

# 1.0 PRODUCT DESCRIPTION

#### **Available Sizes**

• <sup>1</sup>/<sub>2</sub> - <sup>3</sup>/<sub>4</sub>"/DN15 - DN20

#### Maximum Working Pressure

- Series 7WB, Series 7W9, and Series 7WX: 300 psi/2068 kPa/21 bar
- Series 7WT: 230 psi/1600 kPa/16 bar

#### **Operating Temperature Range**

- Series 7WB, Series 7W9, and Series 7WX: -4°F to +248°F/-20°C to +120°C
- Series 7WT: +194°F/+90°C

#### Application

• Potable water systems

### Function

- Positive shut-off on both supply and return sides of the assembly
- Integrated union in assembly for installation and maintenance access
- Inline check valve eliminates reverse flow
- Flow-limiting recirculation balancing/control options
  - Series 7WB: Quarter-turn balancing
  - Series 7W9: Globe-style balancing
  - Series 7WT: Temperature-limiting; Shuts off flow when fluid temperature reaches set point
  - Series 7WX: Automatic balancing control
- Series 7WB, Series 7W9 and Series 7WT: Measuring ports for pressure and temperature
- Series 7WB and Series 7W9: Flow measurement capabilities
- Series 7WT: Thermometer or PT port options

ALWAYS REFER TO ANY NOTIFICATIONS AT THE END OF THIS DOCUMENT REGARDING PRODUCT INSTALLATION, MAINTENANCE OR SUPPORT.

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## 2.0 CERTIFICATION/LISTINGS

All domestic water kit components are NSF/ANSI/CAN 61 certified for domestic hot water service 140°F/60°C and NSF/ANSI/CAN 372.

## 3.0 SPECIFICATIONS - MATERIAL

Low-lead nipples conforming to ASTM B43 – UNS C23000 red brass. Low-lead unions conforming to ASTM B584 – UNS C89836 brass.

## TA Series 78BL Balancing Ball Valve

Body and End Face: Low-lead brass equivalent to UNS C69300.

**O-Rings:** EPDM suitable for service with propylene and ethylene glycol mixtures up to 50% by volume in water.

Valve Handle: Zinc-plated low carbon steel with a vinyl dip.

Blowout Proof Stem and Ball: Stainless steel.

Ball Retainer: Low-lead brass equivalent to UNS C69300.

Ball Seats: Polytetrafluoroethylene (PTFE).

Indexing Handle with Adjustable Memory Stop: Zinc-plated carbon steel.

Positioning Pin and Dial Scale: UNS S30400.

**Fixed Connection:** Female NPT or sweat.

TA Series 790 Balancing Valve Valve Body and Bonnet: Brass CC768S. Sealing (Body/Bonnet): EPDM O-ring. Valve Plug: Brass CW724R (CuZn21Si3P). Seat Seal: EPDM O-ring Spindle: Brass CW724R (CuZn21Si3P). Slip Washer: Polytetrafluoroethylene (PTFE). Spindle Seal: EPDM O-ring. Spring: Stainless steel. Handwheel: Polyamide and TPE. Measuring Points: Brass CW724R (CuZn21Si3P).

#### Sealings: EPDM.

Caps: Polyamide and TPE.

NOTE

• Measuring points are self-sealed. Remove the cap and insert the probe through the seal.

# 3.0 SPECIFICATIONS – MATERIAL (CONTINUED)

TA Series 7TZ Balancing Control Valve
Valve Body: Brass CC768S.
Valve Plug: Corrosion-resistant acetal material.
Seat: Corrosion-resistant polysulphone material.
Other Parts in Contact with Water: Brass CW724R (CuZn21Si3P).
O-Rings: EPDM rubber.
Handwheel: Fiberglass reinforced polyamide.
Points: Brass CW724R (CuZn21Si3P).
Seals: EPDM.
Caps: Polyamide and TPE.
NOTE

Measuring points are self-sealed. Remove the cap and insert the probe through the seal.

### TA Series 76X Low Lead Balancing Valve

Body and Tailpiece: Series 300 stainless steel.
Union Collar: Nickel-plated brass.
Flow Cartridge: Series 300 stainless steel wear surfaces.
Accuracy: Flow rate +/- 5% over 95% of the control range.

### Series 722L Brass Body Ball Valve

Body: Forged brass, per CW 509L.
Ball: Brass, chrome plated, per CW 510L.
Stem: Brass, chrome plated, per CW 510L.
Seat: Polytetrafluoroethylene (PTFE).
Stem Seal: Double O-rings rubber and PTFE friction ring.
Handle: Low carbon steel, zinc or cadmium plated, with vinyl grip.
Handle Hex Nut: Carbon steel, zinc plated.

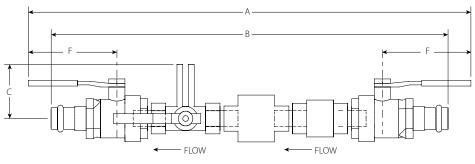
### **Check Valve**

Body, Bonnet and Disc Parts: C46500 grade low-lead brass.Disc Seal: Polytetrafluoroethylene (PTFE).Spring: 304 stainless steel.



## 4.0 **DIMENSIONS**

#### Series 7WB Domestic Water Kit – With TA Series 78BL Balancing Ball Valve



|          |        | Dime   |        | Weight |                  |                |
|----------|--------|--------|--------|--------|------------------|----------------|
| Kit Size | Α      | В      | С      | F      |                  | Approx. (Each) |
| inches   | inches | inches | inches | inches |                  | lb             |
| DN       | mm     | mm     | mm     | mm     | End Type         | kg             |
| 1/2      | 15.38  | 13.75  | 1.88   | 3.07   |                  | 2.5            |
| DN15     | 391    | 349    | 48     | 78     | Copper Press Fit | 1.1            |
| 1/2      | 15.38  | 12.63  | 1.88   | 3.07   | Current          | 2.4            |
| DN15     | 391    | 321    | 48     | 78     | Sweat            | 1.1            |
| 3⁄4      | 17.75  | 15.38  | 2.00   | 3.78   | Common David Fit | 4.4            |
| DN20     | 451    | 391    | 51     | 96     | Copper Press Fit | 2.0            |
| 3⁄4      | 17.75  | 14.63  | 2.00   | 3.78   | Current          | 4.4            |
| DN20     | 451    | 371    | 51     | 96     | Sweat            | 2.0            |

#### NOTES

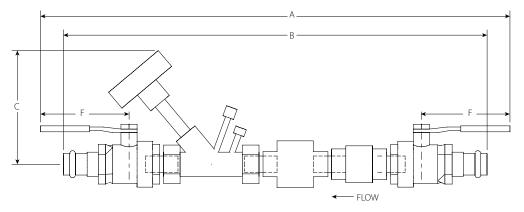
• Copper press fit options are compatible with Viega and Nibco press jaws.

• Victaulic provides loosely threaded-in sweat adapters for installation ease. Solder/braze onto copper pipe prior to applying thread sealant and wrenching into the provided ball valves.



## 4.1 **DIMENSIONS**

#### Series 7W9 Domestic Water Kit – With TA Series 790 Balancing Valve



|          |        | Dime   |        | Weight |                  |                |
|----------|--------|--------|--------|--------|------------------|----------------|
| Kit Size | Α      | В      | С      | F      |                  | Approx. (Each) |
| inches   | inches | inches | inches | inches |                  | lb             |
| DN       | mm     | mm     | mm     | mm     | End Type         | kg             |
| 1/2      | 16.25  | 14.69  | 3.94   | 3.07   | Connor Drocs Fit | 2.9            |
| DN15     | 413    | 373    | 100    | 78     | Copper Press Fit | 1.3            |
| 1/2      | 16.25  | 13.50  | 3.94   | 3.07   | Sweat            | 2.8            |
| DN15     | 413    | 343    | 100    | 78     | Swear            | 1.3            |
| 3⁄4      | 19.00  | 16.63  | 3.94   | 3.78   |                  | 4.8            |
| DN20     | 483    | 422    | 100    | 96     | Copper Press Fit | 2.2            |
| 3⁄4      | 19.00  | 15.88  | 3.94   | 3.78   | Guant            | 4.8            |
| DN20     | 483    | 403    | 100    | 96     | Sweat            | 2.2            |

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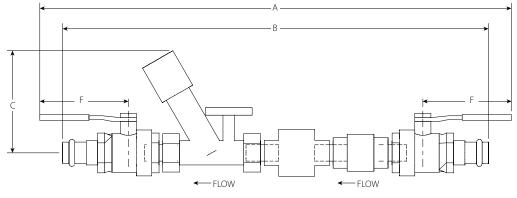
• Copper press fit options are compatible with Viega and Nibco press jaws.

• Victaulic provides loosely threaded-in sweat adapters for installation ease. Solder/braze onto copper pipe prior to applying thread sealant and wrenching into the provided ball valves.



### 4.2 **DIMENSIONS**

#### Series 7WT Domestic Water Kit - With TA Series 7TZ Balancing Control Valve with Thermometer



|          |        | Dime   |        | Weight |                  |                |
|----------|--------|--------|--------|--------|------------------|----------------|
| Kit Size | Α      | В      | С      | F      |                  | Approx. (Each) |
| inches   | inches | inches | inches | inches |                  | lb             |
| DN       | mm     | mm     | mm     | mm     | End Type         | kg             |
| 1/2      | 16.38  | 14.75  | 3.56   | 3.07   | Connor Drocs Fit | 2.9            |
| DN15     | 416    | 375    | 90     | 78     | Copper Press Fit | 1.3            |
| 1/2      | 16.38  | 13.63  | 3.56   | 3.07   | Sweat            | 2.8            |
| DN15     | 416    | 346    | 90     | 78     | Sweat            | 1.3            |
| 3⁄4      | 18.88  | 16.50  | 3.56   | 3.78   | Connor Droce Fit | 4.7            |
| DN20     | 479    | 419    | 90     | 96     | Copper Press Fit | 2.1            |
| 3⁄4      | 18.88  | 15.75  | 3.56   | 3.78   | Sweat            | 4.7            |
| DN20     | 479    | 400    | 90     | 96     | Sweat            | 2.1            |

NOTES

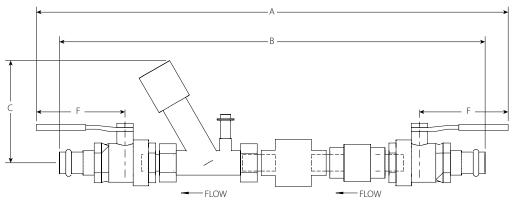
Copper press fit options are compatible with Viega and Nibco press jaws.

• Victaulic provides loosely threaded-in sweat adapters for installation ease. Solder/braze onto copper pipe prior to applying thread sealant and wrenching into the provided ball valves.



### 4.3 **DIMENSIONS**

## Series 7WT Domestic Water Kit - With TA Series 7TZ Balancing Control Valve with PT Port



|          |        | Dime   |        | Weight |                  |                |
|----------|--------|--------|--------|--------|------------------|----------------|
| Kit Size | Α      | В      | С      | F      |                  | Approx. (Each) |
| inches   | inches | inches | inches | inches |                  | lb             |
| DN       | mm     | mm     | mm     | mm     | End Type         | kg             |
| 1/2      | 16.38  | 14.75  | 3.56   | 3.07   | Common Drage Fit | 2.9            |
| DN15     | 416    | 375    | 90     | 78     | Copper Press Fit | 1.3            |
| 1/2      | 16.38  | 13.63  | 3.56   | 3.07   | Sweat            | 2.8            |
| DN15     | 416    | 346    | 90     | 78     | Swear            | 1.3            |
| 3⁄4      | 18.88  | 16.50  | 3.56   | 3.78   |                  | 4.7            |
| DN20     | 479    | 419    | 90     | 96     | Copper Press Fit | 2.1            |
| 3⁄4      | 18.88  | 15.75  | 3.56   | 3.78   | Current          | 4.7            |
| DN20     | 479    | 400    | 90     | 96     | Sweat            | 2.1            |

NOTES

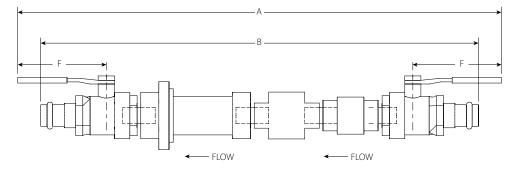
• Victaulic provides loosely threaded-in sweat adapters for installation ease. Solder/braze onto copper pipe prior to applying thread sealant and wrenching into the provided ball valves.



<sup>•</sup> Copper press fit options are compatible with Viega and Nibco press jaws.

## 4.4 **DIMENSIONS**

## Series 7WX Domestic Water Kit – With TA Series 76X Low Lead Balancing Valve



|          |        | Dimensions |        | Weight           |                |
|----------|--------|------------|--------|------------------|----------------|
| Kit Size | Α      | В          | F      |                  | Approx. (Each) |
| inches   | inches | inches     | inches |                  | lb             |
| DN       | mm     | mm         | mm     | End Type         | kg             |
| 1/2      | 16.75  | 15.20      | 3.07   | Common Dress Fit | 2.5            |
| DN15     | 425    | 386        | 78     | Copper Press Fit | 1.1            |
| 1/2      | 16.75  | 14.00      | 3.07   | Sweat            | 2.4            |
| DN15     | 425    | 356        | 78     | Sweat            | 1.1            |
| 3⁄4      | 19.06  | 16.75      | 3.78   | Connor Droce Fit | 4.5            |
| DN20     | 484    | 425        | 96     | Copper Press Fit | 2.0            |
| 3⁄4      | 19.06  | 16.00      | 3.78   | Sweat            | 4.5            |
| DN20     | 484    | 406        | 96     | Sweat            | 2.0            |

#### NOTES

- Available flow rates are 0.5, 1 and 2 GPM. Please order the desired flow rate assembly. Contact Victaulic for other needs.
- Copper press fit options are compatible with Viega and Nibco press jaws.

• Victaulic provides loosely threaded-in sweat adapters for installation ease. Solder/braze onto copper pipe prior to applying thread sealant and wrenching into the provided ball valves.



## 5.0 PERFORMANCE

All domestic water kit components are NSF/ANSI/CAN 61 certified for domestic hot water service 140°F/60°C and NSF/ANSI/CAN 372.

## 6.0 NOTIFICATIONS



- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Always verify that the piping system has been completely depressurized and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, and foot protection.

Failure to follow these instructions could result in death or serious personal injury and property damage.

### 7.0 REFERENCE MATERIALS

08.50: Victaulic Balancing Ball Valve TA Series 78BL

- 08.51: Victaulic ICSS Low Lead Balancing Valve TA Series 76X
- 08.58: Victaulic Balancing Control Valve for Potable Water Applications TA Series 7TZ
- 08.59: Victaulic Balancing Valve for Potable Water Applications TA Series 790

08.73: Victaulic Brass Body Ball Valve Series 722L

#### User Responsibility for Product Selection and Suitability

Each user bears final responsibility for making a determination as to the suitability of Victaulic products for a particular end-use application, in accordance with industry standards and project specifications, as well as Victaulic performance, maintenance, safety, and warning instructions. Nothing in this or any other document, nor any verbal recommendation, advice, or opinion from any Victaulic employee, shall be deemed to alter, vary, supersede, or waive any provision of Victaulic Company's standard conditions of sale, installation guide, or this disclaimer.

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#### Note

This product shall be manufactured by Victaulic or to Victaulic specifications. All products to be installed in accordance with current Victaulic installation/assembly instructions. Victaulic reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligations.

#### Installation

Reference should always be made to the Victaulic installation handbook or installation instructions of the product you are installing. Handbooks are included with each shipment of Victaulic products, providing complete installation and assembly data, and are available in PDF format on our website at www.victaulic.com.

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Refer to the Warranty section of the current Price List or contact Victaulic for details. Trademarks

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