





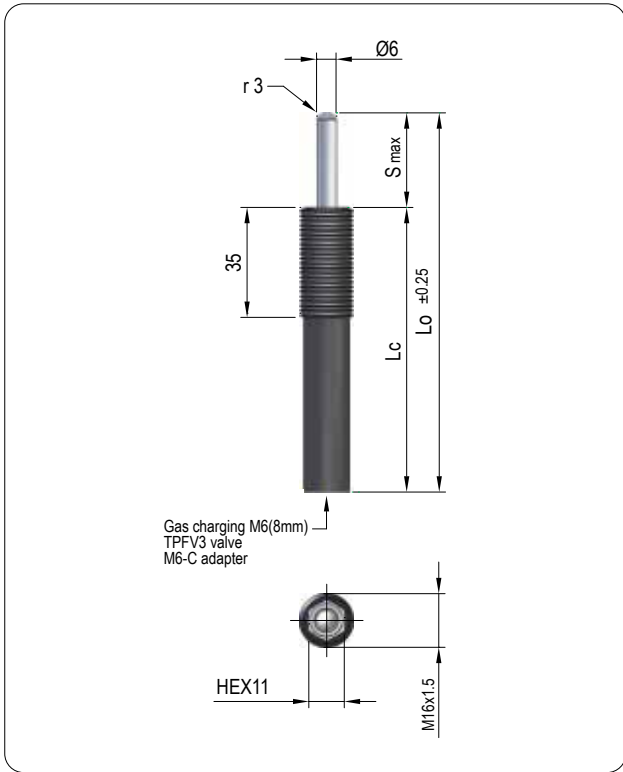
READY DESIGN-TITE® R Series Threaded Line Nitrogen Gas (N₂) Springs

Every R Series gas spring features a threaded housing for design convenience and flexibility.

Thread Diameter: M16x 1.5 to M50x 1.5
 Open Force: 22 lbs to 2,250 lbs
 Closed Force: 22 lbs to 2,250 lbs



MODEL	ØBody mm	Strokes mm	 Fo daN		 ACTIVE SAFETY	
R-16	M16 x 1,5	10 - 100	50		✓	
R-16.1	M16 x 1,5	10 - 100	50		✓	
R-24	M24 x 1,5	10 - 100	140		✓	
R-24.1	M24 x 1,5	10 - 125	140		✓	
R-200	M28 x 1,5	15 - 125	200	✓	✓	
R-250	M38 x 1,5	13 - 80	250	✓	✓	
R-750	M45 x 1,5	13 - 100	740	✓	✓	✓
R-1000	M50 x 1,5	13 - 100	1000	✓	✓	✓



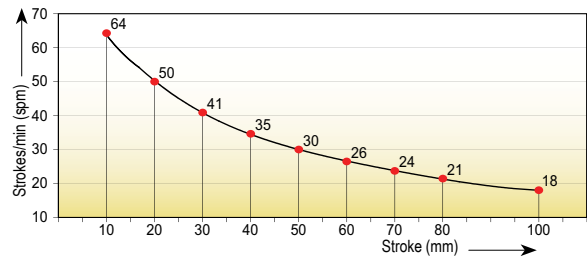
Pressure medium	Gas Nitrogen (N ₂)
Max. charging pressure	175 Bar
Min. charging pressure	35 Bar
Rod seal area	0,28 cm ²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit R16



VDI SAFETY



Maximum strokes / minute (at 20°C)



MODEL	Smax mm	Lo mm	Lc mm	V I	Kg
R-16x10	10	80	70	0,004	0,06
R-16x20	20	100	80	0,005	0,06
R-16x30	30	120	90	0,006	0,07
R-16x40	40	140	100	0,007	0,08
R-16x50	50	160	110	0,008	0,08
R-16x60	60	180	120	0,009	0,09
R-16x70	70	200	130	0,010	0,09
R-16x80	80	220	140	0,011	0,11
R-16x100	100	260	160	0,013	0,11

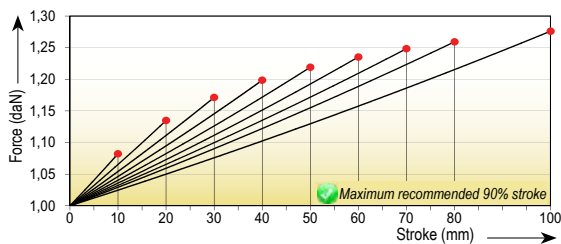
MODEL	Fo daN	Fc daN	P Bar
R-16 ... F10	10 (±5%)	≈ 12	35
R-16 ... F15	15 (±5%)	≈ 15	50
R-16 ... F20	20 (±5%)	≈ 25	70
R-16 ... F25	25 (±5%)	≈ 30	90
R-16 ... F30	30 (±5%)	≈ 35	110
R-16 ... F35	35 (±5%)	≈ 45	125
R-16 ... F40	40 (±5%)	≈ 50	140
R-16 ... F45	45 (±5%)	≈ 55	160

How to order

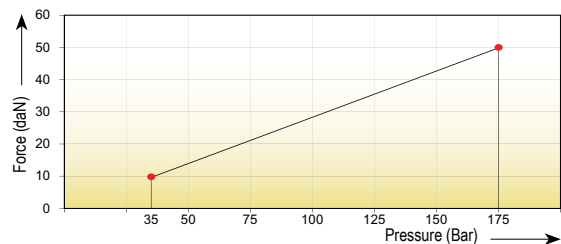
R-16 x 20 F50

Model Stroke Force

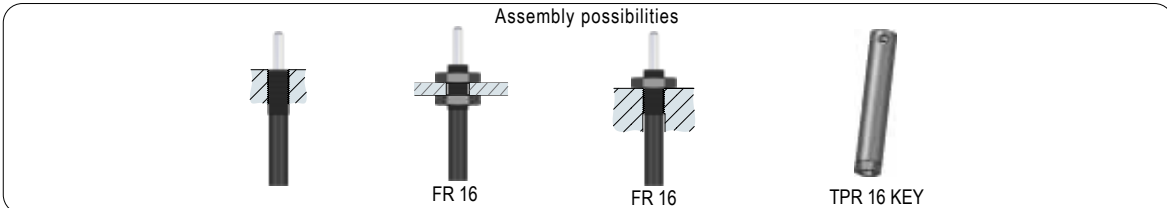
Force/stroke ratio



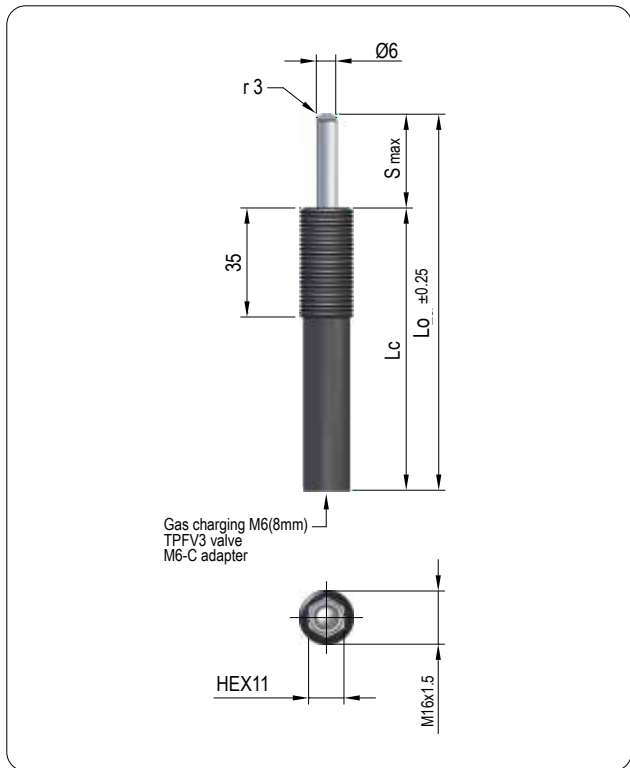
Initial force/charging pressure ratio



Assembly possibilities



R-16.1



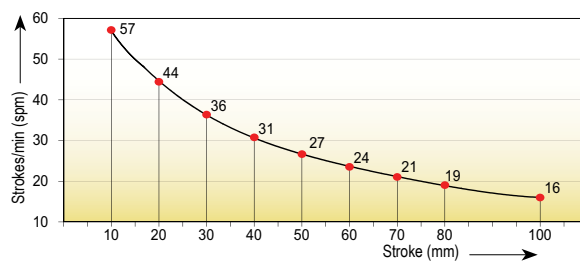
Pressure medium	Gas Nitrogen (N ₂)
Max. charging pressure	175 Bar
Min. charging pressure	35 Bar
Rod seal area	0,28 cm ²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit RB16



VDI SAFETY



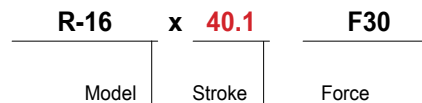
Maximum strokes / minute (at 20°C)



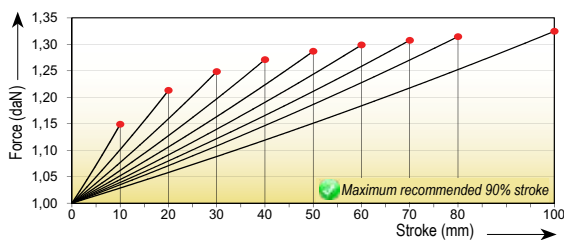
MODEL	Smax mm	Lo mm	Lc mm	V I	Kg
R-16x10.1	10	65	55	0,002	0,05
R-16x20.1	20	85	65	0,003	0,05
R-16x30.1	30	105	75	0,004	0,06
R-16x40.1	40	125	85	0,005	0,07
R-16x50.1	50	145	95	0,006	0,07
R-16x60.1	60	165	105	0,007	0,08
R-16x70.1	70	185	115	0,008	0,08
R-16x80.1	80	205	125	0,009	0,10
R-16x100.1	100	245	145	0,012	0,10

MODEL	Fo daN	Fc daN	P Bar
R-16x ... F10.1	10 (±5%)	≈ 13	35
R-16x ... F15.1	15 (±5%)	≈ 18	50
R-16x ... F20.1	20 (±5%)	≈ 25	70
R-16x ... F25.1	25 (±5%)	≈ 32	90
R-16x ... F30.1	30 (±5%)	≈ 40	110
R-16x ... F35.1	35 (±5%)	≈ 45	125
R-16x ... F40.1	40 (±5%)	≈ 50	140
R-16x ... F45.1	45 (±5%)	≈ 55	160

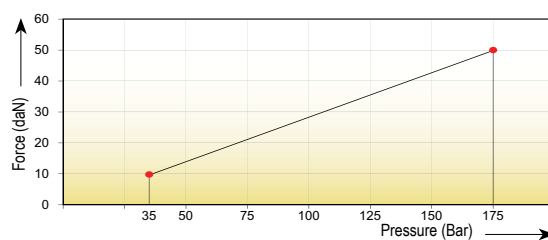
How to order



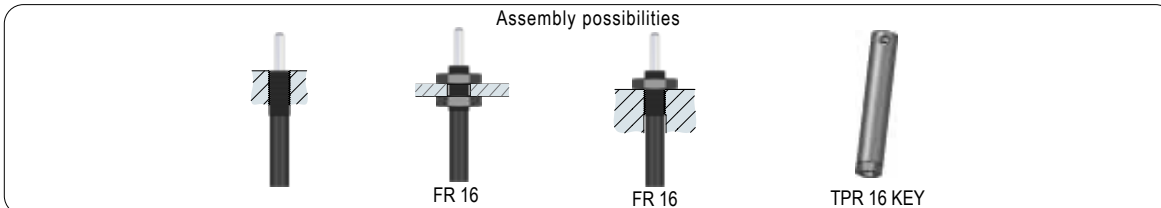
Force/stroke ratio

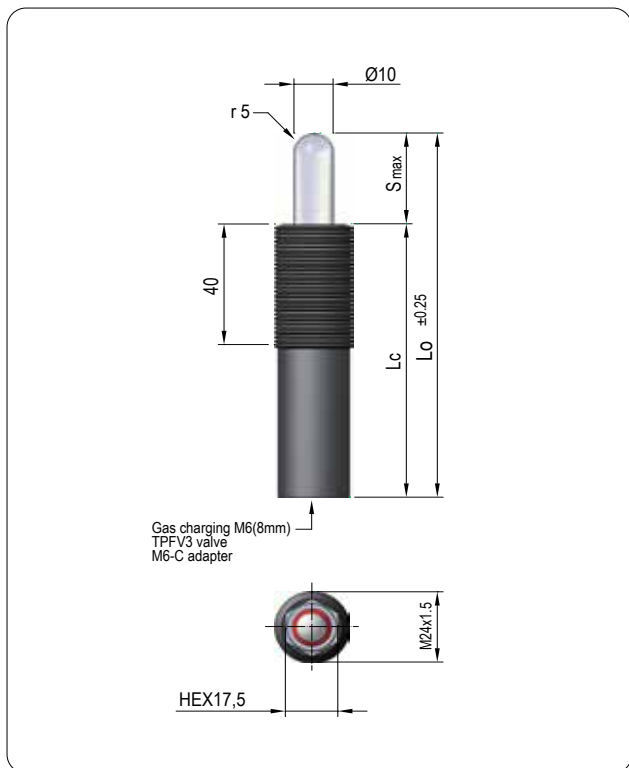


Initial force/charging pressure ratio



Assembly possibilities





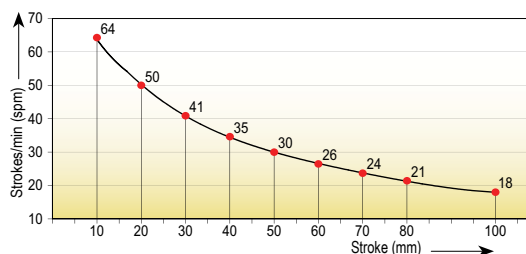
Pressure medium	Gas Nitrogen (N₂)
Max. charging pressure	175 Bar
Min. charging pressure	25 Bar
Rod seal area	0,78 cm²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit R24



VDI SAFETY



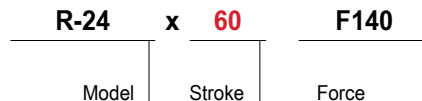
Maximum strokes / minute (at 20°C)



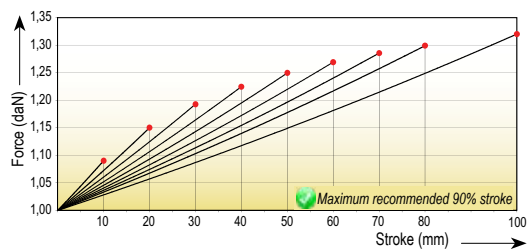
MODEL	Smax mm	Lo mm	Lc mm	V I	Kg
R-24x10	10	80	70	0,009	0,20
R-24x20	20	100	80	0,012	0,22
R-24x30	30	120	90	0,015	0,24
R-24x40	40	140	100	0,017	0,25
R-24x50	50	160	110	0,020	0,27
R-24x60	60	180	120	0,022	0,30
R-24x70	70	200	130	0,025	0,35
R-24x80	80	220	140	0,027	0,41
R-24x100	100	260	160	0,032	0,45

MODEL	Fo daN	Fc daN	P Bar
R-24x ... F20	20 (±5%)	≈ 25	25
R-24x ... F40	40 (±5%)	≈ 50	50
R-24x ... F60	60 (±5%)	≈ 75	75
R-24x ... F80	80 (±5%)	≈ 100	100
R-24x ... F100	100 (±5%)	≈ 125	125
R-24x ... F120	120 (±5%)	≈ 150	150
R-24x ... F140	140 (±5%)	≈ 175	175

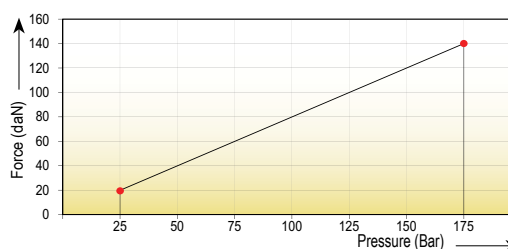
How to order



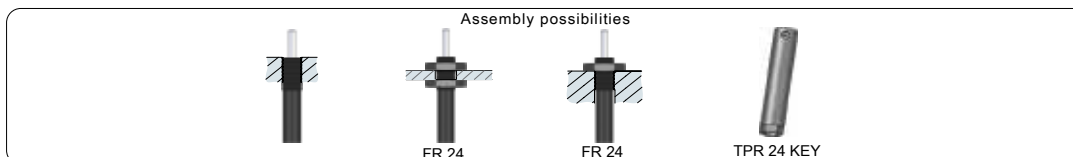
Force/stroke ratio



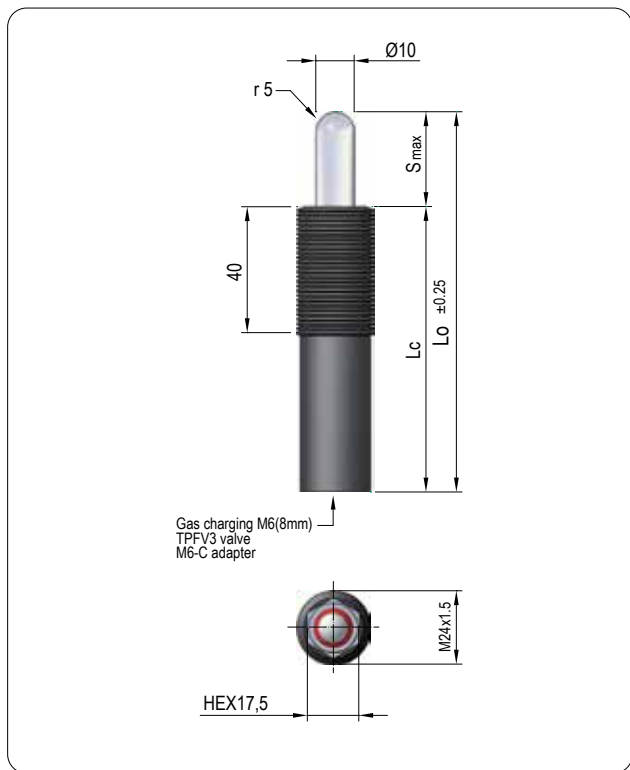
Initial force/charging pressure ratio



Assembly possibilities



R-24.1



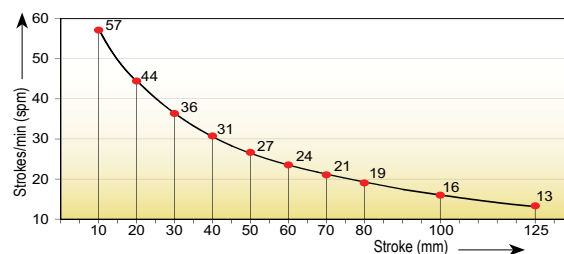
Pressure medium	Gas Nitrogen (N ₂)
Max. charging pressure	175 Bar
Min. charging pressure	25 Bar
Rod seal area	0,78 cm ²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit RB24



VDI SAFETY



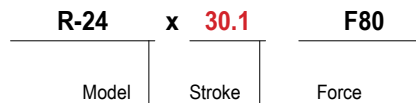
Maximum strokes / minute (at 20°C)



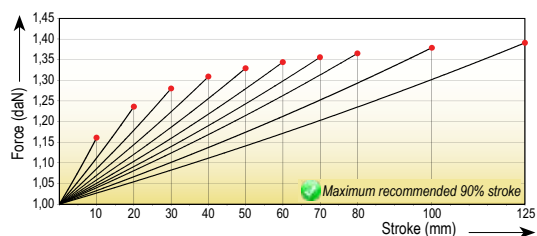
MODEL	Smax mm	Lo mm	Lc mm	V l	Kg
R-24x10.1	10	65	55	0,006	0,18
R-24x20.1	20	85	65	0,008	0,20
R-24x30.1	30	105	75	0,011	0,22
R-24x40.1	40	125	85	0,013	0,23
R-24x50.1	50	145	95	0,016	0,25
R-24x60.1	60	165	105	0,018	0,28
R-24x70.1	70	185	115	0,021	0,32
R-24x80.1	80	205	125	0,024	0,38
R-24x100.1	100	245	145	0,029	0,48
R-24x125.1	125	295	170	0,035	0,61

MODEL	Fo daN	Fc daN	P Bar
R-24x ... F20.1	20 (±5%)	≈ 25	25
R-24x ... F40.1	40 (±5%)	≈ 55	50
R-24x ... F60.1	60 (±5%)	≈ 80	75
R-24x ... F80.1	80 (±5%)	≈ 105	100
R-24x ... F100.1	100 (±5%)	≈ 135	125
R-24x ... F120.1	120 (±5%)	≈ 160	150
R-24x ... F140.1	140 (±5%)	≈ 185	175

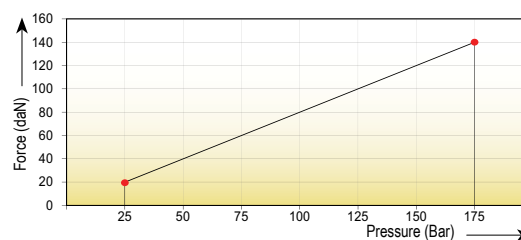
How to order



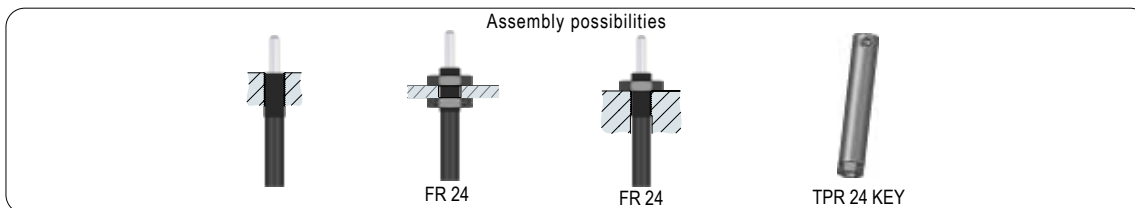
Force/stroke ratio

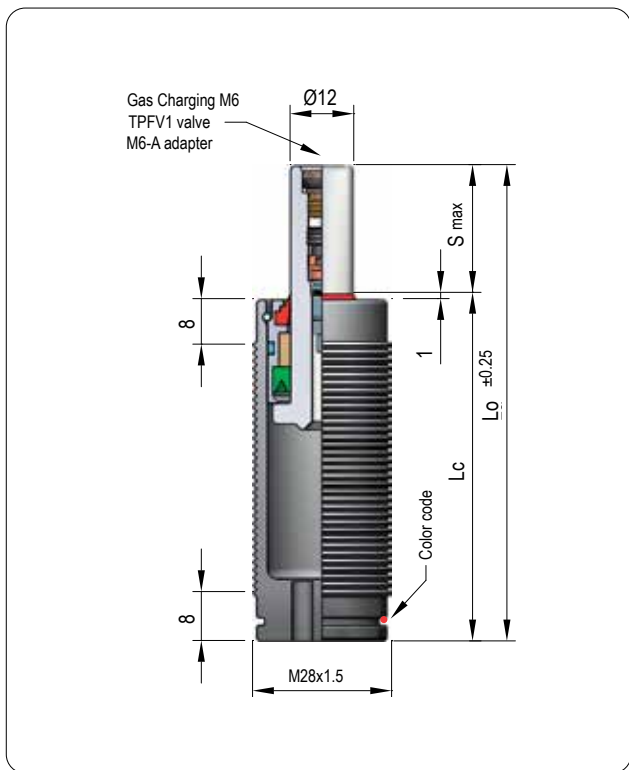


Initial force/charging pressure ratio



Assembly possibilities





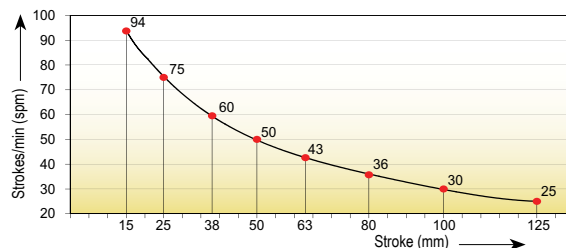
Pressure medium	Gas Nitrogen (N₂)
Max. charging pressure	175 Bar
Min. charging pressure	25 Bar
Rod seal area	1,13 cm²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit R28



VDI SAFETY



Maximum strokes / minute (at 20°C)

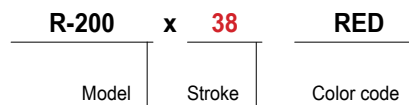


MODEL	Smax mm	Lo mm	Lc mm	V l	Kg
R-200x15	15	72	57	0,006	0,15
R-200x25	25	92	67	0,010	0,17
R-200x38	38	118	80	0,014	0,20
R-200x50	50	142	92	0,019	0,22
R-200x63	63	172	109	0,024	0,25
R-200x80	80	205	125	0,030	0,30
R-200x100	100	242	142	0,037	0,35
R-200x125	125	292	167	0,046	0,38

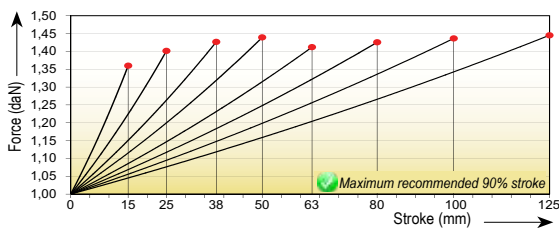
Color code	Fo daN	Fc daN	P Bar
GRN (Green)	50 (±5)	≈ 70	45
BLU (Blue)	100 (±10)	≈ 140	90
RED (Red)	150 (±15)	≈ 210	135
YEL (Yellow)	200 (±20)	≈ 270	175
(Other forces)	28 - 200	≈ 40 - 270	25 - 175

The black color code denotes a different pressure that the customer could choose when ordering between the minimum charging pressure (25Bar) and the maximum charging pressure (175Bar). If not otherwise specified, the gas spring will be supplied in the yellow code version.

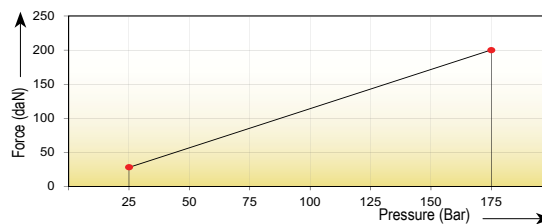
How to order



Force/stroke ratio

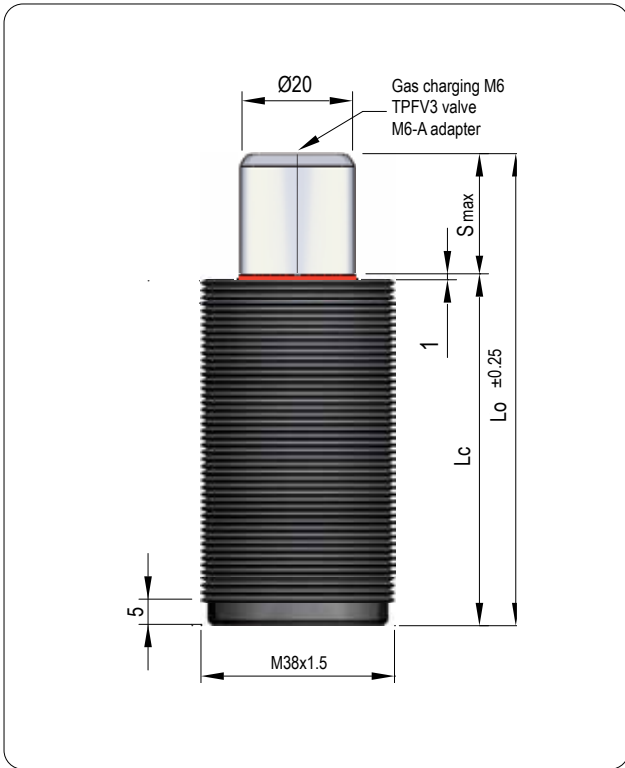


Initial force/charging pressure ratio



Assembly possibilities





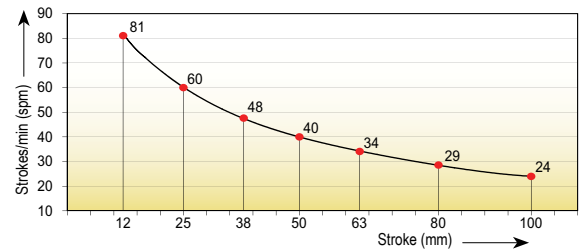
Pressure medium	Gas Nitrogen (N ₂)
Max. charging pressure	100 Bar
Min. charging pressure	35 Bar
Rod seal area	3,14 cm ²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit R38.1



VDI SAFETY

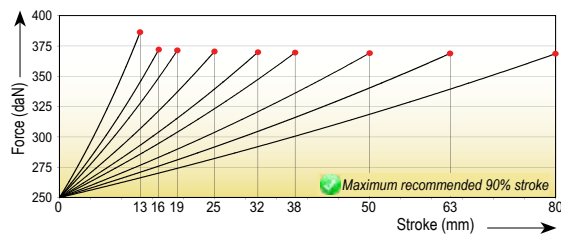


Maximum strokes / minute (at 20°C)

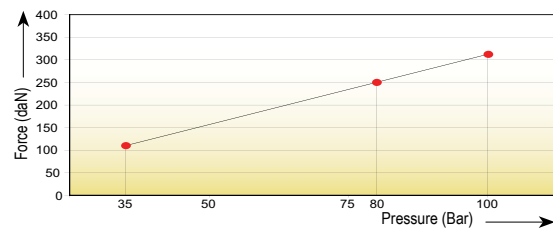


MODEL	Smax mm	Lo mm	Lc mm	Fo daN	90% F daN	100% Fc daN	P Bar	V l	Kg
R-250x13	13	56	43	250 ±5% (20°C)	370	390	80 (20°C)	0,012	0,28
R-250x16	16	62	46		355	375		0,015	0,30
R-250x19	19	68	49		355	375		0,018	0,32
R-250x25	25	80	55		355	370		0,024	0,33
R-250x32	32	94	62		355	370		0,031	0,35
R-250x38	38	106	68		355	370		0,037	0,39
R-250x50	50	130	80		355	370		0,049	0,43
R-250x63	63	156	93		355	370		0,062	0,48
R-250x80	80	190	110		355	370		0,078	0,55

Force/stroke ratio



Initial force/charging pressure ratio



Assembly possibilities



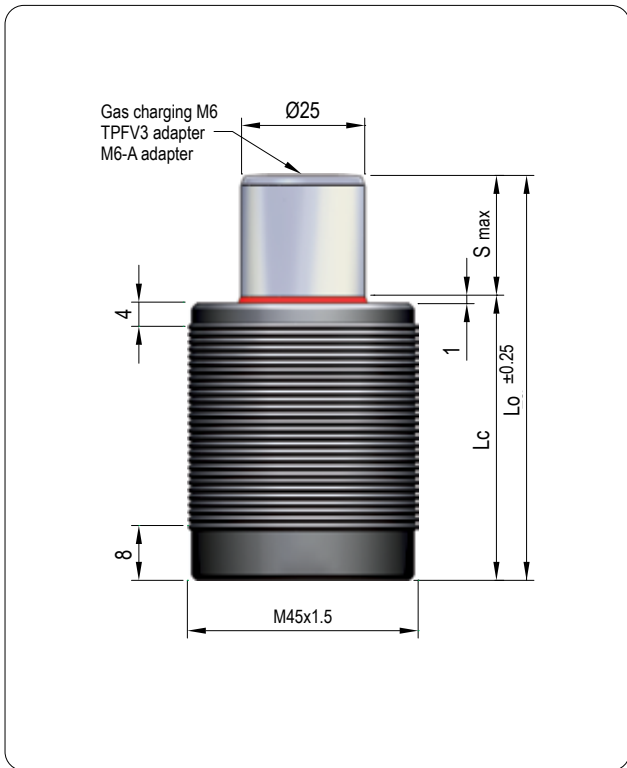
FR 38



FR 38



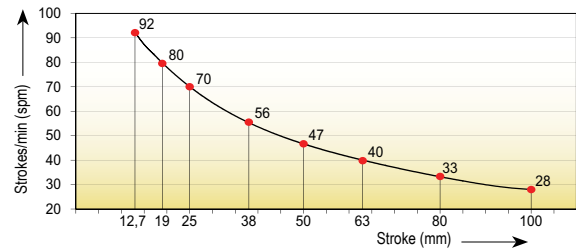
FRS 38



Pressure medium	Gas Nitrogen (N ₂)
Max. charging pressure	150 Bar
Min. charging pressure	35 Bar
Rod seal area	4,91 cm ²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,6 m/s
Maintenance kit	Kit R45

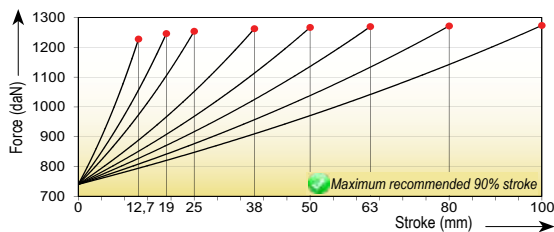


Maximum strokes / minute (at 20°C)

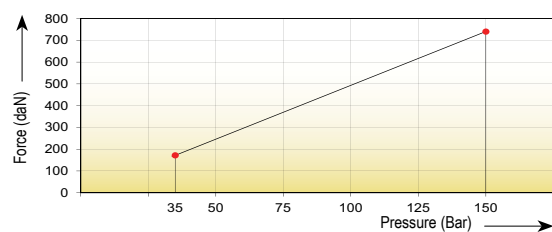


MODEL	Smax mm	Lo mm	Lc mm	Fo daN	90% F daN	100% Fc daN	P Bar	V l	Kg
R-750x13	12,7	57,4	44,7	740 ±5% (20°C)	1145	1220	150 (20°C)	0,016	0,40
R-750x19	19	70	51		1160	1240		0,023	0,47
R-750x25	25	82	57		1165	1250		0,030	0,50
R-750x38	38	108	70		1175	1255		0,045	0,61
R-750x50	50	132	82		1175	1260		0,059	0,69
R-750x63	63	159	96		1180	1265		0,074	0,80
R-750x80	80	192	112		1180	1265		0,094	0,91
R-750x100	100	232	132		1180	1265		0,117	1,10

Force/stroke ratio



Initial force/charging pressure ratio



Assembly possibilities

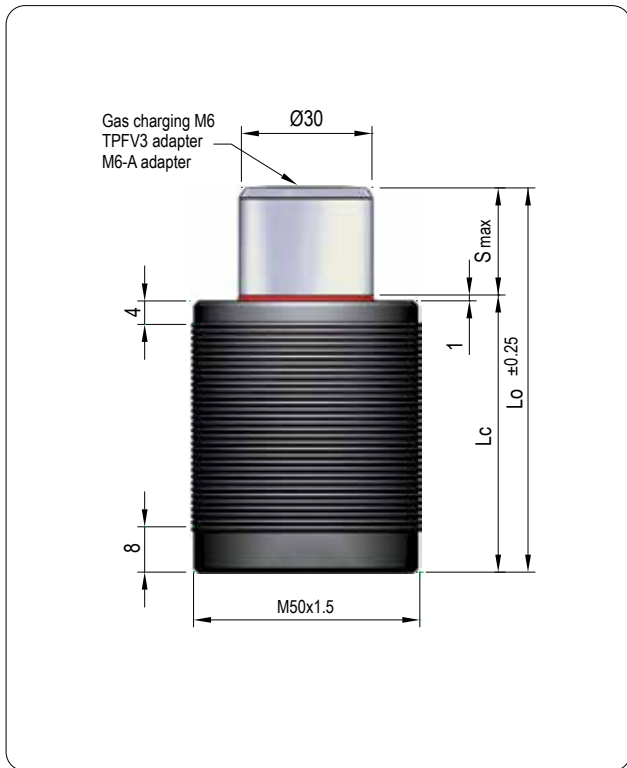


FR 45



FR 45

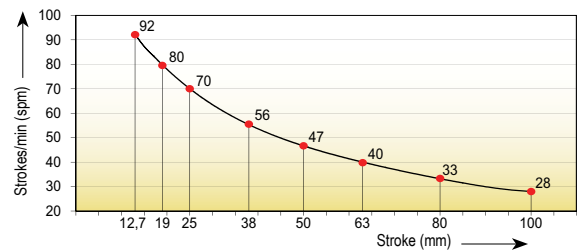
R-1000



Pressure medium	Gas Nitrogen (N ₂)
Max. charging pressure	150 Bar
Min. charging pressure	35 Bar
Rod seal area	7,07 cm ²
Operating temperature	0°C - 80°C
Force increase by temperature	0,33 %/°C
Max. stem speed	1,2 m/s
Maintenance kit	Kit R50

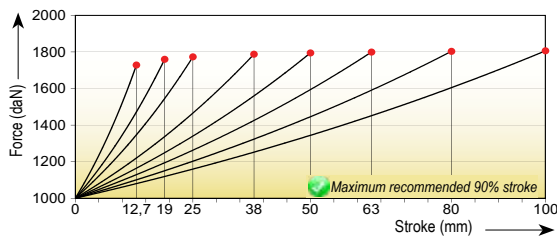


Maximum strokes / minute (at 20°C)

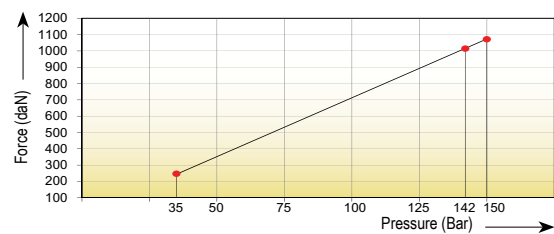


MODEL	Smax mm	Lo mm	Lc mm	Fo daN	90% F daN	100% Fc daN	P Bar	V l	Kg
R-1000x13	12,7	63,4	50,7	1000 ±5% (20°C)	1615	1735	142 (20°C)	0,021	0,59
R-1000x19	19	76	57		1640	1765		0,031	0,63
R-1000x25	25	88	63		1650	1780		0,041	0,69
R-1000x38	38	114	76		1665	1795		0,061	0,80
R-1000x50	50	138	88		1670	1800		0,080	0,90
R-1000x63	63	165	102		1675	1805		0,100	1,10
R-1000x80	80	198	118		1675	1810		0,127	1,15
R-1000x100	100	238	138		1680	1815		0,158	1,40

Force/stroke ratio



Initial force/charging pressure ratio



Assembly possibilities

