

MAXIMATOR®



High Pressure Valves, Fittings and Tubing Pressures to 65,000 psi (4,500 bar)

MAXIMATOR has been designing and manufacturing high pressure equipment for more than thirty years and has a worldwide reputation for quality and reliability, backed by one of the best service organizations in the industry.

High Pressure Valves feature:

- ▶ Rising stem design.
- ▶ 316 L (1.4404) wetted parts for excellent corrosion resistance.
- ▶ Metal-to-metal seating achieves bubble-tight shut-off, longer stem and seat life, greater durability for repeated open and close cycles.
- ▶ PTFE and carbon packing with metal back-up rings offers reliable stem to body sealing.
- ▶ Non-rotating stem prevents stem to seat galling.
- ▶ Stem sleeve and packing gland materials have been selected to achieve optimum thread cycle life and reduced handle torque. All stem sleeve threads are rolled, assuring smooth operation.
- ▶ Safety weep holes for all pressure connections and packing area.
- ▶ Six different valve body patterns, with choice of vee or regulating type stem tip.

MAXIMATOR offers a complete line of high pressure fittings, tubing, check valves, line filters, anti-vibration fittings and safety head assemblies. All high pressure valves and fittings use the high pressure style connection.

Note: When selecting multiple items, the pressure rating would be that of the lowest rated component.

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Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
Couplings

High Pressure
to 65,000 psi (4,500 bar)

Accessories

Ultra High Pressure
to 152,000 psi (10,500 bar)

Tools and
Installation

Valve Actuators

Technical
Information

Ball Valves
to 21,000 psi (1,500 bar)

MAXIMATOR®

High Pressure Valves

Pressures to 36,000 psi (2,500 bar)



Ordering Information

Typical catalog number: **36V4H071**

36V	4H	07	1	OPTIONS
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Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Extreme temperature option, see below.
36V	4H - 1/4" 6H - 3/8" 9H - 9/16"	07 - VEE stem 08 - regulating stem (tapered tip for regulating and shutoff) 87 - VEE stem with replaceable seat 88 - regulating stem with replaceable seat	1 - two-way straight 2 - two-way angle 3 - three-way, two on pressure 4 - three-way, one on pressure 5 - three-way, two-stem manifold	

Special Designs for Extreme Temperatures

Standard valves are supplied with Teflon/Carbon packing and may be operated to 450°F (230°C). High temperature packing and/or extended stuffing box are available for service from -423°F to 1200°F (-217°C to 650°C) by adding the following suffixes to catalog order number.

- **TG** standard valve with teflon glass packing to 600°F (315°C).
- **GY** standard valve with graphite braided yarn packing to 800°F (425°C).
- **HT** extended stuffing box valve with graphite braided yarn packing to 1200°F (650°C).
- **B** standard valve with cryogenic trim materials and teflon packing to -100°F (-73°C).
- **LT** extended stuffing box valve with teflon packing and cryogenic trim materials to -423°F (-217°C).

Repair Kits

Consult your **MAXIMATOR** representative for repair kits and valve bodies. Refer to the Tools and Installation section for proper maintenance procedures.

MAXIMATOR high pressure valves with metal to metal seats have a high level of safety and reliability under adverse operating conditions. These valves may be used both with gases and liquids.

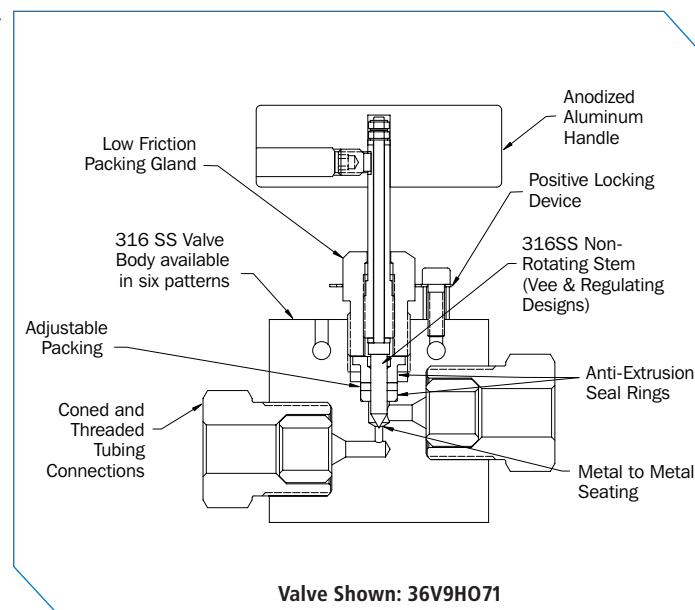
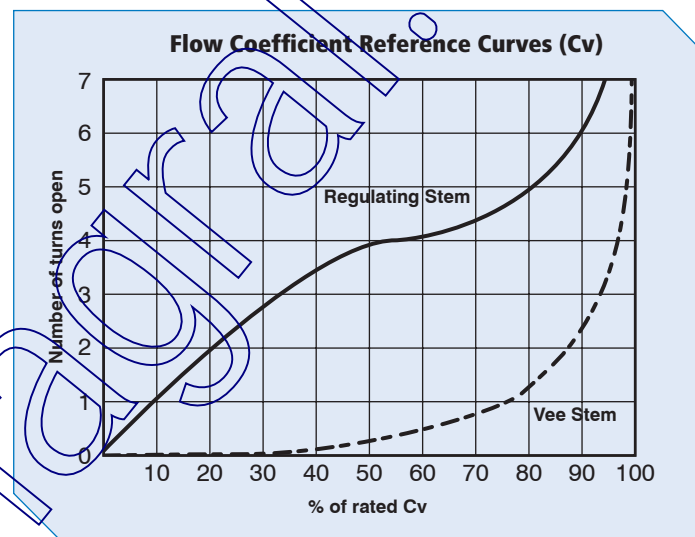
Traceability is ensured through extensively documented data (batch number, max. pressure, material number, type designation). All high pressure valves include glands and collars.

O.D. Size in. (mm)	Connection Type	Orifice Size in. (mm)	Rated Cv*	Pressure/Temp. Rating psi @ R.T.** (bar)
1/4 (6.35)	4HF	0.094 (2.3)	0.12	36,000 (2,500)
3/8 (9.53)	6HF	0.125 (3.2)	0.23	36,000 (2,500)
9/16 (19.05)	9HF	0.125 (3.2)	0.33	36,000 (2,500)

* Cv values shown are for 2-way straight pattern vee stem valves.

For 2-way angle patterns, increase the Cv value by 50%.

** See page 2 in the Technical Section for Pressure/Temperature Rating Chart.



Valve Shown: 36V9H071

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Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
Couplings

High Pressure
to 65,000 psi (4,500 bar)

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Ultra High Pressure
to 152,000 psi (10,500 bar)

Tools and
Installation

Valve Actuators

Technical
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Ball Valves
to 21,000 psi (1,500 bar)

MAXIMATOR®

High Pressure Valves Pressures to 36,000 psi (2,500 bar)

Valve Pattern	Catalog Number	Stem Type	O.D. Tube in.	Orifice in. (mm)	Dimensions in. (mm)											Valve Panel Hole	Block Thickness
					A	B	C	D	E	F	H	I	J	K			
	36V4H071	Vee	1/4	0.094	4.96	2.01	1.50	0.22	0.37	1.38	2.95	1.12	2.01	1.00	1.02		
	36V4H081	Reg		(2.3)	(126)	(51)	(38)	(5.6)	(9.5)	(35)	(75)	(28.5)	(51)			(25.4)	(25.9)
	36V6H071	Vee	3/8	0.125	4.96	2.01	1.50	0.22	0.37	1.38	2.95	1.12	2.01	1.00	1.02		
	36V6H081	Reg		(3.2)	(126)	(51)	(38)	(5.6)	(9.5)	(35)	(75)	(28.5)	(51)			(25.4)	(25.9)
	36V9H071	Vee	9/16	0.125	5.00	2.44	1.56	0.22	0.37	1.38	2.95	1.12	2.64	1.00	1.54		
	36V9H081	Reg		(3.2)	(127)	(62)	(39.6)	(5.6)	(9.5)	(35)	(75)	(28.5)	(57)			(25.4)	(39.1)
	36V4H072	Vee	1/4	0.094	4.96	2.01	1.12	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V4H082	Reg		(2.3)	(126)	(51)	(28.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(25.4)	(25.9)
	36V6H072	Vee	3/8	0.125	4.78	2.20	1.10	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V6H082	Reg		(3.2)	(121.5)	(56)	(28)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(25.4)	(25.9)
	36V9H072	Vee	9/16	0.125	5.00	2.44	1.12	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54		
	36V9H082	Reg		(3.2)	(127)	(62)	(28.5)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)			(25.4)	(39.1)
	36V4H073	Vee	1/4	0.094	4.69	2.13	1.50	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V4H083	Reg		(2.3)	(119.1)	(54.7)	(38)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(28.5)	(25.4)
	36V6H073	Vee	3/8	0.125	5.08	2.50	1.50	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V6H083	Reg		(3.2)	(129)	(63.5)	(38)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(28.5)	(25.4)
	36V9H073	Vee	9/16	0.125	5.45	2.87	1.56	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54		
	36V9H083	Reg		(3.2)	(138.5)	(72.9)	(39.6)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)			(28.5)	(25.4)
	36V4H074	Vee	1/4	0.094	4.96	2.01	1.12	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V4H084	Reg		(2.3)	(126)	(51)	(28.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(25.4)	(25.9)
	36V6H074	Vee	3/8	0.125	4.76	2.20	1.12	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V6H084	Reg		(3.2)	(121)	(56)	(28.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(25.4)	(25.9)
	36V9H074	Vee	9/16	0.125	5.00	2.44	1.12	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54		
	36V9H084	Reg		(3.2)	(127)	(62)	(28.5)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)			(25.4)	(39.1)
	36V4H075	Vee	1/4	0.094	8.23	3.07	1.54	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V4H085	Reg		(2.3)	(209)	(78)	(39.1)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(28.5)	(25.4)
	36V6H075	Vee	3/8	0.125	8.39	3.25	1.61	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V6H085	Reg		(3.2)	(213)	(82.5)	(40.9)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(28.5)	(25.4)
	36V9H075	Vee	9/16	0.125	8.90	3.74	1.88	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54		
	36V9H085	Reg		(3.2)	(226)	(95)	(47.8)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)			(28.5)	(25.4)
	36V4H872	Vee	1/4	0.094	4.96	2.38	1.12	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V4H882	Reg		(2.3)	(126)	(60.5)	(28.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(25.4)	(25.9)
	36V6H872	Vee	3/8	0.125	4.96	2.38	1.12	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02		
	36V6H882	Reg		(3.2)	(126)	(60.5)	(28.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)			(25.4)	(25.9)
	36V9H872	Vee	9/16	0.125	5.00	2.44	1.18	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54		
	36V9H882	Reg		(3.2)	(127)	(62)	(30)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)			(25.4)	(39.1)

G - Panel mounting screw thread size 10-24 UNC.
All dimensions are for reference only and subject to change.

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 to 21,000 psi (1,500 bar)

Accessories
 High Pressure
 to 65,000 psi (4,500 bar)

Tools and Installation
 Ultra High Pressure
 to 152,000 psi (10,500 bar)

Technical Information
 Valve Actuators

Ball Valves
 to 21,000 psi (1,500 bar)

MAXIMATOR®

High Pressure Valves

Pressures to 65,000 psi (4,500 bar)



Ordering Information

Typical catalog number: **65V4H071**

65V	4H	07	1	OPTIONS
Valve Series	O.D. Tube Size	Stem Type	Body Pattern	Extreme temperature option, see below.
65V	4H – 1/4" 6H – 3/8" 9H – 9/16"	07 – VEE stem 08 – regulating stem (tapered tip for regulating and shutoff) 87 – VEE stem with replaceable seat 88 – regulating stem with replaceable seat	1 – two-way straight 2 – two-way angle 3 – three-way, two on pressure 4 – three-way, one on pressure 5 – three-way, two-stem manifold	

Special Designs for Extreme Temperatures

Standard valves are supplied with Teflon/Carbon packing and may be operated to 450°F (230°C). High temperature packing and/or extended stuffing box are available for service from -423°F to 1200°F (-217°C to 650°C) by adding the following suffixes to catalog order number.

- **TG** standard valve with teflon glass packing to 600°F (315°C).
- **GY** standard valve with graphite braided yarn packing to 800°F (425°C).
- **HT** extended stuffing box valve with graphite braided yarn packing to 1200°F (650°C).
- **B** standard valve with cryogenic trim materials and teflon packing to -100°F (-73°C).
- **LT** extended stuffing box valve with teflon packing and cryogenic trim materials to -423°F (-217°C).

Repair Kits

Consult your **MAXIMATOR** representative for repair kits and valve bodies. Refer to the Tools and Installation section for proper maintenance procedures.

MAXIMATOR high pressure valves with metal to metal seats have a high level of safety and reliability under adverse operating conditions. These valves may be used both with gases and liquids.

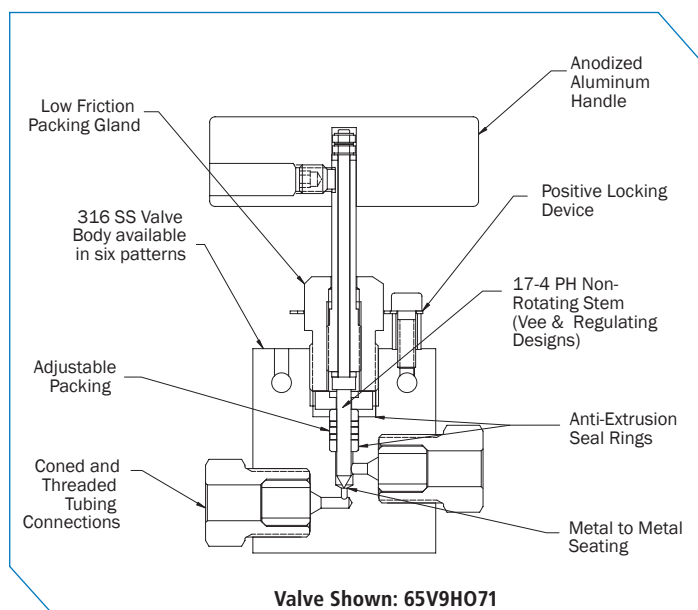
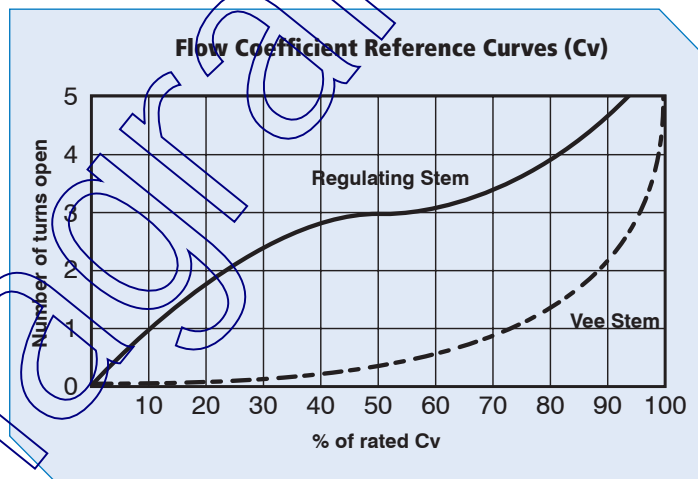
Traceability is ensured through extensively documented data (batch number, maximum pressure, material number, type designation). All high pressure valves include glands and collars.

O.D. Size in. (mm)	Connection Type	Orifice Size in. (mm)	Rated Cv*	Pressure/Temp. Rating psi (bar) @ R.T.**
1/4 (6.35)	4HF	0.062 (1.6)	0.08	65,000 (4,500)
3/8 (9.53)	6HF	0.062 (1.6)	0.09	65,000 (4,500)
9/16 (19.05)	9HF	0.078 (2)	0.14	65,000 (4,500)

* Cv values shown are for 2-way straight pattern vee stem valves.

For 2-way angle patterns, increase the Cv value by 50%.

** See page 2 in the Technical Section for Pressure/Temperature Rating Chart.



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to 21,000 psi (1,500 bar)

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Ultra High Pressure
to 152,000 psi (10,500 bar)

Tools and
Installation

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Ball Valves
to 21,000 psi (1,500 bar)

MAXIMATOR®

High Pressure Valves Pressures to 65,000 psi (4,500 bar)

Valve Pattern	Catalog Number	Stem Type	O.D. Tube in.	Orifice in. (mm)	Dimensions in. (mm)										Valve Panel Hole	Block Thickness
					A	B	C	D	E	F	H	I	J	K		
2-Way Straight																
	65V4H071	Vee	1/4	0.062	4.67	2.13	1.69	0.22	0.37	1.38	2.95	1.32	2.01	1.00	1.02	
	65V4H081	Reg		(1.6)	(118.6)	(54.1)	(43)	(5.6)	(9.5)	(35)	(75)	(33.5)	(51)	(25.4)	(25.9)	
	65V6H071	Vee	3/8	0.062	4.80	2.24	1.69	0.22	0.37	1.38	2.95	1.32	2.01	1.00	1.02	
	65V6H081	Reg		(1.6)	(122)	(56.9)	(43)	(5.6)	(9.5)	(35)	(75)	(33.5)	(51)	(25.4)	(25.9)	
	65V9H071	Vee	9/16	0.078	5.04	2.50	1.75	0.22	0.37	1.38	2.95	1.30	2.64	1.00	1.54	
	65V9H081	Reg		(2)	(128)	(63.5)	(44.5)	(5.6)	(9.5)	(35)	(75)	(33)	(57)	(25.4)	(39.1)	
2-Way Angle																
	65V4H072	Vee	1/4	0.062	4.96	2.38	1.34	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02	
	65V4H082	Reg		(1.6)	(126)	(60.5)	(34)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(25.4)	(25.9)	
	65V6H072	Vee	3/8	0.062	5.16	2.62	1.32	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02	
	65V6H082	Reg		(1.6)	(131)	(66.5)	(33.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(25.4)	(25.9)	
	65V9H072	Vee	9/16	0.078	5.35	2.80	1.32	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54	
	65V9H082	Reg		(2)	(136)	(71.1)	(33.5)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)	(25.4)	(39.1)	
3-Way / 2 on Pressure																
	65V4H073	Vee	1/4	0.062	4.96	2.38	1.69	0.22	0.37	1.38	2.95	1.00	2.01	1.32	1.00	1.02
	65V4H083	Reg		(1.6)	(126)	(60.5)	(43)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(33.5)	(25.4)	(25.9)
	65V6H073	Vee	3/8	0.062	5.31	2.76	1.69	0.22	0.37	1.38	2.95	1.00	2.01	1.32	1.00	1.02
	65V6H083	Reg		(1.6)	(134.9)	(70.1)	(43)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(33.5)	(25.4)	(25.9)
	65V9H073	Vee	9/16	0.078	5.71	3.15	1.75	0.22	0.37	1.38	2.95	1.32	2.64	1.30	1.00	1.54
	65V9H083	Reg		(2)	(145)	(80)	(44.5)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)	(33)	(25.4)	(39.1)
3-Way / 1 on Pressure																
	65V4H074	Vee	1/4	0.062	4.96	2.38	1.32	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02	
	65V4H084	Reg		(1.6)	(126)	(60.5)	(33.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(25.4)	(25.9)	
	65V6H074	Vee	3/8	0.062	5.16	2.62	1.32	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02	
	65V6H084	Reg		(1.6)	(131)	(66.5)	(33.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(25.4)	(25.9)	
	65V9H074	Vee	9/16	0.078	5.35	2.80	1.32	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54	
	65V9H084	Reg		(2)	(136)	(71.1)	(33.5)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)	(25.4)	(39.1)	
3-Way / 2-Stem Manifold																
	65V4H075	Vee	1/4	0.062	8.56	3.44	1.72	0.22	0.37	1.38	2.95	1.00	2.01	1.32	1.00	1.02
	65V4H085	Reg		(1.6)	(217.4)	(87.4)	(43.7)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(33.5)	(25.4)	(25.9)
	65V6H075	Vee	3/8	0.062	8.56	3.76	1.89	0.22	0.37	1.38	2.95	1.00	2.01	1.32	1.00	1.02
	65V6H085	Reg		(1.6)	(217.4)	(95.5)	(48)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(33.5)	(25.4)	(25.9)
	65V9H075	Vee	9/16	0.078	9.25	4.13	2.07	0.22	0.37	1.38	2.95	1.32	2.64	1.30	1.00	1.54
	65V9H085	Reg		(2)	(235)	(105)	(52.6)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)	(33)	(25.4)	(39.1)
2-Way Angle / Replaceable Seat																
	65V4H872	Vee	1/4	0.062	5.16	2.62	1.32	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02	
	65V4H882	Reg		(1.6)	(131)	(66.5)	(33.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(25.4)	(25.9)	
	65V6H872	Vee	3/8	0.062	5.16	2.62	1.32	0.22	0.37	1.38	2.95	1.00	2.01	1.00	1.02	
	65V6H882	Reg		(1.6)	(131)	(66.5)	(33.5)	(5.6)	(9.5)	(35)	(75)	(25.4)	(51)	(25.4)	(25.9)	
	65V9H872	Vee	9/16	0.078	5.16	2.62	1.32	0.22	0.37	1.38	2.95	1.32	2.64	1.00	1.54	
	65V9H882	Reg		(2)	(131)	(66.5)	(33.5)	(5.6)	(9.5)	(35)	(75)	(33.5)	(57)	(25.4)	(39.1)	

G - Panel Mounting Screw Thread Size 10-24 UNC.
All dimensions are for reference only and subject to change.

All technical and dimensional information subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Adapters and Couplings
 Medium Pressure
to 21,000 psi (1,500 bar)

Accessories
 High Pressure
to 65,000 psi (4,500 bar)

Tools and Installation
 Ultra High Pressure
to 152,000 psi (10,500 bar)

Technical Information
 Valve Actuators

Ball Valves
 to 21,000 psi (1,500 bar)

MAXIMATOR®

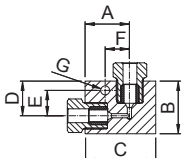
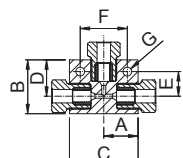
High Pressure Fittings Pressures to 65,000 psi (4,500 bar)

MAXIMATOR high pressure fittings are designed to be used with the 36V and 65V series high pressure valves and high pressure tubing. All high pressure fittings have coned and threaded type connections. Mounting holes are standard on all elbows, tees, and crosses.

Tubing Size	Gland	Collar	Plug	Tubing Cap
1/4	65G4H	65C4H	65P4H	65TC4H
3/8	65G6H	65C6H	65P6H	65TC6H
9/16	65G9H	65C9H	65P9H	65TC9H

Connection Components

All high pressure fittings are supplied with glands and collars. Refer to the adjacent chart for ordering any of the connection components individually. When using the plug, the collar is not needed.

Fitting Pattern	Catalog Number	Connection Type	O.D. Tube Size in.	Orifice in. (mm)	Dimensions in. (mm)							Block Thickness
					A	B	C	D	E	F	G	
Elbow												
	65L4H	4HF	1/4	0.094 (2.3)	0.89 (22.6)	1.02 (25.9)	1.54 (39.1)	0.63 (16)	0.46 (11.7)	0.65 (16.5)	0.22 (5.6)	1.02 (25.9)
	65L6H	6HF	3/8	0.125 (3.2)	1.26 (32)	1.50 (38.1)	2.01 (51)	0.98 (24.9)	0.72 (18.3)	0.69 (17.5)	0.26 (6.6)	1.02 (25.9)
	65L9H	9HF	9/16	0.188 (4.8)	1.89 (48)	1.89 (48)	2.64 (67)	1.10 (28)	0.83 (21.1)	0.94 (23.9)	0.33 (8.4)	1.54 (39.1)
Tee												
	65T4H	4HF	1/4	0.094 (2.3)	1.00 (25.4)	1.26 (32)	2.01 (51)	0.89 (22.6)	0.46 (11.7)	1.30 (33)	0.22 (5.6)	1.02 (25.9)
	65T6H	6HF	3/8	0.125 (3.2)	1.00 (25.4)	1.57 (39.9)	2.01 (51)	1.06 (26.9)	0.72 (18.3)	1.38 (35)	0.26 (6.6)	1.02 (25.9)
	65T9H	9HF	9/16	0.188 (4.8)	1.32 (33.5)	2.13 (54.1)	2.64 (67)	1.38 (35)	0.83 (21.1)	1.89 (48)	0.33 (8.4)	1.54 (39.1)

See page 2 in the Technical Section for pressure/temperature rating chart. All dimensions are for reference only and are subject to change.



Medium Pressure
to 21,000 psi (1,500 bar)

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High Pressure
to 65,000 psi (4,500 bar)

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Ultra High Pressure
to 152,000 psi (10,500 bar)

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Ball Valves
to 21,000 psi (1,500 bar)

All technical and dimensional information subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

MAXIMATOR®

High Pressure Fittings Pressures to 65,000 psi (4,500 bar)

Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
Couplings

High Pressure
to 65,000 psi (4,500 bar)

Accessories

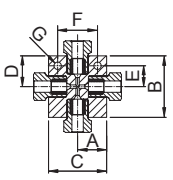
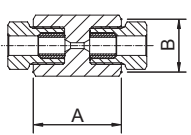
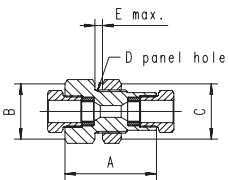
Ultra High Pressure
to 152,000 psi (10,500 bar)

Tools and
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Ball Valves
to 21,000 psi (1,500 bar)

Fitting Pattern	Catalog Number	Connection Type	O.D. Tube Size in.	Orifice in. (mm)	Dimensions in. (mm)							Block Thickness
					A	B	C	D	E	F	G	
Cross												
	65X4H	4HF	1/4	0.094 (2.3)	1.00 (25.4)	1.26 (32)	2.01 (51.1)	0.63 (16)	0.46 (11.7)	1.30 (33)	0.22 (5.6)	1.02 (25.9)
	65X6H	6HF	3/8	0.125 (3.2)	1.00 (25.4)	2.13 (54.1)	2.01 (51.1)	1.06 (27)	0.72 (18.3)	1.38 (35)	0.26 (6.6)	1.02 (25.9)
	65X9H	9HF	9/16	0.188 (4.8)	1.32 (33.5)	2.76 (70.1)	2.64 (67)	1.38 (35)	0.83 (21.1)	1.89 (48)	0.33 (8.4)	1.54 (39.1)
Straight Coupling / Union Coupling												
	65F4H	4HF	1/4	0.094 (2.3)	1.38 (35)	1.06 (27)	Straight Coupling					
	65UF4H						Union Coupling					
	65F6H	6HF	3/8	0.125 (3.2)	1.77 (45)	1.06 (27)	Straight Coupling					
	65UF6H						Union Coupling					
	65F9H	9HF	9/16	0.188 (4.8)	2.19 (55.6)	1.44 (36.6)	Straight Coupling					
	65UF9H						Union Coupling					
Bulkhead Coupling												
	65BF4H	4HF	1/4	0.094 (2.3)	1.89 (48)	1.06 (27)	1.06 (27)	0.94 (23.9)	0.16 (4)			
	65BF6H	6HF	3/8	0.125 (3.2)	2.38 (60.5)	1.44 (36.6)	1.44 (36.6)	1.12 (28.5)	0.35 (8.9)			
	65BF9H	9HF	9/16	0.188 (4.8)	2.76 (70.1)	1.63 (41.3)	1.63 (41.3)	1.43 (36.3)	0.67 (17)			

See page 2 in the Technical Section for pressure/temperature rating chart.
All dimensions are for reference only and are subject to change.

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MAXIMATOR®

Anti-Vibration Collet Gland Assembly

Pressures to 65,000 psi (4,500 bar)

MAXIMATOR anti-vibration collet gland assemblies are for use in applications where there could be extreme external mechanical vibrations or shock in tubing lines. These collet gland assemblies are interchangeable with the standard high pressure coned and threaded tube connections.

In a normal coned and threaded tube connection, any external mechanical loading on the tubing lines, valves or fittings, would be concentrated on the first thread of the tube. This can cause failure of the tube at this thinner cross-section. The anti-vibration collet gland assembly grips the tube behind the connection, supporting the tube at the full cross-section and straight area, moving the loading away from the threaded area.

The anti-vibration collet gland assembly, when tightened properly, compresses a split collet on the tube, providing the beneficial gripping action.

All anti-vibration collet gland assemblies come with a Molybdenum Disulfide Coating to guard against galling of the stainless components.



Gland Pattern	Catalog Number	Part	O.D. Tubing Size in.	Dimensions in. (mm)	
				A	B (Hex.)
	65AVA4H	Complete Assembly	1/4	0.83 (21.1)	0.62 (15.7)
	65AVFC4H	Flat Collar			
	65AVC4H	Slotted Collet			
	65AVG4H	Gland Nut			
	65AVA6H	Complete Assembly	3/8	1.16 (29.5)	0.81 (20.6)
	65AVFC6H	Flat Collar			
	65AVC6H	Slotted Collet			
	65AVG6H	Gland Nut			
	65AVA9H	Complete Assembly	9/16	1.50 (38)	1.19 (30.2)
	65AVFC9H	Flat Collar			
	65AVC9H	Slotted Collet			
	65AVG9H	Gland Nut			

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Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
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to 65,000 psi (4,500 bar)

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to 152,000 psi (10,500 bar)

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Ball Valves
to 21,000 psi (1,500 bar)

MAXIMATOR®

High Pressure Tubing Pressures to 65,000 psi (4,500 bar)

MAXIMATOR offers a line of cold drawn thick wall tubing, with flow areas to compliment the high pressure valves and fittings. This tubing is made under strict manufacturing and quality control standards and inspections, with dimensional tolerances to match the requirements of the high pressure coned and threaded connections.

The standard materials are 304 and 316 stainless steels. Other materials may be provided on special request, depending on the specific material, diameters and lengths.

Tubing Tolerances

Normal Tubing Size in. (mm)	Tolerance O.D. in. (mm)
1/4 (6.35)	0.248 / 0.243 (6.299 / 6.172)
3/8 (9.53)	0.370 / 0.365 (9.398 / 9.271)
9/16 (14.29)	0.557 / 0.552 (14.148 / 14.021)

Catalog Number	Tube Material	Fits Connection Type	Tube Size in. (mm)		Working Pressure psi (bar)				
			O.D.	I.D.	-325 to 100°F (-198°C to 57°C)	200°F (93°C)	400°F (204°C)	600°F (315°C)	800°F (426°C)
65TU4H-316	316SS	4HF	1/4 (6.35)	0.083 (2.11)	65,000 (4,500)	58,500 (4,050)	53,950 (3,750)	49,400 (3,400)	46,800 (3,250)
65TU4H-304	304SS								
65TU6H-316	316SS	6HF	3/8 (9.53)	0.125 (3.18)	65,000 (4,500)	58,500 (4,050)	53,950 (3,750)	49,400 (3,400)	46,800 (3,250)
65TU6H-304	304SS								
65TU9H-316	316SS	9HF	9/16 (14.29)	0.188 (4.77)	65,000 (4,500)	58,500 (4,050)	53,950 (3,750)	49,400 (3,400)	46,800 (3,250)
65TU9H-304	304SS								
65TU4H-HP160	HP160	4HF	1/4 (6.35)	0.06 (1.59)	101,000 (7,000)	82,600 (5,740)	72,600 (5,040)	66,500 (4,620)	61,500 (4,270)
65TU6H-HP160	HP160	6HF	3/8 (9.53)	0.16 (3.97)	152,000 (10,500)	124,000 (8,650)	108,800 (7,560)	99,800 (6,930)	92,200 (6,400)

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Ball Valves

Medium Pressure
to 21,000 psi (1,500 bar)

High Pressure
to 65,000 psi (4,500 bar)

Ultra High Pressure
to 152,000 psi (10,500 bar)

to 21,000 psi (1,500 bar)

MAXIMATOR®

Coned and Threaded Nipples

Pressures to 65,000 psi (4,500 bar)



MAXIMATOR offers a line of coned and threaded high pressure tube nipples in a variety of lengths for all standard tube sizes.

The coned and threaded high pressure tube nipples are available in 316 stainless steel. See chart below for ordering information.

Special length coned and threaded nipples are available upon request. Consult **MAXIMATOR** for availability and price.

Catalog Numbers are 316 Stainless Steel material							Fits Connection Type	Tube Size in. (mm)		Working Pressure at 100°F psi (mm)
2.75" (69.85) Length	3" (76.2) Length	4" (101.6) Length	6" (152.4) Length	8" (203.2) Length	10" (254) Length	12" (304.8) Length		O.D.	I.D.	
65N4H-2.75-316	65N4H-3-316	65N4H-4-316	65N4H-6-316	65N4H-8-316	65N4H-10-316	65N4H-12-316	4HF	1/4	0.083 (2.11)	65,000 (4,500)
	65N6H-3-316	65N6H-4-316	65N6H-6-316	65N6H-8-316	65N6H-10-316	65N6H-12-316	6HF	3/8	0.125 (3.17)	65,000 (4,500)
		65N9H-4-316	65N9H-6-316	65N9H-8-316	65N9H-10-316	65N9H-12-316	9HF	9/16	0.188 (4.77)	65,000 (4,500)

Standard nipples are not supplied with glands and collars, see Fittings on page 6 for these components.

See adjacent Tubing page 8, for pressure/temperature rating chart.

All dimensions are for reference only and subject to change.

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to 21,000 psi (1,500 bar)

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Ball Valves
to 21,000 psi (1,500 bar)

All technical and dimensional information subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

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MAXIMATOR®

Check Valves

Pressures to 65,000 psi (4,500 bar)

Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
Couplings

High Pressure
to 65,000 psi (4,500 bar)

Accessories

Ultra High Pressure
to 152,000 psi (10,500 bar)

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Ball Valves
to 21,000 psi (1,500 bar)

O-Ring Check Valves



O-Ring Check Valves

MAXIMATOR o-ring check valves provide high quality directional flow control and tight shutoff for liquids and gases. All check valves are supplied with glands and collars. These check valves are not to be used as a relief device.

Materials.

Body, cover, poppet, cover gland: 316 series stainless steel
Spring: 300 series stainless steel
O-ring: Viton "A" [-4°F to 392°F (-20°C to 200°C)]

Ball Check Valves



Ball Check Valves

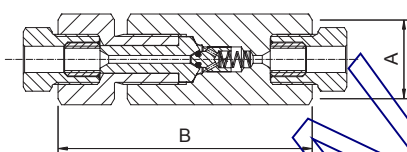
MAXIMATOR ball check valves prevent reverse flow where bubble tight shutoff is not mandatory. These check valves are designed with a ball cradled floating poppet to assure positive inline seating. This poppet design allows full flow around the ball to minimize pressure drop. Check valves are rated to 660°F (350°C). All check valves are supplied with glands and collars. These check valves are not to be used as a relief device.

Materials.

Body, cover, poppet, cover gland: 316 L series stainless steel
Ball and spring: 300 series stainless steel

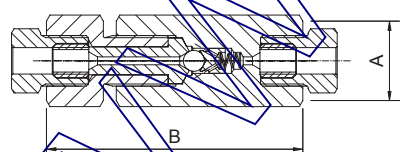
Valve Pattern	Catalog Number	Connection Type	Pressure Rating psi (bar)	Orifice in. (mm)	Rated (Cv)	Dimensions in. (mm)	
						A (Hex.)	B

O-Ring Check Valves



650C4H	4HF	65,000 (4,500)	0.094 (2.3)	0.15	1.19 (30.2)	3.40 (86.4)
650C6H	6HF	65,000 (4,500)	0.125 (3.2)	0.28	1.19 (30.2)	3.81 (96.8)
650C9H	9HF	65,000 (4,500)	0.188 (4.8)	0.63	1.63 (41.4)	4.61 (117.1)

Ball Check Valves



65BC4H	4HF	65,000 (4,500)	0.094 (2.3)	0.15	1.19 (30.2)	3.40 (86.4)
65BC6H	6HF	65,000 (4,500)	0.125 (3.2)	0.28	1.19 (30.2)	3.81 (96.8)
65BC9H	9HF	65,000 (4,500)	0.188 (4.8)	0.63	1.63 (41.3)	4.61 (117.1)

CAUTION: FREQUENT INSPECTIONS of O-Rings are necessary to ensure proper service of the check valve. O-Rings have shown satisfactory service life in testing, however different service conditions may lead to variations in cycle and shelf life.

All dimensions are for reference only and subject to change.

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MAXIMATOR®

Line Filters

Pressures to 65,000 psi (4,500 bar)

Dual-Disc Line Filters

MAXIMATOR dual-disc line filters are used to filter process fluids in high pressure systems. This design helps remove the large particles first through a coarse primary disc, which then allows a secondary disc to provide a smaller micron filtration. These filter elements are designed to withstand pressure surges without cracking, flaking, or rupturing. Filter elements come standard in the following micron sizes: 5/8, 8/30, 30/56 (secondary/primary). Filters are rated for temperatures -60°F to 660°F (-50°C to 350°C). All line filters come with glands and collars.

Materials

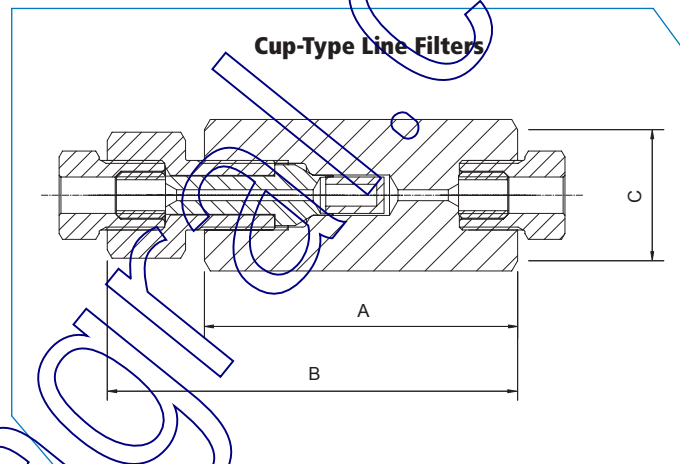
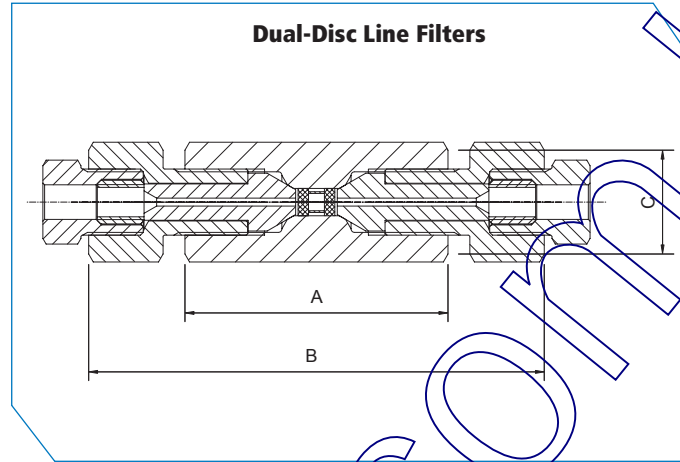
Body, cover, cover gland: 316 series stainless steel
Element: 300 series stainless steel

Cup-Type Line Filters

MAXIMATOR cup-type line filters are used when maximum filtration surface area and a single micron size element is preferred. This design increases the filter area as much as 6 times the area of the disc type filter, and will permit higher flow rates with a lower pressure drop, and longer intervals between element changes. Filter elements come standard in 5, 30, or 56 micron sizes and are easily replaced. Filters are rated for temperatures -60°F to 660°F (-50°C to 350°C). All line filters come with glands and collars.

Materials:

Body, cover, cover gland: 316 series stainless steel
Element: 300 series stainless steel



Catalog Number	Pressure Rating psi (bar)	Orifice in. (mm)	Micron Size	Connection Type	Filter Element Areas in. ² (mm ²)	Dimensions in. (mm)		
						A	B	C (Hex.)
Dual-Disc Line Filters								
65DF4H-5/8	65,000 (4,500)	0.094 (2.3)	5/8	4HF	0.07 (50)	2.99 (76)	4.8 (121.9)	1.19 (30.2)
65DF4H-8/30			8/30					
65DF4H-30/56			30/56					
65DF6H-5/8	65,000 (4,500)	0.125 (3.2)	5/8	6HF	0.07 (50)	2.99 (76)	5.29 (134.4)	1.19 (30.2)
65DF6H-8/30			8/30					
65DF6H-30/56			30/56					
65DF9H-5/8	65,000 (4,500)	0.188 (4.8)	5/8	9HF	0.15 (95)	3.39 (86.1)	5.75 (146)	1.44 (36.6)
65DF9H-8/30			8/30					
65DF9H-30/56			30/56					
Cup-Type Line Filters								
65CF4H-5	65,000 (4,500)	0.094 (2.3)	5	4HF	0.82 (530)	3.39 (86.1)	4.25 (108)	1.44 (36.6)
65CF4H-30			30					
65CF4H-56			56					
65CF6H-5	65,000 (4,500)	0.125 (3.2)	5	6HF	0.82 (530)	3.39 (86.1)	4.44 (112.8)	1.44 (36.6)
65CF6H-30			30					
65CF6H-56			56					
65CF9H-5	65,000 (4,500)	0.188 (4.8)	5	9HF	0.82 (530)	4.06 (103.1)	5.28 (134.1)	1.63 (41.3)
65CF9H-30			30					
65CF9H-56			56					

It is recommended that all fluids entering a high pressure system be thoroughly cleaned. Maximator filters are designed to remove small amounts of process particles. Pressure differential should not exceed 1000 psi across the filter elements.

All dimensions for reference only and are subject to change.

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Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
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to 65,000 psi (4,500 bar)

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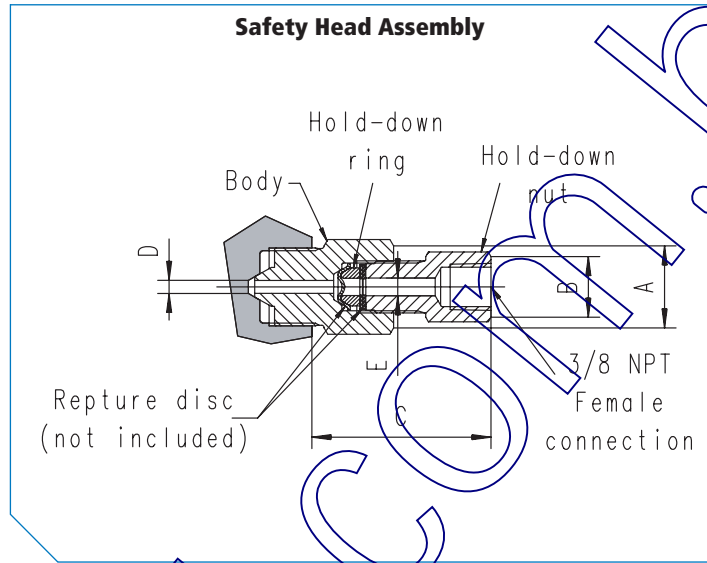
Technical
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Ball Valves
to 21,000 psi (1,500 bar)

MAXIMATOR®

Safety Head Assembly Pressures to 65,000 psi (4,500 bar)

MAXIMATOR safety head assemblies are used to provide over-pressure protection to high pressure systems. These safety head assemblies are to be used with the appropriate 1/4" angular rupture disc listed in the chart below.



Safety Head Assembly Catalog Number without Disc	Fits Connection Type	Pressure Rating psi (bar)	Body Torque ft - lbs. (Nm)	Dimensions in. (mm)				
				A (Hex.)	B (Hex.)	C (L.G.)	D (I.D.)	E (I.D.)
65SH4H	4HF	65,000 (4,500)	25 (35)	1.06 (26.9)	0.88 (22.4)	2.57 (65.3)	0.083 (2.11)	0.250 (6.4)
65SH6H	6HF	65,000 (4,500)	50 (70)	1.06 (26.9)	0.88 (22.4)	2.54 (64.5)	0.125 (3.2)	0.250 (6.4)
65SH9H	9HF	65,000 (4,500)	110 (150)	1.19 (30.2)	0.88 (22.4)	2.48 (63)	0.188 (4.8)	0.250 (6.4)

All dimensions are for reference only and are subject to change.

Medium Pressure:
to 21,000 psi (1,500 bar)

Adapters and Couplings

High Pressure
to 65,000 psi (4,500 bar)

Accessories

Ultra High Pressure
to 152,000 psi (10,500 bar)

Tools and Installation

Valve Actuators

Technical Information

Ball Valves
to 21,000 psi (1,500 bar)

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MAXIMATOR®

1/4" Angular Rupture Discs Pressures to 65,000 psi (4,500 bar)



1/4" angular seat rupture discs are designed to be used with the safety head assemblies that are shown above. Minimum rupture disc pressure ratings should be at least 110% of system operating pressure. The standard rupture disc material is Inconel. The pressure ranges indicated in the table below are at room temperature (72°F). Other materials and pressure ranges are available upon request.

Catalog Number	Pressure range psi (bar)	Catalog Number	Pressure range psi (mm)	Catalog Number	Pressure range psi (bar)	Catalog Number	Pressure range psi (bar)
RD-1200	1,164 - 1,272 (80.3 - 87.7)	RD-7000	6,790 - 7,420 (468.3 - 511.7)	RD-17000	16,490 - 18,020 (1,137.2 - 1,242.8)	RD-30000	29,100 - 31,800 (2,006.9 - 2,193.1)
RD-1500	1,455 - 1,590 (99.7 - 109.7)	RD-7500	7,275 - 7,950 (501.7 - 548.3)	RD-18000	17,460 - 19,080 (1,204.1 - 1,315.9)	RD-32500	31,525 - 34,450 (2,174.1 - 2,375.9)
RD-1750	1,697 - 1,855 (117 - 127.9)	RD-8000	7,760 - 8,480 (535.2 - 584.8)	RD-19000	18,430 - 20,140 (1,271 - 1,389)	RD-35000	33,950 - 37,100 (2,341.4 - 2,558.6)
RD-2000	1,940 - 2,120 (133.8 - 146.2)	RD-8500	8,245 - 9,010 (568.6 - 621.4)	RD-20000	19,400 - 21,200 (1,337.9 - 1,462.1)	RD-37500	36,375 - 39,750 (2,508.6 - 2,741.4)
RD-2500	2,425 - 2,650 (167.2 - 182.8)	RD-9000	8,730 - 9,540 (602.1 - 657.9)	RD-21000	20,370 - 22,260 (1,404.8 - 1,535.2)	RD-40000	38,880 - 42,400 (2,681.4 - 2,924.1)
RD-3000	2,910 - 3,180 (200.7 - 219.3)	RD-9500	9,215 - 10,070 (635.5 - 694.5)	RD-22000	21,340 - 23,320 (1,471.7 - 1,608.3)	RD-42500	41,255 - 45,050 (2,845.2 - 3,106.9)
RD-3500	3,395 - 3,710 (234.1 - 255.9)	RD-10000	9,700 - 10,600 (669 - 731)	RD-23000	22,310 - 24,380 (1,538.6 - 1,681.4)	RD-45000	43,650 - 47,700 (3,010.3 - 3,289.7)
RD-4000	3,880 - 4,240 (267.6 - 292.4)	RD-11000	10,670 - 11,660 (735.9 - 804.1)	RD-24000	23,280 - 25,440 (1,605.5 - 1,754.5)	RD-47500	46,075 - 50,350 (3,177.6 - 3,472.4)
RD-4500	4,365 - 4,770 (301 - 329)	RD-12000	11,640 - 12,720 (802.8 - 877.2)	RD-25000	24,250 - 26,500 (1,672.4 - 1,827.6)	RD-50000	48,500 - 53,000 (3,344.8 - 3,655.2)
RD-5000	4,850 - 5,300 (334.5 - 365.5)	RD-13000	12,610 - 13,780 (869.7 - 950.3)	RD-26000	25,220 - 27,560 (1,672.4 - 1,827.6)	RD-55000	53,350 - 58,300 (3,679.3 - 4,020.7)
RD-5500	5,335 - 5,830 (367.9 - 402.1)	RD-14000	13,580 - 14,840 (936.6 - 1023.4)	RD-27000	26,190 - 28,620 (1,806.2 - 1,973.8)	RD-60000	58,200 - 63,600 (4,013.8 - 4,386.2)
RD-6000	5,820 - 6,360 (401.4 - 438.6)	RD-15000	14,550 - 15,900 (1,003.4 - 1,096.6)	RD-28000	27,160 - 29,680 (1,873.1 - 2,046.9)	RD-67500	65,475 - 71,550 (4,515.5 - 4,934.5)
RD-6500	6,305 - 6,890 (434.8 - 475.2)	RD-16000	15,520 - 16,960 (1,070.3 - 1,169.7)	RD-29000	28,130 - 30,740 (1,940 - 2,120)	RD-70000	67,900 - 74,200 (4,682.8 - 5,117.2)



Rupture Discs are individually packed and marked type plate.



All technical and dimensional information subject to change. All general Terms and Conditions of sale, including limitations of our liability, apply to all products and services sold.

Medium Pressure
to 21,000 psi (1,500 bar)

Adapters and
Couplings

High Pressure
to 65,000 psi (4,500 bar)

Accessories

Ultra High Pressure
to 152,000 psi (10,500 bar)

Tools and
Installation

Valve Actuators

Technical
Information

Ball Valves
to 21,000 psi (1,500 bar)