



BUTT WELD & SOCKET WELD 2 THRU 5-WAY ROTOR VALVES



Quality Controls, Inc.

200 TILTON ROAD

NORTHFIELD, NEW HAMPSHIRE 03276

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For over thirty years many processing industries have enjoyed the trouble free operation of the Quality Controls Rotor Valve. These industries include; Food, Beverage, Pharmaceutical, Chemical, Petrochemical, Refining, Paper, Paint and a variety of Original Equipment Manufactures to name a few. The rotor valve's unique combination of design features set it aside from all other types of rotary valves. These unique features include:

Multi-Port Selection – Four flow types are available, with a wide variety of flow pattern combinations. Refer to the QCI Valve Flow Pattern Combinations chart on the adjacent page for flow types and combinations available.

One Piece Rotor and Stem – The one piece construction eliminates a source of wear and repair common to the typical ball valve design. 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.

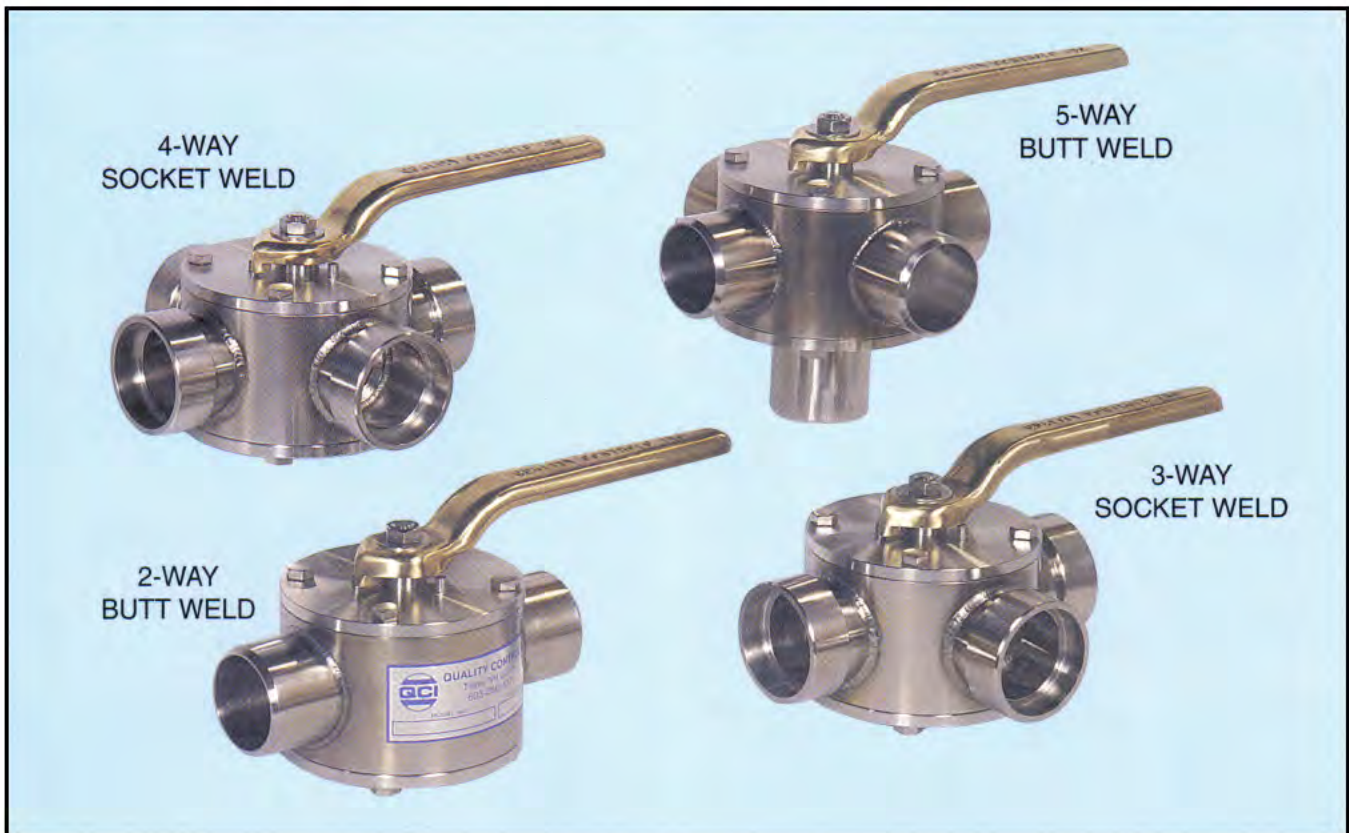
Maintenance Free – The wiping/agitation action generated by the rotation of the leaf seals, along with the rotor, breaks up material and wipes it free. The independent leaf seal design also eliminates the need for lubrication. No adjustments . . . No maintenance.

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

Transitional Flow – The QCI rotor valve design allows for transitional flow to occur when changing valve positions. Transitional flow eliminates dead heading problems associated with positive displacement pumps. For minimal transitional flow designs, consult factory.

High Flow – The majority of the QCI rotor valves are full-port, with only a few sizes or types having a minimum port reduction. The maximization of port diameter reduces the pressure drop across the valve, thus increasing flow. Consult the dimensional information contained in the following pages for actual port diameter of the valve and rotor type that best suites the application.

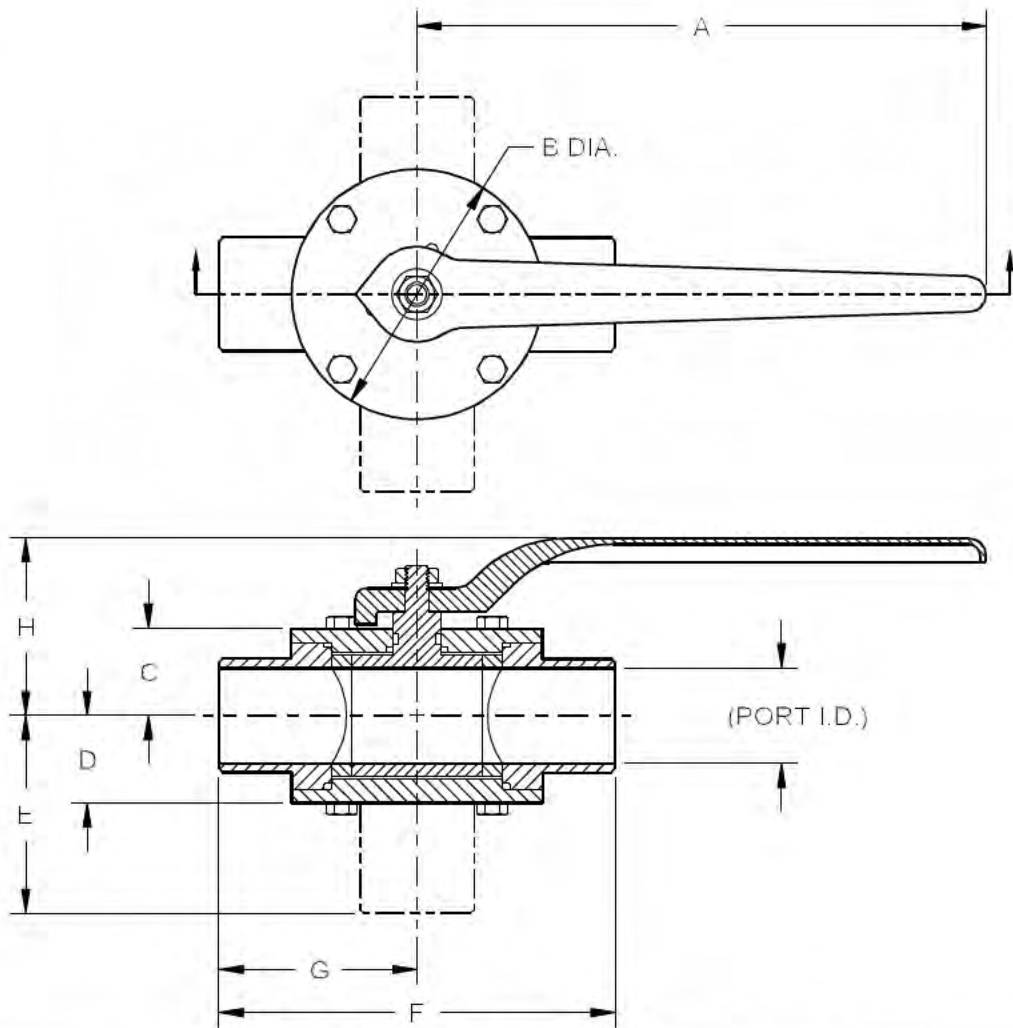
Weld End Connections – The QCI Butt Weld and Socket Weld End connections are extended away from the Valve body to eliminate weld distortion. The extended weld connections also afford a fast and efficient installation by eliminating the need to disassemble the valve before installation. Simply position the valve so the port that is to be welded is open . . . it's that easy!



The wide selection of materials available, combined with the simplicity and versatility of design, make the QCI rotor valve a popular choice between process design and maintenance engineers.

The following pages contain flow types, flow pattern combinations, specifications, dimensional and valve ordering information. For additional information, contact your local QCI distributor, or the factory direct.





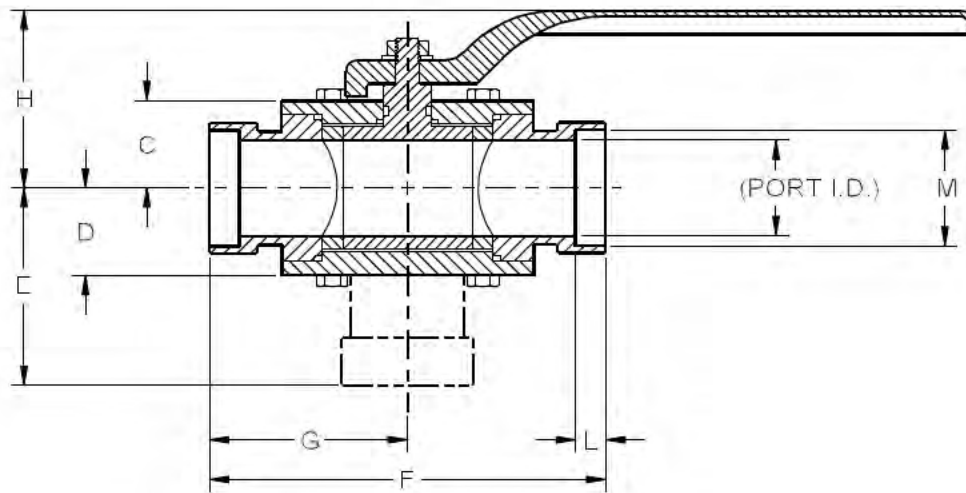
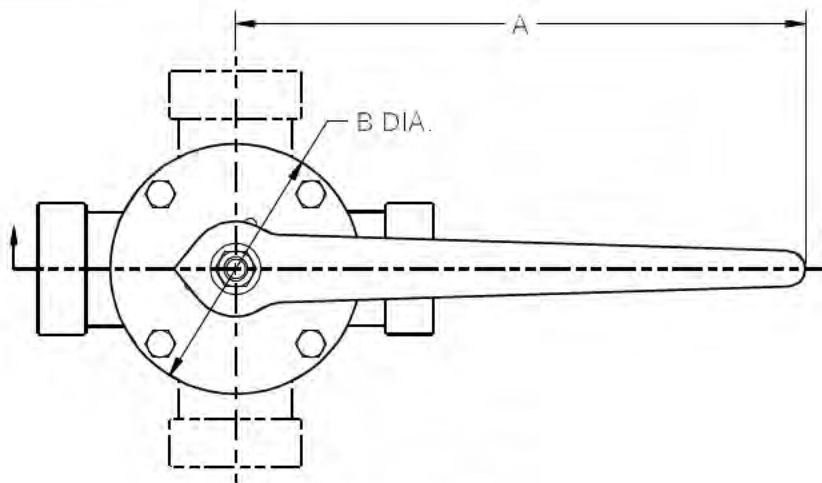
BUTT WELD END ROTOR VALVES, 2 THRU 5-WAY

VALVE SIZE	A	B	C	D	E	F	G	H	I		
									S-	L-, T-, B-	LL
1/4"	3.88	2.75	.73	.73	2.50	5.00	2.50	1.50	.375	.375	.250
3/8"	3.88	2.75	.73	.73	2.50	5.00	2.50	1.50	.375	.375	.250
1/2"	3.88	2.75	.73	.73	2.50	5.00	2.50	1.50	.500	.375	.250
3/4"	5.06	3.50	.94	.94	3.00	6.00	3.00	1.87	.750	.688	.500
1"	5.31	3.50	1.33	1.33	3.00	6.00	3.00	2.38	1.000	1.000	.750
1 1/4"	5.31	3.50	1.33	1.33	3.00	6.00	3.00	2.38	1.000	1.000	.750
1 1/2"	8.00	4.50	1.56	1.56	3.50	7.00	3.50	2.88	1.500	1.500	1.125
2"	12.00	5.25	1.83	1.83	4.12	8.25	4.12	3.69	2.000	1.875	1.312
2 1/2"	12.00	6.50	2.37	2.37	4.75	9.50	4.75	4.17	2.500	2.500	2.500
3"	18.00	7.75	2.77	2.77	5.38	10.75	5.38	5.82	3.000	3.000	3.000
4"	24.00*	10.00	3.64	3.64	7.00	14.00	7.00	6.84	4.000	4.000	4.000
6"	30.00*	13.50	5.25	5.25	9.75	19.50	9.75	8.91	6.000	6.000	6.000
8"	36.00*	18.00	6.50	6.50	12.00	24.00	12.00	11.81	8.000	8.000	8.000

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.





SOCKET WELD END ROTOR VALVES, 2 THRU 5-WAY

VALVE SIZE	A	B	C	D	E	F	G	H	I			L	M
									S-	L-, T-, B-	LL		
1/4"	3.88	2.75	.73	.73	2.50	5.00	2.50	1.50	.375	.375	.250	.375	.555
3/8"	3.88	2.75	.73	.73	2.50	5.00	2.50	1.50	.375	.375	.250	.375	.690
1/2"	3.88	2.75	.73	.73	2.50	5.00	2.50	1.50	.500	.375	.250	.375	.855
3/4"	5.06	3.50	.94	.94	3.00	6.00	3.00	1.87	.750	.688	.500	.500	1.065
1"	5.31	3.50	1.33	1.33	3.00	6.00	3.00	2.38	1.000	1.000	.750	.500	1.330
1 1/4"	5.31	3.50	1.33	1.33	3.00	6.00	3.00	2.38	1.000	1.000	.750	.500	1.675
1 1/2"	8.00	4.50	1.56	1.56	3.50	7.00	3.50	2.88	1.500	1.500	1.125	.500	1.915
2"	12.00	5.25	1.83	1.83	4.12	8.25	4.12	3.69	2.000	1.875	1.312	.625	2.406
2 1/2"	12.00	6.50	2.37	2.37	4.75	9.50	4.75	4.17	2.500	2.500	2.500	.625	2.906
3"	18.00	7.75	2.77	2.77	5.38	10.75	5.38	5.82	3.000	3.000	3.000	.625	3.535

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



QCI VALVE FLOW PATTERN COMBINATIONS

PORTING	2-WAY	3-WAY		4-WAY			
	S-	L-	T-	LL	**S-	**L-	**T-
Position 1							
Position 2							
Position 3		**					
Position 4		**					

PORTING	5-WAY						
	B-	BS	BL	BT	B- (with special porting)		
					A,B,C&E	A,C&E	A,B&E
Position 1							
Position 2							
Position 3							
Position 4							

Notes:

- 1.) Starting with Position #1, the positions are shown in 90° increments, clockwise rotation.
- 2.) The QCI Multiport Valves are designed for flow diversion (with the exception of the 4-way "LL"), one common inlet/multiple outlets. For applications other than this, consult factory.
- 3.) Items denoted with a double asterisk (**) may require special considerations, consult factory.



Specifications:

- End Connection:** Butt Weld (schedule #10 & #40)
Socket Weld
- Pressure Rating:** ANSI 150# Class
Other pressure ratings available upon request.
- 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

.25 = 1/4" .38 = 3/8" .50 = 1/2" .75 = 3/4" 1.0 = 1" 1.2 = 1 1/4" 1.5 = 1 1/2"	2.0 = 2" 2.5 = 2 1/2" 3.0 = 3" 4.0 = 4" (4) 6.0 = 6" (4) 8.0 = 8" (4)	2 = 2-Way 3 = 3-Way 4 = 4-Way 5 = 5-Way	2 = 316 Stainless Steel 3 = Carbon Steel 4 = Special Alloy (3)	6 = Special Material (3) 7 = *TFE & FKM 8 = FKM 9 = Buna-N * TFE Body & Cap O-Rings FKM Stem & Seal O-Rings
VALVE SIZE	NUMBER OF PORTS	BODY & COVER MATERIAL	ROTOR MATERIAL	O-RING MATERIAL

2 . 0 3 2 2 7 T - V B 1

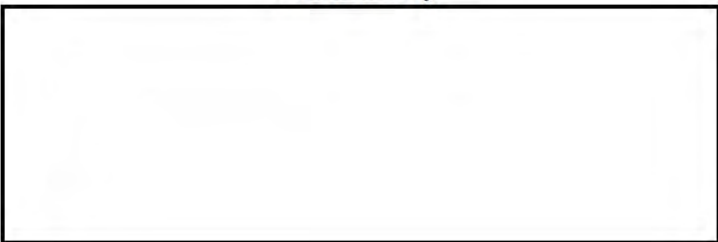
Bill of Materials Number
(Assigned by QCI) (2)

ROTOR TYPE	SEAL MATERIAL	END CONNECTIONS	REPAIR KIT/SPECIAL DESIGN DESIGNATOR (IF REQUIRED)
S- = Straight Through L- = Right Angle T- = 3-Port Combination LL = Double Right Angle B- = Bottom Port, Vertical Right Angle BS = Bottom Port, Straight Through Combination BL = Bottom Port, Right Angle Combination BT = Bottom Port, 3-Port Combination XX = Special Design (3) (to be specified)	V = Virgin TFE R = 25% Glass Reinf TFE D = Acetal P = 15% Carbon Filled TFE Z = Special Material (3)	B1 = Butt Weld Sch #10 Pipe B4 = Butt Weld Sch #40 Pipe SW = Socket Weld SP = Special Design (to specify) (3)	K = Repair Kit (to be used only when ordering a repair kit) (1) X = Special Design (to be specified)

Notes:

- (1) When ordering a standard valve, leave this and the following spaces blank.
- (2) When ordering a standard repair kit, leave these spaces blank.
- (3) The use of the special material/type codes will require the valve to be a special design.
- (4) The following sizes are not available for Socket Weld Valves.

Distributed By:



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