



WALWORTH[®]
Since 1842



INDUSTRIAL BRONZE VALVES
CATALOG

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YARMOUTH RESEARCH AND TECHNOLOGY



WALWORTH

WALWORTH is one of the world's most comprehensive industrial valve manufacturers. Founded in 19th century by James WALWORTH, the Company has consistently dedicated itself to improvements in design and manufacturing of an array of valves exceptionally suited for the world's fluid control sector. We satisfy all end use industries and comprehensive customer requirements by adhering to the most demanding quality standards.

WALWORTH relies on its broad experience in supplying valves to the petrochemical, oil & gas, petroleum, power generation, pulp and paper, cryogenic and geothermal industries, among others.

Over the years, WALWORTH has produced over 40,000 different types of products; by utilizing the expertise of over 500 trained employees, we serve as a global supplier to various markets.

Our manufacturing system includes: utilization of Company directed raw material warehouses; modern and newly acquired specialized machinery; welding processes such as SMAW, GMAW, SAW, PAW; assembly and testing for low pressure, high pressure, and low or high temperatures; painting and coating processes; export crating and shipment.

WALWORTH is capable of providing the world's most comprehensive industrial valve line to the North American, Central American, South American, European and African markets. WALWORTH is proud to meet and satisfy the precise demands of our customers throughout the world by providing quality products, competitive costs and excellent service.



WALWORTH VALUES

MISSION

WALWORTH manufactures and supplies world-class valves and components for the flow control industry through exceptional service, competitive pricing, and consistent on-time deliveries.



VISION

To be the world leader of unparalleled valve manufacturing and supply, WALWORTH:

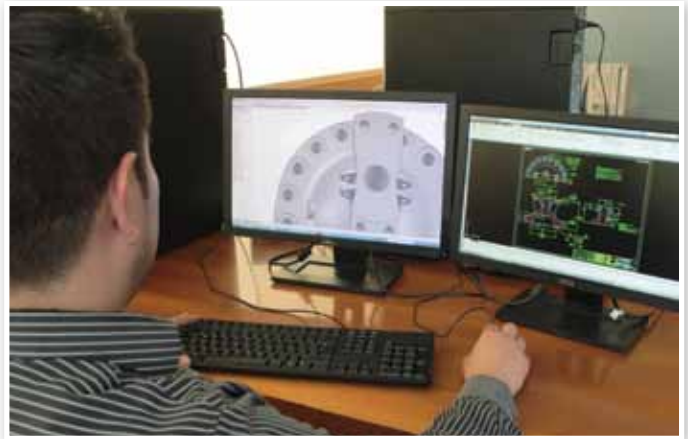
- Sets the standard for product quality in the flow control industry
- Exceeds the service expectations of our customers
- Forges enduring relationships with customers, team members, and community
- Hires, develops, and retains experienced and dedicated team members



WALWORTH ENGINEERING CONTROL

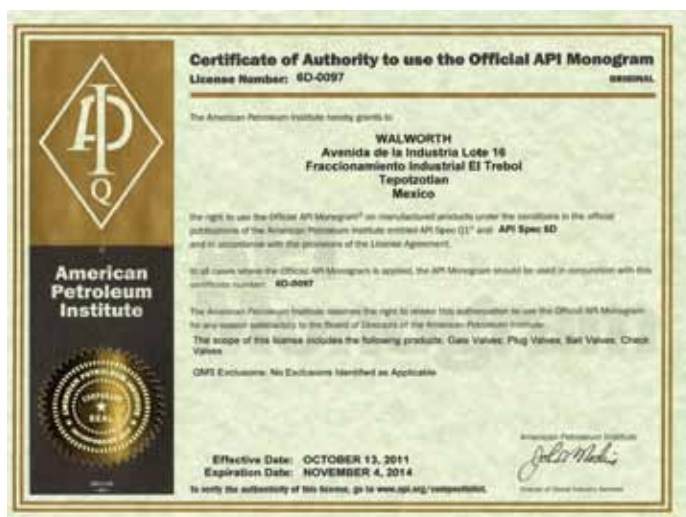
WALWORTH products are manufactured strictly following the most recognized international standards in the world, such as API, ANSI, ASME, ASTM, MSS, NACE, BSI and CSA, among others. As a leader in new developments, our Engineering team is constantly studying updates to these standards to incorporate any changes that may affect the design, regulation and/or performance of our products.

Design is produced using the most advanced technology and equipment, finite elements and CAD system programs to ensure proper assembly and performance of products - from concept to calculation to detailed drawings for manufacturing. WALWORTH is a leader in the development of new products according to current valve market needs.



WALWORTH QUALITY SYSTEM

Throughout the years, WALWORTH has developed its Quality System which is an integral part of our manufacturing process. Our primary goal is to provide products that meet and exceed market standards. In this sense, WALWORTH is an ISO-9001 Audited and Certified Company that has achieved major certifications worldwide. Our system consists of rigorous quality control and the selection of raw materials from approved vendors. Control over our manufacturing process is vital. Serial numbers allow WALWORTH to monitor and trace fabrication processes along with component materials.



- Certificate API-6D No. 6D-0097 issued by The American Petroleum Institute applicable for Gate valves, Plug valves, Ball valves and Check valves manufactured in accordance with API-6D specification.



- Certificate API-6A No. 6A-0234 from The American Petroleum Institute applicable for valves at PSI, 1 through 4.



Certificate ISO-9001 No. 038 issued by The American Petroleum Institute since April 1999.



Certificate as per PED 97/23/EC Module H to stamp CE products.



Certificate of Reliable Supplier No. 082/11 issued by CFE in accordance with ISO-9001 Quality Assurance System.



Certificate NMX-CC-9001 (Mexican Standards ISO-9001) No. 0552/2007 issued by PEMEX in accordance with ISO-9001 Quality Assurance System.

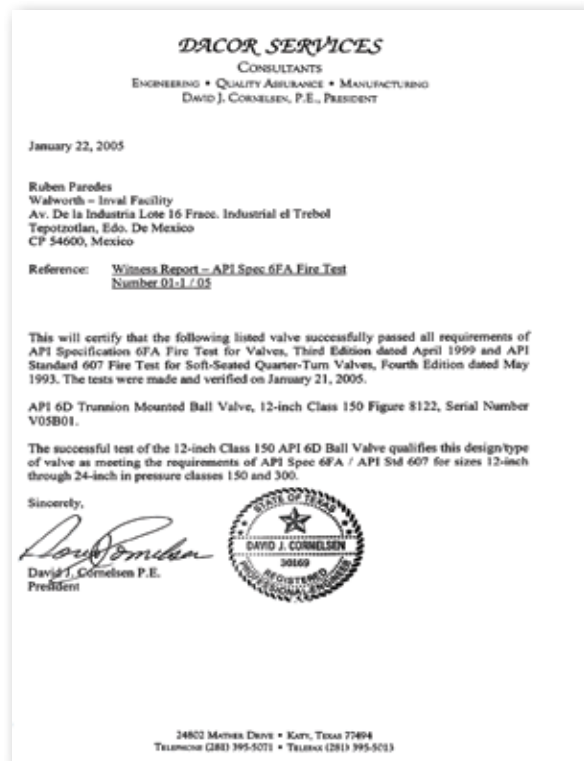
In Addition to the Quality System Certifications, WALWORTH has achieved the following specific product certifications:



TA Luft Certificate (Fugitive Emission) Approval ISO-5211 Top Flange, Anti-Static Device.



Certificates of Ultra Low Fugitive Emissions No. 20985-3, 8 & 16 in accordance with ISO-15848-1 "Industrial Valves"-Measurement, Test and Qualification Procedures for Fugitive Emissions" "Part 1: Classification System and Qualification Procedures for Type Testing of Valves".



Fire Test Certificate No. 04/04 in accordance with API-6FA and API Standard API-607 for Trunnion Ball Valves in accordance with API-6D.



Emissions after 500 cycles at ambient and 350°F issued by Yarmouth Research and Technology Lab for 3 inch Class 300 Gate Valve. After 500 cycles the measurement result was less than 50 ppm.



Certificate API-594 No. 594-0007 issued by The American Petroleum Institute to apply on Check Valves-Type A; Check Valves Type B manufactured in accordance with API-594 specification.



Emissions after 500 cycles at ambient and 350°F issued by Yarmouth Research and Technology Lab for 8 inch Class 300 Gate Valve. After 500 cycles the measurement result was less than 50 ppm.



API-600 Certificate No. 600-0109 issued by The American Petroleum Institute to apply on Bolted Bonnet Steel Gate Valves manufactured in accordance with API-600 specification.



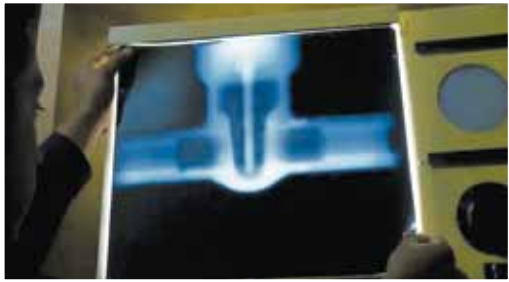
Emissions after 500 cycles at ambient and 350°F issued by Yarmouth Research and Technology Lab for 16 inch Class 150 Gate Valve. After 500 cycles the measurement result was less than 50 ppm.



API-602 Certificate No. 602-0024 issued by The American Petroleum Institute to apply on Compact Steel Gate Valves, Compact Steel Globe Valves, and Compact Steel Check Valves manufactured in accordance with API-602 specification.

QUALITY CONTROL EQUIPMENT

In order to assure that **WALWORTH** products comply with international quality standards, in-house equipment is used for quality control, some of this equipment includes:



X-Ray Examination Equipment.- WALWORTH has its own Ir-92 source in-house for the radiographic examination (RT) of castings from 0.100" up to 2 1/2" wall thickness to verify the soundness of the raw casting material.

PMI Equipment.- New generation of Positive Material Identification Equipment gives WALWORTH the capability to perform quick chemical analysis on incoming raw materials and on pieces after assembly to certify that materials used were produced and assembled in accordance with WALWORTH and the Customer's specifications.



Magnetic Particle Test.- On a random basis for standard products or when a Customer requests MT Certification, WALWORTH uses Magnetic Particle Testing Equipment on ferromagnetic materials.

Penetrant Test Examination.- WALWORTH has the personnel and materials to perform PT examination by solvent removable or water washable techniques. The NDT personnel are ASNT Certified.



Test Loop. A complete Laboratory Test loop exists for design validation of WALWORTH products, performing the test at maximum design pressure and cycling the valves from 3000 to 5000 cycles. The test takes more than four months to be completed.

Pressure Gradient Test Loop.- This test exposes Plug valves to the extremes of both positive and negative pressure gradients to verify that the plug in a balanced plug design will prevent lock-up in the body.





Metrology Laboratory.- WALWORTH developed a calibration and/or verification system in all the equipment used in its facilities to ensure the traceability of measurements to international standards. In this way, WALWORTH gets measurement control of its products to comply with international standards.

Fire Test Facilities.- Facilities to perform fire test in accordance to API requirements. The test exposes the valve to a flame at 1400 to 1800°F (761 to 980°C) to verify proper sealing of the valve.



Low Fugitive Emissions Test.- When a Customer requires low fugitive emissions certification, the Lab has its own LFE Test Equipment capable of measuring less than 20 ppm in either static or mechanical conditions at ambient temperature or thermal cycle operations.

Ultrasonic Testing Equipment.- Using ultrasonic techniques, WALWORTH can detect sub-surface flaws in materials and evaluate castings and forgings that cannot be radiographed. In addition, WALWORTH utilizes these techniques to measure the wall thickness of castings and forgings.



Tensile Test Equipment.- To verify the mechanical properties of materials used for manufacturing, WALWORTH tests samples on a random basis even though we receive MTR's from our suppliers and foundries.

Hardness Test Equipment.- In either lab or shop tests, WALWORTH uses hardness testing equipment such as Rockwell B, C Brinell or Vickers to check compliance against specifications.



INDUSTRIAL BRONZE GATE, GLOBE & SWING CHECK VALVES

STRUCTURAL FEATURES

WALWORTH Bronze Valves are used for many services in different kind of industries; applications include general uses, industrial installation, commercial building and construction industry, chemical and petrochemical process, and in maritime services.

WALWORTH Bronze Vales are manufactured in accordance with MSS-SP-80. Pressure Classes 125 (200 WOG), 150 (300 WOG) & 200 (400 WOG), 300 (600 WOG) and sizes from ½” up to 2” nominal diameter.

WALWORTH offers this product line in the following base materials:

- A. Bronze as per ASTM B62 grade C83600.
- B. Bronze as per ASTM B61 grade C92200.

WALWORTH offers this product line in the following standard trim:

- A. Bronze trim in accordance with ASTM B62 grade C83600.
- B. Bronze trim in accordance ASTM B584 Grade 875.
- C. Brass trim in accordance ASTM B16 Grade C36000.

DESIGN FEATURES

- Design in accordance with MSS-SP-80
- WALWORTH offer; Gate, Globe, Strainer “Y Pattern”, Swing Check & Swing Check “Y Pattern”
- Rising (gate and globe valves) and Non Rising Stem (only gate valves)
- Screwed or Union Bonnet design
- Metal and Non-Metal seated
- Threaded ends as per ANSI B1.20.1
- Test in accordance with MSS-SP-80



PRODUCT RANGE

TYPE	BONNET	SIZE	TRIM	PRESSURE CLASS	ENDS	FIGURE
Bronze NRS Gate Valve	Screwed	½” to 2”	BRONZE	125#	S	W4
Bronze NRS Gate Valve	Screwed	½” to 2”	BRONZE	150#	S	W14
Bronze RS Gate Valve	Screwed	½” to 2”	BRONZE	125#	S	W55
Bronze RS Gate Valve	Screwed	½” to 2”	BRONZE	150#	S	W56
Bronze RS Gate Valve	Union	½” to 2”	BRONZE	150#	S	W11
Bronze RS Gate Valve	Union	½” to 2”	BRONZE	200#	S	W36
Bronze Globe Valve	Screwed	½” to 2”	BRONZE	125#	S	W58
Bronze Globe Valve	Union	½” to 2”	BRONZE + PTFE	150#	S	W95
Bronze Globe Valve	Union	½” to 2”	BRONZE + PTFE	200#	S	W160
Bronze Swing Check Valve “Y” Pattern	-	½” to 2”	BRONZE	150#	S	W420
Bronze Swing Check Valve	-	½” to 2”	BRONZE	125#	S	W506
Bronze Swing Check Valve	-	½” to 2”	BRONZE	150#	S	W512
Bronze Strainer Valve “Y” Pattern	-	½” to 2”	SS304	300#	S	W600

WALWORTH INDUSTRIAL BRONZE NRS GATE VALVE CLASS 125 (200 WOG)

INDUSTRIAL BRONZE NON-RISING STEM GATE VALVES

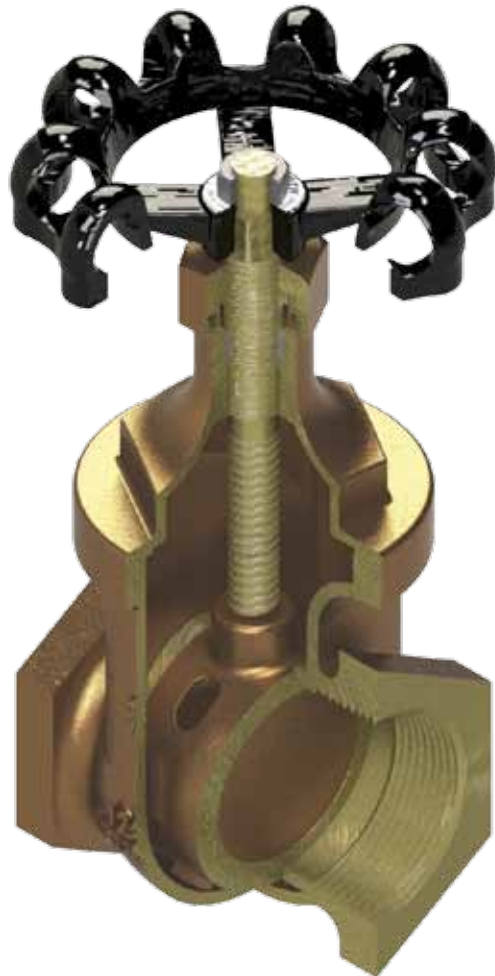
WALWORTH Bronze Gate Valves are used when there is a need to interrupt or cut some fluid. Gate valves are primarily used to permit or prevent flow of a fluid, so they should only be used as fully open or fully closed. The main characteristic of Non-Rising Stem is that design and performance are compact; it not takes more space to open or close the valve. When the valve needs to be open or closed, only the disc goes up or down. Non-Rising Stem is commonly used in underground or where the vertical spaced is limited.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Non-Rising Stem
- Screwed bonnet design
- Solid wedge design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze gate valves are provided with disc and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE NRS GATE VALVE CLASS 125 (200 WOG)

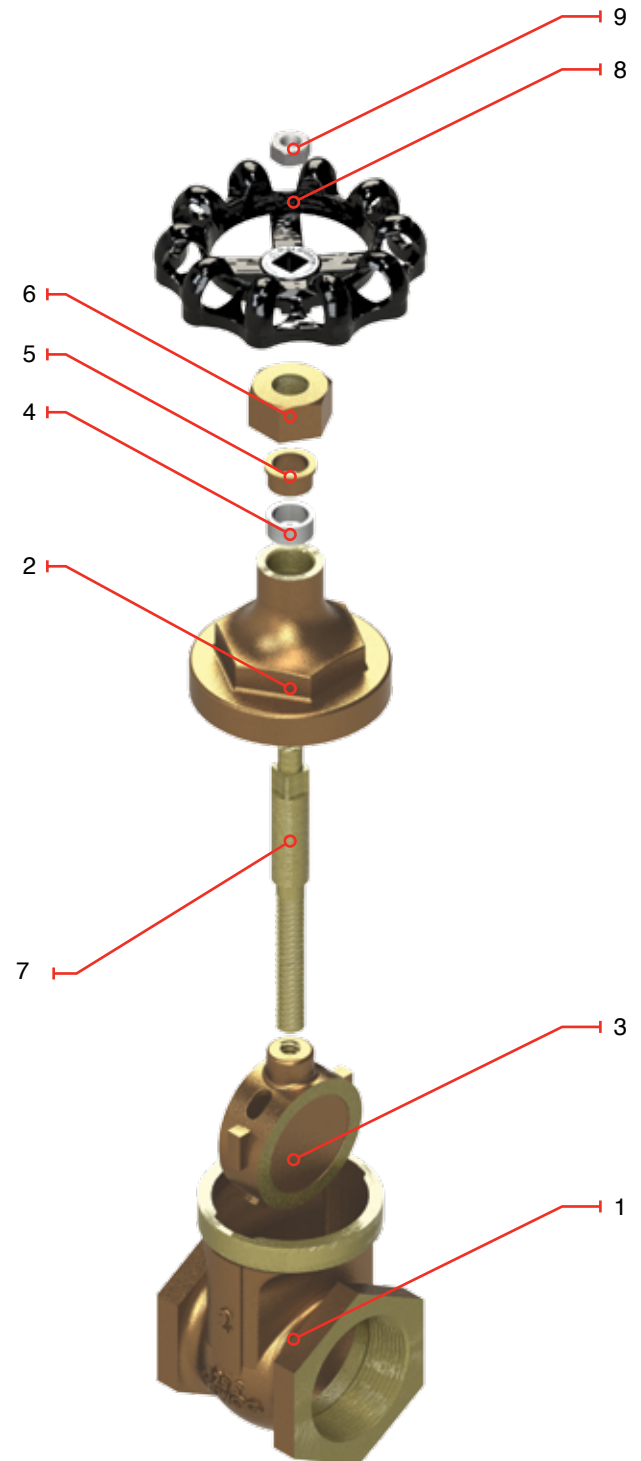
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Non-Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W4	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Stem Packing	Non Asbestos
5	Gland	Brass B16
6	Packing Nut	Bronze B62
7	Stem	Bronze B62
8	Handwheel	Ductile Iron A536
9	Handwheel nut	Galvanized Steel



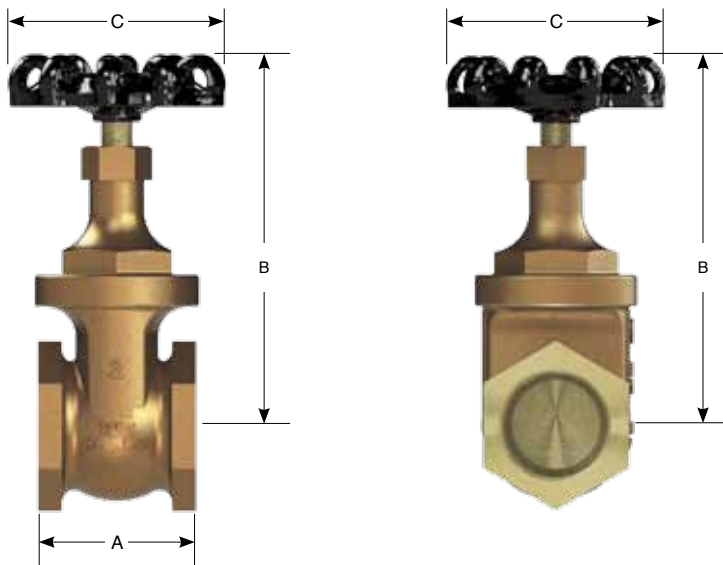
WALWORTH INDUSTRIAL BRONZE NRS GATE VALVE CLASS 125 (200 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Non-Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated



CATALOG FIGURE NO.	TYPE OF ENDS
W4	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	45.97	51.81	58.92	62.48	66.04	72.39
	in	1.81	2.04	2.32	2.46	2.6	2.85
B	mm	86.36	95.75	112.64	130.3	144.78	201.29
	in	3.4	3.77	4.43	5.13	5.7	7.92
C	mm	50.8	63.5	66.54	76.2	82.55	91.94
	in	2	2.5	2.62	3	3.25	3.62
Weight W4	kg	0.35	0.51	0.68	0.98	1.32	2.06
	lb	0.77	1.122	1.5	2.15	2.9	4.53
Cv	Flow coefficient	16.08	37.6	69.7	111.36	164.13	306.76

WALWORTH INDUSTRIAL BRONZE NRS GATE VALVE CLASS 150 (300 WOG)

INDUSTRIAL BRONZE NON-RISING STEM GATE VALVES

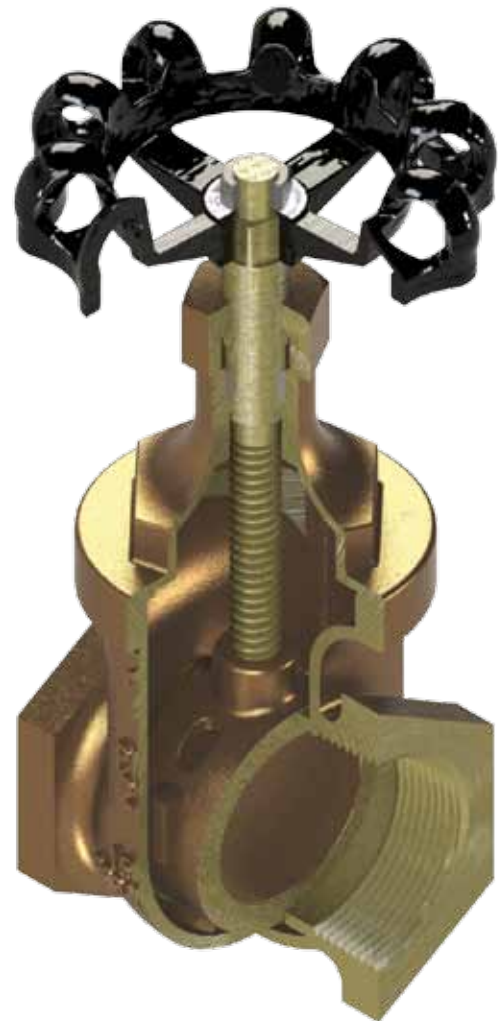
WALWORTH Bronze Gate Valves are used when there is a need to interrupt or cut some fluid. Gate valves are primarily used to permit or prevent flow of a fluid, so they should only be used as fully open or fully closed. The main characteristic of Non-Rising Stem is that design and performance are compact; it not takes more space to open or close the valve. When the valve needs to be open or closed, only the disc goes up or down. Non-Rising Stem is commonly used in underground or where the vertical spaced is limited.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Non-Rising Stem
- Screwed bonnet design
- Solid wedge design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze gate valves are provided with disc and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE NRS GATE VALVE CLASS 150 (300 WOG)

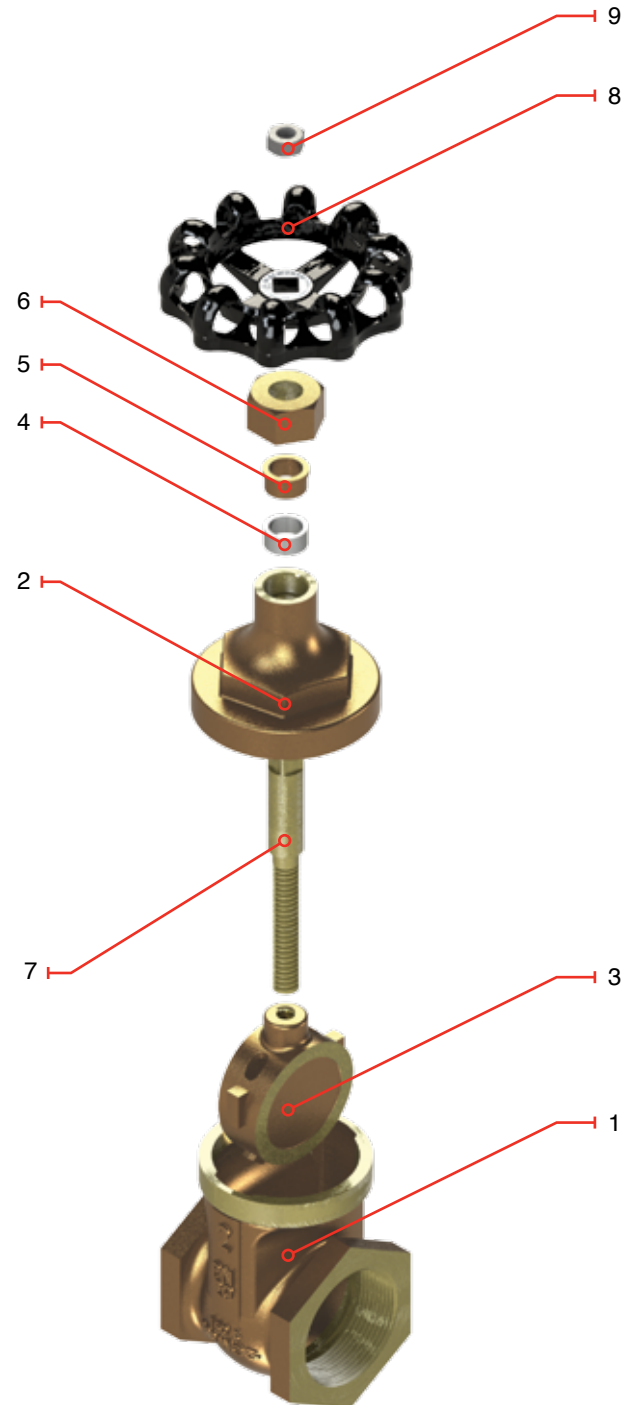
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Non-Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W14	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Stem Packing	Non Asbestos
5	Gland	Brass B16
6	Packing Nut	Bronze B62
7	Stem	Bronze B62
8	Handwheel	Ductile Iron A536
9	Handwheel nut	Galvanized Steel

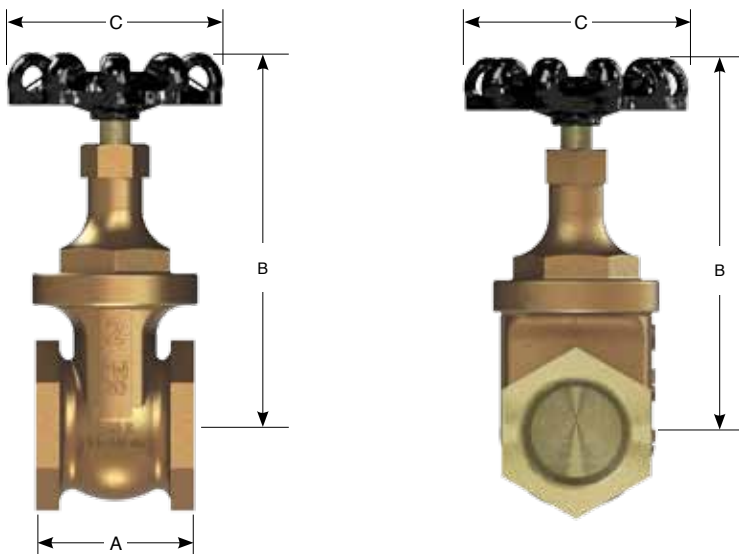


WALWORTH INDUSTRIAL BRONZE NRS GATE VALVE CLASS 150 (300 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Non-Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W14	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	45.97	51.81	58.92	62.48	66.04	72.39
	in	1.81	2.04	2.32	2.46	2.6	2.85
B	mm	86.36	95.75	112.64	130.3	144.78	201.29
	in	3.4	3.77	4.43	5.13	5.7	7.92
C	mm	50.8	63.5	66.54	76.2	82.55	91.94
	in	2	2.5	2.62	3	3.25	3.62
Weight W14	kg	0.35	0.51	0.68	0.98	1.32	2.06
	lb	0.77	1.122	1.5	2.15	2.9	4.53
Cv	Flow coefficient	16.08	37.6	69.7	111.36	164.13	306.76

WALWORTH INDUSTRIAL BRONZE RS GATE VALVE CLASS 125 (200 WOG)

INDUSTRIAL BRONZE RISING STEM GATE VALVES

WALWORTH Bronze Gate valves are used when there is a need to interrupt or cut some flow fluid. Gate valves are primarily used to permit or prevent the flow of a fluid, so they should only be used as fully open or fully closed. Gate valves shouldn't be used to regulate the flow, because the high velocities through a partially open valve may result in erosive damage to the wedge and seats. Installation of Gate Valve doesn't depend on the flow direction because it is a Bidirectional valve.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Screwed bonnet design
- Solid wedge design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze gate valves are provided with disc and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE RS GATE VALVE CLASS 125 (200 WOG)

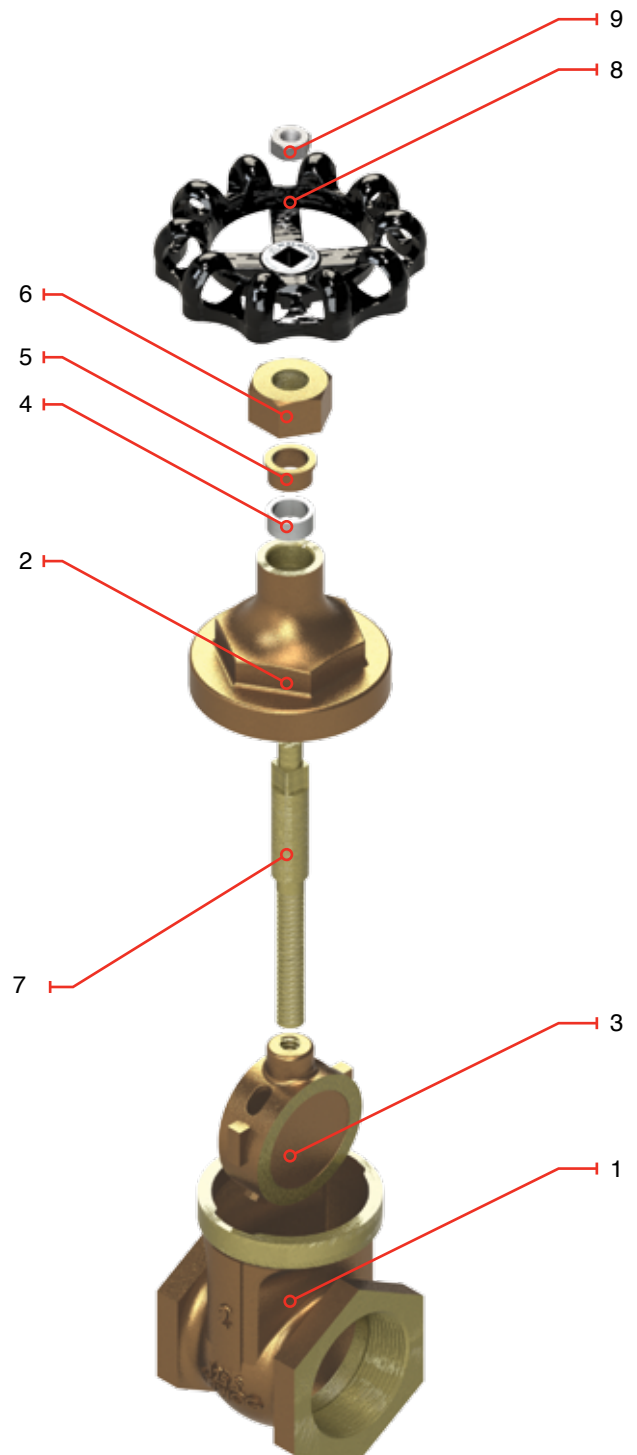
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W55	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Stem Packing	Non Asbestos
5	Gland	Brass B16
6	Packing Nut	Bronze B62
7	Stem	Bronze B62
8	Handwheel	Ductile Iron A536
9	Handwheel nut	Galvanized Steel

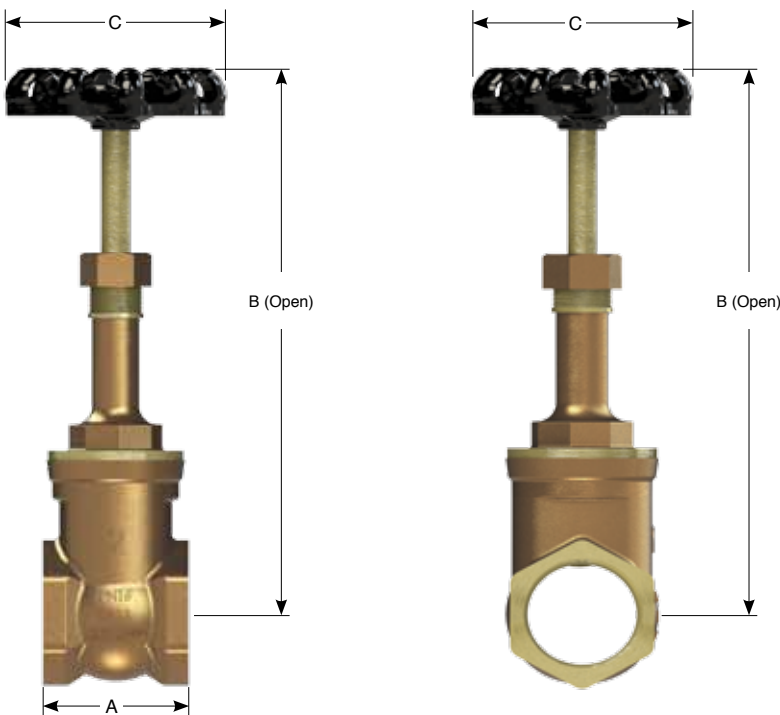


WALWORTH INDUSTRIAL BRONZE RS GATE VALVE CLASS 125 (200 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W55	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	48	51.81	59.18	64	68.07	73.66
	in	1.89	2.04	2.33	2.52	2.68	2.9
B	mm	118.11	140.97	169.67	200.02	226.06	276.86
	in	4.65	5.55	6.68	7.87	8.9	10.9
C	mm	47.75	57.15	66.54	76.2	82.55	91.94
	in	1.88	2.25	2.62	3	3.25	3.62
Weight W55	kg	0.38	0.60	0.82	1.14	1.46	2.50
	lb	0.83	1.32	1.80	2.5	3.21	5.5
Cv	Flow coefficient	16.08	37.6	69.7	111.36	164.13	306.76

WALWORTH INDUSTRIAL BRONZE RS GATE VALVE CLASS 150 (300 WOG)

INDUSTRIAL BRONZE RISING STEM GATE VALVES

WALWORTH Bronze Gate valves are used when there is a need to interrupt or cut some flow fluid. Gate valves are primarily used to permit or prevent the flow of a fluid, so they should only be used as fully open or fully closed. Gate valves shouldn't be used to regulate the flow, because the high velocities through a partially open valve may result in erosive damage to the wedge and seats. Installation of Gate Valve doesn't depend on the flow direction because it is a Bidirectional valve.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Screwed bonnet design
- Solid wedge design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze gate valves are provided with disc and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE RS GATE VALVE CLASS 150 (300 WOG)

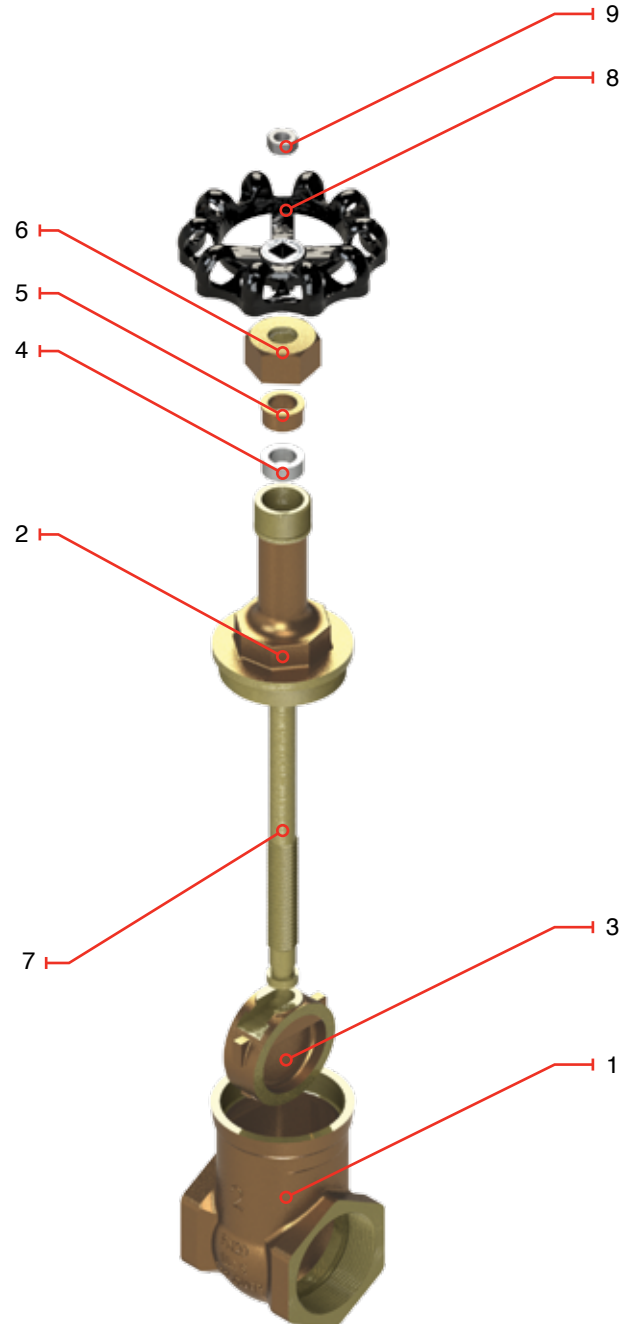
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W56	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Stem Packing	Non Asbestos
5	Gland	Brass B16
6	Packing Nut	Bronze B62
7	Stem	Bronze B62
8	Handwheel	Ductile Iron A536
9	Handwheel nut	Galvanized Steel

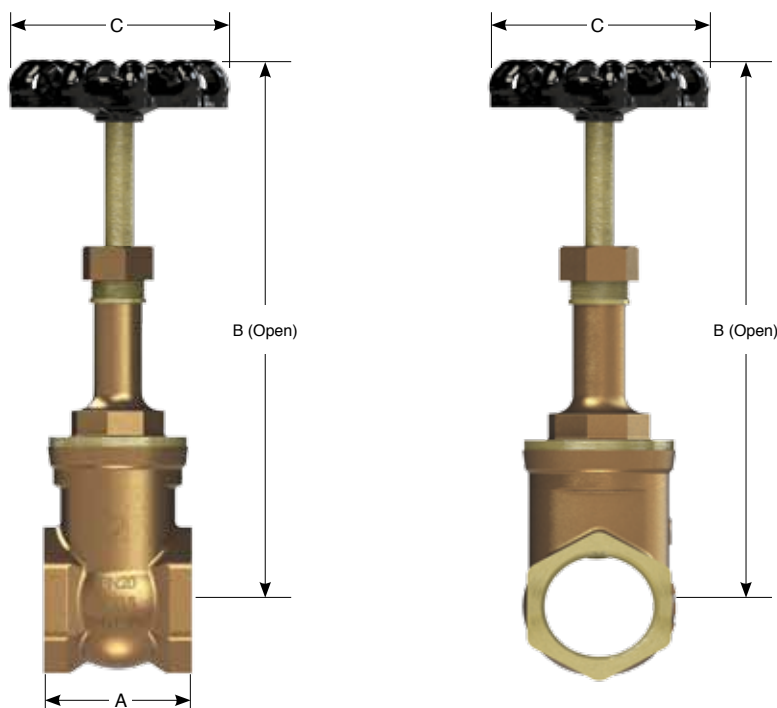


WALWORTH INDUSTRIAL BRONZE RS GATE VALVE CLASS 150 (300 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W56	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	48	51.81	59.18	64	68.32	73.66
	in	1.89	2.04	2.33	2.52	2.69	2.9
B	mm	118.11	140.97	169.67	200.02	225.93	276.86
	in	4.65	5.55	6.68	7.87	8.89	10.9
C	mm	50.8	63.5	66.54	76.2	82.55	91.94
	in	2	2.5	2.62	3	3.25	3.62
Weight W56	kg	0.38	0.60	0.82	1.14	1.46	2.50
	in	0.83	1.32	1.80	2.5	3.21	5.5
Cv	Flow coefficient	16.08	37.6	69.7	111.36	164.13	306.76

WALWORTH INDUSTRIAL BRONZE RS GATE VALVE UNION BONNET, CLASS 150 (300 WOG)

INDUSTRIAL BRONZE RISING STEM GATE VALVES (UNION BONNET)

WALWORTH Bronze Gate valves are used when there is a need to interrupt or cut some flow fluid. Gate valves are primarily used to permit or prevent the flow of a fluid, so they should only be used as fully open or fully closed. Gate valves shouldn't be used to regulate the flow, because the high velocities through a partially open valve may result in erosive damage to the wedge and seats. Installation of Gate Valve doesn't depend on the flow direction because it is a Bidirectional valve. Gate Valves with union bonnet are used for applications that require frequent inspection or cleaning. This type of bonnet gives the body added strength.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Union Bonnet Design
- Solid wedge design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze gate valves are provided with disc and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE RS GATE VALVE UNION BONNET, CLASS 150 (300 WOG)

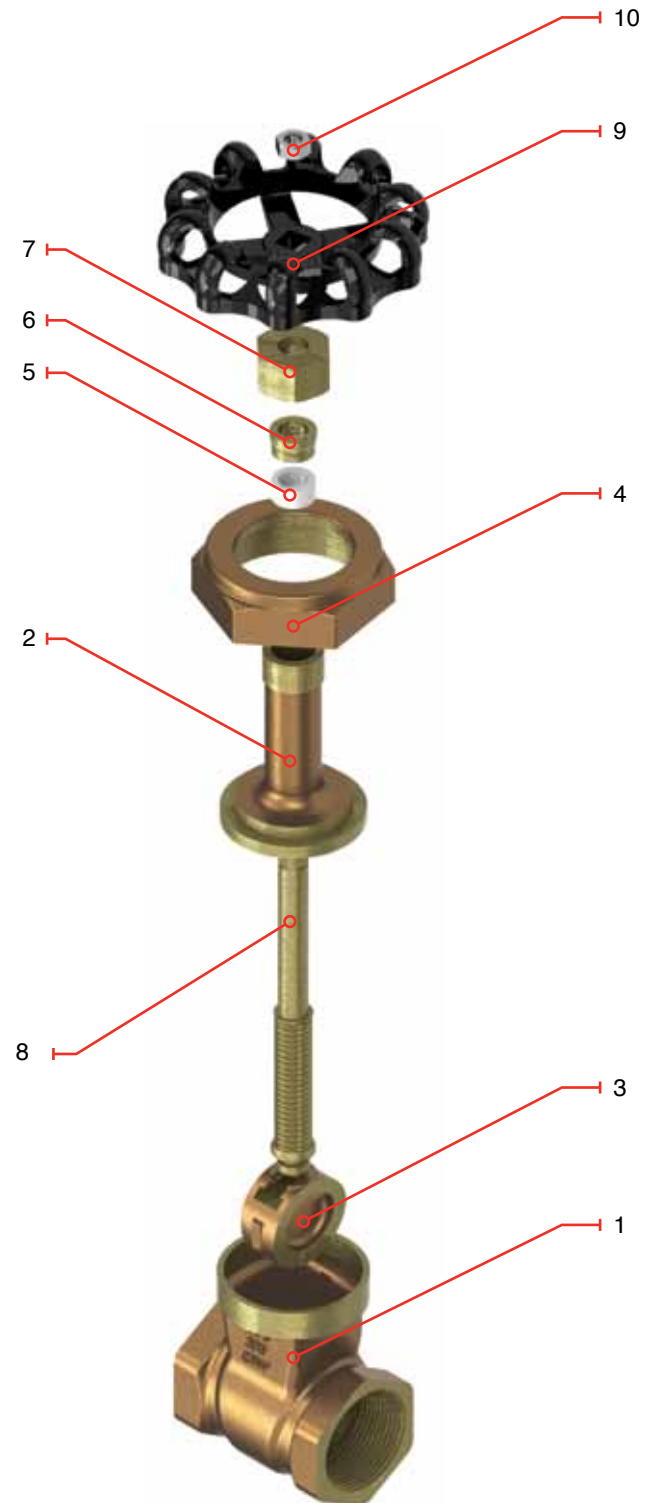
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W11	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Union Ring	Bronze B62
5	Stem Packing	Non Asbestos
6	Gland	Brass B16
7	Packing Nut	Bronze B62
8	Stem	Bronze B62
9	Handwheel	Ductile Iron A536
10	Handwheel nut	Galvanized Steel

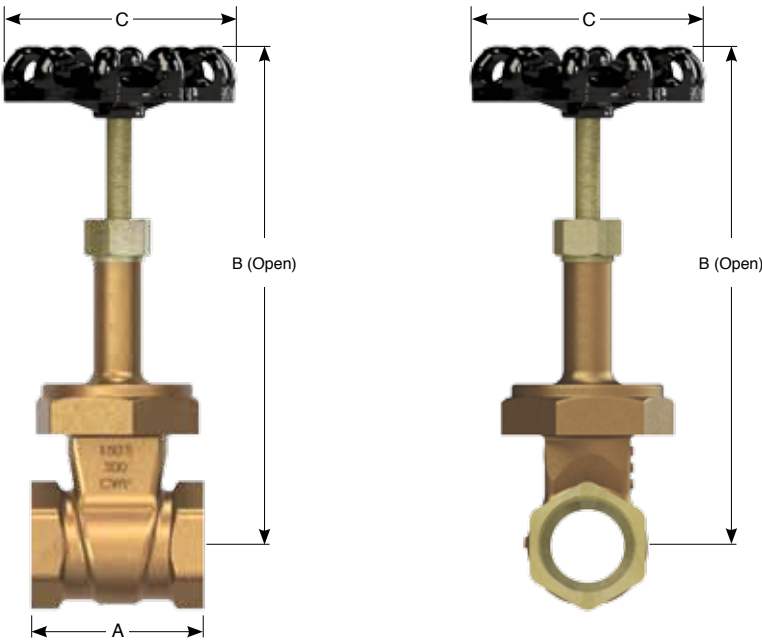


WALWORTH INDUSTRIAL BRONZE RS GATE VALVE UNION BONNET, CLASS 150 (300 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W11	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	60.96	57.78	65.40	100.96	83.82	86.86
	in	2.4	2.27	2.57	3.97	3.3	3.42
B	mm	134.62	159.06	183.51	219.07	244.47	298.45
	in	5.3	6.26	7.22	8.62	9.62	11.75
C	mm	50.8	63.5	66.54	76.2	82.55	91.94
	in	2	2.5	2.62	3	3.25	3.62
Weight W11	kg	1,10	1,40	2,20	3,70	4,90	7,00
	lb	2.42	3.08	4.84	8.14	10.78	15.4
Cv	Flow coefficient	16.08	37.6	69.7	111.36	164.13	306.76

WALWORTH INDUSTRIAL BRONZE RS GATE VALVE UNION BONNET, CLASS 200 (400 WOG)

INDUSTRIAL BRONZE RISING STEM GATE VALVES (UNION BONNET)

WALWORTH Bronze Gate valves are used when there is a need to interrupt or cut some flow fluid. Gate valves are primarily used to permit or prevent the flow of a fluid, so they should only be used as fully open or fully closed. Gate valves shouldn't be used to regulate the flow, because the high velocities through a partially open valve may result in erosive damage to the wedge and seats. Installation of Gate Valve doesn't depend on the flow direction because it is a Bidirectional valve. Gate Valves with union bonnet are used for applications that require frequent inspection or cleaning. This type of bonnet gives the body added strength.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Union Bonnet Design
- Solid wedge design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze gate valves are provided with disc and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE RS GATE VALVE UNION BONNET, CLASS 200 (400 WOG)

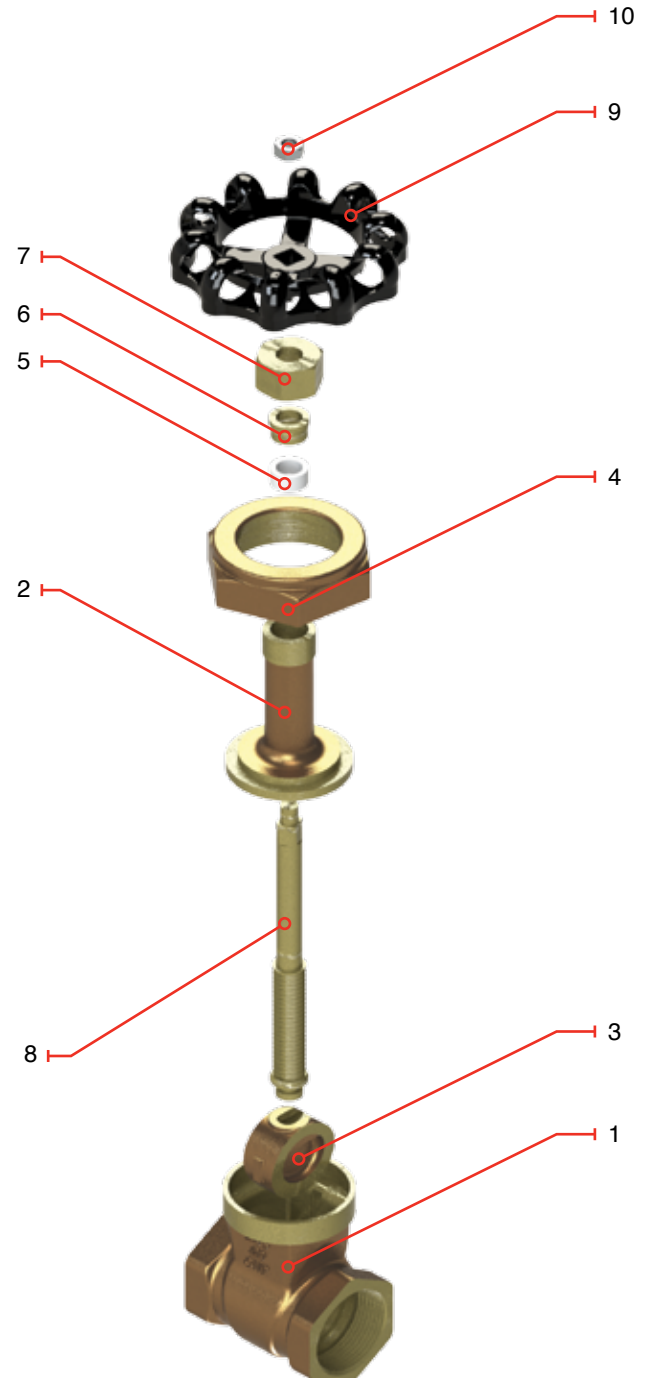
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W36	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B61
2	Bonnet	Bronze B61
3	Disc	Bronze B61
4	Union Ring	Bronze B62
5	Stem Packing	Non Asbestos
6	Gland	Brass B16
7	Packing Nut	Bronze B61
8	Stem	Bronze B584
9	Handwheel	Ductile Iron A536
10	Handwheel nut	Galvanized Steel

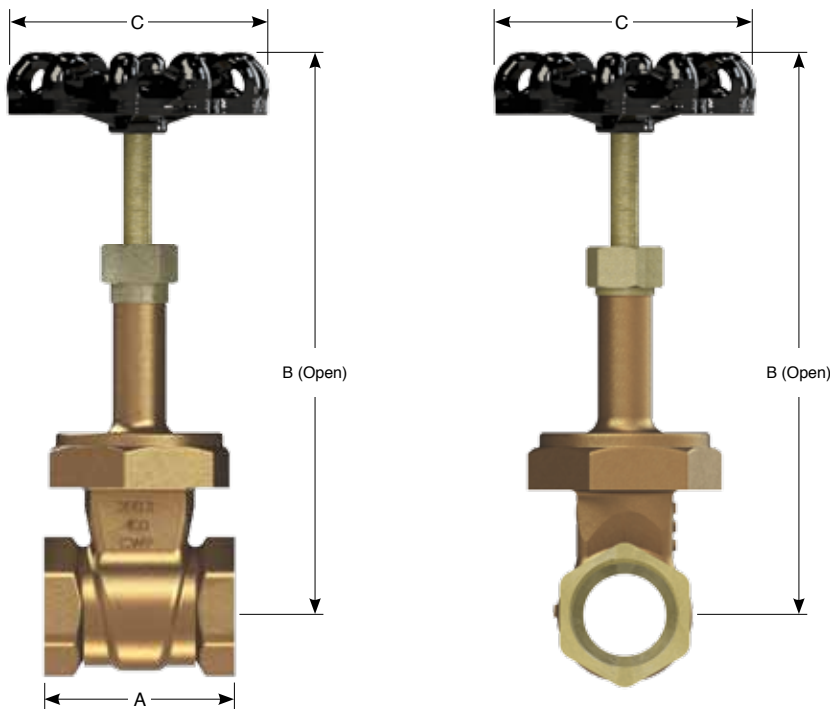


WALWORTH INDUSTRIAL BRONZE RS GATE VALVE UNION BONNET, CLASS 200 (400 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W36	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	60.9	57.78	65.40	76.2	83.82	86.86
	in	2.4	2.27	2.57	3	3.3	3.42
B	mm	134.62	159.06	183.51	219.07	244.47	298.45
	in	5.3	6.26	7.22	8.62	9.62	11.75
C	mm	50.8	63.5	66.54	76.2	82.55	91.94
	in	2.25	2.5	2.75	3.25	3.62	4
Weight W36	kg	1,40	2,10	2,60	4,00	6,20	9,60
	lb	3.08	4.62	5.72	8.8	13.64	21.12
Cv	Flow coefficient	16.08	37.6	69.7	111.36	164.13	306.76

WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 125 (200 WOG)

INDUSTRIAL BRONZE GLOBE VALVES

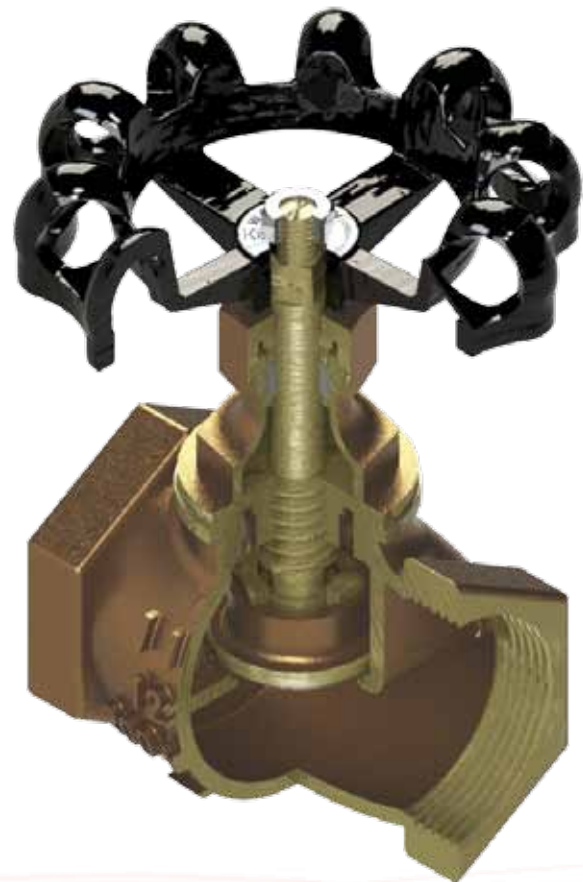
WALWORTH Bronze Globe valves are used when there is a need to regulate the volume of the flow. Globe valves are not recommended when a continuous full flow of fluid is required due to the high pressure drop inherent to the design. Globe valves are unidirectional and, always, they should be installed so the flow intake enters through the base of the valve seat, an arrow stamped on the body indicates direction of flow. Globe valves may be used with fluids containing particles in suspension.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Screwed bonnet design
- Conical Plug type disc
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze globe valves are provided with plug and stem of bronze
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 125 (200 WOG)

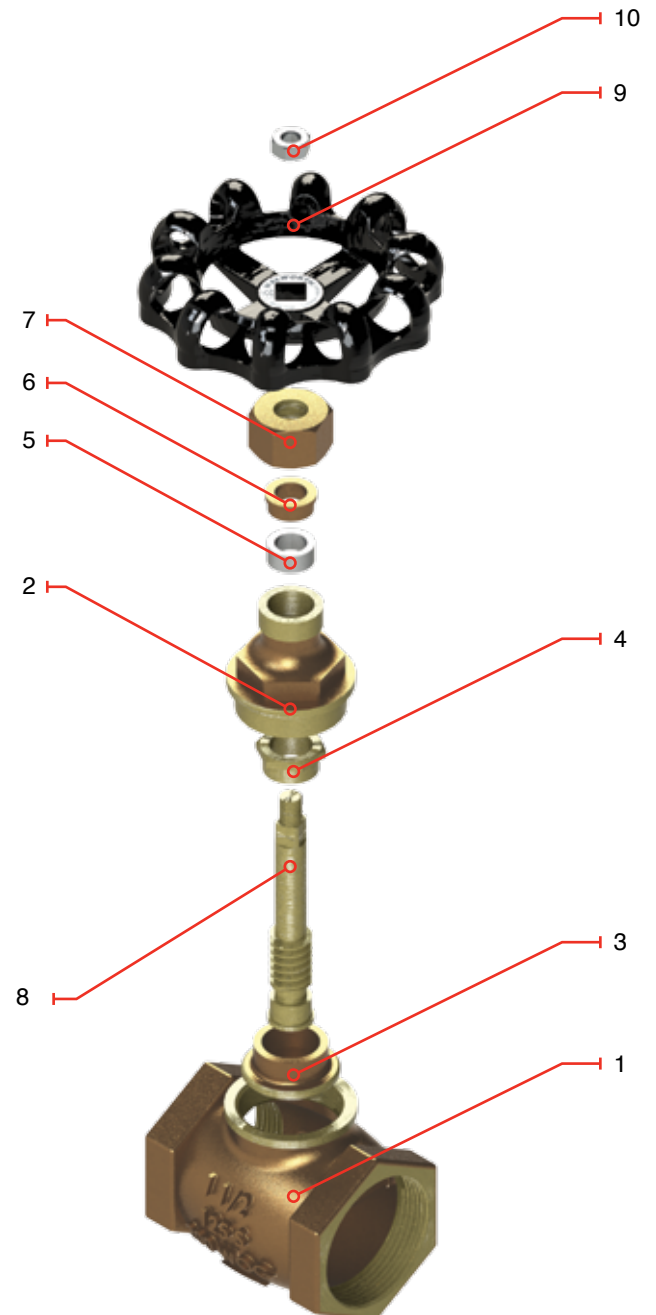
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W58	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Disc Holder	Bronze B62
5	Stem Packing	Non Asbestos
6	Gland	Brass B16
7	Packing Nut	Bronze B62
8	Stem	Bronze B62
9	Handwheel	Ductile Iron A536
10	Handwheel nut	Galvanized Steel

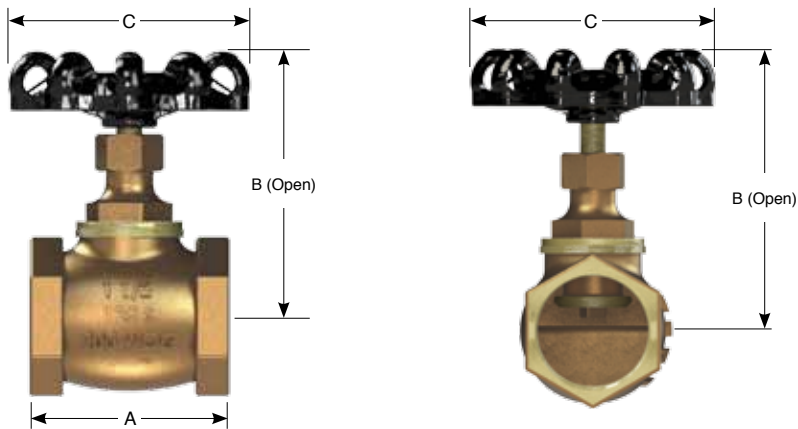


WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 125 (200 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Screwed bonnet design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W58	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	49.02	55.11	64	73.66	83.56	96.52
	in	1.93	2.17	2.52	2.9	3.29	3.8
B	mm	87.12	89.40	103.88	120.14	134.87	152.01
	in	3.43	3.52	4.09	4.73	5.31	5.98
C	mm	50.8	63.5	69.85	76.2	88.9	101.6
	in	2	2.5	2.75	3	3.5	4
Weight W58	kg	0.46	0.65	1.00	1.46	2.19	3.33
	lb	1.01	1.43	2.2	3.21	4.81	7.32
Cv	Flow coefficient	2.46	5.76	10.69	17.08	25.17	47.05

WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 150 (300 WOG)

INDUSTRIAL BRONZE GLOBE VALVES HANDWHEEL OPERATED WITH RISING STEM

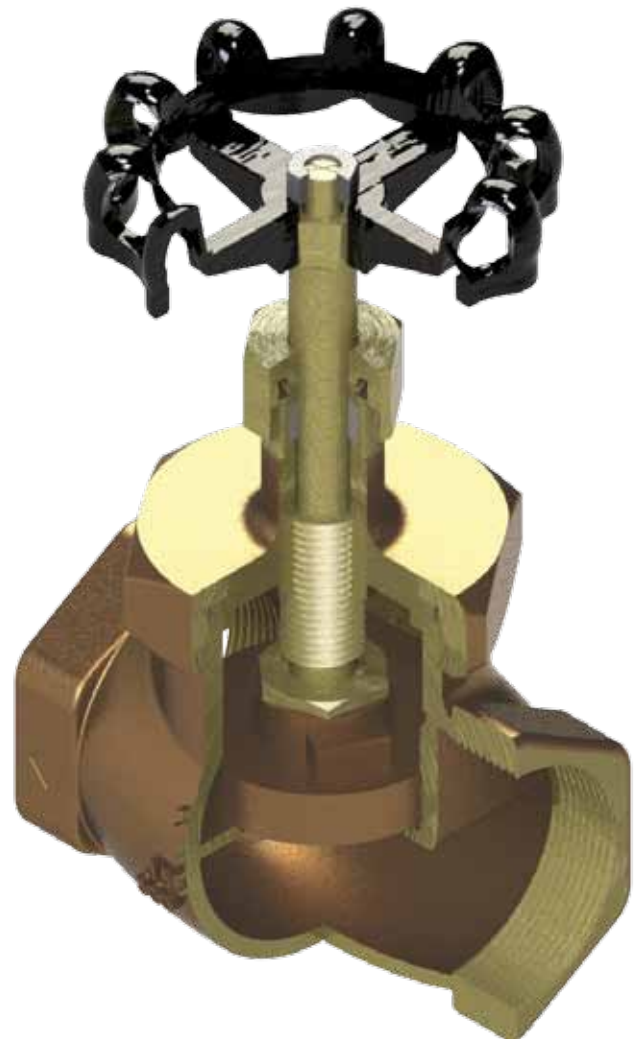
WALWORTH Bronze Globe valves are used when there is a need to regulate the volume of the flow. Globe valves are not recommended when a continuous full flow of fluid is required due to the high pressure drop inherent to the design. Globe valves are unidirectional and, always, they should be installed so the flow intake enters through the base of the valve seat, an arrow stamped on body indicates direction of flow. Globe valves may be used with fluids containing particles in suspension.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Screwed bonnet design
- Soft Seat
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze globe valves are provided with plug and stem of bronze
- PTFE Insert on plug
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 150 (300 WOG)

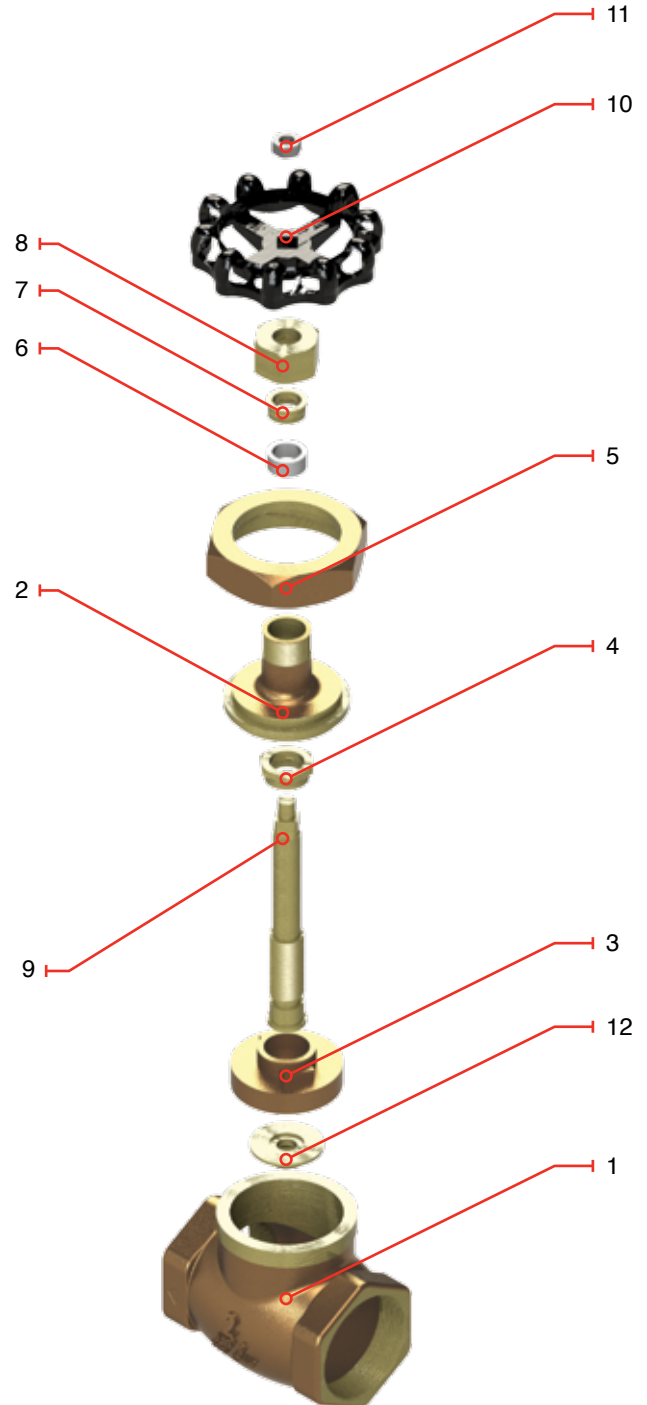
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Soft Seat
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W95	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc	Bronze B62
4	Disc Holder	Bronze B62
5	Union Nut	Bronze B62
6	Stem Packing	Non Asbestos
7	Gland	Brass B16
8	Packing Nut	Bronze B62
9	Stem	Bronze B62
10	Handwheel	Ductile Iron A536
11	Handwheel nut	Galvanized Steel
12	Disc Nut	Bronze B62

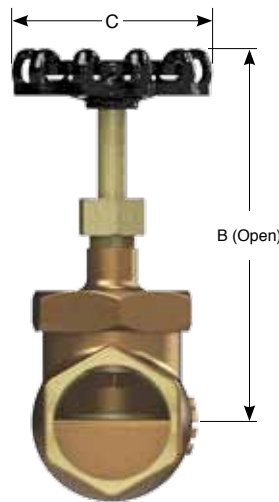
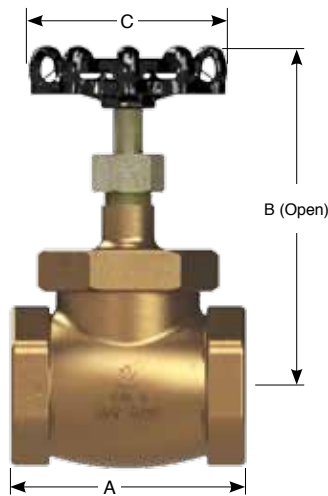


WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 150 (300 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Soft Seat
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W95	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	57.15	67.31	76.7	89.66	101.6	122.42
	in	2.25	2.65	3.02	3.53	4	4.82
B	mm	104.9	125.47	140.84	155.19	172.84	200.66
	in	4.13	4.94	5.54	6.11	6.8	7.9
C	mm	50.8	63.5	69.85	76.2	88.9	101.6
	in	2	2.5	2.75	3	3.5	4
Weight W95	kg	0.46	0.65	1.00	1.46	2.19	3.33
	lb	1.01	1.43	2.2	3.21	4.81	7.32
Cv	Flow coefficient	2.46	5.76	10.69	17.08	25.17	47.05

WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 200 (400 WOG)

INDUSTRIAL BRONZE GLOBE VALVES HANDWHEEL OPERATED WITH RISING STEM

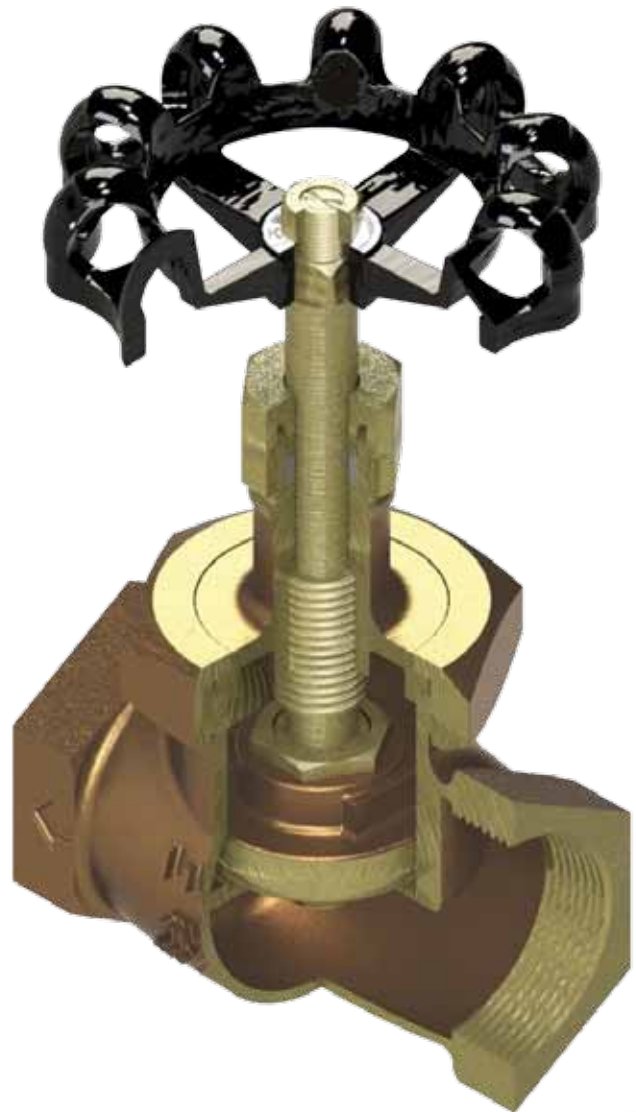
WALWORTH Bronze Globe valves are used when there is a need to regulate the volume of the flow. Globe valves are not recommended when a continuous full flow of fluid is required due to the high pressure drop inherent to the design. Globe valves are unidirectional and, always, they should be installed so the flow intake enters through the base of the valve seat, an arrow stamped on body indicates direction of flow. Globe valves may be used with fluids containing particles in suspension.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and bonnet of bronze
- Rising Stem
- Union Bonnet Design
- Conical Plug type disc
- Soft Seat
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80
- Handwheel operated

TRIM MATERIALS

- Bronze globe valves are provided with plug and stem of bronze
- PTFE Insert on plug
- PTFE stem packing
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 200 (400 WOG)

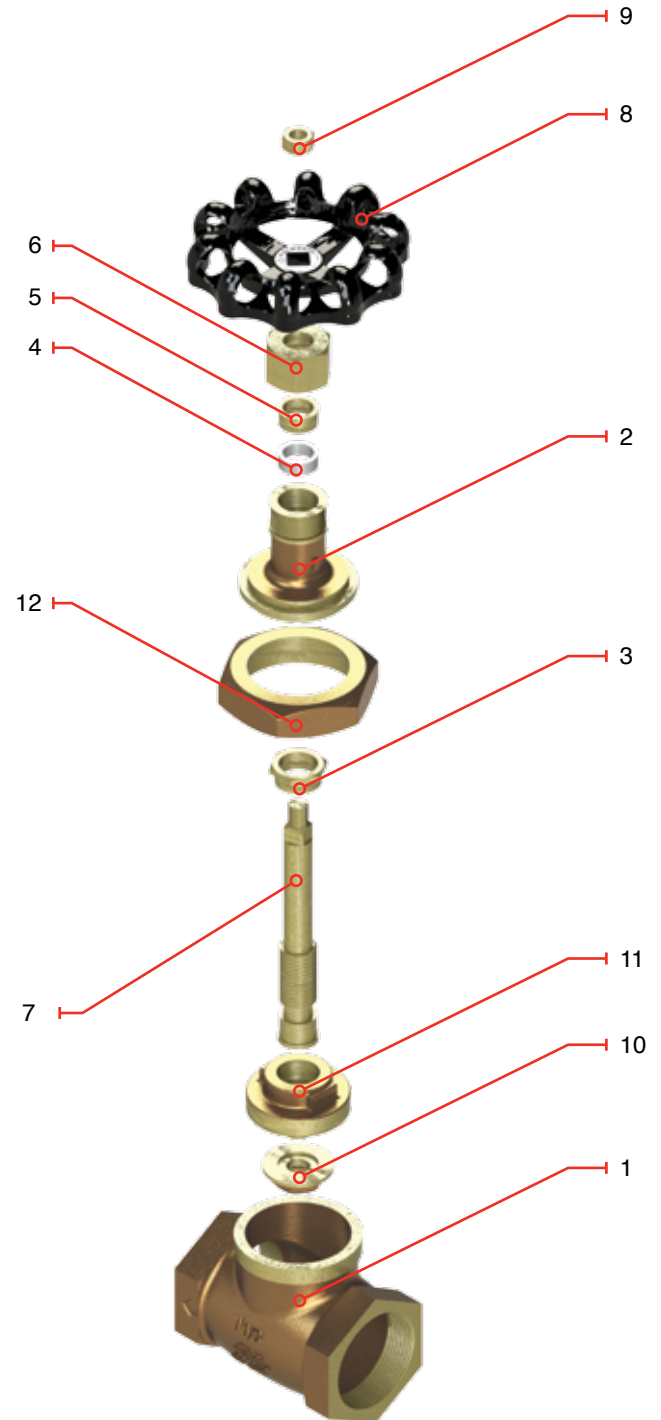
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Soft Seat
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W160	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Bonnet	Bronze B62
3	Disc Holder	Bronze B62
4	Stem Packing	Non Asbestos
5	Gland	Brass B16
6	Packing Nut	Bronze B62
7	Stem	Bronze B62
8	Handwheel	Ductile Iron A536
9	Handwheel nut	Galvanized Steel
10	Disc Nut	Bronze B62
11	Disc	Bronze B62
12	Union Nut	Bronze 61

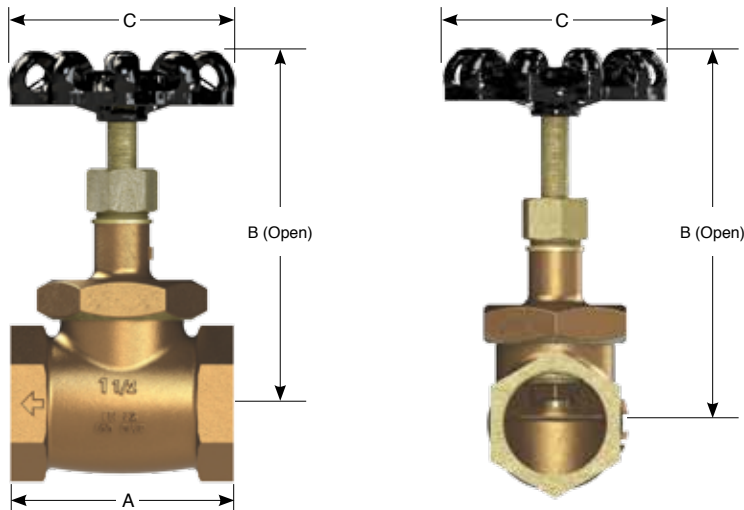


WALWORTH INDUSTRIAL BRONZE GLOBE VALVE CLASS 200 (400 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Rising Stem
- Bronze construction
- Integral seat rings
- Union Bonnet Design
- Soft Seat
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Handwheel operated

CATALOG FIGURE NO.	TYPE OF ENDS
W160	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	57.15	66.8	76.2	88.9	101.6	121.41
	in	2.25	2.63	3	3.5	4	4.78
B	mm	109.85	125.73	142.87	154.94	176.21	212.09
	in	4.32	4.95	5.62	6.1	6.93	8.35
C	mm	50.8	63.5	69.85	76.2	88.9	101.6
	in	2	2.5	2.75	3	3.5	4
Weight W160	kg	0.46	0.65	1.00	1.46	2.19	3.33
	lb	1.01	1.43	2.2	3.21	4.81	7.32
Cv	Flow coefficient	2.46	5.76	10.69	17.08	25.17	47.05

WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE CLASS 125 (200 WOG)

INDUSTRIAL BRONZE SWING CHECK VALVES

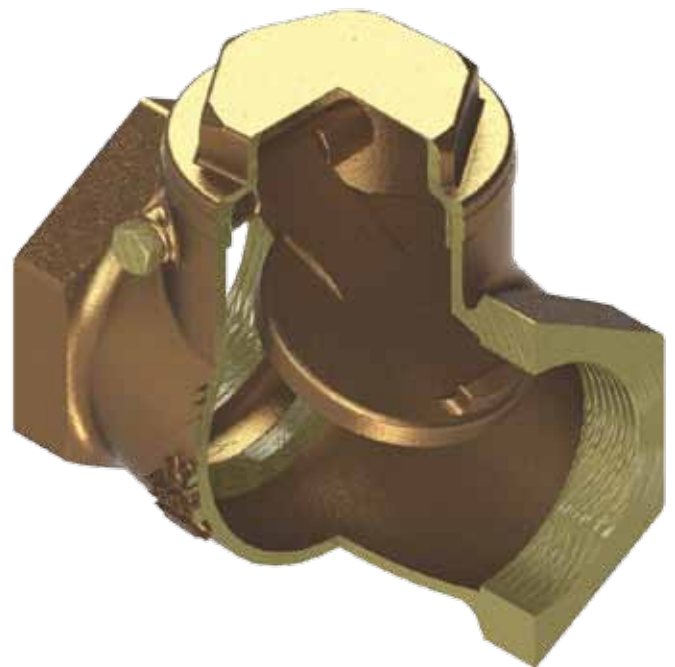
WALWORTH Bronze Swing Check Valves are generally used to protect pumps or similar equipment, allowing the flow only in one direction and preventing flow reversal due to back pressure. Swing Check valves are unidirectional; an arrow stamped on body always indicates direction of flow.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- “T” Pattern
- Body Bronze
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80

TRIM MATERIALS

- Trim of Bronze
- Integral seat ring
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE CLASS 125 (200 WOG)

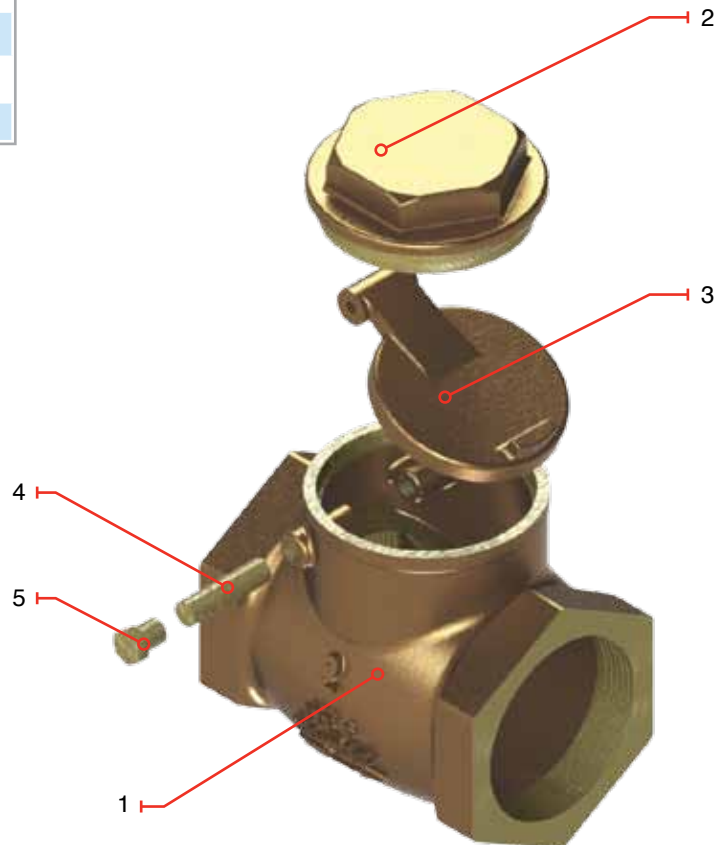
DESIGN FEATURES

- Design in accordance with MSS SP-80
- “T” Pattern
- Bronze construction
- Integral seat ring
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to Face dimensions as per WALWORTH design

CATALOG FIGURE NO.	TYPE OF ENDS
W506	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Cap	Bronze B62
3	Disc	Bronze B62
4	Hanger Pin	Brass B16
5	Plug	Bronze B16



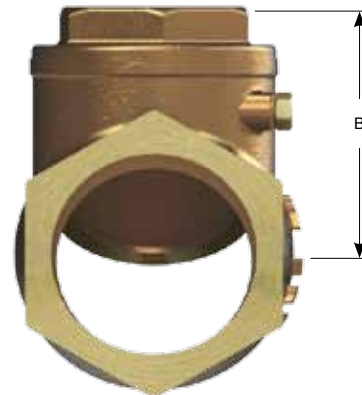
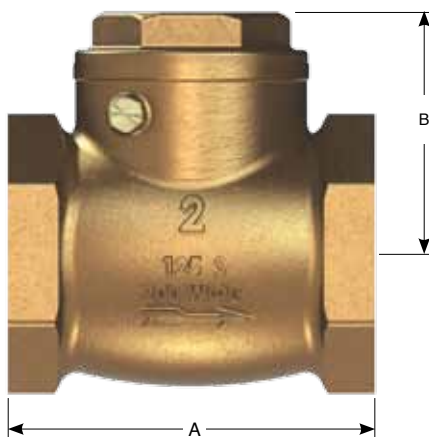
WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE CLASS 125 (200 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- “T” Pattern
- Bronze construction
- Integral seat ring
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to Face dimensions as per WALWORTH design



CATALOG FIGURE NO.	TYPE OF ENDS
W506	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	57.15	60.96	69.85	82.55	91.44	109.85
	in	2.25	2.4	2.75	3.25	3.6	4.32
B	mm	46.99	49.21	56.19	63.5	70.48	46.99
	in	1.85	1.93	2.21	2.5	2.775	3.3
Weight W506	kg	0,29	0,29	0,44	0,65	0,89	1,33
	lb	0.638	0.638	0.968	1.43	1.95	2.92
Cv	Flow coefficient	6.43	15.04	27.88	44.54	65.65	122.7

WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE CLASS 150 (300 WOG)

INDUSTRIAL BRONZE SWING CHECK VALVES

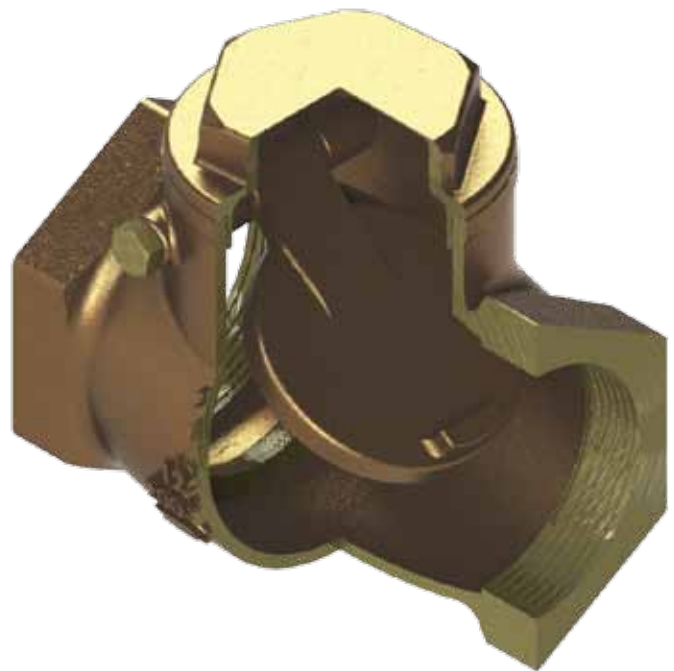
WALWORTH Bronze Swing Check Valves are generally used to protect pumps or similar equipment, allowing the flow only in one direction and preventing flow reversal due to back pressure. Swing Check valves are unidirectional; an arrow stamped on body always indicates direction of flow.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- “T” Pattern
- Bronze construction
- Threaded cover design
- Swing type disc
- Threaded Ends as per ANSI B1.20. 1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80

TRIM MATERIALS

- Trim of Bronze
- Integral seat rings
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE CLASS 150 (300 WOG)

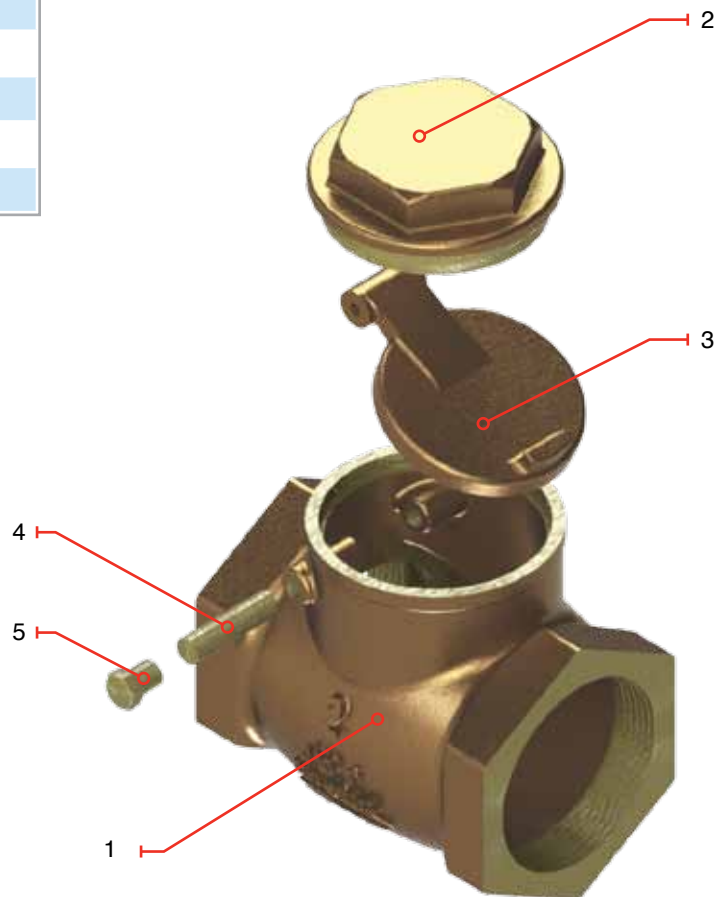
DESIGN FEATURES

- Design in accordance with MSS SP-80
- “T” Pattern
- Bronze construction
- Integral seat ring
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to Face dimensions as per WALWORTH design

CATALOG FIGURE NO.	TYPE OF ENDS
W512	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Cap	Bronze B62
3	Disc	Bronze B62
4	Hanger Pin	Brass B16
5	Plug	Bronze B16



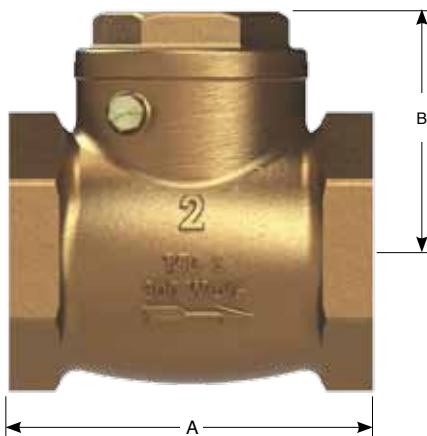
WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE CLASS 150 (300 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- “T” Pattern
- Bronze construction
- Integral seat ring
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to Face dimensions as per WALWORTH design



CATALOG FIGURE NO.	TYPE OF ENDS
W512	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	57.15	60.96	69.85	81.28	91.44	109.22
	in	2.25	2.4	2.75	3.2	3.6	4.3
B	mm	54.29	51.43	56.51	62.86	68.89	86.36
	in	2.13	2.02	2.22	2.47	2.71	3.4
Weight W512	kg	0.29	0.29	0.44	0.65	0.89	1.33
	lb	0.638	0.638	0.968	1.43	1.95	2.92
Cv	Flow coefficient	6.43	15.04	27.88	44.54	65.65	122.7

WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE “Y” PATTERN, CLASS 150 (300 WOG)

INDUSTRIAL BRONZE SWING CHECK VALVES

WALWORTH Bronze Swing Check Valves are generally used to protect pumps or similar equipment, allowing the flow only in one direction and preventing flow reversal due to back pressure. Swing Check valves are unidirectional; an arrow stamped on body always indicates direction of flow. “Y” Pattern can be installed in horizontal or vertical position, allowing the disc goes down to close the valve when the fluid decreases.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- “Y” Pattern
- Bronze construction
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80

TRIM MATERIALS

- Trim of Bronze
- Integral seat ring
- Bronze trim valves are recommended for steam, water, air and non-corrosive oil or gas



WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE “Y” PATTERN, CLASS 150 (300 WOG)

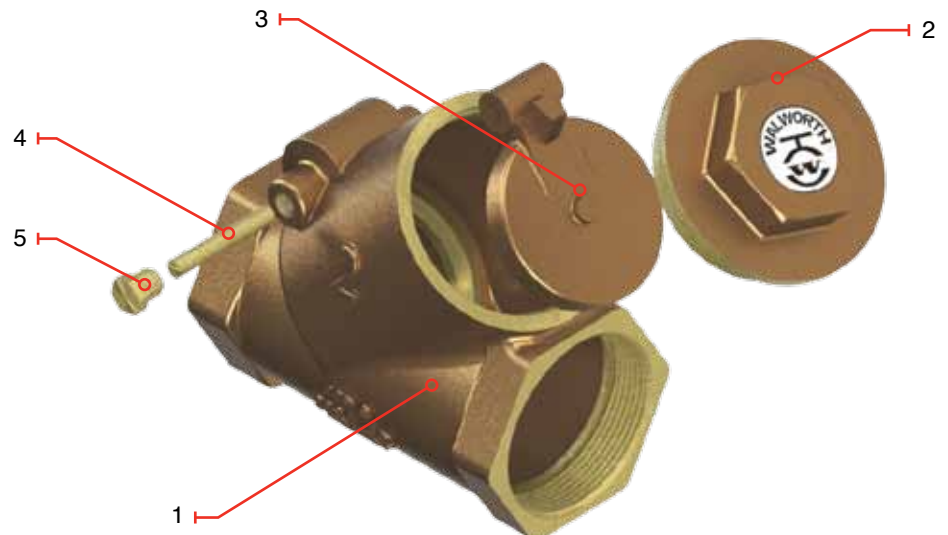
DESIGN FEATURES

- Design in accordance with MSS SP-80
- “Y” Pattern
- Bronze construction
- Integral seat ring
- Screwed Cover Design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to Face dimensions as per WALWORTH design

CATALOG FIGURE NO.	TYPE OF ENDS
W420	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Cap	Bronze B62
3	Disc	Bronze B62
4	Hanger Pin	Brass B16
5	Plug	Bronze B16



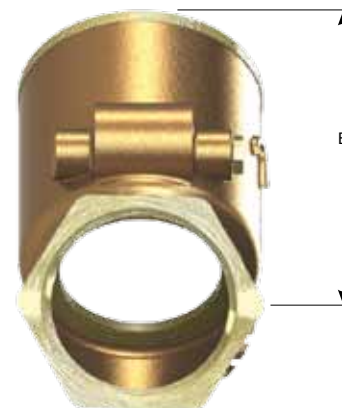
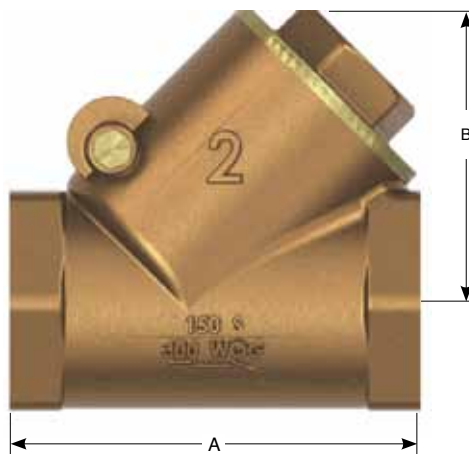
WALWORTH INDUSTRIAL BRONZE SWING CHECK VALVE “Y” PATTERN, CLASS 150 (300 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- “Y” Pattern
- Bronze construction
- Integral seat ring
- Threaded cover design
- Swing type disc
- Threaded ends as per ANSI B1.20.1
- Face to Face dimensions as per WALWORTH design



CATALOG FIGURE NO.	TYPE OF ENDS
W420	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	56.89	70.35	80.01	96.52	109.47	139.7
	in	2.24	2.77	3.15	3.8	4.31	5.5
B	mm	46.99	56.38	62.99	74.16	84.96	76.2
	in	1.85	2.22	2.48	2.92	3.34	3
Weight W420	kg	0.28	0.43	0.59	0.97	1.33	2.14
	lb	0.616	0.94	1.29	2.13	2.92	4.7
Cv	Flow coefficient	4.54	10.63	19.71	31.49	46.42	86.76

WALWORTH INDUSTRIAL BRONZE “Y” STRAINER CLASS 300 (600 WOG)

INDUSTRIAL BRONZE “Y” STRAINER VALVES

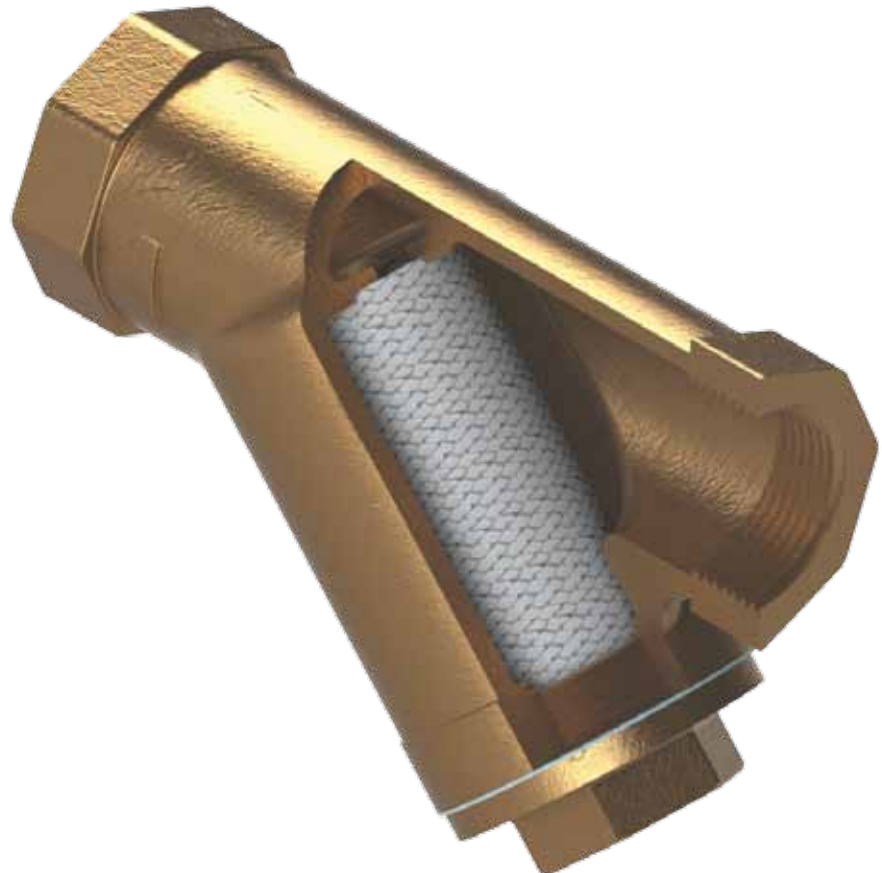
WALWORTH Strainer Valves are used to strain or filter out solid debris in a water system and can be designed for very high flow rates. Suspended particles are collected in the inside of the mesh, and then the flush valve opens to expel the build-up of crap. This eliminates the need for manual cleaning of the strainer element.

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and Cover Bronze
- Threaded Cover Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80

TRIM MATERIALS

- Trim of Stainless Steel 304



WALWORTH INDUSTRIAL BRONZE “Y” STRAINER CLASS 300 (600 WOG)

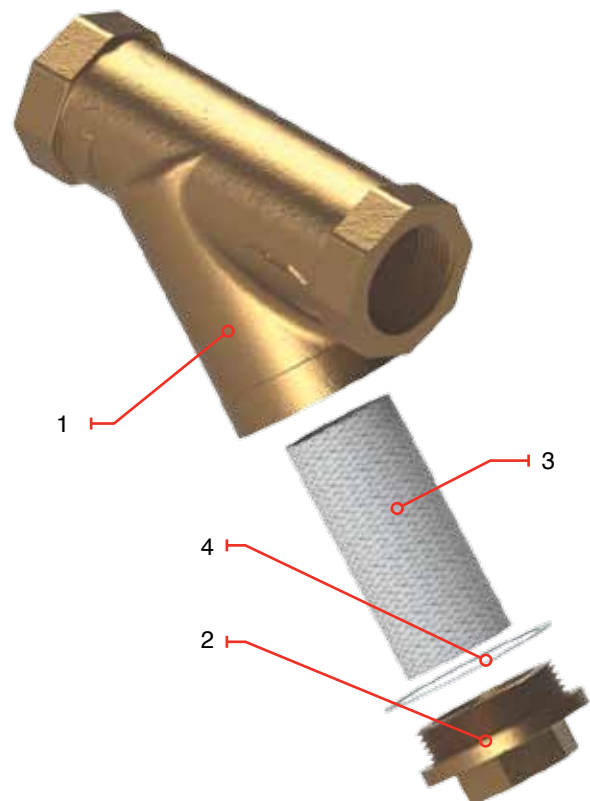
DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and Cover Bronze
- Threaded Cover Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80

CATALOG FIGURE NO.	TYPE OF ENDS
W600	Threaded Ends

REGULAR BILL OF MATERIALS

NO.	DESCRIPTION	MATERIALS
1	Body	Bronze B62
2	Cap	Bronze B62
3	Screen	Stainless Steel
4	Gasket	Teflon



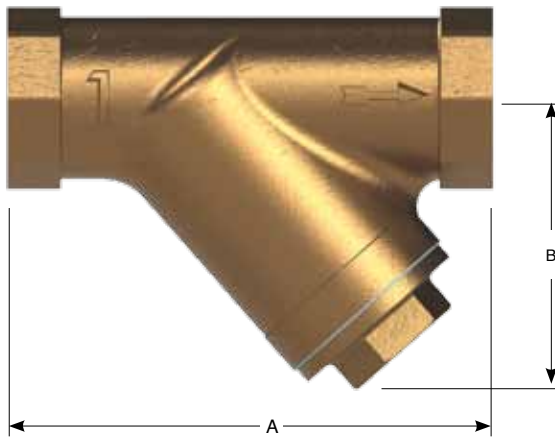
WALWORTH INDUSTRIAL BRONZE “Y” STRAINER CLASS 300 (600 WOG)

DESIGN FEATURES

- Design in accordance with MSS SP-80
- Body and Cover Bronze
- Threaded Cover Design
- Threaded ends as per ANSI B1.20.1
- Face to face dimensions as per WALWORTH design
- Test in accordance with MSS-SP-80



CATALOG FIGURE NO.	TYPE OF ENDS
W600	Threaded Ends



DIMENSIONS AND WEIGHTS

D NOMINAL DIAMETER	mm	13	19	25	30	40	50
	in	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
A	mm	80.01	100.33	114.93	134.62	160.02	188.59
	in	3.15	3.95	4.52	5.3	6.3	7.42
B	mm	51.43	60	73.02	88.9	99.37	118.74
	in	2.02	2.36	2.87	3.5	3.91	4.67
Weight W600	kg	0.33	0.48	0.69	1.00	1.43	2.25
	lb	0.726	1.05	1.51	2.2	3.14	4.95

TECHNICAL INFORMATION

DIAMETER OF STEM

BRONZE GATE VALVES - Diameter of Stem

NOMINAL VALVE SIZE	DIAMETER OF STEM-MINIMUM			
	CLASS			
	125	150	200	300 & 350
	In	In	In	In
1/2	0.31	0.31	0.34	0.34
3/4	0.35	0.35	0.38	0.38
1	0.39	0.40	0.40	0.40
1-1/4	0.42	0.43	0.44	0.44
1-1/2	0.48	0.48	0.50	0.50
2	0.53	0.53	0.53	0.53

BRONZE GLOBE AND ANGLE VALVES - Diameter of Stem

NOMINAL VALVE SIZE	DIAMETER OF STEM-MINIMUM			
	CLASS			
	125	150	200	300 & 350
	In	In	In	In
1/2	0.31	0.35	0.35	0.35
3/4	0.35	0.39	0.40	0.40
1	0.39	0.42	0.44	0.44
1-1/4	0.42	0.49	0.50	0.50
1-1/2	0.49	0.53	0.53	0.53
2	0.53	0.59	0.62	0.62

TECHNICAL INFORMATION

DESIGN OF THE DISC

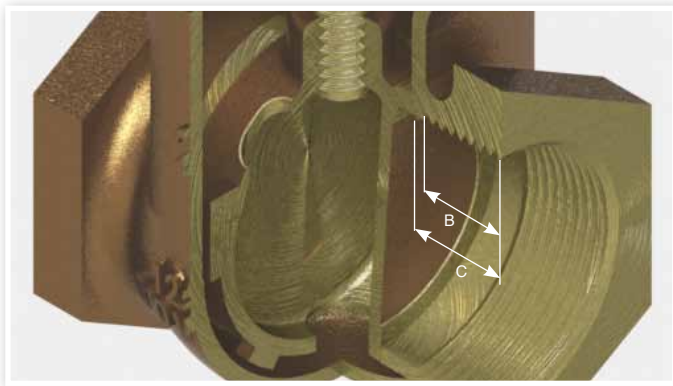


Solid Wedge Bronze as per ASTM B62 C83600
for non-rising stem (only for W4 and W14)



Solid Wedge Bronze as per ASTM B62 C83600
for rising stem

MINIMUM LENGTH AND DEPTH OF THREAD.



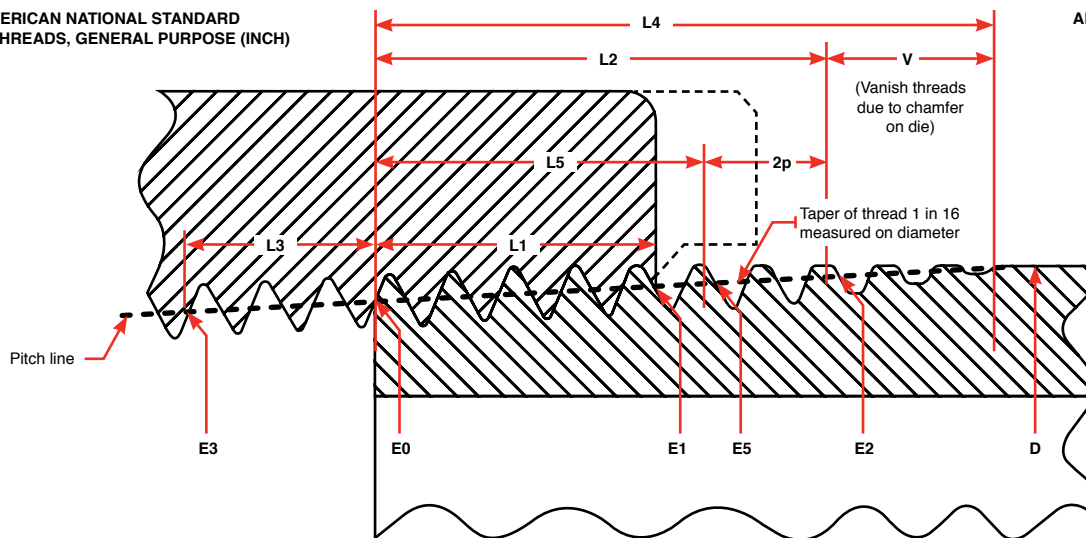
NOMINAL PIPE SIZE	B Length of the thread (minimum)	C Deep of thread chamber (minimum)
	inches	inches
1/2	0.37	0.54
3/4	0.44	0.57
1	0.51	0.70
1-1/4	0.60	0.71
1-1/2	0.62	0.75
2	0.67	0.79

TECHNICAL INFORMATION

BASIC DIMENSIONS OF AMERICAN NATIONAL STANDARD TAPER PIPE THREAD, NPT

AN AMERICAN NATIONAL STANDARD
PIPE THREADS, GENERAL PURPOSE (INCH)

ANSI/ASME B1.20.1-1983



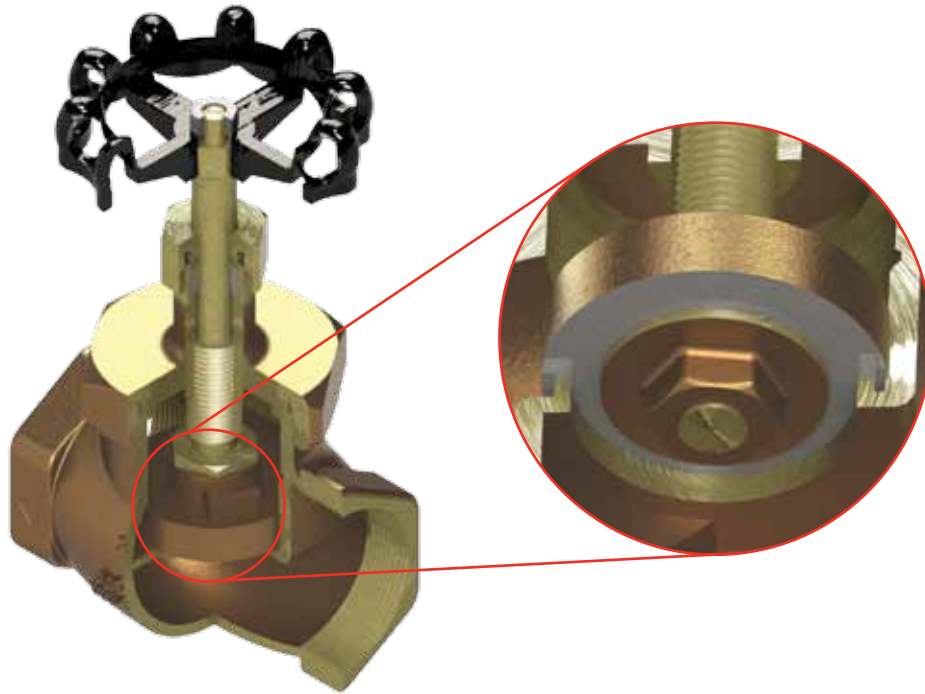
NOMINAL PIPE SIZE	O.D. OF PIPE (D)	THREADS/IN. (N)	PITCH OF THREAD (P)	PITCH DIAMETER AT BEGINNING OF EXTERNAL THREAD (E0)	HANDTIGHT ENGAGEMENT			EFFECTIVE THREAD, EXTERNAL		
					LENGTH2 (L1)		DIAM.3 (E1)	LENGTH4 (L2)		DIAM. (E2)
					INCH	THREADS		INCH	THREADS	
1/2	0.840	14	0.07143	0.75843	0.320	4.48	0.77843	0.5337	7.47	0.79179
3/4	1.050	14	0.07143	0.96768	0.339	4.75	0.98887	0.5457	7.64	1.00179
1	1.315	11.5	0.08696	1.21363	0.4000	4.60	1.23863	0.6828	7.85	1.25630
1-1/4	1.660	11.5	0.08686	1.55713	0.420	4.83	1.58338	0.7068	8.13	1.60130
1-1/2	1.900	11.5	0.08696	1.79609	0.420	4.83	1.82234	0.7235	8.32	1.84130
2	2.375	11.5	0.08696	2.26902	0.436	5.01	2.29627	0.7565	8.70	2.31630

TECHNICAL INFORMATION

SEATS ARRANGEMENT

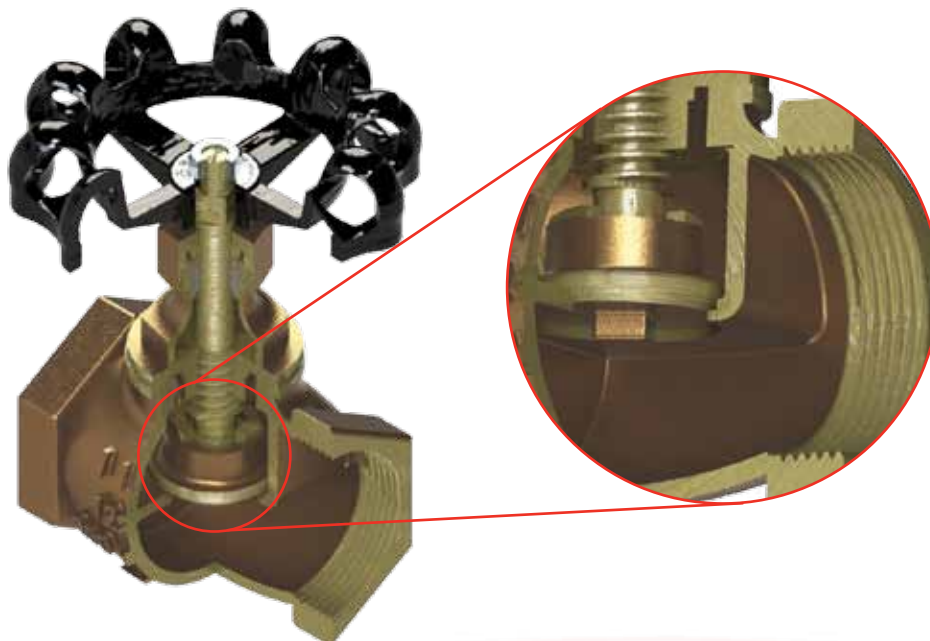
SOFT SEAT

Soft seats provide less wear during the operation of the valve. Only for Bronze Globe valves W95 and W160.



METAL-METAL SEAT

Metal-Metal seat provides high wear during the operation. Only for Bronze Globe valve W58.

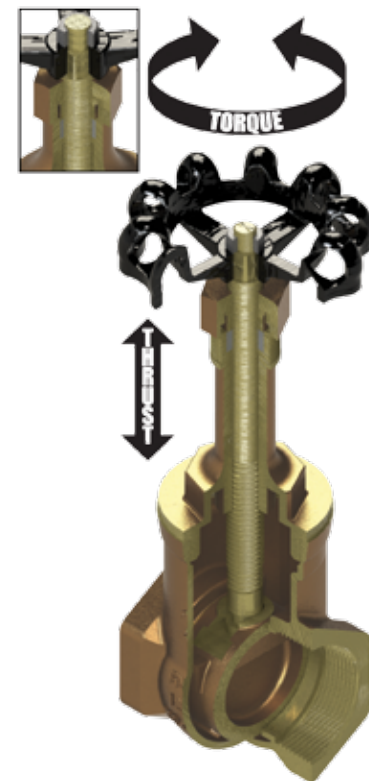
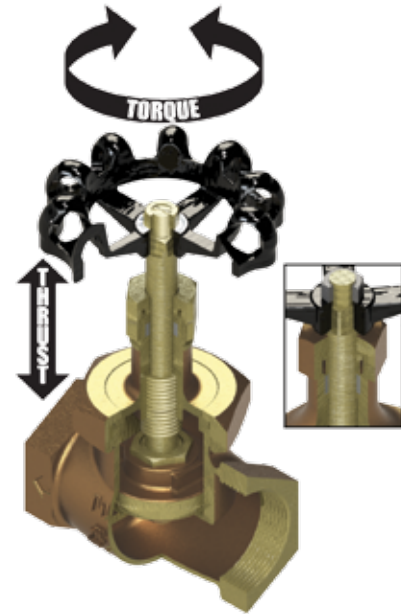


TECHNICAL INFORMATION

TORQUE FOR GATE & GLOBE BRONZE VALVES

The torques mentioned in the table below are for reference. The torque data already includes a safety factor of 30%.

TYPE	Ø NOMINAL (in)	CLASS	TORQUE T (lbf-ft)	FIGURE
GLOBE	2	125	5.46	W58
GLOBE	1 1/2	125	3.33	
GLOBE	1 1/4	125	2.05	
GLOBE	1	125	1.44	
GLOBE	0.75	125	0.76	
GLOBE	0.5	125	0.43	
GATE	2	125	1.80	W55 & W4
GATE	1 1/2	125	1.13	
GATE	1 1/4	125	0.71	
GATE	1	125	0.51	
GATE	0.75	125	0.28	
GATE	0.5	125	0.17	
GLOBE	2	150	8.15	W95
GLOBE	1 1/2	150	4.96	
GLOBE	1 1/4	150	3.05	
GLOBE	1	150	2.13	
GLOBE	0.75	150	1.12	
GLOBE	0.5	150	0.63	
GATE	2	150	7.07	W56 & W11 & W14
GATE	1 1/2	150	4.14	
GATE	1 1/4	150	2.48	
GATE	1	150	1.66	
GATE	0.75	150	0.83	
GATE	0.5	150	0.43	
GLOBE	2	200	10.85	W160
GLOBE	1 1/2	200	6.60	
GLOBE	1 1/4	200	4.05	
GLOBE	1	200	2.82	
GLOBE	0.75	200	1.48	
GLOBE	0.5	200	0.82	
GATE	2	200	9.41	W36
GATE	1 1/2	200	5.51	
GATE	1 1/4	200	3.29	
GATE	1	200	2.21	
GATE	0.75	200	1.09	
GATE	0.5	200	0.56	



DESIGN BASIS

All of WALWORTH's Valve Designs, when applicable, follow one or more of the following standards.

ASME Standards ASME International (American Society of Mechanical Engineers)

B1.20.1	Threaded Ends.
B16.10	End to End Distance

MSS Standards Manufactures Standardization Society of the Valve and Fittings

SP-6	Finishes of facing.
SP-25	Valves marks.
SP-80	Acquirements for bronze, gate, globe, angle and check valves in Classes 125, 150, 200, 300 and 350.



HOW TO ORDER

WALWORTH valves are designed by a catalog figure number which describe their main characteristics. The valve identification system shown herein is intended to assist our customers in specifying the required valve(s) so that mistakes are avoided during manufacturing.

2"-W4-S-Bronze B62



SIZE	WALWORTH FIGURE	TYPE	CLASS	ENDS	TRIM	BASE MATERIAL ASTM		
1/2"	W4	GATE	125 #	S	BRONZE TRIM IN ACCORDANCE WITH STANDARD ARRANGEMENT SHOWN ON EACH PAGE	BASE MATERIAL TO BE BRONZE AS SHOWN ON EACH PAGE		
3/4"	W14	GATE	150 #	S				
1"	W55	GATE	125 #	S				
1 1/4"	W56	GLOBE	150 #	S				
1 1/2"	W11	GLOBE	150 #	S				
2"	W36	GLOBE	200 #	S				
	W58	GLOBE	125 #	S				
	W95	GLOBE	150 #	S				
	W160	GLOBE	200 #	S				
	W420	"Y" SWING CHECK	150 #	S				
	W506	SWING CHECK	125 #	S				
	W512	SWING CHECK	150 #	S				
	W600	"Y" STAINER	300 #	S				

THE WALWORTH COMPANY GENERAL TERMS AND CONDITIONS

ACCEPTANCE: All quotations are for acceptance within 30 days from date of quotation unless extended in writing. In the event a purchase order is placed after this period of time. WALWORTH reserves the right to requote base prices of all valves offered. All orders and contracts are subject to credit approval and acceptance by WALWORTH.

FREIGHT: When prices are f.o.b. point of shipment no freight allowance, we will attempt to route shipments in the method which will result in the lowest cost unless otherwise instructed. All shipments will be freight charges collect except when stipulated on the purchase order, in which case the customer will be invoiced for all transportation charges. Delivery of material to a common carrier shall be considered to be delivery to Buyer and shall be at Buyer's risk thereafter. Claims of loss of or damage to material in transit shall be filed by the Buyer directly with the carrier.

PRICES: There will be added to all prices quoted sales, use, occupation or any other excise or similar tax which Seller may be required to pay or collect on in connection with the sale. Seller shall be established by Federal, State or other government regulation(s) with respect to the product(s) Topped by the order which shall be lower than the price(s) specified in the order.

ESCALATION TERMS: Prices shown in this price schedule reflect the costs in effect at the time of publication. These prices will remain firm on all products with a quoted delivery of twenty-six (26) weeks or less. On products which have a scheduled delivery of more than twenty-six (26) weeks, the goods will be invoiced based on the applicable price sheet in effect at the time of shipment. In no event will the invoiced price be less than the price originally quoted.

PURCHASED (motors, gearing, etc.) Prices are quoted on supplier price in effect at time of quotation. Actual invoice Price will be adjusted in accordance with the supplier's escalation policy.

SHIPMENTS: If for any reason the customer desires to delay shipments more than 30 days after manufacturing is complete or to place a hold or stop to the order during the manufacturing cycle, WALWORTH reserves the right to consider the order canceled and to invoke cancellation charges per the schedule below.

CANCELLATION: After order acceptance by WALWORTH, items or completed orders may be cancelled and buyer will be charged for work performed, based on the following schedule:

- Five (5%) percent of prices of stock items.
- Ten (10%) percent of price of stock items ordered in quantities which exceed normal inventory levels.
- Five (5%) percent of prices prior to drawing submittal on made-to-order items.
- 15% after drawing approval, but prior to the start of castings.
- 30% to 50% during casting cycle, depending on the state of completion.
- 55% to 75% during machining and assembly operations, depending on the state of completion.
- 100% after final assembly and test.

REMITTANCES: Remittances must be made to the address indicated on the invoice.

CREDIT TERMS: As quoted. Invoices on balances overdue will be subject to a service charge of one-and-one-half percent per month on such indebtedness.

DELIVERIES: Shipments and deliveries shall at all times be subject to the approval of Seller's Credit Department. If the Buyer shall fail to make any payments according to the terms of the contract, Seller may, in addition to and not in limitation of its other rights and remedies, at its option, cancel all or any part of Buyer's incomplete contracts with Seller or may defer shipments of deliveries under Buyer's contracts with Seller except upon receipt of satisfactory security or for cash shipment.

All schedules of shipments are estimated as closely as possible and Seller will use its best efforts to ship within the time scheduled but does not guarantee to do so. Schedules commence with the date Seller receives authorization to proceed with order, subject to the provisions of the next sentence. The order will not be released for manufacture until complete specifications and approved drawings (if drawing approval is required) are received at the plant of manufacture and the estimated schedule of shipment will commence with the date of such receipt.

Seller shall not be liable for any direct, indirect or consequential damage or loss caused by any delay in delivery, regardless of the cause of delay.

Without limiting the generality of the foregoing, Seller assumes no responsibility for delays in delivery resulting from fire, flood, accidents, riots, strikes, transportation delays, labor or material shortages, existing or future laws, acts of any governmental authority, or any other cause beyond Seller's control. Items offered from stock are subject to prior sale.

INSPECTION: Final inspection and acceptance of products must be made at the plant of manufacture, unless otherwise provided in the order and/or in agreed upon specifications. Prices do not include charges for special tests or inspections performed at the request of the Buyer unless called for in the order and/or in agreed upon specifications.

RETURNS: Permission in writing and return tagging instructions must be obtained from Seller before any goods returned for credit or adjustment will be acceptance. Where returned goods are accepted, a minimum charge of 25% of the invoice price will be made, plus freight from both directions and costs of reconditioning the material for resale as new.

WARRANTY: Seller will replace without charge or refund the purchase price of products manufactured by Seller which prove to be defective in the material or workmanship, provided in each case that the product is properly installed and used in the service for which Seller recommends it and a written claim specifying the alleged defect is presented to Seller shall in no event be responsible for (a) claims for labor, expenses or other damages occasioned by defective products or (b) for consequences or secondary damages. **WARRANTY STATED IN THIS PARAGRAPH IS IN LIEU OF ALL OTHER WARRANTIES, EITHER EXPRESSED OR IMPLIED. WITH RESPECT TO WARRANTIES THIS PARAGRAPH STATES BUYER'S EXCLUSIVE REMEDY AND SELLER'S EXCLUSIVE LIABILITY.**

DESIGN: Seller reserves the right to change design, materials or specifications without notice. There will be a charge for modifying an order after it has been entered when such change or modification results in additional engineering or clerical work for either WALWORTH or our suppliers.

MINIMUM CHARGE: Orders totaling less than \$100.00 net will be billed at a minimum charge of \$100.00. Repair parts will be billed at a minimum charge of \$50.00.

NOTE: We reserve the right to correct obvious clerical errors in quotes, invoices, and other contracts.



WALWORTH®

Since 1842



www.walworthvalves.com

MÉXICO

Industrial de Válvulas, S.A. de C.V.

Av. de la Industria Lote 16 Fracc. Industrial El Trébol, C.P. 54600 Tepetzotlán, Estado de México
Phone: (52 55) 5899 1700 Fax: (52 55) 5876 0156 | e-mail: info@WALWORTH.com.mx

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TWC The Valve Company

13641 Dublin Court, Stafford, Texas 77477 | Phone: (281) 566 1200 Fax: (281) 566 1299 |
www.twcvalves.com | e-mail: info@twcousa.com



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