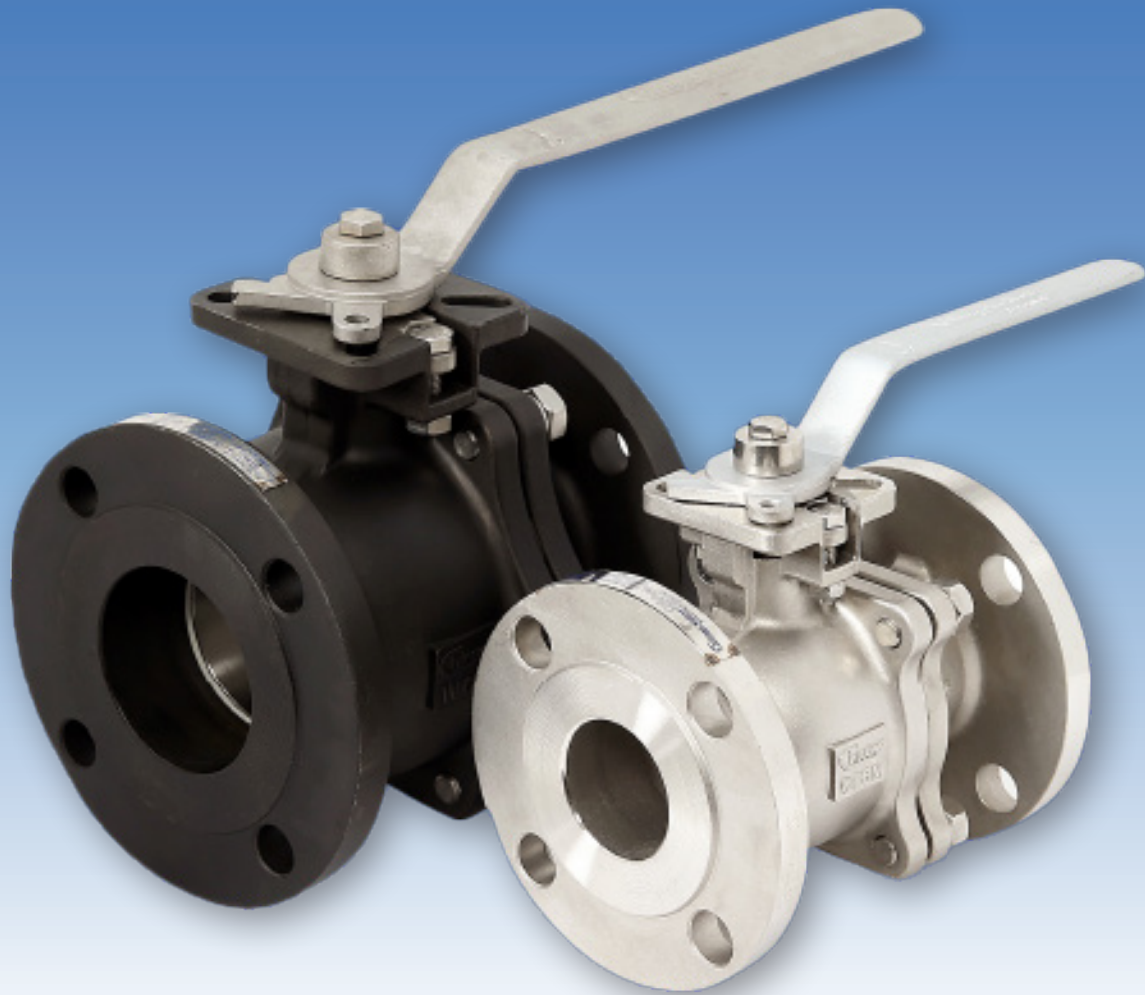


Chicago Valves & Controls



SERIES 82/FS82

FLANGED FULL PORT

BALL VALVE CLASS 150/300/600

Series 82 | FS82

150# / 300# / 600#

1/2" - 6"

316 STAINLESS STEEL - ASTM A351

CARBON STEEL - ASTM A216 WCB

ALLOY 20 - ASTM A351 CN7M

LIVE LOADED STEM

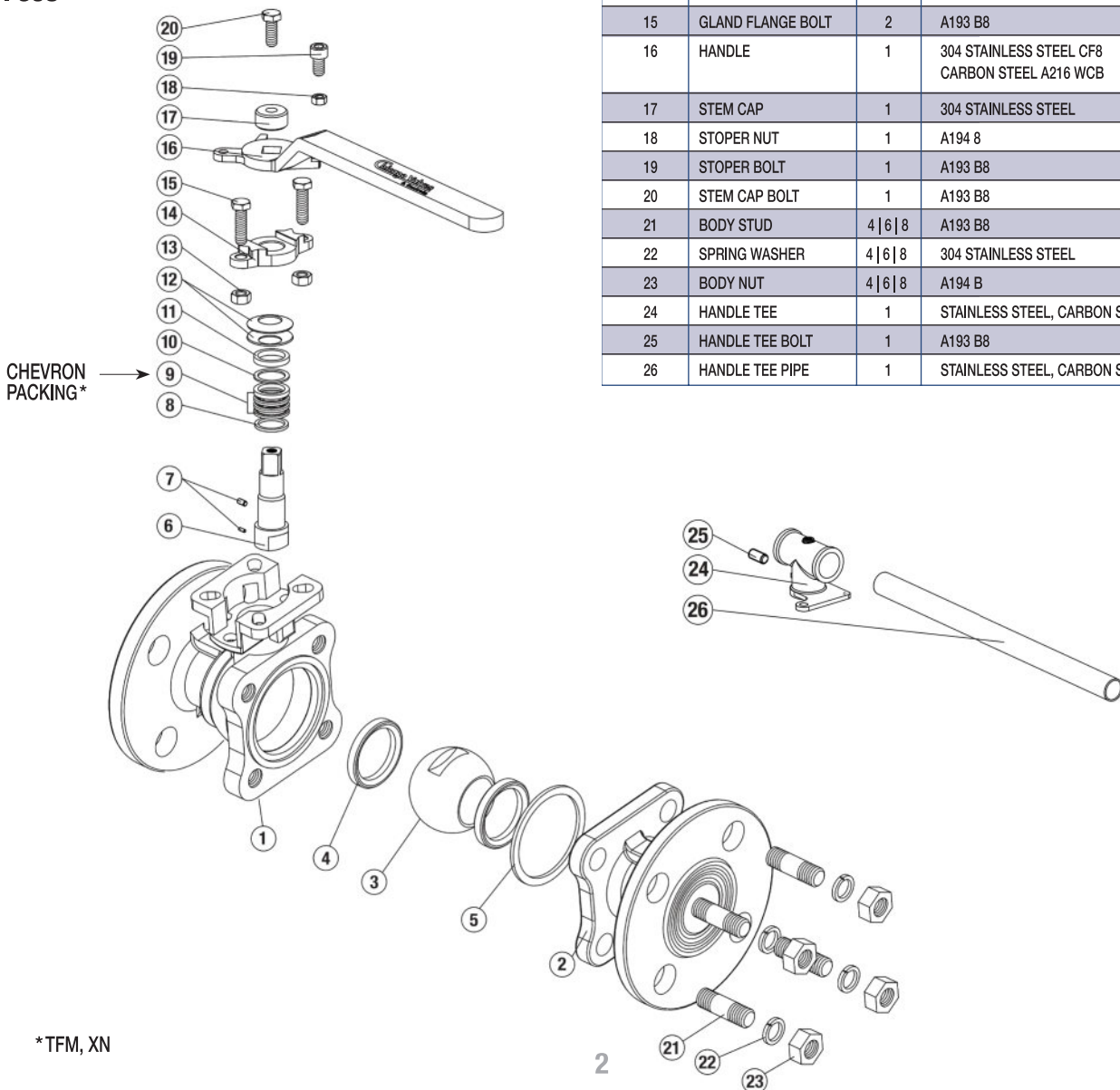
LOCKABLE HANDLE

DIRECT MOUNT MOUNTING PAD

MC PAD:

ELEVATED PAD ALLOWS FOR ADJUSTMENT OF GLAND PACKING FLANGE WHILE VALVE IS IN SERVICE WITHOUT REMOVING ACTUATOR OR HANDLE, API 608

ELEVATED PAD ALLOWED TO ADJUST GLAND PACKAGING FLANGE WHILE VALVE IS IN SERVICE WITHOUT REMOVING ACTUATOR OR HANDLE, API 608



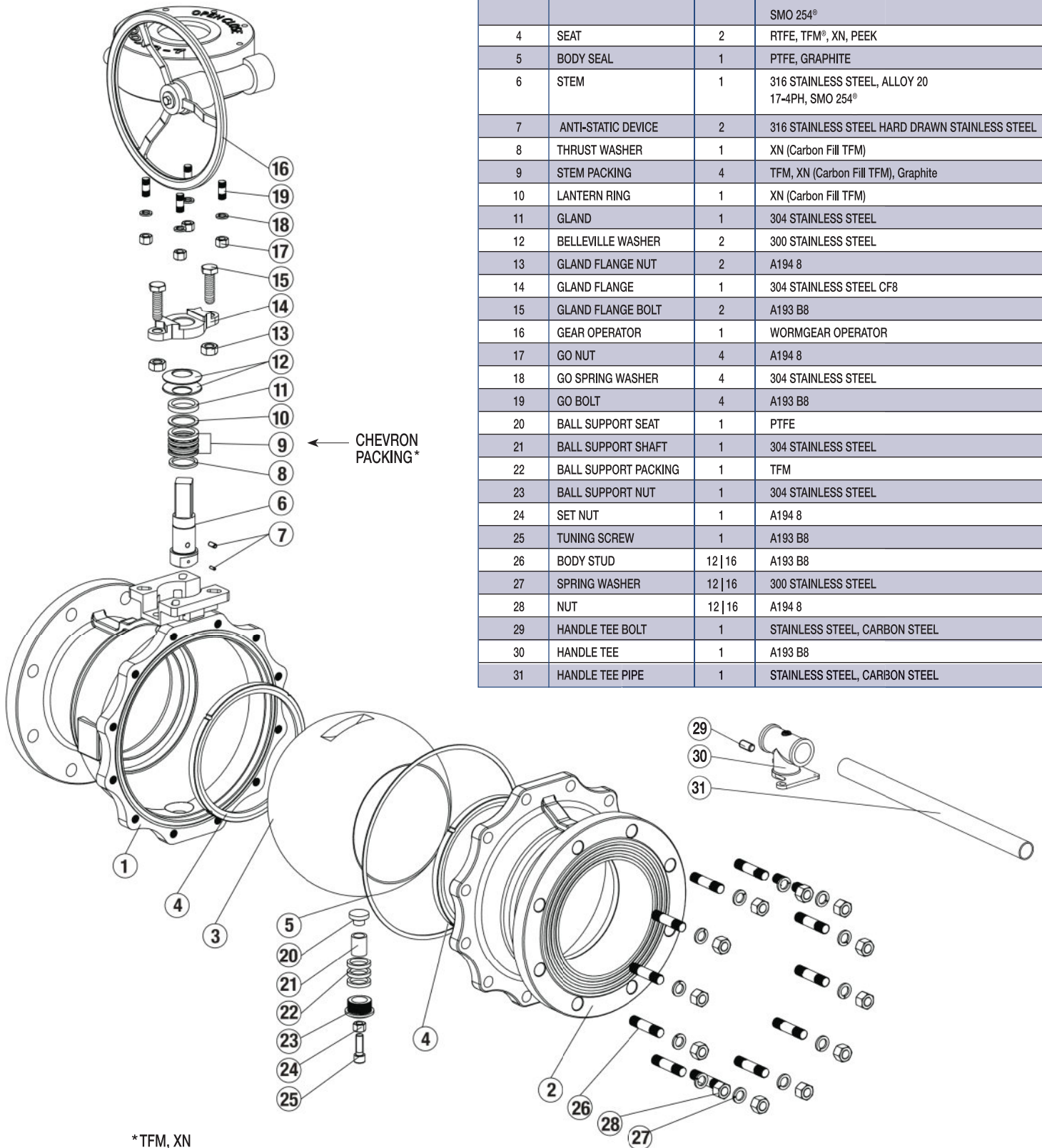
| PART NO | PART NAME | QTY | MATERIAL |
|---------|--------------------|-----------|---|
| 1 | BODY | 1 | CARBON STEEL ASTM A216 WCB 316 STAINLESS STEEL ASTM A351 CF8M ALLOY 20 ASTM CN7M SMO 254® ASTM A351 CK3CUN |
| 2 | END PIECE | 1 | CARBON STEEL ASTM A216 WCB 316 STAINLESS ASTM A351 CF8M ALLOY 20 ASTM CN7M SMO 254® ASTM A351 CK3MCUN |
| 3 | BALL | 1 | 316 STAINLESS STEEL ALLOY 20 ASTM CN7M SMO 254® ASTM A351 CK3MCUN |
| 4 | SEAT | 2 | RTFE, TFM®, XN, PEEK |
| 5 | BODY SEAL | 1 | PTFE, GRAPHITE |
| 6 | STEM | 1 | 316 STAINLESS STEEL, ALLOY 20 17-4PH, SMO 254 |
| 7 | ANTI-STATIC DEVICE | 2 | 316 STAINLESS STEEL HARD DRAWN STAINLESS STEEL |
| 8 | THRUST WASHER | 1 | XN (Carbon Fill TFM) |
| 9 | STEM PACKING | 4 | TFM, XN (Carbon Fill TFM), Graphite |
| 10 | LANTERN RING | 1 | XN (Carbon Fill TFM) |
| 11 | GLAND | 1 | 304 STAINLESS STEEL |
| 12 | BELLEVILLE WASHER | 2 | 304 STAINLESS STEEL |
| 13 | GLAND FLANGE NUT | 2 | A194 B8 |
| 14 | GRAND FLANGE | 1 | 304 STAINLESS STEEL CF8 |
| 15 | GLAND FLANGE BOLT | 2 | A193 B8 |
| 16 | HANDLE | 1 | 304 STAINLESS STEEL CF8 CARBON STEEL A216 WCB |
| 17 | STEM CAP | 1 | 304 STAINLESS STEEL |
| 18 | STOPER NUT | 1 | A194 8 |
| 19 | STOPER BOLT | 1 | A193 B8 |
| 20 | STEM CAP BOLT | 1 | A193 B8 |
| 21 | BODY STUD | 4 6 8 | A193 B8 |
| 22 | SPRING WASHER | 4 6 8 | 304 STAINLESS STEEL |
| 23 | BODY NUT | 4 6 8 | A194 B |
| 24 | HANDLE TEE | 1 | STAINLESS STEEL, CARBON STEEL |
| 25 | HANDLE TEE BOLT | 1 | A193 B8 |
| 26 | HANDLE TEE PIPE | 1 | STAINLESS STEEL, CARBON STEEL |

*TFM, XN

Series 82 | FS82

150# / 300#

8" - 12"

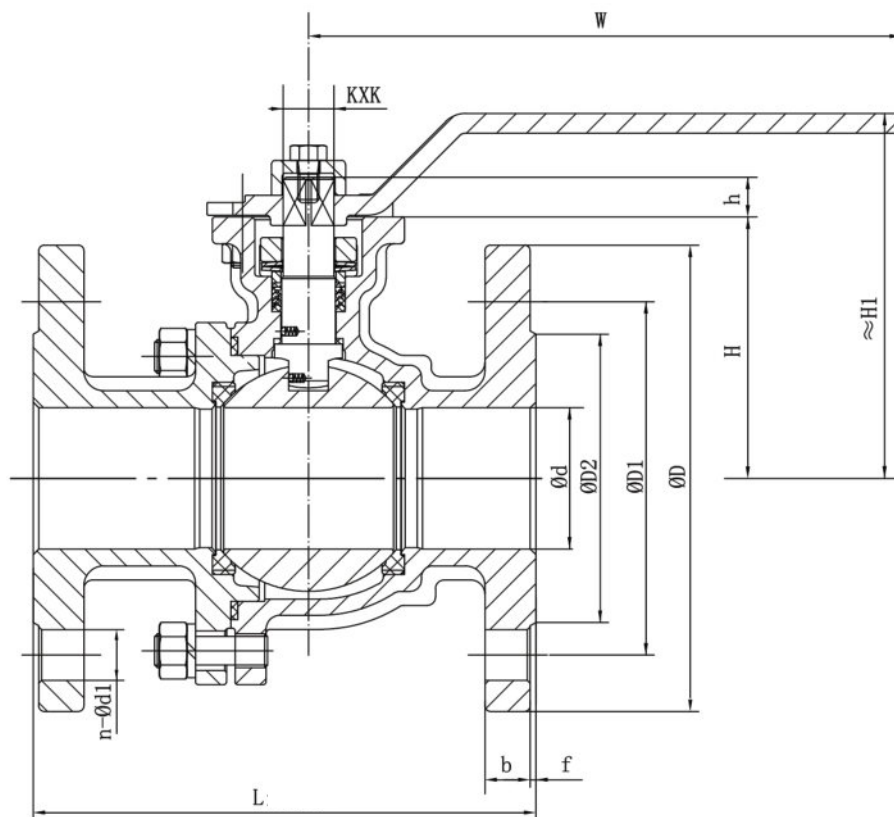
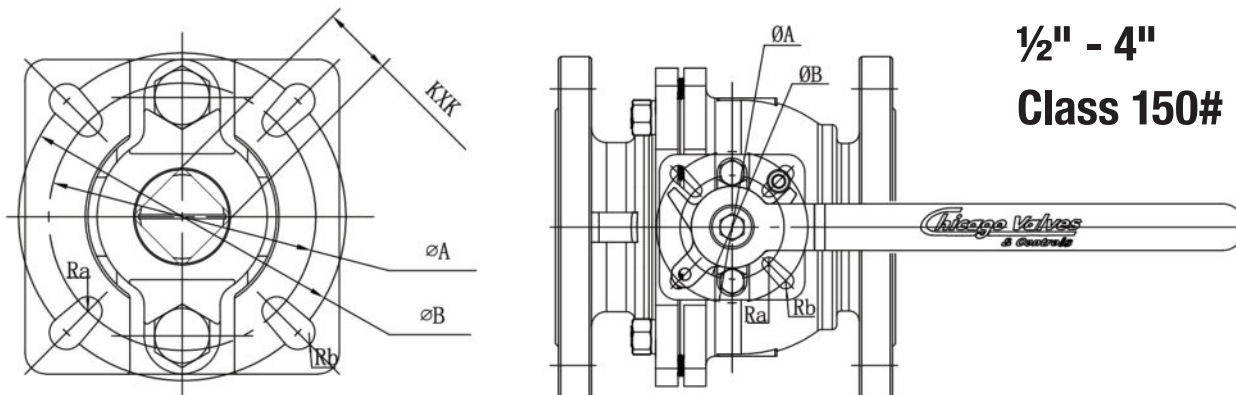


| PART NO | PART NAME | QTY | MATERIAL |
|---------|----------------------|---------|--|
| 1 | BODY | 1 | CARBON STEEL ASTM A216 WCB 316 STAINLESS STEEL ASTM A351 CF8M ALLOY 20 ASTM A351 CN7M SMO 254 [®] ASTM A351 CK3CUN |
| 2 | END PIECE | 1 | CARBON STEEL ASTM A216 WCB 316 STAINLESS STEEL ASTM A351 CF8M ALLOY 20 ASTM A351 CN7M SMO 254 [®] ASTM A351 CK3CUN |
| 3 | BALL | 1 | 316 STAINLESS STEEL ALLOY 20 SMO 254 [®] |
| 4 | SEAT | 2 | RTFE, TFM [®] , XN, PEEK |
| 5 | BODY SEAL | 1 | PTFE, GRAPHITE |
| 6 | STEM | 1 | 316 STAINLESS STEEL, ALLOY 20 17-4PH, SMO 254 [®] |
| 7 | ANTI-STATIC DEVICE | 2 | 316 STAINLESS STEEL HARD DRAWN STAINLESS STEEL |
| 8 | THRUST WASHER | 1 | XN (Carbon Fill TFM) |
| 9 | STEM PACKING | 4 | TFM, XN (Carbon Fill TFM), Graphite |
| 10 | LANTERN RING | 1 | XN (Carbon Fill TFM) |
| 11 | GLAND | 1 | 304 STAINLESS STEEL |
| 12 | BELLEVILLE WASHER | 2 | 300 STAINLESS STEEL |
| 13 | GLAND FLANGE NUT | 2 | A194 8 |
| 14 | GLAND FLANGE | 1 | 304 STAINLESS STEEL CF8 |
| 15 | GLAND FLANGE BOLT | 2 | A193 B8 |
| 16 | GEAR OPERATOR | 1 | WORMGEAR OPERATOR |
| 17 | GO NUT | 4 | A194 8 |
| 18 | GO SPRING WASHER | 4 | 304 STAINLESS STEEL |
| 19 | GO BOLT | 4 | A193 B8 |
| 20 | BALL SUPPORT SEAT | 1 | PTFE |
| 21 | BALL SUPPORT SHAFT | 1 | 304 STAINLESS STEEL |
| 22 | BALL SUPPORT PACKING | 1 | TFM |
| 23 | BALL SUPPORT NUT | 1 | 304 STAINLESS STEEL |
| 24 | SET NUT | 1 | A194 8 |
| 25 | TUNING SCREW | 1 | A193 B8 |
| 26 | BODY STUD | 12 16 | A193 B8 |
| 27 | SPRING WASHER | 12 16 | 300 STAINLESS STEEL |
| 28 | NUT | 12 16 | A194 8 |
| 29 | HANDLE TEE BOLT | 1 | STAINLESS STEEL, CARBON STEEL |
| 30 | HANDLE TEE | 1 | A193 B8 |
| 31 | HANDLE TEE PIPE | 1 | STAINLESS STEEL, CARBON STEEL |

*TFM, XN

Series 82 | FS82

1/2" - 4"
Class 150#



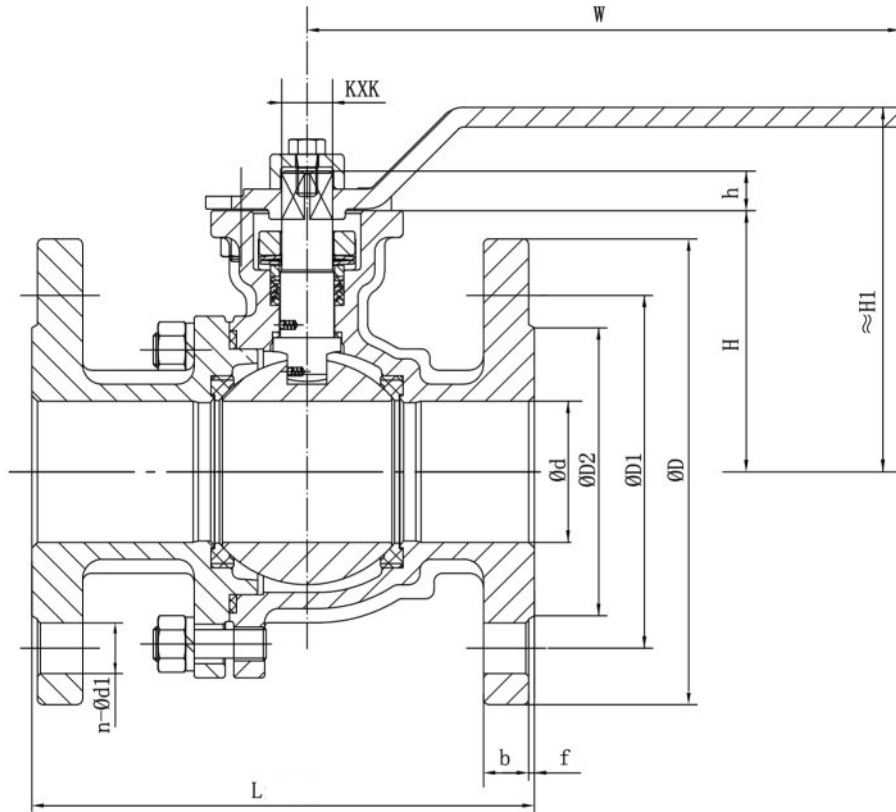
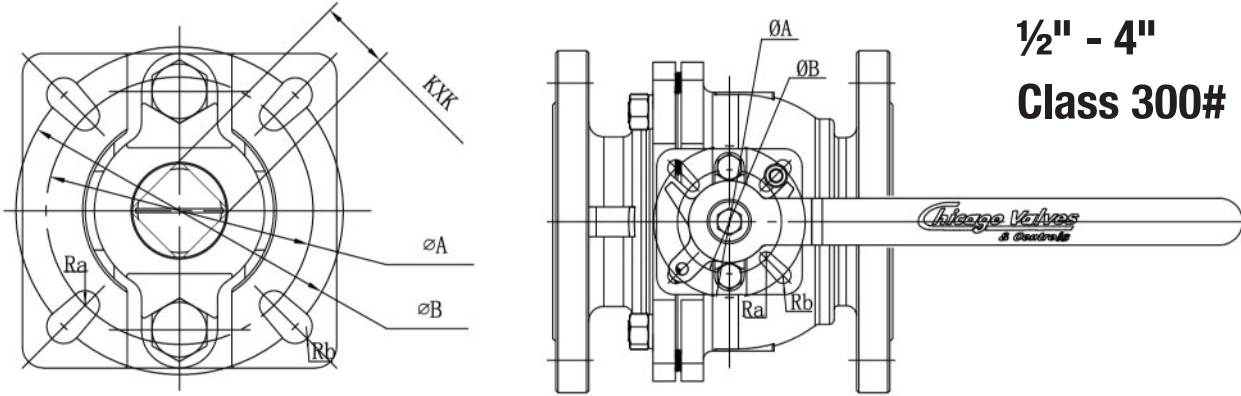
DIMENSIONS (INCHES)

| NOMINAL DIAMETER | L | d | D2 | D1 | D | b | f | n-Ød1 | H | h | H1 | W | Ra | Rb | KXK | A | B |
|------------------|------|------|------|------|------|------|------|--------|------|------|------|-------|------|------|-----------|-----|-----|
| 1/2" | 4.25 | 0.59 | 1.38 | 2.37 | 3.54 | 0.37 | 0.08 | 4-0.63 | 2.20 | 0.35 | 3.39 | 5.91 | 0.12 | 0.14 | 0.35X0.35 | F03 | F05 |
| 3/4" | 4.62 | 0.79 | 1.69 | 2.75 | 3.94 | 0.39 | 0.08 | 4-0.63 | 2.38 | 0.35 | 3.56 | 5.91 | 0.12 | 0.14 | 0.35X0.35 | F03 | F05 |
| 1" | 5.00 | 0.98 | 2.01 | 3.13 | 4.33 | 0.41 | 0.08 | 4-0.63 | 2.68 | 0.43 | 3.94 | 7.08 | .012 | 0.14 | 0.43X0.43 | F04 | F05 |
| 1 1/2" | 6.50 | 1.58 | 2.87 | 3.87 | 4.92 | .50 | 0.08 | 4-0.63 | 3.37 | 0.55 | 4.78 | 8.27 | 0.14 | 0.17 | 0.55X0.55 | F05 | F07 |
| 2" | 7.00 | 1.97 | 3.62 | 4.75 | 5.91 | .56 | 0.08 | 4-0.75 | 3.64 | 0.55 | 5.06 | 8.27 | 0.14 | 0.17 | 0.55X0.55 | F05 | F07 |
| 2 1/2" | 7.50 | 2.56 | 4.13 | 5.50 | 7.09 | .663 | 0.08 | 4-0.75 | 4.43 | 0.67 | 6.00 | 10.24 | 0.17 | 0.22 | 0.67X0.67 | F07 | F10 |
| 3" | 8.00 | 3.15 | 5.00 | 6.00 | 7.48 | .669 | 0.08 | 4-0.75 | 4.92 | 0.67 | 6.73 | 12.99 | 0.17 | 0.22 | 0.67X0.67 | F07 | F10 |
| 4" | 9.00 | 3.94 | 6.18 | 7.50 | 9.06 | 0.88 | 0.08 | 8-0.75 | 5.53 | 0.67 | 7.34 | 12.99 | 0.17 | 0.22 | 0.67X0.67 | F07 | F10 |

Series 82 | FS82

1/2" - 4"

Class 300#

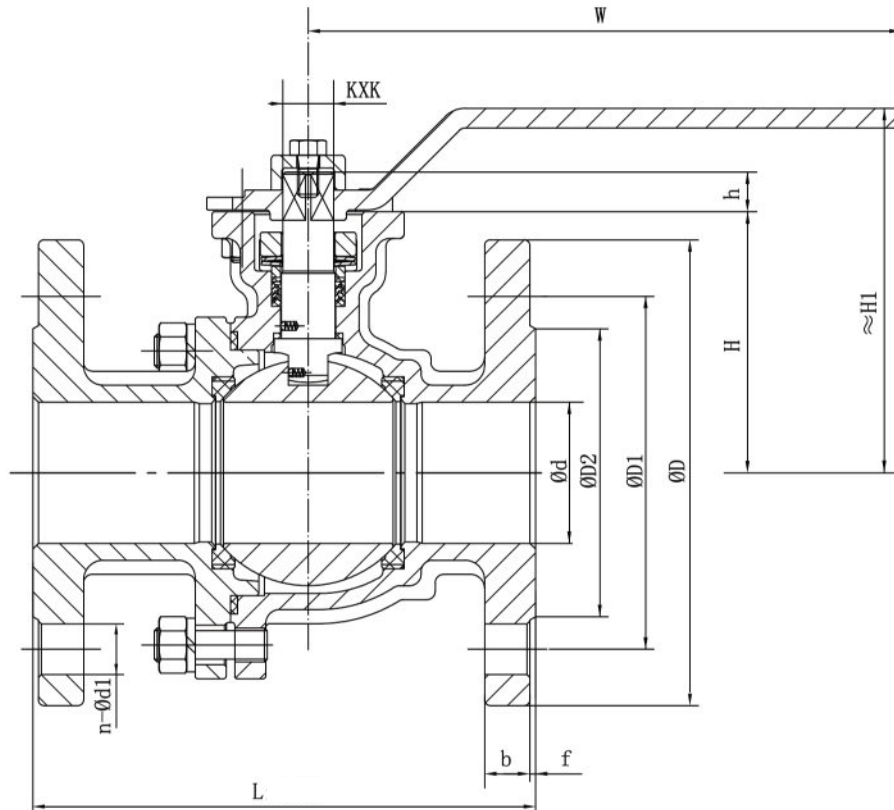
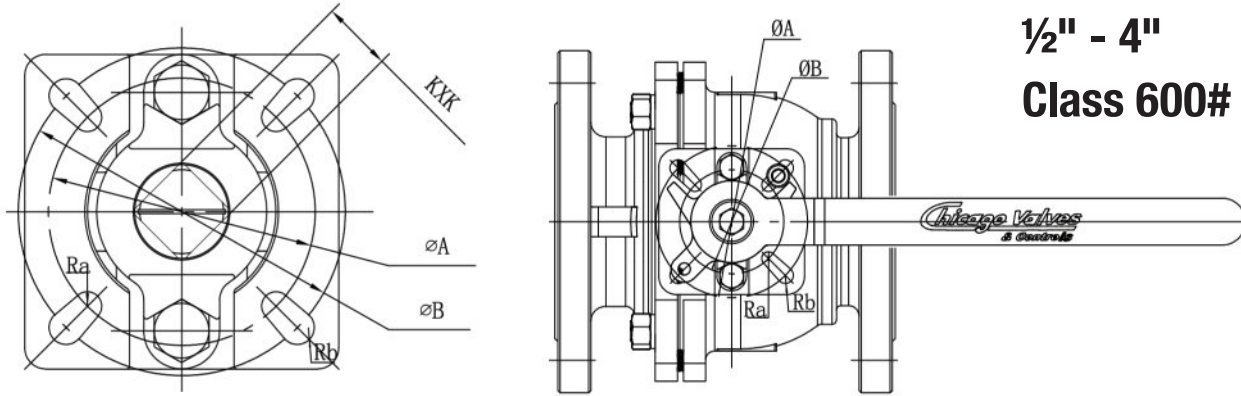


DIMENSIONS (INCHES)

| NOMINAL DIAMETER | L | d | D2 | D1 | D | b | f | n-ød1 | H | h | H1 | W | Ra | Rb | KXK | A | B |
|------------------|-------|------|------|------|-------|------|------|--------|------|------|------|-------|------|------|-----------|-----|-----|
| 1/2" | 5.50 | 0.59 | 1.38 | 2.63 | 3.74 | 0.50 | 0.08 | 4-0.63 | 2.20 | 0.35 | 3.39 | 5.91 | 0.12 | 0.14 | 0.35X0.35 | F03 | F05 |
| 3/4" | 6.00 | 0.79 | 1.69 | 3.25 | 4.53 | 0.56 | 0.08 | 4-0.75 | 2.38 | 0.35 | 3.56 | 5.91 | 0.12 | 0.14 | 0.35X0.35 | F03 | F05 |
| 1" | 6.50 | 0.98 | 2.01 | 3.50 | 4.92 | 0.63 | 0.08 | 4-0.75 | 2.68 | 0.43 | 3.94 | 7.09 | .012 | 0.14 | 0.43X0.43 | F04 | F05 |
| 1 1/2" | 7.50 | 1.58 | 2.87 | 4.50 | 6.10 | 0.75 | 0.08 | 4-0.87 | 3.37 | 0.55 | 4.78 | 8.27 | 0.14 | 0.17 | 0.55X0.55 | F04 | F07 |
| 2" | 8.50 | 1.97 | 3.62 | 5.00 | 6.50 | 0.81 | 0.08 | 8-0.75 | 3.64 | 0.55 | 5.06 | 8.27 | 0.14 | 0.17 | 0.55X0.55 | F05 | F07 |
| 2 1/2" | 9.50 | 2.56 | 4.13 | 5.87 | 7.48 | 0.94 | 0.08 | 8-0.87 | 4.43 | 0.67 | 6.00 | 10.24 | 0.17 | 0.22 | 0.67X0.67 | F05 | F10 |
| 3" | 11.12 | 3.15 | 5.00 | 6.63 | 8.27 | 1.06 | 0.08 | 8-0.87 | 4.92 | 0.67 | 6.73 | 12.99 | 0.17 | 0.22 | 0.67X0.67 | F07 | F10 |
| 4" | 12.00 | 3.94 | 6.18 | 7.87 | 10.04 | 1.19 | 0.08 | 8-0.87 | 5.53 | 0.67 | 8.90 | 25.60 | 0.22 | 0.26 | 0.67X0.87 | F10 | F12 |

Series 82 | FS82

1/2" - 4"
Class 600#



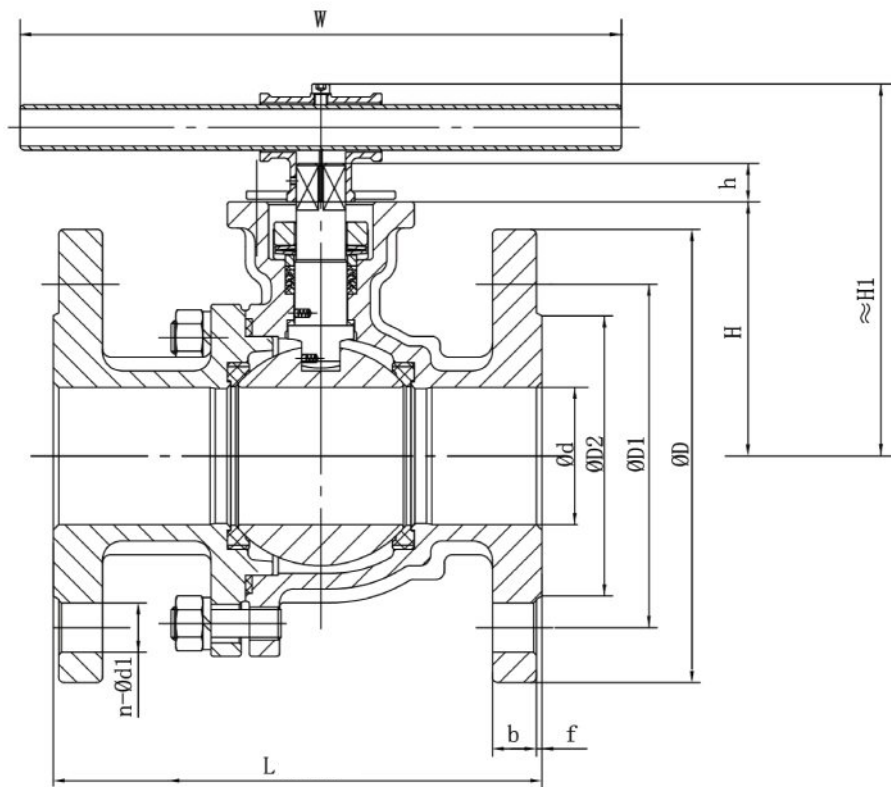
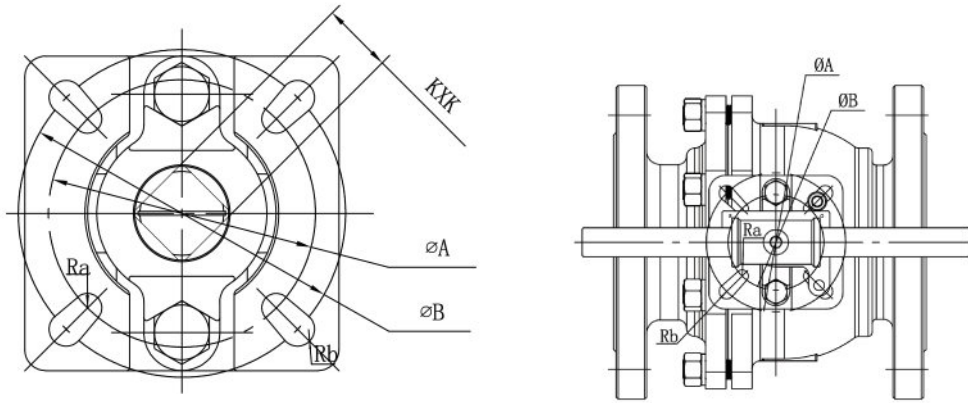
DIMENSIONS (INCHES)

| NOMINAL DIAMETER | L | d | D2 | D1 | D | b | f | n-ød1 | H | h | H1 | W | Ra | Rb | KXK | A | B |
|------------------|-------|------|------|------|-------|------|------|--------|------|------|------|-------|------|------|-----------|-----|-----|
| 1/2" | 6.50 | 0.59 | 1.38 | 2.62 | 3.75 | 0.56 | 0.28 | 4-0.63 | 2.20 | 0.35 | 3.39 | 5.91 | 0.12 | 0.14 | 0.35X0.35 | F03 | F05 |
| 3/4" | 7.50 | 0.79 | 1.69 | 3.25 | 4.62 | 0.62 | 0.28 | 4-0.75 | 2.38 | 0.35 | 3.56 | 5.91 | 0.12 | 0.14 | 0.35X0.35 | F03 | F05 |
| 1" | 8.50 | 0.98 | 2.01 | 3.50 | 4.88 | 0.69 | 0.28 | 4-0.75 | 2.80 | 0.43 | 4.00 | 7.09 | .012 | 0.14 | 0.43X0.43 | F04 | F05 |
| 1 1/2" | 9.50 | 1.58 | 2.87 | 4.50 | 6.12 | 0.88 | 0.28 | 4-0.87 | 3.76 | 0.55 | 5.17 | 8.27 | 0.14 | 0.17 | 0.55X0.55 | F05 | F07 |
| 2" | 11.50 | 1.97 | 3.62 | 5.00 | 6.50 | 1.00 | 0.28 | 8-0.75 | 4.02 | 0.55 | 5.44 | 8.27 | 0.14 | 0.17 | 0.55X0.55 | F05 | F07 |
| 2 1/2" | 13.00 | 2.56 | 4.13 | 5.88 | 7.50 | 1.12 | 0.28 | 8-0.87 | 4.96 | 0.67 | 6.53 | 10.24 | 0.17 | 0.22 | 0.67X0.67 | F07 | F10 |
| 3" | 14.00 | 3.15 | 5.00 | 6.63 | 8.25 | 1.25 | 0.28 | 8-0.87 | 5.55 | 0.67 | 7.36 | 12.99 | 0.17 | 0.22 | 0.67X0.67 | F07 | F10 |
| 4" | 17.00 | 3.94 | 6.18 | 8.50 | 10.75 | 1.50 | 0.28 | 8-1.00 | 6.28 | 0.87 | 8.10 | 12.99 | 0.22 | 0.26 | 0.67X0.87 | F10 | F12 |

Series 82 | FS82

6"

Class 150# / 300#

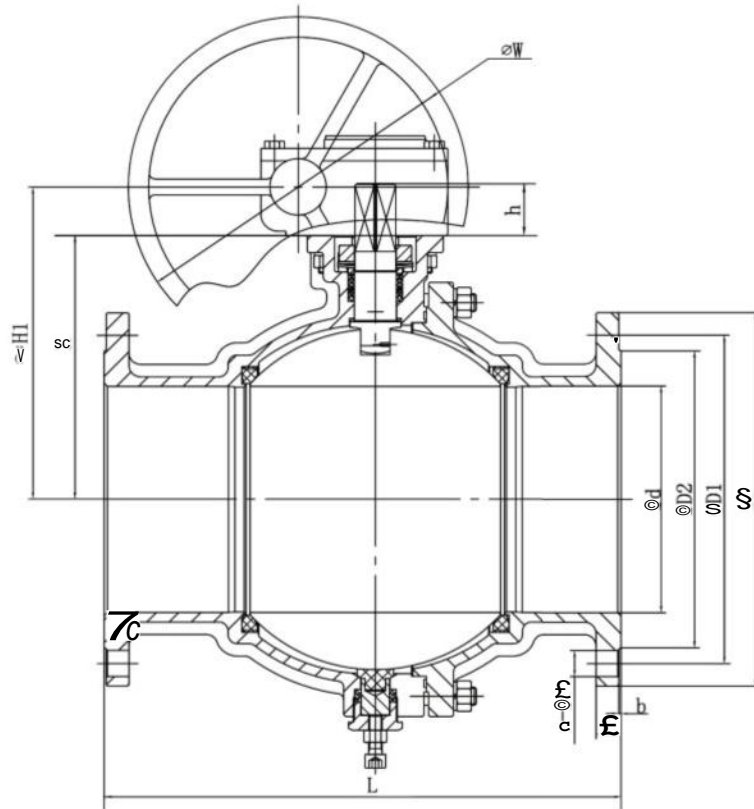
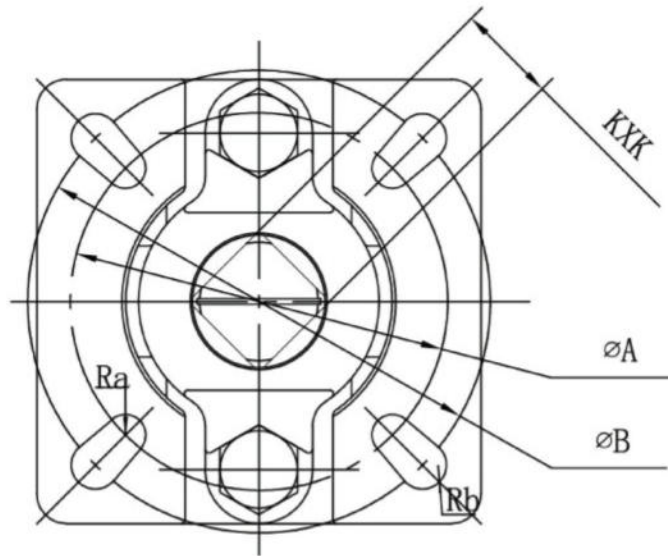


DIMENSIONS (INCHES)

| NOMINAL DIAMETER | L | d | D2 | D1 | D | b | f | n-ød1 | H | h | H1 | W | Ra | Rb | KXK | A | B | |
|------------------|-----------|-------|------|------|-------|-------|------|-------|---------|------|------|-------|-------|------|------|-----------|-----|-----|
| 150 | 6" | 15.50 | 5.91 | 8.50 | 9.50 | 11.04 | 094 | 0.08 | 8-0.87 | 7.56 | 1.18 | 10.91 | 31.50 | 0.22 | 0.26 | 1.06X1.06 | F10 | F12 |
| 300 | 6" | 15.80 | 5.91 | 8.50 | 10.63 | 12.60 | 1.38 | 0.08 | 12-0.87 | 7.56 | 1.18 | 10.91 | 39.40 | 0.22 | 0.26 | 1.06X1.06 | F10 | F12 |

Series 821 FS82

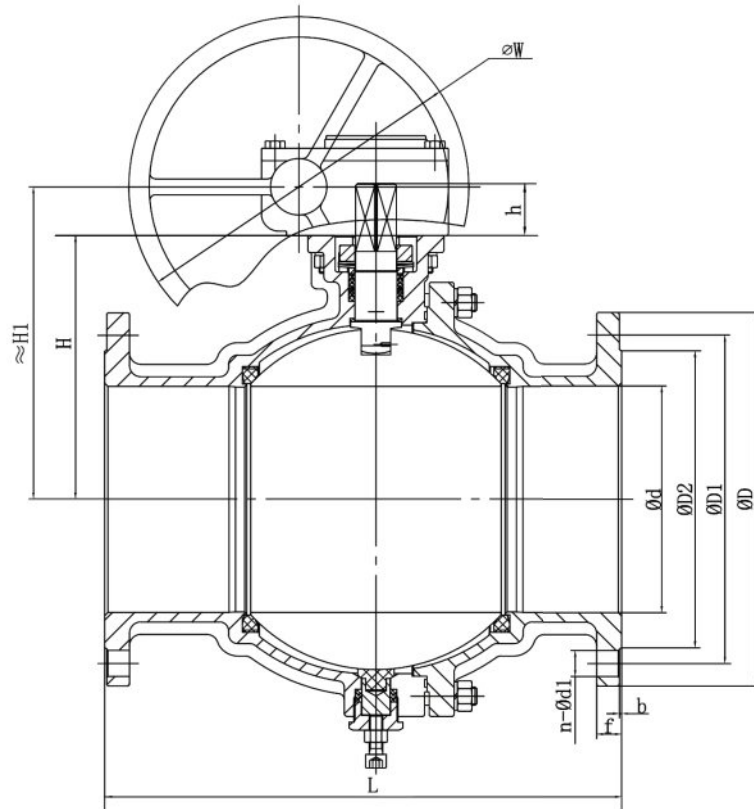
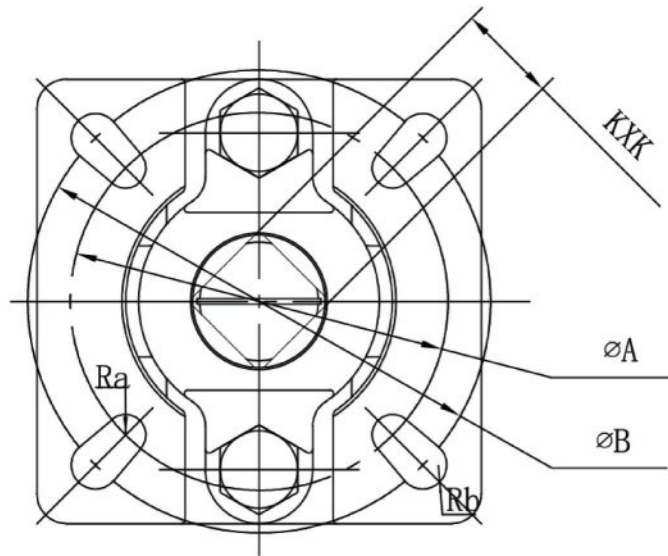
8" - 12"
Class 150#



| NOMINAL DIAMETER | L | d | D2 | D1 | D | b | f | n-ød1 | H | h | H1 | W | Ra | Rb | KXK | A | B |
|------------------|-------|-------|-------|-------|-------|------|------|---------|-------|------|-------|-------|------|------|-----------|-----|-----|
| 8" | 18.00 | 7.87 | 10.63 | 11.75 | 13.58 | 1.06 | 0.08 | 8-0.87 | 9.21 | 1.38 | 11.02 | 11.81 | 0.22 | 0.26 | 1.42x1.42 | F12 | F14 |
| 10" | 21.00 | 9.84 | 12.76 | 14.25 | 15.95 | 1.13 | 0.08 | 12-0.98 | 11.10 | 1.77 | 13.30 | 19.69 | 0.26 | 0.34 | 1.42x1.42 | F12 | F14 |
| 12" | 24.00 | 11.81 | 15.00 | 17.00 | 18.98 | 1.19 | 0.08 | 12-0.98 | 12.85 | 1.77 | 15.04 | 19.69 | 0.26 | 0.34 | 1.42x1.42 | F12 | F14 |

Series 82 | FS82

8" - 12"
Class 300#



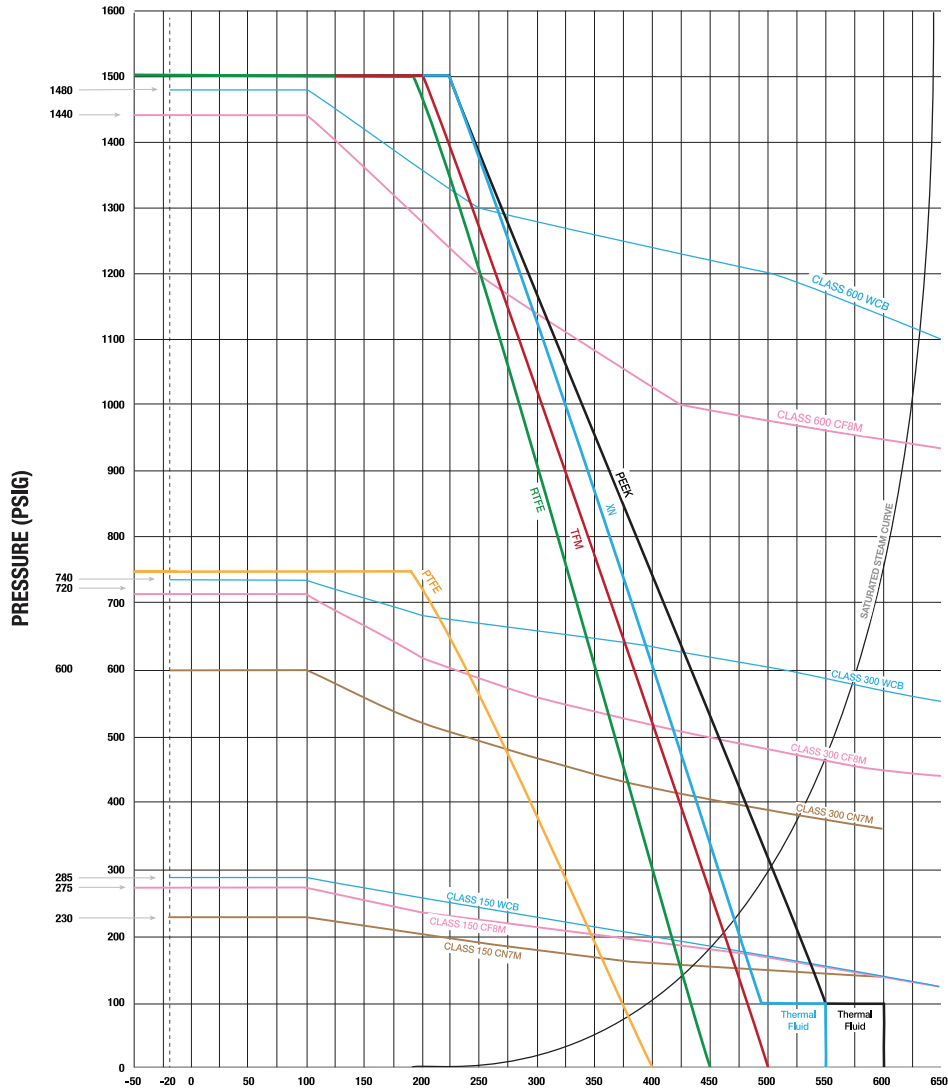
| NOMINAL DIAMETER | L | d | D2 | D1 | D | b | f | n-ød1 | H | h | H1 | W | Ra | Rb | KXK | A | B |
|------------------|-------|-------|-------|-------|-------|------|------|---------|-------|------|-------|-------|------|------|-----------|-----|-----|
| 8" | 18.00 | 7.87 | 10.63 | 11.75 | 13.58 | 1.06 | 0.08 | 8-0.87 | 9.21 | 1.38 | 11.02 | 11.81 | 0.22 | 0.26 | 1.06X1.06 | F10 | F12 |
| 10" | 21.00 | 9.84 | 12.76 | 14.25 | 15.95 | 1.13 | 0.08 | 12-0.98 | 11.10 | 1.77 | 13.30 | 19.69 | 0.26 | 0.34 | 1.42X1.42 | F12 | F14 |
| 12" | 24.00 | 11.81 | 15.00 | 17.00 | 18.98 | 1.19 | 0.08 | 12-0.98 | 12.85 | 1.77 | 15.04 | 19.69 | 0.26 | 0.34 | 1.42X1.42 | F12 | F14 |

APPLICABLE STANDARDS

| APPLICABLE STANDARDS | |
|------------------------|---|
| BASIC DESIGN | ASME B16.34 |
| FACE TO FACE DIMENSION | ASME B16.5 |
| FLANGE DIMENSION | ASME B16.5 |
| TEST | API 608 |
| MOUNTED PADS DIMENSION | ISO 5211 |
| FIRES TEST | API 607 6TH EDITION |
| NACE | MR-0175 (WITH 316 STAINLESS STEEL STEM) |

| SRE | CV (GPM) | WEIGHT(LBS) | | |
|--------|----------|-------------|--------|--------|
| | | 150# | 300# | 600# |
| 1/2" | 26 | 5.50 | 5.75 | 6.00 |
| 3/4" | 50 | 5.50 | 7.75 | 8.00 |
| 1" | 94 | 7.50 | 11.00 | 13.00 |
| 1 1/2" | 260 | 14.00 | 21.75 | 24.00 |
| 2" | 480 | 20.00 | 26.50 | 36.00 |
| 2 1/2" | 750 | 32.00 | 42.00 | 55.00 |
| 3" | 1300 | 42.00 | 60.00 | 80.00 |
| 4" | 2300 | 65.00 | 90.00 | 137.00 |
| 6 | 4500 | 160.00 | 220.00 | X |
| 8 | 10,000 | 267.00 | 365.00 | X |
| 10 | 16,000 | 570.00 | 720.00 | X |
| 12 | 23,000 | 745.00 | 915.00 | X |

PRESSURE-TEMPERATURE RATINGS SERIES 82



Note:

The maximum pressure/temperature ratings of the valve assemblies are limited to lowest of the body or seat material fitted. The body ratings are based on ASME B16.34 rating for materials. The graphs are based on laboratory testing and our experience in field. The seat ratings depend on the material, design, application and function.

Chicago Valves & Controls® Seat Materials

M-TFM® PTFE

Dyneon TFME® PTFE is a second generation PTFE with improved chemical and heat resistant properties and stress recovery. Its temperature range is -100°F to 500°F (-73°C to 260°C) Color - white.

R-Reinforced Polytetrafluoroethylene (RTFE).

PTFE's mechanical properties are enhanced by adding 15% filler material to provide improved strength, stability and wear resistance. Its temperature range is from -320°F to 450°F (-196°C to 232°C). Color-off-white.

XN - is a free-flowing compound based on TFME® containing electro-graphitized carbon. It features: increased thermal dimensional stability and surface hardness, improved deformation under load, reduced friction and wear, and good chemical stability. It has a high limiting oxygen index (LOI), low coefficient of friction, very good mechanical properties and exceptional temperature resistance. It is used as a seat material in chemical processing and automotive industries. It is ideal to with steam and thermal fluid applications up to 550°F (228°C) and as low as -40°F (-40°C). Color -black.

P-PEEK (Unfilled) Polyetheretherketone

PEEK Polymer offers a unique combination of chemical, mechanical and thermal properties. Excellent for water and steam application at elevated temperatures up to 600°F (315°C). Color - beige.

Other seat materials

Other seat materials are available according to the application, such as very high temperature or cryogenic conditions.

HOW TO ORDER

| 1" | 82 | 6 | 6 | 6 | R | G | G | 3 | X | OH |
|-------------|-----------------|------------------------|-------------------------|------|-------|----------------|---------------------|--------------|------------------------------------|----------------|
| Size | Series | Body & Ends | Ball | Stem | Seats | Body Seal | Stem Packing | Class | Service | Options |
| SIZE | SERIES | BODY & ENDS | | | | OPTIONS | | | SERVICE | |
| 1/2" | 82-Full Port | 6 316 Stainless Steel | | | | T PTFE | | | X Oxygen Service (CVAC Standards) | |
| 3/4" | *FS82-Fire Safe | 4 Carbon Steel | | | | G Graphite | | | SF Silicone FREE | |
| 1" | | 2 Alloy 20 | | | | | | | | |
| 1-1/2" | | | BALL | | | | STEM PACKING | | | OPTIONS |
| 2" | | | 6 316 Stainless Steel | | | | M TFM | | OH Oval Handle (Up to 2") | |
| 2-1/2" | | | 2 Alloy 20 | | | | X XN** | | VB Vented Ball | |
| 3" | | | | | | | G Graphite | | SH Spring Loaded Handle (Up to 2") | |
| 4" | | | | | | | | | GO Gear Operator | |
| 6" | | | | | | | | CLASS | | |
| 8" | | | | | | | | 1 150RF | | |
| 10" | | | | | | | | 3 300RF | | |
| 12" | | | | | | | | 6 600RF | | |
| | | | | | | | | | | |
| | | | STEM | | | | | | | |
| | | | 6 316 Stainless Steel | | | | | | | |
| | | | 2 Alloy 20 | | | | | | | |
| | | | 7 17-4PH | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | SEATS | | | | | | | |
| | | | M TFM* | | | | | | | |
| | | | X XN** | | | | | | | |
| | | | R RTFE 15% Glass Filled | | | | | | | |
| | | | P PEEK | | | | | | | |

* Fire Safe Must Use Graphite Body Seals & Stern Packing, TFM®, XN, RT, SEATS

** XN - Carbon Filled TFM®

Chicago Valves
& Controls



Toll-Free (833) 831-2312

Local (312) 636-3557

Fax: (312) 637-3543

Email: sales@chicagovalves.com

www.chicagovalve.com

835 Cambridge Dr.

Elk Grove Village, Illinois 60007 U.S.A.

Due to ongoing development of our product line, specifications subject to change without notice.
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REV 12/19