



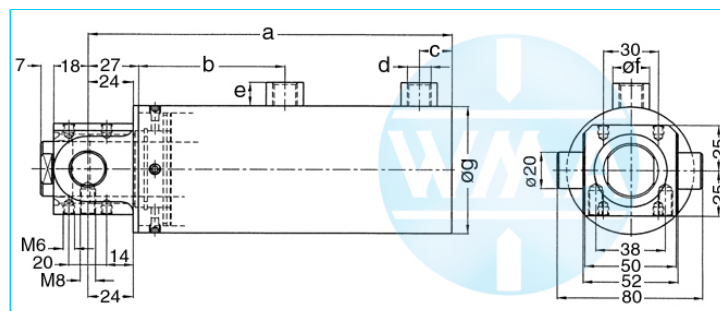
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

undamped



Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	198	80	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.036.
50	226	94	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.050.
65	256	109	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.065.
80	286	124	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.080.
100	326	144	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.100.
130	386	174	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.130.
150	426	194	18	Rp1/4"	13	20	55	0.28 kN	104.112.121.044.150.

* at 1 bar pressure

Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	198	80	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.036.
50	226	94	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.050.
65	256	109	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.065.
80	286	124	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.080.
100	326	144	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.100.
130	386	174	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.130.
150	426	194	18	Rp1/4"	13	20	70	0.5 kN	104.112.121.058.150.

* at 1 bar pressure

Complete the Order-number: Example: 104.110.121.058.036.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!

Nominal size 070 short model!

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	202	92	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.036.
50	230	106	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.050.
65	260	121	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.065.
80	290	136	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.080.
100	330	156	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.100.
130	390	186	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.130.
150	430	206	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.150.

* at 1 bar pressure

Complete the Order-number: Example: 104.112.121.070.036.???. No. Force connection (S.12).?? No. Cylinder rod (S.13), write at the end a little k!

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Cylinder-pivot pin-1



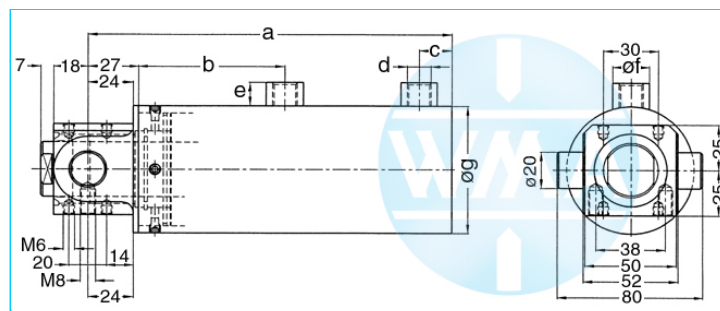
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

undamped



Nominal size 070

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	229	94	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.036.
50	257	108	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.050.
65	287	123	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.065.
80	317	138	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.080.
100	357	158	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.100.
130	417	188	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.130.
150	457	208	24	Rp3/8"	16	25	90	0.72 kN	104.112.121.070.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.121.070.080.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

Nominal size 080 short model!

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	202	92	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.036.
50	230	106	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.050.
65	260	121	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.065.
80	290	136	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.080.
100	330	156	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.100.
130	390	186	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.130.
150	430	206	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.121.080.036.???. No. Force connection (S.12).?? No. Cylinder rod (S.13), write at the end a little k!**

Nominal size 080

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	229	94	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.036.
50	257	108	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.050.
65	287	123	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.065.
80	317	138	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.080.
100	357	158	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.100.
130	417	188	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.130.
150	457	208	24	Rp3/8"	16	25	100	0.95 kN	104.112.121.080.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.121.080.050.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-2



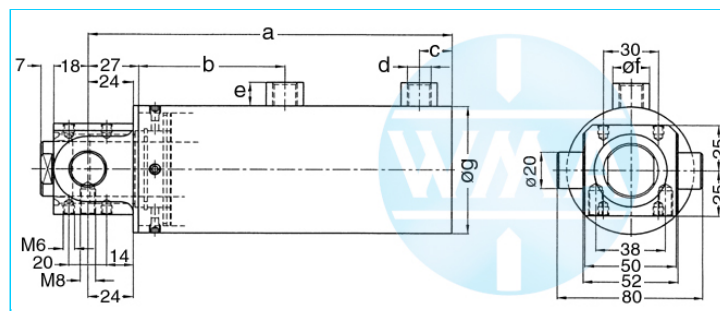
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

undamped



Nominal size 090
short model!

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	202	92	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.036.
50	230	106	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.050.
65	260	121	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.065.
80	290	136	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.080.
100	330	156	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.100.
130	390	186	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.130.
150	430	206	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.121.090.036.???**. **No. Force connection (S.12).?? No. Cylinder rod (S.13)**, write at the end a little k!

Nominal size 090

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	229	94	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.036.
50	257	108	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.050.
65	287	123	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.065.
80	317	138	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.080.
100	357	158	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.100.
130	417	188	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.130.
150	457	208	24	Rp3/8"	16	25	110	1.2 kN	104.112.121.090.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.121.090.050.???**. **No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-3



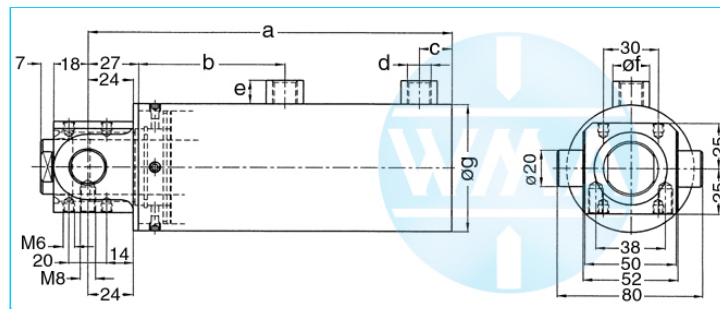
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

end position damped



Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	226	94	18	Rp1/4"	13	20	55	0.28 kN	104.112.122.044.036.
50	256	109	18	Rp1/4"	13	20	55	0.28 kN	104.112.122.044.050.
65	286	124	18	Rp1/4"	13	20	55	0.28 kN	104.112.122.044.065.
80	326	144	18	Rp1/4"	13	20	55	0.28 kN	104.112.122.044.080.
100	386	174	18	Rp1/4"	13	20	55	0.28 kN	104.112.122.044.100.
130	426	194	18	Rp1/4"	13	20	55	0.28 kN	104.112.122.044.130.

* at 1 bar pressure

Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	226	94	18	Rp1/4"	13	20	70	0.5 kN	104.112.122.058.036.
50	256	109	18	Rp1/4"	13	20	70	0.5 kN	104.112.122.058.050.
65	286	124	18	Rp1/4"	13	20	70	0.5 kN	104.112.122.058.065.
80	326	144	18	Rp1/4"	13	20	70	0.5 kN	104.112.122.058.080.
100	386	174	18	Rp1/4"	13	20	70	0.5 kN	104.112.122.058.100.
130	426	194	18	Rp1/4"	13	20	70	0.5 kN	104.112.122.058.130.

* at 1 bar pressure

Nominal size 070

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	108	24	Rp3/8"	16	25	90	0.72 kN	104.112.122.070.036.
50	287	123	24	Rp3/8"	16	25	90	0.72 kN	104.112.122.070.050.
65	317	138	24	Rp3/8"	16	25	90	0.72 kN	104.112.122.070.065.
80	357	158	24	Rp3/8"	16	25	90	0.72 kN	104.112.122.070.080.
100	417	188	24	Rp3/8"	16	25	90	0.72 kN	104.112.122.070.100.
130	457	208	24	Rp3/8"	16	25	90	0.72 kN	104.112.122.070.130.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.122.070.080.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-4



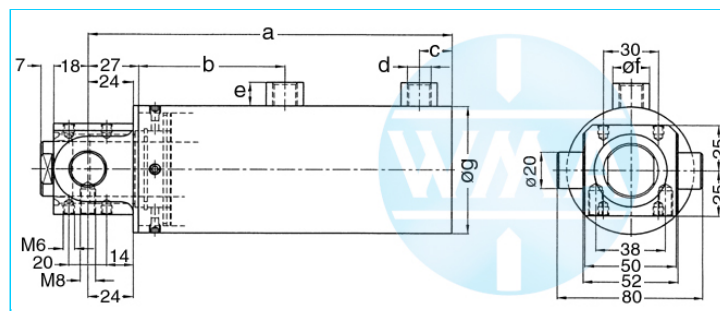
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

end position damped



Nominal size 080

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	108	24	Rp3/8"	16	25	100	0.95 kN	104.112.122.080.036.
50	287	123	24	Rp3/8"	16	25	100	0.95 kN	104.112.122.080.050.
65	317	138	24	Rp3/8"	16	25	100	0.95 kN	104.112.122.080.065.
80	357	158	24	Rp3/8"	16	25	100	0.95 kN	104.112.122.080.080.
100	417	188	24	Rp3/8"	16	25	100	0.95 kN	104.112.122.080.100.
130	457	208	24	Rp3/8"	16	25	100	0.95 kN	104.112.122.080.130.

* at 1 bar pressure

Nominal size 090

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	108	24	Rp3/8"	16	25	110	1.2 kN	104.112.122.090.036.
50	287	123	24	Rp3/8"	16	25	110	1.2 kN	104.112.122.090.050.
65	317	138	24	Rp3/8"	16	25	110	1.2 kN	104.112.122.090.065.
80	357	158	24	Rp3/8"	16	25	110	1.2 kN	104.112.122.090.080.
100	417	188	24	Rp3/8"	16	25	110	1.2 kN	104.112.122.090.100.
130	457	208	24	Rp3/8"	16	25	110	1.2 kN	104.112.122.090.130.

* at 1 bar pressure

Complete the Order-number: Example: 104.112.122.090.050.???. **No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-5



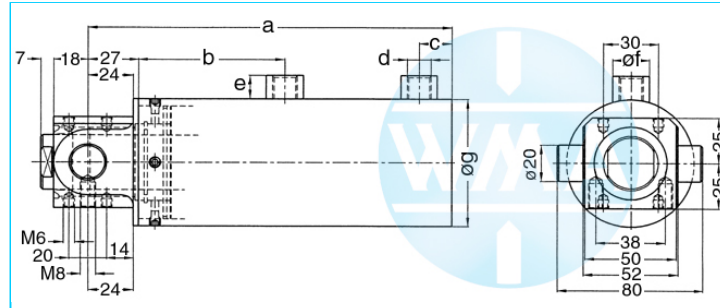
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

damped independent of stroke



Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	198	80	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.036.
50	226	94	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.050.
65	256	109	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.065.
80	286	124	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.080.
100	326	144	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.100.
130	386	174	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.130.
150	426	194	18	Rp1/4"	13	20	55	0.28 kN	104.112.123.044.150.

* at 1 bar pressure

Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	198	80	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.036.
50	226	94	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.050.
65	256	109	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.065.
80	286	124	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.080.
100	326	144	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.100.
130	386	174	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.130.
150	426	194	18	Rp1/4"	13	20	70	0.5 kN	104.112.123.058.150.

* at 1 bar pressure

Nominal size 070

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	229	94	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.036.
50	257	108	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.050.
65	287	123	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.065.
80	317	138	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.080.
100	357	158	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.100.
130	417	188	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.130.
150	457	208	24	Rp3/8"	16	25	90	0.72 kN	104.112.123.070.150.

* at 1 bar pressure

Complete the Order-number: Example: 104.112.123.070.036.???. **No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-6



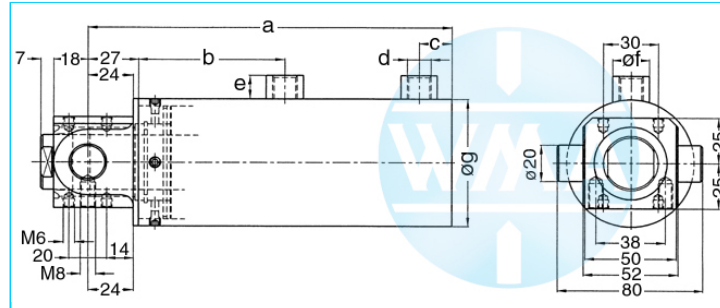
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
double-stage pressurized

damped independent of stroke



Nominal size 080

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	229	94	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.036.
50	257	108	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.050.
65	287	123	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.065.
80	317	138	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.080.
100	357	158	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.100.
130	417	188	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.130.
150	457	208	24	Rp3/8"	16	25	100	0.95 kN	104.112.123.080.150.

* at 1 bar pressure

Nominal size 090

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	229	94	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.036.
50	257	108	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.050.
65	287	123	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.065.
80	317	138	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.080.
100	357	158	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.100.
130	417	188	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.130.
150	457	208	24	Rp3/8"	16	25	110	1.2 kN	104.112.123.090.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.123.090.050.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-7



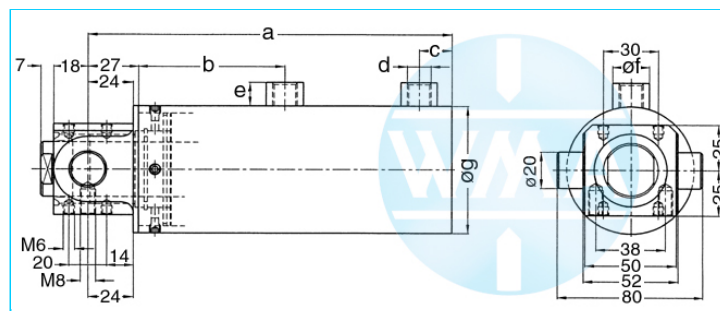
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
three-stage pressurized

undamped



Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	139	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.036.
50	299	167	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.050.
65	344	197	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.065.
80	389	227	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.080.
100	449	267	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.100.
130	539	327	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.130.
150	599	367	18	Rp1/4"	13	20	55	0.39 kN	104.112.131.044.150.

* at 1 bar pressure

Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	139	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.036.
50	299	167	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.050.
65	344	197	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.065.
80	389	227	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.080.
100	449	267	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.100.
130	539	327	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.130.
150	599	367	18	Rp1/4"	13	20	70	0.72 kN	104.112.131.058.150.

* at 1 bar pressure

Nominal size 070

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	299	164	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.036.
50	341	192	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.050.
65	386	222	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.065.
80	431	252	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.080.
100	491	292	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.100.
130	581	352	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.130.
150	641	392	24	Rp3/8"	16	25	90	1.04 kN	104.112.131.070.150.

* at 1 bar pressure

Complete the Order-number: Example: 104.112.131.070.036.???. **No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-8



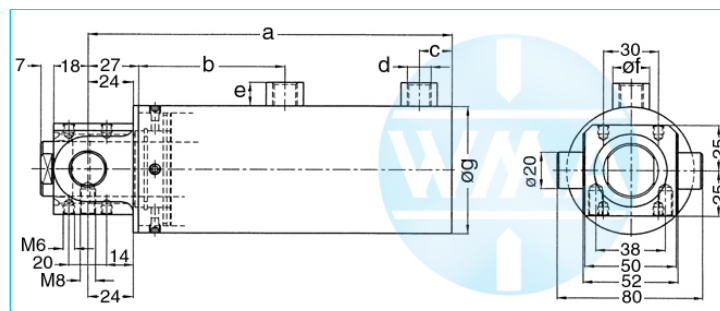
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
three-stage pressurized

undamped



Nominal size 080

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	299	164	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.036.
50	341	192	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.050.
65	386	222	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.065.
80	431	252	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.080.
100	491	292	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.100.
130	581	352	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.130.
150	641	392	24	Rp3/8"	16	25	100	1.4 kN	104.112.131.080.150.

* at 1 bar pressure

Nominal size 090

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	299	164	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.036.
50	341	192	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.050.
65	386	222	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.065.
80	431	252	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.080.
100	491	292	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.100.
130	581	352	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.130.
150	641	392	24	Rp3/8"	16	25	110	1.8 kN	104.112.131.090.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.131.090.050.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-9



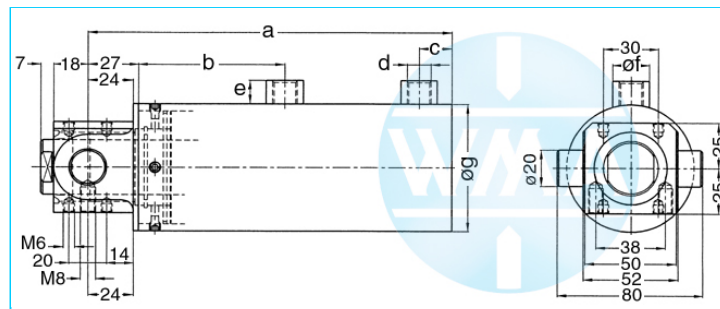
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
three-stage pressurized

damped independent of stroke



Nominal size 044

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	139	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.036.
50	299	167	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.050.
65	344	197	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.065.
80	389	227	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.080.
100	449	267	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.100.
130	539	327	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.130.
150	599	367	18	Rp1/4"	13	20	55	0.39 kN	104.112.132.044.150.

* at 1 bar pressure

Nominal size 058

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	257	139	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.036.
50	299	167	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.050.
65	344	197	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.065.
80	389	227	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.080.
100	449	267	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.100.
130	539	327	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.130.
150	599	367	18	Rp1/4"	13	20	70	0.72 kN	104.112.132.058.150.

* at 1 bar pressure

Nominal size 070

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	299	164	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.036.
50	341	192	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.050.
65	386	222	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.065.
80	431	252	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.080.
100	491	292	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.100.
130	581	352	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.130.
150	641	392	24	Rp3/8"	16	25	90	1.04 kN	104.112.132.070.150.

* at 1 bar pressure

Complete the Order-number: Example: 104.112.132.058.036.???. **No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-10



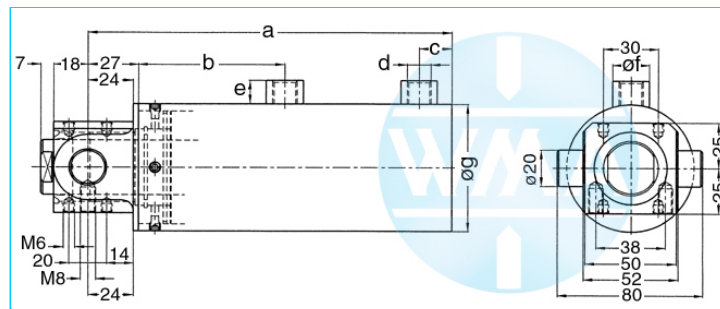
Welding cylinder

Pivot pin

Version: 2011-01

unilateral air connection,
three-stage pressurized

damped independent of stroke



Nominal size 080

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	299	164	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.036.
50	341	192	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.050.
65	386	222	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.065.
80	431	252	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.080.
100	491	292	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.100.
130	581	352	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.130.
150	641	392	24	Rp3/8"	16	25	100	1.4 kN	104.112.132.080.150.

* at 1 bar pressure

Nominal size 090

Stroke	a	b	c	d	e	f	g	Force*	Order-number
36	299	164	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.036.
50	341	192	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.050.
65	386	222	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.065.
80	431	252	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.080.
100	491	292	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.100.
130	581	352	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.130.
150	641	392	24	Rp3/8"	16	25	110	1.8 kN	104.112.132.090.150.

* at 1 bar pressure

Complete the Order-number: **Example: 104.112.132.090.050.???. No. Force connection (S.12).?? No. Cylinder rod (S.13)!**

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Cylinder-pivot pin-11



Welding cylinder

Pivot pin

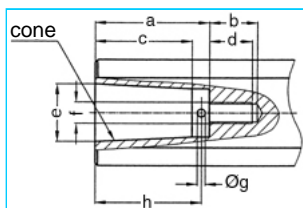
Version: 2011-01

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.

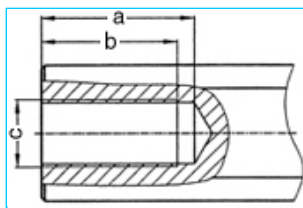
Example: 104.112.131.058.036.401.?? No. Cylinder rod (S.13)

Internal cone



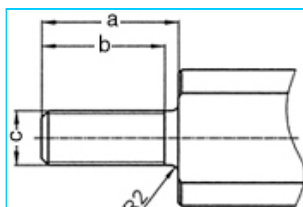
a	b	c	d	e	cone	f	g	h	No.
33	18	27.0	16	17.780	MK2	M8	3	30	101.
42	18	35.5	16	21.806	MK3	M8	3	39	102.
42	18	35.5	16	21.750	1:10	M8	3	39	103.

Female thread



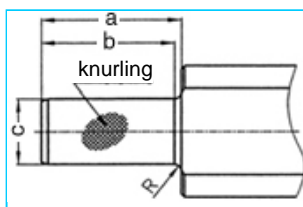
a	b	c	No.
45	40	M20 x 1.5	201.
62	58	M20 x 1.5	202.

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-pivot pin-12



Welding cylinder

Pivot pin

Version: 2011-01

Cylinder rod

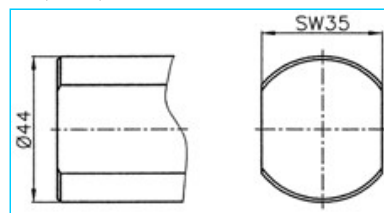
flattened and rotation locked

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

Example: 104.112.131.058.036.401.03

For piston diameter

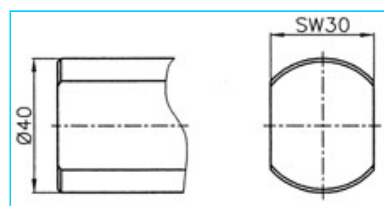
70, 80, 90



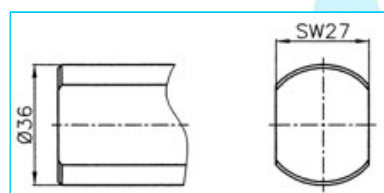
No. 00

For piston diameter

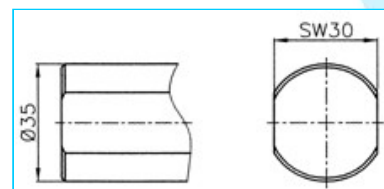
38, 44, 58



No. 01



No. 02



No. 03

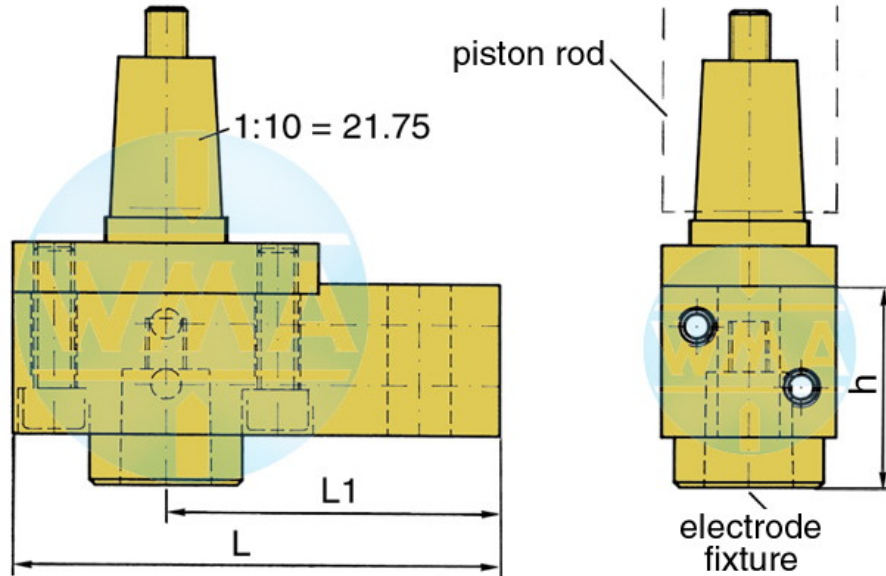


Welding cylinder

Pivot pin

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!

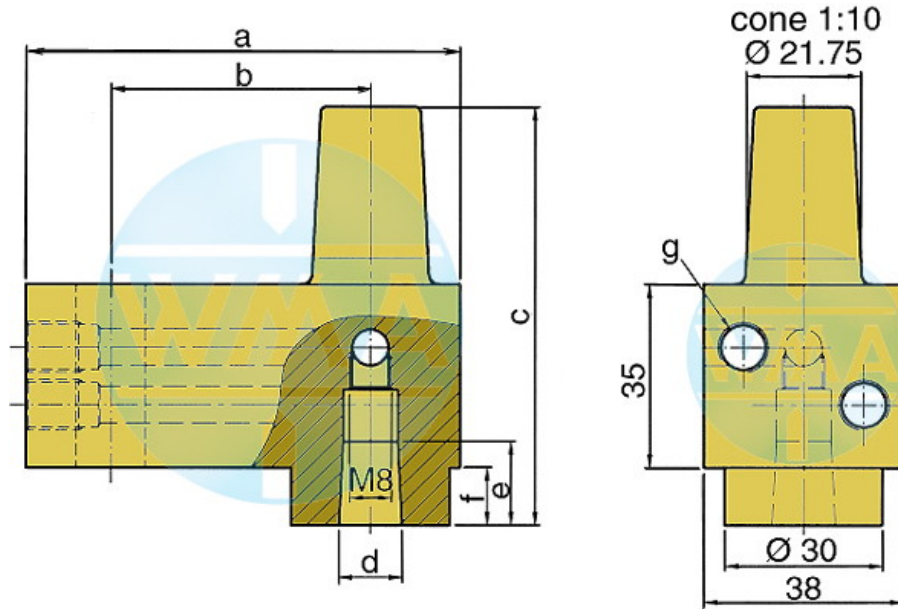


Welding cylinder

Pivot pin

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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