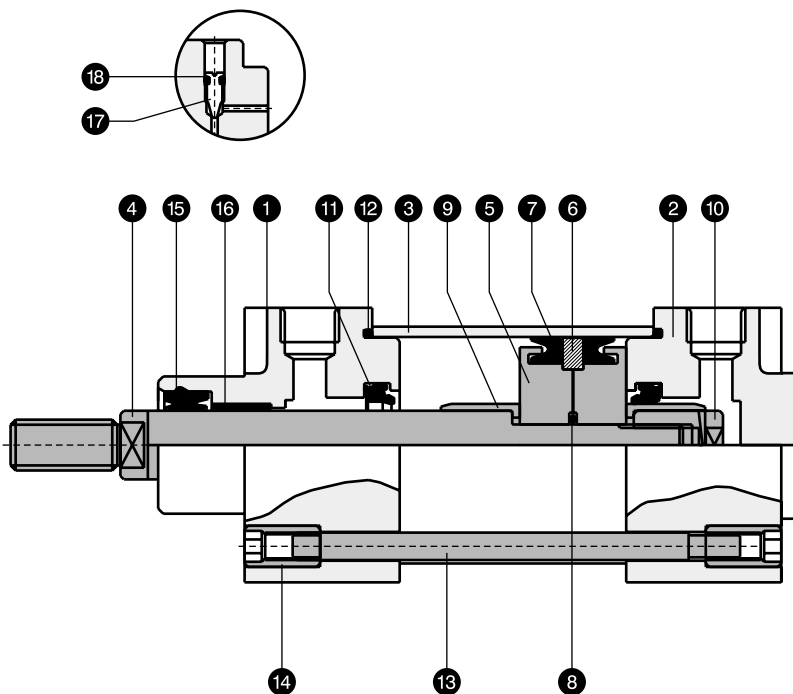


PART LIST

NO.	DESCRIPTION	QTY.
1	Front cover	1
2	Rear cover	1
3	Tube	1
4	Piston rod	1
5	Piston	2
6	Wear ring	1
7	Piston 'U' cup	2
8	'O' ring for piston	1
9	Cushioning sleeve	2
10	Piston rod nut	1
11	Cushioning seals	2
12	'O' ring for cover & tube	2
13	Tie rod	4
14	Tie rod nut	8
15	Rod cum wiper seal	1
16	Bush bearing	1
17	Cushioning screw	2
18	'O' ring for cushioning screw	2

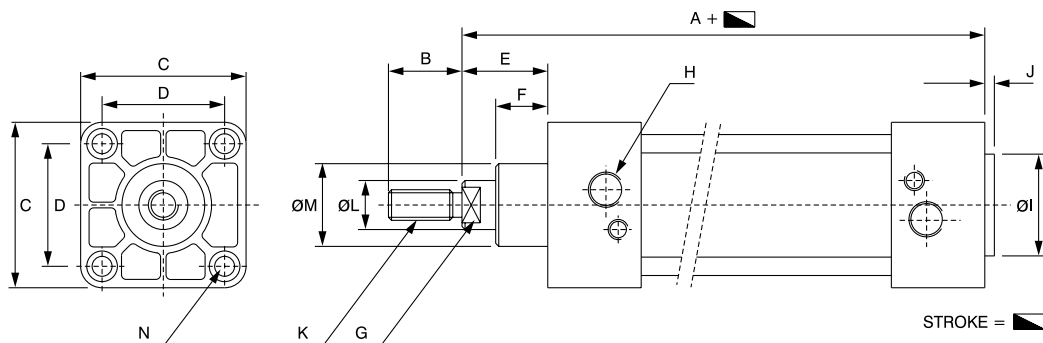


Seal kit consists of items 7, 8, 11, 12, 15 & 18.

SPECIFICATIONS

Medium	Compressed Air, Filtered
Design	Pneumatic piston cylinder with adjustable cushioning at both ends.
Max. operating pressure	10 bar
Temperature range	-10° C to 85° C (180° C for viton seals)
Standard stroke length	25, 40, 50, 80, 100, 125, 160, 200, 250 & 300 mm. (Cylinders offered upto 2000 mm stroke lengths. Non standard stroke lengths offered against specific requirement.)
Material	a) End Covers : Aluminium b) Piston Rod : EN8 Hard chrome plated (Stainless steel optional) c) Seals : NBR (Viton optional) d) Mountings : M.S. / C.I.

BASIC CYLINDER DIMENSIONS



BORE SIZE	A	B	C	D	E	F	G A/F	H BSP	Ø I	J	K	Ø L	Ø M	N
32	120	22	46	32.5	26	16	10	G 1/8	30	3	M 10 x 1.25	12	30	M 6 x 1
40	135	24	54	38	30	20	13	G 1/4	35	3	M 12 x 1.25	16	35	M 6 x 1
50	143	32	64	46.5	37	26	17	G 1/4	40	3	M 16 x 1.5	20	40	M 8 x 1.25
63	158	32	75	56.5	37	26	17	G 3/8	45	4	M 16 x 1.5	20	45	M 8 x 1.25
80	174	40	95	72	46	26	21	G 3/8	45	4	M 20 x 1.5	25	45	M 10 x 1.5
100	189	40	112	89	51	31	21	G 1/2	55	4	M 20 x 1.5	25	55	M 10 x 1.5

NOTE :

ISO / VDMA round tube cylinders are also offered in following versions

- Reed switch cylinders : Refer data sheet no. PMC-08
- Double ended cylinders : Refer data sheet no. PMC-07
- Single acting cylinders : Refer data sheet no. PMC-07

PISTON THRUST CHART (Theoretical)

BORE SIZE		AIR PRESSURE (BAR)										FREE AIR CONSUMPTION IN //25mm STROKE @ 7 BAR Pr.
		1	2	3	4	5	6	7	8	9	10	
		THRUST AVAILABLE (KGF)										
32mm	PUSH	8.0	16.1	24.1	32.3	40.2	48.3	56.3	64.3	72.4	80.4	0.16
	PULL	6.9	13.8	20.7	27.6	34.6	41.5	48.4	55.3	62.2	69.1	0.14
40mm	PUSH	12.6	25.1	37.7	50.3	62.8	75.4	88.0	100.5	113.1	125.7	0.25
	PULL	10.6	21.1	31.7	42.2	52.8	63.3	73.9	84.4	95.0	114.4	0.22
50 mm	PUSH	19.6	39.3	58.9	78.5	98.2	117.8	137.4	157.1	176.7	196.3	0.39
	PULL	16.5	33.0	52.9	70.5	88.1	105.7	123.4	141.0	158.6	164.9	0.33
63 mm	PUSH	31.2	62.3	93.5	124.7	155.9	187	218.2	249.4	280.6	311.7	0.62
	PULL	28.0	56.1	84.1	112.1	140.2	168.2	196.2	224.2	252.3	280.3	0.56
80 mm	PUSH	50.3	100.5	150.8	201.1	251.3	301.6	351.9	402.1	452.4	502.7	1.00
	PULL	45.4	90.7	136.1	181.4	226.8	272.1	317.5	362.9	408.2	453.6	0.91
100 mm	PUSH	78.5	157.1	235.6	314.2	392.7	471.2	549.8	628.3	706.9	785.4	1.57
	PULL	73.6	147.3	220.9	294.5	368.2	441.8	515.4	589.0	662.7	736.3	1.41

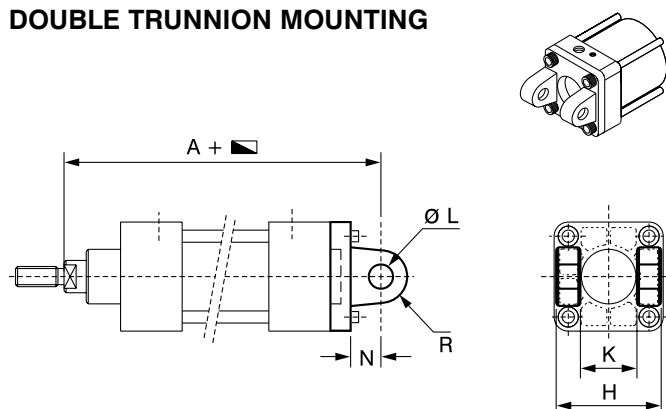
NOTE :

To decide cylinder bore size :

- Establish force required and working pressure available.
- Select working pressure on top of the chart.
- Select force required by reading down from selected working pressure.
- Read out cylinder bore size on left of the chart.

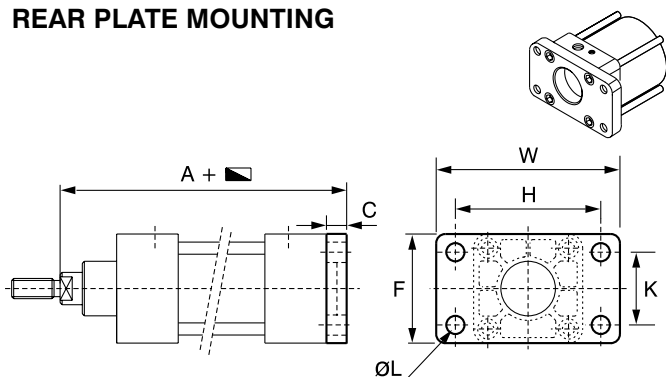
EXAMPLE : If it is established that the force required is 150 Kg. and working pressure available is 7 bar, above chart will lead you to select 63 mm bore cylinder.

DOUBLE TRUNNION MOUNTING



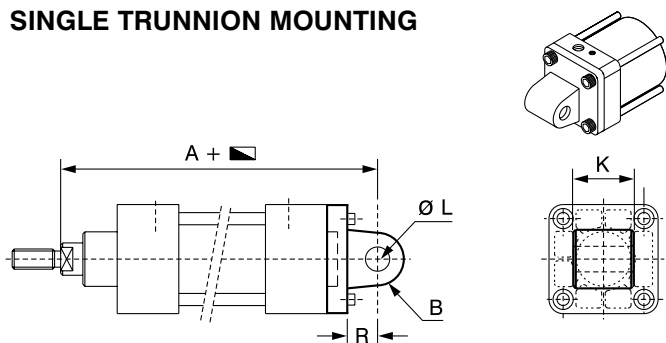
BORE SIZE	MTG. PART NO.	A	H h 14	K h 14	ØL H 9	N	R	TOLERANCE ON DIM 'A' IS ± 1.25
32	0321	142	45	26.5	10	14	10	
40	0401	160	52	28.5	12	15	13	
50	0501	170	60	32.5	12	16	13	
63	0631	190	70	40.6	16	20	17	TOLERANCE ON DIM 'A' IS ± 1.6
80	0801	210	90	50.6	16	22	17	
100	1001	230	110	60.7	20	27	20	

REAR PLATE MOUNTING



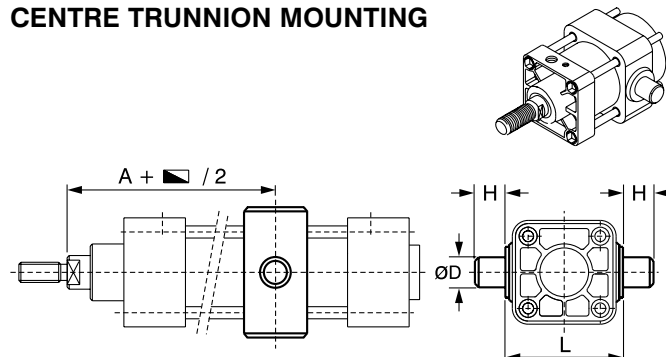
BORE SIZE	MTG. PART NO.	A	C	F	W	H ±0.3	K ±0.3	ØL H13	TOLERANCE ON DIM 'A' IS ± 1.25
32	0323	130	10	46	80	64	32	7	
40	0403	145	10	54	90	72	36	9	
50	0503	155	12	64	110	90	45	9	
63	0633	170	12	75	120	100	50	9	TOLERANCE ON DIM 'A' IS ± 1.6
80	0803	190	16	95	150	126	63	12	
100	1003	205	16	112	170	150	75	14	

SINGLE TRUNNION MOUNTING



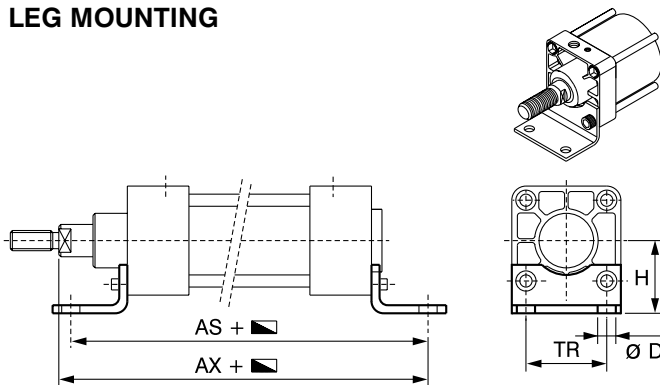
BORE SIZE	MTG. PART NO.	A	B	K -0.2 -0.6	ØL H 9	R	TOLERANCE ON DIM 'A' IS ± 1.25
32	0328	142	10	26	10	14	
40	0408	160	13	28	12	15	
50	0508	170	13	32	12	16	
63	0638	190	17	40	16	20	TOLERANCE ON DIM 'A' IS ± 1.6
80	0808	210	17	50	16	22	
100	1008	230	20	60	20	27	

CENTRE TRUNNION MOUNTING



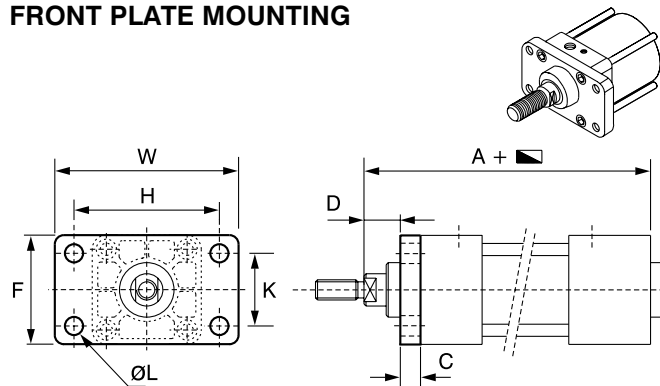
BORE SIZE	MTG. PART NO.	A	ØD e 9	H h 14	L ± 0.5	TOLERANCE ON DIMS 'A' IS ± 2
32	0325	73.0	12	12	50	
40	0405	82.5	16	16	63	
50	0505	90.0	16	16	75	
63	0635	97.5	20	20	90	
80	0805	110.0	20	20	110	
100	1005	120.0	25	25	132	

LEG MOUNTING



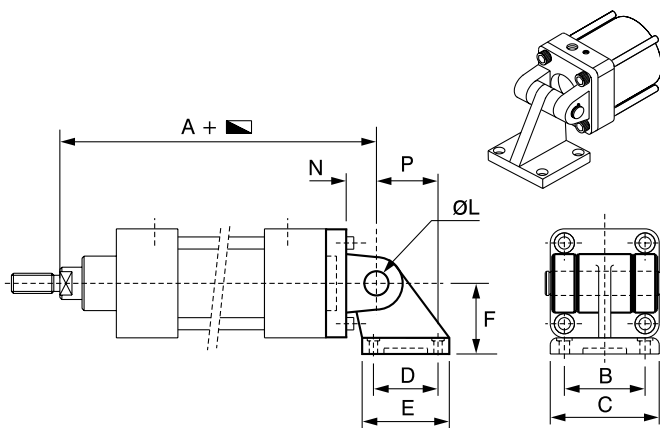
BORE SIZE NO.	MTG. PART	AX	AS	TR ±0.3	D H13	H Is15	TOLERANCE ON DIM AX & AS ± 1.25
32	0327	144	142	32	7	32	
40	0407	163	161	36	9	36	
50	0507	175	170	45	9	45	
63	0637	190	185	50	9	50	TOLERANCE ON DIM AX & AS ± 1.6
80	0807	215	210	63	12	63	
100	1007	230	220	75	14	71	

FRONT PLATE MOUNTING



BORE SIZE	MTG. PART NO.	A	C	D	F	W	H ±0.3	K ±0.3	ØL H13	TOLERANCE ON DIM 'D' IS ± 1.6
32	0324	120	10	16	46	80	64	32	7	
40	0404	135	10	20	54	90	72	36	9	
50	0504	143	12	25	64	110	90	45	9	
63	0634	158	12	25	75	120	100	50	9	TOLERANCE ON DIM 'D' IS ± 1.6
80	0804	174	16	30	95	150	126	63	12	
100	1004	189	16	35	112	170	150	75	14	

DOUBLE TRUNNION WITH HINGE MOUNTING



BORE SIZE	MTG. PART NO.	A	B	C	D	E	F	ØL H9	N	P
32	0329	142	38	51	18	31	32	10	14	21
40	0409	160	41	54	22	35	36	12	15	24
50	0509	170	50	65	30	45	45	12	16	33
63	0639	190	52	67	35	50	50	16	20	37
80	0809	210	66	86	40	60	63	16	22	47
100	1009	230	76	96	50	70	71	20	27	55

Following accessories are also offered.

- Rod eye end
- Fork attachment
- Rear pivot with spherical bearing
- Cylinder with bellows

Refer data sheet no. PMA-14 for details.

For ISO / VDMA round tube reed switch cylinders refer data sheet no. PMC-08.

ORDERING INFORMATION

CYL. TYPE	BORE SIZE	CUSHIONING / PISTON ROD MTL./SEAL MTL.	MOUNTING & FORK	STROKE IN mm
M	32mm = 32	Cushioned/En8/NBR = 1	MTG. ONLY	Examples : 5mm = 005
	40mm = 40	Cushioned/En8/Viton = 2	0 = Basic = R	724mm = 724
	50mm = 50	Cushioned/S.S/NBR = 3	1 = Double Trunnion = S	1000mm = A00
	63mm = 63	Cushioned/S.S/Viton = 4	3 = Rear Plate = U	1090mm = A90
	80mm = 80	Non cushioned/En8/NBR = 5	4 = Front Plate = V	1100mm = B00
	100mm = A0	Non cushioned/En8/Viton = 6	5 = Centre Trunnion = W	1132mm = B32
		Non cushioned/S.S/NBR = 7	7 = Leg Mounting = Y	1200mm = C00
		Non cushioned/S.S/Viton = 8	8 = Single Trunnion = Z	1300 = D00
			9 = Double Trunnion = P	
			with Hinge I	

Typical Example : 63mm bore X 725mm stroke cushioned cylinder with double trunnion mounting having EN8 piston rod and nitrile seals : M6311725