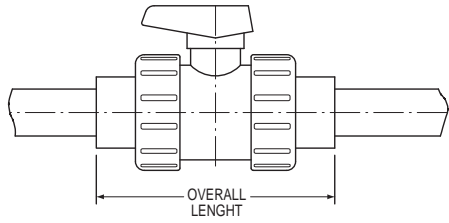


BALL VALVE ACCESSORIES

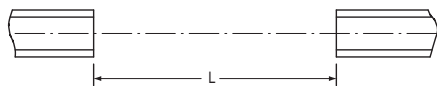


True Union 2000 Retrofit Kits

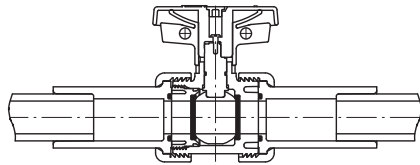
Easily converts any system over to all True Union 2000 style valves for consistent valve type and uniform maintenance. Special extended socket style End Connectors (2) allow retrofit replacement of older Spears® and other brand valves in existing piping systems with a new True Union 2000 valve. Simply cut out old valve according to specified dimension and install retrofit end connectors. End connectors are provided with either EPDM or Viton® O-rings.



Ball Valve for Replacement



Pipe Laying Length After Cutting



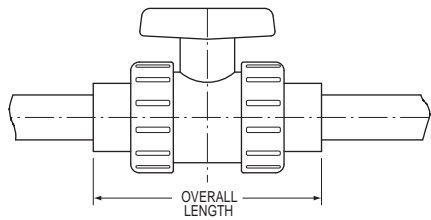
True Union 2000 Ball Valve Installed with Retrofit Kit

True Union Retrofit Kits - Other Brand Valves (Socket Style Only)

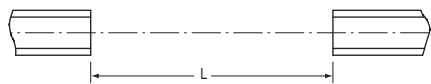
| Kit Size | EPDM | | Viton® | |
|----------|----------|-----------|----------|-----------|
| | PVC | CPVC | PVC | CPVC |
| 1/2 | RFK2-005 | RFK2-005C | RFK3-005 | RFK3-005C |
| 3/4 | RFK2-007 | RFK2-007C | RFK3-007 | RFK3-007C |
| 1 | RFK2-010 | RFK2-010C | RFK3-010 | RFK3-010C |
| 1-1/4 | RFK2-012 | RFK2-012C | RFK3-012 | RFK3-012C |
| 1-1/2 | RFK2-015 | RFK2-015C | RFK3-015 | RFK3-015C |
| 2 | RFK2-020 | RFK2-020C | RFK3-020 | RFK3-020C |
| 2-1/2 | RFK2-025 | RFK2-025C | RFK3-025 | RFK3-025C |
| 3 | RFK2-030 | RFK2-030C | RFK3-030 | RFK3-030C |
| 4 | RFK2-040 | RFK2-040C | RFK3-040 | RFK3-040C |

Cut-Out Dimensions

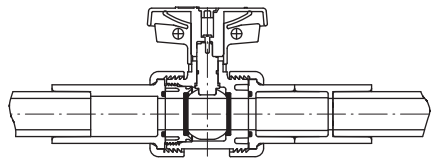
| Size | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 | 2-1/2 | 3 | 4 |
|------|---------|--------|--------|-------|-------|---------|--------|---------|----------|
| L | 4-29/32 | 5-7/16 | 6-3/32 | 7-1/4 | 7-1/2 | 8-17/32 | 10-3/4 | 11-7/16 | 14-15/16 |



Ball Valve for Replacement



Pipe Laying Length After Cutting



True Union Ball Valve Installed with Retrofit Kit

True Union Retrofit Kits - Older (Regular Style) Spears® Valves (Socket Style Only)

| Kit Size | EPDM | | Viton® | |
|----------|-----------|------------|-----------|------------|
| | PVC | CPVC | PVC | CPVC |
| 1/2 | RFKS2-005 | RFKS2-005C | RFKS3-005 | RFKS3-005C |
| 3/4 | RFKS2-007 | RFKS2-007C | RFKS3-007 | RFKS3-007C |
| 1 | RFKS2-010 | RFKS2-010C | RFKS3-010 | RFKS3-010C |
| 1-1/4 | RFKS2-012 | RFKS2-012C | RFKS3-012 | RFKS3-012C |
| 1-1/2 | RFKS2-015 | RFKS2-015C | RFKS3-015 | RFKS3-015C |
| 2 | RFKS2-020 | RFKS2-020C | RFKS3-020 | RFKS3-020C |
| 2-1/2 | RFKS2-025 | RFKS2-025C | RFKS3-025 | RFKS3-025C |
| 3 | RFKS2-030 | RFKS2-030C | RFKS3-030 | RFKS3-030C |
| 4 | RFKS2-040 | RFKS2-040C | RFKS3-040 | RFKS3-040C |

Cut-Out Dimensions

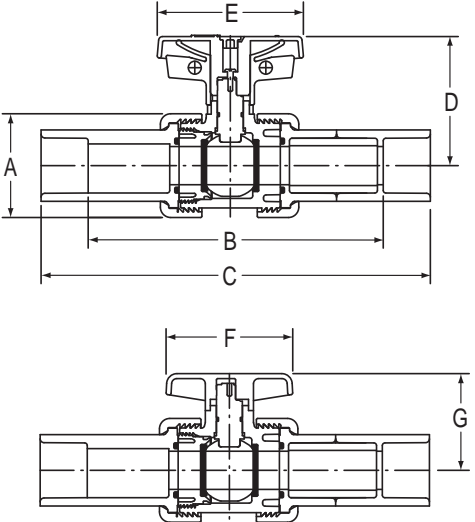
| Size | 1/2 | 3/4 | 1 | 1-1/4 | 1-1/2 | 2 | 2-1/2 | 3 | 4 |
|------|--------|-------|---------|-------|--------|---------|-------|---------|---------|
| L | 5-5/16 | 6-1/4 | 6-11/16 | 7-1/8 | 8-3/16 | 5-15/16 | 12 | 12-1/16 | 13-3/16 |



BALL VALVE ACCESSORIES

True Union 2000 Retrofit Ball Valve Complete replacement valve for older Spears® 2300 series Regular True Union Ball Valves.

Retrofit valve consists of either Spears® Standard or Industrial True Union 2000 Ball Valve supplied with factory installed extended socket end connectors. Simply cut out old valve to specified dimensions (see cut-out dimensions, page 37) and install Retrofit Valve end connectors.



Dimensions

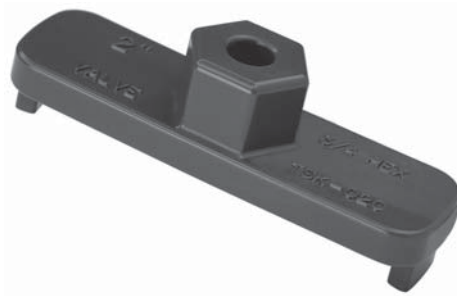
| Size | A ± 1/16 | B ± 1/16 | C ± 1/16 | D ± 1/16 | E ± 1/16 | F ± 1/16 | G ± 1/16 |
|-------|----------|----------|----------|----------|----------|----------|----------|
| 1/2 | 1-7/8 | 5-5/16 | 7-1/16 | 2-9/16 | 2-13/16 | 2-1/2 | 1-5/8 |
| 3/4 | 2-1/4 | 6-1/4 | 8-1/4 | 2-7/8 | 3-5/16 | 3 | 2 |
| 1 | 2-1/2 | 6-11/16 | 8-15/16 | 3-1/8 | 3-7/16 | 3-7/16 | 2-5/16 |
| 1-1/4 | 3-1/16 | 7-1/8 | 9-3/4 | 3-5/8 | 3-13/16 | 3-9/16 | 2-13/16 |
| 1-1/2 | 3-1/2 | 8-3/16 | 10-15/16 | 4 | 4-3/16 | 3-7/8 | 3-1/16 |
| 2 | 4-1/4 | 8-15/16 | 11-15/16 | 4-1/2 | 5-1/8 | 5 | 3-3/4 |
| 2-1/2 | 6-3/16 | 12 | 15-1/2 | 5-1/8 | 6-1/4 | 7-5/16 | 5-7/8 |
| 3 | 6-3/16 | 12-1/16 | 15-7/8 | 5-7/8 | 7-5/8 | 7-5/16 | 5-7/8 |
| 4 | 7-5/8 | 13-3/16 | 19 | 6-3/4 | 9-3/16 | 8-3/8 | 6-3/4 |

True Union 2000 Retrofit Ball Valve - Replaces Older (Regular Style) Spears® Valves

| Size | TU 2000 Industrial Retrofit Ball Valves | | | | TU 2000 Standard Retrofit Ball Valves | | | |
|-------|---|-------------|------------|-------------|---------------------------------------|-------------|------------|-------------|
| | EPDM | | VITON® | | EPDM | | VITON® | |
| | PVC | CPVC | PVC | CPVC | PVC | CPVC | PVC | CPVC |
| 1/2 | 1822RS-005 | 1822RS-005C | 1832RS-005 | 1832RS-005C | 3622RS-005 | 3622RS-005C | 3632RS-005 | 3632RS-005C |
| 3/4 | 1822RS-007 | 1822RS-007C | 1832RS-007 | 1832RS-007C | 3622RS-007 | 3622RS-007C | 3632RS-007 | 3632RS-007C |
| 1 | 1822RS-010 | 1822RS-010C | 1832RS-010 | 1832RS-010C | 3622RS-010 | 3622RS-010C | 3632RS-010 | 3632RS-010C |
| 1-1/4 | 1822RS-012 | 1822RS-012C | 1832RS-012 | 1832RS-012C | 3622RS-012 | 3622RS-012C | 3632RS-012 | 3632RS-012C |
| 1-1/2 | 1822RS-015 | 1822RS-015C | 1832RS-015 | 1832RS-015C | 3622RS-015 | 3622RS-015C | 3632RS-015 | 3632RS-015C |
| 2 | 1822RS-020 | 1822RS-020C | 1832RS-020 | 1832RS-020C | 3622RS-020 | 3622RS-020C | 3632RS-020 | 3632RS-020C |
| 2-1/2 | 1822RS-025 | 1822RS-025C | 1832RS-025 | 1832RS-025C | 3622RS-025 | 3622RS-025C | 3632RS-025 | 3632RS-025C |
| 3 | 1822RS-030 | 1822RS-030C | 1832RS-030 | 1832RS-030C | 3622RS-030 | 3622RS-030C | 3632RS-030 | 3632RS-030C |
| 4 | 1822RS-040 | 1822RS-040C | 1832RS-040 | 1832RS-040C | 3622RS-040 | 3622RS-040C | 3632RS-040 | 3632RS-040C |

True Union 2000 Check Valve Seal Carrier Tool

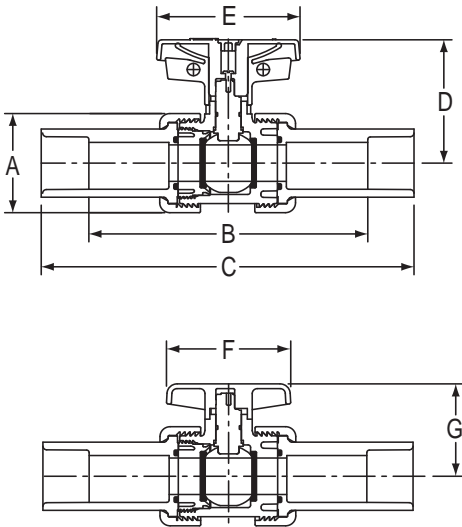
| Size | Part Number |
|-------|-------------|
| 1/2 | TSK-00503 |
| 3/4 | TSK-00703 |
| 1 | TSK-01003 |
| 1-1/4 | TSK-01203 |
| 1-1/2 | TSK-01503 |
| 2 | TSK-02003 |
| 3 | TSK-03003 |
| 4 | TSK-04003 |
| 6 | TSK-06003 |



True Union 2000 Ball Valve Seal Carrier Tool

| Size | Part Number |
|-------|-------------|
| 1/2 | TSK1-00503 |
| 3/4 | TSK1-00703 |
| 1 | TSK1-01003 |
| 1-1/4 | TSK1-01203 |
| 1-1/2 | TSK1-01503 |
| 2 | TSK1-02003 |
| 3 | TSK1-03003 |
| 4 | TSK1-04003 |
| 6 | TSK1-06003 |

BALL VALVE ACCESSORIES



True Union 2000 Retrofit Ball Valve Complete universal replacement valve for domestic and import PVC or CPVC valve.

Retrofit consists of either Spears® Standard or Industrial True Union 2000 Ball Valve supplied with factory installed extended socket end connectors. Simply cut out old valve to specified dimensions (see cut-out dimensions, page 37) and install Retrofit Valve end connectors.

Dimensions

| Size | A ± 1/16 | B ± 1/16 | C ± 1/16 | D ± 1/16 | E ± 1/16 | F ± 1/16 | G ± 1/16 |
|-------|----------|----------|----------|----------|----------|----------|----------|
| 1/2 | 1-7/8 | 4-15/16 | 6-11/16 | 2-9/16 | 2-13/16 | 2-1/2 | 1-5/8 |
| 3/4 | 2-1/4 | 5-7/16 | 7-1/2 | 2-7/8 | 3-3/8 | 3 | 2 |
| 1 | 2-1/2 | 6-1/16 | 8-5/16 | 3-1/8 | 3-7/16 | 3-7/16 | 2-5/16 |
| 1-1/4 | 3-1/16 | 7-5/16 | 9-7/8 | 3-5/8 | 3-7/8 | 3-9/16 | 2-13/16 |
| 1-1/2 | 3-1/2 | 7-1/2 | 10-5/16 | 4 | 4-3/16 | 3-7/8 | 3-1/16 |
| 2 | 4-1/4 | 8-1/2 | 11-1/2 | 4-1/2 | 5-1/8 | 5 | 3-3/4 |
| 2-1/2 | 6-3/16 | 10-7/8 | 14-3/8 | 5-7/8 | 7-5/8 | 7-5/16 | 5-7/8 |
| 3 | 6-3/16 | 11-1/2 | 15-3/16 | 5-7/8 | 7-5/8 | 7-5/16 | 5-7/8 |
| 4 | 7-5/8 | 14-3/8 | 18-15/16 | 6-3/4 | 9 | 8-3/8 | 6-3/4 |

True Union 2000 Retrofit Ball Valve - Replaces Other Brand Valves

| Size | TU 2000 Industrial Retrofit Ball Valves | | | | TU 2000 Standard Retrofit Ball Valves | | | |
|-------|---|------------|-----------|------------|---------------------------------------|------------|-----------|------------|
| | EPDM | | VITON® | | EPDM | | VITON® | |
| | PVC | CPVC | PVC | CPVC | PVC | CPVC | PVC | CPVC |
| 1/2 | 1822R-005 | 1822R-005C | 1832R-005 | 1832R-005C | 3622R-005 | 3622R-005C | 3632R-005 | 3632R-005C |
| 3/4 | 1822R-007 | 1822R-007C | 1832R-007 | 1832R-007C | 3622R-007 | 3622R-007C | 3632R-007 | 3632R-007C |
| 1 | 1822R-010 | 1822R-010C | 1832R-010 | 1832R-010C | 3622R-010 | 3622R-010C | 3632R-010 | 3632R-010C |
| 1-1/4 | 1822R-012 | 1822R-012C | 1832R-012 | 1832R-012C | 3622R-012 | 3622R-012C | 3632R-012 | 3632R-012C |
| 1-1/2 | 1822R-015 | 1822R-015C | 1832R-015 | 1832R-015C | 3622R-015 | 3622R-015C | 3632R-015 | 3632R-015C |
| 2 | 1822R-020 | 1822R-020C | 1832R-020 | 1832R-020C | 3622R-020 | 3622R-020C | 3632R-020 | 3632R-020C |
| 2-1/2 | 1822R-025 | 1822R-025C | 1832R-025 | 1832R-025C | 3622R-025 | 3622R-025C | 3632R-025 | 3632R-025C |
| 3 | 1822R-030 | 1822R-030C | 1832R-030 | 1832R-030C | 3622R-030 | 3622R-030C | 3632R-030 | 3632R-030C |
| 4 | 1822R-040 | 1822R-040C | 1832R-040 | 1832R-040C | 3622R-040 | 3622R-040C | 3632R-040 | 3632R-040C |

Split-Nut Repair Kits for All True Union 2000 Valves, Union 2000 Pipe Unions and True Union Diaphragm Valves

- Allows replacement of broken Union Nuts
- No Reduction in Valve Operating Pressure
- Kit includes 2-piece Split Nut and SS 316 Gear Clamp
- Simply cut or remove broken nut, align Split-Nut halves around end connector and secure with Gear Clamp. Thread nut onto valve to complete repair.

Note: Split-Nut Repair Kit does **NOT** fit Regular Style True Union Valves

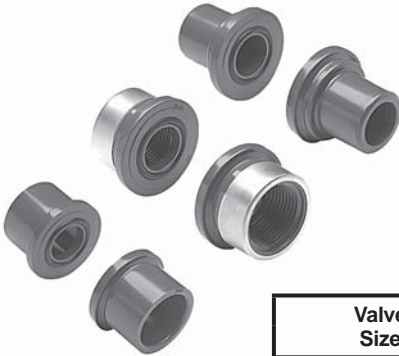


| Valve Size | PVC Kit | CPVC Kit |
|------------|---------|----------|
| 1/2 | SNK-005 | SNK-005C |
| 3/4 | SNK-007 | SNK-007C |
| 1 | SNK-010 | SNK-010C |
| 1-1/4 | SNK-012 | SNK-012C |
| 1-1/2 | SNK-015 | SNK-015C |
| 2 | SNK-020 | SNK-020C |
| 2-1/2 | SNK-025 | SNK-025C |
| 3 | SNK-030 | SNK-030C |
| 4 | SNK-040 | SNK-040C |



BALL VALVE ACCESSORIES

Supplemental End Connector Sets for All True Union 2000 Valves, Union 2000 Pipe Unions and True Union Diaphragm Valves



- Allows easy conversion of valve end connections due to system change, modification, or inadvertent misorder of product.
- Each set includes 2 each of either Socket, SR Threaded or Spigot End connectors with either EPDM or Viton® O-rings installed.

Socket End Connector Set (2)

| Valve Size | PVC Part Number | | CPVC Part Number | |
|------------|-----------------|---------------|------------------|---------------|
| | EPDM O-ring | Viton® O-ring | EPDM O-ring | Viton® O-ring |
| 1/2 | ECS2-005 | ECS3-005 | ECS2-005C | ECS3-005C |
| 3/4 | ECS2-007 | ECS3-007 | ECS2-007C | ECS3-007C |
| 1 | ECS2-010 | ECS3-010 | ECS2-010C | ECS3-010C |
| 1-1/4 | ECS2-012 | ECS3-012 | ECS2-012C | ECS3-012C |
| 1-1/2 | ECS2-015 | ECS3-015 | ECS2-015C | ECS3-015C |
| 2 | ECS2-020 | ECS3-020 | ECS2-020C | ECS3-020C |
| 2-1/2 | ECS2-025 | ECS3-025 | ECS2-025C | ECS3-025C |
| 3 | ECS2-030 | ECS3-030 | ECS2-030C | ECS3-030C |
| 4 | ECS2-040 | ECS3-040 | ECS2-040C | ECS3-040C |
| 6 | ECS2-060 | ECS3-060 | ECS2-060C | ECS3-060C |

SR Threaded End Connector Set (2)

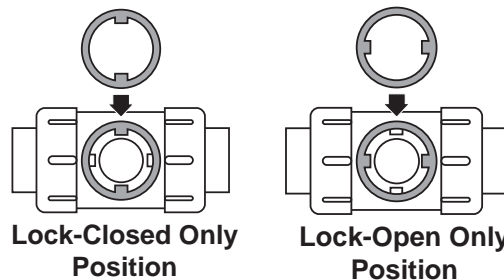
| Valve Size | PVC Part Number | | CPVC Part Number | |
|------------|-----------------|---------------|------------------|---------------|
| | EPDM O-ring | Viton® O-ring | EPDM O-ring | Viton® O-ring |
| 1/2 | ECSRT2-005 | ECSRT3-005 | ECSRT2-005C | ECSRT3-005C |
| 3/4 | ECSRT2-007 | ECSRT3-007 | ECSRT2-007C | ECSRT3-007C |
| 1 | ECSRT2-010 | ECSRT3-010 | ECSRT2-010C | ECSRT3-010C |
| 1-1/4 | ECSRT2-012 | ECSRT3-012 | ECSRT2-012C | ECSRT3-012C |
| 1-1/2 | ECSRT2-015 | ECSRT3-015 | ECSRT2-015C | ECSRT3-015C |
| 2 | ECSRT2-020 | ECSRT3-020 | ECSRT2-020C | ECSRT3-020C |
| 2-1/2 | ECSRT2-025 | ECSRT3-025 | ECSRT2-025C | ECSRT3-025C |
| 3 | ECSRT2-030 | ECSRT3-030 | ECSRT2-030C | ECSRT3-030C |
| 4 | ECSRT2-040 | ECSRT3-040 | ECSRT2-040C | ECSRT3-040C |
| 6 | ECSRT2-060 | ECSRT3-060 | ECSRT2-060C | ECSRT3-060C |

Spigot End Connector Set (2)

| Valve Size | PVC Part Number | | CPVC Part Number | |
|------------|-----------------|---------------|------------------|---------------|
| | EPDM O-ring | Viton® O-ring | EPDM O-ring | Viton® O-ring |
| 1/2 | ECSP2-005 | ECSP3-005 | ECSP2-005C | ECSP3-005C |
| 3/4 | ECSP2-007 | ECSP3-007 | ECSP2-007C | ECSP3-007C |
| 1 | ECSP2-010 | ECSP3-010 | ECSP2-010C | ECSP3-010C |
| 1-1/4 | ECSP2-012 | ECSP3-012 | ECSP2-012C | ECSP3-012C |
| 1-1/2 | ECSP2-015 | ECSP3-015 | ECSP2-015C | ECSP3-015C |
| 2 | ECSP2-020 | ECSP3-020 | ECSP2-020C | ECSP3-020C |
| 2-1/2 | ECSP2-025 | ECSP3-025 | ECSP2-025C | ECSP3-025C |
| 3 | ECSP2-030 | ECSP3-030 | ECSP2-030C | ECSP3-030C |
| 4 | ECSP2-040 | ECSP3-040 | ECSP2-040C | ECSP3-040C |
| 6 | ECSP2-060 | ECSP3-060 | ECSP2-060C | ECSP3-060C |

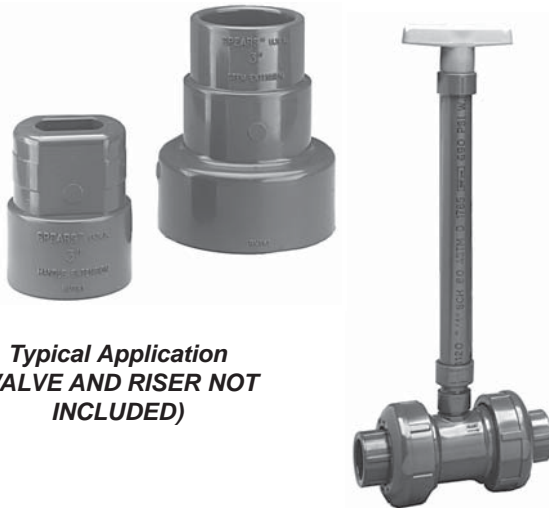
Handle Lockout Ring for True Union 2000 Industrial Ball Valves

- Use with Built-in Handle Lockout Device
- Allows selective lockout position of Lock-Open Only or Lock-Closed Only
- Simply remove valve handle and install ring below handle lockout mechanism



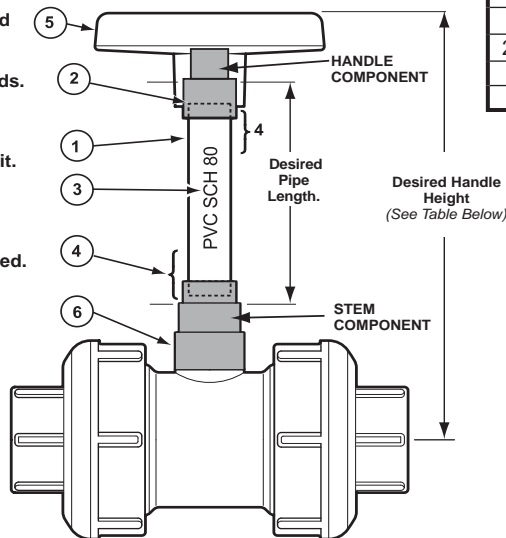
| Valve Size | Part Number |
|------------|-------------|
| 1/2 | TU2LR-005 |
| 3/4 | TU2LR-007 |
| 1 | TU2LR-010 |
| 1-1/4 | TU2LR-012 |
| 1-1/2 | TU2LR-015 |
| 2 | TU2LR-020 |
| 2-1/2 & 3 | TU2LR-030 |
| 4 | TU2LR-040 |

BALL VALVE ACCESSORIES



**Typical Application
(VALVE AND RISER NOT INCLUDED)**

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.



Stem Extension Kits

- Kits for True Union 2000 Valves and for Regular True Union, Single Entry or Compact Ball Valves
- Simple 2-Piece Kit for use with existing Valve Handle and Schedule 80 pipe, or can be ordered factory assembled to desired length as 1-piece unit.
- Kit includes 1 - Stem Adapter and 1 - Handle Adapter
- Corrosion resistant PVC construction

2-Piece Stem Extension Kit

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

- 1: For factory assembled units replace last 3 zeros with length code. See **Thermoplastic Valves, Strainers & Accessories**, Price Schedule V-1 for length codes.
- 2: Not for use on True Union 2000 Industrial 3-Way Ball Valves

Required for Assembly:

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

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

| 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 Valves¹ | | | | | | | | | | | |
| 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 | 5-5/8 | 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 | 7-11/16 | 7-11/16 | 9 | N/A | |
| Minimum Height (in.) | 3-5/8 | 4-1/4 | 4-3/4 | 6 | 6-3/8 | 7-7/16 | 9-1/2 | 9-1/2 | 11 | 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.

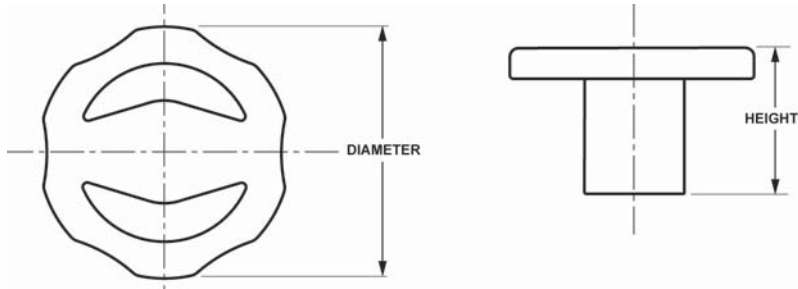


BALL VALVE ACCESSORIES

Round Safety Handles

- Handles for True Union 2000 Valves and for Regular True Union, Single Entry or Compact Ball Valves
- Helps prevent accidental operation of valve
- Special design provides positive hand grip
- Impact and corrosion resistant Polypropylene construction

Note: Round Handle does not allow use of Handle Lockout on True Union 2000 Industrial Ball Valve. Not for use on True Union 2000 Industrial 3-Way Ball Valve.



| Valve Size | Part Numbers | | Handle Height | Handle Diameter |
|------------|--|--|---------------|-----------------|
| | For True Union 2000, Compact 2000 & Single Entry Ball Valves | For Regular True Union & Compact Ball Valves | | |
| 1/2 | 18-24-00528 | 99-24-00528 | 1-13/32 | 2-1/2 |
| 3/4 | 18-24-00728 | 99-24-00728 | 1-9/16 | 2-7/8 |
| 1 | 18-24-01028 | 99-24-01028 | 1-9/16 | 3-1/4 |
| 1-1/4 | 18-24-01228 | 99-24-01228 | 1-13/16 | 3-9/16 |
| 1-1/2 | 18-24-01528 | 99-24-01528 | 1-15/16 | 4-3/16 |
| 2 | 18-24-02028 | 99-24-02028 | 2-1/4 | 5-1/16 |
| 2-1/2 & 3 | 18-24-03028 | 99-24-03028 | 2-3/4 | 6-11/16 |
| 4 | 18-24-04028 | 99-24-04028 | 3 | 8-1/8 |



**Typical Application
(VALVE NOT INCLUDED)**

2" Square / T-Style Operator Nuts

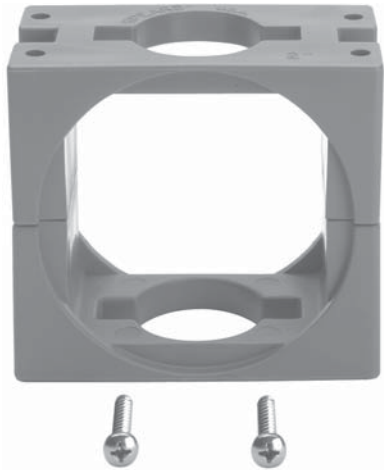
- Operator Nuts for True Union 2000 Valves and for Regular True Union, Single Entry or Compact Ball Valves
- Designed for use with standard 2" square drive or conventional "T" drive operators

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

| Valve Size | Part Numbers | | |
|------------|---|---|--|
| | All True Union (Reg./2000) Compact, Compact 2000 & Single Entry Ball Valves | For True Union 2000 Industrial, Standard & Single Entry Ball Valves | For Regular True Union & Compact Ball Valves |
| 1/2 | VTN2-005 | N/A | N/A |
| 3/4 | VTN2-007 | | |
| 1 | VTN2-007 | | |
| 1-1/4 | VTN2-012 | | |
| 1-1/2 | VTN2-015 | | |
| 2 | VTN2-020 | | |
| 2-1/2 & 3 | N/A | VTN2-030 | VTN-030 |
| 4 | | VTN2-040 | VTN-040 |



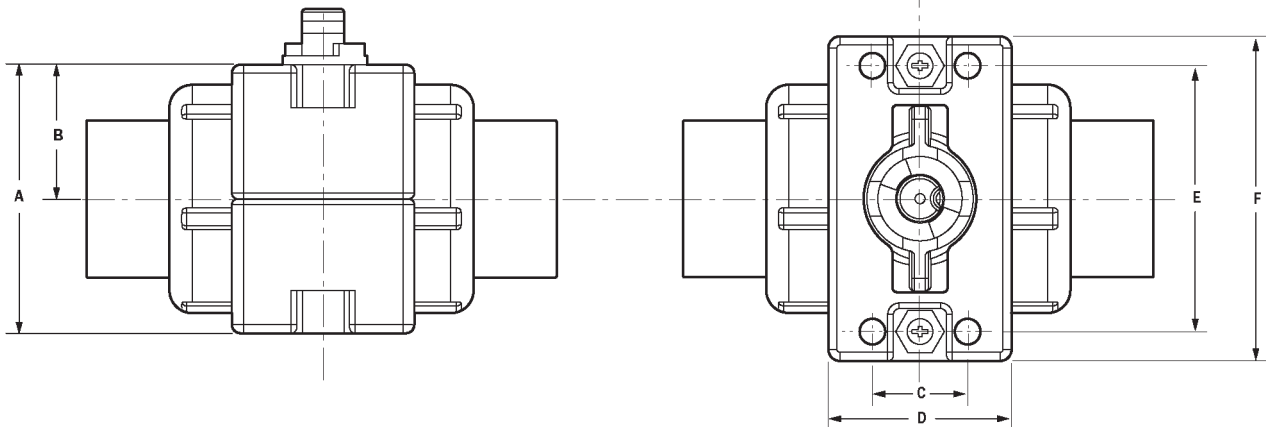
BALL VALVE ACCESSORIES



Multi-Mount Valve Mounting Brackets

- Separate Brackets for True Union 2000 Industrial & Standard Ball Valves and for Regular True Union Ball Valves.
- Provides solid, versatile valve mounting to machinery supports, panels, etc.
- Simple 2-piece clamp-on unit allows quick removal of valve for maintenance or servicing without altering position.
- Includes mounting hardware.
- Impact and corrosion resistant Polypropylene construction.
- Easily adapts to actuator mount using optional Multi-Mount Actuator Mounting Platform.

Notes: 1) Bracket does not fit True Union 2000 Industrial 3-Way Ball Valves.
2) True Union 2000 Valve brackets come with Stainless Steel hardware, Regular True Union brackets come with zinc-plated steel hardware.



Multi-Mount Valve Mounting Brackets

True Union 2000 Ball Valve

| Valve Size | Part Number | Dimensions | | | | | |
|------------|-------------|------------|------|------|------|------|------|
| | | A | B | C | D | E | F |
| 1/2 | TUMB2-005 | 2.38 | 1.19 | 1.04 | 1.72 | 2.46 | 3.54 |
| 3/4 | TUMB2-007 | 2.82 | 1.41 | 1.10 | 1.81 | 2.75 | 3.54 |
| 1 | TUMB2-010 | 2.98 | 1.49 | 1.04 | 2.00 | 2.90 | 3.54 |
| 1-1/4 | TUMB2-012 | 3.60 | 1.80 | 1.25 | 2.00 | 3.50 | 4.13 |
| 1-1/2 | TUMB2-015 | 4.00 | 2.00 | 1.38 | 2.15 | 3.90 | 4.53 |
| 2 | TUMB2-020 | 5.00 | 2.50 | 1.50 | 2.50 | 4.50 | 5.10 |
| 2-1/2 & 3 | TUMB2-030 | 6.30 | 3.15 | 2.00 | 3.25 | 6.25 | 7.00 |
| 4 | TUMB2-040 | 8.25 | 4.12 | 2.00 | 4.10 | 7.72 | 8.50 |

Regular True Union Ball Valve

| Valve Size | Part Number | Dimensions | | | | | |
|------------|-------------|------------|------|------|------|------|-------|
| | | A | B | C | D | E | F |
| 1/2 | TUMB-005 | 2.92 | 1.46 | 0.68 | 1.55 | 2.25 | 4.44 |
| 3/4 | TUMB-007 | 3.54 | 1.77 | 0.94 | 1.87 | 2.55 | 4.87 |
| 1 | TUMB-010 | 3.56 | 1.78 | 1.05 | 2.00 | 2.87 | 5.12 |
| 1-1/4 | TUMB-012 | 3.98 | 1.99 | 1.19 | 2.09 | 3.25 | 5.31 |
| 1-1/2 | TUMB-015 | 4.54 | 2.27 | 1.47 | 2.47 | 3.84 | 5.90 |
| 2 | TUMB-020 | 5.56 | 2.78 | 1.81 | 2.75 | 4.75 | 7.00 |
| 2-1/2 & 3 | TUMB-030 | 7.54 | 3.77 | 2.47 | 3.75 | 6.87 | 9.47 |
| 4 | TUMB-040 | 9.16 | 4.58 | 2.72 | 4.19 | 8.28 | 11.41 |



BALL VALVE ACCESSORIES



Multi-Mount Actuator Mounting Platforms

- Separate Platforms for True Union 2000 Valves and for Regular True Union Ball Valves.
- Add-on actuator adapter for use with Multi-Mount Valve Mounting Bracket (may also be purchased with bracket as complete kit).
- Universal actuator mounting accepts ISO, MSS or comparable square bolt-pattern actuators.
- Impact and corrosion resistant Polypropylene construction.
- Includes hardware for mounting Platform to Bracket

Notes:

- 1) True Union 2000 Valve platforms come with Stainless Steel hardware, Regular True Union platform come with zinc-plated steel hardware.
- 2) See Complete Multi-Mount Actuation Mounting Kit for applicable dimensions.

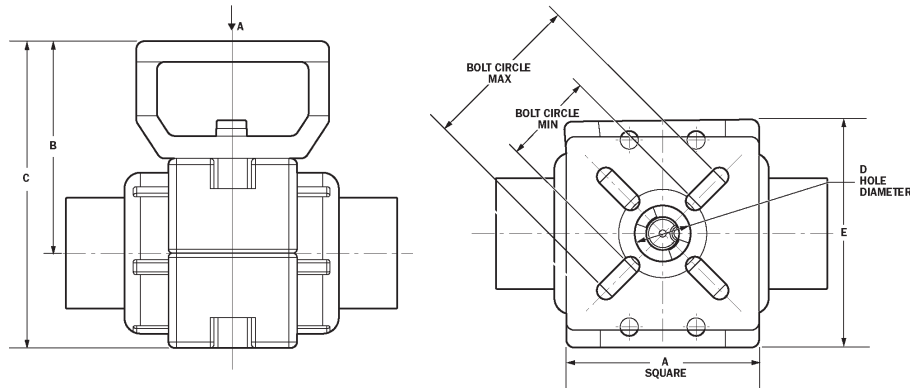
| Valve Size | Part Numbers | |
|------------|---------------------------------|------------------------------------|
| | For True Union 2000 Ball Valves | For Regular True Union Ball Valves |
| 1/2 | MMP1-005 | MMP-005 |
| 3/4 | MMP1-007 | MMP-007 |
| 1 | MMP1-010 | MMP-010 |
| 1-1/4 | MMP1-012 | MMP-012 |
| 1-1/2 | MMP1-015 | MMP-015 |
| 2 | MMP1-020 | MMP-020 |
| 2-1/2 & 3 | MMP1-030 | MMP-030 |
| 4 | MMP1-040 | MMP-040 |

Complete Multi-Mount Actuation Mounting Kits



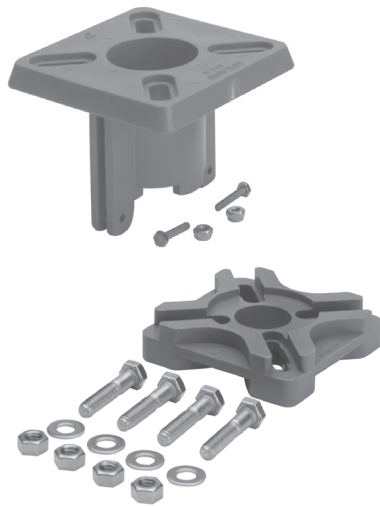
- Separate Platforms for True Union 2000 Industrial Ball Valves & for True Union 2000 Standard Ball Valves and for Regular True Union Ball Valves.
- Combines Multi-Mount Valve Mounting Bracket and Multi-Mount Actuator Mounting Platform into one complete kit.
- Provides solid, fully supported valve and actuator mounting.
- Impact and corrosion resistant Polypropylene construction.
- Bracket and platform hardware included

- NOTES:**
- 1) True Union 2000 Valve kits come with Stainless Steel hardware, Regular True Union kits come with zinc-plated steel hardware.
 - 2) Does not fit True Union 2000 Industrial 3-way Ball Valves
 - 3) Actuator coupling not included (see Valve Stem Output Detail for design of user supplied drive coupling).



| Valve Size | True Union 2000 Ball Valves | Regular True Union Ball Valves | Dimensions | | | | | | | | | |
|------------|-----------------------------|--------------------------------|------------|-----------|-----------|-----------|-----------|------|-----------|-----------|-----------------|------------------|
| | | | A | TU 2000 B | Reg. TU B | TU 2000 C | Reg. TU C | D | TU 2000 E | Reg. TU E | Bolt Circle Max | Bolt Circle Min. |
| 1/2 | TUAK1-005 | TUAK-005 | 3.00 | 3.00 | 3.24 | 4.19 | 4.67 | .87 | 3.54 | 4.44 | 2.50 | 1.41 |
| 3/4 | TUAK1-007 | TUAK-007 | 3.00 | 3.13 | 3.46 | 4.54 | 5.20 | .87 | 3.54 | 4.87 | 2.50 | 1.41 |
| 1 | TUAK1-010 | TUAK-010 | 3.00 | 3.31 | 3.60 | 4.88 | 5.38 | .87 | 3.54 | 5.12 | 2.50 | 1.41 |
| 1-1/4 | TUAK1-012 | TUAK-012 | 3.75 | 4.64 | 4.80 | 6.44 | 6.76 | .90 | 4.13 | 5.31 | 3.00 | 1.41 |
| 1-1/2 | TUAK1-015 | TUAK-015 | 3.75 | 5.02 | 5.27 | 7.02 | 7.52 | .90 | 4.53 | 5.90 | 3.00 | 1.41 |
| 2 | TUAK1-020 | TUAK-020 | 3.75 | 5.52 | 5.77 | 8.02 | 8.52 | 1.12 | 5.10 | 7.00 | 3.12 | 1.75 |
| 2-1/2 & 3 | TUAK1-030 | TUAK-030 | 5.25 | 6.34 | 6.91 | 9.49 | 10.63 | 1.37 | 7.00 | 9.47 | 5.00 | 2.20 |
| 4 | TUAK1-040 | TUAK-040 | 5.25 | 7.99 | 8.36 | 12.11 | 12.86 | 1.37 | 8.50 | 11.41 | 5.00 | 2.20 |

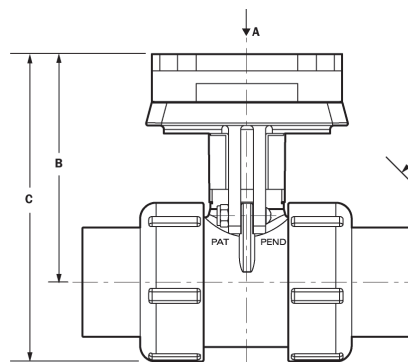
BALL VALVE ACCESSORIES



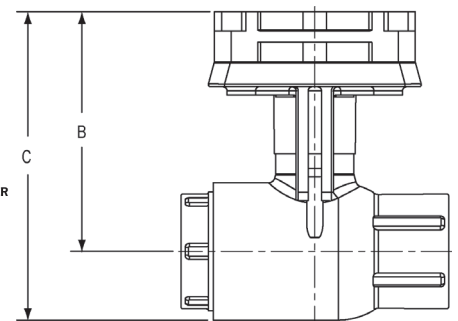
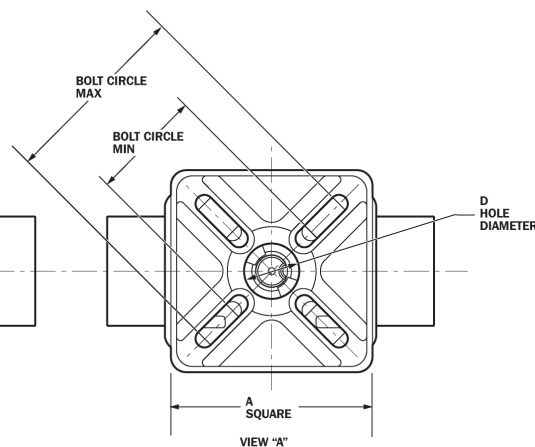
Mini-Mount Actuation Mounting Kits

- Separate kits for True Union 2000 Industrial & Industrial 3-Way Ball Valves and for True Union 2000 Standard Ball Valves.
- Simple bolt-on mount provides positive actuator support and alignment.
- Universal actuator mounting plate accepts ISO, MSS or comparable square bolt-pattern actuators.
- Impact and corrosion resistant Polypropylene construction
- Includes hardware for mounting to valve.

Notes: 1) True Union 2000 Valve kits come with Stainless Steel hardware, Regular True Union kits come with zinc-plated steel hardware.
2) Actuator coupling not included (see Valve Stem Output Detail for design of user supplied drive coupling).



Industrial Ball Valve



Compact Ball Valve

| Valve Size | TU 2000 Ind Ball Valves | TU 2000 Std Ball Valves ¹ | Compact 66-Series | Compact 21-Series | Dimensions | | | | | | | | Bolt Circle Max. | Bolt Circle Min. |
|------------|-------------------------|--------------------------------------|-------------------|-------------------|------------|-----------|-------------|-------------|-----------|-------------|-------------|------|------------------|------------------|
| | | | | | A | TU 2000 B | 66 Series B | 21 Series B | TU 2000 C | 66 Series C | 21 Series C | D | | |
| 1/2 | AMB2-005 | AMB3-005 | | AMB4-005 | 3.18 | 2.95 | 2.95 | 2.90 | 3.88 | 3.66 | 3.75 | 0.87 | 3.00 | 1.62 |
| 3/4 | AMB2-007 | AMB3-007 | | AMB4-007 | 3.18 | 3.36 | 3.36 | 3.47 | 4.53 | 4.25 | 4.51 | 0.87 | 3.00 | 1.75 |
| 1 | AMB2-010 | AMB3-010 | | AMB4-010 | 3.18 | 3.60 | 3.60 | 3.61 | 4.93 | 4.62 | 4.80 | 0.87 | 3.00 | 1.75 |
| 1-1/4 | AMB2-012 | AMB3-012 | | AMB4-012 | 3.68 | 4.37 | 4.37 | 4.30 | 5.94 | 5.65 | 5.71 | 0.87 | 3.75 | 2.00 |
| 1-1/2 | AMB2-015 | AMB3-015 | | AMB4-015 | 3.68 | 4.64 | 4.64 | 4.60 | 6.42 | 6.12 | 6.22 | 0.87 | 3.75 | 2.00 |
| 2 | AMB2-020 | AMB3-020 | | AMB4-020 | 3.68 | 5.47 | 5.47 | 5.32 | 7.61 | 7.26 | 7.38 | 1.12 | 3.75 | 2.50 |
| 2-1/2 & 3 | AMB2-030 | AMB3-030 | N/A | AMB4-030 | 5.25 | 6.15 | N/A | 5.87 | 9.23 | N/A | 8.87 | 1.96 | 5.62 | 4.50 |
| 4 | AMB2-040 | AMB3-040 | N/A | AMB4-040 | 5.75 | 6.92 | N/A | 6.91 | 10.78 | N/A | 10.59 | 2.68 | 5.88 | 4.80 |
| 6 | AMB2-060 | N/A | N/A | AMB2-060 | 5.75 | 8.31 | N/A | 8.31 | 14.12 | N/A | 13.39 | 2.88 | 5.88 | 4.85 |



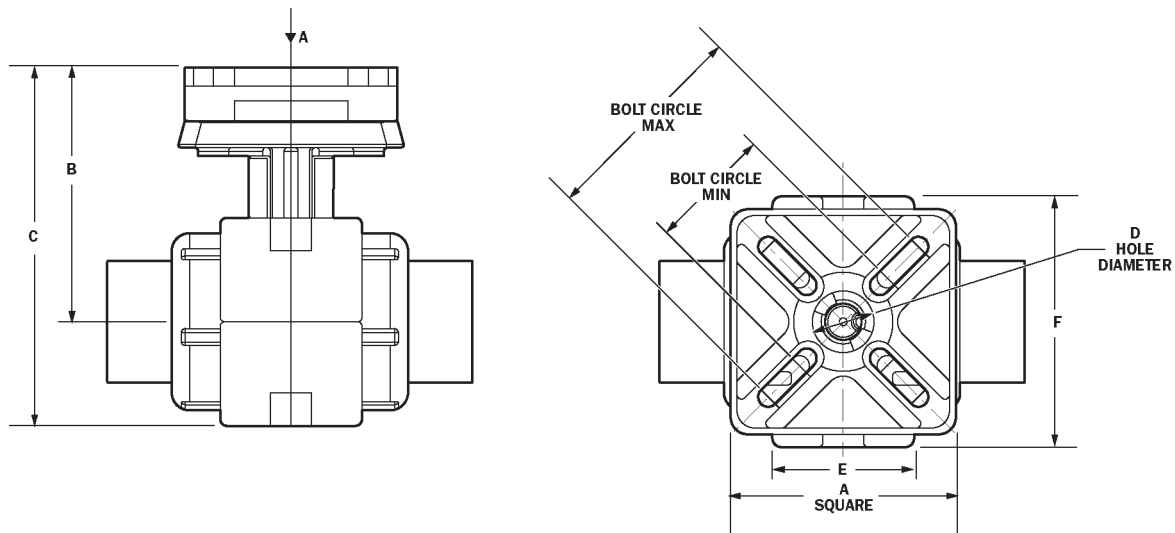
BALL VALVE ACCESSORIES

Mini-Mount Combo Actuation Mounting Kits



- Separate, complete actuation mounting kit specially designed for True Union 2000 Industrial Ball Valve and for True Union 2000 Standard Ball Valve.
- Combines Multi-Mount Bracket with Mini-Mount Actuation Mounting Kit for additional mounting support.
- Universal actuator mounting plate accepts ISO, MSS or comparable square bolt-pattern actuators.
- Impact and corrosion resistant Polypropylene construction
- Includes Stainless Steel hardware for mounting to valve.

Notes: 1) Does not fit True Union 2000 Industrial 3-way Ball Valves
 2) Actuator coupling not included (see Valve Stem Output Detail for design of user supplied drive coupling).



Dimensions

| Valve Size | True Union 2000 Industrial Ball Valves | True Union 2000 Standard Ball Valves | Dimensions | | | | | | | |
|------------|--|--------------------------------------|------------|------|-------|------|------|------|------------------|------------------|
| | | | A | B | C | D | E | F | Bolt Circle Max. | Bolt Circle Min. |
| 1/2 | TUAK2-005 | TUAK3-005 | 3.18 | 2.95 | 4.14 | .87 | 1.72 | 3.54 | 3.00 | 1.62 |
| 3/4 | TUAK2-007 | TUAK3-007 | 3.18 | 3.36 | 4.77 | .87 | 1.81 | 3.54 | 3.00 | 1.75 |
| 1 | TUAK2-010 | TUAK3-010 | 3.18 | 3.60 | 5.09 | .87 | 2.00 | 3.54 | 3.00 | 1.75 |
| 1-1/4 | TUAK2-012 | TUAK3-012 | 3.68 | 4.37 | 6.17 | .87 | 2.00 | 4.13 | 3.75 | 2.00 |
| 1-1/2 | TUAK2-015 | TUAK3-015 | 3.68 | 4.64 | 6.64 | .87 | 2.15 | 4.53 | 3.75 | 2.00 |
| 2 | TUAK2-020 | TUAK3-020 | 3.68 | 5.47 | 7.97 | 1.12 | 2.50 | 5.10 | 3.75 | 2.50 |
| 2-1/2 & 3 | TUAK2-030 | TUAK3-030 | 5.75 | 6.15 | 9.30 | 1.96 | 3.25 | 7.00 | 5.62 | 4.50 |
| 4 | TUAK2-040 | TUAK3-040 | 5.75 | 6.92 | 11.05 | 2.68 | 4.10 | 8.50 | 5.88 | 4.80 |

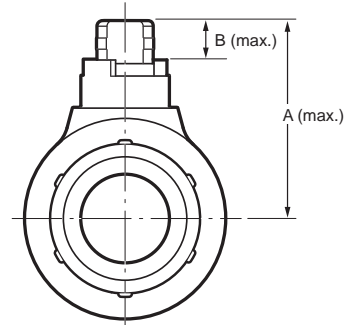
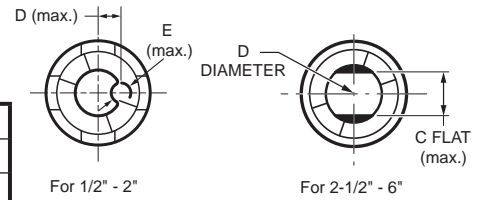
BALL VALVE ACCESSORIES



Valve Stem Output Detail

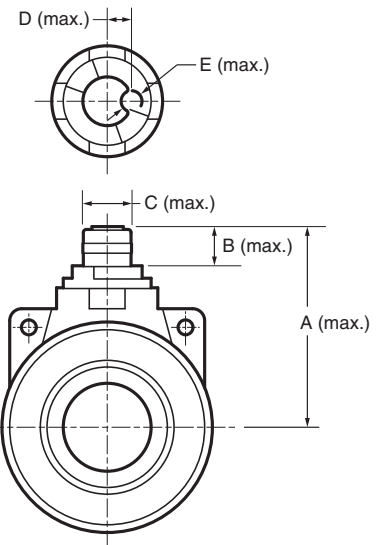
For Regular True Union & Compact Ball Valves

| Size | A (max.) | B (max.) | C Flat (max.) | D | C (max.) | D (max.) | E (max.) |
|-----------|----------|----------|---------------|------|----------|----------|----------|
| 1/2 | 1.48 | .31 | N/A | N/A | .52 | .26 | .30 |
| 3/4 | 1.88 | .35 | | | .56 | .28 | .30 |
| 1 | 2.18 | .48 | | | .62 | .31 | .33 |
| 1-1/4 | 2.66 | .66 | | | .56 | .28 | .32 |
| 1-1/2 | 2.87 | .67 | | | .75 | .37 | .38 |
| 2 | 3.60 | .89 | | | .95 | .47 | .44 |
| 2-1/2 & 3 | 4.86 | 1.01 | 1.21 | 1.48 | N/A | N/A | N/A |
| 4 | 6.24 | 1.33 | 1.92 | 2.12 | | | |
| 6 | 7.53 | 1.33 | 1.92 | 2.12 | | | |



For All True Union 2000, Compact 2000, & Single Entry Ball Valves

| Size | A (max.) | B (max.) | C (max.) | D (max.) | E (max.) | Flat (max.) |
|-----------|----------|----------|----------|----------|----------|-------------|
| 1/2 | 1.43 | .26 | .52 | .26 | .30 | N/A |
| 3/4 | 1.79 | .33 | .56 | .28 | .30 | |
| 1 | 2.10 | .41 | .62 | .31 | .33 | |
| 1-1/4 | 2.61 | .55 | .56 | .28 | .32 | |
| 1-1/2 | 2.87 | .62 | .75 | .37 | .38 | |
| 2 | 3.52 | .65 | .95 | .47 | .44 | |
| 2-1/2 & 3 | 5.28 | 1.16 | 1.28 | .63 | .56 | |
| 4 | 5.81 | .91 | 1.86 | .93 | .75 | |
| 6 | 7.53 | 1.33 | 2.12 | N/A | N/A | 1.92 |



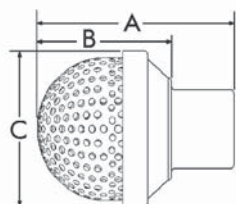
Foot Valve Screens



- Easily converts Ball Check Valve to a Foot Valve.
- Standard IPS spigot connection fits slip-socket valve end connector.
- Enlarged screen provides open area equivalent to valve for optimum flow characteristics.
- Chemical and corrosion resistant PVC or CPVC construction.



Typical Application
(VALVE NOT INCLUDED)



Dimensions

| Size | Part Number | | A | B | C |
|-------|-------------|----------|---------|---------|---------|
| | PVC | CPVC | ±1/16 | ±1/32 | ±1/16 |
| 1/2 | FVS-005 | FVS-005C | 3-7/16 | 2-1/2 | 2-1/4 |
| 3/4 | FVS-007 | FVS-007C | 3-1/2 | 2-7/16 | 2-5/16 |
| 1 | FVS-010 | FVS-010C | 3-5/8 | 2-9/16 | 2-5/8 |
| 1-1/4 | FVS-012 | FVS-012C | 3-7/8 | 2-9/16 | 2-5/8 |
| 1-1/2 | FVS-015 | FVS-015C | 5-15/32 | 4-1/64 | 4-7/16 |
| 2 | FVS-020 | FVS-020C | 5-1/2 | 4-1/64 | 4-7/16 |
| 2-1/2 | FVS-025 | FVS-025C | 6-7/16 | 4-3/4 | 5-5/8 |
| 3 | FVS-030 | FVS-030C | 6-5/8 | 4-3/4 | 5-11/16 |
| 4 | FVS-040 | FVS-040C | 6-29/32 | 4-3/4 | 5-3/4 |
| 6 | FVS-060 | FVS-060C | 7-3/8 | 4-11/16 | 7-3/16 |