

PRATT®

a **MUELLER** brand

OPERATION AND MAINTENANCE MANUAL

Metal Seated Solid Wedge Gate Valve

TABLE OF CONTENTS	PAGE
Installation	3
Operation	5
Maintenance	6
Product Drawings	8



WARNING:

1. Read and follow instructions carefully. Proper training and periodic review regarding the use of this equipment is essential to prevent possible serious injury and/or property damage. The instructions contained herein were developed for using this equipment on fittings of Mueller manufacturer only, and may not be applicable for any other use.
2. Do not exceed the pressure ratings of any components or equipment. Exceeding the rated pressure may result in serious injury and/or property damage.
3. Safety goggles and other appropriate protective gear should be used. Failure to do so could result in serious injury.

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Safety Messages

All safety messages in the instructions are flagged with an exclamation symbol and the word "Warning". These messages indicate procedures that must be followed exactly to avoid equipment damage, physical injury, or death. Safety labels on the product indicate hazards that can cause equipment damage, physical injury, or death.

⚠ WARNING: Personnel involved in the installation or maintenance of valves should be constantly alert to potential emission of pipeline material and take appropriate safety precautions. Always wear suitable protection when dealing with hazardous pipeline materials.

Parts

Order parts from your local Pratt sales representative or directly from us.

When ordering parts, please include the serial number located on the valve tag.

Warranty Issue

Seller warrants that, at its option, it will repair, replace, or refund the unit purchase price of any products which are non-conforming due to Seller's material or workmanship during the warranty period. The warranty period shall be twelve (12) months for parts and eighteen (18) months for all other goods after date of shipment. This shall be Buyer's sole remedy. In order to maintain this product warranty, Buyer must give written notice to Seller's Field Service Supervisor prior to any work being performed.

In consideration of the foregoing, seller excludes all other express or implied warranties, including but not limited to merchantability and fitness for a particular purpose.

Seller does not warrant water operated metallic cylinders against damage caused by corrosion, electrolysis or mineral deposits. In no event shall warranty include valve removal or reinstallation.

⚠ WARNING: Read all applicable directions and instructions prior to any maintenance, troubleshooting or installation.

METAL SEATED SOLID WEDGE GATE VALVE

General

Valves are a significant component of any piping system. Failure due to faulty installation, improper operation or maintenance in such systems could result in damage, down time and costly repairs. In buried underground installations, problems or malfunctions can result in extensive, costly unearthing operations to correct the problem. Many problems with valves

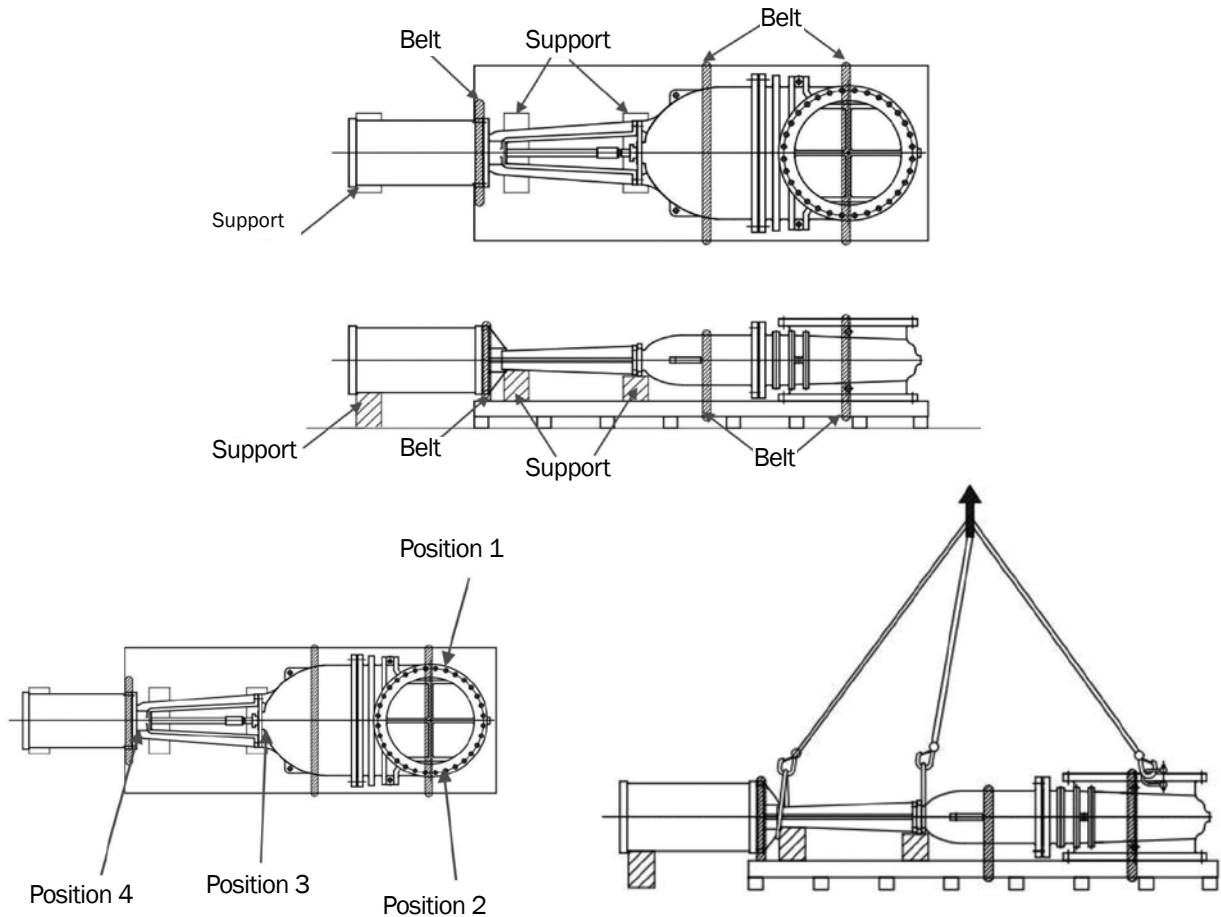
can be traced to improper installation, operation, or maintenance procedures.

Unloading

Inspect valves on receipt for damage in shipment and conformance with quantity and description in the shipping notice and order. Carefully unload all valves to the ground without dropping using fork trucks or slings under skids. Do not lift valves

with slings or chain around operating shaft, actuator, or through waterway.

1. Put the supports under valve (3 positions), fasten valve with pallet by belt (3 belts)
2. Use sling + crane at specified points, then lift



Storage

Whenever practical, store valves indoors. If not, protect valves and actuators from weather and accumulation of water, dirt, rocks and debris. When valves fitted with power actuators and controls are stored, energize electric actuator or otherwise protect electrical control equipment to prevent corrosion of electrical contacts due to condensation resulting from temperature variation. Valves should be stored with the valve disc or closure member slightly open.

Inspection Prior to Installation

Make sure flange faces and joint sealing surfaces, body seats and disc seats are clean. Check bolting attaching actuator to valve for loosening in transit and handling. If loose, tighten firmly. Open and close valve to make sure it operates properly and that stops or limit switches are correctly set so that the valve seats fully.

Installation

The following items must be performed during installation to ensure proper function.

- Carefully place valves into position avoiding contact or impact with other equipment, vault walls or trench walls.
- Valves are to be installed in accordance with the General Arrangement Drawings furnished for the order.
- Foreign material in a valve can damage the seat when valves

are operated. Flush with water to be sure valve interiors and adjacent piping are clear of foreign material prior to mating valve to pipe joint.

- Support and prepare pipe ends and install valves in accordance with the pipe manufacturer's instructions for the joint used. Do not deflect pipe / valve joint. Do not use valve and jack to pull pipe into alignment.
- In plant piping, install so as to minimize bending of valve connection with pipe.
- In buried applications make sure valve box does not transmit traffic loads or stress to valve. Protect exterior epoxy during back fill.

▲ WARNING: It is recommended that valves be installed into piping system in accordance with AWWA M-11 in order to prevent any undue piping stress, deflection or bending that may affect the performance of the valve.

▲ WARNING: Valve disc without actuator may open or close at any time and cause injury to persons or damage to valve and other property. The shaft / disc clamping device when furnished is intended for temporary use during shipping, handling and valve installation only. Do not subject valve to flow conditions before actuator is mounted and tested for performance and clamping device is removed.

Testing

1. Do not backfill valves before hydrostatic system test. Leave the valves exposed while the pipeline is being pressurized. Check to see that all valve joints and pressure containing bolting, including bonnet bolts, are tight.
2. Valves can be tested (but not operated) at two times the rated pressure of the valve.
3. After testing, steps should be taken to relieve any trapped pressure in the body of the valves.
4. Seat leakage can occur due to foreign material in the line. If this occurs, open valve 5-10 degrees to get high velocity flushing action. Close and repeat several times to clear seats for tight shutoff.

Records

Upon completion of installation, valve location, size, make, type, date of installation, number of turns to open, direction of opening and any other information deemed pertinent should be entered on the owner's permanent records.

Do not permit use and operation of any valve at pressure above the rated pressure of the valve.

Do not exceed 300 ft-lb input torque on actuators with wrench nuts, 200 lb. rim pull input torque for handwheels or chainwheels. If portable auxiliary actuators are used, size the actuator or use a torque limiting device to prevent application of torque exceeding 300 ft-lbs. If an oversize actuator with no means of limiting torque is used, stop the actuator before valve is fully opened or closed against stops and complete the operation manually. Be sure to check actuator directional switch against direction indicated on wrench nut, handwheel or records before applying opening and closing torque.

If a valve is stuck in some intermediate position between open and closed, check first for jamming in the actuator. If nothing is found, the interference is inside the valve. In this case, do not attempt to force the disc open or closed since excessive torque in this position can severely damage internal parts. Contact the Pratt Service Department.

Manual Actuator Function and Use

The manually operated metal seated solid wedge gate valves are operated by rotating the handwheel or nut. The actuator is equipped with gearing to convert the many turns into full travel. Inside actuator stops that limit the travel of the valve are pre-set at the factory. Forcing the handwheel, chainwheel, or nut will not cause the

valve to shut off any tighter and may cause damage to the gearing.

Cylinder Actuator Function and Use

The cylinder operated butterfly valves are operated automatically by directing hydraulic pressure to either side of the power cylinder. Solenoid valves by others are used to direct the fluid to the cylinder ports based on electrical power signals. In cylinder actuators, the travel stops are in the cylinder so that full hydraulic pressure can be held on the cylinder at either end of travel.

Motor Actuator Function and Use

The motor actuator, if provided, is designed to open and close the valve through its full travel of gate. It contains gearing so that hundreds of turns of the motor or handwheel will slowly move the valve from open to close position or vice versa. Electrical controls are included in the motor actuator for local electrical control.

Output motion of the actuator is factory set and should not need adjustment. The actual positioning of the valve wedge gate will be done by limit switches in the motor actuator. The switches are also set at the factory but adjustment is sometimes required if the motor unit is installed on a separate mounting base or floorstand. Detailed procedures are given in the motor manual if adjustment is needed for the mechanical stops or the limit switches. The wiring and power requirements are given on wiring diagrams included in this instruction manual.

⚠ WARNING: Fluids exposed to freezing temperatures may cause valve to fail resulting in injury to persons or damage to valves and other property. Do not use in applications that are exposed to freezing temperatures unless sufficient flow is maintained through the valve to prevent freezing, or other protection is provided.

⚠ WARNING: All persons who will install, operate or adjust this equipment must read the instructions and drawings carefully. Injury and property damage may occur from improper use. It is understood that this equipment will be installed by individuals with knowledge and skills in electrical equipment. The manufacturer cannot be responsible for the misuse of this information or equipment, nor can it assume any resultant liability.

Maintenance of valves by owner is generally limited to actuators and shaft seals. In some instances, valve design permits field adjustment seats when leakage occurs. Unless the owner has skilled personnel and proper equipment, any major rework will require removal of the valve from the line. Depending on condition, valve may require return to the manufacturer.

Annual Maintenance

1. Cycle valve to verify operation and no interference in line.
2. Close valve and check for leakage. If leakage is detected, check actuator stops to verify that disc is fully closed. If leakage persists, remove valve to inspect seat. Contact the Pratt Field Service Department for information regarding adjustment or replacement of seat.

3. Check flange connections for leakage. Tighten bolts accordingly.
4. Check top trunnion area for shaft leakage. If leakage is detected, replace valve packing.
5. If Access to the line is possible, then removal of scale that may interfere with disc travel is suggested. The seat should be inspected for wear and the taper pin nuts should be tight.

NOTE: Lubrication is not required.

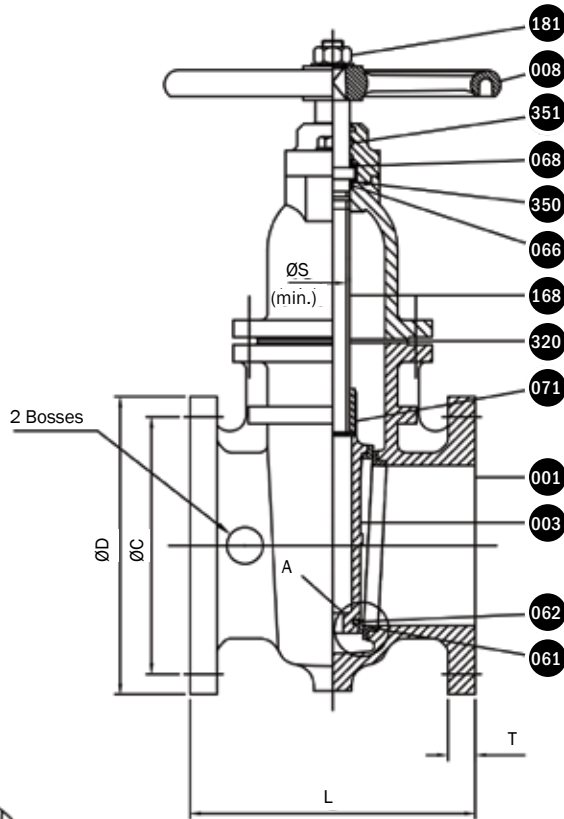
Typical maintenance would be stem packing replacement and actuator adjustment. Seal leakage, broken parts and difficult operation should be discussed with the Pratt Service Department before valve repairs are attempted. Pratt Service Engineers are available to perform or supervise valve repairs in the field.

Stop line flow and isolate from line pressure prior to performing any corrective maintenance.

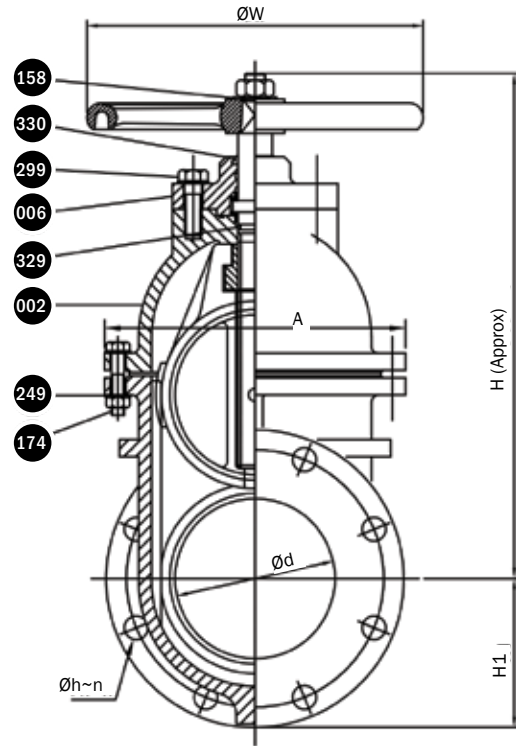
After completing repair, cycle valve through one complete operating cycle and after line pressure has been restored, inspect for leakage.

METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Direct Mount Hand-wheel, 125# Flanges (Size 2" - 12")



Detail A
Body Seat Screwed in



Available options:

- 2" Operating NUT
- Mechanical Joint Ends
- ANSI Class 250 Flanges
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
330	Wiper Ring	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	2
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
158	Hand Wheel Washer	Stainless Steel	A 276 Type 316	1

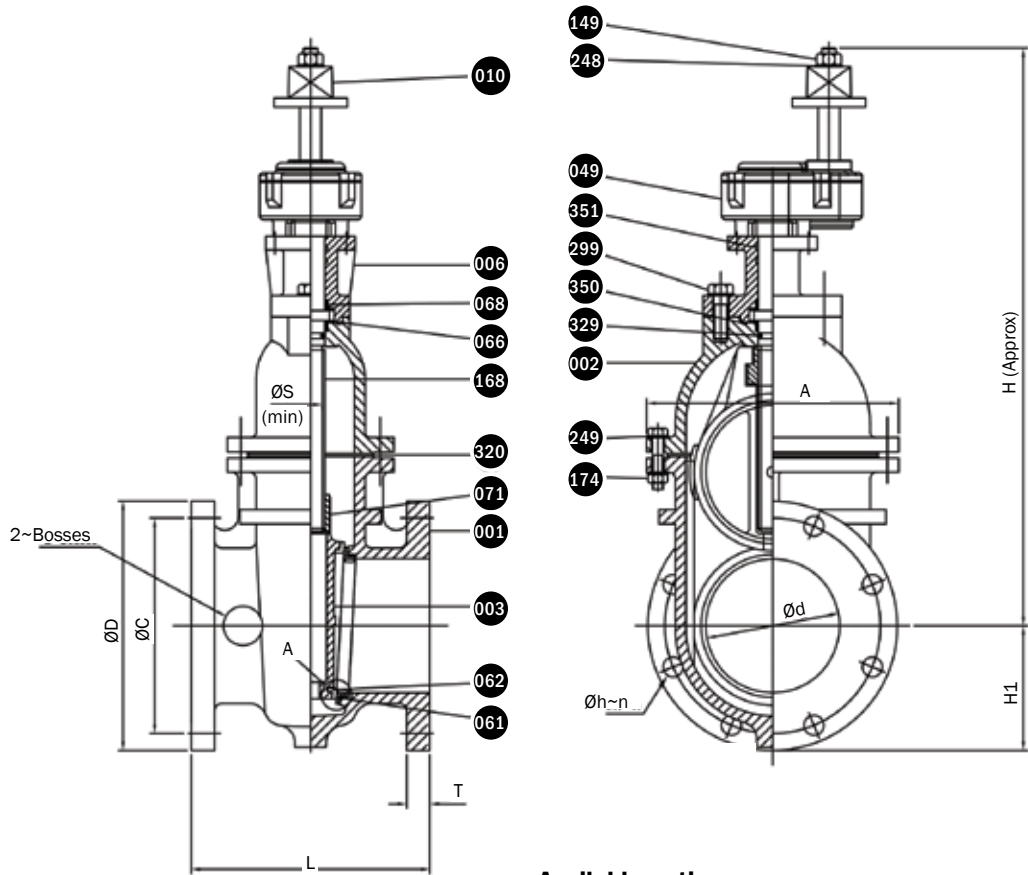
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
008	Hand Wheel	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125						ØS AT BASE OF THREAD				
IN.	MM.	L	ØD	ØC	ØH	N	T	A	H	H1	ØW	
2	50	7 ± 1/16	6	4 3/4	3/4	4	5/8	5.71	0.86	11.02	3	7.09
2½	65	7 ½ ± 1/16	7	5 ½	3/4	4	11/16	6.34	0.86	12.48	3 ½	7.09
3	80	8 ± 1/16	7 ½	6	3/4	4	3/4	7.72	0.86	13.51	3 ¾	7.09
4	100	9 ± 1/16	9	7 ½	3/4	8	15/16	8.78	0.86	14.77	4 ½	9.84
6	150	10 ½ ± 1/16	11	9 ½	7/8	8	1	11.11	1.00	18.58	5 ½	12.40
8	200	11 ½ ± 1/16	13 ½	11 ¾	7/8	8	1 1/8	14.02	1.00	21.69	6 ¾	13.98
10	250	13 ± 1/16	16	14 ¼	1	12	1 3/16	16.46	1.12	25.35	8	15.75
12	300	14 ± 1/8	19	17	1	12	1 ¼	18.82	1.19	28.94	9 ½	15.75

- Dimensions in Inches

METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Spur Gear with 2" NUT, 125# Flanges (Size 2" - 12")



Detail A
Body Seat Screwed In

Available options:

- Handwheel
- Mechanical Joint Ends
- ANSI Class 250 Flanges
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	2
249	Washer	Stainless Steel	A 276 Type 316	1 set
248	Top Washer	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
149	Top Nut	Stainless Steel	A 276 Type 316	1
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1

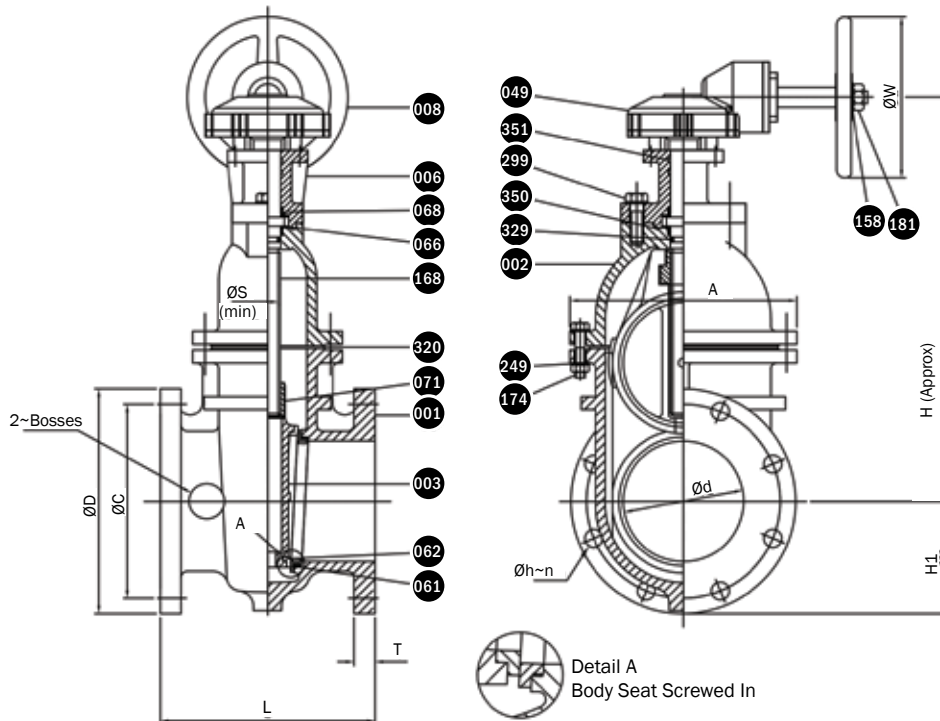
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
010	Operating Nut	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125						ØS AT BASE OF THREAD		H	H1	GEAR OPERATOR
IN.	MM.	L	ØD	ØC	ØH	N	T	A	H	H1	GEAR OPERATOR	
2	50	7 ± 1/16	6	4 3/4	3/4	4	5/8	5.71	0.86	17.76	3	CS2 (2:1)
2 1/2	65	7 1/2 ± 1/16	7	5 1/2	3/4	4	11/16	6.34	0.86	18.58	3 1/2	CS2 (2:1)
3	80	8 ± 1/16	7 1/2	6	3/4	4	3/4	7.72	0.86	20.51	3 3/4	CS2 (2:1)
4	100	9 ± 1/16	9	7 1/2	3/4	8	15/16	8.78	0.86	21.42	4 1/2	CS2 (2:1)
6	150	10 1/2 ± 1/16	11	9 1/2	7/8	8	1	11.11	1.00	25.47	5 1/2	CS2 (2:1)
8	200	11 1/2 ± 1/16	13 1/2	11 3/4	7/8	8	1 1/8	14.02	1.00	28.35	6 3/4	CS2 (2:1)
10	250	13 ± 1/16	16	14 1/4	1	12	1 3/16	16.46	1.12	34.06	8	CPS2.5 (2.5:1)
12	300	14 ± 1/8	19	17	1	12	1 1/4	18.82	1.19	37.68	9 1/2	CPS2.5 (2.5:1)

- Dimensions in Inches

METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Bevel Gear with Hand-wheel, 125# Flanges (Size 2" - 12")



Available options:

- Operating NUT
- Mechanical Joint Ends
- ANSI Class 250 Flanges
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM. DESIGN.	QTY
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	2
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
158	Hand Wheel Washer	Stainless Steel	A 276 Type 316	1
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1

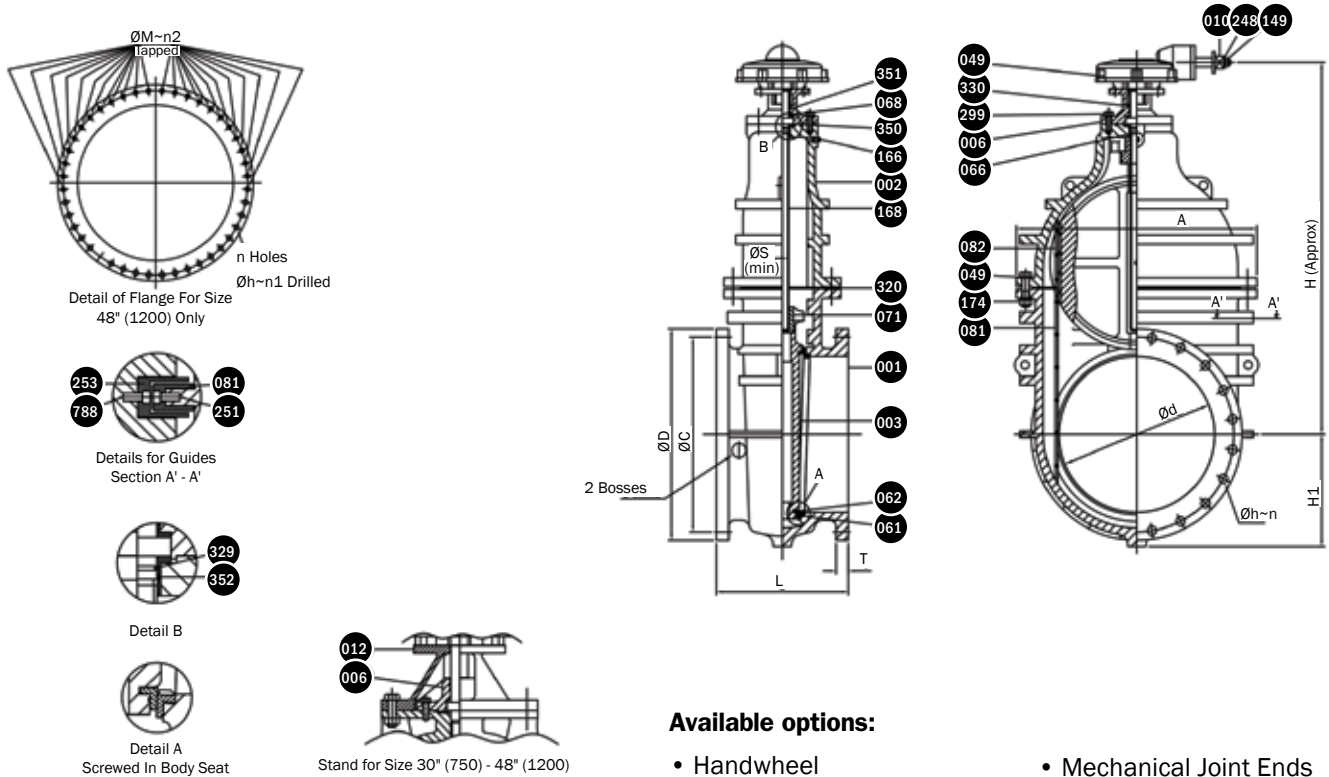
NO.	PARTS	MATERIAL	ASTM. DESIGN.	QTY
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
008	Hand Wheel	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125						ØS AT BASE OF THREAD		H	H1	ØW	GEAR OPERATOR
IN.	MM.	L	ØD	ØC	ØH	N	T	A	H	H1	ØW	GEAR OPERATOR	
2	50	7 ± 1/16	6	4 3/4	3/4	4	5/8	5.71	0.86	12.05	3	CB2 (2:1)	
2 1/2	65	7 1/2 ± 1/16	7	5 1/2	3/4	4	11/16	6.34	0.86	12.87	3 1/2	CB2 (2:1)	
3	80	8 ± 1/16	7 1/2	6	3/4	4	3/4	7.72	0.86	14.80	3 3/4	CB2 (2:1)	
4	100	9 ± 1/16	9	7 1/2	3/4	8	15/16	8.78	0.86	15.71	4 1/2	CB2 (2:1)	
6	150	10 1/2 ± 1/16	11	9 1/2	7/8	8	1	11.11	1.00	19.76	5 1/2	CB2 (2:1)	
8	200	11 1/2 ± 1/16	13 1/2	11 3/4	7/8	8	1 1/8	14.02	1.00	22.68	6 3/4	CB2 (2:1)	
10	250	13 ± 1/16	16	14 1/4	1	12	1 3/16	16.46	1.12	26.81	8	CB2.5 (2.5:1)	
12	300	14 ± 1/8	19	17	1	12	1 1/4	18.82	1.19	30.43	9 1/2	CB2.5 (2.5:1)	

- Dimensions in Inches

METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Bevel Gear with 2" NUT, 125# Flanges (Size 14" - 48") Vertical Installation



Available options:

- Handwheel
- Mechanical Joint Ends
- ANSI Class 250 Flanges
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	2 set
352	O-Ring C	Rubber (Buna N)	D 2000 BK 707	1
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
330	Wiper Ring	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	1 set
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	2
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
248	Top Washer	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1

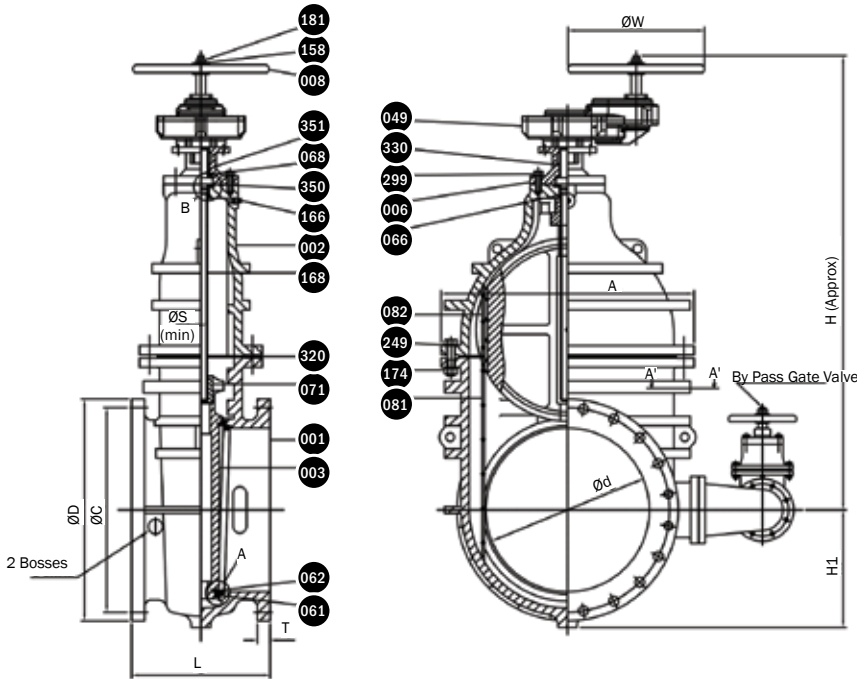
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
149	Top Nut	Stainless Steel	A 276 Type 316	1
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
012	Stand	Ductile Iron	A 536 Gr.65-45-12	1
010	Operating Nut	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125						ØS AT			GEAR OPERATOR		ØM		N1		N2	
IN.	MM.	L	ØD	ØC	ØH	N	T	A	H	H1								
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1.44	35.69	10.55	CB2.5 (2.5:1)	-	-	-	-	-	
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	1.44	40.33	10.81	CB3 (3:1)	-	-	-	-	-	
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	1.75	42.85	13.35	CB3 (3:1)	-	-	-	-	-	
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	1.75	47.93	14.17	CB3 (3:1)	-	-	-	-	-	
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	1.97	56.30	16.54	CB4 (4:1)	-	-	-	-	-	
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2.19	69.88	20.55	CB4 (4:1)	-	-	-	-	-	
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2.50	84.37	23.66	CB6 (6:1)	-	-	-	-	-	
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	2.75	94.69	27.36	CB6 (6:1)	-	-	-	-	-	
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3.43	106.69	31.57	CB8 (8:1)	1 1/2 x 6 TPI (UNC)	20	24	24	24	

- Dimensions in Inches

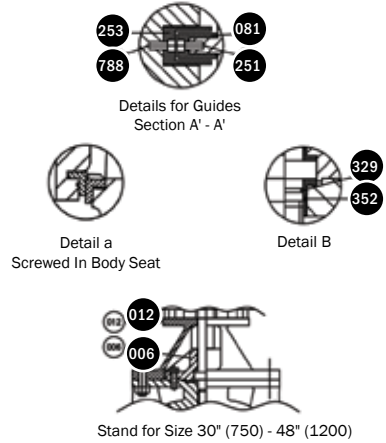
METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Spur Gear with Hand-wheel and BYPASS Valve 125# Flanges (Size 14" - 48") Vertical Installation



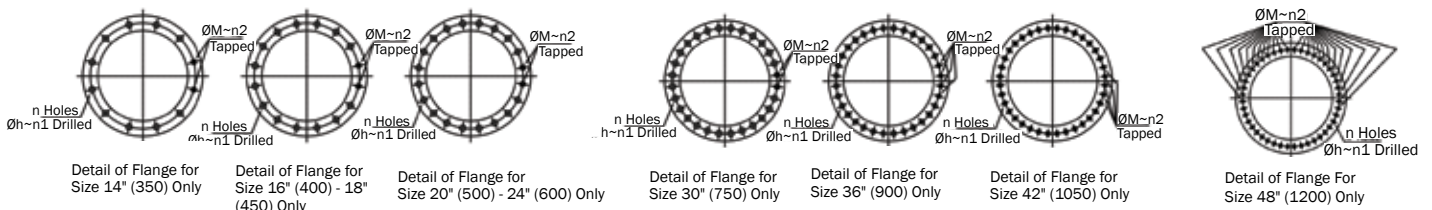
Available options:

- 2" Operating NUT
- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve



NO.	PARTS	MATERIAL	ASTM. DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	2 set
352	O-Ring C	Rubber (Buna N)	D 2000 BK 707	1
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
330	Wiper Ring	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	1 set
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	2
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1

NO.	PARTS	MATERIAL	ASTM. DESIGN.	QTY
158	Hand Wheel Washer	Stainless Steel	A 276 Type 316	1
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
012	Stand	Ductile Iron	A 536 Gr.65-45-12	1
008	Hand Wheel	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

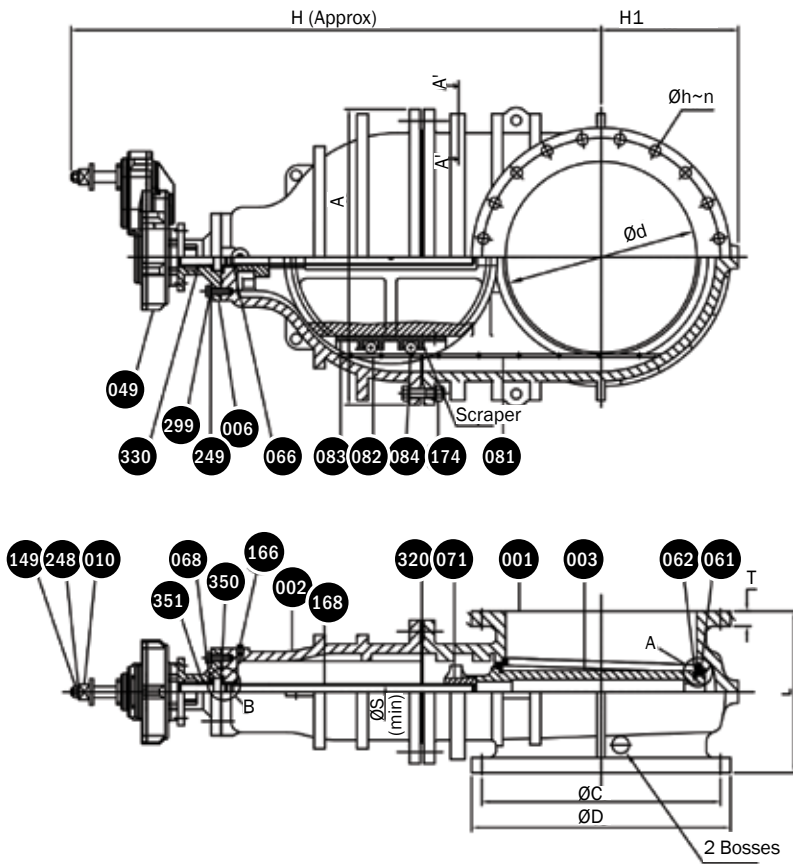


SIZE ØD		ANSI B 16.1 CLASS 125								ØS AT BASE OF THREAD		GEAR OPERATOR		BYPASS SIZE		ØM		N1		N2	
IN.	MM.	L	ØD	ØC	ØH	N	T	A	H	H1	ØW	GEAR OPERATOR	BYPASS SIZE	ØM	N1	N2	ØM	N1	N2		
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1.44	42.95	10.55	15.75	CB2.5 (2.5:1)	2	1 x 8 TPI (UNC)	10	2				
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	1.44	49.15	10.81	17.72	CB3 (3:1)	3	1 x 8 TPI (UNC)	14	2				
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	1.75	51.67	13.35	17.72	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	14	2				
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	1.75	56.75	14.17	17.72	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	18	2				
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	1.97	65.51	16.54	19.69	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	18	2				
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2.19	70.09	20.55	19.69	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	26	2				
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2.50	94.53	23.66	24.53	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	28	4				
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	2.75	104.84	27.36	24.53	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	32	4				
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3.43	116.30	31.57	24.53	CB8 (8:1)	8	1 1/2 x 6 TPI (UNC)	19	25				

- Dimensions in Inches

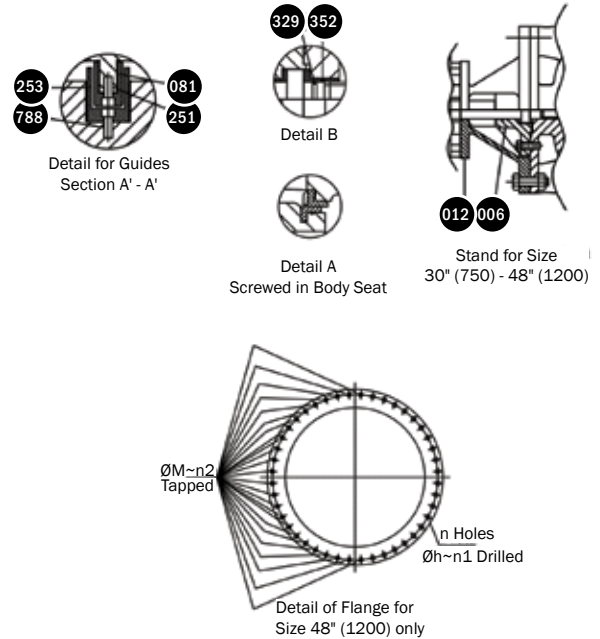
METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Spur Gear with NUT, 125# Flanges (Size 14" - 48") Horizontal Installation



Available options:

- Handwheel
- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve



NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	2 set
352	O-Ring C	Rubber (Buna N)	D 2000 BK 707	1
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
330	Wiper Ring	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	1 set
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	2
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
248	Top Washer	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1
149	Top Nut	Stainless Steel	A 276 Type 316	1

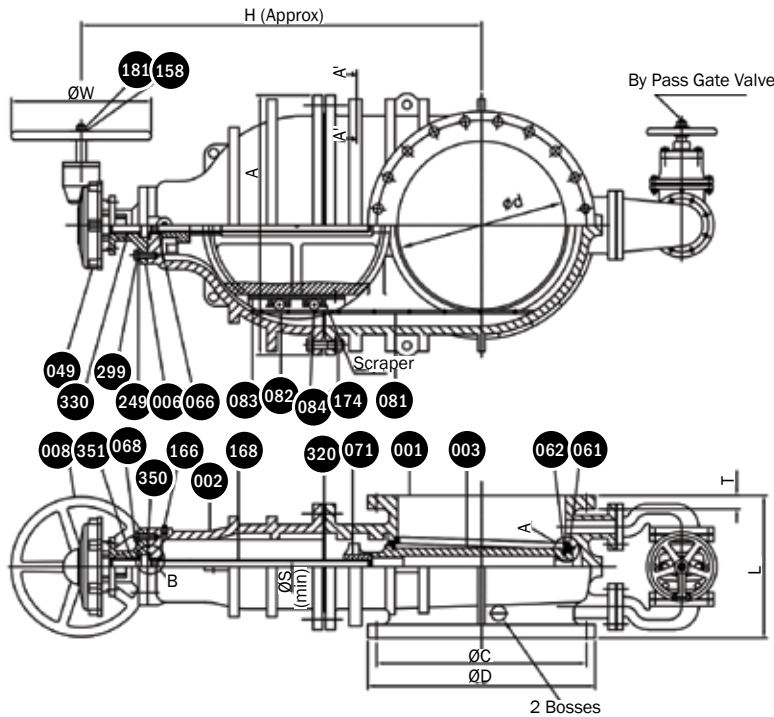
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
084	Roller	Nickel Aluminum Bronze	B 148 C95800	2
083	Roller Box	Nickel Aluminum Bronze	B 148 C95800	1
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
012	Stand	Ductile Iron	A 536 Gr.65-45-12	1
010	Operating Nut	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125							ØS AT BASE OF THREAD			GEAR OPERATOR		ØM		N1		N2	
IN.	MM.	L	ØD	ØC	ØH	N	T	A	H	H1									
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1.44	42.95	10.55	CB2.5 (2.5:1)	-	-	-	-	-	-	
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	1.44	49.15	10.81	CB3 (3:1)	-	-	-	-	-	-	
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	1.75	51.67	13.35	CB3 (3:1)	-	-	-	-	-	-	
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	1.75	56.75	14.17	CB3 (3:1)	-	-	-	-	-	-	
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	1.97	65.51	16.54	CB4 (4:1)	-	-	-	-	-	-	
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2.19	70.09	20.55	CB4 (4:1)	-	-	-	-	-	-	
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2.50	94.53	23.66	CB6 (6:1)	-	-	-	-	-	-	
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	2.75	104.84	27.36	CB6 (6:1)	-	-	-	-	-	-	
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3.43	116.30	31.57	CB8 (8:1)	1 1/2 x 6 TPI (UNC)	20	24	-	-		

- Dimensions in Inches

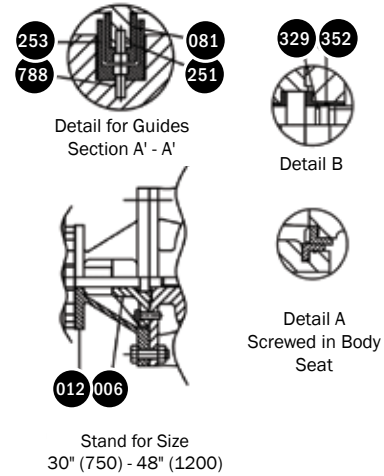
METAL SEATED SOLID WEDGE GATE VALVE

Non-Rising Stem (NRS) Gate Valve 250 psi, Bevel Gear with Hand-wheel and BYPASS Valve 125# Flanges (Size 14" - 48") Horizontal Installation



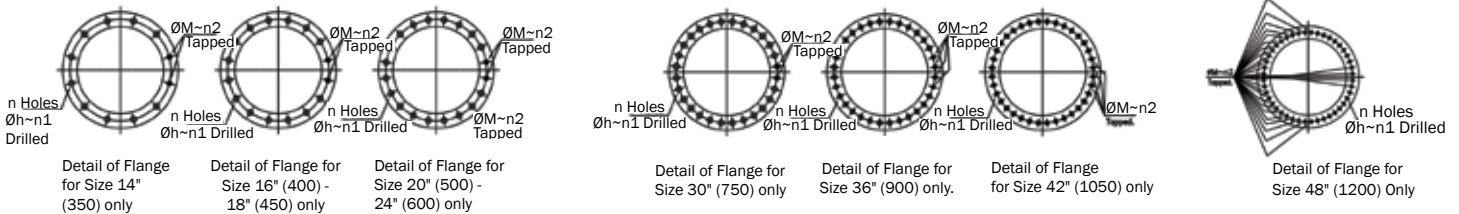
Available options:

- 2" Operating NUT
- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve



NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	1 set
352	O-Ring C	Rubber (Buna N)	D 2000 BK 707	1
351	O-Ring B	Rubber (Buna N)	D 2000 BK 707	2
350	O-Ring A	Rubber (Buna N)	D 2000 BK 707	1
330	Wiper Ring	Rubber (Buna N)	D 2000 BK 707	1
329	O-Ring	Rubber (Buna N)	D 2000 BK 707	1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
299	Stuffing Box Bolt	Stainless Steel	A 276 Type 316	1 set
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	1
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1
158	Hand Wheel Washer	Stainless Steel	A 276 Type 316	1

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
084	Roller	Nickel Aluminum Bronze	B 148 C95800	2
083	Roller Box	Nickel Aluminum Bronze	B 148 C95800	1
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
068	Stuffing Box Bushing	Nickel Aluminum Bronze	B 148 C95800	1
066	Bonnet Bushing	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
012	Stand	Ductile Iron	A 536 Gr.65-45-12	1
008	Hand Wheel	Cast Iron	A 126 Class B	1
006	Stuffing Box	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

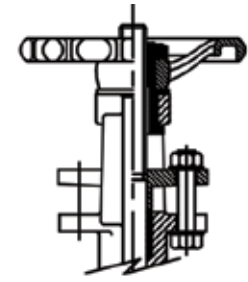
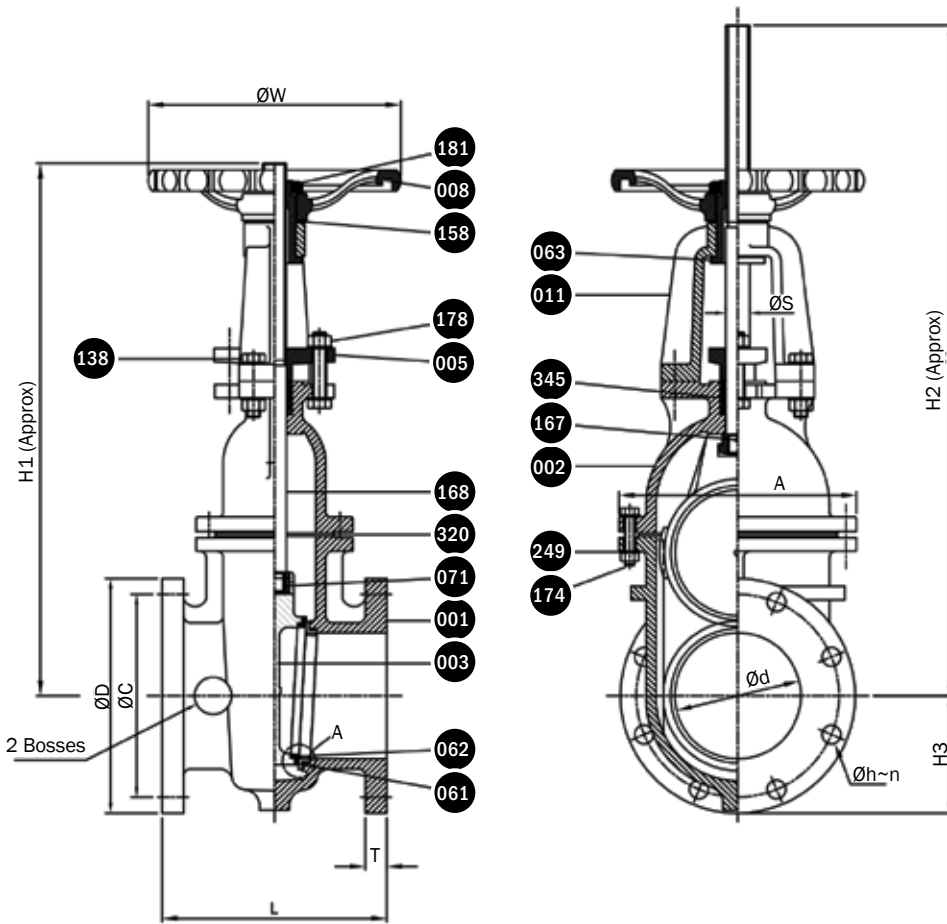


SIZE ØD		ANSI B 16.1 CLASS 125						ØS AT		GEAR		BY-PASS				
IN.	MM.	L	ØD	ØC	ØH	N	T	BASE OF THREAD	H	ØW	OPERATOR	SIZE	ØM	N1	N2	
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1.44	35.69	15.75	CB2.5 (2.5:1)	2	1 x 8 TPI (UNC)	10	2
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	1.44	40.33	17.72	CB3 (3:1)	3	1 x 8 TPI (UNC)	14	2
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	1.75	42.85	17.72	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	14	2
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	1.75	47.93	17.72	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	18	2
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	1.97	56.30	19.69	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	18	2
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2.19	69.88	19.69	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	26	2
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2.50	84.37	24.53	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	28	4
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	2.75	94.69	24.53	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	32	4
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3.43	106.69	24.53	CB8 (8:1)	8	1 1/2 x 6 TPI (UNC)	16	28

- Dimensions in Inches

METAL SEATED SOLID WEDGE GATE VALVE

Rising Stem (OS&Y) Gate Valve 250 psi, Direct Mount Hand-wheel, 125# Flanges (Size 2" - 12")



Yoke Construction for Size 2" (50) - 3" (80)



Detail A
Body Seat Screwed In

Available options:

- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
345	Packing	Braided Packing Synthetic Yarn with PTFE		1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
178	Gland Bolt & Nut	Stainless Steel	A 276 Type 316	2
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
158	Hand Wheel Washer	Brass	B 21	1
138	Yoke Bolt & Nut	Stainless Steel	A 276 Type 316	4
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1

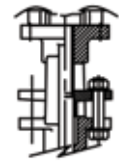
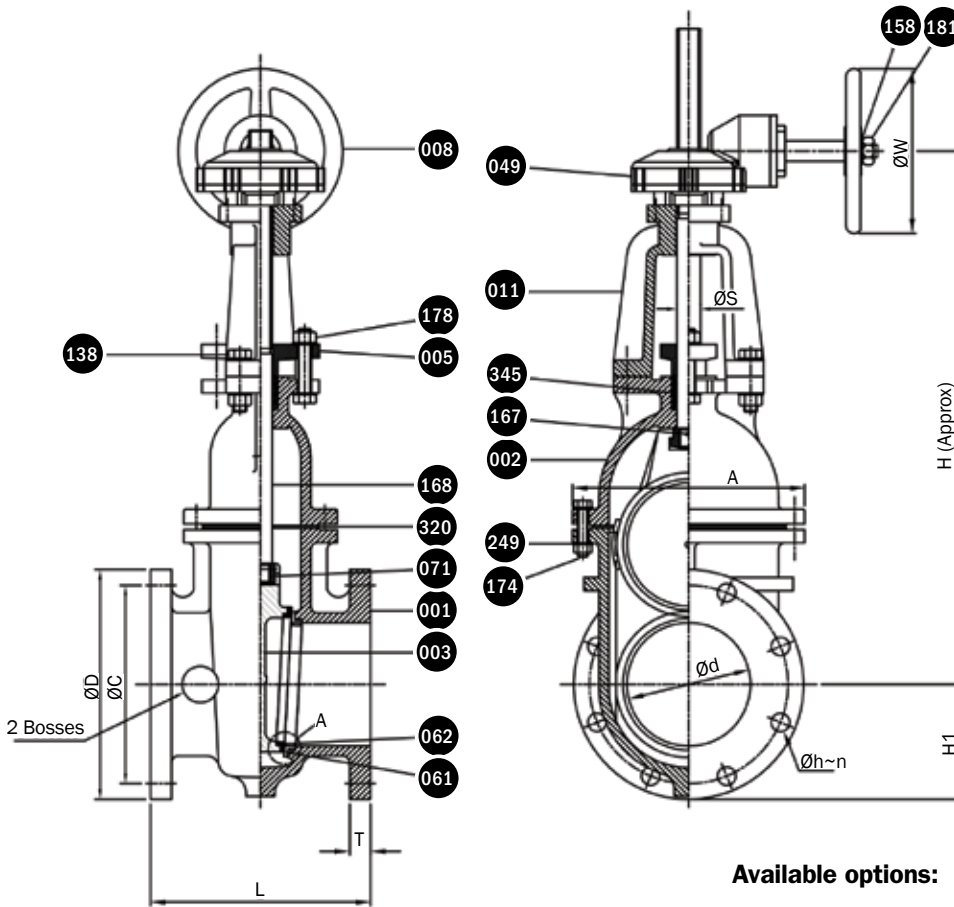
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
063	Yoke Sleeve	Bronze	B 62	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
011	Yoke	Ductile Iron	A 536 Gr.65-45-12	1
008	Hand Wheel	Cast Iron	A 126 Class B	1
005	Gland	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125											
IN.	MM.	L	ØD	ØC	ØH	N	T	A	ØS	H1	H2	H3	ØW
2	50	7 ± 1/16	6	4 3/4	3/4	4	5/8	5.71	0.75	11.65	13.81	3	6.30
2½	65	7 ½ ± 1/16	7	5 ½	3/4	4	11/16	6.34	0.75	12.63	15.39	3 ½	7.08
3	80	8 ± 1/16	7 ½	6	3/4	4	3/4	7.72	0.75	15.19	18.54	3 ¾	7.80
4	100	9 ± 1/16	9	7 ½	3/4	8	15/16	8.78	1.00	18.38	22.55	4 ½	9.85
6	150	10 ½ ± 1/16	11	9 ½	7/8	8	1	11.11	1.12	24.84	31.06	5 ½	11.82
8	200	11 ½ ± 1/16	13 ½	11 ¾	7/8	8	1 1/8	14.02	1.25	30.31	38.54	6 ¾	13.98
10	250	13 ± 1/16	16	14 ¼	1	12	1 3/16	16.46	1.38	37.16	47.40	8	15.56
12	300	14 ± 1/8	19	17	1	12	1 ¼	18.82	1.38	41.92	54.21	9 ½	17.72

- Dimensions in Inches

METAL SEATED SOLID WEDGE GATE VALVE

Rising Stem (OS&Y) Gate Valve 250 psi, Bevel Gear with Hand-wheel, 125# Flanges (Size 2" - 12")



Yoke Construction for Size 2" (50) - 3" (80)



Detail A Body Seat Screwed In

Available options:

- 2" Operating NUT
- Mechanical Joint Ends
- ANSI Class 250 Flanges
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
345	Packing	Braided Packing Synthetic Yarn with PTFE		1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
178	Gland Bolt & Nut	Stainless Steel	A 276 Type 316	2
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
167	Pin	Stainless Steel	A 276 Type 316	1
158	Hand Wheel Washer	Stainless Steel	A 276 Type 316	1
138	Yoke Bolt & Nut	Stainless Steel	A 276 Type 316	4

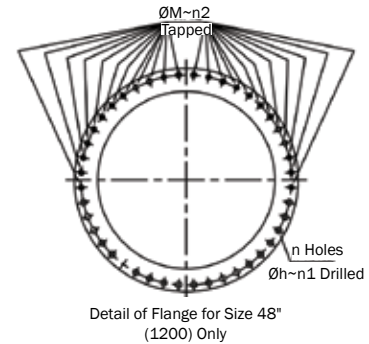
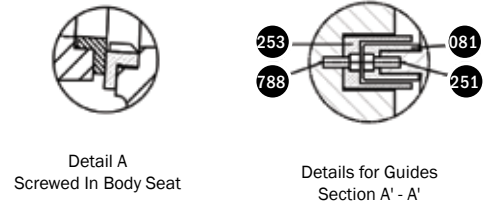
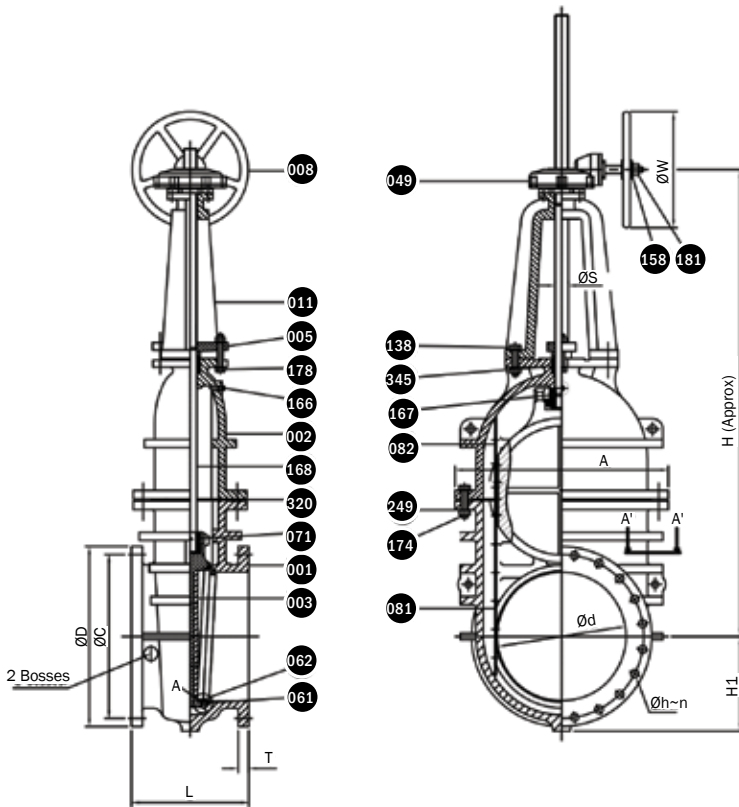
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
011	Yoke	Ductile Iron	A 536 Gr.65-45-12	1
008	Hand Wheel	Cast Iron	A 126 Class B	1
005	Gland	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125											GEAR OPERATOR
IN.	MM.	L	ØD	ØC	ØH	N	T	A	ØS	H	H1	ØW	
2	50	7 ± 1/16	6	4 3/4	3/4	4	5/8	5.71	0.75	13.09	3	7.87	CS2 (2:1)
2 1/2	65	7 1/2 ± 1/16	7	5 1/2	3/4	4	11/16	6.34	0.75	14.07	3 1/2	7.87	CS2 (2:1)
3	80	8 ± 1/16	7 1/2	6	3/4	4	3/4	7.72	0.75	15.90	3 3/4	7.87	CS2 (2:1)
4	100	9 ± 1/16	9	7 1/2	3/4	8	15/16	8.78	1.00	18.74	4 1/2	7.87	CS2 (2:1)
6	150	10 1/2 ± 1/16	11	9 1/2	7/8	8	1	11.11	1.12	24.96	5 1/2	7.87	CS2 (2:1)
8	200	11 1/2 ± 1/16	13 1/2	11 3/4	7/8	8	1 1/8	14.02	1.25	30.59	6 3/4	7.87	CS2 (2:1)
10	250	13 ± 1/16	16	14 1/4	1	12	1 3/16	16.46	1.38	37.97	8	9.84	CPS2.5 (2.5:1)
12	300	14 ± 1/8	19	17	1	12	1 1/4	18.82	1.38	42.03	9 1/2	9.84	CPS2.5 (2.5:1)

- Dimensions in Inches

METAL SEATED SOLID WEDGE GATE VALVE

Rising Stem (OS&Y) Gate Valve 250 psi, Bevel Gear with Hand-wheel 125# Flanges (Size 14" - 48") Vertical Installation



Available options:

- 2" Operating NUT
- Mechanical Joint Ends
- ANSI Class 250 Flanges
- 300 psi rated valve

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	1 set
345	Packing	Braided Packing Synthetic Yarn with PTFE		1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	1
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
181	Hand Wheel Nut	Stainless Steel	A 276 Type 316	1
178	Gland Bolt & Nut	Stainless Steel	A 276 Type 316	2
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
167	Pin	Stainless Steel	276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1
158	Hand Wheel Washer	Stainless Steel	A 276 Type 316	1

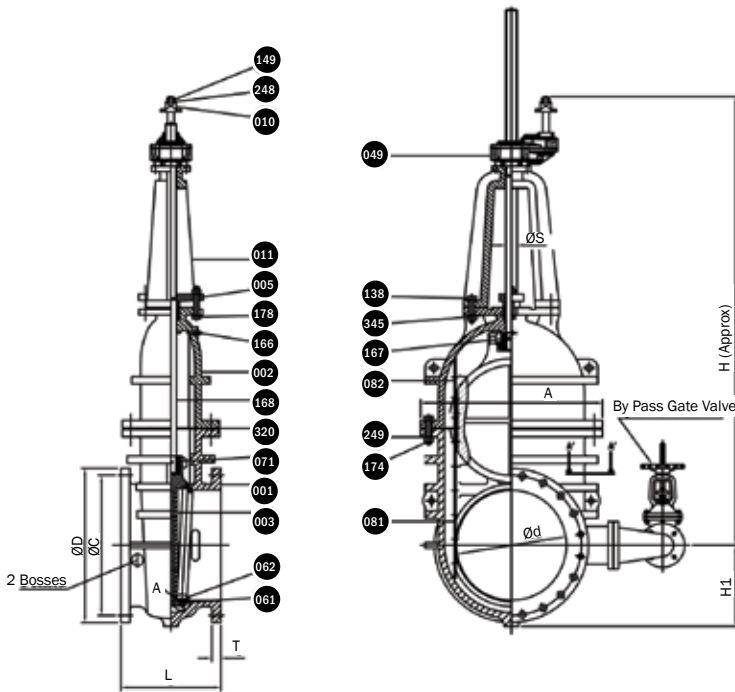
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
138	yoke Bolt & Nut	Stainless Steel	A 276 Type 316	4
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
011	Yoke	Ductile Iron	A 536 Gr.65-45-12	1
008	Hand Wheel	Cast Iron	A 126 Class B	1
005	Gland	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125										GEAR OPERATOR			
IN.	MM.	L	ØD	ØC	ØH	N	T	A	ØS	H	H1	ØW	ØM	N1	N2
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1 1/2	51.24	10.55	15.75	CB2.5 (2.5:1)	-	-
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	2	59.51	10.81	17.72	CB3 (3:1)	-	-
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	2	63.86	13.35	17.72	CB3 (3:1)	-	-
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	2	71.24	14.17	17.72	CB3 (3:1)	-	-
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	2	85.28	16.54	19.69	CB4 (4:1)	-	-
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2 1/4	97.80	20.55	19.69	CB4 (4:1)	-	-
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2 1/2	117.24	23.66	24.53	CB6 (6:1)	-	-
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	3	133.90	27.36	24.53	CB6 (6:1)	-	-
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3 3/4	163.80	31.57	24.53	CB8 (8:1)	1 1/2 x 6 TPI (UNC)	20 24

- Dimensions in Inches

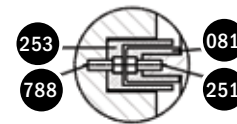
METAL SEATED SOLID WEDGE GATE VALVE

Rising Stem (OS&Y) Gate Valve 250 psi, Spur Gear with 2" NUT and BYPASS Valve 125# Flanges (Size 14" - 48") Vertical Installation



Available options:

- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve



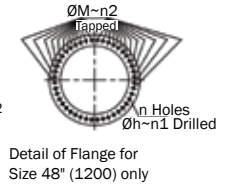
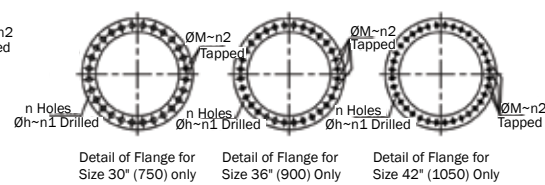
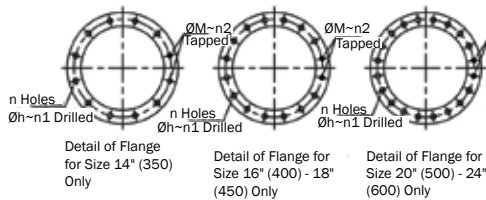
Details for Guides Section A' - A'



Detail a Screwed In Body Seat

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	1 set
345	Packing	Braided Packing Synthetic Yarn with PTFE		1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	1
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
248	Top Washer	Stainless Steel	A 276 Type 316	1
178	Gland Bolt & Nut	Stainless Steel	A 276 Type 316	2
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
167	Pin	Stainless Steel	276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1
149	Top Nut	Stainless Steel	A 276 Type 316	1

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
138	Yoke Bolt & Nut	Stainless Steel	A 276 Type 316	4
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
011	Yoke	Ductile Iron	A 536 Gr.65-45-12	1
010	Operating Nut	Cast Iron	A 126 Class B	1
005	Gland	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

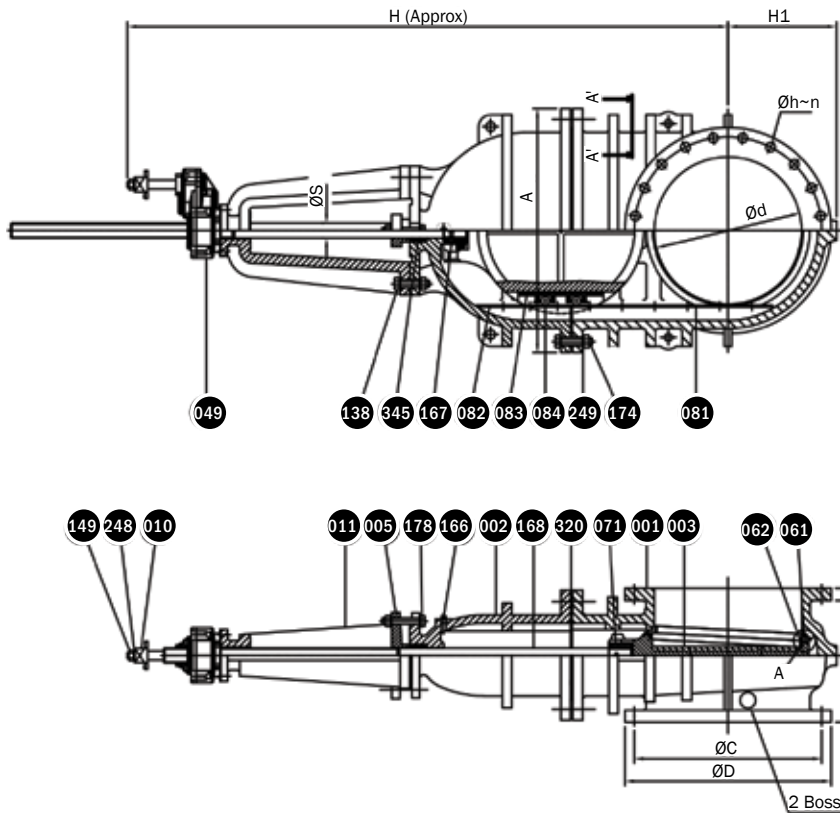


SIZE ØD		ANSI B 16.1 CLASS 125									GEAR OPERATOR		BYPASS SIZE		ØM		N1		N2	
IN.	MM.	L	ØD	ØC	ØH	N	T	A	ØS	H	H1									
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1 1/2	58.50	10.55	CB2.5 (2.5:1)	2	1 x 8 TPI (UNC)	10	2				
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	2	68.33	10.81	CB3 (3:1)	3	1 x 8 TPI (UNC)	14	2				
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	2	72.68	13.35	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	14	2				
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	2	80.06	14.17	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	18	2				
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	2	94.49	16.54	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	18	2				
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2 1/4	107.01	20.55	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	26	2				
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2 1/2	127.40	23.66	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	28	4				
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	3	144.06	27.36	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	32	4				
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3 3/4	173.43	31.57	CB8 (8:1)	8	1 1/2 x 6 TPI (UNC)	19	25				

- Dimensions in Inches

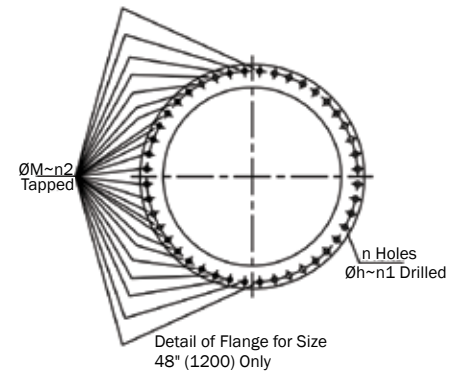
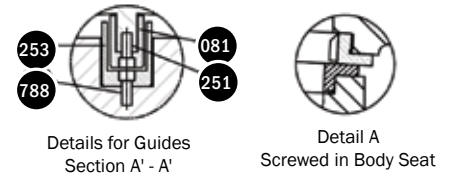
METAL SEATED SOLID WEDGE GATE VALVE

Rising Stem (OS&Y) Gate Valve 250 psi, Spur Gear with 2" NUT, 125# Flanges (Size 14" - 48") Horizontal Installation



Available options:

- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve



NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	2 set
345	Packing	Braided Packing Synthetic Yarn with PTFE		1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	2
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
248	Top Washer	Stainless Steel	A 276 Type 316	1
178	Gland Bolt & Nut	Stainless Steel	A 276 Type 316	2
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
167	Pin	Stainless Steel	A 276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1
149	Top Nut	Stainless Steel	A 276 Type 316	1
138	Yoke Bolt & Nut	Stainless Steel	A 276 Type 316	4

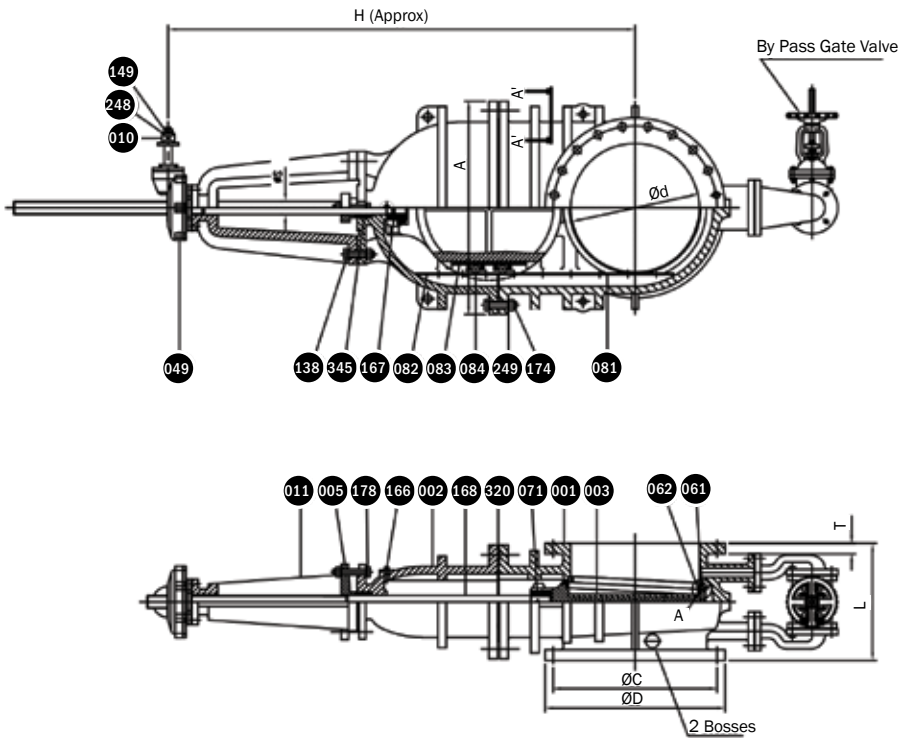
NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
084	Roller	Nickel Aluminum Bronze	B 148 C95800	2
083	Roller Box	Nickel Aluminum Bronze	B 148 C95800	1
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
011	Yoke	Ductile Iron	A 536 Gr.65-45-12	1
010	Operating Nut	Cast Iron	A 126 Class B	1
005	Gland	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1

SIZE ØD		ANSI B 16.1 CLASS 125									GEAR OPERATOR		ØM	N1	N2	
IN.	MM.	L	ØD	ØC	ØH	N	T	A	ØS	H	H1					
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1 1/2	58.50	10.55	CB2.5 (2.5:1)	-	-	-	
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	2	68.33	10.81	CB3 (3:1)	-	-	-	
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	2	72.68	13.35	CB3 (3:1)	-	-	-	
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	2	80.06	14.17	CB3 (3:1)	-	-	-	
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	2	94.49	16.54	CB4 (4:1)	-	-	-	
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2 1/4	107.01	20.55	CB4 (4:1)	-	-	-	
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2 1/2	127.40	23.66	CB6 (6:1)	-	-	-	
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	3	144.06	27.36	CB6 (6:1)	-	-	-	
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3 3/4	173.43	31.57	CB8 (8:1)	1 1/2 x 6 TPI (UNC)	20	24	

- Dimensions in Inches

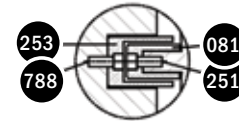
METAL SEATED SOLID WEDGE GATE VALVE

Rising Stem (OS&Y) Gate Valve 250 psi, Bevel Gear with 2" NUT and BYPASS Valve 125# Flanges (Size 14" - 48") Horizontal Installation



Available options:

- Handwheel
- ANSI Class 250 Flanges
- Mechanical Joint Ends
- 300 psi rated valve



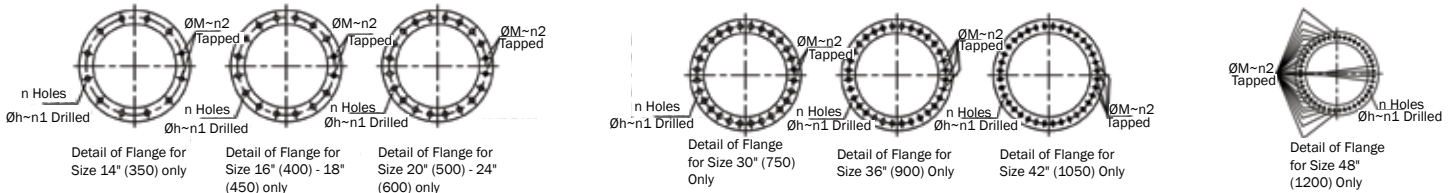
Details for Guides
Section A' - A'



Detail A
Screwed in Body
Seat

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
788	Disc Guide Bolt	Stainless Steel	A 276 Type 316	1 set
345	Packing	Braided Packing Synthetic Yarn with PTFE		1
320	Bonnet Gasket	Rubber (Buna N)	D 2000 BK 807	1
253	Disc Guide	Nickel Aluminum Bronze	B 148 C95800	1
251	Body Guide Bolt	Stainless Steel	A 276 Type 316	2 set
249	Washer	Stainless Steel	A 276 Type 316	1 set
248	Top Washer	Stainless Steel	A 276 Type 316	1
178	Gland Bolt & Nut	Stainless Steel	A 276 Type 316	2
174	Bonnet Bolt & Nut	Stainless Steel	A 276 Type 316	1 set
168	Stem	Stainless Steel	A 276 Type 316	1
167	Pin	Stainless Steel	276 Type 316	1
166	Plug	Stainless Steel	A 276 Type 316	1
149	Top Nut	Stainless Steel	A 276 Type 316	1
138	Yoke Bolt & Nut	Stainless Steel	A 276 Type 316	4

NO.	PARTS	MATERIAL	ASTM.DESIGN.	QTY
084	Roller	Nickel Aluminum Bronze	B 148 C95800	2
083	Roller Box	Nickel Aluminum Bronze	B 148 C95800	1
082	Bonnet Guide	Nickel Aluminum Bronze	B 148 C95800	2
081	Body Guide	Nickel Aluminum Bronze	B 148 C95800	2
071	Stem Nut	Nickel Aluminum Bronze	B 148 C95800	1
062	Disc Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
061	Body Seat Ring	Nickel Aluminum Bronze	B 148 C95800	2
049	Gear Operator	See Table	—	1 set
011	Yoke	Ductile Iron	A 536 Gr.65-45-12	1
010	Operating Nut	Cast Iron	A 126 Class B	1
005	Gland	Ductile Iron	A 536 Gr.65-45-12	1
003	Disc	Ductile Iron	A 536 Gr.65-45-12	1
002	Bonnet	Ductile Iron	A 536 Gr.65-45-12	1
001	Body	Ductile Iron	A 536 Gr.65-45-12	1



SIZE ØD		ANSI B 16.1 CLASS 125										GEAR OPERATOR	BYPASS SIZE	ØM	N1	N2
IN.	MM.	L	ØD	ØC	ØH	N	T	A	ØS	H						
14	350	15 ± 1/8	21	18 3/4	1 1/8	12	1 3/8	22.76	1 1/2	51.24	CB2.5 (2.5:1)	2	1 x 8 TPI (UNC)	10	2	
16	400	16 ± 1/8	23 1/2	21 1/4	1 1/8	16	1 7/16	25.98	2	59.51	CB3 (3:1)	3	1 x 8 TPI (UNC)	14	2	
18	450	17 ± 1/8	25	22 3/4	1 1/4	16	1 9/16	29.13	2	63.86	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	14	2	
20	500	18 ± 1/8	27 1/2	25	1 1/4	20	1 11/16	32.52	2	71.24	CB3 (3:1)	3	1 1/8 x 7 TPI (UNC)	18	2	
24	600	20 ± 1/8	32	29 1/2	1 3/8	20	1 7/8	36.54	2	85.28	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	18	2	
30	750	24 ± 1/8	38 3/4	36	1 3/8	28	2 1/8	45.28	2 1/4	97.80	CB4 (4:1)	4	1 1/4 x 7 TPI (UNC)	26	2	
36	900	28 ± 1/8	46	42 3/4	1 5/8	32	2 3/8	53.94	2 1/2	117.24	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	28	4	
42	1050	32 ± 1/8	53	49 1/2	1 5/8	36	2 5/8	60.39	3	133.90	CB6 (6:1)	6	1 1/2 x 6 TPI (UNC)	32	4	
48	1200	33 ± 1/8	59 1/2	56	1 5/8	44	2 3/4	74.57	3 3/4	163.80	CB8 (8:1)	8	1 1/2 x 6 TPI (UNC)	16	28	

- Dimensions in Inches

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