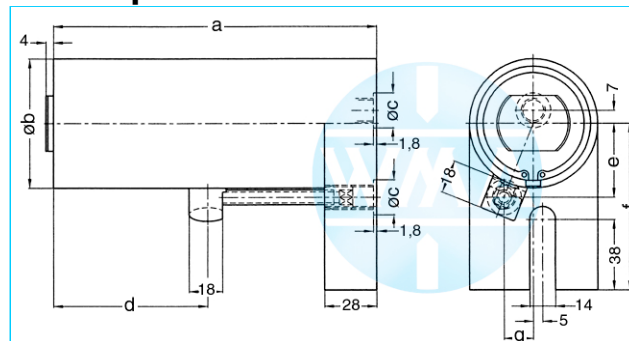
# Welding cylinder

## Bottom flange

Version: 2011-01

### Air connection through the bottom flange, double-stage pressurized

#### undamped



#### Nominal size 038

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	173	48	19	82	30	75	12	0.2 kN	103.114.121.038.036.
50	201	48	19	96	30	75	12	0.2 kN	103.114.121.038.050.
65	231	48	19	111	30	75	12	0.2 kN	103.114.121.038.065.
80	261	48	19	126	30	75	12	0.2 kN	103.114.121.038.080.
100	301	48	19	146	30	75	12	0.2 kN	103.114.121.038.100.
130	361	48	19	176	30	75	12	0.2 kN	103.114.121.038.130.
150	401	48	19	196	30	75	12	0.2 kN	103.114.121.038.150.

\*at 1 bar pressure

#### Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	173	55	19	82	35	80	12	0.28 kN	103.114.121.044.036.
50	201	55	19	96	35	80	12	0.28 kN	103.114.121.044.050.
65	231	55	19	111	35	80	12	0.28 kN	103.114.121.044.065.
80	261	55	19	126	35	80	12	0.28 kN	103.114.121.044.080.
100	301	55	19	146	35	80	12	0.28 kN	103.114.121.044.100.
130	361	55	19	176	35	80	12	0.28 kN	103.114.121.044.130.
150	401	55	19	196	35	80	12	0.28 kN	103.114.121.044.150.

\*at 1 bar pressure

#### Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	173	70	19	82	40	90	16	0.5 kN	103.114.121.058.036.
50	201	70	19	96	40	90	16	0.5 kN	103.114.121.058.050.
65	231	70	19	111	40	90	16	0.5 kN	103.114.121.058.065.
80	261	70	19	126	40	90	16	0.5 kN	103.114.121.058.080.
100	301	70	19	146	40	90	16	0.5 kN	103.114.121.058.100.
130	361	70	19	176	40	90	16	0.5 kN	103.114.121.058.130.
150	401	70	19	196	40	90	16	0.5 kN	103.114.121.058.150.

\*at 1 bar pressure

#### Complete the Order-number:

Example: 103.114.121.058.050.??? **No. Force connection (S.6).?? No. Cylinder rod (S.7)!**

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Cylinder-Bottom flange-1



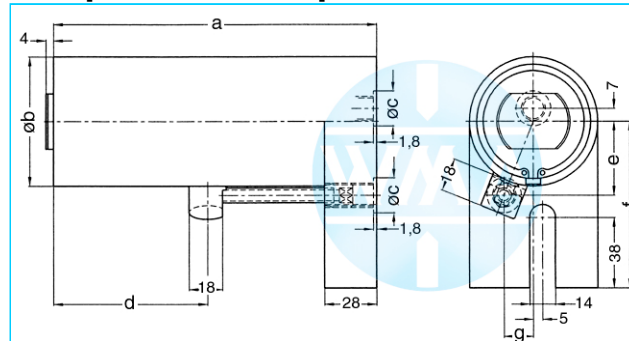
# Welding cylinder

## Bottom flange

Version: 2011-01

**Air connection through the bottom flange,  
double-stage pressurized**

**end position damped**



### Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	201	55	Rp1/4"	96	35	80	13	0.28 kN	103.114.122.044.036.
50	231	55	Rp1/4"	111	35	80	13	0.28 kN	103.114.122.044.050.
65	261	55	Rp1/4"	126	35	80	13	0.28 kN	103.114.122.044.065.
80	301	55	Rp1/4"	146	35	80	13	0.28 kN	103.114.122.044.080.
100	361	55	Rp1/4"	176	35	80	13	0.28 kN	103.114.122.044.100.
130	401	55	Rp1/4"	196	35	80	13	0.28 kN	103.114.122.044.130.

\*at 1 bar pressure

### Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	201	70	Rp1/4"	96	40	90	13	0.5 kN	103.114.122.058.036.
50	231	70	Rp1/4"	111	40	90	13	0.5 kN	103.114.122.058.050.
65	261	70	Rp1/4"	126	40	90	13	0.5 kN	103.114.122.058.065.
80	301	70	Rp1/4"	146	40	90	13	0.5 kN	103.114.122.058.080.
100	361	70	Rp1/4"	176	40	90	13	0.5 kN	103.114.122.058.100.
130	401	70	Rp1/4"	196	40	90	13	0.5 kN	103.114.122.058.130.

\*at 1 bar pressure

**Complete the Order-number:**

Example: 103.114.122.044.080.??? **No. Force connection (S.6).?? No. Cylinder rod (S.7)!**

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**Cylinder-Bottom flange-2**



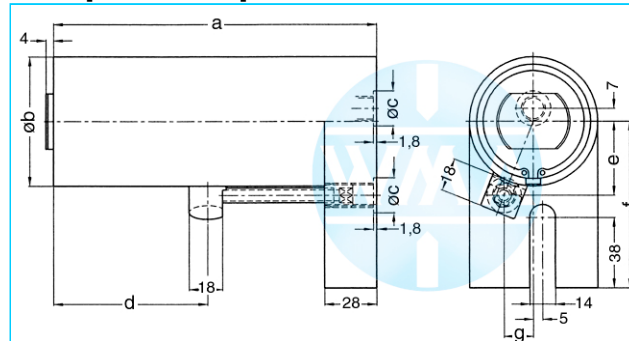
# Welding cylinder

## Bottom flange

Version: 2011-01

**Air connection through the bottom flange,  
double-stage pressurized**

**damped independent of stroke**



### Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	173	55	19	82	35	80	12	0.28 kN	103.114.123.044.036.
50	201	55	19	96	35	80	12	0.28 kN	103.114.123.044.050.
65	231	55	19	111	35	80	12	0.28 kN	103.114.123.044.065.
80	261	55	19	126	35	80	12	0.28 kN	103.114.123.044.080.
100	301	55	19	146	35	80	12	0.28 kN	103.114.123.044.100.
130	361	55	19	176	35	80	12	0.28 kN	103.114.123.044.130.
150	401	55	19	196	35	80	12	0.28 kN	103.114.123.044.150.

\*at 1 bar pressure

### Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	173	70	19	82	40	90	16	0.5 kN	103.114.123.058.036.
50	201	70	19	96	40	90	16	0.5 kN	103.114.123.058.050.
65	231	70	19	111	40	90	16	0.5 kN	103.114.123.058.065.
80	261	70	19	126	40	90	16	0.5 kN	103.114.123.058.080.
100	301	70	19	146	40	90	16	0.5 kN	103.114.123.058.100.
130	361	70	19	176	40	90	16	0.5 kN	103.114.123.058.130.
150	401	70	19	196	40	90	16	0.5 kN	103.114.123.058.150.

\*at 1 bar pressure

**Complete the Order-number:**

Example: 103.114.123.058.050.??? **No. Force connection (S.6)?? No. Cylinder rod (S.7)!**

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**Cylinder-Bottom flange-3**



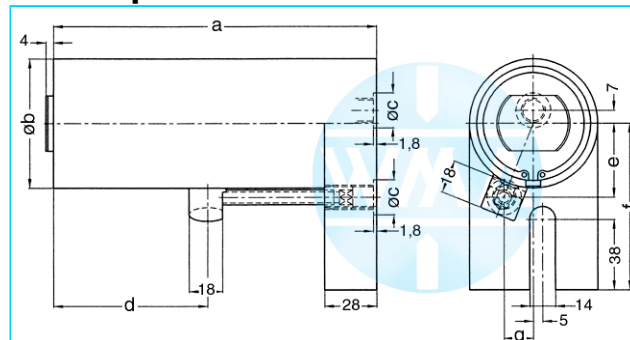
# Welding cylinder

## Bottom flange

Version: 2011-01

### Air connection through the bottom flange, three-stage pressurized

#### undamped



#### Nominal size 038

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	232	48	Rp1/4"	141	30	75	13	0.28 kN	103.114.131.038.036.
50	274	48	Rp1/4"	169	30	75	13	0.28 kN	103.114.131.038.050.
65	319	48	Rp1/4"	199	30	75	13	0.28 kN	103.114.131.038.065.
80	364	48	Rp1/4"	229	30	75	13	0.28 kN	103.114.131.038.080.
100	424	48	Rp1/4"	269	30	75	13	0.28 kN	103.114.131.038.100.
130	514	48	Rp1/4"	329	30	75	13	0.28 kN	103.114.131.038.130.
150	547	48	Rp1/4"	369	30	75	13	0.28 kN	103.114.131.038.150.

\*at 1 bar pressure

#### Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	232	55	19	141	35	80	13	0.39 kN	103.114.131.044.036.
50	274	55	19	169	35	80	13	0.39 kN	103.114.131.044.050.
65	319	55	19	199	35	80	13	0.39 kN	103.114.131.044.065.
80	364	55	19	229	35	80	13	0.39 kN	103.114.131.044.080.
100	424	55	19	269	35	80	13	0.39 kN	103.114.131.044.100.
130	514	55	19	329	35	80	13	0.39 kN	103.114.131.044.130.
150	547	55	19	369	35	80	13	0.39 kN	103.114.131.044.150.

\*at 1 bar pressure

#### Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	232	70	19	141	40	90	13	0.72 kN	103.114.131.058.036.
50	274	70	19	169	40	90	13	0.72 kN	103.114.131.058.050.
65	319	70	19	199	40	90	13	0.72 kN	103.114.131.058.065.
80	364	70	19	229	40	90	13	0.72 kN	103.114.131.058.080.
100	424	70	19	269	40	90	13	0.72 kN	103.114.131.058.100.
130	514	70	19	329	40	90	13	0.72 kN	103.114.131.058.130.
150	547	70	19	369	40	90	13	0.72 kN	103.114.131.058.150.

\*at 1 bar pressure

#### Complete the Order-number:

Example: 103.114.131.038.050.??? **No. Force connection (S.6).?? No. Cylinder rod (S.7)!**

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Cylinder-Bottom flange-4



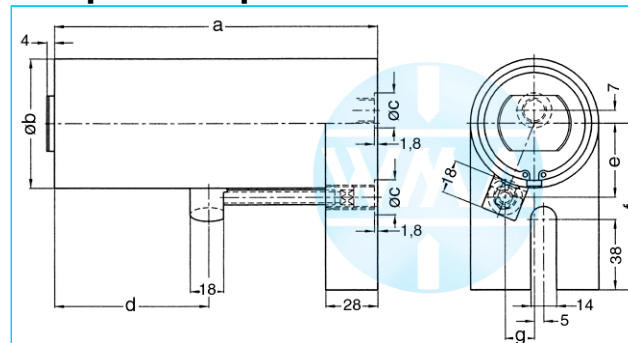
# Welding cylinder

## Bottom flange

Version: 2011-01

**Air connection through the bottom flange,  
three-stage pressurized**

**damped independent of stroke**



### Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	232	55	19	141	35	80	13	0.39 kN	103.114.132.044.036.
50	274	55	19	169	35	80	13	0.39 kN	103.114.132.044.050.
65	319	55	19	199	35	80	13	0.39 kN	103.114.132.044.065.
80	364	55	19	229	35	80	13	0.39 kN	103.114.132.044.080.
100	424	55	19	269	35	80	13	0.39 kN	103.114.132.044.100.
130	514	55	19	329	35	80	13	0.39 kN	103.114.132.044.130.
150	547	55	19	369	35	80	13	0.39 kN	103.114.132.044.150.

\*at 1 bar pressure

### Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	232	70	19	141	40	90	13	0.72 kN	103.114.132.058.036.
50	274	70	19	169	40	90	13	0.72 kN	103.114.132.058.050.
65	319	70	19	199	40	90	13	0.72 kN	103.114.132.058.065.
80	364	70	19	229	40	90	13	0.72 kN	103.114.132.058.080.
100	424	70	19	269	40	90	13	0.72 kN	103.114.132.058.100.
130	514	70	19	329	40	90	13	0.72 kN	103.114.132.058.130.
150	547	70	19	369	40	90	13	0.72 kN	103.114.132.058.150.

\*at 1 bar pressure

**Complete the Order-number:**

Example: 103.114.132.044.130.??? **No. Force connection (S.6).?? No. Cylinder rod (S.7)!**

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**Cylinder-Bottom flange-5**



# Welding cylinder

## Bottom flange

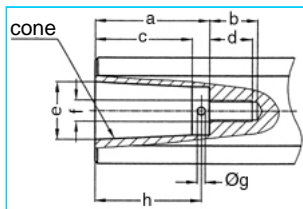
Version: 2011-01

### 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.

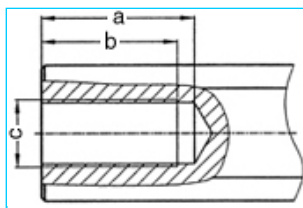
**Example: 103.114.132.044.050.202.?? No. Cylinder rod (S.7)**

#### Internal cone



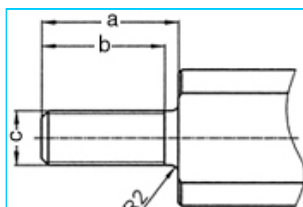
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	<b>101.</b>
42	18	35.5	16	21.806	MK3	M8	3	39	<b>102.</b>
42	18	35.5	16	21.750	1:10	M8	3	39	<b>103.</b>

#### Female thread



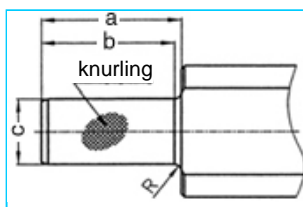
a	b	c	No.
45	40	M20 x 1.5	<b>201.</b>
62	58	M20 x 1.5	<b>202.</b>

#### Male thread



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

#### Knurl



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

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Cylinder-Bottom flange-6



# Welding cylinder

## Bottom flange

Version: 2011-01

### Cylinder rod

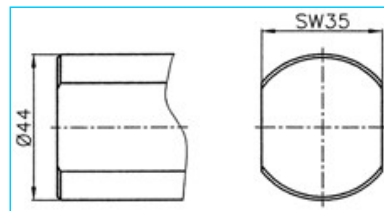
flattened and rotation locked

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

Example: **103.114.132.044.050.202.02**

#### For piston diameter

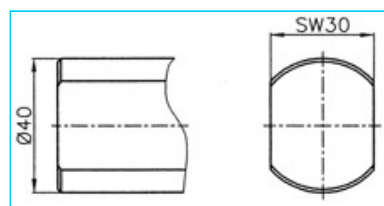
70, 80, 90



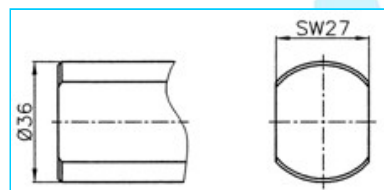
**No. 00**

#### For piston diameter

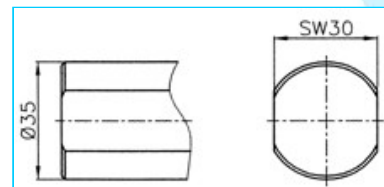
38, 44, 58



**No. 01**



**No. 02**



**No. 03**

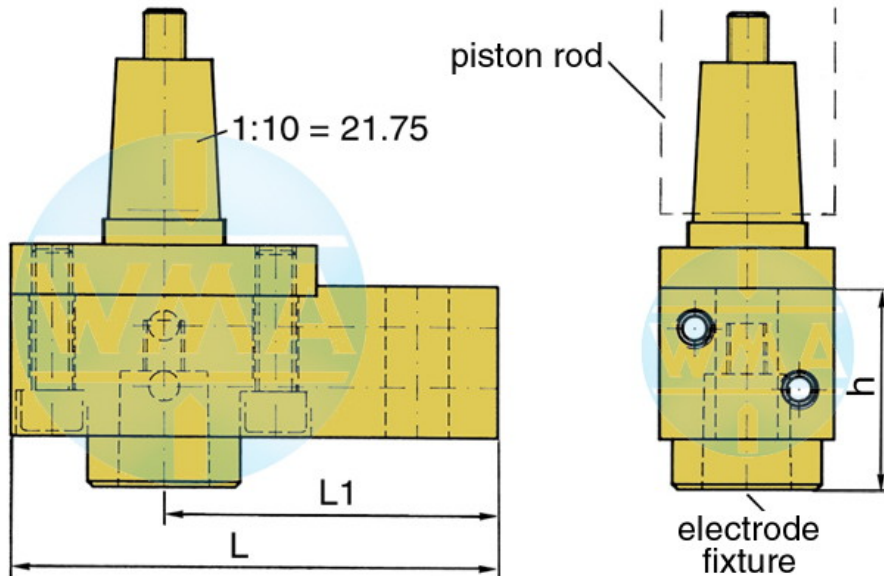


# Welding cylinder

## Bottom flange

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!

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Cylinder-Bottom flange-8

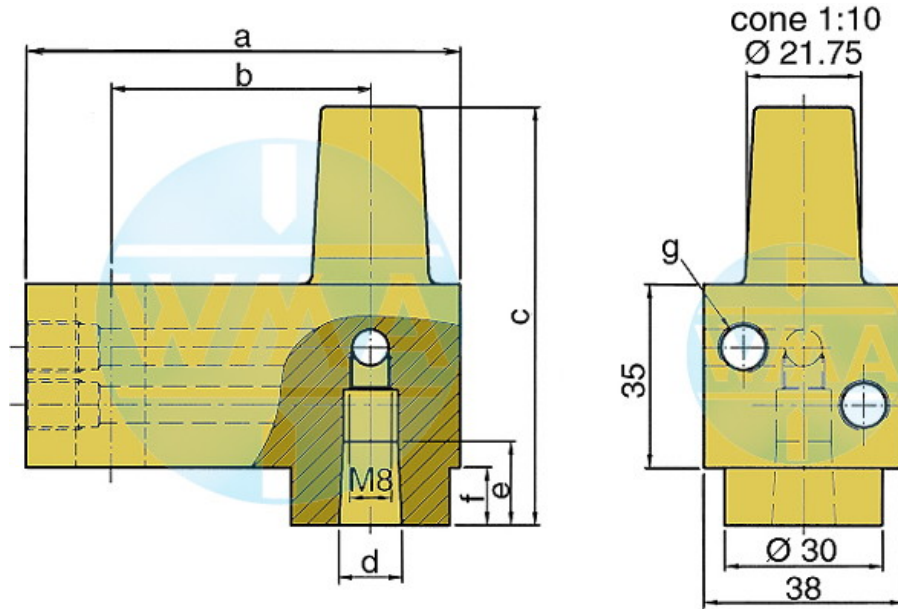


# Welding cylinder

## Bottom flange

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-Bottom flange-9