

Victaulic® Domestic Water Kits for Hydronic Balancing Series 7WB, Series 7W9, Series 7WT, and Series 7WX

PROJECT INFORMATION

Project
Contractor
Job
Engineer
Date



Series 7WB



Series 7WB with Thermometer



Series 7W9



Series 7W9 with Thermometer



Series 7WX



Series 7WX with Thermometer



Series 7WT with PT Port



Series 7WT with Thermometer

1.0 PRODUCT DESCRIPTION

Available Sizes

- ½ – ¾"/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

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

1.0 PRODUCT DESCRIPTION (CONTINUED)

Application

- Potable water systems

Accuracy:

Series 76X: Flow rate +/- 5% over 95% of the total range

Function

- Positive shut-off on both supply and return sides of the assembly
- Series 79Y and 79T integrated union provided for installation and maintenance access
- Series 79Y and 79T integrated check valve eliminates reverse flow
- Flow-limiting recirculation balancing/control options
 - Series 7WB: Quarter-turn balancing using Series 78BV Balancing Ball Valve
 - Series 7W9: Globe-style balancing using Series 790V Balancing Valve
 - Series 7WT: Temperature-limiting using Series 7TZ Balancing Control Valve – Controls flow to maintain minimum branch temperature
 - Series 7WX: Automatic balancing control using Series 76X Low Lead Balancing Valve
- Series 7WB, 7WX, 7W9, and 7WT: Measuring ports for pressure and temperature
- Series 7WB and Series 7W9: Flow measurement capabilities
- Series 7WT: Thermometer or PT port options

2.0 CERTIFICATION/LISTINGS

See [7.0 Reference Materials](#) section for individual component certifications/listings

3.0 SPECIFICATIONS – MATERIAL

Series 78BV Balancing Ball Valve

Body: Dezincification-resistant (DZR) low-lead brass, equivalent to UNS C46500

O-ring: EPDM rubber

Bonnet, Disc Assembly, and Stem: DZR low-lead brass, equivalent to UNS C46500

Valve Handle: Zinc-plated carbon steel, equivalent to Q235A, with vinyl grip

Stem: Stainless steel, equivalent to UNS 30400

Ball: Stainless steel, equivalent to UNS 30400

Ball Retainer: Stainless steel, equivalent to UNS 30400

Ball Seats: Polytetrafluoroethylene (PTFE)

Positioning Pin and Dial Scale: Stainless steel, equivalent to UNS 30400

PT Ports: DZR low-lead brass, equivalent to UNS C46500

3.0 SPECIFICATIONS – MATERIAL (CONTINUED)

Series 790V Balancing Valve

Body, Flow Controller, and Bonnet: DZR low-lead brass, equivalent to CW511L

O-ring: EPDM rubber

Disc Assembly: DZR low-lead brass, equivalent to CW511L, and EPDM rubber

Stem: DZR brass, equivalent to CZ132

PT Ports: DZR low-lead brass, equivalent to UNS C46500

Hand Wheel Assembly: Glass fiber-reinforced nylon

Nut and Set Screw: Stainless steel, equivalent to UNS 30400

Packing Nut: Low-lead brass, equivalent to UNS C38000

Packing and Washer: Polytetrafluoroethylene (PTFE)

TA Series 7TZ Balancing Control Valve

Valve Body: DZR low-lead brass, equivalent to CC768S

Valve Plug: Corrosion-resistant acetal material

Seat: Corrosion-resistant polysulphone material

Other Parts in Contact with Water: DZR low-lead brass, equivalent to CW724R

O-Rings: EPDM rubber

Handwheel: Fiberglass reinforced polyamide plastic

PT Port: DZR low-lead brass, equivalent to CW724R

Seals: EPDM rubber

Caps: Polyamide and TPE plastic

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

Series 722P Brass Body Ball Valve

Body: Forged brass per UNS C46500

Ball: Stainless steel per UNS S30400

Stem: Stainless steel per UNS S30400

Seat: Polytetrafluoroethylene (PTFE)

Handle: Zinc-plated carbon steel with vinyl grip

Stem Nut: Stainless steel per UNS S30400

Packing: Polytetrafluoroethylene (PTFE)

O-Ring: NBR

Bonnet: Forged brass per UNS C465000

Packing Nut: Brass

3.0 SPECIFICATIONS – MATERIAL (CONTINUED)

Series 79Y and 79T Drain and Shutoff Valve

Body: DZR low-lead brass, equivalent to UNS C46500

Tailpiece: DZR low-lead brass, equivalent to UNS C46500

O-Ring: EPDM rubber

Ball/Stem: Stainless steel, equivalent to UNS S31600

Ball Seal: Polytetrafluoroethylene (PTFE)

PT Ports: DZR low-lead brass, equivalent to UNS C46500

Strainer Basket (79Y only): 20-mesh stainless steel, equivalent to UNS S30400

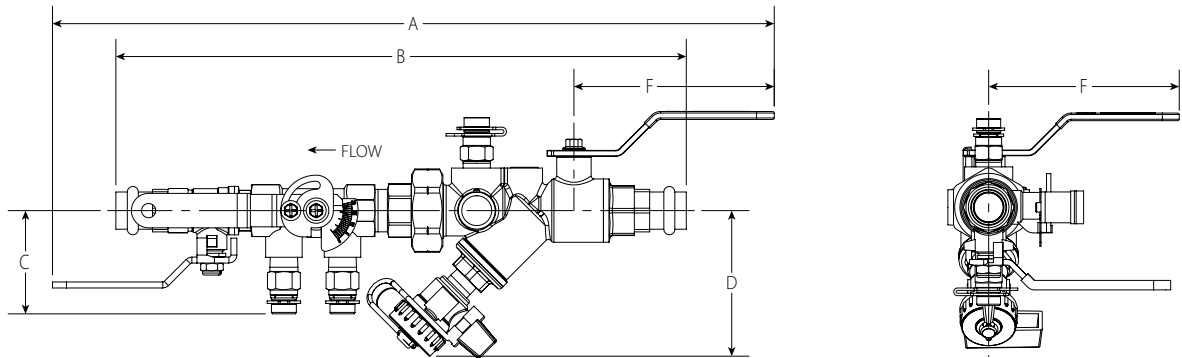
Press End Adapters

Body: Copper

Seal: EPDM

4.0 DIMENSIONS

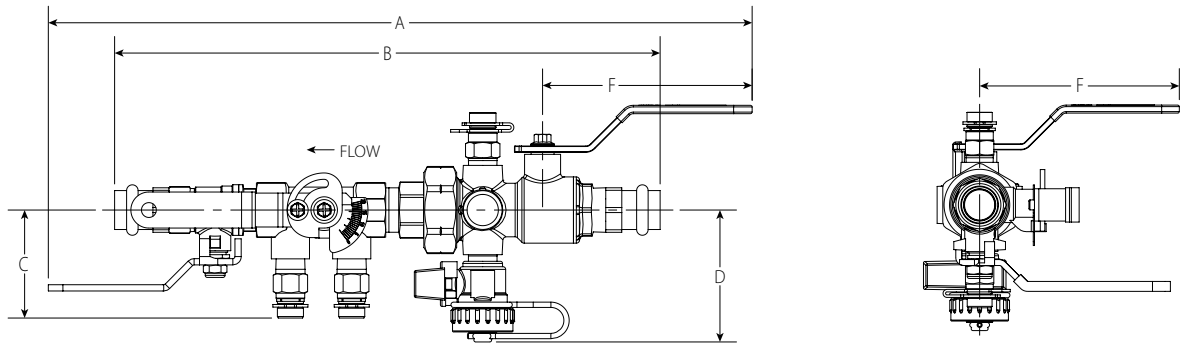
Series 7WB Domestic Water Kit – With Series 78BV Balancing Ball Valve and 79Y Strainer Valve



Size	Dimensions					End Type	Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm		Approx. (Each) lb kg
1/2 DN15	16.38 416	10.94 278	1.96 50	3.13 79	3.70 94	Female NPT	3.0 1.3
1/2 DN15	16.38 416	12.69 322	1.96 50	3.13 79	3.70 94	Copper Press	3.2 1.4
1/2 DN15	16.38 416	10.88 276	1.96 50	3.13 79	3.70 94	Sweat	3.1 1.4
3/4 DN20	16.75 425	11.88 302	4.13 105	3.38 86	4.30 110	Female NPT	4.1 1.9
3/4 DN20	16.75 425	14.56 370	4.13 105	3.38 86	4.30 110	Copper Press	4.5 2.0
3/4 DN20	16.75 425	12.88 327	4.13 105	3.38 86	4.30 110	Sweat	4.3 1.9

4.1 DIMENSIONS

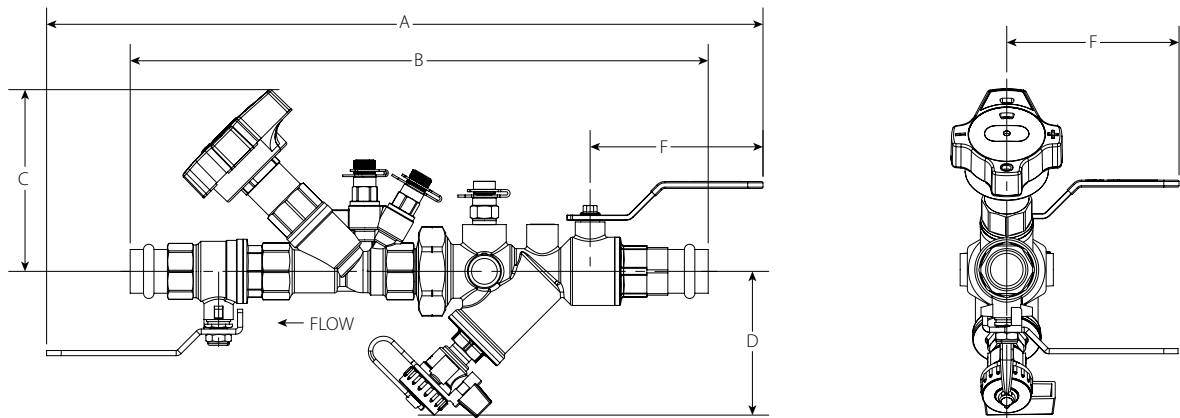
Series 7WB Domestic Water Kit – With Series 78BV Balancing Ball Valve and 79T Drain Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	14.69 373	9.25 235	4.00 102	2.56 65	3.70 94	Female NPT	2.7 1.2
1/2 DN15	14.69 373	11.69 297	4.00 102	2.56 65	3.70 94	Copper Press	2.9 1.3
1/2 DN15	14.69 373	9.88 251	4.00 102	2.56 65	3.70 94	Sweat	2.8 1.3
3/4 DN20	15.63 397	10.19 259	4.13 105	2.63 67	4.30 110	Female NPT	3.4 1.6
3/4 DN20	15.63 397	12.94 329	4.13 105	2.63 67	4.30 110	Copper Press	3.8 1.7
3/4 DN20	15.63 397	11.19 284	4.13 105	2.63 67	4.30 110	Sweat	3.6 1.7

4.2 DIMENSIONS

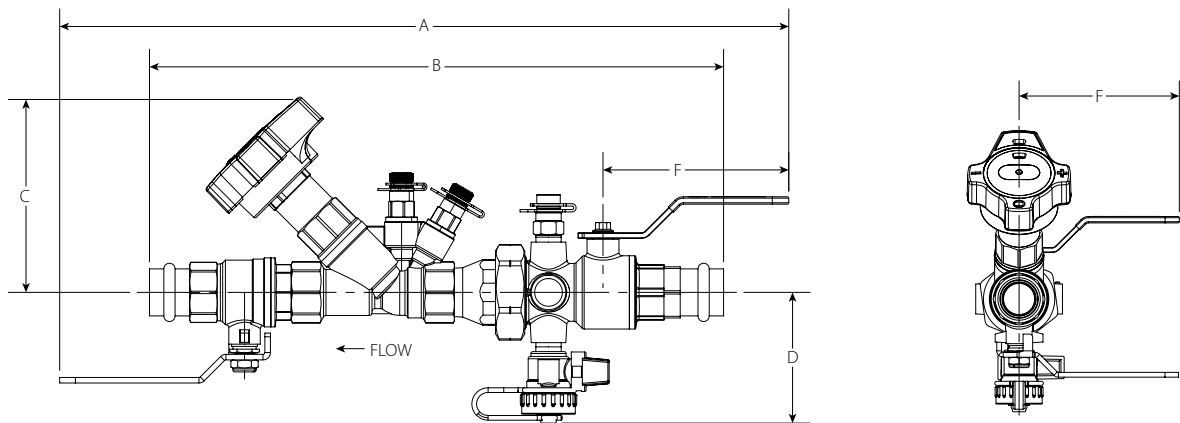
Series 7W9 Domestic Water Kit – With Series 790V Balancing Valve and 79Y Strainer Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	15.69 398	10.25 260	4.00 102	3.13 79	3.70 94	Female NPT	3.2 1.4
1/2 DN15	15.69 398	12.69 322	4.00 102	3.13 79	3.70 94	Copper Press	3.4 1.5
1/2 DN15	15.69 398	10.88 276	4.00 102	3.13 79	3.70 94	Sweat	3.3 1.5
3/4 DN20	16.75 425	11.88 302	4.13 105	3.38 86	4.30 110	Female NPT	4.3 1.9
3/4 DN20	16.75 425	14.56 370	4.13 105	3.38 86	4.30 110	Copper Press	4.7 2.1
3/4 DN20	16.75 425	12.88 327	4.13 105	3.38 86	4.30 110	Sweat	4.5 2.0

4.3 DIMENSIONS

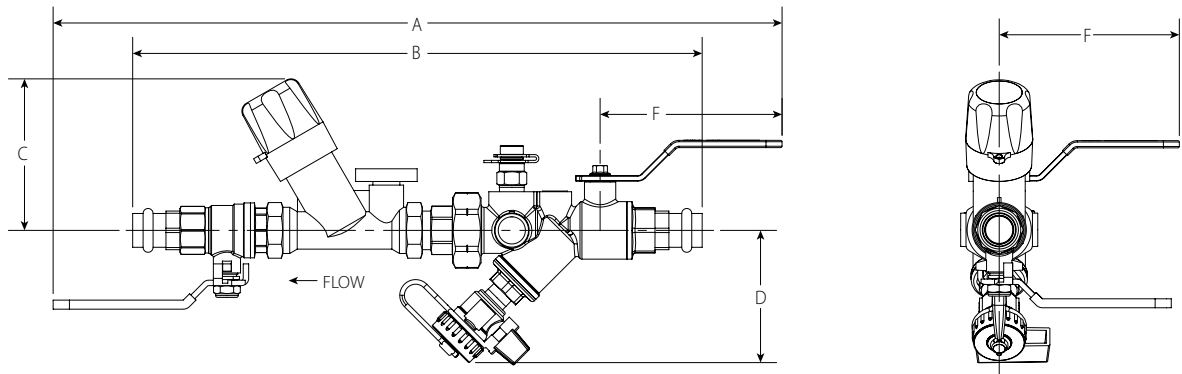
Series 7W9 Domestic Water Kit – With Series 790V Balancing Valve and 79T Drain Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	14.69 373	9.25 235	4.00 102	2.56 65	3.70 94	Female NPT	2.9 1.3
1/2 DN15	14.69 373	11.69 297	4.00 102	2.56 65	3.70 94	Copper Press	3.1 1.4
1/2 DN15	14.69 373	9.88 251	4.00 102	2.56 65	3.70 94	Sweat	3.0 1.4
3/4 DN20	15.63 397	10.19 259	4.13 105	2.63 67	4.30 110	Female NPT	3.6 1.7
3/4 DN20	15.63 397	12.94 329	4.13 105	2.63 67	4.30 110	Copper Press	4.0 1.8
3/4 DN20	15.63 397	11.19 284	4.13 105	2.63 67	4.30 110	Sweat	3.8 1.7

4.4 DIMENSIONS

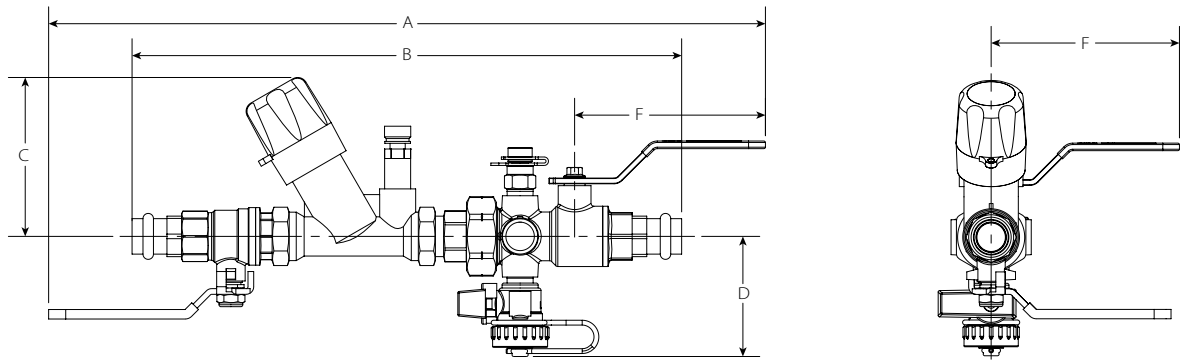
Series 7WT Domestic Water Kit – With Series 7TZ Temperature Control Valve with Thermometer and 79Y Strainer Valve



Size		Dimensions				End Type	Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm		Approx. (Each) lb kg
1/2 DN15	16.00 406	10.56 268	3.54 90	3.13 79	3.70 94	Female NPT	3.3 1.5
1/2 DN15	16.00 406	12.94 329	3.54 90	3.13 79	3.70 94	Copper Press	3.5 1.6
1/2 DN15	16.00 406	11.19 284	3.54 90	3.13 79	3.70 94	Sweat	3.4 1.5
3/4 DN20	16.88 429	12.00 305	3.54 90	3.38 86	4.30 110	Female NPT	4.3 2.0
3/4 DN20	16.88 429	14.75 375	3.54 90	3.38 86	4.30 110	Copper Press	4.7 2.1
3/4 DN20	16.88 429	13.00 330	3.54 90	3.38 86	4.30 110	Sweat	4.5 2.0

4.5 DIMENSIONS

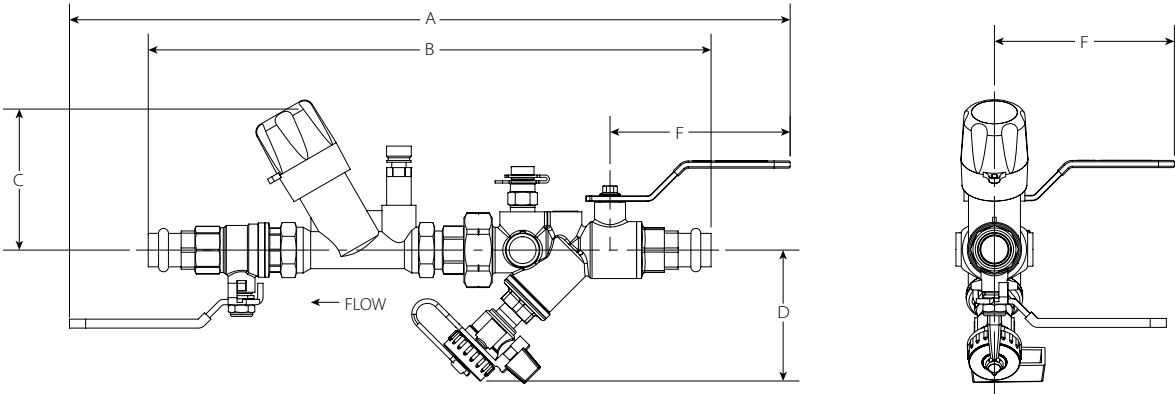
Series 7WT Domestic Water Kit – With Series 7TZ Temperature Control Valve With Thermometer and 79T Drain Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	15.00 381	9.56 243	3.54 90	2.56 65	3.70 94	Female NPT	3.0 1.4
1/2 DN15	15.00 381	12.00 305	3.54 90	2.56 65	3.70 94	Copper Press	3.2 1.5
1/2 DN15	15.00 381	10.19 259	3.54 90	2.56 65	3.70 94	Sweat	3.1 1.4
3/4 DN20	15.63 397	10.38 264	3.54 90	2.63 67	4.30 110	Female NPT	3.7 1.7
3/4 DN20	15.63 397	12.00 305	3.54 90	2.63 67	4.30 110	Copper Press	4.1 1.9
3/4 DN20	15.63 397	10.19 259	3.54 90	2.63 67	4.30 110	Sweat	3.9 1.8

4.6 DIMENSIONS

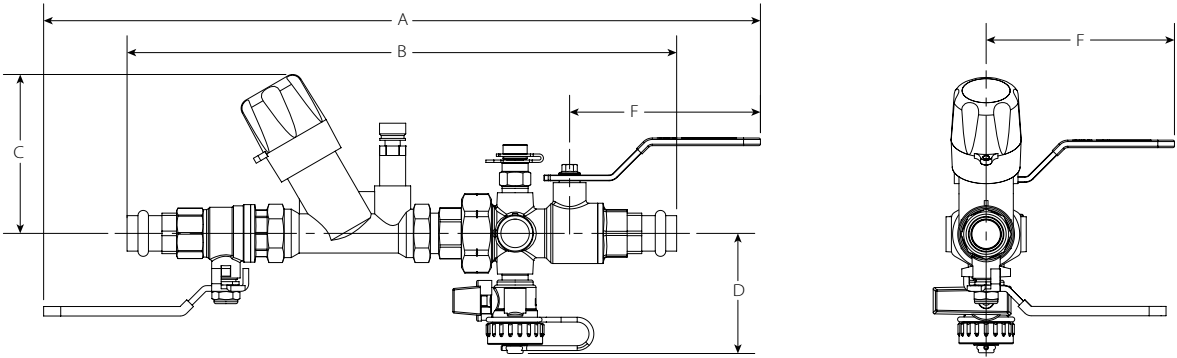
Series 7WT Domestic Water Kit – With Series 7TZ Temperature Control Valve With PT Port and 79Y Strainer Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	16.00 406	10.56 268	3.54 90	3.13 79	3.70 94	Female NPT	3.3 1.5
1/2 DN15	16.00 406	12.94 329	3.54 90	3.13 79	3.70 94	Copper Press	3.5 1.6
1/2 DN15	16.00 406	11.19 284	3.54 90	3.13 79	3.70 94	Sweat	3.4 1.5
3/4 DN20	16.88 429	12.00 305	3.54 90	3.38 86	4.30 110	Female NPT	4.3 2.0
3/4 DN20	16.88 429	14.75 375	3.54 90	3.38 86	4.30 110	Copper Press	4.7 2.1
3/4 DN20	16.88 429	13.00 330	3.54 90	3.38 86	4.30 110	Sweat	4.5 2.1

4.7 DIMENSIONS

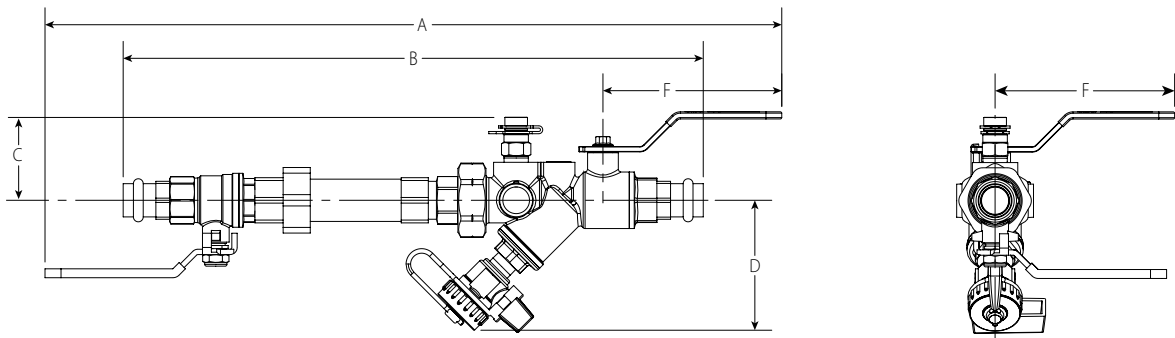
Series 7WT Domestic Water Kit – With Series 7TZ Temperature Control Valve With PT Port and 79T Drain Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	15.00 381	9.56 243	3.54 90	2.56 65	3.70 94	Female NPT	3.0 1.4
1/2 DN15	15.00 381	12.00 305	3.54 90	2.56 65	3.70 94	Copper Press	3.2 1.5
1/2 DN15	15.00 381	10.19 259	3.54 90	2.56 65	3.70 94	Sweat	3.2 1.4
3/4 DN20	15.63 397	10.38 264	3.54 90	2.63 67	4.30 110	Female NPT	3.7 1.7
3/4 DN20	15.63 397	12.00 305	3.54 90	2.63 67	4.30 110	Copper Press	4.1 1.9
3/4 DN20	15.63 397	10.19 259	3.54 90	2.63 67	4.30 110	Sweat	3.9 1.8

4.8 DIMENSIONS

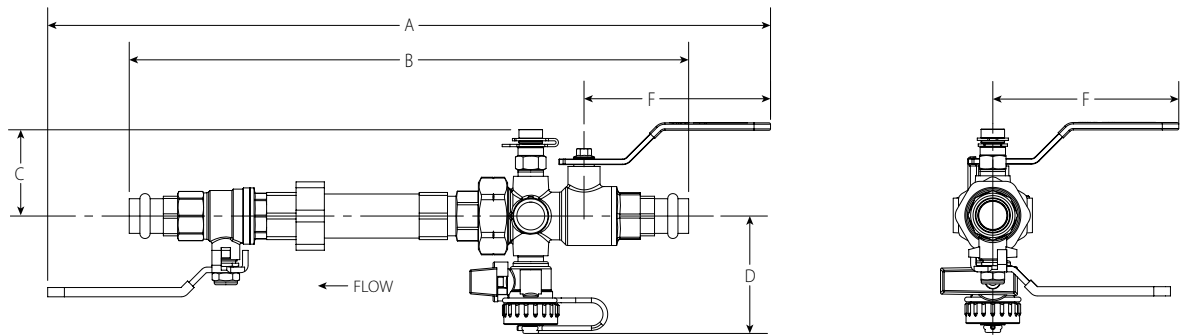
Series 7WX Domestic Water Kit – With Series 76X Automatic Balancing Valve and 79Y Strainer Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	16.38 416	10.94 278	1.96 50	3.13 79	3.70 94	Female NPT	2.9 1.3
1/2 DN15	16.38 416	13.38 340	1.96 50	3.13 79	3.70 94	Copper Press	3.1 1.4
1/2 DN15	16.38 416	11.56 294	1.96 50	3.13 79	3.70 94	Sweat	3.0 1.4
3/4 DN20	17.06 433	12.19 30	2.06 52	3.38 86	4.30 110	Female NPT	4.1 1.9
3/4 DN20	17.06 433	14.94 379	2.06 52	3.38 86	4.30 110	Copper Press	4.5 2.0
3/4 DN20	17.06 433	13.19 335	2.06 52	3.38 86	4.30 110	Sweat	4.3 2.0

4.9 DIMENSIONS

Series 7WX Domestic Water Kit – With Series 76X Automatic Balancing Valve and 79T Drain Valve



Size	Dimensions						Weight
Nominal inches DN	E-E Handles Open A inches mm	E-E Ends Only B inches mm	C to Top C inches mm	C to Bottom D inches mm	Handle Length F inches mm	End Type	Approx. (Each) lb kg
1/2 DN15	15.19 386	10.00 254	1.96 50	2.56 65	3.70 94	Female NPT	2.6 1.2
1/2 DN15	15.19 386	12.38 314	1.96 50	2.56 65	3.70 94	Copper Press	2.8 1.3
1/2 DN15	15.19 386	10.63 270	1.96 50	2.56 65	3.70 94	Sweat	2.7 1.2
3/4 DN20	15.94 405	10.56 268	2.06 52	2.63 67	4.30 110	Female NPT	3.5 1.6
3/4 DN20	15.94 405	13.25 337	2.06 52	2.63 67	4.30 110	Copper Press	3.9 1.8
3/4 DN20	15.94 405	11.56 294	2.06 52	2.63 67	4.30 110	Sweat	3.7 1.7

5.0 PERFORMANCE

Reference specific product publications listed in Section 7.0 Reference Materials

6.0 NOTIFICATIONS

⚠️ WARNING



- Read and understand all instructions before attempting to install any Victaulic 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.
- Confirm that any equipment, branch lines, or sections of piping that may have been isolated for/during testing or due to valve closures/positioning are identified, depressurized, and drained immediately prior to installation, removal, adjustment, or maintenance of any Victaulic products.
- Wear safety glasses, hardhat, foot protection, and hearing protection.

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

7.0 REFERENCE MATERIALS

- [08.51: Victaulic® Stainless Steel Automatic Flow-Limiting Balancing Valve TA Series 76X](#)
- [08.58: Victaulic® Therm Zero Valve for Potable Water Applications TA Series 7TZ](#)
- [08.78: Victaulic® MNPT x FNPT Brass Ball Valve Series 722P](#)
- [106.06: Victaulic® Balancing Valve Series 78BV](#)
- [106.09: Victaulic® Balancing Valve for Potable Water Applications Series 790V](#)
- [106.27: Lead-Free Ball Valve, Strainer, and Check Valve Combination Series 79Y and 79T](#)
- [I-78BV: Series 78BV Balancing Valve Installation and Maintenance Instructions](#)
- [I-786V/787V/790V: Victaulic® Series 786, 787V, and 790V Manual Balancing Valves Installation and Maintenance Instructions](#)
- [I-DWK: Victaulic® Domestic Water Kits for Hydronic Balancing Installation Instructions](#)

User Responsibility for Product Selection and Suitability

Each user bears final responsibility for determining the suitability of Victaulic products for their end-use application, in accordance with industry standards, project specifications, and Victaulic's published performance, maintenance, and safety data, as well as all warnings and installation 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, warranty, installation instructions, or this disclaimer.

Installation

Always refer to and follow the [Victaulic Installation Handbook](#) or installation instructions for 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 [victaulic.com](#).

Warranty

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

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Note

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