

**FULL PORT 120° PORTED
“PIGGABLE” 3-WAY ROTOR VALVE
150# FLANGED ENDS**



Quality Controls, Inc.

200 TILTON ROAD

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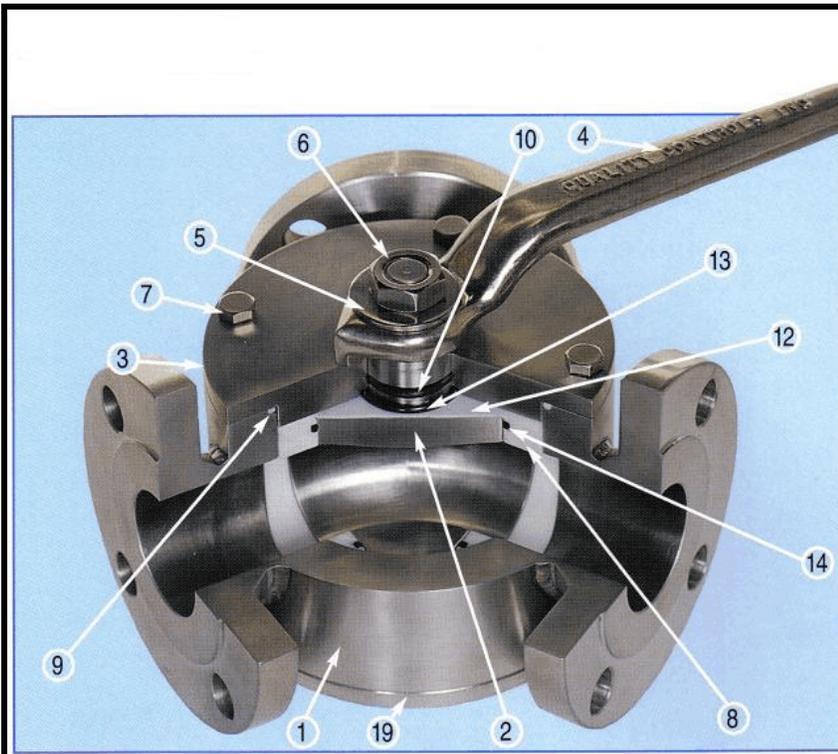
The QCI Full Port 120° “Piggable” 3-Way Rotor Valve is designed for applications where it's long radius flow passage minimizes the pressure drop across the valve and allows the passage of a pipeline “pig”. This valve replaces cumbersome piping arrangements and offers an efficient “piggable” piping system. Major advantages of an efficient “piggable” piping system include:

Shorter Duration CIP or Steam Sterilization Cycles - The majority of product buildup is removed by the “pig”, which allows for a shorter duration cleaning cycle. Pipeline “piggable” minimizes the vast expense of generating steam for sterilization by mechanically removing buildup from the line prior to sterilization. Thus, shorter cleaning cycles = longer production cycles.

Product Recovery - “Pigging” allows for a high percentage of product to be recovered by mechanically cleaning the pipeline. Recovered product contamination, by CIP solutions or steam sterilization, is eliminated.

Waste Disposal - Maximizing uncontaminated product recovery, minimizes the costly disposal or reprocessing of contaminated product.

The QCI Full Port 120° “Piggable” 3-Way Rotor Valve is also an excellent choice for applications, such as viscous fluids or slurries, where the hard 90° turn of a standard 3-way valve is restrictive to that application.



Typical Parts
120° Ported “Piggable”
3-way Valve
(2½" Valve Size Shown)

1. Valve body
2. Rotor
3. Top cover
4. Handle
5. Washer
6. Hex nut
7. Hex head bolt
8. Ported Seal
9. Body o-ring
10. Stem o-ring
11. Bottom rotor washer (not shown)
12. Top rotor washer
13. Cover o-ring
14. Seal o-ring
15. Solid Seal (not shown)
19. Bottom Cover

Items 16 thru 18 n/a

DESIGN ADVANTAGES:

Piggable - Allows the passage of a pipeline “pig”.

Full Port To The Pipe I.D. - The inside diameter of the port is constant with the inside diameter of the pipe. This eliminates areas for the “pig” to hang up on or product to buildup. Full Port to the Pipe I.D. minimizes the pressure drop across the valve, which offers higher CV valves.

120° Porting/Long Radius Flow Passage - The radius of the sweeping flow passage in the rotor, matches the long radius tube elbow (rad. = 1½ x port dia.). This eliminates the hard 90° turn of a standard 3-way valve.

One Piece Rotor & Stem - The one piece construction eliminates a source of wear and repair common to the typical ball valve design. This construction eliminates stem leakage problems.

Cavity Free - The independent Leaf Seal design eliminates the large cavities common to the typical ball valve. The Leaf Seal design also eliminates the need for cavity fillers, which still create stagnant seams for product to get into.

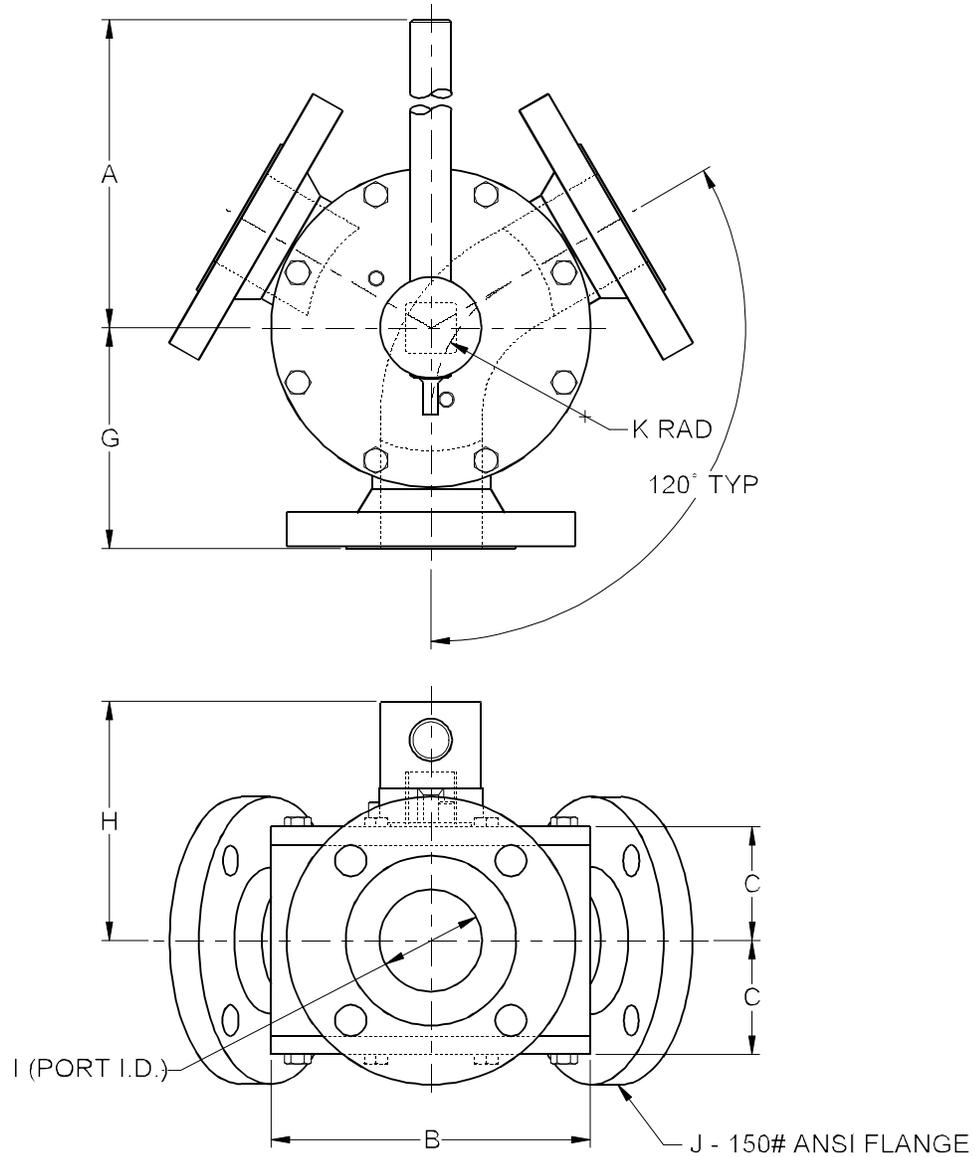
Maintenance Free - No adjustments or lubrication required.

Self Lubricating - The independent Leaf Seal design eliminates the need for lubrication.

Self Cleaning - The wiping/agitation action generated by the rotation of the Leaf Seals along with the Rotor, Breaks up material and wipes it free.

Top Entry - The ability to remove all internal parts through the top of the valve eliminates removal of the valve from the pipeline, should servicing be required.





PIGGABLE VALVES - 120° PORTING										
VALVE SIZE	PIPE SIZE	A	B	C	G	H	I		J	K
							SCH #10	SCH #40		
2½"	2"	12.00	6.50	2.37	4.50	4.15	2.157	2.067	2"	3.00
3"	2½"	18.00	7.75	2.77	5.38	5.82	2.635	2.469	2½"	3.75
4"	3"	24.00*	10.00	3.64	6.50	6.84	3.260	3.068	3"	4.50
6"	4"	30.00*	13.50	5.25	8.63	8.41	4.260	4.026	4"	6.00
8"	6"	36.00*	18.00	6.50	11.25	11.81	6.357	6.065	6"	9.00

Dimensions may vary due to design changes. For exact dimensions contact factory.

* These valves are provided with a lever handle, however, QCI recommends the use of a gear operator for manual operation.



Specifications:

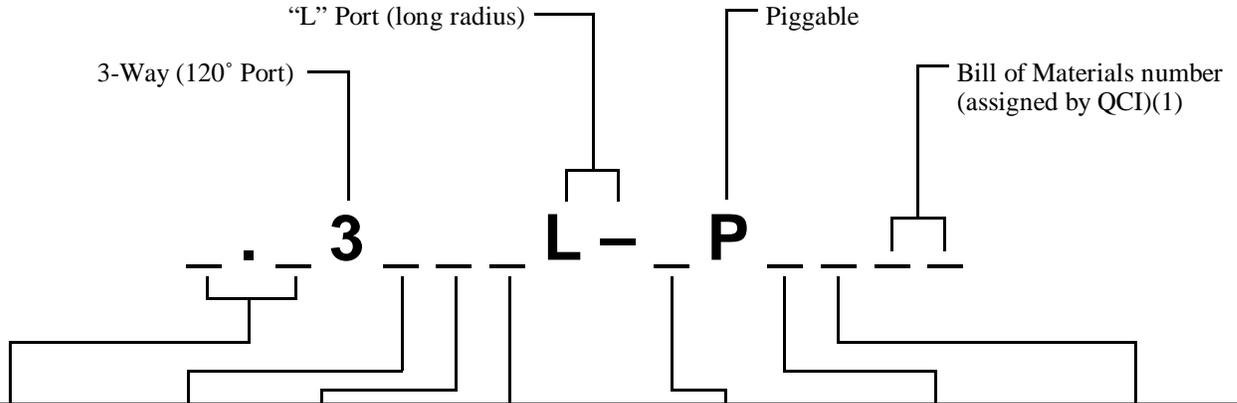
End Connections: ANSI 150# Raised Face Flanges (other end connections available upon request).

Pressure Rating: ANSI 150# Class

Temperature Rating: -15° to 150° Fahrenheit (Standard/Virgin TFE seals)
 -15° to 200° Fahrenheit (Standard/Reinforced TFE seals)
 Other temperature ratings available upon request.

Actuation: Valves are available with manual lever, gear operator, and pneumatic or electric actuator.

Valve Ordering Information



VALVE SIZE (2)		BODY & COVER	ROTOR	O-RING MATERIAL	SEAL MATERIAL	FLANGE TYPE (2)	VALVE OR REPAIR KIT DESIGNATOR
PIPE SIZE	MATERIAL						
2.5 = 2½"	2"	2 = 316 Stainless Steel		6 = Special Material	V = Virgin TFE	1 = Sch. #10	X = Valve
3.0 = 3"	2½"	3 = Carbon Steel		7 = TFE & FKM (3)	R = Reinf. TFE	4 = Sch #40	K = Valve Repair Kit (4)
4.0 = 4"	3"	4 = Special Alloy (available upon request)		8 = FKM	D = Acetal	Q = Special Ends	
6.0 = 6"	4"			9 = Buna-n	P = Cbn. Filled TFE		
8.0 = 8"	6"				Z = Special Material		

- (1) The bill of materials number would remain the same for valve or repair kit, only the designator would change.
- (2) See dimensional chart on previous page for corresponding valve size/pipe size.
- (3) TFE body and cap o-rings, FKM stem and seal o-rings.
- (4) The valve repair kit contains all of the spare parts recommended by QCI.

PORTING		
Position 1*	Position 2*	Position 3**
*Standard (common inlet & 2 outlets) **Optional (consult factory)		

VALVE TORQUE CHART					
VALVE SIZE	2½"	3"	4"	6"	8"
TORQUE RATING	1000"#	1200"#	2500"#	5000"#	10000"#
The torque ratings listed are constant.					



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