

# Victaulic® Series UMC (Universal Manifold Check) Assembly



## 1.0 PRODUCT DESCRIPTION

### Available Sizes

- 1 ¼ – 8"/DN32 – DN200

### Maximum Working Pressure

- Up to 300 psi/2068 kPa/20.6 bar

### Application

- Floor control assemblies may be utilized to meet the zone separation requirements of multistory applications exceeding two stories in height or whenever separate control or zoning is specified.
- Shotgun riser assemblies may be utilized in vertical orientations on individual system risers.

### Configurations

- Optional control valve: Series 705 Butterfly Valve or Series 728 Ball Valve
- Factory assembled right-handed/left-handed (field changeable if necessary)

### Included Components

- Integrated Check Valve
- Series UTD (Universal Test Drain) with integrated Series ARV (Adjustable Relief Valve)
- Quick Drain Hose
- Vane Type Flow Switch
- 1 ¼ – 2"/DN32 – DN50 UMC use saddle type 2" VSR flow switch
- 2 ½ – 3"/73mm – DN80 and 8"/DN200 UMC use saddle type VSR flow switch for corresponding valve size
- 4 – 6"/DN100-DN150 UMC use VSR-M flow switch with flange adapter
- 1 ¼ – 8"/DN32 – DN200 System-side pressure gauge 400 psi/2750 kPa/27.5 bar
- 1 ¼ – 3"/DN32-DN80 supply side ½" plugged port located on control valve (if using as a system riser, pressure gauge ordered separately)
- 4 – 8"/DN100 – DN200 Supply-side pressure gauge 400 psi/2750 kPa/27.5 bar

### Available End Connections

- Victaulic Original Groove System (OGS) standard groove

## 2.0 CERTIFICATION/LISTINGS



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

### 3.0 SPECIFICATIONS – MATERIAL

**Body:** Ductile iron conforming to ASTM A536, grade 65-45-12

**Clapper:** Stainless Steel

**Clapper Seal:** EPDM

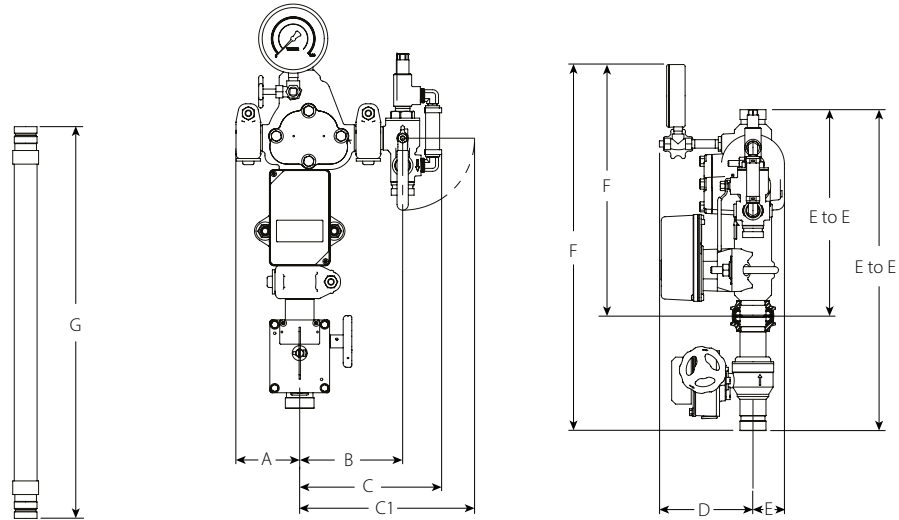
**Shafts:** Stainless Steel

**Seat:** Brass

**Spring:** Stainless Steel

**Hose:** Stainless Steel

### 4.0 DIMENSIONS

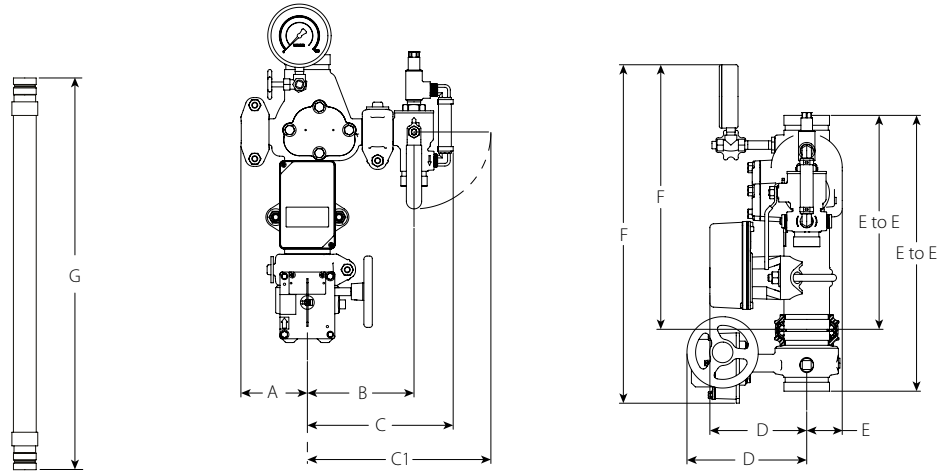


Size		Dimensions											Series UTD Valve Size (Nominal)	Series UTD Test Orifice K-Factor S.I.	G Quick Drain Hose Length	Weight	
Nominal inches DN	Actual Outside Dia. inches mm	E to E with control valve	E to E without control valve	A	B	C	C-1	D with control valve	D without control valve	E	F with control valve	F without control valve				Approx. (Each) with control valve lb kg	Approx. (Each) without control valve lb kg
		inches mm											inches DN		inches mm	lb	kg
1 ¼ DN32	1.660 42.4	20.50 521	13.13 333	3.63 92	5.88 149	8.25 210	10.00 254	6.00 152	6.00 152	2.00 51	23.38 594	16.00 406	1.00 25	2.8 4.0	24.00 610	32.0 14.5	24.0 10.9
1 ½ DN40	1.900 48.3	20.50 521	13.13 333	3.63 92	5.88 149	8.25 210	10.00 254	6.00 152	6.00 152	2.00 51	23.50 597	16.13 410	1.00 25	2.8 4.0	24.00 610	34.0 15.4	25.0 11.3

**NOTES**

- When Series UTD Valve Size (Nominal) is 1"/25 mm, flexible drain hose connection utilizes FireLock IGS™ groove profile
- ½" system supply pressure gauge port located on the control valve for sizes 1 ¼ – 1 ½"/DN32 – DN40

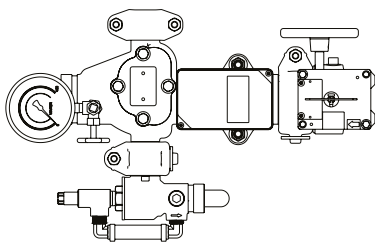
4.0 DIMENSIONS (CONTINUED)



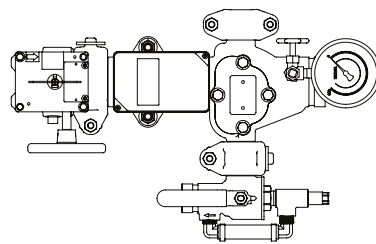
Size		Dimensions											Series UTD Valve Size (Nominal)	Series UTD Test Orifice	G Quick Drain Hose Length	Weight	
Nominal inches DN	Actual Outside Dia. inches mm	E to E with control valve	E to E without control valve	A	B	C	C-1	D with control valve	D without control valve	E	F with control valve	F without control valve				inches DN	K-Factor S.I.
2	2.375	17.50	13.13	3.63	5.88	8.25	10.00	6.38	6.00	2.00	21.13	16.38	1.00	2.8	24.00	36.0	25.0
DN50	60.3	445	333	92	149	210	254	162	152	51	537	416	25	4.0	610	16.3	11.3
2½	2.875	17.38	13.50	4.25	6.75	9.25	11.50	7.50	6.13	2.25	21.25	16.63	1.25	4.2	24.00	39.0	28.0
	73.0	441	343	108	171	235	292	191	156	57	540	422	32	6.1	610	17.7	12.7
DN65	3.000	17.38	13.50	4.25	6.75	9.25	11.50	7.50	6.13	2.25	21.25	16.63	1.25	4.2	24.00	39.0	28.0
	76.1	441	343	108	171	235	292	191	156	57	540	422	32	6.1	610	17.7	12.7
3	3.500	17.63	13.75	4.38	7.13	9.63	11.88	7.75	6.38	2.38	21.13	16.50	1.25	4.2	24.00	44.0	31.0
DN80	88.9	448	349	111	181	244	302	197	162	60	537	419	32	6.1	610	20.0	14.1
4	4.500	19.50	14.63	5.75	8.75	11.63	14.88	8.75	7.00	3.00	22.75	17.63	2.00	5.6	36.00	65.0	52.0
DN100	114.3	495	371	146	222	295	378	222	178	76	578	448	51	8.1	914	29.5	23.6
	6.500	23.50	17.38	6.88	10.00	12.88	16.13	11.38	8.00	3.88	25.88	19.75	2.00	5.6	36.00	100.0	73.0
	165.1	597	441	175	254	327	410	289	203	98	657	502	51	8.1	914	45.4	33.1
6	6.625	23.50	17.38	6.88	10.00	12.88	16.13	11.38	8.00	3.88	25.88	19.75	2.00	5.6	36.00	100.0	73.0
DN150	168.3	597	441	175	254	327	410	289	203	98	657	502	51	8.1	914	45.4	33.1

NOTES

- ½" system supply pressure gauge port located on the control valve for sizes 2 – 3"/DN50 – DN80 (gauge sold separately)
- Included System supply pressure gauge located on the control valve for sizes 4 – 6"/DN100 – DN150
- When Series UTD Valve Size (Nominal) is 1"/25 mm, flexible drain hose connection utilizes FireLock IGS™ groove profile

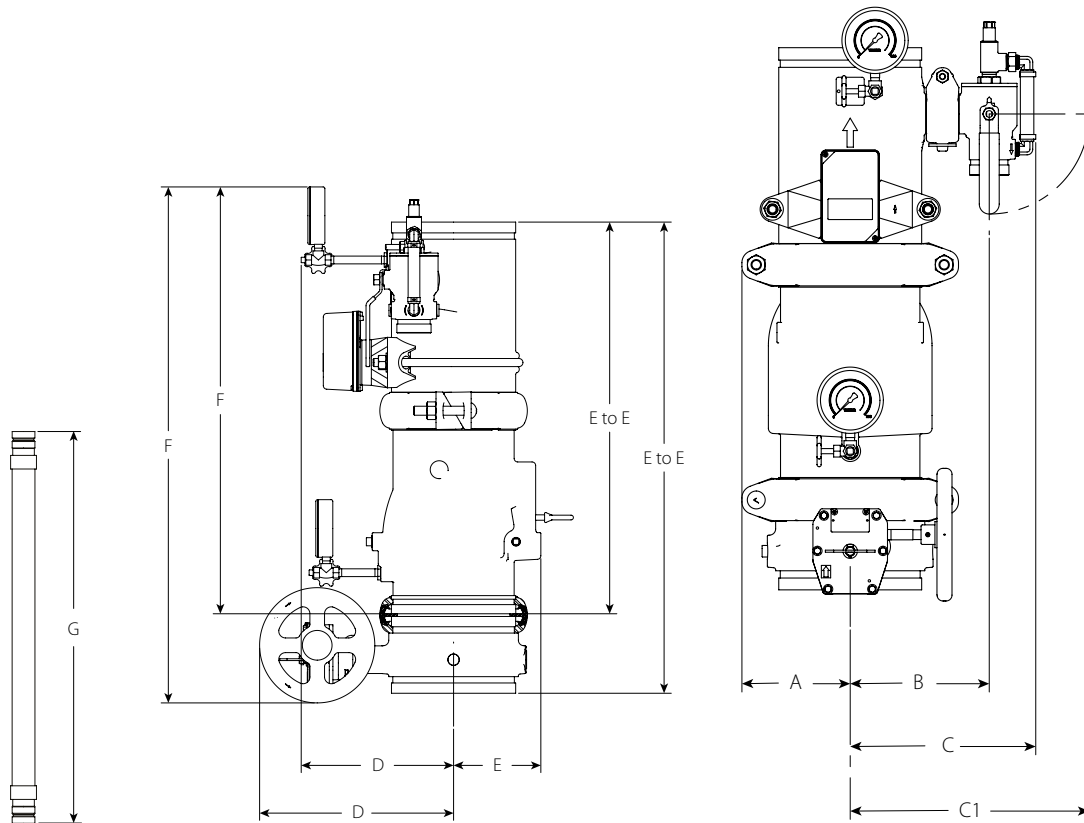


Horizontal Install Left Hand with Control Valve



Horizontal Install Right Hand with Control Valve

4.0 DIMENSIONS (CONTINUED)



Size		Dimensions											Series UTD Valve Size (Nominal)		Series UTD Test Orifice		G Quick Drain Hose Length		Weight	
Nominal	Actual Outside Dia.	E to E with control valve	E to E without control valve	A	B	C	C-1	D with control valve	D without control valve	E	F with control valve	F without control valve	inches	DN	K-Factor	S.I.	inches	mm	Approx. (Each) with control valve	Approx. (Each) without control valve
inches	inches												inches	DN			inches	mm	lb	kg
8	8.625	32.75	27.25	6.50	8.38	11.25	14.38	13.50	10.63	6.00	35.13	29.63	2.00	51	5.6	8.1	36.00	914	178.0	136.0
DN200	219.1	832	692	165	213	286	365	343	270	152	892	752							80.7	61.7

NOTE

- System supply pressure gauge port is on the supply side of check valve

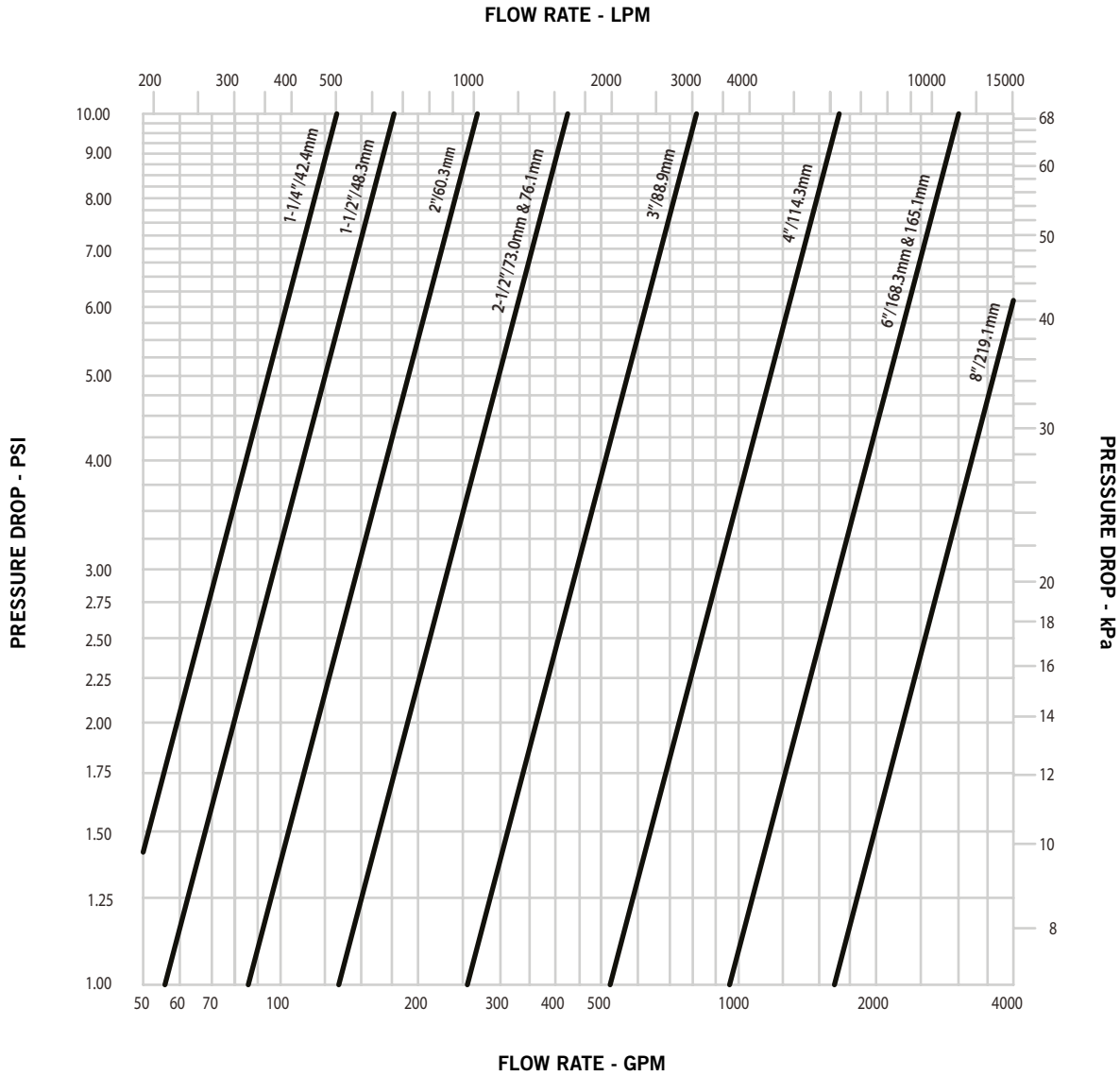
## 5.0 PERFORMANCE

Size		Equivalent Length of Sch. 40 Pipe <sup>1</sup>		Flow Characteristics		Maximum Working Pressure psi kPa
Nominal inches DN	Actual Outside Diameter inches mm	with control valve	without control valve	Cv/Kv Values with control valve	Cv/Kv Values without control valve	
		feet meters	feet meters	Full Open	Full Open	
1 ¼ DN32	1.660 42.4	8.3 2.5	8.0 2.4	38.52 33	35.59 31	300 2068
1 ½ DN40	1.900 48.3	10.1 3.1	10.0 3.0	56.75 49	57.43 50	300 2068
2 DN50	2.375 60.3	21.1 6.4	15.8 4.8	71.43 62	83.14 72	300 2068
2 ½	2.875 73.0	19.6 6.0	15.8 4.8	112.43 97	125.84 109	300 2068
DN65	3.000 76.1	19.6 6.0	15.8 4.8	112.43 97	125.84 109	300 2068
3 DN80	3.500 88.9	20.0 6.1	13.3 4.0	199.32 172	241.43 209	300 2068
4 DN100	4.500 114.3	17.6 5.4	12.9 3.9	425.88 368	499.23 432	300 2068
	6.500 165.1	40.6 12.4	32.0 9.8	834.97 722	932.83 807	300 2068
6 DN150	6.625 168.3	40.6 12.4	32.0 9.8	834.97 722	932.83 807	300 2068
8 DN200	8.625 219.1	60.8 18.5	45.8 13.9	1376.8 1191	1556.57 1346	300 2068

<sup>1</sup> Equivalent length of Sch 40 pipe calculated using the Hazen-Williams formula with a roughness coefficient of C=120

## 5.0 PERFORMANCE (CONTINUED)

Series UMC without Control Valve

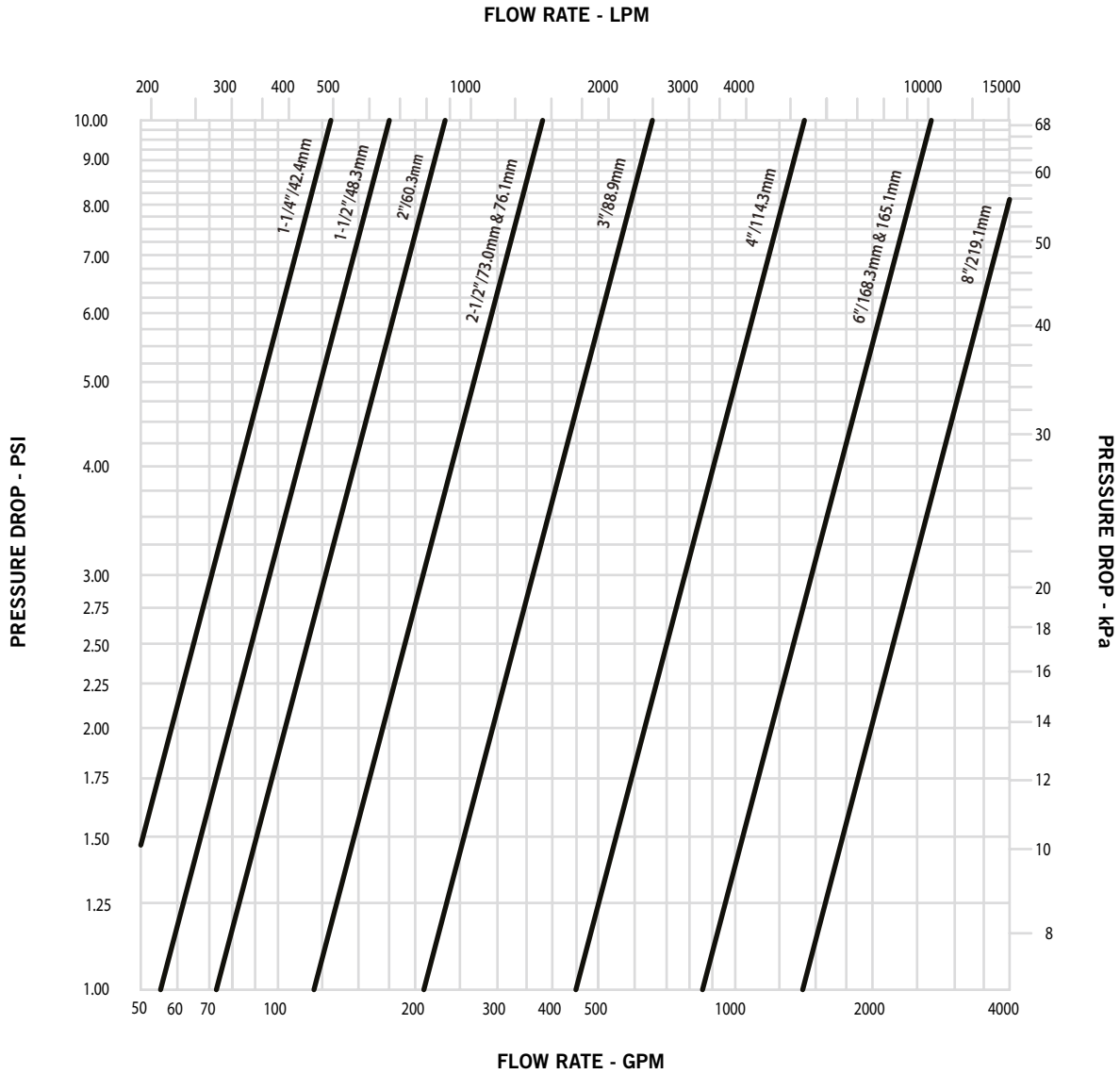


**NOTE**

- Includes friction loss across flow switch

## 5.0 PERFORMANCE (CONTINUED)

### Series UMC with Control Valve








**NOTE**

- Includes friction loss across flow switch

## 6.0 NOTIFICATIONS

**⚠ WARNING**



- Read and understand all instructions before attempting to install, remove, adjust, or maintain any Victaulic piping products.
- Depressurize and drain the piping system before attempting to install, remove, adjust, or maintain any Victaulic piping 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

- [10.17: FireLock® Ball Valve](#)
- [10.54: Victaulic FireLock™ Innovative Groove System I IGST™](#)
- [10.64: Victaulic® FireLock™ Installation-Ready™ Rigid Couplings](#)
- [10.81: FireLock® Butterfly Valve](#)
- [30.71: Series UM Universal Manifold Assembly](#)
- [30.73: Victaulic® Series UTD Universal Test and Drain](#)
- [30.74: Victaulic® Series ARV Adjustable Relief Valve](#)
- [I-100: Field Installation Handbook](#)
- [I-UMC: Series UMC Universal Manifold Check Assembly](#)

### 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](http://www.victaulic.com).

### Warranty

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

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