



# Section F

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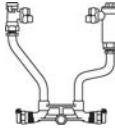

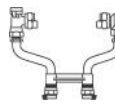
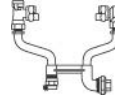
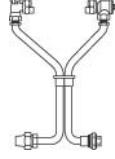


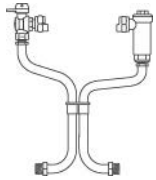
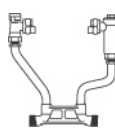
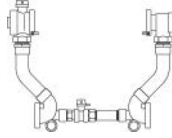

Web Revision 07/25/2016

# Ford Coppersetters, Linesetters and Resetters

All Ford Meter Setters are assembled using lead-free solder.



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Due to design improvements, product images in the catalog do not always reflect the most current design detail.

**\*Type of meter inlet valve & outlet valve**

- V** = inlet key valve & no outlet valve
- VV** = inlet key valve & outlet key valve
- VVG** = inlet key valve & compression outlet valve
- VH** = inlet key valve & outlet single check valve
- VHH** = inlet key valve & outlet cascading dual check valve
- \*\*VHC** = inlet key valve & outlet cartridge dual check valve
- VB** = inlet ball valve & no outlet valve
- \*\*\*VBB** = inlet ball valve & outlet ball valve
- VBG** = inlet ball valve & outlet compression valve
- VBH** = inlet ball valve & outlet check valve
- VBHH** = inlet ball valve & outlet cascading dual check valve
- \*\*VBHC** = inlet ball valve & outlet cartridge dual check valve

**T** = "T" in front of the catalog number indicates a tandem style setter

\* Coppersettlers can be ordered less valves by omitting the above letters from the catalog number.

\*\* Cartridges with enhanced chlorine/ chloramine resistance are available. Add "CR" to end of alpha code.  
Example: **VHCCR72-15W-44-33-NL**

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should not be used as a customer shut-off on the customer side of the meter.

**Meter size**

- 1** = 5/8" meter
- 2** = 5/8"x 3/4" meter
- 3** = 3/4" meter
- 4** = 1" meter
- 6** = 1-1/2" flanged meter
- 7** = 2" flanged meter

**Ford Coppersettlers  
Numbering System**

**Setter height (Approximate)**

- 7** = 7" high setter
  - 8** = 8" high setter
  - 9** = 9" high setter
  - 10** = 10" high setter
  - 12** = 12" high setter
- Setters above 12" are made in 3" increments

**Service line connection size**

- |          | Inlet  | Outlet |
|----------|--------|--------|
| <b>1</b> | 1/2"   |        |
| <b>3</b> | 3/4"   |        |
| <b>4</b> | 1"     |        |
| <b>5</b> | 1-1/4" |        |
| <b>6</b> | 1-1/2" |        |
| <b>7</b> | 2"     |        |

5/8" thru 1" Coppersettlers only

**W** = Angle Meter Ball and Key Valves are **WITH** Padlock Wing

Compression valve **WITHOUT** Padlock Wing

1-1/2" and 2" Coppersettlers only

**B** = Bypass

**HB** = High Bypass

**BHC** = Bypass with dual check (1-1/2" and 2" only)

**HBHC** = High Bypass with dual check (1-1/2" and 2" only)

**V72 - 12W - 44 - 33 - G - NL**

**Type of setter**

- 7** = 70 series coppersetter with horizontal inlet and outlet
- 27** = 270 series coppersetter with detachable pack joint assemblies for 5/8", 5/8" x 3/4", 3/4" and 1" meter
- 8** = 80 series coppersetter with vertical inlet and outlet
- 7-8** = 70-80 series coppersetter with vertical inlet and horizontal outlet
- 9** = 90 series coppersetter with horizontal inlet and outlet for 5/8", 5/8" x 3/4", 3/4" and 1" meter
- 4** = 40 series resetter to use when meter connections are available in existing services for 5/8", 5/8" x 3/4", 3/4" and 1" meter
- 3** = 30 series flexible resetter to use when meter nuts are available in existing services for 5/8", 5/8"x3/4", 3/4" and 1" meter

**Inlet Outlet**

**Service line connection type**

- 1** = Double Purpose Union Swivel (FIP for 1-1/2" & 2" Coppersettlers)
- 2** = Flare Copper
- 4** = Pack Joint for CTS
- 6** = Pack Joint for PE pipe
- 7** = Pack Joint for PVC pipe (Schedule 40 & 80)
- 8** = Male Iron Pipe Union Swivel
- F** = Integral Female Iron pipe (Female Iron Pipe Union Swivel may be used when Integral FIP is not available.)
- M** = Integral Male Iron Pipe Thread

**Options**

- G** = Grip nut compression fitting instead of pack joint nut. Available with CTS (3/4" - 2") and PE Pipe (3/4" & 1")
- Q** = Quick Joint
- TP6** = 1-1/2" Integral Test Port on Dual Check Valve for 1-1/2" and 2" Coppersettlers with a shut-off valve below the Dual Check Valve Ultra-Tite available with 3/4" and 1" CTS and PE pipe where listed

**90 Series Options**

- A** = 15" Outlet Extension
- B** = 18" Outlet Extension
- C** = Bolted Clamp
- E** = Brace Eye
- F** = 15" Outlet Extension and Bolted Clamp
- H** = 15" Outlet Extension and Brace Eye
- J** = 18" Outlet Extension and Bolted Clamp
- K** = 18" Outlet Extension and Brace Eye

-NL = No Lead alloy ▲

\*\*\*Note: 5/8" x 3/4", 3/4" and 1" setters with angle ball valve will have a reduced port that usually provides suitable water flow. A full port ball valve is available at an additional cost; add "-FP" to end of catalog number and contact the factory for pricing.

▲ Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.

Parties responsible for monitoring and maintaining proper water system design must exercise full responsibility in understanding and upholding the full intent and scope of applicable lead laws.

# Information

## Features of Ford Coppersetters, Linesetters and Reseters

**Valve Options** - The valve on the riser of a Coppersetter, Linesetter or Resetter serves as a curb stop. An inverted key valve is available; however, angle ball valves and full port angle ball valves may be specified and provide many advantages. Padlock wings are standard on all Ford meter valves (key and ball styles). Ball Valves have an option for 360° rotation of the tee-head; insert "R" into the catalog number (Example: VB72-7WR-11-33-NL). 5/8" x 3/4", 3/4" and 1" Coppersetters with angle ball valve will be reduced port, unless otherwise specified. (Add "-FP" to the catalog number for full port.)



Angle Ball Valve

### All Ford Meter Setters are assembled using lead-free solder.

Coppersetters, Linesetters, and Reseters are complete meter setting devices, easily installed and providing these permanent benefits.

- Meter reading is expedited
- Pressure loss is minimized
- Meter changes are quick and do not disturb the service line
- Provides cost savings in couplings, valves, pipe fittings and labor
- Makes retrofitting a check valve for backflow prevention quick and easy

Coppersetters place meters 7" or more above the service line. Linesetters place meters 3" above the service line. We offer a wide variety of valve and service line connections. Reseters attach to old meter connections to raise and improve meter settings.



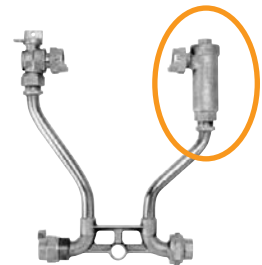
**Dual Angle Check Valves** are available on Ford setters and reseters for meters through 2". Cartridge Style Dual Angle Check Valves are available through 1". Located at the outlet of the meter, they are practical and inexpensive solutions to several potential backflow problems.

Pit flooding during meter changeouts is prevented, as well as hot water damage to meter chambers. In the event of a utility system pressure drop some protection is afforded from cross-connection contamination, and raw water infiltration from customer well systems is minimized.

Checks are spring loaded, of brass, plastic and stainless steel construction, and have a removable top or back cap for in-line maintenance purpose.

A single angle check valve can also be specified and ordered on any Ford Setter or Resetter. Check Valves are available as outlet valves. Ford is THE choice of Dual Checks for Water Utilities. Only Ford offers these important advantages:

- The first full line of ASSE approved Dual Checks designed for use at the water meter
- The first full line of ASSE approved Dual Checks with removable access caps for easy maintenance
- The first ASSE approved Dual Checks available as integral parts of Coppersetters, Reseters and Yokes

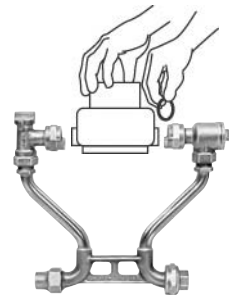


Cartridge Dual Check Valve



**Saddle Nuts** - "As good as an extra hand in the meter box" is the way one waterworks man describes Saddle Nuts. This feature provides supporting lips on the coupling nuts to hold the meter when it is lowered into position. Threads in the nuts are automatically lined up with the meter spuds for easy starting. Gaskets are held in place and prevented from dropping while the nuts are started. Saddle Nuts save time, trouble and gaskets with each meter change.

Saddle Nuts are included with all 5/8" through 1" Ford Coppersetters and Reseters (except Tandem Setters) as a free and valuable bonus. Support Brackets included on 1-1/2" and 2" Coppersetters and Reseters provide similar advantages by holding the flanged meter and gasket in place while the flange bolts are inserted and tightened.



A **Compression Valve** is available on Coppersetters. It is normally placed at the outlet and is convenient for customer operation.



Compression Valve

A **Drain or Test Valve** for checking meter performance or draining service lines can be included at the outlet of plain or single valve Coppersetters and Reseters. The Drain Valve consists of a bronze body with a bronze screw seating on a plastic washer to prevent leakage.



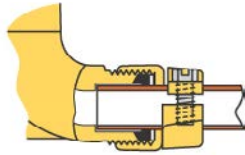
Drain or Test Valve

# Information

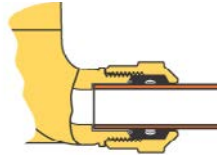
## Features of Ford Coppersetters, Linesetters and Resetters Service Line Connections

Coppersetters are available with connections for a wide range of types and sizes of pipe and tubing. Note the convenience of Pack Joints, Grip Joints, Quick Joints and Ultra-Tites for existing services and for many new settings. Both Coppersetters and Resetters can be tailored to special conditions. Contact factory for assistance in creating a setter that will fit your needs.

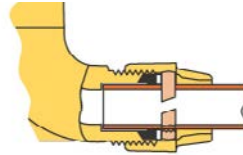
### Pack Joint, Quick Joint, Grip Joint and Ultra-Tite Compression Connections



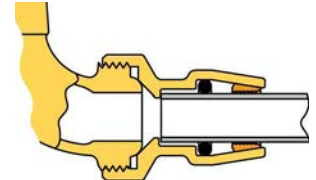
Pack Joint compression coupling for Copper, PET, PEP and PVC



Quick Joint compression coupling for Copper, PET and PEP

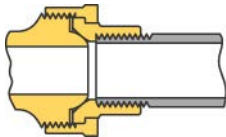


Grip Joint compression coupling for Copper, PET and PEP

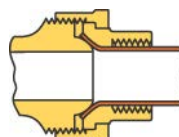


Ultra-Tite compression coupling for PET and PEP

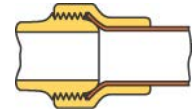
### Double Purpose and Flare Connections



The Double Purpose Coupling as used for connection to male iron pipe threads

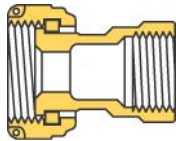


The Double Purpose Coupling as used for flare-type connection to copper

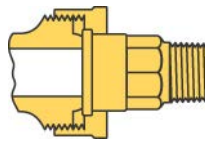


Flare Joint for connection to copper tubing

### Swivel Iron Pipe Thread Connections



Union Nut and FIP Swivel Assembly for connecting smaller Coppersetters to male iron pipe threads



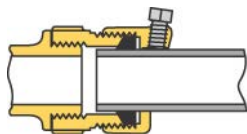
The Male Swivel is convenient for connecting to FIP adapters/valves

### MIP Connections

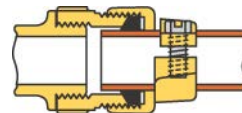


Integral Male Iron Pipe Thread (No Swivel)

### 270 Series Compression Connections



Pack Joint compression coupling for Iron Pipe



Pack Joint compression coupling for Copper, PET, PEP and PVC

### GASKETS

Rubber gaskets are furnished with all Coppersetters. Leather and composition gaskets are available upon request.

### GASKETS FOR COPPERSETTERS LINESETTERS - RESETTERS

| CATALOG NUMBER | MATERIAL                                    | METER SIZE       | DIAMETER |         | THICKNESS |
|----------------|---|------------------|----------|---------|-----------|
|                |   |                  | OUTSIDE  | INSIDE  |           |
| GT-109         | Composition                                 | 5/8"             | 15/16"   | 41/64"  | 1/8"      |
| GT-116         |   | 5/8"x3/4" & 3/4" | 1-5/32"  | 25/32"  | 1/8"      |
| GT-121         |   | 1"               | 1-1/2"   | 1-1/16" | 1/8"      |
| GT-167         | Leather (paraffined)                        | 5/8"             | 15/16"   | 5/8"    | 1/8"      |
| GT-113         |   | 5/8"x3/4" & 3/4" | 1-3/16"  | 3/4"    | 1/8"      |
| GT-163         |   | 1"               | 1-1/2"   | 1"      | 1/8"      |
| GT-108         | Rubber                                      | 5/8"             | 15/16"   | 5/8"    | 1/8"      |
| GT-114         |   | 5/8"x3/4" & 3/4" | 1-5/32"  | 3/4"    | 1/8"      |
| GT-120         |   | 1"               | 1-1/2"   | 1"      | 1/8"      |
| GT-205         | Composition (for Double Purpose Connection) | 3/4"             | 1-1/2"   | 1-3/16" | 1/8"      |
| GT-206         |   | 1"               | 1-7/8"   | 1-7/16" | 1/8"      |

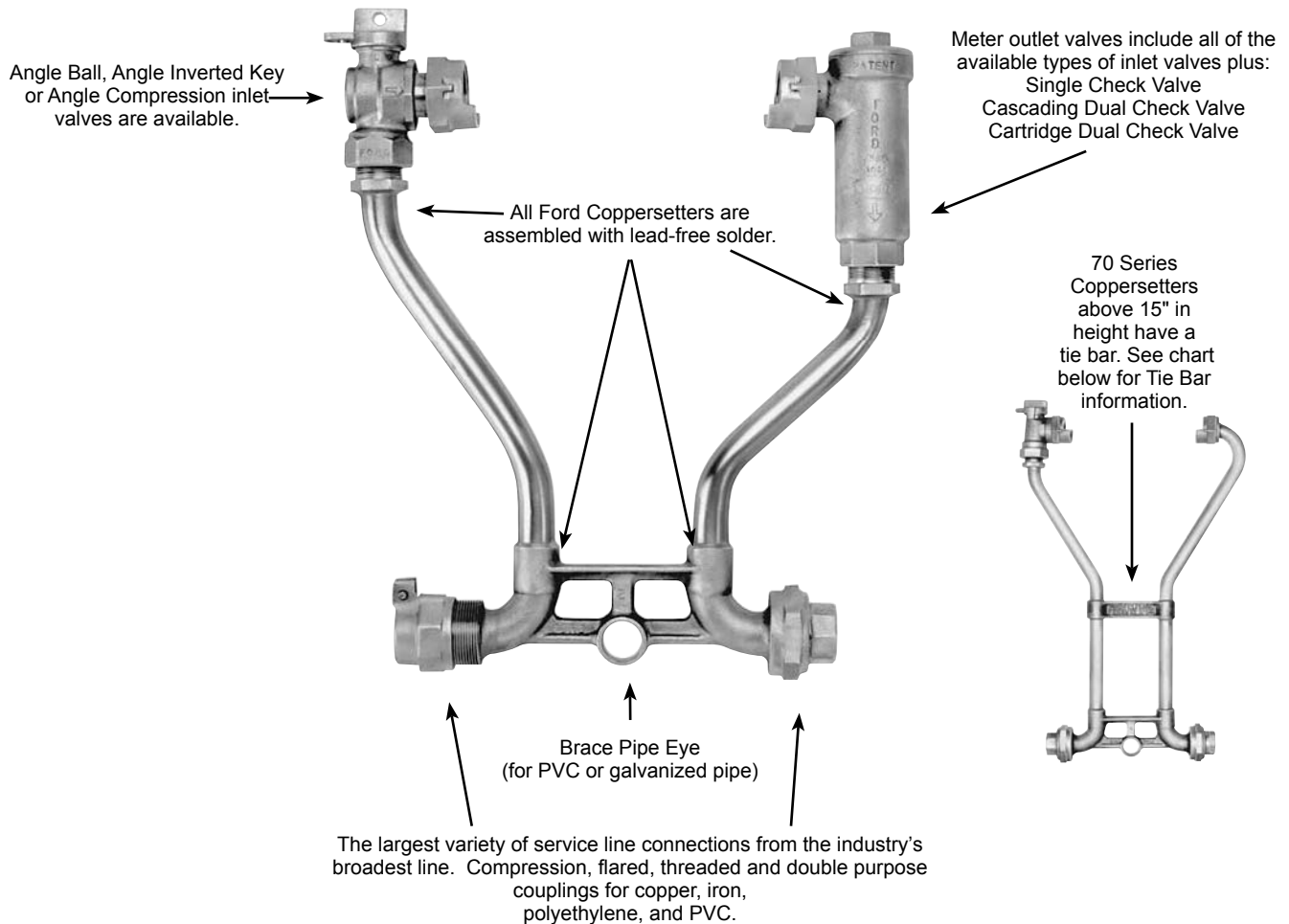
# The Ford 70 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Ford 70 series Coppersetters are designed to be a complete, ready-made meter setting. They require only two pipe joints to install and will connect to horizontal service lines. 70 Series Coppersetters are made in various heights to place the meter at the proper elevation for convenient reading and servicing. Correct hydraulic design assures minimum pressure loss; copper and brass construction provides a lifetime of satisfactory service.

**To order:** Select one catalog number component from each of the three charts on pages 8 through 11 to arrive at the complete Coppersetter catalog number. Selection order of components:

1. Meter size and valve type . . . . . page 8
2. Coppersetter height . . . . . page 8
3. Service line connections . . . . . pages 9 -11



| 40, 70 AND 270 SERIES TIE BAR REQUIREMENTS |                         |            |               |            |
|--|-------------------------|------------|---------------|------------|
| COPPERSETTER HEIGHT                        | METER SIZE              |            |               |            |
|  | 5/8", 5/8"x3/4", & 3/4" |            | 1"            |            |
|  | WITHOUT *HHCA           | WITH *HHCA | WITHOUT *HHCA | WITH *HHCA |
| 15" & Under                                | NO                      | NO         | NO            | NO         |
| 18"  | YES                     | NO         | NO            | NO         |
| 21"  | YES                     | YES        | YES           | NO         |
| 24" thru 39"                               | YES                     | YES        | YES           | YES        |
| 42" and higher                             | YES (2)                 | YES (2)    | YES (2)       | YES (2)    |

\* HHCA represents a cartridge style dual check valve, which is designated with an "HC" in the coppersetter catalog number. **Example:** VHC72-15W-44-33-NL.

# The Ford 70 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

## Example of Catalog Number for a 70 Series Coppersetter

FIRST PART OF NUMBER  
(METER SIZE AND VALVE TYPE)

SECOND PART OF NUMBER  
(COPPERSETTER HEIGHT)

THIRD PART OF NUMBER  
(SERVICE LINE CONNECTION TYPE & SIZE)

**VBHC72-12W-41-33-NL**

Angle Ball Meter  
Valve on inlet

Cartridge Angle Dual Check  
on outlet

70 Series Coppersetter  
For 5/8 x 3/4" Meter Only

Riser height is approximately 12" from  
center line of the service line to center line  
of the meter spud

(Brace Eye is Standard  
on all 70 Series Coppersetters)

"No-Lead" Brass\*

3/4" Outlet Service Line Connection

3/4" Inlet Service Line Connection

Double Purpose Union Swivel  
Outlet Service Line Connection

Pack Joint for CTS

Inlet Service Line Connection

Angle Meter Ball and Key Valves are  
**with** Padlock Wing – Compression valve  
**without** Padlock Wing

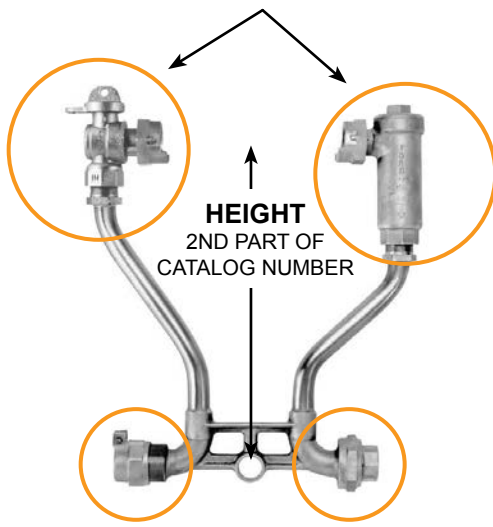
The description for the above catalog number reads: 70 Series Coppersetter for 5/8" x 3/4" meter with an Angle Ball Meter Valve on the inlet, Cartridge Angle Dual Check on the outlet, 12 inches high, with 3/4" Pack Joint for CTS inlet by 3/4" double purpose union swivel outlet.

\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.

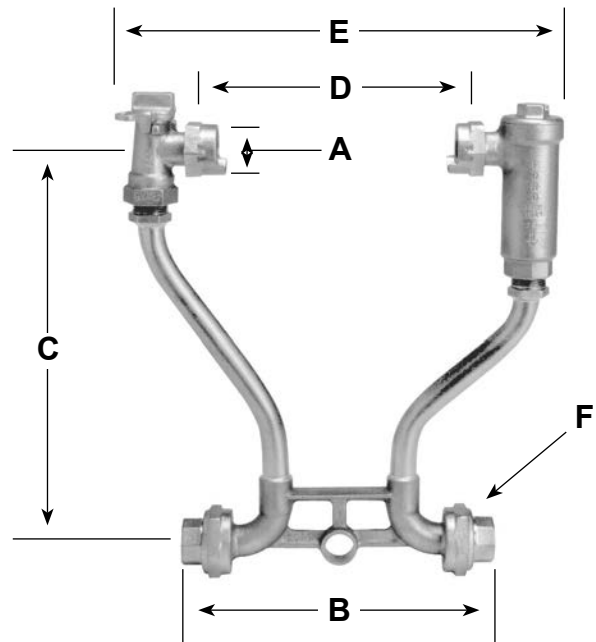
## Catalog Numbering

METER SIZE & VALVE TYPE  
1ST PART OF CATALOG NUMBER



SERVICE LINE CONNECTIONS  
3RD PART OF CATALOG NUMBER

## Dimensions

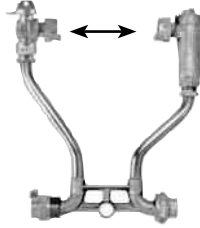


| APPROX. DIMENSIONS | METER SIZES                     |             |         |              |
|--------------------|---------------------------------|-------------|---------|--------------|
|                    | 5/8"                            | 5/8" x 3/4" | 3/4"    | 1"           |
| A                  | 1-1/16"                         | 1-5/16"     | 1-5/16" | 1-5/8"       |
| B                  | 9-1/2"                          | 9-1/2"      | 11"     | 12-3/4"      |
| C                  | Heights as ordered in all sizes |             |         |              |
| D                  | 7-1/2"+3/8"                     | 7-1/2"+3/8" | 9"+3/8" | 10-3/4"+3/8" |
| E                  | 12"                             | 12"         | 14-1/4" | 17-1/4"      |
| F                  | 3/4"                            | 3/4"        | 3/4"    | 1"           |

# The Ford 70 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

## METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |                |          |          | DESCRIPTION (METER CONNECTION) |                        |
|--|----------------|----------|----------|--------------------------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"x 3/4" | FOR 3/4" | FOR 1"   | INLET VALVE                    | OUTLET VALVE           |
| 71   | 72             | 73       | 74       | none                           | none                   |
| V71  | V72            | V73      | V74      | Key                            | none                   |
| VB71                                       | VB72           | VB73     | VB74     | Ball                           | none                   |
| VBB71***                                   | VBB72***       | VBB73    | VBB74    | Ball                           | Ball                   |
| VV71                                       | VV72           | VV73     | VV74     | Key                            | Key                    |
| VVG71*                                     | VVG72*         | VVG73*   | VVG74*   | Key                            | Compression            |
| VH71                                       | VH72           | VH73     | VH74     | Key                            | Single Check           |
| VHH71                                      | VHH72          | VHH73    | VHH74 ▼  | Key                            | Cascading Dual Check   |
| VHC71**                                    | VHC72**        | VHC73**  | VHC74**  | Key                            | ● Cartridge Dual Check |
| VBG71*                                     | VBG72*         | VBG73*   | VBG74*   | Ball                           | Compression            |
| VBH71                                      | VBH72          | VBH73    | VBH74    | Ball                           | Single Check           |
| VBHH71                                     | VBHH72         | VBHH73   | VBHH74 ▼ | Ball                           | Cascading Dual Check   |
| VBHC71**                                   | VBHC72**       | VBHC73** | VBHC74** | Ball                           | ● Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* 70 Series Coppersettors with cartridge dual check valve have a 9" minimum height for 5/8" and 5/8" x 3/4" meters, 12" minimum height for 3/4" meters and 15" minimum height for 1" meters.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should be not be used as a customer shut-off on the customer side of the meter.

▼ Angle cascading dual check valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

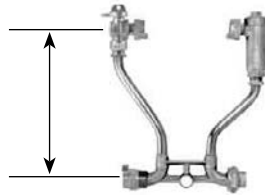
● Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHC**CR**72-15W-44-33-NL

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested. Reduced port valves usually provide suitable water flow. (Add "-FP" to the catalog number for full port.)

**Meter Valve Options for 70 Series Coppersettors:** Seal Wire Hole in Inlet Valve, Seal Wire Hole in Check Valve

## HEIGHT - (SECOND PART OF CATALOG NUMBER)

NOTE: Height dimensions are approximate.



### For 5/8" and 5/8"x3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 7W-NL          | 7                |
| 9W-NL          | 9                |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### For 3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 8W-NL          | 8                |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### For 1" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 10W-NL         | 10               |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### HEIGHT INFORMATION FOR 70 SERIES COPPERSETTERS:

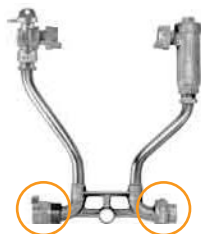
- Contact factory for availability of heights not listed.
- Coppersettors are available in heights over 24" in 3" increments; 27", 30", 33" etc. To order, put desired height in catalog number. Example: V72-33W-11-33-NL is a 33" high setter.
- See table on page 6 for tie bar requirements

**Meter valve options for 70 Series Coppersettors:** Seal wire hole in inlet valve, seal wire hole in check valve

# The Ford 70 Series Coppersetter

For 5/8", 5/8"x3/4" and 3/4" Meter Size

## INLET & OUTLET SERVICE LINE CONNECTIONS \ BOTTOM BAR - (THIRD PART OF CATALOG NUMBER)



Service Line Connections

| Pack Joint by Pack Joint |   |   |
|--------------------------|---|---|
| CATALOG NUMBER           | DESCRIPTION                                   |   |
|                          | INLET CONNECTION                              | OUTLET CONNECTION                             |
| ▶ □ 44-33-NL             | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ □ • 66-33-NL           | 3/4" P.J. for PE Pipe*                        | 3/4" P.J. for PE Pipe*                        |
| • 77-33-NL               | 3/4" P.J. for PVC Pipe                        | 3/4" P.J. for PVC Pipe                        |
| ▶ • 46-33-NL             | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for PE Pipe*                        |
| ▶ • 64-33-NL             | 3/4" P.J. for PE Pipe (PEP)                   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ • 47-33-NL             | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for PVC Pipe                        |
| ▶ • 74-33-NL             | 3/4" P.J. for PVC Pipe                        | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| • 44-43-NL               | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ □ • 44-44-NL           | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶ • 66-44-NL             | 1" P.J. for PE Pipe*                          | 1" P.J. for PE Pipe*                          |
| • 77-44-NL               | 1" P.J. for PVC Pipe                          | 1" P.J. for PVC Pipe                          |
| ▶ • 46-44-NL             | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for PE Pipe*                          |
| ▶ • 64-44-NL             | 1" P.J. for PE Pipe*                          | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶ • 47-44-NL             | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for PVC Pipe                          |
| ▶ • 74-44-NL             | 1" P.J. for PVC Pipe                          | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶ • 67-44-NL             | 1" P.J. for PE Pipe*                          | 1" P.J. for PVC Pipe                          |
| ▶ • 76-44-NL             | 1" P.J. for PVC Pipe                          | 1" P.J. for PE Pipe*                          |

| Pack Joint by Iron Pipe and Double Purpose Connections |   |   |
|--|---|---|
| 4M-33-NL   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Integral Male Iron Pipe Thread           |
| ▶ □ 14-33-NL   | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ □ 41-33-NL   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Double Purpose Union Swivel Δ            |
| ▶ □ 48-33-NL   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Male Iron Pipe Union Swivel              |
| ▶ □ 84-33-NL   | 3/4" Male Iron Pipe Union Swivel              | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ • 16-33-NL   | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for PE Pipe*                        |
| ▶ • 61-33-NL   | 3/4" P.J. for PE Pipe*                        | 3/4" Double Purpose Union Swivel Δ            |
| • 17-33-NL   | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for PVC Pipe                        |
| • 71-33-NL   | 3/4" P.J. for PVC Pipe                        | 3/4" Double Purpose Union Swivel Δ            |
| ▶ • 68-33-NL   | 3/4" P.J. for PEP Pipe*                       | 3/4" Male Iron Pipe Union Swivel              |
| ▶ • 86-33-NL   | 3/4" Male Iron Pipe Union Swivel              | 3/4" P.J. for PEP Pipe*                       |
| • 78-33-NL   | 3/4" P.J. for PVC Pipe                        | 3/4" Male Iron Pipe Union Swivel              |
| • 87-33-NL   | 3/4" Male Iron Pipe Union Swivel              | 3/4" P.J. for PVC Pipe                        |
| □ • 48-34-NL   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 1" Male Iron Pipe Union Swivel                |
| □ • 84-43-NL   | 1" Male Iron Pipe Union Swivel                | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ • 84-44-NL   | 1" Male Iron Pipe Union Swivel                | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶ • 48-44-NL   | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" Male Iron Pipe Union Swivel                |
| • 78-44-NL   | 1" P.J. for PVC Pipe                          | 1" Male Iron Pipe Union Swivel                |
| • 87-44-NL   | 1" Male Iron Pipe Union Swivel                | 1" P.J. for PVC Pipe                          |
| • 41-43-NL   | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 3/4" Double Purpose Union Swivel Δ            |
| • 14-34-NL   | 3/4" Double Purpose Union Swivel Δ            | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| • 61-43-NL   | 1" P.J. for PE Pipe*                          | 3/4" Double Purpose Union Swivel Δ            |
| • 16-34-NL   | 3/4" Double Purpose Union Swivel Δ            | 1" P.J. for PE Pipe*                          |
| • 17-34-NL   | 3/4" Double Purpose Union Swivel Δ            | 1" P.J. for PVC Pipe                          |
| • 71-43-NL   | 1" P.J. for PVC Pipe                          | 3/4" Double Purpose Union Swivel Δ            |
| • 4F-44-NL   | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" Female Iron Pipe Union Swivel              |
| • F4-44-NL   | 1" Female Iron Pipe Union Swivel              | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| • 6F-44-NL   | 1" P.J. for PE Pipe*                          | 1" Female Iron Pipe Union Swivel              |
| • F6-44-NL   | 1" Female Iron Pipe Union Swivel              | 1" P.J. for PE Pipe*                          |
| • 7F-44-NL   | 1" P.J. for PVC Pipe                          | 1" Female Iron Pipe Union Swivel              |
| • F7-44-NL   | 1" Female Iron Pipe Union Swivel              | 1" P.J. for PVC Pipe                          |

\* **Grip Joint** for CTS and PE pipe is available. Add "-G" to the catalog number.  
Example: V72-12W-41-33-G-NL

♦ **Quick Joint** is available. Add "-Q" to the catalog number.

▶ **Ultra-Tite** is available. Contact factory for more information.

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

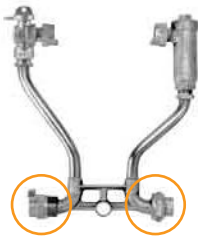
• These couplings are NOT available on 73 Series Coppersettors (with 15/16" O.D. copper tubing).  
Order as 72 Series Coppersettors (13/16" O.D. copper tubing) with 3/4" meter spacing.

**NOTE:** Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

# The Ford 70 Series Coppersetter

For 5/8", 5/8"x3/4" and 3/4" Meter Size

## INLET & OUTLET SERVICE LINE CONNECTIONS \ BOTTOM BAR - (THIRD PART OF CATALOG NUMBER)



Service Line Connections

| CATALOG NUMBER | DESCRIPTION                        |                                    |
|----------------|------------------------------------|------------------------------------|
|                | INLET CONNECTION                   | OUTLET CONNECTION                  |
| 11-33-NL       | 3/4" Double Purpose Union Swivel Δ | 3/4" Double Purpose Union Swivel Δ |
| 22-33-NL       | 3/4" Flare Copper                  | 3/4" Flare Copper                  |
| 88-33-NL       | 3/4" Male Iron Pipe Union Swivel   | 3/4" Male Iron Pipe Union Swivel   |
| 21-33-NL       | 3/4" Flare Copper                  | 3/4" Double Purpose Union Swivel Δ |
| 81-33-NL       | 3/4" Male Iron Pipe Union Swivel   | 3/4" Double Purpose Union Swivel Δ |
| 18-33-NL       | 3/4" Double Purpose Union Swivel Δ | 3/4" Male Iron Pipe Union Swivel   |
| 81-43-NL       | 1" Male Iron Pipe Union Swivel     | 3/4" Double Purpose Union Swivel Δ |
| • FF-33-NL     | 3/4" Integral Female Iron Pipe     | 3/4" Integral Female Iron Pipe     |
| MM-33-NL       | 3/4" Integral Male Iron Pipe       | 3/4" Integral Male Iron Pipe       |
| 11-44-NL       | 1" Double Purpose Union Swivel Δ   | 1" Double Purpose Union Swivel     |
| FF-44-NL       | 1" Female Iron Pipe Union Swivel   | 1" Female Iron Pipe Union Swivel   |
| 22-44-NL       | 1" Flare Copper                    | 1" Flare Copper                    |
| 88-44-NL       | 1" Male Iron Pipe Union Swivel     | 1" Male Iron Pipe Union Swivel     |

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

- Not available on 73 Series Coppersettors (with 15/16" O.D. copper tubing). These 72 Series Coppersetter (13/16" O.D. copper) service line connections are available with 3/4" meter spacing.

### PARTS FOR 5/8", 5/8" X 3/4" AND 3/4" SERIES COPPERSETTERS

| CATALOG NUMBER  | DESCRIPTION  | APPROX. WT. LBS. |
|-----------------|--|------------------|
| CSSUN4-33-Q-NL  | 3/4" CTS Quick Joint Swivel and Union Nut Assembly (with Quick Joint Nut)  | 1.1              |
| CSUN-3          | Union Nut only   | 0.2              |
| CSS8-33-NL      | 3/4" Male Iron Pipe Thread Swivel only   | 0.5              |
| CSS1-33-NL      | 3/4" Female Iron Pipe Thread Swivel only   | 0.2              |
| ○ CSSS-33-CR-NL | 3/4" Solder Swivel only  | 0.2              |
| CSS4-33-NL      | 3/4" CTS Pack Joint Swivel only (with Pack Joint Nut)  | 0.7              |
| CSS8-34-NL      | 1" Male Iron Pipe Thread Swivel only   | 0.5              |
| ○ CSSS-34-CR-NL | 1" Solder Swivel only  | 0.2              |
| CSSUN1-33-NL    | 3/4" Female Iron Pipe Swivel and Union Nut Assembly  | 0.4              |
| CSSUN1-34-NL    | 1" Female Iron Pipe Thread Swivel and Union Nut Assembly   | 0.9              |
| CSSUN4-33-NL    | 3/4" CTS Pack Joint Swivel and Union Nut Assembly  | 0.9              |
| CSSUN4-34-Q-NL  | 1" CTS Quick Joint Swivel and Union Nut Assembly   | 1.5              |
| CSA4-33-U-NL    | 3/4" Female Double Purpose by 3/4" CTS Ultra-Tite  | 0.7              |
| CSA4-44-U-NL    | 1" Female Double Purpose by 1" CTS Ultra-Tite  | 0.9              |
| CSA6-33-U-NL    | 3/4" Female Double Purpose by 3/4" PEP Ultra-Tite  | 0.8              |
| CSA6-44-U-NL    | 1" Female Double Purpose by 1" PEP Ultra-Tite  | 1.0              |
| CSA4-33-Q-NL    | 3/4" CTS Quick Joint Adapter for 3/4" Double Purpose Nose  | 1.0              |
| CSA7-33-NL      | 3/4" Pack Joint for PVC for 3/4" Double Purpose  | 1.1              |
| HHSCS8-333-NL   | 3/4" Dual Check Valve with Valve Copperhorn Union Swivel Inlet and 3/4" MIP Outlet (Unit attaches directly to setter bottom bar) | 1.8              |
| GT-205          | 3/4" Composition Gasket for Double Purpose Connection  | -                |
| GT-206          | 1" Composition Gasket for Double Purpose Connection  | -                |

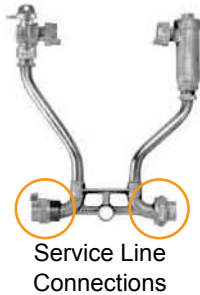
**NOTE:** Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

- **Attention:** Special solder and procedures are required for best results. Contact factory or see website for installation instructions.

# The Ford 70 Series Coppersetter

For 1" Meter Size

## INLET & OUTLET SERVICE LINE CONNECTIONS \ BOTTOM BAR - (THIRD PART OF CATALOG NUMBER)



| CATALOG NUMBER | Pack Joint by Pack Joint                    |   |
|----------------|---|---|
|                | DESCRIPTION                                 |   |
|                | INLET CONNECTION                            | OUTLET CONNECTION                           |
| ▶◆ 44-44-NL    | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 66-44-NL     | 1" P.J. for PE Pipe*                        | 1" P.J. for PE Pipe*                        |
| 77-44-NL       | 1" P.J. for PVC Pipe                        | 1" P.J. for PVC Pipe                        |
| ▶ 46-44-NL     | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for PE Pipe*                        |
| ▶ 64-44-NL     | 1" P.J. for PE Pipe*                        | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 47-44-NL     | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for PVC Pipe                        |
| ▶ 74-44-NL     | 1" P.J. for PVC Pipe                        | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 67-44-NL     | 1" P.J. for PE Pipe*                        | 1" P.J. for PVC Pipe                        |
| ▶ 76-44-NL     | 1" P.J. for PVC Pipe                        | 1" P.J. for PE Pipe*                        |

| Pack Joint, Iron Pipe Thread and Double Purpose Connections |   |   |
|---|---|---|
| ▶◆ 14-44-NL   | 1" Double Purpose Union Swivel Δ            | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶◆ 41-44-NL   | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Double Purpose Union Swivel Δ            |
| ▶ 16-44-NL  | 1" Double Purpose Union Swivel Δ            | 1" P.J. for PE Pipe*                        |
| ▶ 61-44-NL  | 1" P.J. for PE Pipe*                        | 1" Double Purpose Union Swivel Δ            |
| 17-44-NL  | 1" Double Purpose Union Swivel Δ            | 1" P.J. for PVC Pipe                        |
| 71-44-NL  | 1" P.J. for PVC Pipe                        | 1" Double Purpose Union Swivel Δ            |
| ▶ 48-44-NL  | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Male Iron Pipe Union Swivel              |
| ▶ 84-44-NL  | 1" Male Iron Pipe Union Swivel              | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| FF-44-NL  | 1" Female Iron Pipe Union Swivel            | 1" Female Iron Pipe Union Swivel            |

| Iron Pipe and Flare Connections |                                      |                                      |
|---------------------------------|--------------------------------------|--------------------------------------|
| 11-44-NL                        | 1" Double Purpose Union Swivel Δ     | 1" Double Purpose Union Swivel Δ     |
| 22-44-NL                        | 1" Flare Copper                      | 1" Flare Copper                      |
| 88-44-NL                        | 1" Male Iron Pipe Union Swivel       | 1" Male Iron Pipe Union Swivel       |
| 12-44-NL                        | 1" Double Purpose Union Swivel Δ     | 1" Flare Copper                      |
| 21-44-NL                        | 1" Flare Copper                      | 1" Double Purpose Union Swivel Δ     |
| 18-44-NL                        | 1" Double Purpose Union Swivel Δ     | 1" Male Iron Pipe Union Swivel       |
| 81-44-NL                        | 1" Male Iron Pipe Union Swivel       | 1" Double Purpose Union Swivel Δ     |
| 28-44-NL                        | 1" Flare Copper                      | 1" Male Iron Pipe Union Swivel       |
| 82-44-NL                        | 1" Male Iron Pipe Union Swivel       | 1" Flare Copper                      |
| MM-44-NL                        | 1" Integral Male Iron Pipe           | 1" Integral Male Iron Pipe           |
| MM-66-NL                        | 1-1/2" Integral Male Iron Pipe       | 1-1/2" Integral Male Iron Pipe       |
| FF-55-NL                        | 1-1/4" Female Iron Pipe Union Swivel | 1-1/4" Female Iron Pipe Union Swivel |
| 88-55-NL                        | 1-1/4" Male Iron Pipe Union Swivel   | 1-1/4" Male Iron Pipe Union Swivel   |

## PARTS FOR 1" SERIES COPPERSETTERS

| CATALOG NUMBER  | DESCRIPTION  | APPROX. WT. LBS. |
|-----------------|--|------------------|
| CSA4-44-U-NL    | 1" Ultra-Tite by Pack Joint (CTS) by 1" Double Purpose   | 0.9              |
| CSA6-44-U-NL    | 1" Ultra-Tite by Pack Joint (PEP) by 1" Double Purpose   | 1.0              |
| CSA7-44-NL      | 1" Pack Joint PVC Adapter for Double Purpose Nose        | 2.0              |
| CSUN-4          | Union Nut only   | 0.4              |
| CSS1-44-NL      | 1" Female Iron Pipe Thread Swivel only                   | 0.3              |
| CSS8-44-NL      | 1" Male Iron Pipe Thread Swivel only                     | 0.5              |
| CSS8-45-NL      | 1-1/4" Male Iron Pipe Thread Swivel only                 | 0.7              |
| ○ CSSS-44-CR-NL | 1" Solder Swivel only                                    | 0.3              |
| CSSUN1-44-NL    | 1" Female Iron Pipe Thread Swivel and Union Nut Assembly | 0.7              |

○ **Attention:** Special solder and procedures are required for best results. Contact factory or see website for installation instructions.

\* **Grip Joint** for CTS and PE pipe is available. Add "-G" to the catalog number.

◆ **Quick Joint** is available. Add "-Q" to the catalog number.

▶ **Ultra-Tite** is available. Contact factory for more information.

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

**NOTE:** Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

# The Ford 270 Series Coppersetter

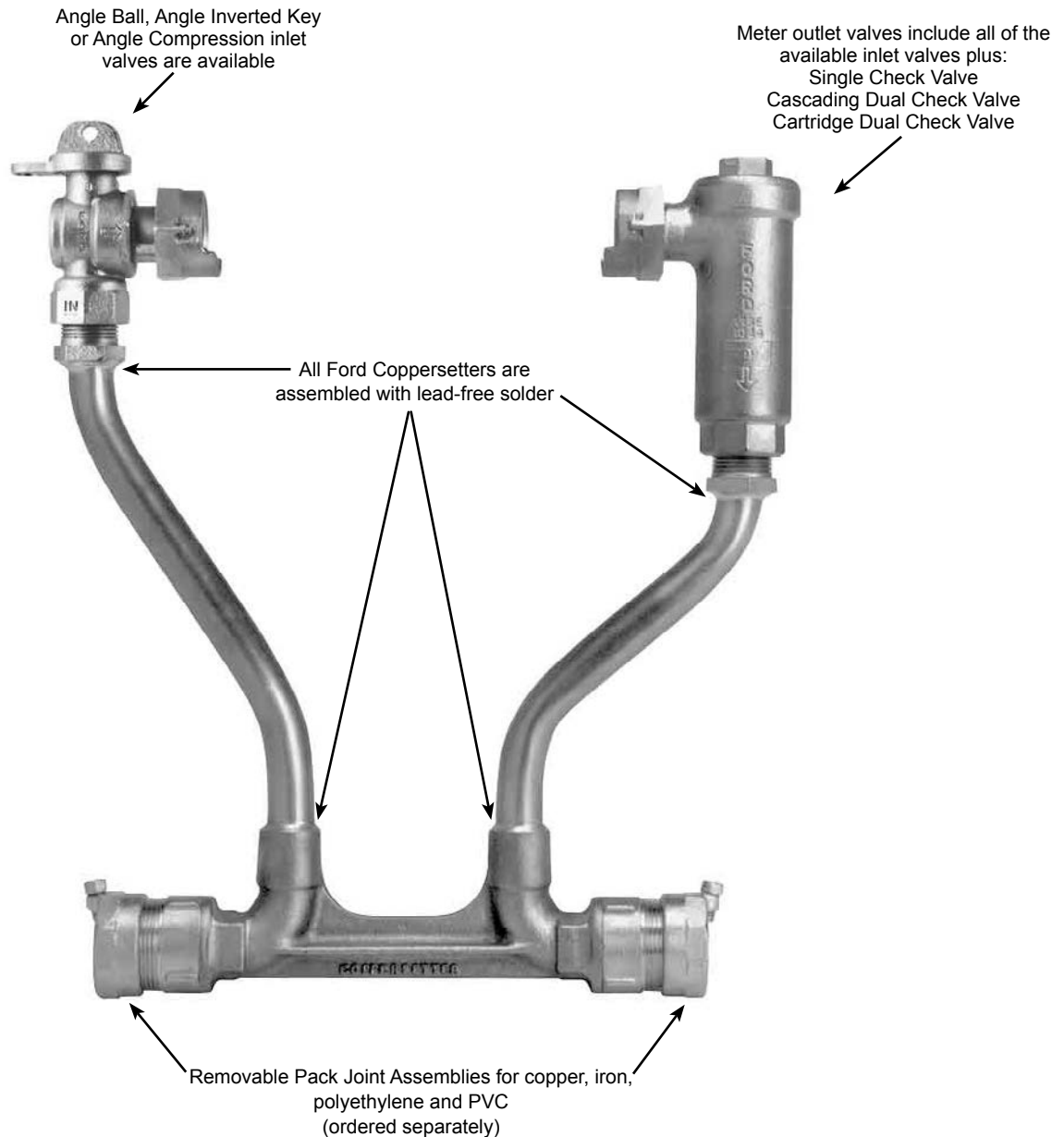
For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Requires removable Pack Joint (Pack Joint Assemblies ordered separately)

The 270 Series Coppersetters, with removable Pack Joint Assemblies, save time and expense when water meters are set outside in existing service lines. Threading of old iron pipe or flaring of brittle copper tubing is not required. Pack Joint Assemblies are interchangeable and available for all types of service pipe, a great help in metering programs where conditions are unknown until the pits are dug.

**To order:** Select one Catalog Number component from each of the two charts on page 14 to arrive at the complete Coppersetter Catalog Number. Additionally, service line connections are removable Pack Joint Assemblies and are ordered and priced separately. Selection order of components:

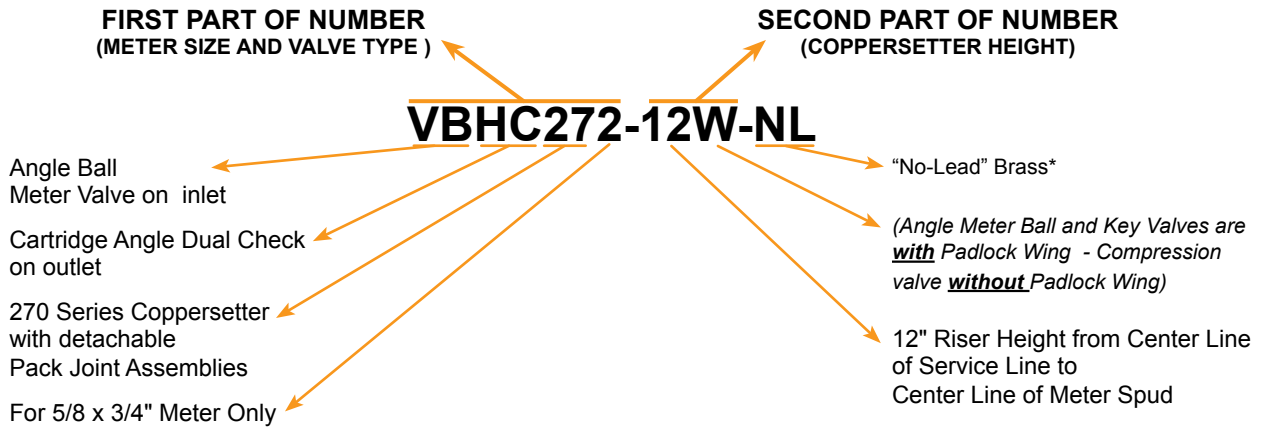
1. Meter size and valve type . . . . . page 14
2. Coppersetter height . . . . . page 14
3. Service line connections (removable Pack Joint Assemblies). . . . . page 15



# The Ford 270 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Requires removable Pack Joint (Pack Joint Assemblies ordered separately)

## Example of Catalog Number for a 270 Series Coppersetter

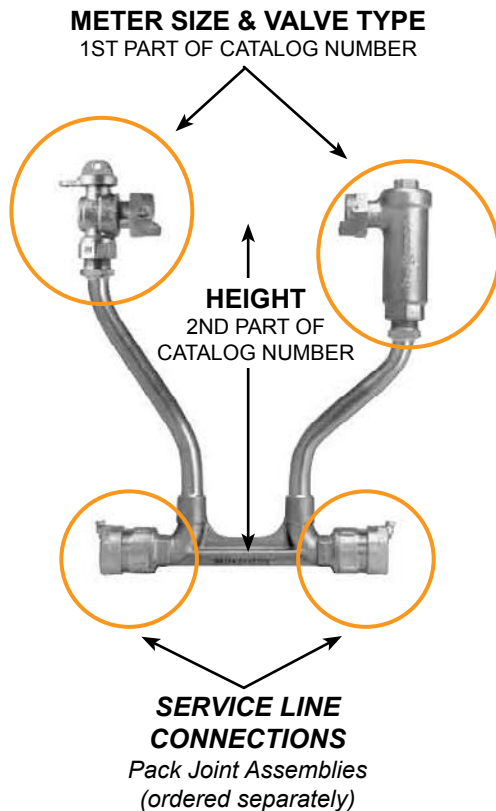


The description for the above catalog number reads: A 12 inch high 270 Series Coppersetter for 5/8 x 3/4" meter with an Angle Ball Meter Valve inlet and a Cartridge Angle Dual Check on the outlet.

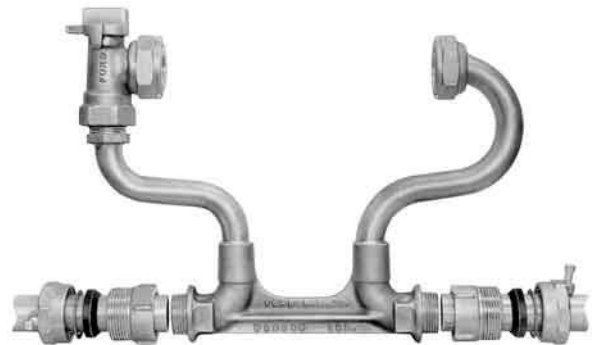
\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.

## Catalog Numbering



## Installation



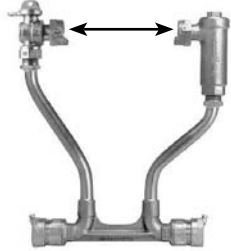
Quick and simple installation involves cutting out a section of service line about 1/2" longer than the Coppersetter bar, cleaning about 3" of pipe ends and slipping Pack Joint Assemblies onto pipe (as shown in photo above). The Pack Joint Assemblies are then screwed tightly onto the bar, nuts tightened and locked into place.

# The Ford 270 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Requires removable Pack Joint (Pack Joint Assemblies ordered separately)

## METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |                |           |           | DESCRIPTION |                        |
|--|----------------|-----------|-----------|-------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"x 3/4" | FOR 3/4"  | FOR 1"    | INLET VALVE | OUTLET VALVE           |
| 271  | 272            | 273       | 274       | none        | none                   |
| V271                                       | V272           | V273      | V274      | Key         | none                   |
| VB271                                      | VB272          | VB273     | VB274     | Ball        | none                   |
| VBB271***                                  | VBB272***      | VBB273    | VBB274    | Ball        | Ball                   |
| VV271                                      | VV272          | VV273     | VV274     | Key         | Key                    |
| VVG271*                                    | VVG272*        | VVG273*   | VVG274*   | Key         | Compression            |
| VH271                                      | VH272          | VH273     | VH274     | Key         | Single Check           |
| VHH271                                     | VHH272         | VHH273    | VHH274 ▼  | Key         | Cascading Dual Check   |
| VHC271**                                   | VHC272**       | VHC273**  | VHC274**  | Key         | • Cartridge Dual Check |
| VBG271*                                    | VBG272*        | VBG273*   | VBG274*   | Ball        | Compression            |
| VBH271                                     | VBH272         | VBH273    | VBH274    | Ball        | Single Check           |
| VBHH271                                    | VBHH272        | VBHH273   | VBHH274 ▼ | Ball        | Cascading Dual Check   |
| VBHC271**                                  | VBHC272**      | VBHC273** | VBHC274** | Ball        | • Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* 270 Series Coppersetters with cartridge dual check valve have a 9" minimum height for 5/8" and 5/8" x 3/4" meters, 12" minimum height for 3/4" meters and 15" minimum height for 1" meters.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should be not be used as a customer shut-off on the customer side of the meter.

▼ Angle Cascading Dual Check Valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

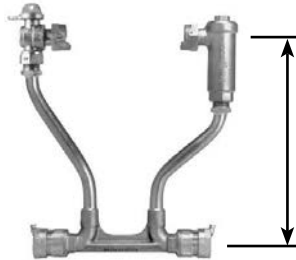
• Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHCCR72-15W-NL

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested. Reduced port valves usually provide suitable water flow. (Add "-FP" to catalog number for full port.)

**Meter Valve Options for 270 Series Coppersetters:** Seal Wire Hole in Inlet Valve, Seal Wire Hole in Check Valve

## HEIGHT - (SECOND PART OF CATALOG NUMBER)

NOTE: Height dimensions are approximate.



### For 5/8" and 5/8"x3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 7W-NL          | 7                |
| 9W-NL          | 9                |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### For 3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 8W-NL          | 8                |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### For 1" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 10W-NL         | 10               |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### HEIGHT INFORMATION FOR 270 SERIES COPPERSETTERS:

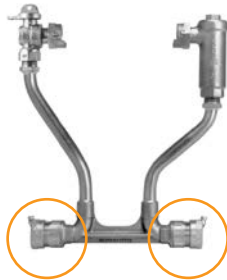
- Contact factory for availability of heights not listed.
- Coppersetters are available in heights over 24" in 3" increments; 27", 30", 33" etc. To order, put desired height in catalog number. Example: V272-30W-NL is a 30" high setter.
- See table on page 6 for Tie Bar requirements

# The Ford 270 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Requires removable Pack Joint (Pack Joint Assemblies ordered separately)

## PACK JOINT ASSEMBLIES FOR 270 SERIES COPPERSETTERS INLET & OUTLET SERVICE LINE CONNECTIONS



Pack Joint Assemblies  
(ordered separately)  
**Service Line  
Connections**

| CATALOG NUMBER             | DESCRIPTION                    |   |
|----------------------------|--------------------------------|---|
|                            | SIZE AND TYPE OF EXISTING PIPE | P.J. ASSEMBLY REQUIRED                                |
| ◆ PJA4-11-NL               | 1/2" Copper or Plastic Tube    | 1/2" Pack Joint for Copper or Plastic Tubing (CTS)*   |
| ◆ PJA4-13-NL               | 3/4" Copper or Plastic Tube    | 3/4" Pack Joint for Copper or Plastic Tubing (CTS)*   |
| PJA4-14-NL                 | 1" Copper or Plastic Tube      | 1" Pack Joint for Copper or Plastic Tubing (CTS)*     |
| • PJA4-15-PJA6-14-NL       | 1-1/4" Copper or Plastic Tube  | 1-1/4" Pack Joint for Copper or Plastic Tubing (CTS)* |
| □ PJA4-16-AWT-NL           | 1-1/2" Copper or Plastic Tube  | 1-1/2" Pack Joint for Copper or Plastic Tubing (CTS)* |
| *** PJA4-44-C14-54-NL      | 1" Copper or Plastic Tube      | 1" Pack Joint for Copper or Plastic Tubing (CTS)*     |
| ◆*** PJA4-45-C14-55-NL     | 1-1/4" Copper or Plastic Tube  | 1-1/4" Pack Joint for Copper or Plastic Tubing (CTS)* |
| *** PJA4-46-C14-56-NL      | 1-1/2" Copper or Plastic Tube  | 1-1/2" Pack Joint for Copper or Plastic Tubing (CTS)* |
| PJA5-11-NL                 | 1/2" Iron Pipe                 | 1/2" Pack Joint for Iron Pipe                         |
| PJA5-13-NL                 | 3/4" Iron Pipe                 | 3/4" Pack Joint for Iron Pipe                         |
| PJA5-14-NL                 | 1" Iron Pipe                   | 1" Pack Joint for Iron Pipe                           |
| PJA5-15-NL                 | 1-1/4" Iron Pipe               | 1-1/4" Pack Joint for Iron Pipe                       |
| □ PJA5-16-AWT-NL           | 1-1/2" Iron Pipe               | 1-1/2" Pack Joint for Iron Pipe                       |
| *** PJA5-44-C15-54-NL      | 1" Iron Pipe                   | 1" Pack Joint for Iron Pipe                           |
| *** PJA5-45-C15-55-NL      | 1 1/4" Iron Pipe               | 1-1/4" Pack Joint for Iron Pipe                       |
| *** PJA5-46-C15-56-NL      | 1 1/2" Iron Pipe               | 1-1/2" Pack Joint for Iron Pipe                       |
| PJA6-13-NL                 | 3/4" Polyethylene Pipe         | 3/4" Pack Joint for P.E. Pipe*                        |
| • PJA4-15-PJA6-14-NL       | 1" Polyethylene Pipe           | 1" Pack Joint for P.E. Pipe*                          |
| □ PJA6-15-AWT-NL           | 1-1/4" Polyethylene Pipe       | 1-1/4" Pack Joint for P.E. Pipe                       |
| □ PJA6-16-IDR7-AWT-NL      | 1-1/2" Polyethylene Pipe       | 1-1/2" Pack Joint for P.E. Pipe                       |
| *** PJA6-44-C16-54-NL      | 1" Polyethylene Pipe           | 1" Pack Joint for P.E. Pipe*                          |
| *** PJA6-45-C16-55-NL      | 1-1/4" Polyethylene Pipe       | 1-1/4" Pack Joint for P.E. Pipe                       |
| *** PJA6-46-C16-56-IDR7-NL | 1-1/2" Polyethylene Pipe       | 1-1/2" Pack Joint for P.E. Pipe                       |
| PJA7-11-NL                 | 1/2" PVC Pipe                  | 1/2" Pack Joint for PVC Pipe                          |
| PJA7-13-NL                 | 3/4" PVC Pipe                  | 3/4" Pack Joint for PVC Pipe                          |
| PJA7-14-NL                 | 1" PVC Pipe                    | 1" Pack Joint for PVC Pipe                            |
| PJA7-15-NL                 | 1-1/4" PVC Pipe                | 1-1/4" Pack Joint for PVC Pipe                        |
| □ PJA7-16-AWT-NL           | 1-1/2" PVC Pipe                | 1-1/2" Pack Joint for PVC Pipe                        |
| *** PJA7-44-C17-54-NL      | 1" PVC Pipe                    | 1" Pack Joint for PVC Pipe                            |
| *** PJA7-45-C17-55-NL      | 1-1/4" PVC Pipe                | 1-1/4" Pack Joint for PVC Pipe                        |
| *** PJA7-46-C17-56-NL      | 1-1/2" PVC Pipe                | 1-1/2" Pack Joint for PVC Pipe                        |

**NOTE:** Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

\* **Grip Joint** for CTS (all sizes) and PE pipe (3/4" and 1") is available. Add "-G" to the catalog number. Example: PJA4-13-G-NL

◆ **Quick Joint** is available. Add "-Q" to the catalog number.

□ These items are not one piece but are two adapter pieces assembled water tight.

\*\*\* These pack joint assemblies are for 1" 274 Series Coppersetters only or KH-4-NL Kormerhorns

• This pack joint assembly is for use on 1-1/4" copper or plastic tubing (CTS) or 1" PE Pipe

## PACK JOINT ELL ASSEMBLIES 5/8", 5/8"x3/4" AND 3/4" 270 SERIES COPPERSETTERS (TWO REQUIRED PER COPPERSETTER)

| CATALOG NUMBER | DESCRIPTION                    |   |
|----------------|--------------------------------|---|
|                | SIZE AND TYPE OF EXISTING PIPE | P.J. ASSEMBLY REQUIRED                              |
| PJAL4-13-NL    | 3/4" Copper or Plastic Tube    | 3/4" Pack Joint for Copper or Plastic Tubing (CTS)* |
| PJAL6-13-NL    | 3/4" Polyethylene Pipe         | 3/4" Pack Joint for PE Pipe*                        |

\* **Grip Joint** for CTS and PE pipe (3/4" & 1") is available. Add "-G" to the catalog number. Example: PJAL4-13-G-NL

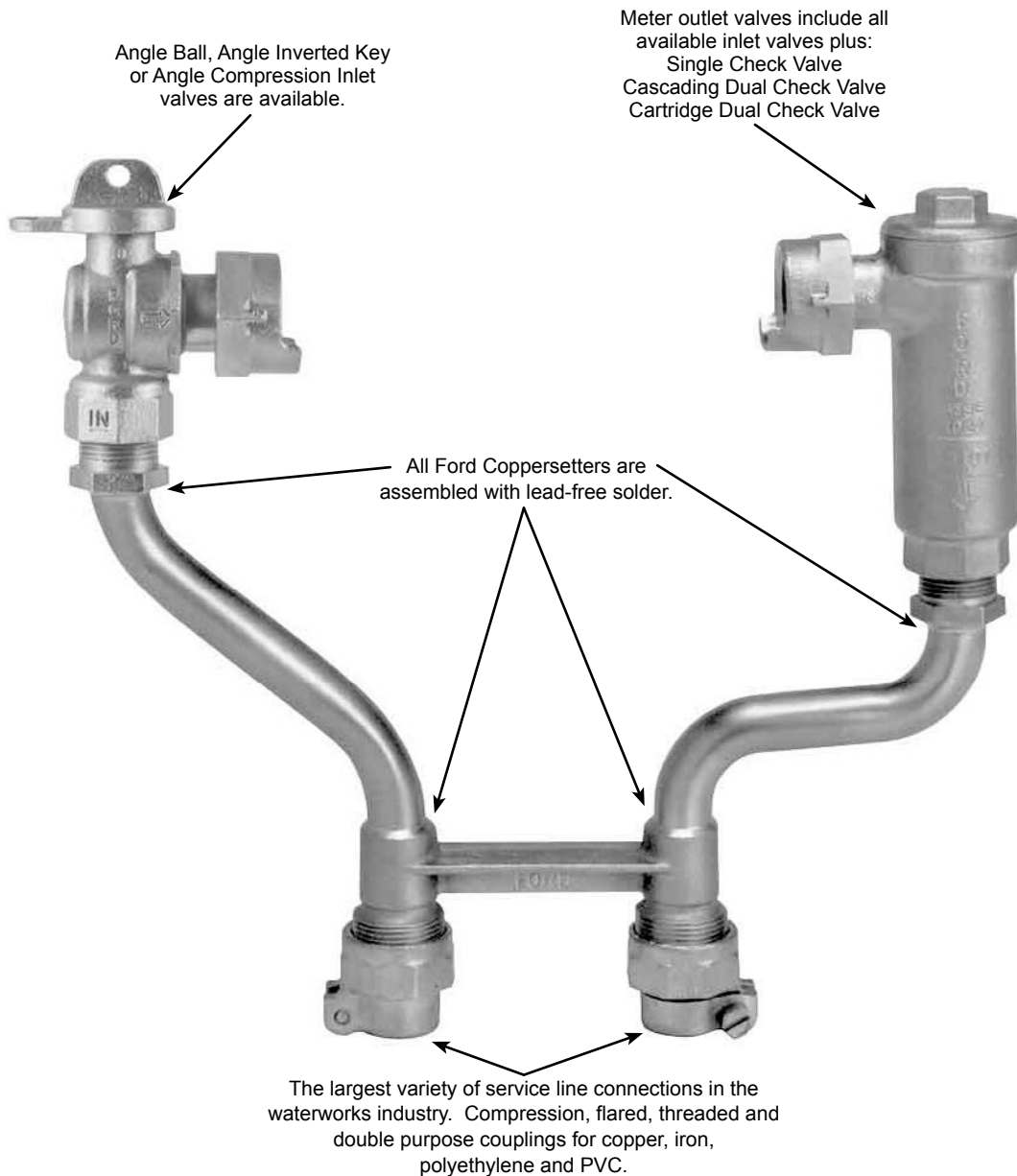
# The Ford 80 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Vertical inlet and outlet

The Ford 80 Series Coppersetter offers economy and flexibility by allowing the utility to construct meter pit risers from various service line materials, cut to any height. The 80 Series setters connect directly to these risers, without elbows or pressure reducing bends, by means of a wide variety of service line connections. All standard Coppersetter valve options, including Dual or Single Check Valves, are available on the 80 Series.

**To order:** Select one catalog number component from each of two charts on pages 18 and 19 to arrive at the complete Coppersetter catalog number. Selection order of components:

1. Meter size and valve type . . . . . page 18
2. Service line connections . . . . . page 19



# The Ford 80 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Vertical inlet and outlet

## Example of Catalog Number for an 80 Series Coppersetter

FIRST PART OF NUMBER  
(METER SIZE AND VALVE TYPE)

SECOND PART OF NUMBER  
(SERVICE LINE CONNECTION TYPE AND SIZE)

**VBHC82W-44-33-NL**

Angle Ball Meter Valve  
on inlet

Cartridge Angle Dual Check  
on outlet

80 Series Coppersetter

For 5/8" x 3/4" Meter Only

(Angle Meter Ball and Key Valves are **with** Padlock Wing  
Compression valve **without** Padlock Wing)

"No-Lead" Brass\*

3/4" Outlet Service Line Connection

3/4" Inlet Service Line Connection

Pack Joint for CTS  
Outlet Service Line Connection

Pack Joint for CTS  
Inlet Service Line Connection

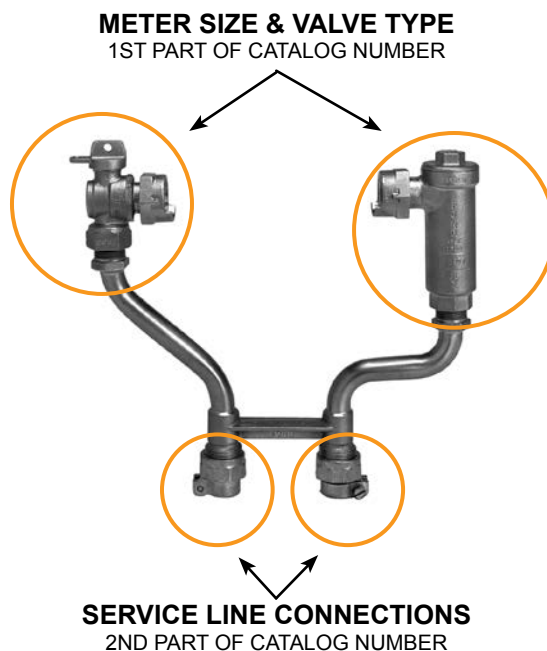
Approximate height for 5/8" & 5/8" x 3/4" meter is 7", for 3/4" meter 9", and for 1" meter 10"

The description for the above catalog number reads: 80 Series Coppersetter for 5/8" x 3/4" meter with an Angle Ball Meter Valve on the inlet, Cartridge Angle Dual Check on the outlet, with 3/4" Pack Joint for CTS inlet by 3/4" Pack Joint for CTS outlet service line connections.

\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.

## Catalog Numbering

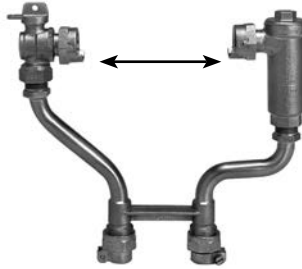


Height - 80 Series  
Coppersettlers are made  
to the "standard" heights  
indicated above

# The Ford 80 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Vertical inlet and outlet

## METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |                |          |          | DESCRIPTION |                        |
|--|----------------|----------|----------|-------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"x 3/4" | FOR 3/4" | FOR 1"   | INLET VALVE | OUTLET VALVE           |
| V81  | V82            | V83      | V84      | Key         | none                   |
| VB81                                       | VB82           | VB83     | VB84     | Ball        | none                   |
| VBB81***                                   | VBB82***       | VBB83    | VBB84    | Ball        | Ball                   |
| VVG81*                                     | VVG82*         | VVG83*   | VVG84*   | Key         | Compression            |
| VV81                                       | VV82           | VV83     | VV84     | Key         | Key                    |
| VH81                                       | VH82           | VH83     | VH84     | Key         | Single Check           |
| VHH81                                      | VHH82          | VHH83    | VHH84 ▼  | Key         | Cascading Dual Check   |
| VHC81**                                    | VHC82**        | VHC83**  | VHC84**  | Key         | ● Cartridge Dual Check |
| VBH81                                      | VBH82          | VBH83    | VBH84    | Ball        | Single Check           |
| VBHH81                                     | VBHH82         | VBHH83   | VBHH84 ▼ | Ball        | Cascading Dual Check   |
| VBHC81**                                   | VBHC82**       | VBHC83** | VBHC84** | Ball        | ● Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* 80 Series Coppersetters with cartridge dual check valve have a 9" minimum height for 5/8" and 5/8" x 3/4" meters, 12" minimum height for 3/4" meters and 15" minimum height for 1" meters.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should be not be used as a customer shut-off on the customer side of the meter.

▼ Angle Cascading Dual Check Valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

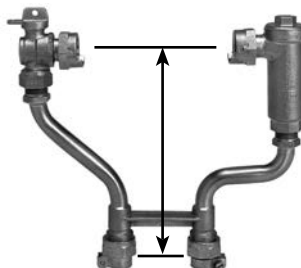
● Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHCCR82W-44-33-NL

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested. Reduced port valves usually provide suitable water flow. (Add "-FP" to the catalog number for full port.)

**Meter Valve Options for 80 Series Coppersetters:** Seal Wire Hole in Inlet Valve, Seal Wire Hole in Check Valve

## HEIGHT - 80 SERIES COPPERSETTERS ARE MADE TO "STANDARD" HEIGHTS

NOTE: Height dimensions are approximate.



81 Series Coppersetter  
for 5/8" Meter  
and  
82 Series Coppersetter  
for 5/8"x3/4" Meter  
HEIGHT IS 7"  
13/16" O.D. TUBING

83 Series Coppersetter  
for 3/4" Meter  
HEIGHT IS 9"  
15/16" O.D. TUBING

84 Series Coppersetter  
for 1" Meter  
HEIGHT IS 10"  
1-1/8" O.D. TUBING

# The Ford 80 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Vertical inlet and outlet

## INLET & OUTLET SERVICE LINE CONNECTIONS - (SECOND PART OF CATALOG NUMBER)



| For 81 and 82 Series Coppersetters |   |   |
|------------------------------------|---|---|
| CATALOG NUMBER                     | DESCRIPTION                                   |   |
|                                    | INLET CONNECTION                              | OUTLET CONNECTION                             |
| 11-33-NL                           | 3/4" Double Purpose Union Swivel Δ            | 3/4" Double Purpose Union Swivel Δ            |
| 12-33-NL                           | 3/4" Double Purpose Union Swivel Δ            | 3/4" Flare Copper                             |
| 21-33-NL                           | 3/4" Flare Copper                             | 3/4" Double Purpose Union Swivel Δ            |
| ▶ 14-33-NL                         | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 41-33-NL                         | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Double Purpose Union Swivel Δ            |
| ‡ 22-33-NL                         | 3/4" Flare Copper                             | 3/4" Flare Copper                             |
| ▶‡ 44-33-NL                        | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 46-33-NL                         | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for PE Pipe*                        |
| ▶ 64-33-NL                         | 3/4" P.J. for PE Pipe*                        | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 66-33-NL                         | 3/4" P.J. for PE Pipe*                        | 3/4" P.J. for PE Pipe*                        |
| 77-33-NL                           | 3/4" P.J. for PVC Pipe                        | 3/4" P.J. for PVC Pipe                        |
| 18-33-NL                           | 3/4" Double Purpose Union Swivel Δ            | 3/4" Male Iron Pipe Union Swivel              |
| 81-33-NL                           | 3/4" Male Iron Pipe Union Swivel              | 3/4" Double Purpose Union Swivel Δ            |
| 88-33-NL                           | 3/4" Male Iron Pipe Union Swivel              | 3/4" Male Iron Pipe Union Swivel              |
| ‡ FF-33-NL                         | 3/4" Integral Female Iron Pipe                | 3/4" Integral Female Iron Pipe                |
| 44-34-NL                           | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| 44-43-NL                           | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| 11-44-NL                           | 1" Double Purpose Union Swivel Δ              | 1" Double Purpose Union Swivel Δ              |
| 22-44-NL                           | 1" Flare Copper                               | 1" Flare Copper                               |
| ▶ 44-44-NL                         | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for Copper or Plastic Tubing (CTS)*   |

| For 83 Series Coppersetters |   |   |
|-----------------------------|---|---|
| CATALOG NUMBER              | DESCRIPTION                                   |   |
|                             | INLET CONNECTION                              | OUTLET CONNECTION                             |
| 11-33-NL                    | 3/4" Double Purpose Union Swivel Δ            | 3/4" Double Purpose Union Swivel Δ            |
| 22-33-NL                    | 3/4" Flare Copper                             | 3/4" Flare Copper                             |
| 88-33-NL                    | 3/4" Male Iron Pipe Union Swivel              | 3/4" Male Iron Pipe Union Swivel              |
| 18-33-NL                    | 3/4" Double Purpose Union Swivel Δ            | 3/4" Male Iron Pipe Union Swivel              |
| 81-33-NL                    | 3/4" Male Iron Pipe Union Swivel              | 3/4" Double Purpose Union Swivel Δ            |
| ▶ 44-33-NL                  | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 66-33-NL                  | 3/4" P.J. for PE Pipe*                        | 3/4" P.J. for PE Pipe*                        |
| 11-44-NL                    | 1" Double Purpose Union Swivel Δ              | 1" Double Purpose Union Swivel Δ              |
| 22-44-NL                    | 1" Flare Copper                               | 1" Flare Copper                               |
| ▶ 44-44-NL                  | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for Copper or Plastic Tubing (CTS)*   |

| For 84 Series Coppersetters |   |   |
|-----------------------------|---|---|
| CATALOG NUMBER              | DESCRIPTION                                     |   |
|                             | INLET CONNECTION                                | OUTLET CONNECTION                               |
| 11-44-NL                    | 1" Double Purpose Union Swivel Δ                | 1" Double Purpose Union Swivel Δ                |
| 12-44-NL                    | 1" Double Purpose Union Swivel Δ                | 1" Flare Copper                                 |
| 21-44-NL                    | 1" Flare Copper                                 | 1" Double Purpose Union Swivel Δ                |
| 22-44-NL                    | 1" Flare Copper                                 | 1" Flare Copper                                 |
| ▶ 44-44-NL                  | 1" P.J. for Copper or Plastic Tubing (CTS)*     | 1" P.J. for Copper or Plastic Tubing (CTS)*     |
| ▶ 66-44-NL                  | 1" P.J. for PE Pipe*                            | 1" P.J. for PE Pipe*                            |
| 11-55-NL                    | 1-1/4" Double Purpose Union Swivel Δ            | 1-1/4" Double Purpose Union Swivel Δ            |
| 22-55-NL                    | 1-1/4" Flare Copper                             | 1-1/4" Flare Copper                             |
| 44-55-NL                    | 1-1/4" P.J. for Copper or Plastic Tubing (CTS)* | 1-1/4" P.J. for Copper or Plastic Tubing (CTS)* |

\* Grip Joint for CTS and PE pipe is available. Add "-G" to the catalog number.

◆ Quick Joint is available. Add "-Q" to the catalog number.

▶ Ultra-Tite is available. Contact factory for more information.

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

‡ 81 and 82 Series Coppersetters with the indicated service line connections have a (vertical) brace eye. (Not available with Quick Joint or Ultra-Tite.)

Note: Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

# The Ford 70-80 Series Angle Coppersetter

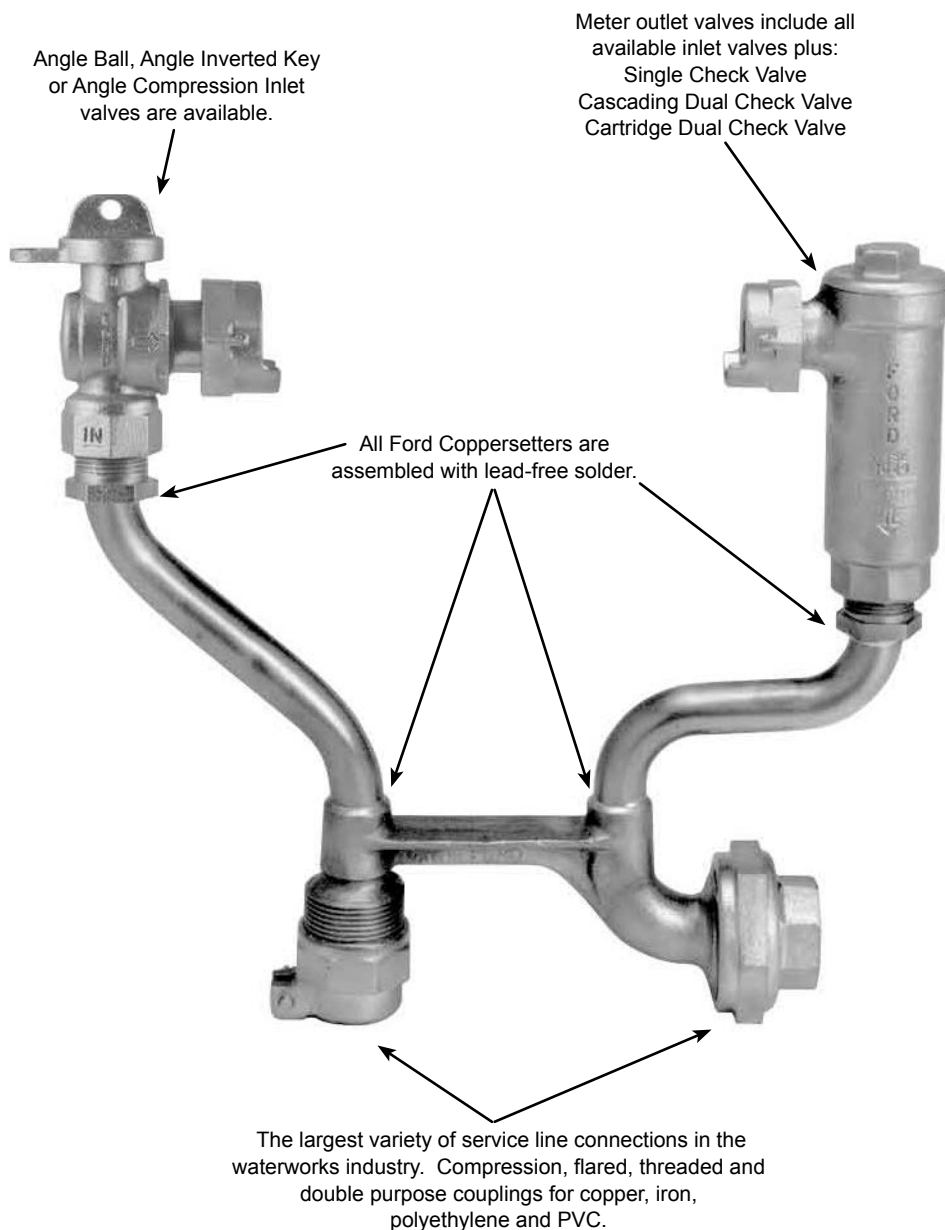
For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Vertical inlet and horizontal outlet

Standard service installation in some water utilities calls for tubing from the main to the curb meter setting to be relatively deep, and the pipe from the meter box to the house to be shallower. The Angle Coppersetter has a vertical inlet and horizontal outlet. It can be furnished with a variety of valves as described below.

**To order:** Select one catalog number from each of the two charts on pages 22 and 23 to arrive at the complete Coppersetter catalog number. Selection order of components:

1. Meter size and valve type . . . . . page 22
2. Service line connections . . . . . page 23



# The Ford 70-80 Series Angle Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Vertical inlet and horizontal outlet

## Example of Catalog Number for a 70-80 Series Coppersetter

FIRST PART OF NUMBER  
(METER SIZE AND VALVE TYPE)

SECOND PART OF NUMBER  
(SERVICE LINE CONNECTION TYPE AND SIZE)

**VBHC72-82W-41-33-NL**

Angle Ball Meter Valve  
on inlet

Cartridge Angle Dual Check  
on outlet

70-80 Series Coppersetter

For 5/8" x 3/4" Meter Only

(Angle Meter Ball and Key Valves are with Padlock Wing  
Compression valve without Padlock Wing)

"No-Lead" Brass\*

3/4" Outlet Service Line Connection

3/4" Inlet Service Line Connection

Double Purpose Union Swivel  
Outlet Service Line Connection

Pack Joint for CTS  
Inlet Service Line Connection

Approximate height for 5/8", 5/8" x 3/4" and 3/4" meter is 7" and for 1" meter is 10"

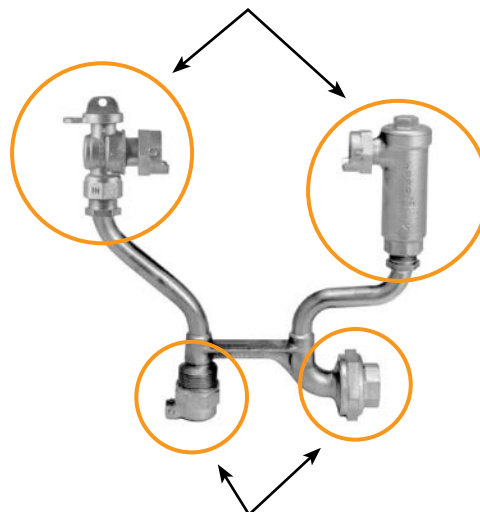
The description for the above catalog number reads: 70-80 Series Coppersetter for 5/8" x 3/4" meter with an Angle Ball Meter Valve on the inlet, Cartridge Angle Dual Check on the outlet, with 3/4" Pack Joint for CTS inlet by 3/4" double purpose union swivel outlet.

\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.

## Catalog Numbering

METER SIZE & VALVE TYPE  
1ST PART OF CATALOG NUMBER



SERVICE LINE CONNECTIONS  
2ND PART OF CATALOG NUMBER

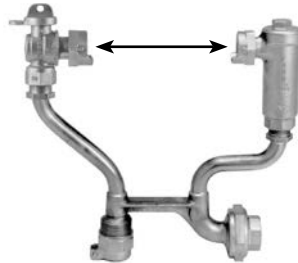
Height - 70-80 Series  
Coppersettlers are made to  
"standard" heights

# The Ford 70-80 Series Angle Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Vertical inlet and horizontal outlet

## METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |               |             |             | DESCRIPTION |                        |
|--|---------------|-------------|-------------|-------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"x3/4" | FOR 3/4"    | FOR 1"      | INLET VALVE | OUTLET VALVE           |
| V71-81                                     | V72-82        | V73-83      | V74-84      | Key         | none                   |
| VB71-81                                    | VB72-82       | VB73-83     | VB74-84     | Ball        | none                   |
| VBB71-81***                                | VBB72-82***   | VBB73-83    | VBB74-84    | Ball        | Ball                   |
| VVG71-81*                                  | VVG72-82*     | VVG73-83*   | VVG74-84*   | Key         | Compression            |
| VV71-81                                    | VV72-82       | VV73-83     | VV74-84     | Key         | Key                    |
| VH71-81                                    | VH72-82       | VH73-83     | VH74-84     | Key         | Single Check           |
| VHH71-81                                   | VHH72-82      | VHH73-83    | VHH74-84 ▼  | Key         | Cascading Dual Check   |
| VHC71-81**                                 | VHC72-82**    | VHC73-83**  | VHC74-84**  | Key         | ● Cartridge Dual Check |
| VBH71-81                                   | VBH72-82      | VBH73-83    | VBH74-84    | Ball        | Single Check           |
| VBHH71-81                                  | VBHH72-82     | VBHH73-83   | VBHH74-84 ▼ | Ball        | Cascading Dual Check   |
| VBHC71-81**                                | VBHC72-82**   | VBHC73-83** | VBHC74-84** | Ball        | ● Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* 70-80 Series Coppersetters with cartridge dual check valve have a 9" minimum height for 5/8", 5/8" x 3/4" meters, 12" minimum height for 3/4" meters, and 15" minimum height for 1" meters.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should not be used as a customer shut-off on the customer side of the meter.

▼ Angle Cascading Dual Check Valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

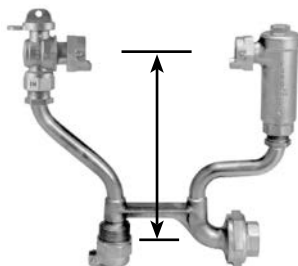
- Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHCCR72-82-15W-44-33-NL

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested. Reduced port valves usually provide suitable water flow. (Add "-FP" to the catalog number for full port.)

**Meter Valve Options for 70-80 Series Coppersetters:** Seal Wire Hole in Inlet Valve, Seal Wire Hole in Check Valve

## HEIGHT - 70-80 SERIES COPPERSETTERS ARE MADE TO "STANDARD" HEIGHTS

NOTE: Height dimensions are approximate.



71-81 Series Coppersetter  
for 5/8" Meter  
and

72-82 Series Coppersetter  
for 5/8"x3/4" Meter

HEIGHT IS 7"

(MADE FROM 13/16" O.D. TUBING)

73-83 Series Coppersetter  
for 3/4" Meter

HEIGHT IS 7"

(MADE FROM 13/16" O.D. TUBING)

74-84 Series Coppersetter  
for 1" Meter

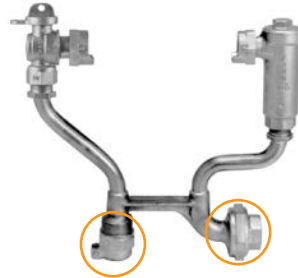
HEIGHT IS 10"

(MADE FROM 1-1/8" O.D. TUBING)

# The Ford 70-80 Series Angle Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size  
Vertical inlet and horizontal outlet

## INLET & OUTLET SERVICE LINE CONNECTIONS - (SECOND PART OF CATALOG NUMBER)



| FOR 71-81, 72-82 AND 73-83 SERIES COPPERSETTERS |   |   |
|---|---|---|
| CATALOG NUMBER                                  | DESCRIPTION                                   |   |
|   | INLET CONNECTION                              | OUTLET CONNECTION                             |
| 11-33-NL  | 3/4" Double Purpose Union Swivel Δ            | 3/4" Double Purpose Union Swivel Δ            |
| 88-33-NL  | 3/4" Male Iron Pipe Union Swivel              | 3/4" Male Iron Pipe Union Swivel              |
| 18-33-NL  | 3/4" Double Purpose Union Swivel Δ            | 3/4" Male Iron Pipe Union Swivel              |
| 81-33-NL  | 3/4" Male Iron Pipe Union Swivel              | 3/4" Double Purpose Union Swivel Δ            |
| 21-33-NL  | 3/4" Flare Copper                             | 3/4" Double Purpose Union Swivel Δ            |
| ▶ 14-33-NL                                      | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 44-33-NL                                      | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶♦ 41-33-NL                                     | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Double Purpose Union Swivel Δ            |
| 21-44-NL  | 1" Flare Copper                               | 1" Double Purpose Union Swivel Δ              |
| ▶● 41-44-NL                                     | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" Double Purpose Union Swivel Δ              |
| ● 66-44-NL                                      | 1" P.J. for PE Pipe*                          | 1" P.J. for PE Pipe*                          |

\* Grip Joint for CTS (all sizes) and PE pipe is available. Add "-G" to the catalog number.

♦ Quick Joint is available. Add "-Q" to the catalog number.

▶ Ultra-Tite is available. Contact factory for more information.

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

● These connections are not available on 73-83 Series Coppersetters (with 15/16" O.D. copper tubing). These Coppersetters will have 13/16" O.D. copper tubing with 3/4" meter spacing.

| FOR 74-84 SERIES COPPERSETTERS |   |   |
|--------------------------------|---|---|
| CATALOG NUMBER                 | DESCRIPTION                                 |   |
|                                | INLET CONNECTION                            | OUTLET CONNECTION                           |
| 11-44-NL                       | 1" Double Purpose Union Swivel Δ            | 1" Double Purpose Union Swivel Δ            |
| 18-44-NL                       | 1" Double Purpose Union Swivel Δ            | 1" Male Iron Pipe Union Swivel              |
| 81-44-NL                       | 1" Male Iron Pipe Union Swivel              | 1" Double Purpose Union Swivel Δ            |
| 88-44-NL                       | 1" Male Iron Pipe Union Swivel              | 1" Male Iron Pipe Union Swivel              |
| 21-44-NL                       | 1" Flare Copper                             | 1" Double Purpose Union Swivel Δ            |
| 28-44-NL                       | 1" Flare Copper                             | 1" Male Iron Pipe Union Swivel              |
| ▶♦ 44-44-NL                    | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶♦ 41-44-NL                    | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Double Purpose Union Swivel Δ            |
| ▶♦ 48-44-NL                    | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Male Iron Pipe Union Swivel              |

\* Grip Joint for CTS and PE pipe is available. Add "-G" to the catalog number.

♦ Quick Joint is available. Add "-Q" to the catalog number.

▶ Ultra-Tite is available. Contact factory for more information.

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

# The Ford 90 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

Each conduit of the 90 Series Coppersetter is one piece of copper tubing and the two conduits are connected by a clamp. This flexible design provides adjustability to the space between service pipe ends during installation. The clamp is normally soldered permanently to the tubes but can be furnished with a bolted clamp so that the two conduits can be taken apart, if desired. An optional extended outlet leg provides customer side hook-up without disturbing the pit.

**To order:** Select one Catalog Number component from each of the three charts on pages 26 through 28 to arrive at the complete Coppersetter Catalog Number. Selection order of components:

1. Meter size and valve type . . . . . page 26
  2. Coppersetter height . . . . . page 26
  3. Service line connections . . . . . page 27-28
- Options: Outlet extension, bolted clamp construction and brace eye . . . page 28

Angle Ball, Angle Inverted Key  
or Angle Compression Inlet  
valves are available.

Meter outlet valves include all  
available inlet valves plus:  
Single Check Valve  
Cascading Dual Check Valve  
Cartridge Dual Check Valve

All Ford Coppersettters are  
assembled with lead-free solder.

The largest variety of service line connections in the  
waterworks industry. Compression, flared, threaded and  
double purpose couplings for copper, iron,  
polyethylene and PVC.

# The Ford 90 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

## Example of Catalog Number for a 90 Series Coppersetter

FIRST PART OF NUMBER  
(METER SIZE AND VALVE TYPE)

SECOND PART OF NUMBER  
(COPPERSETTER HEIGHT)

THIRD PART OF NUMBER  
(SERVICE LINE CONNECTION TYPE & SIZE)

**VBHC92-12W-44-33A-NL**

Angle Ball Meter Valve  
on inlet

Cartridge Angle Dual Check  
on outlet

90 Series Coppersetter

For 5/8"x3/4" Meter Only

12" Riser Height from Center Line  
of Service Line Connection  
to Center Line of Meter Spud

"No-Lead" Brass\*

Optional Outlet Tube Extension  
A = 15" & B = 18"

3/4" Outlet Service Line Connection

3/4" Inlet Service Line Connection

Pack Joint for CTS  
Outlet Service Line Connection

Pack Joint for CTS  
Inlet Service Line Connection

(Angle Meter Ball and Key Valves are **with** Padlock Wing - Compression valve **without** Padlock Wing)

The description for the above catalog number reads: 90 Series Coppersetter for 5/8"x3/4" meter, with an Angle Ball Meter Valve on the inlet and a Cartridge Angle Dual Check on the outlet, 12 inches high, with 3/4" Pack Joint for CTS inlet by 3/4" Pack Joint for CTS outlet on an optional 15" extended outlet tube.

\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

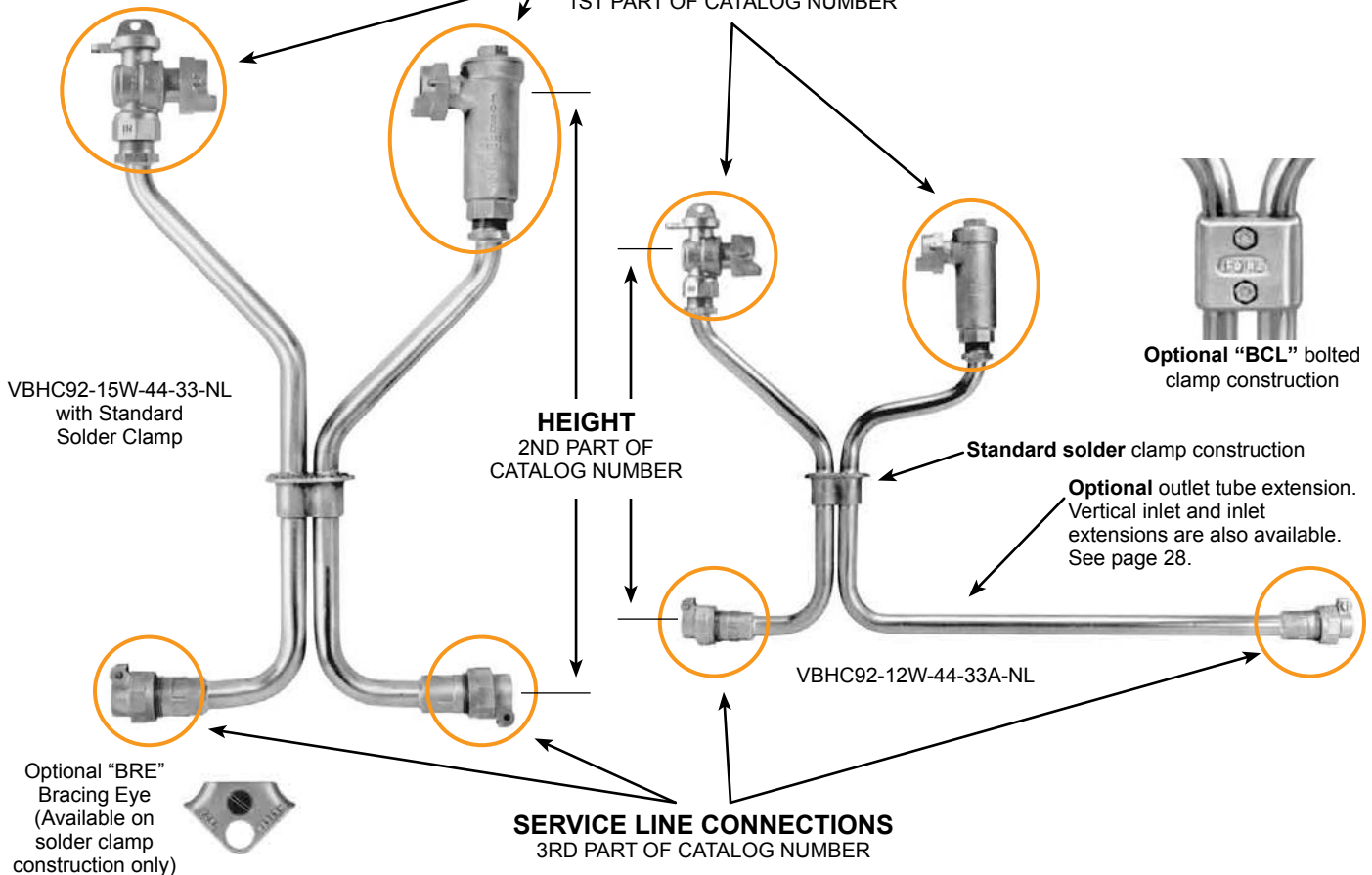
Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.

## Catalog Numbering

METER SIZE & VALVE TYPE  
1ST PART OF CATALOG NUMBER

HEIGHT  
2ND PART OF  
CATALOG NUMBER

SERVICE LINE CONNECTIONS  
3RD PART OF CATALOG NUMBER



# The Ford 90 Series Coppersetter

For 5/8", 5/8"x3/4", 3/4" or 1" Meter Size

METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |               |          |          | DESCRIPTION |                        |
|--|---------------|----------|----------|-------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"x3/4" | FOR 3/4" | FOR 1"   | INLET VALVE | OUTLET VALVE           |
| 91   | 92            | 93       | 94       | none        | none                   |
| V91  | V92           | V93      | V94      | Key         | none                   |
| VB91                                       | VB92          | VB93     | VB94     | Ball        | none                   |
| VBB91***                                   | VBB92***      | VBB93    | VBB94    | Ball        | Ball                   |
| VVG91*                                     | VVG92*        | VVG93*   | VVG94*   | Key         | Compression            |
| VV91                                       | VV92          | VV93     | VV94     | Key         | Key                    |
| VH91                                       | VH92          | VH93     | VH94     | Key         | Single Check           |
| VHH91                                      | VHH92         | VHH93    | VHH94▼   | Key         | Cascading Dual Check   |
| VHC91**                                    | VHC92**       | VHC93**  | VHC94**  | Key         | ● Cartridge Dual Check |
| VBH91                                      | VBH92         | VBH93    | VBH94    | Ball        | Single Check           |
| VBHH91                                     | VBHH92        | VBHH93   | VBHH94▼  | Ball        | Cascading Dual Check   |
| VBHC91**                                   | VBHC92**      | VBHC93** | VBHC94** | Ball        | ● Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* 90 Series Coppersettlers with cartridge dual check valve have a 15" minimum height for 5/8", 5/8" x 3/4" and 3/4" meters and 18" minimum height for 1" meters.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should not be used as a customer shut-off on the customer side of the meter.

▼ Angle cascading dual check valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

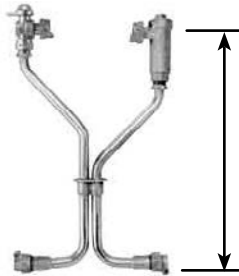
● Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHCCR92-15W-44-33-NL

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested. Reduced port valves usually provide suitable water flow. (Add "-FP" to the catalog number for full port.)

**Meter Valve Options for 90 Series Coppersettlers:** Seal wire hole in inlet valve, seal wire hole in check valve

## HEIGHT - (SECOND PART OF CATALOG NUMBER)

NOTE: Height dimensions are approximate.



For 5/8", 5/8"x3/4" and 3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 12W            | 12               |
| 15W            | 15               |
| 18W            | 18               |
| 21W            | 21               |
| 24W            | 24               |

For 1" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 15W            | 15               |
| 18W            | 18               |
| 21W            | 21               |
| 24W            | 24               |

### HEIGHT INFORMATION FOR 90 SERIES COPPERSETTERS:

- Contact factory for availability of heights not listed.
- Coppersettlers are available in heights over 24" in 3" increments; 27", 30", 33" etc. To order, put desired height in catalog number. Example: V92-33W-11-33-NL is a 33" high setter.
- 90 Series over 39" height will have two clamping bolts.

# The Ford 90 Series Coppersetter

For 5/8", 5/8"x3/4" or 3/4" Meter Size



| CATALOG NUMBER | Pack Joint Inlet by Pack Joint Outlet         |   |
|----------------|---|---|
|                | INLET CONNECTION                              | OUTLET CONNECTION                             |
| ▶◆ 44-33-NL    | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 66-33-NL     | 3/4" P.J. for PE Pipe*                        | 3/4" P.J. for PE Pipe*                        |
| ▶ 77-33-NL     | 3/4" P.J. for PVC Pipe                        | 3/4" P.J. for PVC Pipe                        |
| ▶ 46-33-NL     | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" P.J. for PE Pipe*                        |
| ▶ 64-33-NL     | 3/4" P.J. for PE Pipe*                        | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 47-33-NL     | 3/4" P.J. for Copper or Plastic Tubing (CTS)  | 3/4" P.J. for PVC Pipe                        |
| ▶ 74-33-NL     | 3/4" P.J. for PVC Pipe                        | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶● 47-34-NL    | 3/4" P.J. for Copper or Plastic Tubing (CTS)  | 1" P.J. for PVC Pipe                          |
| ▶● 44-44-NL    | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶● 47-44-NL    | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" P.J. for PVC Pipe                          |
| ▶● 74-44-NL    | 1" P.J. for PVC Pipe                          | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶● 66-44-NL    | 1" P.J. or PE Pipe*                           | 1" P.J. for PE Pipe*                          |
| ▶● 67-44-NL    | 1" P.J. for PE Pipe*                          | 1" P.J. for PVC Pipe                          |
| ▶● 76-44-NL    | 1" P.J. for PVC Pipe                          | 1" P.J. or PE Pipe*                           |
| ● 77-44-NL     | 1" P.J. for PVC Pipe                          | 1" P.J. for PVC Pipe                          |

| CATALOG NUMBER | Pack Joint Inlet by Iron Pipe Outlet          |   |
|----------------|---|---|
|                | INLET CONNECTION                              | OUTLET CONNECTION                             |
| ▶◆ 14-33-NL    | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶◆ 41-33-NL    | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Double Purpose Union Swivel Δ            |
| ▶◆ 48-33-NL    | 3/4" P.J. for Copper or Plastic Tubing (CTS)* | 3/4" Male Iron Pipe Union Swivel              |
| ▶◆ 84-33-NL    | 3/4" Male Iron Pipe Union Swivel              | 3/4" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 16-33-NL     | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for PE Pipe*                        |
| ▶ 61-33-NL     | 3/4" P.J. for PE Pipe*                        | 3/4" Double Purpose Union Swivel Δ            |
| ▶ 68-33-NL     | 3/4" P.J. for PE Pipe*                        | 3/4" Male Iron Pipe Union Swivel              |
| ▶ 86-33-NL     | 3/4" Male Iron Pipe Union Swivel              | 3/4" P.J. for PE Pipe*                        |
| ▶ 17-33-NL     | 3/4" Double Purpose Union Swivel Δ            | 3/4" P.J. for PVC Pipe                        |
| ▶ 71-33-NL     | 3/4" P.J. for PVC Pipe                        | 3/4" Double Purpose Union Swivel Δ            |
| ▶ 78-33-NL     | 3/4" P.J. for PVC Pipe                        | 3/4" Male Iron Pipe Union Swivel              |
| ▶ 87-33-NL     | 3/4" Male Iron Pipe Union Swivel              | 3/4" P.J. for PVC Pipe                        |
| ▶◆● 14-44-NL   | 1" Double Purpose Union Swivel Δ              | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶◆● 41-44-NL   | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" Double Purpose Union Swivel Δ              |
| ▶ 48-44-NL     | 1" P.J. for Copper or Plastic Tubing (CTS)*   | 1" Male Iron Pipe Union Swivel                |
| ▶ 84-44-NL     | 1" Male Iron Pipe Union Swivel                | 1" P.J. for Copper or Plastic Tubing (CTS)*   |
| ▶● 16-44-NL    | 1" Double Purpose Union Swivel Δ              | 1" P.J. for PE Pipe*                          |
| ▶● 61-44-NL    | 1" P.J. for PE Pipe*                          | 1" Double Purpose Union Swivel Δ              |
| ▶● 68-44-NL    | 1" P.J. for PE Pipe*                          | 1" Male Iron Pipe Union Swivel                |
| ▶● 86-44-NL    | 1" Male Iron Pipe Union Swivel                | 1" P.J. for PE Pipe*                          |
| ● 78-44-NL     | 1" P.J. for PVC Pipe                          | 1" Male Iron Pipe Union Swivel                |
| ● 87-44-NL     | 1" Male Iron Pipe Union Swivel                | 1" P.J. for PVC Pipe                          |
| ● 71-44-NL     | 1" P.J. for PVC Pipe                          | 1" Double Purpose Union Swivel Δ              |
| ● 17-44-NL     | 1" Double Purpose Union Swivel Δ              | 1" P.J. for PVC Pipe                          |

| CATALOG NUMBER | Iron Pipe and Flare Copper Connections |                                    |
|----------------|--|------------------------------------|
|                | INLET CONNECTION                       | OUTLET CONNECTION                  |
| MM-33-NL       | 3/4" Integral Male Iron Pipe           | 3/4" Integral Male Iron Pipe       |
| 22-33-NL       | 3/4" Flare Copper                      | 3/4" Flare Copper                  |
| 12-33-NL       | 3/4" Double Purpose Union Swivel Δ     | 3/4" Flare Copper                  |
| 21-33-NL       | 3/4" Flare Copper                      | 3/4" Double Purpose Union Swivel Δ |
| 28-33-NL       | 3/4" Flare Copper                      | 3/4" Male Iron Pipe Union Swivel   |
| 82-33-NL       | 3/4" Male Iron Pipe Union Swivel       | 3/4" Flare Copper                  |
| 11-33-NL       | 3/4" Double Purpose Union Swivel Δ     | 3/4" Double Purpose Union Swivel Δ |
| 88-33-NL       | 3/4" Male Iron Pipe Union Swivel       | 3/4" Male Iron Pipe Union Swivel   |
| 81-33-NL       | 3/4" Male Iron Pipe Union Swivel       | 3/4" Double Purpose Union Swivel Δ |
| 18-33-NL       | 3/4" Double Purpose Union Swivel Δ     | 3/4" Male Iron Pipe Union Swivel   |
| ● 11-44-NL     | 1" Double Purpose Union Swivel Δ       | 1" Double Purpose Union Swivel Δ   |
| ● 22-44-NL     | 1" Flare Copper                        | 1" Flare Copper                    |

\* Grip Joint for CTS and PE pipe is available. Add "-G" to the catalog number.

◆ Quick Joint is available. Add "-Q" to the catalog number.

▶ Ultra-Tite is available. Contact factory for more information.

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

- These connections are not available on 93 Series Coppersettors (with 15/16" O.D. copper tubing). Order as 92 Series Coppersettors (13/16" O.D. copper tubing) with 3/4" meter spacing.

**NOTE:** Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

# The Ford 90 Series Coppersetter

For 1" Meter Size



| 1" Pack Joint Both Ends |   |   |
|-------------------------|---|---|
| CATALOG NUMBER          | DESCRIPTION                                 |   |
|                         | INLET CONNECTION                            | OUTLET CONNECTION                           |
| ▶◆ 44-44-NL             | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 66-44-NL              | 1" P.J. for PE Pipe*                        | 1" P.J. for PE Pipe*                        |
| 77-44-NL                | 1" P.J. for PVC Pipe                        | 1" P.J. for PVC Pipe                        |
| ▶◆ 46-44-NL             | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" P.J. for PE Pipe*                        |
| ▶◆ 64-44-NL             | 1" P.J. for PE Pipe                         | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶◆ 47-44-NL             | 1" P.J. for Copper or Plastic Tubing (CTS)  | 1" P.J. for PVC Pipe                        |
| ▶◆ 74-44-NL             | 1" P.J. for PVC Pipe                        | 1" P.J. for Copper or Plastic Tubing (CTS)  |

| 1" Pack Joint One End |   |   |
|-----------------------|---|---|
| CATALOG NUMBER        | DESCRIPTION                                 |   |
|                       | INLET CONNECTION                            | OUTLET CONNECTION                           |
| ▶◆ 41-44-NL           | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Double Purpose Union Swivel Δ            |
| ▶◆ 14-44-NL           | 1" Double Purpose Union Swivel Δ            | 1" P.J. for Copper or Plastic Tubing (CTS)* |
| ▶ 61-44-NL            | 1" P.J. for PE Pipe*                        | 1" Double Purpose Union Swivel Δ            |
| ▶ 16-44-NL            | 1" Double Purpose Union Swivel Δ            | 1" P.J. for PE Pipe*                        |
| ▶◆ 48-44-NL           | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Male Iron Pipe Union Swivel              |
| 4M-44-NL              | 1" P.J. for Copper or Plastic Tubing (CTS)* | 1" Integral Male Iron Pipe                  |

| Iron Pipe and Flare Connections |                                  |                                  |
|---------------------------------|----------------------------------|----------------------------------|
| CATALOG NUMBER                  | DESCRIPTION                      |                                  |
|                                 | INLET CONNECTION                 | OUTLET CONNECTION                |
| MM-44-NL                        | 1" Integral Male Iron Pipe       | 1" Integral Male Iron Pipe       |
| 22-44-NL                        | 1" Flare Copper                  | 1" Flare Copper                  |
| 12-44-NL                        | 1" Double Purpose Union Swivel Δ | 1" Flare Copper                  |
| 21-44-NL                        | 1" Flare Copper                  | 1" Double Purpose Union Swivel Δ |
| 28-44-NL                        | 1" Flare Copper                  | 1" Male Iron Pipe Union Swivel   |
| 82-44-NL                        | 1" Male Iron Pipe Union Swivel   | 1" Flare Copper                  |
| 11-44-NL                        | 1" Double Purpose Union Swivel Δ | 1" Double Purpose Union Swivel Δ |
| 88-44-NL                        | 1" Male Iron Pipe Union Swivel   | 1" Male Iron Pipe Union Swivel   |
| 18-44-NL                        | 1" Double Purpose Union Swivel Δ | 1" Male Iron Pipe Union Swivel   |
| 81-44-NL                        | 1" Male Iron Pipe Union Swivel   | 1" Double Purpose Union Swivel Δ |

Δ Double Purpose Union Swivels will accommodate male iron pipe threads or flare copper.

\* **Grip Joint** for CTS and PE pipe is available. Add "-G" to the catalog number.

◆ **Quick Joint** is available. Add "-Q" to the catalog number.

▶ **Ultra-Tite** is available. Contact factory for more information.

**NOTE:** Ford Pack Joints for PVC are recommended for Schedule 40 and Schedule 80 pipe only.

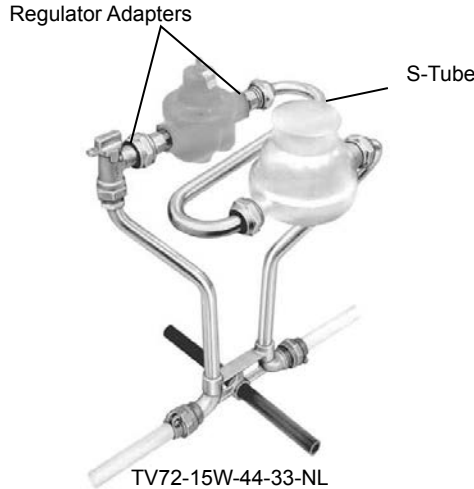
Example: For vertical inlet, place a "Z" before any of the listed option codes. Example: "ZA" is a vertical inlet and a 15" outlet tube extension.

| OPTIONS FOR 90 SERIES COPPERSETTERS                 | EXTENSION TO CATALOG NUMBER |
|---|-----------------------------|
| Brace Eye   | Add "E" to Cat. No.         |
| Bolted clamp construction                           | Add "C" to Cat. No.         |
| 15" inlet tube extension                            | Add "P" to Cat. No.         |
| 15" inlet tube extension & brace eye                | Add "PE" to Cat. No.        |
| 15" inlet tube extension & bolted clamp             | Add "PC" to Cat. No.        |
| 15" outlet tube extension                           | Add "A" to Cat. No.         |
| 15" outlet tube extension & brace eye               | Add "H" to Cat. No.         |
| 15" outlet tube extension & bolted clamp            | Add "F" to Cat. No.         |
| 15" inlet and outlet tube extensions                | Add "PA" to Cat. No.        |
| 15" inlet and outlet tube extensions & brace eye    | Add "PH" to Cat. No.        |
| 15" inlet and outlet tube extensions & bolted clamp | Add "PF" to Cat. No.        |
| 18" inlet tube extension                            | Add "S" to Cat. No.         |
| 18" inlet tube extension & brace eye                | Add "SE" to Cat. No.        |
| 18" inlet tube extension & bolted clamp             | Add "SC" to Cat. No.        |
| 18" outlet tube extension                           | Add "B" to Cat. No.         |
| 18" outlet tube extension & brace eye               | Add "K" to Cat. No.         |
| 18" outlet tube extension & bolted clamp            | Add "J" to Cat. No.         |
| 18" inlet and outlet tube extensions                | Add "SB" to Cat. No.        |
| 18" inlet and outlet tube extensions & brace eye    | Add "SK" to Cat. No.        |
| 18" inlet and outlet tube extensions & bolted clamp | Add "SJ" to Cat. No.        |
| Vertical Inlet                                      | Add "Z" to Cat. No.         |

# Ford Tandem Copper setters

Designed to solve problems resulting from excessive water pressure, the Tandem Copper setter holds a pressure regulator just ahead of the water meter – all in one compact, quickly-installed Ford Copper setter device. Pressure of the water flow through the meter and customer service lines is thereby easily reduced.

**This space-saving unit is designed for installation in a single meter pit, frequently as small as 20" in diameter. Ford recommends service lines and valves be set at a minimum of 2" from the pit wall to help prevent freezing.**



## HOW TO ORDER

Select Copper setter Series desired. Add the letter "T" before Catalog Number selected. EXAMPLE: TV72-18W-21-33-NL = Valve type Tandem Copper setter for 5/8" x 3/4" meter, 18" high with 3/4" flared copper inlet and with double purpose union swivel outlet. Tandem Copper setters include an "S" tube and male iron pipe adapters for holding a pressure regulator. Unless specified otherwise, standard Tandem Copper setters are designed to hold a water meter in series with a pressure regulator.

## PRV Lengths and Spacing for Standard Tandem Copper setters and Resetters

| PRV side of Tandem Standard Setter |                  |   |                  |
|------------------------------------|------------------|---|------------------|
| METER SIZE                         | STANDARD SPACING | FNPT PRV LENGTH TO USE WITH STANDARD ADAPTERS | STANDARD ADAPTER |
| 5/8"                               | 7-1/2"           | 4-3/4"  | RA-1-NL          |
| 5/8" x 3/4"                        | 7-1/2"           | 4-3/8"  | RA-2-NL          |
| 3/4"                               | 7-1/2"           | 4-3/8"  | RA-2-NL          |
| 1"                                 | 9"               | 5-19/32"                                      | RA-4-NL          |

5/8" - 1" Tandem Setters built for standard length PRV's with FNPT end-connections **include regulator adapters and "S" tube.**

For PRV lengths with end connections other than FNPT or lengths other than what is listed in the above table, contact factory for price and availability.

If ordering non standard PRV spacing, add PRV length to the catalog number.

Examples: TVBH72-15W-11-33-6-5-NL (6-1/2" PRV spacing) TVBH74-18W-44-44-LRA-9-5-NL (9-1/2" PRV spacing without adapters)

| Minimum Height on Tandem Copper setters and Resetters with Cartridge Dual Check Valve |                   |                 |
|---|-------------------|-----------------|
| Tandem Copper setter or Resetter  | Meter Size        | *Minimum Height |
| 70, 270, 80, 70-80 Series Copper setters or 40 Series Resetters                       | 5/8", 5/8" x 3/4" | 9"              |
|   | 3/4"              | 15"             |
|   | 1"                | 15"             |
| 90 Series Copper setter or 30 Series Resetter   | 5/8", 5/8" x 3/4" | 15"             |
|   | 3/4"              | 15"             |
|   | 1"                | 18"             |

\* For actual height contact factory.

### Adapters for Regulator (sold as pairs) (male meter thread x MNPT)



| CATALOG NUMBER | METER SIZE | ADAPTER LENGTH | APPROX. WT. LBS. |
|----------------|------------|----------------|------------------|
| RA-1-NL        | 5/8"       | 1-7/8"         | 0.6              |
| RA-2-NL        | 5/8"x3/4"  | 2-1/16"        | 0.8              |
| RA-4-NL        | 1"         | 2-1/4"         | 1.3              |

### "S" Tube with Meter Swivel Nuts (including gaskets)

| CATALOG NUMBER | METER SIZE  | APPROX. WT. LBS. |
|----------------|-------------|------------------|
| ST-1           | 5/8"        | 1.3              |
| ST-2           | 5/8" x 3/4" | 1.5              |
| ST-3           | 3/4"        | 1.8              |
| ST-4           | 1"          | 2.5              |

# Ford Linesetters

The Ford Linesetter is an economical way to support the meter and speed meter changeouts in areas where shallow service line depths are possible. The short rise provided by the Linesetter helps to keep the meter out of the dirt at the bottom of the meter box, and the setter assembly supports the service line. Cut-in style Linesetters can be used when installing meters in previously unmetred services, and eliminate the need to flare or thread old service lines.



LSV11-233W-NL

The LSV11-233W-NL is an example of a Linesetter for a 5/8" x 3/4" meter. Service line connections are double purpose. Contact factory for optional brace eye.



LSV44-444W-NL

The LSV44-444W-NL is an example of a Linesetter for a 1" meter. Service line connections are Pack Joint for CTS. Brace eyes are standard on all Linesetters for 1" meters.



LSAV21-233W-NL

The LSAV21-233W-NL is an example of a Angle Inlet Linesetter for a 5/8" x 3/4" meter. Service line connections are an angled flare copper inlet by double purpose outlet. Contact factory for optional brace eye.

## Linesetters for 5/8" meters

### 3/4" DOUBLE PURPOSE INLET BY 3/4" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 5/8" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|----------------------------------|---------------------|----------------------|
| LS11-133-NL                      | none                | none                 |
| LSV11-133W-NL                    | Key                 | none                 |
| LSVH11-133W-NL                   | Key                 | Single Check         |
| LSVHH11-133W-NL                  | Key                 | Dual Check           |
| LSVB11-133W-NL                   | Ball                | none                 |
| LSVBH11-133W-NL                  | Ball                | Single Check         |
| LSVBHH11-133W-NL                 | Ball                | Dual Check           |

### 3/4" DOUBLE PURPOSE INLET BY 3/4" MALE IRON PIPE OUTLET



| CATALOG NUMBER<br>FOR 5/8" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|----------------------------------|---------------------|----------------------|
| LS18-133-NL                      | none                | none                 |
| LSV18-133W-NL                    | Key                 | none                 |
| LSVH18-133W-NL                   | Key                 | Single Check         |
| LSVHH18-133W-NL                  | Key                 | Dual Check           |
| LSVB18-133W-NL                   | Ball                | none                 |
| LSVBH18-133W-NL                  | Ball                | Single Check         |
| LSVBHH18-133W-NL                 | Ball                | Dual Check           |

### 3/4" PACK JOINT FOR CTS\* INLET BY 3/4" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 5/8" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|----------------------------------|---------------------|----------------------|
| ▶♦ LSV41-133W-NL                 | Key                 | none                 |
| ▶♦ LSVH41-133W-NL                | Key                 | Single Check         |
| ▶♦ LSVHH41-133W-NL               | Key                 | Dual Check           |
| ▶♦ LSVB41-133W-NL                | Ball                | none                 |
| ▶♦ LSVBH41-133W-NL               | Ball                | Single Check         |
| ▶♦ LSVBHH41-133W-NL              | Ball                | Dual Check           |

\* Grip Joint for CTS is available. Add "-G" to the catalog number. Example: LSV41-133W-G-NL

♦ Quick Joint is available. Add "-Q" to the catalog number. Example: LSV41-133W-Q-NL

▶ Ultra-Tite is available. Contact factory for more information.

**Note:** 5/8" x 3/4", 3/4" and 1" Linesetter with angle ball valve will be reduced port unless otherwise specified. Reduced port valves usually provide suitable water flow. Add "-FP" to the catalog number for full port.

# Ford Linesetters

## Linesetters for 5/8" x 3/4" meters

### 3/4" DOUBLE PURPOSE INLET BY 3/4" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 5/8"x3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|---------------------------------------|---------------------|----------------------|
| LS11-233-NL                           | none                | none                 |
| LSV11-233W-NL                         | Key                 | none                 |
| LSVH11-233W-NL                        | Key                 | Single Check         |
| LSVHH11-233W-NL                       | Key                 | Dual Check           |
| LSVB11-233W-NL                        | Ball                | none                 |
| LSVBH11-233W-NL                       | Ball                | Single Check         |
| LSVBHH11-233W-NL                      | Ball                | Dual Check           |

### 3/4" PACK JOINT FOR CTS\* INLET BY 3/4" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 5/8"x3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|---------------------------------------|---------------------|----------------------|
| ▶ LSV41-233W-NL                       | Key                 | none                 |
| ▶ LSVH41-233W-NL                      | Key                 | Single Check         |
| ▶ LSVHH41-233W-NL                     | Key                 | Dual Check           |
| ▶ LSVB41-233W-NL                      | Ball                | none                 |
| ▶ LSVBH41-233W-NL                     | Ball                | Single Check         |
| ▶ LSVBHH41-233W-NL                    | Ball                | Dual Check           |

### 3/4" FLARE COPPER INLET BY 3/4" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 5/8"x3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|---------------------------------------|---------------------|----------------------|
| LSV21-233W-NL                         | Key                 | none                 |
| LSVH21-233W-NL                        | Key                 | Single Check         |
| LSVHH21-233W-NL                       | Key                 | Dual Check           |
| LSVB21-233W-NL                        | Ball                | none                 |
| LSVBH21-233W-NL                       | Ball                | Single Check         |
| LSVBHH21-233W-NL                      | Ball                | Dual Check           |

### 3/4" PACK JOINT FOR CTS\* INLET BY 3/4" PACK JOINT FOR CTS\* OUTLET



| CATALOG NUMBER<br>FOR 5/8"x3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|---------------------------------------|---------------------|----------------------|
| ▶ ♦ LSV44-233W-NL                     | Key                 | none                 |
| ▶ ♦ LSVH44-233W-NL                    | Key                 | Single Check         |
| ▶ ♦ LSVHH44-233W-NL                   | Key                 | Dual Check           |
| ▶ ♦ LSVB44-233W-NL                    | Ball                | none                 |
| ▶ ♦ LSVBH44-233W-NL                   | Ball                | Single Check         |
| ▶ ♦ LSVBHH44-233W-NL                  | Ball                | Dual Check           |

\* **Grip Joint** for CTS is available. Add "-G" to the catalog number. Example: LSV44-233W-G-NL

♦ **Quick Joint** is available. Add "-Q" to the catalog number. Example: LSV44-233W-Q-NL

▶ **Ultra-Tite** is available. Contact factory for more information.

**Note:** 5/8" x 3/4", 3/4" and 1" Linesetter with angle ball valve will be reduced port unless otherwise specified. Reduced port valves usually provide suitable water flow. Add "-FP" to the catalog number for full port.

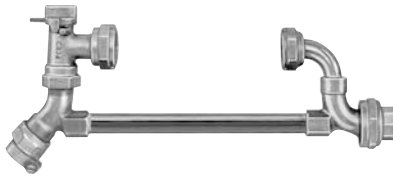
# Ford Linesetters

## Linesetters for 5/8" x 3/4" meters



### 3/4" ANGLED FLARE COPPER INLET BY 3/4" DOUBLE PURPOSE OUTLET

| CATALOG NUMBER<br>FOR 5/8"x3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|---------------------------------------|---------------------|----------------------|
| LSAV21-233W-NL                        | Key                 | none                 |
| LSAVH21-233W-NL                       | Key                 | Single Check         |
| LSAVHH21-233W-NL                      | Key                 | Dual Check           |
| LSAVB21-233W-NL                       | Ball                | none                 |
| LSAVBH21-233W-NL                      | Ball                | Single Check         |
| LSAVBHH21-233W-NL                     | Ball                | Dual Check           |



### 3/4" ANGLED PACK JOINT FOR CTS\* INLET BY 3/4" DOUBLE PURPOSE OUTLET

| CATALOG NUMBER<br>FOR 5/8"x3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|---------------------------------------|---------------------|----------------------|
| LSAV41-233W-NL                        | Key                 | none                 |
| LSAVH41-233W-NL                       | Key                 | Single Check         |
| LSAVHH41-233W-NL                      | Key                 | Dual Check           |
| LSAVB41-233W-NL                       | Ball                | none                 |
| LSAVBH41-233W-NL                      | Ball                | Single Check         |
| LSAVBHH41-233W-NL                     | Ball                | Dual Check           |

\* Grip Joint for CTS is available. Add "-G" to the catalog number. Example: LSAV41-233W-G-NL

## Linesetters for 3/4" meters



### 3/4" DOUBLE PURPOSE INLET BY 3/4" DOUBLE PURPOSE OUTLET

| CATALOG NUMBER<br>FOR 3/4" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|----------------------------------|---------------------|----------------------|
| LS11-333-NL                      | none                | none                 |
| LSV11-333W-NL                    | Key                 | none                 |
| LSVH11-333W-NL                   | Key                 | Single Check         |
| LSVHH11-333W-NL                  | Key                 | Dual Check           |
| LSVB11-333W-NL                   | Ball                | none                 |
| LSVBH11-333W-NL                  | Ball                | Single Check         |
| LSVBHH11-333W-NL                 | Ball                | Dual Check           |

### OTHER 3/4" LINESETTERS

Besides the 3/4" linesetters listed in this table, any of the 5/8"x3/4" linesetter listings are available as 3/4" linesetters by changing the catalog number. Example: an LSV44-233W-NL for 5/8"x3/4" meter will read LSV44-333W-NL for 3/4" meter.

**Note:** 5/8" x 3/4", 3/4" and 1" Linesetter with angle ball valve will be reduced port unless otherwise specified. Reduced port valves usually provide suitable water flow. Add "-FP" to the catalog number for full port.

# Ford Linesetters

Linesetters for 1" meters

## 1" DOUBLE PURPOSE INLET BY 1" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 1" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|--------------------------------|---------------------|----------------------|
| LSV11-444W-NL                  | Key                 | none                 |
| LSVH11-444W-NL                 | Key                 | Single Check         |
| LSVHH11-444W-NL                | Key                 | Dual Check ▼         |
| LSVB11-444W-NL                 | Ball                | none                 |
| LSVBH11-444W-NL                | Ball                | Single Check         |
| LSVBHH11-444W-NL               | Ball                | Dual Check ▼         |

## 1" FLARE COPPER INLET BY 1" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 1" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|--------------------------------|---------------------|----------------------|
| LSV21-444W-NL                  | Key                 | none                 |
| LSVH21-444W-NL                 | Key                 | Single Check         |
| LSVHH21-444W-NL                | Key                 | Dual Check ▼         |
| LSVB21-444W-NL                 | Ball                | none                 |
| LSVBH21-444W-NL                | Ball                | Single Check         |
| LSVBHH21-444W-NL               | Ball                | Dual Check ▼         |

## 1" PACK JOINT FOR CTS\* INLET BY 1" DOUBLE PURPOSE OUTLET



| CATALOG NUMBER<br>FOR 1" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|--------------------------------|---------------------|----------------------|
| ▶♦ LSV41-444W-NL               | Key                 | none                 |
| ▶♦ LSVH41-444W-NL              | Key                 | Single Check         |
| ▶♦ LSVHH41-444W-NL             | Key                 | Dual Check ▼         |
| ▶♦ LSVB41-444W-NL              | Ball                | none                 |
| ▶♦ LSVBH41-444W-NL             | Ball                | Single Check         |
| ▶♦ LSVBHH41-444W-NL            | Ball                | Dual Check ▼         |

\* Grip Joint for CTS is available. Add "-G" to the catalog number. Example: LSV41-444W-G-NL.

♦ Quick Joint is available. Add "-Q" to the catalog number. Example: LSV41-444W-Q-NL.

## 1" PACK JOINT FOR CTS\* INLET BY 1" PACK JOINT FOR CTS\* OUTLET



| CATALOG NUMBER<br>FOR 1" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|--------------------------------|---------------------|----------------------|
| ▶♦ LSV44-444W-NL               | Key                 | none                 |
| ▶♦ LSVH44-444W-NL              | Key                 | Single Check         |
| ▶♦ LSVHH44-444W-NL             | Key                 | Dual Check ▼         |
| ▶♦ LSVB44-444W-NL              | Ball                | none                 |
| ▶♦ LSVBH44-444W-NL             | Ball                | Single Check         |
| ▶♦ LSVBHH44-444W-NL            | Ball                | Dual Check ▼         |

\* Grip Joint for CTS is available. Add "-G" to the catalog number. Example: LSV44-444W-G-NL.

♦ Quick Joint is available. Add "-Q" to the catalog number. Example: LSV44-444W-Q-NL.

▶ Ultra-Tite is available. Contact factory for more information.

▼ 1" Angle Cascading Dual Check Valves contain 3/4" internal components.

**Note:** 5/8" x 3/4", 3/4" and 1" Linesetter with angle ball valve will be reduced port unless otherwise specified. Reduced port valves usually provide suitable water flow. Add "-FP" to the catalog number for full port.

# Ford Linesetters

## Linesetters for 1" meters



### 1" Male Iron Pipe Inlet By 1" Double Purpose Outlet

| CATALOG NUMBER<br>FOR 1" METER | INLET<br>VALVE TYPE | OUTLET<br>VALVE TYPE |
|--------------------------------|---------------------|----------------------|
| LSV81-444W-NL                  | Key                 | none                 |
| LSVH81-444W-NL                 | Key                 | Single Check         |
| LSVHH81-444W-NL                | Key                 | Dual Check ▼         |
| LSVB81-444W-NL                 | Ball                | none                 |
| LSVBH81-444W-NL                | Ball                | Single Check         |
| LSVBHH81-444W-NL               | Ball                | Dual Check ▼         |

▼ 1" Angle cascading dual check valves contain 3/4" internal components.

## Ford Pack Joint Linesetters - Cut-In Type

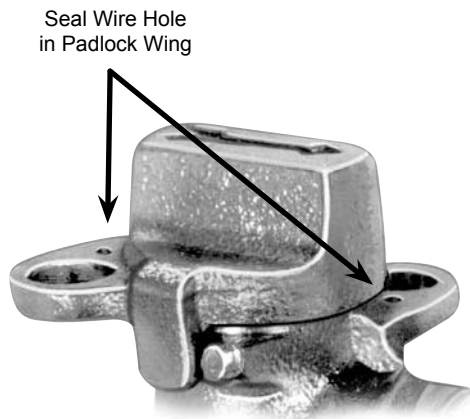
Order Pack Joint Assemblies Separately



| CATALOG NUMBER       | METER SIZE | INLET CONNECTION    | OUTLET CONNECTION   |
|----------------------|------------|---------------------|---------------------|
| <b>WITHOUT VALVE</b> |            |                     |                     |
| LS00-100-NL          | 5/8"       | Optional Pack Joint | Optional Pack Joint |
| LS00-200-NL          | 5/8"x3/4"  | Optional Pack Joint | Optional Pack Joint |
| LS00-300-NL          | 3/4"       | Optional Pack Joint | Optional Pack Joint |
| <b>WITH VALVE</b>    |            |                     |                     |
| LSV00-100W-NL        | 5/8"       | Optional Pack Joint | Optional Pack Joint |
| LSV00-200W-NL        | 5/8"x3/4"  | Optional Pack Joint | Optional Pack Joint |
| LSV00-300W-NL        | 3/4"       | Optional Pack Joint | Optional Pack Joint |

Pack Joint Assemblies for Cut-In Pack Joint Linesetters (two required per Linesetter)  
see table on page 15 under 270 Series Coppersetters.

## Options for Ford Linesetters

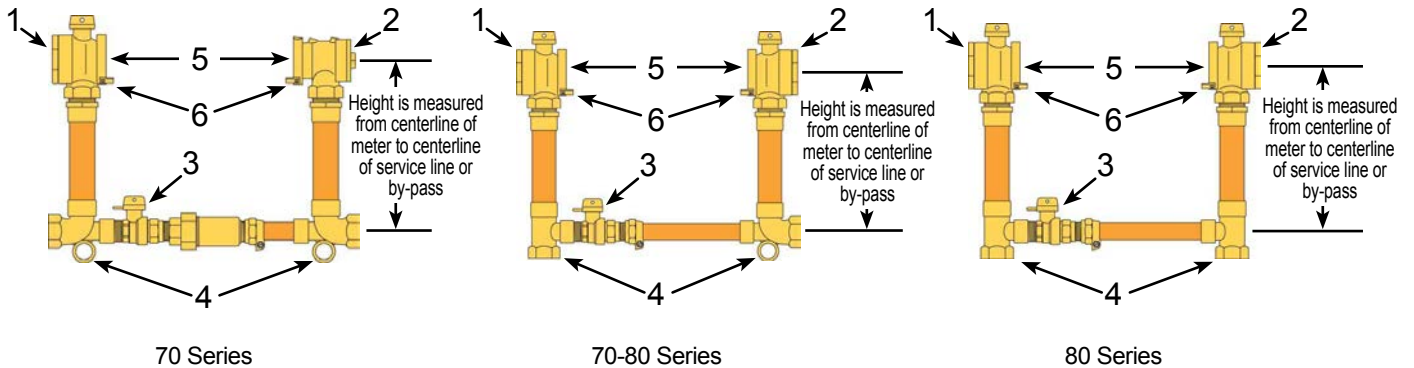


### ADDITIONAL OPTIONS FOR LINESETTERS

Seal wire hole in inlet valve. To order add "- SEAL" to catalog number.  
Example: LSV11-133W- SEAL-NL

# Coppersetters for 1-1/2" & 2" Flanged Meters

## Information for Ford All Brass and Copper 1-1/2" & 2" Coppersetters



### Specifications:

Ford Coppersetters are constructed from UNS/CDA No. C89833 no lead brass alloy (AWWA specification C800) and copper tubing. All Ford 1-1/2" and 2" Coppersetters are individually factory tested for water-tightness before shipment.

Individualized setting requirements can be satisfied using special Ford Coppersetters. We welcome the opportunity to solve your 1-1/2" and 2" setting problems.

1. Inlet valve options are a flanged angle inverted key or flanged angle ball valve.
2. All inlet valve options are also available on outlet\* (see note below) - A flanged angle check outlet valve or a flanged angle dual check valve is available.
3. By-pass includes a Ford Ball Valve with padlock wings. An optional dual check valve in the by-pass is available. A high by-pass is also available. See photo below.
4. Brace pipe eyelets are standard - brace pipe not included.
5. Different meter flange spacing may be specified. Standard spacing for 1-1/2" meter setters is 13", 17" for 2" meters
6. All 1-1/2" and 2" meter flange valves on Coppersetters have meter support brackets.

\* **NOTE:** 1-1/2" and 2" outlet ball valves may be used as customer shut-offs (on the customer side of the meter). The flange inverted key angle valves should **not** be used as customer shut-off on the customer side of the meter.

**NOTE:** 1-1/2" and 2" Tandem Coppersetters are available, add "T" to the beginning of the catalog number. Minimum rise of Tandem Coppersetter is 18". Contact factory with meter and PRV information.

### HIGH BY-PASS OPTION

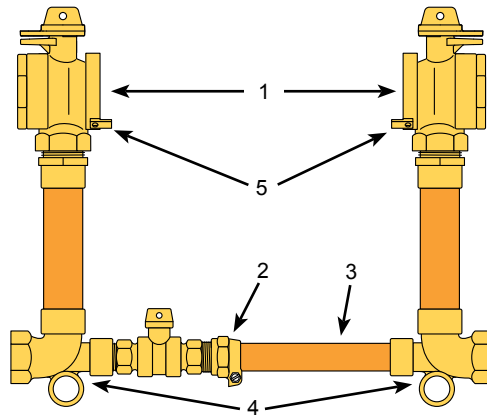
A high by-pass option is available on 1-1/2" and 2" Ford Coppersetters with a 12" minimum height.

To order: add "HB" to catalog number. Example: VV77-18HB-11-77-NL



# Coppersettors for 1-1/2" & 2" Flanged Meters

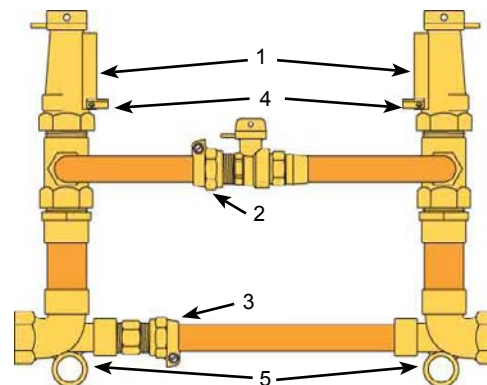
## Coppersetter Installation Instructions



Refer to the Ford Meter Box website ([www.fordmeterbox.com](http://www.fordmeterbox.com)) for additional and most recent instructions and product information.

1. **CHECK LAYING LENGTH OF METER WITH SETTER DIMENSIONS (#1).**  
Adjustments to setter meter length may be made as follows:
  - A. **LOOSEN PACK JOINT (#2) AND ADJUST SETTER LENGTH TO FIT METER BY INSTALLING PROPER IDLER OR METER (with gaskets).** This ensures proper spacing and alignment of the setting prior to connecting the service lines.
  - B. If a shorter meter is used, cut the copper tubing (#3). Copper tubing should extend a minimum of 1/2" beyond the Pack Joint gasket when the meter is fully installed.
  - C. Tighten Pack Joint (#2) nut and tighten screw according to the Pack Joint installation instructions.
2. Cut two pieces of 1" pipe 18" long and install through the brace eye supports (#4).
3. Be sure the Coppersetter is installed in the correct position in relation to the water flow and make sure the bypass valve is in the **OFF** position. Note: 1-1/2" and 2" angle key valves should not be used as a customer shut-off on the customer side of the meter. Angle ball valves are to be used for this purpose.
4. Use a good quality pipe sealant or Teflon tape when attaching fittings to female iron pipe inlet and outlet threads. Follow the compression connection installation instructions if supplied with compression connections.
5. Special Ford drop-in gaskets are included with each setter for use when installing the water meter. Meter support brackets (#5) may need to be loosened or removed due to variations in the shape of water meter flanges.

## High Bypass Coppersetter Installation Instructions



Refer to the Ford Meter Box website ([www.fordmeterbox.com](http://www.fordmeterbox.com)) for additional and most recent instructions and product information.

1. **CHECK LAYING LENGTH OF METER WITH SETTER DIMENSIONS (#1).**  
Adjustments to setter meter length may be made as follows:
  - A. **LOOSEN PACK JOINT (#3) ON COPPERSETTER BRACE BAR AND ON BYPASS BALL VALVE (#2) AND ADJUST SETTER LENGTH TO FIT BY INSTALLING PROPER IDLER OR METER (with gaskets).** This ensures proper spacing and alignment of the setting prior to connecting the service lines.
  - B. If a shorter meter is used, cut the copper tubing (#2 and #3). Copper tubing should extend a minimum of 1/2" beyond the Pack Joint gasket when the meter is fully installed.
  - C. Tighten all Pack Joints (#2 and #3) (according to the Pack Joint installation instructions) with meter or meter idler in place.
2. Cut two pieces of 1" pipe 18" long and install through the brace eye supports (#5).
3. Be sure that the Coppersetter is installed in the correct position in relation to water flow and make certain the bypass valve is **OFF**.
4. Use a good quality pipe sealant or Teflon tape when attaching fittings to the female iron pipe inlet or outlet threads. Follow the compression connection installation instructions if supplied with compression connections.
5. Special Ford drop-in gaskets are included with each Coppersetter for use when installing a water meter. Meter support brackets (#4) may need to be loosened or removed due to variations in shape of water meter flanges.

# 70 Series Coppersetters for 1-1/2" & 2" Flanged Meters

Horizontal inlet and outlet

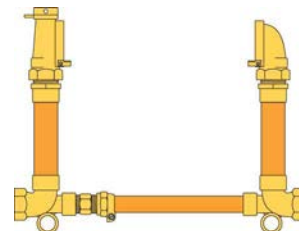
UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

## KEY VALVE INLET AND METER ELL OUTLET

| HEIGHT | SERVICE LINE CONNECTION |        | FOR 1-1/2" METER CATALOG NUMBER | APPROX. Wt. LBS. | FOR 2" METER CATALOG NUMBER | APPROX. Wt. LBS. |
|--------|-------------------------|--------|---------------------------------|------------------|-----------------------------|------------------|
|        | INLET                   | OUTLET |                                 |                  |                             |                  |
| 12"    | FIP                     | FIP    | V76-12-11-66-NL                 | 30.0             | V77-12-11-77-NL             | 32.0             |
|        | CTS*                    | FIP    | V76-12-41-66-NL                 | 30.0             | V77-12-41-77-NL             | 32.0             |
|        | CTS*                    | CTS*   | V76-12-44-66-NL                 | 30.0             | V77-12-44-77-NL             | 32.0             |
| 15"    | FIP                     | FIP    | V76-15-11-66-NL                 | 31.0             | V77-15-11-77-NL             | 33.0             |
|        | CTS*                    | FIP    | V76-15-41-66-NL                 | 31.0             | V77-15-41-77-NL             | 33.0             |
|        | CTS*                    | CTS*   | V76-15-44-66-NL                 | 31.0             | V77-15-44-77-NL             | 33.0             |
| 18"    | FIP                     | FIP    | V76-18-11-66-NL                 | 32.0             | V77-18-11-77-NL             | 34.0             |
|        | CTS*                    | FIP    | V76-18-41-66-NL                 | 32.0             | V77-18-41-77-NL             | 34.0             |
|        | CTS*                    | CTS*   | V76-18-44-66-NL                 | 32.0             | V77-18-44-77-NL             | 34.0             |
| 21"    | FIP                     | FIP    | V76-21-11-66-NL                 | 32.0             | V77-21-11-77-NL             | 34.0             |
|        | CTS*                    | FIP    | V76-21-41-66-NL                 | 32.0             | V77-21-41-77-NL             | 34.0             |
|        | CTS*                    | CTS*   | V76-21-44-66-NL                 | 32.0             | V77-21-44-77-NL             | 34.0             |
| 24"    | FIP                     | FIP    | V76-24-11-66-NL                 | 33.0             | V77-24-11-77-NL             | 35.0             |
|        | CTS*                    | FIP    | V76-24-41-66-NL                 | 33.0             | V77-24-41-77-NL             | 35.0             |
|        | CTS*                    | CTS*   | V76-24-44-66-NL                 | 33.0             | V77-24-44-77-NL             | 35.0             |
| 27"    | FIP                     | FIP    | V76-27-11-66-NL                 | 33.0             | V77-27-11-77-NL             | 35.0             |
|        | CTS*                    | FIP    | V76-27-41-66-NL                 | 33.0             | V77-27-41-77-NL             | 35.0             |
|        | CTS*                    | CTS*   | V76-27-44-66-NL                 | 33.0             | V77-27-44-77-NL             | 35.0             |

Note: 1-1/2" and 2" Coppersetter with a meter ell on the outlet is standard *without* a by-pass.

\* Grip Joint for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.

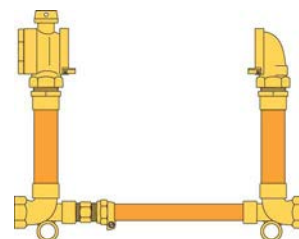


## BALL VALVE INLET AND METER ELL OUTLET

| HEIGHT | SERVICE LINE CONNECTION |        | FOR 1-1/2" METER CATALOG NUMBER | APPROX. Wt. LBS. | FOR 2" METER CATALOG NUMBER | APPROX. Wt. LBS. |
|--------|-------------------------|--------|---------------------------------|------------------|-----------------------------|------------------|
|        | INLET                   | OUTLET |                                 |                  |                             |                  |
| 12"    | FIP                     | FIP    | VB76-12-11-66-NL                | 30.0             | VB77-12-11-77-NL            | 32.0             |
|        | CTS*                    | FIP    | VB76-12-41-66-NL                | 30.0             | VB77-12-41-77-NL            | 32.0             |
|        | CTS*                    | CTS*   | VB76-12-44-66-NL                | 30.0             | VB77-12-44-77-NL            | 32.0             |
| 15"    | FIP                     | FIP    | VB76-15-11-66-NL                | 31.0             | VB77-15-11-77-NL            | 33.0             |
|        | CTS*                    | FIP    | VB76-15-41-66-NL                | 31.0             | VB77-15-41-77-NL            | 33.0             |
|        | CTS*                    | CTS*   | VB76-15-44-66-NL                | 31.0             | VB77-15-44-77-NL            | 33.0             |
| 18"    | FIP                     | FIP    | VB76-18-11-66-NL                | 32.0             | VB77-18-11-77-NL            | 34.0             |
|        | CTS*                    | FIP    | VB76-18-41-66-NL                | 32.0             | VB77-18-41-77-NL            | 34.0             |
|        | CTS*                    | CTS*   | VB76-18-44-66-NL                | 32.0             | VB77-18-44-77-NL            | 34.0             |
| 21"    | FIP                     | FIP    | VB76-21-11-66-NL                | 32.0             | VB77-21-11-77-NL            | 34.0             |
|        | CTS*                    | FIP    | VB76-21-41-66-NL                | 32.0             | VB77-21-41-77-NL            | 34.0             |
|        | CTS*                    | CTS*   | VB76-21-44-66-NL                | 32.0             | VB77-21-44-77-NL            | 34.0             |
| 24"    | FIP                     | FIP    | VB76-24-11-66-NL                | 33.0             | VB77-24-11-77-NL            | 35.0             |
|        | CTS*                    | FIP    | VB76-24-41-66-NL                | 33.0             | VB77-24-41-77-NL            | 35.0             |
|        | CTS*                    | CTS*   | VB76-24-44-66-NL                | 33.0             | VB77-24-44-77-NL            | 35.0             |
| 27"    | FIP                     | FIP    | VB76-27-11-66-NL                | 33.0             | VB77-27-11-77-NL            | 35.0             |
|        | CTS*                    | FIP    | VB76-27-41-66-NL                | 33.0             | VB77-27-41-77-NL            | 35.0             |
|        | CTS*                    | CTS*   | VB76-27-44-66-NL                | 33.0             | VB77-27-44-77-NL            | 35.0             |

Note: 1-1/2" and 2" Coppersetter with a meter ell on the outlet is standard *without* a by-pass.

\* Grip Joint for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.



## Options Available

Various types of couplings that will adapt to the FIP service line threads can be found on page 46.

Contact factory for heights not listed and availability of No-Rise Coppersetters.

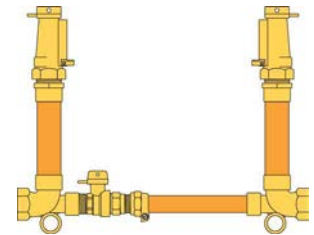
# 70 Series Coppersettlers for 1-1/2" & 2" Flanged Meters

Horizontal inlet and outlet

UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTLERS = 13"  
2" COPPERSETTLERS = 17"

## \*\*KEY VALVE INLET AND OUTLET

| HEIGHT | SERVICE         |        | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. |
|--------|-----------------|--------|---------------------------------------|------------------------|-----------------------------------|------------------------|
|        | LINE CONNECTION |        |                                       |                        |                                   |                        |
|        | INLET           | OUTLET |                                       |                        |                                   |                        |
| 12"    | FIP             | FIP    | VV76-12B-11-66-NL                     | 30.0                   | VV77-12B-11-77-NL                 | 32.0                   |
|        | CTS*            | FIP    | VV76-12B-41-66-NL                     | 30.0                   | VV77-12B-41-77-NL                 | 32.0                   |
|        | CTS*            | CTS*   | VV76-12B-44-66-NL                     | 30.0                   | VV77-12B-44-77-NL                 | 32.0                   |
| 15"    | FIP             | FIP    | VV76-15B-11-66-NL                     | 31.0                   | VV77-15B-11-77-NL                 | 33.0                   |
|        | CTS*            | FIP    | VV76-15B-41-66-NL                     | 31.0                   | VV77-15B-41-77-NL                 | 33.0                   |
|        | CTS*            | CTS*   | VV76-15B-44-66-NL                     | 31.0                   | VV77-15B-44-77-NL                 | 33.0                   |
| 18"    | FIP             | FIP    | VV76-18B-11-66-NL                     | 32.0                   | VV77-18B-11-77-NL                 | 34.0                   |
|        | CTS*            | FIP    | VV76-18B-41-66-NL                     | 32.0                   | VV77-18B-41-77-NL                 | 34.0                   |
|        | CTS*            | CTS*   | VV76-18B-44-66-NL                     | 32.0                   | VV77-18B-44-77-NL                 | 34.0                   |
| 21"    | FIP             | FIP    | VV76-21B-11-66-NL                     | 32.0                   | VV77-21B-11-77-NL                 | 34.0                   |
|        | CTS*            | FIP    | VV76-21B-41-66-NL                     | 32.0                   | VV77-21B-41-77-NL                 | 34.0                   |
|        | CTS*            | CTS*   | VV76-21B-44-66-NL                     | 32.0                   | VV77-21B-44-77-NL                 | 34.0                   |
| 24"    | FIP             | FIP    | VV76-24B-11-66-NL                     | 33.0                   | VV77-24B-11-77-NL                 | 35.0                   |
|        | CTS*            | FIP    | VV76-24B-41-66-NL                     | 33.0                   | VV77-24B-41-77-NL                 | 35.0                   |
|        | CTS*            | CTS*   | VV76-24B-44-66-NL                     | 33.0                   | VV77-24B-44-77-NL                 | 35.0                   |
| 27"    | FIP             | FIP    | VV76-27B-11-66-NL                     | 33.0                   | VV77-27B-11-77-NL                 | 35.0                   |
|        | CTS*            | FIP    | VV76-27B-41-66-NL                     | 33.0                   | VV77-27B-41-77-NL                 | 35.0                   |
|        | CTS*            | CTS*   | VV76-27B-44-66-NL                     | 33.0                   | VV77-27B-44-77-NL                 | 35.0                   |



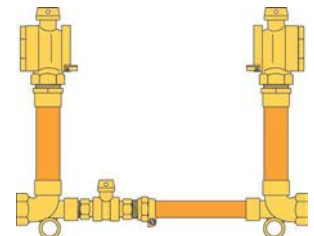
**Note:** 1-1/2" and 2" Coppersettlers with a valve on the outlet are standard **with** a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VV76-12-11-66-NL

\* **Grip Joint** for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.

\*\* 1-1/2" and 2" outlet ball valves may be used as customer shut-offs (on customer side of the meter). The flange inverted key angle valves should **not** be used as customer shut-offs on the customer side of the meter.

## BALL VALVE INLET AND OUTLET

| HEIGHT | SERVICE         |        | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. |
|--------|-----------------|--------|---------------------------------------|------------------------|-----------------------------------|------------------------|
|        | LINE CONNECTION |        |                                       |                        |                                   |                        |
|        | INLET           | OUTLET |                                       |                        |                                   |                        |
| 12"    | FIP             | FIP    | VBB76-12B-11-66-NL                    | 30.0                   | VBB77-12B-11-77-NL                | 32.0                   |
|        | CTS*            | FIP    | VBB76-12B-41-66-NL                    | 30.0                   | VBB77-12B-41-77-NL                | 32.0                   |
|        | CTS*            | CTS*   | VBB76-12B-44-66-NL                    | 30.0                   | VBB77-12B-44-77-NL                | 32.0                   |
| 15"    | FIP             | FIP    | VBB76-15B-11-66-NL                    | 31.0                   | VBB77-15B-11-77-NL                | 33.0                   |
|        | CTS*            | FIP    | VBB76-15B-41-66-NL                    | 31.0                   | VBB77-15B-41-77-NL                | 33.0                   |
|        | CTS*            | CTS*   | VBB76-15B-44-66-NL                    | 31.0                   | VBB77-15B-44-77-NL                | 33.0                   |
| 18"    | FIP             | FIP    | VBB76-18B-11-66-NL                    | 32.0                   | VBB77-18B-11-77-NL                | 34.0                   |
|        | CTS*            | FIP    | VBB76-18B-41-66-NL                    | 32.0                   | VBB77-18B-41-77-NL                | 34.0                   |
|        | CTS*            | CTS*   | VBB76-18B-44-66-NL                    | 32.0                   | VBB77-18B-44-77-NL                | 34.0                   |
| 21"    | FIP             | FIP    | VBB76-21B-11-66-NL                    | 32.0                   | VBB77-21B-11-77-NL                | 34.0                   |
|        | CTS*            | FIP    | VBB76-21B-41-66-NL                    | 32.0                   | VBB77-21B-41-77-NL                | 34.0                   |
|        | CTS*            | CTS*   | VBB76-21B-44-66-NL                    | 32.0                   | VBB77-21B-44-77-NL                | 34.0                   |
| 24"    | FIP             | FIP    | VBB76-24B-11-66-NL                    | 33.0                   | VBB77-24B-11-77-NL                | 35.0                   |
|        | CTS*            | FIP    | VBB76-24B-41-66-NL                    | 33.0                   | VBB77-24B-41-77-NL                | 35.0                   |
|        | CTS*            | CTS*   | VBB76-24B-44-66-NL                    | 33.0                   | VBB77-24B-44-77-NL                | 35.0                   |
| 27"    | FIP             | FIP    | VBB76-27B-11-66-NL                    | 33.0                   | VBB77-27B-11-77-NL                | 35.0                   |
|        | CTS*            | FIP    | VBB76-27B-41-66-NL                    | 33.0                   | VBB77-27B-41-77-NL                | 35.0                   |
|        | CTS*            | CTS*   | VBB76-27B-44-66-NL                    | 33.0                   | VBB77-27B-44-77-NL                | 35.0                   |



**Note:** 1-1/2" and 2" Coppersettlers with a valve on the outlet are standard **with** a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBB76-12-11-66-NL

\* **Grip Joint** for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.

## Options Available

Various types of couplings that will adapt to the FIP service line threads can be found on page 46.

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45.

Contact factory for heights not listed and availability of No-Rise Coppersettlers.

# 70 Series Copper setters for 1-1/2" & 2" Flanged Meters

Horizontal inlet and outlet

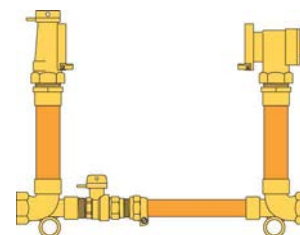
UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

## KEY VALVE INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | SERVICE         |        | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>Wt.<br>LBS. | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>Wt.<br>LBS. |
|--------|-----------------|--------|---------------------------------------|------------------------|-----------------------------------|------------------------|
|        | LINE CONNECTION |        |                                       |                        |                                   |                        |
|        | INLET           | OUTLET |                                       |                        |                                   |                        |
| 12"    | FIP             | FIP    | VH76-12B-11-66-NL                     | 30.0                   | VH77-12B-11-77-NL                 | 32.0                   |
|        | CTS*            | FIP    | VH76-12B-41-66-NL                     | 30.0                   | VH77-12B-41-77-NL                 | 32.0                   |
|        | CTS*            | CTS*   | VH76-12B-44-66-NL                     | 30.0                   | VH77-12B-44-77-NL                 | 32.0                   |
| 15"    | FIP             | FIP    | VH76-15B-11-66-NL                     | 31.0                   | VH77-15B-11-77-NL                 | 33.0                   |
|        | CTS*            | FIP    | VH76-15B-41-66-NL                     | 31.0                   | VH77-15B-41-77-NL                 | 33.0                   |
|        | CTS*            | CTS*   | VH76-15B-44-66-NL                     | 31.0                   | VH77-15B-44-77-NL                 | 33.0                   |
| 18"    | FIP             | FIP    | VH76-18B-11-66-NL                     | 32.0                   | VH77-18B-11-77-NL                 | 34.0                   |
|        | CTS*            | FIP    | VH76-18B-41-66-NL                     | 32.0                   | VH77-18B-41-77-NL                 | 34.0                   |
|        | CTS*            | CTS*   | VH76-18B-44-66-NL                     | 32.0                   | VH77-18B-44-77-NL                 | 34.0                   |
| 21"    | FIP             | FIP    | VH76-21B-11-66-NL                     | 32.0                   | VH77-21B-11-77-NL                 | 34.0                   |
|        | CTS*            | FIP    | VH76-21B-41-66-NL                     | 32.0                   | VH77-21B-41-77-NL                 | 34.0                   |
|        | CTS*            | CTS*   | VH76-21B-44-66-NL                     | 32.0                   | VH77-21B-44-77-NL                 | 34.0                   |
| 24"    | FIP             | FIP    | VH76-24B-11-66-NL                     | 33.0                   | VH77-24B-11-77-NL                 | 35.0                   |
|        | CTS*            | FIP    | VH76-24B-41-66-NL                     | 33.0                   | VH77-24B-41-77-NL                 | 35.0                   |
|        | CTS*            | CTS*   | VH76-24B-44-66-NL                     | 33.0                   | VH77-24B-44-77-NL                 | 35.0                   |
| 27"    | FIP             | FIP    | VH76-27B-11-66-NL                     | 33.0                   | VH77-27B-11-77-NL                 | 35.0                   |
|        | CTS*            | FIP    | VH76-27B-41-66-NL                     | 33.0                   | VH77-27B-41-77-NL                 | 35.0                   |
|        | CTS*            | CTS*   | VH76-27B-44-66-NL                     | 33.0                   | VH77-27B-44-77-NL                 | 35.0                   |

**Note:** 1-1/2" and 2" Copper setters with a valve on the outlet are standard **with** a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VH76-12-11-66-NL.

\* **Grip Joint** for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.

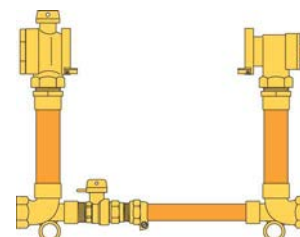


## BALL VALVE INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | SERVICE         |        | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>Wt.<br>LBS. | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>Wt.<br>LBS. |
|--------|-----------------|--------|---------------------------------------|------------------------|-----------------------------------|------------------------|
|        | LINE CONNECTION |        |                                       |                        |                                   |                        |
|        | INLET           | OUTLET |                                       |                        |                                   |                        |
| 12"    | FIP             | FIP    | VBH76-12B-11-66-NL                    | 30.0                   | VBH77-12B-11-77-NL                | 32.0                   |
|        | CTS*            | FIP    | VBH76-12B-41-66-NL                    | 30.0                   | VBH77-12B-41-77-NL                | 32.0                   |
|        | CTS*            | CTS*   | VBH76-12B-44-66-NL                    | 30.0                   | VBH77-12B-44-77-NL                | 32.0                   |
| 15"    | FIP             | FIP    | VBH76-15B-11-66-NL                    | 31.0                   | VBH77-15B-11-77-NL                | 33.0                   |
|        | CTS*            | FIP    | VBH76-15B-41-66-NL                    | 31.0                   | VBH77-15B-41-77-NL                | 33.0                   |
|        | CTS*            | CTS*   | VBH76-15B-44-66-NL                    | 31.0                   | VBH77-15B-44-77-NL                | 33.0                   |
| 18"    | FIP             | FIP    | VBH76-18B-11-66-NL                    | 32.0                   | VBH77-18B-11-77-NL                | 34.0                   |
|        | CTS*            | FIP    | VBH76-18B-41-66-NL                    | 32.0                   | VBH77-18B-41-77-NL                | 34.0                   |
|        | CTS*            | CTS*   | VBH76-18B-44-66-NL                    | 32.0                   | VBH77-18B-44-77-NL                | 34.0                   |
| 21"    | FIP             | FIP    | VBH76-21B-11-66-NL                    | 32.0                   | VBH77-21B-11-77-NL                | 34.0                   |
|        | CTS*            | FIP    | VBH76-21B-41-66-NL                    | 32.0                   | VBH77-21B-41-77-NL                | 34.0                   |
|        | CTS*            | CTS*   | VBH76-21B-44-66-NL                    | 32.0                   | VBH77-21B-44-77-NL                | 34.0                   |
| 24"    | FIP             | FIP    | VBH76-24B-11-66-NL                    | 33.0                   | VBH77-24B-11-77-NL                | 35.0                   |
|        | CTS*            | FIP    | VBH76-24B-41-66-NL                    | 33.0                   | VBH77-24B-41-77-NL                | 35.0                   |
|        | CTS*            | CTS*   | VBH76-24B-44-66-NL                    | 33.0                   | VBH77-24B-44-77-NL                | 35.0                   |
| 27"    | FIP             | FIP    | VBH76-27B-11-66-NL                    | 33.0                   | VBH77-27B-11-77-NL                | 35.0                   |
|        | CTS*            | FIP    | VBH76-27B-41-66-NL                    | 33.0                   | VBH77-27B-41-77-NL                | 35.0                   |
|        | CTS*            | CTS*   | VBH76-27B-44-66-NL                    | 33.0                   | VBH77-27B-44-77-NL                | 35.0                   |

**Note:** 1-1/2" and 2" Copper setters with a valve on the outlet are standard **with** a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBH76-12-11-66-NL

\* **Grip Joint** for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.



## Options Available

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45.

Various types of couplings that will adapt to the FIP service line threads can be found on page 46.

Contact factory for heights not listed and availability of No-Rise Copper setters.

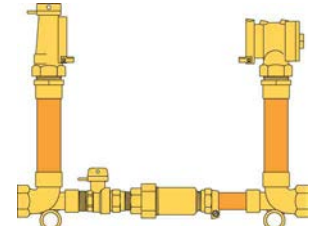
# 70 Series Coppersetters for 1-1/2" & 2" Flanged Meters

Horizontal inlet and outlet

UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

## KEY VALVE INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | SERVICE         |        | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. |
|--------|-----------------|--------|---------------------------------------|------------------------|-----------------------------------|------------------------|
|        | LINE CONNECTION |        |                                       |                        |                                   |                        |
|        | INLET           | OUTLET |                                       |                        |                                   |                        |
| 12"    | FIP             | FIP    | VHH76-12B-11-66-NL                    | 30.0                   | VHH77-12B-11-77-NL                | 32.0                   |
|        | CTS*            | FIP    | VHH76-12B-41-66-NL                    | 30.0                   | VHH77-12B-41-77-NL                | 32.0                   |
|        | CTS*            | CTS*   | VHH76-12B-44-66-NL                    | 30.0                   | VHH77-12B-44-77-NL                | 32.0                   |
| 15"    | FIP             | FIP    | VHH76-15B-11-66-NL                    | 31.0                   | VHH77-15B-11-77-NL                | 33.0                   |
|        | CTS*            | FIP    | VHH76-15B-41-66-NL                    | 31.0                   | VHH77-15B-41-77-NL                | 33.0                   |
|        | CTS*            | CTS*   | VHH76-15B-44-66-NL                    | 31.0                   | VHH77-15B-44-77-NL                | 33.0                   |
| 18"    | FIP             | FIP    | VHH76-18B-11-66-NL                    | 32.0                   | VHH77-18B-11-77-NL                | 34.0                   |
|        | CTS*            | FIP    | VHH76-18B-41-66-NL                    | 32.0                   | VHH77-18B-41-77-NL                | 34.0                   |
|        | CTS*            | CTS*   | VHH76-18B-44-66-NL                    | 32.0                   | VHH77-18B-44-77-NL                | 34.0                   |
| 21"    | FIP             | FIP    | VHH76-21B-11-66-NL                    | 32.0                   | VHH77-21B-11-77-NL                | 34.0                   |
|        | CTS*            | FIP    | VHH76-21B-41-66-NL                    | 32.0                   | VHH77-21B-41-77-NL                | 34.0                   |
|        | CTS*            | CTS*   | VHH76-21B-44-66-NL                    | 32.0                   | VHH77-21B-44-77-NL                | 34.0                   |
| 24"    | FIP             | FIP    | VHH76-24B-11-66-NL                    | 33.0                   | VHH77-24B-11-77-NL                | 35.0                   |
|        | CTS*            | FIP    | VHH76-24B-41-66-NL                    | 33.0                   | VHH77-24B-41-77-NL                | 35.0                   |
|        | CTS*            | CTS*   | VHH76-24B-44-66-NL                    | 33.0                   | VHH77-24B-44-77-NL                | 35.0                   |
| 27"    | FIP             | FIP    | VHH76-27B-11-66-NL                    | 33.0                   | VHH77-27B-11-77-NL                | 35.0                   |
|        | CTS*            | FIP    | VHH76-27B-41-66-NL                    | 33.0                   | VHH77-27B-41-77-NL                | 35.0                   |
|        | CTS*            | CTS*   | VHH76-27B-44-66-NL                    | 33.0                   | VHH77-27B-44-77-NL                | 35.0                   |



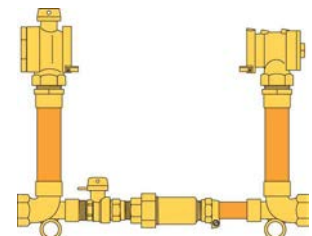
Shown with cartridge dual check valve in by-pass. See information below to order this feature.

**Note:** 1-1/2" and 2" Coppersetters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VHH76-12-11-66-NL. For By-Pass with 1" Cartridge Dual Check Valve, insert "HC" after the "B." Example: VHH77-12BHC-11-77-NL.

\* **Grip Joint** for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.

## BALL VALVE INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | SERVICE         |        | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT.<br>LBS. |
|--------|-----------------|--------|---------------------------------------|------------------------|-----------------------------------|------------------------|
|        | LINE CONNECTION |        |                                       |                        |                                   |                        |
|        | INLET           | OUTLET |                                       |                        |                                   |                        |
| 12"    | FIP             | FIP    | VBHH76-12B-11-66-NL                   | 30.0                   | VBHH77-12B-11-77-NL               | 32.0                   |
|        | CTS*            | FIP    | VBHH76-12B-41-66-NL                   | 30.0                   | VBHH77-12B-41-77-NL               | 32.0                   |
|        | CTS*            | CTS*   | VBHH76-12B-44-66-NL                   | 30.0                   | VBHH77-12B-44-77-NL               | 32.0                   |
| 15"    | FIP             | FIP    | VBHH76-15B-11-66-NL                   | 31.0                   | VBHH77-15B-11-77-NL               | 33.0                   |
|        | CTS*            | FIP    | VBHH76-15B-41-66-NL                   | 31.0                   | VBHH77-15B-41-77-NL               | 33.0                   |
|        | CTS*            | CTS*   | VBHH76-15B-44-66-NL                   | 31.0                   | VBHH77-15B-44-77-NL               | 33.0                   |
| 18"    | FIP             | FIP    | VBHH76-18B-11-66-NL                   | 32.0                   | VBHH77-18B-11-77-NL               | 34.0                   |
|        | CTS*            | FIP    | VBHH76-18B-41-66-NL                   | 32.0                   | VBHH77-18B-41-77-NL               | 34.0                   |
|        | CTS*            | CTS*   | VBHH76-18B-44-66-NL                   | 32.0                   | VBHH77-18B-44-77-NL               | 34.0                   |
| 21"    | FIP             | FIP    | VBHH76-21B-11-66-NL                   | 32.0                   | VBHH77-21B-11-77-NL               | 34.0                   |
|        | CTS*            | FIP    | VBHH76-21B-41-66-NL                   | 32.0                   | VBHH77-21B-41-77-NL               | 34.0                   |
|        | CTS*            | CTS*   | VBHH76-21B-44-66-NL                   | 32.0                   | VBHH77-21B-44-77-NL               | 34.0                   |
| 24"    | FIP             | FIP    | VBHH76-24B-11-66-NL                   | 33.0                   | VBHH77-24B-11-77-NL               | 35.0                   |
|        | CTS*            | FIP    | VBHH76-24B-41-66-NL                   | 33.0                   | VBHH77-24B-41-77-NL               | 35.0                   |
|        | CTS*            | CTS*   | VBHH76-24B-44-66-NL                   | 33.0                   | VBHH77-24B-44-77-NL               | 35.0                   |
| 27"    | FIP             | FIP    | VBHH76-27B-11-66-NL                   | 33.0                   | VBHH77-27B-11-77-NL               | 35.0                   |
|        | CTS*            | FIP    | VBHH76-27B-41-66-NL                   | 33.0                   | VBHH77-27B-41-77-NL               | 35.0                   |
|        | CTS*            | CTS*   | VBHH76-27B-44-66-NL                   | 33.0                   | VBHH77-27B-44-77-NL               | 35.0                   |



Shown with cartridge dual check valve in by-pass. See information below to order this feature.

**Note:** 1-1/2" and 2" Coppersetters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBHH76-12-11-66-NL. For by-pass with 1" Cartridge Dual Check Valve, insert "HC" after the "B." Example: VBHH77-12BHC-11-77-NL.

\* **Grip Joint** for copper or plastic tube (CTS) is available. Add "-G" to the catalog number.

## Options Available

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45.

Various types of couplings that will adapt to the FIP service line threads can be found on page 46.

Contact factory for heights not listed and availability of No-Rise Coppersetters.

# 70-80 Series Copper setters for 1-1/2" & 2" Flanged Meters

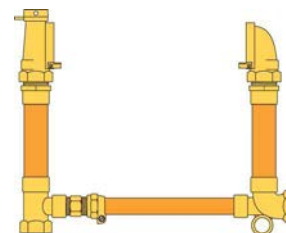
Vertical inlet and Horizontal outlet

UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

## KEY VALVE INLET AND METER ELL OUTLET

| HEIGHT | FOR 1-1/2" METER   |                  | FOR 2" METER       |                  |
|--------|--------------------|------------------|--------------------|------------------|
|        | CATALOG NUMBER     | APPROX. Wt. LBS. | CATALOG NUMBER     | APPROX. Wt. LBS. |
| 12"    | V76-86-12-11-66-NL | 30.0             | V77-87-12-11-77-NL | 32.0             |
| 15"    | V76-86-15-11-66-NL | 31.0             | V77-87-15-11-77-NL | 33.0             |
| 18"    | V76-86-18-11-66-NL | 32.0             | V77-87-18-11-77-NL | 34.0             |
| 21"    | V76-86-21-11-66-NL | 32.0             | V77-87-21-11-77-NL | 34.0             |
| 24"    | V76-86-24-11-66-NL | 33.0             | V77-87-24-11-77-NL | 35.0             |
| 27"    | V76-86-27-11-66-NL | 33.0             | V77-87-27-11-77-NL | 35.0             |

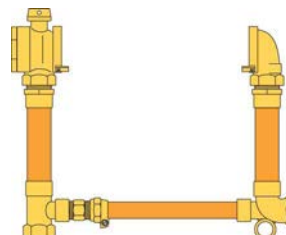
Note: 1-1/2" and 2" Copper setter with a meter ell on the outlet is standard *without* a by-pass.



## BALL VALVE INLET AND METER ELL OUTLET

| HEIGHT | FOR 1-1/2" METER    |                  | FOR 2" METER        |                  |
|--------|---------------------|------------------|---------------------|------------------|
|        | CATALOG NUMBER      | APPROX. Wt. LBS. | CATALOG NUMBER      | APPROX. Wt. LBS. |
| 12"    | VB76-86-12-11-66-NL | 30.0             | VB77-87-12-11-77-NL | 32.0             |
| 15"    | VB76-86-15-11-66-NL | 31.0             | VB77-87-15-11-77-NL | 33.0             |
| 18"    | VB76-86-18-11-66-NL | 32.0             | VB77-87-18-11-77-NL | 34.0             |
| 21"    | VB76-86-21-11-66-NL | 32.0             | VB77-87-21-11-77-NL | 34.0             |
| 24"    | VB76-86-24-11-66-NL | 33.0             | VB77-87-24-11-77-NL | 35.0             |
| 27"    | VB76-86-27-11-66-NL | 33.0             | VB77-87-27-11-77-NL | 35.0             |

Note: 1-1/2" and 2" Copper setter with a meter ell on the outlet is standard *without* a by-pass.

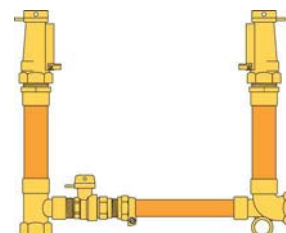


## \*\*KEY VALVE INLET AND OUTLET

| HEIGHT | FOR 1-1/2" METER     |                  | FOR 2" METER         |                  |
|--------|----------------------|------------------|----------------------|------------------|
|        | CATALOG NUMBER       | APPROX. Wt. LBS. | CATALOG NUMBER       | APPROX. Wt. LBS. |
| 12"    | VV76-86-12B-11-66-NL | 32.0             | VV77-87-12B-11-77-NL | 36.0             |
| 15"    | VV76-86-15B-11-66-NL | 33.0             | VV77-87-15B-11-77-NL | 37.0             |
| 18"    | VV76-86-18B-11-66-NL | 34.0             | VV77-87-18B-11-77-NL | 38.0             |
| 21"    | VV76-86-21B-11-66-NL | 34.0             | VV77-87-21B-11-77-NL | 40.0             |
| 24"    | VV76-86-24B-11-66-NL | 35.0             | VV77-87-24B-11-77-NL | 40.0             |
| 27"    | VV76-86-27B-11-66-NL | 35.0             | VV77-87-27B-11-77-NL | 41.0             |

Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard *with* a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VV76-86-15-11-66-NL

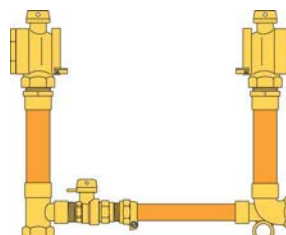
\*\* 1-1/2" and 2" outlet ball valves may be used as customer shut-offs (on customer side of the meter). The flange inverted key angle valves should **not** be used as customer shut-offs on the customer side of the meter.



## BALL VALVE INLET AND OUTLET

| HEIGHT | FOR 1-1/2" METER      |                  | FOR 2" METER          |                  |
|--------|-----------------------|------------------|-----------------------|------------------|
|        | CATALOG NUMBER        | APPROX. Wt. LBS. | CATALOG NUMBER        | APPROX. Wt. LBS. |
| 12"    | VBB76-86-12B-11-66-NL | 32.0             | VBB77-87-12B-11-77-NL | 37.0             |
| 15"    | VBB76-86-15B-11-66-NL | 33.0             | VBB77-87-15B-11-77-NL | 38.0             |
| 18"    | VBB76-86-18B-11-66-NL | 34.0             | VBB77-87-18B-11-77-NL | 39.0             |
| 21"    | VBB76-86-21B-11-66-NL | 36.0             | VBB77-87-21B-11-77-NL | 41.0             |
| 24"    | VBB76-86-24B-11-66-NL | 37.0             | VBB77-87-24B-11-77-NL | 42.0             |
| 27"    | VBB76-86-27B-11-66-NL | 39.0             | VBB77-87-27B-11-77-NL | 43.0             |

Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard *with* a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBB76-86-15-11-66-NL.



## Options Available

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45. Various types of couplings that will adapt to the FIP service line threads can be found on page 46. Contact factory for heights not listed and availability of No-Rise Copper setters.

# 70-80 Series Copper setters for 1-1/2" & 2" Flanged Meters

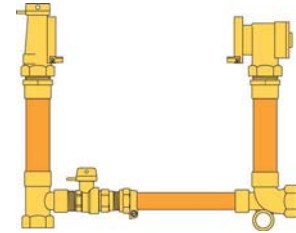
Vertical inlet and Horizontal outlet

UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

## KEY VALVE INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER     |                  | FOR 2" METER         |                  |
|--------|----------------------|------------------|----------------------|------------------|
|        | CATALOG NUMBER       | APPROX. WT. LBS. | CATALOG NUMBER       | APPROX. WT. LBS. |
| 12"    | VH76-86-12B-11-66-NL | 27.0             | VH77-87-12B-11-77-NL | 37.0             |
| 15"    | VH76-86-15B-11-66-NL | 28.0             | VH77-87-15B-11-77-NL | 38.0             |
| 18"    | VH76-86-18B-11-66-NL | 29.0             | VH77-87-18B-11-77-NL | 39.0             |
| 21"    | VH76-86-21B-11-66-NL | 30.0             | VH77-87-21B-11-77-NL | 41.0             |
| 24"    | VH76-86-24B-11-66-NL | 31.0             | VH77-87-24B-11-77-NL | 42.0             |
| 27"    | VH76-86-27B-11-66-NL | 32.0             | VH77-87-27B-11-77-NL | 43.0             |

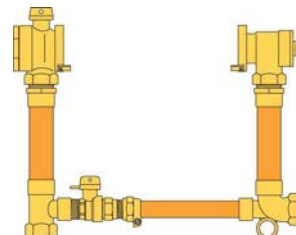
Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VH76-86-12-11-66-NL.



## BALL VALVE INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER      |                  | FOR 2" METER          |                  |
|--------|-----------------------|------------------|-----------------------|------------------|
|        | CATALOG NUMBER        | APPROX. WT. LBS. | CATALOG NUMBER        | APPROX. WT. LBS. |
| 12"    | VBH76-86-12B-11-66-NL | 33.0             | VBH77-87-12B-11-77-NL | 41.0             |
| 15"    | VBH76-86-15B-11-66-NL | 34.0             | VBH77-87-15B-11-77-NL | 42.0             |
| 18"    | VBH76-86-18B-11-66-NL | 35.0             | VBH77-87-18B-11-77-NL | 43.0             |
| 21"    | VBH76-86-21B-11-66-NL | 36.0             | VBH77-87-21B-11-77-NL | 44.0             |
| 24"    | VBH76-86-24B-11-66-NL | 36.0             | VBH77-87-24B-11-77-NL | 44.0             |
| 27"    | VBH76-86-27B-11-66-NL | 37.0             | VBH77-87-27B-11-77-NL | 45.0             |

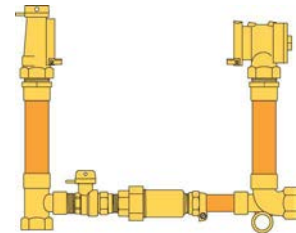
Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBH76-86-12-11-66-NL.



## KEY VALVE INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER      |                  | FOR 2" METER          |                  |
|--------|-----------------------|------------------|-----------------------|------------------|
|        | CATALOG NUMBER        | APPROX. WT. LBS. | CATALOG NUMBER        | APPROX. WT. LBS. |
| 12"    | VHH76-86-12B-11-66-NL | 27.0             | VHH77-87-12B-11-77-NL | 37.0             |
| 15"    | VHH76-86-15B-11-66-NL | 28.0             | VHH77-87-15B-11-77-NL | 38.0             |
| 18"    | VHH76-86-18B-11-66-NL | 29.0             | VHH77-87-18B-11-77-NL | 39.0             |
| 21"    | VHH76-86-21B-11-66-NL | 30.0             | VHH77-87-21B-11-77-NL | 41.0             |
| 24"    | VHH76-86-24B-11-66-NL | 31.0             | VHH77-87-24B-11-77-NL | 42.0             |
| 27"    | VHH76-86-27B-11-66-NL | 32.0             | VHH77-87-27B-11-77-NL | 43.0             |

Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VHH76-86-12-11-66-NL. For by-pass with 1" cartridge dual check valve, insert "HC" after the "B." Example: VHH76-86-12BHC1166-NL.

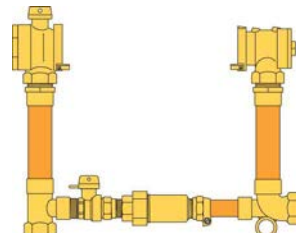


Shown with cartridge dual check valve in by-pass. See information at left to order this feature.

## BALL VALVE INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER      |                  | FOR 2" METER          |                  |
|--------|-----------------------|------------------|-----------------------|------------------|
|        | CATALOG NUMBER        | APPROX. WT. LBS. | CATALOG NUMBER        | APPROX. WT. LBS. |
| 12"    | VBHH76-86-12B-1166-NL | 33.0             | VBHH77-87-12B-1177-NL | 41.0             |
| 15"    | VBHH76-86-15B-1166-NL | 34.0             | VBHH77-87-15B-1177-NL | 42.0             |
| 18"    | VBHH76-86-18B-1166-NL | 35.0             | VBHH77-87-18B-1177-NL | 43.0             |
| 21"    | VBHH76-86-21B-1166-NL | 36.0             | VBHH77-87-21B-1177-NL | 44.0             |
| 24"    | VBHH76-86-24B-1166-NL | 36.0             | VBHH77-87-24B-1177-NL | 44.0             |
| 27"    | VBHH76-86-27B-1166-NL | 37.0             | VBHH77-87-27B-1177-NL | 45.0             |

Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBHH76-86-12-1166-NL. For by-pass with 1" cartridge dual check valve, insert "HC" after the "B." Example: VBHH76-86-12BHC1166-NL.



Shown with cartridge dual check valve in by-pass. See information at left to order this feature.

## Options Available

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45.

Various types of couplings that will adapt to the FIP service line threads can be found on page 46.

Contact factory for heights not listed and availability of No-Rise Copper setters.

# 80 Series Copper setters for 1-1/2" & 2" Flanged Meters

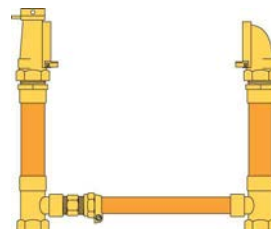
Vertical inlet and Vertical outlet

UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

## KEY VALVE INLET AND METER ELL OUTLET

| HEIGHT | FOR 1-1/2" METER |                  | FOR 2" METER    |                  |
|--------|------------------|------------------|-----------------|------------------|
|        | CATALOG NUMBER   | APPROX. Wt. LBS. | CATALOG NUMBER  | APPROX. Wt. LBS. |
| 12"    | V86-12-11-66-NL  | 30.0             | V87-12-11-77-NL | 32.0             |
| 15"    | V86-15-11-66-NL  | 31.0             | V87-15-11-77-NL | 33.0             |
| 18"    | V86-18-11-66-NL  | 32.0             | V87-18-11-77-NL | 34.0             |
| 21"    | V86-21-11-66-NL  | 32.0             | V87-21-11-77-NL | 34.0             |
| 24"    | V86-24-11-66-NL  | 33.0             | V87-24-11-77-NL | 35.0             |
| 27"    | V86-27-11-66-NL  | 33.0             | V87-27-11-77-NL | 35.0             |

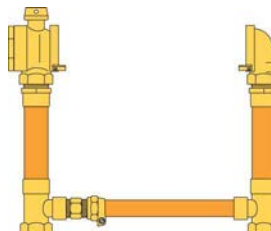
Note: 1-1/2" and 2" Copper setter with a meter ell on the outlet is standard *without* a by-pass.



## BALL VALVE INLET AND METER ELL OUTLET

| HEIGHT | FOR 1-1/2" METER |                  | FOR 2" METER     |                  |
|--------|------------------|------------------|------------------|------------------|
|        | CATALOG NUMBER   | APPROX. Wt. LBS. | CATALOG NUMBER   | APPROX. Wt. LBS. |
| 12"    | VB86-12-11-66-NL | 30.0             | VB87-12-11-77-NL | 32.0             |
| 15"    | VB86-15-11-66-NL | 31.0             | VB87-15-11-77-NL | 33.0             |
| 18"    | VB86-18-11-66-NL | 32.0             | VB87-18-11-77-NL | 34.0             |
| 21"    | VB86-21-11-66-NL | 32.0             | VB87-21-11-77-NL | 34.0             |
| 24"    | VB86-24-11-66-NL | 33.0             | VB87-24-11-77-NL | 35.0             |
| 27"    | VB86-27-11-66-NL | 33.0             | VB87-27-11-77-NL | 35.0             |

Note: 1-1/2" and 2" Copper setter with a meter ell on the outlet is standard *without* a by-pass.

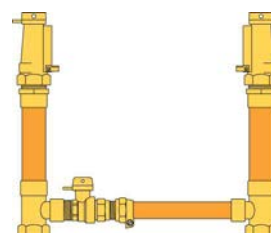


## \*\*KEY VALVE INLET AND OUTLET

| HEIGHT | FOR 1-1/2" METER  |                  | FOR 2" METER      |                  |
|--------|-------------------|------------------|-------------------|------------------|
|        | CATALOG NUMBER    | APPROX. Wt. LBS. | CATALOG NUMBER    | APPROX. Wt. LBS. |
| 12"    | VV86-12B-11-66-NL | 32.0             | VV87-12B-11-77-NL | 36.0             |
| 15"    | VV86-15B-11-66-NL | 33.0             | VV87-15B-11-77-NL | 37.0             |
| 18"    | VV86-18B-11-66-NL | 34.0             | VV87-18B-11-77-NL | 38.0             |
| 21"    | VV86-21B-11-66-NL | 34.0             | VV87-21B-11-77-NL | 40.0             |
| 24"    | VV86-24B-11-66-NL | 35.0             | VV87-24B-11-77-NL | 40.0             |
| 27"    | VV86-27B-11-66-NL | 35.0             | VV87-27B-11-77-NL | 41.0             |

Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard *with* a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VV86-12-11-66-NL

\*\* 1-1/2" and 2" outlet ball valves may be used as customer shut-offs (on customer side of the meter). The flange inverted key angle valves should **not** be used as customer shut-offs on the customer side of the meter.



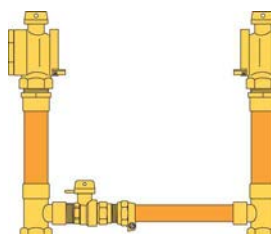
## BALL VALVE INLET AND OUTLET

| HEIGHT | FOR 1-1/2" METER   |                  | FOR 2" METER       |                  |
|--------|--------------------|------------------|--------------------|------------------|
|        | CATALOG NUMBER     | APPROX. Wt. LBS. | CATALOG NUMBER     | APPROX. Wt. LBS. |
| 12"    | VBB86-12B-11-66-NL | 32.0             | VBB87-12B-11-77-NL | 37.0             |
| 15"    | VBB86-15B-11-66-NL | 33.0             | VBB87-15B-11-77-NL | 38.0             |
| 18"    | VBB86-18B-11-66-NL | 34.0             | VBB87-18B-11-77-NL | 39.0             |
| 21"    | VBB86-21B-11-66-NL | 36.0             | VBB87-21B-11-77-NL | 41.0             |
| 24"    | VBB86-24B-11-66-NL | 37.0             | VBB87-24B-11-77-NL | 42.0             |
| 27"    | VBB86-27B-11-66-NL | 39.0             | VBB87-27B-11-77-NL | 43.0             |

Note: 1-1/2" and 2" Copper setters with a valve on the outlet are standard *with* a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBB86-12-11-66-NL.

## Options Available

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45.  
Various types of couplings that will adapt to the FIP service line threads can be found on page 46.  
Contact factory for heights not listed and availability of No-Rise Copper setters.



# 80 Series Copper setters for 1-1/2" & 2" Flanged Meters

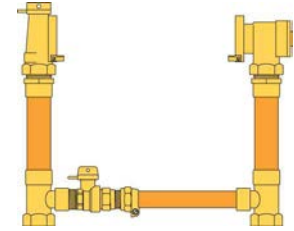
## Vertical inlet and Vertical outlet

UNLESS OTHERWISE SPECIFIED - STANDARD METER SPACING FOR: 1-1/2" COPPERSETTERS = 13"  
2" COPPERSETTERS = 17"

### KEY VALVE INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER  |                  | FOR 2" METER      |                  |
|--------|-------------------|------------------|-------------------|------------------|
|        | CATALOG NUMBER    | APPROX. WT. LBS. | CATALOG NUMBER    | APPROX. WT. LBS. |
| 12"    | VH86-12B-11-66-NL | 27.0             | VH87-12B-11-77-NL | 37.0             |
| 15"    | VH86-15B-11-66-NL | 28.0             | VH87-15B-11-77-NL | 38.0             |
| 18"    | VH86-18B-11-66-NL | 29.0             | VH87-18B-11-77-NL | 39.0             |
| 21"    | VH86-21B-11-66-NL | 30.0             | VH87-21B-11-77-NL | 41.0             |
| 24"    | VH86-24B-11-66-NL | 31.0             | VH87-24B-11-77-NL | 42.0             |
| 27"    | VH86-27B-11-66-NL | 32.0             | VH87-27B-11-77-NL | 43.0             |

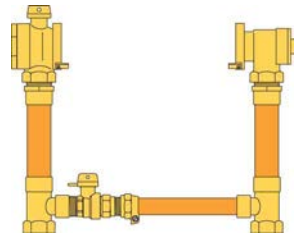
**Note:** 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VH86-12-11-66-NL.



### BALL VALVE INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER   |                  | FOR 2" METER       |                  |
|--------|--------------------|------------------|--------------------|------------------|
|        | CATALOG NUMBER     | APPROX. WT. LBS. | CATALOG NUMBER     | APPROX. WT. LBS. |
| 12"    | VBH86-12B-11-66-NL | 33.0             | VBH87-12B-11-77-NL | 41.0             |
| 15"    | VBH86-15B-11-66-NL | 34.0             | VBH87-15B-11-77-NL | 42.0             |
| 18"    | VBH86-18B-11-66-NL | 35.0             | VBH87-18B-11-77-NL | 43.0             |
| 21"    | VBH86-21B-11-66-NL | 36.0             | VBH87-21B-11-77-NL | 44.0             |
| 24"    | VBH86-24B-11-66-NL | 36.0             | VBH87-24B-11-77-NL | 44.0             |
| 27"    | VBH86-27B-11-66-NL | 37.0             | VBH87-27B-11-77-NL | 45.0             |

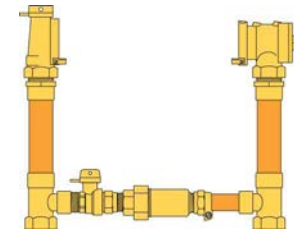
**Note:** 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBH86-12-11-66-NL.



### KEY VALVE INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER   |                  | FOR 2" METER       |                  |
|--------|--------------------|------------------|--------------------|------------------|
|        | CATALOG NUMBER     | APPROX. WT. LBS. | CATALOG NUMBER     | APPROX. WT. LBS. |
| 12"    | VHH86-12B-11-66-NL | 27.0             | VHH87-12B-11-77-NL | 37.0             |
| 15"    | VHH86-15B-11-66-NL | 28.0             | VHH87-15B-11-77-NL | 38.0             |
| 18"    | VHH86-18B-11-66-NL | 29.0             | VHH87-18B-11-77-NL | 39.0             |
| 21"    | VHH86-21B-11-66-NL | 30.0             | VHH87-21B-11-77-NL | 41.0             |
| 24"    | VHH86-24B-11-66-NL | 31.0             | VHH87-24B-11-77-NL | 42.0             |
| 27"    | VHH86-27B-11-66-NL | 32.0             | VHH87-27B-11-77-NL | 43.0             |

**Note:** 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VHH86-12-11-66-NL. For by-pass with 1" cartridge dual check valve, insert "HC" after the "B." Example: VHH86-12BHC-11-66-NL.

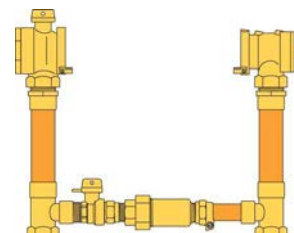


Shown with cartridge dual check valve in by-pass. See information at left to order this feature.

### BALL VALVE INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER    |                  | FOR 2" METER        |                  |
|--------|---------------------|------------------|---------------------|------------------|
|        | CATALOG NUMBER      | APPROX. WT. LBS. | CATALOG NUMBER      | APPROX. WT. LBS. |
| 12"    | VBHH86-12B-11-66-NL | 33.0             | VBHH87-12B-11-77-NL | 41.0             |
| 15"    | VBHH86-15B-11-66-NL | 34.0             | VBHH87-15B-11-77-NL | 42.0             |
| 18"    | VBHH86-18B-11-66-NL | 35.0             | VBHH87-18B-11-77-NL | 43.0             |
| 21"    | VBHH86-21B-11-66-NL | 36.0             | VBHH87-21B-11-77-NL | 44.0             |
| 24"    | VBHH86-24B-11-66-NL | 36.0             | VBHH87-24B-11-77-NL | 44.0             |
| 27"    | VBHH86-27B-11-66-NL | 37.0             | VBHH87-27B-11-77-NL | 45.0             |

**Note:** 1-1/2" and 2" Copper setters with a valve on the outlet are standard with a by-pass. The by-pass feature can be deleted by omitting the "B" from the middle of the catalog number. Example: VBHH86-12-11-66-NL. For by-pass with 1" cartridge dual check valve, insert "HC" after the "B." Example: VBHH86-12BHC-11-66-NL.



Shown with cartridge dual check valve in by-pass. See information at left to order this feature.

## Options Available

An optional high by-pass is available when standard by-pass is difficult to reach, see page 45.  
Various types of couplings that will adapt to the FIP service line threads can be found on page 46.  
Contact factory for heights not listed and availability of No-Rise Copper setters.

# Coppersetters for 1-1/2" & 2" Flanged Meters

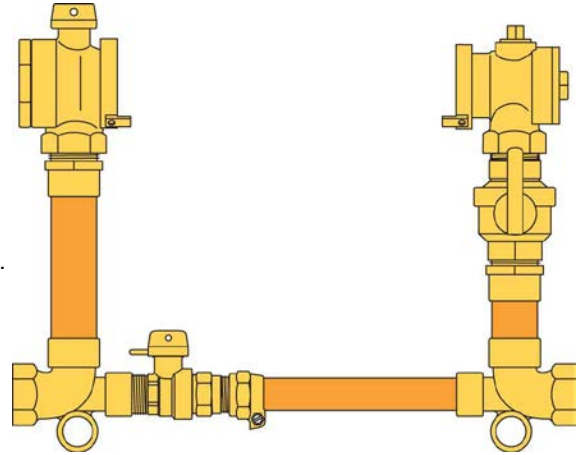
Options

## Dual Check Valve with Test Port Option

1-1/2" and 2" Coppersetters with an angle dual check valve with a convenient integral 1-1/2" test port for on-site testing, allows the utility to confirm meter accuracy without removal of the meter, saving time and money. This option includes a shut-off ball valve (with handle) directly beneath the dual check valve. The shut-off valve isolates the meter from service use. It will also permit service use during the meter test by opening an optional by-pass.

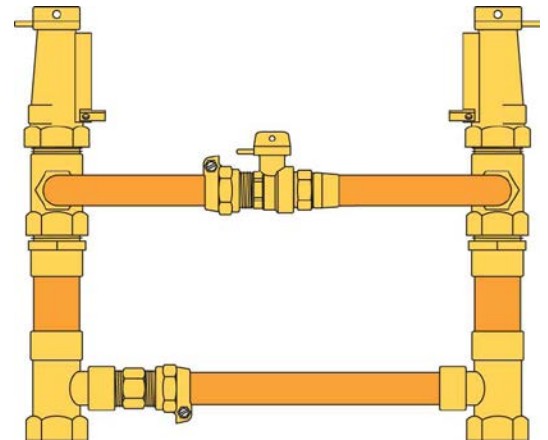
To order add "-TP6" to the catalog number. Example: VBHH77-14B-11-77-TP6-NL.

**Note:** Minimum height with standard by-pass (or no by-pass) is 14".  
Minimum height with high by-pass is 18".



## High By-Pass Option

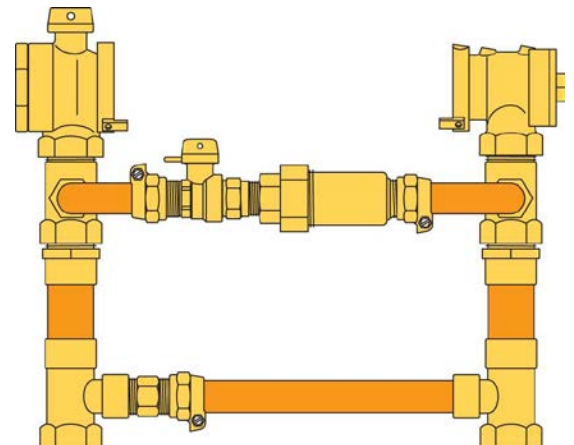
1-1/2" and 2" Coppersetters (minimum 12" height) are available with an optional "high by-pass." This option is popular with taller Coppersetters or when a standard by-pass is difficult to reach. To order add "HB" to catalog number. Example: VV86-18HB-11-66-NL.



## By-Pass With Cartridge Dual Check Valve Option (Available with Standard or High By-Pass Options)

**To Order:** Place "HC" after the "B" by-pass designator.  
Examples: Standard by-pass – VBHH87-18BHC-11-77-NL  
High by-pass – VBHH87-18HBHC-1177-NL

**Note:** Dual check valve option recommended. Drawing at right shows with dual check valve in by-pass.



# Coppersettors for 1-1/2" & 2" Flanged Meters

## Options

### 1-1/2" & 2" 70 Series Coppersetter Tees

| CATALOG NUMBER            | DESCRIPTION   |
|---------------------------|---|
| ○ <b>CSTEE-6-T-CR-NL</b>  | 1-1/2" Horizontal Inlet Coppersetter Tee              |
| ○ <b>CSTEE-7-T-CR-NL</b>  | 2" Horizontal Inlet Coppersetter Tee                  |
| ○ <b>CSTEE-6B-T-CR-NL</b> | 1-1/2" Horizontal Inlet Coppersetter Tee for by-pass  |
| ○ <b>CSTEE-7B-T-CR-NL</b> | 2" Horizontal Inlet Coppersetter Tee for by-pass      |
| ○ <b>CSTEE-6-S-CR-NL</b>  | 1-1/2" Horizontal Outlet Coppersetter Tee             |
| ○ <b>CSTEE-7-S-CR-NL</b>  | 2" Horizontal Outlet Coppersetter Tee                 |
| ○ <b>CSTEE-6B-S-CR-NL</b> | 1-1/2" Horizontal Outlet Coppersetter Tee for by-pass |
| ○ <b>CSTEE-7B-S-CR-NL</b> | 2" Horizontal Outlet Coppersetter Tee for by-pass     |

### 1-1/2" & 2" 80 Series Coppersetter Tees

| CATALOG NUMBER          | DESCRIPTION   |
|-------------------------|---|
| ○ <b>T1S1-664-CR-NL</b> | 1-1/2" Vertical Inlet/Outlet Coppersetter tee for By-Pass |
| ○ <b>T1S1-774-CR-NL</b> | 2" Vertical Inlet/Outlet Coppersetter tee for By-Pass     |

### 1-1/2" & 2" Coppersetter Bushings and High By-Pass Tees

| CATALOG NUMBER        | DESCRIPTION                                   |
|-----------------------|---|
| ○ <b>CS8-66-CR-NL</b> | 1-1/2" Solder valve bushing for 1-1/2" copper |
| ○ <b>CS8-77-CR-NL</b> | 2" Solder valve bushing for 2" copper         |
| <b>T184-664-NL</b>    | High By-Pass tee for 1-1/2" Coppersetter      |
| <b>T184-774-NL</b>    | High By-Pass tee for 2" Coppersetter          |

### Optional Couplings

1-1/2" & 2" Coppersettors with FIP only end connections can be connected to other types of service lines by use of the couplings listed below.  
(complete listing in Catalog Section J)

| FOR CONNECTING TO:      | 1-1/2" COUPLING       | 2" COUPLING           |
|-------------------------|-----------------------|-----------------------|
| Copper or Plastic Tube* | <b>C84-66-NL</b>      | <b>C84-77-NL</b>      |
| PVC Pipe                | <b>C87-66-NL</b>      | <b>C87-77-NL</b>      |
| PE Pipe                 | <b>C86-66-IDR7-NL</b> | <b>C86-77-IDR7-NL</b> |
| Iron Pipe               | <b>C85-66-NL</b>      | <b>C85-77-NL</b>      |
| Flared Copper           | <b>C28-66-NL</b>      | <b>C28-77-NL</b>      |

\* **Grip Joint** for copper or plastic tube (CTS\*) is available.  
Add "-G" to the catalog number.

- **Attention:** Special solder and procedures are required for best results. Contact factory or see website for installation instructions.

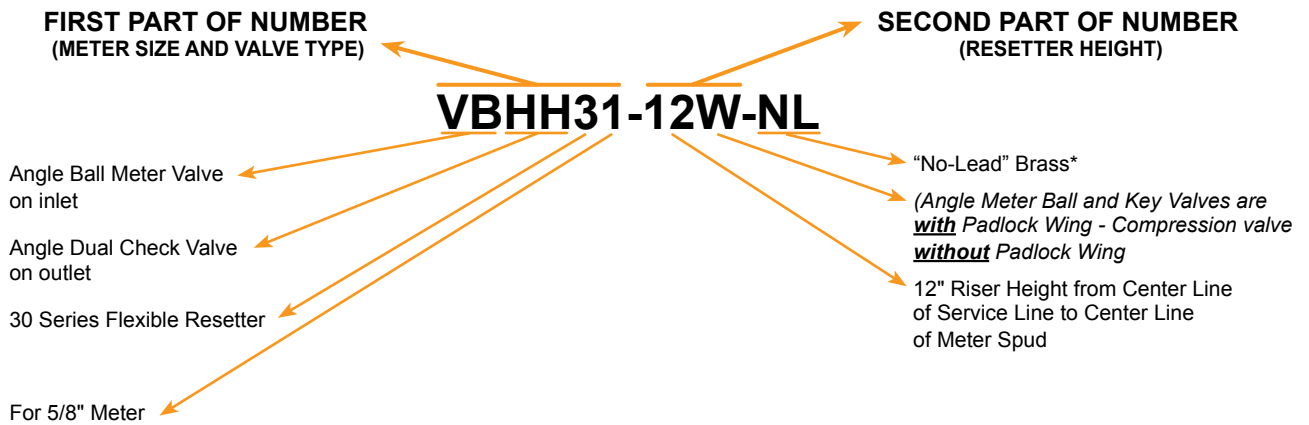
# Ford 30 Series Flexible Resetter

Under some conditions the resetting and raising of a too-low meter can be accomplished most easily if the Resetter provides for flexibility in the spacing of the threaded ends which connect to the existing meter couplings. The Flexible Resetter is designed for easy installation in such settings and still maintains proper spacing and alignment for the meter in the raised position. Flexible Resetters are available with a variety of valve options.

**To order:** Select one Catalog Number component from each of two charts on page 48 to arrive at the complete Resetter Catalog Number. Selection order of components:

1. Meter size and valve type
2. Resetter height

## Example of Catalog Number for a 30 Series Flexible Resetter



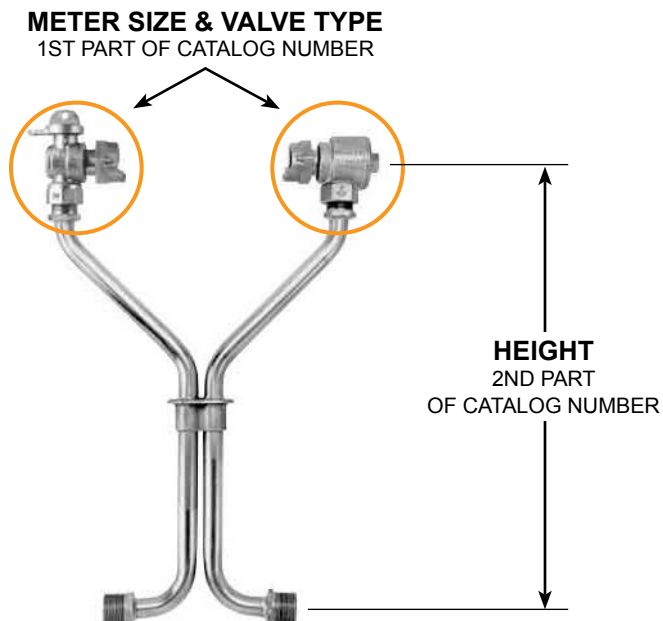
The description for the above catalog number reads: 30 Series Flexible Resetter for 5/8" meter with an Angle Ball Meter Valve on the inlet, and an Angle Dual Check Valve on the outlet, 12 inches high.

\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

**Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.**

### NOTES:

1. All valve type setters are standard with padlock wings.
2. All solder joints for Ford meter setters are made with lead-free solder.
3. All 30 Series Flexible Resetters are supplied with meter gaskets and resetter gaskets.
4. Gaskets for Ford meter setters are listed on page 5.



# The Ford 30 Series Flexible Resetter

## METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |                |          |          | DESCRIPTION |                        |
|--|----------------|----------|----------|-------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"X 3/4" | FOR 3/4" | FOR 1"   | INLET VALVE | OUTLET VALVE           |
| 31   | 32             | 33       | 34       | none        | none                   |
| V31  | V32            | V33      | V34      | Key         | none                   |
| VB31                                       | VB32           | VB33     | VB34     | Ball        | none                   |
| VBB31***                                   | VBB32***       | VBB33    | VBB34    | Ball        | Ball                   |
| VVG31*                                     | VVG32*         | VVG33*   | VVG34*   | Key         | Compression            |
| VV31                                       | VV32           | VV33     | VV34     | Key         | Key                    |
| VH31                                       | VH32           | VH33     | VH34     | Key         | Single Check           |
| VHH31                                      | VHH32          | VHH33    | VHH34▼   | Key         | Cascading Dual Check   |
| VHC31**                                    | VHC32**        | VHC33**  | VHC34**  | Key         | ● Cartridge Dual Check |
| VBH31                                      | VBH32          | VBH33    | VBH34    | Ball        | Single Check           |
| VBHH31                                     | VBHH32         | VBHH33   | VBHH34▼  | Ball        | Cascading Dual Check   |
| VBHC31**                                   | VBHC32**       | VBHC33** | VBHC34** | Ball        | ● Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* 30 Series Flexible Resetters with cartridge dual check valve have a 15" minimum height for 5/8", 5/8" x 3/4" and 3/4" meters and 18" minimum height for 1" meters.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should be not be used as a customer shut-off on the customer side of the meter.

▼ Angle cascading dual check valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

● Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHC32-15W-NL

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested.

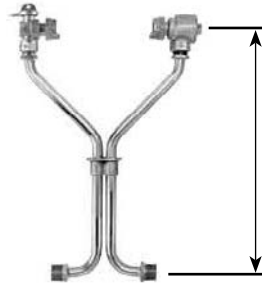
Reduced port valves usually provide suitable water flow. (Add "-FP" to the catalog number for full port.)

### METER VALVE OPTIONS FOR 30 SERIES FLEXIBLE RESETTERS

Seal wire hole in inlet valve  
Seal wire hole in check valve

## HEIGHT - (SECOND PART OF CATALOG NUMBER)

NOTE: Height dimensions are approximate.



For 5/8", 5/8"x3/4" and 3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

For 1" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### HEIGHT OPTION FOR 30 SERIES COPPERSETTERS

Coppersettors are available in heights over 24" in 3" increments; 27", 30", 33" etc. To order put desired height in catalog number. EXAMPLE: V32-33W-NL is a 33" high setter.

# The Ford 40 Series Resetter

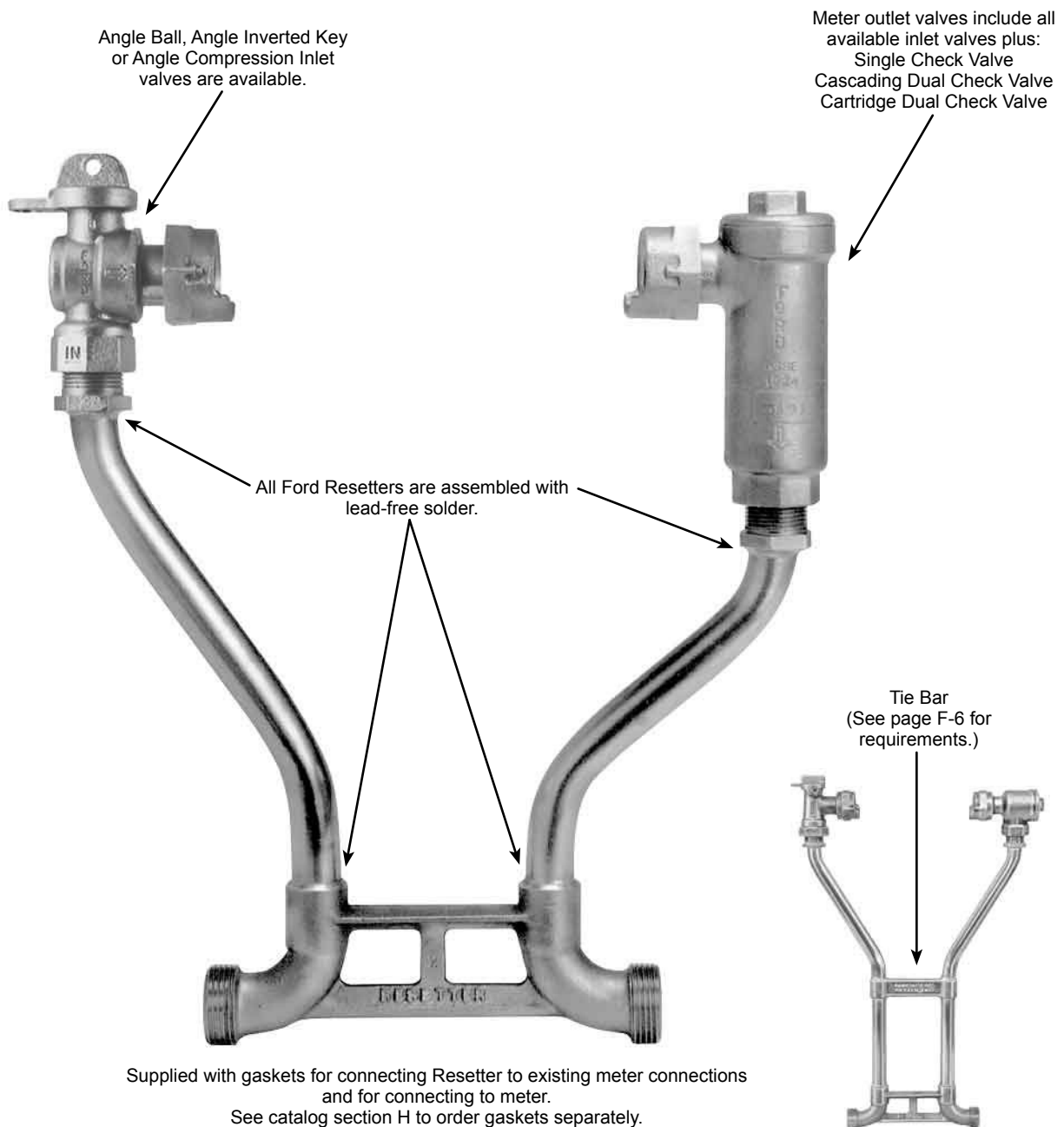
Correcting low settings with the Ford Resetter is quick and easy. The meter is removed, the Resetter bar connected in the position formerly occupied by the meter, and the meter reset in the raised position. No new pipe joints are necessary. The reset meter is cleaner, easier to read, and much simpler to change.

When the old service valve is in poor condition or poor location, the Resetter with one or two valves provides convenient control, putting the valve or valves at the most accessible location. An outlet valve prevents draining the customer's service when the meter is removed. Resetters, either plain or valve type, are inexpensive when compared to any other means of obtaining these results.

The brass bar of the Resetter is the same length and has the same threads as the meter to reset. Gaskets are furnished for connecting the bar between the old meter couplings. Refer to page F-6 for Tie Bar requirements for Resetter heights above 15".

**To order:** Select one catalog number component from each of two charts on page 52 to arrive at the complete Resetter catalog number. Selection order of components:

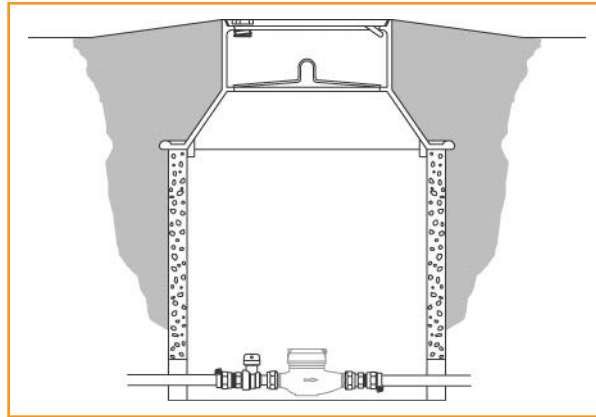
1. Meter size and valve type
2. Resetter height



# The Ford 40 Series Resetter

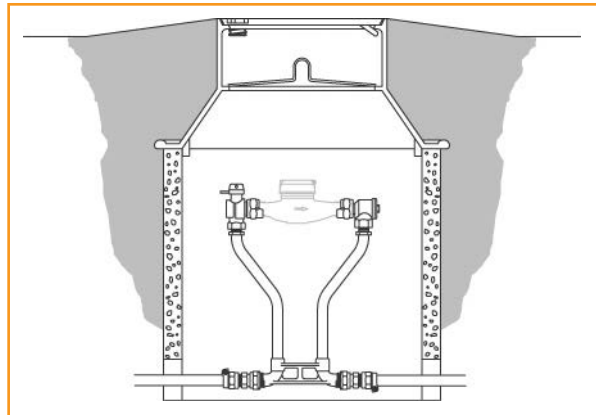
## Before

This drawing is typical of the position (but not the condition) of meters set too low. Such meters are frequently covered by mud or water, are difficult to read quickly and accurately and, being troublesome to change, tend to be left in place when needing repair.



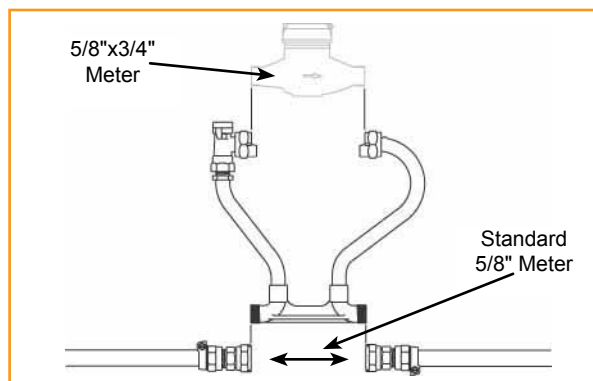
## After

The benefit of the Resetter is shown below. The meter stays cleaner, is easier to read and much easier to change. The valve, included on the Resetter in this case, is easily accessible. The economic return of resetting meters can be surprisingly substantial.



## Change-over Resetters

Many water utilities are changing domestic meter sizes from 5/8" to 5/8"x3/4". For raising a too-low meter and converting to the larger meter, the Resetter has a 5/8" bottom bar and 5/8"x3/4" coupling nuts. To order a Changeover Resetter place a "B" at the end of the catalog number. Example: V42-7W-B1-NL is a Change-over Resetter to replace a 5/8" meter with a 5/8"x3/4" meter. Special Resetters are also available for reducing from 3/4" to 5/8"x3/4" or from 1" to 3/4". Solutions to many meter resetting problems are considered upon request.



# The Ford 40 Series Resetter

## Example of Catalog Number for a Resetter

FIRST PART OF NUMBER  
(METER SIZE AND VALVE TYPE)

SECOND PART OF NUMBER  
(RESETTER HEIGHT)

**VBHC41-12W-B1-NL**

Angle Ball Meter Valve  
on inlet

Angle Cartridge Dual Check  
on outlet

Resetter

For 5/8" Meter

"No-Lead" Brass\*

Optional change-over bottom bar  
"changes 5/8" meter setting to a  
5/8" x 3/4" meter setting"

(Angle Meter Ball and Key Valves are  
**with** Padlock Wing - Compression  
valve **without** Padlock Wing)

12" Riser Height from center line  
of initial meter setting to  
center line of reset meter spud

The description for the above catalog number reads: Resetter for 5/8" meter with an Angle Ball Meter Valve on the inlet, and an Angle Cartridge Dual Check on the outlet, 12 inches high.

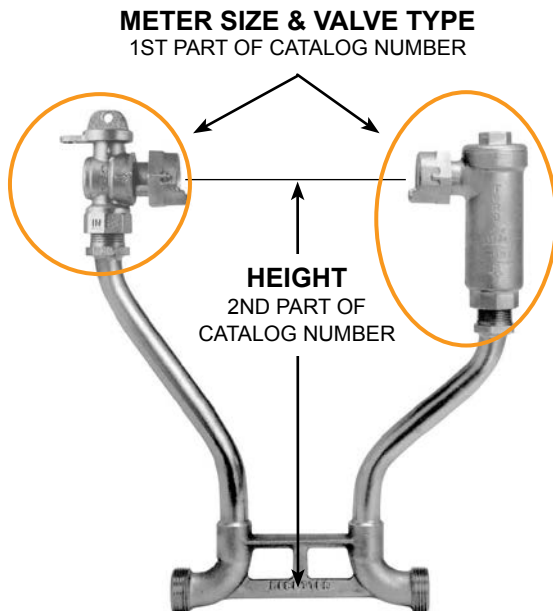
\* Ford Meter Box no-lead brass products manufactured from UNS/CDA No. 89833 alloy shall contain no more than 0.25% total lead content by weight. United States federal and state laws allow the use of products manufactured from UNS C83600 85-5-5-5 brass alloy for only non-potable water systems within the United States. The same UNS C83600 85-5-5-5 brass alloy, also referenced as gunmetal or LG2, is specified and used in potable water systems in most other countries.

**Remove "-NL" from catalog number to have products manufactured from UNS C83600 85-5-5-5 brass alloy.**

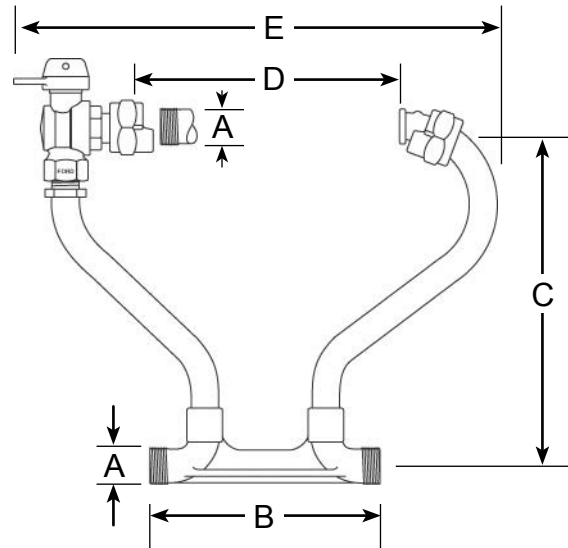
### NOTES:

1. All valve type setters are standard with padlock wings.
2. All solder joints for Ford meter setters are made with lead-free solder.
3. All 40 series resetters are supplied with meter gaskets and resetter gaskets.
4. Gaskets for Ford meter setters are listed on page 5.

## Catalog Numbering



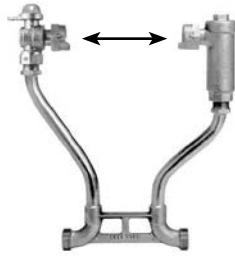
## Dimensions



| DIMENSION | METER SIZE             |             |         |              |
|-----------|------------------------|-------------|---------|--------------|
|           | 5/8"                   | 5/8"x3/4"   | 3/4"    | 1"           |
| A         | 1-1/16"                | 1-5/16"     | 1-5/16" | 1-5/8"       |
| B         | 7-1/2"                 | 7-1/2"      | 9"      | 10-3/4"      |
| C         | Heights are as ordered |             |         |              |
| D         | 7-1/2"+3/8"            | 7-1/2"+3/8" | 9"+3/8" | 10-3/4"+3/8" |
| E         | 12"                    | 12"         | 14-1/4" | 17-1/4"      |

# The Ford 40 Series Resetter

## METER SIZE & VALVE TYPE - (FIRST PART OF CATALOG NUMBER)



| CATALOG NUMBER (METER SIZE AND VALVE TYPE) |                |          |          | DESCRIPTION |                        |
|--|----------------|----------|----------|-------------|------------------------|
| FOR 5/8"                                   | FOR 5/8"x 3/4" | FOR 3/4" | FOR 1"   | INLET VALVE | OUTLET VALVE           |
| 41   | 42             | 43       | 44       | none        | none                   |
| V41  | V42            | V43      | V44      | Key         | none                   |
| VB41                                       | VB42           | VB43     | VB44     | Ball        | none                   |
| VBB41***                                   | VBB42***       | VBB43    | VBB44    | Ball        | Ball                   |
| VV41                                       | VV42           | VV43     | VV44     | Key         | Key                    |
| VVG41*                                     | VVG42*         | VVG43*   | VVG44*   | Key         | Compression            |
| VH41                                       | VH42           | VH43     | VH44     | Key         | Single Check           |
| VHH41                                      | VHH42          | VHH43    | VHH44▼   | Key         | Cascading Dual Check   |
| VHC41**                                    | VHC42**        | VHC43**  | VHC44**  | Key         | ● Cartridge Dual Check |
| VBH41                                      | VBH42          | VBH43    | VBH44    | Ball        | Single Check           |
| VBHH41                                     | VBHH42         | VBHH43   | VBHH44▼  | Ball        | Cascading Dual Check   |
| VBHC41**                                   | VBHC42**       | VBHC43** | VBHC44** | Ball        | ● Cartridge Dual Check |

\* Compression valve does not have padlock wing.

\*\* Resetters with dual cartridge check valve has a 9" minimum height for 5/8" and 5/8" x 3/4" meter, 12" minimum height for 3/4" meter and 15" minimum height for 1" meter.

\*\*\* The 5/8" port angle ball valve is a one-way directional valve designed for the inlet side of the meter and should not be used as a customer shut-off on the customer side of the meter.

▼ Angle cascading dual check valves contain 3/4" internal components. This valve meets the ASSE flow requirements of a 1" valve. For a full port valve, order the cartridge style check valve.

● Cartridges with enhanced chlorine/chloramine resistance are available. Add "CR" to end of alpha code. Example: VHC42-CR

**Note:** Setters with angle ball valve will be reduced port unless otherwise requested.

Reduced port valves usually provide suitable water flow. (Add "-FP" to the catalog number for full port.)

### METER VALVE OPTIONS FOR RESETTERS

Seal Wire Hole in Inlet Valve  
Seal Wire Hole in Check Valve

## HEIGHT - (SECOND PART OF CATALOG NUMBER)

NOTE: Height dimensions are approximate.



### For 5/8" and 5/8"x3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 7W-NL          | 7                |
| 9W-NL          | 9                |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### For 3/4" Meter

| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 8W-NL          | 8                |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### For 1" Meter

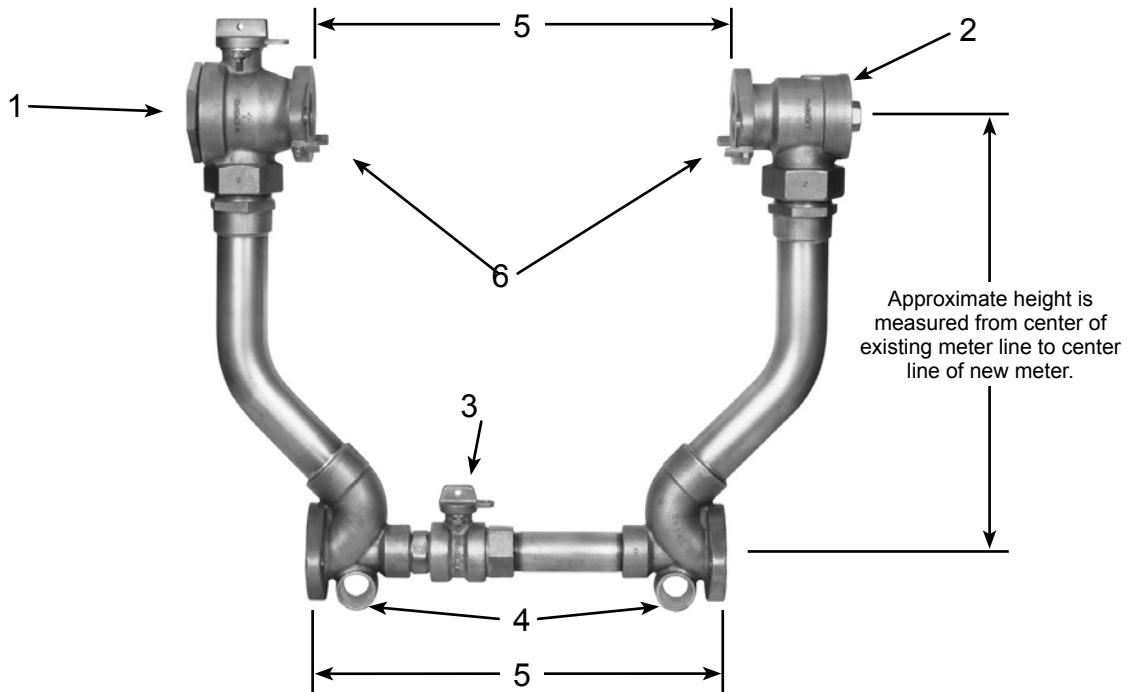
| CATALOG NUMBER | HEIGHT IN INCHES |
|----------------|------------------|
| 10W-NL         | 10               |
| 12W-NL         | 12               |
| 15W-NL         | 15               |
| 18W-NL         | 18               |
| 21W-NL         | 21               |
| 24W-NL         | 24               |

### HEIGHT INFORMATION FOR 40 SERIES COPPERSETTERS:

- Contact factory for availability of heights not listed.
- Resetters are available in heights over 24" in 3" increments; 27", 30", 33" etc. To order, put desired height in catalog number. Example: V42-30W-NL is a 30" high Resetter.
- See table on page 6 for tie bar requirements.

# Reseters for 1-1/2" & 2" Flanged Meters

## Information for Ford All Brass and Copper Reseters



### Specifications:

Ford Reseters are constructed from UNS/CDA No. C89833 no-lead brass alloy (AWWA specification C800) and copper tubing. All 1-1/2" and 2" Ford Reseters are individually factory tested for water-tightness before shipment.

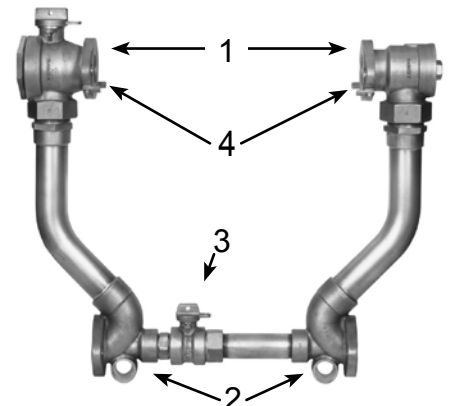
Individualized resetting requirements can be satisfied using special Ford Reseters. We welcome the opportunity to solve your 1-1/2" and 2" resetting problems.

1. Inlet valve options are a flanged angle inverted key or flanged angle ball valve.
2. All inlet valve options available on outlet\* ( see note below) - flanged angle check valve or flanged angle dual check valve is available.
3. Optional by-pass includes a Ford Ball Valve with padlock wings.
4. Brace pipe eyelets are standard - brace pipe not included.
5. Different bottom and top flange spacing may be specified. Standard spacing for 1-1/2" meter Reseters is 13", 17" for 2" meter Resetter.
6. All 1-1/2" and 2" meter flange valves on Copperseters have meter support brackets.

\* **NOTE:** 1-1/2" and 2" outlet ball valves may be used as customer shut-offs (on the customer side of the meter). The flange inverted key angle valves should **not** be used as customer shut-off on the customer side of the meter.

### Installation Instructions

1. **COMPARE LAYING LENGTH OF METER WITH SETTER DIMENSION BETWEEN INLET AND OUTLET (#1).**
2. Cut two pieces of 1" pipe 18" long and install through the brace eye supports (#2).
3. Be sure that the Reseter is installed in the correct position in relation to the water flow and make sure the bypass valve (#3) is in the **OFF** position.
4. Special Ford drop-in gaskets are included with each setter for use when installing the water meter. Meter support brackets (#4) may need to be loosened or removed to accommodate variations in the shape of water meter flanges.



# Resetters for 1-1/2" & 2" Flanged Meters

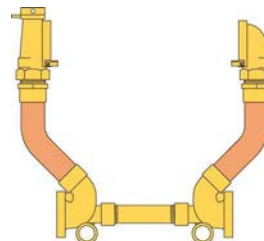
## Without By-Pass

STANDARD METER SPACING FOR 1-1/2" AND 2" RESETTERS WILL BE 13" AND 17" RESPECTIVELY UNLESS OTHERWISE SPECIFIED.

### RESETTER WITHOUT BY-PASS

#### FLANGED KEY VALVE ON INLET AND FLANGED METER ELL ON OUTLET

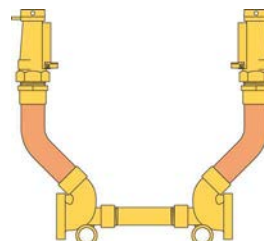
| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 13"    | V46-13-NL                             | 29                  | 12"    | V47-12-NL                         | 36                  |
| 15"    | V46-15-NL                             | 30                  | 14"    | V47-14-NL                         | 37                  |
| 18"    | V46-18-NL                             | 31                  | 18"    | V47-18-NL                         | 38                  |
| 24"    | V46-24-NL                             | 33                  | 24"    | V47-24-NL                         | 41                  |
| 27"    | V46-27-NL                             | 34                  | 27"    | V47-27-NL                         | 42                  |



### RESETTER WITHOUT BY-PASS

#### FLANGED KEY VALVE ON INLET AND OUTLET

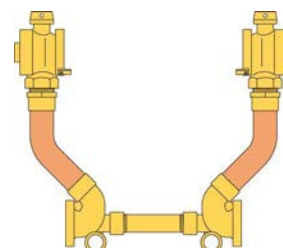
| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 13"    | VV46-13-NL                            | 31                  | 12"    | VV47-12-NL                        | 38                  |
| 15"    | VV46-15-NL                            | 32                  | 14"    | VV47-14-NL                        | 40                  |
| 18"    | VV46-18-NL                            | 33                  | 18"    | VV47-18-NL                        | 41                  |
| 24"    | VV46-24-NL                            | 35                  | 24"    | VV47-24-NL                        | 44                  |
| 27"    | VV46-27-NL                            | 36                  | 27"    | VV47-27-NL                        | 45                  |



### RESETTER WITHOUT BY-PASS

#### FLANGED BALL VALVE ON INLET AND OUTLET

| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 14"    | VBB46-14-NL                           | 33                  | 14"    | VBB47-14-NL                       | 47                  |
| 16"    | VBB46-16-NL                           | 34                  | 16"    | VBB47-16-NL                       | 48                  |
| 18"    | VBB46-18-NL                           | 35                  | 18"    | VBB47-18-NL                       | 49                  |
| 24"    | VBB46-24-NL                           | 39                  | 24"    | VBB47-24-NL                       | 52                  |
| 27"    | VBB46-27-NL                           | 40                  | 27"    | VBB47-27-NL                       | 53                  |



# Reseters for 1-1/2" & 2" Flanged Meters

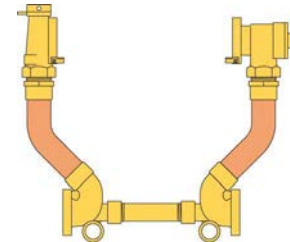
Without By-Pass

STANDARD METER SPACING FOR 1-1/2" AND 2" RESETTERS WILL BE 13" AND 17" RESPECTIVELY UNLESS OTHERWISE SPECIFIED.

## RESETTER WITHOUT BY-PASS

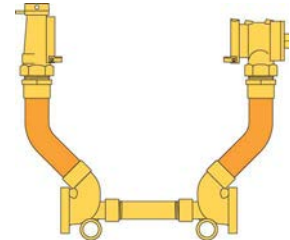
### FLANGED KEY VALVE ON INLET AND ANGLE CHECK VALVE ON OUTLET

| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 13"    | VH46-13-NL                            | 31                  | 13"    | VH47-13-NL                        | 39                  |
| 15"    | VH46-15-NL                            | 32                  | 16"    | VH47-16-NL                        | 41                  |
| 18"    | VH46-18-NL                            | 33                  | 18"    | VH47-18-NL                        | 42                  |
| 24"    | VH46-24-NL                            | 34                  | 24"    | VH47-24-NL                        | 45                  |
| 27"    | VH46-27-NL                            | 35                  | 27"    | VH47-27-NL                        | 46                  |



### RESETTER WITHOUT BY-PASS FLANGED KEY VALVE ON INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE ON OUTLET

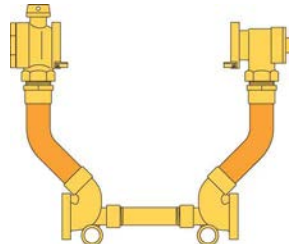
| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 13"    | VHH46-13-NL                           | 31                  | 13"    | VHH47-13-NL                       | 39                  |
| 15"    | VHH46-15-NL                           | 32                  | 16"    | VHH47-16-NL                       | 41                  |
| 18"    | VHH46-18-NL                           | 33                  | 18"    | VHH47-18-NL                       | 42                  |
| 24"    | VHH46-24-NL                           | 34                  | 24"    | VHH47-24-NL                       | 45                  |
| 27"    | VHH46-27-NL                           | 35                  | 27"    | VHH47-27-NL                       | 46                  |



## RESETTER WITHOUT BY-PASS

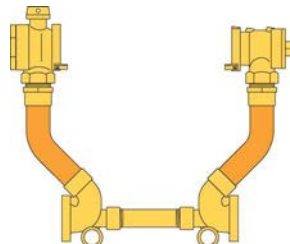
### FLANGED BALL VALVE ON INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 14"    | VBH46-14-NL                           | 34                  | 14"    | VBH47-14-NL                       | 44                  |
| 16"    | VBH46-16-NL                           | 35                  | 16"    | VBH47-16-NL                       | 45                  |
| 18"    | VBH46-18-NL                           | 36                  | 18"    | VBH47-18-NL                       | 46                  |
| 24"    | VBH46-24-NL                           | 37                  | 24"    | VBH47-24-NL                       | 48                  |
| 27"    | VBH46-27-NL                           | 38                  | 27"    | VBH47-27-NL                       | 49                  |



### RESETTER WITHOUT BY-PASS FLANGED BALL VALVE ON INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. | HEIGHT | FOR 2" METER<br>CATALOG<br>NUMBER | APPROX.<br>WT. LBS. |
|--------|---------------------------------------|---------------------|--------|-----------------------------------|---------------------|
| 14"    | VBHH46-14-NL                          | 34                  | 14"    | VBHH47-14-NL                      | 44                  |
| 16"    | VBHH46-16-NL                          | 35                  | 16"    | VBHH47-16-NL                      | 45                  |
| 18"    | VBHH46-18-NL                          | 36                  | 18"    | VBHH47-18-NL                      | 46                  |
| 24"    | VBHH46-24-NL                          | 37                  | 24"    | VBHH47-24-NL                      | 48                  |
| 27"    | VBHH46-27-NL                          | 38                  | 27"    | VBHH47-27-NL                      | 49                  |



# Reseters for 1-1/2" & 2" Flanged Meters

## With By-Pass

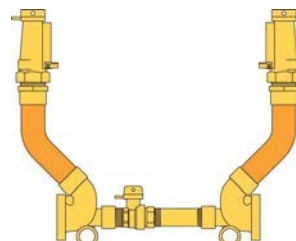
STANDARD METER SPACING FOR 1-1/2" AND 2" RESETTERS WILL BE 13" AND 17" RESPECTIVELY UNLESS OTHERWISE SPECIFIED.

### RESETTER WITH BY-PASS

#### \*\*FLANGED KEY VALVE ON INLET AND OUTLET

| HEIGHT | FOR 1-1/2" METER CATALOG NUMBER | APPROX. WT. LBS. | HEIGHT | FOR 2" METER CATALOG NUMBER | APPROX. WT. LBS. |
|--------|---------------------------------|------------------|--------|-----------------------------|------------------|
| 13"    | VV46-13B-NL                     | 34               | 12"    | VV47-12B-NL                 | 40               |
| 15"    | VV46-15B-NL                     | 34               | 14"    | VV47-14B-NL                 | 42               |
| 18"    | VV46-18B-NL                     | 35               | 18"    | VV47-18B-NL                 | 43               |
| 24"    | VV46-24B-NL                     | 37               | 24"    | VV47-24B-NL                 | 46               |
| 27"    | VV46-27B-NL                     | 38               | 27"    | VV47-27B-NL                 | 47               |

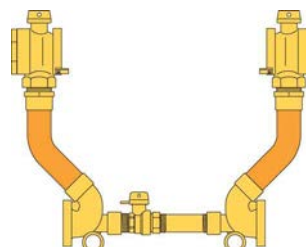
\*\* 1-1/2" and 2" outlet ball valves may be used as customer shut-offs (on customer side of the meter). The flange inverted key angle valves should not be used as customer shut-offs on the customer side of the meter.



### RESETTER WITH BY-PASS

#### FLANGED BALL VALVE ON INLET AND OUTLET

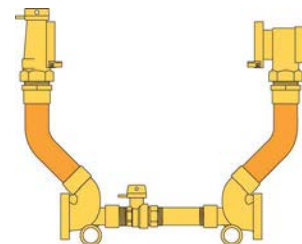
| HEIGHT | FOR 1-1/2" METER CATALOG NUMBER | APPROX. WT. LBS. | HEIGHT | FOR 2" METER CATALOG NUMBER | APPROX. WT. LBS. |
|--------|---------------------------------|------------------|--------|-----------------------------|------------------|
| 14"    | VBB46-14B-NL                    | 35               | 14"    | VBB47-14B-NL                | 49               |
| 16"    | VBB46-16B-NL                    | 36               | 16"    | VBB47-16B-NL                | 51               |
| 18"    | VBB46-18B-NL                    | 38               | 18"    | VBB47-18B-NL                | 52               |
| 24"    | VBB46-24B-NL                    | 39               | 24"    | VBB47-24B-NL                | 55               |
| 27"    | VBB46-27B-NL                    | 40               | 27"    | VBB47-27B-NL                | 56               |



### RESETTER WITH BY-PASS

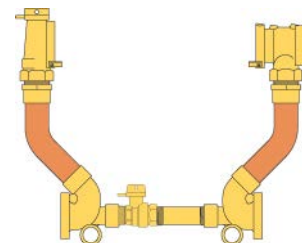
#### FLANGED KEY VALVE ON INLET AND ANGLE CHECK VALVE ON OUTLET

| HEIGHT | FOR 1-1/2" METER CATALOG NUMBER | APPROX. WT. LBS. | HEIGHT | FOR 2" METER CATALOG NUMBER | APPROX. WT. LBS. |
|--------|---------------------------------|------------------|--------|-----------------------------|------------------|
| 13"    | VH46-13B-NL                     | 34               | 13"    | VH47-13B-NL                 | 42               |
| 15"    | VH46-15B-NL                     | 34               | 16"    | VH47-16B-NL                 | 43               |
| 18"    | VH46-18B-NL                     | 35               | 18"    | VH47-18B-NL                 | 44               |
| 24"    | VH46-24B-NL                     | 37               | 24"    | VH47-24B-NL                 | 46               |
| 27"    | VH46-27B-NL                     | 38               | 27"    | VH47-27B-NL                 | 48               |



#### RESETTER WITH BY-PASS FLANGED KEY VALVE ON INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE ON OUTLET

| HEIGHT | FOR 1-1/2" METER CATALOG NUMBER | APPROX. WT. LBS. | HEIGHT | FOR 2" METER CATALOG NUMBER | APPROX. WT. LBS. |
|--------|---------------------------------|------------------|--------|-----------------------------|------------------|
| 13"    | VHH46-13B-NL                    | 34               | 13"    | VHH47-13B-NL                | 42               |
| 15"    | VHH46-15B-NL                    | 34               | 16"    | VHH47-16B-NL                | 43               |
| 18"    | VHH46-18B-NL                    | 35               | 18"    | VHH47-18B-NL                | 44               |
| 24"    | VHH46-24B-NL                    | 37               | 24"    | VHH47-24B-NL                | 46               |
| 27"    | VHH46-27B-NL                    | 38               | 27"    | VHH47-27B-NL                | 48               |



# Resetters for 1-1/2" & 2" Flanged Meters

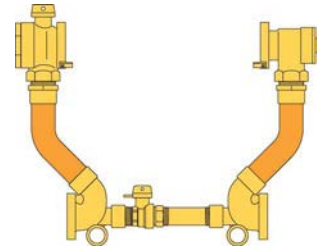
With By-Pass

STANDARD METER SPACING FOR 1-1/2" AND 2" RESETTERS WILL BE 13" AND 17" RESPECTIVELY UNLESS OTHERWISE SPECIFIED.

## RESETTER WITH BY-PASS

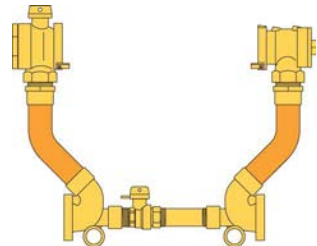
### FLANGED BALL VALVE ON INLET AND ANGLE CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER CATALOG NUMBER | APPROX. WT. LBS. | HEIGHT | FOR 2" METER CATALOG NUMBER | APPROX. WT. LBS. |
|--------|---------------------------------|------------------|--------|-----------------------------|------------------|
| 14"    | VBH46-14B-NL                    | 34               | 14"    | VBH47-14B-NL                | 46               |
| 16"    | VBH46-16B-NL                    | 35               | 16"    | VBH47-16B-NL                | 47               |
| 18"    | VBH46-18B-NL                    | 37               | 18"    | VBH47-18B-NL                | 48               |
| 24"    | VBH46-24B-NL                    | 39               | 24"    | VBH47-24B-NL                | 51               |
| 27"    | VBH46-27B-NL                    | 40               | 27"    | VBH47-27B-NL                | 52               |



### RESETTER WITH BY-PASS FLANGED BALL VALVE ON INLET AND ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET

| HEIGHT | FOR 1-1/2" METER CATALOG NUMBER | APPROX. WT. LBS. | HEIGHT | FOR 2" METER CATALOG NUMBER | APPROX. WT. LBS. |
|--------|---------------------------------|------------------|--------|-----------------------------|------------------|
| 14"    | VBHH46-14B-NL                   | 35               | 14"    | VBHH47-14B-NL               | 46               |
| 16"    | VBHH46-16B-NL                   | 36               | 16"    | VBHH47-16B-NL               | 47               |
| 18"    | VBHH46-18B-NL                   | 38               | 18"    | VBHH47-18B-NL               | 48               |
| 24"    | VBHH46-24B-NL                   | 39               | 24"    | VBHH47-24B-NL               | 51               |
| 27"    | VBHH46-27B-NL                   | 40               | 27"    | VBHH47-27B-NL               | 52               |



# The Ford Tandem Resetters and Types A and B Resetters

Tandem Resetters can be used to install in series:

1. Two meters for comparing registration
2. A meter and a recording meter;
3. A meter and a pressure or recording gauge;
4. A meter and a pressure regulator.

Tandem Resetters have a bottom bar equal in length and thread size to a given size of water meter. This permits easy connection with existing meter couplings or meter holding devices.

When a meter is to be installed in series with some device other than a second meter, it may be necessary to use extensions or adapters on the device to achieve the correct length and thread size to fit the Tandem Resetter. If necessary, special Tandem Resetters can be produced to special dimensions.

## Type A Tandem Resetter

(Double End Connection is Included)



The Type A Tandem Resetter places meters (or meter and second device) in a straight line. Special spacing of end connections can be manufactured upon request. The double end connection used between the meters is included with the Resetter.

| CATALOG NUMBER | METER SIZE |
|----------------|------------|
| Resetter-1A-NL | 5/8"       |
| Resetter-2A-NL | 5/8"x3/4"  |
| Resetter-3A-NL | 3/4"       |
| Resetter-4A-NL | 1"         |

## Double End Connection Only

(for connecting meters)



| CATALOG NUMBER | METER SIZE       |
|----------------|------------------|
| DEC-1-NL       | 5/8"             |
| DEC-2-NL       | 5/8"x3/4" & 3/4" |
| *DEC-3-AWT-NL  | 1"               |

\*Consists of two components assembled watertight.

## Type B Tandem Resetter

The Type B Tandem Resetter places meters (or meter and second device) in a parallel position. It is satisfactory for shallow pit installations or for basement installations.



| CATALOG NUMBER | METER SIZE |
|----------------|------------|
| Resetter-1B-NL | 5/8"       |
| Resetter-2B-NL | 5/8"x3/4"  |
| Resetter-3B-NL | 3/4"       |



# Section F

# Ford Coppersettters, Linesettters and Resettters

## Warranty

All merchandise is warranted to be free from defects in material and factory workmanship for one year from date of shipment from our factory. We will provide, free of charge, new products in equal quantities for any that prove defective within one year from date of shipment from our factory. Manufacturer shall not be liable for any loss, damage, or injury, direct or consequential, arising out of the use of or the inability to use the product. Before using, user shall determine the suitability of the product for user's intended use and user assumes all risk and liability whatever in connection therewith. No claims for labor or consequential damage will be allowed. The foregoing may not be changed except by agreement signed by an officer of the manufacturer.

No other warranties are applicable or may be implied, including the implied warranty of merchantability and the implied warranty of fitness for particular purpose and any warranty relating to infringement or the like, all of which are disclaimed.

**Parties responsible for monitoring and maintaining proper water system design must exercise full responsibility in understanding and upholding the full intent and scope of applicable lead laws.**

### **Please Note:**

Consult The Ford Meter Box Company, Inc. website ([www.fordmeterbox.com](http://www.fordmeterbox.com)) for the most recent catalog information. The Ford Meter Box Company considers the information in this catalog to be correct at the time of publication. Items and option availability, including specifications, are subject to change without notice. Please verify that your product information is current.



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