



FORGED STEEL GATE, GLOBE, & CHECK 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 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		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 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

<p>01 ABOUT OUR COMPANY</p> <p>02 THREADED & SOCKET WELDED GATE VALVES FIGURE NUMBER 851 FIGURE NUMBER 1551 FIGURE NUMBER 801 FIGURE NUMBER 1501</p> <p>03 FLANGED GATE VALVES FIGURE NUMBER 1155F FIGURE NUMBER 1305F FIGURE NUMBER 1605F FIGURE NUMBER 1156F FIGURE NUMBER 1306F FIGURE NUMBER 1606F</p> <p>04 THREADED & SOCKET WELDED GLOBE VALVES FIGURE NUMBER 852 FIGURE NUMBER 1552 FIGURE NUMBER 802 FIGURE NUMBER 1502</p> <p>05 FLANGED GLOBE VALVES FIGURE NUMBER 2155F FIGURE NUMBER 2305F FIGURE NUMBER 2605F</p> <p>06 THREADED & SOCKET WELDED SWING CHECK VALVES FIGURE NUMBER 853 FIGURE NUMBER 1553 FIGURE NUMBER 803 FIGURE NUMBER 1503</p> <p>07 FLANGED SWING CHECK VALVES FIGURE NUMBER 3155F FIGURE NUMBER 3305F FIGURE NUMBER 3605F</p>	<p>08 THREADED & SOCKET WELDED PISTON CHECK VALVES FIGURE NUMBER 854 FIGURE NUMBER 1554 FIGURE NUMBER 804 FIGURE NUMBER 1504</p> <p>09 FLANGED PISTON CHECK VALVES FIGURE NUMBER 4155F</p> <p>10 TECHNICAL SERVICE</p> <p>11 PRESSURE CHART</p> <p>12 FUGITIVE EMISSIONS STATEMENT</p> <p>13 WARRANTY & POLICIES</p> <p>14 FIGURE NUMBER ORDERING GUIDE</p>
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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.

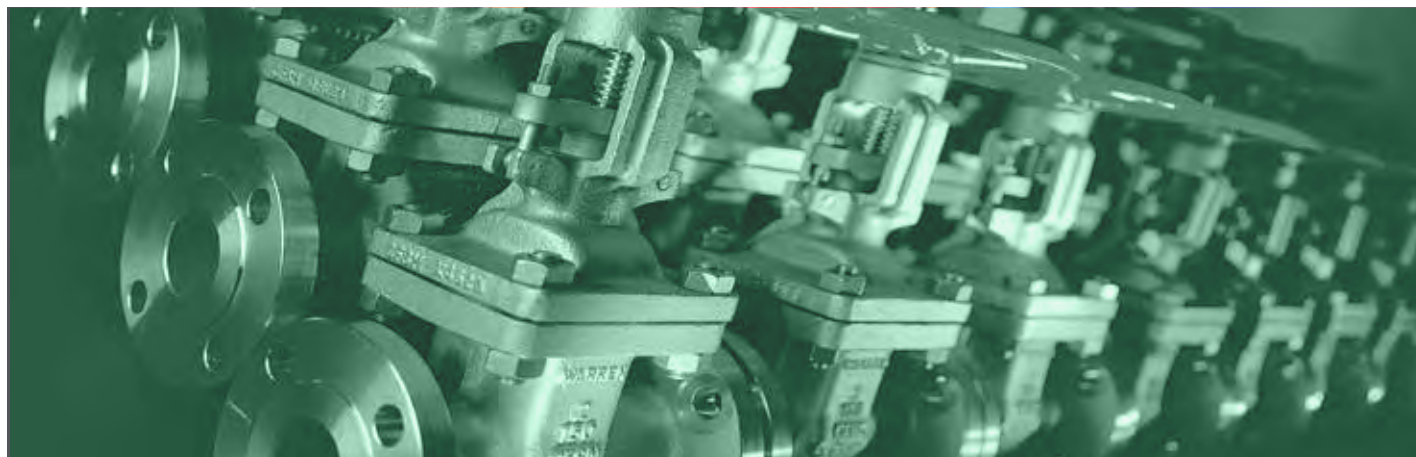


Our commitment to quality, and our ability to develop & manage our supply chain, really sets Warren Valve apart from the competition. This aspect of our business has allowed Warren Valve to move quickly with market demand and product development, while maintaining product integrity and commitments to 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.





THREADED & SOCKET WELDED GATE VALVES

Warren Valve is a pioneer in the gate valve market. Warren’s manufacturing capabilities for Forged Gate valves includes 1/4”-2”, ANSI Pressure class 150#-1500#. Materials of construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

Our comprehensive evaluation includes on-site audits, inspection at the source, receiving inspections, and destructive material testing. Mill test reports are always available.

MATERIAL A105N

CLASS	FIGURE NUMBER
800#	851
1500#	1551

MATERIAL SS316

CLASS	FIGURE NUMBER
800#	801
1500#	1501

PRODUCT OVERVIEW

SIZE RANGE	1/4” -2”
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
PORTS	Standard & Full
PACKING & GASKET	Graphite (Low Fugitive Emissions)
END CONFIGURATIONS	Threaded, Socket Weld, & Threaded X Socket Weld
FEATURES	NACE Compliant, OS&Y, Rising Stem, Solid Wedge

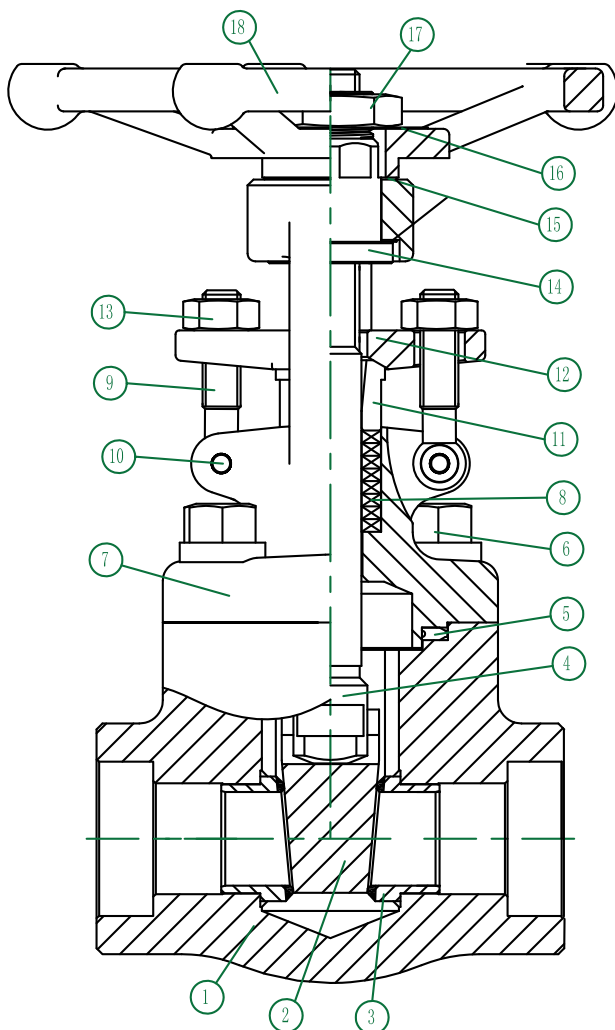
ANSI CLASS 800 - 1500

A105N MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	WEDGE	ASTM A182 F6a
3	SEAT RING	ASTM A276 410+STL
4	STEM	ASTM A276 410
5	GASKET	304+GRAPHITE
6	BONNET BOLT	ASTM A193 B7M
7	BONNET	ASTM A105N
8	PACKING	GRAPHITE
9	GLAND BOLT	ASTM A193 B8
10	GLAND BOLT PIN	ASTM A276 304
11	GLAND	ASTM A276 420
12	GLAND FLANGE	ASTM A105N
13	NUT	ASTM A194 8
14	STEM NUT	ASTM A276 410
15	WASHER	ASTM A276 410
16	NAMEPLATE	304 SS
17	HAND WHEEL NUT	ASTM A29 1020
18	HAND WHEEL	ASTM A197

SS316 MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A182 F316L
2	WEDGE	ASTM A276 316L+STL
3	SEAT RING	ASTM A276 316L+STL
4	STEM	ASTM A276 316L
5	GASKET	316L+GRAPHITE
6	BONNET BOLT	ASTM A193 B8MA
7	BONNET	ASTM A182 F316L
8	PACKING	GRAPHITE
9	GLAND BOLT	ASTM A193 B8MA
10	GLAND BOLT PIN	ASTM A276 316
11	GLAND	ASTM A276 316
12	GLAND FLANGE	ASTM A182 F316
13	NUT	ASTM A194 8MA
14	STEM NUT	ASTM A276 410
15	WASHER	ASTM A276 410
16	NAMEPLATE	304 SS
17	HAND WHEEL NUT	ASTM A29 1020
18	HAND WHEEL	ASTM A197



OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

ANSI CLASS 800 - 1500

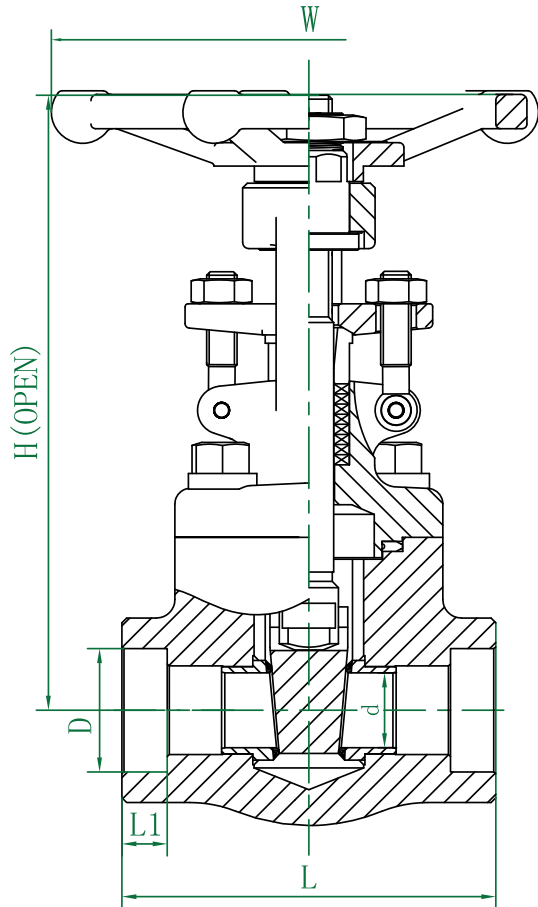


FIGURE NUMBER 851 & 801

SIZE	Dimensions (in inches)						WGT (LB)	CV
	L±0.06	d±0.02	D +0.02/0	L1±0.02	H±0.20	W±0.20		
1/4"	3.11	φ0.30	φ0.56	0.39	6.18	3.94	4.6	2.0
3/8"	3.11	φ0.39	φ0.69	0.39	6.18	3.94	4.6	3.5
1/2"	3.11	φ0.51	φ0.86	0.39	6.18	3.94	4.4	6.5
3/4"	3.62	φ0.51	φ1.07	0.51	6.18	3.94	4.9	11.1
1"	4.37	φ0.71	φ1.33	0.51	7.28	4.72	7.7	25.0
1-1/4"	4.72	φ0.94	φ1.68	0.51	8.90	6.30	12.1	45.0
1-1/2"	4.72	φ1.14	φ1.92	0.51	9.49	6.30	14.1	67.0
2"	5.51	φ1.44	φ2.41	0.65	10.75	8.66	20.5	113.5

FIGURE NUMBER 1551 & 1501

SIZE	Dimensions (in inches)						WGT (LB)	CV
	L±0.06	d±0.02	D +0.02/0	L1±0.02	H±0.20	W±0.20		
1/4"	3.11	φ0.30	φ0.56	0.39	6.18	3.94	4.6	2.0
3/8"	3.11	φ0.39	φ0.69	0.39	6.18	3.94	4.6	3.5
1/2"	4.37	φ0.51	φ0.86	0.39	7.09	4.72	8.4	6.5
3/4"	4.37	φ0.51	φ1.07	0.51	7.09	4.72	8.2	11.1
1"	4.72	φ0.71	φ1.33	0.51	8.66	6.30	13.0	20.0
1-1/4"	4.72	φ0.94	φ1.68	0.51	9.25	6.30	15.0	40.0
1-1/2"	5.51	φ1.14	φ1.92	0.51	10.47	8.66	21.4	62.0
2"	6.30	φ1.44	φ2.41	0.65	12.68	8.66	35.9	107.0



FLANGED GATE VALVES

Warren Valve is a pioneer in the gate valve market. Warren's manufacturing capabilities for Forged Gate valves includes 1/4"-2", ANSI Pressure class 150#-1500#. Materials of Construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

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MATERIAL A105N

CLASS	FIGURE NUMBER
150#	1155F
300#	1305F
600#	1605F

MATERIAL SS316

CLASS	FIGURE NUMBER
150#	1156F
300#	1306F
600#	1606F

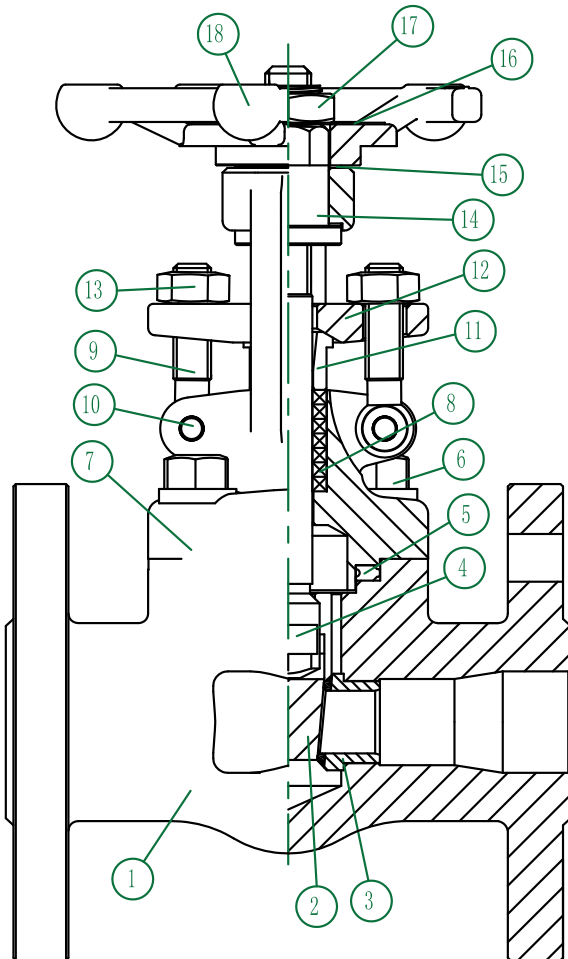
PRODUCT OVERVIEW

SIZE RANGE	1/4" -2"
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
PORTS	Standard & Full
PACKING & GASKET	Graphite (Low Fugitive Emissions)
END CONFIGURATIONS	Raised Face & RTJ
FEATURES	NACE Compliant, OS&Y, Rising Stem, Solid Wedge

ANSI CLASS 1155F - 1305F - 1605F

A105N **MATERIAL LIST**

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	WEDGE	ASTM A182 F6a
3	SEAT RING	ASTM A276 410+STL
4	STEM	ASTM A276 410
5	GASKET	304+GRAPHITE
6	BONNET BOLT	ASTM A193 B7M
7	BONNET	ASTM A105N
8	PACKING	GRAPHITE
9	GLAND BOLT	ASTM A193 B8
10	GLAND BOLT PIN	ASTM A276 304
11	GLAND	ASTM A276 420
12	GLAND FLANGE	ASTM A105N
13	NUT	ASTM A194 8
14	STEM NUT	ASTM A276 410
15	WASHER	ASTM A276 410
16	NAMEPLATE	304 SS
17	HAND WHEEL NUT	ASTM A29 1020
18	HAND WHEEL	ASTM A197



A182-F316 **MATERIAL LIST**

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A182 F316L
2	WEDGE	ASTM A276 316L+STL
3	SEAT RING	ASTM A276 316L+STL
4	STEM	ASTM A276 316L
5	GASKET	316L+GRAPHITE
6	BONNET BOLT	ASTM A193 B8MA
7	BONNET	ASTM A182 F316L
8	PACKING	GRAPHITE
9	GLAND BOLT	ASTM A193 B8MA
10	GLAND BOLT PIN	ASTM A276 316
11	GLAND	ASTM A276 316
12	GLAND FLANGE	ASTM A182 F316
13	NUT	ASTM A194 8MA
14	STEM NUT	ASTM A276 410
15	WASHER	ASTM A276 410
16	NAMEPLATE	304 SS
17	HAND WHEEL NUT	ASTM A29 1020
18	HAND WHEEL	ASTM A197

OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

ANSI CLASS 1155F - 1305F - 1605F

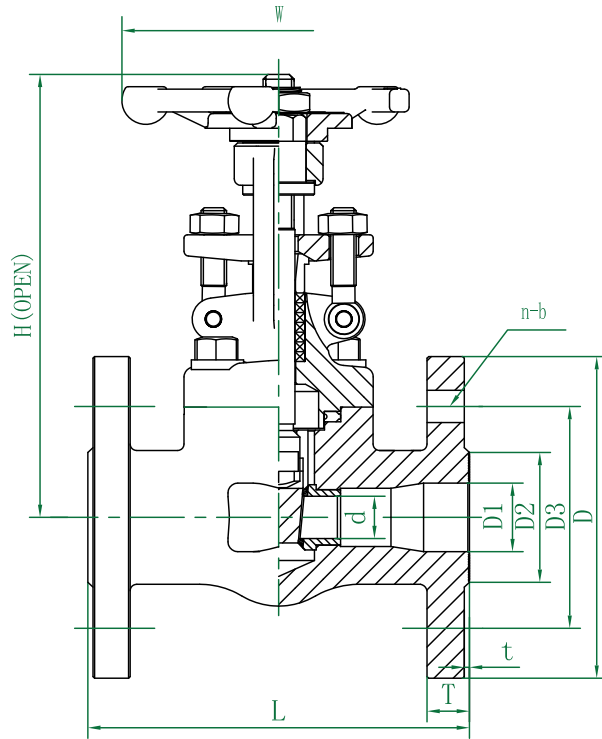


FIGURE NUMBER **1155F & 1156F**

SIZE	Dimensions (in inches)											WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20	W±0.20		
1/2"	4.25	φ0.39	φ0.63	φ1.37	φ2.37	φ3.54	0.41	0.06	4-φ0.63	6.02	3.94	6.0	6.5
3/4"	4.61	φ0.49	φ0.83	φ1.69	φ2.75	φ3.94	0.43	0.06	4-φ0.63	6.18	3.94	7.5	11.1
1"	5.00	φ0.71	φ1.04	φ2.00	φ3.13	φ4.33	0.47	0.06	4-φ0.63	7.28	4.72	11.7	25.0
1-1/2"	6.50	φ1.14	φ1.61	φ2.87	φ3.87	φ4.92	0.59	0.06	4-φ0.63	9.49	6.30	20.9	67.0
2"	7.01	φ1.44	φ2.07	φ3.63	φ4.75	φ5.91	0.65	0.06	4-φ0.75	11.02	8.66	30.9	113.5

FIGURE NUMBER **1305F & 1306F**

SIZE	Dimensions (in inches)											WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20	W±0.20		
1/2"	5.51	φ0.39	φ0.63	φ1.37	φ2.63	φ3.74	0.59	0.06	4-φ0.63	6.02	3.94	7.7	6.5
3/4"	5.98	φ0.51	φ0.83	φ1.69	φ3.25	φ4.53	0.65	0.06	4-φ0.75	6.18	3.94	10.1	11.1
1"	6.50	φ0.71	φ1.04	φ2.00	φ3.50	φ5.31	0.72	0.06	4-φ0.75	7.28	4.72	14.8	25.0
1-1/4"	7.01	φ0.94	φ1.38	φ2.50	φ3.87	φ4.93	0.78	0.06	4-φ0.75	8.90	6.30	21.2	45.0
1-1/2"	7.48	φ1.14	φ1.61	φ2.87	φ4.50	φ6.10	0.85	0.06	4-φ0.89	9.49	6.30	26.7	67.0
2"	8.50	φ1.44	φ2.07	φ3.63	φ5.00	φ6.50	0.91	0.06	8-φ0.75	11.02	8.66	37.7	113.5

FIGURE NUMBER **1605F & 1606F**

SIZE	Dimensions (in inches)											WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20	W±0.20		
1/2"	6.50	φ0.39	φ0.63	φ1.37	φ2.63	φ3.74	0.85	0.25	4-φ0.63	6.02	3.94	8.6	6.5
3/4"	7.48	φ0.51	φ0.83	φ1.69	φ3.25	φ4.53	0.91	0.25	4-φ0.75	6.18	3.94	11.9	11.1
1"	8.50	φ0.71	φ1.04	φ2.00	φ3.50	φ4.92	0.96	0.25	4-φ0.75	7.28	4.72	16.5	25.0
1-1/2"	9.49	φ1.14	φ1.61	φ2.87	φ4.50	φ6.10	1.16	0.25	4-φ0.89	9.49	6.30	32.0	67.0
2"	11.50	φ1.44	φ2.07	φ3.63	φ5.00	φ6.50	1.28	0.25	4-φ0.75	11.02	8.66	45.9	113.5



THREADED & SOCKET WELDED GLOBE VALVES

Warren Valve is a pioneer in the globe valve market. Warren’s manufacturing capabilities for Forged Globe valves includes 1/4”-2”, ANSI Pressure class 150#-1500#. Materials of Construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

Our comprehensive evaluation includes on-site audits, inspection at the source, receiving inspections, and destructive material testing. Mill test reports are always available.

MATERIAL A105N

CLASS	FIGURE NUMBER
800#	852
1500#	1552

MATERIAL SS316

CLASS	FIGURE NUMBER
800#	802
1500#	1502

PRODUCT OVERVIEW

SIZE RANGE	1/4” -2”
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
PACKING & GASKET	Graphite (Low Fugitive Emissions)
END CONFIGURATIONS	Threaded, Socket Weld, & Threaded X Socket Weld
FEATURES	NACE Compliant

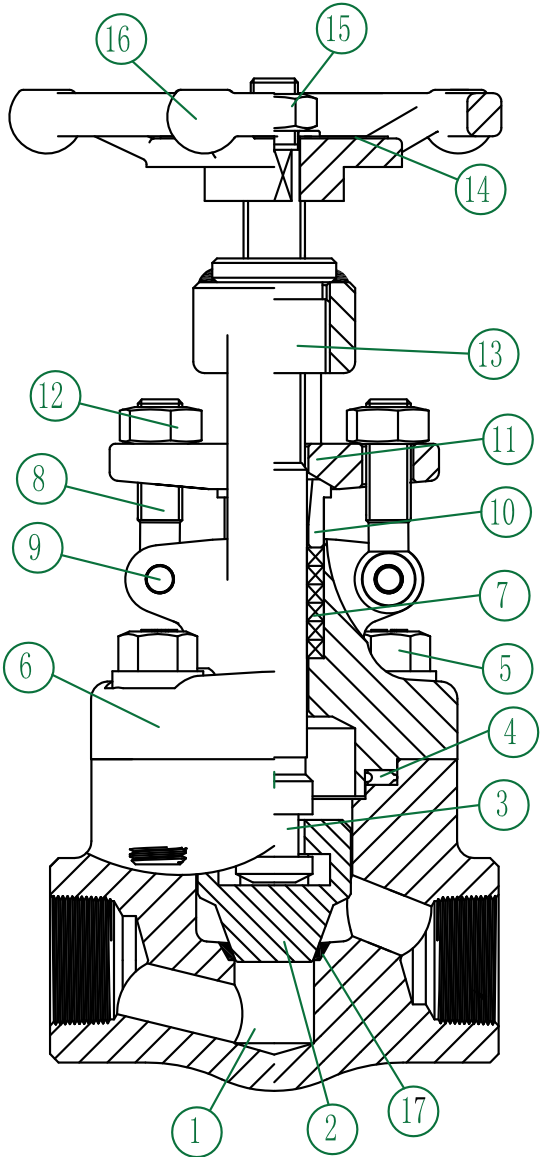
ANSI CLASS 800 - 1500

A105N MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	DISC	ASTM A182 F6a
3	STEM	ASTM A276 410
4	GASKET	304+GRAPHITE
5	BONNET BOLT	ASTM A193 B7M
6	BONNET	ASTM A105N
7	PACKING	GRAPHITE
8	GLAND BOLT	ASTM A193 B8
9	GLAND BOLT PIN	ASTM A276 304
10	GLAND	ASTM A276 420
11	GLAND FLANGE	ASTM A105N
12	NUT	ASTM A194 8
13	STEM NUT	ASTM A276 410
14	NAMEPLATE	304 SS
15	HAND WHEEL NUT	ASTM A194 2H
16	HAND WHEEL	ASTM A197
17	INTEGRAL SEAT	ASTM A105N+STL

SS316 MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A182 F316L
2	DISC	ASTM A276 316L+STL
3	STEM	ASTM A276 316L
4	GASKET	316L+GRAPHITE
5	BONNET BOLT	ASTM A193 B8MA
6	BONNET	ASTM A182 F316L
7	PACKING	GRAPHITE
8	GLAND BOLT	ASTM A193 B8MA
9	GLAND BOLT PIN	ASTM A276 316
10	GLAND	ASTM A276 316
11	GLAND FLANGE	ASTM A182 F316
12	NUT	ASTM A194 8MA
13	STEM NUT	ASTM A276 410
14	NAMEPLATE	304 SS
15	HAND WHEEL NUT	ASTM A194 8
16	HAND WHEEL	ASTM A197
17	INTEGRAL SEAT	ASTM A182 F316L+STL



OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

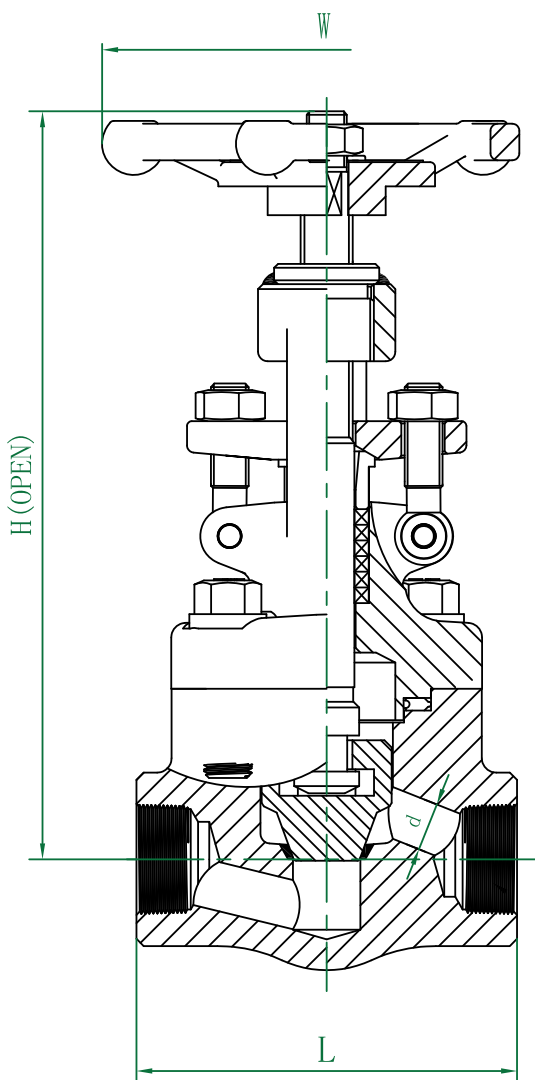
ANSI CLASS 800 - 1500

FIGURE NUMBERS 852 & 802

SIZE	Dimensions (in inches)						WGT (LB)	CV
	L±0.06	d +0.04/-0.0	D +0.02/0	L1±0.02	H±0.20	W±0.20		
1/4"	3.11	φ0.27	φ0.56	0.39	6.34	3.94	4.9	0.7
3/8"	3.11	φ0.27	φ0.69	0.39	6.34	3.94	4.9	0.7
1/2"	3.11	φ0.37	φ0.86	0.39	6.34	3.94	4.6	1.2
3/4"	3.62	φ0.49	φ1.07	0.51	6.34	3.94	5.1	2.7
1"	4.37	φ0.69	φ1.33	0.51	7.60	4.72	8.2	5.3
1-1/4"	4.72	φ0.93	φ1.68	0.51	9.06	6.30	12.8	11.0
1-1/2"	5.98	φ1.12	φ1.92	0.51	9.76	6.30	16.5	17.6
2"	6.77	φ1.44	φ2.41	0.65	11.10	8.66	22.5	23.0

FIGURE NUMBERS 1152 & 1502

SIZE	Dimensions (in inches)						WGT (LB)	CV
	L±0.06	d +0.04/-0.0	D +0.02/0	L1±0.02	H±0.20	W±0.20		
1/4"	3.11	φ0.27	φ0.56	0.39	6.34	3.94	4.9	0.7
3/8"	3.11	φ0.27	φ0.69	0.39	6.34	3.94	4.9	0.7
1/2"	4.37	φ0.37	φ0.86	0.39	7.64	4.72	8.8	1.2
3/4"	4.37	φ0.49	φ1.07	0.51	7.64	4.72	8.8	2.7
1"	4.72	φ0.69	φ1.33	0.51	9.13	6.30	13.2	4.1
1-1/4"	5.98	φ0.93	φ1.68	0.51	9.72	6.30	17.2	10.0
1-1/2"	6.77	φ1.12	φ1.92	0.51	10.83	8.66	24.3	15.3
2"	8.66	φ1.44	φ2.41	0.65	13.07	8.66	45.2	20.5





FLANGED GLOBE VALVES

Warren Valve is a pioneer in the globe valve market. Warren’s manufacturing capabilities for Forged Globe valves includes 1/4”-2”, ANSI Pressure class 150#-1500#. Materials of Construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

Our comprehensive evaluation includes on-site audits, inspection at the source, receiving inspections, and destructive material testing. Mill test reports are always available.

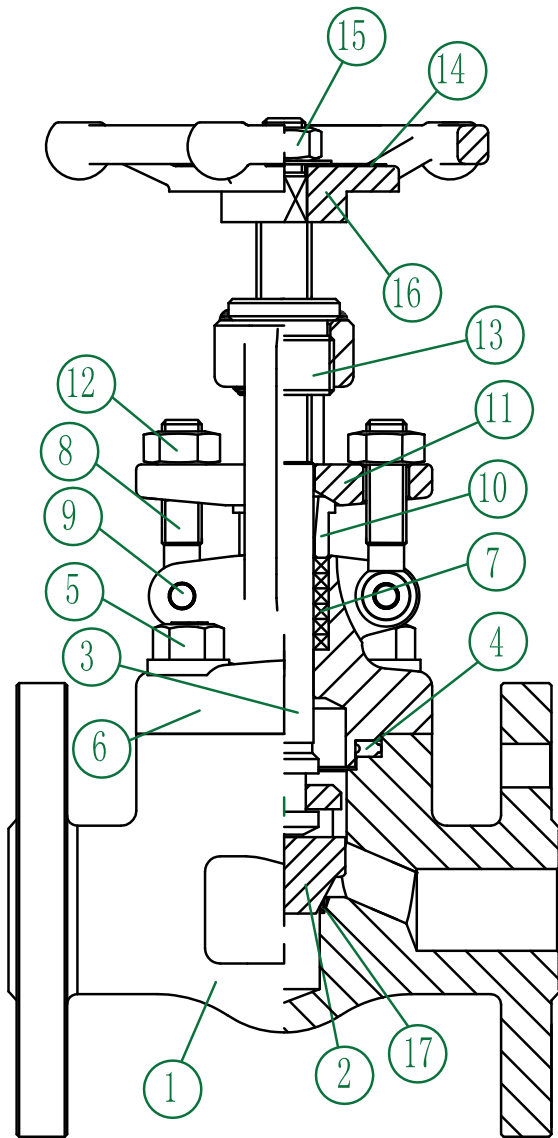
MATERIAL A105N

CLASS	FIGURE NUMBER
150#	2155F
300#	2305F
600#	2605F

PRODUCT OVERVIEW

SIZE RANGE	1/4” -2”
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
PACKING & GASKET	Graphite (Low Fugitive Emissions)
END CONFIGURATIONS	Raised Face & RTJ
FEATURES	NACE Compliant

ANSI CLASS 150 - 300 - 600



A105N MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	DISC	ASTM A182 F6a
3	STEM	ASTM A276 410
4	GASKET	304+GRAPHITE
5	BONNET BOLT	ASTM A193 B7M
6	BONNET	ASTM A105N
7	PACKING	GRAPHITE
8	GLAND BOLT	ASTM A193 B8
9	GLAND BOLT PIN	ASTM A276 304
10	GLAND	ASTM A276 420
11	GLAND FLANGE	ASTM A105N
12	NUT	ASTM A194 8
13	STEM NUT	ASTM A276 410
14	NAMEPLATE	304 SS
15	HAND WHEEL NUT	ASTM A194 2H
16	HAND WHEEL	ASTM A197
17	INTEGRAL SEAT	ASTM A105N+STL

OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

ANSI CLASS 150 - 300 - 600

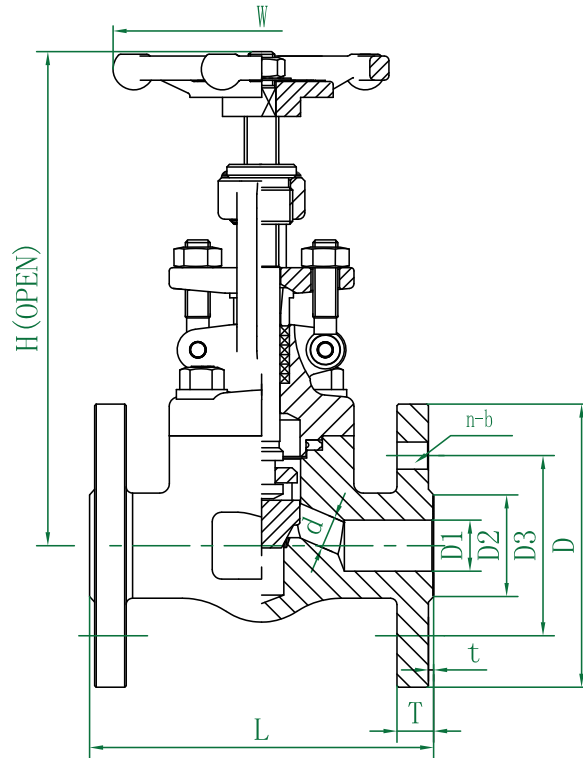


FIGURE NUMBER **2155**

SIZE	Dimensions (in inches)											WGT (LB)	CV
	L±0.06	d +0.04/-0.0	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20	W±0.20		
1/2"	4.25	φ0.37	φ0.63	φ1.37	φ2.37	φ3.54	0.41	0.06	4-φ0.63	6.34	3.94	6.4	1.2
3/4"	4.61	φ0.49	φ0.83	φ1.69	φ2.75	φ3.94	0.43	0.06	4-φ0.63	6.34	3.94	7.5	2.7
1"	5.00	φ0.69	φ1.04	φ2.00	φ3.13	φ4.33	0.47	0.06	4-φ0.63	7.60	4.72	11.9	5.3
1-1/4"	5.51	φ0.91	φ1.38	φ2.50	φ3.50	φ4.53	0.53	0.06	4-φ0.63	9.06	6.30	17.6	11.0
1-1/2"	6.50	φ1.12	φ1.61	φ2.87	φ3.87	φ4.92	0.59	0.06	4-φ0.63	9.76	6.30	21.6	17.6
2"	7.99	φ1.44	φ2.07	φ3.63	φ4.75	φ5.91	0.65	0.06	8-φ0.75	11.42	8.66	35.7	23.0

FIGURE NUMBER **2305**

SIZE	Dimensions (in inches)											WGT (LB)	CV
	L±0.06	d +0.04/-0.0	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20	W±0.20		
1/2"	5.98	φ0.37	φ0.63	φ1.37	φ2.63	φ3.74	0.59	0.06	4-φ0.63	6.34	3.94	7.9	1.2
3/4"	7.01	φ0.49	φ0.83	φ1.69	φ3.25	φ4.53	0.65	0.06	4-φ0.75	6.34	3.94	10.8	2.7
1"	7.99	φ0.69	φ1.04	φ2.00	φ3.50	φ4.92	0.72	0.06	4-φ0.75	7.60	4.72	16.3	5.3
1-1/2"	9.02	φ1.12	φ1.61	φ2.87	φ4.50	φ6.10	0.85	0.06	4-φ0.89	9.76	6.30	30.0	17.6
2"	10.51	φ1.44	φ2.07	φ3.63	φ5.00	φ6.50	0.91	0.06	4-φ0.75	11.42	8.66	43.4	23.0

FIGURE NUMBER **2605**

SIZE	Dimensions (in inches)											WGT (LB)	CV
	L±0.06	d +0.04/-0.0	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20	W±0.20		
1/2"	6.50	φ0.37	φ0.63	φ1.37	φ2.63	φ3.74	0.85	0.25	4-φ0.63	6.34	3.94	8.6	1.2
3/4"	7.48	φ0.49	φ0.83	φ1.69	φ3.25	φ4.53	0.91	0.25	4-φ0.75	6.34	3.94	11.7	2.7
1"	8.50	φ0.69	φ1.04	φ2.00	φ3.50	φ4.92	0.96	0.25	4-φ0.75	7.60	4.72	17.4	5.3
1-1/4"	9.02	φ0.93	φ1.38	φ2.50	φ3.50	φ5.31	1.10	0.25	4-φ0.75	9.06	6.30	26.5	11.0
1-1/2"	9.49	φ1.12	φ1.61	φ2.87	φ4.50	φ6.10	1.16	0.25	4-φ0.89	9.76	6.30	32.8	17.6
2"	11.5	φ1.44	φ2.07	φ3.63	φ5.00	φ6.50	1.28	0.25	8-φ0.75	11.42	8.66	48.7	23.0



THREADED & SOCKET WELDED SWING CHECK VALVES

Warren Valve is a pioneer in the check valve market. Warren’s manufacturing capabilities for Forged check valves includes 1/4”-2”, ANSI 150#-1500#. Materials of construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

Our comprehensive evaluation includes on-site audits, inspection at the source, receiving inspections, and destructive material testing. Mill test reports are always available.

MATERIAL A105N

CLASS	FIGURE NUMBER
800#	853
1500#	1553

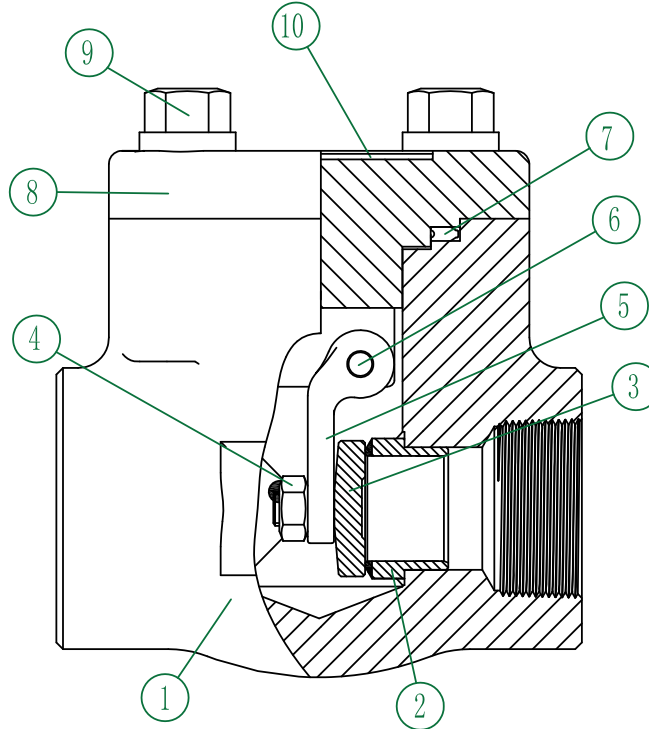
MATERIAL A182 - F316

CLASS	FIGURE NUMBER
800#	803
1500#	1503

PRODUCT OVERVIEW

SIZE RANGE	1/4” -2”
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
DISC	Strong one-piece construction to withstand the severe shock of check valve service
GASKET MATERIAL	Graphite and PTFE
END CONFIGURATIONS	Threaded, Socket Weld, & Threaded X Socket Weld
FEATURES	NACE Compliant, Graphite Gasket

ANSI CLASS 800 - 1500



A105N MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	SEAT RING	ASTM A276 410+STL
3	DISC	ASTM A182 F6a
4	DISC NUT	ASTM A194 8MA
5	ROCKER	ASTM A351 CF8M
6	PIN	ASTM A276 316
7	GASKET	304+GRAPHITE
8	BONNET	ASTM A105N
9	BONNET BOLT	ASTM A193 B7M
10	NAMEPLATE	304 SS

A182 - F316 MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A182 F316L
2	SEAT RING	ASTM A276 316L+STL
3	DISC	ASTM A276 316L+STL
4	DISC NUT	ASTM A194 8MA
5	ROCKER	ASTM A351 CF8M
6	PIN	ASTM A276 316
7	GASKET	316L+GRAPHITE
8	BONNET	ASTM A182 F316L
9	BONNET BOLT	ASTM A193 B8MA
10	NAMEPLATE	304 SS

OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

ANSI CLASS 800 - 1500

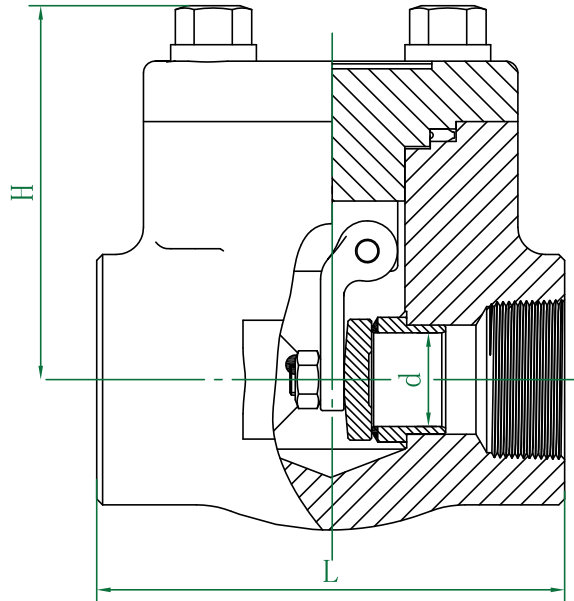


FIGURE NUMBERS 853 & 803

SIZE	Dimensions (in inches)					WGT (LB)	CV
	L±0.06	d±0.02	D +0.02/0	L1±0.02	H±0.20		
1/4"	3.11	φ0.30	φ0.56	0.39	2.28	3.1	1.8
3/8"	3.11	φ0.39	φ0.69	0.39	2.28	3.1	2.0
1/2"	3.11	φ0.51	φ0.86	0.39	2.28	2.9	2.2
3/4"	3.62	φ0.51	φ1.07	0.51	2.28	3.3	4.9
1"	4.37	φ0.71	φ1.33	0.51	2.95	6.0	7.2
1-1/4"	4.72	φ0.94	φ1.68	0.51	3.27	8.2	13.5
1-1/2"	4.72	φ1.14	φ1.92	0.51	3.70	9.7	20.0
2"	5.51	φ1.44	φ2.41	0.65	4.21	14.3	33.5

FIGURE NUMBERS 1153 & 1503

SIZE	Dimensions (in inches)					WGT (LB)	CV
	L±0.06	d±0.02	D +0.02/0	L1±0.02	H±0.20		
1/4"	3.11	φ0.30	φ0.56	0.39	2.28	3.1	1.8
3/8"	3.11	φ0.39	φ0.69	0.39	2.28	3.1	2.0
1/2"	4.37	φ0.51	φ0.86	0.39	2.95	6.4	2.2
3/4"	4.37	φ0.51	φ1.07	0.51	2.95	6.4	4.2
1"	4.72	φ0.71	φ1.33	0.51	3.27	9.0	5.6
1-1/4"	4.72	φ0.94	φ1.68	0.51	3.70	10.6	12.5
1-1/2"	5.51	φ1.14	φ1.92	0.51	4.21	16.1	18.5
2"	6.30	φ1.44	φ2.41	0.65	5.12	26.7	29.5



FLANGED SWING CHECK VALVES

Warren Valve is a pioneer in the check valve market. Warren’s manufacturing capabilities for Forged swing check valves includes 1/4”-2”, ANSI 150#-1500#. Materials of construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

Our comprehensive evaluation includes on-site audits, inspection at the source, receiving inspections, and destructive material testing. Mill test reports are always available.

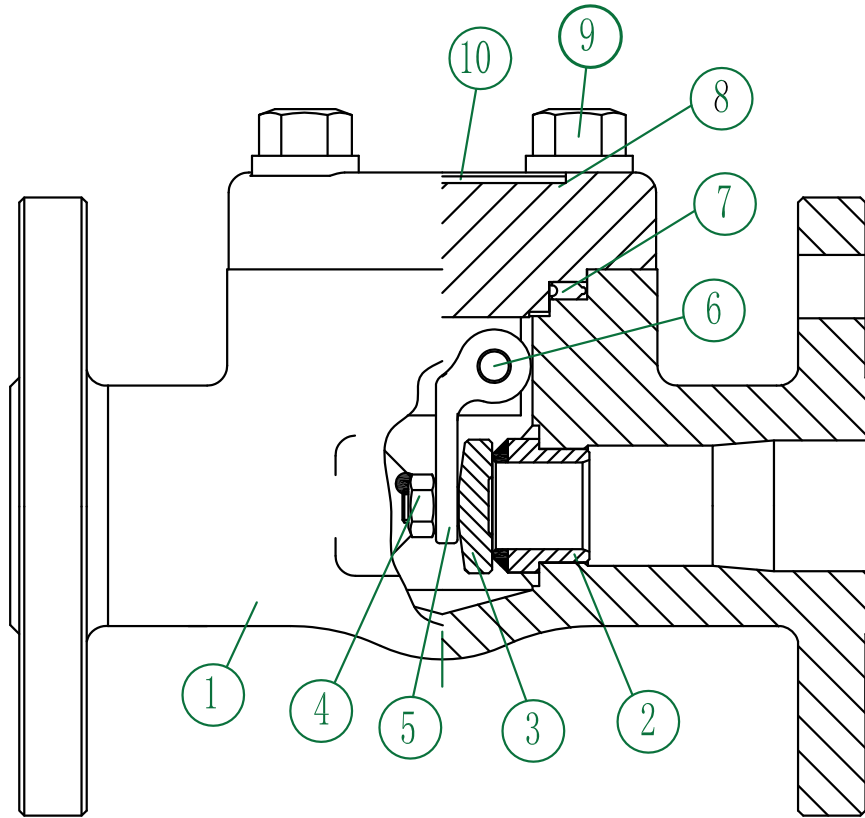
MATERIAL A105N

CLASS	FIGURE NUMBER
150#	3155F
300#	3305F
600#	3605F

PRODUCT OVERVIEW

SIZE RANGE	1/4” -2”
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
DISC	Strong one-piece construction to withstand the severe shock of check valve service
GASKET MATERIAL	Graphite and PTFE
END CONFIGURATIONS	RF & RTJ
FEATURES	NACE Compliant, Graphite Gasket

ANSI CLASS 150 - 300 - 600



A105N MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	SEAT RING	ASTM A276 410+STL
3	DISC	ASTM A182 F6a
4	DISC NUT	ASTM A194 8MA
5	ROCKER	ASTM A351 CF8M
6	PIN	ASTM A276 316
7	GASKET	304+GRAPHITE
8	BONNET	ASTM A105N
9	BONNET BOLT	ASTM A193 B7M
10	NAMEPLATE	304 SS

OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

ANSI CLASS 150 - 300 - 600

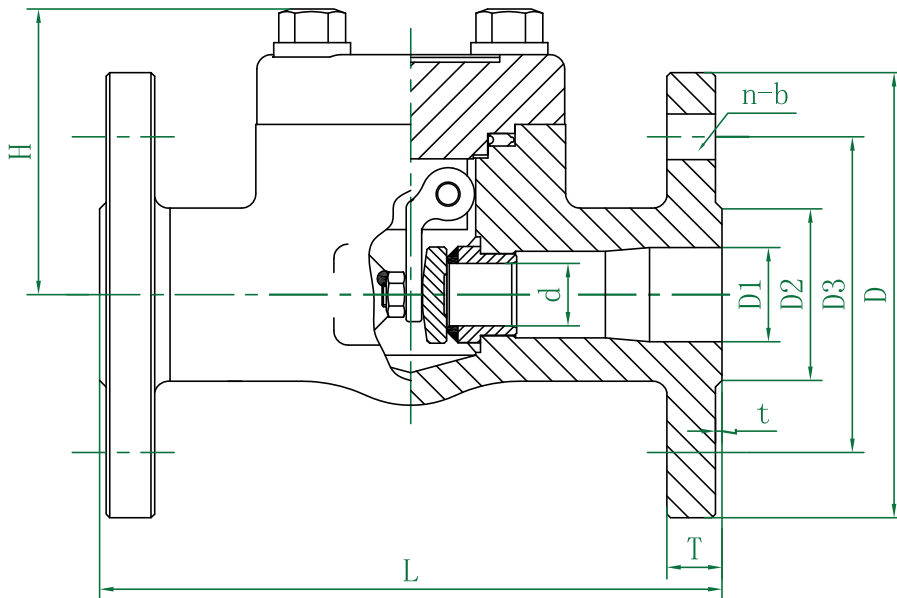


FIGURE NUMBER **3155F**

SIZE	Dimensions (in inches)										WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20		
1/2"	4.25	φ0.39	φ0.63	φ1.37	φ2.37	φ3.54	0.41	0.06	4-φ0.63	2.20	4.4	2.2
3/4"	4.61	φ0.49	φ0.83	φ1.69	φ2.75	φ3.94	0.43	0.06	4-φ0.63	2.20	5.7	4.9
1"	5.00	φ0.71	φ1.04	φ2.00	φ3.13	φ4.33	0.47	0.06	4-φ0.63	2.95	9.3	7.2
1-1/2"	6.50	φ1.14	φ1.61	φ2.87	φ3.87	φ4.92	0.59	0.06	4-φ0.63	3.70	16.3	20.0
2"	7.99	φ1.44	φ2.07	φ3.63	φ4.75	φ5.91	0.65	0.06	4-φ0.75	4.49	28.7	33.5

FIGURE NUMBER **3305F**

SIZE	Dimensions (in inches)										WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20		
1/2"	5.98	φ0.39	φ0.63	φ1.37	φ2.63	φ3.74	0.59	0.06	4-φ0.63	2.20	6.2	2.2
3/4"	7.01	φ0.51	φ0.83	φ1.69	φ3.25	φ4.53	0.65	0.06	4-φ0.75	2.28	8.8	4.9
1"	8.50	φ0.71	φ1.04	φ2.00	φ3.50	φ4.92	0.72	0.06	4-φ0.75	2.95	13.4	7.2
1-1/2"	9.49	φ1.14	φ1.61	φ2.87	φ4.50	φ6.10	0.85	0.06	4-φ0.89	3.82	24.3	20.0
2"	10.51	φ1.44	φ2.07	φ3.63	φ5.00	φ6.50	0.91	0.06	4-φ0.75	4.53	35.5	33.5

FIGURE NUMBER **3605F**

SIZE	Dimensions (in inches)										WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20		
1/2"	6.50	φ0.39	φ0.63	φ1.37	φ2.63	φ3.74	0.85	0.25	4-φ0.63	2.28	7.1	2.2
3/4"	7.48	φ0.51	φ0.83	φ1.69	φ3.25	φ4.53	0.91	0.25	4-φ0.75	2.28	9.5	4.9
1"	8.50	φ0.71	φ1.04	φ2.00	φ3.50	φ4.92	0.96	0.25	4-φ0.75	2.95	14.3	7.2
1-1/2"	9.49	φ1.14	φ1.61	φ2.87	φ4.50	φ6.10	1.16	0.25	4-φ0.89	3.82	27.1	20.0
2"	11.50	φ1.44	φ2.07	φ3.63	φ5.00	φ6.50	1.28	0.25	4-φ0.75	4.53	38.8	33.5



THREADED & SOCKET WELDED PISTON CHECK VALVES

Warren Valve is a pioneer in the check valve market. Warren offers a Forged Piston check valve design. Manufacturing capabilities include 1/4”-2”, ANSI 150#-1500#. Materials of construction include Carbon Steel, Stainless Steel, Alloy 20, and other exotic materials.

Our comprehensive evaluation includes on-site audits, inspection at the source, receiving inspections, and destructive material testing. Mill test reports are always available.

MATERIAL A105N

CLASS	FIGURE NUMBER
800#	854
1500#	1554

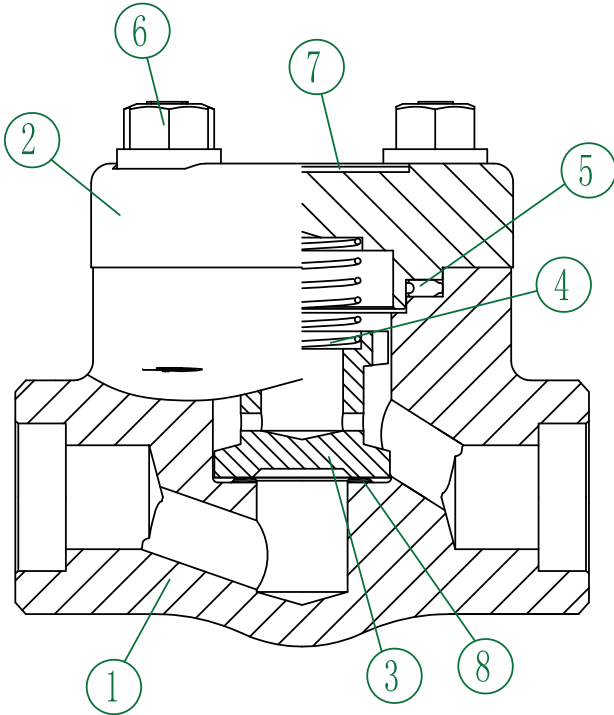
MATERIAL A182 - F316

CLASS	FIGURE NUMBER
800#	804
1500#	1504

PRODUCT OVERVIEW

SIZE RANGE	1/4” -2”
MATERIAL GRADES	A105N, F316, F316L, A20, Hastelloy C, and other exotic materials
TRIM MATERIALS	Trim 5, 8, 12, 16, & Special Materials
DESIGN	Metal-Seated-Design
BONNET DESIGN	Bolted Bonnet & Welded Bonnet
DISC	Strong one-piece construction to withstand the severe shock of check valve service
GASKET MATERIAL	Graphite and PTFE
END CONFIGURATIONS	Threaded, Socket Weld, & Threaded X Socket Weld
FEATURES	NACE Certified

ANSI CLASS 800 - 1500



A105N MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	BONNET	ASTM A105N
3	DISC	ASTM A182 F6a
4	SPRING	316 SS
5	GASKET	304+GRAPHITE
6	BONNET BOLT	ASTM A193 B7M
7	NAMEPLATE	304 SS
8	INTEGRAL SEAT	ASTM A105N+STL

A182 - F316 MATERIAL LIST

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A182 F316L
2	BONNET	ASTM A182 F316L
3	DISC	ASTM A276 316L+STL
4	SPRING	316 SS
5	GASKET	316L+GRAPHITE
6	BONNET BOLT	ASTM A193 B8MA
7	NAMEPLATE	304 SS
8	INTEGRAL SEAT	ASTM A182 F316L+STL

OTHER BODY AND TRIM MATERIALS AVAILABLE.

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

ANSI CLASS 800 - 1500

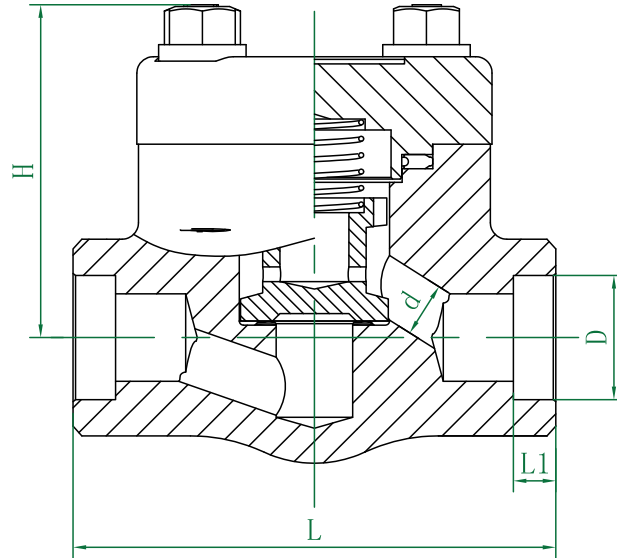


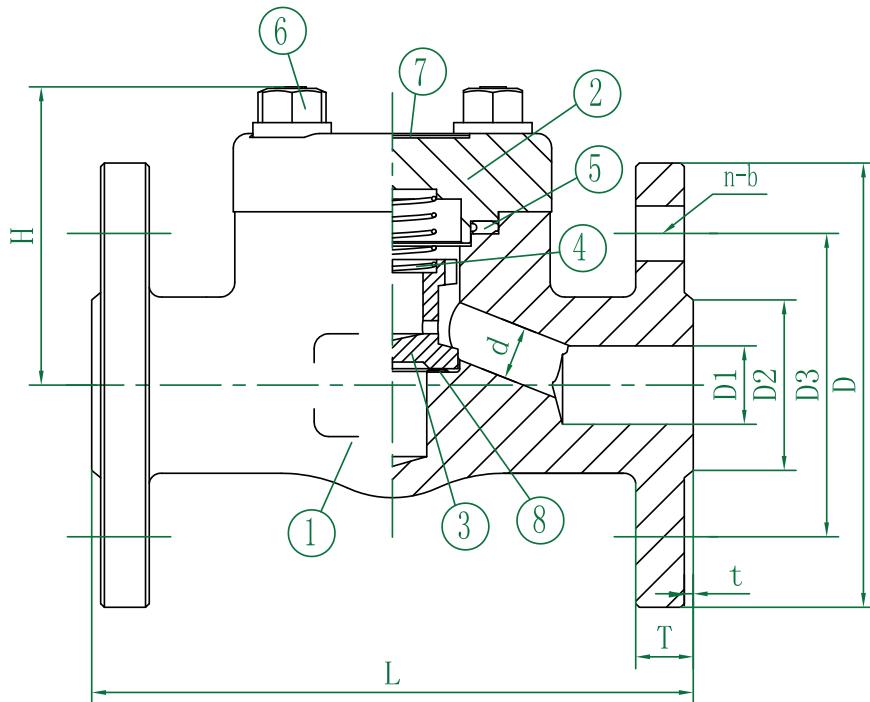
FIGURE NUMBER 854 & 804

SIZE	Dimensions (in inches)					WGT (LB)	CV
	L±0.06	d +0.04/-0.0	D +0.02/0	L1±0.02	H±5		
1/4"	3.11	φ0.27	φ0.56	0.39	2.28	3.1	0.6
3/8"	3.11	φ0.27	φ0.69	0.39	2.28	3.1	0.6
1/2"	3.11	φ0.37	φ0.86	0.39	2.28	3.1	1.0
3/4"	3.62	φ0.49	φ1.07	0.51	2.28	3.3	2.1
1"	4.37	φ0.69	φ1.33	0.51	2.95	6.0	4.3
1-1/4"	4.72	φ0.93	φ1.68	0.51	3.35	8.6	7.1
1-1/2"	5.98	φ1.12	φ1.92	0.51	3.82	11.7	11.2
2"	6.77	φ1.44	φ2.41	0.65	4.25	17.2	18.5

FIGURE NUMBER 1554 & 1404

SIZE	Dimensions (in inches)				WGT (LB)	CV
	L±0.06	d +0.04/-0.0	FNPT	H±5		
1/4"	3.11	φ0.27	1/4"	2.28	3.1	0.6
3/8"	3.11	φ0.27	3/8"	2.28	3.1	0.6
1/2"	4.37	φ0.37	1/2"	2.95	6.4	1.0
3/4"	4.37	φ0.49	3/4"	2.95	6.4	2.1
1"	4.72	φ0.69	1"	3.35	9.0	3.4
1-1/4"	5.98	φ0.93	1-1/4"	3.82	12.8	6.5
1-1/2"	6.77	φ1.12	1-1/2"	4.25	19.4	10.5
2"	8.66	φ1.44	2"	5.20	36.4	17.0

FLANGED PISTON CHECK VALVES



A105N MATERIAL LIST

MATERIAL A105N

CLASS	FIGURE NUMBER
150#	4155F

NO.	NAME PARTS	MATERIALS
1	BODY	ASTM A105N
2	BONNET	ASTM A105N
3	DISC	ASTM A182 F6a
4	SPRING	316 SS
5	GASKET	304+GRAPHITE
6	BONNET BOLT	ASTM A193 B7M
7	NAMEPLATE	304 SS
8	INTEGRAL SEAT	ASTM A105N+STL

FIGURE NUMBER 4155F

SIZE	Dimensions (in inches)										WGT (LB)	CV
	L±0.06	d±0.02	D1±0.04	D2±0.02	D3±0.06	D±0.08	T +0.08/-0.0	t±0.02	n-b±0.04	H±0.20		
1/2"	4.25	φ0.37	φ0.63	φ1.37	φ2.37	φ3.54	0.41	0.06	4-φ0.63	2.20	4.9	1.0
3/4"	4.61	φ0.49	φ0.83	φ1.69	φ2.75	φ3.94	0.43	0.06	4-φ0.63	2.20	6.0	2.1
1"	5.00	φ0.69	φ1.04	φ2.00	φ3.13	φ4.33	0.47	0.06	4-φ0.63	2.95	9.7	4.3
1-1/2"	6.50	φ1.12	φ1.61	φ2.87	φ3.87	φ4.92	0.59	0.06	4-φ0.63	3.82	17.6	11.2
2"	7.99	φ1.44	φ2.07	φ3.63	φ4.75	φ5.91	0.65	0.06	4-φ0.75	4.65	30.4	18.5

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!

WORKING PRESSURE (PSIG)

Temp °F	ASTM A351 Gr. WCB						ASTM A352 Gr. LCB						ASTM A352 Gr. LCC & LC3					
	15	300	600	900	1500	2500	150	300	600	900	1500	2500	150	300	600	900	1500	2500
-20 TO 100	285	740	1480	2220	3705	6170	265	695	1395	2090	3460	5805	290	750	1500	2250	3750	6250
200	260	680	1360	2035	3395	5655	255	660	1320	1900	3300	5505	260	750	1500	2250	3750	6250
300	230	665	1310	1965	3270	5450	230	640	1275	1815	3190	5315	230	730	1455	2185	3640	6070
400	200	625	1265	1900	3170	5280	200	615	1250	1815	3075	5125	200	705	1405	2110	3520	5865
500	170	605	1205	1810	3015	5025	170	585	1175	1760	2950	4885	170	685	1330	1985	3325	5540
600	140	570	1135	1705	2840	4730	140	550	1105	1655	2755	4595	140	605	1210	1815	3025	5040
650	125	550	1100	1650	2745	4575	125	535	1065	1600	2665	4440	125	590	1175	1765	2940	4905
700	110	530	1060	1590	2685	4425	* NOT TO BE USED OVER 650						* NOT TO BE USED OVER 650					
750	95	505	1015	1520	2555	4250												
800	80	410	825	1285	2055	3450												



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

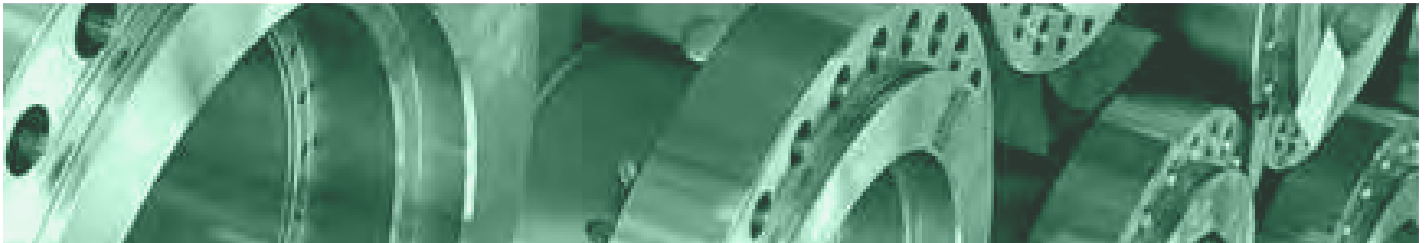
641 valve type testing standard (Type Testing of Rotating Stem Valves with any stem seal material for Fugitive Emissions). The ultimate goal of Warren Valves is to provide exactly what end-users require; meet the growing demands of the EPA and state agencies to reduce emissions.

Warren maintains a strong working relationship with both packing manufacturers 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	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 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