

ACRIS®

# PFA LINED BALL VALVE

ASME B16.5 Class 150 RF



CE

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## ACRIS® PFA LINED FULL PORT BALL VALVE

Fully PFA lined full port ball valves engineered for zero leakage shut-off in demanding corrosive and ultra pure industrial applications.

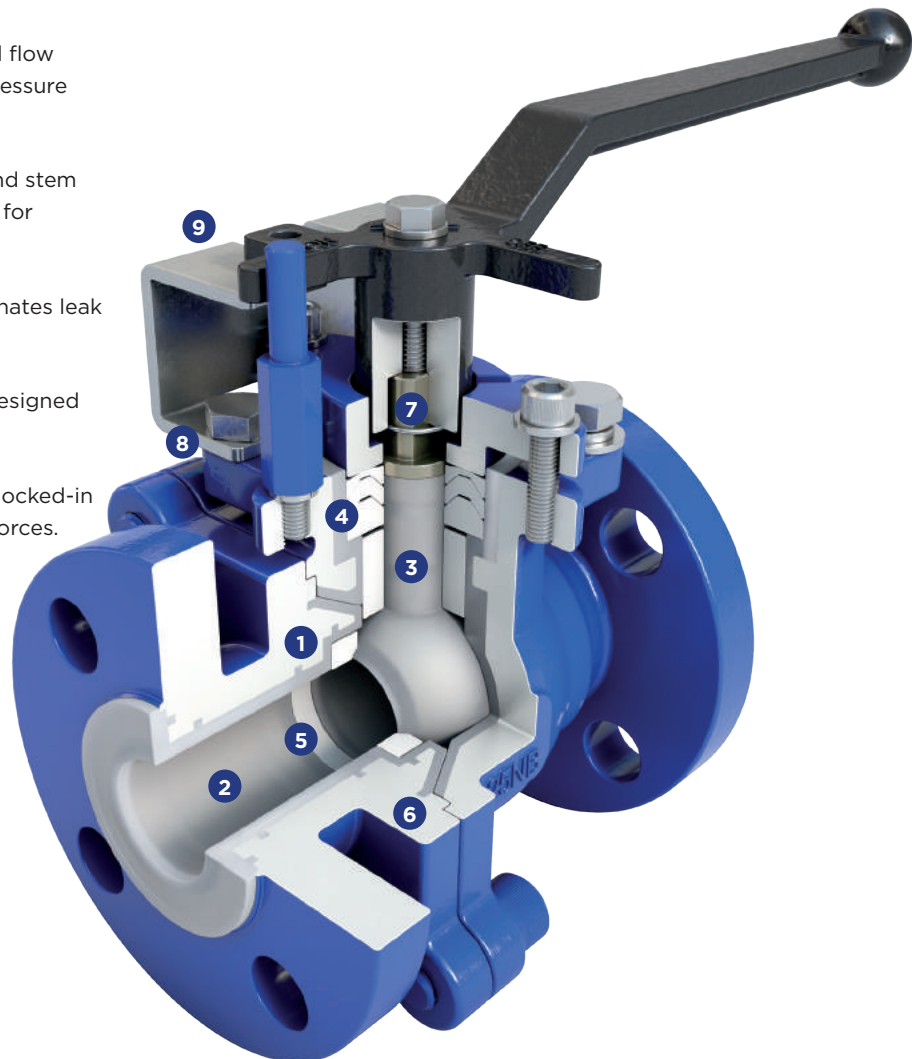
### SPECIFICATION & STANDARDS

<b>Size Range</b>	1/2" – 6" (DN15 – DN150)
<b>Temperature</b>	-29°C* to +204°C (*lower on request)
<b>Pressure Rating</b>	up to 17 bar (250 psi)
<b>Face-to-face</b>	ASME B16.10

<b>Body Design</b>	ASME B16.34
<b>Flanges</b>	ASME B16.5 Class 150 RF EN 1092-1 PN10/16 (on request)
<b>Fugitive Emissions</b>	EN ISO 15848-1 (on request)

### FEATURES & BENEFITS

- 1 Fully PFA lined ball, stem and body offer unsurpassed resistance to corrosion, permeation and microbial contamination for maximum purity and reliability.
- 2 Full port design ensures an unrestricted flow path for high flow rates with minimal pressure drop.
- 3 Rugged, high strength one piece ball and stem prevents blowouts and limits hysteresis for dependable operation.
- 4 Adjustable PTFE chevron packing eliminates leak paths and reduces fugitive emissions.
- 5 Durable, corrosion resistant TFM seat designed for zero leakage, low torque isolation.
- 6 Metal-to-metal body joints protect the locked-in liner from damage caused by external forces.
- 7 Anti-static grounding device prevents static buildup.
- 8 ISO 5211 top mounting plate for easy actuation.
- 9 Integral Lock Out / Tag Out (LOTO)



# ACRIS® PFA LINED REDUCED PORT BALL VALVE

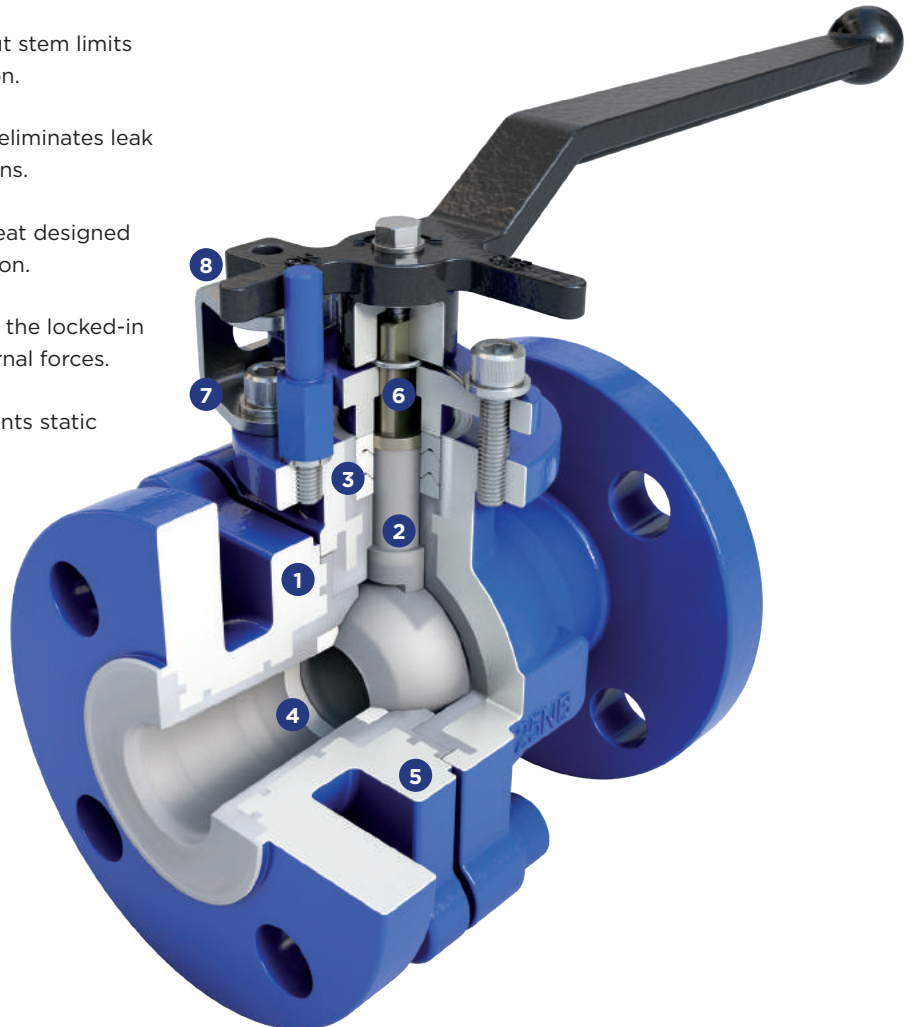
Fully PFA lined standard port ball valves engineered for zero leakage shut-off in demanding corrosive and ultra pure industrial applications.

## SPECIFICATION & STANDARDS

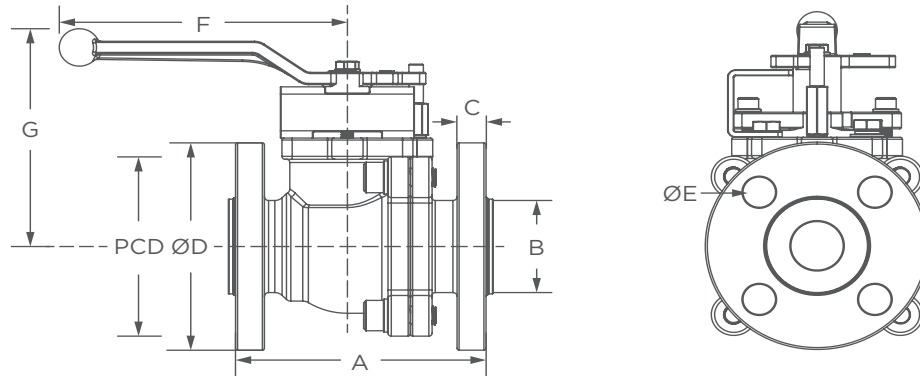
<b>Size Range</b>	1" - 4" (DN25 - DN100)	<b>Body Design</b>	ASME B16.34
<b>Temperature</b>	-29°C* to +204°C (*lower on request)	<b>Flanges</b>	ASME B16.5 Class 150 RF EN 1092-1 PN10/16 (on request)
<b>Pressure Rating</b>	up to 17 bar (250 psi)		
<b>Face-to-face</b>	ASME B16.10		

## FEATURES & BENEFITS

- 1 Fully PFA lined ball, stem and body offer unsurpassed resistance to corrosion, permeation and microbial contamination for maximum purity and reliability.
- 2 Rugged, high strength anti-blowout stem limits hysteresis for dependable operation.
- 3 Adjustable PTFE chevron packing eliminates leak paths and reduces fugitive emissions.
- 4 Durable, corrosion resistant TFM seat designed for zero leakage, low torque isolation.
- 5 Metal-to-metal body joints protect the locked-in liner from damage caused by external forces.
- 6 Anti-static grounding device prevents static buildup.
- 7 ISO 5211 top mounting plate for easy actuation.
- 8 Integral Lock Out / Tag Out (LOTO)



## ACRIS® PFA LINED FULL PORT BALL VALVE (ONE PIECE BALL & STEM)



### DIMENSIONS | FLOW RATES | TORQUE

DN <sup>1</sup> NPS <sup>2</sup>	A	B	C	øD	PCD	øE	F	G	Kv Cv	TORQUE (NM) TORQUE (IN-LBS)
<b>15</b> ½"	<b>130.0</b> 5.12	<b>15.0</b> 0.59	<b>13.9</b> 0.55	<b>88.9</b> 3.50	<b>60.4</b> 2.38	<b>15.7</b> 0.62	<b>177.8</b> 7.00	<b>124.9</b> 4.92	<b>13</b> 15	<b>10</b> 89
<b>20</b> ¾"	<b>150.0</b> 5.90	<b>20.0</b> 0.78	<b>13.9</b> 0.55	<b>97.7</b> 3.85	<b>69.8</b> 2.75	<b>15.7</b> 0.62	<b>177.8</b> 7.00	<b>124.9</b> 4.92	<b>22</b> 25	<b>12</b> 106
<b>25</b> 1"	<b>127.0</b> 5.00	<b>24.9</b> 0.98	<b>17.0</b> 0.67	<b>108.0</b> 4.25	<b>79.3</b> 3.12	<b>16.0</b> 0.63	<b>177.8</b> 7.00	<b>124.9</b> 4.92	<b>43</b> 50	<b>24</b> 215
<b>40</b> 1½"	<b>165.1</b> 6.50	<b>37.5</b> 1.48	<b>18.8</b> 0.74	<b>127.0</b> 5.00	<b>98.6</b> 3.88	<b>16.0</b> 0.63	<b>254.0</b> 10.00	<b>127.0</b> 5.00	<b>160</b> 185	<b>37</b> 330
<b>50</b> 2"	<b>177.8</b> 7.00	<b>50.0</b> 1.97	<b>20.3</b> 0.80	<b>152.4</b> 6.00	<b>120.7</b> 4.75	<b>19.1</b> 0.75	<b>254.0</b> 10.00	<b>142.2</b> 5.60	<b>277</b> 320	<b>63</b> 560
<b>80</b> 3"	<b>203.2</b> 8.00	<b>80.0</b> 3.15	<b>24.9</b> 0.98	<b>190.5</b> 7.50	<b>152.4</b> 6.00	<b>19.1</b> 0.75	<b>304.8</b> 12.00	<b>177.8</b> 7.00	<b>696</b> 805	<b>98</b> 865
<b>100</b> 4"	<b>228.6</b> 9.00	<b>99.8</b> 3.93	<b>24.9</b> 0.98	<b>228.6</b> 9.00	<b>190.5</b> 7.50	<b>19.1</b> 0.75	<b>304.8</b> 12.00	<b>208.3</b> 8.20	<b>1384</b> 1600	<b>168</b> 1485
<b>150</b> 6"	<b>266.7</b> 10.50	<b>149.9</b> 5.90	<b>27.9</b> 1.10	<b>279.4</b> 11.00	<b>241.3</b> 9.50	<b>22.4</b> 0.88	<b>Gear</b> Gear	<b>Gear</b> Gear	<b>3893</b> 4500	<b>350</b> 3100

<sup>1</sup> DN dimensions in mm.  
Kv-values in m<sup>3</sup>/h @ Δp = 1 bar.  
Torque values in Nm.

<sup>2</sup> NPS dimensions in inch.  
Cv-values in US gpm @ Δp = 1 psi.  
Torque values in In-Lbs.

<sup>2</sup> DN150 (6") 304 & 316 stainless steel body valves are limited to 10 bar (145 psig.)

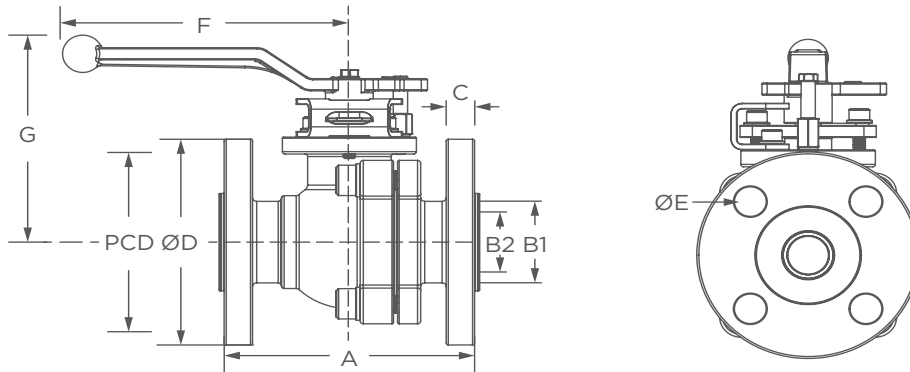
### MATERIAL SPECIFICATION

QTY	DESCRIPTION	MATERIAL	QTY	DESCRIPTION	MATERIAL
2	Body	PFA Lined ASTM A-352 LCB Optional: A-216 Grade WCB, A-351 CF8 (304-Stainless Steel) A-351 CF8M (316-Stainless Steel)	1	Gland Packing	PTFE
1	Ball <sup>1</sup> & Stem (Full Port)	One Piece CF8, PFA	2	Seat	TFM
1	Ball <sup>2</sup> (Standard Port)	CF8, PFA	-	Bolts	Standard B7 (18-8 optional)
1	Stem (Standard Port)	304 Stainless Steel, PFA	1	Gland Gap	304 Stainless Steel
1	Handle	Epoxy Coated Carbon Steel	1	Lock Out / Tag Out	304 Stainless Steel
			1	Ground Spring	304 Stainless Steel

<sup>1</sup>Optional vented ball for chlorine gas service.

## ACRIS® PFA LINED

### REDUCED PORT BALL VALVE (FLOATING BALL - TWO PIECE BALL & STEM)



#### DIMENSIONS | FLOW RATES | TORQUE

DN <sup>1</sup> NPS <sup>2</sup>	A	B1	B2	C	ØD	PCD	ØE	F	G	Kv Cv	TORQUE (NM) TORQUE (IN-LBS)
<b>25</b> 1"	<b>127.0</b> 5.00	<b>24.9</b> 0.98	<b>19.1</b> 0.75	<b>17.0</b> 0.67	<b>108.0</b> 4.25	<b>79.3</b> 3.12	<b>16.0</b> 0.63	<b>177.8</b> 7.00	<b>109.2</b> 4.30	<b>26</b> 30	<b>15</b> 135
<b>40</b> 1½"	<b>165.1</b> 6.50	<b>37.5</b> 1.48	<b>24.9</b> 0.98	<b>18.8</b> 0.74	<b>127.0</b> 5.00	<b>98.6</b> 3.88	<b>16.0</b> 0.63	<b>254.0</b> 10.00	<b>127.0</b> 5.00	<b>39</b> 45	<b>20</b> 180
<b>50</b> 2"	<b>177.8</b> 7.00	<b>50.0</b> 1.97	<b>40.1</b> 1.58	<b>20.3</b> 0.80	<b>152.4</b> 6.00	<b>120.7</b> 4.75	<b>19.1</b> 0.75	<b>254.0</b> 10.00	<b>142.2</b> 5.60	<b>171</b> 198	<b>28</b> 250
<b>80</b> 3"	<b>203.2</b> 8.00	<b>80.0</b> 3.15	<b>65.0</b> 2.56	<b>24.9</b> 0.98	<b>190.5</b> 7.50	<b>152.4</b> 6.00	<b>19.1</b> 0.75	<b>304.8</b> 12.00	<b>177.8</b> 7.00	<b>303</b> 350	<b>42</b> 375
<b>100</b> 4"	<b>228.6</b> 9.00	<b>99.8</b> 3.93	<b>80.0</b> 3.15	<b>24.9</b> 0.98	<b>228.6</b> 9.00	<b>190.5</b> 7.50	<b>19.1</b> 0.75	<b>304.8</b> 12.00	<b>208.3</b> 8.20	<b>554</b> 640	<b>60</b> 535

**Note:** Dimensions are approximate and subject to change.  
<sup>1</sup> DN dimensions in mm.  
 Kv-values in m<sup>3</sup>/h @ Δp = 1 bar.  
 Torque values in Nm.

<sup>2</sup> NPS dimensions in inch.  
 Cv-values in US gpm @ Δp = 1 psi.  
 Torque values in In-Lbs.

#### ORDERING INFORMATION

<b>Size</b>	1/2" - 6"
<b>Body Type</b>	FF = Flanged Full Port FR = Flanged Standard Port
<b>Body Material</b>	1Lf = LCB A-352, PFA lined, Epoxy coated 1f = WCB A-216, PFA lined, Epoxy coated 6f = SS A-351 CF8, PFA lined 6Mf = SS A-351 CF8M, PFA lined
<b>Stem/Ball (Full Port)</b>	6f = 304 Stainless Steel over molded with PFA
<b>Ball (Reduced Port) Stem (Reduced Port)</b>	6f = 304 Stainless Steel over molded with PFA 6f = 304 Stainless Steel over molded with PFA
<b>Seats</b>	T = TFM
<b>Packing</b>	PTFE Chevron

<b>Body Bolts</b>	B7
<b>Operator</b>	Handle (½ to 6 inch) with LOTO
<b>Options</b>	VB = Vented Ball for Chlorine Gas Service A4 = 316 Stainless Steel Bolting OH = Oval Handwheel (2 inch & smaller) FE* = Fugitive Emissions Model (*Full Port only, no retrofitting)

**Example:**  
 3"-FR-1f-6f-6f-T = 3 inch Flanged Standard Port Ball  
 Carbon Steel Body PFA Lined, 304 SS Stem / Ball PFA over molded, TFM  
 Seats, PTFE Packing, B7 Bolts, Handle with LOTO

# *Amresist*<sup>®</sup>

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