

# Victaulic® Diverter Valve

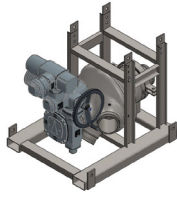
## Series 725S and Series 725T



Series 725T



Series 725S



Optional Support Frame

### 1.0 PRODUCT DESCRIPTION

#### Available Sizes

- 4"/DN100
- 6"/DN150
- 8"/DN200

#### Maximum Working Pressure

- 1500 psi/10342 kPa

#### Function

- Series 725T: Four way, three position diverter valve with martensitic stainless steel wetted surfaces that includes two backfill diversion outlets (Port A and Port B) and one drain outlet (Port D) for evacuating upstream backfill due to a downstream blockage or for diverting flush water
- Series 725S: Three-way, two position diverter valve with martensitic stainless steel wetted surfaces
- Can be supplied with support frame. See section 4.8 for dimensional information.

#### Pipe Preparation

- Victaulic Original Groove System (OGS): Prepare pipe ends in accordance with [publication 25.01](#)
- Victaulic EndSeal™ (ES) Groove System: Prepare pipe ends in accordance with [publication 25.02](#)
- Victaulic Style 808 High Pressure Coupling System: Prepare pipe ends in accordance with [publication 25.04](#)
- Victaulic Style 809N High Pressure Coupling Ring System: Prepare pipe ends in accordance with [publication I-809N](#)

#### NOTE

- Valves are available with EndSeal™ (ES) Groove, Victaulic Style 808 Double Groove (6"/DN150 and 8"/DN200 only), and Victaulic Style 809N Ring end configurations.

#### Application

- Intended for backfill diversion in backfill mining operations and similar abrasive services
- Intended for flush water diversion in backfill mining operations and similar abrasive services
- May be operated under pressure to dump backfill in the event of a blockage

#### NOTE

- Series 725T Diverter Valve recommended for use in locations designed for backfill dumping

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

## 1.0 PRODUCT DESCRIPTION (CONTINUED)

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### Actuation Options

- Manual:
  - Gear operator with limit stop, hand wheel, flange according to EN ISO 5211
  - Gear operator with limit stop, chain wheel, flange according to EN ISO 5211
- Pneumatic actuator:
  - Pneumatic vane motor with electronic positioning feedback mounted to gear operator
    - With control cabinet (Actuator supplied with: pneumatic motor, limit switches box, solenoid valves, air filter, lubricator, sound mufflers, and hoses)
    - No control cabinet (Actuator supplied with: pneumatic motor, limit switches box)
    - No control cabinet (Actuator supplied with: pneumatic motor, limit switches box, solenoid valves, air filter, lubricator, sound mufflers, and hoses)
  - The control cabinet provides “push button” control for valve positioning and monitoring.
    - Travel stops at diversion outlets (A and B) and at drain outlet (D), 725T only.
    - Keyed selector for control room, local control or local lockout
    - Emergency shut off button.
- Electric actuator:
  - Multi-turn electric actuator mounted to gear operator (flange according to EN ISO 5211)
  - Voltage options include:
    - AC Voltages – 575V 50/60Hz, 480V 50/60Hz, 400V 50/60Hz, 220V 50/60Hz
      - The listed actuator voltages may vary +/-10% from the actual mine site voltage
    - DC Voltages – 48V DC
    - Additional options available, Contact Victaulic.
  - Control Unit Options Include:
    - Standard: Control Unit Separate (Remote) with 10m(33ft) cable
    - Optional: Control Unit mounted directly to the motor
    - Optional: No Control Unit
  - Multiple feedback protocol available. Specify at time of order
  - Actuator supplied with manual override handle

#### NOTE

- Purchaser is responsible for all operational controls when pneumatic actuated valves are ordered without control cabinet or electric actuated valves are ordered without control unit.

## 2.0 CERTIFICATION/LISTINGS

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## 3.0 SPECIFICATIONS – MATERIAL

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**Cover:** ASTM A216 Grade WCB

**Inlet Cap/Body/Plug/Drive Stem:** ASTM A743 Grade CA6NM, martensitic stainless steel

**Body Sleeve/Top Seal:** PTFE

**Seat:** Polyurethane

### **Gasket and O-Rings<sup>1</sup>:**

#### **Grade “T” Nitrile**

Nitrile (Orange color code). Temperature range +0°F to +150°F/–18°C to +66°C. Not compatible for hot water services over +150°F/+66°C. NOT RECOMMENDED FOR HOT WATER SERVICES.

<sup>1</sup> Services listed are General Service Guidelines only. It should be noted that there are services for which these gaskets are not compatible. Reference should always be made to the latest [Victaulic Gasket Selection Guide](#) for specific gasket service guidelines and for a listing of services which are not compatible.

### **Limit Switches<sup>2</sup>:**

Limit switches set for full open at Port A and Port B. Electro mechanical SPDT silver. Electrical range: Maximum 5A @ 250VAC, Maximum 5A @ 24VDC. Cables entries M20x1.5.

<sup>2</sup> Supplied standard with pneumatic actuators. Optional with manual operator.

### **Optional Support Frames**

Steel hollow structure section (HSS) members: ASTM A500 GradeB

Steel channels, angles, pipe clamps, and plates: ASTM A36

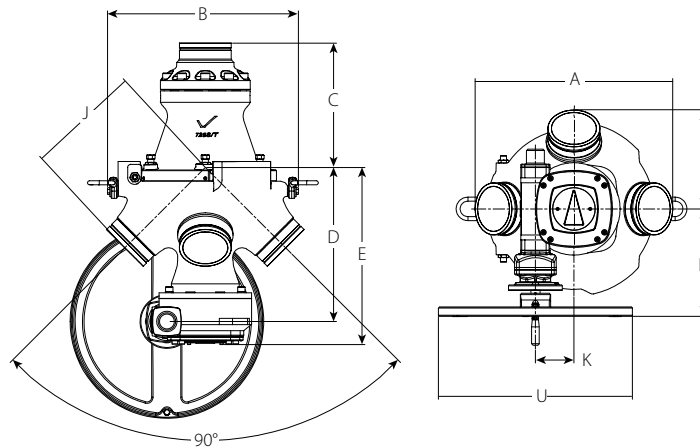
Heavy hex bolt: ASTM A325

Heavy hex nut: ASTM A563

Plain washers: ASTM F436

## 4.0 DIMENSIONS

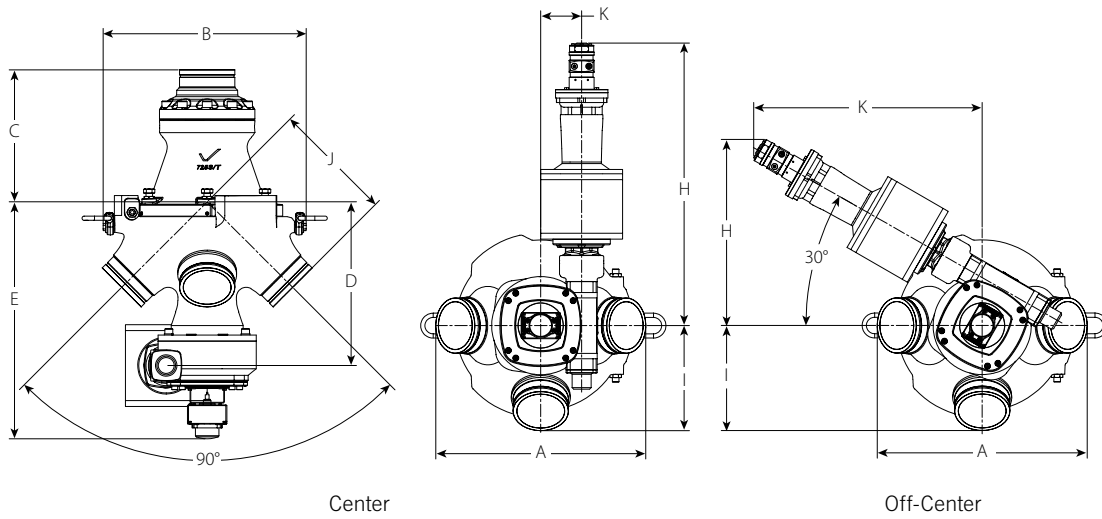
### Series 725T with Manual Gear Operator



Size		Dimensions									Weight	
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	H inches mm	I inches mm	J inches mm	Handwheel Diameter U inches mm	Approximate (Each) lb kg	
4 DN100	4.5 114.3	19.34 491	20.26 515	13.32 338	16.14 410	19.10 485	13.75 350	9.67 246	11.43 290	24.80 630	505 229	
6 DN150	6.625 168.3	25.26 642	24.43 621	15.89 404	19.70 501	22.61 575	13.75 350	12.63 321	14.55 370	24.80 630	855 388	
8 DN200	8.625 219.1	30.50 775	30.61 778	19.50 495	24.20 615	27.60 702	16.70 425	15.25 388	17.19 437	24.80 630	1398 634	

## 4.1 DIMENSIONS

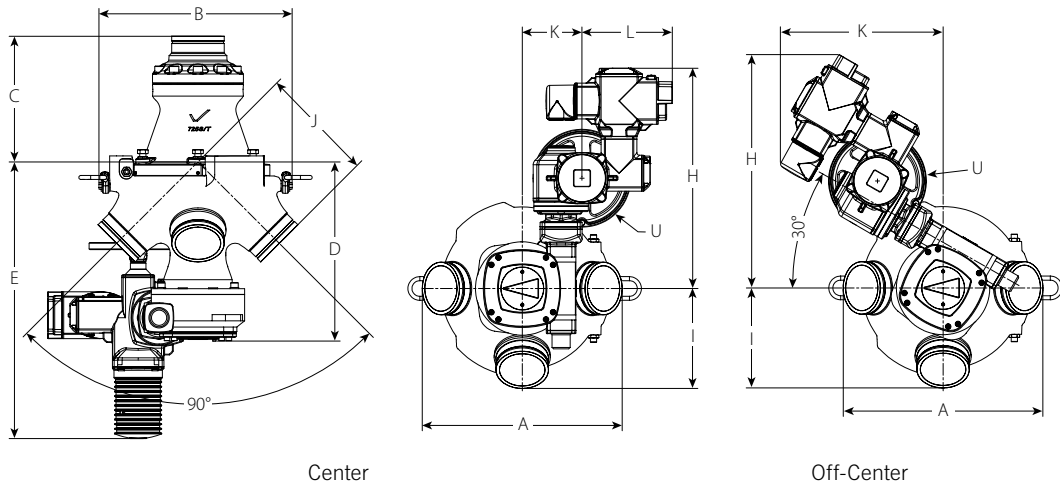
### Series 725T with Pneumatic Actuator



Size		Dimensions											Weight	
Nominal	Actual Outside Diameter	A	B	C	D	E	Center H	Off-Center H	I	J	Center K	Off-Center K	Approximate (Each)	
inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	lb	
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
4	4.5	19.34	20.26	13.32	16.14	25.00	34.00	22.40	9.67	11.43	4.92	27.50	546	
DN100	114.3	491	515	338	410	635	864	569	246	290	125	698.50	248	
6	6.625	25.26	24.43	15.89	19.70	28.50	34.00	22.40	12.63	14.55	4.92	27.50	896	
DN150	168.3	642	621	404	501	725	864	569	321	370	125	698.50	406	
8	8.625	30.50	30.61	19.50	24.20	33.50	37.00	25.00	15.25	17.19	6.30	29.40	1438	
DN200	219.1	775	778	495	615	852	940	635	388	437	160	746.80	653	

## 4.2 DIMENSIONS

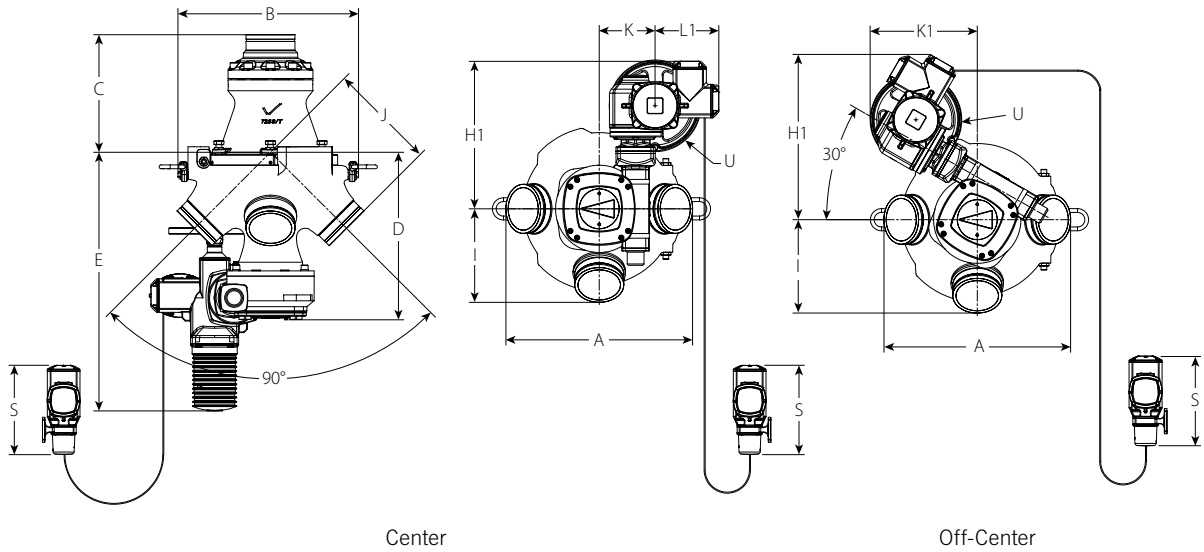
### Series 725T with Electric Actuator (Control Unit Attached)



Size		Dimensions													Weight	
Nominal	Actual Outside Dia.	A	B	C	D	E	Center H	Off-Center H	I	J	K	Off-Center K	L	Handwheel Diameter U	Aproximate (Each)	
inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	lb	
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
4	4.5	19.34	20.26	13.32	18.89	31.26	27.83	29.5	9.67	11.43	7.56	20.2	11.42	12.5	611	
DN100	114.3	491	515	338	480	794	707	749	246	290	192	513	290	315	277	
6	6.625	25.26	24.43	15.89	22.6	34.96	27.83	29.5	12.63	14.55	7.56	20.2	11.42	12.5	961	
DN150	168.3	642	621	404	574	888	707	749	321	370	192	513	290	315	436	
8	8.625	30.5	30.61	19.5	27.6	39.5	30.82	32.2	15.25	17.19	8.9	22.5	11.42	12.5	1504	
DN200	219.1	775	777.5	495	702	1003	783	818	388	437	227	572	290	315	682	

### 4.3 DIMENSIONS

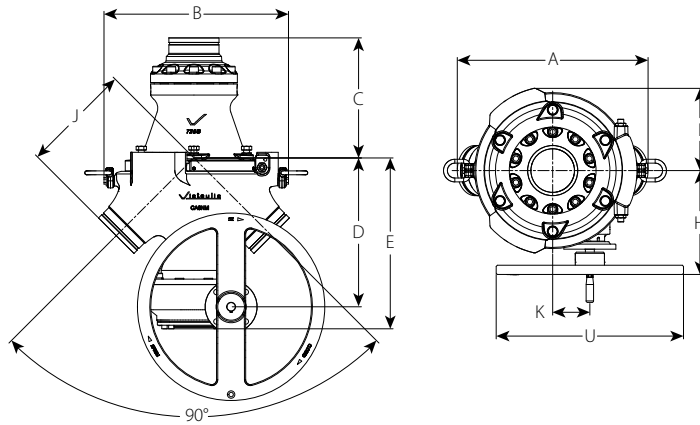
#### Series 725T With Electric Actuator (Control Unit Remote)



Size		Dimensions														Weight	
Nominal	Actual Outside Diameter	A	B	C	D	E	Center H1	Off-Center H1	I	J	K	K1	L1	Handwheel Diameter U	S	Aprox. (Each)	
inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	inches	lb	
DN	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
4	4.5	19.34	20.26	13.32	18.89	31.26	19.95	22.38	9.67	11.43	7.56	14.12	8.61	12.5	16.1	611	
DN100	114.3	491	515	338	480	794	507	569	246	290	192	359	219	315	409	277	
6	6.625	25.26	24.43	15.89	22.6	34.96	19.95	22.38	12.63	14.55	7.56	14.12	8.61	12.5	16.1	961	
DN150	168.3	642	621	404	574	888	507	569	321	370	192	359	219	315	409	436	
8	8.625	30.5	30.61	19.5	27.6	39.5	22.95	25.08	15.25	17.19	8.9	16.42	8.61	12.5	16.1	1504	
DN200	219.1	775	777.5	495	702	1003	583	637	388	437	227	417	219	315	409	682	

## 4.4 DIMENSIONS

### Series 725S with Manual Gear Operator

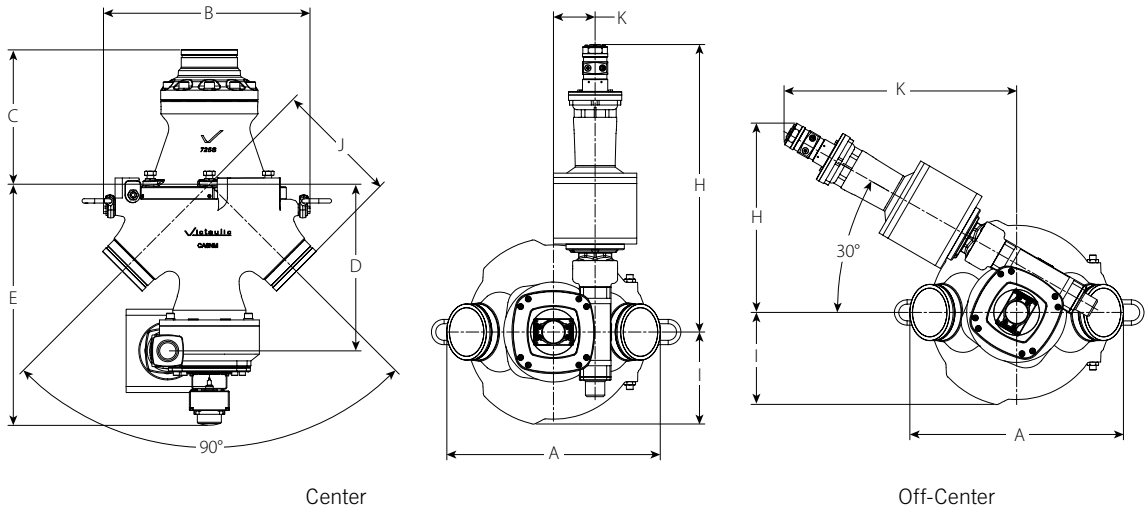


Size		Dimensions									Weight	
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	H inches mm	I inches mm	J inches mm	Handwheel Diameter U inches mm	Approximate (Each) lb kg	
4 DN100	4.5 114.3	19.34 491	20.26 515	13.32 338	16.14 410	19.10 485	13.75 350	8.88 226	11.43 290	24.80 630	505 229	
6 DN150	6.625 168.3	25.26 642	24.43 621	15.89 404	19.70 501	22.61 575	13.75 350	10.89 277	14.55 370	24.80 630	855 388	
8 DN200	8.625 219.1	30.50 775	30.61 778	19.50 495	24.20 615	27.60 702	16.70 425	13.96 355	17.19 437	24.80 630	1398 634	



## 4.5 DIMENSIONS

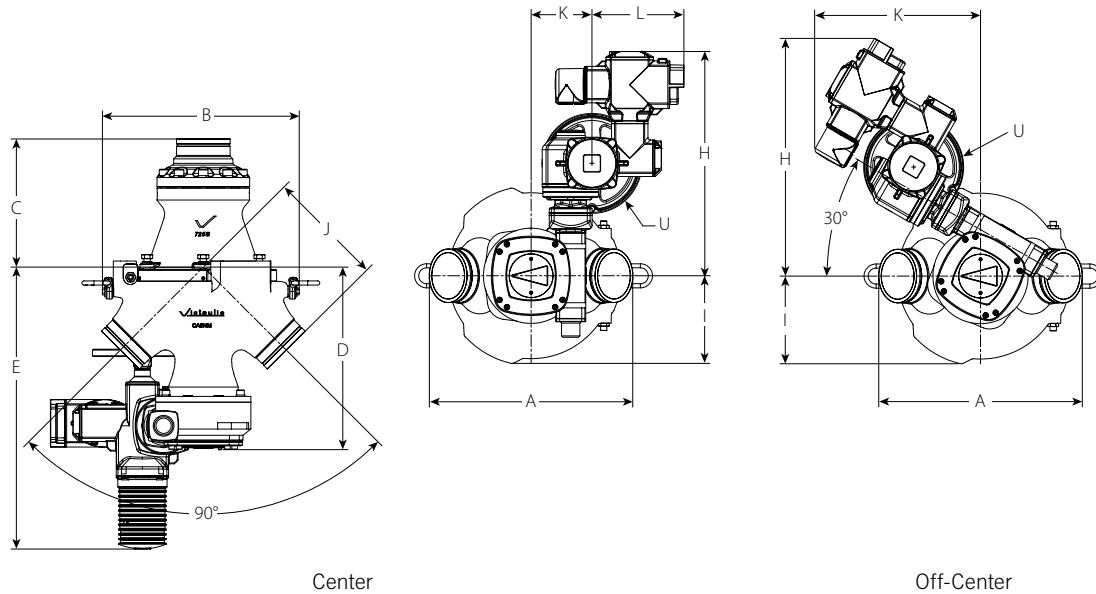
### Series 725S with Pneumatic Actuator



Size		Dimensions											Weight	
Nominal inches DN	Actual Outside Diameter inches mm	A inches mm	B inches mm	C inches mm	D inches mm	E inches mm	Center H inches mm	Off-Center H inches mm	I inches mm	J inches mm	Center K inches mm	Off-Center K inches mm	Approximate (Each) lb kg	
4 DN100	4.5	19.34	20.26	13.32	16.14	25.00	34.00	22.40	8.88	11.43	4.92	27.50	546	
	114.3	491	515	338	410	635	864	569.00	226	290	125	698.50	248	
6 DN150	6.625	25.26	24.43	15.89	19.70	28.50	34.00	22.40	10.89	14.55	4.92	27.50	896	
	168.3	642	621	404	501	725	864	569.00	277	370	125	698.50	406	
8 DN200	8.625	30.50	30.61	19.50	24.20	33.50	37.00	25.00	13.96	17.19	6.30	29.40	1438	
	219.1	775	778	495	615	852	940	635.00	355	437	160	746.80	653	

## 4.6 DIMENSIONS

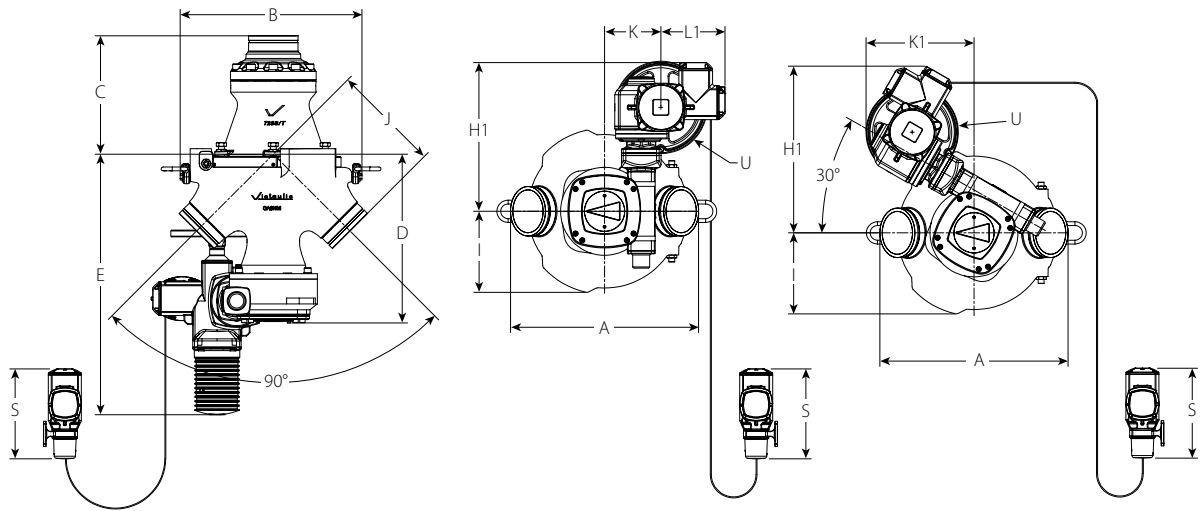
### Series 725S with Electric Actuator (Control Unit Attached)



Size		Dimensions													Weight	
Nominal	Actual Outside Diameter	A	B	C	D	E	Center H	Off-Center H	I	J	Center K	Off-Center K	L	Handwheel Diameter U	Approx. (Each)	
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg	
4	4.5	19.34	20.26	13.32	18.89	31.26	27.83	29.50	8.88	11.43	7.56	20.20	11.42	12.50	611	
DN100	114.3	491	515	338	480	794	707	749.00	226	290	192	513.00	290	315	277	
6	6.625	25.26	24.43	15.89	22.60	34.96	27.83	29.50	10.89	14.55	7.56	20.20	11.42	12.50	961	
DN150	168.3	642	621	404	574	888	707	749.00	277	370	192	513.00	290	315	436	
8	8.625	30.50	30.61	19.50	27.60	39.50	30.82	32.20	13.96	17.19	8.90	22.50	11.42	12.50	1504	
DN200	219.1	775	778	495	702	1003	783	818.00	355	437	227	572.00	290	315	682	

## 4.7 DIMENSIONS

### Series 725S with Electric Actuator (Control Unit Remote)



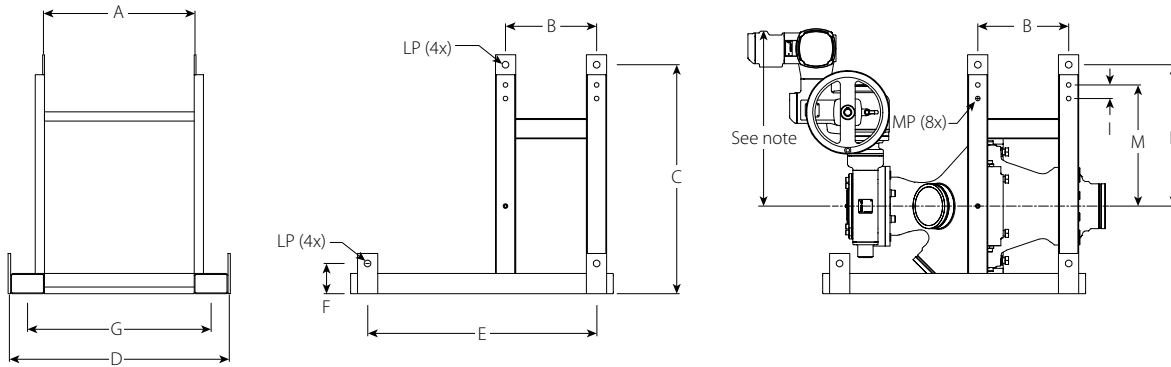
Center

Off-Center

Size		Dimensions														Weight	
Nominal	Actual Outside Diameter	A	B	C	D	E	Center H1	Off-Center H1	I	J	K	K1	L1	Handwheel Diameter U	S	Approx. (Each)	
inches DN	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	inches mm	lb kg	
4	4.5	19.34	20.26	13.32	18.89	31.26	19.95	22.38	8.88	11.43	7.56	14.12	8.61	12.5	16.1	611	
DN100	114.3	491	515	338	480	794	507	569	226	290	192	359	219	315	409	277	
6	6.625	25.26	24.43	15.89	22.3	34.96	19.95	22.38	10.89	14.55	7.56	14.12	8.61	12.5	16.1	961	
DN150	168.3	642	621	404	574	888	507	569	277	370	192	359	219	315	409	436	
8	8.625	30.5	30.61	19.5	27.6	39.5	22.95	25.08	13.96	17.19	8.9	16.42	8.61	12.5	16.1	1504	
DN200	219.1	775	777.5	495	702	1003	583	637	355	437	227	417	219	315	409	682	

## 4.8 DIMENSIONS

### Optional Support Frame



Size	Dimensions										øLifting Point (LP)	øMounting Point (MP)	Weight	
	A	B	C	D	E	F	G	M	L	I				
NPS	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	in mm	lbs kg
4"	17.81	9.50	30.50	30.54	34.00	4.50	22.56	16.50	19.50	2.00	1.00	0.69	187	
	452.5	241.3	774.7	775.7	863.6	114.3	573.1	419.1	495.3	50.8	25.4	17.5	85	
6"	22.50	11.50	34.00	35.23	34.00	4.50	27.25	17.50	20.50	2.00	1.00	0.69	232	
	571.5	292.1	863.6	894.7	863.6	114.3	692.2	444.5	520.7	50.8	25.4	17.5	105	
8"	28.75	16.00	40.50	41.48	42.00	4.50	33.50	21.00	24.00	2.00	1.00	0.69	265	
	730.3	406.4	1,028.7	1,053.5	1,066.8	114.3	850.9	533.4	609.6	50.8	25.4	17.5	120	

**NOTE**

- The height from the center line of the valve to the top of the actuator may exceed the distance from the center line to the mounting holes of the frame (dimension M on this drawing). Please compare with dimensions H or H1 for your appropriate valve/actuator combination from sections 4.1 thru 4.7 of this document.

## 5.0 PERFORMANCE

### Series 725T

**SERIES 725T NOTES**

- Abrasive media should be flushed from valve immediately after backfill flow ceases and prior to rotating the valve to a new position.
- During the water flushing operation, the valve may be operated under pressure to divert excess flush water through the “drain outlet” to a sump or disposal location.
- In the event the line becomes blocked downstream of the valve, the valve may be rotated under pressure to the “drain outlet” redirecting and clearing upstream backfill to a disposal location. The valve must be flushed with water thoroughly after each dump event. Depending on operating conditions, the valve may need to be serviced or replaced prior to returning to service.

Operator/Actuator Performance									
Size	Manual (Gear Operator)				Pneumatic			Electric	
Nominal inches DN	# Turns from Flow Position A to Flow Position B	# Turns from Flow Position A or Flow Position B to Flow Position D (Drain Outlet)	Hand Wheel Dimensions inches mm	Rim Pull lbf N	Supply Air			RPM 50Hz 60Hz	
					Pressure psi bar	Flow Rate SCFM l/s	RPM		
4 DN100	80	40	24.80 630	51 227	92 6.3	32 15	109	90	108
6 DN150	80	40	24.80 630	67 298	92 6.3	42 20	100	90	108
8 DN200	109	54	24.80 630	77 342	92 6.3	85 40	90	90	108

## 5.1 PERFORMANCE

### Series 725S

**SERIES 725S NOTES**

- Abrasive media should be flushed from valve immediately after backfill flow ceases and prior to rotating the valve to a new position.
- If flush water diversion or rotation of the valve under pressure to clear a blockage is anticipated, select the Series 725T and pipe the drain outlet to the sump or disposal location. The valve must be flushed with water thoroughly after each dump event. Depending on operating conditions, the valve may need to be serviced or replaced prior to returning to service.

Operator/Actuator Performance									
Size	Manual (Gear Operator)				Pneumatic			Electric	
Nominal inches DN	# Turns from Flow Position A to Flow Position B	Hand Wheel Dimensions inches mm	Rim Pull lbf N	Pressure psi bar	Flow Rate SCFM l/s	RPM	RPM		
							50Hz	60Hz	
4 DN100	80	24.80 630	51 227	92 6.3	32 15	109	90	108	
6 DN150	80	24.80 630	67 298	92 6.3	42 20	100	90	108	
8 DN200	109	24.80 630	77 342	92 6.3	85 40 <sup>3</sup>	90	90	108	

NOTE: For additional actuation requirements, contact Victaulic.

<sup>3</sup> for Australia only: 61 l/s

## 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

[05.01: Victaulic Seal Selection Guide](#)

[25.02: Victaulic EndSeal™ Pipe Groove Specifications](#)

[25.04: Victaulic Double Cut Groove Specifications](#)

[29.01: Victaulic Terms and Conditions/Warranty](#)

[I-100: Victaulic Field Installation Handbook](#)

[I-725S: Victaulic Series 725S Installation and Operating Manual](#)

[I-725T: Victaulic Series 725T Installation and Operating Manual](#)

[I-809N: Victaulic Style 809N High-Pressure Coupling for Ring Systems Installation Manual](#)

[I-IMPACT: Victaulic Impact Tool Usage Guidelines](#)

### 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, and the applicable building codes and related regulations 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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