



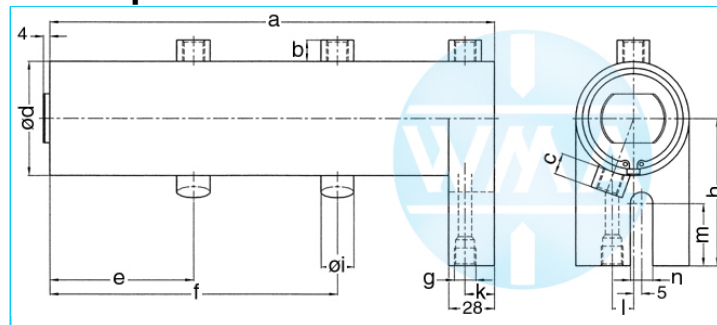
# Welding cylinder

Bottom flange, retract and working stroke

Version: 2011-01

bilateral air connection,  
double-stage pressurized

undamped



## Nominal size 038

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	369	13	13	48	126	254	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.050.
60	20	379	13	13	48	126	254	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.060.
70	30	429	13	13	48	146	294	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.070.
80	20	439	13	13	48	146	294	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.080.
90	40	509	13	13	48	176	354	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.090.
100	30	519	13	13	48	176	354	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.100.
110	40	569	13	13	48	196	394	Rp1/4"	75	20	18	13	38	14	0.2 kN	103.113.124.038.110.

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	n	Force*	Order-number
50	30	369	13	13	55	126	254	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.050.
60	20	379	13	13	55	126	254	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.060.
70	30	429	13	13	55	146	294	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.070.
80	20	439	13	13	55	146	294	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.080.
90	40	509	13	13	55	176	354	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.090.
100	30	519	13	13	55	176	354	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.100.
110	40	569	13	13	55	196	394	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.124.044.110.

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

## Nominal size 058

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	369	13	13	70	126	254	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.050.
60	20	379	13	13	70	126	254	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.060.
70	30	429	13	13	70	146	294	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.070.
80	20	439	13	13	70	146	294	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.080.
90	40	509	13	13	70	176	354	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.090.
100	30	519	13	13	70	176	354	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.100.
110	40	569	13	13	70	196	394	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.124.058.110.

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

**Complete the Order-number:**

**Example: 103.113.124.058.050.???** 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-Bottom flange-1



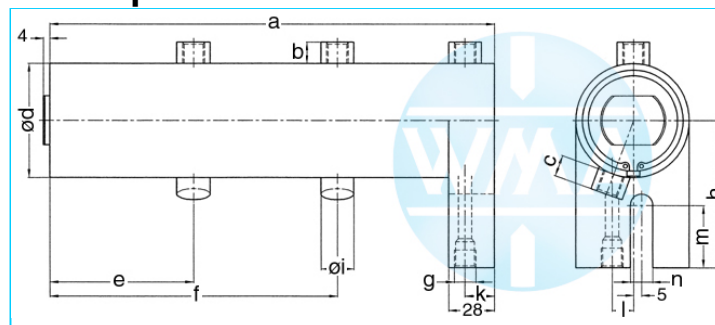
# Welding cylinder

Bottom flange, retract and working stroke

Version: 2011-01

**bilateral air connection,  
double-stage pressurized**

**undamped**



## Nominal size 070

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	419	16	16	90	143	293	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.050.
60	20	429	16	16	90	143	293	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.060.
70	30	479	16	16	90	163	333	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.070.
80	20	489	16	16	90	163	333	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.080.
90	40	559	16	16	90	193	393	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.090.
100	30	569	16	16	90	193	393	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.100.
110	40	619	16	16	90	213	433	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.110.

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	n	Force*	Order-number
50	30	419	16	16	100	143	293	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.050.
60	20	429	16	16	100	143	293	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.060.
70	30	479	16	16	100	163	333	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.070.
80	20	489	16	16	100	163	333	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.080.
90	40	559	16	16	100	193	393	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.090.
100	30	569	16	16	100	193	393	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.100.
110	40	619	16	16	100	213	433	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.124.080.110.

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

## Nominal size 090

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	419	16	16	110	143	293	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.050.
60	20	429	16	16	110	143	293	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.060.
70	30	479	16	16	110	163	333	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.070.
80	20	489	16	16	110	163	333	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.080.
90	40	559	16	16	110	193	393	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.090.
100	30	569	16	16	110	193	393	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.100.
110	40	619	16	16	110	213	433	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.124.090.110.

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

**Complete the Order-number:**

**Example: 103.113.124.080.070.???** 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-Bottom flange-2**



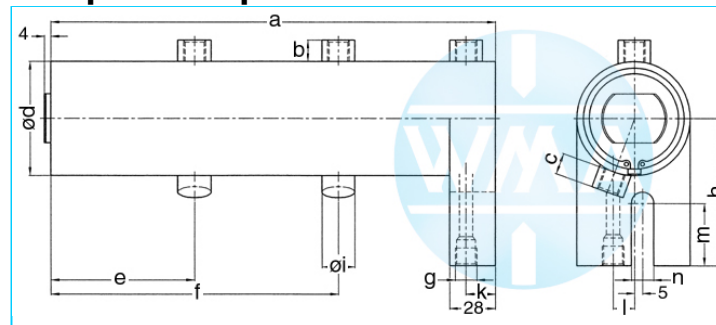
# Welding cylinder

Bottom flange, retract and working stroke

Version: 2011-01

bilateral 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	n	Force*	Order-number
50	30	369	13	13	55	126	254	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.050.
60	20	379	13	13	55	126	254	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.060.
70	30	429	13	13	55	146	294	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.070.
80	20	439	13	13	55	146	294	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.080.
90	40	509	13	13	55	176	354	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.090.
100	30	519	13	13	55	176	354	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.100.
110	40	569	13	13	55	196	394	Rp1/4"	80	20	18	13	38	14	0.28 kN	103.113.125.044.110.

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

## Nominal size 058

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	369	13	13	70	126	254	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.050.
60	20	379	13	13	70	126	254	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.060.
70	30	429	13	13	70	146	294	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.070.
80	20	439	13	13	70	146	294	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.080.
90	40	509	13	13	70	176	354	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.090.
100	30	519	13	13	70	176	354	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.100.
110	40	569	13	13	70	196	394	Rp1/4"	90	20	18	13	38	14	0.5 kN	103.113.125.058.110.

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

## Nominal size 070

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	419	16	16	90	143	293	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.050.
60	20	429	16	16	90	143	293	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.060.
70	30	479	16	16	90	163	333	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.070.
80	20	489	16	16	90	163	333	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.080.
90	40	559	16	16	90	193	393	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.090.
100	30	569	16	16	90	193	393	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.100.
110	40	619	16	16	90	213	433	Rp3/8"	110	25	17	16	49	17	0.72 kN	103.113.124.070.110.

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

**Complete the Order-number:**

**Example: 103.113.125.058.050.???** 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-Bottom flange-3



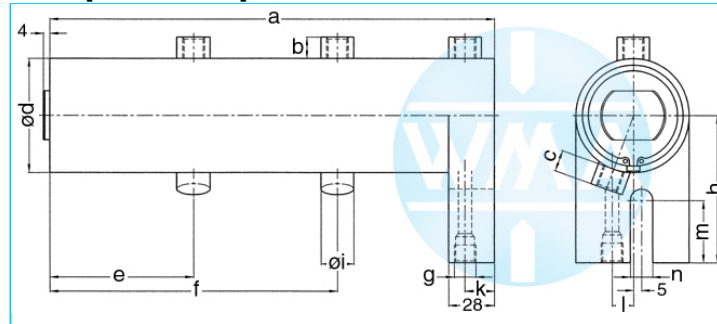
# Welding cylinder

Bottom flange, retract and working stroke

Version: 2011-01

**bilateral 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	n	Force*	Order-number
50	30	419	16	16	100	143	293	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.050.
60	20	429	16	16	100	143	293	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.060.
70	30	479	16	16	100	163	333	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.070.
80	20	489	16	16	100	163	333	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.080.
90	40	559	16	16	100	193	393	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.090.
100	30	569	16	16	100	193	393	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.100.
110	40	619	16	16	100	213	433	Rp3/8"	120	25	17	16	49	17	0.95 kN	103.113.125.080.110.

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

## Nominal size 090

S	WS	a	b	c	d	e	f	g	h	i	k	l	m	n	Force*	Order-number
50	30	419	16	16	110	143	293	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.050.
60	20	429	16	16	110	143	293	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.060.
70	30	479	16	16	110	163	333	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.070.
80	20	489	16	16	110	163	333	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.080.
90	40	559	16	16	110	193	393	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.090.
100	30	569	16	16	110	193	393	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.100.
110	40	619	16	16	110	213	433	Rp3/8"	130	25	17	16	49	17	1.2 kN	103.113.125.090.110.

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

**Complete the Order-number:**

**Example: 103.113.125.080.070.???** No. Force connection (S.5).?? No. Cylinder rod (S.6)!

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**Cylinder-Bottom flange-4**



# Welding cylinder

Bottom flange, retract and working stroke

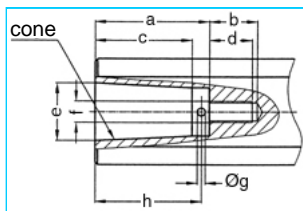
Version: 2011-01

## 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.

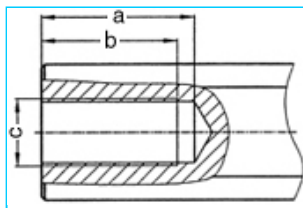
**Example: 103.113.125.058.050.202.?? No. Cylinder rod (S.6)**

### Internal cone



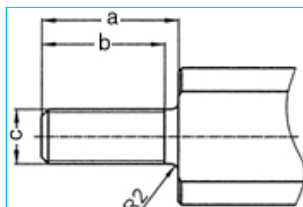
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	101.
42	18	35.5	16	21.806	MK3	M8	3	39	102.
42	18	35.5	16	21.750	1:10	M8	3	39	103.

### Female thread



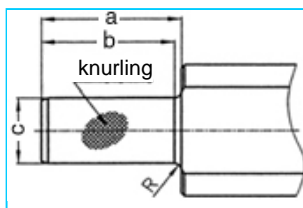
a	b	c	No.
45	40	M20 x 1.5	201.
62	58	M20 x 1.5	202.

### 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-Bottom flange-5



# Welding cylinder

Bottom flange, retract and working stroke

Version: 2011-01

## Cylinder rod

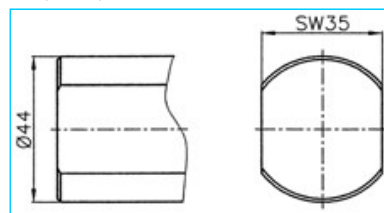
flattened and rotation locked

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

**Example: 103.113.125.058.050.202.01**

### For piston diameter

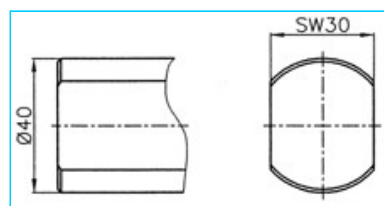
70, 80, 90



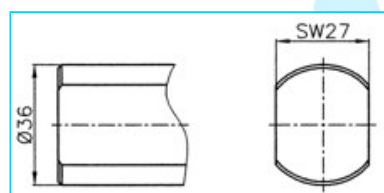
**No. 00**

### For piston diameter

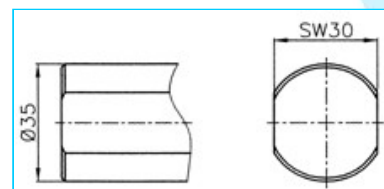
38, 44, 58



**No. 01**



**No. 02**



**No. 03**

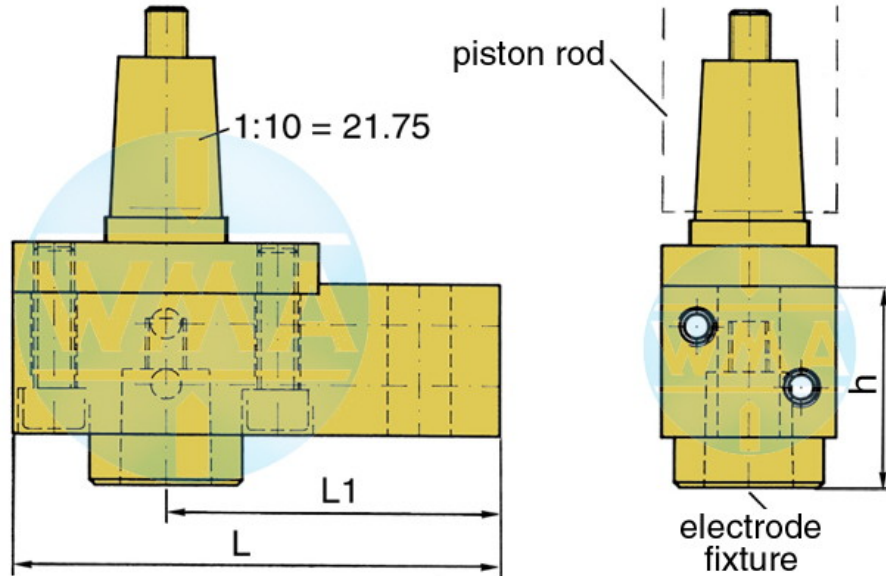


# Welding cylinder

Bottom flange, 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!

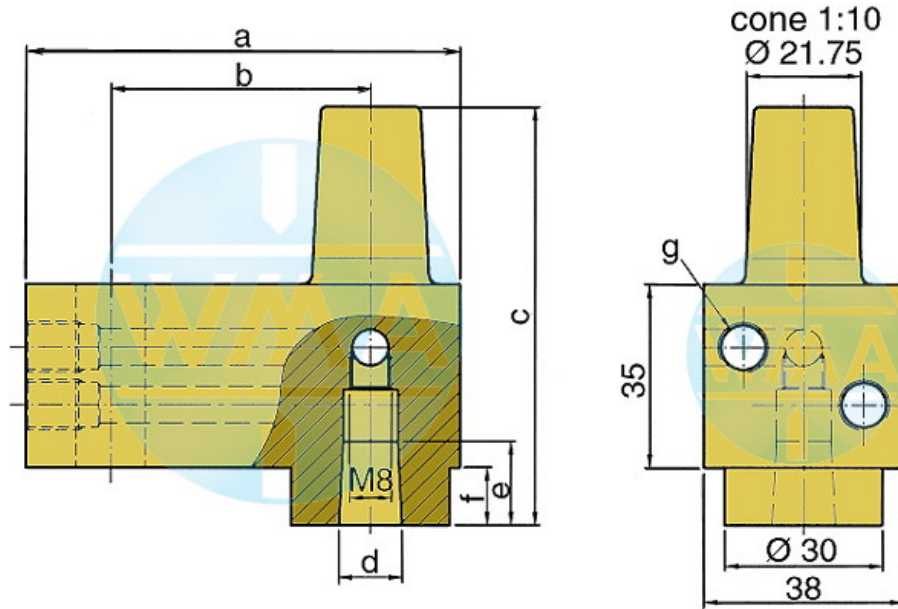


# Welding cylinder

## Bottom flange, 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-Bottom flange-8