



# Ball Valve Stem Extension Assembly Instructions

FOR USE WITH SPEARS TRUE UNION 2000 & TRUE UNION, SINGLE ENTRY AND COMPACT BALL VALVES.

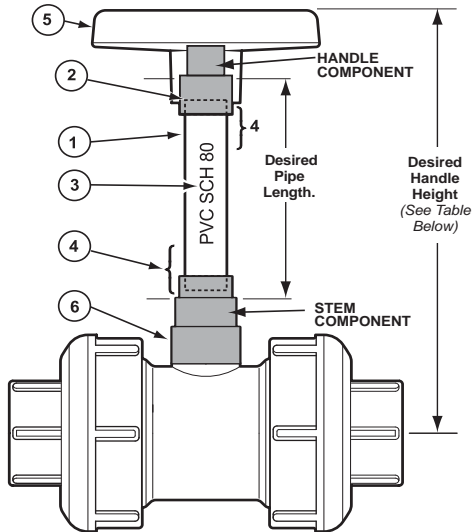
BVSE-3A-0709

## Required for Assembly:

- Two-Piece Stem Extension Kit
- PVC Solvent Cement & Primer
- Desired Length of PVC Schedule 80 Pipe\*
- Black Marker
- Saw & Miter Box or Wheel-Type Cutter
- Ruler

\* NOT INCLUDED; Refer to Nipple Price Schedule (NPL-1)

1. Cut pipe square to desired length (See Table Below).
2. Bevel and deburr pipe ends.
3. Align edge of print string or mark each end of pipe for alignment; check dry fit.
4. Solvent cement components to pipe making sure alignment marks are properly matched.
5. Push valve handle onto extension assembly.
6. Position assembly over valve stem and rotate into place.



Use the Schedule 80 pipe size listed for the appropriate valve size

Valve Size (in.)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Required Sch 80 Pipe Size	3/4			1				1-1/2		
To calculate the length of Schedule 80 pipe needed, subtract the appropriate figure shown below from the desired handle height										
For True Union 2000 Industrial Ball Valves <sup>1</sup>										
Valve Size (in.)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
Subtract (in.)	3-7/8	4	4-5/16	5	5-5/8	6-1/4	8-1/16	8-1/16	9-5/8	10-11/16
Minimum Height (in.)	4-9/16	5-3/16	5-1/2	6-3/4	7-3/8	8	9-13/16	9-13/16	11-5/8	12-3/4
For True Union 2000 Standard, Compact 2000 & Single Entry Ball Valves										
Valve Size (in.)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	N/A
Subtract (in.)	2-1/2	3-1/16	3-9/16	4-1/4	4-5/8	5-11/16	7-13/16	7-13/16	9-3/16	N/A
Minimum Height (in.)	3-5/8	4-1/4	4-3/4	6	6-3/8	7-7/16	9-5/8	9-5/8	11-3/16	N/A
For Regular True Union & Compact Ball Valves										
Valve Size (in.)	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	N/A
Subtract (in.)	3-5/16	4	4-5/16	5-1/8	5-5/8	6-1/16	7-1/8	7-1/8	8-3/8	N/A
Minimum Height (in.)	4-1/2	5-1/4	5-1/2	7	7-1/2	8	9	9	10-1/2	N/A

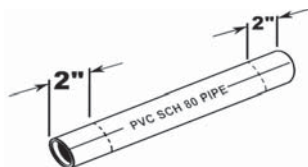
1: Stem Extension does not permit use of Handle Lockout on True Union 2000 Industrial Ball Valves.

## ASSEMBLY INSTRUCTIONS

**STEP 1** Select appropriate size PVC SCH 80 pipe. Cut pipe to desired length as described in Table on reverse side. **PIPE MUST BE CUT SQUARE.**

**STEP 2** BEVEL and DEBURR pipe ends to ensure proper fit.

**STEP 3** Components must be aligned properly when assembling to pipe. Alignment marks are engraved on the stem extension components for proper assembly. Use the print string on the pipe for alignment, or draw a 2" line in the center of the pipe at each end. Check the dry fit of the pipe into the components.



**STEP 4** Solvent cement components to pipe according to the cement manufacturer's recommendations making sure the print string or lines drawn on the pipe are aligned with the lines on the components. Set assembly aside to cure.

**STEP 5** When extension assembly has cured, cycle the valve to the closed position and remove the valve handle. This is done by pulling the handle straight off the valve stem (slightly moving the handle from side to side will aid in removal). Push the valve handle onto the top of the extension assembly (do not solvent cement).

**STEP 6** Position stem extension assembly over valve stem and rotate into place. Apply downward pressure to fully engage stem (do not solvent cement).

**NOTE:** Spears® Manufacturing Company recommends *ONLY* PVC SCH 80 pipe for riser extensions. Spears® can provide pre-assembled stem extensions through 48" lengths upon request. Caution should be used when extension length exceeds 48".

For your reference, Stem Extension Kit Part Numbers are shown below:

### 2-Piece Stem Extension Kit

Valve Size	Part Numbers	
	For True Union 2000, Compact 2000 & Single Entry Ball Valves <sup>1</sup>	For Regular True Union & Compact Ball Valves
1/2	<b>BVSE2-005-000</b>	<b>BVSE-005-000</b>
3/4	<b>BVSE2-007-000</b>	<b>BVSE-007-000</b>
1	<b>BVSE2-010-000</b>	<b>BVSE-010-000</b>
1-1/4	<b>BVSE2-012-000</b>	<b>BVSE-012-000</b>
1-1/2	<b>BVSE2-015-000</b>	<b>BVSE-015-000</b>
2	<b>BVSE2-020-000</b>	<b>BVSE-020-000</b>
2-1/2 & 3	<b>BVSE2-030-000</b>	<b>BVSE-030-000</b>
4	<b>BVSE2-040-000</b>	<b>BVSE-040-000</b>
6	<b>BVSE2-060-000</b>	N/A

**1: Not for use on True Union 2000 Industrial 3-Way Ball Valves**

For additional information, please contact Spears® Technical Services Department.



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