

## Emergency shutoff and firesafe valves Figure 1075

The Jamesbury™ brand FM (factory mutual) approved emergency shutoff and firesafe valves Figure 1075 are manual assemblies consisting of the Jamesbury Fire-Tite™ valves and the Jamesbury Torq-Handle™. These assemblies provide automatic closure of a normally open valve in the event of a fire or excessive temperature. These assemblies are used for all types of media including flammable gases, liquids, and toxic fluids.

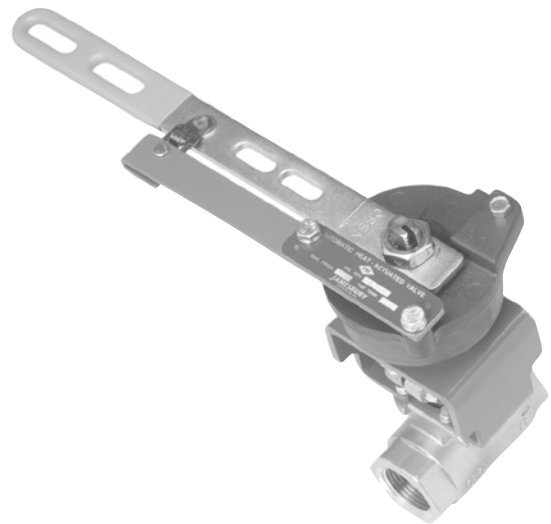
Figure 1075 assemblies carry FM approval as firesafe valves, specifically designed for flammable liquid service. To meet the requirements of this category, the Jamesbury Fire-Tite valves have been tested and qualified to resist direct exposure typical of uncontrolled fire for at least 15 minutes. Included in the line of figure 1075 emergency shutoff valve assemblies are series 2000, Eliminator™, 4000, 7000 and 9000, equipped with Torq-Handle spring-return handles and a choice of fusible links for specific temperature requirements.

### The importance of certified performance

Obtaining certification only achievable through rigorous testing is not only a matter of meeting industry standards and regulations, but also an assurance of quality and reliability. Valmet offers unparalleled performance with its offering of certified Jamesbury Emergency shutoff and firesafe valves.

### Our promise of quality and reliability

Valmet certified Jamesbury FM approved packages offer Innovation through patented seat and seal designs, Xtreme™ seat material and limit switch performance to maximize plant uptime.



### Single source responsibility

All components of the Valmet 1075 packages are Valmet designed and engineered products. This insures reliable, safe and worry free operation of the Emergency shutoff and firesafe valves through many years of service.

### Features

- Automatic closure in the event of a fire
- FM approved for emergency shutoff service
- FM approved as firesafe valves for flammable liquid service
- Quarter-turn operation for quick shutoff in the event of an emergency
- Flexible-lip seat design for reliable long-lasting sealing
- PTFE seats and seals for easy cycling, even when operated infrequently

## Approved valve models

Valves are available with either threaded or socket weld ends in sizes 1/4" - 2" (8 - 50), ASME 150 and ASME 300 flanged design in sizes 1/2" - 6" (15 - 150) reduced port and ASME 150 and ASME 300 flanged design in 1/2" - 4" (15 - 100) full port construction. The threaded ASME and flanged valve offerings can also be supplied with a PED (Pressure Equipment Directive) certification. Valves are offered in Carbon steel (WCB) and 316SS (CF8M) bodies. Trim material is 316SS as standard.

Size	Model	Code	End Connection
1/4" - 1-1/4" (8 - 32)	A Style	AZ	Reduced Port, Threaded
1" - 2" (25 - 50)	Clincher (2000 Series)	21FM/23FM	Reduced Port, Threaded
1/4" - 1-1/4" (8 - 32)	Eliminator	9F	Reduced Port, Threaded
1/2" - 1-1/4" (15 - 32)	4000 Series	4A/4C	Reduced Port, Threaded or Socket Weld
1/2" - 1" (15 - 25)	4000 Series	4B/4D	Full Port, Threaded or Socket Weld
1/2" - 1-1/2" (15 - 40)	7000 Series	7150/7180	ASME 150 Reduced Port, Flanged
1/2" - 1" (15 - 25)	7000 Series	730S/738S	ASME 300 Reduced Port, Flanged (Short Pattern)
1/2" - 1" (15 - 25)	7000 Series	7300/7380	ASME 300 Reduced Port, Flanged
1/2" - 1" (15 - 25)	9000 Series	9150/9180	ASME 150 Full Port, Flanged
1/2" - 1" (15 - 25)	9000 Series	9300/9380	ASME 300 Full Port, Flanged

## Accessories

Limit Switches can be provided for remote indication of the valve position or for various electrical interlocks.

The limit switch housing assemblies are CSA approved, filling NEMA 4, 4X, 6 and 7; Class I, Groups C & D, and 9; Class II, Groups E, F and G, Div. I specifications for combined watertight and hazardous location design.

Unless otherwise specified, assemblies with limit switches are adjusted at the factory so that one switch is actuated when the valve is closed, and the other when the valve is fully open.

Spring-return handles may be specified with optional accessories when FM approval is not a consideration. Locking devices to padlock the handle in position or electrothermal links to allow connection to a remote device like a smoke or heat detector are available. See bulletin B160-1 for non-FM-approved standard spring-return handles and various accessories.

## Specifications Maximum operating pressure ratings

Maximum Operating Pressure - psi								
Valve Size (inches)	A-Style	Clincher (2000 Series)	Eliminator	4000 Series	7000 Series		9000 Series	
					ASME 150 Class	ASME 300 Class	ASME 150 Class	ASME 300 Class
1/4	1200	-	1200	-	-	-	-	-
3/8	1200	-	1200	-	-	-	-	-
1/2	1200	-	1200	1200	285	740	285	740
3/4	1200	-	1200	1200	285	740	285	740
1	1200	800	1200	1200	285	740	285	740
1-1/4	1200	800	1200	1200	-	-	-	-
1-1/2	-	800	-	-	285	-	-	-
2	-	800	-	-	-	-	-	-

Maximum Operating Pressure - bar								
Valve Size (DN)	A-Style	Clincher (2000 Series)	Eliminator	4000 Series	7000 Series		9000 Series	
					ASME 150 Class	ASME 300 Class	ASME 150 Class	ASME 300 Class
8	82.7	-	82.7	-	-	-	-	-
10	82.7	-	82.7	-	-	-	-	-
15	82.7	-	82.7	82.7	19.6	51.1	19.6	51.1
20	82.7	-	82.7	82.7	19.6	51.1	19.6	51.1
25	82.7	55.2	82.7	82.7	19.6	51.1	19.6	51.1
32	82.7	55.2	82.7	82.7	-	-	-	-
40	-	55.2	-	-	19.6	-	-	-
50	-	55.2	-	-	-	-	-	-

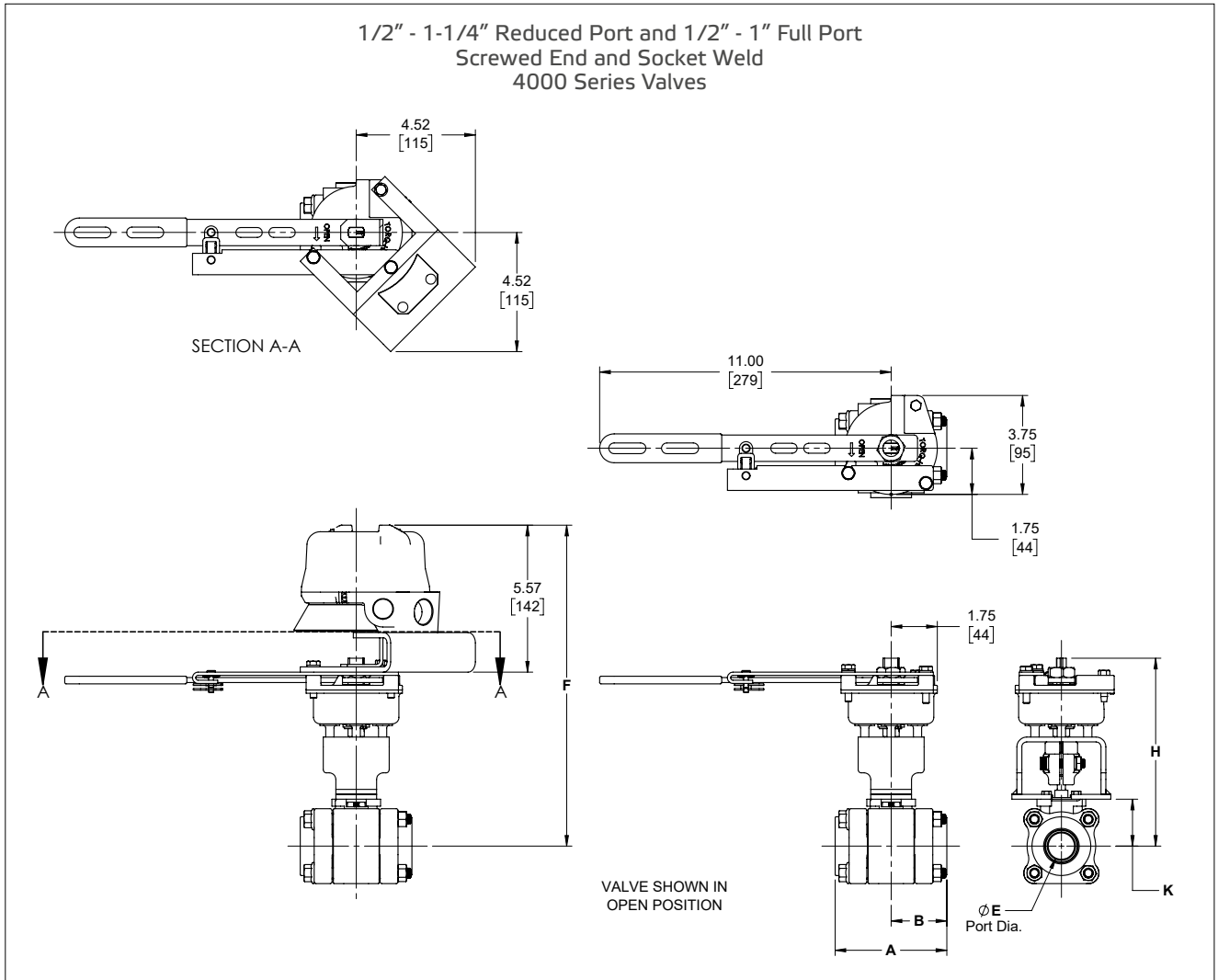
## Flow data

The tables to the right provide flow coefficients for Jamesbury valves covered in this section. The  $C_v$  values represent the flow of water at +60°F through the valve in U.S. gallons per minute at a pressure drop of 1 psi. The metric equivalent,  $K_v$ , is the flow of water at 16°C through the valve in cubic meters per hour at a pressure drop of 1 kg/cm<sup>2</sup>. To convert  $C_v$  to  $K_v$ , multiply by 0.8569.

Flow Data - $C_v$							
Valve Size (inches)	A-Style	Clincher (2000 Series)	Eliminator	4000 Series (Reduced Port)	4000 Series (Full Port)	7000 Series	9000 Series
	$C_v$	$C_v$	$C_v$	$C_v$	$C_v$	$C_v$	$C_v$
1/4	6	-	6	-	-	-	-
3/8	10	-	10	-	-	-	-
1/2	13	-	13	13	13	9	9
3/4	33	-	33	33	40	19	50
1	44	49	44	44	65	45	100
1-1/4	46	49	46	46	-	-	-
1-1/2	-	100	-	-	-	125	-
2	-	115	-	-	-	-	-

Flow Data - $K_v$							
Valve Size (DN)	A-Style	Clincher (2000 Series)	Eliminator	4000 Series (Reduced Port)	4000 Series (Full Port)	7000 Series	9000 Series
	$K_v$	$K_v$	$K_v$	$K_v$	$K_v$	$K_v$	$K_v$
8	5.1	-	5.1	-	-	-	-
10	8.6	-	8.6	-	-	-	-
15	11.1	-	11.1	11.1	11.1	7.7	7.7
20	28.3	-	28.3	28.3	34.3	16.3	42.8
25	37.7	42.0	37.7	37.7	55.7	38.6	85.7
32	39.4	42.0	39.4	39.4	-	-	-
40	-	85.7	-	-	-	107.1	-
50	-	98.5	-	-	-	-	-

## Dimensions



4000 Series, Reduced Bore, Screwed End and Socket Weld - inches							
Valve Size (inches)	A	B	E	F**	H	K	Weight (lbs)
1/2	2.59	1.29	0.50	11.33	6.32	1.06	24
3/4	3.01	1.50	0.69	11.49	6.48	1.22	25
1	3.69	1.85	0.88	11.98	6.96	1.65	27
1-1/4	4.22	2.11	1.00	12.11	7.09	1.78	29

\*\*= Add 2.12" for QX4V Limit Switch Models

4000 Series, Reduced Bore, Screwed End and Socket Weld - millimeters							
Valve Size (DN)	A	B	E	F**	H	K	Weight (kg)
15	66	33	13	288	160	27	11
20	76	38	18	292	165	31	11
25	94	47	22	304	177	42	12
32	107	54	25	307	180	45	13

\*\*= Add 54mm for QX4V Limit Switch Models

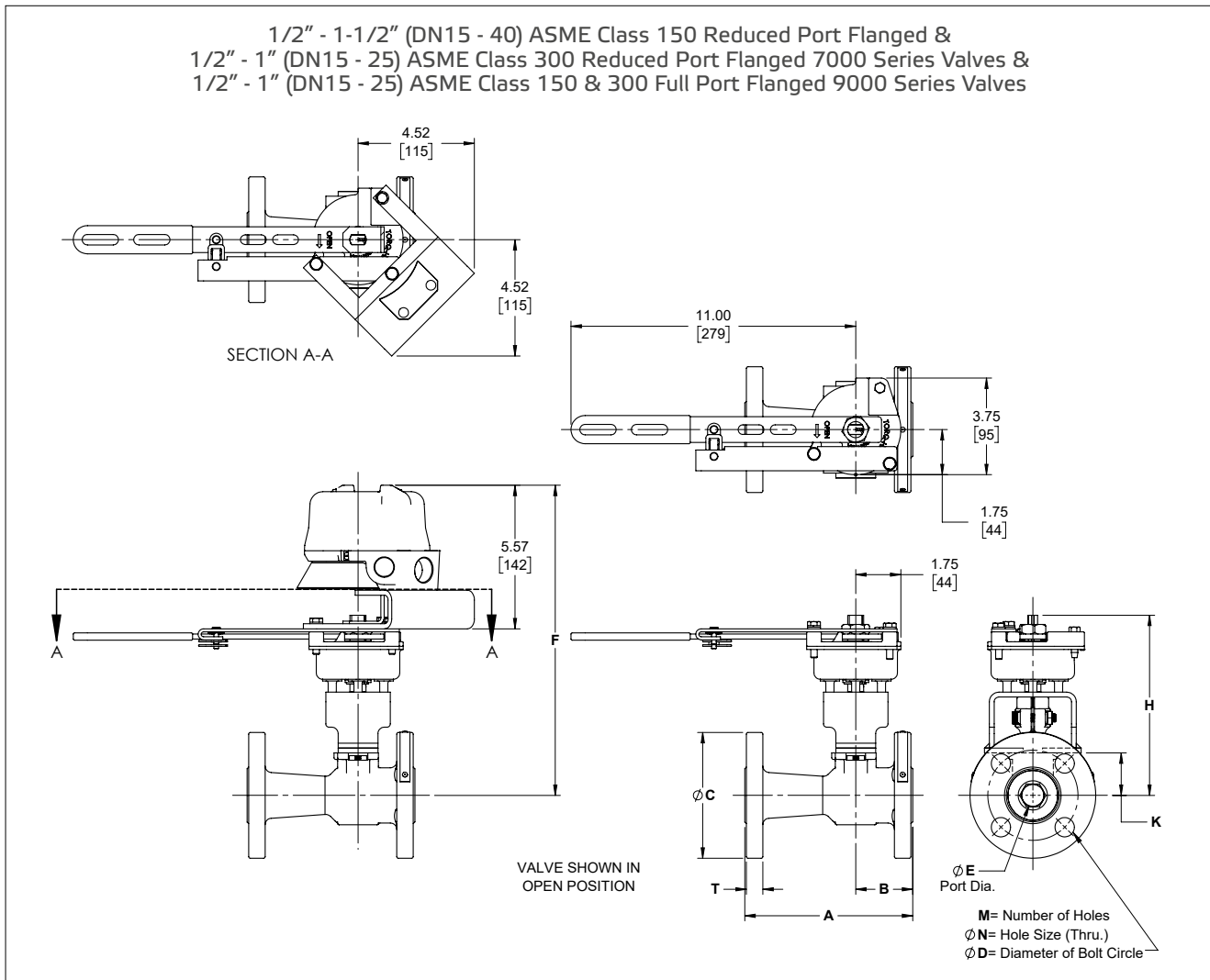
4000 Series, Full Bore, Screwed End and Socket Weld - inches							
Valve Size (inches)	A	B	E	F**	H	K	Weight (lbs)
1/2	2.59	1.29	0.50	11.33	6.32	1.06	24
3/4	3.69	1.85	0.88	11.92	6.91	1.65	28
1	4.22	2.11	1.00	12.11	7.09	1.78	30

\*\*= Add 2.12" for QX4V Limit Switch Models

4000 Series, Full Bore, Screwed End and Socket Weld - millimeters							
Valve Size (DN)	A	B	E	F**	H	K	Weight (kg)
15	66	33	13	288	160	27	11
20	94	47	22	303	175	42	13
25	107	54	25	307	180	45	13

\*\*= Add 54mm for QX4V Limit Switch Models

## Dimensions



7150, ASME Class 150, Flanged - inches

Valve Size (inches)	A	B	C	D	E	F**	H	K	M	N	T	Weight (lbs)
1/2	4.25	1.94	3.50	2.38	0.50	11.33	6.32	1.06	4	0.62	0.50	26
3/4	4.63	2.00	3.88	2.75	0.69	11.49	6.48	1.22	4	0.62	0.50	27
1	5.00	2.19	4.25	3.12	0.88	11.98	6.96	1.65	4	0.62	0.56	30
1-1/2	6.50	2.65	5.00	3.88	1.25	12.56	7.54	2.08	4	0.62	0.69	35

\*\*= Add 2.12" for QX4V Limit Switch Models

7300, ASME Class 300, Flanged - inches

Valve Size (inches)	A	B	C	D	E	F**	H	K	M	N	T	Weight (lbs)
1/2	5.50	1.94	3.75	2.62	0.50	11.33	6.32	1.06	4	0.62	0.56	29
3/4	6.00	2.00	4.62	3.25	0.69	11.49	6.48	1.22	4	0.75	0.62	31
1	6.50	2.19	4.88	3.50	0.88	11.98	6.96	1.65	4	0.75	0.69	33

\*\*= Add 2.12" for QX4V Limit Switch Models

730S (Short Pattern), ASME Class 300, Flanged - inches												
Valve Size (inches)	A	B	C	D	E	F**	H	K	M	N	T	Weight (lbs)
1/2	4.25	1.94	3.75	2.62	0.50	11.33	6.32	1.06	4	0.62	0.56	28
3/4	4.63	2.00	4.62	3.25	0.69	11.49	6.48	1.22	4	0.75	0.62	31
1	5.00	2.19	4.88	3.50	0.88	11.98	6.96	1.65	4	0.75	0.69	33

\*\*= Add 2.12" for QX4V Limit Switch Models

9150, ASME Class 150, Flanged - inches												
Valve Size (inches)	A	B	C	D	E	F**	H	K	M	N	T	Weight (lbs)
1/2	4.25	1.94	3.50	2.38	0.50	11.33	6.32	1.06	4	0.62	0.50	26
3/4	4.63	2.19	3.88	2.75	0.88	11.98	6.96	1.65	4	0.62	0.63	33
1	5.00	2.19	4.25	3.12	1.00	12.11	7.09	1.78	4	0.62	0.63	36

\*\*= Add 2.12" for QX4V Limit Switch Models

9300, ASME Class 300, Flanged - inches												
Valve Size (inches)	A	B	C	D	E	F**	H	K	M	N	T	Weight (lbs)
1/2	5.50	1.94	3.75	2.62	0.50	11.33	6.32	1.06	4	0.62	0.56	29
3/4	6.00	2.19	4.63	3.25	0.88	11.98	6.96	1.65	4	0.75	0.63	36
1	6.50	2.19	4.88	3.50	1.00	12.11	7.09	1.78	4	0.75	0.69	41

\*\*= Add 2.12" for QX4V Limit Switch Models

7150, ASME Class 150, Flanged - millimeters												
Valve Size (DN)	A	B	C	D	E	F**	H	K	M	N	T	Weight (kg)
15	108	49	89	60	13	288	160	27	102	16	13	12
20	118	51	99	70	18	292	165	31	102	16	13	12
25	127	56	108	79	22	304	177	42	102	16	14	14
40	165	67	127	99	32	319	192	53	102	16	18	16

\*\*= Add 54mm for QX4V Limit Switch Models

7300, ASME Class 300, Flanged - millimeters												
Valve Size (DN)	A	B	C	D	E	F**	H	K	M	N	T	Weight (kg)
15	140	49	95	67	13	288	160	27	102	16	14	13
20	152	51	117	83	18	292	165	31	102	19	16	14
25	165	56	124	89	22	304	177	42	102	19	18	15

\*\*= Add 54mm for QX4V Limit Switch Models

730S (Short Pattern), ASME Class 300, Flanged - millimeters												
Valve Size (DN)	A	B	C	D	E	F**	H	K	M	N	T	Weight (kg)
15	108	49	95	67	13	288	160	27	102	16	14	13
20	118	51	117	83	18	292	165	31	102	19	16	14
25	127	56	124	89	22	304	177	42	102	19	18	15

\*\*= Add 54mm for QX4V Limit Switch Models

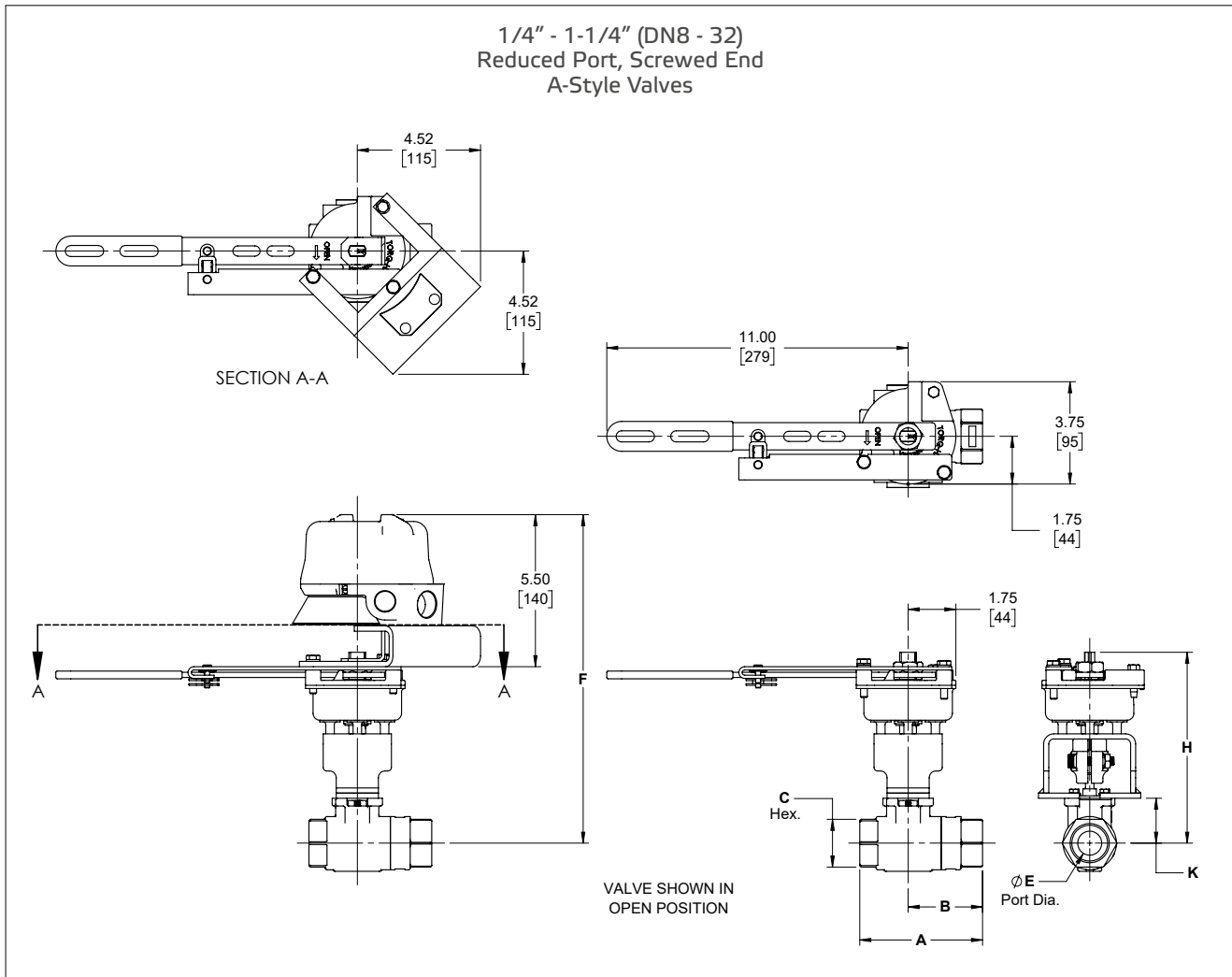
9150, ASME Class 150, Flanged - millimeters												
Valve Size (DN)	A	B	C	D	E	F**	H	K	M	N	T	Weight (kg)
15	108	49	89	60	13	288	160	27	102	16	13	12
20	118	56	99	70	22	304	177	42	102	16	16	15
25	127	56	108	79	25	307	180	45	102	16	16	17

\*\*= Add 54mm for QX4V Limit Switch Models

9300, ASME Class 300, Flanged - millimeters												
Valve Size (DN)	A	B	C	D	E	F**	H	K	M	N	T	Weight (kg)
15	140	49	95	67	13	288	160	27	102	16	14	13
20	152	56	118	83	22	304	177	42	102	19	16	17
25	165	56	124	89	25	307	180	45	102	19	18	19

\*\*= Add 54mm for QX4V Limit Switch Models

## Dimensions



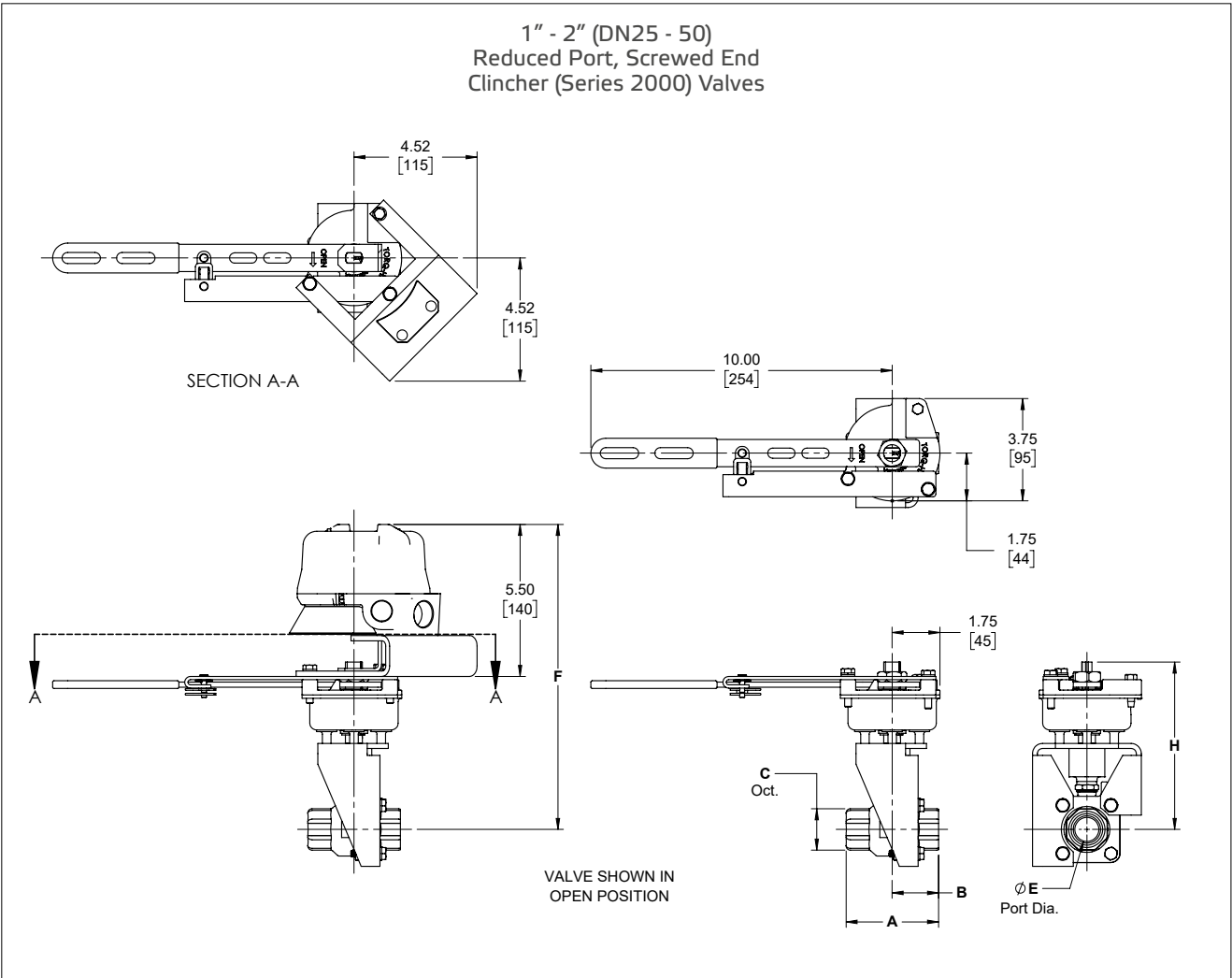
A-Style, Reduced Port, Screwed End - inches								
Valve Size (inches)	A	B	C	E	F**	H	K	Weight (lbs)
1/4	2.94	1.66	1.13	0.43	11.33	6.32	1.06	24
3/8	2.94	1.66	1.13	0.43	11.33	6.32	1.06	24
1/2	3.44	2.16	1.13	0.50	11.33	6.32	1.06	24
3/4	3.81	2.31	1.38	0.69	11.49	6.48	1.22	25
1	4.50	2.73	1.75	0.88	11.98	6.96	1.65	26
1-1/4	4.44	2.44	2.00	1.00	12.11	7.09	1.78	26

\*\*= Add 2.12" for QX4V Limit Switch Models

A-Style, Reduced Port, Screwed End - millimeters								
Valve Size (DN)	A	B	C	E	F**	H	K	Weight (kg)
8	75	42	29	11	288	160	27	11
10	75	42	29	11	288	160	27	11
15	87	55	29	13	288	160	27	11
20	97	59	35	18	292	165	31	11
25	114	69	44	22	304	177	42	12
32	113	62	51	25	307	180	45	12

\*\*= Add 54mm for QX4V Limit Switch Models

### Dimensions



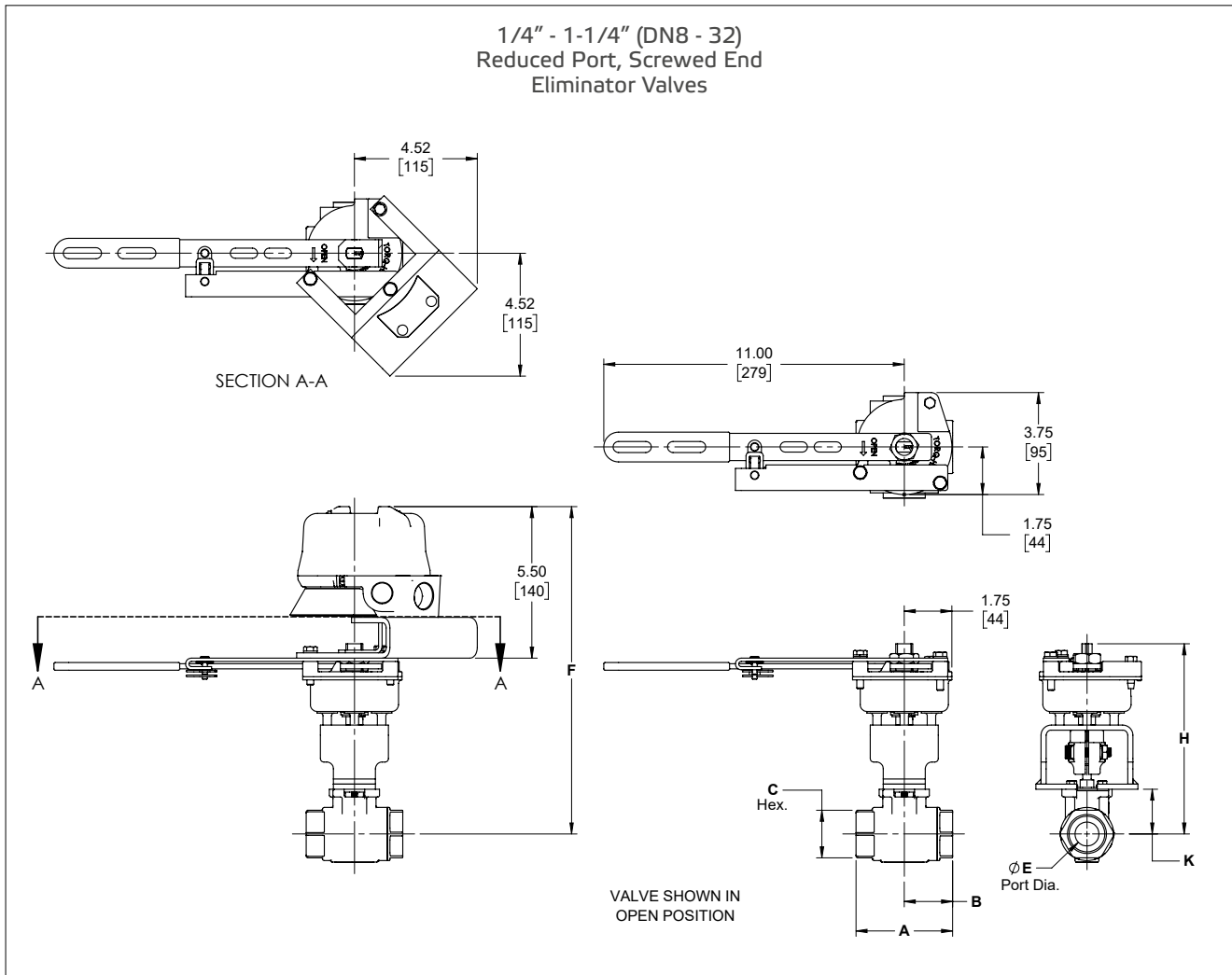
Clincher (2000 Series), Reduced Port, Screwed End - inches							
Valve Size (inches)	A	B	C	E	F**	H	Weight (lbs)
1	3.41	1.70	1.50	0.88	11.12	6.10	25
1-1/4	3.75	1.88	1.88	1.00	11.35	6.33	26
1-1/2	4.03	2.02	2.13	1.25	11.81	6.79	28
2	4.38	2.19	2.63	1.50	12.00	6.98	30

\*\*= Add 2.12" for QX4V Limit Switch Models

Clincher (2000 Series), Reduced Port, Screwed End - millimeters							
Valve Size (DN)	A	B	C	E	F**	H	Weight (kg)
25	87	43	38	22	282	155	11
32	95	48	48	25	288	161	12
40	102	51	54	32	300	172	13
50	111	56	67	38	305	177	14

\*\*= Add 54mm for QX4V Limit Switch Models

## Dimensions



Eliminator, Reduced Port, Screwed End - inches								
Valve Size (inches)	A	B	C	E	F**	H	K	Weight (lbs)
1/4	2.16	1.13	1.13	0.43	11.33	6.32	1.06	23
3/8	2.16	1.13	1.13	0.43	11.33	6.32	1.06	23
1/2	2.62	1.34	1.13	0.50	11.33	6.32	1.06	23
3/4	3.00	1.50	1.38	0.69	11.49	6.48	1.22	24
1	3.55	1.78	1.75	0.88	11.98	6.96	1.65	25
1-1/4	4.00	2.00	2.00	1.00	12.11	7.09	1.78	26

\*\*= Add 2.12" for QX4V Limit Switch Models

Eliminator, Reduced Port, Screwed End - millimeters								
Valve Size (DN)	A	B	C	E	F**	H	K	Weight (kg)
8	55	29	29	11	288	160	27	11
10	55	29	29	11	288	160	27	11
15	67	34	29	13	288	160	27	11
20	76	38	35	18	292	165	31	11
25	90	45	44	22	304	177	42	12
32	102	51	51	25	307	180	45	12

\*\*= Add 54mm for QX4V Limit Switch Models

**WARNING:** As the use of the assembly is application specific, a number of factors should be taken into account when selecting a valve for a given application. Therefore, some of the situations in which the valves are used are outside the scope of this manual. If you have any questions concerning the use, application or compatibility of the valve with the intended service, contact Valmet for more information.

## How to order emergency shutoff and firesafe valves

The designation for emergency shutoff valves is made up of numbers and letters that fully describe all features of the available variations of these units. Coding is as follows:

**Example:** A 1-1/2" emergency shutoff valve assembly Eliminator, screwed end in carbon steel with 316 stainless trim and PTFE seats with +165°F (74°C) fusible link and Torq-Handle set for spring-to-close operation without limit switches is designated as figure 1075-71T010.

1	2	3	4	5	6
7	1	T	0	1	0

1	Size	3	4	5	6	7	8
	inches	1/2	3/4	1	1-1/4	1-1/2	2
	DN	15	20	25	32	40	50

2	Body style & materials
1	Clincher (2000 Series), Reduced Port, Screwed End - Carbon Steel Body - S/S Trim
3	Clincher (2000 Series), Reduced Port, Screwed End - Stainless Steel Body - S/S Trim
5	Eliminator, Reduced Port, Screwed End - Carbon Steel Body - S/S Trim
6	Eliminator, Reduced Port, Screwed End - Stainless Steel Body - S/S Trim
7	A-Style, Reduced Port, Screwed End - Carbon Steel Body - S/S Trim
8	A-Style, Reduced Port, Screwed End - Stainless Steel Body - S/S Trim
A	7000 Series, Reduced Port, ASME Class 150, Flanged - Carbon Steel Body - S/S Trim
B	7000 Series, Reduced Port, ASME Class 150, Flanged - Stainless Steel Body - S/S Trim
C	7000 Series (Short Pattern), Reduced Port, ASME Class 300, Flanged - Carbon Steel Body - S/S Trim
D	7000 Series (Short Pattern), Reduced Port, ASME Class 300, Flanged - Stainless Steel Body - S/S Trim
E	7000 Series, Reduced Port, ASME Class 300, Flanged - Carbon Steel Body - S/S Trim
F	7000 Series, Reduced Port, ASME Class 300, Flanged - Stainless Steel Body - S/S Trim
G	9000 Series, Full Port, ASME Class 150, Flanged - Carbon Steel Body - S/S Trim
H	9000 Series, Full Port, ASME Class 150, Flanged - Stainless Steel Body - S/S Trim
J	9000 Series, Full Port, ASME Class 300, Flanged - Carbon Steel Body - S/S Trim
K	9000 Series, Full Port, ASME Class 300, Flanged - Stainless Steel Body - S/S Trim
L	4000 Series, Reduced Port, Screwed End - Carbon Steel Body - S/S Trim
M	4000 Series, Reduced Port, Screwed End - Stainless Steel Body - S/S Trim
N	4000 Series, Full Port, Screwed End - Carbon Steel Body - S/S Trim
O	4000 Series, Full Port, Screwed End - Stainless Steel Body - S/S Trim
P	Eliminator (ASME Version), Reduced Port, Screwed End - Carbon Steel Body - S/S Trim

2	Body style & materials
Q	Eliminator (ASME Version), Reduced Port, Screwed End - Stainless Steel Body - S/S Trim
R	4000 Series, Reduced Port, Socket Weld End - Carbon Steel Body - S/S Trim
S	4000 Series, Reduced Port, Socket Weld End - Stainless Steel Body - S/S Trim
T	4000 Series, Full Port, Socket Weld End - Carbon Steel Body - S/S Trim
U	4000 Series, Full Port, Socket Weld End - Stainless Steel Body - S/S Trim

3	Seat material
T	PTFE
M	Filled PTFE (Clincher only)
X	Xtreme (7150 and Eliminator)

4	Temperature Rating/Maximum Allowable Temp Exposure of Fusible Link
0	165°F(74°C)/100°F(38°C)
2	212°F(100°C)/150°F(66°C)
3	286°F(141°C)/225°F(107°C)
4	360°F(182°C)/300°F(149°C)

5	Torq-Handle release mode
1	Spring-to-close
2	Spring-to-open

6	Optional limit switch
0	No switch
2	QX2VE02SRA (2SPDT)
4	QX4VE02SRA-MET52 (2DPDT)
5	QX4WE02SRA-MET53 (2DPDT)

Available Sizes by Valve Type & Seat Material		
Style	Seat Material	Available Sizes
4000 Reduced Port	T & X Seats	1/2" - 1-1/4" (DN15 - 32)
4000 Full Port	T & X Seats	1/2" - 1" (DN15 - 25)
7150	T Seats	1/2" - 1-1/2" (DN15 - 40)
7150	X Seats	1/2" - 1" (DN15 - 25)
7300/730S	T & X Seats	1/2" - 1" (DN15 - 25)
9150	T & X Seats	1/2" - 1" (DN15 - 25)
9300	T & X Seats	1/2" - 1" (DN15 - 25)
A-Style	T & X Seats	1/4" - 1-1/4" (DN8 - 32)
Clincher	M Seats	1" - 1-1/4" (DN25 - 32)
Clincher	T Seats	1" - 2" (DN25 - 50)
Eliminator	T & X Seats	1/4" - 1-1/4" (DN8 - 32)

Subject to change without prior notice.

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**Valmet Flow Control Oy**

Vanha Porvoontie 229, 01380 Vantaa, Finland.

Tel. +358 10 417 5000.

[www.valmet.com/flowcontrol](http://www.valmet.com/flowcontrol)

