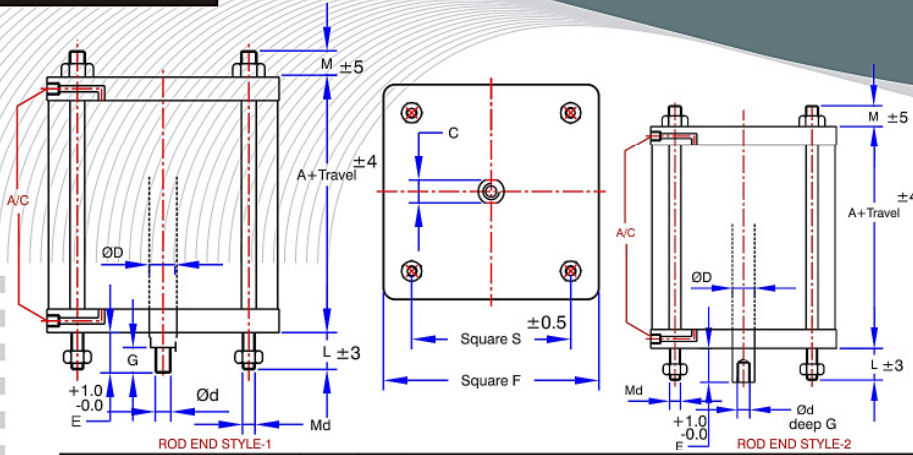


DOUBLE ACTING AIR CYLINDERS

SERIES : WC



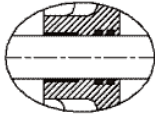
NOTE:
Drawing shown in valve open position.
Cylinder Thrust values are in OPEN direction.

CYLINDER MODEL	CYLINDER SIZE	A	C	ØD	Ød	E	F	G	L	Md	S	AC BSP	Cylinder Thrust in kN @		
													3 Bar	4 Bar	5 Bar
WC04	100	102	27	30	3/4"-16 TPI UNF (STYLE 2)	19	114	28	35	M10 X 1.5P	84	3/8"	2.2	2.9	3.6
WC05	125	102	27	30		19	140		46	M12 X 1.75P	104	3/8"	3.5	4.7	5.9
WC06	150	102	27	30		22	165		46	M12 X 1.75P	124	3/8"	5.2	6.9	8.6
WC08	200	102	27	30		22	216		51	M16 X 2P	164	3/8"	9.3	12.4	15.6
WC10	250	112	27	30	1"-14 TPI UNS (STYLE 2)	25	270	41	57	M20 X 2.5P	201	1/2"	14.7	19.6	24.5
WC12	300	124	40	45		25	324		57	M20 X 2.5P	239	1/2"	21.0	28.0	35.0
WC14	350	134	40	45	25	375	64	M22 X 2.5P	277	1/2"	28.8	38.4	47.9		
WC16	400	134	40	45	1 1/2"-12 UNF (STYLE 1)	90	432	48	50	M24 X 3P	320	3/4"	37.7	50.3	62.9
WC20	500	160	45	50	1 7/8"-12 UNF (STYLE 1)	118	542	58	65	M33 X 2P	401	3/4"	59.1	78.8	98.5
WC26	660	158	65	70	1 1/2"-12 UNF (STYLE 1)	103	800	60	65	M27 X 3P	730	3/4"	99	132	166

NOTE : Other drive sizes are available on request. Air connection NPT sizes available on request.

FEATURES IN BRIEF

Piston Rod Seal and Wiper

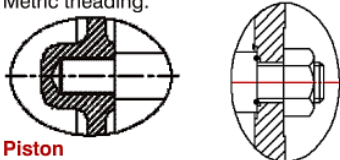


The rod end has combination of rod seal, wiper seal and DU bearing. The rod seal has the pressure sealing function and wiper seal wipes the rod to clear the dust and atmospheric contamination. The rod seal of Quad section for effective long sealing life. The DU bearing reduces the wear and friction at the piston rod.

Hence both sealing and bearing functions are isolated.

Piston Rod

The piston rod is of AISI 304 stainless steel, ground finished to have the better sealing life. In MOR cylinders material of piston rod is EN8D ground hard Cr. plated. The rod end is female / male threaded with UNF / UNS / Metric threading.



Piston

Piston is of SG Iron Gr 600/3 up to 250mm and steel for all larger sizes up to 600 mm. An anaerobic adhesive (Fevicol ANR 126) is used to lock and seal the piston to the rod.

Cylinder Barrel

The cylinder tube can be supplied in FRP / steel / SS / Aluminium. The FRP cylinder tube is of high strength continuously wound glass filament in a matrix of high purity thermoset epoxy resin with an inner lining of molybdenum disulphide. This inner lining has the self lubrication property and low friction. The inside of the cylinder is also applied with molycoat 111 silicon compound grease having better stick and lubrication property.

These cylinders need not be lubricated regularly. The fresh molycoat grease may be applied during the maintenance.

The properties of the tube material is as under.

- * Surface finish of liner : Typical 20-40 micro inch
- * Surface hardness of liner : Rockwell m=95
- * Max working Pressure 10 Bar
- * Max Rated temperature Range : 80° C
- * Impact strength : IZOD :41 ft.lbs/in. notch

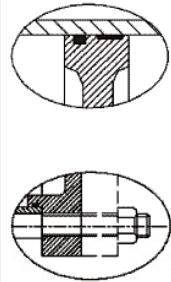
- Physical Strength :**
- * Axial Compression : 130Mpa
 - * Hoop tension : 270Mpa
 - * Flexure : 170Mpa

Piston Seal

The piston seal is of Buna N specially designed for effective bi directional sealing and low friction. All pistons are provided with wear resistant carbon filled PTFE band bearing to reduce the wear of the cylinder.

Tie Rods :

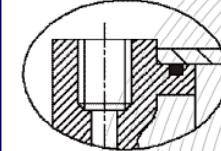
The tie rods are of carbon steel with rolled threads at both ends for excellent strength. The front ends are extended with threads to adapt the mounting flange. The tie rods are zinc plated to avoid atmospheric corrosion.



Material of Construction

PART NAME	MATERIALS
Head/Cover	SGI 600/3/ IS210 Gr FG 260 ASTM A216 Gr WCB
Piston	SGI 600/3/ CI FG 260 /Steel
Barrel	Composite Non Metallic / Steel / Alluminum
Tie Rod	EN8-Rolled Thread / SS304
Piston Rod	SS 304 / EN8D Hard Crom Plated
Piston Rod Bearing	DU
O' ring	Nitrile
Piston Bearing	CFT

Cylinder End Housing



The end housings are SGI Gr 600/3 WCB or FG 260 based on size. Castings are reinforced with integral ribs for adequate strength. The end housings are Blue epoxy painted (RAL5005) or Black epoxy painted (RAL9005) to 100-150 micron thickness.

Rating :

Pressure rating 10 bar, temperature rating - 23°C to 80°C.

Life Cycle Validation

All cylinders are design validated under load as per AWWA C540

NOTE:

* Other materials not mentioned above are available on request.



SUPRIYA PROTOTECH
Range of Valves and Accessories

