

2 CLAMPING SYSTEMS

2.9 THREE – POSITION SWING CYLINDERS SERIES MTR

Four oil connections, 350 bar

Capacity: 56, 91 and 143 kN

Working pressure: 350 bar

Four oil connections

Temperature range: 5°C till 60°C

Horizontal 90 degrees rotation in extended clamping arm position.

DESCRIPTION

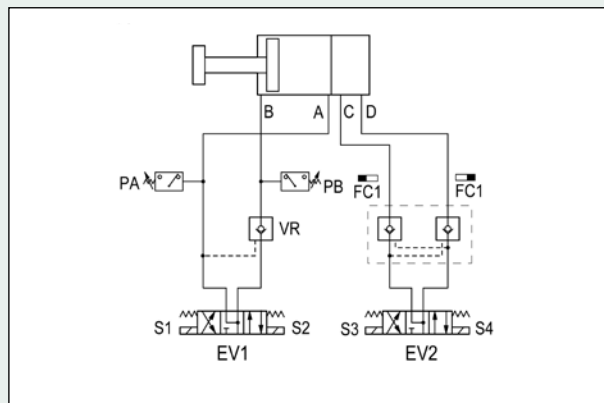
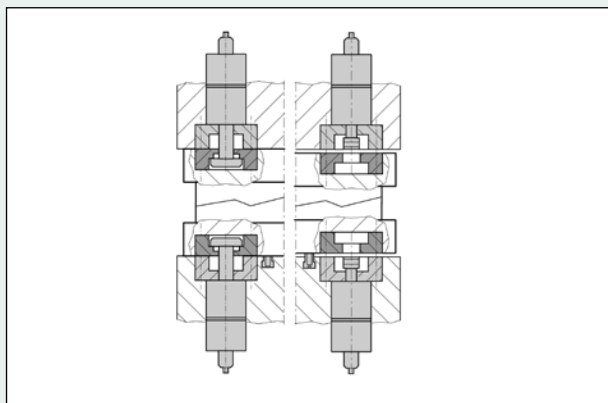
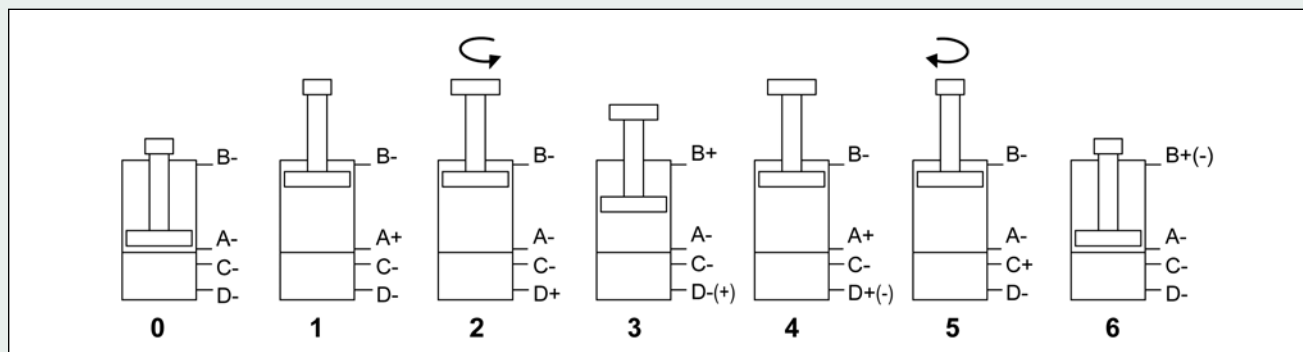
Double acting three position cylinders are designed to be integrated on machine tables and on moving bolsters. Due to the fact that the clamping arm is retracted completely and disappearing under the working table, the die load or unload surface becomes totally free.

Three position swing cylinders are particularly recommended when the application requires an integrated clamping solution on machine tables or when there is a narrow space and limited access.

Piston rotation is obtained through a mechanical device activated by two independent lines (ports C and D) while the straight action of the piston is provided by two other lines (ports A and B).

The clamping arm's position (clamped / unclamped) can be controlled by two proximity switches (to be ordered extra) while the straight stroke can be controlled by pressure switches. This cylinder guarantees a correct rotation of the arm avoiding inconveniences like jamming and cycle dephasing that would normally happen with similar products when the clamping arm bumps against the die.

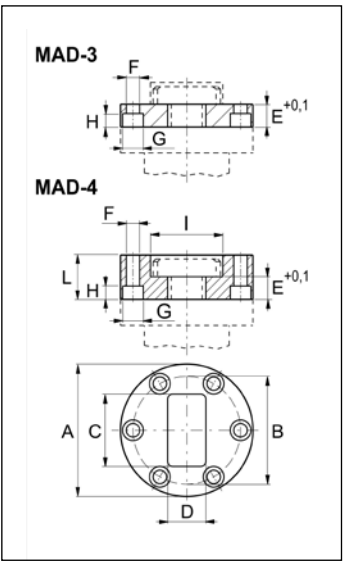
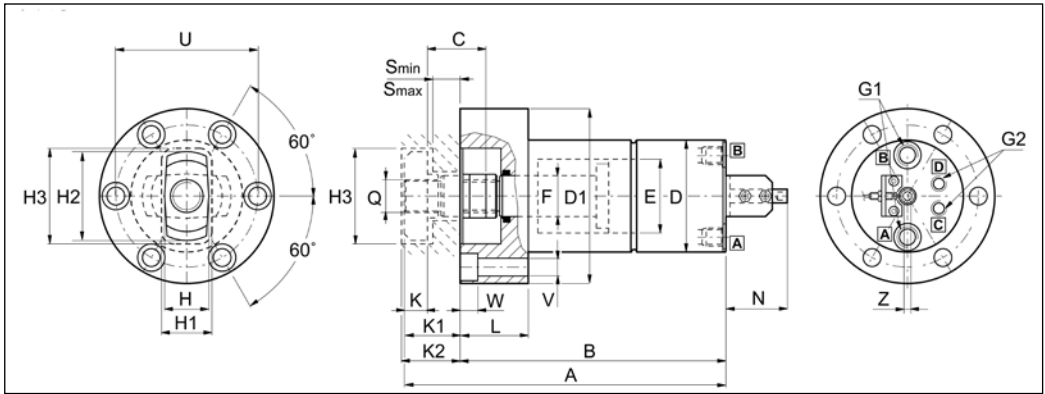
For Viton seals (max 200°C) add V behind the model number. For example MTR-141-V.





SELECTION CHART														
EAS Model Number	Clamping force (kN)	Operating pressure (bar)	Stroke (mm)	Fclamp (kN)	Qretr (cm ³)	Qext (cm ³)	Max flow (l/min)	Dimensions in mm						
								A	B	C	D	D1	E	F
MTR 51	56	350	43	55,4	68,6	98	2	246	204	43	82	128	54	30
MTR 91	91	350	56	90,7	145,1	211	2	305	250	56	104	160	70	40
MTR 141	154	350	67	153,9	294,7	426	2	356	290	67	126	192	90	50

SELECTION CHART (FOLLOW UP)																		
EAS Model Number	Dimensions in mm																	
	G1	G2	H	H1	H2	H3	K	K1	K2	L	N	Q	S	U	V	W	Z	
MTR 51	G 1/4"	G 1/8"	33	37	65	70	17	42	43	50	55	M20X1,5	19-22	104	13	13	6	
MTR 91	G 3/8"	G 1/8"	40	46	80	86	24	55	56	61	55	M30X1,5	25-28	130	17,5	17	8	
MTR 141	G 3/8"	G 1/4"	50	58	95	103	30	66	67	72	55	M36X1,5	30-33	156	22	21	8	



SELECTION CHART INDUCTIVE SENSOR AND CABLES			
EAS Model Number	Thread	Specs	Detection distance
PSM12NC Normally closed	M12x1	10-30V, DC 150mA	3 mm
SCEL5	90 degree elbow with 5 meter cable		
SCEL15	90 degree elbow with 15 meter cable		
SCSL5	Straight connector with 5 meter cable		
SCSL15	Straight connector with 15 meter cable		

FLANGES FOR DIE MOUNTING For cylinders MTR and MSR

SELECTION CHART											
EAS Model Number	Dimensions in mm										
	A	B	C	D	Emin	Emax	F	G	H	I	L
MAD 3.50	128	104	70	37	19	22	13	20	13	-	-
MAD 3.90	160	130	86	46	25	28	18	26	17	-	-
MAD 3.140	192	156	103	58	30	33	22	33	21	-	-
MAD 4.50	128	104	-	-	19	22	13	20	13	70	43
MAD 4.90	160	130	-	-	25	28	18	26	17	86	56
MAD 4.140	192	156	-	-	30	33	22	33	21	103	67