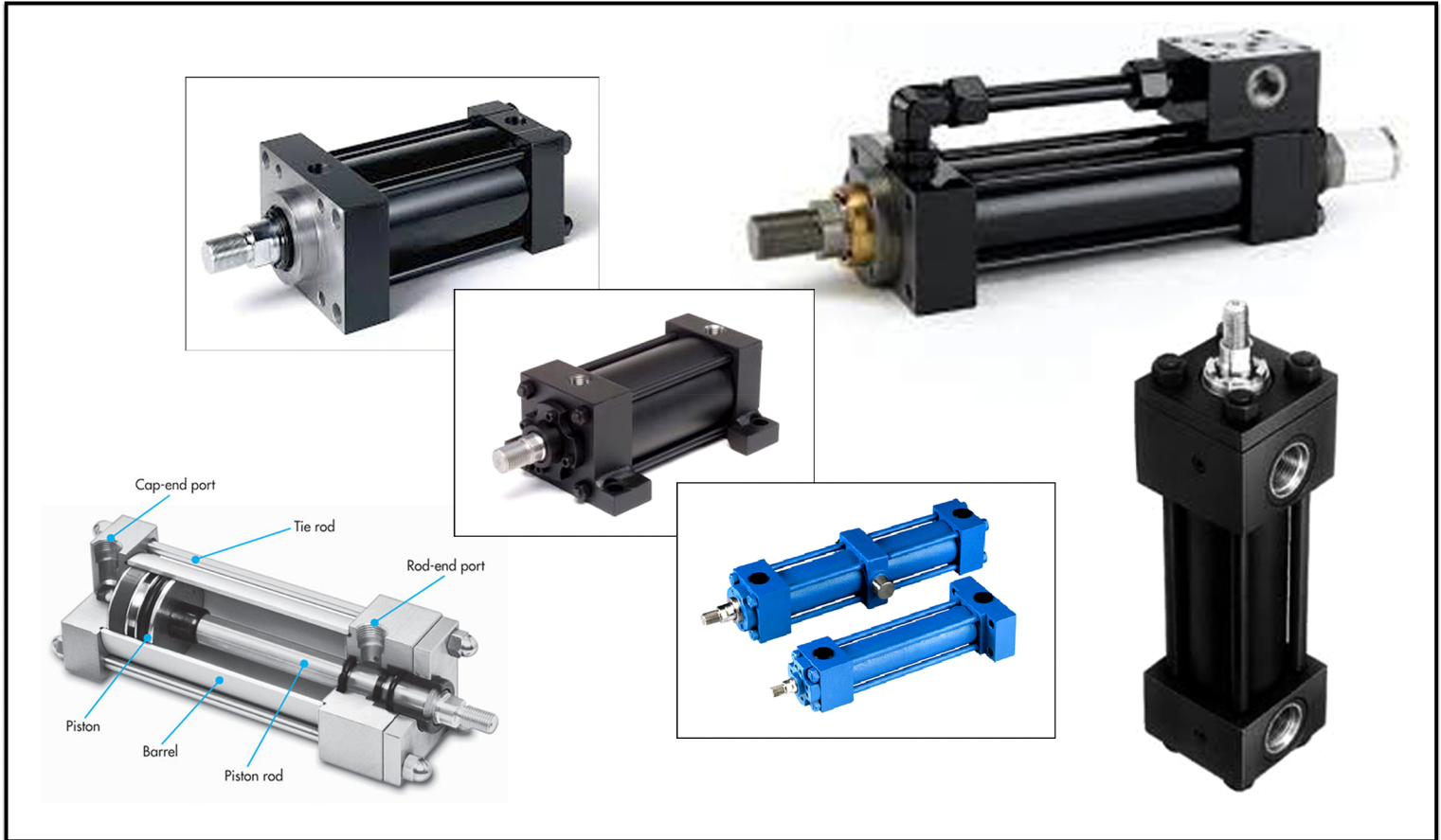


Sarangamath Hydraulics Pvt Ltd.

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Series - TR70

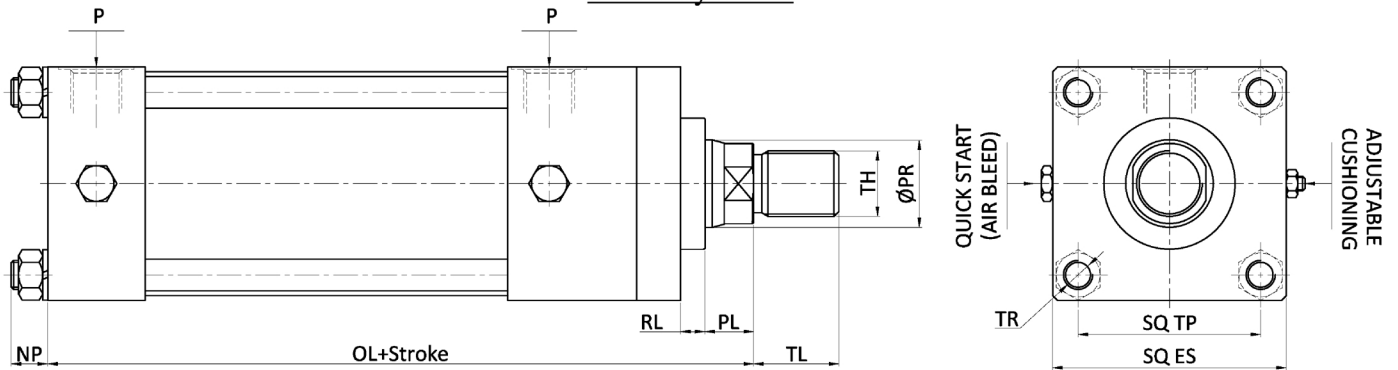


HYDRAULIC CYLINDER - PRESSURE 70 BAR

- * Cylinder Bore Dia.25 to 250 mm.
- * Rated Pressure 70 Kg/Cm²
- * Standard construction, square head, tie rod design
- * Tie-rod type, Medium Pressure hydraulic cylinders, available with a wide range of mounting arrangements.
- * Strokes available in any practical stroke length
- * With/ Without Cushioning.
- * Temperature range: -20°C to 100°C.
(Optional sealing systems for temperatures up to 180°C)
- * We offer a wide range of custom built Tie-Rod Hydraulic Cylinders



Basic Cylinder



BORE DIA	PR DIA	ES (SQ)	TH	PS (BSP)	OL	RL	PL	TL	TR	NP	TP	CUSHIONING LENGTH
25	14	40	M12x1.25	1/4"BSP	134	4	10	16	M6x1	10	28	12
32	16	50	M12x1.25	1/4"BSP	138	4	10	16	M8x1.25	12	38	15
40	16/18	55	M12x1.25/M14x1.5	3/8"BSP	158	6	12	16/18	M8x1.25	12	42	20
50	22/25	70	M16x1.5/M20x1.5	3/8"BSP	163	6	12	22/25	M10x1.5	16	52	20
63	25/28	80	M20x1.5/M20x1.5	3/8"BSP	178	8	16	25/28	M10x1.5	16	62	20
80	28/36	96	M20x1.5/M27x2	1/2"BSP	210	8	20	28/36	M12x1.75	18	76	25
100	36/45	115	M27x2/M33x2	1/2"BSP	220	10	20	36/45	M12x1.75	18	92	25
125	45/56	148	M33x2/M42x2	1/2"BSP	244	12	25	45/56	M16x2	20	116	30
160	56/70	184	M42x2/M48x2	3/4"BSP	275	15	30	56/63	M16x2	20	144	30
200	70/90	225	M48x2/M64x3	1"BSP	310	20	30	63/85	M20x2.5	26	176	35
250	90/110	280	M64x3/M80x3	1"BSP	336	25	35	85/95	M24x2	30	220	35

Material Specification

- * **BARREL:** Made from cold drawn seamless tubes and honed to a surface finish of 0.4 micron and higher.
- * **PISTON ROD:** Made from medium carbon steel, accurately ground, hard chrome plated super finished.
- * **COVER PLATES:** Fine machined from steel, and constructed with a sturdy design to withstand high pressure loads.
- * **GLAND:** Phosphor bronze /Cast Iron bush inserted for smooth operation of the piston rod and for provided suitable guiding action.
- * **TIE RODS:** Made from high tensile steel rod tightened with hexagonal nut for easy maintenance.
- * **MOUNTING:** Various type of mounting are available according to the requirement ensuring complete interchangeability with other ISO standard cylinder.
- * **CUSHIONING:** Self aligning cushioning boss ensures alignment of the rod movement inside the cushioning chamber, providing accurate damping action at end of stroke.
- * **CUSHIONING SCREW:** For fine adjustment of cushioning movement.
- * **AIR BLEED:** Screw provided for releasing the air trapped in the cylinder.

SEALLING ELEMENTS:

- * **PISTON SEAL:** Provided with one turcon Glydring for low friction, Stick / Slip free movement along with two turcite Slydring for conforms to ISO 7245/1.
- * **GLAND SEAL:** Polyurethane RU3 U-Cup seal is used, which has primary and secondary lip for maximum flexibility. Conforms to ISO 5597.
- * **WIPER SEAL:** DA-22 Double Acting Polyurethane scraper is used conforming to ISO 6195 Type C groove dimensions. This wears resistant seal has a scraper lip which scrapes off the dirt completely from the Piston Rod, but leaves a residual oil film which is required for proper lubrication.
- * **STATIC SEALS:** Nitrile Rubber 'O' ring are used for static sealing purposes. They are used for the end seals, piston locking and cushioning seals.



PISTON AREA, ACTION FORCE, VELOCITIES & FLOWS

BORE DIA (MM)	ØPR IN (MM)	PISTON AREA (MM ²)	ROD AREA (MM ²)	ANNULUR AREA (MM ²)	ACTION FORCE AT PRESSURE						PISTON VELOCITY In m/s at FLOW=1ltr/min		REQUISITE FLOW in ltr/min at VELOCITY=0.1m/s	
					70 kg/cm ²		160 kg/cm ²		210 kg/cm ²		Piston	Rod	Piston	Rod
					Force(Piston)	Force(Rod)	Force(Piston)	Force(Rod)	Force(Piston)	Force(Rod)				
25	14	490.94	153.96	336.98	344	236	786	539	1031	708	0.03395	0.04946	2.95	2.02
32	16	804.35	201.09	603.26	563	422	1287	965	1689	1267	0.02072	0.02763	4.83	3.62
40	16	1256.8	201.09	1055.71	880	739	2011	1689	2639	2217	0.01326	0.01579	7.54	6.33
	18		254.50	1002.30		702		1604		2105		0.01663		6.01
50	22	1963.75	380.18	1583.57	1375	1108	3142	2534	4124	3325	0.00849	0.01052	11.78	9.50
	25		490.94	1472.81		1031		2357		3093		0.01132		8.84
63	25	3117.6495	490.94	2626.71	2182	1839	4988	4203	6547	5516	0.00535	0.00635	18.71	15.76
	28		615.83	2501.82		1751		4003		5254		0.00666		15.01
80	28	5027.2	615.83	4411.37	3519	3088	8044	7058	10557	9264	0.00332	0.00378	30.16	26.47
	36		1018.01	4009.19		2806		6415		8419		0.00416		24.06
100	36	7855	1018.01	6836.99	5499	4786	12568	10939	16496	14358	0.00212	0.00244	47.13	41.02
	45		1590.64	6264.36		4385		10023		13155		0.00266		37.59
125	45	12273.438	1590.64	10682.80	8591	7478	19638	17092	25774	22434	0.00136	0.00156	73.64	64.10
	56		2463.33	9810.11		6867		15696		20601		0.00170		58.86
160	56	20108.8	2463.33	17645.47	14076	12352	32174	28233	42228	37055	0.00083	0.00094	120.65	105.87
	70		3848.95	16259.85		11382		26016		34146		0.00103		97.56
200	70	31420	3848.95	27571.05	21994	19300	50272	44114	65982	57899	0.00053	0.00060	188.52	165.43
	90		6362.55	25057.45		17540		40092		52621		0.00067		150.34
250	90	49093.75	6362.55	42731.20	34366	29912	78550	68370	103097	89736	0.00034	0.00039	294.56	256.39
	110		9504.55	39589.20		27712		63343		83137		0.00042		237.54

ORDERING CODE

TR70 - 25 / 16 - 100 - 01 - FF - CB - (X)

Series	Bore Size	Piston Rod Size	Stroke	Functions	Mountings	Cushioning	Accessories
Rated Pressure Upto 70 Bar	Ø25-Ø250 mm Standard Sizes	Ø14-Ø110 mm Standard Sizes	To be specified in MM	1.Double Acting 2.Single Acting 3.Double Ended (Rod at Both Ends) 4.Spring Return (Single Acting)	FF - Front Flange RF - Rear Flange RC - Rear Clevis RE - Rear Eye FL - Foot Lug CT - Central Trunnion	CB - Cushioned at Both Ends CR - Cushioned at Rear End CF - Cushioned at Front End NC - Non Cushioned	PRE - Piston Rod End PRB - Piston Rod Bracket Special :- * Read Switch Cylinder * Swing Cylinder

WE ALSO OFFER

- * Design and Reverse Engineering of Hydraulic Cylinder.
- * Capability in Handling Special Electrohydraulic Actuators (With Valves and Electronic Sectors).
- * Also carry out Servicing of Pneumatic and Hydro-Pneumatic cylinders.