

OPERATION AND MAINTENANCE MANUAL

IP16 INDICATOR POST



AMERICAN
FLOW CONTROL
THE RIGHT WAY



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IP16 INDICATOR POST

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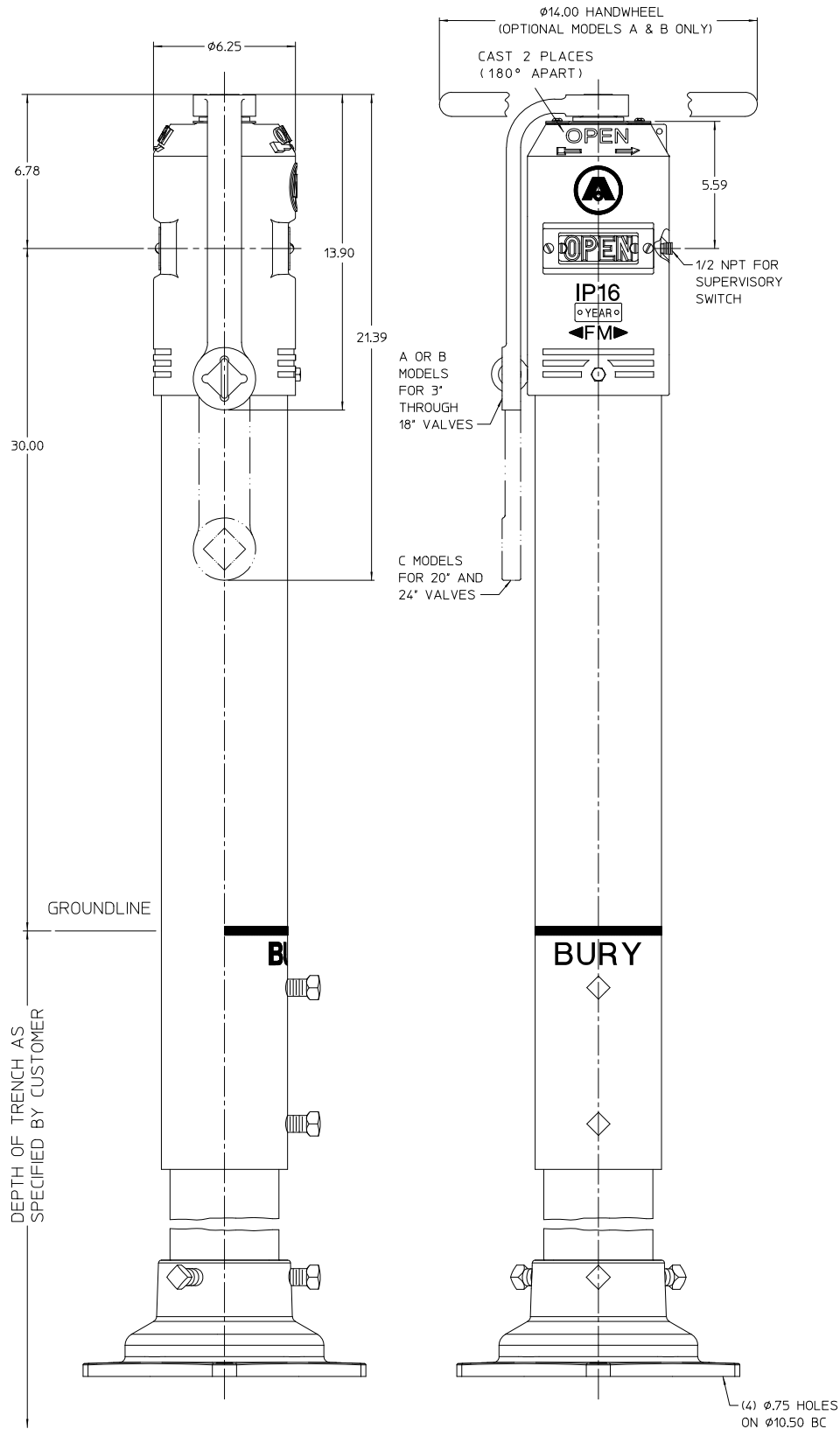


IP16 INDICATOR POST

AMERICAN Flow Control offers a full line of vertical, adjustable indicator posts that are Listed by UL LLC and Approved by FM Approvals for used with 3 through 24-inch sizes of buried gate valves. Vertical indicator posts are used to open and close gate valves used to control the flow of water to the fire protection systems such as automatic fire sprinkles, water or water and foam deluge systems, and standpipe fire hose connections. Indicator posts provide a

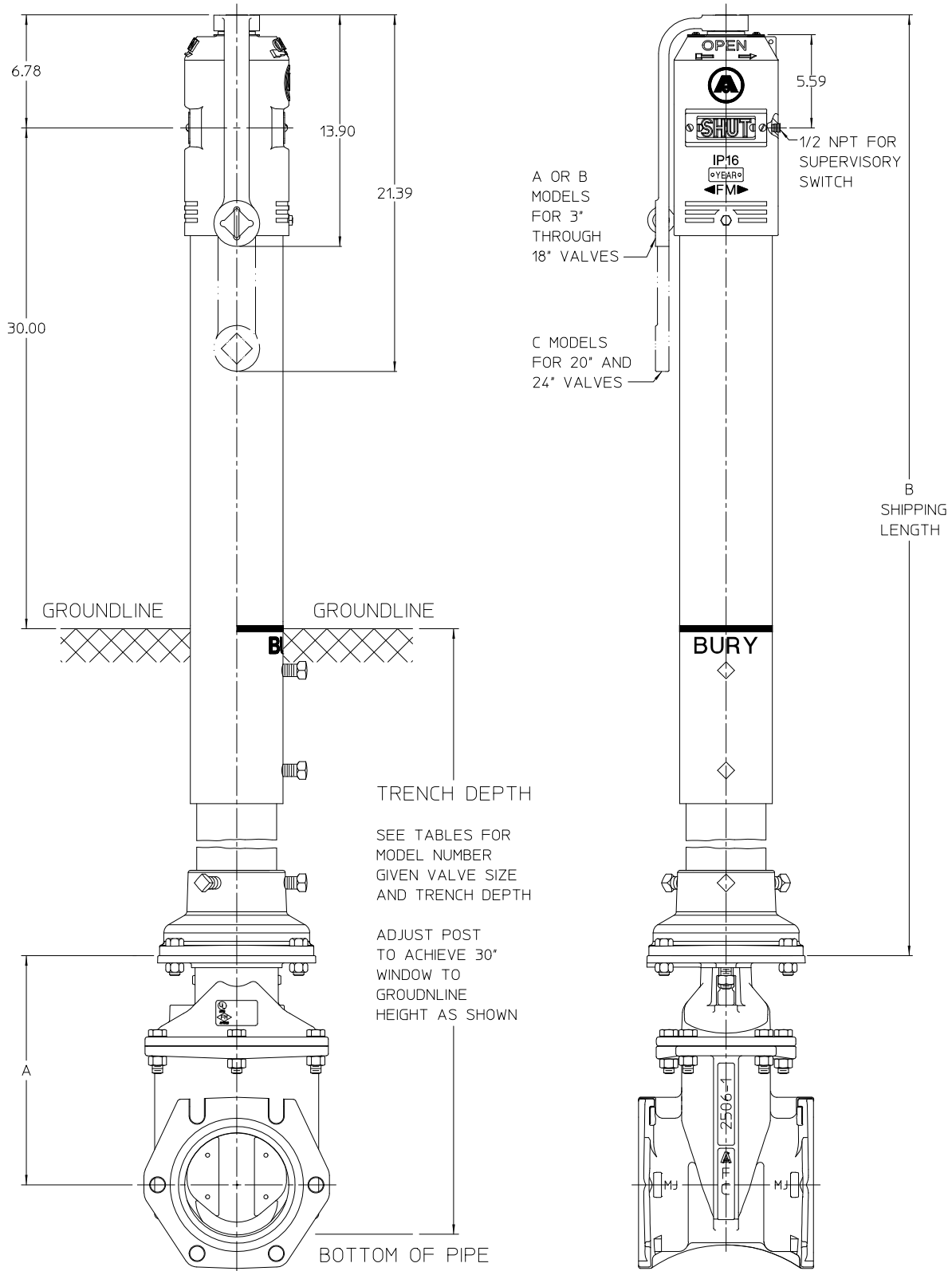
visual indication of whether a valve is open or closed by the appearance of a traveling sign that displays “OPEN” or “SHUT” in a window on both sides of the post. Indicator posts also provide a means to lock a valve in the open position, and allow the mounting of an electrical supervisory switch for remotely monitoring the position of the gate valve.

IP16 DIMENSIONS



NOTE:
UL Listed and FM Approved.

IP16 DIMENSIONS



IP16 WEIGHTS AND SHIPPING LENGTHS



Model	Weight	Dimension B Shipping Length
1	143 lbs	52.45"
2	186 lbs	72.50"
3	213 lbs	100.43"
4	242 lbs	124.43"
5	270 lbs	148.43"
6	298 lbs	172.43"
7	327 lbs	196.43"
8	355 lbs	220.43"

IP16 DIMENSIONS

Model	Valve Size					
	3"	4"	6"	8"	10"	12"
	Trench Depth	Trench Depth	Trench Depth	Trench Depth	Trench Depth	Trench Depth
1A	2'1" - 4'1"	2'4" - 4'4"	2'8" - 4'8"	3'0" - 5'0"	3'5" - 5'5"	3'10" - 5'10"
2A	4'1" - 6'1"	4'4" - 6'4"	4'8" - 6'8"	5'0" - 7'0"	5'5" - 7'5"	5'10" - 7'10"
3A	6'1" - 8'1"	6'4" - 8'4"	6'8" - 8'8"	7'0" - 9'0"	7'5" - 9'5"	7'10" - 9'10"
4A	8'1" - 10'1"	8'4" - 10'4"	8'8" - 10'8"	9'0" - 11'0"	9'5" - 11'5"	9'10" - 11'10"
5A	10'1" - 12'1"	10'4" - 12'4"	10'8" - 12'8"	11'0" - 13'0"	11'5" - 13'5"	11'10" - 13'10"
6A	12'1" - 14'1"	12'4" - 14'4"	12'8" - 14'8"	13'0" - 15'0"	13'5" - 15'5"	13'10" - 15'10"
7A	14'1" - 16'1"	14'4" - 16'4"	14'8" - 16'8"	15'0" - 17'0"	15'5" - 17'5"	15'10" - 17'10"
8A	16'1" - 18'1"	16'4" - 18'4"	16'8" - 18'8"	17'0" - 19'0"	17'5" - 19'5"	17'10" - 19'10"

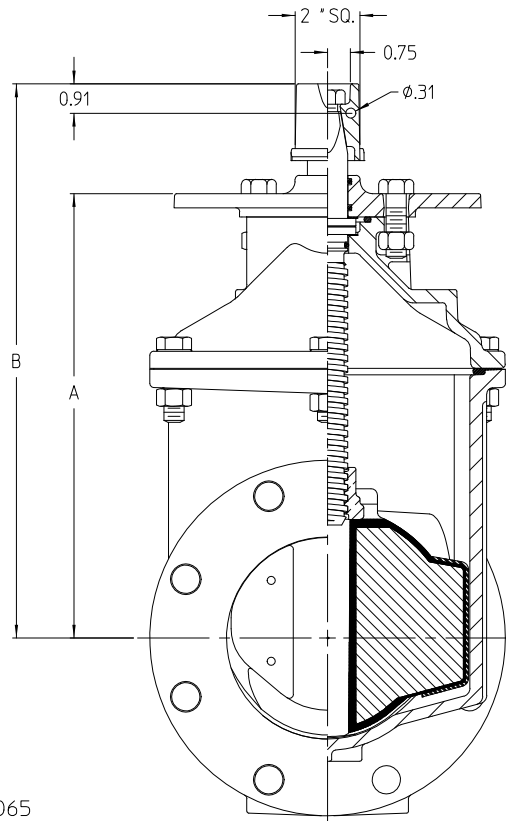
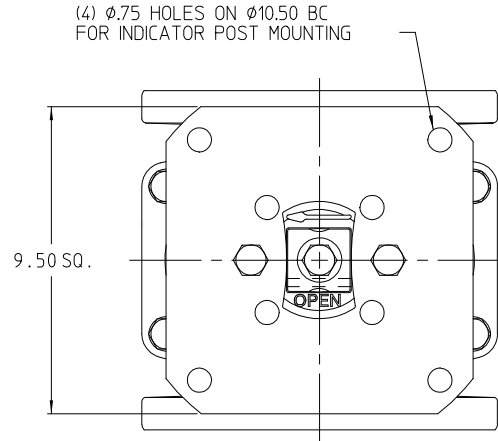
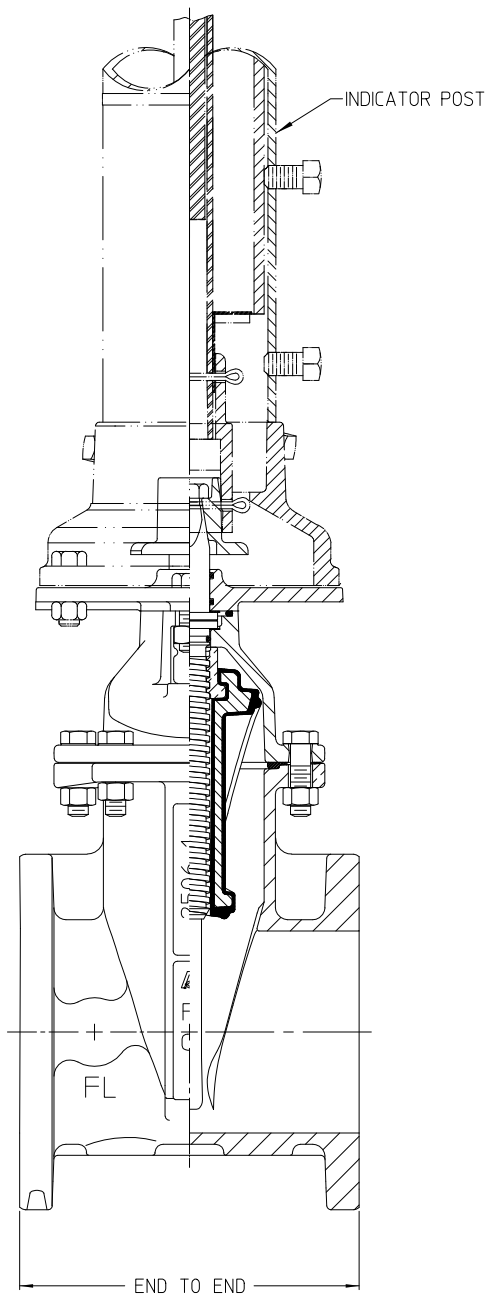
Model	Valve Size		
	14"	16"	18"
	Trench Depth	Trench Depth	Trench Depth
1B	4'4" - 6'4"	4'9" - 6'9"	5'1" - 7'1"
2B	6'4" - 8'4"	6'9" - 8'9"	7'1" - 9'1"
3B	8'4" - 10'4"	8'9" - 10'9"	9'1" - 11'1"
4B	10'4" - 12'4"	10'9" - 12'9"	11'1" - 13'1"
5B	12'4" - 14'4"	12'9" - 14'9"	13'1" - 15'1"
6B	14'4" - 16'4"	14'9" - 16'9"	15'1" - 17'1"
7B	16'4" - 18'4"	16'9" - 18'9"	17'1" - 19'1"
8B	18'4" - 20'4"	18'9" - 20'9"	19'1" - 21'1"

Model	Valve Size	
	20"	24"
	Trench Depth	Trench Depth
1C	5'6" - 7'6"	6'4" - 8'4"
2C	7'6" - 9'6"	8'4" - 10'4"
3C	9'6" - 11'6"	10'4" - 12'4"
4C	11'6" - 13'6"	12'4" - 14'4"
5C	13'6" - 15'6"	14'4" - 16'4"
6C	15'6" - 17'6"	16'4" - 18'4"
7C	17'6" - 19'6"	18'4" - 20'4"
8C	19'6" - 21'6"	20'4" - 22'4"

NOTE: For trench depths that fall between those listed, the installer may choose to use the next longer available model.

Dimension	Valve Size										
	Series 2500	Series 2500-1					Series 2500				
	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
A	8.97	10.38	13.75	16.94	20.34	23.78	29.25	32.75	35.62	39.69	47.84

VALVE WITH INDICATOR PLATE DIMENSIONS



94-22065

**AFC Series 2500
Resilient Wedge Gate Valve**

Dimension	Valve Size										
	Series 2500	Series 2500-1					Series 2500				
	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
A	8.97	10.38	13.75	16.94	20.34	23.78	29.25	32.75	35.62	39.69	47.84
B	11.84	13.91	17.12	20.47	24.06	27.59	33.25	36.75	39.62	43.25	51.25
End to end - FL x FL (Class 125)	8.00	9.00	10.50	11.50	13.00	14.00	15.0	16.00	17.00	18.00	20.00
End to End - MJ x MJ	8.62	10.00	10.50	11.50	12.50	13.50	20.50	20.88	23.00	23.50	25.50

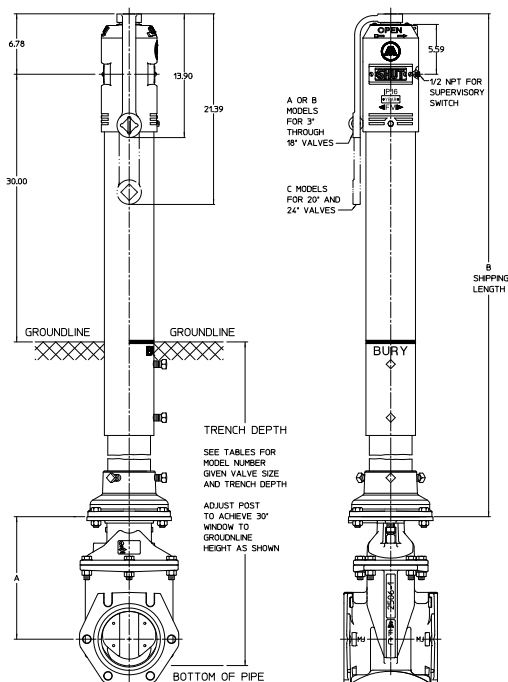


AMERICAN Flow Control®

IP16 (UNDERGROUND) INDICATOR POST

SUBMITTAL SHEET

Quantity:
Direction to Open: ☐ Left (CCW) ☐ Right (CW)
Actuator: ☐ Wrench ☐ Handwheel
Valve Size Post Used On: ☐ 3" ☐ 4" ☐ 6" ☐ 8" ☐ 10" ☐ 12" ☐ 14" ☐ 16" ☐ 18" ☐ 20" ☐ 24"
Model:
Other Requirements (List):



Note: Trench depths are listed in 6-inch increments. For trench depths that fall between those listed, the installer may choose to use the next longer available model.

Model	Valve Size					
	3"	4"	6"	8"	10"	12"
	Trench Depth	Trench Depth	Trench Depth	Trench Depth	Trench Depth	Trench Depth
1A	2'1" - 4'1"	2'4" - 4'4"	2'8" - 4'8"	3'0" - 5'0"	3'5" - 5'5"	3'10" - 5'10"
2A	4'1" - 6'1"	4'4" - 6'4"	4'8" - 6'8"	5'0" - 7'0"	5'5" - 7'5"	5'10" - 7'10"
3A	6'1" - 8'1"	6'4" - 8'4"	6'8" - 8'8"	7'0" - 9'0"	7'5" - 9'5"	7'10" - 9'10"
4A	8'1" - 10'1"	8'4" - 10'4"	8'8" - 10'8"	9'0" - 11'0"	9'5" - 11'5"	9'10" - 11'10"
5A	10'1" - 12'1"	10'4" - 12'4"	10'8" - 12'8"	11'0" - 13'0"	11'5" - 13'5"	11'10" - 13'10"
6A	12'1" - 14'1"	12'4" - 14'4"	12'8" - 14'8"	13'0" - 15'0"	13'5" - 15'5"	13'10" - 15'10"
7A	14'1" - 16'1"	14'4" - 16'4"	14'8" - 16'8"	15'0" - 17'0"	15'5" - 17'5"	15'10" - 17'10"
8A	16'1" - 18'1"	16'4" - 18'4"	16'8" - 18'8"	17'0" - 19'0"	17'5" - 19'5"	17'10" - 19'10"

Model	Valve Size		
	14"	16"	18"
	Trench Depth	Trench Depth	Trench Depth
1B	4'4" - 6'4"	4'9" - 6'9"	5'1" - 7'1"
2B	6'4" - 8'4"	6'9" - 8'9"	7'1" - 9'1"
3B	8'4" - 10'4"	8'9" - 10'9"	9'1" - 11'1"
4B	10'4" - 12'4"	10'9" - 12'9"	11'1" - 13'1"
5B	12'4" - 14'4"	12'9" - 14'9"	13'1" - 15'1"
6B	14'4" - 16'4"	14'9" - 16'9"	15'1" - 17'1"
7B	16'4" - 18'4"	16'9" - 18'9"	17'1" - 19'1"
8B	18'4" - 20'4"	18'9" - 20'9"	19'1" - 21'1"

Model	Valve Size	
	20"	24"
	Trench Depth	Trench Depth
1C	5'6" - 7'6"	6'4" - 8'4"
2C	7'6" - 9'6"	8'4" - 10'4"
3C	9'6" - 11'6"	10'4" - 12'4"
4C	11'6" - 13'6"	12'4" - 14'4"
5C	13'6" - 15'6"	14'4" - 16'4"
6C	15'6" - 17'6"	16'4" - 18'4"
7C	17'6" - 19'6"	18'4" - 20'4"
8C	19'6" - 21'6"	20'4" - 22'4"

Dimension	Valve Size										
	Series 2500	Series 2500-1					Series 2500				
	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
A	8.97	10.38	13.75	16.94	20.34	23.78	29.25	32.75	35.62	39.69	47.84

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UL Listed and FM Approved.

IP16 INSTALLATION



NOTE: The position of the indicator post target must be set to coincide with the position of the valve. Failure to coordinate these positions can result in inaccurate valve position indication or may render the valve position indication mechanism inoperable.

The installation instructions below are written for a counterclockwise opening (open-left) gate valve. For a clockwise opening (open-right) gate valve, the position of the “OPEN” and “SHUT” target plates are reversed such that the “SHUT” target plate will be on the upper position and the “OPEN” target plate will be positioned beside the appropriate valve size tab as noted below.

Installation

1. The IP16 Indicator Post is factory-set with the “SHUT” Target Plate (IP-16-15) positioned as shown in the following table. When the Indicator Post is mounted to the sizes listed in the table, skip down to instruction item 6.

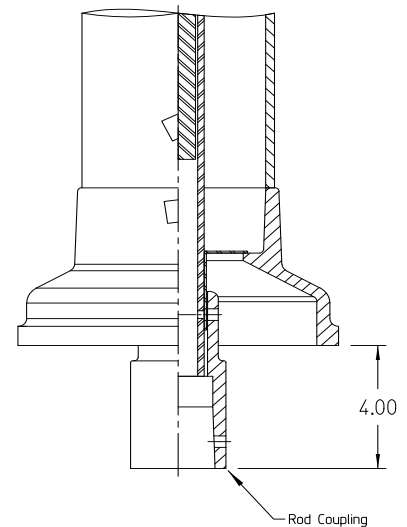
Factory-Set Target Positions	
IP16 Model	Post Indicator Valve Size
A	6-inch
B	16-inch
C	24-inch

When the Indicator Post is mounted to valve sizes other than those listed in the table, follow the instructions below to remove the Head (IP-16-5) and adjust the “SHUT” Target Plate (IP-16-15).

2. To remove the head (IP-16-5), remove the Operating Wrench (IP-16-2), the eyebolt (IP-16-3) and hex-head bolt (IP-16-9). Using a screwdriver, remove one of the Screws (IP-16-17), located on top of the head (IP-16-5) and adjacent to the Operating Stem Nut (IP-16-1) and loosen the other screw (IP-16-17). Spread the Stuffing Box clips (IP-16-23) apart. Note the overlapping arrangement of the clips for proper re-assembly. Gently lift the Head (IP-16-5) to remove.
3. Locate the desired gate valve size tab on the side of the Target Carrier (IP-16-24), loosen the “SHUT” target plate fastening Screws (IP-16-17) and reposition both “SHUT” Target Plates (IP-16-15) to the center of the desired gate valve size tab and then re-tighten the Screws. Do not rotate the Target Carrier Nut (IP-16-13) on the Operating Stem Nut (IP-16-1) to maintain the factory-set position of Target Carrier (IP-16-24).
4. Apply lubricating oil to the O-ring (IP-16-33) at the top of the Operating Stem Nut (IP-16-1). Place the Head (IP-16-5) onto the post and re-assemble the Stuffing Box clips (IP-16-23) into the groove on the Operating Stem Nut (IP-16-5) and tighten the Screws (IP-16-17). Fasten the Head (IP-16-5) to the Upper Barrel (IP-16-29) by threading and tightening the Eye Bolt (IP-16-3) and Hex Head Bolt (IP-16-9). Make sure the Eye Bolt (IP-16-3) is fastened in the bolt hole 90 degrees from the Target Plate sight windows. “OPEN” targets centered in the sight windows of the head. If not, turn the operating nut until the “OPEN” targets are centered in the sight window.
5. Verify that the “OPEN” Target Plates (IP-16-14) are centered in the sight windows of the Head (IP-16-5). If they are not, turn the Operating Stem Nut (IP-16-1) until the “OPEN” Target Plates (IP-16-14) are centered in the sight window.
6. Open the gate valve fully to match the OPEN indication.
7. Pin the Rod Coupling (IP-16-11) of the IP16 Indicator Post to the 2” wrench nut on the gate valve using the Cotter Pin (IP-16-12) provided.
8. Mount the IP16 Indicator Post to the post indicator valve (PIV) plate on the gate valve.
9. Close the gate valve completely to verify that the “SHUT” Target Plate (IP-16-15) displays properly in the sight window.
10. Adjust the IP16 Indicator Post height to accommodate the trench depth by loosening the square head Set Screws (IP-16-8) located below the BURY line on the Upper Barrel (IP-16-29). Once the Indicator Post is adjusted to the proper length, tighten the Set Screws on the Upper Barrel (IP-16-29) to secure the barrels together.

NOTE for OPEN RIGHT Indicator Post:

The instructions on front side of tag are written for a counterclockwise opening (open left) gate valve. For a clockwise opening (open right) gate valve, the position of the OPEN and SHUT target plates are reversed such that the SHUT target plate will be in the upper position and the OPEN target plate will be positioned beside the appropriate valve size tab as noted.



The IP 16 Indicator post does not require disassembly to connect the rod coupling to the gate valve. The IP 16 post rod coupling extends approximately 4 inches below the base, as shown, to allow for an easy connection to the valve wrench nut.

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IP16 OPERATION AND MAINTENANCE



Operation

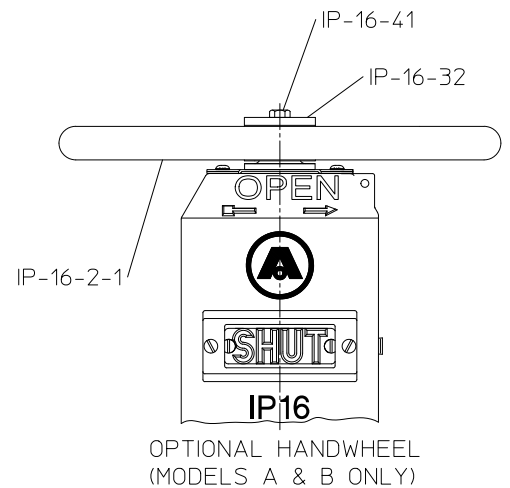
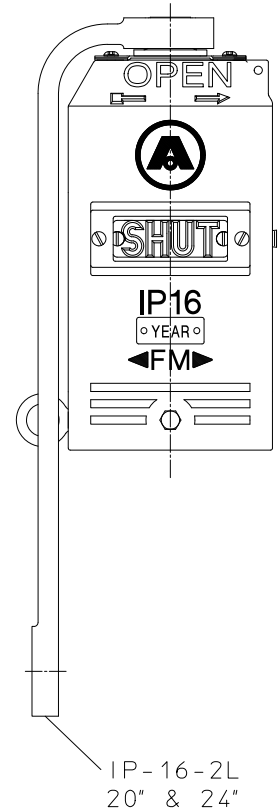
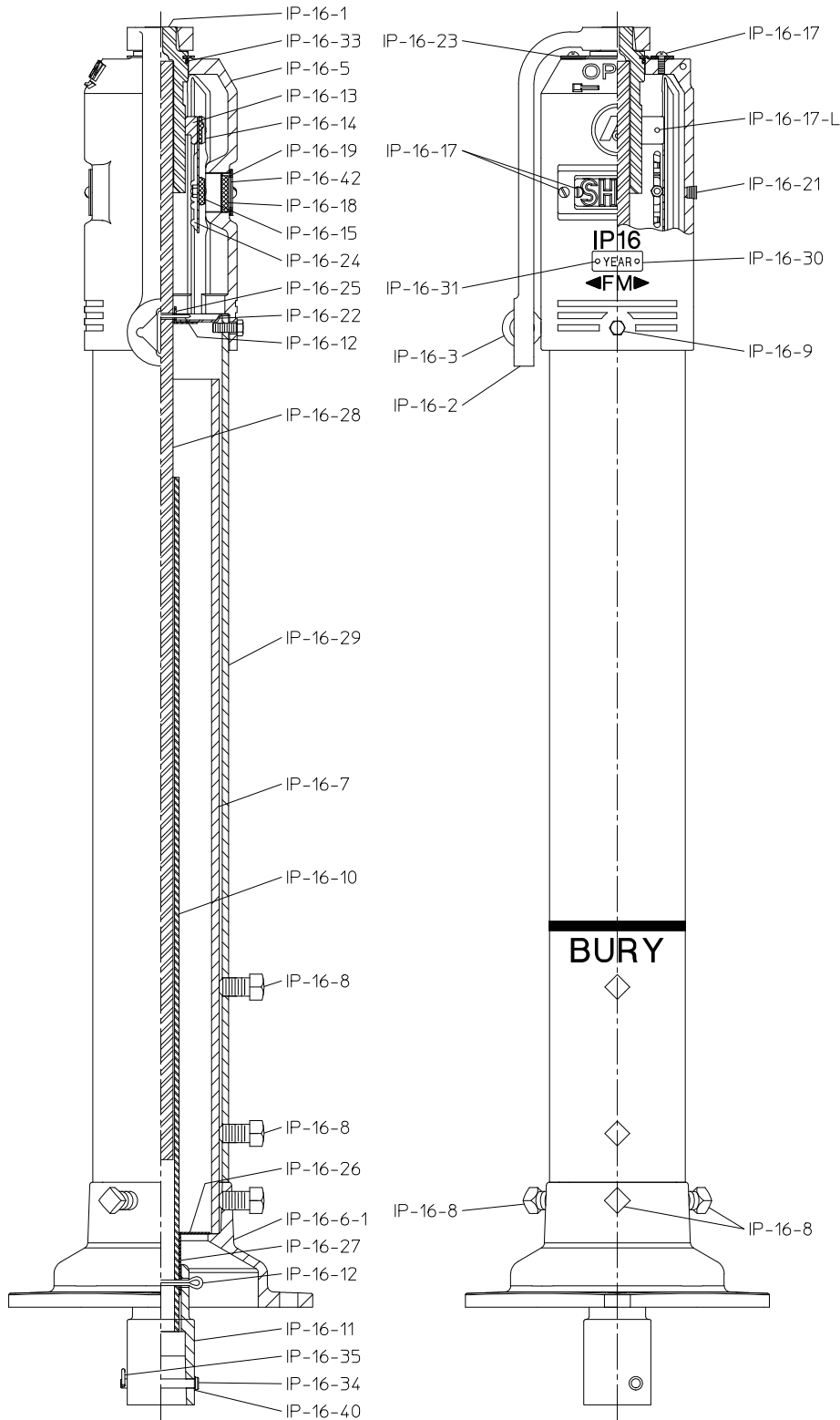
1. Direction of opening is indicated by an arrow cast on to the top of the Indicator Post Head.
2. Using the Operating Wrench (or optional Hand Wheel) supplied with the Indicator Post fully open and close the gate valve before applying system line pressure. Longer wrenches or pipes used as “cheaters” should not be used. Excessive leverage may damage the Indicator Post or the gate valve to which it is connected.
3. AMERICAN recommends the use of AMERICAN Flow Control Series 2500 Gate Valves with the IP16 Indicator Post. In cases where other manufacturers’ gate valves are used, please contact that manufacturer for valve operating instructions. AMERICAN will not be responsible for claims, errors or omissions in documentation provided by other manufacturers.

Maintenance

1. Inspect Indicator Post a minimum of four times per year, or more if conditions warrant.
2. Operate the gate valve through a complete cycle of closing and opening and verify that the post and gate valve function properly and the display of the OPEN and SHUT targets accurately correspond with the position of the gate valve.
3. If it is necessary to replace the Operating Stem Nut (IP-16-1), proceed as follows:
 - a. Remove the Operating Wrench (IP-16-2), the eyebolt (IP-16-3) and hex-head bolt (IP-16-9). Using a screwdriver, remove one of the Screws (IP-16-17), located on top of the Head (IP-16-5) and adjacent to the Operating Stem Nut (IP-16-1) and loosen the other Screw (IP-16-17). Spread the Stuffing Box clips (IP-16-23) apart. Note the overlapping arrangement of the clips for proper re-assembly. Gently lift the Head (IP-16-5) to remove.
 - b. Lift Operating Stem Nut (IP-16-1) and target carrier assembly off of the Upper Rod (IP-16-28).
 - c. Note the position of the Target Carrier Nut (IP-16-13) on the Operating Stem Nut (IP-16-1) and then turn Operating Stem Nut until separated.
 - d. Thread the Target Carrier Nut (IP-16-13) onto the replacement Operating Stem Nut (IP-16-1) and return to the previous position.
 - e. Return the Operating Stem Nut (IP-16-1) on to the Upper Rod (IP-16-28) and re-assemble the Head (IP-16-5) by following above procedure (a) in reverse order.



IP16 PARTS LIST

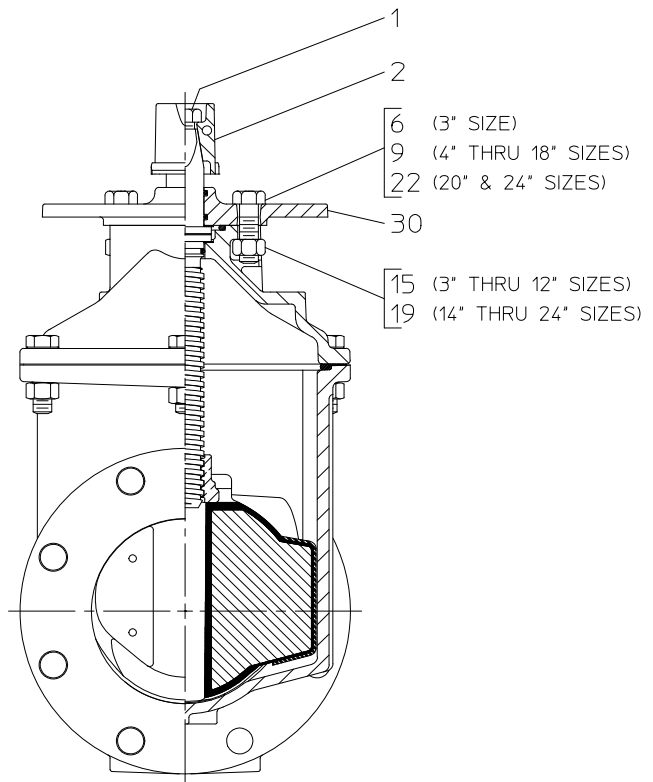
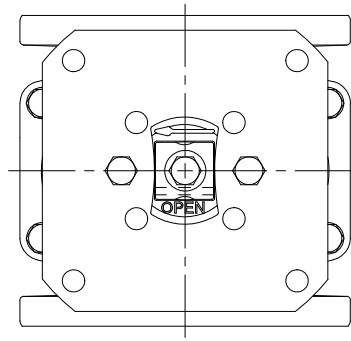
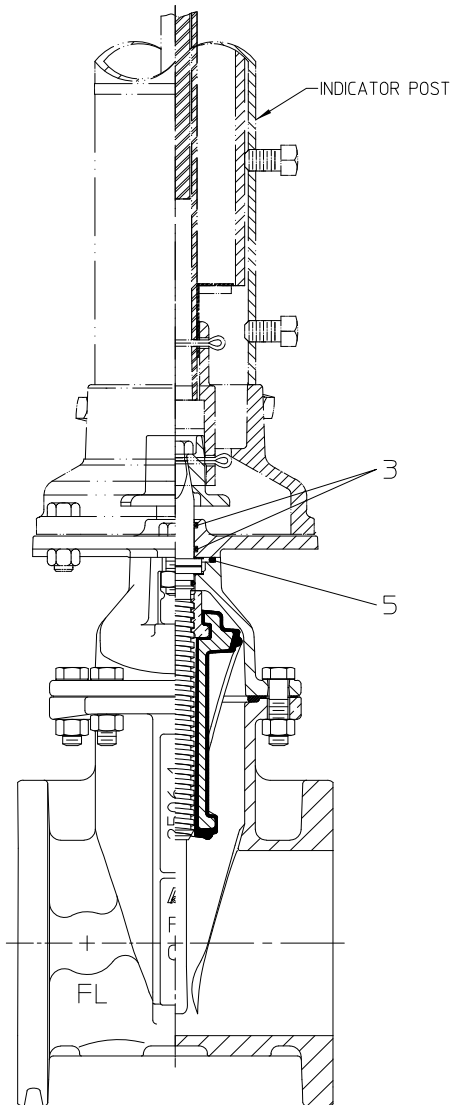




Ref No.	Description	Material	Quantity
IP-16-1	Operating Stem Nut	Stainless Steel	1
IP-16-2	Operating Wrench (Models A & B)	Cast Iron, ASTM A126, Class B	1
IP-16-2L	Operating Wrench (Model C)	Cast Iron, ASTM A126, Class B	1
IP-16-2-1	Handwheel	Cast Iron, ASTM A126, Class B or Ductile Iron, ASTM A536, Grade 65-45-12	1
IP-16-3	Eye Bolt	Steel	1
IP-16-5	Body	Gray Iron, ASTM A48, Class 30	1
IP-16-6-1	Base	Ductile Iron, ASTM A536, Grade 65-45-12	1
IP-16-7	Lower Barrel	Steel, ASTM A500, Grade B	1
IP-16-8	Set Screw	Steel	5
IP-16-9	Hex Head Bolt	Zinc Plated Steel	1
IP-16-10	Lower Rod	Steel Tubing, ASTM A500	1
IP-16-11	Rod Coupling	Ductile Iron, ASTM A536, Grade 65-45-12	1
IP-16-12	Cotter Pin	Steel	2
IP-16-13	Target Carrier Nut	Brass, ASTM B62, UNS C83600	1
IP-16-14	Target Plate - Open	Aluminum	2
IP-16-15	Target Plate - Shut	Aluminum	2
IP-16-17	Screw and Nut	Stainless Steel	12 and 4
IP-16-17-L	Screw	Stainless Steel	2
IP-16-18	Travel Sign Cover	Plexiglass	2
IP-16-19	Ferrule	Stainless Steel	2
IP-16-21	Pipe Plug	Steel	1
IP-16-22	Guide Stop	Stainless Steel	1
IP-16-23	Stuffing Box	Stainless Steel	2
IP-16-24	Target Carrier	Stainless Steel	2
IP-16-25	Tube Collar	Stainless Steel	1
IP-16-26	Tube Stop Ring	Stainless Steel	1
IP-16-27	Tube Stop Key	Stainless Steel	1
IP-16-28	Upper Rod	Steel	1
IP-16-29	Upper Barrel	Steel, ASTM A53, Grade B	1
IP-16-30	Year Date Tag	Aluminum	1
IP-16-31	Drive Lok Stud	Stainless Steel	2
IP-16-32	Washer	Brass, ASTM B16, UNS C36000	1
IP-16-33	O-ring	Rubber	1
IP-16-34	Clevis Pin	Stainless Steel	1
IP-16-35	Hairpin Cotter Pin	Stainless Steel	1
IP-16-40	Washer	Stainless Steel	1
IP-16-41	Hex Head Bolt	Zinc Plated Steel	1
IP-16-42	Window Gasket	Rubber	2

NOTE: When ordering repair parts, please specify valve size, depth of trench and open direction.

VALVE WITH INDICATOR PLATE PARTS LIST



94-22057

Ref No.	Description	Material	Quantity										
			Series 2500		Series 2500-1				Series 2500				
			3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
1	Hex Hd Bolt, 5/8-11 x 1"	Stainless Steel	1	1	1	1	1	1	-	-	-	-	-
1	Hex Hd Bolt, 5/8-11 x 1-3/4"	Stainless Steel	-	-	-	-	-	-	1	1	1	1	1
2	Operating Nut, 2" Sq.	Ductile Iron	1	1	1	1	1	1	1	1	1	1	1
3	O-ring	Rubber	2	2	2	2	2	2	2	2	2	2	2
5	Stuffing Box Gasket	Rubber O-ring	1	1	1	1	1	1	1	1	1	2	2
6	Hex Hd Bolt, 5/8-11 x 1-3/4"	Stainless Steel	2	-	-	-	-	-	-	-	-	-	-
9	Hex Hd Bolt, 5/8-11 x 2"	Stainless Steel	-	2	2	2	4	4	-	-	-	-	-
9	Hex Hd Bolt, 7/8-9 x 3"	Stainless Steel	-	-	-	-	-	-	4	4	4	-	-
15	Hex Nut, 5/8-11	Stainless Steel	2	2	2	2	4	4	-	-	-	-	-
19	Hex Nut, 7/8-9	Stainless Steel	-	-	-	-	-	-	4	4	4	4	4
22	Stud, 7/8-11 x 3-1/2	Stainless Steel	-	-	-	-	-	-	-	-	-	4	4
30	Indicator Plate	Ductile Iron	1	1	1	1	1	1	1	1	1	1	1



AMERICAN

FLOW CONTROL

THE RIGHT WAY

AMERICAN Flow Control

P.O. Box 2727
Birmingham, AL 35202-2727
Phone: 800-326-8051
Fax: 800-610-3569
Email: afcsales@american-usa.com

Waterous Company

125 Hardman Avenue South
South St. Paul, MN 55075-2421
Phone: 888-266-3686
Fax: 800-601-2809
Email: afcsales@american-usa.com

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Product literature may become outdated. AMERICAN is not responsible for out-of-date information, errors or omissions.
Product diagrams are illustrative only. Please contact AMERICAN for the most current product information.