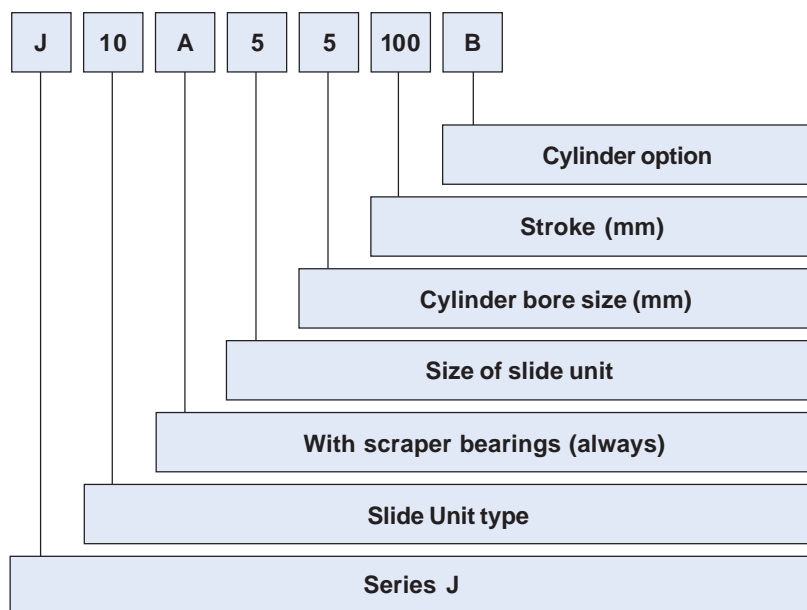


## SLIDE UNITS (for pneumatic cylinders) Series J



### SERIES

J = Slide Units Series

### SLIDE UNIT TYPE

- 10 = Slide Unit protruding shafts, with short housing (1 bearing - recommended for stroke up to 50 mm).
- 11 = Slide Unit protruding shafts, with medium housing (2 bearings).
- 12 = Slide Unit protruding shafts, with long housing (2 bearings).
- 13 = Fully protected Slide Unit (1 bearing - recommended for strokes up to 50 mm).
- 14 = Fully protected Slide Unit (2 bearings).
- 16 = Slide Unit central mounting (2 bearings - semi-external cylinder).
- 17 = Slide Unit central mounting (2 bearings - fully protected cylinder).
- 18 = Slide Unit moving medium carriage (2 bearings - external cylinder).
- 19 = Slide Unit moving long carriage (2 bearings - external cylinder).

### SIZE OF SLIDE UNIT

- 0 = 16
- 2 = 25
- 3 = 32
- 4 = 40
- 5 = 50
- 6 = 63
- 7 = 80
- 8 = 100

### CYLINDER BORE SIZE

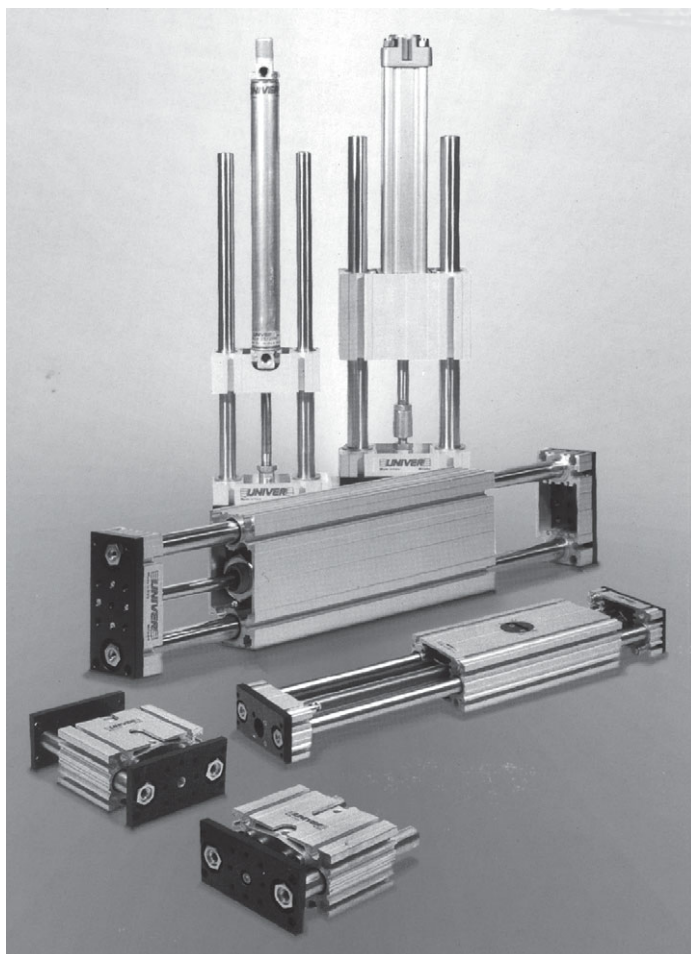
- 0 = 16
- 2 = 25
- 3 = 32
- 4 = 40
- 5 = 50
- 6 = 63
- 7 = 80
- 8 = 100

### STROKE

Standard stroke (mm)  
25 - 50 - 75 - 80 - 100 - 125 - 150 - 160 - 175 - 200 - 250 - 300 - 320 - 350 - 400 - 450 - 500.

### CYLINDER OPTION

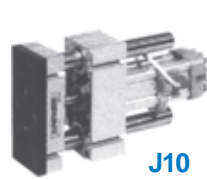
- A = Standard carriage.
- B = Standard carriage with locking unit (for details "locking unit" see page 2.28.03)
- E = With KD-cylinder (see page 2.08.01)



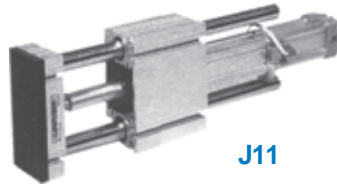
**N.B. :** Slide Unit are supplied with cushioned cylinders as standard; magnetic piston on models J10/J11/J12/J18/J19.

## SLIDE UNITS FOR "M" AND "K" SERIES PNEUMATIC CYLINDERS

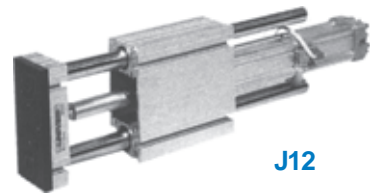
Slide Unit with protruding shaft



J10

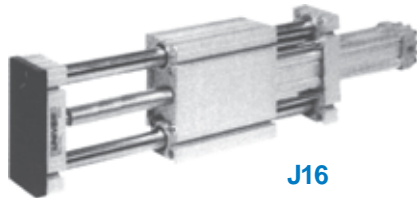


J11



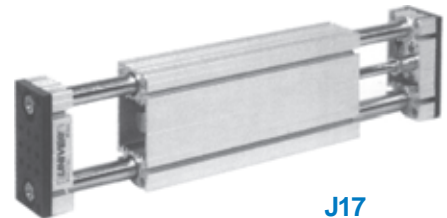
J12

Slide Unit with central mounting (semi-external cylinder)



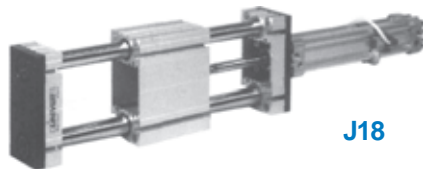
J16

Slide Unit with central mounting (fully-protected cylinder)

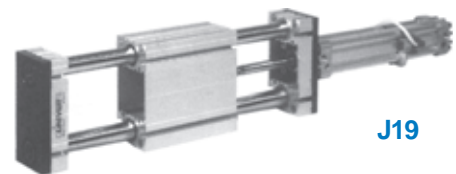


J17

Slide Unit with moving carriage

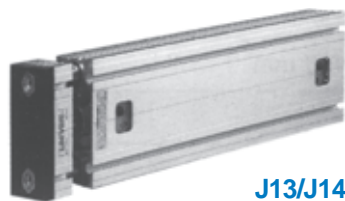


J18



J19

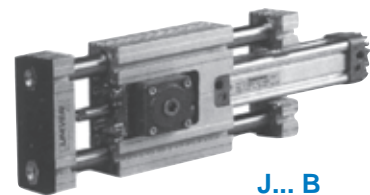
Fully protected Slide Unit



J13/J14

Optional with locking unit

(for details "locking unit" see page 2.28.03)



J... B

## SLIDE UNITS FOR "S1" SERIES RODLESS CYLINDERS

Slide Unit with central mounting (fully-protected cylinder)



J30/J31

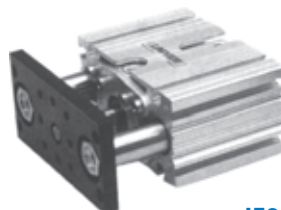
## SLIDE UNITS FOR "W" SERIES SHORT STROKE CYLINDERS

Slide Unit with protruding shaft



J51/J52

Slide Unit with fully protected cylinder



J53/J54

Slide Unit with fully protected cylinder (2 end-plates)



J56

## CONSTRUCTIVE FEATURES

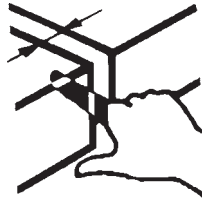
Enlarged hollow guides provide robustness and reliability.

An economical solution which enables long life  
without servicing (7 000 - 10 000 km).

Special metallic self-lubricating bearings, resistant to noise and abrasion.

Customised Slide Units available upon request.

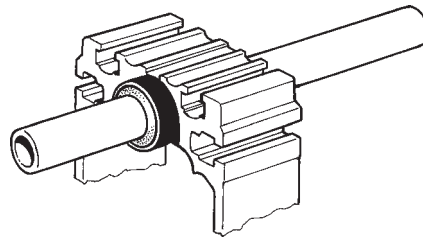
High resistance to combined bending and compressive stress.



All models available with safety distance of 25 mm  
for accident presentation according to EEC rules EN 349.

## MATERIALS

Extruded aluminium profile / Special metallic self-lubricating bearings.



Hollow, chromed steel shafts.

## TECHNICAL CHARACTERISTICS

Working pressure: **1 ÷ 10 bar**

Minimum operating pressure:  
Cyl. Ø 16 - 20 - 25 - 32 **1,5 bar**  
Cyl. Ø 40 - 50 - 63 **1 bar**  
Cyl. Ø 80 - 100 **0,8 bar**

Ambient temperature: **- 20°C ÷ 80°C**

Slide Units for pneumatic  
cylinders ISO 6431-6432  
"M" Series: Cyl. Ø 16 ÷ 25  
"K" Series: Cyl. Ø 32 ÷ 100

Slide Units for  
rodless cylinders  
"S1" Series  
Cyl. Ø 25 ÷ 50

Slide Units for  
short stroke cylinders  
"W" Series  
Cyl. Ø 20 ÷ 80

## SLIDE UNIT SIZES

16 ÷ 100

40 ÷ 80

25 ÷ 100

## STANDARD STROKES (MM)

25 - 50 - 75 - 80 - 100 - 125 - 150  
160 - 175 - 200 - 250 - 300 - 320  
350 - 400 - 450 - 500

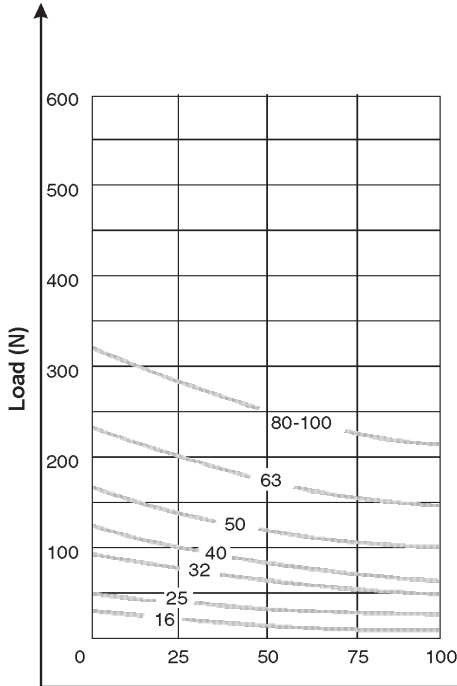
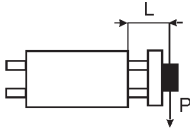
upon request

5 - 10 - 20 - 25 - 30 - 50 - 75

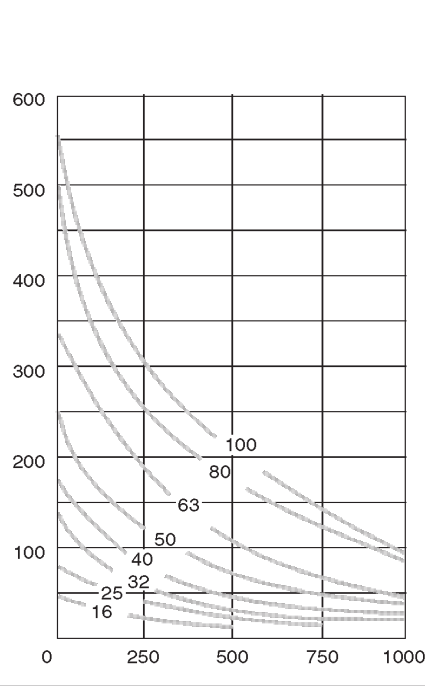
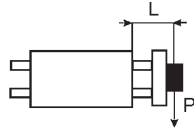
## CHARTS RELATING TO MAXIMUM LOAD/STROKE

In case of offset loads which generate a torque, the max allowable load figures must be decreased by 25%.

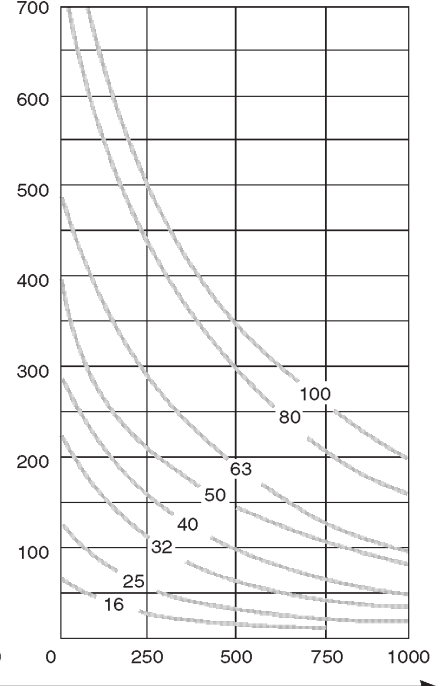
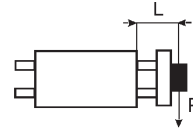
### Mod. J10/J13



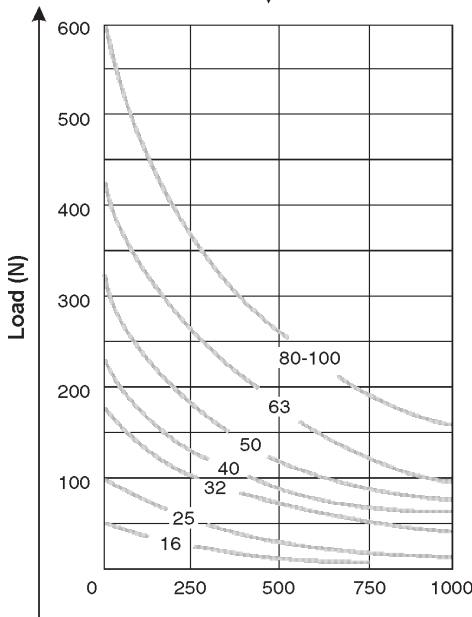
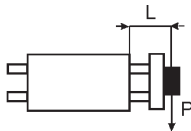
### Mod. J11



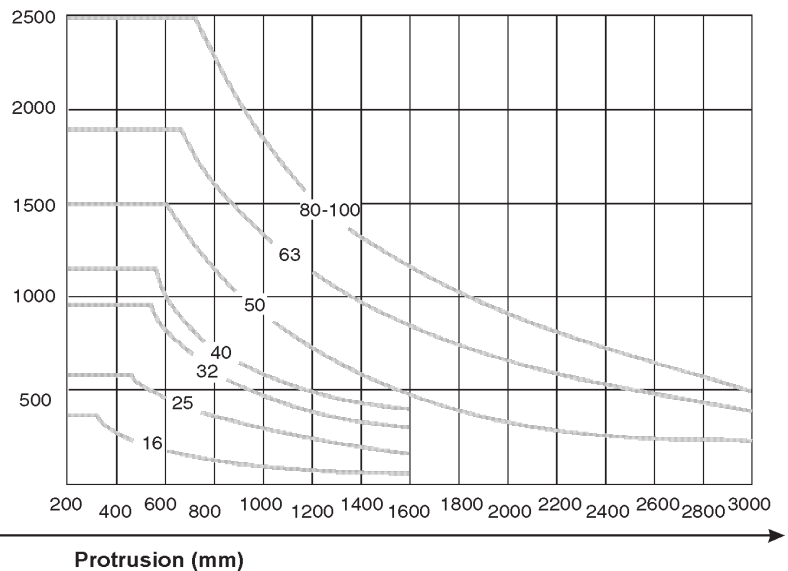
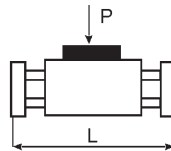
### Mod. J12/J16/J17



### Mod. J14



### Mod. J16/J18/J19



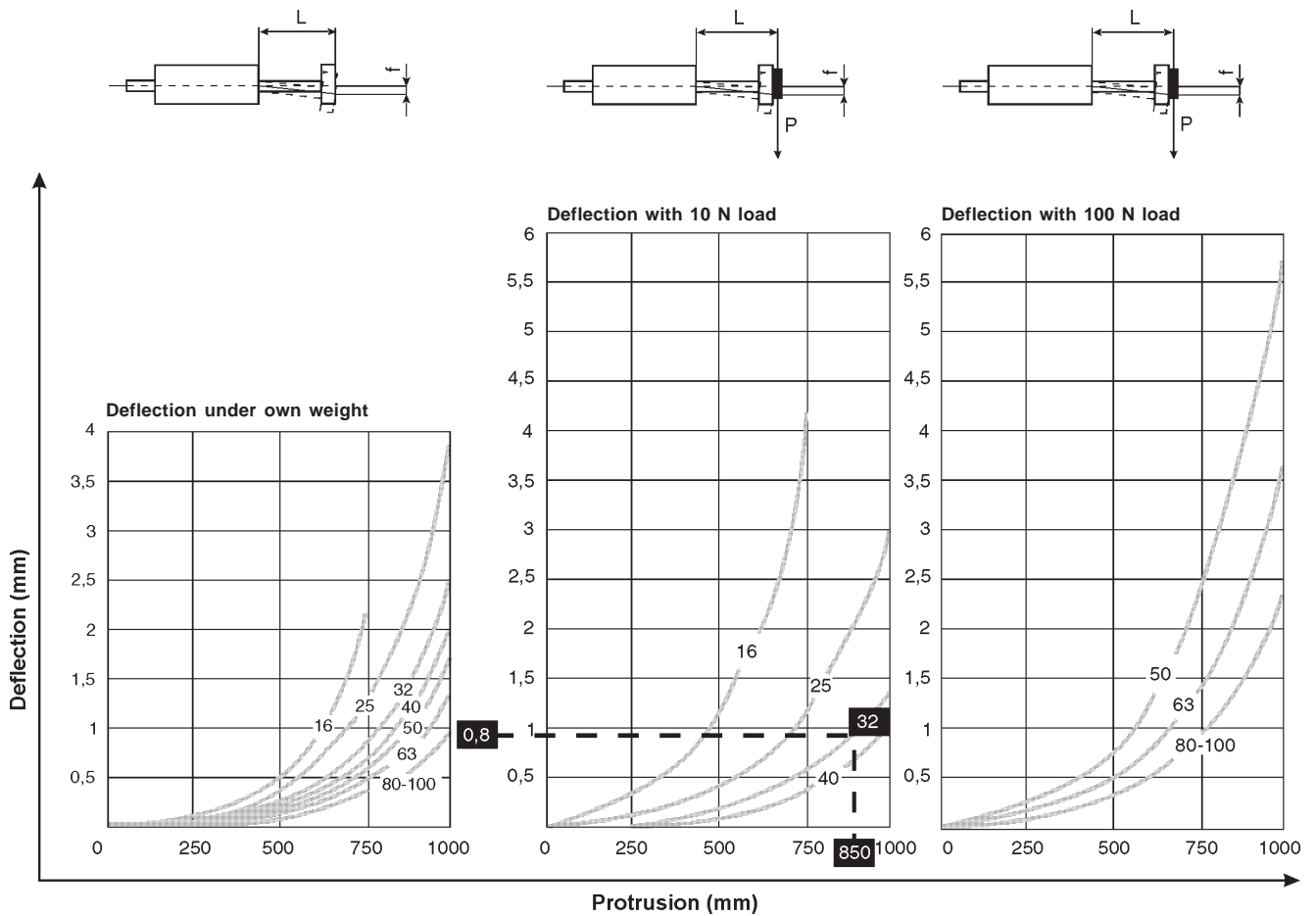
**P = center of gravity of the load**

Technical modifications keep in reserve !

(96/09)

## CHARTS RELATING TO DEFLECTION

### Mod. J10/J11/J12/J13/J14/J16/J17



### Application examples

#### How to calculate deflection

The total deflection of Slide Units is achieved by adding deflection under own weight to deflection caused by the load.

For loads other than 10 or 100 N (as stated in the charts) deflection is achieved by multiplying the figure of chart (K) by the following formula:

$$f = K \cdot \frac{Q \text{ (load)}}{10 \text{ N o } 100 \text{ N}}$$

**Example:** Slide Units size **32**, length **850** mm and load Q of 25 N.

On chart showing deflection with 10 N load we get coefficient **0,8** (marked with negative print) then:

$$f = 0,8 \cdot \frac{25}{10} = 2 \text{ mm}$$

The figure obtained must be then added to the corresponding figure for the Slide Unit deflection under the unit's own weight.

**Example** (refer to chart on page 2.18.04) :

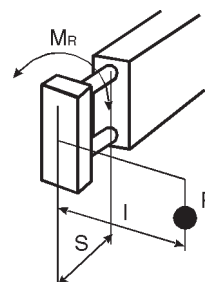
**Slide Unit Ø 63 Mod. J11**

S = 500 mm (load protrusion)

**Max allowable load** =  $100 \cdot 0,75 = 75 \text{ N}$

**Max allowable torque** =  $61,7 \cdot 0,75 = 46,3 \text{ Nm}$

**Max resisting moment MR**



Size	MR
16	4.7 Nm
25	10.2 Nm
32	19.9 Nm
40	26.9 Nm
50	42.8 Nm
63	61.7 Nm
80	93 Nm
100	101.6 Nm

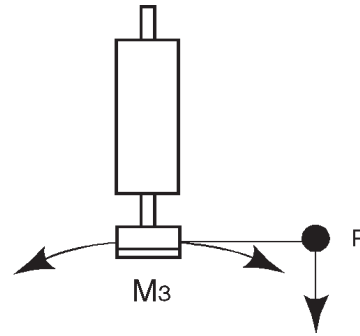
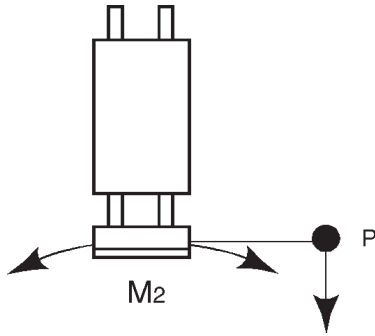
#### How to calculate torque moment

To calculate torque moment M1 the load P(N) must be multiplied by the length (mm)

$$M1 = P \cdot I$$

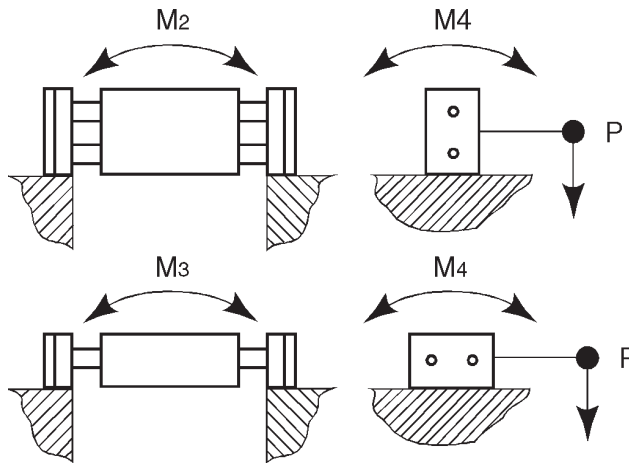
The figure obtained must be within MR values as stated above: should it exceed these values, a Slide Unit of the bigger size must be used.

## MAXIMUM RESISTING MOMENTS (Nm)



### Slide Units for

Size	ISO 6431 - 6432 Cylinders						Short Stroke Cylinders			
	J10 M2=M3	J11 M2=M3	J12=J12B M2=M3	J13 M2=M3	J14=J14B M2=M3	J16=J16B M2=M3	J51 M2=M3	J52 M2=M3	J53 M2=M3	J54 M2=M3
16	3.2	6.4	11	3.2	7.4	11	-	-	-	-
25	6	13.2	23.6	6	17.8	23.6	6	8.2	6	8.2
32	12.2	27.2	49	12.2	37.4	49	12.2	15	12.2	15
40	17.8	36.8	73.6	17.8	51	73.6	17.8	19.8	17.8	19.8
50	24.8	56	107.8	24.8	78	107.8	24.8	29.8	24.8	29.8
63	35.2	85.6	156.8	35.2	114	156.8	35.2	42.8	35.2	42.8
80	52	136	248	52	173.2	248	52	64.4	52	64.4
100	52	160	298	52	173.2	298	52	64.4	52	64.4



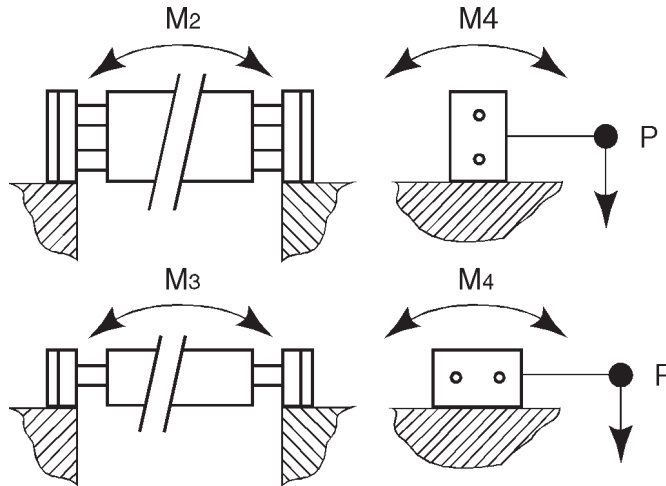
### Slide Units for

Size	ISO 6431- 6432 Cylinders			Short Stroke Cylinders		M4
	J16=J16B M2/M3	J18=J18B M2/M3	J19=J19B M2/M3	J56	M2/M3	
16	12.8/8.8	10.4/4.4	12.8/8.8	-	-	9.4
25	28/19	22.2/8.6	28/19	22/7.6	-	20.4
32	55.6/38.8	45.2/17	55.6/38.8	42.6/15	-	39.8
40	80/59.4	58.5/22.6	80/59.4	57.4/19.8	-	53.8
50	121/75.2	92/33.4	121/75.2	90.4/29.8	-	85.6
63	173.6/122.6	135.2/52	173.6/122.6	130/42.4	-	123.4
80	270.2/196	204.2/84	270.2/196	196.6/64.4	-	186
100	318.6/245.6	230.8/109.2	318.6/245.6	213.2/64.4	-	203.2

Technical modifications keep in reserve !

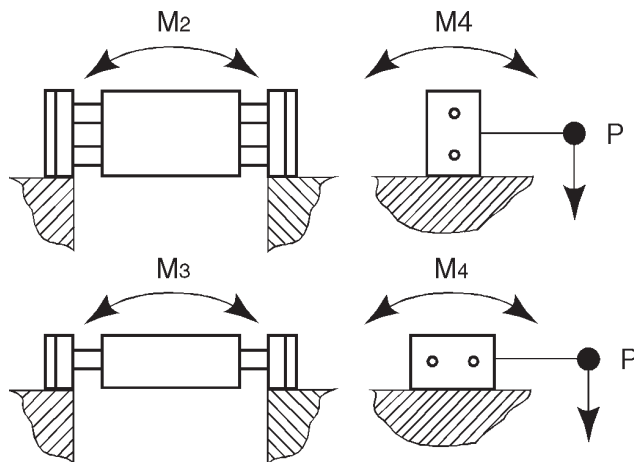
(96/09)

## MAXIMUM RESISTING MOMENTS (Nm)



### Slide Units for ISO 6431 - 6432 Cylinders

Size	J17=J17B M2							J17=J17B M3							M4
	Stroke (m/m)														
	100	200	300	400	500	750	1000	100	200	300	400	500	750	1000	
16	30.4	48.4	58	84.8	103	148.8	194.8	29	47.4	70	84.2	102.6	148.6	194.6	9.4
25	56.8	114	114	143.2	172.4	246	320	53	82.6	112	141.8	171.4	245.4	320	20.4
32	89.4	133	178	222	270	386	502	80	126.8	173.6	220	267.2	384	500	39.8
40	117	169.2	223.6	279	334.4	474.8	616	104	160.6	217.4	274	330	472	614	53.8
50	161.4	230	301.4	373.2	446	630	816	138	212.8	287.2	361.6	436	622	808	85.6
63	228	312	402	493	586	818	1102	192.8	288	383	478	573	810	1048	123.4
80	328.6	434	550.4	668	788.8	1091.2	1398	270	394	518	642	766	1076	1386	186
100	349.6	456	570	687	806	1108.6	1414	284	408	532	656	780	1090	1400	203.2



### Slide Units for Rodless Cylinders with

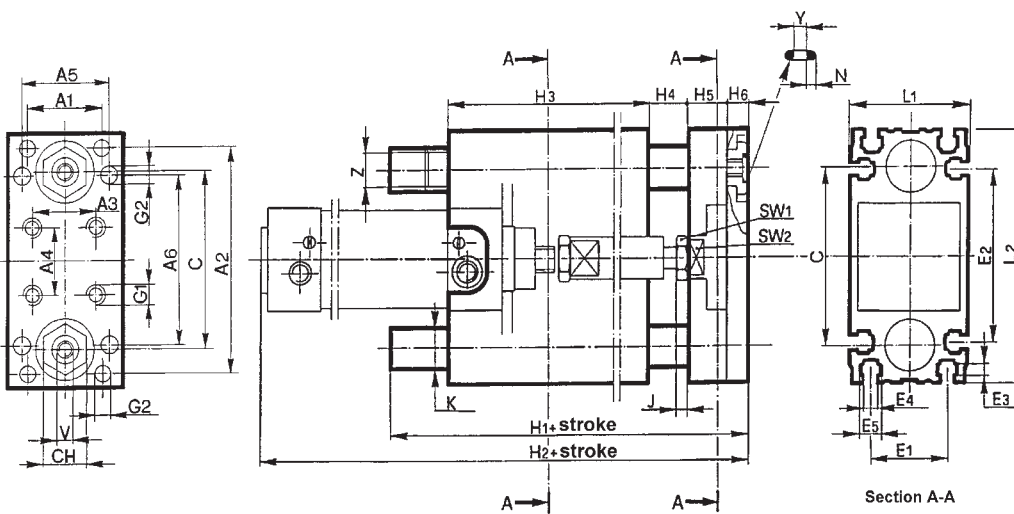
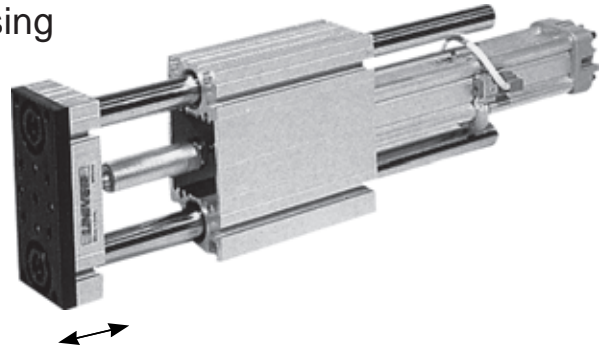
Size		Standard carriage J30		Long carriage J31		M4
Barrel	Cylinder	M2	M3	M2	M3	
40	25	68.4	42.4	110.2	96.2	53.8
50	32	118.4	81.8	198	178.6	85.6
63	40	192.2	147.2	315	289.8	123.4
80	50	298.2	233.2	516	481.2	186

Technical modifications keep in reserve !

(96/09)

# Slide Unit protruding shafts, with long housing (2 bearings)

**J12 A . . .** with scraper bearings (always)



SIZE	A1	A2	A3	A4	A5	A6	C	CH	E1	E2	E3	E4	E5	G1	G2 ♦	H1 + STROKE	H2 + STROKE	H3	H4
16	19.9	70.6	24	30	-	-	51	13	20	46	3.5	4.4	7.4	M4	∅ 6H8	172 + STROKE	189 + STROKE	80	25
25	32	85	27	27	36	62	69	14	32	62	5	5.4	8.4	M5	∅ 6H8	192 + STROKE	219 + STROKE	100	25
32	38	108	32.5	32.5	46	82	85	22	38	82	5	6.4	10.4	M6	∅ 8H8	223 + STROKE	250 + STROKE	125	25
40	42	118	38	38	54	90	95	22	42	90	5	6.4	10.4	M6	∅ 8H8	248 + STROKE	283.5 + STROKE	150	25
50	48.1	140	46.5	46.5	69	110	115	27	48	110	6.5	8.4	13.4	M8	∅ 8H8	273 + STROKE	304.5 + STROKE	165	25
63	56	157.5	56.5	56.5	79.5	120	130	30	56	120	7.5	10.5	17.5	M8	∅ 8H8	294.5 + STROKE	335.5 + STROKE	185	25
80	65	178	72	72	95	142	150	32	65	142	8.5	10.5	18	M10	∅ 8H8	339.5 + STROKE	383.5 + STROKE	220	25
100	72	194	89	89	113	156	164	32	72	156	8.5	10.5	18	M10	∅ 8H8	379.5 + STROKE	431 + STROKE	260	25

♦ For use with locking pin, tolerance m6.

SIZE	H5	H6	J	K	L1	L2	N	SW1	SW2	V	Y	Z
16	18	8	4	12	32	77	1.78	10	9	M5	5.28	M10
25	18	8	6	16	47	96	1.78	17	12	M5	5.28	M12
32	20	10	6	20	58	120	2.62	17	17	1/8"	10.78	M16x1.5
40	20	10	7	22	66	130	2.62	19	17	1/8"	10.78	M18x1.5
50	25	10	8	25	84	155	2.62	24	22	1/8"	10.78	M20x1.5
63	25	12	8	28	98	176	2.62	24	22	1/8"	10.78	M22x1.5
80	30	12	9	32	117	200	2.62	30	30	1/8"	10.78	M27x2
100	30	12	9	32	133	214	2.62	30	30	1/8"	10.78	M27x2

Weight at 0 (g) stroke			Weight increase (g) per mm stroke	
Slide Unit	Cylinder	Locking Unit	Shafts	Cylinder
585	73	-	0.44	0.55
900	208	-	0.96	1.15
1602	504	-	1.17	2.35
2330	764	-	1.45	3.24
3775	1207	-	1.9	4.75
6480	1740	-	2.4	5.78
8270	2740	-	2.8	8.64
9110	3780	-	2.8	10.4

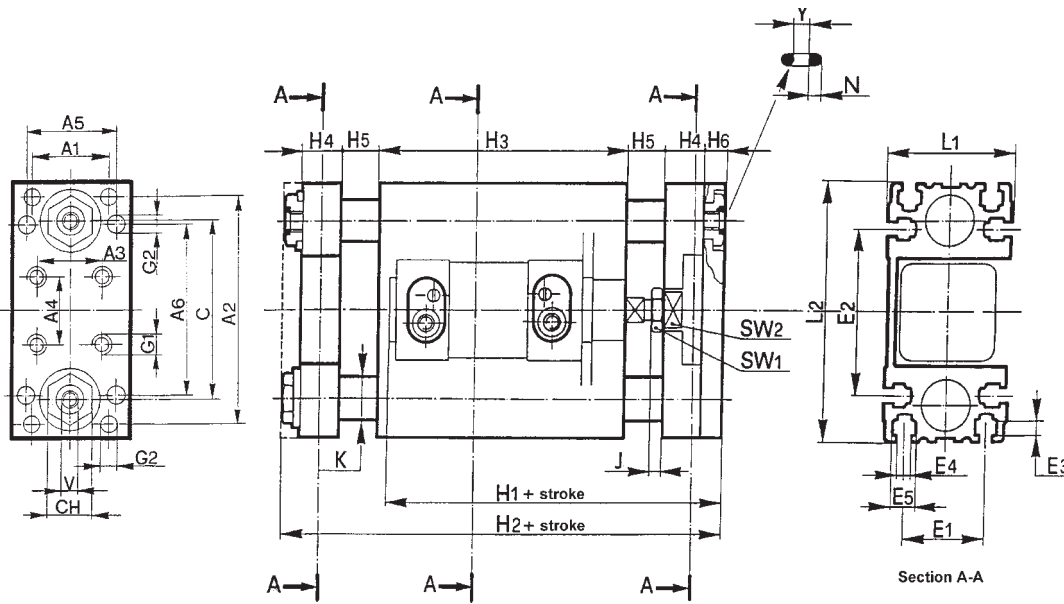
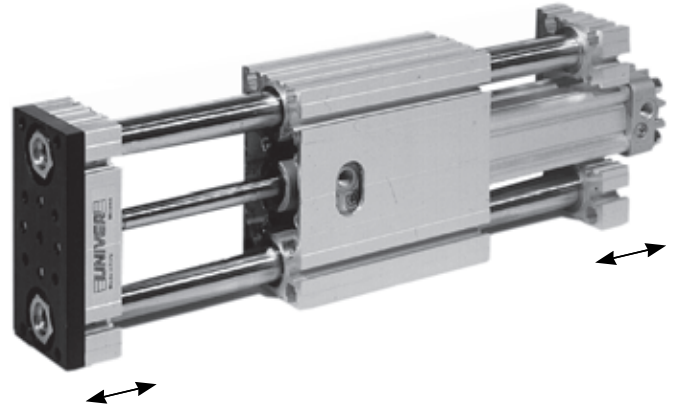
Technical modifications keep in reserve !

(2004/01)



# Slide Unit Central Mounting (2 bearings - semi-external cylinder)

**J16 A** . . . . with scraper bearings (always)



SIZE	A1	A2	A3	A4	A5	A6	C	CH	E1	E2	E3	E4	E5	G1	G2 ♦	H1 + STROKE	H2 + STROKE	H3
16	19.9	70.6	24	30	-	-	51	13	20	46	3.5	4.4	7.4	M4	∅ 6H8	137 + STROKE	182 + STROKE	80
25	32	85	27	27	36	62	69	14	32	62	5	5.4	8.4	M5	∅ 6H8	156 + STROKE	202 + STROKE	100
32	38	108	32.5	32.5	46	82	85	22	38	82	5	6.4	10.4	M6	∅ 8H8	168 + STROKE	235 + STROKE	125
40	42	118	38	38	54	90	95	22	42	90	5	6.4	10.4	M6	∅ 8H8	184 + STROKE	260 + STROKE	150
50	48.1	140	46.5	46.5	69	110	115	27	48	110	6.5	8.4	13.4	M8	∅ 8H8	195 + STROKE	285 + STROKE	165
63	56	157.5	56.5	56.5	79.5	120	130	30	56	120	7.5	10.5	17.5	M8	∅ 8H8	213 + STROKE	309 + STROKE	185
80	65	178	72	72	95	142	150	32	65	142	8.5	10.5	18	M10	∅ 8H8	244 + STROKE	354 + STROKE	220
100	72	194	89	89	113	156	164	32	72	156	8.5	10.5	18	M10	∅ 8H8	256 + STROKE	394 + STROKE	260

♦ For use with locking pin, tolerance m6.

SIZE	H4	H5	H6	J	K	L1	L2	N	SW1	SW2	V	Y
16	18	25	8	4	12	32	77	1.78	10	9	M5	5.28
25	18	25	8	6	16	47	96	1.78	17	12	M5	5.28
32	20	25	10	6	20	58	120	2.62	17	17	1/8"	10.78
40	20	25	10	7	22	66	130	2.62	19	17	1/8"	10.78
50	25	25	10	8	25	84	155	2.62	24	22	1/8"	10.78
63	25	25	12	8	28	98	176	2.62	24	22	1/8"	10.78
80	30	25	12	9	32	117	200	2.62	30	30	1/8"	10.78
100	30	25	12	9	32	133	214	2.62	30	30	1/8"	10.78

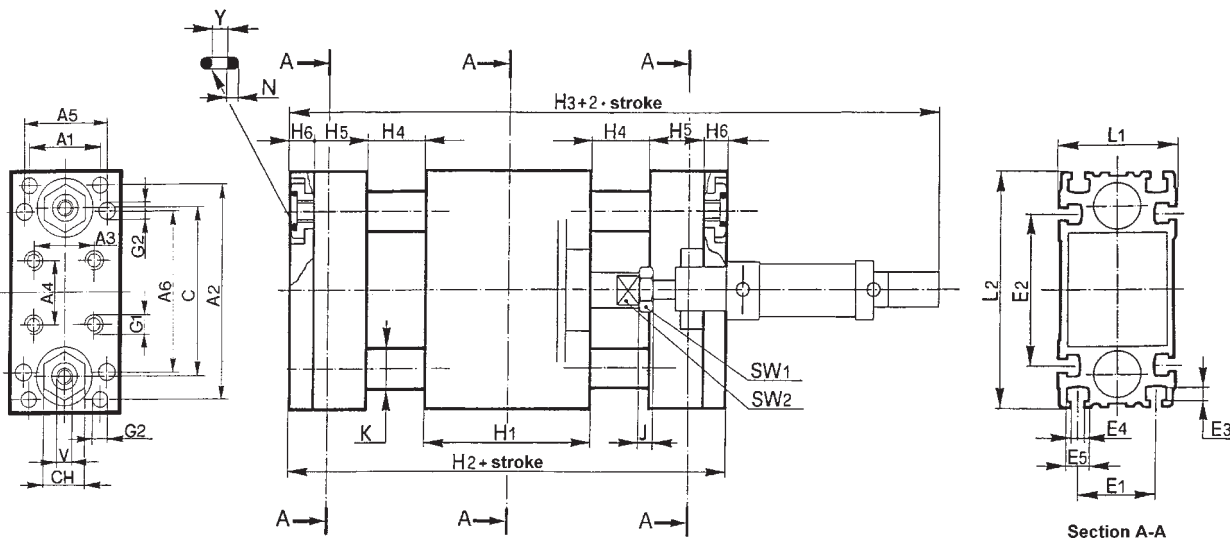
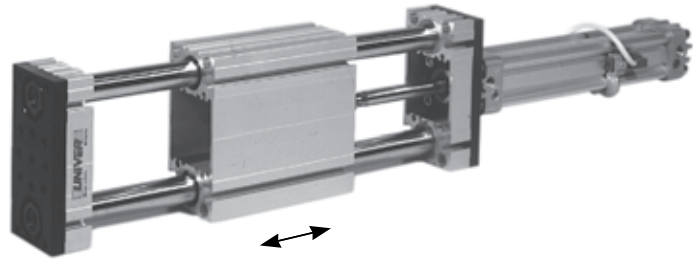
Weight at 0 (g) stroke			Weight increase (g) per mm stroke	
Slide Unit	Cylinder	Locking Unit	Shafts	Cylinder
685	73	-	0.44	0.55
1022	208	-	0.96	0.15
1985	504	-	1.17	2.35
2452	764	-	1.45	3.24
3820	1207	-	1.9	4.75
6770	1740	-	2.4	5.78
8560	2740	-	2.8	8.64
9390	3780	-	2.8	10.4

Technical modifications keep in reserve !

(2004/01)

# Slide Unit moving long carriage (2 bearings - external cylinder)

**J19 A** . . . with scraper bearings (always)



SIZE	A1	A2	A3	A4	A5	A6	C	CH	E1	E2	E3	E4	E5	G1	G2 ♦	H1	H2 + STROKE	H3 + 2 • STROKE	H4
16	19.9	70.6	24	30	-	-	51	13	20	46	3.5	4.4	7.4	M4	Ø 6H8	80	182 + STROKE	251 + 2 • STROKE	25
25	32	85	27	27	36	62	69	14	32	62	5	5.4	8.4	M5	Ø 6H8	100	202 + STROKE	285 + 2 • STROKE	25
32	38	108	32.5	32.5	46	82	85	22	38	82	5	6.4	10.4	M6	Ø 8H8	125	235 + STROKE	332 + 2 • STROKE	25
40	42	118	38	38	54	90	95	22	42	90	5	6.4	10.4	M6	Ø 8H8	150	260 + STROKE	369 + 2 • STROKE	25
50	48.1	140	46.5	46.5	69	110	115	27	48	110	6.5	8.4	13.4	M8	Ø 8H8	165	285 + STROKE	395 + 2 • STROKE	25
63	56	157.5	56.5	56.5	79.5	120	130	30	56	120	7.5	10.5	17.5	M8	Ø 8H8	185	309 + STROKE	434 + 2 • STROKE	25
80	65	178	72	72	95	142	150	32	65	142	8.5	10.5	18	M10	Ø 8H8	220	354 + STROKE	487 + 2 • STROKE	25
100	72	194	89	89	113	156	164	32	72	156	8.5	10.5	18	M10	Ø 8H8	260	394 + STROKE	538 + 2 • STROKE	25

♦ For use with locking pin, tolerance m6.

SIZE	H5	H6	J	K	L1	L2	N	SW1	SW2	V	Y
16	18	8	4	12	32	77	1.78	10	9	M5	5.28
25	18	8	6	16	47	96	1.78	17	12	M5	5.28
32	20	10	6	20	58	120	2.62	17	17	1/8"	10.78
40	20	10	7	22	66	130	2.62	19	17	1/8"	10.78
50	25	10	8	25	84	155	2.62	24	22	1/8"	10.78
63	25	12	8	28	98	176	2.62	24	22	1/8"	10.78
80	30	12	9	32	117	200	2.62	30	30	1/8"	10.78
100	30	12	9	32	133	214	2.62	30	30	1/8"	10.78

Weight at 0 (g) stroke			Weight increase (g) per mm stroke	
Slide Unit	Cylinder	Locking Unit	Shafts	Cylinder
700	73	-	0.44	0.55
1044	208	-	0.96	1.15
1968	504	-	1.17	2.35
2645	764	-	1.45	3.24
4205	1207	-	1.9	4.75
6820	1740	-	2.4	5.78
8610	2740	-	2.8	8.64
9435	3780	-	2.8	10.4

Technical modifications keep in reserve !

(2004/01)

# HEAVY DUTY SLIDE UNITS (for pneumatic cylinders) Series PCG

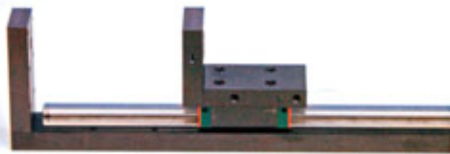
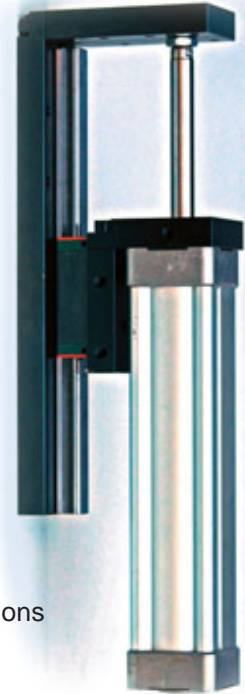
The **PCG**-system offers a heavy duty slide unit for pneumatic cylinders. These PCG-systems are developed with standard products (profiled guide ways) and are used in combination with **ISO VDMA cylinders**.

The **compact dimensions** and **high load capacity** are major advantages.

The use of profiled guide ways brings a **high stiffness** to the system. The PCG-system is delivered without a cylinder, therefore the PCG-system is a very flexible solution for each application.

PCG-systems are used in production automation, general machine construction and handling- and packaging machines.

Available in 2 rail types for cylinder diameters 32 to 63 and strokes till 500mm.

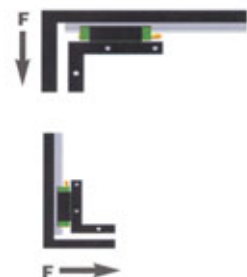
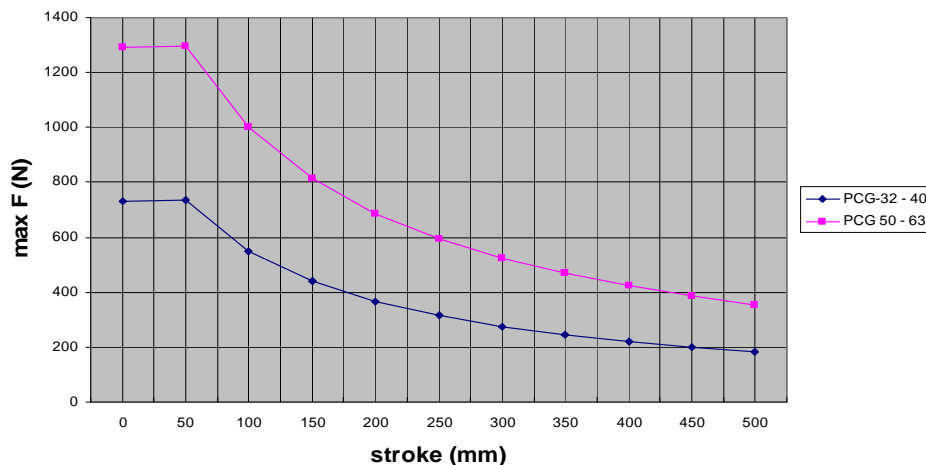


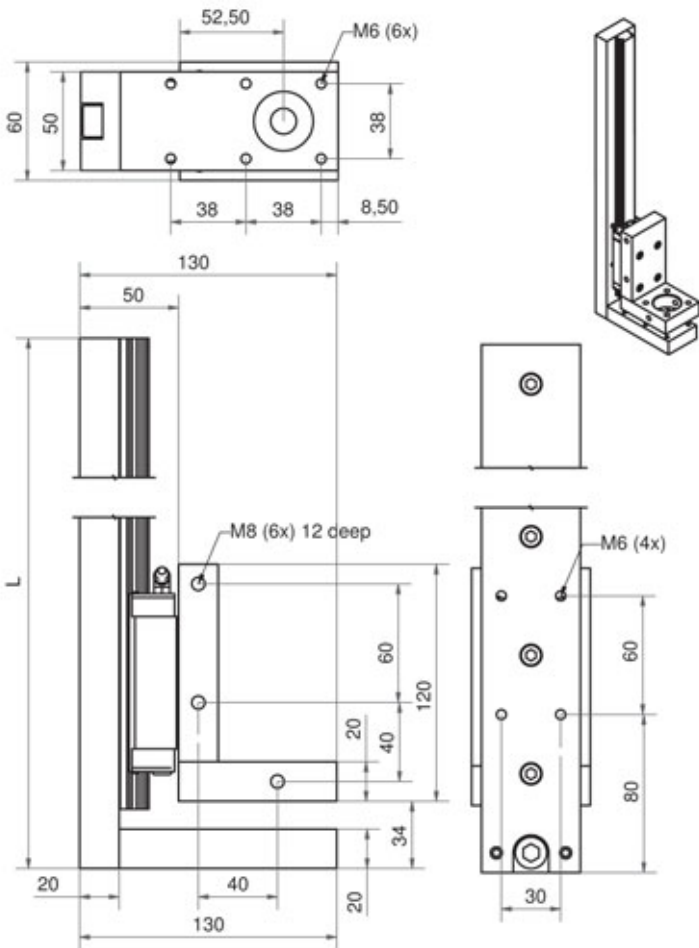
### Advantages

- High load capacity with compact dimensions
- High stiffness
- Simple mounting and maintenance
- Long life expectancy
- Compatible elements

ORDER CODE	RAIL TYPE	FOR CYLINDER	STROKE (mm)
PCG-40-20-125	20	D40	125
PCG-40-20-250	20	D40	250
PCG-40-20-500	20	D40	500
PCG-50-25-125	25	D50	125
PCG-50-25-250	25	D50	250
PCG-50-25-500	25	D50	500

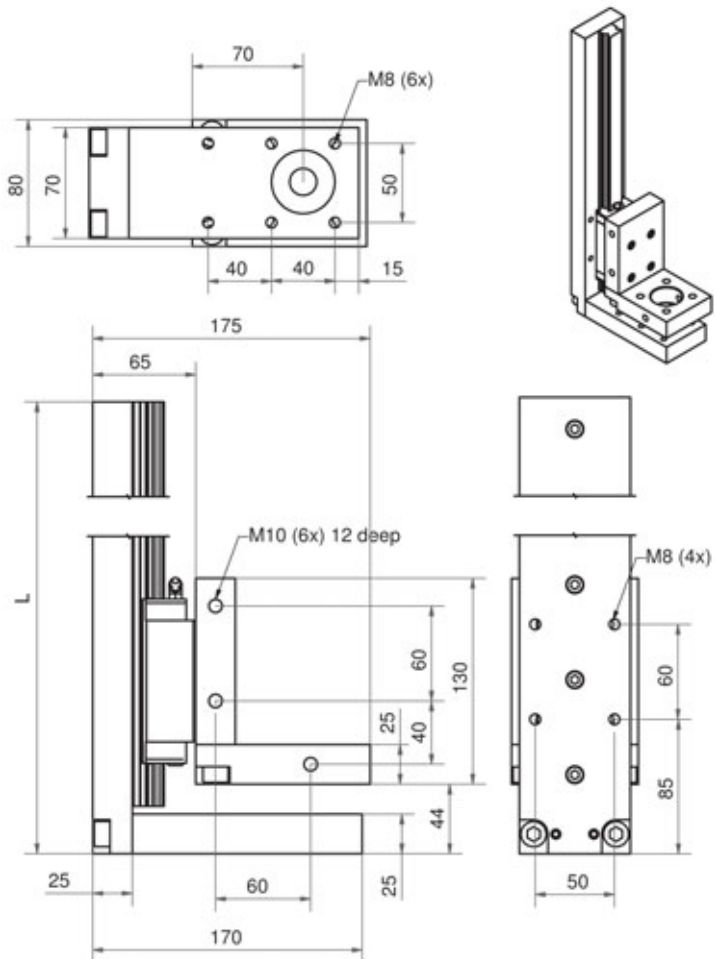
(4 mounting screws and 1 extra piston rod nut is included)





ORDER CODE
PCG-40-20-125
PCG-40-20-250
PCG-40-20-500

L (mm)
260
430
670



ORDER CODE
PCG-50-25-125
PCG-50-25-250
PCG-50-25-500

L (mm)
310
430
670

Technical modifications keep in reserve !

(2009/01)