

**BXL**<sup>®</sup>  
LARGE SIZES

**ROTARY  
CONTROL VALVE  
BI-ECCENTRIC DISC  
ANSI 150-300-600**



**VALTEK**<sup>™</sup>  
SULAMERICANA



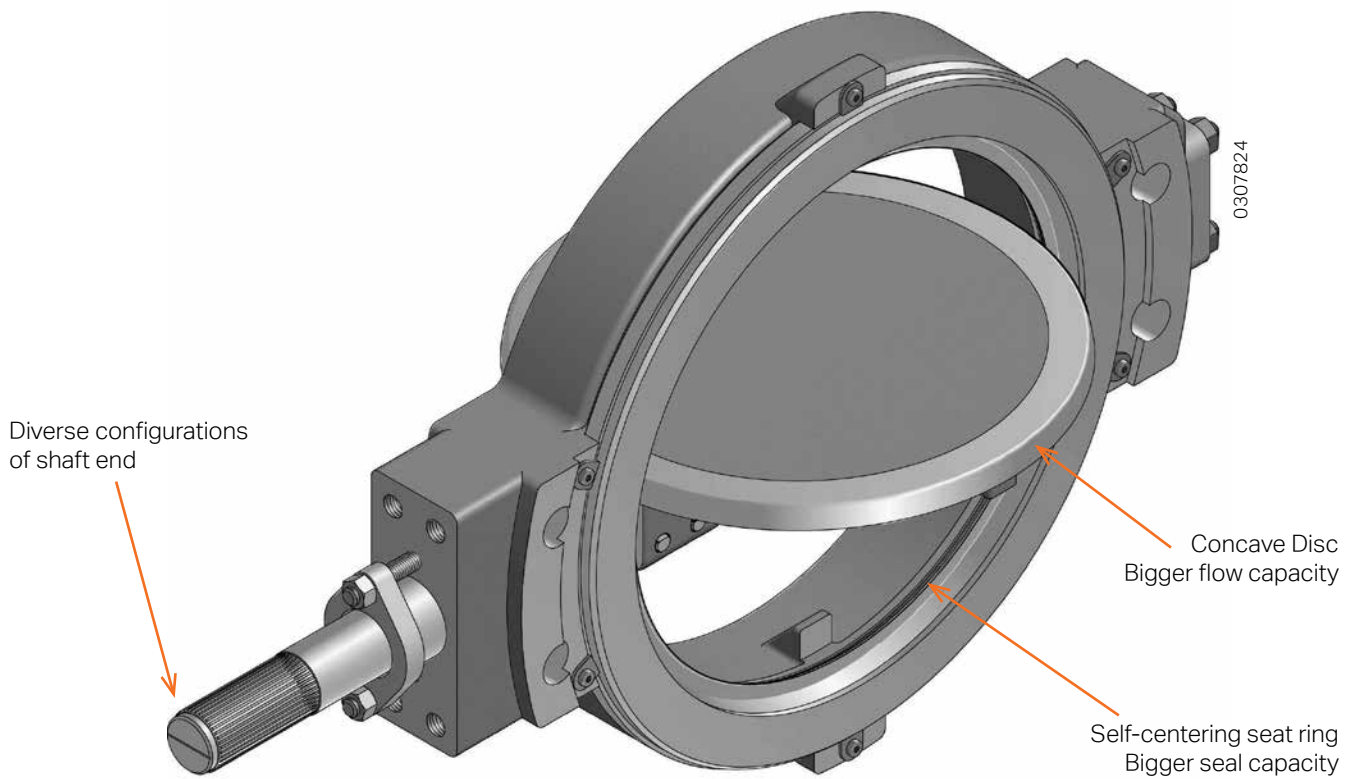
# Control Valve Bi-eccentric Disc Large Sizes

## Introduction

The high performance BXL rotary control valve with bi-eccentric disc was designed to attend large flows processes, low and medium differential pressures. It is constructed with nominal diameters of 14 to 36 inches at extremities type Wafer, Lug or with integral Flanges in the short or long body version.

One of the highlights of ValtekSul technological content is the uniformity of design in the set of its wide array of products. The BXL valve incorporates all the basic principles of the renown design of the standard BX series, such as: Nonselective discs and shafts; Very

deep packing box, permitting the use of all available packing options of ValtekSul, including the special configurations for fugitive emissions control; Disc with optimized concavity and geometry, providing bigger flow capacity combining with a complete family of pneumatic actuators, for a better performance in applications of throttling control or "on-off" type actuation, extending its application for use in cryogenics or high temperature processes.



**Body Subassembly - BXL  
Sizes 14 to 36 inches**

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**Rangeability bigger than 100:1**

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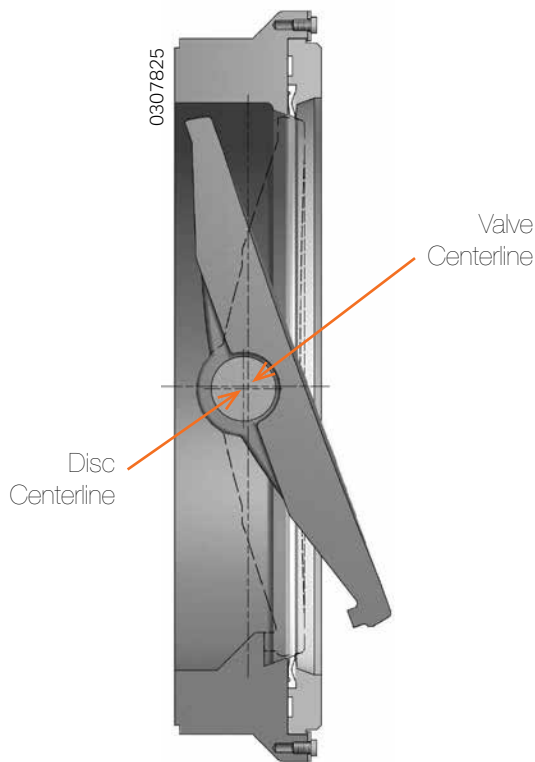
**Tightness ANSI Class IV — Metal Seat Ring  
Tightness ANSI Class VI — Soft Seat Ring**

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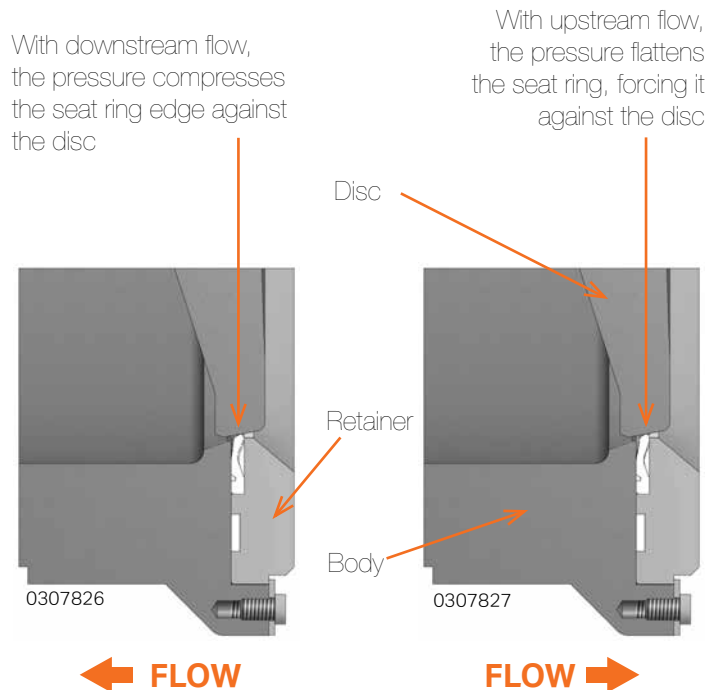
# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

## Characteristics



**Figure 2: Bi-eccentric Disc Rotation**



**Figure 3: Sealing Basics**

### Reliability

The double eccentricity, characteristic of the high performance BXL valve design (Fig. 2), causes the disc to immediately move away from the seat ring at the first degrees of rotation of the actuator, what extends the service life of the trims, preserves the valve sealing capacity, reduces the maintenance frequency and the operational costs.

Additionally, the BXL valve design applies an adjustment principle assisted by the fluid pressure which, besides assuring an excellent bi-directional sealing, contributes to lower the valve starting torque, with either small or big differential pressure, reducing the need to use oversized actuators.

The fluid pressure assistance causes the seat ring to be pressed against the disc, in both directions of flow (Fig. 3), and this permits the valve to work, depending on the operational conditions, with flow upstream of the shaft (tending to close), downstream of the shaft (tending to open) or in applications with alternate flow. This working principle also assures a tightness capacity through the valve that is direct proportional to the increase of the differential pressure.

\* EPA: Environmental Protection Agency

When equipped with metal seat rings, the BXL valve exceeds the sealing requirements of the class IV of the ANSI B16.104/FCI-70.2 regulation and, when equipped with soft seat rings, it exceeds the class VI of the mentioned regulation.

The low starting torque, the optimized disc geometry, the robust shaft, manufactured in 17-4 PH stainless steel as standard material, and the bearings with wide supporting surface, all contribute to a high control performance, even in applications under high differential pressures.

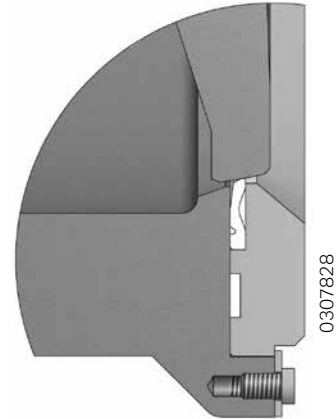
All the above characteristics combined to: The use of a wide range of actuators, with a proven service life over one million cycles; High performance Chronos Digital Positioners, which provide precise and accurate control of the process; Packing box with large dimensions, attending the EPA\* requirements; make the BXL one of the most advanced, accurate and modern eccentric disc valves on the world market.

# BXL Control Valve - Bi-eccentric Disc Large Sizes Construction / Seating

## Seat Ring Configurations

The bi-eccentric disc BXL control valve presents varied seat ring configurations, according to the intended applications.

For liquid services, all valves must be installed with the shaft downstream of the flow direction, regardless of the safety position by fail. For gas services, the flow direction must be according to the specified fail position, that is, for fail-open position, the valve must be installed with the shaft downstream of the flow direction and, for fail-closed, the valve must be installed with the shaft upstream of the flow direction.



**Figure 4: Soft Seat Ring**

### Soft Seat Ring - ANSI/FCI 70-2

It is a system formed by a seat ring manufactured in polymer, usually the pure PTFE or the PTFEG reinforced with fiberglass, with a configuration that permits to achieve rigorous tightness levels.

Description	Shaft Orientation	Sealing Class
A soft seat ring and a seat retainer	Downstream	VI
	Upstream	VI

### Metal Seat Ring - ANSI/FCI 70-2

The metal seat rings are used in applications with process temperatures that exceed the ones tolerated by the soft seat rings.

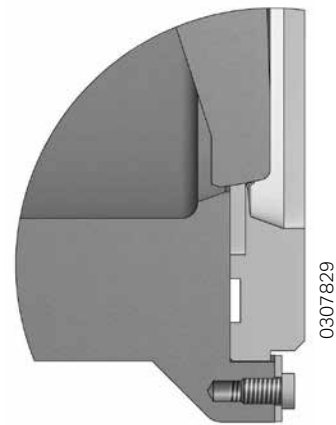
Description	Shaft Orientation	Sealing Class
A metal seat ring	Upstream	IV
	Upstream	IV

### Dual Seat Ring - ANSI/FCI 70-2

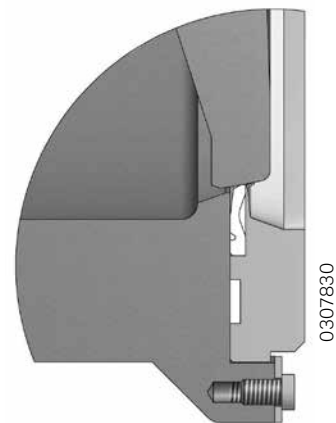
It is a system formed by a soft seat ring and a metal seat ring, providing extra sealing.

Description	Shaft Orientation	Sealing Class
A soft and a metal seat ring	Upstream	IV
	Upstream	IV

Consult the Technical-Sales Department of ValtekSul for assistance in the selection of the flow direction in special applications



**Figure 5: Metal Seat Ring**



**Figure 6: Dual Seat Ring**

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

### Characteristics - Additional Advantages

The BXL series rotary control valve with bi-eccentric disc presents excellent performance in either operations of throttling control or in “on-off” operations with a quarter turn.

With an inherent characteristic close to the linear characteristic, it achieves high capacity of accurate control, high cycling and robust configuration.

<b>Characteristics</b>	
<b>Inherent characteristic</b>	<ul style="list-style-type: none"> <li>Achieves an inherent characteristic close to the linear characteristic with high control accuracy.</li> </ul>
<b>Global construction</b>	<ul style="list-style-type: none"> <li>Constructed in accordance to the standard API, ASME and EN regulations, it can be used globally.</li> </ul>
<b>Versatility</b>	<ul style="list-style-type: none"> <li>The design of the shaft end permits the use of compact actuators with a quarter turn for “on-off” operations, in RP models</li> </ul>
<b>Splined shaft</b>	<ul style="list-style-type: none"> <li>The splined shaft end eliminates dead time between the coupling of the RA actuator and the valve.</li> </ul>
<b>Disc/ Shaft Assembly</b>	<ul style="list-style-type: none"> <li>Locks shaft/disc using tapered pins without the need of perforating the shaft.</li> <li>Provides high operation resolution.</li> </ul>
<b>Shaft blowout protection system</b>	<ul style="list-style-type: none"> <li>Shaft blowout protection system meeting the operational safety regulations.</li> </ul>
<b>Low friction bearings</b>	<ul style="list-style-type: none"> <li>MBT bearings composed of PTFE or PEEK encapsulated in metal with very low friction coefficient and extrusion-free, reaching long service life even when operating with high pressure drops</li> </ul>
<b>Excellent sealing capacity</b>	<ul style="list-style-type: none"> <li>With soft seat rings, it exceeds the Class VI, ANSI/FCI 70-2 and IEC 60534-4 regulation</li> <li>With metal seat rings, it meets the Classe IV, ANSI/FCI 70-2 and IEC 60534-4 regulation</li> </ul>
<b>Several Packing Models</b>	<ul style="list-style-type: none"> <li>Permits the assembly of several packing models and meets the requirements for fugitive emissions control of EPA* and ISO.</li> </ul>
<b>Bidirectional Tightness</b>	<ul style="list-style-type: none"> <li>Reaches the tightness levels operating with the flow direction either upstream or downstream shaft.</li> </ul>
<b>Piston-cylinder actuator RA and RP models</b>	<ul style="list-style-type: none"> <li>High actuator thrust</li> <li>Long service life, superior to one million cycles</li> <li>Light and compact</li> <li>Air pressure supply up to 150 psi (10.3 Bar)</li> </ul>
<b>Sealed Transfer Case</b>	<ul style="list-style-type: none"> <li>Additional safety</li> <li>Avoids atmospheric corrosion in the internal components</li> <li>External stroke limiters</li> </ul>
<b>Body Types</b>	<ul style="list-style-type: none"> <li>Wafer type</li> <li>Lug type</li> <li>Double flange</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>NACE MRO 175-2015; MRO 103 and 175 / ISO 15156</li> </ul>

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

## Characteristics

The modern and advanced design of the BXL series butterfly control valve with bi-eccentric disc of ValtekSul provides high levels of operational efficiency, versatility and long service life.

The strength of its constructive design combined with the entire family of rotary actuators employed in the BXL valve form an unique pair in the universe of butterfly type valves with bi-eccentric disc.

Options	ASME Regulation	DIN Regulation
<b>Diameters</b>	14, 16, 18, 20; 24; 30; 36in.	DN 350; 400; 450; 500; 600; 700; 750; 800
<b>ANSI Pressure Class</b>	150, 300, 600 - Body	DN 10, 16, 25, 40 e 63 - Body
<b>ANSI Pressure Class</b>	150, 300 - Trim	DN 10, 16, 25 - Trim
<b>Ends</b>	Wafer Type	Wafer Type
	Lug Type	Lug Type
	Flange B 16.5 RF	Flange EN 1092-1 ( B1, D, F and B2 Regulation)
<b>Body Materials</b>	ASTM A 216 Carbon Steel WCC	1.0619 Carbon Steel
	ASTM A 216 Carbon Steel WCC NACE	1.0619-NACE Carbon Steel
	ASTM A 351 Stainless Steel CF8M	1.4400 Stainless Steel
	ASTM A 351 Stainless Steel CF8M NACE	1.4409-NACE Stainless Steel
	ASTM A 890 Gr. 4A CD3MN (Duplex)	Duplex 1.4470
	ASTM A995 Gr. 6A-CD3MWCuN (Super Duplex)	Duplex 1.4508
	ASTM A 494 Gr. M35-1 (Monel 400)	Monel 2.4360
	ASTM A 351 Gr. CN7M (Alloy 20)	Alloy 2.4660
<b>Disc Materials</b>	ASTM A 216 Gr. WCC/HC <sup>(2)</sup>	EN 1.619
	ASTM A 351 CF8M (316 SST) HC <sup>(2)</sup>	1.4400 Stainless Steel (316 SST) HC <sup>(2)</sup>
	ASTM A 351 CF3M (A 316L SST) Alloy #12 on the seat	1.4409 Stainless Steel (316L SST) Alloy #12 on the seat
<b>Seat Materials</b>	Soft Seat Ring PTFE/PTFEG	
	Soft Seat Ring PEEK	
	Metal Seat Ring AISI 316 Stainless Steel (UNS S 31600)	Metal Seat Ring 1.4400 Stainless Steel
<b>Packing</b>	PTFE - "V" rings	
	PTFEG - "V" rings	
	Graphite	
	Asbestos-free braided cord	
	PT; PTG; PTG-XT	
<b>Bearings</b>	MBT <sup>(1)</sup>	
	Ultimet (UNS R 31233)	
	Alloy #6 (Stellite #6) (UNS S 30006)	
<b>Operational Temperature</b>	-40 to 800°F (-40 to 427°C)	
<b>Tightness Class</b>	Soft Seat Ring ANSI/FCI 70-2 2006 Class VI	Soft Seat Ring IEC 60534-4
	Metal Seat Ring ANSI/FCI 70-2 2006 Class IV	Metal Seat Ring IEC 60
<b>Shaft &amp; Pins</b>	ASTM A 564 Gr. 631 (17-4PH H 1025)	
	ASTM A 564 Gr. 660 (17-4PH H 1150) NACE	
	Nitronic 50 (UNS S 20910)	
	Monel K500 (UNS N 05500)	

<sup>(1)</sup> MBT: PTFE inserted in metal bearing

<sup>(2)</sup> Hard-Chrome in seat surface

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

## Packing

The BXL valve packing box presents great depth and excellent surface finishing, providing longer service life to the entire packing set. Due to its design characteristics, the BXL valve packing box permits the use of a wide range of packing systems for better adjustment to the most demanding standards of fugitive emissions control in modern industrial processes.

### Standard Packing

The standard packing of the BXL valve is formed by PTFE "V" rings. The PTFE "V" rings are the most commonly used packing system in years, with excellent tightness results, and in virtue of its characteristics of very low friction coefficient, good mechanic resistance and great corrosion resistance. The PTFE "V" rings are employed in operations with temperatures from -20 to 450°F (-28 to 232°C).

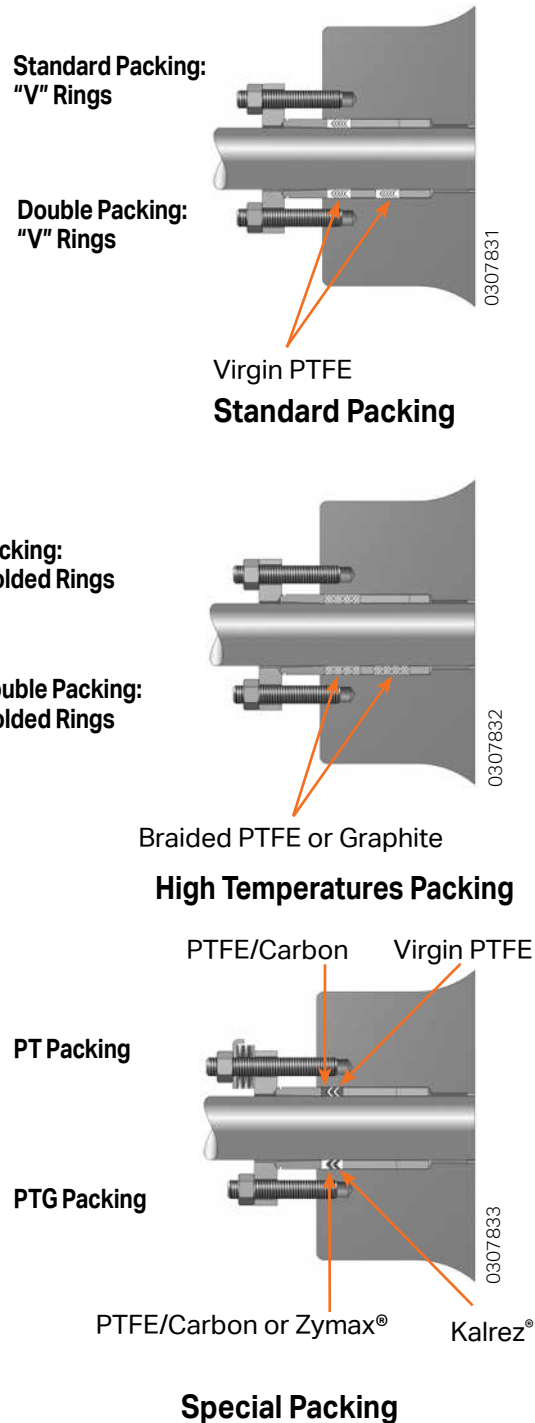
### High Temperatures Packing

The BXL valve packing with molded rings is an alternative to be used when the operational temperature exceeds the PTFE "V" rings use limitation. The materials employed in the BXL valve molded packing are the braided PTFE, for temperatures of up to 500°F (260°C), and the graphite, for temperatures of up to 600°F (315°C). The packing with graphite molded rings is an excellent solution for high temperature applications. However, the need of high thrust for its sealing causes a considerable increase of friction in the valve rotation.

### Special Packing

The PT packing is formed by a set of "V" rings subjected to a tightening by a set of spring washers, causing a "live-loaded effect". This system reaches a tightness level below 500 ppm. The PT packing combines the superior quality of virgin PTFE "V" rings and PTFE "V" rings with carbon filaments.

The PTG packing is formed by an advanced packing set which is capable of maintaining the tightness below 500 ppm (around 10 ppm). The PTG packing is formed by a combination of PTFE "V" rings with carbon filaments and Kalrez® "V" rings, an advanced material that provides superior performance to the packing. For temperatures above 450°F (232°C), the PTG XT packing is employed, as it is formed by Zymax® rings instead of the PTFE rings with carbon.





# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

### Materials - Temperature and Pressure Limitations

Component		Material - ASTM
<b>Body</b>		■ A 216 Carbon Steel WCC
		■ A 351 Stainless Steel CF8M (316 SST)
		■ Duplex A 890 Gr. 4A CD3MN <sup>(3)</sup>
		■ Superduplex A 995 Gr. 6A CD3MWCuN <sup>(4)</sup>
		■ Alloy 20 A 351 CN7M <sup>(5)</sup>
<b>Disc</b>		■ A 216 Carbon Steel WCC/HC <sup>(2)</sup>
		■ A 351 Stainless Steel CF8M (316 SST)
		■ A 351 Stainless Steel CF3M (316L SST)
		■ Duplex A 890 Gr. 4A CD3MN
		■ Superduplex A 995 Gr. 6A CD3MWCuN
		■ Alloy 20 A 351 CN7M
<b>Seat</b>	<b>Soft</b>	■ PTFE/PTFEG
	<b>Metal</b>	■ UNS S 31600 (316 SST)
	<b>Dual</b>	■ PTFE/UNS S 31600 (316 SST)
<b>Shaft &amp; Pins</b>		■ UNS S 17400 (17-4PH H1050)
		■ UNS S 20910 (Nitronic 50)
		■ UNS N 07718 (Inconel 718)
		■ UNS N 08020 (Alloy 20)
<b>Bearings</b>		■ MBT <sup>(1)</sup>
		■ UNS S 04400 (440 C SST)
		■ UNS S 31233 (Ultimet)
		■ UNS R 30006 (Alloy #6)

Notes: <sup>(1)</sup> MBT: PTFE inserted in metal bearing.

<sup>(2)</sup> HC: Hard Chrome in seat surface.

<sup>(3)</sup> Body and Disc in A 890 Gr. 4A: Shafts & Pins and Gland Flange in UNS S 31803

<sup>(4)</sup> Body and Disc in A 995 Gr. 6A: Shafts & Pins and Gland Flange in UNS S 32760

<sup>(5)</sup> Body and Disc in A 351 CN7M: Shafts & Pins and Gland Flange in UNS N 08020  
Other cast metallic alloys under request.



# BxL Control Valve - Bi-eccentric Disc

## Large Sizes - Standard Manufacturing

### Material Technology - Selection

ASTM Material		Operational Temperature Range						
		-50°F (-45°C)	-20°F (-29°C)	450°F (232°C)	600°F (315°C)	800°F (427°C)		
Body	A 217 WCC		◀ -20°F (-29°C)				650°F (345°C) ▶	
	A 351 CF8M							
	CD3MN - 4A						600°F (315°C) ▶	
	CD3MWCuN 6A						600°F (315°C) ▶	
	A 494 M 35-1							
Disc	A 217 WCC/HC <sup>(1)</sup>						600°F (315°C) ▶	
	A 351 CF8M/HC <sup>(1)</sup>							
	CD3MN - 4A						600°F (315°C) ▶	
	CD3MWCuN 6A						600°F (315°C)	
	A 494 M 35-1							
Shaft & Pins	17-4PH (H 1025)							
	Nitronic 50 (UNS S 20910)							
	Inconel 718 (UNS N 07718)							
	A 479 (UNS S 31803)							
	Monel K 500 (UNS S 05500)						600°F (315°C) ▶	
Soft Seat	PTEF		◀ -20°F (-29°C)	300°F (149°C) ▶				
	PTEFG		◀ -20°F (-29°C)		425°F (218°C) ▶			
Dual Seat	A 316/PTFEG				425°F (218°C) ▶			
	Nitronic 50/ PTFEG				425°F (218°C) ▶			
Metal Seat	UNS S 31600						600°F (315°C) ▶	
	UNS S 31600/ Alloy #6							
Bearings	MBT <sup>(2)</sup>				450°F (232°C) ▶			
	Ultimet (UNS S 31233)						600°F (315°C) ▶	
	Alloy #6 (UNS R 30006)							
Packing	PTFE		◀ -20°F (-29°C)				600°F (315°C) ▶	
	PTFEG		◀ -20°F (-29°C)		450°F (232°C) ▶			
	Braided PTFE		◀ -20°F (-29°C)			500°F (260°C) ▶		
	Grafite		◀ -20°F (-29°C)				600°F (315°C) ▶	
	PT/PTG		◀ -20°F (-29°C)			500°F (260°C) ▶		

Notes: <sup>(1)</sup> HC: Hard Chrome in seat surface

<sup>(2)</sup> MBT: PTFE inserted in metal bearing

\* Contact Valteksul Sales Engineering for applications with higher temperatures or cryogenics

# BXL Control Valve - Bi-eccentric Disc Large Sizes

## Operational Pressure & Temperature - Bodies (psi) ASME/ANSI B 16.34

Temperature °F	Body Material								
	WCC <sup>(1)</sup>			CF8M <sup>(2)</sup>			A 995-6A		
	ANSI Pressure Class B 16.5								
	150	300	600	150	300	600	150	300	600
<b>-20 to 100</b>	287	750	1500	276	719	1440	290	750	1500
<b>122</b>	283	750	1500	267	697	1395	283	750	1500
<b>212</b>	257	747	1493	235	612	1224	257	735	1469
<b>302</b>	229	728	1454	215	558	1117	229	666	1333
<b>392</b>	200	705	1409	199	518	1034	200	619	1237
<b>482</b>	175	671	1344	175	484	969	175	587	1173
<b>572</b>	148	622	1243	148	458	916	148	564	1127
<b>617</b>	135	600	1198	135	448	896	135	554	1106
<b>662</b>	122	580	1160	122	439	880	122	545	1092
<b>707</b>				107	434	867	107	542	1083
<b>752</b>				94	426	854	94	529	1063
<b>797</b>				80	422	845			
<b>842</b>				67	418	837			
<b>887</b>				54	416	831			
<b>932</b>				41	409	819			
<b>1000</b>				20	365	725			

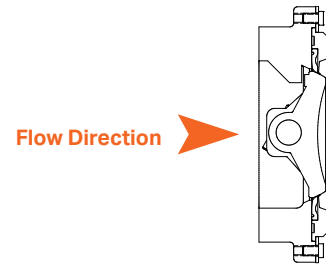
Notes: <sup>(1)</sup> Do not use above the operational temperature of 653°F (345°C)  
<sup>(2)</sup> Do not use above the operational temperature of 1000°F (538°C)

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

### Flow Coefficients - $C_v$

**Pressure Class:** 150-300-600  
**Flow Characteristic:** Linear  
**Flow Direction:** Shaft upstream



#### Trims Class 150

Valve Nominal Diameter (in.)	$C_v$ versus Rotation Angle								
	90°	80°	70°	60°	50°	40°	30°	20°	10°
<b>14</b>	6640	5379	4182	2984	1996	1261	730	332	100
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	0.78
<b>16</b>	8400	6808	5294	3780	2520	1602	924	420	126
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	0.78
<b>18</b>	9790	7929	6166	4403	2941	1860	1081	490	147
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	0.78
<b>20</b>	12930	10475	8150	5816	3884	2455	1419	646	194
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	0.78
<b>24</b>	20200	16357	12721	9085	6060	3833	2227	1015	303
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	.078
<b>30</b>	31500	25460	19792	14124	9478	5984	3466	1570	472
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	0.78
<b>36</b>	47200	38227	29792	21217	14113	8963	5187	2355	708
$F_L$	0.53	0.61	0.69	0.74	0.79	0.82	0.82	0.80	0.78

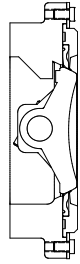
# BXL Control Valve - Bi-eccentric Disc

## Large Sizes

## Flow Coefficients - $C_v$

**Pressure Class:** 150-300-600  
**Flow Characteristic:** Linear  
**Flow Direction:** Shaft upstream

Flow Direction 



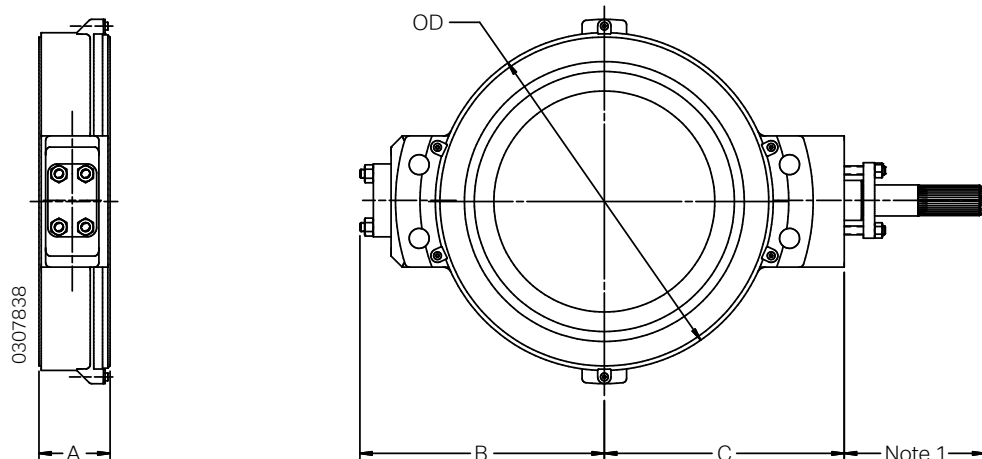
### Trims Class 300

Valve Nominal Diameter (in.)	$C_v$ versus Rotation Angle								
	90°	80°	70°	60°	50°	40°	30°	20°	10°
<b>14</b>	4780	4255	3624	2815	1954	1260	740	358	143
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79
<b>16</b>	5540	4930	4212	3267	2273	1466	859	415	166
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79
<b>18</b>	7340	6537	5583	4334	3005	1944	1142	550	220
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79
<b>20</b>	8920	7937	6776	5260	3660	2359	1385	668	268
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79
<b>24</b>	11920	10615	9061	7032	4888	3163	1849	894	357
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79
<b>30</b>	22100	19686	16807	13000	9081	5868	3436	1662	664
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79
<b>36</b>	34400	30660	26174	20285	14115	9114	5328	2580	1028
<b>F<sub>L</sub></b>	0.53	0.57	0.63	0.70	0.76	0.80	0.82	0.82	0.79

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes - Dimensions

### Wafer Type Body - MSS SP68 & API 609



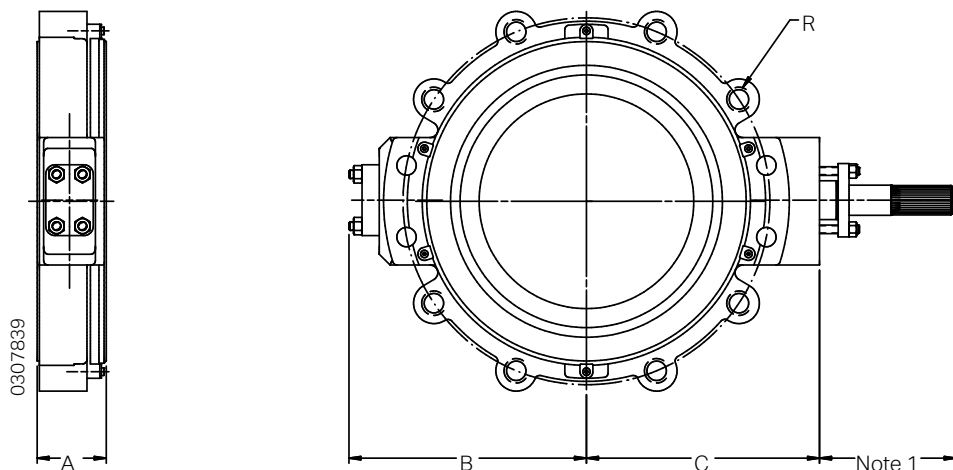
Valve Nominal Diameter (in.)	ANSI Pressure Class	Dimensions							
		A		B		C		D	
		in.	mm	in.	mm	in.	mm	in.	mm
14	150	3.62	92	11.42	290	12.68	322	16.90	430
	300	4.62	117	12.40	315	14.17	360	17.32	440
	600	6.18	157	14.40	366	15.27	388	18.82	478
16	150	4.00	102	12.60	320	14.68	373	18.70	475
	300	5.25	133	13.80	350	15.51	394	19.68	500
	600	7.00	178	15.95	405	16.81	427	21.63	549
18	150	4.50	114	13.80	350	15.79	401	20.86	530
	300	5.88	149	15.16	385	16.53	420	21.85	555
	600	7.81	198	17.80	452	18.74	476	23.00	585
20	150	5.00	127	14.96	380	16.97	431	23.00	585
	300	6.25	159	16.34	415	18.98	482	24.00	610
	600	8.50	216	18.78	477	20.00	509	25.00	635
24	150	6.06	154	17.32	440	19.45	494	27.20	690
	300	7.12	181	19.10	485	21.57	548	27.95	710
	600	9.06	230	21.50	546	22.72	577	29.80	756
30	150	6.25	159	20.47	520	22.17	563	34.30	870
	300	9.50	241	22.83	580	25.67	652	37.90	963
	600	S/C							
36	150	7.00	178	24.21	615	26.97	685	41.10	1045
	300	10.75	273	26.77	680	29.33	745	45.00	1143
	600	S/C							

Notes: <sup>(1)</sup>The dimension of the shaft end depends on the actuator version used. Consult ValteSul Sales Engineering for information.  
S/C: Under request.

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes- Dimensions

### Lugged Type Body - MSS SP68 & API 609



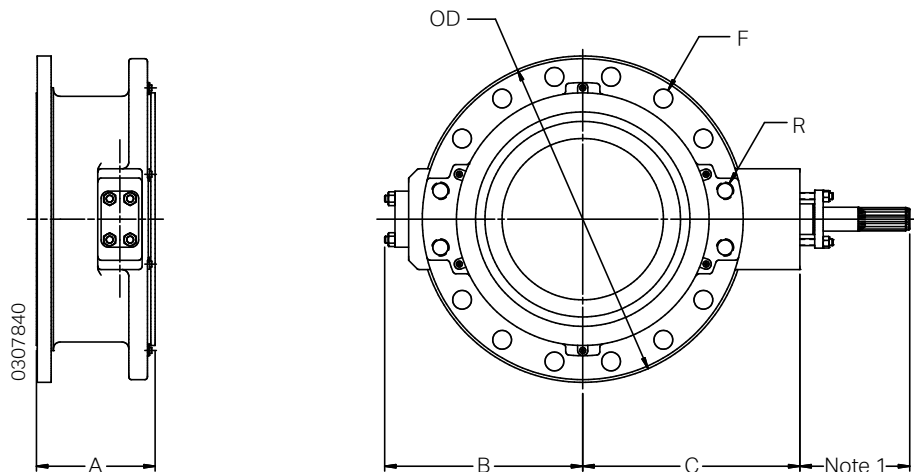
Valve Nominal Diameter (in.)	ANSI Pressure Class	Dimensions						
		A		B		C		R
		in.	mm	in.	mm	in.	mm	Screw (in.)
14	150	3.62	92	11.42	290	12.68	322	1 - 8 UNC
	300	4.62	117	12.40	315	14.17	360	1 1/8 - 8 UNC
	600	6.18	157	14.40	366	15.27	388	1 1/2 - 8 UNC
16	150	4.00	102	12.60	320	14.68	373	1 - 8 UNC
	300	5.25	133	13.80	350	15.51	394	1 1/4 - 8 UNC
	600	7.00	178	15.95	405	16.81	427	1 5/8 - 8 UNC
18	150	4.50	114	13.80	350	15.79	401	1 1/8 - 8 UNC
	300	5.88	149	15.16	385	16.53	420	1 1/4 - 8 UNC
	600	7.81	198	17.80	452	18.74	476	1 5/8 - 8 UNC
20	150	5.00	127	14.96	380	16.97	431	1 1/8 - 8 UNC
	300	6.25	159	16.34	415	18.98	482	1 1/4 - 8 UNC
	600	8.50	216	18.78	477	20.00	509	1 5/8 - 8 UNC
24	150	6.06	154	17.32	440	19.45	494	1 1/4 - 8 UNC
	300	7.12	181	19.10	485	21.57	548	1 1/2 - 8 UNC
	600	9.06	230	21.50	546	22.72	577	1 7/8 - 8 UNC
30	150	6.25	159	20.47	520	22.17	563	1 1/4 - 8 UNC
	300	9.50	241	22.83	580	25.67	652	1 3/4 - 8 UNC
	600	S/C						
36	150	7.00	178	24.21	615	26.97	685	1 1/8 - 8 UNC
	300	10.75	273	26.77	680	29.33	745	.2 - 8 UNC
	600	S/C						

Notes: <sup>(1)</sup>The dimension of the shaft end depends on the actuator version used. Consult ValteSul Sales Engineering for information.  
S/C: Under request.

# BXL Control Valve - Bi-eccentric Disc

## Large Sizes - Dimensions

### Flanged Body - Short Body



Valve Nominal Diameter (in.)	ANSI Pressure Class	Dimensions									
		A		B		C		OD		F	R
		in.	mm	in.	mm	in.	mm	in.	mm	Hole (in.)	Screw (in.)
14	150	7.50	190	11.42	290	12.68	322	21.06	535	1.13	
	300	11.41	290	12.40	315	14.17	360	23.03	585	1.25	1 <sup>1</sup> / <sub>8</sub> - 8 UNC
	600	11.41	290	14.40	366	15.27	388	23.75	603	1.50	1 <sup>3</sup> / <sub>8</sub> - 8 UNC
16	150	8.50	216	12.60	320	14.68	373	23.43	595	1.13	1 - 8 UNC
	300	12.20	310	13.80	350	15.51	394	25.59	650	1.38	1 <sup>1</sup> / <sub>4</sub> - 8 UNC
	600	12.20	310	15.95	405	16.81	427	27.00	686	1.63	1 <sup>1</sup> / <sub>2</sub> - 8 UNC
18	150	8.75	222	13.80	350	15.79	401	25.00	635	1.25	1 <sup>1</sup> / <sub>8</sub> - 8 UNC
	300	13.00	330	15.16	385	16.53	420	27.99	711	1.38	1 <sup>1</sup> / <sub>4</sub> - 8 UNC
	600	13.00	330	17.80	452	18.74	476	29.25	743	1.75	1 <sup>5</sup> / <sub>8</sub> - 8 UNC
20	150	9.00	229	14.96	380	16.97	431	27.56	700	1.25	1 <sup>1</sup> / <sub>8</sub> - 8 UNC
	300	13.78	350	16.34	415	18.98	482	30.51	775	1.38	1 <sup>1</sup> / <sub>4</sub> - 8 UNC
	600	13.78	350	18.78	477	20.00	509	32.00	813	1.75	1 <sup>5</sup> / <sub>8</sub> - 8 UNC
24	150	10.50	267	17.32	440	19.45	494	32.09	815	1.62	1 <sup>1</sup> / <sub>4</sub> - 8 UNC
	300	15.35	390	19.10	485	21.57	548	36.02	915	1.38	1 <sup>1</sup> / <sub>2</sub> - 8 UNC
	600	15.35	390	21.50	546	22.72	577	37.00	940	2.00	1 <sup>7</sup> / <sub>8</sub> - 8 UNC
30	150	12.52	318	20.47	520	22.17	563	38.78	782	1.38	1 <sup>1</sup> / <sub>4</sub> - 8 UNC
	300	12.52	318	22.83	580	25.67	652	42.91	1090	1.88	1 <sup>3</sup> / <sub>4</sub> - 8 UNC
	600	S/C									
36	150	13.00	330	24.21	615	26.97	685	46.06	1170	1.63	1 <sup>1</sup> / <sub>2</sub> - 8 UNC
	300	13.00	330	26.77	680	29.33	745	50.00	1270	2.13	2 - 8 UNC
	600	S/C									

Notes: <sup>(1)</sup> The dimension of the shaft end depends on the actuator version used. Consult ValteSul Sales Engineering for information.  
S/C: Under request.



## Quality Management System



**ISO 9001-2015**  
Certificate nº 31001 QM 15  
DQS GmbH  
DQS Brazil  
ISO 14001™ Certified

### ValtekSul Brasil

#### Main Office and Factory

Rua Goiás, 345 - Diadema - SP - Brazil

Call Center +55 11 4072-8600

[www.valteksul.com.br](http://www.valteksul.com.br)

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