

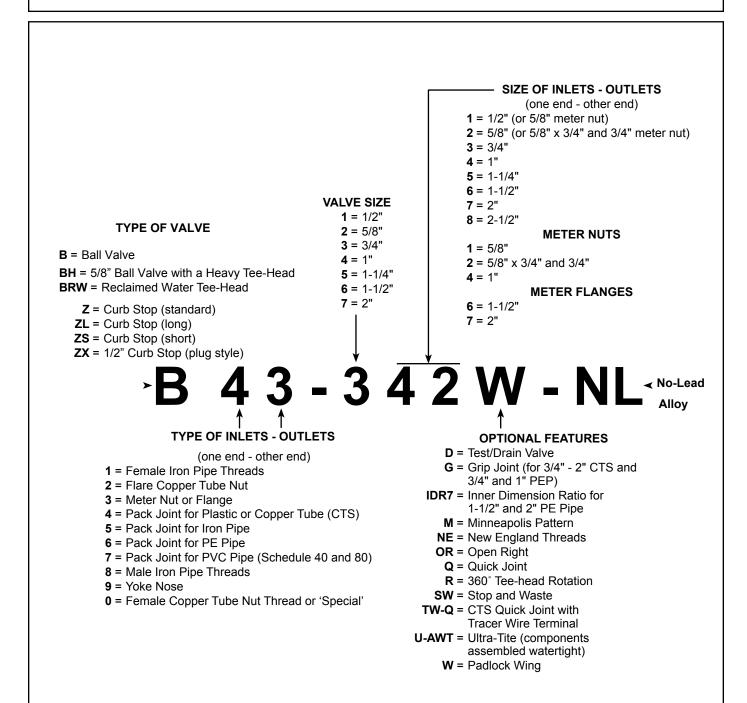
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Ford offers many products listed to specific standards and classifications. Due to the forthcoming standards changes understood during the publication of this catalog, product listings will evolve to meet the changing standards requirements. Please contact the Ford Meter Box Customer Service Department at 260-563-3171 or local Ford distributor to verify a product meets a specific standard. Ford Meter Box meets your needs for products that are proven and reliable.

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

NUMBERING SYSTEM



▲ 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.

Note: See item listings in catalog section to assure that desired sizes and options are available.

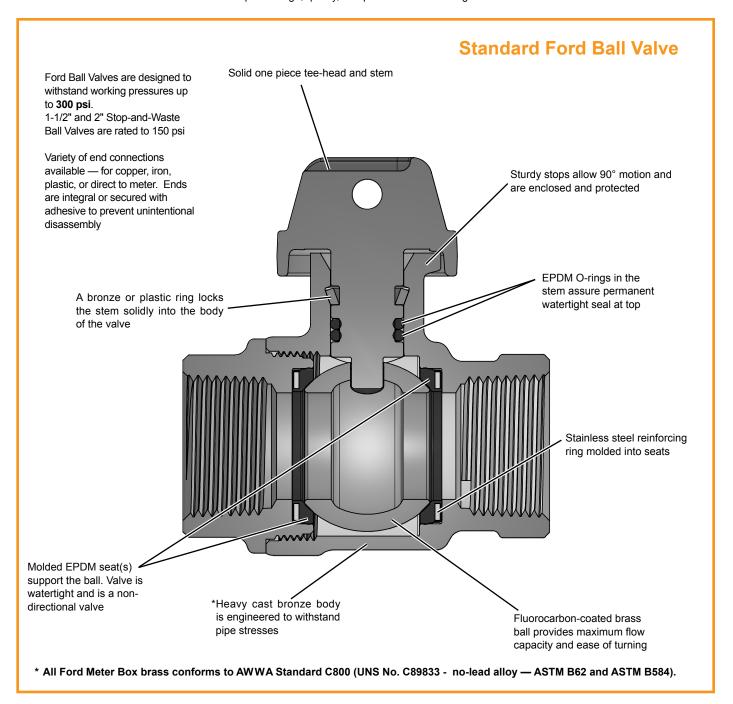
Please Note:

Consult the Ford Meter Box Company, Inc. website (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.

Information

Features of the Ford Ball Valve

Ford Ball Valve Curb Stops are ideal for use in water service lines. Watertight in either direction at pressures up to 300 psi, easy turning, nonbinding, and minimum pressure loss — these characteristics are added to superb design, quality, and precise manufacturing.



PRESSURE REQUIREMENTS

The AWWA Standard C800 specifies normal pressure service line valves shall be suitable for use with water at 100 psi for 1" and smaller sizes, and 80 Psi for 1-1/4" through 2" sizes. Ford Key Style Valves are designed for normal service line pressure conditions. Use Ford Ball Valves for higher pressure requirements.

Information

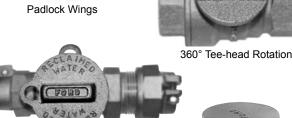
Features of the Ford Ball Valve

COMPRESSION OPTIONS

Options Available







Reclaimed Water Tee-head





Gate Valve Operating Nut



Stop and Waste Feature



Minneapolis Pattern Valve

Drain/Test Valve Option

Tracer Wire Terminal

ALL TYPES OF CONNECTIONS

Ford Curb Stops and Meter Valves are available with a wide variety of connections. Make your selection from compression, flare, female or male style fittings for copper, iron, polyethylene, PVC and lead.

- Pack Joint is the standard offering for all compression fittings. Other options may be available. See below for details
- Grip Joint instead of Pack Joint for CTS (for all sizes) or PEP (3/4" or 1") can be ordered by adding "-G" to the catalog number. Example: B41-333-G-NL
- Quick Joint is available for items indicated with a ◆. Add a "-Q" to the catalog number. Example: B41-333-Q-NL
- Ultra-Tite is available for items indicated with a ▶. Add "-U-AWT" to the catalog number. Example: B44-333-U-AWT-NL

PADLOCK WINGS

Most valves are available with padlock wings (except for Minneapolis Valve or where noted). Add "W" to catalog number. Example: B11-333W-NL. "W" in a listed catalog number indicates that the valve is available with padlock wings only.

360° TEE-HEAD ROTATION

Standard tee-head stops on the body to permit 90° turn only. Full 360° tee-head rotation is available. Add "R" to catalog number. Example: B21-333R-NL.

RECLAIMED WATER BALL VALVE TEE-HEAD

A distinctive tee-head with "Reclaimed Water" lettering for easy identification is available on 3/4" through 2" Ball Valves. Insert "RW" into the catalog number. Example: BRW11-333W-NL. Tee-head sold only with padlock wings.

VALVE LOCK CAPS

Lock caps are available for 5/8" through 2" Ball Valves and 3/4" Angle Key Valves. See page 38 to order.

2" GATE VALVE OPERATING NUT

Adapts tee-head on 1-1/4",1-1/2" and 2" Ball Valves (listed on pages 6 - 13) for operation with standard gate valve wrenches. See page 38 to order.

MINNEAPOLIS PATTERN VALVE

Threads are available around the valve body in order to attach Minneapolis style curb boxes. 3/4" and 1" valves have 1-1/2" threads; 1-1/4", 1-1/2" and 2" valves have 2" threads. If an additional size is required other than the sizes listed, please contact the factory for availability.

STOP-AND-WASTE FEATURE

Stop-and-waste valves allow the downstream service line to drain when in the closed position. This feature is typically used to avoid damage to the service line caused by freezing. Valves available with this option are indicated with an asterisk (*). For 3/4" and 1" valves, insert "C" and add "SW" to the catalog number. Example: BC11-333SW-NL. (**) For 1-1/2" and 2" valves, add "SW" to the catalog number. Example: B11-666SW-NL.

HANDLES FOR VALVES

Handles for valves are available. Ordering information and descriptions are found on pages 37 and 38.

DRAIN/TEST VALVE OPTION

For Ford Ball Service Valves. See page 33.

TRACER WIRE TERMINAL

Available on 3/4", 1", 1-1/4", 1-1/2" and 2" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

Ball Valves with Iron Pipe Threads





| CATALOG | VALVE | ONE | OTHER | APPROX. |
|-----------------|--------|--------|--------|----------|
| Number | SIZE | END | END | WT. LBS. |
| *B11-333-NL | 3/4" | 3/4" | 3/4" | 1.9 |
| B11-343-NL | 3/4" | 1" | 3/4" | 2.0 |
| B11-344-NL | 3/4" | 1" | 1" | 2.1 |
| BL11-344-4-5-NL | 3/4" | 1" | 1" | 2.3 |
| *B11-444-NL | 1" | 1" | 1" | 2.5 |
| B11-454-NL | 1" | 1-1/4" | 1" | 2.9 |
| B11-455-NL | 1" | 1-1/4" | 1-1/4" | 3.1 |
| B11-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 4.7 |
| B11-566-NL | 1-1/4" | 1-1/2" | 1-1/2" | 5.3 |
| **B11-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.1 |
| **B11-676-NL | 1-1/2" | 2" | 1-1/2" | 6.4 |
| **B11-677-NL | 1-1/2" | 2" | 2" | 8.0 |
| **B11-777-NL | 2" | 2" | 2" | 8.4 |
| B11-788-NL | 2" | 2-1/2" | 2-1/2" | 11.1 |



Female Iron Pipe Threads Both Ends Minneapolis Pattern Valve

| CATALOG | VALVE | ONE | OTHER | APPROX. |
|----------------|--------|--------|--------|----------|
| Number | SIZE | END | END | Wt. Lbs. |
| *B11-333M-NL | 3/4" | 3/4" | 3/4" | 2.3 |
| B11-343M-NL | 3/4" | 1" | 3/4" | 2.4 |
| *B11-444M-NL | 1" | 1" | 1" | 3.4 |
| B11-455M-NL | 1" | 1-1/4" | 1-1/4" | 4.0 |
| B11-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 5.1 |
| ** B11-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.5 |
| B11-676M-NL | 1-1/2" | 2" | 1-1/2" | 7.9 |
| B11-677M-NL | 1-1/2" | 2" | 2" | 8.4 |
| ** B11-777M-NL | 2" | 2" | 2" | 10.3 |
| B11-788M-NL | 2" | 2-1/2" | 2-1/2" | 11.2 |
| | | | | |



Male Iron Pipe Thread by Female Iron Pipe Thread

| · omale non ripe rimeau | | | | | |
|-------------------------|--------|--------|--------|----------|--|
| CATALOG | VALVE | MIP | FIP | APPROX. | |
| Number | SIZE | END | END | WT. LBS. | |
| B81-333-NL | 3/4" | 3/4" | 3/4" | 1.6 | |
| B81-343-NL | 3/4" | 1" | 3/4" | 1.9 | |
| B81-444-NL | 1" | 1" | 1" | 2.6 | |
| B81-455-NL | 1" | 1-1/4" | 1-1/4" | 3.0 | |
| **B81-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 5.0 | |
| B81-676-NL | 1-1/2" | 2" | 1-1/2" | 5.3 | |
| B81-677-NL | 1-1/2" | 2" | 2" | 7.6 | |
| **B81-777-NL | 2" | 2" | 2" | 9.2 | |



Male Iron Pipe Thread Both Ends

| maio non ripo rinoda zotn znao | | | | | |
|--------------------------------|--------|--------|--------|----------|--|
| CATALOG | VALVE | INLET | OUTLET | APPROX. | |
| Number | SIZE | SIZE | SIZE | WT. LBS. | |
| B88-333-NL | 3/4" | 3/4" | 3/4" | 2.0 | |
| B88-344-NL | 3/4" | 1" | 1" | 2.1 | |
| B88-444-NL | 1" | 1" | 1" | 3.1 | |
| B88-454W-NL | 1" | 1-1/4" | 1" | 2.2 | |
| B88-455W-NL | 1" | 1-1/4" | 1-1/4" | 2.3 | |
| B88-666W-NL | 1-1/2" | 1-1/2" | 1-1/2" | 5.7 | |
| B88-777-NL | 2" | 2" | 2" | 8.1 | |

Options available - See bottom of page 7.

Ball Valves with Iron Pipe and Flared Copper Ends



Flare Copper by Female Iron Pipe Threads

| CATALOG | VALVE | FLARE | FIP | APPROX. |
|-------------------|--------|--------|--------|----------|
| Number | SIZE | END | END | WT. LBS. |
| *B21-333-NL | 3/4" | 3/4" | 3/4" | 2.2 |
| BL21-333-4-5-NL | 3/4" | 3/4" | 3/4" | 2.7 |
| B21-343-NL | 3/4" | 1" | 3/4" | 2.6 |
| B21-334-NL | 3/4" | 3/4" | 1" | 2.5 |
| B21-344-NL | 3/4" | 1" | 1" | 2.8 |
| BL21-344-5-187-NL | 3/4" | 1" | 1" | 3.2 |
| * B21-444-NL | 1" | 1" | 1" | 3.3 |
| B21-445-NL | 1" | 1" | 1-1/4" | 4.5 |
| B21-455-NL | 1" | 1-1/4" | 1-1/4" | 4.7 |
| B21-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 5.9 |
| B21-566-NL | 1-1/4" | 1-1/2" | 1-1/2" | 6.9 |
| ** B21-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.8 |
| B21-667-NL | 1-1/2" | 1-1/2" | 2" | 8.2 |
| B21-676-NL | 1-1/2" | 2" | 1-1/2" | 10.9 |
| B21-677-NL | 1-1/2" | 2" | 2" | 11.6 |
| ** B21-777-NL | 2" | 2" | 2" | 12.4 |



Flare Copper by Female Iron Pipe Threads Minneapolis Pattern Valve

| CATALOG | VALVE | FLARE | FIP | APPROX. |
|----------------|--------|--------|--------|----------|
| Number | Size | END | END | WT. LBS. |
| * B21-333M-NL | 3/4" | 3/4" | 3/4" | 2.8 |
| *B21-444M-NL | 1" | 1" | 1" | 3.6 |
| B21-455M-NL | 1" | 1-1/4" | 1-1/4" | 5.0 |
| B21-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 6.2 |
| ** B21-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.2 |
| ** B21-676M-NL | 1-1/2" | 2" | 1-1/2" | 11.5 |
| ** B21-777M-NL | 2" | 2" | 2" | 13.4 |



Flare Copper by Male Iron Pipe Thread

| Tiale Copper by Male Iron Tipe Timeau | | | | |
|---------------------------------------|--------|--------|--------|----------|
| CATALOG | VALVE | INLET | OUTLET | APPROX. |
| Number | Size | Size | Size | WT. LBS. |
| B82-333-NL | 3/4" | 3/4" | 3/4" | 2.0 |
| B82-444-NL | 1" | 1" | 1" | 3.1 |
| B82-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 6.0 |
| B82-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.0 |
| B82-777-NL | 2" | 2" | 2" | 13.6 |

Options Available

- * For **Stop-and-Waste** feature on these 3/4" and 1" ball valves, change "B" to "BC" and add "SW" to the catalog number. Example: <u>BC</u>21-333<u>SW</u>-NL.
- ** Stop-and-Waste feature is available for 1-1/2" and 2" ball valves. Add "SW" to the catalog number. Examples: B21-666SWM-NL.

Reclaimed Water Tee-head is available. Insert "RW" into the catalog number. Example: BRW21-333W-NL. Tee-head sold only with padlock wing.

Padlock Wings - All valves are available with padlock wings (except for Minneapolis pattern valve). Add "W" to catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: B21-333R-NL.

Curb Box Base - Catalog number CB-7 for 1-1/4", 1-1/2" and 2" ball valve curb stops is listed in catalog section GA.

2" Gate Valve Operating Nut is available for 1-1/4", 1-1/2" and 2" ball valves and can be ordered from page 38.

Lock Caps are available for 5/8" through 2" ball valves and can be ordered from page 38.

Handles are available for ball valves; see page 37.

Ball Valves with Flared Copper



Flare Copper Both Ends

| CATALOG | VALVE | ONE | OTHER | APPROX. |
|--------------|--------|--------|--------|----------|
| Number | SIZE | END | END | WT. LBS. |
| *B22-333-NL | 3/4" | 3/4" | 3/4" | 2.5 |
| B22-343-NL | 3/4" | 1" | 3/4" | 2.8 |
| B22-344-NL | 3/4" | 1" | 1" | 3.8 |
| *B22-444-NL | 1" | 1" | 1" | 3.8 |
| B22-454-NL | 1" | 1-1/4" | 1" | 4.2 |
| B22-455-NL | 1" | 1-1/4" | 1-1/4" | 5.5 |
| B22-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 7.0 |
| B22-566-NL | 1-1/4" | 1-1/2" | 1-1/2" | 8.5 |
| **B22-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 10.5 |
| B22-676-NL | 1-1/2" | 2" | 1-1/2" | 12.9 |
| B22-677-NL | 1-1/2" | 2" | 2" | 15.1 |
| **B22-777-NL | 2" | 2" | 2" | 16.9 |



Flare Copper Both Ends Minneapolis Pattern Valve

| CATALOG | VALVE | ONE | OTHER | APPROX. | |
|---------------|--------|--------|--------|----------|--|
| Number | Size | END | END | WT. LBS. | |
| *B22-333M-NL | 3/4" | 3/4" | 3/4" | 2.9 | |
| B22-343M-NL | 3/4" | 1" | 3/4" | 3.1 | |
| B22-344M-NL | 3/4" | 1" | 1" | 4.1 | |
| *B22-444M-NL | 1" | 1" | 1" | 4.2 | |
| B22-454M-NL | 1" | 1-1/4" | 1" | 4.7 | |
| B22-455M-NL | 1" | 1-1/4" | 1-1/4" | 5.6 | |
| B22-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 4.2 | |
| B22-566M-NL | 1-1/4" | 1-1/2" | 1-1/2" | 8.2 | |
| **B22-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 11.0 | |
| **B22-777M-NL | 2" | 2" | 2" | 17.4 | |
| | | | | | |

Options Available

- * For **Stop-and-Waste** feature on these 3/4" and 1" ball valves, change "B" to "BC" and add "SW" to the catalog number. Example: <u>BC</u>22-333<u>SW</u>-NL.
- ** Stop-and-Waste feature is available for 1-1/2" and 2" ball valves. Add "SW" to the catalog number. Example: B22-666SWM-NL.

Reclaimed Water Tee-head is available. Insert "RW" into the catalog number. Example: BRW22-333W-NL. Tee-head sold only with padlock wing.

Padlock Wings - All valves are available with padlock wings (except for Minneapolis pattern valve). Add "W" to catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: B22-333R-NL.

Curb Box Base - Catalog number CB-7 for 1-1/4", 1-1/2" and 2" ball valve curb stops is listed in catalog section GA.

2" Gate Valve Operating Nut is available for 1-1/4", 1-1/2" and 2" ball valves and can be ordered from page 38.

Lock Caps are available for 5/8" through 2" ball valves and can be ordered from page 38.

Handles are available for ball valves; see page 37.

Ball Valves with Pack Joints

TYPES OF PIPE AND TUBING - EXPLANATION OF ABBREVIATIONS AND CODES FOR COMPRESSION COUPLINGS

Copper Tube - CTS - copper tubing is widely used as a service line and the outside diameter is closely held by manufacturers. The outside diameter of copper tubing has become a standard in the industry and is known as "copper tube size". (Pack Joint coded **CTS.**)

Plastic Tubing - CTS - flexible water service tubing in what is referred to as "copper tube size". Plastic tube refers to *any* plastic with the same outside diameter as corresponding sizes of copper tube such as PET - polyethylene tubing. (Pack Joint coded **CTS.**)

Plastic Pipe - PEP - flexible water service pipe in what is referred to as "pipe size". Plastic pipe refers to *any* pipe having the same inside diameter as corresponding sizes of standard iron pipe such as PEP - polyethylene pipe. (Pack Joint coded **PEP**.)

PVC Pipe - PVC - polyvinyl chloride rigid plastic pipe. PVC pipe refers to polyvinyl chloride rigid plastic pipe having the same outside diameter as corresponding sizes of standard iron pipe. (Pack Joint coded **PVC.**)

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

Abbreviations, dimensions and insert stiffeners for plastic tubing are listed on page 39.

Consult pipe or tubing manufacturer for specific installation requirements.



Pack Joint for Copper or Plastic Tubing (CTS) by Female Iron Pipe Thread

| CATALOG | VALVE | CTS | FIP | APPROX. |
|---------------------|--------|--------|--------|----------|
| Number | SIZE | END | END | Wt. Lbs. |
| ▶♦ * B41-333-NL | 3/4" | 3/4" | 3/4" | 2.0 |
| ▶♦ B41-334-NL | 3/4" | 3/4" | 1" | 2.1 |
| ▶♦ B41-343-NL | 3/4" | 1" | 3/4" | 2.2 |
| ▶♦ B41-344-NL | 3/4" | 1" | 1" | 2.4 |
| ♦ BL41-344-4-875-NL | 3/4" | 1" | 1" | 3.1 |
| ▶♦ * B41-444-NL | 1" | 1" | 1" | 2.8 |
| ♦ B41-454-NL | 1" | 1-1/4" | 1" | 3.2 |
| ♦ B41-455-NL | 1" | 1-1/4" | 1-1/4" | 3.7 |
| ♦ B41-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 5.6 |
| ♦ **B41-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.0 |
| B41-677-NL | 1-1/2" | 2" | 2" | 9.6 |
| ♦ **B41-777-NL | 2" | 2" | 2" | 11.1 |



Pack Joint for Copper or Plastic Tubing (CTS) by Female Iron Pipe Thread Minneapolis Pattern Valve

| CATALOG | VALVE | CTS | FIP | APPROX. |
|-------------------|--------|--------|--------|----------|
| Number | Size | END | END | Wt. Lbs. |
| ► ♦ * B41-333M-NL | 3/4" | 3/4" | 3/4" | 2.3 |
| B41-334M-NL | 3/4" | 3/4" | 1" | 2.4 |
| ► B41-343M-NL | 3/4" | 1" | 3/4" | 2.7 |
| ► B41-344M-NL | 3/4" | 1" | 1" | 2.8 |
| ► ♦ * B41-444M-NL | 1" | 1" | 1" | 3.4 |
| ♦ B41-454M-NL | 1" | 1-1/4" | 1" | 3.5 |
| B41-455M-NL | 1" | 1-1/4" | 1-1/4" | 4.6 |
| B41-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 5.5 |
| **B41-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 8.4 |
| B41-677M-NL | 1-1/2" | 1-1/2" | 2" | 9.8 |
| ♦ **B41-777M-NL | 2" | 2" | 2" | 12.3 |

Options Available

Grip Joint for CTS (3/4" - 2") and PEP (3/4" and 1") is available. Add "-G" to the catalog number. Example: B41-333-G-NL.

- * For **Stop-and-Waste** feature on these 3/4" and 1" ball valves, change "B" to "BC" and add "SW" to the catalog number. Example: <u>BC</u>41-333<u>SW</u>.-NL
- **Stop-and-Waste feature is available for 1-1/2" and 2" ball valves. Add "SW" to the catalog number. Example: B41-666<u>SW</u>M-NL.
- ◆ Quick Joint is available by adding a "-Q" to the catalog number.
- ▶Ultra-Tite is available. Add "-U-AWT" to the catalog number. (Consists of components assembled watertight.)

Tracer Wire Terminal available on 3/4", 1", 1-1/4", 1-1/2" and 2" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

 $\textbf{Reclaimed Water Tee-head} \ is \ available. \ Insert "RW" into the \ catalog \ number. \ Example: \\ \underline{BRW}41-333W-NL. \ Tee-head \ sold \ only \ with \ padlock \ wing.$

Padlock Wings - All valves are available with padlock wings (except for Minneapolis pattern valve). Add "W" to catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: B41-333R-NL.

2" Gate Valve Operating Nut is available for 1-1/4", 1-1/2" and 2" ball valves and can be ordered from page 38.

Lock Caps are available for 5/8" through 2" ball valves and can be ordered from page 38.

Handles are available for ball valves; see page 37.

Ball Valves with Pack Joints - Continued







Shown with Quick Joint option





Pack Joint for Iron Pipe by Female Iron Pipe Thread

| CATALOG | VALVE | IP | FIP | APPROX. |
|---------------|--------|--------|--------|----------|
| Number | Size | END | END | Wt. Lbs. |
| B51-333-NL | 3/4" | 3/4" | 3/4" | 2.2 |
| B51-343-NL | 3/4" | 1" | 3/4" | 2.5 |
| B51-344-NL | 3/4" | 1" | 1" | 2.7 |
| B51-444-NL | 1" | 1" | 1" | 3.3 |
| ** B51-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.2 |
| ** B51-777-NL | 2" | 2" | 2" | 11.1 |

Pack Joint for Iron Pipe by Female Iron Pipe Thread Minneapolis Pattern Valve

| CATALOG | VALVE | IP | FIP | APPROX. |
|----------------|--------|--------|--------|----------|
| Number | SIZE | END | END | Wt. Lbs. |
| B51-333M-NL | 3/4" | 3/4" | 3/4" | 2.3 |
| B51-344M-NL | 3/4" | 1" | 1" | 3.1 |
| ** B51-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.0 |

Pack Joint for Plastic Pipe (PEP) by Female Iron Pipe Thread

| | ., | | | | | | | |
|---------------|-------------------|--------|--------|--------|----------|--|--|--|
| | CATALOG | VALVE | PEP | FIP | APPROX. | | | |
| | Number | Size | END | END | Wt. Lbs. | | | |
| > + | B61-333-NL | 3/4" | 3/4" | 3/4" | 2.3 | | | |
| | B61-343-NL | 3/4" | 1" | 3/4" | 2.7 | | | |
| • | B61-344-NL | 3/4" | 1" | 1" | 2.9 | | | |
| ▶ ♦ | B61-444-NL | 1" | 1" | 1" | 3.5 | | | |
| | B61-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 8.7 | | | |
| * | * B61-666-IDR7-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.2 | | | |
| * | * B61-777-IDR7-NL | 2" | 2" | 2" | 10.5 | | | |

Pack Joint for Plastic Pipe (PEP) by Female Iron Pipe Thread Minneapolis Pattern Valve

| CATALOG | VALVE | PEP | FIP | APPROX. |
|--------------------|----------|--------|--------|----------|
| Number | Size | END | END | Wt. Lbs. |
| ► B61-333M-NL | 3/4" | 3/4" | 3/4" | 3.0 |
| ► B61-344M-NL | 3/4" | 1" | 1" | 3.8 |
| ▶♦ B61-444M-NL | 1" | 1" | 1" | 4.4 |
| B61-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 6.6 |
| ** B61-666M-IDR7-N | L 1-1/2" | 1-1/2" | 1-1/2" | 9.2 |
| ** B61-777M-IDR7 | 2" | 2" | 2" | 13.3 |

Pack Joint for PVC Pipe*** by Female Iron Pipe Thread

| CATALOG | VALVE | PVC | FIP | APPROX. |
|-----------------|--------|--------|--------|----------|
| Number | Size | END | END | Wt. Lbs. |
| B71-333-NL | 3/4" | 3/4" | 3/4" | 2.3 |
| B71-343-NL | 3/4" | 1" | 3/4" | 2.7 |
| B71-344-NL | 3/4" | 1" | 1" | 2.9 |
| B71-444-NL | 1" | 1" | 1" | 3.6 |
| B71-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 5.5 |
| † ** B71-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 7.6 |
| ** B71-777-NL | 2" | 2" | 2" | 11.8 |

^{***} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.

Pack Joint for PVC Pipe*** by Female Iron Pipe Thread Minneapolis Pattern Valve

| 1411 | willineapons rattern valve | | | | | | |
|------------------|----------------------------|--------|--------|----------|--|--|--|
| CATALOG | VALVE | PVC | FIP | APPROX. | | | |
| Number | SIZE | END | END | Wt. Lbs. | | | |
| B71-333M-NL | 3/4" | 3/4" | 3/4" | 2.9 | | | |
| B71-343M-NL | 3/4" | 1" | 3/4" | 3.2 | | | |
| B71-444M-NL | 1" | 1" | 1" | 4.4 | | | |
| B71-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 6.9 | | | |
| † ** B71-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.0 | | | |
| ** B71-777M-NL | 2" | 2" | 2" | 13.3 | | | |

^{***} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.

Ball Valves with Pack Joints - Continued



Pack Joint for Copper or Plastic Tubing (CTS) Both Ends

| | CATALOG | | DESCRIPTION | | APPROX. |
|---------------|--------------|------------|-------------|-----------|----------|
| | SECTION | VALVE SIZE | ONE END | OTHER END | Wt. Lbs. |
| ▶ ♦ * | B44-333-NL | 3/4" | 3/4" | 3/4" | 2.4 |
| > + | B44-343-NL | 3/4" | 1" | 3/4" | 2.5 |
| ▶+ | B44-344-NL | 3/4" | 1" | 1" | 3.1 |
| ▶ ♦ * | B44-444-NL | 1" | 1" | 1" | 3.1 |
| | B44-445-Q-NL | 1" | 1" | 1-1/4" | 3.7 |
| | B44-455-NL | 1" | 1-1/4" | 1-1/4" | 5.0 |
| • | B44-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 6.6 |
| ♦ ** | B44-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.0 |
| | B44-677-NL | 1-1/2" | 2" | 2" | 11.1 |
| ♦ ** | B44-777-NL | 2" | 2" | 2" | 13.8 |

Shown with Quick Joint option



Pack Joint for Copper or Plastic Tubing (CTS) Both Ends Minneapolis Pattern Valve

| | CATALOG | | Approx | | |
|--------------|-------------|---------------|---------|--------------|------------------|
| | Number | VALVE Size | ONE END | OTHER END | APPROX. WT. LBS. |
| ▶ ♦ * | B44-333M-NL | 3/4" | 3/4" | 3/4" | 2.6 |
| ▶ ♦ | B44-343M-NL | 3/4" | 1" | 3/4" | 2.6 |
| ▶+ | B44-344M-NL | 3/4" | 1" | 1" | 3.2 |
| ▶ ♦ * | B44-444M-NL | 1" | 1" | 1" | 3.4 |
| • | B44-455M-NL | 1" | 1-1/4" | 1-1/4" | 5.2 |
| * * | B44-555M-NL | 1-1/4" | 1-1/4" | 1-1/4" | 6.9 |
| ♦ ** | B44-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.4 |
| ♦ ** | B44-777M-NL | 2" | 2" | 2" | 14.1 |



Pack Joint for Iron Pipe Both Ends

| CATALOG | | APPROX. | | |
|---------------|------------|----------|--------|------|
| Number | VALVE SIZE | Wt. Lbs. | | |
| B55-333-NL | 3/4" | 3/4" | 3/4" | 2.9 |
| B55-444-NL | 1" | 1" | 1" | 3.6 |
| ** B55-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 9.5 |
| ** B55-777-NL | 2" | 2" | 2" | 14.3 |

Options Available

Grip Joint for CTS (3/4" - 2") and PEP (3/4" and 1") is available. Add "-G" to the catalog number. Example: B44-333-G-NL.

- * For **Stop-and-Waste** feature on these 3/4" and 1" ball valves, change "B" to "BC" and add "SW" to the catalog number. Example: <u>BC</u>44-666<u>SW</u>-NL.
- **Stop-and-Waste feature is available for 1-1/2" and 2" ball valves. Add "SW" to the catalog number. Example: B44-333<u>SW</u>-NL.
- ◆ Quick Joint is available by adding a "-Q" to the catalog number.
- ▶ Ultra-Tite is available. Add "-U-AWT" to the catalog number. (Consists of components assembled watertight.)

Tracer Wire Terminal available on 3/4", 1", 1-1/4", 1-1/2" and 2" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

† Uses Ballcorp style Pack Joint nut.

Reclaimed Water Tee-head is available. Insert "RW" into the catalog number. Example: BRW44-333W-NL. Tee-head sold only with padlock wing. **Padlock Wings -** All valves are available with padlock wings (except for Minneapolis pattern valve). Add "W" to catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: B44-333R-NL.

Curb Box Base - Catalog number CB-7 for 1-1/4",1-1/2" and 2" ball valve curb stops is listed in catalog section GA.

2" Gate Valve Operating Nut is available for 1-1/4", 1-1/2" and 2" ball valves and can be ordered from page 38.

Lock Caps are available for 5/8" through 2" ball valves and can be ordered from page 38.

Handles are available for ball valves; see page 37.

Ball Valves with Pack Joints - Continued





| CATALOG | | | Approx | | |
|---------|-----------------|---------------|---------|--------------|---------------------|
| | Number | VALVE Size | ONE END | OTHER END | APPROX. Wt. Lbs. |
| ▶ ♦ | B66-333-NL | 3/4" | 3/4" | 3/4" | 3.2 |
| | B66-344-NL | 3/4" | 1" | 1" | 4.0 |
| ▶ ♦ | B66-444-NL | 1" | 1" | 1" | 5.0 |
| | B66-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 8.0 |
| | B66-666-IDR7-NL | 1-1/2" | 1-1/2" | 1-1/2" | 13.6 |
| | B66-777-IDR7-NL | 2" | 2" | 2" | 15.4 |



Pack Joint for Plastic Pipe (PEP) Both Ends Minneapolis Pattern Valve

| | CATALOG | | APPROX. | | |
|-----|------------------|------------|---------|-----------|----------|
| | Number | VALVE SIZE | ONE END | OTHER END | WT. LBS. |
| ▶ ♦ | B66-333M-NL | 3/4" | 3/4" | 3/4" | 3.4 |
| ▶ ♦ | B66-444M-NL | 1" | 1" | 1" | 5.3 |
| | B66-666M-IDR7-NL | 1-1/2" | 1-1/2" | 1-1/2" | 12.6 |
| | B66-777M-IDR7-NL | 2" | 2" | 2" | 15.9 |



Pack Joint for PVC Pipe Both Ends***

| CATALOG | | DESCRIPTION | | | | |
|----------------|------------|------------------------------|--------|------|--|--|
| Number | VALVE SIZE | VALVE SIZE ONE END OTHER END | | | | |
| B77-333-NL | 3/4" | 3/4" | 3/4" | 3.2 | | |
| B77-344-NL | 3/4" | 1" | 1" | 4.0 | | |
| B77-444-NL | 1" | 1" | 1" | 5.2 | | |
| B77-555-NL | 1-1/4" | 1-1/4" | 1-1/4" | 7.5 | | |
| † **B77-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 10.0 | | |
| **B77-777-NL | 2" | 2" | 2" | 16.1 | | |

^{***} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.



Pack Joint for PVC Pipe Both Ends*** Minneapolis Pattern Valve

| CATALOG | | APPROX. | | |
|-----------------|------------|---------|-----------|----------|
| Number | VALVE SIZE | ONE END | OTHER END | WT. LBS. |
| B77-333M-NL | 3/4" | 3/4" | 3/4" | 3.4 |
| B77-444M-NL | 1" | 1" | 1" | 5.3 |
| † **B77-666M-NL | 1-1/2" | 1-1/2" | 1-1/2" | 10.6 |
| **B77-777M-NL | 2" | 2" | 2" | 16.1 |

^{**} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.



Pack Joint for Copper or Plastic Tubing (CTS) by Pack Joint for Plastic Pipe (PEP)

| CATALOG | | DESCRIPTION | | | |
|-------------------|------------|-------------|---------|----------|--|
| Number | VALVE SIZE | CTS END | PEP END | WT. LBS. | |
| ▶♦ B46-333-NL | 3/4" | 3/4" | 3/4" | 2.5 | |
| ►♦ B46-444-NL | 1" | 1" | 1" | 3.7 | |
| **B46-666-IDR7-NL | 1-1/2" | 1-1/2" | 1-1/2" | 11.6 | |
| **B46-777-IDR7-NL | 2" | 2" | 2" | 14.6 | |



Pack Joint for Copper or Plastic Tubing (CTS) by Pack Joint for PVC Pipe***

| | CATALOG | | DESCRIPTION | | | |
|----------------|------------|------------|-------------|---------|----------|--|
| | Number | VALVE SIZE | CTS END | PEP END | Wt. Lbs. | |
| ▶ ♦ | B47-333-NL | 3/4" | 3/4" | 3/4" | 2.6 | |
| > ++ | B47-444-NL | 1" | 1" | 1" | 3.8 | |

^{***} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.

^{♦◆} Quick Joint for CTS is only available with padlock wing option. Add "W-Q" to the catalog number.

Ball Valves with Pack Joints - Continued



Male Iron Pipe Thread by Pack Joint for Copper or Plastic Tubing (CTS)

| | | | | | - | | |
|---------------|------------|------------|-------------|---------|----------|--|--|
| | CATALOG | | DESCRIPTION | | | | |
| Number | | VALVE SIZE | MIP END | CTS END | WT. LBS. | | |
| > + | B84-333-NL | 3/4" | 3/4" | 3/4" | 1.9 | | |
| ▶+ | B84-444-NL | 1" | 1" | 1" | 2.4 | | |
| | B84-455-NL | 1" | 1-1/4" | 1-1/4" | 4.3 | | |
| • | B84-666-NL | 1-1/2" | 1-1/2" | 1-1/2" | 6.1 | | |
| • | B84-777-NL | 2" | 2" | 2" | 9.7 | | |
| | B84-788-NL | 2" | 2-1/2" | 2-1/2" | 14.4 | | |
| | | | | | | | |



Male Iron Pipe Thread by Pack Joint for PVC Pipe***

| • | | | | - |
|---------------|------------|-------------|---------|-----|
| | | DESCRIPTION | | |
| | VALVE SIZE | PVC END | MIP END | |
| B87-333-NL | 3/4" | 3/4" | 3/4" | 2.6 |
| B87-334-NL | 3/4" | 3/4" | 1" | 3.0 |
| B87-444-NL | 1" | 1" | 1" | 4.2 |
| ** B87-777-NL | 2" | 2" | 2" | 8.9 |

^{***} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.



Pack Joint for Plastic Pipe (PEP) by Flare Copper

| | CATALOG | | DESCRIPTION | | |
|--------|-------------------|------------|-------------|-----------|----------|
| Number | | VALVE SIZE | PEP END | FLARE END | WT. LBS. |
| ▶+ | B62-333-NL | 3/4" | 3/4" | 3/4" | 2.6 |
| ▶♦ | B62-444-NL | 1" | 1" | 1" | 4.0 |
| * | * B62-666-IDR7-NL | 1-1/2" | 1-1/2" | 1-1/2" | 12.6 |
| * | * B62-777-IDR7-NL | 2" | 2" | 2" | 16.0 |



Flare Copper by Pack Joint for Copper or Plastic Tubing (CTS)

| | CATALOG | | APPROX. | | |
|---------|------------|------------|-----------|---------|----------|
| | Number | VALVE SIZE | FLARE END | CTS END | WT. LBS. |
| | B24-334-NL | 3/4" | 3/4" | 1" | 2.5 |
| ▶+ | B24-444-NL | 1" | 1" | 1" | 3.5 |

Options Available

Grip Joint for CTS (3/4" - 2") and PEP (3/4" and 1") is available. Add "-G" to the catalog number. Example: B84-333-G-NL.

- ** Stop-and-Waste feature is available for 1-1/2" and 2" ball valves. Add "SW" to the catalog number. Example: B62-666<u>SW</u>-IDR7-NL. (Stop and Waste available on flare side only.)
- ◆ Quick Joint is available by adding a "-Q" to the catalog number.
- ▶ Ultra-Tite is available. Add "-U-AWT" to the catalog number. (Consists of components assembled watertight.)
- † Uses Ballcorp style Pack Joint Nut.

Tracer Wire Terminal available on 3/4", 1", 1-1/4", 1-1/2" and 2" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

Reclaimed Water Tee-head is available. Insert "RW" into the catalog number. Example: BRW84-333W-NL. Tee-head sold only with padlock wing.

Padlock Wings - All valves are available with padlock wings (except for Minneapolis pattern valve). Add "W" to catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: B84-333<u>R</u>-NL.

Curb Box Base - Catalog number CB-7 for 1-1/4", 1-1/2" and 2" ball valve curb stops is listed in catalog section GA.

2" Gate Valve Operating Nut is available for 1-1/4", 1-1/2" and 2" ball valves and can be ordered from page 38.

Lock Caps are available for 5/8" through 2" ball valves and can be ordered from page 38.

Handles are available for ball valves; see page 37.

Ford "BH" Ball Valves

BH Ball Valves have a full 5/8" round water passage with excellent flow characteristics. Designed for use as a curb stop, the BH valve is strong and rugged, offering a fine replacement for inverted key and plug style valves.





| CATALOG | | APPROX. | | |
|-------------|------------|---------|-----------|----------|
| Number | VALVE SIZE | ONE END | OTHER END | Wt. Lbs. |
| BH11-211-NL | 5/8" | 1/2" | 1/2" | 1.4 |
| BH11-231-NL | 5/8" | 3/4" | 1/2" | 1.4 |
| BH11-233-NL | 5/8" | 3/4" | 3/4" | 1.3 |



Flare Copper by Female Iron Pipe Thread

| CATALOG | | APPROX. | | |
|--------------|------------|-----------|---------|----------|
| Number | VALVE SIZE | FLARE END | FIP END | Wt. LBs. |
| BH21-231-NL | 5/8" | 3/4" | 1/2" | 1.7 |
| BH21-233-NL | 5/8" | 3/4" | 3/4" | 1.7 |
| BH21-233M-NL | 5/8" | 3/4" | 3/4" | 2.0 |

NOTE: Length of valve for flare copper is measured less the copper tube nut.



Flare Copper Both Ends

| | • • | | | | | | |
|--------------|------------|---------|-----------|----------|--|--|--|
| CATALOG | | APPROX. | | | | | |
| Number | VALVE SIZE | ONE END | OTHER END | Wt. Lbs. | | | |
| BH22-233-NL | 5/8" | 3/4" | 3/4" | 2.3 | | | |
| BH22-233M-NL | 5/8" | 3/4" | 3/4" | 2.5 | | | |

NOTE: Length of valve for flare copper is measured less the copper tube nut.



Pack Joint for Copper or Plastic Tubing (CTS) by Female Iron Pipe Thread

| CATALOG | | APPROX. | | |
|-----------------|------------|---------|---------|----------|
| Number | VALVE SIZE | CTS END | FIP END | Wt. Lbs. |
| ► BH41-231-NL | 5/8" | 3/4" | 1/2" | 1.6 |
| ▶ ♦ BH41-233-NL | 5/8" | 3/4" | 3/4" | 1.7 |
| ► BH41-233M-NL | 5/8" | 3/4" | 3/4" | 1.9 |



Pack Joint for Copper or Plastic Tubing (CTS) Both Ends

| CATALOG | | APPROX. | | |
|----------------|------------|---------|-----------|----------|
| Number | VALVE SIZE | ONE END | OTHER END | Wt. Lbs. |
| ▶♦ BH44-233-NL | 5/8" | 3/4" | 3/4" | 2.1 |
| ► BH44-233M-NL | 5/8" | 3/4" | 3/4" | 2.3 |



Pack Joint for PE Pipe by Pack Joint for Copper or Plastic Tubing (CTS)

| | CATALOG | DESCRIPTION | | | APPROX. |
|---|-------------|-------------|------------|-------------|----------|
| | Number | VALVE SIZE | INLET SIZE | OUTLET SIZE | Wt. Lbs. |
| ▶ | BH64-233-NL | 5/8" | 3/4" | 3/4" | 2.2 |

NOTE: Padlock wing option is not available on BH style ball valves.

Options Available

Grip Joint for CTS (3/4" - 2") and PEP (3/4" and 1") is available. Add "-G" to the catalog number. Example: BH44-233_G-NL.

◆ Quick Joint is available by adding a "-Q" to the catalog number.

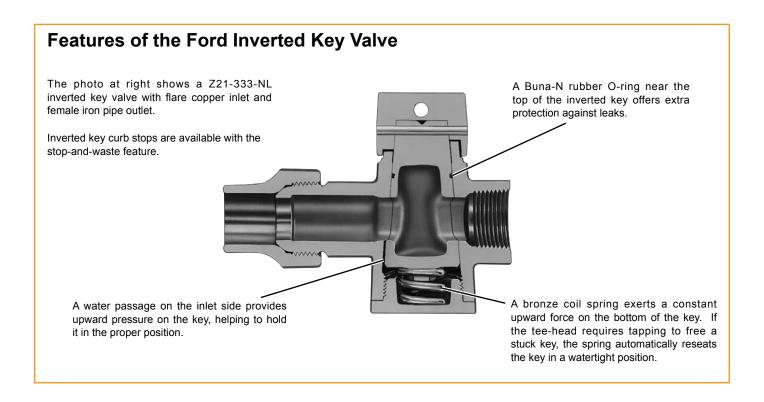
Tracer Wire Terminal available on 3/4", 1", 1-1/4", 1-1/2" and 2" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

▶ Ultra-Tite is available. Add "-U-AWT" to the catalog number. (Consists of components assembled watertight.)

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: BH44-233R-NL.

Lock Caps are available for 5/8" through 3/4" ball valves and can be ordered from page 38.

Handles are available for ball valves; see page 37.



Curb Stops with Female Iron Pipe Threads and Flare Copper Ends



1/2" Solid Tee Head Plug Valve Curb Stops

| CATALOG | | APPROX. | | |
|-------------|------------|---------------------|----------------------|----------|
| Number | VALVE SIZE | INLET SIZE AND TYPE | OUTLET SIZE AND TYPE | WT. LBS. |
| ZX11-111-NL | 1/2" | 1/2" FIP | 1/2" FIP | 0.7 |
| ZX22-111-NL | 1/2" | 1/2" Flare Copper | 1/2" Flare Copper | 1.0 |

NOTE: ZX style valves are plug-style rather than inverted key style.

Female Iron Pipe Thread Both Ends

| | • | | | | | | |
|----------------|------------|-------------|-------------|----------|--|--|--|
| CATALOG | | DESCRIPTION | | | | | |
| Number | VALVE SIZE | INLET SIZE | OUTLET SIZE | WT. LBS. | | | |
| ** Z11-333-NL | 3/4" | 3/4" | 3/4" | 2.1 | | | |
| ** ZS11-333-NL | 3/4" | 3/4" | 3/4" | 2.0 | | | |
| ** ZL11-333-NL | 3/4" | 3/4" | 3/4" | 2.3 | | | |
| ** Z11-444-NL | 1" | 1" | 1" | 3.6 | | | |

Options Available

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: Z11-333R-NL.

^{**} Stop-and-Waste feature is available. Add "SW" to the catalog number. Example: Z11-333<u>SW</u>-NL. (Note: Stop-and-waste feature drains the outlet side of the valve.)

Curb Stops with Female Iron Pipe Threads and Flare Copper Ends - Continued



Flare Copper by Female Iron Pipe Thread

| | CATALOG | | APPROX. | | |
|---|--------------|------------|------------|----------|----------|
| | Number | VALVE SIZE | FLARE SIZE | FIP SIZE | WT. LBS. |
| * | * Z21-333-NL | 3/4" | 3/4" | 3/4" | 2.5 |
| * | * Z21-444-NL | 1" | 1" | 1" | 4.2 |

NOTE: Stop-and-Waste feature drains the FIP side of valve.



Flare Copper by Female Iron Pipe Thread Minneapolis Pattern Valve

| CATALOG | | APPROX. | | |
|-------------|------------|------------|----------|----------|
| Number | VALVE SIZE | FLARE SIZE | FIP SIZE | Wt. Lbs. |
| Z21-333M-NL | 3/4" | 3/4" | 3/4" | 2.5 |
| Z21-444M-NL | 1" | 1" | 1" | 4.3 |

NOTE: Minneapolis pattern curb box threads for inverted key curb stops are 1-1/2" for 3/4" valves and 2" for 1" valves.



Flare Copper Both Ends

| CATALOG | | APPROX. | | |
|---------------|------------|------------|-------------|----------|
| Number | VALVE SIZE | INLET SIZE | OUTLET SIZE | Wt. Lbs. |
| ** Z22-111-NL | 1/2" | 1/2" | 1/2" | 1.5 |
| ** Z22-322-NL | 3/4" | 5/8" | 5/8" | 2.7 |
| ** Z22-333-NL | 3/4" | 3/4" | 3/4" | 2.9 |
| ** Z22-444-NL | 1" | 1" | 1" | 4.6 |



Flare Copper Both Ends Minneapolis Pattern Valve

| CATALOG DESCRIPTION | | | APPROX. | |
|---------------------|------------|------------|-------------|----------|
| Number | VALVE SIZE | INLET SIZE | OUTLET SIZE | WT. LBS. |
| ** Z22-333M-NL | 3/4" | 3/4" | 3/4" | 2.9 |
| ** Z22-444M-NL | 1" | 1" | 1" | 4.8 |

NOTE: Minneapolis pattern curb box threads for inverted key curb stops are 1-1/2" for 3/4" valves and 2" for 1" valves.

Options Available

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: Z21-333R-NL.

^{**} **Stop-and-Waste feature** is available. Add "SW" to the catalog number. Examples: Z22-333<u>SW</u>-NL and Z22-444<u>SW</u>M-NL. (Note: Stop-and-waste feature drains the outlet side of the valve.)

Curb Stops with Pack Joints

TYPES OF PIPE AND TUBING - EXPLANATION OF ABBREVIATIONS AND CODES FOR COMPRESSION COUPLINGS

Copper Tube - CTS - copper tubing is widely used as a service line and the outside diameter is closely held by manufacturers. The outside diameter of copper tubing has become a standard in the industry and is known as "copper tube size". (Pack Joint coded **CTS**.)

Plastic Tubing - CTS - flexible water service tubing in what is referred to as "copper tube size". Plastic tube refers to *any* plastic with the same outside diameter as corresponding sizes of copper tube such as PET - polyethylene tubing. (Pack Joint coded **CTS**.)

Plastic Pipe - PEP - flexible water service pipe in what is referred to as "pipe size". Plastic pipe refers to *any* pipe having the same inside diameter as corresponding sizes of standard iron pipe such as PEP - polyethylene pipe. (Pack Joint coded **PEP**.)

PVC Pipe - PVC - polyvinyl chloride rigid plastic pipe. PVC pipe refers to polyvinyl chloride rigid plastic pipe having the same outside diameter as corresponding sizes of standard iron pipe. (Pack Joint coded **PVC**.)

NOTE: Ford Pack Joints for PVC are recommended for use only with Schedule 40 and Schedule 80 PVC.

Abbreviations, dimensions and insert stiffeners for plastic tubing are listed on page 39.

Consult pipe or tubing manufacturer for specific installation requirements.



Z41-333M-NL



Pack Joint for Copper or Plastic Tubing (CTS) by Female Iron Pipe Thread

| CATALOG | DESCRIPTION | | | APPROX. |
|----------------|-------------|----------|----------|----------|
| Number | VALVE SIZE | CTS SIZE | FIP SIZE | WT. LBS. |
| ►** Z41-333-NL | 3/4" | 3/4" | 3/4" | 2.4 |
| ►** Z41-444-NL | 1" | 1" | 1" | 3.9 |

Pack Joint for Copper or Plastic Tubing (CTS) by Female Iron Pipe Thread Minneapolis Pattern Valve

| | • | • | • | | |
|----------|-------------|-------------|----------|----------|----------|
| | CATALOG | DESCRIPTION | | | APPROX. |
| | Number | VALVE SIZE | CTS SIZE | FIP SIZE | Wt. Lbs. |
| | Z41-333M-NL | 3/4" | 3/4" | 3/4" | 2.5 |
| • | Z41-444M-NL | 1" | 1" | 1" | 4.2 |

NOTE: Minneapolis pattern curb box threads for inverted key curb stops are 1-1/2" for 3/4" valves and 2" for 1" valves.

Pack Joint for Plastic Pipe (PEP) by Female Iron Pipe Thread

| CATALOG | | | APPROX. | | |
|---------------|------------|------------|----------|----------|----------|
| | Number | VALVE SIZE | PEP SIZE | FIP SIZE | WT. LBS. |
| > | Z61-333-NL | 3/4" | 3/4" | 3/4" | 2.5 |
| > + | Z61-444-NL | 1" | 1" | 1" | 4.3 |

Pack Joint for Plastic Pipe (PEP) by Female Iron Pipe Thread Stop and Waste Feature

| CATALOG DESCRIPTION | | | | APPROX. | |
|---------------------|--------------|------------|----------|----------|----------|
| | Number | VALVE SIZE | PEP SIZE | FIP SIZE | Wt. Lbs. |
| | Z61-333SW-NL | 3/4" | 3/4" | 3/4" | 2.5 |
| > | Z61-444SW-NL | 1" | 1" | 1" | 4.3 |

NOTE: Stop-and-waste feature drains the FIP side of valve.

Options Available

- ** Stop-and-Waste feature is available. Add "SW" to the catalog number. Example: Z41-333<u>SW</u>-NL. (Note: Stop-and-waste feature drains the outlet side of the valve.)
 - Grip Joint for CTS (3/4" 2") and PEP (3/4" and 1") is available. Add "-G" to the catalog number. Example: Z61-333-G-NL.
- ◆ Quick Joint is available by adding a "-Q" to the catalog number.
- ▶ Ultra-Tite is available. Add "-U-AWT" to the catalog number. (Consists of components assembled watertight.)

Tracer Wire Terminal available on 1" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: Z41-333R-NL.

Minneapolis Pattern Valves are available in a variety of sizes. For sizes other than those in the above table, please contact the factory.

See page 5 for specific details on above options.

Curb Stops with Pack Joints - Continued



Pack Joint for Copper or Plastic Tubing (CTS) Both Ends

| CATALOG | DESCRIPTION | | | APPROX. |
|-------------------|-------------|------------|-------------|----------|
| Number | VALVE SIZE | INLET SIZE | OUTLET SIZE | Wt. Lbs. |
| ** Z44-111-NL | 1/2" | 1/2" | 1/2" | 1.6 |
| ** Z44-322-NL | 3/4" | 5/8" | 5/8" | 2.9 |
| ► ♦ ** Z44-333-NL | 3/4" | 3/4" | 3/4" | 2.8 |
| ► ♦ ** Z44-444-NL | 1" | 1" | 1" | 4.0 |



Pack Joint for Copper or Plastic Tubing (CTS) Both Ends

Minneapolis Pattern Valve

| | CATALOG | - | APPROX. | | |
|---------|----------------|------------|------------|-------------|----------|
| | Number | VALVE SIZE | INLET SIZE | OUTLET SIZE | Wt. Lbs. |
| | **Z44-333M-NL | 3/4" | 3/4" | 3/4" | 2.8 |
| ▶ | ** Z44-444M-NL | 1" | 1" | 1" | 4.7 |

NOTE: Minneapolis pattern curb box threads for inverted key curb stops are 1-1/2" for 3/4" valves and 2" for 1" valves.



Pack Joint for Plastic Pipe (PEP) Both Ends

| | CATALOG | | APPROX. | | |
|---|--------------|------------|----------|------|-----|
| | Number | VALVE SIZE | Wt. Lbs. | | |
| ▶ | **Z66-333-NL | 3/4" | 3/4" | 3/4" | 3.0 |
| ▶ | **Z66-444-NL | 1" | 1" | 1" | 5.1 |



Pack Joint for PVC*** Pipe Both Ends

| CATALOG | | APPROX. | | |
|--------------|------------|----------|------|-----|
| Number | VALVE SIZE | Wt. Lbs. | | |
| **Z77-333-NL | 3/4" | 3/4" | 3/4" | 2.9 |
| **Z77-444-NL | 1" | 1" | 1" | 5.1 |

^{**} Ford Pack Joints for PVC are only recommended for Schedule 40 and Schedule 80 pipe.

Options Available

- ** Stop-and-Waste feature is available. Add "SW" to the catalog number. Example: Z44-333<u>SW</u>-NL and Z44-444<u>SW</u>M-NL. (Note: Stop-and-waste feature drains the outlet side of the valve.)
 - Grip Joint for CTS (3/4" 2") and PEP (3/4" and 1") is available. Add "-G" to the catalog number. Example: Z44-333-G-NL.
- ◆ Quick Joint is available by adding a "-Q" to the catalog number.
- ▶ Ultra-Tite is available. Add "-U-AWT" to the catalog number. (Consists of components assembled watertight.)

Tracer Wire Terminal available on 1" CTS Quick Joint Nuts, add "-TW-Q" to the catalog number.

Standard tee-head stops on the body to permit 90° turn *only*. **Full 360° tee-head rotation** is available. Add "R" to catalog number. Example: Z44-333R-NL.

Minneapolis Pattern Valves are available in a variety of sizes. For sizes other than those in the above table, please contact the factory.

See page 5 for specific details on above options.

Ford Insert Stiffeners

TYPES OF PIPE AND TUBING - EXPLANATION OF ABBREVIATIONS AND CODES FOR COMPRESSION COUPLINGS

Copper Tube - CTS - copper tubing is widely used as a service line and the outside diameter is closely held by manufacturers. The outside diameter of copper tubing has become a standard in the industry and is known as "copper tube size". (Pack Joint coded **CTS**.)

Plastic Tubing - CTS - flexible water service tubing in what is referred to as "copper tube size". Plastic tube refers to *any* plastic with the same outside diameter as corresponding sizes of copper tube such as PET - polyethylene tubing. (Pack Joint coded **CTS**.)

Plastic Pipe - PEP - flexible water service pipe in what is referred to as "pipe size". Plastic pipe refers to *any* pipe having the same inside diameter as corresponding sizes of standard iron pipe such as PEP - polyethylene pipe. (Pack Joint coded **PEP**.)

PVC Pipe - PVC - polyvinyl chloride rigid plastic pipe. PVC pipe refers to polyvinyl chloride rigid plastic pipe having the same outside diameter as corresponding sizes of standard iron pipe. (Pack Joint coded **PVC**.)

NOTE: Ford Pack Joints for PVC are recommended for use only with Schedule 40 and Schedule 80 PVC.

Consult pipe or tubing manufacturer for specific installation requirements.



Ford Pack Joint

PACK JOINT CODING

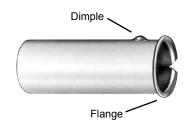
Type of service line coded on Ford Pack Joint Nut.

CTS = copper, polyethylene (PET) tubing

PEP = polyethylene (PEP) pipe

PVC = polyvinyl chloride (PVC) pipe (Schedule 40 and 80)

Insert Stiffeners



Ford Insert Stiffeners are a solid tubular 304 stainless steel design, dimpled and flanged to retain placement within the service line.

Before using Ford insert stiffeners, be sure inside tubing or pipe dimensions correspond to the table below.

Note: Consult pipe or tubing manufacturer for specific installation requirements.

Ford recommends using insert stiffeners when using plastic pipe or tubing, except for Ultra-Tite compression fittings.

50 Series For Polyethylene <u>Tubing</u> (PET)

| | | | | • | |
|--------------------|---------|-------|-----------|-----------|--|
| CATALOG | Nominal | PET | APPROX. | STD. | |
| Number | Size | ID | WT. LBS.* | PKG. QTY. | |
| INSERT-51 | 3/4" | 0.681 | 200 | | |
| INSERT-52 | 1" | 0.875 | 4.2 | 100 | |
| ** INSERT-53-72 | 1-1/4" | 1.069 | 2.4 | 50 | |
| **♦ INSERT-53-72-Q | 1-1/4" | 1.069 | 2.4 | 50 | |
| INSERT-54 | 1-1/2" | 1.263 | 3.1 | 25 | |
| INSERT-55 | 2" | 1.653 | 6.0 | 40 | |
| ♦INSERT-54-Q | 1-1/2" | 1.263 | 2.6 | 30 | |
| ♦INSERT-55-O | 2" | 1 653 | 5.8 | 50 | |

70 Series For Polyethylene Pipe (PEP)

| CATALOG | Nominal | PEP | APPROX. | STD. | |
|--------------------|---------|-------|-----------|-----------|--|
| Number | Size | ID | WT. LBS.* | PKG. QTY. | |
| INSERT-71 | 3/4" | 0.824 | 4.4 | 100 | |
| ** INSERT-53-72 | 1" | 1.049 | 2.9 | 50 | |
| **♦ INSERT-53-72-Q | 1" | 1.049 | 2.9 | 50 | |
| INSERT-73 | 1-1/4" | 1.380 | 5.8 | 75 | |
| INSERT-74 | 1-1/2" | 1.610 | 5.5 | 45 | |
| INSERT-75 | 2" | 2.067 | 9.7 | 50 | |

Inserts For OD Controlled High Density Polyethylene (HDPE) Pipe with PVC O.D.

| CATALOG | NOMINAL SIZE | DR | HDPE | Nominal |
|-----------------|---------------|----|-------|---------|
| Number | AND PIPE TYPE | DK | OD | ID |
| ** INSERT-53-72 | 1" IPS | 11 | 1.315 | 1.06 |
| INSERT-73-DR11 | 1-1/4" IPS | 11 | 1.660 | 1.34 |
| INSERT-74-DR11 | 1-1/2" IPS | 11 | 1.900 | 1.53 |
| INSERT-75-DR11 | 2" IPS | 11 | 2.375 | 1.92 |

- Weights for insert stiffeners are for standard package quantities.
- ** INSERT-53 (-Q) and INSERT-72 (-Q) fit 1-1/4" plastic tubing (1.069 I.D.), 1" plastic pipe (1.049 I.D.) and 1" IPS HDPE (1.055 I.D.)
- ◆ These inserts are specially designed and required for quick joint fittings. They are not interchangeable with other compression fittings.

DIMENSION COMPARISON TABLE FOR PLASTIC, COPPER AND GALVANIZED IRON

| PIPE AND TUBING TYPE | | De: CD | CDD | | O.D. | | | | | I.D. | | | | | | | | | |
|----------------------|--------|--------|-------|---------|-------|-------|-------|--------|--------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|
| | | Psı | SDR | CONTROL | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | 1/2" | 3/4" | 1" | 1-1/4" | 1-1/2" | 2" | | | |
| Copper | _ | _ | _ | OD | 0.625 | 0.875 | 1.125 | 1.375 | 1.625 | 2.125 | _ | _ | _ | _ | _ | _ | | | |
| PET | PE3408 | 200 | SDR9 | CDD0 | SDB0 | SDB0 | OD | 0.625 | 0.875 | 1.125 | 1.375 | 1 625 | 2.125 | _ | 0.681 | 0.875 | 1.069 | 1.263 | 1.653 |
| PEI | PE4710 | 250 | | l OD | 0.025 | 0.675 | 1.125 | 1.375 | 1.025 | 2.123 | _ | 0.001 | 0.675 | 1.009 | 1.203 | 1.055 | | | |
| PEP | PE3408 | 200 | SIDR7 | SIDR7 | ID | | 1.060 | 1.349 | 1 774 | 2.070 | 2.657 | | 0.824 | 1.049 | 1.380 | 1.610 | 2.067 | | |
| PEP | PE4710 | 250 | | | אטופ | טו | _ | 1.000 | 1.549 | 1.774 | 2.070 | 2.007 | _ | 0.024 | 1.049 | 1.360 | 1.010 | 2.007 | |
| PVC | _ | _ | _ | OD | 0.840 | 1.050 | 1.315 | 1.660 | 1.900 | 2.375 | _ | _ | _ | _ | - | _ | | | |
| Galv IP | _ | - | _ | OD | 0.840 | 1.050 | 1.315 | 1.660 | 1.900 | 2.375 | _ | _ | _ | _ | _ | _ | | | |

Ford Pack Joints for PVC are recommended for use only with Schedule 40 and Schedule 80 PVC.

Ford Curb Stops

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:

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The Ford Meter Box Co., Inc. 775 Manchester Avenue, P.O. Box 443, Wabash, Indiana, USA 46992-0443 Telephone: 260-563-3171 FAX: 800-826-3487 Overseas FAX: 260-563-0167 www.fordmeterbox.com