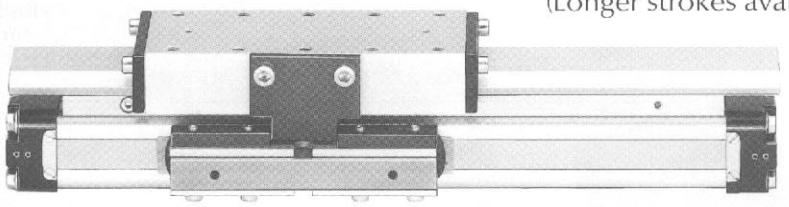
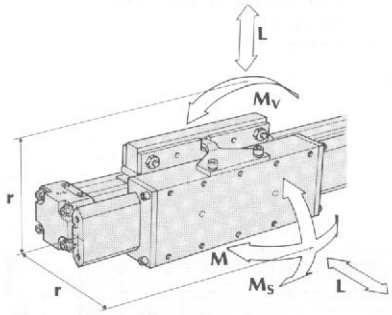
Series P 235 Cylinder with Guide and Integrated Brake

Diameters 25 and 32 mm
Optional stroke lengths up to 7,000 mm.
(Longer strokes available on request.)



Technical data
Loads, forces, moments

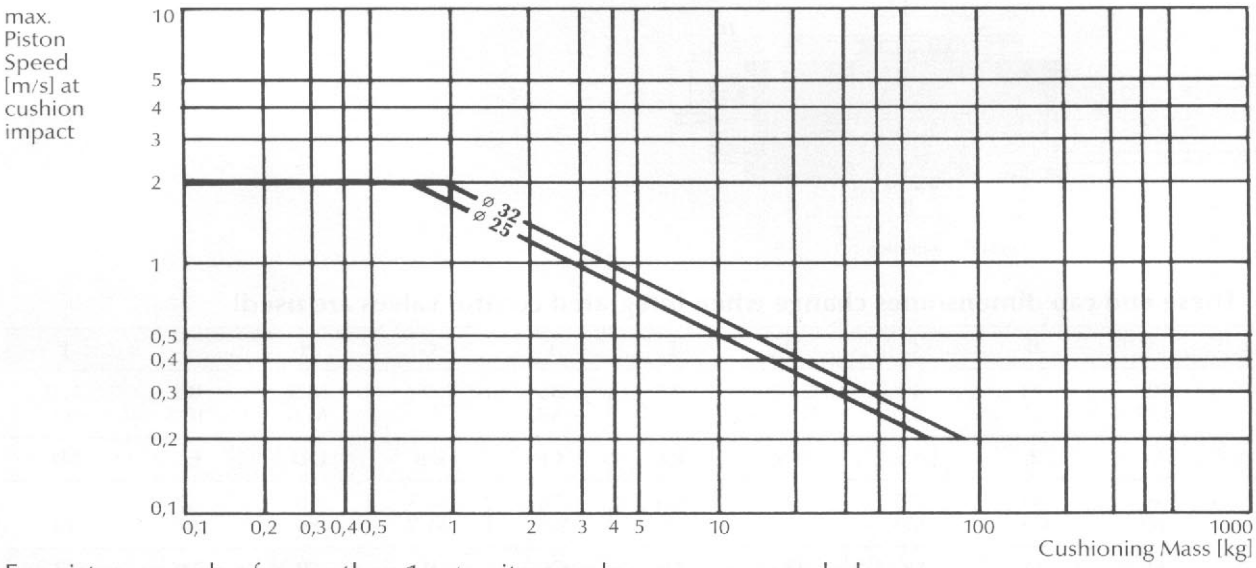


$M = F \cdot r$
$M_S = F \cdot r$
$M_V = F \cdot r$

Cyl. ⌀	effective Force [N] at 6 bar	Cushion Length [mm]	Max. Allowed Bending Moment [Nm] M	M_S	Max. Allowed Torque [Nm] M_V	Max. Allowed Load [N] L	Max. Braking Force [N]** at 6 bar
25	250	21	34	14	34	675	205-275
32	420	26	60	29	60	925	340-575

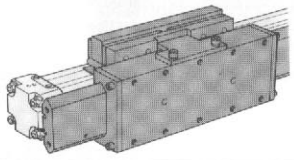
**Oiled surface - dry surface. Values are based on light shock free duty and should not be exceeded during piston acceleration.
Side bending moments should be avoided.
Operating pressure max. 8 bar.

Cushioning Diagram

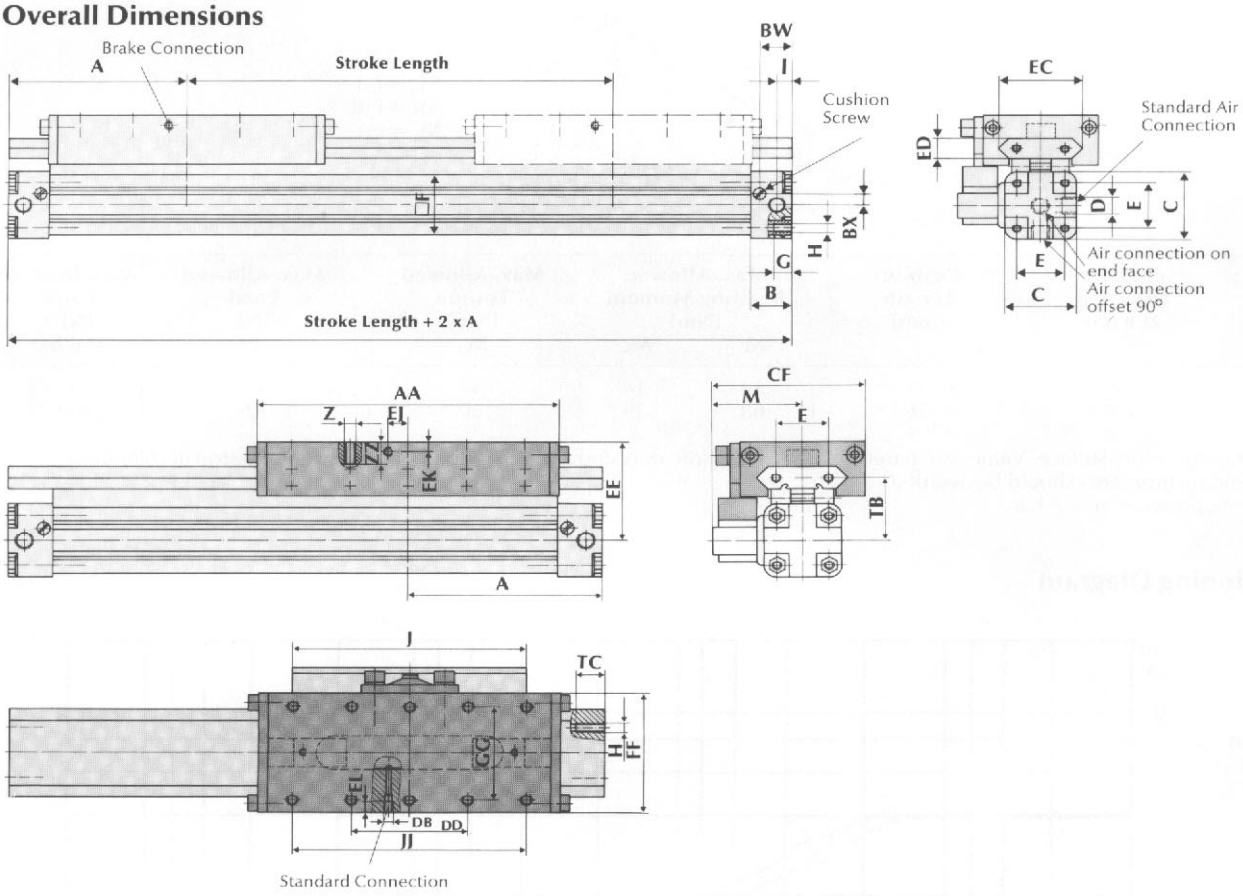


For piston speeds of more than 1 m/s, viton seals are recommended.
If the approved limits are exceeded additional shock absorbers are advisable.
For piston speeds of less than 0,2 m/s slow speed lubrication is recommended.
Maximum seal life will be achieved when piston speeds do not exceed 1 m/s.

Piston Mounting

Standard Piston Mounting			Cyl. ⌀	Cylinder weight [kg] for 0 stroke	Cylinder weight [kg] Increase 100 mm stroke	Ident No.
Type P 235/20		Piston mounting No. 20 Aluminium	25	1,53	0,36	2740
		Mounted during cylinder assembly	32	3,17	0,64	3740

Overall Dimensions

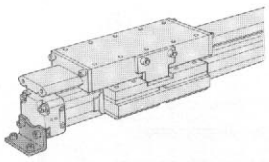
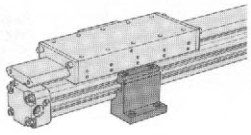
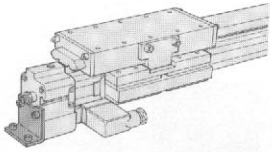
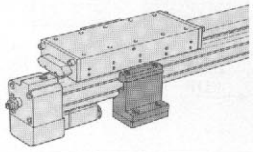


Note: These end cap dimensiones change when integrated control valves are used!

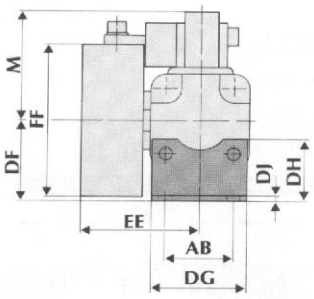
Cyl.⌀	A	B	C	D	E	F	G	H	I	J
25	100	23	40	G1/8	27	36	9	M 5	8,5	120
32	125	27	52	G1/4	36	48	14	M 6	10,5	160

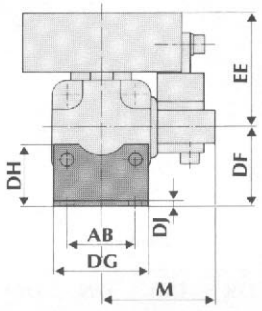
Cyl.⌀	M	Z	AA	BW	BX	CF	DB	DD	EC	ED
25	46	M 6	155	18	6,5	78	M 5	60	47	12
32	60	M 6	200	21,5	9	102	M 5	80	67	14

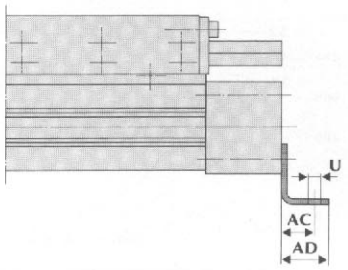
Cyl. ⌀	EE	EJ	EK	EL	FF	GG	JJ	TB	TC	ZZ
25	53	10	6	6	64	50	120	34	15	11
32	62	10	7	6	84	64	160	41	15	12

Cylinder Mountings			Cyl. ⌀	Weight [kg]	Ident No.
		End cap mounting No. 10 Galvanized steel Including screws (8.8 galvanized)	25 32	0,044 0,068	2040 3040
Soley for support of cylinder Axial forces cannot be transferred		Mid-section support No. 11 Anodised aluminium For placing in the profiled groove of the cylinder barrel.	25 32	0,100 0,125	2050 3050
This mounting permits the use of VO valves		End cap mounting No. 12 Galvanized steel Including screws (8.8 galvanized)	25 32	0,060 0,077	2060 3060
Soley for support of cylinder Axial forces cannot be transferred. This mounting permits the use of VO valves		Mid-section support No. 13 Anodised aluminium For placing in the profiled groove of the cylinder barrel.	25 32	0,149 0,163	2070 3070

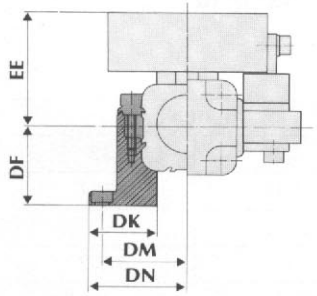
End cap Mounting No. 10

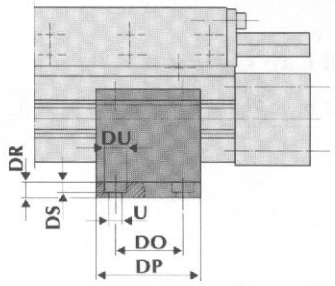






Mid-section Support No. 11

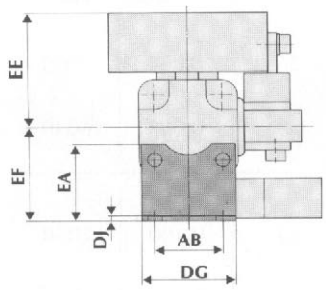


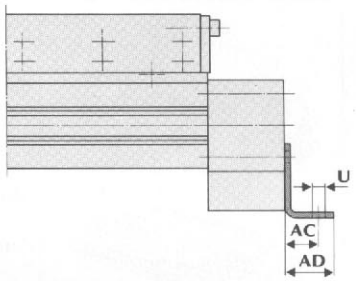


Cyl.⌀	M	U	AB	AC	AD	DF	DG	DH	DJ	DK
25	46	5,5	27	16	22	37	39	33	3	31
32	60	6,6	36	18	26	44	50	34	3	36

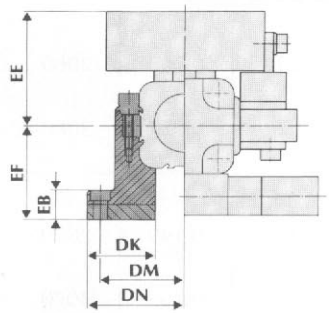
Cyl.⌀	DM	DN	DO	DP	DR	DS	DU	EE	FF
25	37	44	36	50	7	5	10	53	64
32	45	52	36	50	8	6	11	62	84

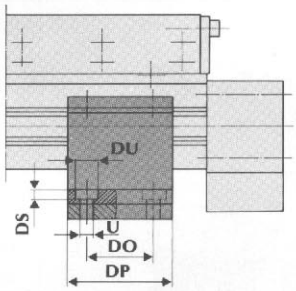
End cap Mounting No. 12



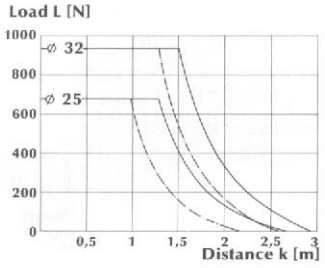


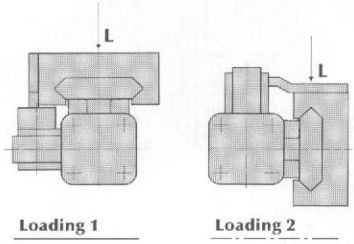
Mid-section Support No. 13

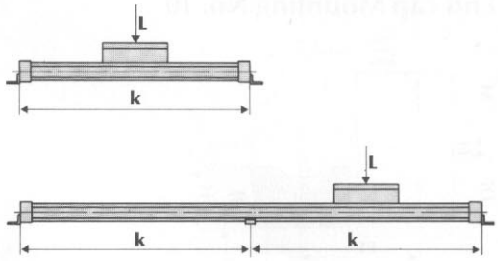




Position of Cylinder Mountings







Cyl. ⌀	U	AB	AC	AD	DG	DJ	DK	DM	DN	DO	DP	DS	DU	EA	EB	EE	EF
25	5,5	27	16	22	39	3	31	37	44	36	50	5	10	45	19	54	49
32	6,6	36	18	26	50	3	36	45	52	36	50	6	11	42	16	63	52

End Cap Options

Air Connection in End Cap (see illustration of end cap on Page 3.4/2)	**Ident No.**	
Cylinder ⌀	**25**	**32**
Offset by 90°	2751	3751
End face G 1/8	2752	–
End face G 1/4	–	3752

Optional Features

Viton Seals	**Ident No.**	
End cap and piston	2771	3771
Lubrication	**Ident No.**	
Grease lubrication for slow speed < 0.2 m/s	2791	3791

Accessories: Electrical VOE or pneumatic VOP control valves, proximity switches RS or IS – Please refer to Chapter 4 – Accessories.

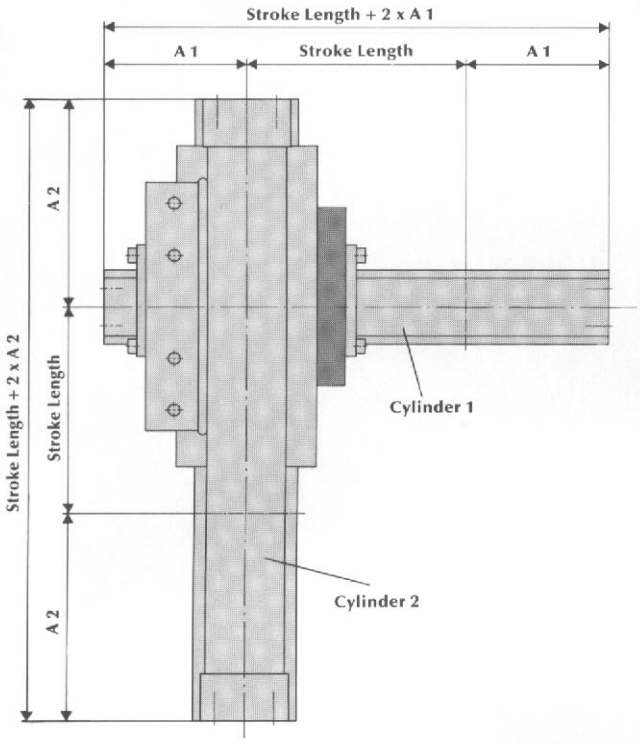
Cross Connection bracket

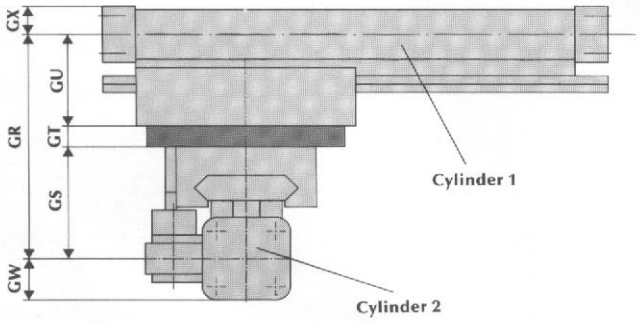
For movement in two axis X-Y

Combination		
Cyl. ø		**Ident No.**
16/25	Bracket for connection	3975
25/32	Bracket for connection	3976

(Cylinder series P 230 and P 235 can be cross connected.)

Dimensions





Combination Cyl. ø	Cyl. 1 ø	Cyl. 2 ø	A 1	A 2	GR	GS	GT	GU	GW	GX
16/25	16	25	65	100	108	54	10	44	20	13,5
25/32	25	32	100	125	129	63	12	54	26	20

For additional dimensions refer to page 3.4/2-3.4/4.
The allowed loads and moments on page 3.4/1 are not to be exceeded.