ISO 5211 Direct Mounted BALL VALVES

**ONE PIECE REDUCED PORT**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-83HP</td>
<td>800 psi (PN40) • 1/4” - 2”</td>
</tr>
<tr>
<td>V-168</td>
<td>1000 psi (PN63) • 1/4” - 2”</td>
</tr>
</tbody>
</table>

**V-158 SERIES**

**THREE PIECES FULL PORT**

<table>
<thead>
<tr>
<th>Design</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body</td>
<td>ASTM A351 Gr. CF8M (1.4408)</td>
</tr>
<tr>
<td>Ball / Stem</td>
<td>CF8M / SS316</td>
</tr>
<tr>
<td>Seat</td>
<td>RTFE</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>1/4&quot; - 1&quot; 2000psi (PN 140) 1-1/4&quot; - 2&quot; 1500 psi (PN 100) 2-1/2&quot; - 4&quot; 1000 psi (PN 63)</td>
</tr>
</tbody>
</table>

**V-355**

**Design Feature**

- Blow-out proof stem, Anti-static design
- Direct mounting type
- End connection: Thread end, Socket weld, Butt weld end
- Handle with locking device

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**V-158**

Threaded • Socket Weld • Butt Weld end
3A Tube end • Tri-Clamp end
Option - Face to Face : DIN3202 M3/S13

**V-158F**

Face to Face : EN558-1 F1
Flanged end PN40 / 16 RF
Size : 1/2” – 4”

**V-158W**

Extended Butt Weld end
Size : 1/2” – 4”
V-FLOW BALL VALVES

VF-28

Design Feature
• 1/2” – 6” (DN15 - DN150)
• ISO 5211 Direct Mounting Flange
• Blow-out proof stem
• Anti-static design
• Face to Face: DIN 3202 F1/F4/F5
• ANSI B16.10 CLASS 150/300/600
• JIS 2002
• Flange dia.: EN1092-1 PN 1016/25/40 RF
• ANSI B16.5 CLASS 150/300/600 RF
• JIS 2010 10K/20K

Body | ASTM A351 Gr.CF8M (1.4408)
--- | ---
Ball / Stem | CF8M / SS316
Seat | 50%PTFE + 50%S.S

VF-355

Design Feature
• 1/4” – 4” (DN8 - DN100)
• Blow-out proof stem
• Anti-static design
• Direct Mounting Type
• Handle with locking device

Body | ASTM A351 Gr.CF8M (1.4408)
--- | ---
Ball / Stem | CF8M / SS316
Seat | 50%PTFE + 50%S.S
End Connections | Threaded / Butt weld / Socket weld end
Working Pressure | 1/4” – 1” 2000 psi (PN140)
| 1-1/4” – 2” 1500 psi (PN100)
| 2-1/2” – 4” 1000 psi (PN63)

VF-158

Design Feature
• 1/4” – 4” (DN8 - DN100)
• Blow-out proof stem
• Anti-static design
• Direct Mounting Type
• Handle with locking device

Body | ASTM A351 Gr.CF8M (1.4408)
--- | ---
Ball / Stem | CF8M / SS316
Seat | 50%PTFE + 50%S.S
Working Pressure | 1/2” – 2” 1000 psi (PN63)
| 2-1/2” – 4” 800 psi (PN40)
End Connections | Threaded end / Socket weld end
| Butt weld end / Flange PN 16/40 RF

BALL PORT

15 ° 30 ° 45 °
60 ° 90 ° SLOTTED
HIGH PRESSURE BALL VALVES

Other materials are available upon request

**HPV-84**

**Design Feature**
- 1/2” - 1-1/2” Full Bore
- 2” Reduced Bore
- 2 Pieces
- Blow-out proof stem
- ISO 5211 Direct mounting flange
- Handle with locking device
- End connection: Threaded end

**Body**
- ASTM A351 Gr.CF8M

**Ball / Stem**
- CF8M / SS316

**Seat**
- Derlin / Peek

**Temperature Range**
- -4 to 176 °F (-20 to 80 °C) for Derlin
- -4 to 500 °F (-20 to 260 °C) for Peek

**Working Pressure**
- 3000 psi (PN210)

CAST CF3M

With Ferrite content less than 3% sulfur content 0.005-0.017%

**MD-928EB / TC**

**Design Feature**
- Tube Bore
- 1/2” – 4” (DN15 - DN150)
- Design per ANSI B16.34 / BPE
- Blow-out proof stem
- Direct mounting
- End connections: Clamp end BPE / ISO / DIN Ext. Tube end
- Option: Cavity seat, Extended stem Pourge port

**Body**
- ASTM A351 Gr.CF3M

**Ball / Stem**
- ASTM A351 Gr.CF3M / SS316L

**Seat**
- TF1600

**Temperature Range**
- -40 to 356 °F (-40 to 180 °C)

**Working Pressure**
- 1000 psi for 1/2” - 2”
- 720 psi for 2-1/2” - 4”

**K-384EB / TC**

**Design Feature**
- Tube Bore, L / T port
- 1/2” – 3” (DN15 - DN80)
- Design per ANSI B16.34 / BPE
- Blow-out proof stem
- Direct mounting
- End connections: Clamp end BPE / ISO / DIN Ext. Tube end

**Body**
- ASTM A351 Gr.CF3M

**Ball / Stem**
- ASTM A351 Gr.CF3M / SS316L

**Seat**
- TF1600

**Temperature Range**
- -40 to 356 °F (-40 to 180 °C)

**Working Pressure**
- 1000 psi for 1/2” - 1”
- 720 psi for 1-1/2” - 3”

MULTI WAY BALL VALVES

**K-318 3 Way L / T port**

**Design Feature**
- Standard Bore
- 1/4” – 2” (DN8 - DN50)
- Blow-out proof stem
- 3 seats design
- ISO 5211 direct mounting to actuator

**Body**
- ASTM A351 Gr.CF8M (1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- RTFE

**End Connection**
- Threaded end

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)

**Working Pressure**
- 1/4” – 2” 1000 psi (PN 63)

**K-338 3 Way L / T port**

**Design Feature**
- Full Bore
- 1/4” – 2” (DN8 - DN50)
- Blow-out proof stem
- 3 seats design
- ISO 5211 direct mounting to actuator

**Body**
- ASTM A351 Gr.CF8M (1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- RTFE

**End Connection**
- Threaded end

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)

**Working Pressure**
- 1/4” – 2” 1000 psi (PN 63)
### ISO 5211 Direct Mounted Ball Valves

**MULTI WAY BALL VALVES**

#### K-306 3 Way L/T port

**Design Feature**
- Standard Bore
- 1/4” – 2” (DN8 - DN50)
- Blow-out proof stem
- 2 seats design
- ISO 5211 mounting flange

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<td>End Connection</td>
<td>Threaded end</td>
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</tr>
<tr>
<td>Working Pressure</td>
<td>1/4” – 2” 1000 psi (PN 63)</td>
</tr>
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</table>

#### K-314 3 Way L/T port

**Design Feature**
- Full Bore
- 1/2” – 3” (DN8 - DN80)
- Blow-out proof stem
- 4 seats design
- ISO 5211 direct mounting to actuator

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<td>Temperature Range</td>
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<tr>
<td>Working Pressure</td>
<td>1/2” – 3” 1000 psi (PN 63)</td>
</tr>
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</table>

#### K-434 4 Way L / T / X port

**Design Feature**
- Standard Bore
- 1/4” – 2” (DN8 - DN50)
- Blow-out proof stem
- 4 seats design
- ISO 5211 mounting flange

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<td>Temperature Range</td>
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</tr>
<tr>
<td>Working Pressure</td>
<td>1/4” – 2” 1000 psi (PN 63)</td>
</tr>
</tbody>
</table>

#### K-435 4 Way L / T / X port

**Design Feature**
- Full Bore
- 1/4” – 1-1/2” (DN8 - DN40)
- Blow-out proof stem
- 4 seats design
- ISO 5211 direct mounting to actuator

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<tr>
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<tr>
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<td>Seat</td>
<td>RTFE</td>
</tr>
<tr>
<td>End Connection</td>
<td>Threaded end / Butt welding / Socket welding</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-4 to 356 °F (-20 to 180 °C)</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>1/4” – 1-1/2” 1000 psi (PN 63)</td>
</tr>
</tbody>
</table>

#### K-315 4 Way L / T / X port

**Design Feature**
- Full Bore
- 1/2” – 3” (DN15 - DN80)
- Blow-out proof stem
- 4 seats design
- ISO 5211 direct mounting to actuator

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<td>Seat</td>
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</tr>
<tr>
<td>End Connection</td>
<td>Threaded end / Butt welding / Socket welding</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-4 to 356 °F (-20 to 180 °C)</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>1/4” – 3” 1000 psi (PN 63)</td>
</tr>
</tbody>
</table>

#### K-316 5 Way LL / LT / TL port

**Design Feature**
- Full Bore
- 1/4” – 4” (DN8 - DN100)
- Blow-out proof stem
- 5 seats design
- ISO 5211 direct mounting to actuator

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<td>Seat</td>
<td>RTFE</td>
</tr>
<tr>
<td>End Connection</td>
<td>Threaded end / Butt welding / Socket welding</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-4 to 356 °F (-20 to 180 °C)</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>1/4” – 4” 1000 psi (PN 63)</td>
</tr>
</tbody>
</table>
### SANITARY BALL VALVES

#### V-Z58EB / TC

**Design Feature**
- Tube Bore: 1/2” – 4” (DN15 - DN100)
- Blow-out proof stem
- End connection:clamp, 3A Tube end
- DIN 11850 Tube end

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<thead>
<tr>
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<tbody>
<tr>
<td>Ball / Stem</td>
<td>CF8M / SS316</td>
</tr>
<tr>
<td>Seat</td>
<td>TFM1600</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-4 to 356 °F (-20 to 180 °C)</td>
</tr>
<tr>
<td>Working pressure</td>
<td>720 psi (PN 40)</td>
</tr>
</tbody>
</table>

**Option:** Cavity filler seat

#### K-338TC

**Design Feature**
- Tube Bore: 1/2” – 2” (DN15 - DN50)
- Blow-out proof stem
- Direct mounting type
- End connection: Clamp end
- Option: Cavity filler seat

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<tr>
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<tbody>
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<tr>
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<td>PTFE</td>
</tr>
<tr>
<td>Temperature Range</td>
<td>-4 to 356 °F (-20 to 180 °C)</td>
</tr>
<tr>
<td>Working pressure</td>
<td>720 psi (PN 40)</td>
</tr>
</tbody>
</table>

#### K-434TC

**Design Feature**
- Tube Bore: 1/2” – 4” (DN15 - DN50)
- Blow-out proof stem
- ISO 5211 direct mounting
- End connection: Clamp end
- Option: Cavity filler seat

<table>
<thead>
<tr>
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<th>ASTM A351 Gr.CF8M</th>
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<tr>
<td>Temperature Range</td>
<td>-4 to 356 °F (-20 to 180 °C)</td>
</tr>
<tr>
<td>Working pressure</td>
<td>720 psi (PN 40)</td>
</tr>
</tbody>
</table>

#### K-Z04EB / TC

**Design Feature**
- Tube Bore, 3/4 way L / T port
- 1/2” – 4” (DN15 - DN100)
- Direct mounting type
- ISO 5211 mounting flange type
- End connection: Clamp end, 3A Tube end
- Option: Cavity filler seat

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<tr>
<td>Working pressure</td>
<td>720 psi (PN 40)</td>
</tr>
</tbody>
</table>
ISO 5211 Direct Mounted Ball Valves

**TWO WAY BALL VALVES**

**MD-55**

**Design Feature**
- Full Bore
- 1/2” – 6” (DN15 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 Direct mounting
- ANSI B16.10 Class 150
  - DIN 3202 F4/F5
  - ANSI B16.5 Class 150 RF
    - EN1092-1 PN16 RF

**Body**
- ASTM A351 Gr.CF8M (1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- RTFE

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)

**MD-57D**

**Design Feature**
- Full Bore
- 1/2” – 4” (DN15- DN100)
- Blow-out proof stem
- Anti-static design
- ISO 5211 Direct mounting
- Fact To Face : MFG Standard
  - EN1092-1 PN16 RF

**Body**
- ASTM A351 Gr.CF8M (EN 1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- PTFE

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)

**MD-28**

**Design Feature**
- Full Bore
- 1/2” – 6” (DN15 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 Direct mounting
- ANSI B16.10 Class 150/300/600
  - DIN 3202 F1/F4/F5
  - JIS B2002
  - ANSI B16.5 Class 150/300/600 RF
    - EN1092-1 PN10/16/25/40 RF
    - JIS 2010 10K/20K

**Body**
- ASTM A351 Gr.CF8M (1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- RTFE

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)

**MULTI WAY FLANGED BALL VALVES**

**SIDE ENTRY**

**KF-314 • 3 WAYS • L / T PORT**

**Design Feature**
- Full Bore
- 1/2” – 6” (DN15 - DN150)
- Split body , Floating type
- Blow-out proof stem
- Anti-static design
- ISO 5211 direct mounting for 1/2"-3”
  - ISO 5211 mounting flange for 4”-6”
- Fact To Face : MFG Standard
  - ANSI B16.5 Class 150 RF
    - EN 1092-1 PN10/16/25/40 RF
    - JIS 2010 10K

**Body**
- ASTM A351 Gr.CF8M (1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- RTFE

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)

**KF-315 • 4 WAYS • L/T / DOUBLE L PORT**

**Design Feature**
- Full Bore
- 1/2” – 6” (DN15 - DN150)
- Split body , Floating type , Solid ball
- Blow-out proof stem
- Anti-static design
- ISO 5211 direct mounting for 1/2”-3”
  - ISO 5211 mounting flange for 4”-6”
- Fact To Face : MFG Standard
  - ANSI B16.5 Class 150 RF
    - EN 1092-1 PN10/16/25/40 RF
    - JIS 2010 10K

**Body**
- ASTM A351 Gr.CF8M (1.4408)

**Ball / Stem**
- CF8M / SS316

**Seat**
- RTFE

**Temperature Range**
- -4 to 356 °F (-20 to 180 °C)