



MODENTIC



ATEX II 2GD



0038



PED MODULE H
Certificate:0038/PED/SHA/6013557/A



ISO 9001
N EN ISO 900
Certificate:TWN6013557



BUREAU
VERITAS

Class 150~2500

Soft Seated Ball Valves

Metal Seated Ball Valves

High & Low Temperature

Super Alloy Valves

High Purity Ball Valves

API 603/600 Gate/Globe/Check Valves



VALVES



<http://www.Modentic.com.tw>

<http://www.ValveBus.com>



Modentic Industrial Corp.

Partner with Modentic, you have chosen the reliable company of the valve design and engineering, we guarantee the durability and consistent quality of our products, The manufacturing documentation are always provided very detailed to ensure the traceability and easy maintenance, you never have to worry about the products do not perform as expected. We want you to be a lifelong partner of our dedicated work team, and we welcome your feedback about our performance all the time, which is an important extra value for our company.

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Products support the needs of local & overseas users in more than 50 countries of the world. Based on the management philosophy of "Best delivery. Service & Quality". Modentic sets the pace to ensure customer's satisfaction.

Range of Service:

API607 Fire Safe Approved Ball Valves Series 1/2"~8"

Metal Seat Ball Valves 1/2"~16"

High Pressure Ball Valves 1/2"~2"

V-Flow Ball Valves 1/4"~6"

High Purity Ball Valves / Sanitary Ball Valve 1/2"~4"

Electric Automation Valves

Pneumatic Automation Valves

Floating Flanged Ball Valves 1/2"~12"

Trunnion Mounted Ball Valves Series 2"~36"

Screwed Ball Valves 1/4"~4"

S.S. Screwed Gate, Globe & Check Valves 1/4"~3"

S.S. Flanged Gate, Globe & Check Valves 1/2"~24"

C.S. Flanged Gate, Globe & Check Valves 2"~48"

Strainers 1/2"~16"

Needle Valves 1/8"~1"

Super Alloy Valves



**ALL PRODUCTS SUPPLIED BY
MODENTIC ARE UNDER
PRODUCTS LIABILITY INSURANCE.**



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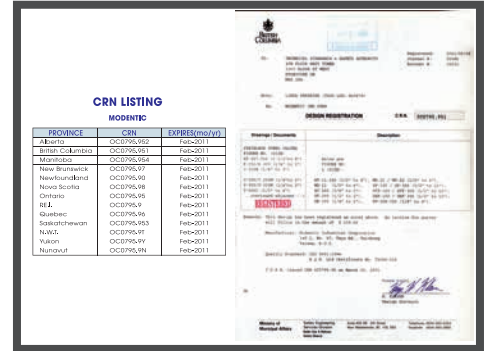
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ISO 9001



PED



CRN



API 607 Fire Safe Approved



CERTIFICATION

MODENTIC www.modentic.com.tw

Products Liability Insurance | ISO 9001 | CRN | TA-LUFT | PED | ABS | ATEX | ISO 15848
API 607 4th, 5th, 6th / ISO 10497-5 / BS 6755 Part II Fire Safe Approved



ABS



ATEX



TA-LUFT



ISO 15848



TWO WAY BALL VALVES

MD-51

**Design Feature**

- Reduced Bore
- 1/2" – 6" (DN15 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-81

**Design Feature**

- Reduced Bore
- 1" – 12" (DN25 - DN300)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-52

**Design Feature**

- Full Bore
- 1/2" – 8" (DN15 - DN200)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 Class 150/300
DIN 3202 F4/F5
JIS B2002
- ANSI B16.5 Class 150/300 RF
EN1092-1 PN10/16/25/40 RF
JIS 2010 10K

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M/ SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-82

**Design Feature**

- Full Bore
- 1/2" – 12" (DN15 - DN300)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 Class 150/300
DIN 3202 F1/F4/F5
- ANSI B16.5 Class 150/300 RF
EN1092-1 PN10/16/25/40 RF

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M/ SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-27

**Design Feature**

- Full Bore
- 1/2" – 12" (DN15 - DN300)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- 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/ SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-22J

**Design Feature**

- Full Bore
- 1/2" – 6" (DN15- DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.5 Class 150 RF
EN1092-1 PN10/16
JIS 2010 10K

Body	ASTM A351 Gr.CF8M (EN1.4408)
Ball / Stem	CF8M / SS316
Seat	50%PTFE + 50%S.S.
Temperature Range	-4 to 356 °F (-20 to 180 °C)



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 (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-57



Design Feature

- Full Bore
- 1/2" – 6" (DN15 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- Fact To Face : MFG Standard
- ANSI B16.5 Class 150 RF
EN1092-1 PN16 RF

Body	ASTM A351 Gr. CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-28

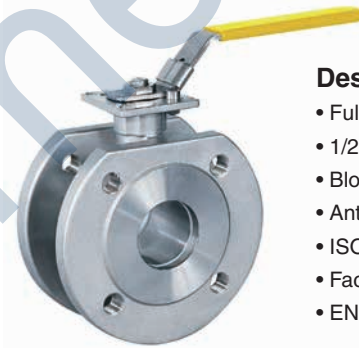


Design Feature

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

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
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	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)



FIRE SAFE APPROVED BALL VALVES

MD-51FS-150/300

API 607 4th



Design Feature

- Reduced Bore
- 3/4" – 6" (DN20 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 class 150/300
- ANSI B16.5 class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-52FS-150/300

API 607 4th



Design Feature

- Full Bore
- 1/2" – 6" (DN15 - DN150)
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 class 150/300
- ANSI B16.5 Class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M/ SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-82-150/300

API 607 6th



Design Feature

- Full Bore
- 1/2"~12"(DN 15~DN 300)
- Blow-out-proof stem design
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-82 PN 16/40

API 607 6th



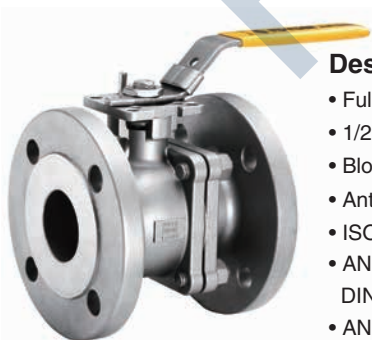
Design Feature

- Full Bore
- 1/2"~12"(DN 15~DN 300)
- Blow-out-proof stem design
- Anti-static design
- ISO 5211 mounting flange
- DIN 3202 F1/F4/F5
- EN 1092-1 PN 10/16/25/40 RF

Body	1.4408
Ball / Stem	CF8M / SS 316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-28FS

API 607 6th



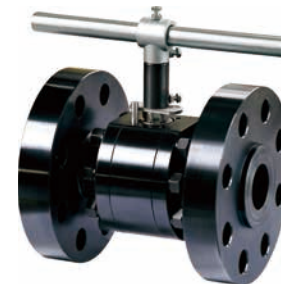
Design Feature

- Full Bore
- 1/2" – 4" (DN15 - DN100)
- Blow-out proof stem
- Anti-static design
- ISO 5211 Direct mounting
- ANSI B16.10 Class 150/300
- DIN 3202 F1/F4
- ANSI B16.5 Class 150/300 RF
- EN1092-1 PN10/16/25/40 RF

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

HPV-43FS

API 607 5th / ISO 10497-5 / BS 6755 Part II



Design Feature

- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- ANSI B16.10 Class 1500/2500
- ANSI B16.5 Class 1500/2500 RTJ

HPV-43FS-1500	• Full Bore • 1/2" – 2" (DN15 - DN50)
HPV-43FS-2500	• Full Bore • 1/2" – 2" (DN15 - DN50)
Body	AISI1045 / AISI316 (bar material)
Ball / Stem	CF8M / 17-4PH
Seat	Delrin / Peek
Temperature Range	-4 to 176°F (-20 to 80 °C) for Delrin -4 to 500°F (-20 to 260 °C) for PEEK



FIRE SAFE APPROVED BALL VALVES

V-755FS

API 607 6th



Design Feature

- ANSI B16.34 Class 600 design
- Blow-out-proof stem design
- Anti-static design
- ISO 5211 mounting flange
- Forged Steel components
- Handle with locking device
- End Connection: Threaded, Socket weld, Butt weld

V-755FS • Full Bore • 1/2" – 2" (DN15-DN50)

V-755FSA • Reduced Bore • 1/2" – 2" (DN15-DN50)

Body	ASTM A105 / F316
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Working pressure	1500 psi (PN 100)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

HPV-40FS

API 607 5th / ISO 10497-5 / BS 6755 Part II



Design Feature

- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- End Connection: Threaded, Socket weld, Butt weld

HPV-40FS • Full Bore • 1/4" – 2" (DN8 - DN50)

HPV-40FSA • Reduced Bore • 1/4" – 2" (DN8 - DN50)

Body	AISI1045 / AISI316 (bar material)
Ball / Stem	CF8M / 17-4PH
Seat	Delrin / Peek
Working pressure	3000 psi (PN 210)
Temperature Range	-4 to 176°F (-20 to 80 °C) for Delrin -4 to 500°F (-20 to 260 °C) for PEEK

V-255FS

API 607 6th



Design Feature

- ANSI B16.34 Class 600 design
- Blow-out proof stem
- Anti-static design
- Handle with locking device
- ISO 5211 mounting flange
- End Connection: Threaded, Socket weld, Butt weld

V-255FS • Full Bore • 1/4" - 2" (DN8-DN50)

V-255FSA • Reduced Bore • 1/2" – 2-1/2" (DN15-DN65)

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Working Pressure	1/4" - 1" 2000 psi (PN140) 1-1/4" - 2" 1500 psi (PN100)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

V-908

API 607 6th



Design Feature

- ANSI B16.34 Class 900 design
- Blow-out proof stem
- Anti-static design
- Handle with locking device
- ISO 5211 Direct mounting
- End Connection: Threaded

V-908 • Full Bore • 1/2" - 3" (DN15-DN80)

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Working pressure	2000 psi (PN 140)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

HPV-41FS

API 607 5th / ISO 10497-5 / BS 6755 Part II



Design Feature

- ANSI B16.34 Class 2500 design
- Blow-out proof stem
- Anti-static design
- ISO 5211 mounting flange
- End Connection: Threaded, Socket weld, Butt weld

HPV-41FS • Full Bore • 1/4" – 2" (DN8 - DN50)

HPV-41FSA • Reduced Bore • 1/4" – 2" (DN8 - DN50)

Body	AISI1045 / AISI316 (bar material)
Ball / Stem	CF8M / 17-4PH
Seat	Delrin / Peek
Working pressure	6000 psi (PN 420)
Temperature Range	-4 to 176°F (-20 to 80 °C) for Delrin -4 to 500°F (-20 to 260 °C) for PEEK

V-166FS

API 607 6th / ISO 10497-5



Design Feature

- ANSI B16.34 Class 600 design
- 2 pcs design
- Blow-out proof stem
- Face to face: DIN3202 M3
- Handle with locking device
- End Connection: Threaded

V-166FS • Full Bore • 1/4" - 2" (DN8-DN50)

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Working Pressure	1/4" - 1" 2000 psi (PN140) 1-1/4" - 2" 1500 psi (PN100)
Temperature Range	-4 to 356 °F (-20 to 180 °C)



TRUNNION MOUNTED CASTING

MD-53 • 3 PIECES



Design Feature

- Reduced Bore
- 18" – 36" (DN450 - DN900)
- API 6FA fire safe design
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300/600
- ANSI B16.5 Class 150/300/600 RF
- ASME B16.47 for 26" & up

Body	ASTM A216 Gr.WCB / CF8M
Ball / Stem	CF8M / SS 316
Seat	PTFE / Nylon
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-54 • 3 PIECES



Design Feature

- Full Bore
- 16" – 36" (DN400 - DN900)
- API 6FA fire safe design
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300/600
- ANSI B16.5 Class 150/300/600 RF
- ASME B16.47 for 26" & up

Body	ASTM A216 Gr.WCB / CF8M
Ball / Stem	CF8M / SS 316
Seat	PTFE / Nylon
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-67 • 2 PIECES



Design Feature

- Reduced Bore
- 3" – 20" (DN80 - DN500)
- API 6FA fire safe design
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300/600
- ANSI B16.5 Class 150/300/600 RF

Body	ASTM A216 Gr.WCB / CF8M
Ball / Stem	CF8M / SS316
Seat	PTFE / Nylon
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-68 • 2 PIECES



Design Feature

- Full Bore
- 2" – 16" (DN50 - DN400)
- API 6FA fire safe design
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300/600
- ANSI B16.5 Class 150/300/600 RF

Body	ASTM A216 Gr.WCB / CF8M
Ball / Stem	CF8M / SS316
Seat	PTFE / Nylon
Temperature Range	-4 to 356 °F (-20 to 180 °C)



TRUNNION MOUNTED FORGEING

MD-63



Design Feature

- Reduced Bore
- 3" – 36" (DN80- DN900)
- 3 pcs design
- API 6FA fire safe design
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150-2500
- ANSI B16.5 Class 150-2500
- ASME B16.47 for 26" & up

Body	ASTM A105 / F316
Ball / Stem	F316 / F316
Seat	PTFE / Nylon
Temperature Range	-4 to 356 °F (-20 to 180 °C)

MD-64



Design Feature

- Full Bore
- 2" – 16" (DN50- DN400)
- 3 pcs design
- API 6FA fire safe design
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150-2500
- ANSI B16.5 Class 150-2500
- ASME B16.47 for 26" & up

Body	ASTM A105 / F316
Ball / Stem	F316 / F316
Seat	PTFE / Nylon
Temperature Range	-4 to 356 °F (-20 to 180 °C)



METAL SEATED BALL VALVES

MD-52Q-150/300
Floating Type
Metal Seated, API 6FA Fire Safe Design

Design Feature

- Full Bore
- 1/2" – 8" (DN15 - DN200)
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M + Hard Cr. / SS 316
Seat	SS 316 + Stellite #6
Tightness Rates	ΔP : ASME / FCI 70-2 Class IV

MD-52QT-150/300
Trunnion Mounted Type
Metal Seated

Design Feature

- Full Bore
- 4" – 8" (DN100 - DN200)
- Blow-out proof stem
- Anti-static design
- Trunnion mounted type
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M + Hard Cr. / SS 316
Seat	SS 316 + Stellite #6
Tightness Rates	ΔP : ASME / FCI 70-2 Class IV

MD-54Q-150/300
Trunnion Mounted Type
Metal Seated, API 6FA Fire Safe Design

Design Feature

- Full Bore
- 2" – 16" (DN50 - DN400)
- Three pieces body design, Trunnion mounted type
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300/600
- ANSI B16.5 Class 150/300/600 RF

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M + Hard Cr. / SS 316
Seat	SS 316 + Stellite #6
Tightness Rates	ΔP : ASME / FCI 70-2 Class IV

V-255Q
API 6FA Fire Safe Design

Design Feature

- Full Bore
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem & anti-static design
- Handle with locking device
- ISO 5211 mounting flange
- End Connections : Threaded End, Socket Weld Butt Weld

• Design Specifications : ANSI B16.34 Class 600
• Working Pressure(CWP) :

1/2" – 1" 2000 psi (DN15 - DN25 PN 140bar)

1-1/4" – 2" 1500 psi (PN 100bar)

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M + Hard Cr. / SS 316
Seat	SS 316 + Stellite #6
Tightness Rates	ΔP : ASME / FCI 70-2 Class IV



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)



MULTI WAY FLANGED BALL VALVES TOP ENTRY

KF-307 • 3 WAYS • L / T PORT



Design Feature

- Full Bore
- 3/4" – 12" (DN20 - DN300)
- Split body , Trunnion mounted type
- Anti-static design
- ISO 5211 mounting flange
- Fact To Face : MFG Standard
- ANSI B16.5 Class 150 / 300 RF
- EN 1092-1 PN10/16/25/40 RF

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)

KF-308 • 4 WAYS • L/T/DOUBLE L PORT



Design Feature

- Full Bore
- 1-1/2" – 8" (DN40 - DN200)
- Split body , Trunnion mounted type
- Anti-static design
- ISO 5211 mounting flange
- Fact To Face : MFG Standard
- ANSI B16.5 Class 150 / 300 RF
- EN 1092-1 PN10/16/25/40 RF

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M
Seat	PTFE
Temperature Range	-4 to 356°F (-20 to 180 °C)

ONE PIECE REDUCED PORT

<p>ONE PIECE BALL VALVE</p> <p>01 Threaded End 02 Blow-out-proof Stem Design 03 Temperature Range : -4 to 356 °F (-20 to 180 °C) 04 BODY : ASTM A351 Gr.CF8M (1.4408) 05 BALL : SS316 / CF8M 06 STEM : SS316 07 SEAT : PTFE / RTFE</p>	 <p>V-83 800 psi (PN40) • 1/4" - 2"</p>	 <p>V-103H 800 psi (PN40) • 1/4" - 2"</p>
 <p>V-010H 800 psi (PN40) • 1/4" - 1"</p>	 <p>V-103P 800 psi (PN40) • 1/4" - 2" Option : Locking device</p>	 <p>V-104H 2000 psi (PN140) • 1/4" - 1" 1500 psi (PN100) • 1-1/4" - 2"</p>

TWO PIECES FULL PORT

<p>TWO PIECES BALL VALVE</p> <p>01 Threaded End 02 Blow-out-proof Stem Design 03 Temperature Range : -4 to 356 °F (-20 to 180 °C) 04 BODY : ASTM A351 Gr.CF8M (1.4408) 05 BALL : CF8M 06 STEM : SS316 07 SEAT : PTFE / RTFE</p>	 <p>V-168 1000 psi (PN63) • 1/4" - 2"</p>	 <p>V-109 • M3 LENGTH 1000 psi (PN63) • 1/4" - 3"</p>
 <p>V-166 • M3 LENGTH 2000 psi (PN140) • 1/4" - 1" 1500 psi (PN100) • 1-1/4" - 2"</p>	 <p>V-204 1000 psi (PN63) • 1/4" - 2" Option : Locking device</p>	 <p>V-106 1000 psi (PN63) • 1/4" - 2", 800 psi (PN40) • 2-1/2" - 3" Option : Locking device</p>

TWO PIECES REDUCED PORT

<p>TWO PIECES BALL VALVE</p> <p>01 Threaded End 02 Blow-out-proof Stem Design 03 Temperature Range : -4 to 356 °F (-20 to 180 °C) 04 BODY : ASTM A351 Gr.CF8M (1.4408) 05 BALL : CF8M 06 STEM : SS316 07 SEAT : PTFE / RTFE</p>	 <p>V-108 2000 psi (PN140) • 1/4" - 1" 1500 psi (PN100) • 1-1/4" - 2"</p>	 <p>V-111 1000 psi (PN63) • 1/4" - 2"</p>
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THREE PIECES BALL VALVES

V-105



Design Feature

- Full Bore
- 1/4" – 4" (DN8 - DN100)
- Blow-out proof stem
- End connections : Threaded end
Socket Weld end / Butt Weld end
3A Tube end / Tri-Clamp end
- Options :
 1. Locking device
 2. Face to Face : DIN 3202 M3/S13

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" - 2" 1000 psi (PN63) 2-1/2" - 4" 800 psi (PN40)

V-105M



Design Feature

- Full Bore
- 1/4" – 4" (DN8 - DN100)
- Blow-out proof stem
- ISO 5211 mounting flange
- Locking handle
- End connections : Threaded end
Socket Weld end / Butt Weld end

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" - 2" 1000 psi (PN63) 2-1/2" - 4" 800 psi (PN40)

V-105F



Design Feature

- Full Bore
- 1/2" – 4" (DN15 - DN100)
- Blow-out proof stem
- End connections : Flanged
- Face to Face : EN558-1 F1
- Flange dia. :
EN1092-1 PN40/PN16 RF

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)

V-105W



Design Feature

- Full Bore
- 1/2" – 4" (DN15 - DN100)
- Blow-out proof stem
- End connections :
Ext. Butt Weld

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/2" - 2" 1000 psi (PN63) 2-1/2" - 4" 800 psi (PN40)

V-158 SERIES

- Full Bore • Blow-out proof stem • Anti-static design • Direct mounting type • Locking device handle
- Temperature Range : -4 to 356 °F (-20 to 180 °C)
- BODY CF8M(1.4408) • BALL CF8M • STEM SS316 • SEAT RTFE
- Working Pressure 1/4" – 2" 1000psi (PN63) 2-1/2" – 4" 800psi (PN40)



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"



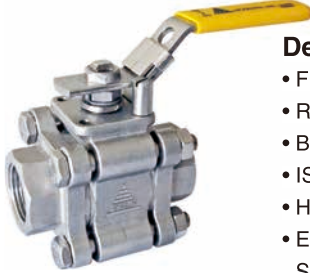
V-158W

Extended Butt Weld end
Size : 1/2" – 4"



THREE PIECES BALL VALVES

V-155



Design Feature

- Full port : 1/4" – 4" (DN8-DN100)
- Reduced port : 1/2" – 3" (DN15-DN80)
- Blow-out proof stem , Anti-static design
- ISO 5211 mounting flange
- Handle with locking device
- End connection : Thread end, Socket weld, Butt weld end

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE
Working Pressure	1/4"- 1" 2000 psi (PN 140)
	1-1/4" – 2" 1500 psi (PN 100)
	2-1/2" – 4" 1000 psi (PN 63)

V-355



Design Feature

- Full port : 1/4" – 4" (DN8-DN100)
- Reduced port : 1/2" – 4" (DN15-DN100)
- Blow-out proof stem, Anti-static design
- Direct mounting type
- Handle with locking device
- End connection : Thread end, Socket weld, Butt weld end

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Working Pressure	1/4"- 1" 2000 psi (PN 140)
	1-1/4" – 2" 1500 psi (PN 100)
	2-1/2" – 4" 1000 psi (PN 63)

V-255



Design Feature

- Full port : 1/4" – 2" (DN8-DN50)
- Reduced port : 1/2" – 2-1/2" (DN15-DN65)
- Blow-out proof stem, Anti-static design
- ISO 5211 mounting flange
- Handle with locking device
- End connection : Thread end, Socket weld, Butt weld end

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE
Working Pressure	1/4"- 1" 2000 psi (PN 140)
	1-1/4"- 2" 1500 psi (PN 100)

V-356



Design Feature

- Full port : 1/4" – 2" (DN8-DN50)
- Blow-out proof stem, Anti-static design
- ISO5211 Direct mounting type
- Handle with locking device
- End connection : Thread end, Socket weld

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
Working Pressure	1/4"- 2" 2000 psi (PN 140)



FORGED BALL VALVES

V-114H



Design Feature

- Reduced Bore / 1 PIECE design
- 1/4" - 2" (DN8-DN50)
- Blow-out proof stem
- Design per ANSI B16.34
- End connection : Threaded end

Body	ASTM A105N
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure (CWP)	1/4" - 1" 2000 psi (PN140)
	1-1/4" - 2" 1500 psi (PN100)

V-755



Design Feature

- Reduced Bore / 3 PIECES design
- 1/4"-2" (DN 8-DN 50)
- Blow-out-proof stem design
- Forged Steel components
- Four Point ISO 5211 mounting Pad Bolt Circle
- Available carbon and Stainless Steel construction
- End Connection: Threaded, Socket weld, Butt weld

Body	ASTM A105 / F316
Ball / Stem	CF8M / SS 316
Seat	RTFE (15% glass fiber filled)
Working pressure	1500 psi (PN100)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

V-FLOW BALL VALVES

VF-27



Design Feature

- 1/2" – 6" (DN15 - DN150)
- ISO 5211 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 B2002
- Flange dia. : EN1092-1 PN10/16/25/40 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-28

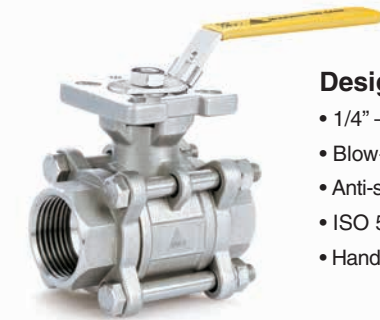


Design Feature

- 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
JIS 2002
- Flange dia. :
EN1092-1 PN 1016/25/40 RF
ANSI B16.5 CLASS 150/300 RF
JIS 2010 10K/20K

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

VF-158



Design Feature

- 1/4" – 4" (DN8 - DN100)
- Blow-out proof stem
- Anti-static design
- ISO 5211 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

VF-155

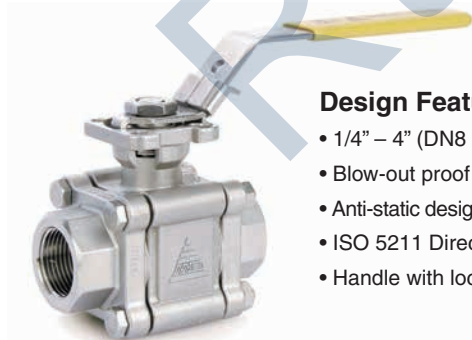


Design Feature

- 1/4" – 4" (DN8 - DN100)
- ISO 5211 Mounting Flange
- Blow-out proof stem
- Anti-static design
- Handle with locking device

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	50%PTFE + 50%S.S
Temperature Range	Threaded / Butt weld / Socket weld end
End Connections	1/4" – 1" 2000 psi (PN140)
Working Pressure	1-1/4" – 2" 1500 psi (PN100) 2-1/2" – 4" 1000 psi (PN 63)

VF-355

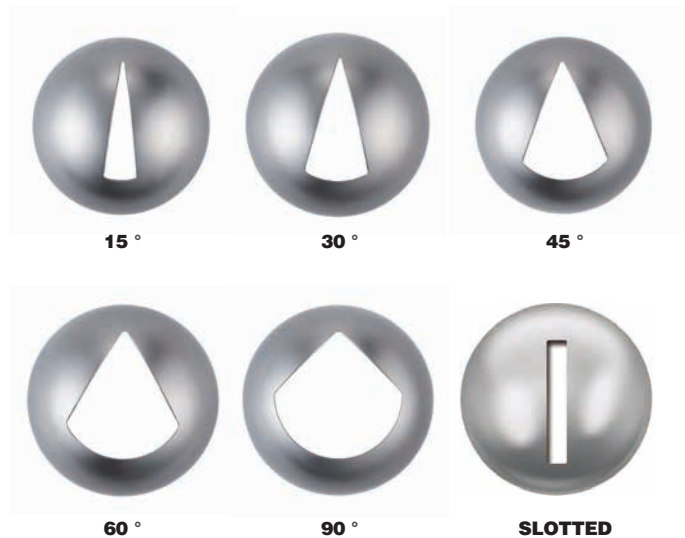


Design Feature

- 1/4" – 4" (DN8 - DN100)
- Blow-out proof stem
- Anti-static design
- ISO 5211 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 (PN 63)

BALL PORT





HIGH PRESSURE BALL VALVES

Other materials are available upon request

HPV-30

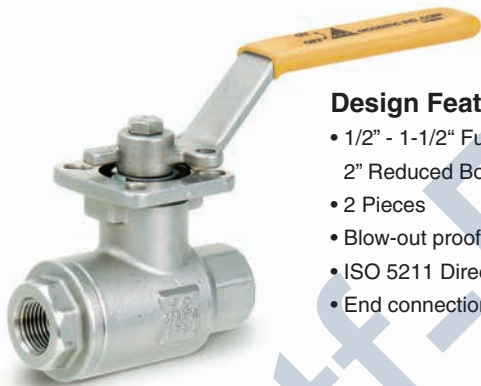


Design Feature

- 1/4" - 1-1/2" Full Bore
2" Reduced Bore
- 2 Pieces body design
- Blow-out proof stem
- 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(CWP)	3000 psi (PN210)

HPV-84

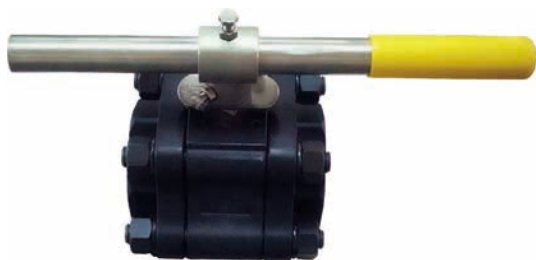


Design Feature

- 1/2" - 1-1/2" Full Bore
2" Reduced Bore
- 2 Pieces
- Blow-out proof stem
- ISO 5211 Direct mounting flange
- 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)

V-256



V-256 • Full Bore • 1/2" – 2" (DN15-DN50)
V-256 • Reduced Bore • 1/2" – 2" (DN15-DN50)

Body	ASTM A216 Gr.WCB / CF8M
Ball / Stem	CF8M / 17-4 PH
Seat	RTFE (15% glass fiber filled)
Working pressure	2220 psi (PN 150)
Temperature Range	-4 to 356 °F (-20 to 180 °C)

HPV-40 • HPV-41



Design Feature

- ISO 5211 mounting flange
- Blow-out proof stem
- Anti-static design
- Bar material body

HPV-40 3000 Psi Full Bore • 1/4" – 2" (DN8 - DN50)

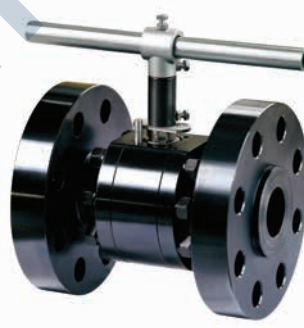
HPV-41 6000 Psi Full Bore • 1/4" – 2" (DN8 - DN50)

HPV-40A 3000 Psi Reduced Bore • 1/4" – 2" (DN8 - DN50)

HPV-41A 6000 Psi • Reduced Bore • 1/4" – 2" (DN8 - DN50)

Body	AISI 1025 / AISI316 (Bar material)
Ball / Stem	CF8M / 17-4PH
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(CWP)	HPV-40 3000 psi (PN210) HPV-41 6000 psi (PN420)

HPV-43



Design Feature

- 1/2" - 2"
- Design per ANSI B16.34 Class 1500 / 2500
- ISO 5211 mounting flange
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 class 1500/2500
- ANSI B16.5 class 1500/2500 RTJ

Body	AISI1025 / AISI316 (bar material)
Ball / Stem	CF8M / 17-4PH
Seat	Delrin / Peek
Temperature Range	-4 to 176°F (-20 to 180 °C) for Delrin -4 to 500°F (-20 to 260 °C) for Peek

 **MULTI WAY BALL VALVES**

K-301 3 Way L / T port



Design Feature

- Standard Bore
- 1/4" – 2" (DN8 - DN50)
- Blow-out proof stem
- 2 seats design for L port
- 3 seats design for T port

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 2" 1000 psi (PN 63)

K-302 3 Way L / T port



Design Feature

- Standard Bore
- 1/4" – 2" (DN8 - DN50)
- Blow-out proof stem
- 3 seats design

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 2" 1000 psi (PN 63)

K-303 3 Way L / T port



Design Feature

- Standard Bore
- 1/4" – 3" (DN8 - DN80)
- Blow-out proof stem
- 3 seats design
- ISO 5211 mounting flange

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 3" 1000 psi (PN 63)

K-310 3 Way L / T port



Design Feature

- Full Bore
- 1/4" – 1-1/2" (DN8 - DN40)
- Blow-out proof stem
- 3 seats design
- ISO 5211 mounting flange

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 1-1/2" 1000 psi (PN 63)

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 (15% glass fiber filled)
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	PTFE
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 2" 1000 psi (PN 63)



MULTI WAY BALL VALVES

K-306 3 Way L / T port

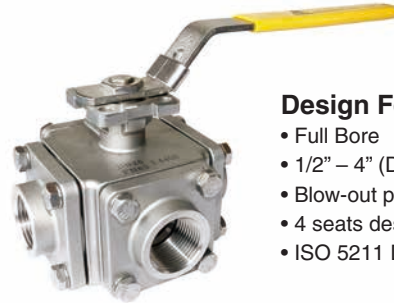


Design Feature

- Standard Bore
- 1/4" – 3" (DN8 - DN80)
- Blow-out proof stem
- 2 seats design
- ISO 5211 mounting flange

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 3" 1000 psi (PN 63)

K-314 3 Way L / T port

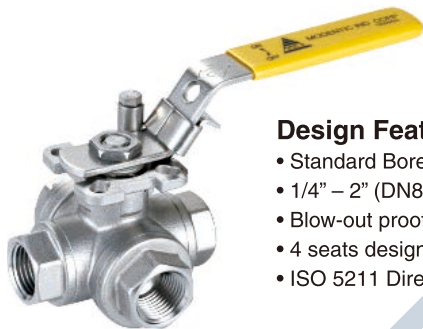


Design Feature

- Full Bore
- 1/2" – 4" (DN8 - DN100)
- Blow-out proof stem
- 4 seats design
- ISO 5211 Direct Mounting Type

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
End Connection	Threaded end / Butt welding / Socket welding
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/2" – 4" 1000 psi (PN 63)

K-434 4 Way L / T / X port

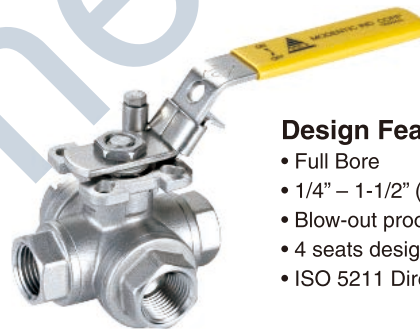


Design Feature

- Standard Bore
- 1/4" – 2" (DN8 - DN50)
- Blow-out proof stem
- 4 seats design
- ISO 5211 Direct Mounting Type

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	PTFE
End Connection	Threaded end
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 2" 1000 psi (PN 63)

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 Type

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
End Connection	Threaded end / Butt welding / Socket welding
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 1-1/2" 1000 psi (PN 63)

K-315 4 Way L / T / X port



Design Feature

- Full Bore
- 1/2" – 4" (DN15 - DN100)
- Blow-out proof stem
- 4 seats design
- ISO 5211 Direct Mounting Type

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
End Connection	Threaded end / Butt welding / Socket welding
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/2" – 4" 1000 psi (PN 63)

K-316 5 Way LL / LT / TL port



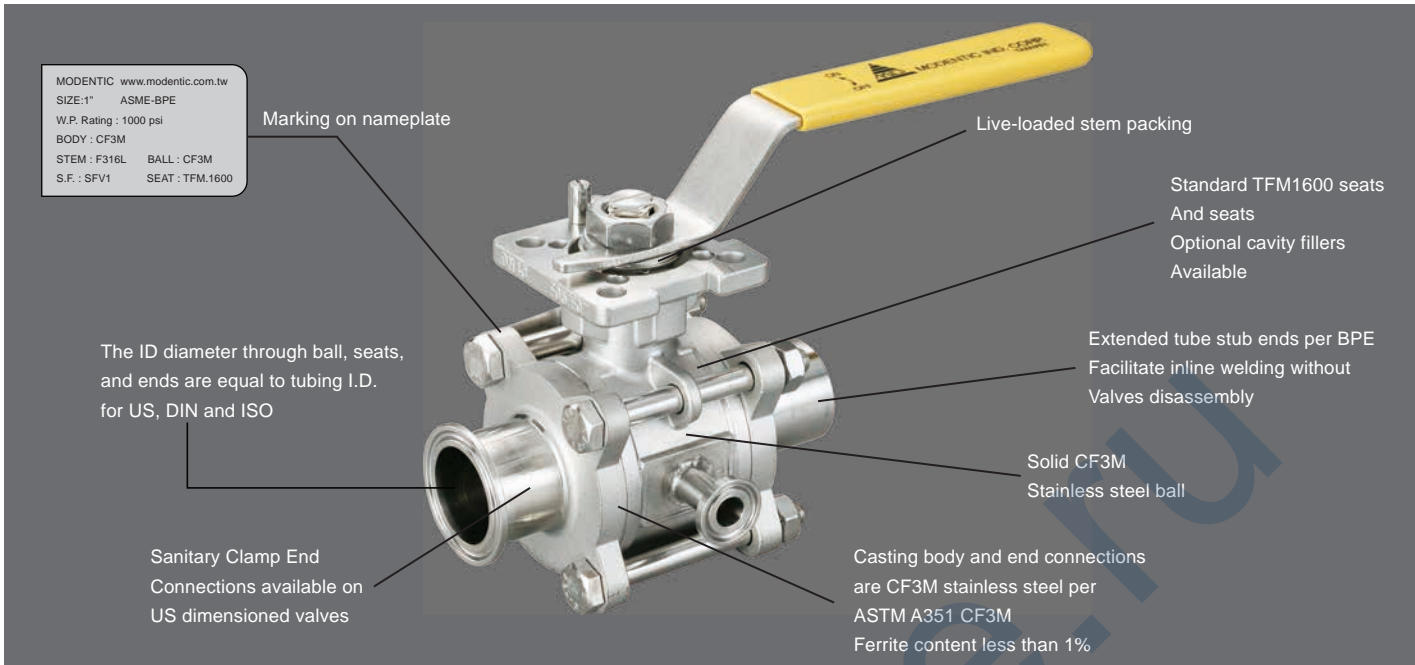
Design Feature

- Full Bore
- 1/4" – 4" (DN8 - DN100)
- Blow-out proof stem
- 5 seats design
- ISO 5211 Direct Mounting Type

Body	ASTM A351 Gr.CF8M (1.4408)
Ball / Stem	CF8M / SS316
Seat	RTFE (15% glass fiber filled)
End Connection	Threaded end / Butt welding / Socket welding
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working Pressure	1/4" – 2" 800 psi (PN 40) 2-1/2" – 3" 600 psi (PN 40) 4" 400 psi (PN 25)



We Offer Both Cast Ball Valves & Forged Ball Valves.



Metallic Materials of construction

Available in both forged and cast pieces of stainless steel, all wetted metallic surfaces of clean ball valves are constructed from stainless steel, which are capable of withstanding the temperature, pressure, and chemical corrosiveness assuring the purity and integrity of the products. In addition to SS316L and CF3M; higher grade materials are available upon request, such as AL-6XN, Nickel Alloys, Stainless steel Duplex

• Low Ferrite content

Because ferrite in process piping promotes roughing, especially in the weld, so users should always choose the equipment with low ferrite, Modentic controls ferrite <1% for SS316L forged valves; and ferrite <3% for CF3M cast valves.

• Tube connection feature to facilitate automatic orbital welding

- ◆ ASME BPE compliant extended tube so that welding can be performed without valve disassembled, tangent lengths furnished to standard ASME/BPE table DT-4.
- ◆ Sulfur content on tube ends 0.005%~.0.017% to ensure consistent weldability. Chemical composition for automatic weld end furnished to ASME BPE-Part DT-3.

• Hygienic Clamp end in accordance with US dimensions

• Tube bore design

To minimize the pressure drops and to facilitate the drainability, the concept of uninterrupted flow tube bore feature is designed throughout the flow path tube bore feature is designed throughout the flow path including ball, seats and end connections.

• Seat & Seals

All nonmetallic material chosen are FDA 21 CFR 177/USP23 Class VI compliant-ASME/BPE SD-3.4.2; Design according to SD-3.6.1, SG-4.1.1.6, SG-4.1.1.8

*** Cavity filler seats are available upon request (not recommended for steam service)**

• Surface Finish

This is one of the major characteristic addressed to high purity equipment. ASME/BPE provide criteria of product contact surface finished for bioprocessing equipment the standard internal surface finish for Modentic high purity ball valves are mechanical polished to Ra20(0.5um), ASME/BPE SFV1; finer grade of surface treatment can be accomplished by electro-polished to achieve SF4 Ra15(0.38µm).

The reading of the surface finish will be always a major report in our MTR.

• Temperature rating : -40°C~180°C (-40°F~356°F)

• Pressure rating:

- ◆ 1/2”~2” 1000psi PN63
- ◆ 2-1/2”~4”720psi PN40
- ◆ Steams puressure of 150 psig at 350°F

• Purge port (Upon the users' request)

For C.I.P. or S.I.P. application, valves have body and end piece bosses for ports.

Purge port type and size are provided as per following

- ◆ Valve size 1-1/2” and less 1/4” female compression fitting
- ◆ Valve size 2” and upper 1/2” female compression fitting

• ISO 5211 Intergral Actuator Mounting pad design

• Packing

Modentic high purity ball valves are finally tested and packed in a clean environment. Each valves is protected with end caps, and sealed in a transparent plastic bag.

Benefits of forged valves

- ◆ Lower Porosity and smoother Surfaces that can reduce surface contamination
- ◆ Stronger corrosion resistance

Benefits of cast valves

- ◆ Lower cost
- ◆ Small batches of production acceptable

Automation Ball Valves

Modentic helps you to mount automation devices for your ball valves, include actuators, limit switch box; positioner.....for the need specific to the application.

•) Table Sf-5 Acceptance Criteria For Interior Surface Finishes of Valve Bodies

Anomaly of Indication	Acceptance Criteria
Cluster of pits	No more than 4 pits per each 1/2 in.x 1/2in. Inspection window. The cumulative total of all relevant pits shall not exceed 0.040in.
Demarcation	If <5% of the total area when visually inspected and Ra max. is met.
Dents	None accepted.
Grit lines	If Ra max. is met.
Nicks	If depth <0.010 in.
Pits	If diameter <0.020 in. and bottom is shiny. Pits <0.003 in. diameter are irrelevant and acceptable.
Porosity	If diameter <0.010 in. and bottom is shiny.
Scratched	If lenglh <0.25in., depth<0.003in., and Ra max. is met.
Surface cracks	None accepted.
Surface inclusions	If Ra max. is met and there is no liquid penetrant indication.
Surface residuals	None accepted, visual inspection.
Surface roughness (Ra)	See Table SF-6.
Weld slag	None accepted.

Adupted from ASME/BPE-2005

•) Table Sf-6 RA Reading for Valves

Mechanically Polished [Note (1)]			
Surface Designation ASME BPE	Ra, Max.		
	μ-in.	μm	
SF1	20	0.51	
SF2	25	0.64	
SF3	30	0.76	
Mechanically Polished and Electropolished			
Surface Designation ASME BPE	Ra, Max.		
	μ-in.	μm	
SF4	15	0.38	
SF5	20	0.51	
SF6	25	0.64	

GENERAL NOTES:

- (a) All Ra reading are taken across the lay, wherever possible.
- (b) No Single Ra reading shall exceed the Ra max. value in this table.
- (c) Other Ra reading are available if agreed upon between owner/suer and manufacturer, not to exceed values in this table.

NOTE:

(1) Or any other finishing methos that meets the Ra max.

Adupted from ASME/BPE-2005

•) Surface Roughness for Grit Finishes(Ra.)

Abrasive grit No.	μ-in.		μm	
500	4 to 10		0.10 to 0.25	
320	6 to 15		0.15 to 0.38	
240	8 to 20		0.20 to 0.51	
180	25 max		0.64 max	
120	45 max		1.14 max	
60	140 max		3.56 max	

GRIT:

Measure the number of scarches per liner inch of abrasive pad. Higher numbers indicate a smoother finish.

RMS: Defined as Root Mean Square roughness, this method measure a smple for peaks and valleys. Lower number indicate a smoother finish.

Ra:Know as the Arithmetic Mean, this measurement represents the average value of all peaks and valleys. Lower numbers indicate a smooth finish.



BAR / FORGED SS316L

MD-955EB / TC

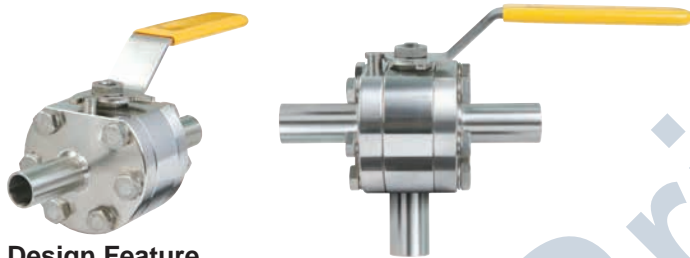


Design Feature

- Tube Bore
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem
- Design per ANSI B16.34 / BPE
- ISO 5211 mounting flange
- End connections : Clamp end BPE / ISO / DIN Ext. Tube end

Body	ANSI 316L
Ball / Stem	CF3M / SS 316L
Seat	TFM1600
Temperature Range	-40 to 356 °F (-40 to 180 °C)
Working Pressure	1/2"- 2" 1500 psi (PN 100)

MD-938 • MD-968



Design Feature

- Tube Bore
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem
- Design per ANSI B16.34 / BPE
- ISO 5211 mounting flange
- End connections : BPE / ISO / DIN Ext. Tube end
- Working pressure : 1500 psi

Body	ANSI 316L
Ball / Stem	CF3M / SS316L
Seat	TFM1600
Temperature Range	-40 to 356 °F (-40 to 180 °C)
Working Pressure	1/2"- 2" 1500 psi (PN 100)

MD-918EB / TC



Design Feature

- Tube Bore
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem
- Design per ANSI B16.34 / BPE
- End connections : Clamp end BPE / ISO / DIN Ext. Tube end

Body	ASTM A182 Gr. F316L
Ball / Stem	CF3M / SS316L
Seat	TFM1600
Temperature Range	-40 to 356 °F (-40 to 180 °C)
Working Pressure	1/2"- 2" 1000 psi (PN 63)



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 - DN100)
- Design per ANSI B16.34 / BPE
- Blow-out proof stem
- ISO 5211 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	TFM1600
Temperature Range	-40 to 356 °F (-40 to 180 °C)
Working Pressure	1/2"- 2" 1000 psi (PN 63) 2-1/2"- 4" 720 psi (PN 40)

V-255EB / TC



Design Feature

- Tube Bore
- 1/2" – 2" (DN15 - DN50)
- Design per ANSI B16.34 / BPE
- Blow-out proof stem
- ISO 5211 mounting flange
- 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	TFM1600
Temperature Range	-40 to 356 °F (-40 to 180 °C)
Working Pressure	1/2"- 2" 1000 psi (PN 63)

K-384EB / TC



Design Feature

- Tube Bore, L / T port
- 1/2" – 4" (DN15 - DN80)
- Design per ANSI B16.34 / BPE
- Blow-out proof stem
- ISO 5211 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	TFM1600
Temperature Range	-40 to 356 °F (-40 to 180 °C)
Working Pressure	1/2"- 2" 1000 psi (PN 63) 2-1/2"- 4" 800 psi (PN 40)



SANITARY BALL VALVES

V-Z05EB / TC



Option : Locking device, Cavity filler seat

V-Z05MEB / TC



ISO 5211 mounting flange

Option : Cavity filler seat

V-Z58EB / TC



ISO 5211 direct mounting

Option : Cavity filler seat

Design Feature

- Tube Bore
- 1/2" – 4" (DN15 - DN100)
- Blow-out proof stem
- End connection :
Clamp end, 3A Tube end
DIN 11850 Tube end

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS 316
Seat	TFM1600
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working pressure	1000 psi (PN 63) 1/2" – 2" 800 psi (PN 40) 2"-1/2" – 4"

K-338TC



Design Feature

- Tube Bore, 3 way L / T port
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem
- Direct mounting type
- End connection : Clamp end
- Option : Cavity filler seat

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working pressure	720 psi (PN 40)

K-364TC

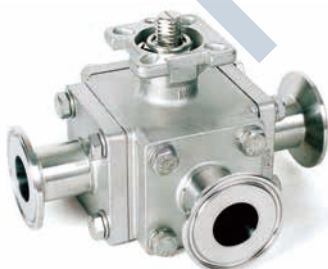


Design Feature

- Tube Bore, 3 way L / T port
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem
- ISO 5211 mounting type
- End connection : Clamp end
- Option : Cavity filler seat

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working pressure	720 psi (PN 40)

K-Z04EB / TC



Design Feature

- Tube Bore, 3/4 way L / T / X 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

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working pressure	720 psi (PN 40)

K-434TC



Design Feature

- Tube Bore, 4 way L / T port
- 1/2" – 2" (DN15 - DN50)
- Blow-out proof stem
- ISO 5211 direct mounting
- End connection :
Clamp end
- Option : Cavity filler seat

Body	ASTM A351 Gr.CF8M
Ball / Stem	CF8M / SS316
Seat	PTFE
Temperature Range	-4 to 356 °F (-20 to 180 °C)
Working pressure	720 psi (PN 40)



API 602 FORGED GATE • GLOBE • CHECK VALVES

Other materials are available upon request

FGT-800 / 1500 • BOLTED BONNET
PGT-1500 / 2500 • PRESSURE SEAL



Design Feature

- Forged Gate valve
- 1/2" – 2" (DN15 - DN50)
- Rising stem, non rising handwheel
- O.S. & Yoke, solid wedge
- Reduced port
- ASME B16.34 Class 800/1500/2500
- Option :
 1. Welded bonnet type for class 800/1500
 2. Full port

Body	ASTM A105N
Disc / Stem	ASTM A182 F6 / ASTM A276 410
End connections	Socket weld, NPT thread, Butt weld end

FGTF-150 / 300 / 600 • BOLTED BONNET
PGTF-1500 / 2500 • PRESSURE SEAL



Design Feature

- Forged Gate valve
- 1/2" – 2" (DN15 - DN50)
- Rising stem, non rising handwheel
- O.S. & Yoke, solid wedge
- Integral flange design
- Reduced port
- Option : 1. Welded bonnet type for class 150/300/600
 2. Full port

Body	ASTM A105N
Disc / Stem	ASTM A182 F6 / ASTM A276 410
Face to Face	ASME B16.10 Class 150/300/600 RF
Flange Dia.	ASME B16.5 Class 150/300/600 RF

FGB-800 / 1500 • BOLTED BONNET
PGB-1500 / 2500 • PRESSURE SEAL



Design Feature

- Forged Globe valve
- 1/2" – 2" (DN15 - DN50)
- Rising stem, rising handwheel
- O.S. & Yoke, Plug disc
- Reduced port
- ASME B16.34 Class 800/1500/2500
- Option :
 1. Welded bonnet type for class 800/1500
 2. Full port

Body	ASTM A105N
Disc / Stem	ASTM A182 F6 / ASTM A276 410
End connections	Socket weld, NPT thread, Butt weld end

FGBF-150 / 300 / 600 • BOLTED BONNET
PGBF-1500 / 2500 • PRESSURE SEAL



Design Feature

- Forged Globe valve
- 1/2" – 2" (DN15 - DN50)
- Rising stem, rising handwheel
- O.S. & Yoke, Plug disc
- Integral flange design
- Reduced port
- Option : 1. Welded bonnet type for class 150/300/600
 2. Full port

Body	ASTM A105N
Disc / Stem	ASTM A182 F6 / ASTM A276 410
Face to Face	ASME B16.10 Class 150/300/600 RF
Flange Dia.	ASME B16.5 Class 150/300/600 RF

FPC-800 / 1500 • BOLTED BONNET
PPC-1500 / 2500 • PRESSURE SEAL



Design Feature

- Forged Check valve
- 1/2" – 2" (DN15 - DN50)
- Piston type
- Reduced port
- ASME B16.34 Class 800/1500/2500
- Option :
 1. Welded bonnet type for class 800/1500
 2. Swing type (FSC- 800 / 1500)
 3. Full port

Body	ASTM A105N
Disc	ASTM A182 F6
End connections	Socket weld, NPT thread, Butt weld end

FPCF-150 / 300 / 600 • BOLTED BONNET
PPCF-1500 / 2500 • PRESSURE SEAL



Design Feature

- Forged Check valve
- 1/2" – 2" (DN15 - DN50)
- Piston type
- Integral flange design
- Reduced port
- Option :
 1. Welded bonnet type
 2. Swing type (FSF- 800 / 1500)
 3. Full port

Body	ASTM A105N
Disc	ASTM A182 F6
Face to Face	ASME B16.10 Class 150/300/600 RF
Flange Dia.	ASME B16.5 Class 150/300/600 RF



API 600 / API 603 FLANGED GATE • GLOBE • CHECK VALVES

Other materials are available upon request

GTF-150 / 300 / 600 / 900 / 1500 / 2500



Design Feature

- Design per API 600
- 2" – 48" (DN50 - DN1200)
- Rising stem, non rising handwheel
- O.S. & Yoke, flexible wedge
- Bolted bonnet design

Body / Stem	ASTM A216 Gr.WCB / A182 Gr.F6
Disc	ASTM A216 Gr.WCB + 13% Cr. coated
Face to Face	ASME B16.10 Class 150/300/600/900/1500/2500
Flange Dia.	ASME B16.5 Class 150/300/600/900/1500/2500

GTF-150 / 300 / PN / JIS



Design Feature

- Design per API 603
- 1/2" – 24" (DN15 - DN600)
- Rising stem, non rising handwheel
- O.S. & Yoke, flexible wedge, integral seats
- Bolted bonnet design

Body	ASTM A351 Gr.CF8M
Disc / Stem	ASTM A351 Gr.CF8M / A182 Gr.F316
Face to Face	ASME B16.10 Class 150/300 / EN558-1 F1/F4/F5
Flange Dia.	ASME B16.5 Class 150/300 RF EN1092-1 PN 10/16/25/40/ JIS10K

GBF-150 / 300 / 600 / 900 / 1500 / 2500



Design Feature

- Design per ANSI B16.34 / BS1873 / API600
- 2" – 24" (DN50 - DN600)
- Rising stem, rising handwheel
- O.S. & Yoke, flexible wedge
- Bolted bonnet design

Body / Stem	ASTM A216 Gr.WCB / A182 Gr.F6
Disc	ASTM A216 Gr.WCB + 13% Cr. coated
Face to Face	ASME B16.10 Class 150/300/600/900/1500/2500
Flange Dia.	ASME B16.5 Class 150/300/600/900/1500/2500

GBF-150 / 300 / PN / JIS



Design Feature

- Design per ANSI B16.34 / BS1873 / API603
- 1/2" – 14" (DN15 - DN350)
- Rising stem, rising handwheel
- O.S. & Yoke, flexible wedge, Conical seat design
- Bolted bonnet design

Body	ASTM A351 Gr.CF8M
Disc / Stem	ASTM A351 Gr.CF8M / A182 Gr.F316
Face to Face	ASME B16.10 Class 150/300 / EN558-1 F1/F4/F5
Flange Dia.	ASME B16.5 Class 150/300 RF EN1092-1 PN 10/16/25/40/ JIS10K

SF-150 / 300 / 600 / 900 / 1500 / 2500



Design Feature

- Design per API 600
- 2" – 36" (DN50 - DN900)
- Swing type
- Bolted bonnet design

Body	ASTM A216 Gr.WCB
Disc	ASTM A216 Gr.WCB + 13% Cr. coated
Face to Face	ASME B16.10 Class 150/300/600/900/1500/2500
Flange Dia.	ASME B16.5 Class 150/300/600/900/1500/2500

SF-150 / 300 / PN / JIS



Design Feature

- Design per ANSI B16.34 / BS1868 / API603
- 1/2" – 14" (DN15 - DN350)
- Swing type
- Conical seat design
- Bolted bonnet design

Body	ASTM A351 Gr.CF8M
Disc	ASTM A351 Gr.CF8M
Face to Face	ASME B16.10 Class 150/300 / EN558-1 F1/F4/F5
Flange Dia.	ASME B16.5 Class 150/300 RF EN1092-1 PN 10/16/25/40/ JIS10K



CHECK VALVES AND FLANGED STRAINERS

MV-1220



Design Feature

- Design per API 594
- 1-1/2" – 60" (DN40 - DN1500)
- Wafer type Dual plate

- Flange dia. : ASME B16.5, ISO 7005 / BS10-Table A/D/E/F
- JIS B2338 / API 605

Body	Cast / Ductile Iron
	Stainless / Carbon Steel
Plate	SS316 / SS304 / WCB
Seat	NBR / EPDM / Viton / Metal
Pressure Rating	ASME B16.5 Class 150/300/600/900/1500/2500
	EN1092-1 PN 10/16/25/40
	JIS 5K/10K/20K

MV-1222



Design Feature

- 2" – 24" (DN50 - DN600)
- Wafer type Swing Check Valves

Body	Carbon / Stainless Steel
Plate	SS316 / SS304
Seat	NBR / EPDM / Viton / PTFE / Metal
Flange Dia.	Class 150 / 300 / PN 10 / 16 / 25 / 40

MV-1225

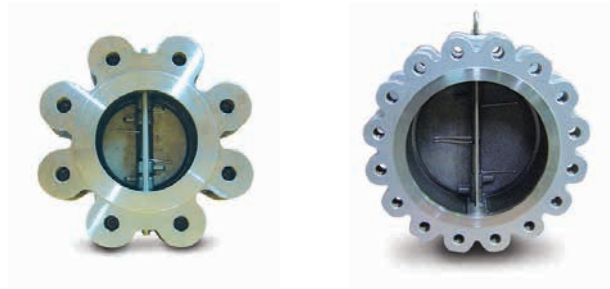


Design Feature

- 2" – 24" (DN50 - DN600)
- Wafer type Spring Check Valves

Body	Carbon / Stainless Steel
Plate	SS316 / SS304
Seat	NBR / EPDM / Viton / PTFE / Metal
Pressure rating	Class 150/300/600/900
	PN 10/16/25/40
	JIS 5K/10K/20K

MV-1221

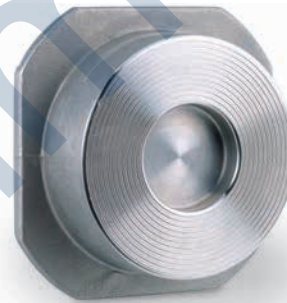


Design Feature

- Design per API 594
- 1-1/2" – 24" (DN40 - DN600)
- Lug type Dual plate

Body	ASTM A351 Gr.CF8M
Plate	ASTM A351 Gr.CF8M / A182 Gr.F316
Flange Dia.	ASME B16.5 Class 150/300/600 RF
	EN1092-1 PN 10/16/25/40
	JIS 5K/10K/20K

WA-001



Design Feature

- 1/2" – 8" (DN15 - DN200)
- Wafer type Spring Check Valves

Body	EN 1.4408
Disc / Spring	EN 1.4408 / SS316
Face to Face	DIN 3202 K4
Pressure rating	PN 40 for DN15-DN100
	PN 25 for DN125-DN150

FLANGED STRAINER YF-150 / 300 / PN / JIS



Design Feature

- 1/2" – 16" (DN15 - DN400)
- Y type Strainer

Body	ASTM A351 Gr.CF8M
Screen	SS304
Face to Face	MFG. Standard
Flange Dia.	B 16.5 Class 150 / 300 RF
	EN1092-1 PN 10/16/25/40 RF
	JIS 10K



SUPER ALLOY VALVES MATERIAL LIST

Other metal materials other than the above listed can be offered upon request

Material Conversation Chart

Material Code	Elements Content (%)	Casting		
		ASTM	DIN	UNS
Austenitic Stainless Steel				
General				
SS304	19Cr-9Ni	CF8	1.4308	J92600
SS304L	19Cr-9Ni-C<0.03%	CF3	1.4306	J92500
SS347	19Cr-10Ni-Nb	CF8C	1.4552	J92710
Specific				
SS316	19Cr-10Ni-2.5Mo	CF8M	1.4408	J92900
SS316L	19Cr-10Ni-2.5Mo-C<0.03%	CF3M	1.4404	J92800
SS317	19Cr-11Ni-3.5Mo	CG8M	1.4437	J93000
SS317L	19Cr-11Ni-3.5Mo-C<0.03%	CG3M	1.4438	J92999
Super Austenitic Stainless Steel				
904L	21Cr-25Ni-4.5Mo-1.5Cu-N	-	1.4539	-
254 SMO	20Cr-18Ni-6.5Mo-Cu-N	A351 CK3MCuN	1.4547	J93254
Highly Corrosion-resistant Alloy				
Austenitic Stainless Steel (Iron base)				
Alloy 20	29Ni-20Cr-3.5Cu-2.5Mo	A351 CN7M	2.4660	J95150
Ni-Mo Alloy				
Hastelloy B	28Mo-5Fe-V	A494 N-12MV	2.4882	N30012
Hastelloy B2	28Mo-1Fe	A494 N-7M	2.4617	N30007
Ni-Cr-Mo Alloy				
Hastelloy C276	16Cr-17Mo-6Fe-4W-V	A494 CW12MW	2.4686	N30002
Hastelloy C22	21Cr-13.5Mo-4Fe-3W	A494 CX2MW	2.4602	N26022
Ni-Cu Alloy				
Monel 400	65Ni-32Cu	A494 M-35-1	2.4365	N24135
Nickel				
Nickel CZ100	97Ni	A494 CZ-100	2.4066	N02100
Titanium				
Grade 2	99Ti	B367 C2		
Grade 5	6Al-4V	B367 C5		
High Temperature Alloy (Nickel base)				
Inconel 600	15Cr-8Fe	A494 CY-40	2.4816	N06040
inconel 625	22Cr-9Mo-3.5Nb-2.5Fe	A494 CW6MC	2.4856	N26625
Duplex Stainless Steel				
1A	25Cr-5Ni-2Mo-3Cu	A890 Gr.1A CD4MCu	1.4517	J93370
1B	25Cr-5Ni-2Mo-3Cu-N	A890 Gr.1B CD4MCuN		J93372
2A	24Cr-10Ni-3.5Mo-N	A955 Gr.2A CE8MN		J93345
2205/4A	22Cr-5Ni-3Mo-N	A955 Gr.4A CD3MN	1.4470	J92205
Super Duplex Stainless Steel				
2507/5A	25Cr-7Ni-4Mo-N	A890 Gr.5A CE3MN	1.4469	J93404
Z100/6A	25Cr-7Ni-3.5Mo-Cu-N-W	A890 Gr.6A CD3MWCuN	1.4471	J93380
329	25Cr-4Ni-Mo		1.4460	

 **SUPER ALLOY VALVES**

CASTING BALL VALVES



V-006



V-255



MD-82



MD-54

BAR MATERIAL BALL VALVES



V-S06



V-M05



HPV-40/41

API 600 / API 603 Design Gate • Globe • Check Valves



Gate Valve
GTF



Globe Valve
GBF



Check Valve
SF

OTHERS



Check Valve
MV-1220
Wafer Type



Check Valve
MV-1221
Lug Type



Needle Valve
NV-0060
NV-0061



SCREWED END GATE • GLOBE • CHECK • NEEDLE VALVES AND STRAINERS

GATE VALVES GT-200



Design Feature

- 1/2" – 2" (DN15 - DN50)
- Non-Rising stem, solid disc

Body / Disc	ASTM A351 Gr.CF8M (EN1.4408)
Packing	PTFE
Working Pressure	200 PSI / PN16
End Connection	Threaded end

GLOBE VALVES GB-200



Design Feature

- 1/4" – 2" (DN8 - DN50)
- Rising stem, solid disc

Body / Disc	ASTM A351 Gr.CF8M (EN1.4408)
Packing	PTFE
Working Pressure	200 PSI / PN16
End Connection	Threaded end

STRAINERS YS-800



Design Feature

- 1/4" – 3" (DN8 - DN80)
- Y-type Strainer

Body	ASTM A351 Gr.CF8M (EN1.4408)
Screen / Packing	SS316 / PTFE
Working Pressure	800 PSI / PN40
End Connection	Threaded end

GLOBE YGB-800



Design Feature

- 1/4" – 3" (DN8 - DN80)
- Rising stem, solid disc

Body / Disc	ASTM A351 Gr.CF8M (EN1.4408)
Packing	PTFE
Working Pressure	800 PSI / PN40
End Connection	Threaded end

CHECK VALVES SC-200



Design Feature

- 1/4" – 3" (DN8 - DN80)
- Swing type

Body / Disc	ASTM A351 Gr.CF8M (EN1.4408)
Body seal	PTFE
Working Pressure	200 PSI / PN16
End Connection	Threaded end

CHECK VALVES YSP-800



Design Feature

- 1/4" – 2" (DN8 - DN50)
- Y type Spring type

Body / Disc	ASTM A351 Gr.CF8M (EN1.4408)
Spring	SS316
Working Pressure	800 PSI / PN40
End Connection	Threaded end

CHECK VALVES WA-002



Design Feature

- 1/4" – 4" (DN8 - DN100)
- 3 pieces
- Spring type

Body / Disc	ASTM A351 Gr.CF8M (EN1.4408)
Body seal	PTFE
Working Pressure	800 PSI / PN40
End Connection	Threaded end, Socket weld, Butt weld end

NEEDLE VALVES



• NV-0060 NV-0062 Female X Female screwed end
• NV-0061 NV-0063 Male X Female screwed end
• 1/8" ~2" (DN6 ~ DN50)
• CWP : 6000 psi , 10000 psi
• Body : SS 316 (Investment casting)



PNEUMATIC ACTUATED VALVES

Limit Switch Box

- LSB 100 Weather Proof
- LSB 300 Extension Proof
- LSB 500 Special Material Housing

Air Filter

- AFC 1500/1000 series
- BFC 2000/3000/4000 series

Positioner

- PPL / PPR Pneumatic-Pneumatic
- EPL / EER Electro-Pneumatic

Solenoid Valve

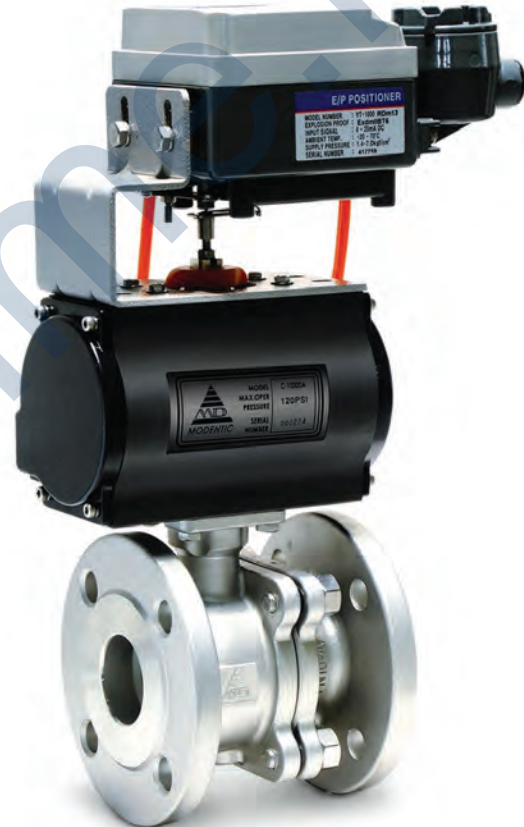
- 4V-310 5/2 way for Spring return
- 3V-310 3/2 way for Double acting

Actuator

- Double Acting
- Spring Return

Available Range

Screwed Ball Valve 1/4" - 4"
Flanged Ball Valve 1/2" - 12"
Multi-way Ball Valve 1/2" - 8"
Butterfly Valve 1-1/2" - 16"



GUIDE TO SEND US YOUR INQUIRY

WORKING CONDITIONS		OPERATION	ACCESSORRIE AND THEIR SPEC	
Working Temperature__°C	Working Pressure__Psi	Double Acting	Limit Switch Box	Positioner
Air supply to the actuator__Psi	Medium Sticky or not	Spring Return	Solenoid Valves	Air Filter



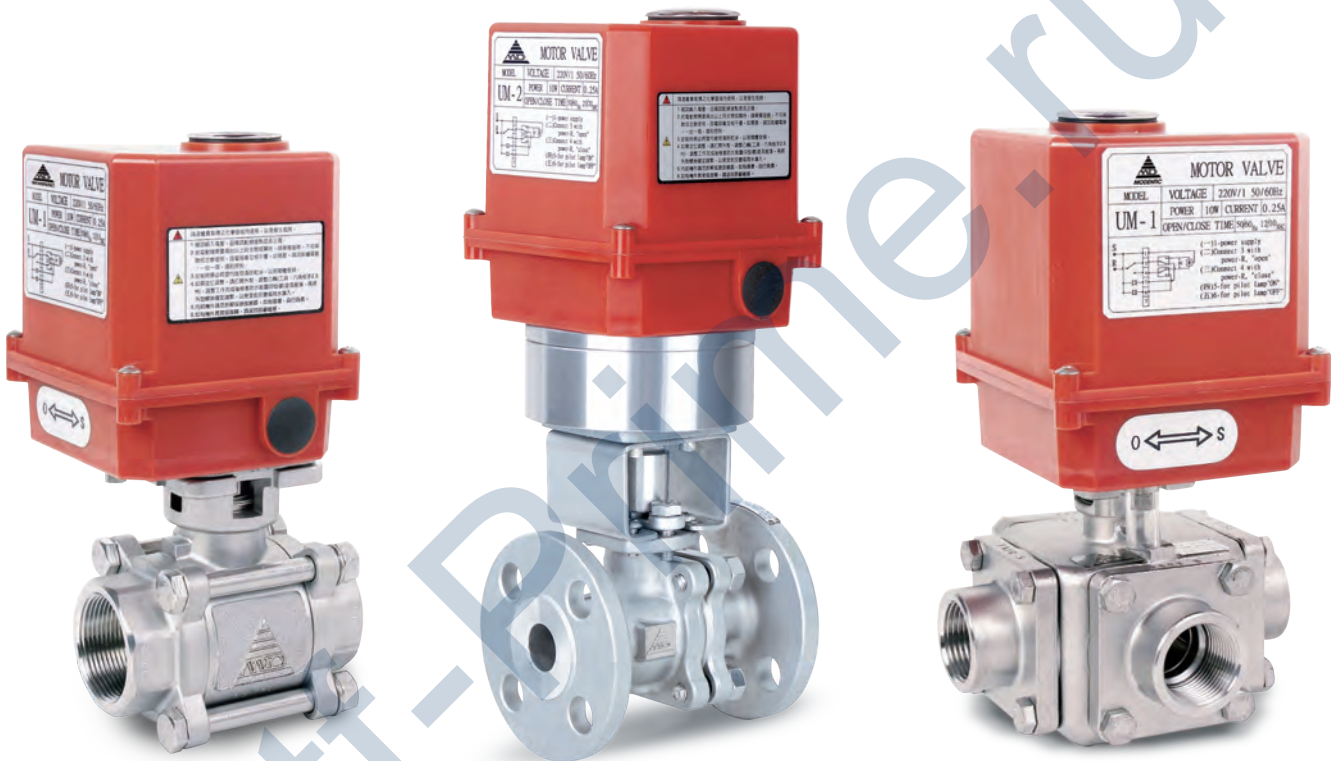


ELECTRIC ACTUATED VALVES

Actuator with CSA, UL 429 approval

Available Range

- Screwed Ball Valve 1/4" - 4"
- Flanged Ball Valve 1/2" - 12"
- Multi-way Ball Valve 1/2" - 6"
- Butterfly Valve 1-1/2" - 16"



GUIDE TO SEND US YOUR INQUIRY

WORKING CONDITIONS		OPTION		
110V AC	Working Pressure_Psi	Temperature Controller	Limit Switch (2 units)	Heater
220V AC				
24V AC	Working Temperature_°C	Replay	Modulating Controller	Modulating Control Box
24V DC				

Check Box



TECHNICAL FEATURES

Virgin PTFE

Inert to most chemicals, low coefficient of friction recommended for water foodstuffs and corrosive chemicals.

15% glass filled PTFE

Withstands higher pressure than virgin PTFE. Good resistance to wear and deformation under load.

Carbon filled PTFE

Specially for steam and thermal oil, low coefficient of friction inert to most media.

Glass and Metal Oxide filled PTFE

Withstands higher temperature and pressure than filled PTFE. good resistance under load. not recommended for foodstuff.

Carbon filled PEEK

Suitable for elevated temperatures. good resistance under high pressure loads, low coefficient of friction, suitable for many corrosive applications.

Virgin PEEK

Similar to filled PEEK but higher coefficient of friction, suitable for nuclear. Tobacco FDA and clean applications.

Delrin

Suitable for high pressures good resistance to wear and deformation under load. temperature limit 80°C. Must not be used in presence of oxygen.

PCTFE

Cryogenic applications such as oxygen hydrogen, nitrogen and more. suitable for temperature up to -260°C.

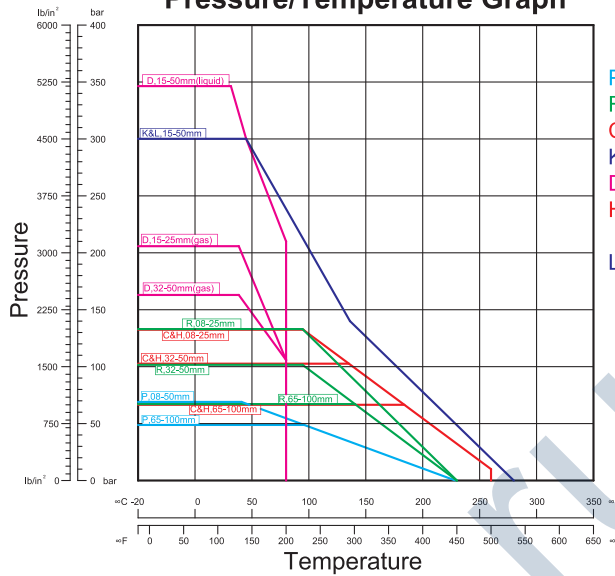
SEAT MATERIAL:

- soft seat pure-PTFE PTFE glass fiber reinforced
- PCTFE PEEK
- metal seat coated armour plating
- carbon seat

SEAT DESIGN:

- pressure relief
- pre loaded
- spring loaded
- fire-safe-design

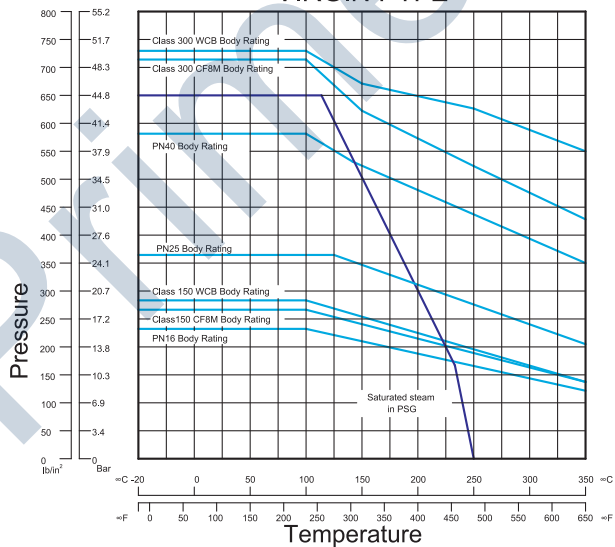
Screwed Ball Valves Pressure/Temperature Graph



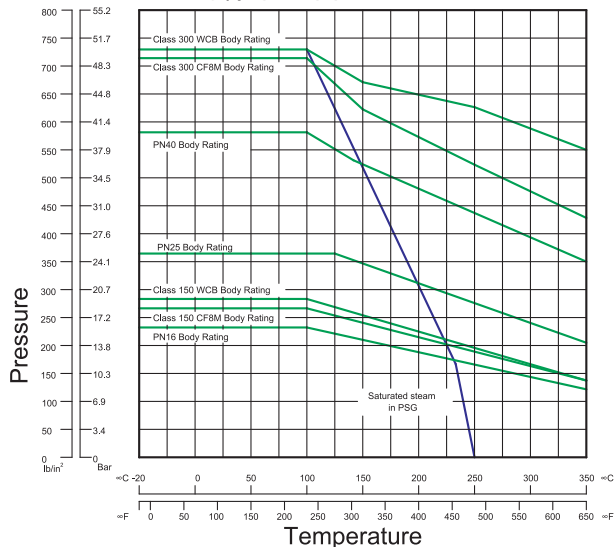
- P Virgin PTFE
- R 15% glass filled PTFE
- C Carbon filled PTFE.
- K Carbon filled PEEK
- D Delrin
- H Glass and Metal Oxide filled PTFE
- L Virgin PEEK

Flanged Ball Valves Pressure/Temperature Graph

VIRGIN PTFE



15% GLASS FILLED PTFE





PRODUCTS RANGE:

Soft Seated Ball Valves ASME Class 150~1500	1/4" ~ 36"
Metal Seated Ball Valves ASME Class 150~600	1/2" ~ 16"
Trunnion Mounted Ball Valves	2" ~ 36"
V-Flow Ball Valves	1/2" ~ 6"
High Purity Ball Valve	1/2" ~ 4"

Pressure range : 1.DIN PN10~PN420

2.API 150psi~10,000psi

Temperature range : -40°C to 500°C (-40°F to 1022°F)

For more information on any articles in this catalogue, please contact:



MODENTIC INDUSTRIAL CORPORATION

14F.-3, No.89, Sec. 1, Zhongqing Rd., North Dist.,
Taichung City 40458, Taiwan (R.O.C.)

TEL : 886-4-22071786 FAX : 886-4-22071696

E-mail: md_sales@ms.modentic.com.tw

<http://www.modentic.com.tw>

<http://www.valvebus.com>

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