



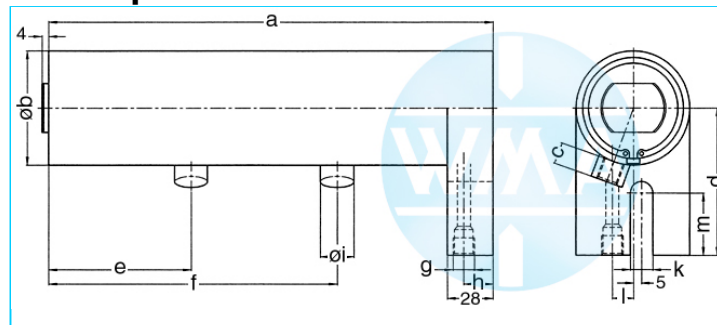
Welding cylinder

Bottom flange, 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	Force*	Order-number
50	30	369	48	13	75	126	254	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.050.
60	20	379	48	13	75	126	254	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.060.
70	30	429	48	13	75	146	294	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.070.
80	20	439	48	13	75	146	294	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.080.
90	40	509	48	13	75	176	354	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.090.
100	30	519	48	13	75	176	354	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.100.
110	40	569	48	13	75	196	394	Rp1/4"	18	20	14	13	38	0.2 kN	103.111.124.038.110.

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	Force*	Order-number
50	30	369	55	13	80	126	254	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.050.
60	20	379	55	13	80	126	254	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.060.
70	30	429	55	13	80	146	294	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.070.
80	20	439	55	13	80	146	294	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.080.
90	40	509	55	13	80	176	354	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.090.
100	30	519	55	13	80	176	354	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.100.
110	40	569	55	13	80	196	394	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.124.044.110.

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	Force*	Order-number
50	30	369	70	13	90	126	254	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.050.
60	20	379	70	13	90	126	254	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.060.
70	30	429	70	13	90	146	294	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.070.
80	20	439	70	13	90	146	294	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.080.
90	40	509	70	13	90	176	354	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.090.
100	30	519	70	13	90	176	354	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.100.
110	40	569	70	13	90	196	394	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.124.058.110.

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

Complete the Order-number:

Example: 103.111.124.058.050.??? No. Force connection (S.5).?? No. Cylinder rod (S.6)!

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Cylinder-Bottom flange-1



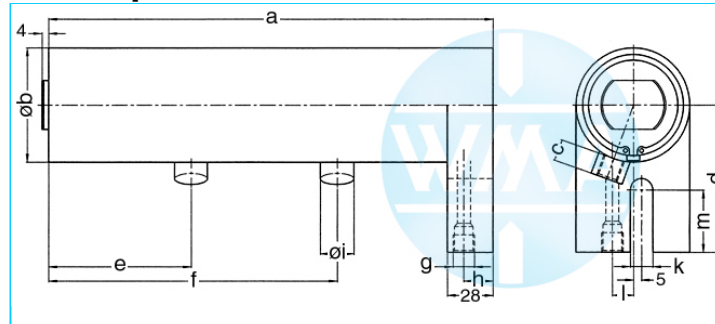
Welding cylinder

Bottom flange, 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	Force*	Order-number
50	30	419	90	16	110	143	293	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.050.
60	20	429	90	16	110	143	293	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.060.
70	30	479	90	16	110	163	333	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.070.
80	20	489	90	16	110	163	333	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.080.
90	40	559	90	16	110	193	393	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.090.
100	30	569	90	16	110	193	393	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.100.
110	40	619	90	16	110	213	433	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.124.070.110.

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	Force*	Order-number
50	30	419	100	16	120	143	293	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.050.
60	20	429	100	16	120	143	293	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.060.
70	30	479	100	16	120	163	333	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.070.
80	20	489	100	16	120	163	333	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.080.
90	40	559	100	16	120	193	393	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.090.
100	30	569	100	16	120	193	393	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.100.
110	40	619	100	16	120	213	433	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.124.080.110.

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	Force*	Order-number
50	30	419	110	16	130	143	293	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.050.
60	20	429	110	16	130	143	293	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.060.
70	30	479	110	16	130	163	333	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.070.
80	20	489	110	16	130	163	333	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.080.
90	40	559	110	16	130	193	393	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.090.
100	30	569	110	16	130	193	393	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.100.
110	40	619	110	16	130	213	433	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.124.090.110.

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

Complete the Order-number:

Example: 103.111.124.080.070.??? 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



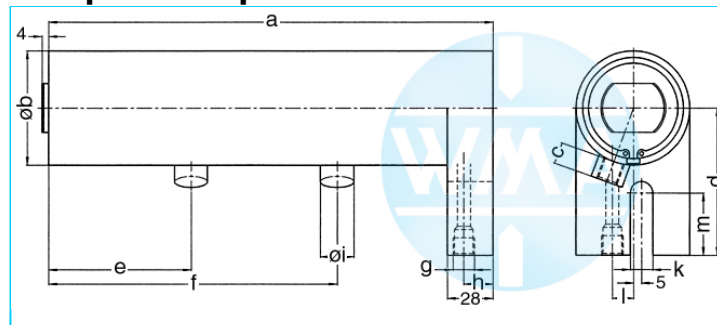
Welding cylinder

Bottom flange, retract and working stroke

Version: 2011-01

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	Force*	Order-number
50	30	369	55	13	80	126	254	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.050.
60	20	379	55	13	80	126	254	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.060.
70	30	429	55	13	80	146	294	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.070.
80	20	439	55	13	80	146	294	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.080.
90	40	509	55	13	80	176	354	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.090.
100	30	519	55	13	80	176	354	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.100.
110	40	569	55	13	80	196	394	Rp1/4"	18	20	14	13	38	0.28 kN	103.111.125.044.110.

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	Force*	Order-number
50	30	369	70	13	90	126	254	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.050.
60	20	379	70	13	90	126	254	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.060.
70	30	429	70	13	90	146	294	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.070.
80	20	439	70	13	90	146	294	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.080.
90	40	509	70	13	90	176	354	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.090.
100	30	519	70	13	90	176	354	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.100.
110	40	569	70	13	90	196	394	Rp1/4"	18	20	14	13	38	0.5 kN	103.111.125.058.110.

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	Force*	Order-number
50	30	419	90	16	110	143	293	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.050.
60	20	429	90	16	110	143	293	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.060.
70	30	479	90	16	110	163	333	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.070.
80	20	489	90	16	110	163	333	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.080.
90	40	559	90	16	110	193	393	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.090.
100	30	569	90	16	110	193	393	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.100.
110	40	619	90	16	110	213	433	Rp3/8"	17	25	17	16	49	0.72 kN	103.111.125.070.110.

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

Complete the Order-number:

Example: 103.111.125.058.050.??? No. Force connection (S.5).?? No. Cylinder rod (S.6)!

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Cylinder-Bottom flange-3



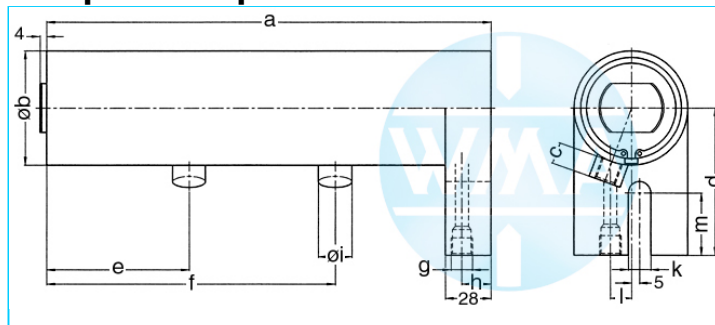
Welding cylinder

Bottom flange, 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	Force*	Order-number
50	30	419	100	16	120	143	293	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.050.
60	20	429	100	16	120	143	293	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.060.
70	30	479	100	16	120	163	333	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.070.
80	20	489	100	16	120	163	333	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.080.
90	40	559	100	16	120	193	393	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.090.
100	30	569	100	16	120	193	393	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.100.
110	40	619	100	16	120	213	433	Rp3/8"	17	25	17	16	49	0.95 kN	103.111.125.080.110.

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	Force*	Order-number
50	30	419	110	16	130	143	293	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.050.
60	20	429	110	16	130	143	293	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.060.
70	30	479	110	16	130	163	333	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.070.
80	20	489	110	16	130	163	333	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.080.
90	40	559	110	16	130	193	393	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.090.
100	30	569	110	16	130	193	393	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.100.
110	40	619	110	16	130	213	433	Rp3/8"	17	25	17	16	49	1.2 kN	103.111.125.090.110.

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

Complete the Order-number:

Example: 103.111.125.080.070.??? 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

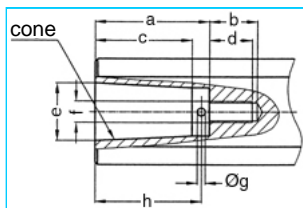
Version: 2011-01

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.

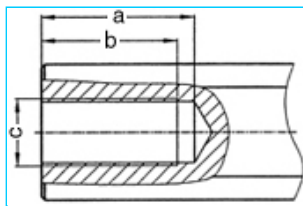
Example: 103.111.125.058.050.402.?? No. Cylinder rod (S.6)

Internal cone



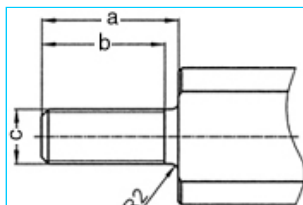
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	101.
42	18	35.5	16	21.806	MK3	M8	3	39	102.
42	18	35.5	16	21.750	1:10	M8	3	39	103.

Female thread



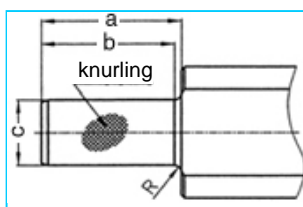
a	b	c	No.
45	40	M20 x 1.5	201.
62	58	M20 x 1.5	202.

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 ¹⁷	1 x 0.2 DIN 82	2	401.
42	42	25 ¹⁷	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

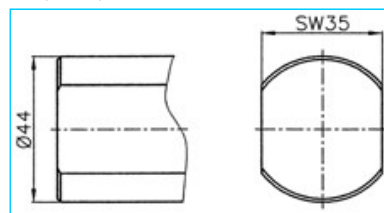
flattened and rotation locked

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

Example: 103.111.125.058.050.402.02

For piston diameter

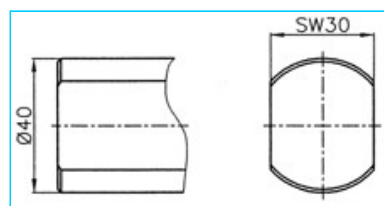
70, 80, 90



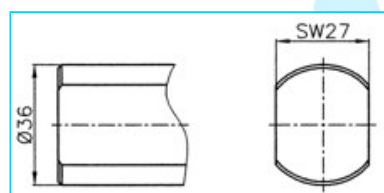
No. 00

For piston diameter

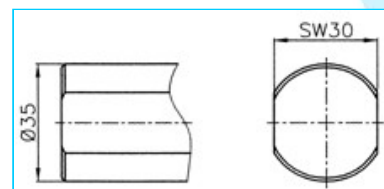
38, 44, 58



No. 01



No. 02



No. 03

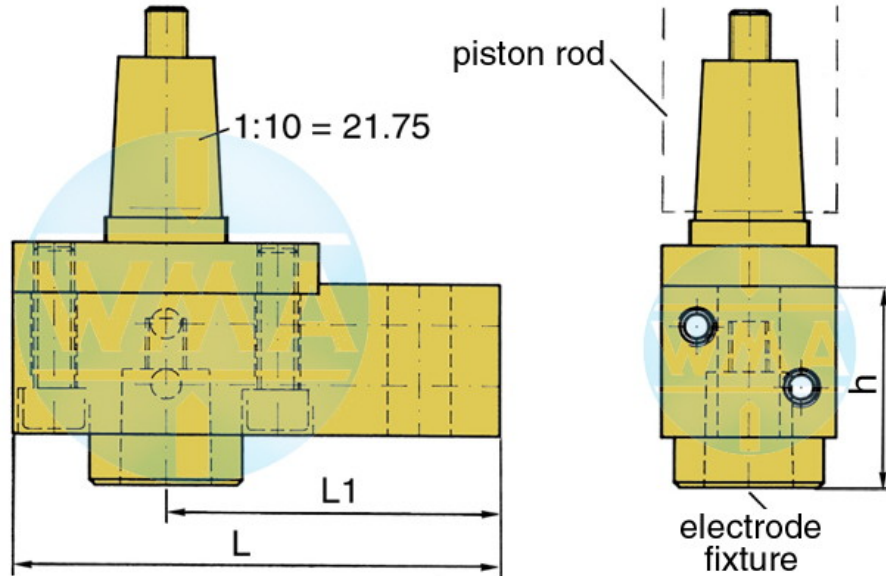


Welding cylinder

Bottom flange, 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!

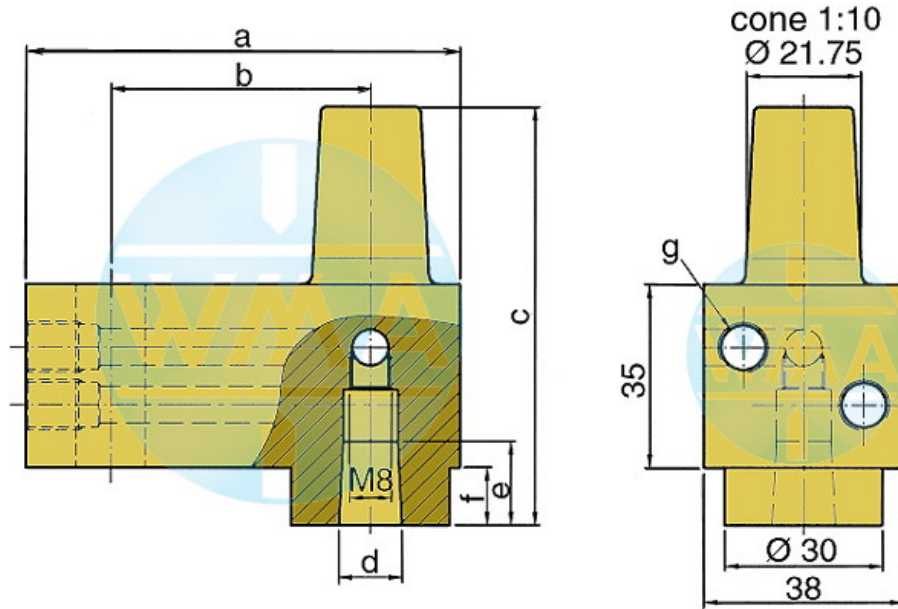


Welding cylinder

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

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Cylinder-Bottom flange-8