

**TRENCH ADAPTER<sup>®</sup> AND RETROFIT VALVE BOX INSERT  
BY AMERICAN FLOW CONTROL<sup>®</sup>**

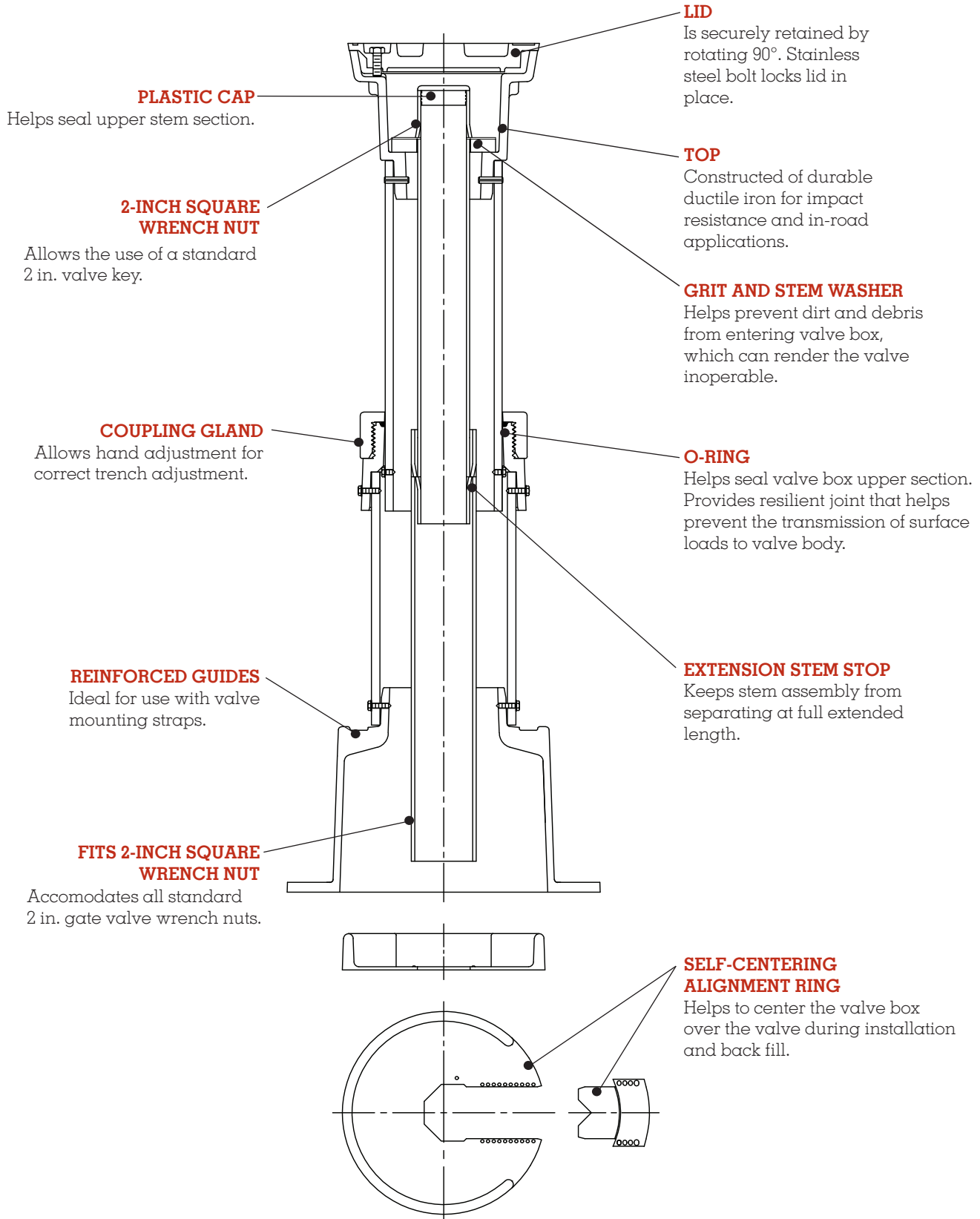
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**AMERICAN**  
FLOW CONTROL

THE RIGHT WAY

## TRENCH ADAPTER CONSTRUCTION



IL1716-12

## TRENCH ADAPTER FEATURES/SPECIFICATIONS

### FEATURES

The Trench Adapter® by AMERICAN Flow Control® is a fully adjustable valve box and extension stem system that is available in trench depths ranging from 3 feet to 20 feet. Both the valve box and the extension stem adjust to grade in a matter of seconds, completely eliminating the need to cut extension stems in the field. You simply raise the upper pipe to the proper height and lock it into position. You have not only adjusted the height of the valve box, but you have also raised the extension stem and operating nut to grade as well. This adjustment is accomplished by the use of a coupling gland, which includes a split O-ring that, when hand tightened, locks the Trench Adapter to the desired trench depth.

The Trench Adapter eliminates the problems of trying to locate and engage the operating nut on the valve. With conventional valve boxes, the valve operating nut is

several feet below grade, making it difficult to locate and to align the T-handle wrench on the operating nut.

This is especially difficult if the box is not centered over the valve and it is filled with debris, mud, and/or water. The Trench Adapter assures that the valve can be operated at ground level. Simply remove the lid and the operating nut is accessible and ready to use.

The grit and stem washers support the extension stem in the top section of the valve box. The grit washer is designed to help keep dirt and grit from entering the valve box interior. The valve box locking lid is color coded and includes cast markings to indicate potable water, sewer, re-use water, or gas.

### BENEFITS

- Quick and easy height adjustment.
- Built-in extension stem automatically adjusts to the same height as the valve box.
- Eliminates field-cut extension stems.
- Operating nut will always be at groundline. No more struggling to find the operating nut to operate the valve. Simply remove the lid and the operating nut is there.
- Eliminates the need for long T-handle wrench.
- Saves time in locating operating nut in emergency situations.
- Extension stem has been proof-of-design tested to up to 1000 ft-lb of torque without failure.
- Valve box is designed to help prevent dirt, debris and gravel from entering.
- Top extensions are available for height adjustment should there be a grade change.
- Iron, galvanized steel, and high-strength, thick-wall polyethylene construction for durability.

### ADDED VALUE

Each Trench Adapter now includes AMERICAN Flow Control's self-centering alignment ring. This two-piece ring installs in seconds and locks in place under the wrench nut of the valve. The centering ring aligns the valve box over the valve. The sides of the alignment ring are 1-1/2 in. high, which aid in keeping the valve box in a vertical position

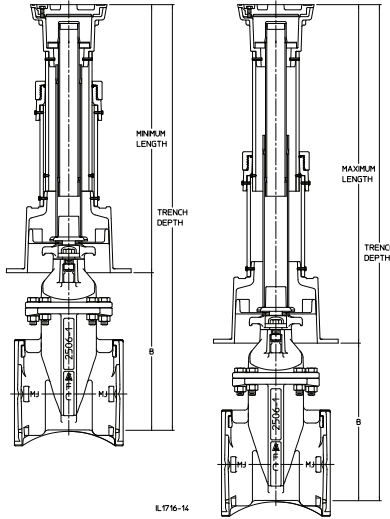
while backfilling the trench. This helps prevent wrench and wrench nut conflict with the valve box, which can prevent proper operation and/or disable a valve completely. The alignment ring can be purchased separately for use with standard valve boxes.

### SPECIFICATIONS

Valve boxes shall be provided for all buried valves. Valve boxes shall be a complete assembled unit composed of the valve box, extension stem, a valve centering ring, debris washer and lockable lid. All moving parts of the extension stem shall be enclosed in a housing to prevent contact with the soil. Valve box assembly shall be adjustable to accommodate variable trench depths without field cutting the box.

The stem assembly shall be of a telescoping design that allows for variable adjustment length. The material shall be galvanized square steel tubing. The stem assembly shall have a built-in device that prevents the stem assembly from disengaging at its fully extended length. The extension stem must be capable of surviving a torque test to 1000 ft-lb without failure. Valve box shall be AMERICAN Flow Control's Trench Adapter.

# TRENCH ADAPTOR DIMENSIONS



Valve Size	Trench Depth and Model Number																			
	2'0"	2'6"	3'0"	3'6"	4'0"	4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	8'6"	9'0"	9'6"	10'0"	10'6"	11'0"	
2"	1	2	3,4	4	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	
2-1/2"	-	2	3	4	5	5	5,6	6	6	6	6,7	7	7	7	7	7	7	7	7	
3"	-	2	2,3	4	5	5	5,6	6	6	6	6,7	7	7	7	7	7	7	7	7	
4"	-	1	3	4	4,5	5	5,6	6	6	6	6	7	7	7	7	7	7	7	7	
6"	-	-	2	3	4	5,4	5	5,6	6	6	6	6	7	7	7	7	7	7	7	
8"	-	-	-	2	3,4	4	5	5	6	6	6	6	6	7	7	7	7	7	7	
10"	-	-	-	1	2	3,4	4	5	5	6	6	6	6	7	7	7	7	7	7	
12"	-	-	-	-	1	2,3	3,4	4,5	5	5	6	6	6	6	7	7	7	7	7	
14"	-	-	-	-	-	-	2	3	4	5	5	5	6	6	6	6	7	7	7	
16"	-	-	-	-	-	-	1	2	3,4	4	5	5	6	6	6	6	7	7	7	
18"	-	-	-	-	-	-	-	-	2,3	4	4	5	5	6	6	6	6	7	7	
20"	-	-	-	-	-	-	-	-	-	2,3	4	4	5	5	6	6	6	6	7	
24"	-	-	-	-	-	-	-	-	-	-	2	3	4	5	5	5	6	6	6	

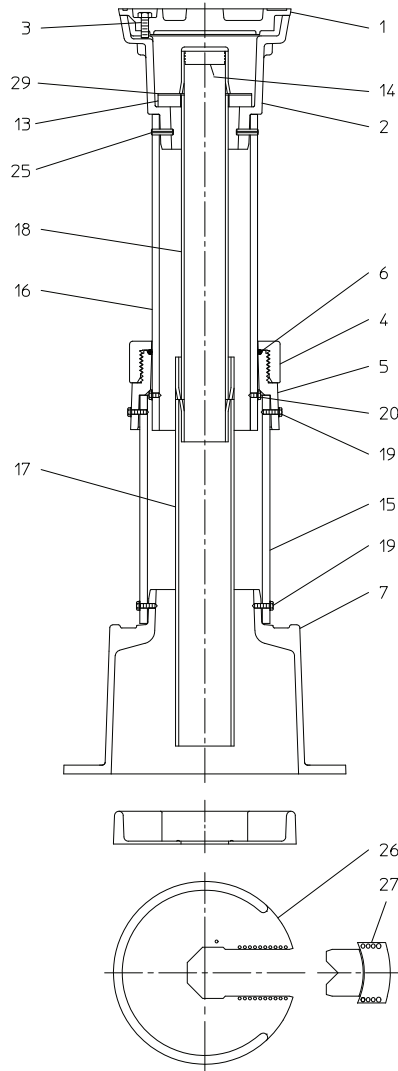
Valve Size	Trench Depth and Model Number																			
	11'6"	12'0"	12'6"	13'0"	13'6"	14'0"	14'6"	15'0"	15'6"	16'0"	16'6"	17'0"	17'6"	18'0"	18'6"	19'0"	19'6"	20'0"		
2"	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	-		
2-1/2"	8	8	8	8	8	8	8	8	8,9	9	9	9	9	9	9	9	9	-		
3"	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	-		
4"	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9		
6"	7	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9		
8"	7	7	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9		
10"	7	7	7	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9		
12"	7	7	7	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9		
14"	7	7	7	7	7	8	8	8	8	8	8	8	8	8	9	9	9	9		
16"	7	7	7	7	7	7	8	8	8	8	8	8	8	8	9	9	9	9		
18"	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	9	9	9		
20"	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8	9	9		
24"	6	7	7	7	7	7	7	7	7	8	8	8	8	8	8	8	8	8		

Where two model numbers are shown for a given valve/trench combination, use the dimensions in the tables below to select the best fit.

Model Number	Length		Assembly Weight
	Minimum	Maximum	
1	18.25	20.25	29 LBS
2	22.25	28.25	32 LBS
3	24.75	32.50	35 LBS
4	29.75	40.50	39 LBS
5	37.75	56.50	48 LBS
6	49.75	80.50	54 LBS
7	73.75	128.50	72 LBS
8	127.75	179.75	99 LBS
9	178.75	230.75	127 LBS

Model	Valve Size	Dimension "B"
Series 2500	2"	5.49
	2-1/2"	7.54
	3"	8.91
Series 2500-1	2"	5.41
	4"	10.74
	6"	15.31
	8"	19.58
	10"	24.25
Series 2500	12"	28.74
	14"	36.03
	16"	40.64
	18"	44.59
	20"	50.50
24"	60.75	

**TRENCH ADAPTOR PARTS LIST**



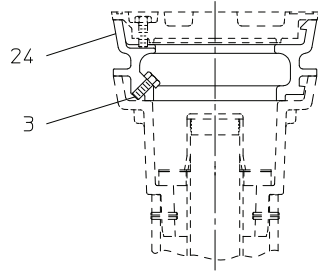
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Ref. No.	Description	Material	Qty
1	Lid	Ductile Iron <sup>1</sup>	1
		Urethane <sup>2</sup>	
2	Top	Ductile Iron	1
3	Locking Bolt <sup>3</sup>	Stainless Steel	1
4	Reducer Coupling Gland	High-Density Polyethylene	1
5	Reducer Coupling	High-Density Polyethylene	1
6	O-ring	Rubber	1
7	Base	High-Density Polyethylene	1
13	Grit Washer	High-Density Polyethylene	1
14	Cap	Plastic	1
15	Lower Pipe	High-Density Polyethylene	1
16	Upper Pipe	High-Density Polyethylene	1
17	Lower Stem	Galvanized Steel Tubing	1
18	Upper Stem	Galvanized Steel Tubing	1
19	Screw	Stainless Steel	8
20	Screw	Stainless Steel	2
25	Spring Pin	Stainless Steel	2
26	Alignment Ring	Glass-Filled Polyethylene	1
27	Alignment Ring Guide	Glass-Filled Polyethylene	1
29	Stem Washer	Stainless Steel	1

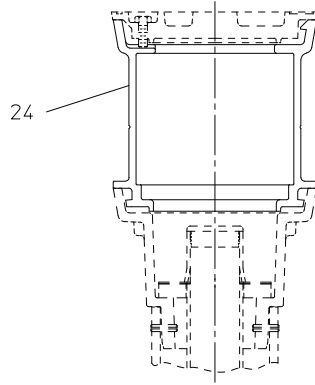
Note:

1. Available for sewer, water, reuse water, gas and fire service.
2. Available for water service only.
3. Not included or required when furnished with urethane lid.

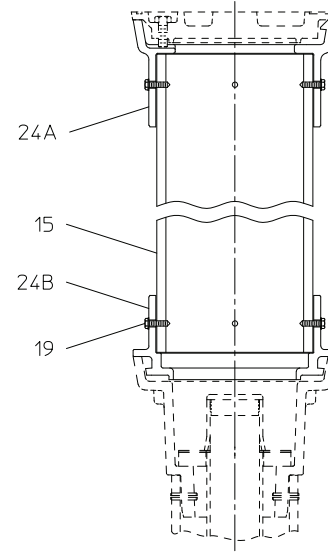
## TRENCH ADAPTOR EXTENSIONS PARTS LIST



2-INCH TOP EXTENSION



6-INCH TOP EXTENSION



12-INCH, 18-INCH AND 24-INCH  
TOP EXTENSION ASSEMBLIES

IL1716-11

Ref. No.	Description	Material	Qty				
			2"	6"	12"	18"	24"
3	Locking Bolt	Stainless Steel	1	-	-	-	-
15	Pipe	High-Density Polyethylene	-	-	1	1	1
19	Screw	Stainless Steel	-	-	8	8	8
24	Top Extension	Ductile Iron	1	1	-	-	-
24A	Top Extension	Ductile Iron	-	-	1	1	1
24B	Top Extension	Ductile Iron	-	-	1	1	1

Note:

1. Ref. number 24A & 24B are not available individually for repairs.

## RETROFIT VALVE BOX INSERT FEATURES/SPECIFICATIONS

### FEATURES

AMERICAN Flow Control's Retrofit Valve Box Insert upgrades an already installed standard cast iron valve box with the features of the AMERICAN Flow Control Trench Adapter. The Retrofit features a self-adjusting extension stem system that is available in trench depths ranging from 3 feet to 20 feet. This will eliminate the problem of trying to locate and engage the operating nut on the valve. With conventional valve boxes, the valve operating nut is at least several feet below grade, making it difficult to locate and align the T-handle wrench on the operating nut.

This is especially difficult if the valve box is centered over the valve and is filled with debris, mud, and/or water. The Retrofit Valve Box Insert assures that the valve can be operated at ground level. Simply remove the lid and the operating nut is accessible and ready to use.

The grit and stem washers support the extension stem in the top section of the valve box. The grit washer is designed to help keep gravel and debris from entering the valve box interior. The valve box locking lid is color coded and includes cast markings to indicate potable water, sewer, re-use water, or gas.

### BENEFITS

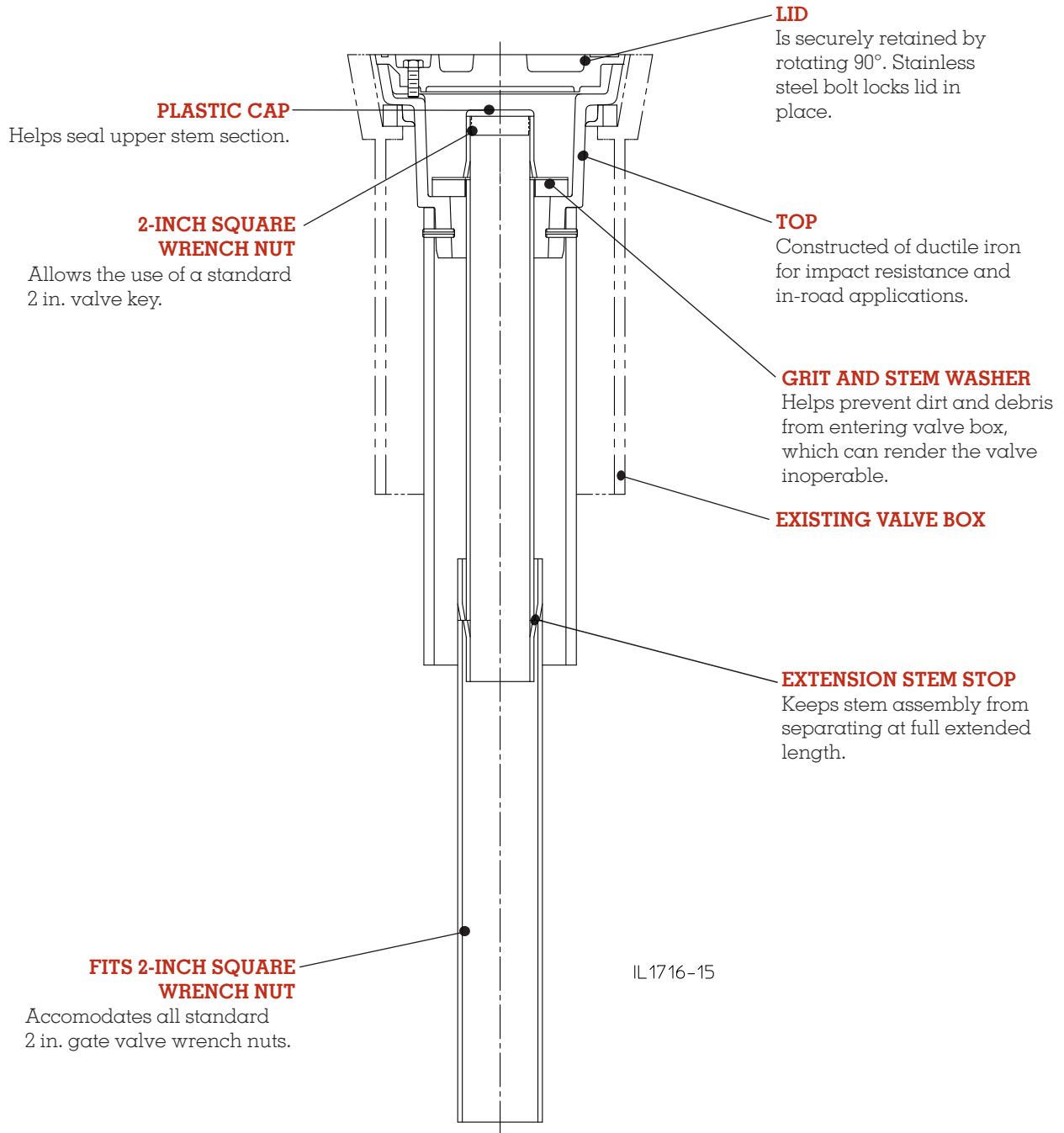
- Built-in extension stem automatically adjusts to the same height as the valve box.
- Eliminates field-cut extension stems.
- Operating nut will always be at groundline, so it saves time in operating the valve. That is especially important in emergency situations.
- Eliminates the need for long T-handle wrench.
- Keeps valve box "clean" from debris that could interfere with the operation of the valve.
- Lid locks in place, reducing damage or injuries due to lids being loose or missing.
- Alignment ring helps prevent the box from resting against the operating nut of the valve during backfill, rendering the valve inoperable.
- Extension stem has been proof-of-design tested to up to 1000 ft-lb of torque without failure.
- Valve box is designed to help prevent dirt, debris and gravel from entering.
- Top extensions are available for height adjustment should there be a grade change.
- Fits almost any type of valve box.
- Installs in minutes.

### SPECIFICATIONS

A valve box upgrade insert shall be one complete assembled unit composed of a ductile iron insert top, a self-adjusting extension stem, grit washer and locking lid. The valve box top section shall be adaptable to fit inside a standard valve box upper section.

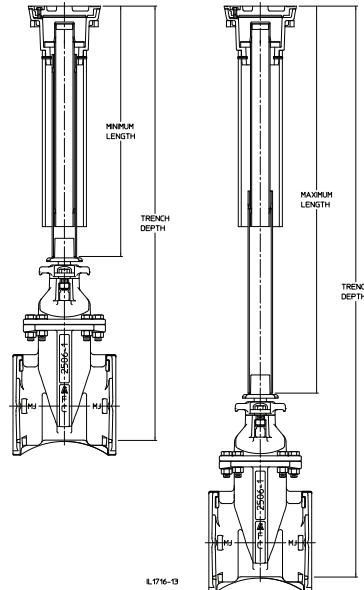
The extension stem assembly shall be of a telescoping design that allows for variable lengths. The material shall be galvanized square steel tubing. The extension stem must be capable of surviving a torque test to 1000 ft-lb without failure. Valve box insert shall be AMERICAN Flow Control's Retrofit Valve Box Insert.

## RETROFIT VALVE BOX INSERT CONSTRUCTION





## RETROFIT VALVE BOX INSERT DIMENSIONS



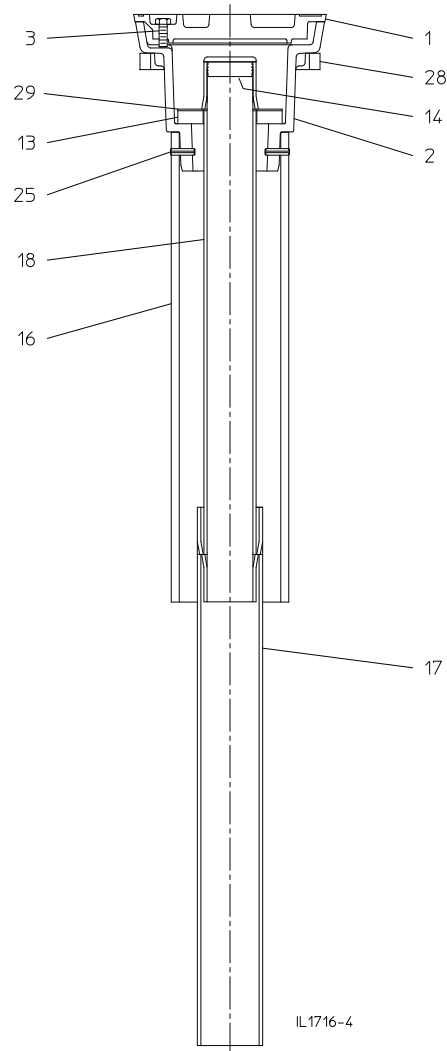
Valve Size	Trench Depth and Model Number																			
	2'0"	2'6"	3'0"	3'6"	4'0"	4'6"	5'0"	5'6"	6'0"	6'6"	7'0"	7'6"	8'0"	8'6"	9'0"	9'6"	10'0"	10'6"	11'0"	11'6"
2"	-	2A	3A,4A	4A	5A	5A	6A	6A	6A	6A	7A	7A	7A	7A	7A	7A	7A	7A	7A	8A
2-1/2"	-	2A	3A	4A	5A	5A	5A,6A	6A	6A	6A	6A,7A	7A	7A	7A	7A	7A	7A	7A	7A	8A
3"	-	2A	2A,3A	4A	5A	5A	5A,6A	6A	6A	6A	6A,7A	7A	7A	7A	7A	7A	7A	7A	7A	8A
4"	-	-	3A	4A	4A,5A	5A	5A,6A	6A	6A	6A	6A	7A	7A	7A	7A	7A	7A	7A	7A	8A
6"	-	-	2A	3A	4A	5A,4A	5A	5A,6A	6A	6A	6A	6A	7A	7A	7A	7A	7A	7A	7A	7A
8"	-	-	-	2A	3A,4A	4A	5A	5A	6A	6A	6A	6A	6A	7A	7A	7A	7A	7A	7A	7A
10"	-	-	-	-	2A	3A,4A	4A	5A	5A	6A	6A	6A	6A	7A	7A	7A	7A	7A	7A	7A
12"	-	-	-	-	-	2A,3A	3A,4A	4A,5A	5A	5A	6A	6A	6A	6A	7A	7A	7A	7A	7A	7A
14"	-	-	-	-	-	-	-	3A	4A	5A	5A	5A	6A	6A	6A	7A	7A	7A	7A	7A
16"	-	-	-	-	-	-	-	-	3A,4A	4A	5A	5A	5A	6A	6A	6A	6A	7A	7A	7A
18"	-	-	-	-	-	-	-	-	2A	3A,4A	4A	5A	5A,6A	6A	6A	6A	6A	7A	7A	7A
20"	-	-	-	-	-	-	-	-	2A	3A	3A,4A	4A	5A	5A	6A	6A	6A	6A	7A	7A
24"	-	-	-	-	-	-	-	-	-	-	2A	3A	4A	5A	5A	5A	6A	6A	6A	6A,7A

Valve Size	Trench Depth and Model Number																	
	12'0"	12'6"	13'0"	13'6"	14'0"	14'6"	15'0"	15'6"	16'0"	16'6"	17'0"	17'6"	18'0"	18'6"	19'0"	19'6"	20'0"	
2"	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	9A	9A	9A	-	
2-1/2"	8A	8A	8A	8A	8A	8A	8A	8A,9A	9A	9A	9A	9A	9A	9A	9A	9A	-	
3"	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	9A	9A	-	
4"	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	9A	9A	9A	
6"	8A	8A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	9A	
8"	7A	8A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	9A	
10"	7A	7A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	9A	
12"	7A	7A	7A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	9A	9A	
14"	7A	7A	7A	7A	8A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	9A	
16"	7A	7A	7A	7A	7A	8A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	
18"	7A	7A	7A	7A	7A	7A,8A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	
20"	7A	7A	7A	7A	7A	7A	8A	8A	8A	8A	8A	8A	8A	8A	9A	9A	9A	
24"	7A	7A	7A	7A	7A	7A	7A	7A,8A	8A	8A	8A	8A	8A	8A	8A	8A	9A	

Where two model numbers are shown for a given valve/trench combination, use the dimensions in the tables below to select the best fit.

Model Number	Length		Assembly Weight
	Minimum	Maximum	
2A	19.00	24.00	27 LBS
3A	23.50	31.50	29 LBS
4A	27.50	39.50	32 LBS
5A	35.50	55.50	38 LBS
6A	47.50	79.50	45 LBS
7A	71.50	127.50	60 LBS
8A	122.75	178.75	87 LBS
9A	173.75	229.75	105 LBS

## RETROFIT VALVE BOX INSERT PARTS LIST

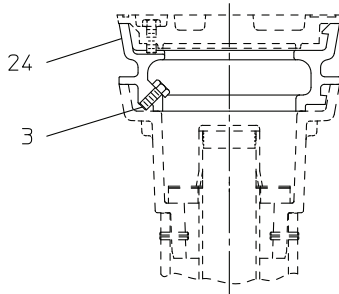


Ref. No.	Description	Material	Qty
1	Lid	Ductile Iron <sup>1</sup>	1
		Urethane <sup>2</sup>	
2	Top	Ductile Iron	1
3	Locking Bolt <sup>3</sup>	Stainless Steel	1
13	Grit Washer	High-Density Polyethylene	1
14	Cap	Plastic	1
16	Upper Pipe	High-Density Polyethylene	1
17	Lower Stem	Galvanized Steel Tubing	1
18	Upper Stem	Galvanized Steel Tubing	1
25	Spring Pin	Stainless Steel	2
28	Top Spacer	Ductile Iron	1
29	Stem Washer	Stainless Steel	1

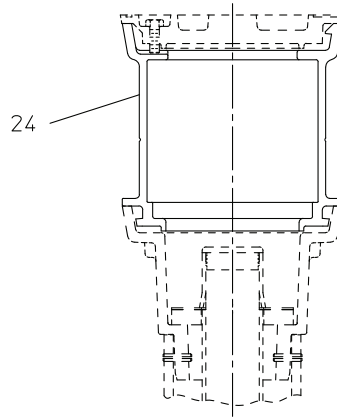
Note:

1. Available for sewer, water, reuse water, gas and fire service.
2. Available for water service only.
3. Not included or required when furnished with urethane lid.

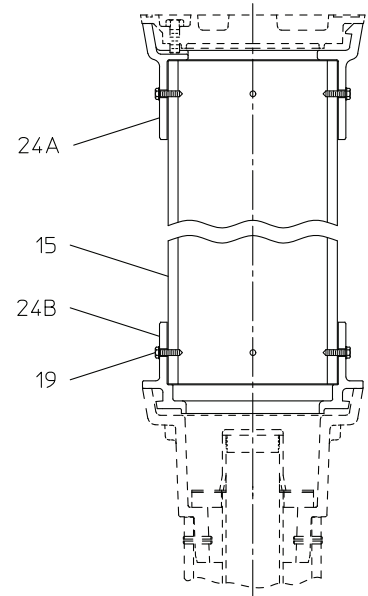
## RETROFIT VALVE BOX INSERT EXTENSIONS PARTS LIST



2-INCH TOP EXTENSION



6-INCH TOP EXTENSION



12-INCH, 18-INCH AND 24-INCH  
TOP EXTENSION ASSEMBLIES

IL1716-11

Ref. No.	Description	Material	Qty				
			2"	6"	12"	18"	24"
3	Locking Bolt	Stainless Steel	1	-	-	-	-
15	Pipe	High-Density Polyethylene	-	-	1	1	1
19	Screw	Stainless Steel	-	-	8	8	8
24	Top Extension	Ductile Iron	1	1	-	-	-
24A	Top Extension	Ductile Iron	-	-	1	1	1
24B	Top Extension	Ductile Iron	-	-	1	1	1

Note:

1. Ref. number 24A & 24B are not available individually for repairs.



# AMERICAN

## FLOW CONTROL

**THE RIGHT WAY**

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