



Taylor Valve
Technology

MCX SERIES Choke Valves

Unique.

Precise.

Quality.

Reliable.

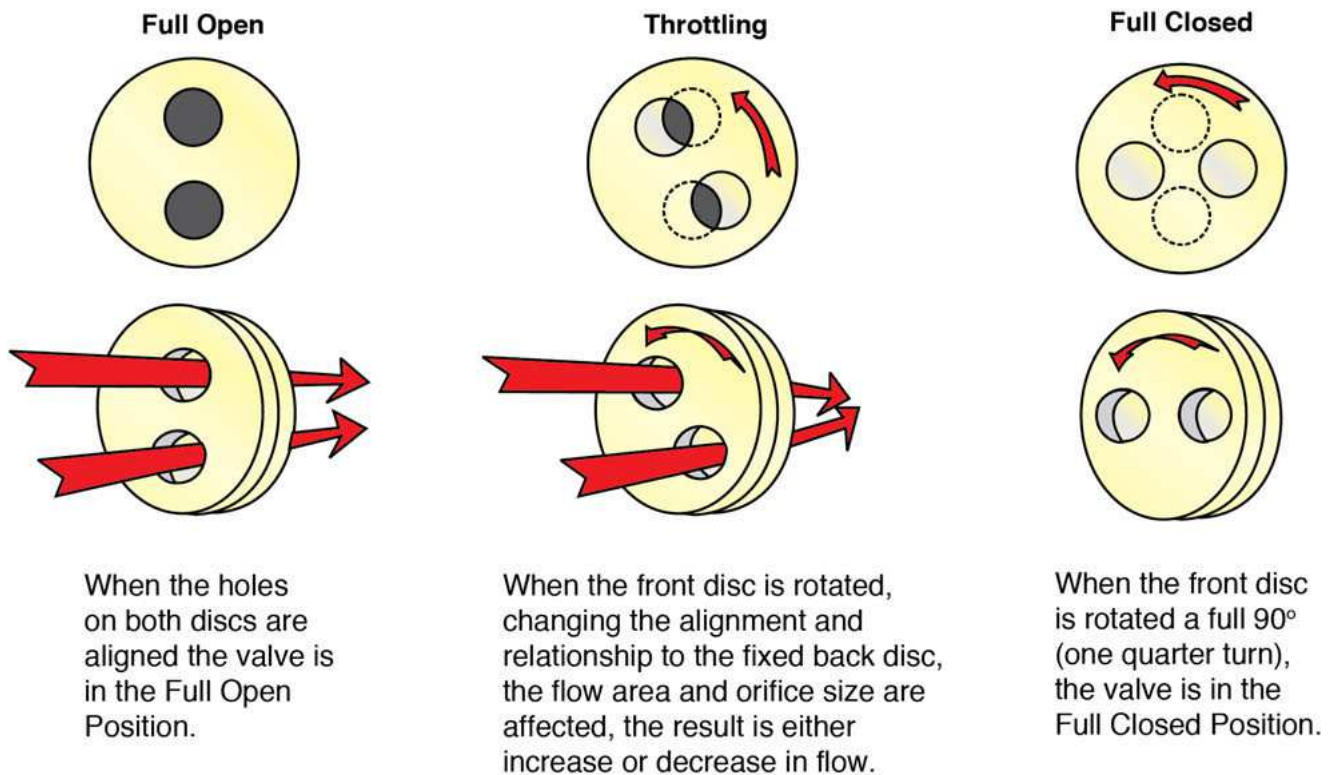


SINCE 1958



MOV Valve Principle of Operation

Taylor Valve Technology Multi Orifice Valve Design Principle Provides Precision Control. The two adjacent internal discs each contain two precision orifices.



The discs are lapped to within two light bands of flatness ($\pm .00002''$) to achieve positive shut off and maintain precise control. The fixed back disc is held perpendicular to the flow. The front disc floats against the back disc and seeks a mating surface promoting a positive seal. The differential pressure across the upstream disc and the downstream disc stabilizes the control surfaces. Vibration, noise or fatigues normally associated with loose or unsupported parts are eliminated. No control surfaces are introduced into the orifice, providing a clear center line for the flow. The valves are rated for shut-off at ANSI Class III or IV depending on the style of valve and trim used. The orifices of the standard disc expose a small control surface profile to the fluid steam reducing wear. The multi-orifice design produces near linear flow characteristics. The low torque and quarter-turn design of Taylor Valve Technology's Multi-orifice valves allows for a variety of actuation options: manual, pneumatic, hydraulic, or electric.

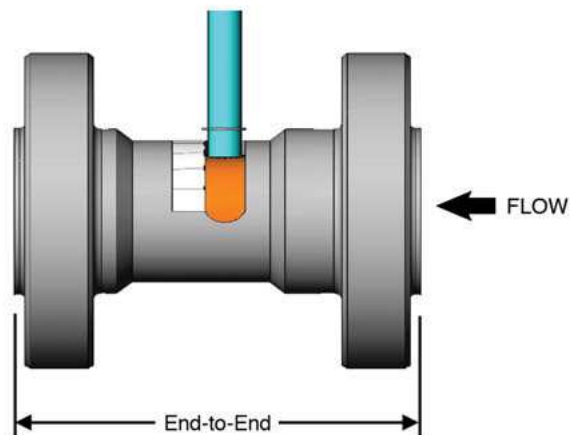
MCX Specifications and Cutaway View

MCX CHOKE STANDARD DIMENSIONS (IN. +/- .10)

CONNECTION	SIZE		
	3"	4"	6"
FNPT	9.00	12.50	-
BUTT-WELD	-	-	-
150 # RFF	9.00	13.25	15.07
150 # RTJ	9.00	13.25	15.07
300 # RFF	9.50	13.25	15.07
300 # RTJ	9.50	13.25	15.07
600 # RFF	9.50	13.25	15.07
600 # RTJ	9.50	13.25	15.07
900 # RFF	9.50	13.25	-
900 # RTJ	9.50	13.25	-
1500 # RFF	9.50	13.25	-
1500 # RTJ	9.50	13.25	-
2500 # RFF	-	-	-
2500 # RTJ	-	-	-

MCX Inline Choke

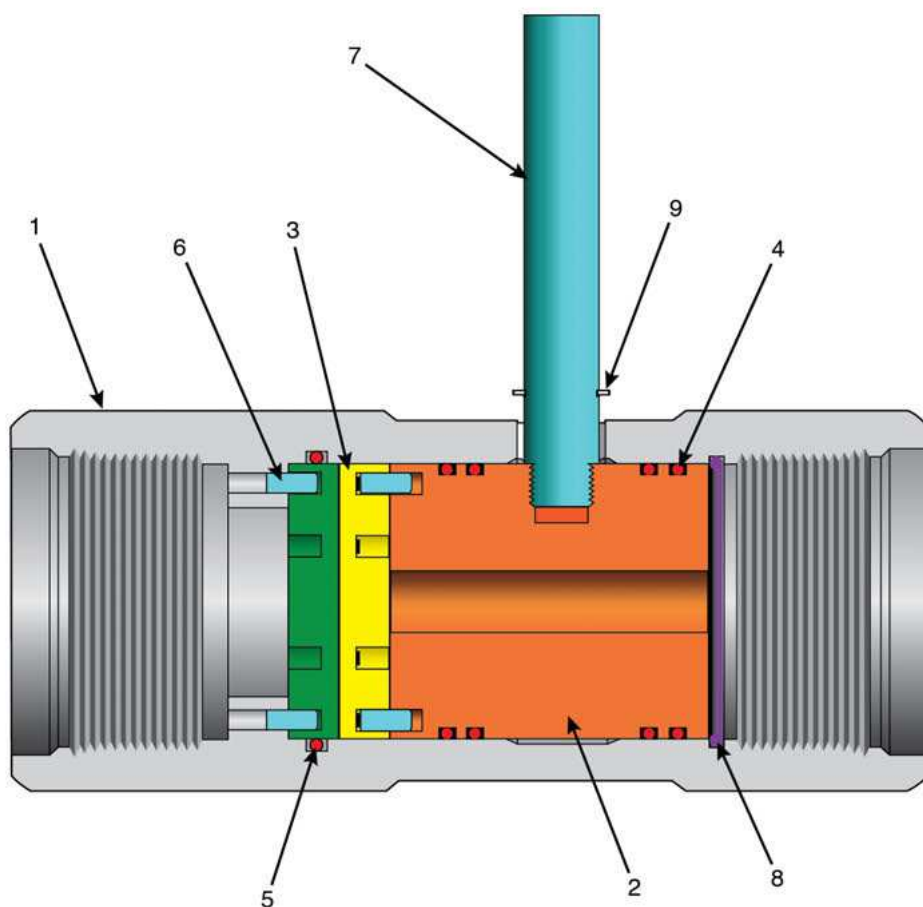
3" & 4" Configurations
 1018/1020 CS, 316 SS)
 ¼ Turn Actuated
 Body Rating = 3,000 PSI
 CV Range = 11.2 – 279.83



No.	Description	Qty
1	Body	1
2	Rotator	1
3	Disc	2
4	O-Ring	4
5	O Ring	1
6	Dowel Pin	4
7	Handle	1
8	Spiral Retaining Ring	1
9	Retaining Ring	4
**10*	Wear Sleeve	1

*Not available in threaded configuration

** Not shown in section view



MCX SERIES CHOKE VALVES

FEATURES & *Benefits*

- **Accurate Control** - Superior design is unequalled for throttling control and accuracy. Unique sealing and fluid flow dynamics permit compliance with current environmental requirements.
- **Extended Mean Time Between Service** - Robust design and liberal application of hardened materials, efficient flow-geometry means the valves offer maximum production potential and minimum service requirements.
- **Easy Maintenance** - Choke valves are designed to provide simple straightforward disassembly with no special tooling or fixtures.
- **Optional Features** - Choke valves can have trims and actuators custom designed for specific requirements, such as, special trims for noise reduction and sand control, several trims are available to accommodate high pressure flows or minimum pressure loss applications.

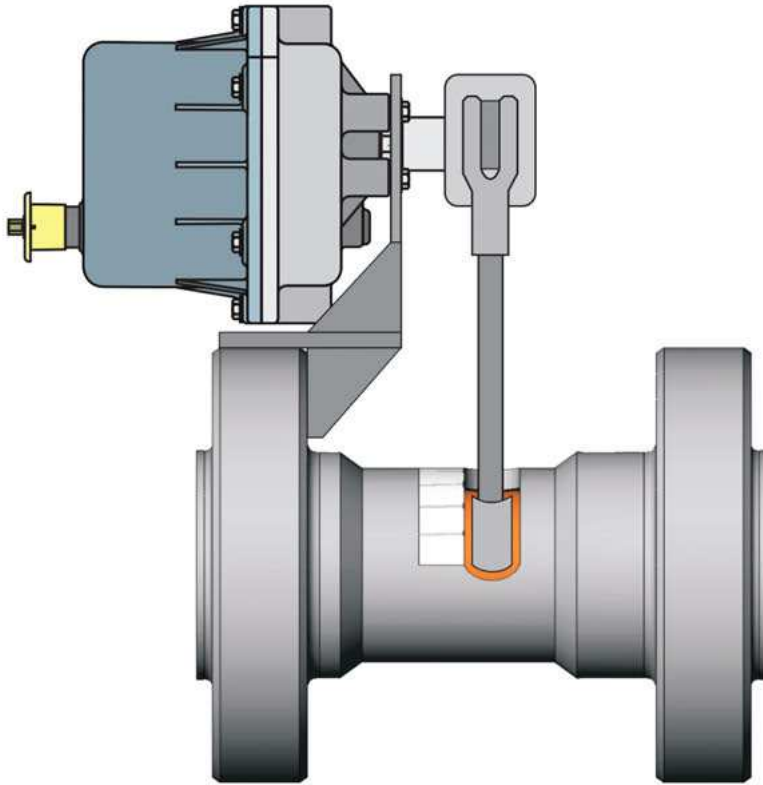
Applications:

- Water Injection Control Valve
- Gas Lift Injection Control
- Throttling Valve
- High DP Valve
- Motor Operated Valve
- Enhanced Oil Recovery



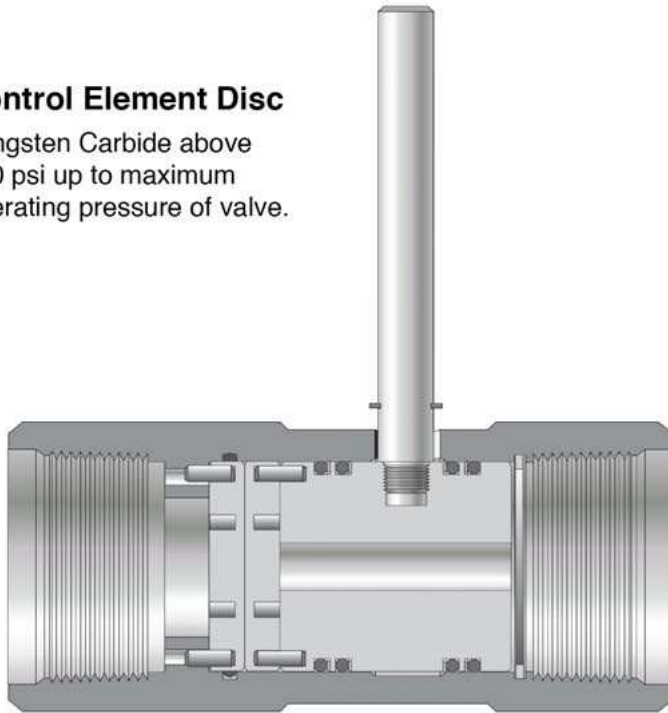
The MCX Series of Inline MOV Chokes Offer:

- ~ ANSI Class III Shut Off
- ~ Linear flow characteristics
- ~ Downstream Wear Resistant Flow Tube
- ~ Simple Design for easy field maintenance
- ~ Choice of materials for body standard is 316 SS
- ~ Threaded, Flanged
- ~ Sizes from 3" to 4" Flanged



Control Element Disc

Tungsten Carbide above 500 psi up to maximum operating pressure of valve.



MCX Actuation Packages



MCX 3" with 4" 900# RFF

MCX with Electric Actuator

Actuator Shown - Indelac Male LX-14

- 24 Volt DC Supply
- Max Torque 3840 in. lbs.
- NEMA 4 Enclosure
- Side Mounted Hand wheel (optional)
- Used on MCX 3" & 4"



MCX 4" with 6" 900# RFF

MCX with Electric Actuator

Actuator Shown - Indelac Female LX-14

- 24 Volt DC Supply
- Max Torque 3840 in. lbs.
- NEMA 4 Enclosure
- Side Mounted Hand wheel (optional)
- Used on MCX 3" & 4"

MCX Actuation Packages



MCX 4" with 6" 1500# RFF

MCX with Electric Actuator

Actuator Shown - Indelac LX-5

- 24 Volt DC Supply
- Max Torque 1500 in. lbs.
- NEMA 4 Enclosure
- Side Mounted Hand wheel (optional)
- Used on MCX 3" & 4"

Choke Nomenclature

Choke Series
CA
CI
MC
MCX
MDA
MDAS
MDI
MDIS
RB
R

Size
1 1"
2 2"
3 3"
4 4"
6 6"

Service Type
0 Standard
1 Nace
2 Steam/High Temp.
3
4 Low Temp.

Style
0 Non-flanged
1 RFF
2 RTJ
3 RFF X RTJ
4 RTJ X RFF

Trim Material
03 CARBIDE DISC - STELLITE WR SLV
04 CERAMIC DISC - STELLITE WR SLV
05 CARBIDE DISC - CARBIDE WR SLV
15 CERAMIC DISC - NO WR SLV
16 CARBIDE DISC - NO WR SLV
32 CERAMIC DISC/CARBIDE FLOW TUBE
44 R/RB-SERIES
47 Bean 17-4 SS

Actuation Type
0 Manual Handle
1 Manual Gear
2 Electric
3 Pneumatic
4 Hydraulic
5 Electric w/Bracket
7 Positive Bean

Schedule
0 Non-flanged
1 40
2 80
3 160
4 XS
5 XXS
6 SLIP-ON
7 API
8 120

Body Material
00 DUPLEX SS
01 SPECIAL METAL
02 COATED STEEL
03 CARBON STEEL
04 LOW ALLOY (4130 LACS)
05 316 SS (CF8M)
06 316 SS "L" (CF3M)
07 ALUMINUM BRONZE
08 A350 LF2
09 LCC

MCX - 3 0 0 27 27 1 6 35 16 05 04 = MCX-30027271635160504
 EXAMPLE Choke part number has to be 17 digits.

Inlet Connection		Outlet Connection	
01 1" FNPT	37 4" 1500		
02 1" BUTT WELD	38 4" 2500		
03 1" SOCKET WELD	39 6" 150		
04 1" VICTAULIC	40 6" 300		
05 1" 150	41 6" 600		
06 1" 300	42 6" 900		
07 1" 600	43 6" 1500		
08 1" 900/1500	44 6" 2500		
09 1" 2500	45 8" 150		
10 2" FNPT	46 8" 300		
12 2" BUTT WELD	47 8" 600		
13 2" SOCKET WELD	48 8" 900		
14 2" VICTAULIC	49 8" 1500		
15 2" 150	50 8" 2500		
16 2" 300	51 2-1/16" 3000		
17 2" 600	52 2-1/16" 5000		
18 2" 900/1500	53 2-1/16" 10000		
19 2" 2500	54 2-9/16" 3000		
20 3" FNPT	55 2-9/16" 5000		
21 3" BUTT WELD	56 2-9/16" 10000		
22 3" SOCKET WELD	57 3-1/8" 3000		
23 3" 150	58 3-1/8" 5000		
24 3" 300	59 3-1/8" 10000		
25 3" 600	60 4-1/16" 3000		
26 3" 900	61 4-1/16" 5000		
27 3" 1500	62 1-3/16" 10000		
28 3" 2500	63 3-1/16" 5000		
29 4" FNPT	65 1.5" 900/1500		
30 4" BUTT WELD	67 7-1/16" 5000		
31 4" SOCKET WELD	75 1" UNION		
32 4" VICTAULIC	80 10" 600		
33 4" 150	81 10" 900		
34 4" 300	82 10" 1500		
35 4" 600	83 10" 2500		
36 4" 900			

Orifice Size			
01 (2) 1/8" RND PORTS	27 38/64 BEAN		
02 (2) 3/16" RND PORTS	28 36/64 BEAN		
03 (2) 1/4" RND PORTS	29 48/64 BEAN		
04 (2) 3/8" RND PORTS	34 32/64 BEAN		
05 (2) 1/2" RND PORTS	43 40/64 BEAN		
06 (2) 5/8" PIE PORTS	44 34/64 BEAN		
07 (2) 3/4" RND PORTS	45 28/64 BEAN		
08 (2) 7/8" RND PORTS	46 30/64 BEAN		
10 (2) 1-3/16" RND PORTS	53 10/64 BEAN		
11 (2) 1-1/4" RND PORTS	63 11/64 BEAN		
14 (2) 1-1/2" RND PORTS	64 14/64 BEAN		
30 (2) 3/4" PIE PORTS	65 15/64 BEAN		
35 (2) 1" ROUND PORTS	66 16/64 BEAN		
38 (2) 2" PIE PORTS	67 19/64 BEAN		
40 (2) 1-1/4" PIE PORTS	68 20/64 BEAN		
41 (2) 1-3/8" PIE PORTS	69 24/64 BEAN		
42 (2) 1-1/8" PIE PORTS	70 21/64 BEAN		
47 (2) 1-1/2" PIE PORTS	71 22/64 BEAN		
49 (2) 5/8" RND PORTS	72 23/64 BEAN		
54 (2) 2.92 PIE HOLES	73 27/64 BEAN		
55 3 CV	74 29/64 BEAN		
56 12 CV	75 25/64 BEAN		
57 164 CV	76 17" RND PORTS		
58 420 CV	77 7/64 BEAN		
59 64 CV	78 54/64 BEAN		
60 35 CV	79 44/64 BEAN		
22 17/64 BEAN	80 45/64 BEAN		
23 18/64 BEAN	81 47/64 BEAN		
24 8/64 BEAN	82 51/64 BEAN		
25 13/64 BEAN	83 35/64 BEAN		
26 4/64 BEAN	84 37/64 BEAN		

Seal Material	
00 HNBR/HSN	
01 NBR	
02 POLYURETHANE	
03 EPDM	
04 FKM	
05 NEOPRENE	
06 NBR (PEROXIDE CURED)	
07 STEAM SEALS	
08 PTFE	
09 AFLAS	

PINS	
I INCONEL (Optional)	

Butt weld connections MUST specify a schedule.
 All API connections are "RTJ" style by default.
 API flange bore (SCHEDULE) is specified by API.

REVISED: 8-19-15

