

FLANGED FLOATING BALL VALVES

GATE • GLOBE • CHECK • BALL



FLANGED GATE, GLOBE, & CHECK

| VALVE TYPE | PRESSURE RATING | | BODY MATERIAL | | TRIM MATERIAL | | SPECIAL |
|---------------------------------|-----------------|------------|----------------------|--------------------|----------------|-----------------|----------------------|
| 1 - Gate | 15 - 150# | 90 - 900# | 5 - Carbon Steel WCB | 3 - 347 SS, CF8C | 8 - 13 CR / HF | 12 - 316 / HF | N - NACE G - Gear |
| 2 - Globe | 30 - 300# | 50 - 1500# | 4 - 304 SS, CF8 | 7 - 317 SS, CG8M | 5 - HF / HF | 16 - 316 HF/ HF | |
| 3 - Swing Check | 60 - 600# | 25 - 2500# | 6 - 316 SS, CF8M | 2 - Alloy 20, CN7M | 10 - 316 / 316 | | |
| *Additional Materials Available | | | | | | | |

THREADED & SOCKET WELD GATE, GLOBE, & CHECK

| PRESSURE | MATERIAL | VALVE TYPE | TRIM | ENDS |
|------------------------|----------------------|--|--|---|
| 8 - 800# 15 - 1500# | 0 - 316L 5 - A105 | 1 - Gate 2 - Globe 3 - Swing Check 4 - Piston Check 5 - Ball Check | 8 - 13CR/HF to Nace 5 - HF/HF to Nace 12 - 316/HF to Nace 16 - 316HF/HF to Nace | T - THD x THD S - SW x SW TS - THD x SW |

ONE, TWO, & THREE PIECE BALL VALVES

| DESIGN TYPE | FIGURE NUMBER |
|-------------|---|
| One Piece | 1010, 1010C |
| Two Piece | 1020, 1022, 1022C, 1050, 1052, 1024C, 1025C |
| Three Piece | 1030, 1030C, 1035C |

SEAL WELDED BALL VALVES

| VALVE TYPE | |
|----------------------------|--------------------------|
| Body Material 316SS | Body Material WCB |
| W10 - 1000 WOG | W35 - 3600 WOG |
| W20 - 2000 WOG | W65 - 6000 WOG |
| W21 - 2160 WOG | |
| W36 - 3600 WOG | |
| W60 - 6000 WOG | |

THREE PIECE FIRE-SAFE BALL VALVES

| DESIGN TYPE | BODY MATERIAL | | BALL & STEM MATERIAL | | PORT TYPE | SEATS |
|---|--|--|--|--|-----------|----------------------------------|
| 3 - Three Piece Cast F3 - Three Piece Forged | 5 - Carbon Steel WCB 6 - 316 SS, CF8M 2 - Alloy 20, CN7M | 9 - C-276 (CW12MW) 7 - LF2 <i>*Additional Material Available</i> | 6 - 316 SS, CF8M 2 - Alloy 20, CN7M | 9 - C-276 (CW12MW) <i>*Additional Materials Available</i> | Full | T - PTFE R - RTFE P - PEEK |

FLANGED FLOATING BALL VALVES

| PORT TYPE | ANSI CLASS | BODY MATERIAL | | | SPECIALS |
|-------------------------|-------------------------------------|---------------------|---------------------|---|----------------|
| 5 - Reduced 6 - Full | 15 - 150# 30 - 300# 60 - 600# | 2 - CN7M 4 - CF8 | 5 - WCB 6 - CF8M | 7 - LCC <i>*Additional Materials Available</i> | FS - Fire-Safe |

API 6D FLOATING BALL VALVES

| PORT TYPE | PRESSURE CODE | BODY MATERIAL | | BODY STYLE | TRIM MATERIAL | SEATS | SEAL |
|-------------------------|-------------------------------------|---------------------------|---------|--|---------------------------|--|---|
| 5 - Reduced 6 - Full | 15 - 150# 30 - 300# 60 - 600# | 5 - WCB/A105N 6 - CF8M | 7 - LCC | 2 - 2 Piece Design 1 - 1 Piece Design | 6 - F316 8 - Duplex SS | M - TFM 1600 R - RTFE T - PTFE P - PEEK | O - None H - 90 Duro HNBR V - FKM A - AFLAS L - GLT Viton |

API 6D CHECK VALVES

| VALVE TYPE | ANSI CLASS | BODY MATERIAL | TRIM MATERIAL | SEAT TYPE | SEAT INSERT | SEAL | ENDS |
|-----------------|--|--------------------------------|--------------------------------|---------------------------------|---|---|--|
| 3 - Swing Check | 15 - 150# 30 - 300# 60 - 600# 90 - 900# 50 - 1500# 25 - 2500# | 5 - CS 6 - SS 7 - CS LCC | 5 - CS 6 - SS 7 - CS LCC | I - Integral R - Replaceable | H - 90 Duro HNBR V - FKM L - FKM GLT A - AFLAS E - Elast O_Lion | H - 90 Duro HNBR V - FKM L - FKM GLT A - AFLAS | R - Raised Face J - RTJ W - Weld END |

| | | | |
|-----------|--|-----------|---|
| 01 | ABOUT OUR COMPANY | 09 | NON-FIRESAFE FLANGED FLOATING BALL VALVES FULL PORT STAINLESS STEEL |
| | | | FIGURE NUMBER 6156 |
| 02 | ABOUT FLANGED FLOATING BALL VALVES | 10 | NON-FIRESAFE FLANGED FLOATING BALL VALVES REDUCED PORT STAINLESS STEEL |
| | | | FIGURE NUMBER 5156 |
| 03 | FIRESAFE FLANGED FLOATING BALL VALVES FULL PORT CARBON STEEL | 11 | TECHNICAL SERVICE |
| | FIGURE NUMBER 6155FS FIGURE NUMBER 6305FS | | |
| 04 | FIRESAFE FLANGED FLOATING BALL VALVES REDUCED PORT CARBON STEEL | 12 | FUGITIVE EMISSIONS STATEMENT |
| | FIGURE NUMBER 5155FS FIGURE NUMBER 5305FS | | |
| 05 | FIRESAFE FLANGED FLOATING BALL VALVES FULL PORT STAINLESS STEEL | 13 | WARRANTY & POLICIES |
| | FIGURE NUMBER 6156FS FIGURE NUMBER 6306FS | | |
| 06 | FIRESAFE FLANGED FLOATING BALL VALVES REDUCED PORT STAINLESS STEEL | 14 | FIGURE NUMBER ORDERING GUIDE |
| | FIGURE NUMBER 5156FS FIGURE NUMBER 5306FS | | |
| 07 | 6D FLOATING BALL VALVES FULL PORT CARBON STEEL | | |
| | FIGURE NUMBER 6155FS-6D FIGURE NUMBER 6305FS-6D FIGURE NUMBER 6605FS-6D | | |
| 08 | 6D FLOATING BALL VALVES REDUCED PORT CARBON STEEL | | |
| | FIGURE NUMBER 5605FS-6D | | |



WHY WARREN VALVE?

Warren Valve has a long history serving a variety of flow control markets in North America. From humble beginnings, supplying product into alloy applications and downstream process markets, Warren Valve has grown and evolved over 30 years to become a full service manufacturing company. Warren Valve is focused on providing product and service to the oil & gas, industrial and mechanical markets throughout North America.

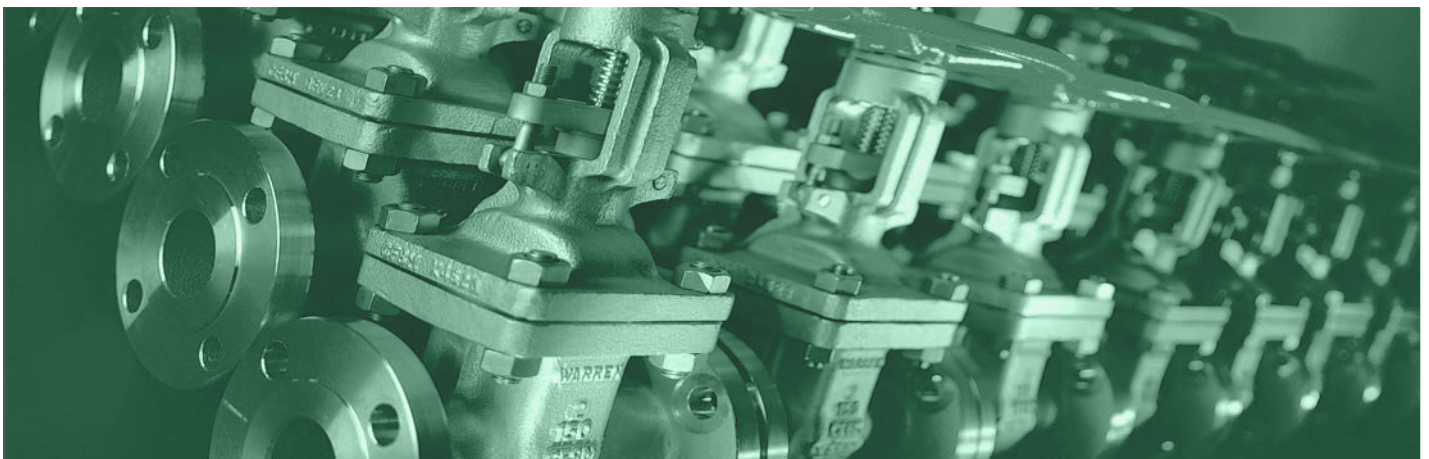


Our commitment to quality, and our ability to develop & manage our supply chain, really sets Warren Valve apart from the competition. This aspect of our business has allowed Warren Valve to move quickly with market demand and product development, while maintaining product integrity and commitments to our customers. The recent opening of Warren Valve Engineered Products in Houston, TX, exemplifies our continued evolution and investment to enhance our customer's experience with the best deliveries, customized valve solutions, and competitive pricing.

When combined with a sales and service culture that is committed to exceeding customer expectations, on every order, Warren Valve continues to evolve, innovate and drive excellence into our business. Our history, our ownership, and our leadership demand this from themselves and from every employee. This common purpose will power Warren Valve to become the most highly regarded Tier 1 valve manufacturer in the world.

HIGHEST TRANSPARENCY

No other manufacturer is as transparent as Warren when it comes to proving our industry-leading manufacturing and QA/QC process. We're part of the Allied Group — We do what we say, and we stand behind our products 100 percent.





WE ARE COMMITTED TO QUALITY

Warren Valve maintains the highest quality standards in the industry. Our QA Team performs extensive testing and material inspections throughout the entire manufacturing process to ensure that our customers get only the highest quality products. This commitment and attention to detail not only guarantees a superior product, but it puts Warren Valve in a league of its own.

STRICT QUALITY CONTROL

Our valves are subject to rigorous inspections throughout the manufacturing process. These comprehensive evaluations include on-site audits, inspection at the source, receiving inspections and destructive material testing. These processes are overseen by our Q1 9th Edition Management Team and our dedicated QA/QC Inspectors. Warren's strict quality control ensures that each valve is manufactured to endure the most demanding applications. In-House testing assures that valves meet out highest quality standards, and production is certified to ISO standards. Mill test reports are always available.

100% AMERICAN OWNED

Warren Valve has served the industrial and mechanical markets in North America for more than 30 years. We have one of the largest investments in finished carbon steel, stainless steel, and exotic inventory in North America.



FLANGED FLOATING BALL VALVES



Warren Valve offers a ½"-12" cast floating ball valve built to meet the industry's strictest specifications. Our product include ANSI Classes 150-600 in WCB cast carbon steel, CF8M Cast stainless Steel, and exotic grade materials.

Floating Ball Valves required by petroleum refining, petrochemical processing, and chemical processing end-users that are in addition to and beyond the requirements established by ASME B16.34.

FIRESAFE FLANGED FLOATING BALL VALVES
FULL PORT CARBON STEEL

FIGURE NUMBERS 6155FS & 6305FS



PRODUCT OVERVIEW

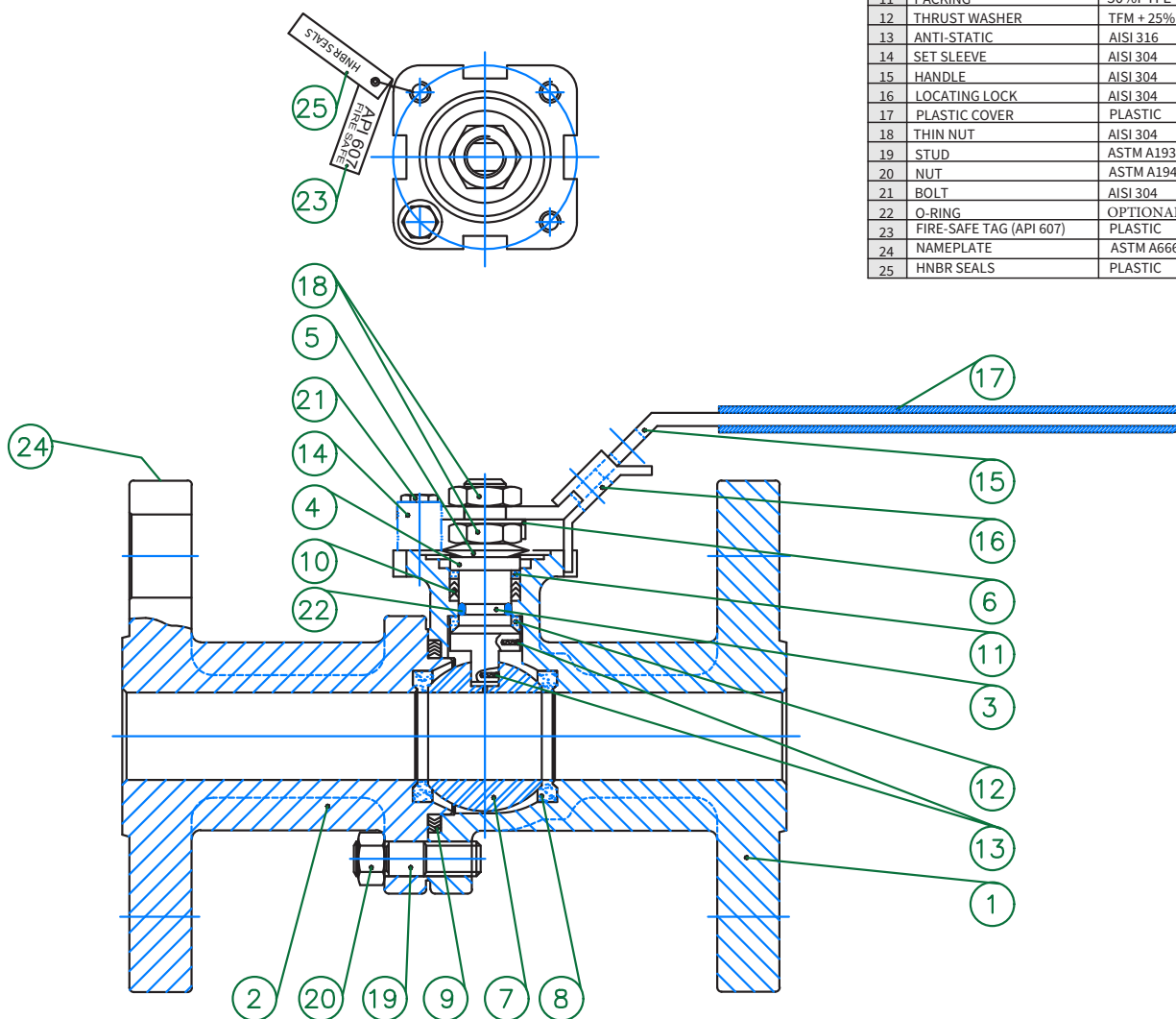
| PRESSURE RANGE | |
|----------------|---------------|
| CLASS | FIGURE NUMBER |
| 150# | 6155FS |
| 300# | 6305FS |

| | |
|--------------------|---|
| SIZE RANGE | 1/2" - 12" |
| MATERIAL GRADES | WCB x 316, LCC x 316 |
| END CONFIGURATIONS | Raised Face & RTJ |
| OPTIONS | Special Seats & Seals, Stem Extensions, & Worm Gears |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device, Fire-Safe, NACE Compliant, Graphite Packing, Low Fugitive Emission |

FIGURE NUMBERS 6155FS & 6305FS

MATERIAL LIST

| NO. | PART NAME | MATERIAL CARBON STEEL |
|-----|-------------------------|----------------------------------|
| 1 | BODY | ASTM A216-WCB |
| 2 | CAP | ASTM A216-WCB |
| 3 | STEM | 17-4PH |
| 4 | SLEEVE | AISI 304 |
| 5 | DISK SPRING WASHER | AISI 301 |
| 6 | LOCK WASHER | AISI 304 |
| 7 | BALL | ASTM A351-CF8M |
| 8 | SEAT | RPTFE |
| 9 | GASKET | SPIRAL WOUND WIRE (316/GRAPHITE) |
| 10 | STEM PACKING | GRAPHITE |
| 11 | PACKING | 50%PTFE + 50%316 |
| 12 | THRUST WASHER | TFM + 25% CARBON |
| 13 | ANTI-STATIC | AISI 316 |
| 14 | SET SLEEVE | AISI 304 |
| 15 | HANDLE | AISI 304 |
| 16 | LOCATING LOCK | AISI 304 |
| 17 | PLASTIC COVER | PLASTIC |
| 18 | THIN NUT | AISI 304 |
| 19 | STUD | ASTM A193-B7M |
| 20 | NUT | ASTM A194-2HM |
| 21 | BOLT | AISI 304 |
| 22 | O-RING | OPTIONAL |
| 23 | FIRE-SAFE TAG (API 607) | PLASTIC |
| 24 | NAMEPLATE | ASTM A666-304 |
| 25 | HNBR SEALS | PLASTIC |



OTHER BODY AND TRIM MATERIALS AVAILABLE.

Please contact Warren Valve or your Warren Valve representative for more details.

FIGURE NUMBERS 6155FS & 6305FS

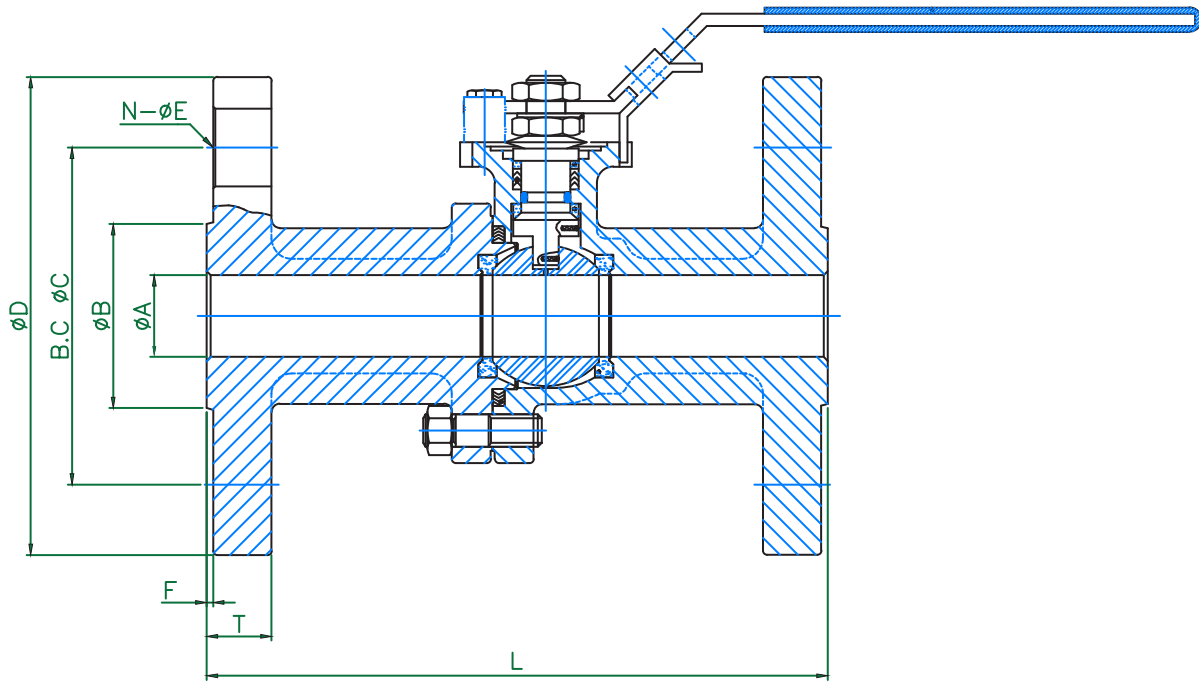


FIGURE NUMBER 6155FS

FIGURE NUMBER 6305FS

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|-------|-------|-------|-------|-------|------|------|----|------|
| 1/2" | 0.59 | 4.25 | 1.38 | 2.38 | 3.50 | 0.44 | 0.06 | 4 | 0.63 |
| 3/4" | 0.79 | 4.61 | 1.69 | 2.76 | 3.86 | 0.50 | 0.06 | 4 | 0.63 |
| 1" | 0.98 | 5.00 | 2.00 | 3.13 | 4.25 | 0.56 | 0.06 | 4 | 0.63 |
| 1-1/4" | 1.25 | 5.51 | 2.52 | 3.50 | 4.63 | 0.63 | 0.06 | 4 | 0.63 |
| 1-1/2" | 1.49 | 6.50 | 2.87 | 3.87 | 5.00 | 0.69 | 0.06 | 4 | 0.63 |
| 2" | 1.97 | 7.0 | 3.62 | 4.74 | 5.98 | 0.75 | 0.06 | 4 | 0.75 |
| 2-1/2" | 2.56 | 7.48 | 4.13 | 5.49 | 7.01 | 0.88 | 0.06 | 4 | 0.75 |
| 3" | 2.99 | 7.99 | 5.00 | 6.00 | 7.48 | 0.94 | 0.06 | 4 | 0.75 |
| 4" | 4.00 | 9.02 | 6.18 | 7.50 | 9.02 | 0.94 | 0.06 | 8 | 0.75 |
| 6" | 5.98 | 15.51 | 8.50 | 9.51 | 10.98 | 1.00 | 0.06 | 8 | 0.87 |
| 8" | 7.87 | 17.99 | 10.63 | 11.75 | 13.50 | 1.13 | 0.06 | 8 | 0.87 |
| 10" | 9.84 | 20.98 | 12.76 | 14.25 | 15.98 | 1.19 | 0.06 | 12 | 0.98 |
| 12" | 11.81 | 24.02 | 15.00 | 17.01 | 19.02 | 1.25 | 0.06 | 12 | 0.98 |

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|------|-------|-------|-------|-------|------|------|----|------|
| 1/2" | 0.59 | 5.51 | 1.38 | 2.62 | 3.74 | 0.56 | 0.06 | 4 | 0.63 |
| 3/4" | 0.79 | 5.98 | 1.69 | 3.25 | 4.61 | 0.63 | 0.06 | 4 | 0.75 |
| 1" | 0.98 | 6.49 | 2.00 | 3.50 | 4.88 | 0.69 | 0.06 | 4 | 0.75 |
| 1-1/2" | 1.49 | 7.48 | 2.87 | 4.51 | 6.14 | 0.81 | 0.06 | 4 | 0.87 |
| 2" | 1.97 | 8.50 | 3.62 | 5.00 | 6.50 | 0.88 | 0.06 | 8 | 0.75 |
| 2-1/2" | 2.56 | 9.49 | 4.13 | 5.87 | 7.48 | 1.00 | 0.06 | 8 | 0.87 |
| 3" | 2.99 | 11.14 | 5.00 | 6.61 | 8.27 | 1.13 | 0.06 | 8 | 0.87 |
| 4" | 4.00 | 12.01 | 6.18 | 7.87 | 10.00 | 1.25 | 0.06 | 8 | 0.87 |
| 6" | 5.98 | 15.87 | 8.50 | 10.63 | 12.52 | 1.44 | 0.06 | 12 | 0.87 |
| 8" | 7.87 | 19.76 | 10.63 | 12.99 | 15.00 | 1.63 | 0.06 | 12 | 0.98 |

FIRESAFE FLANGED FLOATING BALL VALVES REDUCED PORT CARBON STEEL

FIGURE NUMBERS 5155FS & 5305FS



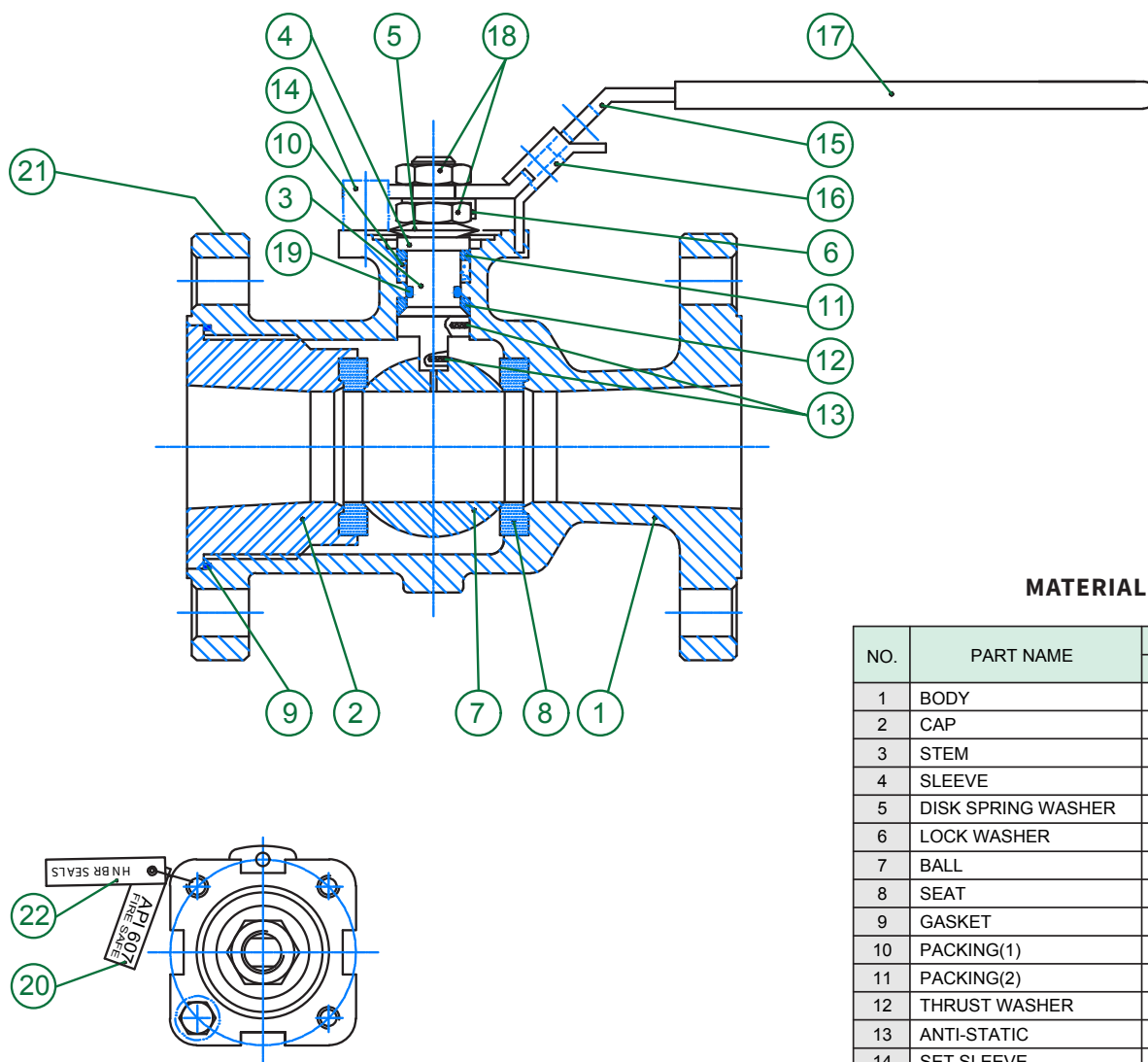
PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 150# | 5155FS |
| 300# | 5305FS |

5155FS & 5305FS SERIES PRODUCT OVERVIEW

| | |
|--------------------|--|
| SIZE RANGE | 1 - 1/2" - 6" |
| MATERIAL GRADES | WCB x 316, LCC x 316 |
| END CONFIGURATIONS | Raised Face & RTJ |
| OPTIONS | Special Seats & Seals, Stem Extensions, & Worm Gears |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device, Fire-Safe, NACE Compliant, Graphite Packing, Low Fugitive Emission |

FIGURE NUMBERS 5155FS & 5305FS



MATERIAL LIST

| NO. | PART NAME | MATERIAL |
|-----|-------------------------|--------------------|
| | | CARBON STEEL |
| 1 | BODY | ASTM A216-WCB |
| 2 | CAP | ASTM A216-WCB |
| 3 | STEM | 17-4PH |
| 4 | SLEEVE | AISI SS304 |
| 5 | DISK SPRING WASHER | AISI SS301 |
| 6 | LOCK WASHER | AISI SS304 |
| 7 | BALL | ASTMA351-CF8M |
| 8 | SEAT | RPTFE |
| 9 | GASKET | GRAPHITE |
| 10 | PACKING(1) | GRAPHITE |
| 11 | PACKING(2) | 50% PTFE + 50% 316 |
| 12 | THRUST WASHER | TFM+ 25% CARBON |
| 13 | ANTI-STATIC | AISI SS316 |
| 14 | SET SLEEVE | AISI SS304 |
| 15 | HANDLE | AISI SS304 |
| 16 | LOCATING LOCK | AISI SS304 |
| 17 | PLASTIC COVER | PLASTIC |
| 18 | THIN NUT | AISI SS304 |
| 19 | O-RING | OPTIONAL |
| 20 | FIRE-SAFE TAG (API 607) | PLASTIC |
| 21 | NAMEPLATE | ASTM A666-304 |
| 22 | HNBR SEALS | PLASTIC |

OTHER BODY AND TRIM MATERIALS AVAILABLE.

Please contact Warren Valve or your Warren Valve representative for more details.

FIGURE NUMBERS 5155FS & 5305FS

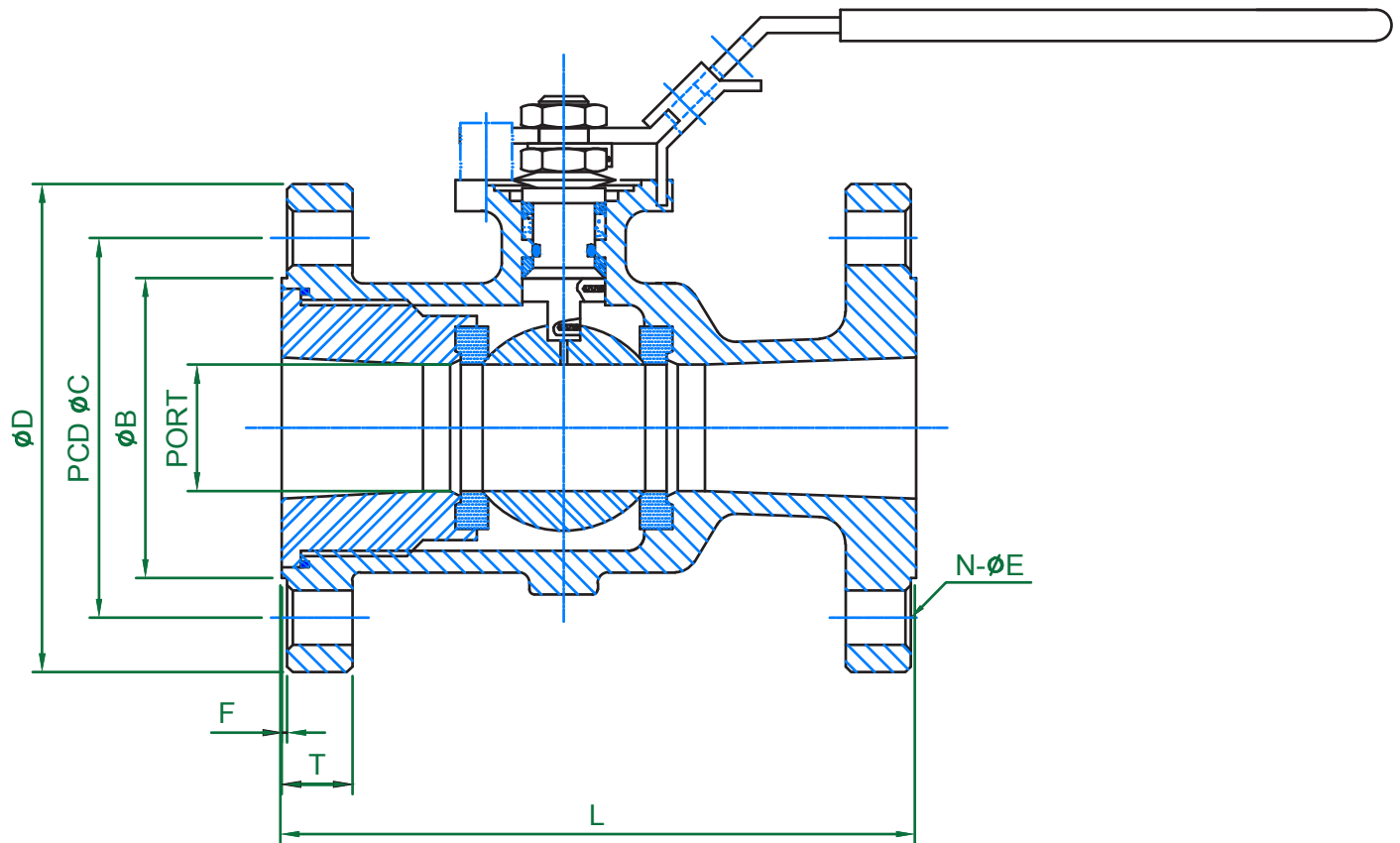


FIGURE NUMBER 5155FS

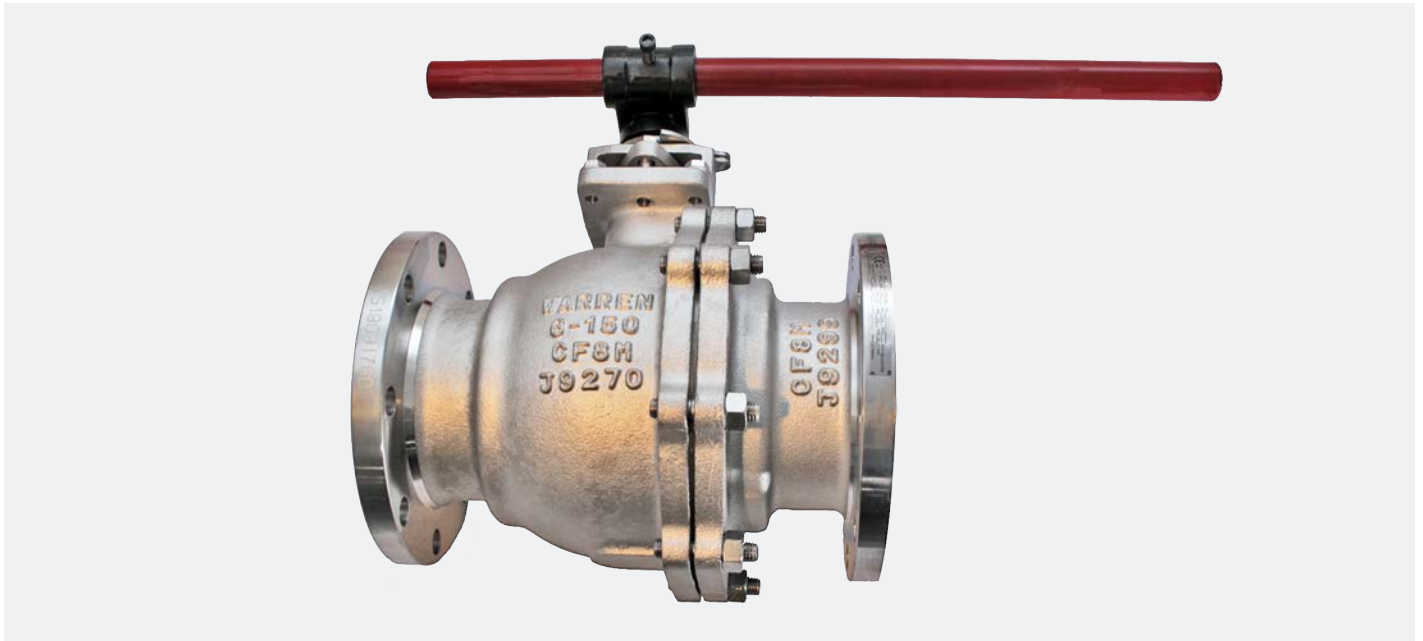
| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|------|-------|------|------|-------|------|------|---|------|
| 1" | 0.79 | 5.00 | 2.00 | 3.13 | 4.25 | 0.56 | 0.06 | 4 | 0.63 |
| 1-1/2" | 1.25 | 6.50 | 2.87 | 3.87 | 5.00 | 0.69 | 0.06 | 4 | 0.63 |
| 2" | 1.49 | 7.00 | 3.62 | 4.74 | 5.98 | 0.75 | 0.06 | 4 | 0.75 |
| 3" | 2.27 | 7.99 | 5.00 | 6.00 | 7.48 | 0.94 | 0.06 | 4 | 0.75 |
| 4" | 2.99 | 9.02 | 6.18 | 7.50 | 9.02 | 0.94 | 0.06 | 8 | 0.75 |
| 6" | 3.94 | 10.51 | 8.50 | 9.51 | 10.98 | 1.00 | 0.06 | 8 | 0.87 |

FIGURE NUMBER 5305FS

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|------|-------|------|------|-------|------|------|---|------|
| 1" | 0.79 | 6.49 | 2.00 | 3.50 | 4.88 | 0.69 | 0.06 | 4 | 0.75 |
| 1-1/2" | 1.25 | 7.48 | 2.87 | 4.51 | 6.14 | 0.81 | 0.06 | 4 | 0.87 |
| 2" | 1.49 | 8.50 | 3.62 | 5.00 | 6.50 | 0.88 | 0.06 | 8 | 0.75 |
| 3" | 2.27 | 11.14 | 5.00 | 6.61 | 8.27 | 1.13 | 0.06 | 8 | 0.87 |
| 4" | 2.99 | 12.00 | 6.18 | 7.87 | 10.00 | 1.25 | 0.06 | 8 | 0.87 |

FIRESAFE FLANGED FLOATING BALL VALVES FULL PORT STAINLESS STEEL

FIGURE NUMBERS 6156FS & 6306FS



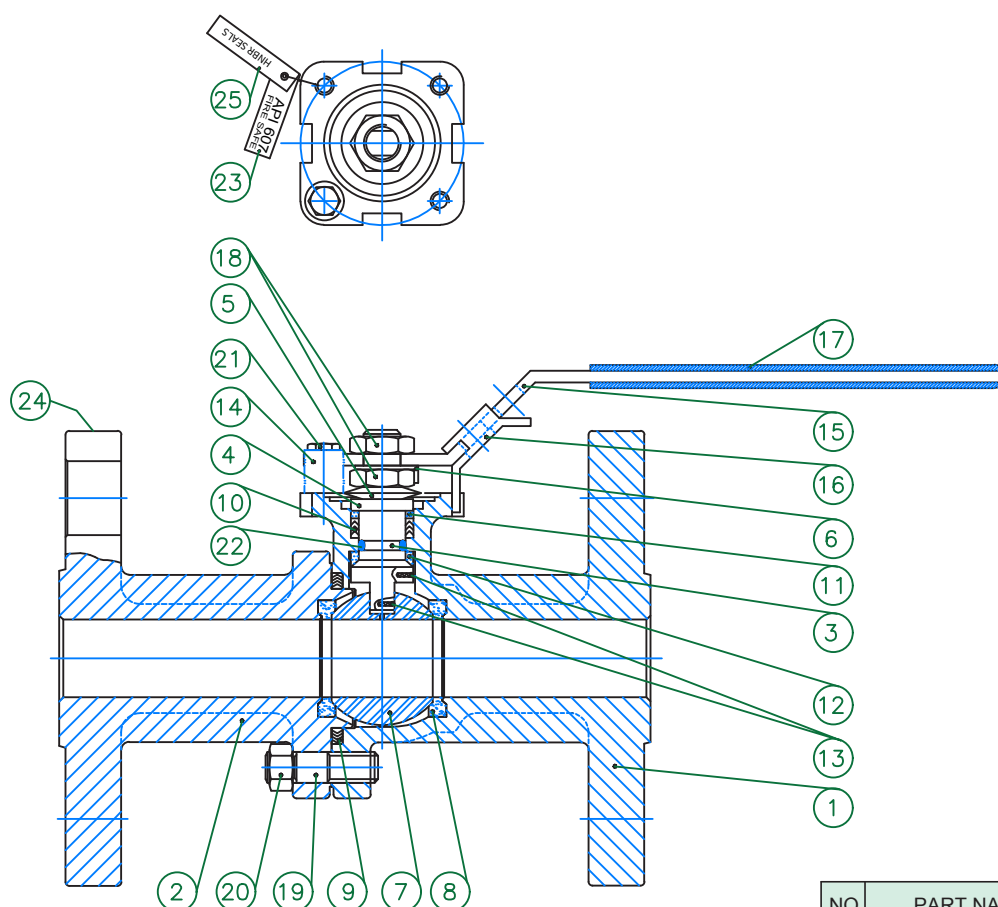
PRODUCT OVERVIEW

| | |
|--------------------|---|
| SIZE RANGE | 1/2" - 12" |
| MATERIAL GRADES | CF8M, CF3M, CF8, CN7M (Alloy 20) & C-276 (Hastelloy) |
| END CONFIGURATIONS | Raised Face & RTJ |
| OPTIONS | Special Seats & Seals, Stem Extensions, Cryogenics, & Worm Gears |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device, Fire-Safe, NACE Compliant, Graphite Packing, Low Fugitive Emission |

PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 150# | 6156FS |
| 300# | 6306FS |

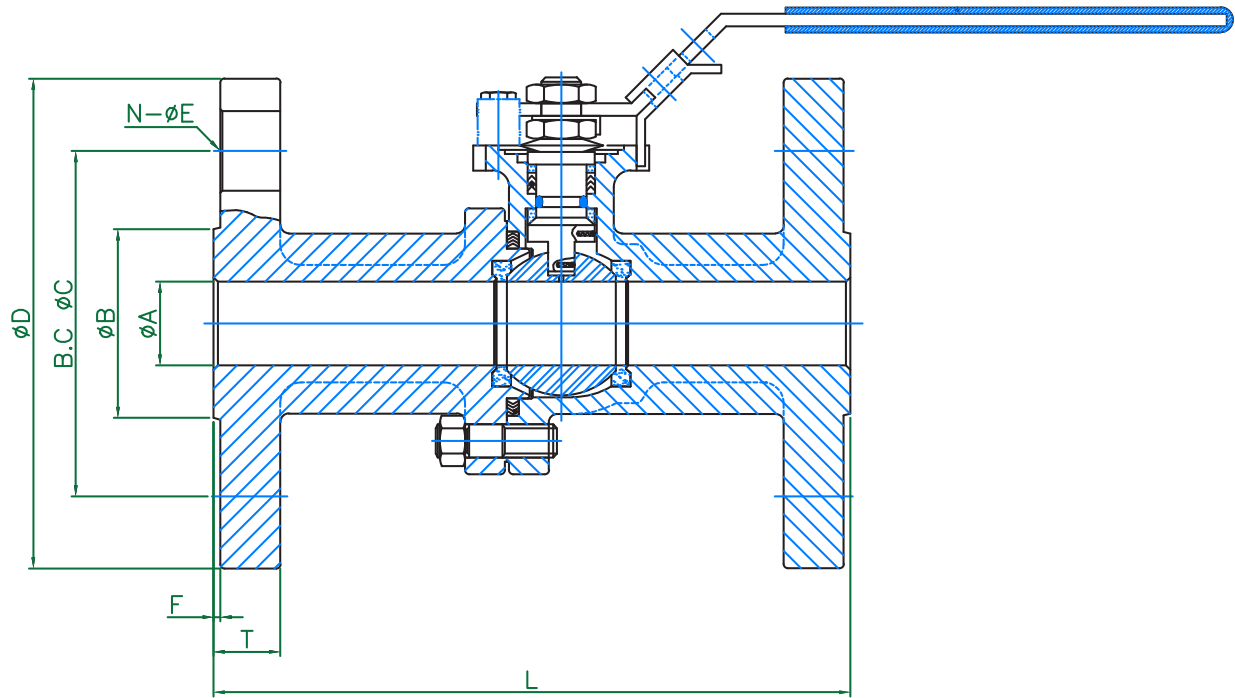
FIGURE NUMBERS 6156FS & 6306FS

**MATERIAL LIST**

| NO. | PART NAME | MATERIAL STAINLESS STEEL |
|-----|-------------------------|----------------------------------|
| 1 | BODY | ASTM A351-CF8M |
| 2 | CAP | ASTM A351-CF8M |
| 3 | STEM | 17-4PH |
| 4 | SLEEVE | AISI 304 |
| 5 | DISK SPRING WASHER | AISI 301 |
| 6 | LOCK WASHER | AISI 304 |
| 7 | BALL | ASTM A351-CF8M |
| 8 | SEAT | RPTFE |
| 9 | GASKET | SPIRAL WOUND WIRE (316/GRAPHITE) |
| 10 | STEM PACKING | GRAPHITE |
| 11 | PACKING | 50%PTFE + 50%316 |
| 12 | THRUST WASHER | TFM + 25% CARBON |
| 13 | ANTI-STATIC | AISI 316 |
| 14 | SET SLEEVE | AISI 304 |
| 15 | HANDLE | AISI 304 |
| 16 | LOCATING LOCK | AISI 304 |
| 17 | PLASTIC COVER | PLASTIC |
| 18 | THIN NUT | AISI 304 |
| 19 | STUD | ASTM A193-B8M |
| 20 | NUT | ASTM A194-8M |
| 21 | BOLT | AISI 304 |
| 22 | O-RING | OPTIONAL |
| 23 | FIRE-SAFE TAG (API 607) | PLASTIC |
| 24 | NAMEPLATE | ASTM A666-304 |
| 25 | HNBR SEALS | PLASTIC |

OTHER BODY AND TRIM MATERIALS AVAILABLE.

Please contact Warren Valve or your Warren Valve representative for more details.

FIGURE NUMBERS 6156FS & 6306FS

FIGURE NUMBER 6156FS

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|-------|-------|-------|-------|-------|------|------|----|------|
| 1/2" | 0.59 | 4.25 | 1.38 | 2.38 | 3.50 | 0.44 | 0.06 | 4 | 0.63 |
| 3/4" | 0.79 | 4.61 | 1.69 | 2.76 | 3.86 | 0.50 | 0.06 | 4 | 0.63 |
| 1" | 0.98 | 5.00 | 2.00 | 3.13 | 4.25 | 0.56 | 0.06 | 4 | 0.63 |
| 1-1/2" | 1.49 | 6.50 | 2.87 | 3.87 | 5.00 | 0.69 | 0.06 | 4 | 0.63 |
| 2" | 1.97 | 7.0 | 3.62 | 4.74 | 5.98 | 0.75 | 0.06 | 4 | 0.75 |
| 2-1/2" | 2.56 | 7.48 | 4.13 | 5.49 | 7.01 | 0.88 | 0.06 | 4 | 0.75 |
| 3" | 2.99 | 7.99 | 5.00 | 6.00 | 7.48 | 0.94 | 0.06 | 4 | 0.75 |
| 4" | 4.00 | 9.02 | 6.18 | 7.50 | 9.02 | 0.94 | 0.06 | 8 | 0.75 |
| 6" | 5.98 | 15.51 | 8.50 | 9.51 | 10.98 | 1.00 | 0.06 | 8 | 0.87 |
| 8" | 7.87 | 17.99 | 10.63 | 11.75 | 13.50 | 1.13 | 0.06 | 8 | 0.87 |
| 10" | 9.84 | 20.98 | 12.76 | 14.25 | 15.98 | 1.19 | 0.06 | 12 | 0.98 |
| 12" | 11.81 | 24.02 | 15.00 | 17.01 | 19.02 | 1.25 | 0.06 | 12 | 0.98 |

FIGURE NUMBER 6306FS

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|------|-------|-------|-------|-------|------|------|----|------|
| 1/2" | 0.59 | 5.51 | 1.38 | 2.62 | 3.74 | 0.56 | 0.06 | 4 | 0.63 |
| 3/4" | 0.79 | 5.98 | 1.69 | 3.25 | 4.61 | 0.63 | 0.06 | 4 | 0.75 |
| 1" | 0.98 | 6.49 | 2.00 | 3.50 | 4.88 | 0.69 | 0.06 | 4 | 0.75 |
| 1-1/4" | 1.25 | 7.01 | 2.52 | 3.88 | 5.24 | 0.75 | 0.06 | 4 | 0.75 |
| 1-1/2" | 1.49 | 7.48 | 2.87 | 4.51 | 6.14 | 0.81 | 0.06 | 4 | 0.87 |
| 2" | 1.97 | 8.50 | 3.62 | 5.00 | 6.50 | 0.88 | 0.06 | 8 | 0.75 |
| 2-1/2" | 2.56 | 9.49 | 4.13 | 5.87 | 7.48 | 1.00 | 0.06 | 8 | 0.87 |
| 3" | 2.99 | 11.14 | 5.00 | 6.61 | 8.27 | 1.13 | 0.06 | 8 | 0.87 |
| 4" | 4.00 | 12.01 | 6.18 | 7.87 | 10.00 | 1.25 | 0.06 | 8 | 0.87 |
| 6" | 5.98 | 15.87 | 8.50 | 10.63 | 12.52 | 1.44 | 0.06 | 12 | 0.87 |
| 8" | 7.87 | 19.76 | 10.63 | 12.99 | 15.00 | 1.63 | 0.06 | 12 | 0.98 |

FIRESAFE FLANGED FLOATING BALL VALVES REDUCED PORT STAINLESS STEEL

FIGURE NUMBERS 5156FS & 5306FS



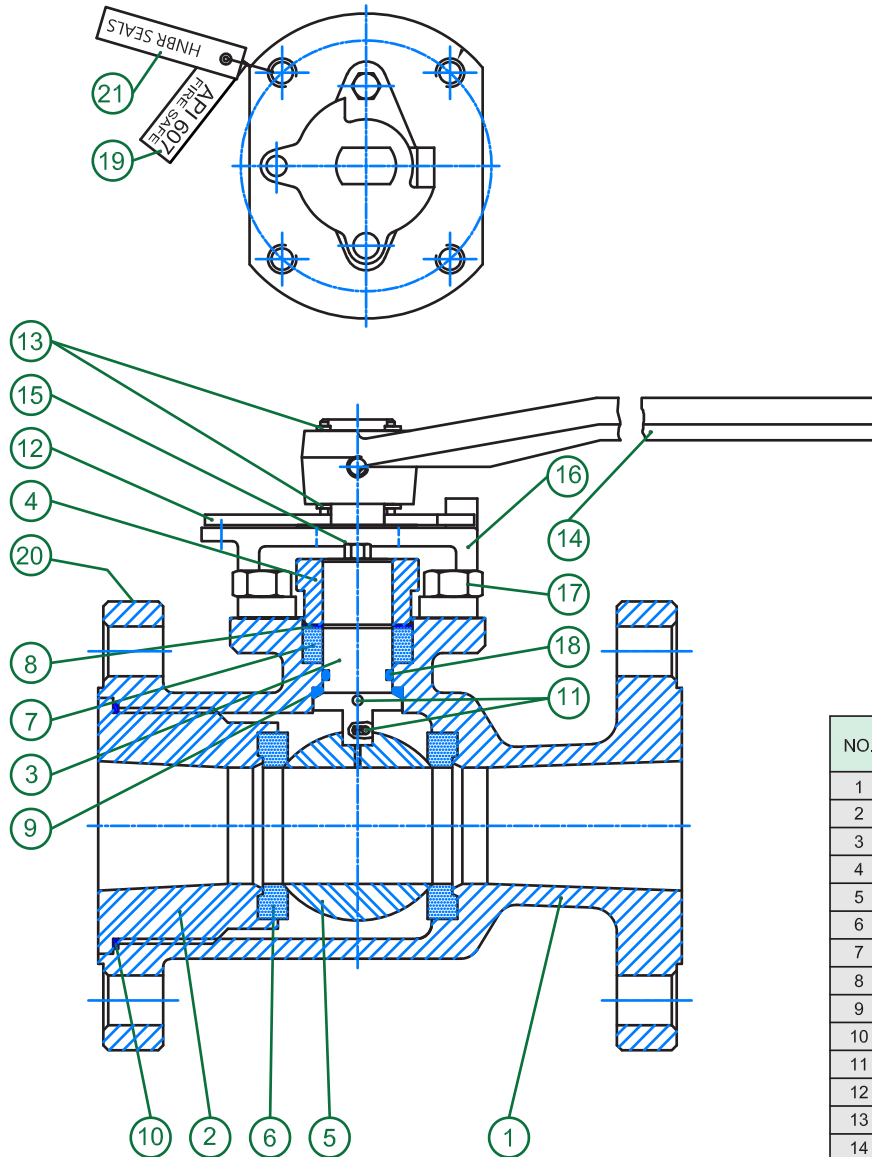
PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 150# | 5156FS |
| 300# | 5306FS |

PRODUCT OVERVIEW

| | |
|--------------------|---|
| SIZE RANGE | 1- 1/2" - 6" |
| MATERIAL GRADES | CF8M, CF3M, CF8, CN7M (Alloy 20) & C-276 (Hastelloy) |
| END CONFIGURATIONS | Raised Face & RTJ |
| OPTIONS | Special Seats & Seals, Stem Extensions, & Worm Gears |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device, Fire-Safe, NACE Compliant, Graphite Packing, Low Fugitive Emission |

FIGURE NUMBERS 5156FS & 5306FS

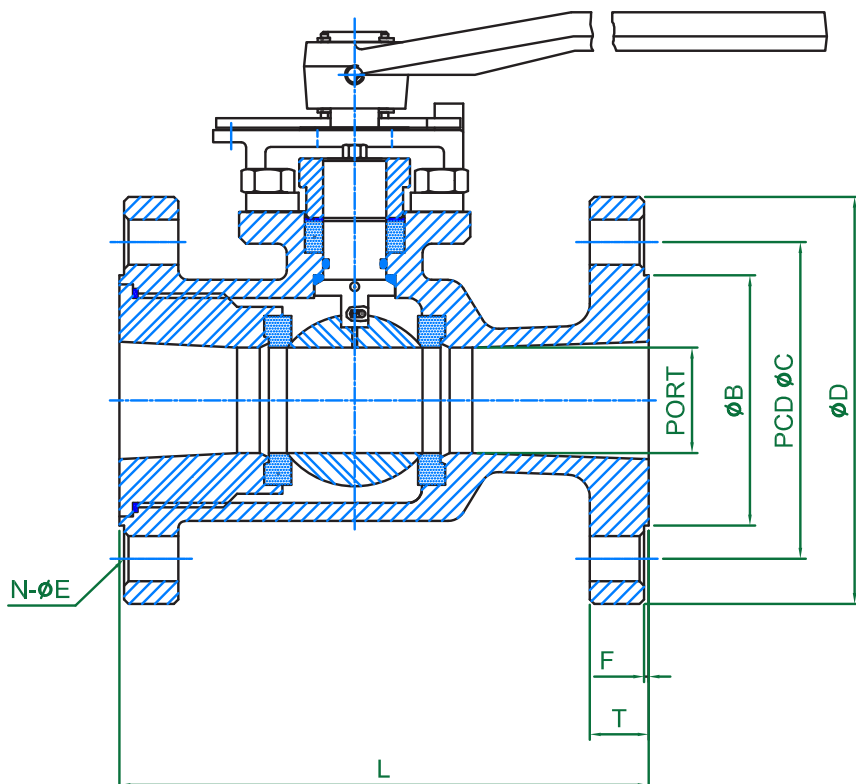


MATERIALS LIST

| NO. | PART NAME | MATERIAL |
|-----|-------------------------|------------------------------|
| | | STAINLESS STEEL |
| 1 | BODY | ASTM A351-CF8M |
| 2 | CAP | ASTM A351-CF8M |
| 3 | STEM | ASTM A276-316/17-4PH(FOR 6") |
| 4 | GLAND | ASTM A351-CF8 |
| 5 | BALL | ASTM A351-CF8M |
| 6 | SEAT | RPTFE |
| 7 | PACKING(1) | GRAPHITE |
| 8 | PACKING(2) | 50% PTFE + 50% 316 |
| 9 | THRUST WASHER | TFM +25% CARBON |
| 10 | GASKET | GRAPHITE |
| 11 | ANTI-STATIC | AISI SS316 |
| 12 | TRAVEL STOPPER | AISI SS304 |
| 13 | SNAP RING | NICKEL PLATED CARBON STEEL |
| 14 | HANDLE | JUCTION HEAD (FCD) |
| 15 | GLAND BLOT | ASTM A193-B8 |
| 16 | STOP HOUSING | ASTM A351-CF8 |
| 17 | HOUSING BOLT | AISI SS304 |
| 18 | O-RING | OPTIONAL |
| 19 | FIRE-SAFE TAG (API 607) | PLASTIC |
| 20 | NAMEPLATE | ASTM A666-304 |
| 21 | HNBR SEALS | PLASTIC |

OTHER BODY AND TRIM MATERIALS AVAILABLE.

Please contact Warren Valve or your Warren Valve representative for more details.

FIGURE NUMBERS 5156FS & 5306FS**FIGURE NUMBER 5156FS**

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|------|-------|------|------|-------|------|------|---|------|
| 1" | 0.79 | 5.00 | 2.00 | 3.13 | 4.25 | 0.56 | 0.06 | 4 | 0.63 |
| 1-1/2" | 1.25 | 6.50 | 2.87 | 3.87 | 5.00 | 0.69 | 0.06 | 4 | 0.63 |
| 2" | 1.49 | 7.00 | 3.62 | 4.74 | 5.98 | 0.75 | 0.06 | 4 | 0.75 |
| 3" | 2.27 | 7.99 | 5.00 | 6.00 | 7.48 | 0.94 | 0.06 | 4 | 0.75 |
| 4" | 2.99 | 9.02 | 6.18 | 7.50 | 9.02 | 0.94 | 0.06 | 8 | 0.75 |
| 6" | 3.94 | 10.51 | 8.50 | 9.51 | 10.98 | 1.00 | 0.06 | 8 | 0.87 |

FIGURE NUMBER 5306FS

| SIZE | PORT | L | B | C | D | T | F | N | E |
|--------|------|-------|------|------|-------|------|------|---|------|
| 1" | 0.79 | 6.49 | 2.00 | 3.50 | 4.88 | 0.69 | 0.06 | 4 | 0.75 |
| 1-1/2" | 1.25 | 7.48 | 2.87 | 4.51 | 6.14 | 0.81 | 0.06 | 4 | 0.87 |
| 2" | 1.49 | 8.50 | 3.62 | 5.00 | 6.50 | 0.88 | 0.06 | 8 | 0.75 |
| 3" | 2.27 | 11.14 | 5.00 | 6.61 | 8.27 | 1.13 | 0.06 | 8 | 0.87 |
| 4" | 2.99 | 12.00 | 6.18 | 7.87 | 10.00 | 1.25 | 0.06 | 8 | 0.87 |

6D FLOATING BALL VALVES FULL PORT CARBON STEEL

FIGURE NUMBERS 6155FS-6D, 6305FS-6D, & 6605FS-6D

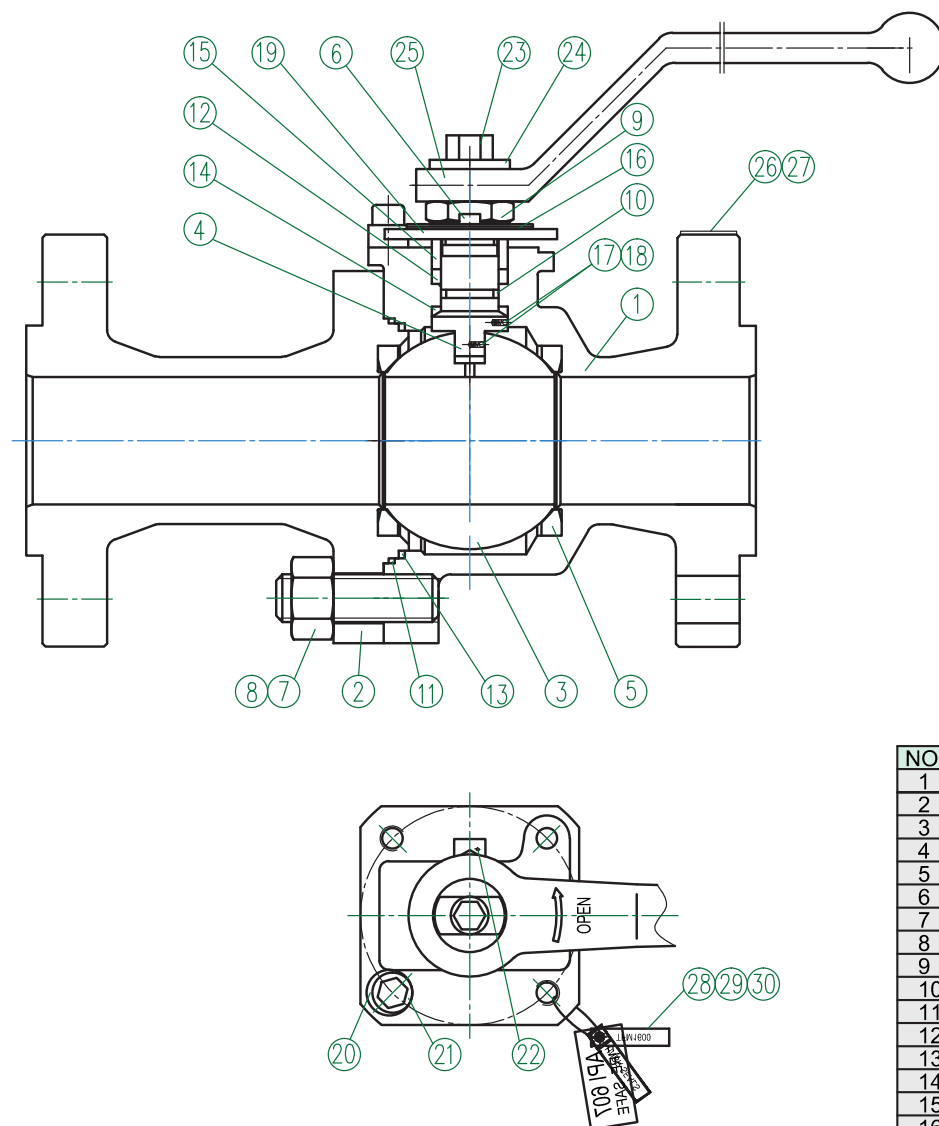


PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 150# | 6155FS- 6D |
| 300# | 6305FS- 6D |
| 600# | 6605FS- 6D |

PRODUCT OVERVIEW

| | |
|--------------------|--|
| SIZE RANGE | 2" - 8" |
| MATERIAL GRADES | WCB x 316, LCC x 316 |
| END CONFIGURATIONS | Raised Face & RTJ |
| OPTIONS | Special Seats & Seals, Stem Extensions, & Worm Gears |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device, Fire-Safe, NACE Compliant, Graphite Packing, Low Fugitive Emission |

FIGURE NUMBERS 6155FS-6D, 6305FS-6D, & 6605FS-6D**MATERIALS LIST**

| NO. | PART NAME | MATERIAL LIST |
|-----|-----------------------|----------------|
| 1 | BODY | ASTM A216 WCB |
| 2 | ADAPTER | ASTM A216 WCB |
| 3 | BALL | ASTM A182 F316 |
| 4 | STEM | ASTM A182 F51 |
| 5 | SEAT | TFM1600 |
| 6 | LOCKING PLATE | ASTM A240 304 |
| 7 | BOLT | ASTM A193 B7M |
| 8 | NUT | ASTM A194 2HM |
| 9 | NUT | SS |
| 10 | O-RING | HNBR |
| 11 | GASKET | GRAPHITE |
| 12 | STEM PACKING | GRAPHITE |
| 13 | WASHER | PTFE |
| 14 | THRUST WASHER | PTFE |
| 15 | GLAND | ASTM A276 316 |
| 16 | BELLEVILLE SPRING | ASTM A240 304 |
| 17 | ANTISTATIC SPRING | ASTM A313 316 |
| 18 | ANTISTATIC BALL | ASTM A276 316 |
| 19 | POSITION PLATE | CS+Zn |
| 20 | SLEEVE | SS |
| 21 | SCREW | SS |
| 22 | SCREW | SS |
| 23 | SCREW | SS |
| 24 | WASHER | SS |
| 25 | LEVER | ASTM A216 WCB |
| 26 | NAMEPLATE | ASTM A240 304 |
| 27 | RIVET | ASTM A276 304 |
| 28 | HNBR TAG | PLASTIC |
| 29 | TFM1600 TAG | PLASTIC |
| 30 | API 607 FIRE SAFE TAG | PLASTIC |

FIGURE NUMBERS 6155FS-6D, 6305FS-6D, & 6605FS-6D

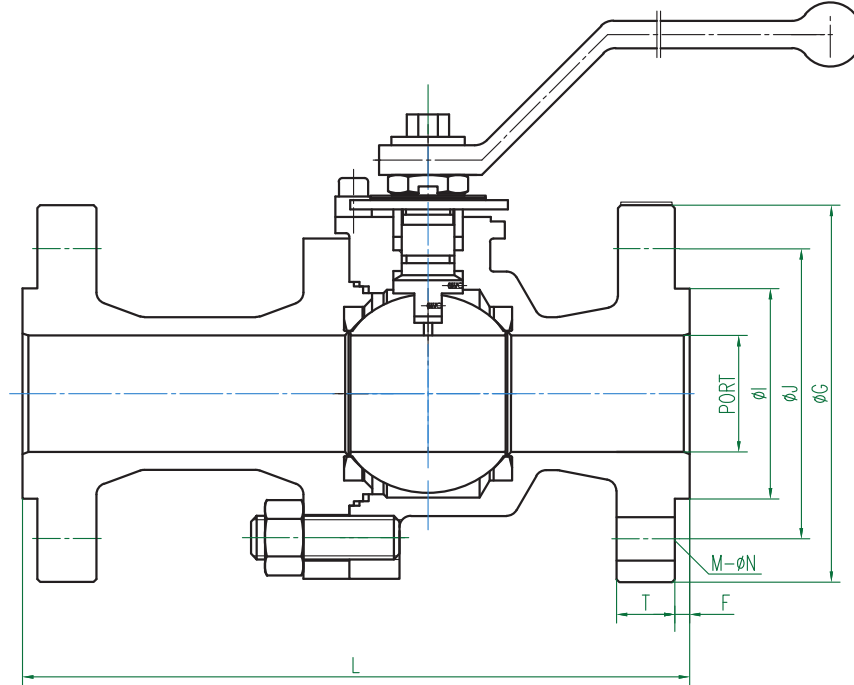


FIGURE NUMBER 6155FS-6D

| SIZE | PORT | L | ØG | ØJ | ØI | T | F | M | ØN |
|------|------|-------|-------|------|------|------|------|---|------|
| 2" | 2.00 | 7.00 | 6.00 | 4.75 | 3.62 | 0.69 | 0.06 | 4 | 0.75 |
| 3" | 3.00 | 8.00 | 7.50 | 6.00 | 5.00 | 0.88 | 0.06 | 4 | 0.75 |
| 4" | 4.00 | 9.00 | 9.00 | 7.50 | 6.19 | 0.88 | 0.06 | 8 | 0.75 |
| 6" | 5.98 | 15.51 | 11.00 | 9.50 | 8.50 | 0.94 | 0.06 | 8 | 0.88 |

FIGURE NUMBER 6305FS-6D

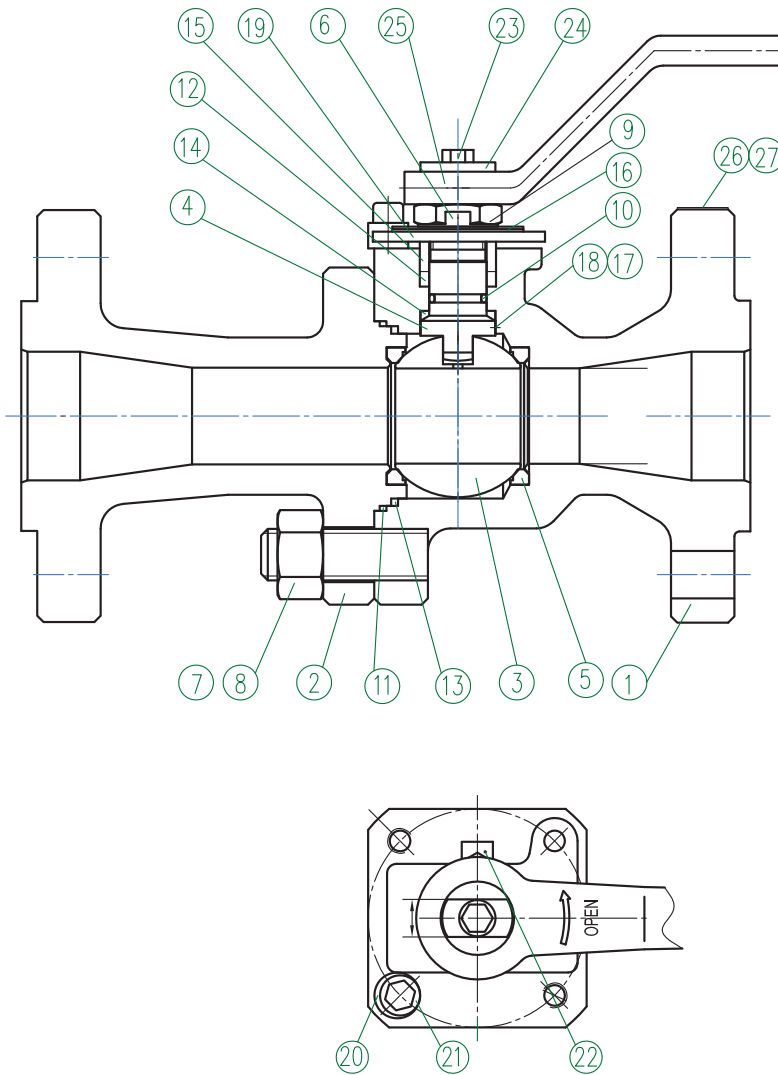
| SIZE | PORT | L | ØG | ØJ | ØI | T | F | M | ØN |
|------|------|-------|-------|------|------|------|------|---|------|
| 2" | 2.00 | 8.50 | 6.50 | 5.00 | 3.62 | 0.81 | 0.06 | 8 | 0.75 |
| 3" | 3.00 | 11.20 | 8.25 | 6.62 | 5.00 | 1.06 | 0.06 | 8 | 0.88 |
| 4" | 4.00 | 12.00 | 10.00 | 7.88 | 6.19 | 1.19 | 0.06 | 8 | 0.88 |

FIGURE NUMBER 6605FS-6D

| SIZE | PORT | L | ØG | ØJ | ØI | T | F | M | ØN |
|------|------|-------|-------|------|------|------|------|---|-------|
| 2" | 2.00 | 11.50 | 6.50 | 5.00 | 3.62 | 1.00 | 0.25 | 8 | 0.75 |
| 3" | 3.00 | 14.00 | 8.25 | 6.62 | 5.00 | 1.25 | 0.25 | 8 | 0.875 |
| 4" | 4.00 | 17.00 | 10.75 | 8.50 | 6.19 | 1.50 | 0.25 | 8 | 1.00 |

6D FLOATING BALL VALVES REDUCED PORT CARBON STEEL

FIGURE NUMBER 5605FS-6D



PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 600# | 5605FS- 6D |

MATERIALS LIST

| NO. | PART NAME | MATERIAL LIST |
|-----|-----------------------|-----------------|
| 1 | BODY | ASTM A216 WCB |
| 2 | ADAPTER | ASTM A216 WCB |
| 3 | BALL | ASTM A182 F316 |
| 4 | STEM | ASTM A182 F51 |
| 5 | SEAT | TFM1600 |
| 6 | LOCKING PLATE | ASTM A240 SS304 |
| 7 | BOLT | ASTM A193 B7M |
| 8 | NUT | ASTM A194 2HM |
| 9 | NUT | SS |
| 10 | O-RING | HNBR |
| 11 | GASKET | GRAPHITE |
| 12 | STEM PACKING | GRAPHITE |
| 13 | WASHER | PTFE |
| 14 | THRUST WASHER | PTFE |
| 15 | GLAND | ASTM A276 F316 |
| 16 | BELLEVLIE SPRING | ASTM A240 SS304 |
| 17 | ANTISTATIC SPRING | ASTM A313 SS316 |
| 18 | ANTISTATIC BALL | ASTM A276 SS316 |
| 19 | POSITION PLATE | CS+Zn |
| 20 | SLEEVE | SS |
| 21 | SCREW | SS |
| 22 | SCREW | SS |
| 23 | SCREW | SS |
| 24 | WASHER | CS |
| 25 | LEVER | ASTM A216 WCB |
| 26 | NAMEPLATE | ASTM A240 SS304 |
| 27 | RIVET | ASTM A276 SS304 |
| 28 | HNBR TAG | PLASTIC |
| 29 | TFM1600 TAG | PLASTIC |
| 30 | API 607 FIRE SAFE TAG | PLASTIC |

FIGURE NUMBERS 5605FS-6D

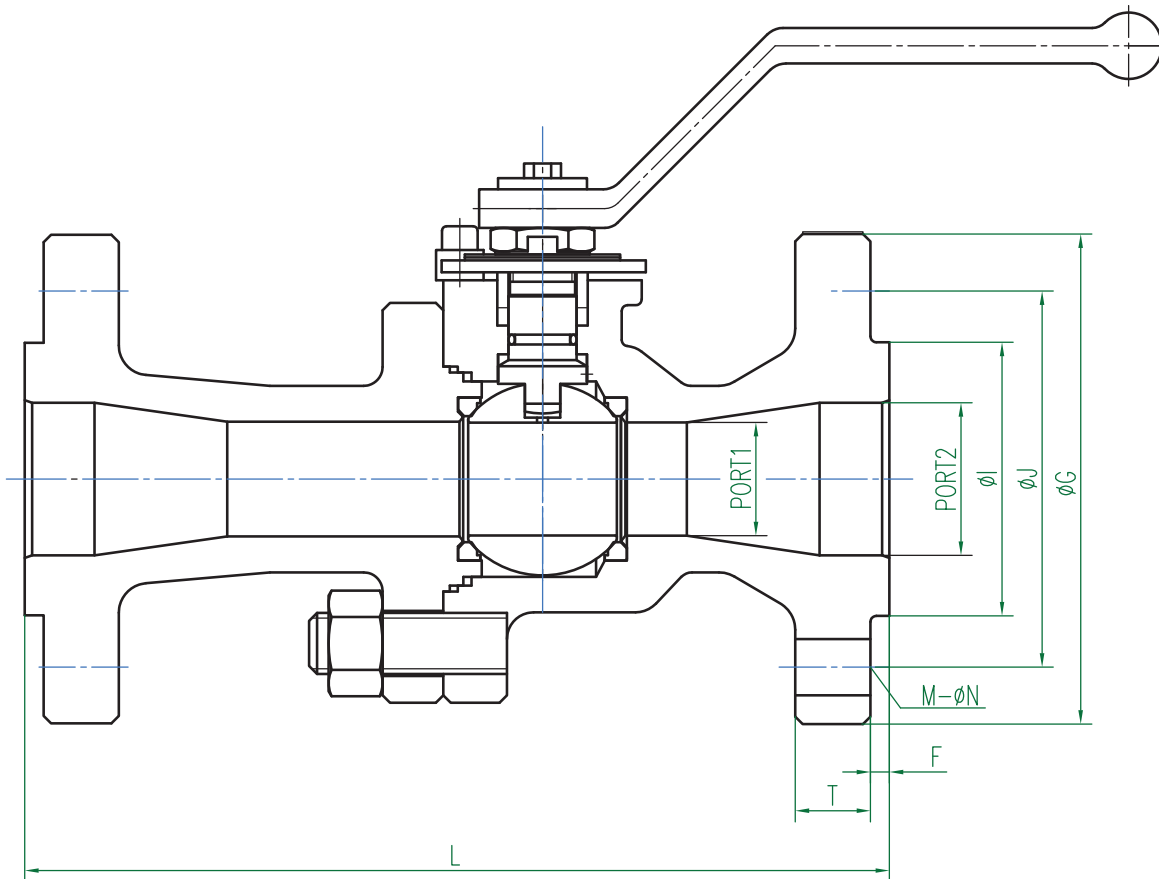


FIGURE NUMBER 5605FS-6D

| SIZE | PORT-1 | PORT-2 | L | ϕG | ϕJ | ϕI | T | F | M | ϕN |
|-----------|--------|--------|-------|----------|----------|----------|------|------|---|----------|
| 2"X1 1/2" | 1.50 | 2.00 | 11.50 | 6.50 | 5.00 | 3.62 | 1.00 | 0.25 | 8 | 0.75 |
| 3"X2" | 2.00 | 3.00 | 14.00 | 8.25 | 6.62 | 5.00 | 1.25 | 0.25 | 8 | 0.88 |
| 4"X3" | 3.00 | 4.00 | 17.00 | 10.75 | 8.50 | 6.19 | 1.50 | 0.25 | 8 | 1.00 |

NON-FIRESAFE FLANGED FLOATING BALL VALVES
FULL PORT STAINLESS STEEL

FIGURE NUMBER 6156



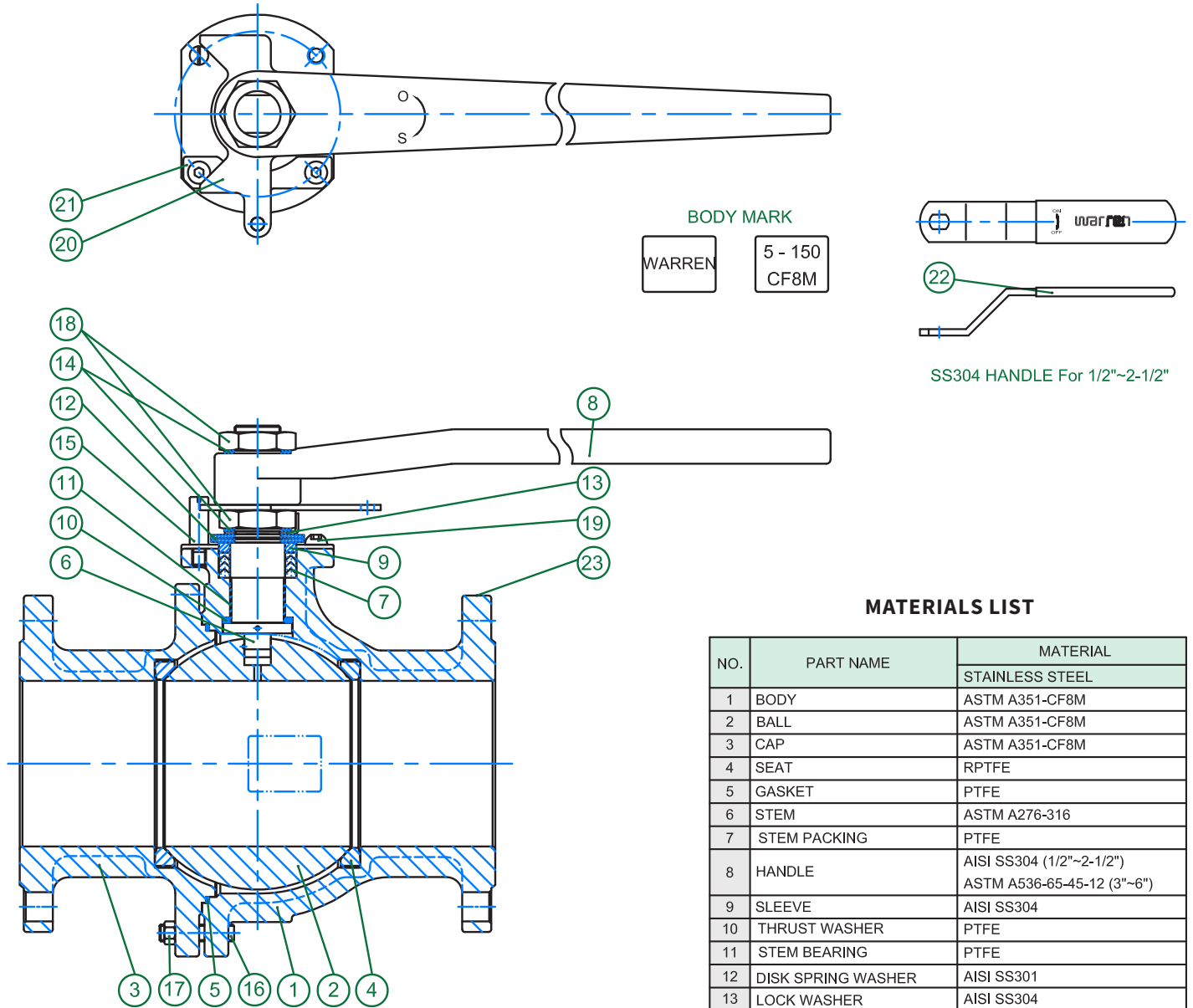
PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 150# | 6156 |

PRODUCT OVERVIEW

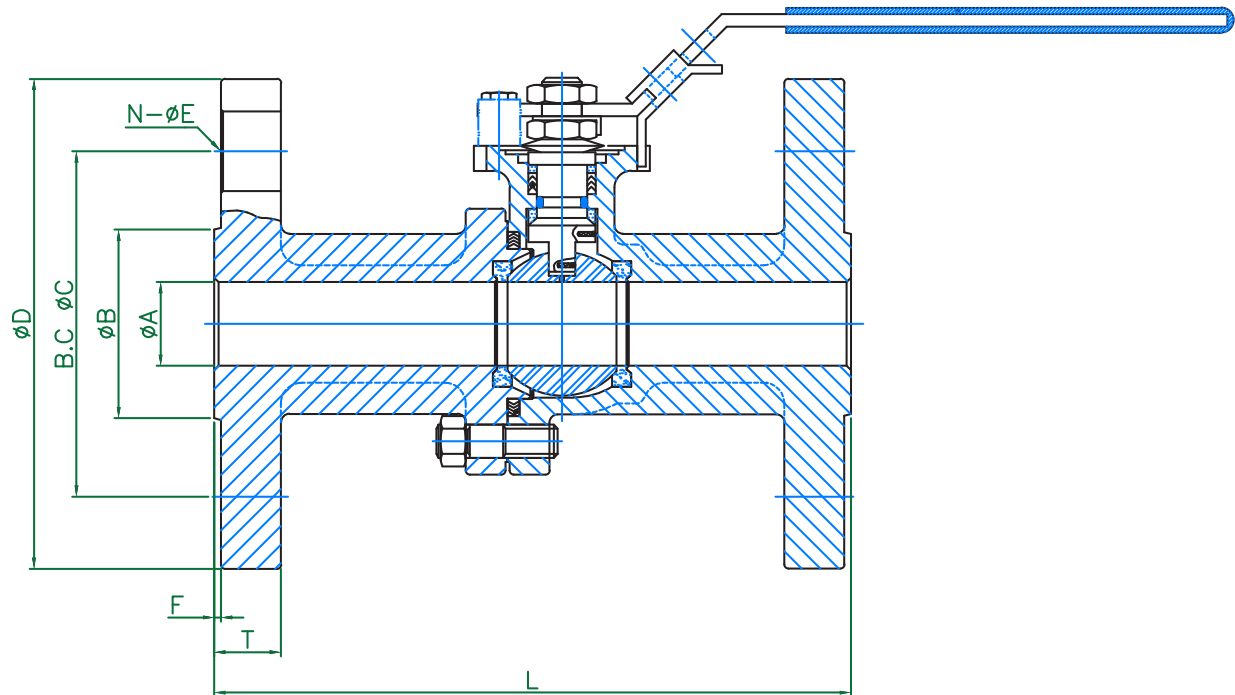
| | |
|--------------------|---|
| SIZE RANGE | 1/2" - 6" |
| MATERIAL GRADES | CF8M |
| END CONFIGURATIONS | Raised Face |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device |

FULL PORT STAINLESS STEEL SERIES



MATERIALS LIST

| NO. | PART NAME | MATERIAL |
|-----|--------------------|--|
| | | STAINLESS STEEL |
| 1 | BODY | ASTM A351-CF8M |
| 2 | BALL | ASTM A351-CF8M |
| 3 | CAP | ASTM A351-CF8M |
| 4 | SEAT | RPTFE |
| 5 | GASKET | PTFE |
| 6 | STEM | ASTM A276-316 |
| 7 | STEM PACKING | PTFE |
| 8 | HANDLE | AISI SS304 (1/2"~2-1/2") ASTM A536-65-45-12 (3"~6") |
| 9 | SLEEVE | AISI SS304 |
| 10 | THRUST WASHER | PTFE |
| 11 | STEM BEARING | PTFE |
| 12 | DISK SPRING WASHER | AISI SS301 |
| 13 | LOCK WASHER | AISI SS304 |
| 14 | WASHER | AISI SS304 |
| 15 | SET SCREW | AISI SS304 |
| 16 | STUD | AISI SS304 |
| 17 | NUT | AISI SS304 |
| 18 | THIN NUT | AISI SS304 |
| 19 | SCREW | AISI SS304 |
| 20 | TRAVEL STOPPER (1) | AISI SS304 |
| 21 | TRAVEL STOPPER (2) | AISI SS304 |
| 22 | HANDLE COVER | PLASTIC |
| 23 | NAME PLATE | ASTM A666 304 |

FULL PORT STAINLESS STEEL SERIES
FIGURE NUMBER **6156**

| SIZE | PORT | L | I | J | G | T | F | M | N |
|--------|------|------|------|------|-------|------|------|---|------|
| 1/2" | 0.59 | 1.38 | 1.38 | 2.38 | 3.50 | 0.44 | 0.06 | 4 | 0.63 |
| 3/4" | 0.79 | 1.69 | 1.69 | 2.76 | 3.86 | 0.50 | 0.06 | 4 | 0.63 |
| 1" | 1.00 | 2.00 | 2.00 | 3.13 | 4.25 | 0.56 | 0.06 | 4 | 0.63 |
| 1-1/2" | 1.50 | 2.87 | 2.87 | 3.87 | 5.00 | 0.69 | 0.06 | 4 | 0.63 |
| 2" | 1.97 | 3.62 | 3.62 | 4.74 | 5.98 | 0.75 | 0.06 | 4 | 0.75 |
| 2-1/2" | 2.48 | 4.13 | 4.13 | 5.49 | 7.01 | 0.88 | 0.06 | 4 | 0.75 |
| 3" | 3.15 | 5.00 | 5.00 | 6.00 | 7.48 | 0.94 | 0.06 | 4 | 0.75 |
| 4" | 3.86 | 6.18 | 6.18 | 7.50 | 9.02 | 0.94 | 0.06 | 8 | 0.75 |
| 6" | 5.98 | 8.50 | 8.50 | 9.51 | 10.98 | 1.00 | 0.06 | 8 | 0.87 |

NON-FIRESAFE FLANGED FLOATING BALL VALVES REDUCED PORT STAINLESS STEEL

FIGURE NUMBER 5156



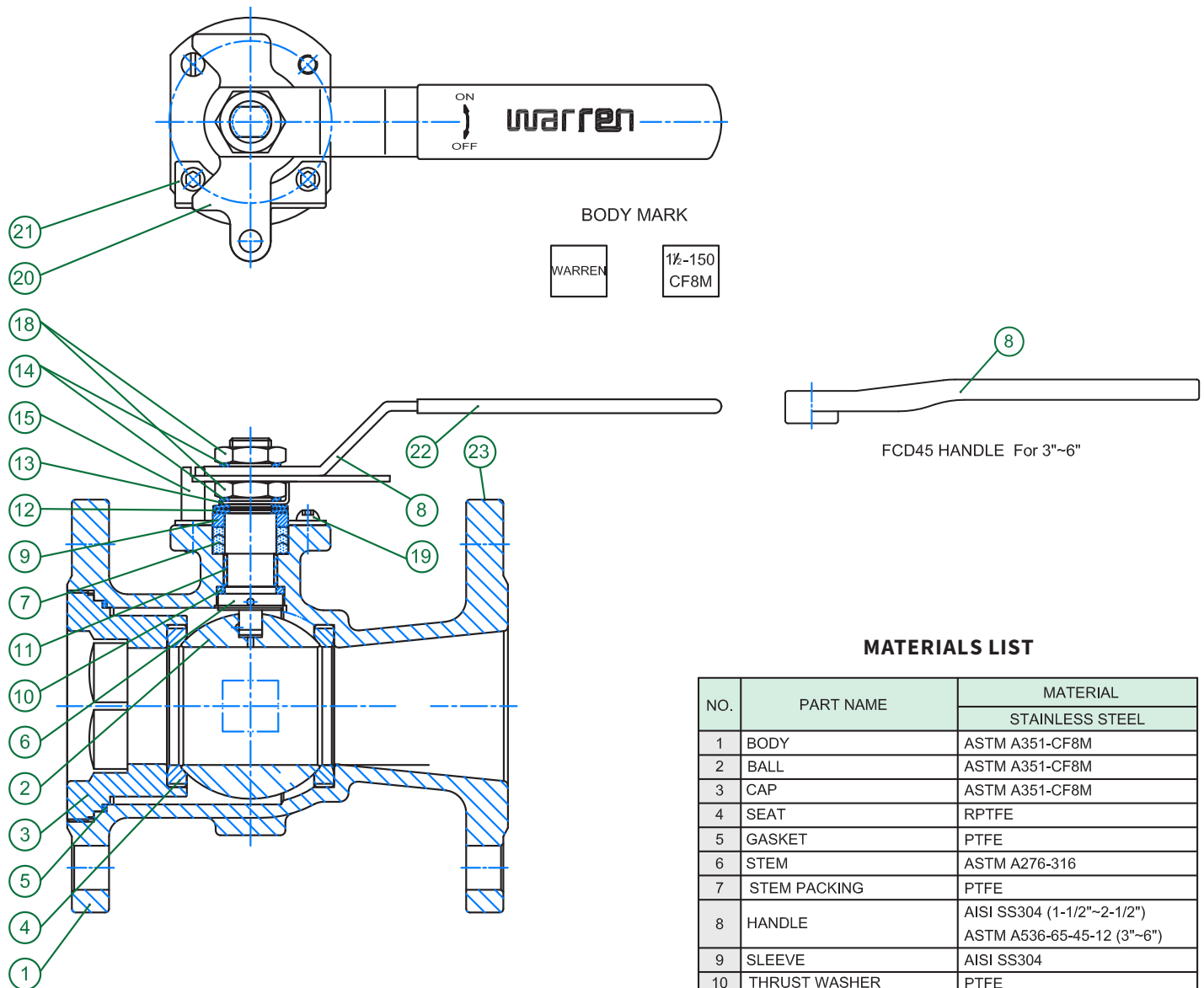
PRESSURE RANGE

| CLASS | FIGURE NUMBER |
|-------|---------------|
| 150# | 5156 |

PRODUCT OVERVIEW

| | |
|--------------------|---|
| SIZE RANGE | 1/2" - 6" |
| MATERIAL GRADES | CF8M |
| END CONFIGURATIONS | Raised Face |
| FEATURES | Locking Device, ISO 5211 Mounting Pad, Anti-Static Device |

REDUCED PORT STAINLESS STEEL SERIES



MATERIALS LIST

| NO. | PART NAME | MATERIAL |
|-----|--------------------|--|
| | | STAINLESS STEEL |
| 1 | BODY | ASTM A351-CF8M |
| 2 | BALL | ASTM A351-CF8M |
| 3 | CAP | ASTM A351-CF8M |
| 4 | SEAT | RPTFE |
| 5 | GASKET | PTFE |
| 6 | STEM | ASTM A276-316 |
| 7 | STEM PACKING | PTFE |
| 8 | HANDLE | AISI SS304 (1-1/2"~2-1/2") ASTM A536-65-45-12 (3"~6") |
| 9 | SLEEVE | AISI SS304 |
| 10 | THRUST WASHER | PTFE |
| 11 | STEM BEARING | PTFE |
| 12 | DISK SPRING WASHER | AISI SS301 |
| 13 | LOCK WASHER | AISI SS304 |
| 14 | WASHER | AISI SS304 |
| 15 | SET SCREW | AISI SS304 |
| 18 | THIN NUT | AISI SS304 |
| 19 | SCREW | AISI SS304 |
| 20 | TRAVEL STOPPER (1) | AISI SS304 |
| 21 | TRAVEL STOPPER (2) | AISI SS304 |
| 22 | HANDLE COVER | PLASTIC |
| 23 | NAME PLATE | ASTM A666 304 |

REDUCED PORT STAINLESS STEEL SERIES

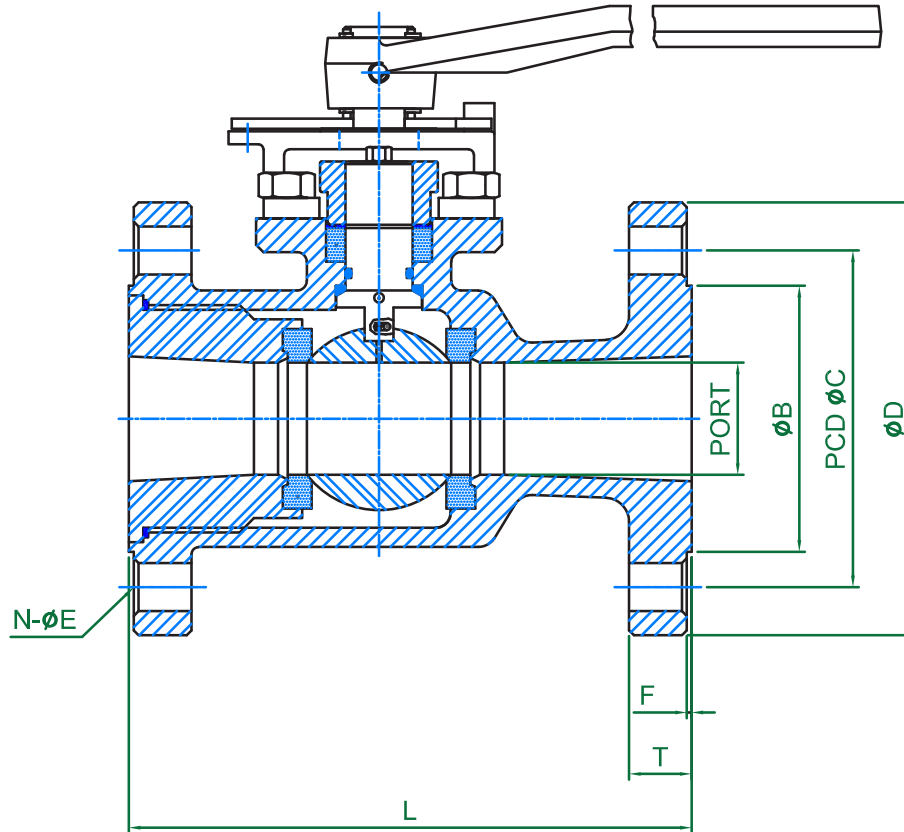


FIGURE NUMBER 5156

| SIZE | PORT | L | D | I | J | G | T | F | M | N |
|--------|------|-------|------|------|------|-------|------|------|---|------|
| 1-1/2" | 1.28 | 6.50 | 1.50 | 2.87 | 3.88 | 5.00 | 0.58 | 0.08 | 4 | 0.63 |
| 2" | 1.50 | 7.01 | 1.81 | 3.62 | 4.74 | 5.98 | 0.65 | 0.08 | 4 | 0.75 |
| 2-1/2" | 1.97 | 7.48 | 2.56 | 4.13 | 5.49 | 7.01 | 0.71 | 0.08 | 4 | 0.75 |
| 3" | 2.28 | 7.99 | 3.07 | 5.00 | 6.00 | 7.48 | 0.77 | 0.08 | 4 | 0.75 |
| 4" | 3.15 | 9.02 | 3.74 | 6.18 | 7.50 | 9.02 | 0.96 | 0.08 | 8 | 0.75 |
| 6" | 4.53 | 15.51 | 5.91 | 8.50 | 9.51 | 10.98 | 1.00 | 0.08 | 8 | 0.87 |

TECHNICAL SERVICE



24/7 FREE SUPPORT & FIELD SERVICES

Field service and technical support are major elements of successful product manufacturing. At Warren Valve, our commitment to providing comprehensive field services and technical support is part of who we are. Therefore, we offer these services at no additional cost to the end user. Warren Valve's technical support team provides 24/7 assistance on all field service issues. Our team treats every service call as an opportunity to improve our customer experience.



EXPERT ISSUE RESOLUTION

Warren Valve's technical support staff are valve experts who have the necessary regional and application-specific experience to provide reliable technical support to our clients. Safety is a top priority for Warren Valve technical support services, and we employ best-in-class practices that keep safety first. We consider issue resolution a top priority, and our aim is to resolve customer concerns in an expedited fashion.



NATIONWIDE SUPPORT

We are here for you when and where you need us. Members of our support team are strategically located throughout the nation to be closer to you!

FUGITIVE EMISSIONS STATEMENT

Since the Introduction of the U.S. Clean Air Act of 1963, the U.S. Environmental Protection Agency (EPA), and individual states have set increasingly stringent consent decrees on Refineries, Petrochemical, and Oil & Gas end-user facilities to decrease their fugitive emissions. Many of these same end-users have reacted by creating their own Leak Detection and Repair (LDAR) programs.

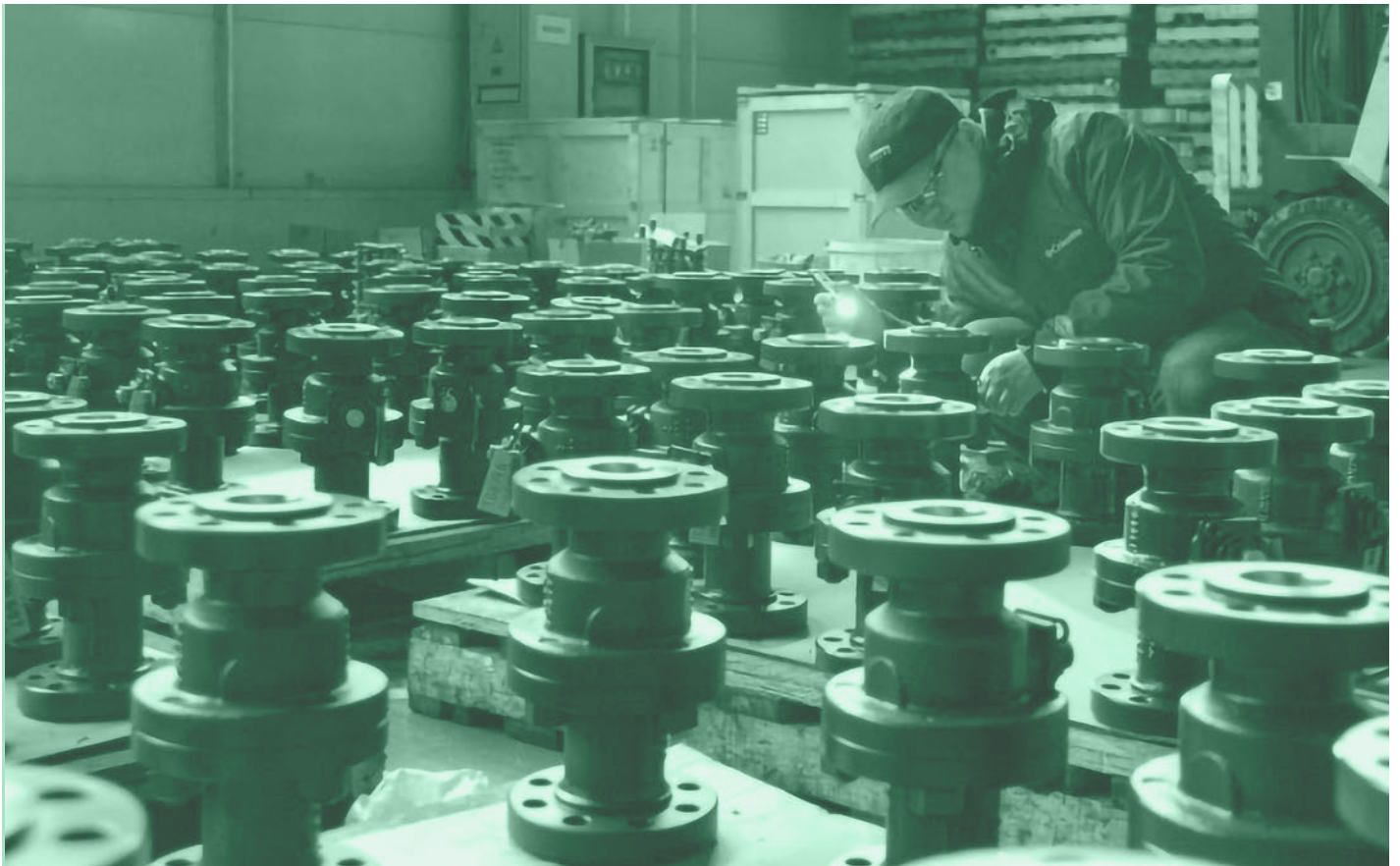
Warren Valve has reacted in an effort to help end-users by creating standards to comply and adhere to in regards to emissions. The initial response by the industry came from the American Petroleum Institute (API) when it added better-defined and more stringent requirements as part of the 2011 edition of API 622 (Type Testing of Process Valve Packing for Fugitive Emissions).

This change created the need for API to develop the API 624 valve type-testing standard (Type Testing of Rising Stem Valves Equipped with Graphite Packing for Fugitive Emissions). API also created API

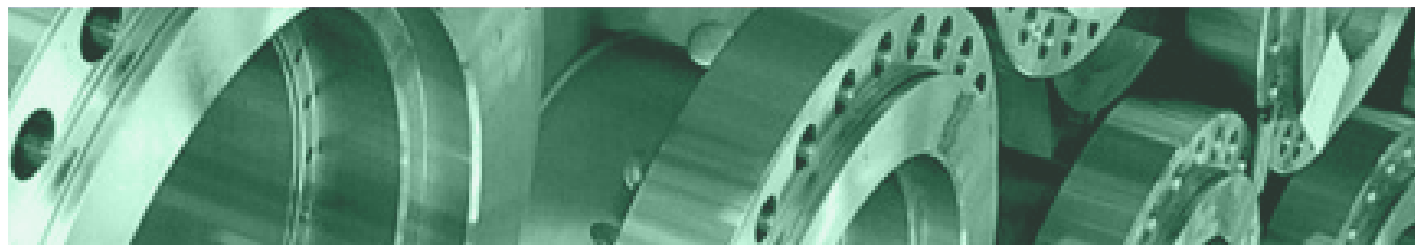
641 valve type testing standard (Type Testing of Rotating Stem Valves with any stem seal material for Fugitive Emissions). The ultimate goal of Warren Valves is to provide exactly what end-users require; meet the growing demands of the EPA and state agencies to reduce emissions.

Warren maintains a strong working relationship with both packing manufactures and sub suppliers of its product. This allows Warren valve to comply with many fugitive emissions requirements of major end-users.

For more information regarding Warren's Low Emissions, and API 641 & API 624 compliance, please contact Warren or your Warren Valve representative directly.



WARRANTY & POLICIES



RESTOCKING POLICY

Standard stocking items purchased from Warren Valve Engineered Products inventory must be approved and authorized prior to return. Inventory levels per line item will be reviewed prior, upon authorization for return, a minimum 10% restocking fee to handle, clean and perform 100% testing and inspection will apply. These items must be returned prepaid to the original delivery point within 60 days from date of invoice in new condition with supporting documentation (Permission in writing, Return authorization #, Mill Test Reports). After 60 days from date of invoice the restocking charge will be a minimum 25%. All Non-standard, used, damaged, machined or modified product or product that was specialty ordered is considered non-returnable, non-cancelable.

PROJECTS:

Standard stocking items ordered in project quantities from Warren Valve Engineered Products inventory must be approved and authorized prior to return. Inventory levels per line item will be reviewed prior, upon authorization for return, a minimum 25% restocking fee to handle, clean and perform 100% testing and inspection will apply. Authorized return of items ordered in project quantity will not exceed 10% of the purchase order quantity per line item. These items must be returned prepaid to the original delivery point from date in new condition with supporting documentation (Permission in writing, return authorization #, Mill Test Reports).

All Non-standard, used, damaged, machined or modified product or product that was specialty ordered is considered non-returnable, non-cancelable.

CANCELATIONS AND RETURNS

Purchase orders once placed by Buyer and accepted by Seller can be canceled only with Seller's written consent and upon terms which will save Seller from loss. No products may be returned for credit or adjustment without written permission from Seller's office authorized to issue such permission

EXPORT CONTROL

All products sold by Warren Valve are subject to United States export and any export controls must be in compliance with United States Law. Material quoted and or sold by Warren Valve is not to be shipped, nor transshipped into the following countries: Cuba, Iran, North Korea, Sudan, or Syria.

WARRANTY

All products of Seller's manufacture are warranted against defects of material and workmanship for a period of twelve (12) months from the date of installation or eighteen (18) months from date of shipment, whichever period first expires, when such products are used in the service and within the pressure range for which they were manufactured.

In the case of products or parts not wholly of Seller's manufacture, Seller's liability shall be limited to the extent of its recovery from the manufacturer of such products or parts under its liability to Seller. 5. MINIMUM BILLING: 6. TERMS OF PAYMENT: 7. CANCELLATIONS AND RETURNS: 8. WARRANTIES: Any repair work performed by Seller is warranted for one year from completion of such repairs and applies only to work performed. If, within these specified periods, Seller receives notice from Buyer of any alleged defect in or nonconformance of any product or repair and if, in the Seller's sole judgment, the product or repair does not conform or is found to be defective in material or workmanship, then, Buyer shall, at Seller's request, return the part or product FCA to Seller's designated plant or service location. Seller has no liability for removal or reinstallation of products or equipment from below the surface of the water.

Seller, at its option and expense, shall repair or replace the defective part or product, or repay to Buyer the full price paid by Buyer for such defective part, repair or product. Any repayment of purchase price shall be without interest. Seller's warranty liability, including defects caused by Seller's negligence, shall be limited to such repair, replacement or refund, and shall not include claims for labor costs, expenses of Buyer resulting from such defects, recovery under general tort law or strict liability or for damages resulting from delays, loss of use, or other direct, indirect, incidental or consequential damages of any kind. Seller will not be responsible for failures of products which have been in any way tampered with or altered by anyone other than an authorized representative of Seller, failures due to lack of compliance with recommended maintenance procedures or products which have been repaired or altered in such a way (in Seller's judgment) as to affect the products adversely.

This warranty is expressly in lieu of all other warranties, express, statutory, or implied, including the warranty of merchantability and fitness for particular purpose which exceed the forgoing warranty.

| FLANGED GATE, GLOBE, & CHECK | | | | | | | |
|--|-------------------------------------|---------------------------------------|---|--|---|-----------------------------------|----------------------|
| VALVE TYPE | PRESSURE RATING | | BODY MATERIAL | | TRIM MATERIAL | | SPECIAL |
| 1 - Gate 2 - Globe 3 - Swing Check | 15 - 150# 30 - 300# 60 - 600# | 90 - 900# 50 - 1500# 25 - 2500# | 5 - Carbon Steel WCB 4 - 304 SS, CF8 6 - 316 SS, CF8M | 3 - 347 SS, CF8C 7 - 317 SS, CG8M 2 - Alloy 20, CN7M | 8 - 13 CR / HF 5 - HF / HF 10 - 316 / 316 | 12 - 316 / HF 16 - 316 HF / HF | N - NACE G - Gear |
| <i>*Additional Materials Available</i> | | | | | | | |

| THREADED & SOCKET WELD GATE, GLOBE, & CHECK | | | | |
|---|----------------------|--|--|---|
| PRESSURE | MATERIAL | VALVE TYPE | TRIM | ENDS |
| 8 - 800# 15 - 1500# | 0 - 316L 5 - A105 | 1 - Gate 2 - Globe 3 - Swing Check 4 - Piston Check 5 - Ball Check | 8 - 13CR/HF to Nace 5 - HF/HF to Nace 12 - 316/HF to Nace 16 - 316HF/HF to Nace | T - THD x THD S - SW x SW TS - THD x SW |

| ONE, TWO, & THREE PIECE BALL VALVES | |
|-------------------------------------|---|
| DESIGN TYPE | FIGURE NUMBER |
| One Piece | 1010, 1010C |
| Two Piece | 1020, 1022, 1022C, 1050, 1052, 1024C, 1025C |
| Three Piece | 1030, 1030C, 1035C |

| SEAL WELDED BALL VALVES | |
|--|--|
| VALVE TYPE | |
| Body Material 316SS W10 - 1000 WOG W20 - 2000 WOG W21 - 2160 WOG W36 - 3600 WOG W60 - 6000 WOG | Body Material WCB W35 - 3600 WOG W65 - 6000 WOG |

| THREE PIECE FIRE-SAFE BALL VALVES | | | | | |
|---|--|--|--|--|--|
| DESIGN TYPE | BODY MATERIAL | | BALL & STEM MATERIAL | | SEATS |
| 3 - Three Piece Cast F3 - Three Piece Forged | 5 - Carbon Steel WCB 6 - 316 SS, CF8M 2 - Alloy 20, CN7M | 9 - C-276 (CW12MW) 7 - LF2 <i>*Additional Material Available</i> | 6 - 316 SS, CF8M 2 - Alloy 20, CN7M | 9 - C-276 (CW12MW) <i>*Additional Materials Available</i> | Full T - PTFE R - RTFE P - PEEK |

| FLANGED FLOATING BALL VALVES | | | | | |
|------------------------------|-------------------------------------|---------------------|---------------------|---|----------------|
| PORT TYPE | ANSI CLASS | BODY MATERIAL | | | SPECIALS |
| 5 - Reduced 6 - Full | 15 - 150# 30 - 300# 60 - 600# | 2 - CN7M 4 - CF8 | 5 - WCB 6 - CF8M | 7 - LCC <i>*Additional Materials Available</i> | FS - Fire-Safe |

| API 6D FLOATING BALL VALVES | | | | | | |
|-----------------------------|-------------------------------------|---------------------------|---------|--|---------------------------|---|
| PORT TYPE | PRESSURE CODE | BODY MATERIAL | | BODY STYLE | TRIM MATERIAL | SEATS |
| 5 - Reduced 6 - Full | 15 - 150# 30 - 300# 60 - 600# | 5 - WCB/A105N 6 - CF8M | 7 - LCC | 2 - 2 Piece Design 1 - 1 Piece Design | 6 - F316 8 - Duplex SS | M - TFM 1600 R - RTFE T - PTFE P - PEEK |
| | | | | | | O - None H - 90 Duro HNBR V - FKM L - FKM GLT A - AFLAS |

| API 6D CHECK VALVES | | | | | | | |
|---------------------|--|--------------------------------|--------------------------------|---------------------------------|---|---|--|
| VALVE TYPE | ANSI CLASS | BODY MATERIAL | TRIM MATERIAL | SEAT TYPE | SEAT INSERT | SEAL | ENDS |
| 3 - Swing Check | 15 - 150# 30 - 300# 60 - 600# 90 - 900# 50 - 1500# 25 - 2500# | 5 - CS 6 - SS 7 - CS LCC | 5 - CS 6 - SS 7 - CS LCC | I - Integral R - Replaceable | H - 90 Duro HNBR V - FKM L - FKM GLT A - AFLAS E - Elast O_Lion | H - 90 Duro HNBR V - FKM L - FKM GLT A - AFLAS | R - Raised Face J - RTJ W - Weld END |