

BuTech[®]

an Accudyne Industries brand

Delivering Peak Performance

Ultra-High-Pressure Valves

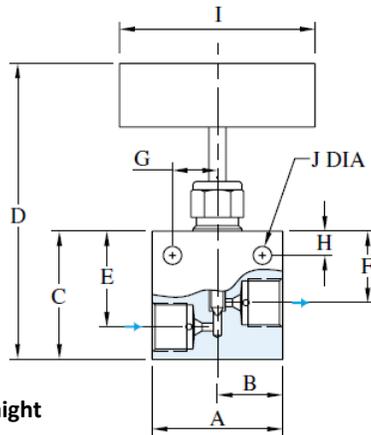




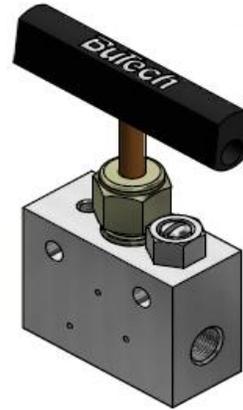
Butech is a leading brand of ultra-high-pressure valves, fittings and tubing designed to meet the critical requirements of today's most severe applications. We prove our commitment to quality, customer service and innovation through continuously-enhanced performance, increased safety factors, and extended life cycles in our high-pressure valves and equipment. We listen carefully to our customers' needs, and work closely with them to provide the most effective high-pressure solutions.

For use in high-pressure fluid and gas systems, BuTech ultra-high-pressure valves and components handle pressures to 100,000 PSI (6,895 bar). Stainless steel construction offers strength and corrosion resistance in tough-to-handle fluid and gas systems, such as corrosive processes, high-temperature test loops, cryogenic systems, sampling of steam generators and hazardous environments.

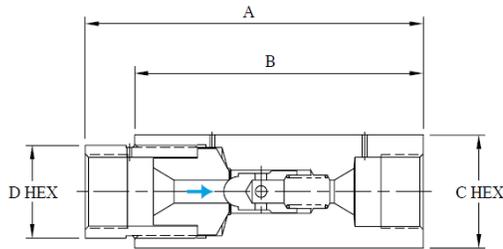
100,000 PSI (6,896 BAR) Equipment



2-Way Straight

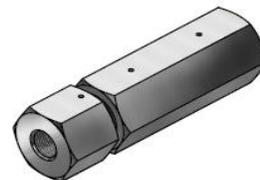


Catalog	Connection	Orifice	Cv	A	B	C	D	E	F	G	H	I	J	Thk.
100V41V	1/4" XH/P	0.094" (2.4)	0.12	3.00"	1.50"	2.25"	5.57"	1.75"	1.44"	0.88"	0.50"	4.00"	0.34"	1.38"
100V41R				(76.2)	(38.1)	(63.5)	(141.5)	(44.5)	(36.6)	(22.4)	(12.7)	(101.6)	(8.6)	(35.0)
100V61V	3/8" XH/P	0.094" (2.4)	0.12	3.00"	1.50"	2.25"	5.57"	1.75"	1.44"	0.88"	0.50"	4.00"	0.34"	1.38"
100V61R				(76.2)	(38.1)	(63.5)	(141.5)	(44.5)	(36.6)	(22.4)	(12.7)	(101.6)	(8.6)	(35.0)
100V91V	9/16" XH/P	0.125" (3.2)	0.23	3.62"	1.81"	3.00"	7.37"	2.12"	1.75"	0.88"	0.62"	6.00"	0.28"	1.75"
100V91R				(91.9)	(46.0)	(76.2)	(187.2)	(53.8)	(44.45)	(22.4)	(15.7)	(152.4)	(7.1)	(44.5)



BuTech ball check valves prevent reverse flow where leak-tight shutoff is not necessary. The valves are made from 15-5PH stainless steel with 17-4PH poppets for long life and 303 series stainless spring.

Catalog	Connection	Orifice	Cv	A	B	C	D
100BC4	1/4" XH/P	0.094" (2.4)	0.2	4.81" (122.2)	3.50" (88.9)	1.38" (35.1)	1.38" (35.1)
100BC6	3/8" XH/P	0.094" (2.4)	0.2	4.81" (122.2)	3.50" (88.9)	1.38" (35.1)	1.38" (35.1)
100BC9	9/16" XH/P	0.187" (3.2)	0.63	4.61" (117.1)	3.43" (87.1)	1.75" (44.5)	1.75" (44.5)



Collars and Glands included with all valves and fittings

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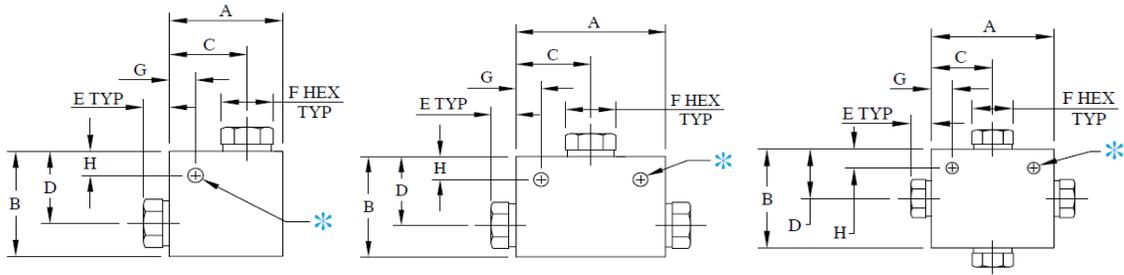
Dimensions in parentheses are millimeters (mm)

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100,000 PSI (6,896 BAR) Equipment



ELBOWS

Catalog	Connection	Orifice	A	B	C	D	E	F	Thk.	Mounting Holes *		
										G	H	Dia.
100L4	1/4" XH/P	0.094" (2.4)	3.00" (76.2)	2.12" (53.8)	1.50" (38.1)	1.50" (38.1)	0.62" (15.7)	0.75" (19.05)	1.37" (34.8)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100L6	3/8" XH/P	0.094" (2.4)	3.00" (76.2)	2.12" (53.8)	1.50" (38.1)	1.50" (38.1)	0.62" (15.7)	0.75" (19.05)	1.37" (34.8)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100L9	9/16" XH/P	0.187" (4.8)	2.62" (66.5)	1.87" (47.5)	1.87" (47.5)	1.13" (28.6)	0.81" (20.6)	1.18" (30.0)	1.50" (38.1)	2.32" (58.5)	1.38" (35.1)	0.28" (7.1)

TEES

Catalog	Connection	Orifice	A	B	C	D	E	F	Thk.	Mounting Holes *		
										G	H	Dia.
100T4	1/4" XH/P	0.094" (2.4)	3.00" (76.2)	2.12" (53.8)	1.50" (38.1)	1.50" (38.1)	0.62" (15.7)	0.75" (19.05)	1.37" (34.8)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100T6	3/8" XH/P	0.094" (2.4)	3.00" (76.2)	2.12" (53.8)	1.50" (38.1)	1.50" (38.1)	0.62" (15.7)	0.75" (19.05)	1.37" (34.8)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100T9	9/16" XH/P	0.187" (4.8)	2.62" (66.5)	2.12" (53.8)	1.31" (33.3)	1.38" (35.1)	0.81" (20.6)	1.18" (30.0)	1.50" (38.1)	.38" (9.5)	.38" (9.5)	0.28" (7.1)

CROSSES

Catalog	Connection	Orifice	A	B	C	D	E	F	Thk.	Mounting Holes *		
										G	H	Dia.
100X4	1/4" XH/P	0.094" (2.4)	3.00" (76.2)	3.00" (76.2)	1.50" (38.1)	1.50" (38.1)	0.62" (15.7)	0.75" (19.05)	1.37" (34.8)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100X6	3/8" XH/P	0.094" (2.4)	3.00" (76.2)	3.00" (76.2)	1.50" (38.1)	1.50" (38.1)	0.62" (15.7)	0.75" (19.05)	1.37" (34.8)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100X9	9/16" XH/P	0.187" (4.8)	2.62" (66.5)	2.75" (69.9)	1.31" (33.3)	1.38" (35.1)	0.81" (20.6)	1.18" (30.0)	1.50" (38.1)	.38" (9.5)	.38" (9.5)	0.28" (7.1)

* Add the suffix "-MH" to the catalog number for Mounting holes.

Collars and Glands included with all valves and fittings



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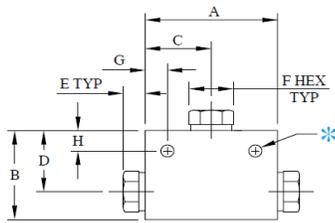
Dimensions in parentheses are millimeters (mm)

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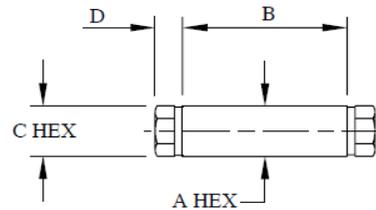
BRANCH TEES

Catalog	Connection (X2)	Branch Connection	Orifice	A	B	C	D	E Max	F Max	Thk.	Mounting Holes *		
											G	H	Dia.
100T449	1/4" XH/P	9/16" XH/P	0.094" (2.4)	3.00" (76.2)	2.12" (53.8)	1.50" (38.1)	1.50" (38.1)	0.81" (20.6)	1.18" (30.0)	1.50" (38.1)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)
100T669	3/8" XH/P	9/16" XH/P	0.094" (2.4)	3.00" (76.2)	2.12" (53.8)	1.50" (38.1)	1.50" (38.1)	0.81" (20.6)	1.18" (30.0)	1.50" (38.1)	0.50" (12.7)	0.50" (12.7)	0.34" (8.7)

* Add the suffix "-MH" to the catalog number for Mounting holes.

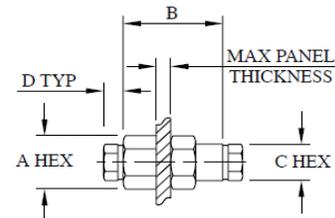
COUPLINGS

Catalog	Connection	Orifice	A	B	C	D
100F4	1/4" XH/P	0.094" (2.4)	1.13" (28.6)	2.62" (66.5)	0.75" (19.05)	0.62" (15.7)
100F6	3/8" XH/P	0.094" (2.4)	1.13" (28.6)	2.62" (66.5)	0.75" (19.05)	0.62" (15.7)
100F9	9/16" XH/P	0.187" (4.8)	1.38" (34.9)	2.19" (55.6)	1.18" (30.0)	0.81" (20.6)



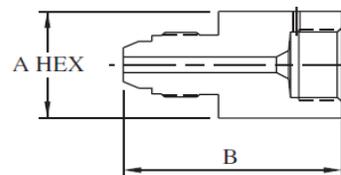
BULKHEAD COUPLINGS

Catalog	Connection	Orifice	A	B	C	D	Max. Panel Thickness	Panel Hole
100BF4	1/4" XH/P	0.094" (2.4)	1.75" (44.5)	3.25" (82.6)	0.75" (19.05)	0.62" (15.7)	0.50" (12.7)	1.44" (36.6)
100BF6	3/8" XH/P	0.094" (2.4)	1.75" (44.5)	3.25" (82.6)	0.75" (19.05)	0.62" (15.7)	0.50" (12.7)	1.44" (36.6)



ADAPTERS

Catalog	Male Connection	Female Connection	Orifice	A	B
100A9XH4XH	9/16" XH/P	1/4" XH/P	0.094" (2.4)	1.18" (30.0)	2.31" (58.7)
100A9XH6XH	9/16" XH/P	3/8" XH/P	0.094" (2.4)	1.18" (30.0)	2.31" (58.7)



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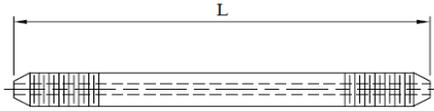
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100,000 PSI (6,896 BAR) Equipment

Coned and Threaded Nipples



Butech stocks pre-cut coned and threaded nipples in lengths up to 12" (305 mm). Other lengths can be ordered from the factory.

Connection	Length					MAWP
	4.00 INCH 101.6 MM	6.00 INCH 152.4 MM	8.00 INCH 203.2 MM	10.00 INCH 254.0 MM	12.00 INCH 304.8 MM	
1/4" XH/P	100N444-*	100N446-*	100N448-*	100N4410-*	100N4412-*	100,000 PSI 6,896 bar
3/8" XH/P	100N664-*	100N666-*	100N668-*	100N6610-*	100N6612-*	
9/16" XH/P	100N994-*	100N996-*	100N998-*	100N9910-*	100N9912-*	

* Complete the catalog number by adding length (in inches) and suffix **-HP160-AFG**.

Tubing

Catalog Number	Connection	O.D.	I.D.	MAWP
100-083-HP160-AFG	1/4" XH/P	0.250" (6.4 MM)	0.083" (2.1 MM)	100,000 PSI 6,896 bar
100-125-HP160-AFG	3/8" XH/P	0.375" (9.5 MM)	0.125" (3.2 MM)	
100-188-HP160-AFG	9/16" XH/P	0.562" (14.3 MM)	0.188" (4.8 MM)	

BuTech offers this Nitrogen Strengthened Stainless Steel in standard 20 - 24 foot lengths (6 -7 Meters). The tubing is autofrettaged to give it maximum fatigue resistance.

Connection Components



Connection	Collar	Gland	Plug
1/4" XH/P	100C4	100G4	100P4
3/8" XH/P	100C6	100G6	100P6
9/16" XH/P	100C9	100G9	100P9

BuTech valves and fittings are supplied with collars and glands. To order these components separately, use the catalog numbers listed above. When using a plug, the collar is not required.

Collars and Glands included with all valves and fittings



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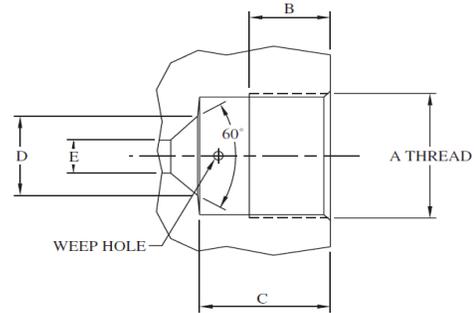
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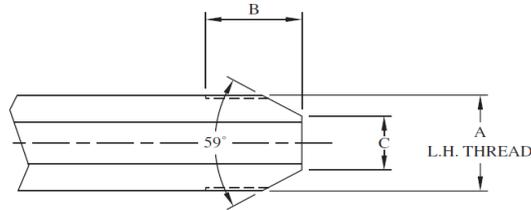
CONNECTION DETAILS - FEMALE

Connection	A Thread	B	C	D	E
1/4" XH/P	5/8" - 18	0.62" (15.7)	1.06" (26.9)	0.25" (6.4)	0.094" (2.4)
3/8" XH/P	5/8" - 18	0.62" (15.7)	1.06" (26.9)	0.25" (6.4)	0.094" (2.4)
9/16" XH/P	1-1/8" - 12	0.62" (15.7)	0.75" (19.05)	0.38" (9.7)	0.187" (4.8)



CONNECTION DETAILS - MALE NIPPLE

Connection	A Thread	B	C
1/4" XH/P	1/4"-28	0.69" (17.5)	.13" (3.3)
3/8" XH/P	3/8" - 24	0.65" (16.5)	.22" (5.6)
9/16" XH/P	9/16" - 18	0.94" (23.9)	.281" (7.16)



CONNECTION DETAILS

Connection	Engagement Allowance	Required Torque
1/4" XH/P	1.18" (30.0)	75 lb-ft 102 Nm
3/8" XH/P	1.18" (30.0)	75 lb-ft 102 Nm
9/16" XH/P	0.86" (21.8)	165 lb-ft 224 Nm

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For more information on our high-pressure products, visit butech-valve.com or contact your local BuTech representative.

BuTech is a brand of Accudyne Industries, a leading global provider of precision-engineered, process-critical and technologically advanced flow control systems and industrial compressors that deliver consistently high performance and give confidence to the mission of our customers in the most important industries and harshest environments around the world. The company is powered by more than 3,000 employees at 18 manufacturing facilities, supporting a broad range of industries in more than 150 countries.



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