



# 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.

## CONTENTS

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”

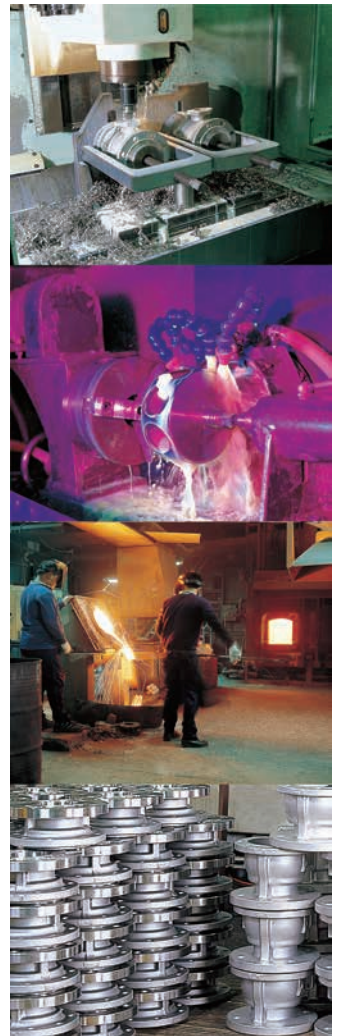
Strainers 1/2”~16”

Needle Valves 1/8”~1”

Super Alloy Valves



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





# Index

- ◆ CERTIFICATE.....p.1
- ◆ TWO WAY FLANGED BALL VALVES.....p.2~3
- ◆ FIRE SAFE APPROVED BALL VALVES.....p.4~5
- ◆ TRUNNION MOUNTED BALL VALVES.....p.6
  - ◆ METAL SEATED BALL VALVES.....p.7
  - ◆ MULTI WAY FLANGED BALL VALVES.....p.8
- ◆ GENEL SCREWED END BALL VALVES.....p.9~11
  - ◆ FORGED BALL VALVES.....p.11
  - ◆ V-FLOW BALL VALVES.....p.12
- ◆ HIGH PRESSURE BALL VALVES.....p.13
  - ◆ MULTI WAY BALL VALVES.....p.14~15
  - ◆ HIGH PURITY BALL VALVE.....p.16~17
    - ◆ CLEAN BALL VALVES.....p.18
    - ◆ SANITARY BALL VALVES.....p.19
- ◆ API 602 FORGED GATE • GLOBE • CHECK VALVES.....p.20
- ◆ API 600 / API 603 FLANGED GATE • GLOBE • CHECK VALVES.....p.21
  - ◆ CHECK VALVES • FLANGED STRAINER.....p.22
  - ◆ SUPER ALLOY VALVES MATERIAL LIST.....p.23
    - ◆ SUPER ALLOY VALVES.....p.24
- ◆ SCREWED END GATE • GLOBE • CHECK • NEEDLE VALVES AND STRAINERS.....p.25
  - ◆ PNEUMATIC ACTUATED VALVES.....p.26
  - ◆ ELECTRIC ACTUATED VALVES.....p.27
    - ◆ TECHNICAL FEATURES.....p.28





## 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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M / SS 316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M / SS 316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M/ SS 316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M/ SS 316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M/ SS 316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (EN1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	50%PTFE + 50%S.S.
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

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

### MD-28

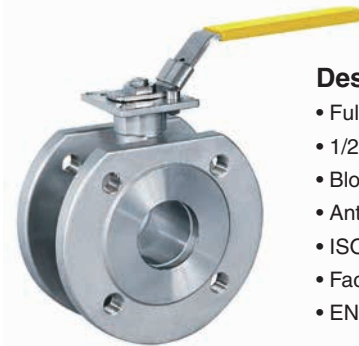


#### Design Feature

- 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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (EN 1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Temperature Range</b>	-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



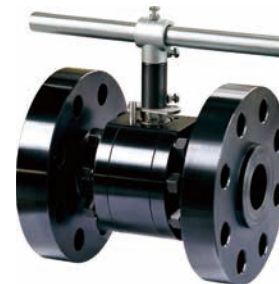
### Design Feature

- 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 )

<b>Body</b>	ASTM A105 / F316
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Working pressure</b>	1500 psi ( PN 100 )
<b>Temperature Range</b>	-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)

<b>Body</b>	AISI1045 / AISI316 ( bar material )
<b>Ball / Stem</b>	CF8M / 17-4PH
<b>Seat</b>	Delrin / Peek
<b>Working pressure</b>	3000 psi ( PN 210 )
<b>Temperature Range</b>	-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)

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

### V-908

API 607 6th



#### Design Feature

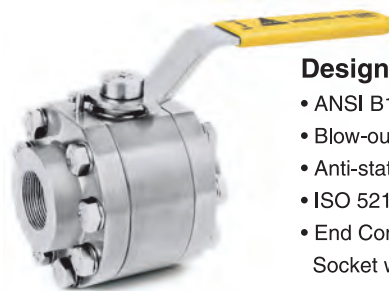
- ANSI B16.34 Class 900 design
- Blow-out proof stem
- Anti-static design
- Handle with locking device
- ISO 5211 Direct mounting
- End Connection: Threaded

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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Working pressure</b>	2000 psi ( PN 140 )
<b>Temperature Range</b>	-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)

<b>Body</b>	AISI1045 / AISI316 ( bar material )
<b>Ball / Stem</b>	CF8M / 17-4PH
<b>Seat</b>	Delrin / Peek
<b>Working pressure</b>	6000 psi ( PN 420 )
<b>Temperature Range</b>	-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)

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Working Pressure</b>	1/4" - 1" 2000 psi (PN140) 1-1/4" - 2" 1500 psi (PN100)
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A216 Gr.WCB / CF8M
<b>Ball / Stem</b>	CF8M / SS 316
<b>Seat</b>	PTFE / Nylon
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A216 Gr.WCB / CF8M
<b>Ball / Stem</b>	CF8M / SS 316
<b>Seat</b>	PTFE / Nylon
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A216 Gr.WCB / CF8M
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	PTFE / Nylon
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A216 Gr.WCB / CF8M
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	PTFE / Nylon
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A105 / F316
<b>Ball / Stem</b>	F316 / F316
<b>Seat</b>	PTFE / Nylon
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A105 / F316
<b>Ball / Stem</b>	F316 / F316
<b>Seat</b>	PTFE / Nylon
<b>Temperature Range</b>	-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

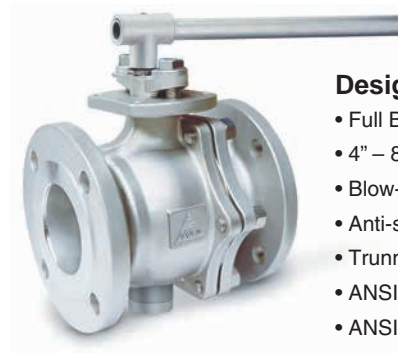
- Full Bore
- 1/2" – 8" (DN15 - DN200)
- Blow-out proof stem
- Anti-static design
- ANSI B16.10 Class 150/300
- ANSI B16.5 Class 150/300 RF

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M + Hard Cr. / SS 316
<b>Seat</b>	SS 316 + Stellite #6
<b>Tightness Rates</b>	$\Delta P$ : 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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M + Hard Cr. / SS 316
<b>Seat</b>	SS 316 + Stellite #6
<b>Tightness Rates</b>	$\Delta P$ : 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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M + Hard Cr. / SS 316
<b>Seat</b>	SS 316 + Stellite #6
<b>Tightness Rates</b>	$\Delta P$ : 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)

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M + Hard Cr. / SS 316
<b>Seat</b>	SS 316 + Stellite #6
<b>Tightness Rates</b>	$\Delta P$ : 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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE
<b>Temperature Range</b>	-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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M
<b>Seat</b>	PTFE
<b>Temperature Range</b>	-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

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

## ONE PIECE REDUCED PORT

<p><b>ONE PIECE BALL VALVE</b></p> <p>01 <b>Threaded End</b>  02 <b>Blow-out-proof Stem Design</b>  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><b>V-83</b> 800 psi (PN40) • 1/4" - 2"</p>	 <p><b>V-103H</b> 800 psi (PN40) • 1/4" - 2"</p>
 <p><b>V-010H</b> 800 psi (PN40) • 1/4" - 1"</p>	 <p><b>V-103P</b> 800 psi (PN40) • 1/4" - 2" Option : Locking device</p>	 <p><b>V-104H</b> 2000 psi (PN140) • 1/4" - 1" 1500 psi (PN100) • 1-1/4" - 2"</p>

## TWO PIECES FULL PORT

<p><b>TWO PIECES BALL VALVE</b></p> <p>01 <b>Threaded End</b>  02 <b>Blow-out-proof Stem Design</b>  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><b>V-168</b> 1000 psi (PN63) • 1/4" - 2"</p>	 <p><b>V-109 • M3 LENGTH</b> 1000 psi (PN63) • 1/4" - 3"</p>
 <p><b>V-166 • M3 LENGTH</b> 2000 psi (PN140) • 1/4" - 1" 1500 psi (PN100) • 1-1/4" - 2"</p>	 <p><b>V-204</b> 1000 psi (PN63) • 1/4" - 2" Option : Locking device</p>	 <p><b>V-106</b> 1000 psi (PN63) • 1/4" - 2", 800 psi (PN40) • 2-1/2" - 3" Option : Locking device</p>

## TWO PIECES REDUCED PORT

<p><b>TWO PIECES BALL VALVE</b></p> <p>01 <b>Threaded End</b>  02 <b>Blow-out-proof Stem Design</b>  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><b>V-108</b> 2000 psi (PN140) • 1/4" - 1" 1500 psi (PN100) • 1-1/4" - 2"</p>	 <p><b>V-111</b> 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

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

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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	PTFE
<b>Temperature Range</b>	-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

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



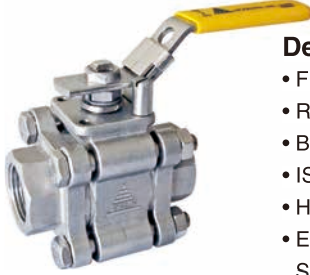
V-158W

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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A105N
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	PTFE
<b>Temperature Range</b>	-4 to 356 °F ( -20 to 180 °C)
<b>Working Pressure (CWP)</b>	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

<b>Body</b>	ASTM A105 / F316
<b>Ball / Stem</b>	CF8M / SS 316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>Working pressure</b>	1500 psi (PN100)
<b>Temperature Range</b>	-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

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

**VF-28**

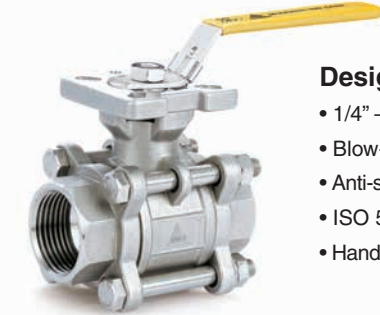


**Design Feature**

- 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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	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

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

**VF-155**

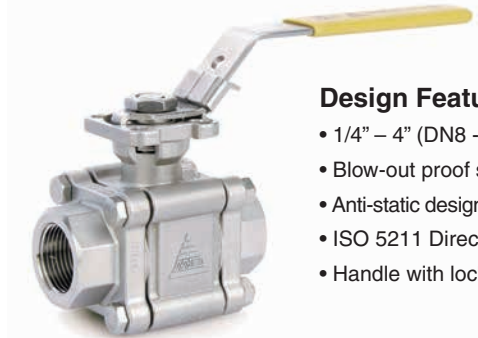


**Design Feature**

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

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

**VF-355**

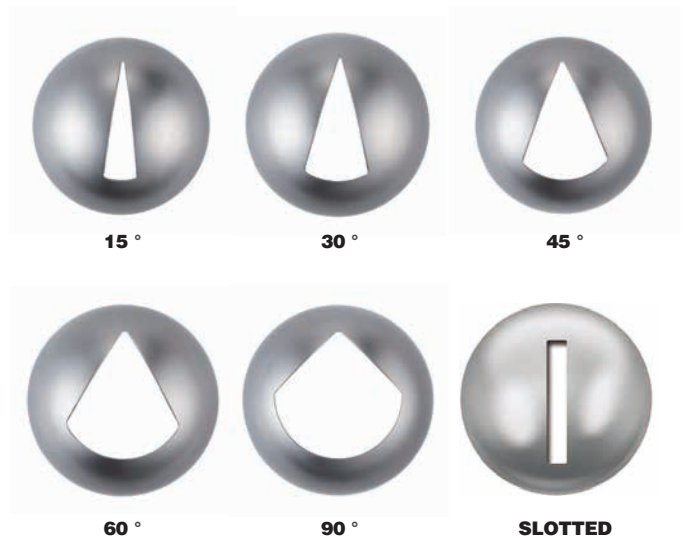


**Design Feature**

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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	50%PTFE + 50%S.S
<b>End Connections</b>	Threaded / Butt weld / Socket weld end
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	Derlin / Peek
<b>Temperature Range</b>	-4 to 176 °F (-20 to 80 °C) for Derlin -4 to 500 °F (-20 to 260 °C) for Peek
<b>Working pressure(CWP)</b>	3000 psi (PN210)

### HPV-84

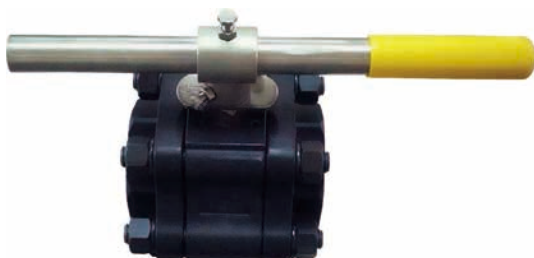


#### Design Feature

- 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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	Derlin / Peek
<b>Temperature Range</b>	-4 to 176 °F (-20 to 80 °C) for Derlin -4 to 500 °F (-20 to 260 °C) for Peek
<b>Working pressure</b>	3000 psi (PN210)

### V-256



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

### 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)

<b>Body</b>	AISI 1025 / AISI316 (Bar material)
<b>Ball / Stem</b>	CF8M / 17-4PH
<b>Seat</b>	Derlin / Peek
<b>Temperature Range</b>	-4 to 176 °F (-20 to 80 °C) for Derlin -4 to 500 °F (-20 to 260 °C) for Peek
<b>Working pressure(CWP)</b>	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

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

#### Design Feature

- ANSI B16.34 Class 900 design
- Blow-out-proof stem
- Anti-static design
- ISO 5211 mounting flange
- End Connection: Threaded, Socket weld, Butt weld

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



**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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	PTFE
<b>End Connection</b>	Threaded end
<b>Temperature Range</b>	-4 to 356 °F (-20 to 180 °C)
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	PTFE
<b>End Connection</b>	Threaded end
<b>Temperature Range</b>	-4 to 356 °F (-20 to 180 °C)
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>End Connection</b>	Threaded end
<b>Temperature Range</b>	-4 to 356 °F (-20 to 180 °C)
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>End Connection</b>	Threaded end
<b>Temperature Range</b>	-4 to 356 °F (-20 to 180 °C)
<b>Working Pressure</b>	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

<b>Body</b>	ASTM A351 Gr.CF8M (1.4408)
<b>Ball / Stem</b>	CF8M / SS316
<b>Seat</b>	RTFE (15% glass fiber filled)
<b>End Connection</b>	Threaded end
<b>Temperature Range</b>	-4 to 356 °F (-20 to 180 °C)
<b>Working Pressure</b>	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

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



## MULTI WAY BALL VALVES

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

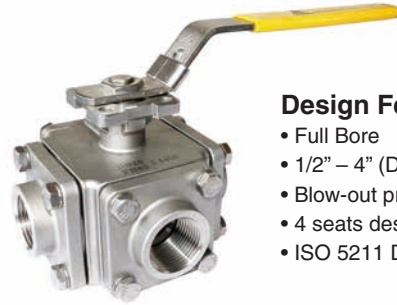


#### Design Feature

- 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

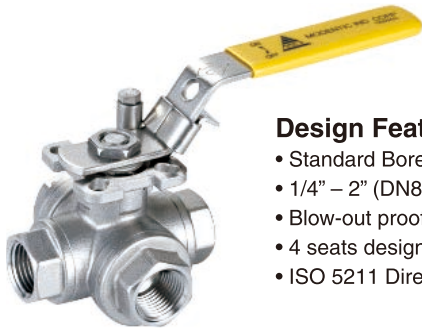


#### Design Feature

- 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

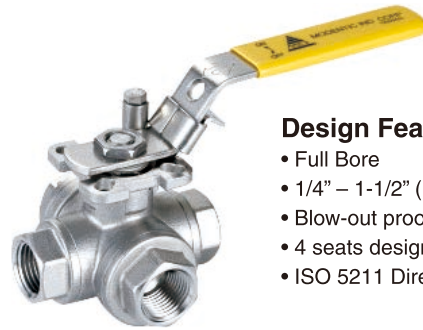


#### Design Feature

- 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

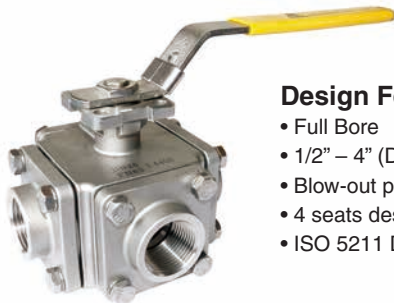


#### Design Feature

- 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



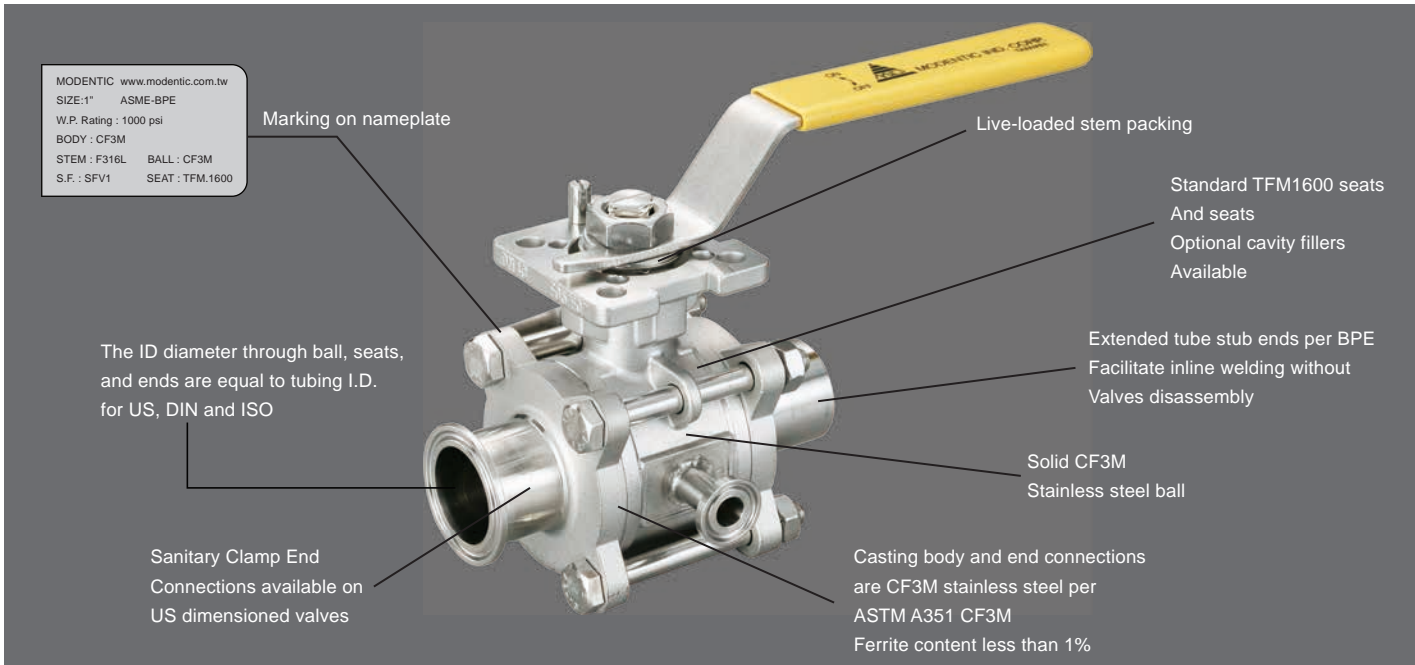
#### Design Feature

- 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
<b>Cluster of pits</b>	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.
<b>Demarcation</b>	If <5% of the total area when visually inspected and Ra max. is met.
<b>Dents</b>	None accepted.
<b>Grit lines</b>	If Ra max. is met.
<b>Nicks</b>	If depth <0.010 in.
<b>Pits</b>	If diameter <0.020 in. and bottom is shiny. Pits <0.003 in. diameter are irrelevant and acceptable.
<b>Porosity</b>	If diameter <0.010 in. and bottom is shiny.
<b>Scratched</b>	If lenth <0.25in., depth<0.003in., and Ra max. is met.
<b>Surface cracks</b>	None accepted.
<b>Surface inclusions</b>	If Ra max. is met and there is no liquid penetrant indication.
<b>Surface residuals</b>	None accepted, visual inspection.
<b>Surface roughness (Ra)</b>	See Table SF-6.
<b>Weld slag</b>	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	
	μ-in.	μm	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

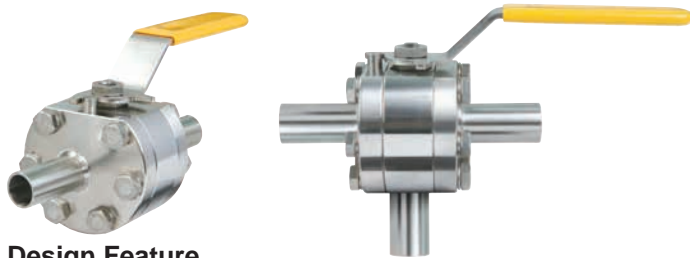


#### Design Feature

- 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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Ball / Stem</b>	CF8M / SS 316
<b>Seat</b>	TFM1600
<b>Temperature Range</b>	-4 to 356 °F ( -20 to 180 °C)
<b>Working pressure</b>	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

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

## K-364TC

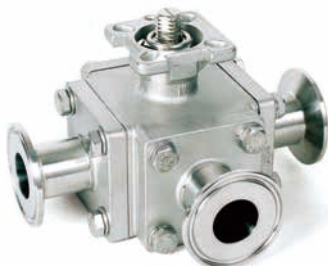


### Design Feature

- 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

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

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

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

<b>Body</b>	ASTM A105N
<b>Disc / Stem</b>	ASTM A182 F6 / ASTM A276 410
<b>End connections</b>	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

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

<b>Body</b>	ASTM A105N
<b>Disc / Stem</b>	ASTM A182 F6 / ASTM A276 410
<b>End connections</b>	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

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

<b>Body</b>	ASTM A105N
<b>Disc</b>	ASTM A182 F6
<b>End connections</b>	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

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

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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Disc / Stem</b>	ASTM A351 Gr.CF8M / A182 Gr.F316
<b>Face to Face</b>	ASME B16.10 Class 150/300 / EN558-1 F1/F4/F5
<b>Flange Dia.</b>	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

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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Disc / Stem</b>	ASTM A351 Gr.CF8M / A182 Gr.F316
<b>Face to Face</b>	ASME B16.10 Class 150/300 / EN558-1 F1/F4/F5
<b>Flange Dia.</b>	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

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

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





## CHECK VALVES AND FLANGED STRAINERS

### MV-1220



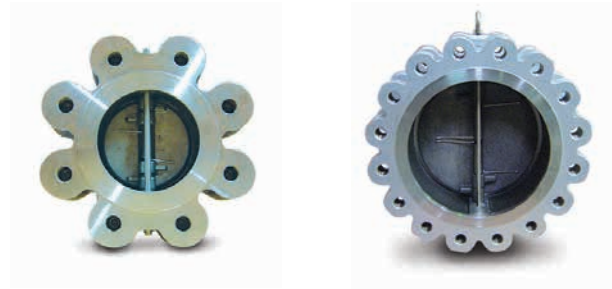
#### Design Feature

- 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

<b>Body</b>	Cast / Ductile Iron
	Stainless / Carbon Steel
<b>Plate</b>	SS316 / SS304 / WCB
<b>Seat</b>	NBR / EPDM / Viton / Metal
<b>Pressure Rating</b>	ASME B16.5 Class 150/300/600/900/1500/2500
	EN1092-1 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

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

### MV-1222



#### Design Feature

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

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

### WA-001



#### Design Feature

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

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

### MV-1225



#### Design Feature

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

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

### FLANGED STRAINER YF-150 / 300 / PN / JIS



#### Design Feature

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

<b>Body</b>	ASTM A351 Gr.CF8M
<b>Screen</b>	SS304
<b>Face to Face</b>	MFG. Standard
<b>Flange Dia.</b>	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
<b>Austenitic Stainless Steel</b>				
<b>General</b>				
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
<b>Specific</b>				
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
<b>Super Austenitic Stainless Steel</b>				
904L	21Cr-25Ni-4.5Mo-1.5Cu-N	-	1.4539	-
254 SMO	20Cr-18Ni-6.5Mo-Cu-N	A351 CK3MCuN	1.4547	J93254
<b>Highly Corrosion-resistant Alloy</b>				
<b>Austenitic Stainless Steel ( Iron base )</b>				
Alloy 20	29Ni-20Cr-3.5Cu-2.5Mo	A351 CN7M	2.4660	J95150
<b>Ni-Mo Alloy</b>				
Hastelloy B	28Mo-5Fe-V	A494 N-12MV	2.4882	N30012
Hastelloy B2	28Mo-1Fe	A494 N-7M	2.4617	N30007
<b>Ni-Cr-Mo Alloy</b>				
Hastelloy C276	16Cr-17Mo-6Fe-4W-V	A494 CW12MW	2.4686	N30002
Hastelloy C22	21Cr-13.5Mo-4Fe-3W	A494 CX2MW	2.4602	N26022
<b>Ni-Cu Alloy</b>				
Monel 400	65Ni-32Cu	A494 M-35-1	2.4365	N24135
<b>Nickel</b>				
Nickel CZ100	97Ni	A494 CZ-100	2.4066	N02100
<b>Titanium</b>				
Grade 2	99Ti	B367 C2		
Grade 5	6Al-4V	B367 C5		
<b>High Temperature Alloy ( Nickel base)</b>				
Inconel 600	15Cr-8Fe	A494 CY-40	2.4816	N06040
inconel 625	22Cr-9Mo-3.5Nb-2.5Fe	A494 CW6MC	2.4856	N26625
<b>Duplex Stainless Steel</b>				
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
<b>Super Duplex Stainless Steel</b>				
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



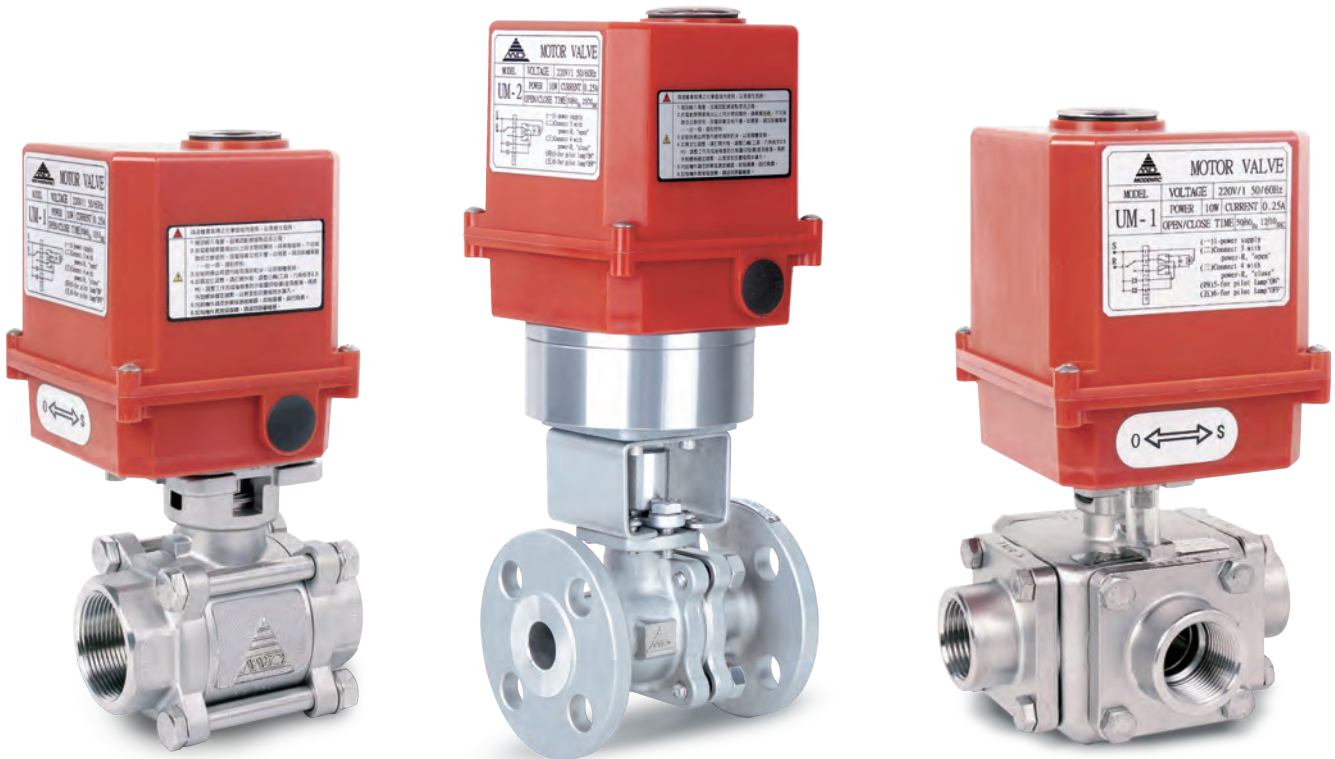


# ELECTRIC ACTUATED VALVES

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 foodstuff 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.

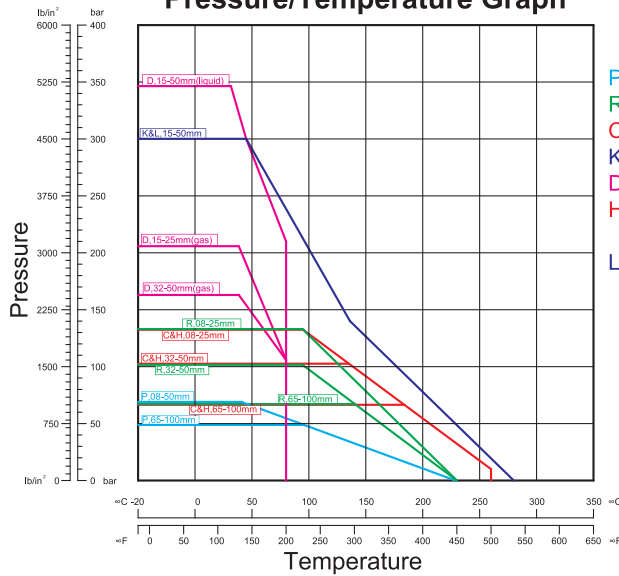
### SEAT MATERIAL:

- 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

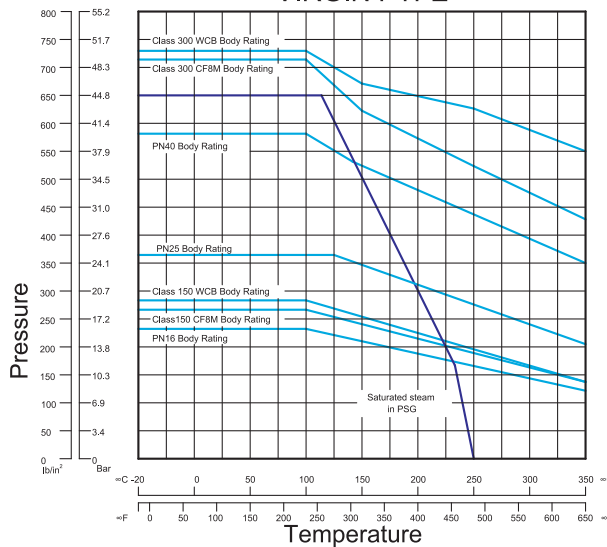
## Screwed Ball Valves Pressure/Temperature Graph



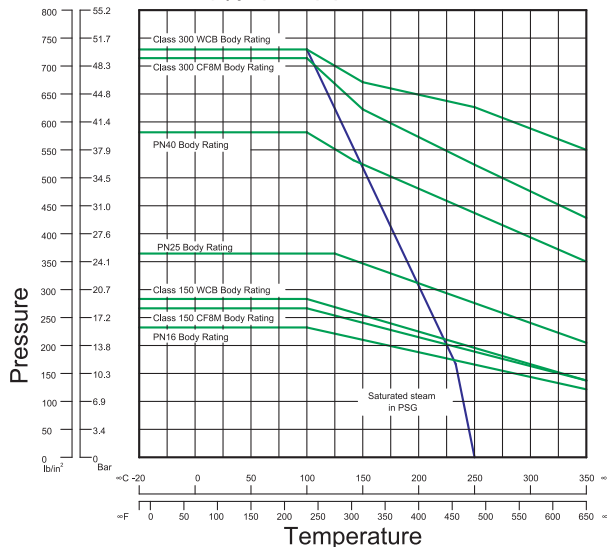
- P Virgin PTFE
- R 15% glass filled PTFE
- C Carbon Filled PTFE.
- K Carbon filled PEEK
- D Delrin
- H Glass and Metal Oxide filled PTFE
- L Virgin PEEK

## 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)

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