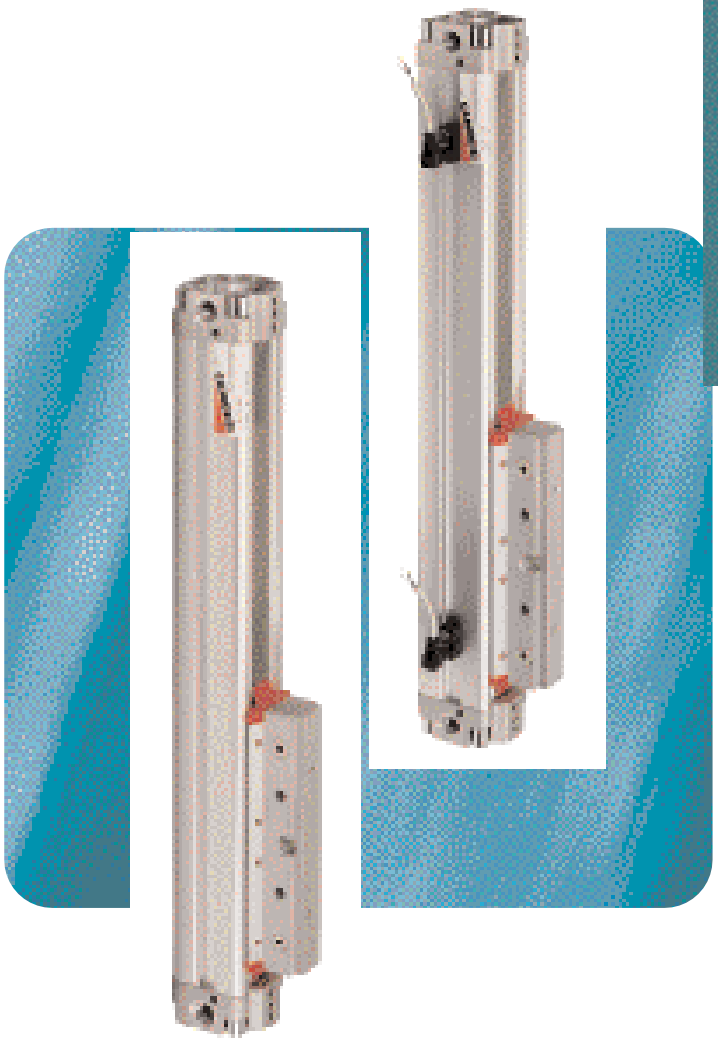
Series 50 rodless cylinders

Double-acting / magnetic
ø16, 25, 32, 40, 50, 63, 80

The Series 50 rodless cylinders are available in 7 different diameters to cover as many applications as possible. A permanent magnet is assembled on the cylinder piston, allowing the position to be detected by means of proximity switches positioned on the sliding axis.
This series of cylinder is normally supplied with end-stroke cushioning, that can be regulated by means of a screw located on the end-cover.
The Series 50 cylinders are recommended to be used according to the load values and torque forces detailed in the relative tables.



- Magnet indicating cylinder position
- Four ports on each chamber
- Possibility of double supply on one side (on request)

GENERAL DATA

Type of construction	rodless with integral carriage
Operation	double-acting
Materials	aluminium end-covers, piston and barrel, polyurethane and NBR seals
Type of mounting	foot mounted
Stroke	on request, max. 4000 mm
Ports	ø 16 = M5, ø 25 = G1/8, ø 32-40-50 = G1/4, ø 63 = G3/8, ø 80 = G1/2
Installation	see table on the next page
Operating temperature	0 ÷ 50°C (with dry air -10°C)

PNEUMATIC SPECIFICATIONS

Operating pressure	1 ÷ 8 bar
Speed	10 ÷ 1000 mm/sec (without load)
Fluid	clean air with or without lubrication

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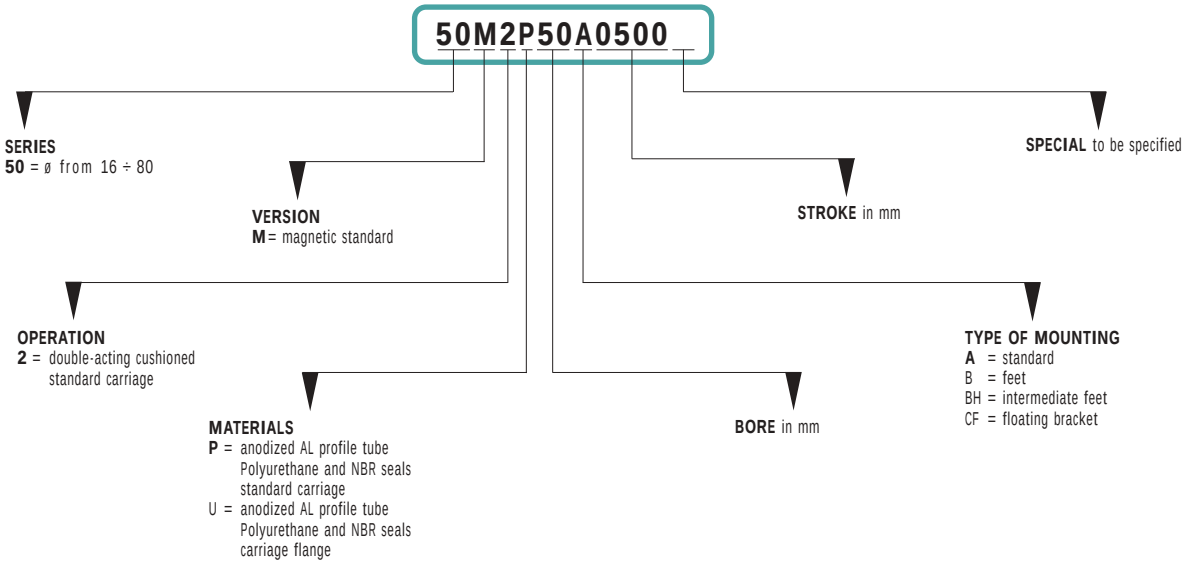
CYLINDER CODING



Note: the brackets are supplied as separate items.

TABLE SHOWING THE OUTPUT FORCES OF THE SERIES 50

ø Cyl. in mm.	Working area in cm².		Operating pressure in bar							
			1	2	3	4	5	6	7	8
			Output force in N (efficiency factor 0,9)							
16	Thrust side	2.00	18	35	53	71	88	106	123	141
25	Thrust side	4.90	43	86	130	173	216	260	303	432
32	Thrust side	8.03	71	142	212	283	354	425	496	567
40	Thrust side	12.56	110	222	332	443	554	665	776	886
50	Thrust side	19.6	173	346	518	692	864	1037	1210	1382
63	Thrust side	31.15	275	550	824	1099	1374	1648	1924	2198
80	Thrust side	50.25	443	886	1330	1773	2216	2260	3102	3545

THE VALUES REPORTED ON THE TABLE ARE THE RESULT OF THE FOLLOWING FORMULA:

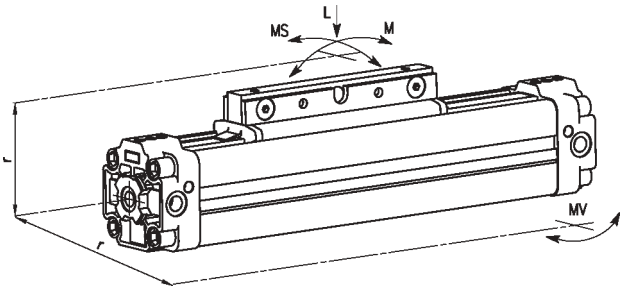
$$Ss = \frac{D^2 \cdot \pi}{4} \cdot P \cdot \eta$$

Ss = thrust side force
P = operating pressure in Bar
D = thrust side diameter in cm
η = output

TABLE SHOWING AIR CONSUMPTION OF SERIES 50

ø Cyl. in mm.	Working area in cm².	Operating pressure in bar							
		1	2	3	4	5	6	7	8
		Air consumption in NL for each 10 mm. of stroke							
16	2.00	0.004	0.006	0.008	0.010	0.012	0.014	0.016	0.018
25	4.90	0.010	0.015	0.020	0.024	0.029	0.034	0.039	0.044
32	8.03	0.016	0.024	0.032	0.040	0.048	0.056	0.064	0.072
40	12.56	0.025	0.038	0.050	0.063	0.075	0.088	0.100	0.113
50	19.60	0.039	0.059	0.078	0.098	0.118	0.137	0.157	0.176
63	31.15	0.062	0.093	0.125	0.156	0.187	0.218	0.249	0.280
80	50.25	0.101	0.151	0.201	0.251	0.302	0.352	0.402	0.452

TABLE SHOWING THE MAXIMUM PERMITTED LOADS AND TORQUE FORCES OF RODLESS CYLINDERS SERIES 50

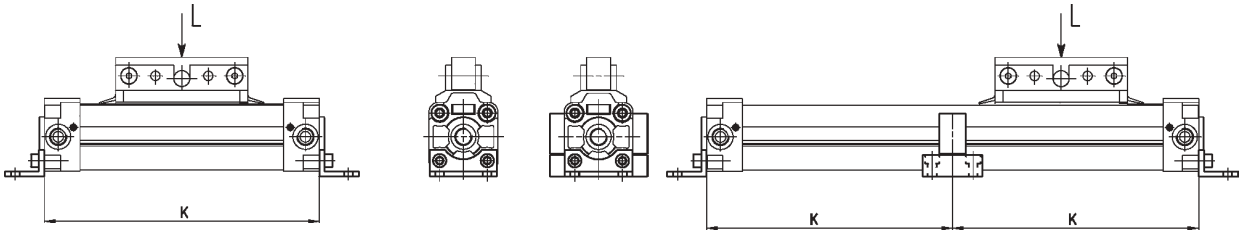


M = F x b
MS = F x b
MV = F x b

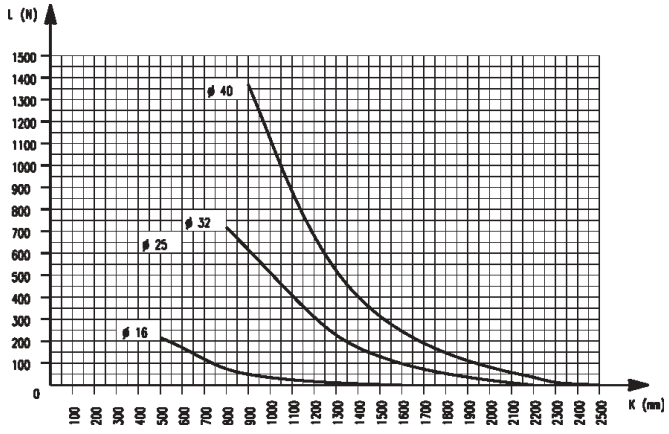
ø cyl.	Max. load permitted (N) L	Max. bending torque force permitted (Nm) M	Max. bending torque force permitted (Nm) Ms	Torsional torque force permitted (Nm) Mv
16	218	3,1	0,5	1
25	660	12,4	1,9	5
32	720	30	4	8
40	1370	39	4	9
50	1600	122	11	16
63	2210	190	19	26
80	3770	305	30	47

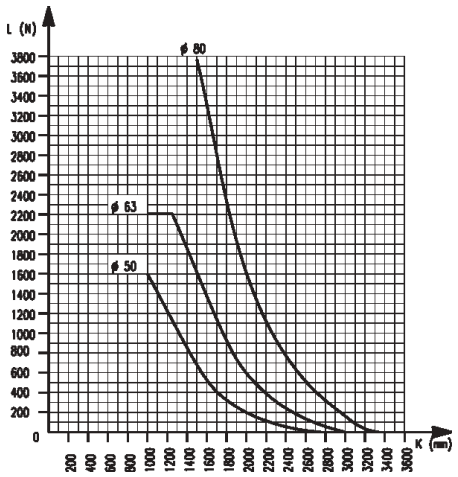
Note: Loads and bending torque are valid if applied separately.

LOADS ACCORDING TO SUPPORTS' DISTANCE



Note: The charts below have been made according to a max. distance of 0.5 mmLoad (N). Once the load and the cylinder diameter have been fixed, the charts reported below give the k values beyond which it is necessary to put an intermediate feet.





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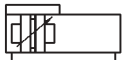
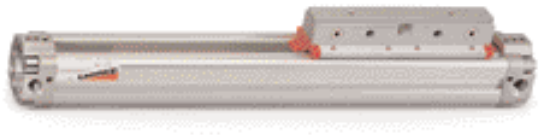
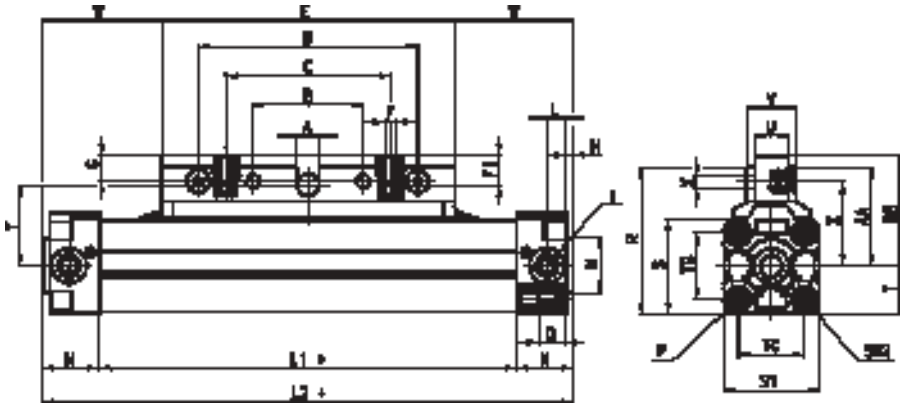
Cylinders Mod. 50M2P...

Standard.





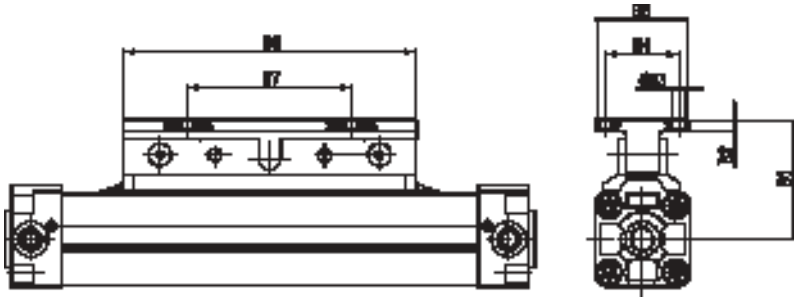


DIMENSIONS

Series	øcyl.	A	B	C	D	E	F	F1	G	H	I	L	L1	L2	M	N	P	Q	R	S	S1	T	U	V	Z	X	Y	W	AA	BB	TG	SW2
50	16	5	32	48	64	76	M4	8	6	2	M5	5,3	100	130	16	15	M3	8	42,5	28	27	13,5	10	18	24	4,5	24,5	27	29	30	18	4
50	25	8	50	80	100	120	M5	10	13	2,5	G1/8	9,5	150	200	22	25	M5	13,5	63	40	40	20	15	23	33	5,5	38	40	43	46	27	6
50	32	12	60	90	120	160	M6	15	14	4	G1/4	10,5	188	250	30	31	M6	15	80	52	52	26	18	27	46	7	48,5	45	54	60	36	6
50	40	12	55	90	110	150	M6	12	12	4	G1/4	17,5	226	300	35	37	M6	15	88,5	63	63	31,5	18	28	49	7	51	75	57	61	43	6
50	50	12	70	110	140	180	M6	12	12	4	G1/4	13,5	272	350	40	39	M8	16	103	74,5	76	38	18	28	57	7	59	85	65	69	53	10
50	63	16	90	140	180	220	M8	16	15	4	G3/8	17,5	342	430	45	44	M8	16	125	92	94	47	19	30	68	9	70	105	78	83	67	10
50	80	20	120	180	240	280	M10	20	18	4	G1/2	32	408	520	45	56	M10	18,5	153,5	115,5	117	58,5	20	32	83	11	86	120	95	101	83	12

Cylinders Mod. 50M2U...

Only on request.



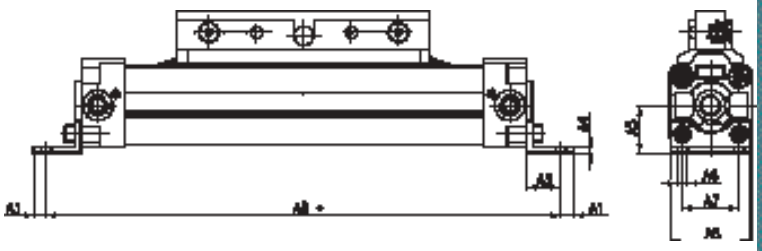
DIMENSIONS

Series	øcyl.	B1	B2	B3	B4	B5	B6	B7
50	16	36	4	4,5	25	40	76	50
50	25	51	5	5,5	35	50	120	70
50	32	66	6	7	40	50	160	90
50	40	66	6	7	45	60	150	80
50	50	74	6	7	45	60	180	100
50	63	89	7	9	60	80	220	130
50	80	108	8	11	75	100	280	180

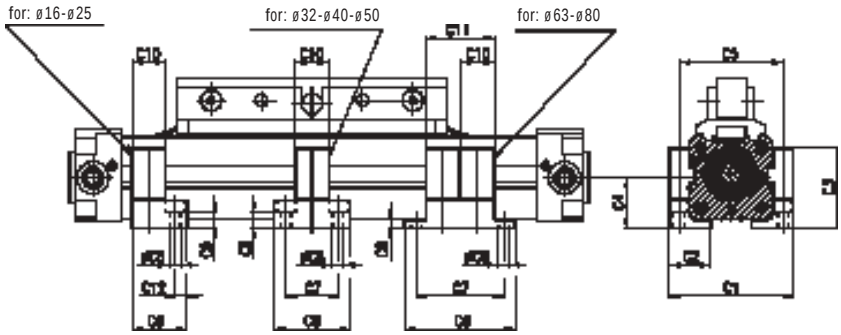
Foot mount Mod. B-50...

DIMENSIONS

Mod.	øcyl.	A1	A2	A3	A4	A5	A6	A7	A8
B-50-16	16	3	150	12	3	15	3,6	18	26
B-50-25	25	6,5	232	18,5	3	22	5,5	27	39
B-50-32	32	8	286	22	4	30	6,6	36	51
B-50-40	40	13,5	325	16,5	4	38	9	30	62
B-50-50	50	13,5	375	16,5	6	48	9	40	75
B-50-63	63	11	460	19	6	57	11	48	93
B-50-80	80	18,5	555	21,5	6	72	14	60	116



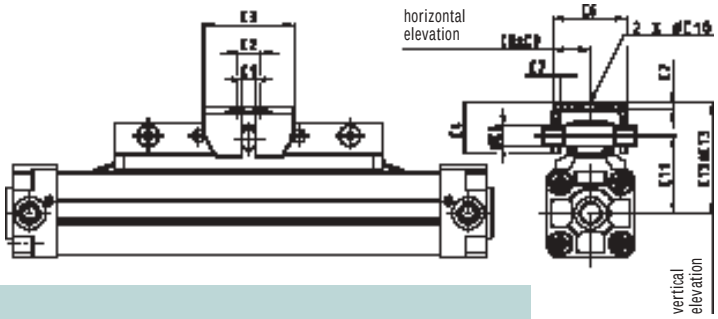
Brackets Mod. BH-50...



DIMENSIONS

Mod.	øcyl.	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
BH-50-16	16	42	12	25	15	34	20	-	3,4	4,5	12	-	4
BH-50-25	25	56	21	32,6	22	47	22	-	5,5	10,1	12	-	5
BH-50-32	32	74	25	47,5	30	62	45	31	6,6	9,7	20	-	-
BH-50-40	40	85	35	56	38	73	60	45	6,6	18,2	20	-	-
BH-50-50	50	98	32	67,5	48	86	60	45	6,6	29,7	20	-	-
BH-50-63	63	126	50	78,5	57	109	74	56	9	11	20	41	-
BH-50-80	80	155	65	96	72	135	80	60	11	14,5	20	41	-

self-compensating adaptor Mod. CF-50...



DIMENSIONS

Mod.	øcyl.	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13
CF-50-25	25	6	16	40,8	22,9	7,9	31,5	3	15,8	1,5	5,6	38	55,2	4,8
CF-50-32	32	9,3	50	76,4	27,4	11,9	38,1	3,8	19	1,5	7,1	48,5	68,9	6,4
CF-50-40	40	9,3	50	76,4	24,4	11,9	38,1	3,8	19	1,5	7,1	51	73,8	4,8
CF-50-50	50	9,3	80	114,6	37,1	11,9	43,9	6,1	22	3,3	8,6	59	88,4	6,4
CF-50-63	63	12,7	100	134,6	42,2	15,9	43,9	6,1	22	3,3	8,6	70	107,2	4,8
CF-50-80	80	12,7	125	159,5	42,2	19,9	50,3	6,1	25,1	3,3	11	86	123,2	4,8