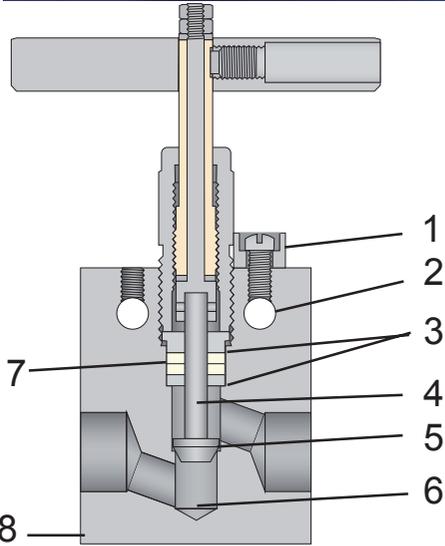


N-SERIES VALVES



Technical Data

VALVE SERIES		ORIFICE		PRESSURE RATING
		mm	in	
N	A	6.25	0.25	10000PSI@72 °F (690bar@25°C)
	B	8.00	0.32	
Series C	C	11.10	0.43	5000PSI@1200 °F
	D	17.00	0.67	(345bar@648°C)

Graphite is the standard packing material for high temperature applications up to +1200 °F, while glass-filled Teflon packing is the standard material used for cryogenic applications from 0 °F to -420 °F. Proper cooling and ventilation is required.

High Pressure and Temperature & Cryogenic Valve

BuTech N-Series Valves are designed for “Performance Under Pressure” with applications in petro-chemical, power, waterblasting, LPG, LNG, CNG, aeronautic and astronautic industry, etc. Our N-Series Valves are constructed of 316 cold-worked stainless steel for effective corrosion resistance or can be manufactured in any machinable metal including Nickel, Brass, Titanium, Inconel, Monel, Hastelloy C, and other exotic alloys.

To conform with H&S Sour Gas Service requirements, BuTech N-Series valves can be manufactured in accordance with NACE Specification MR-01-75.

Our valves can be cleaned for Oxygen Service and/or cleaned to satisfy the requirements of MIL-STD-767.

BuTech’s Navy-Approved Quality Assurance Program satisfies the requirements of MIL-I-45208A.

Features

1 Positive packing gland locking device

Prevents accidental unthreading of bonnet

2 Panel Mounting Holes

Top or side mounting

3 Gland

Packing support washers resist extrusion of packings, increasing packing life and decreasing retorque adjustments

4 Stem

Non-rotating stem prevents galling and scoring

5 Shouldered stem tip

Shouldered stem tip design simplifies maintenance by eliminating packing hooks or extractors

6 Full Porting below stem gives excellent flow

7 Packing

Glass-filled Teflon standard; Graphite optional

8 Body

Bodies cold-worked

Weep holes for instant leak detection and safety

◆ Low Operating Torque

◆ Rating basis is a factor of safety of 4:1 on pressure containing parts and 2:1 for packing or seal leakage

For services above 1200°F, contact factory or local distributor

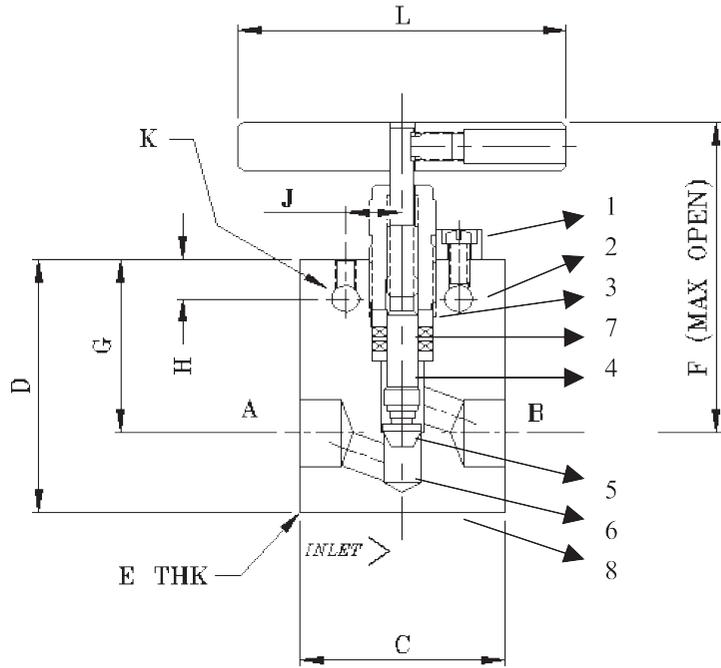


All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A

Page 1



P-SERIES VALVES



High Pressure and Temperature Valve

BuTech P-Series Valves are designed for “Performance Under Pressure” with special application in power generation plant. Our P-Series Valves are constructed of 316 cold-worked stainless steel for extremely high pressure and temperature in power industry or can be manufactured in any machinable metal including Nickel, Brass, Titanium, Inconel, Monel, Hastelloy C, and other exotic alloys.

Technical Data

VALVE SERIES		ORIFICE		PRESSURE RATING
		mm	in	
P	A	6.25	0.25	10000PSI@72 °F (690bar@25°C)
	B	8.00	0.32	
Series	C	11.10	0.43	5000PSI@1200 °F
	D	20.00	0.79	(345bar@648°C)

Graphite is the standard packing material for high temperature applications up to +1200 °F, while glass-filled Teflon packing is the standard material used for cryogenic applications from 0 °F to -420 °F. Proper cooling and ventilation is required.

Features

1 Positive packing gland locking device

Prevents accidental unthreading of bonnet

2 Panel Mounting Holes

Top or side mounting

3 Gland

Packing support washers resist extrusion of packings, increasing packing life and decreasing retorquing adjustments

4 Stem

Non-rotating stem prevents galling and scoring

5 Shouldered stem tip

Shouldered stem tip design simplifies maintenance by eliminating packing hooks or extractors

6 Full Porting below stem gives excellent flow

7 Packing

Glass-filled Teflon standard; Graphite optional

8 Body

Bodies cold-worked

Weep holes for instant leak detection and safety

◆ Low Operating Torque

◆ Rating basis is a factor of safety of 4:1 on pressure containing parts and 2:1 for packing or seal leakage

For services above 1200 °F, contact factory or local distributor

Needle Valve - Model Number Codes

AU - 12M / 16M - B - 316 - H - *
 1 2 3 4 5 6 7

1 - Valve Style / Orifice Size

Orifice	Type	Working Pressure
AE = 4.0 / 6.0 mm	Needle Valve	483 Bar @ 25 ⁰ C
CE = 10.0 mm		246 Bar @ 648 ⁰ C
AF = 6.0 mm	Tube Weld Needle Valve	483 Bar @ 25 ⁰ C
CF = 10.0 mm		246 Bar @ 648 ⁰ C
AU = 6.0 mm	Weld Nipple Needle Valve	483 Bar @ 25 ⁰ C
CU = 10.0 mm		246 Bar @ 648 ⁰ C
DE = 20.0 mm	Needle Valve	483 Bar @ 25 ⁰ C 246 Bar @ 648 ⁰ C
AP/AB = 6.25 mm	High Pressure Needle Valve	690 Bar @ 25 ⁰ C
CP/CB = 11.1 mm		345 Bar @ 648 ⁰ C
AN = 6.25 mm	High Pressure Needle Valve	690 Bar @ 25 ⁰ C
CN = 11.1 mm		345 Bar @ 648 ⁰ C
DN = 17.0 mm	High Pressure Needle Valve	690 Bar @ 25 ⁰ C 345 Bar @ 648 ⁰ C
DP/DB = 20.0 mm	High Pressure Needle Valve	690 Bar @ 25 ⁰ C 345 Bar @ 648 ⁰ C
AM = 6.0 mm	Double Needle Valve	483 Bar @ 25 ⁰ C
CM = 10.0 mm		246 Bar @ 648 ⁰ C

2 - Inlet Size

8M = 8 mm	18M = 18 mm	4 = 1/4"
10M = 10 mm	22M = 22 mm	6 = 3/8"
12M = 12 mm	25M = 25 mm	8 = 1/2"
14M = 14 mm	28M = 28 mm	12 = 3/4"
16M = 16 mm	32M = 32 mm	16 = 1"

3 - Outlet Size (Omit if same as inlet size)

8M = 8 mm	18M = 18 mm	4 = 1/4"
10M = 10 mm	22M = 22 mm	6 = 3/8"
12M = 12 mm	25M = 25 mm	8 = 1/2"
14M = 14 mm	28M = 28 mm	12 = 3/4"
16M = 16 mm	32M = 32 mm	16 = 1"

4 - Connection Type

T = Tube Socket Weld	F = FNPT	G = Double-Ferrule
P = Pipe Socket Weld	M = MNPT	B = Butt Weld Tube

5 - Material

316 = 316 SS	316L = 316L SS	321 = 321 SS	CS = Carbon Steel
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6 - Options

H = High Temperature	PM = Panel Mount
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7 - * Special Instructions (Please clearly specify)

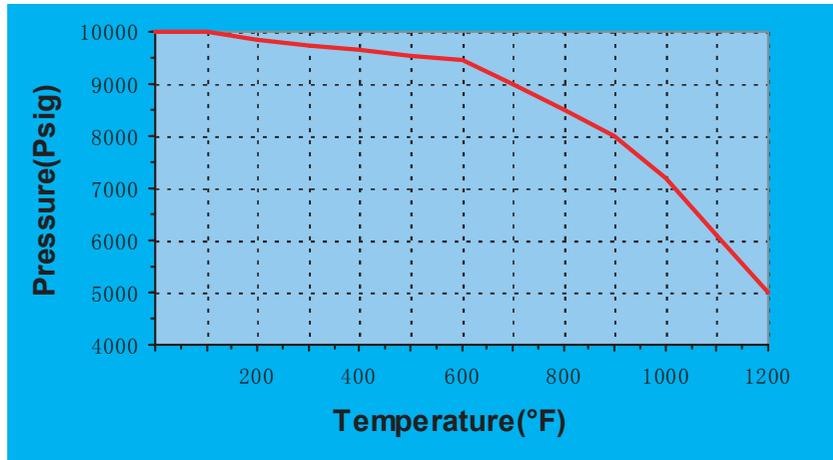


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 All equipment manufactured in U.S.A

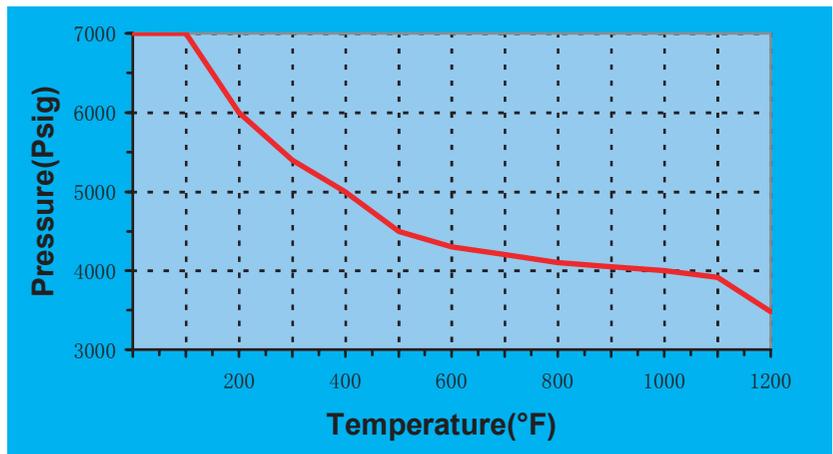
Performance

Temperature/Pressure

N,P,B Series



Other Series



Testing

Standard Production Test: Each valve of N&P&B-Series is 100% tested with nitrogen @2000 PSI for leakage at the seat, and other Series are 100% tested with nitrogen @1000 PSI for leakage at the seat. Each test is performed to a maximum allowable leak rate of 0.1 scc./min.

Each valve is tested with pure water at 1.5 times the working pressure.

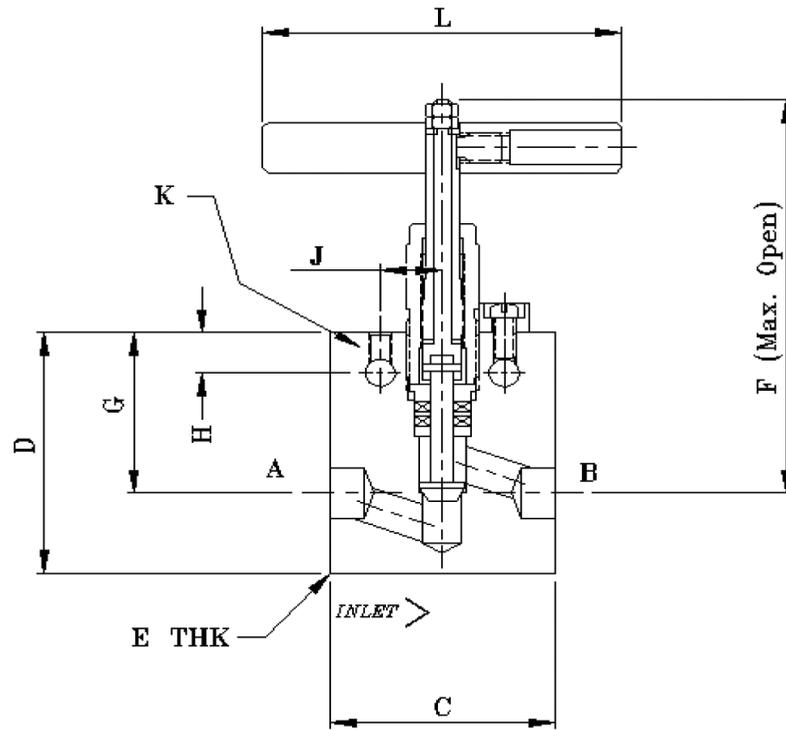
Other test methods are available.

BuTech Valve is designed, manufactured and tested in compliance with ANSI B31.1

Power Piping Code and ANSI B31.3 Chemical Plant and Petroleum Refinery Piping Code.

For special requirement, contact factory or local distributor

AN/CN Series - Needle Valves - High Pressure - Tube Socket Weld



Standard: ANSI B16.34

**Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C**

**Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)**

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
AN-8M-T	8mm	8mm	Tube Socket Weld	63.5	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-10M-T	10mm	10mm		63.5	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-12M-T	12mm	12mm		63.5	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-14M-T	14mm	14mm		63.5	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-16M-T	16mm	16mm		63.5	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
CN-12M-T	12mm	12mm		63.5	76.2	25.4	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-14M-T	14mm	14mm		63.5	76.2	25.4	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-16M-T	16mm	16mm		63.5	76.2	25.4	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-25M-T	25mm	25mm		63.5	76.2	38.1	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-16M/14M-T	16mm	14mm		63.5	76.2	25.4	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-25M/14M-T	25mm	14mm		63.5	76.2	38.1	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-25M/16M-T	25mm	16mm		63.5	76.2	38.1	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8

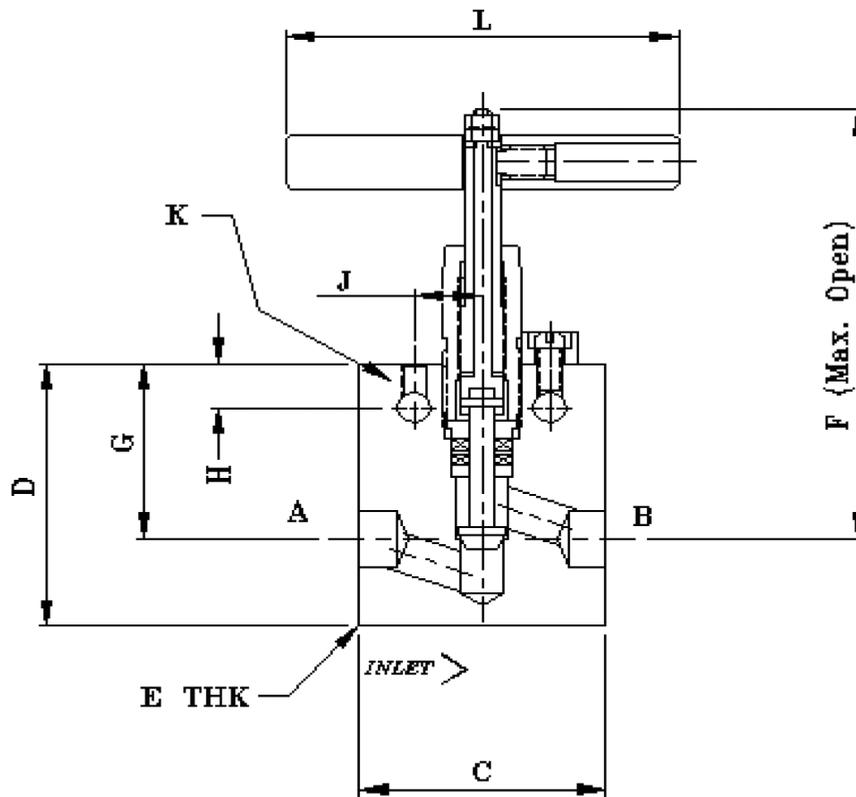
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A



AN/CN Series - Needle Valves - High Pressure - Pipe Socket Weld



Standard: ANSI B16.34

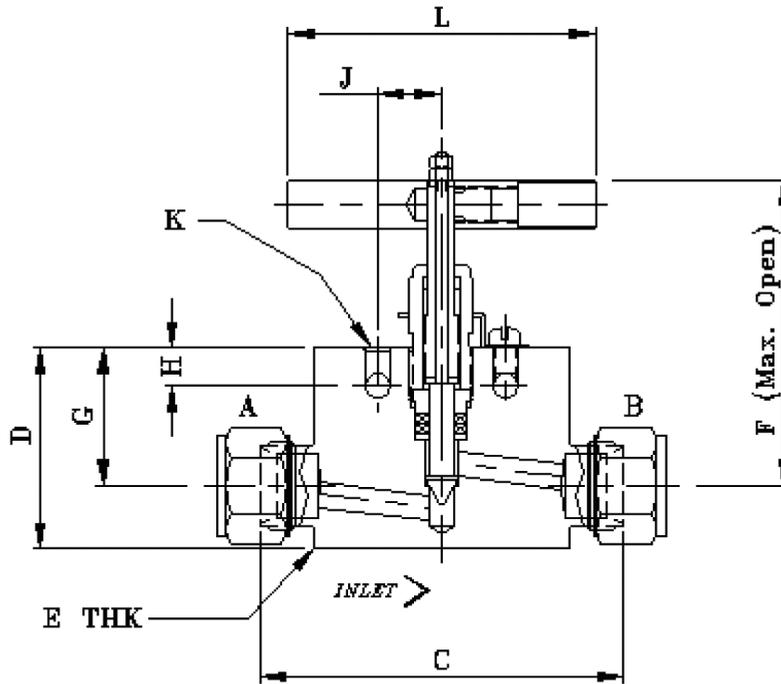
Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
AN-8-P	1/2"	1/2"	Pipe Socket Weld	63.5	50.8	34.8	95.3	34.8	9.7	15.7	6.4	76.2	6.25	0.73
CN-8-P	1/2"	1/2"		63.5	76.2	34.8	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8

For other connections and sizes, contact factory or local distributor

AN/CN Series - Needle Valves - High Pressure - Double Ferrule



Standard: ANSI B16.34

Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
AN-12M-G	12mm	12mm	Double Ferrule	88.9	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-14M-G	14mm	14mm		88.9	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-16M-G	16mm	16mm		89.9	50.8	34.8	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-8-G	1/2"	1/2"		90.4	50.8	25.4	91.4	33.0	9.7	15.7	6.4	76.2	6.25	0.73
CN-14M-G	14mm	14mm		101.6	76.2	34.8	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-16M-G	16mm	16mm		102.6	76.2	34.8	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-18M-G	18mm	18mm		104.7	76.2	34.8	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-25M-G	25mm	25mm		91.2	76.2	38.1	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8

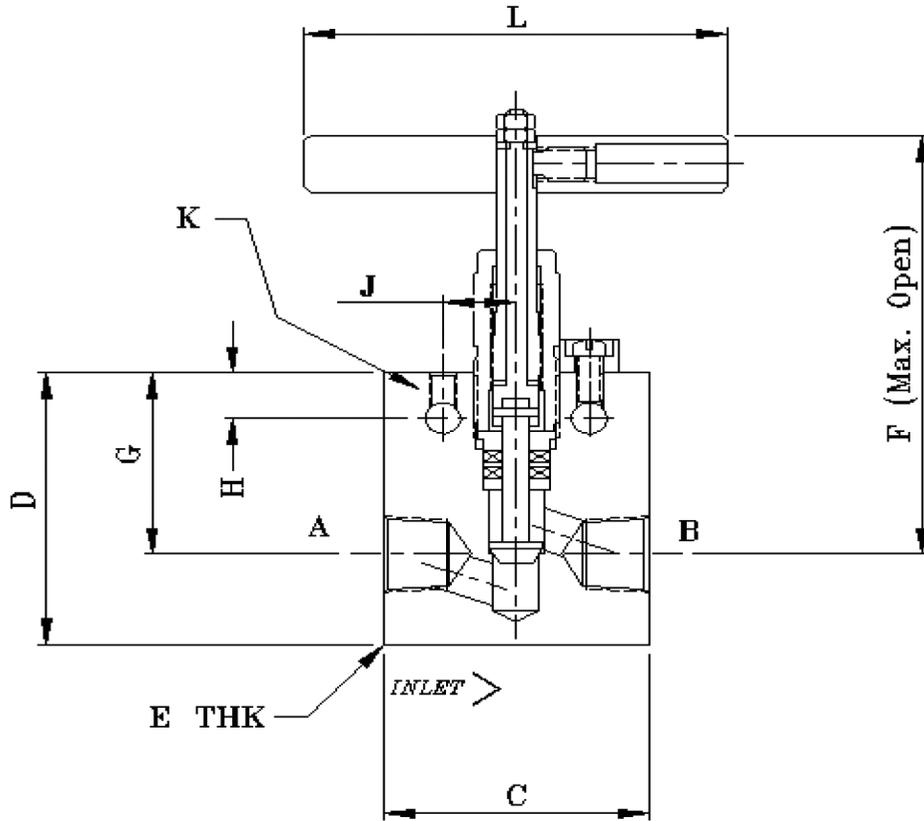
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A.



AN/CN Series - Needle Valves - High Pressure - Female NPT



Standard: ANSI B16.34

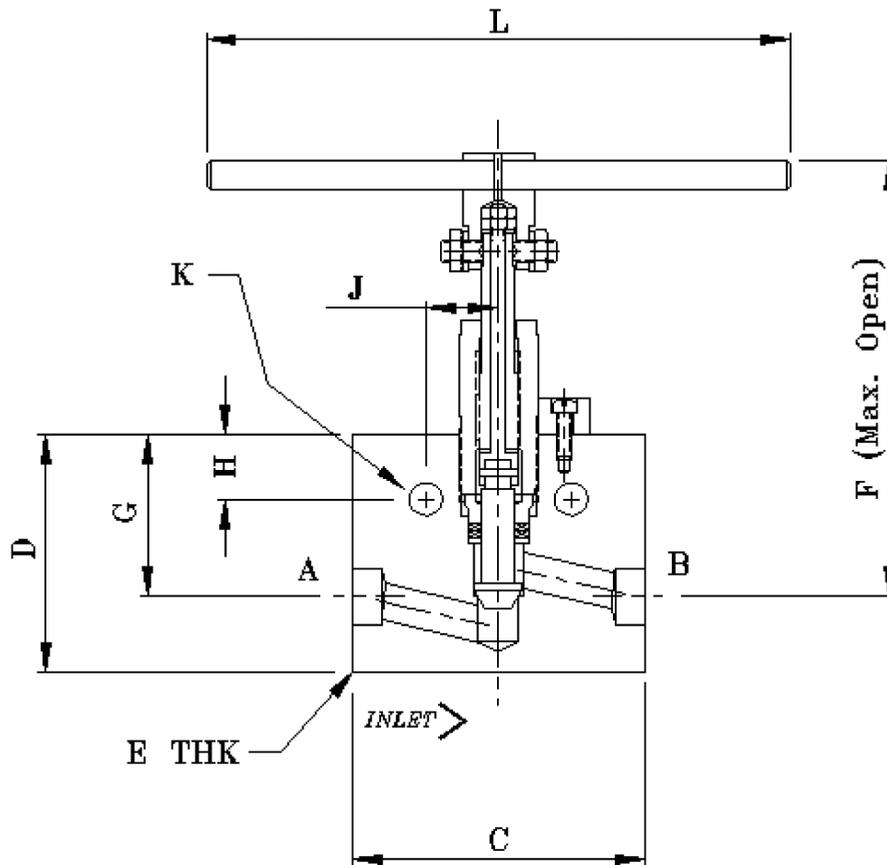
Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)								Orifice (mm)	Cv	
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K			L
AN-4-F	1/4"	1/4"	FNPT	63.5	50.8	25.4	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
AN-8-F	1/2"	1/2"		63.5	50.8	31.8	93.2	34.8	9.7	15.7	6.4	76.2	6.25	0.73
CN-8-F	1/2"	1/2"		63.5	76.2	31.8	135.9	50.8	12.7	17.5	8.6	101.6	11.1	2.8
CN-12-F	3/4"	3/4"		127	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	11.1	2.8
CN-16-F	1"	1"		127	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	11.1	2.8

For other connections and sizes, contact factory or local distributor

DN Series - Needle Valves - High Pressure - Tube Socket Weld



Standard: ANSI B16.34

Working Pressure: **690 Bar @ 25°C**
 345 Bar @ 648°C

Temperature Rating: **232°C with PTFE packing**
 648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
DN-18M-T	18mm	18mm	Socket Weld	127.0	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	15.9	5.2
DN-25M-T	25mm	25mm		127.0	104.6	44.5	212.4	71.4	28.4	21.8	14.2	254.0	17.0	5.2
DN-28M-T	28mm	28mm		127.0	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2

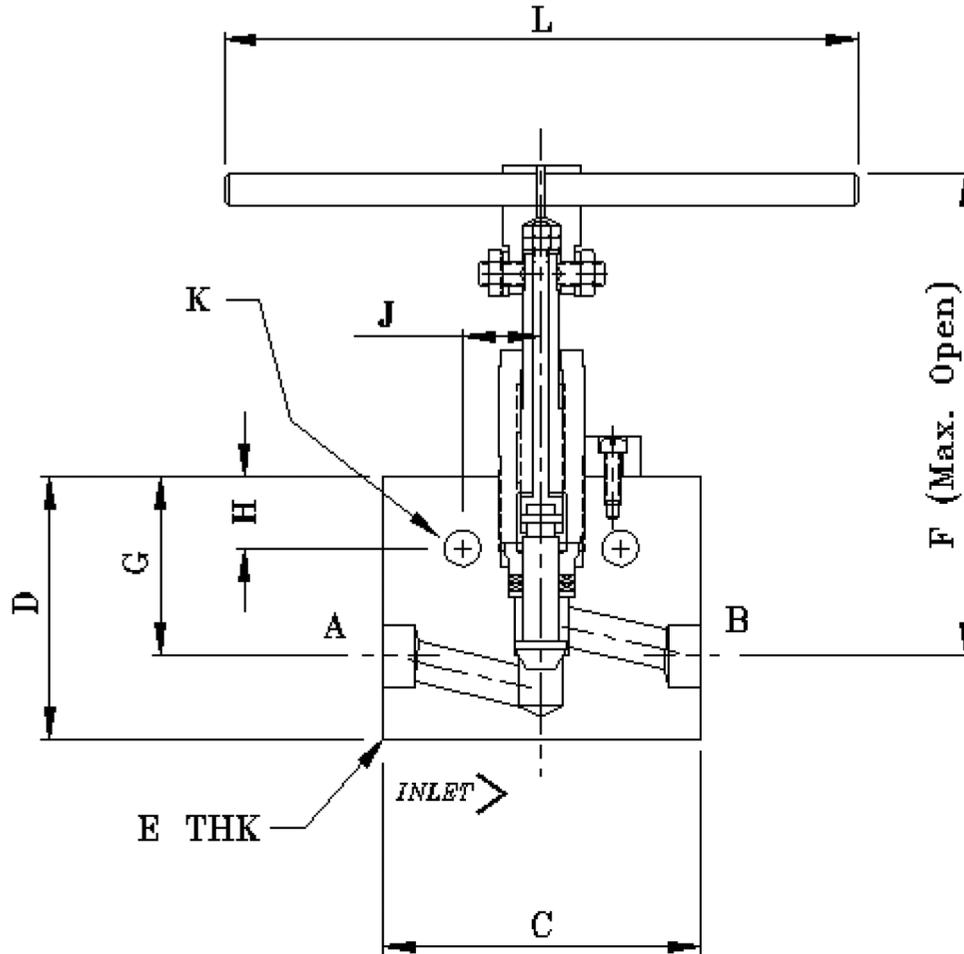
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
 Dimensions in parentheses are millimeters (mm)
 All equipment manufactured in U.S.A



DN Series - Needle Valves - High Pressure - Pipe Socket Weld



Standard: ANSI B16.34

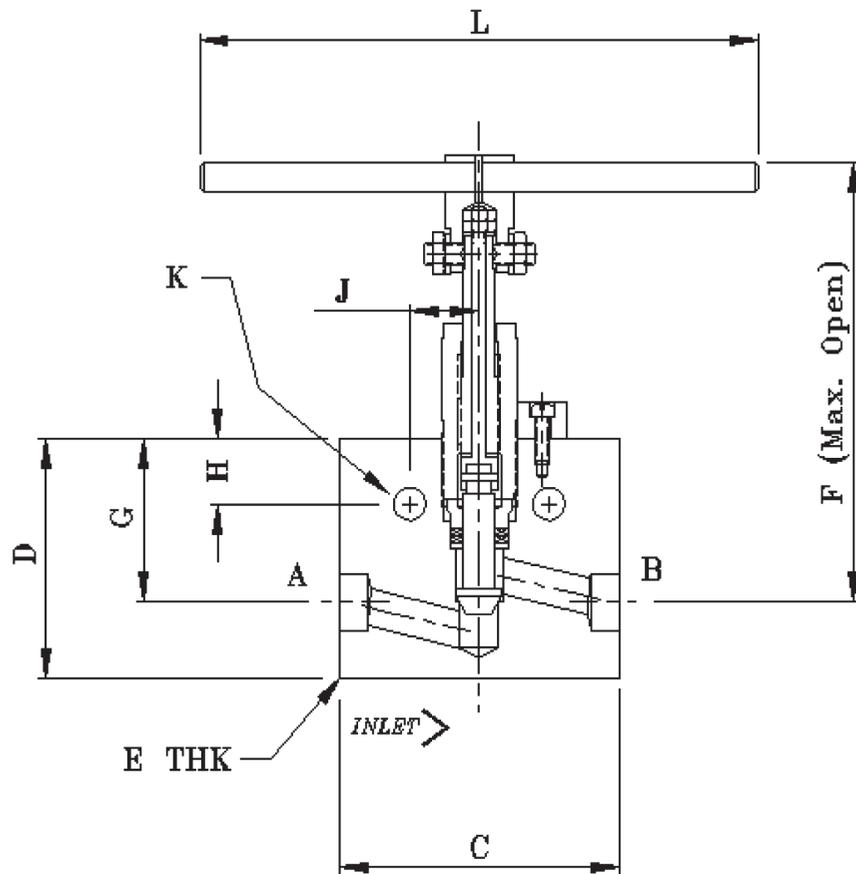
Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232° with PTFE packing
648° with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
DN-12-P	3/4"	3/4"	Pipe Socket Weld	127.0	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2
DN-16-P	1"	1"		127.0	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2

For other connections and sizes, contact factory or local distributor

DN Series - Needle Valves - High Pressure - Double Ferrule



Standard: ANSI B16.34

Working Pressure: **690 Bar @ 25°C**
 345 Bar @ 648°C

Temperature Rating: **232°C with PTFE packing**
 648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
DN-22M-G	22mm	22mm	Double Ferrule	139.7	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2
DN-25M-G	25mm	25mm		139.7	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2

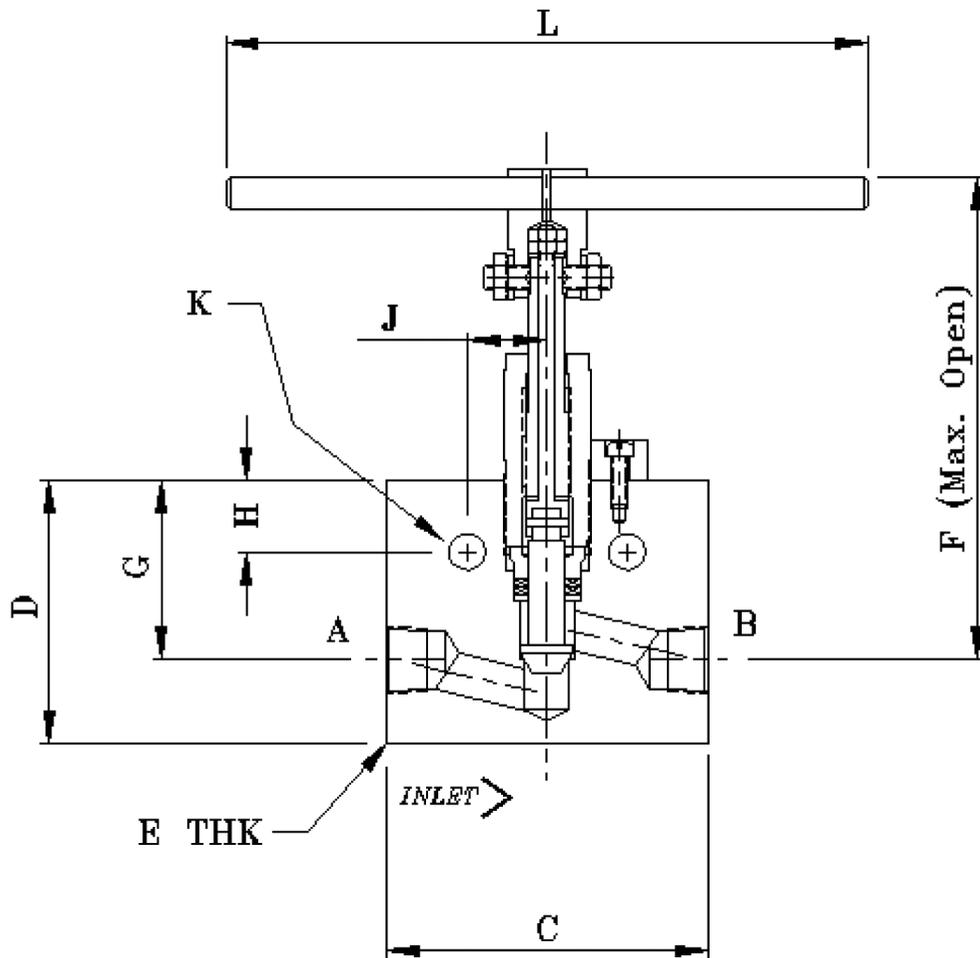
For other connections and sizes, contact factory or local distributor



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 Dimensions in parentheses are millimeters (mm)
 All equipment manufactured in U.S.A



DN Series - Needle Valves - High Pressure - Female NPT



Standard: ANSI B16.34

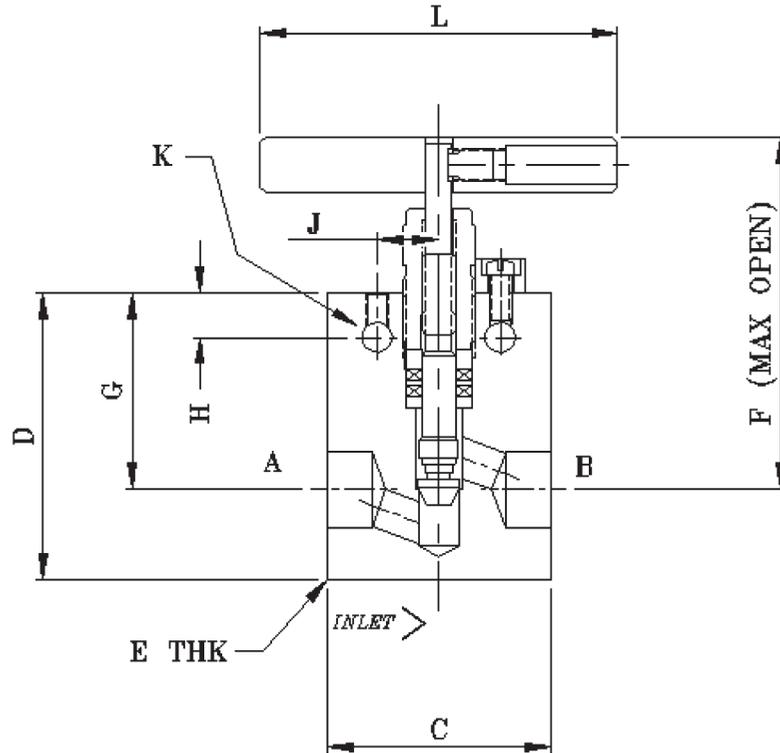
Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
DN-12-F	3/4"	3/4"	FNPT	127.0	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2
DN-16-F	1"	1"		127.0	104.6	44.5	212.4	71.4	28.4	31.8	14.2	254.0	17.0	5.2

For other connections and sizes, contact factory or local distributor

AP/CP Series - Needle Valves - High Pressure - Socket Weld



Standard: ANSI B16.34

**Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C**

**Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)**

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
AP-14M-T	14mm	14mm	Socket Weld	63.5	55.6	25.4	83.6	39.6	12.7	16.5	6.3	76.2	6.25	0.75
AP-16M-T	16mm	16mm		63.5	55.6	25.4	83.6	39.6	12.7	16.5	6.3	76.2	6.25	0.75
AP-18M-T	18mm	18mm		63.5	55.6	31.8	83.6	39.6	12.7	16.5	6.3	76.2	6.25	0.75
CP-8-P	1/2"	1/2"		63.5	81.0	34.8	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-14M-T	14mm	14mm		63.5	81.0	25.4	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-16M-T	16mm	16mm		63.5	81.0	25.4	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-18M-T	18mm	18mm		63.5	81.0	34.8	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-25M-T	25mm	25mm		63.5	81.0	38.1	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-16M/14M-T	16mm	14mm		63.5	81.0	25.4	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-25M/16M-T	25mm	16mm		63.5	81.0	38.1	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8

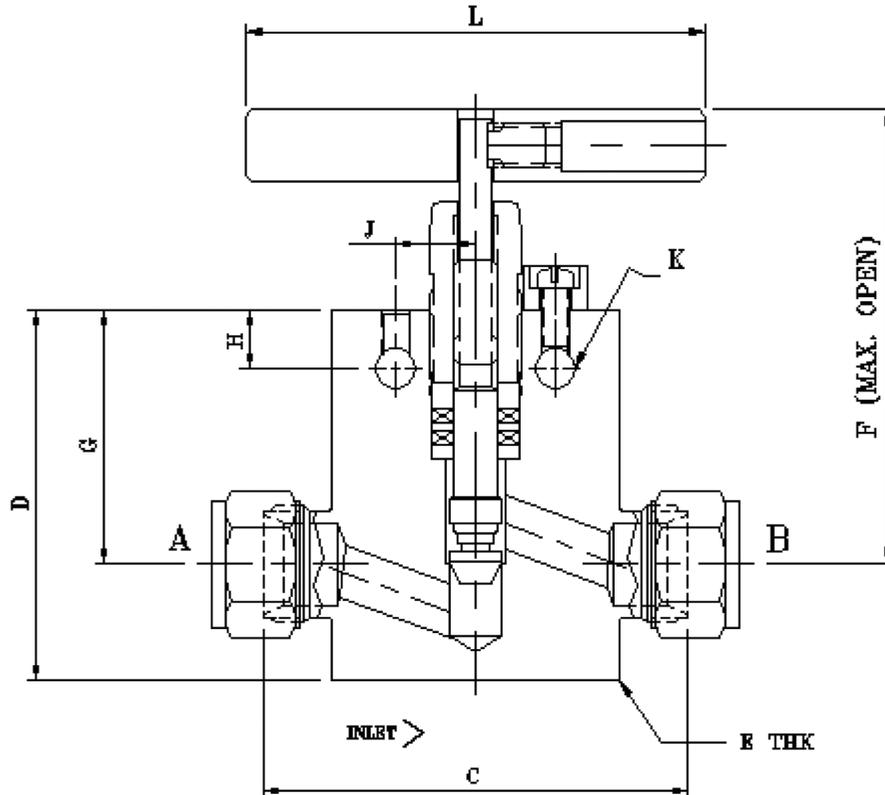
For other connections and sizes, contact factory or local distributor



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Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A



AP/CP Series - Needle Valves - High Pressure - Double Ferrule



Standard: ANSI B16.34

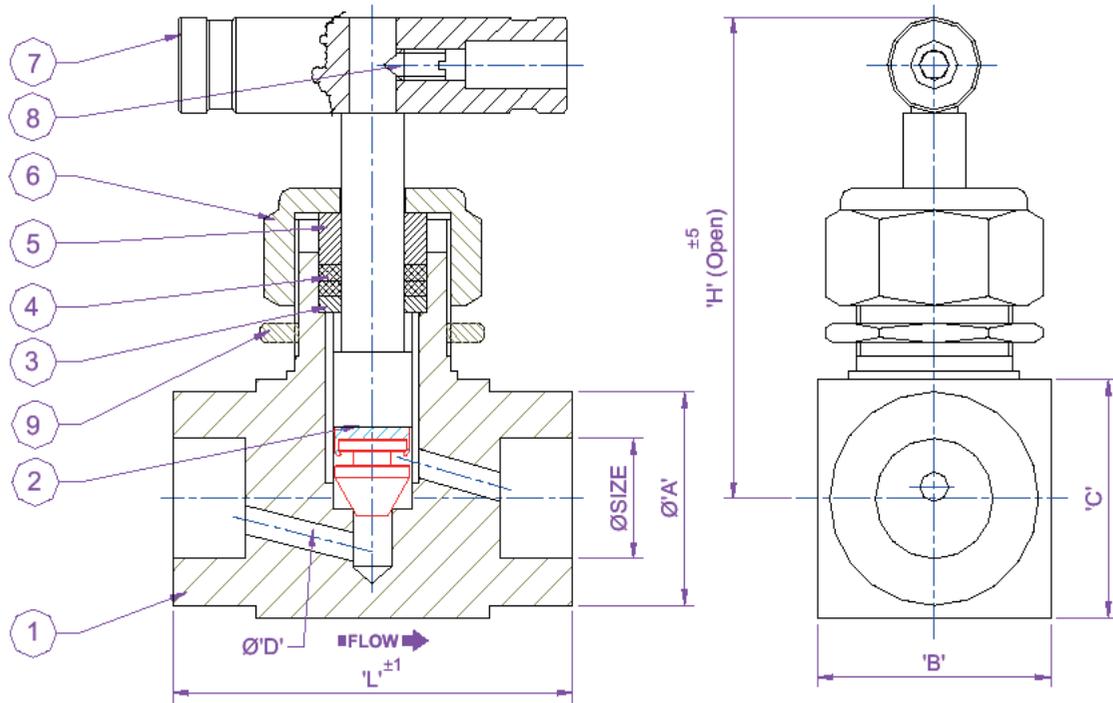
Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K	L		
AP-12M-G	12mm	12mm	Double Ferrule	88.9	55.6	25.4	83.6	39.6	12.7	16.5	6.4	76.2	6.25	0.75
AP-14M-G	14mm	14mm		88.9	55.6	25.4	83.6	39.6	12.7	16.5	6.4	76.2	6.25	0.75
AP-16M-G	16mm	16mm		89.9	55.6	25.4	83.6	39.6	12.7	16.5	6.4	76.2	6.25	0.75
AP-18M-G	18mm	18mm		92.0	55.6	31.8	83.6	39.6	12.7	16.5	6.4	76.2	6.25	0.75
AP-25M-G	25mm	25mm		91.2	55.6	38.1	83.6	39.6	12.7	16.5	6.4	76.2	6.25	0.75
CP-12M-G	12mm	12mm		88.9	81.0	25.4	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-14M-G	14mm	14mm		88.9	81.0	25.4	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-16M-G	16mm	16mm		89.9	81.0	25.4	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-18M-G	18mm	18mm		92.0	81.0	34.8	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8
CP-25M-G	25mm	25mm		91.2	81.0	38.1	107.7	55.6	12.7	17.5	8.6	101.6	11.1	2.8

For other connections and sizes, contact factory or local distributor

AB/CB/DB Series - Needle Valves - High Pressure - Socket Weld



Standard: ANSI B16.34

Working Pressure: 690 Bar @ 25°C
345 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet		Connection	Dimensions (mm)						Orifice (mm)	Cv
	Size	Size		A	B	C	D	H	L		
AB-14M-T	14mm	14mm	Socket Weld	24.0	25.0	25.0	6.0	59.0	50.0	6.25	0.75
AB-16M-T	16mm	16mm		27.0	28.0	28.0	6.0	62.0	52.0	6.25	0.75
CB-14M-T	14mm	14mm		27.0	28.0	28.0	10.0	62.0	52.0	11.1	2.8
CB-16M-T	16mm	16mm		27.0	28.0	28.0	10.0	62.0	52.0	11.1	2.8
CB-16M/14M-T	16mm	14mm		27.0	28.0	28.0	10.0	62.0	52.0	11.1	2.8
DB-28M-T	28mm	28mm		37.0	38.0	50.0	20.0	78.0	56.0	20.0	8.0

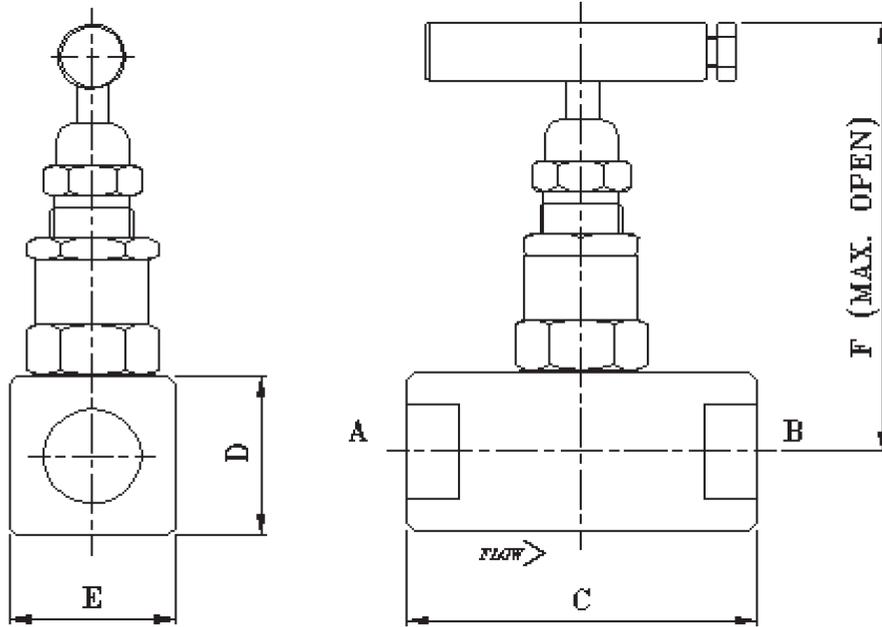
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A.



AE/CE Series - Needle Valves - Tube Socket Weld



Standard: ANSI B16.34

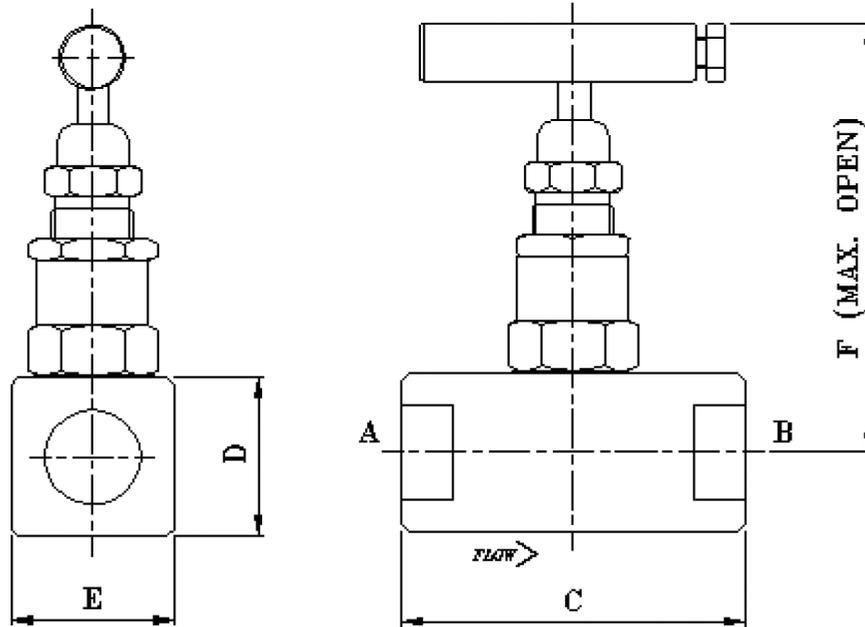
**Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C**

**Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)**

Model	Inlet x Outlet		Connection	Dimensions(mm)				Orifice (mm)	Cv
	Size 'A'	Size 'B'		C	D	E	F		
AE-12M-T	12mm	12mm	Tube Socket Weld	76.0	32.0	32.0	92.0	6.0	0.7
AE-14M-T	14mm	14mm		76.0	32.0	32.0	92.0	6.0	0.7
AE-16M-T	16mm	16mm		76.0	32.0	32.0	92.0	6.0	0.7
CE-12M-T	12mm	12mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-14M-T	14mm	14mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-16M-T	16mm	16mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-18M-T	18mm	18mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-25M-T	25mm	25mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-16M/14M-T	16mm	14mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-25M/14M-T	25mm	14mm		89.0	49.0	49.0	110.0	10.0	2.5
CE-25M/16M-T	25mm	16mm		89.0	49.0	49.0	110.0	10.0	2.5

For other connections and sizes, contact factory or local distributor

AE/CE Series - Needle Valves - Pipe Socket Weld



Standard: ANSI B16.34

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)				Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F		
AE-4-P	1/4"	1/4"	Pipe Socket Weld	76.0	32.0	32.0	92.0	6.0	0.7
AE-6-P	3/8"	3/8"		76.0	32.0	32.0	92.0	6.0	0.7
AE-8-P	1/2"	1/2"		76.0	32.0	32.0	92.0	6.0	0.7
CE-8-P	1/2"	1/2"		89.0	49.0	49.0	110.0	10.0	2.5
CE-12-P	3/4"	3/4"		89.0	49.0	49.0	110.0	10.0	2.5
CE-16-P	1"	1"		89.0	49.0	49.0	110.0	10.0	2.5

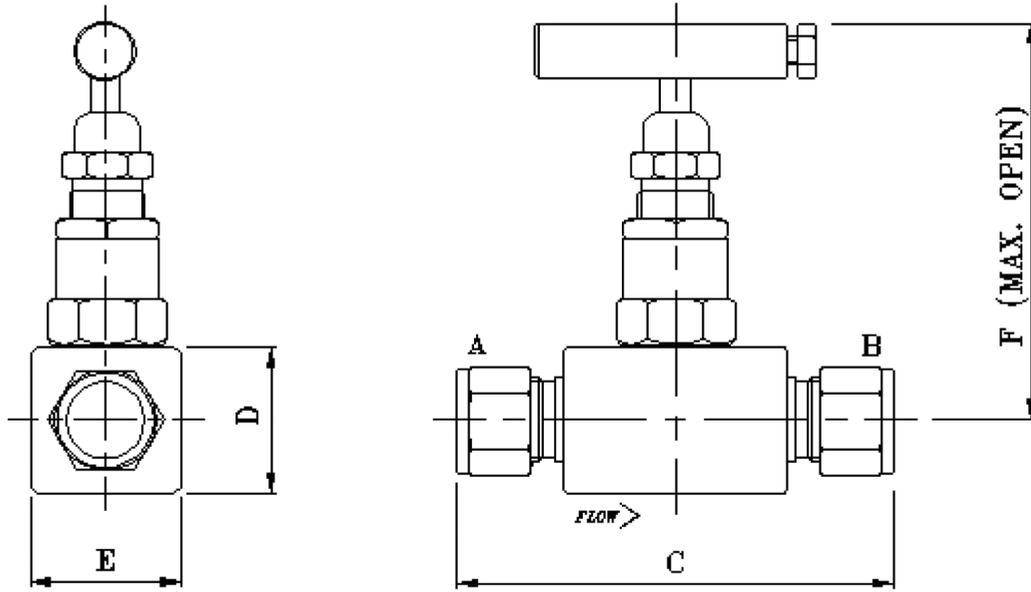
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A



AE/CE Series - Needle Valves - Double Ferrule



Standard: ANSI B16.34

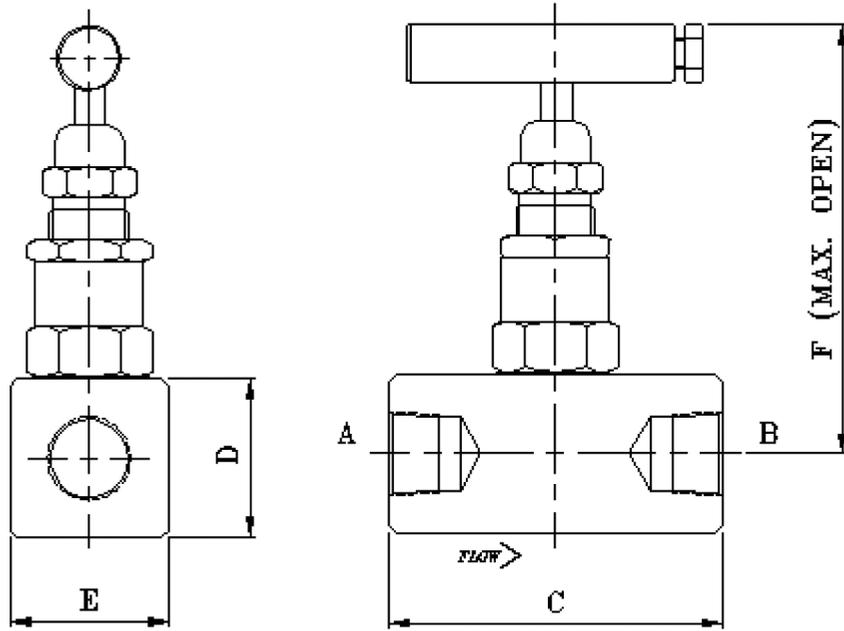
**Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C**

**Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)**

Model	Inlet x Outlet			Dimensions (mm)				Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F		
AE-12M-G	12mm	12mm	Double Ferrule	96.0	32.0	32.0	92.0	6.0	0.7
AE-14M-G	14mm	14mm		97.0	32.0	32.0	92.0	6.0	0.7
AE-16M-G	16mm	16mm		97.0	32.0	32.0	92.0	6.0	0.7
AE-8-G	1/2"	1/2"		96.0	32.0	32.0	92.0	6.0	0.7
CE-12M-G	12mm	12mm		109.0	49.0	49.0	110.0	10.0	2.5
CE-14M-G	14mm	14mm		110.0	49.0	49.0	110.0	10.0	2.5
CE-16M-G	16mm	16mm		110.0	49.0	49.0	110.0	10.0	2.5
CE-25M-G	25mm	25mm		115.0	49.0	49.0	110.0	10.0	2.5
CE-8-G	1/2"	1/2"		109.0	49.0	49.0	110.0	10.0	2.5
CE-12-G	3/4"	3/4"		110.0	49.0	49.0	110.0	10.0	2.5
CE-16-G	1"	1"		115.0	49.0	49.0	110.0	10.0	2.5

For other connections and sizes, contact factory or local distributor

AE/CE Series - Needle Valves - Female NPT



Standard: ANSI B16.34

**Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C**

**Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)**

Model	Inlet x Outlet			Dimensions (mm)				Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F		
AE-4-F	1/4"	1/4"	FNPT	76.0	32.0	32.0	92.0	6.0	0.7
AE-6-F	3/8"	3/8"		76.0	32.0	32.0	92.0	6.0	0.7
AE-8-F	1/2"	1/2"		76.0	32.0	32.0	92.0	6.0	0.7
CE-8-F	1/2"	1/2"		89.0	49.0	49.0	110.0	10.0	2.5
CE-12-F	3/4"	3/4"		89.0	49.0	49.0	110.0	10.0	2.5
CE-16-F	1"	1"		89.0	49.0	49.0	110.0	10.0	2.5

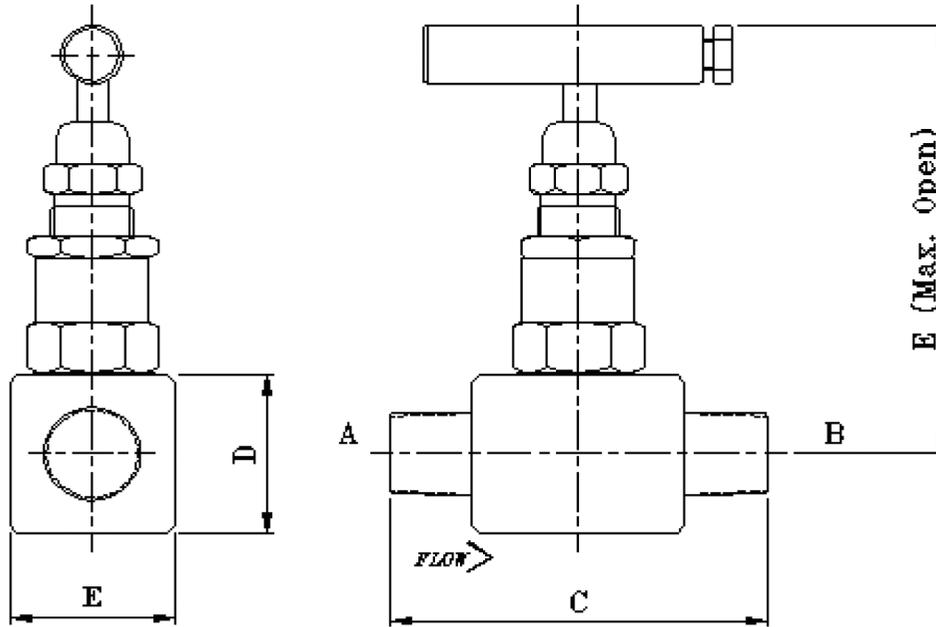
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A.



AE Series - Needle Valves - Male NPT



Standard: ANSI B16.34

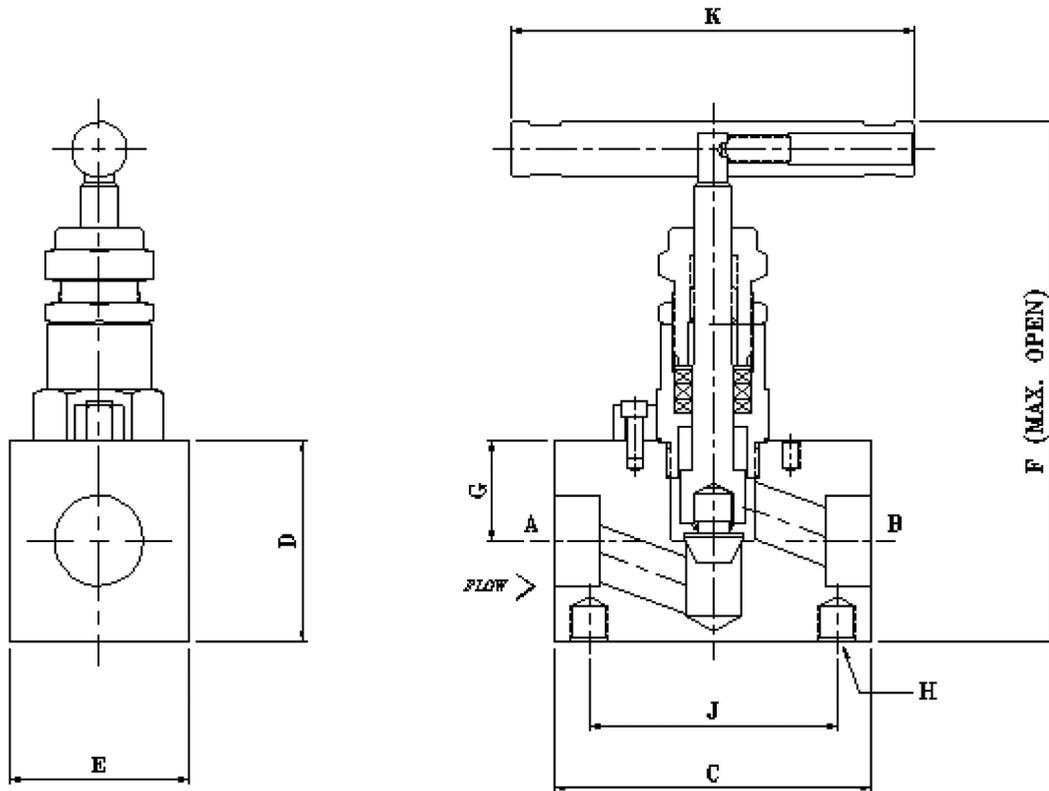
Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)				Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F		
AE-4-M	1/4"	1/4"	MNPT	76.0	28.5	28.5	90.0	4.0	0.35
AE-6-M	3/8"	3/8"		76.0	32.0	32.0	90.0	6.0	0.7
AE-8-M	1/2"	1/2"		89.0	32.0	32.0	90.0	6.0	0.7
AE-12-M	3/4"	3/4"		89.0	38.0	38.0	95.0	6.0	0.7

For other connections and sizes, contact factory or local distributor

DE Series - Needle Valves - Tube Socket Weld



Standard: ANSI B16.34

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Inlet x Outlet			Dimensions (mm)								Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	J	K		
DE-22M-T	22mm	22mm	Socket Weld	100.0	63.0	38.0	172.0	31.5	2-M10	78.0	127.0	20.0	8.0
DE-25M-T	25mm	25mm	Socket Weld	100.0	63.0	38.0	172.0	31.5	2-M10	78.0	127.0	20.0	8.0
DE-28M-T	28mm	28mm	Socket Weld	100.0	63.0	38.0	172.0	31.5	2-M10	78.0	127.0	20.0	8.0

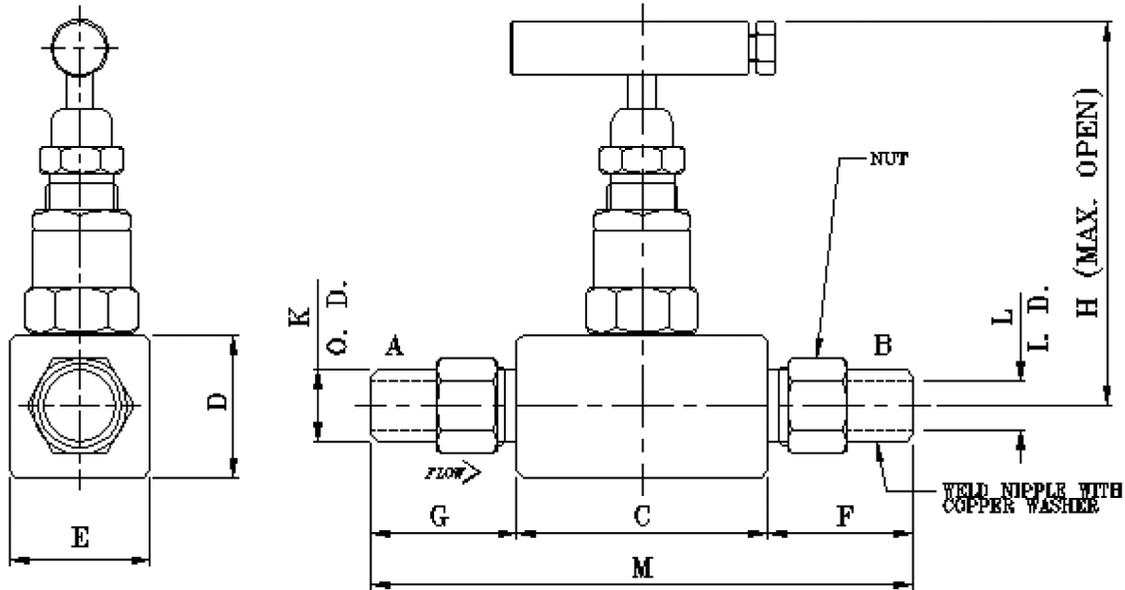
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A



AU/CU Series - Needle Valves - Weld Nipple



Standard: ANSI B16.34

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

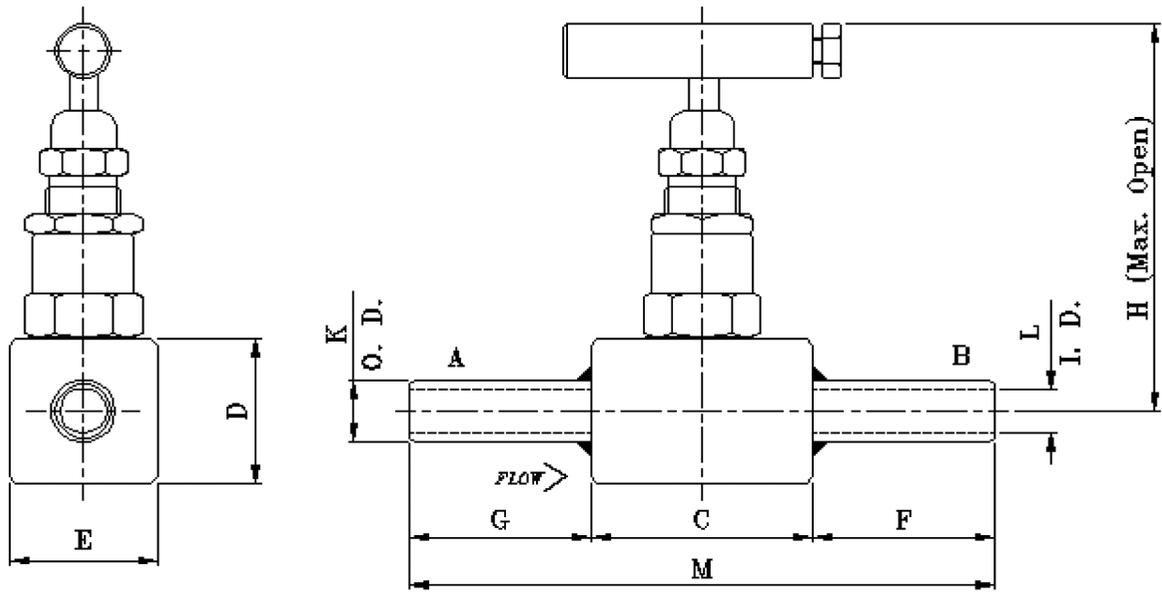
Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	K	L	M		
AU-12M-B	12mm	12mm	Weld Nipple	44.0	32.0	32.0	52.0	52.0	92.0	12.0	6.0	148.0	6.0	0.7
AU-14M-B	14mm	14mm		44.0	32.0	32.0	52.0	52.0	92.0	14.0	8.0	148.0	6.0	0.7
AU-16M-B	16mm	16mm		44.0	32.0	32.0	52.0	52.0	92.0	16.0	10.0	148.0	6.0	0.7
AU-8-B	1/2"	1/2"		44.0	32.0	32.0	52.0	52.0	92.0	21.3	12.0	148.0	6.0	0.7
CU-12M-B	12mm	12mm		57.0	49.0	49.0	52.0	52.0	110.0	12.0	6.0	161.0	10.0	2.5
CU-14M-B	14mm	14mm		57.0	49.0	49.0	52.0	52.0	110.0	14.0	8.0	161.0	10.0	2.5
CU-16M-B	16mm	16mm		57.0	49.0	49.0	52.0	52.0	110.0	16.0	10.0	161.0	10.0	2.5
CU-18M-B	18mm	18mm		57.0	49.0	49.0	52.0	52.0	110.0	18.0	12.0	161.0	10.0	2.5
CU-22M-B	22mm	22mm		57.0	49.0	49.0	52.0	52.0	110.0	22.0	16.0	161.0	10.0	2.5
CU-25M-B	25mm	25mm		57.0	49.0	49.0	52.0	52.0	110.0	25.0	17.0	161.0	10.0	2.5
CU-8-B	1/2"	1/2"		57.0	49.0	49.0	52.0	52.0	110.0	21.3	12.0	161.0	10.0	2.5
CU-12-B	3/4"	3/4"		57.0	49.0	49.0	52.0	52.0	110.0	26.6	15.0	161.0	10.0	2.5

Note: For the material of the gaskets, please add a code at the end of the model number.
For example, AU-14M-B-316-H-1.

1-----Teflon 2-----Copper 3-----316LSS X-----Special

For other connections and sizes, contact factory or local distributor

AE/CE Series - Needle Valves - Tube Weld



Standard: ANSI B16.34

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing with (-H option)

Model	Inlet x Outlet			Dimensions (mm)									Orifice (mm)	Cv
	Size 'A'	Size 'B'	Connection	C	D	E	F	G	H	K	L	M		
AE-12M-B	12mm	12mm	Tube Weld	76.0	32.0	32.0	100.0	100.0	92.0	12.0	8.0	276.0	6.0	0.7
AE-14M-B	14mm	14mm		76.0	32.0	32.0	100.0	100.0	92.0	14.0	10.0	276.0	6.0	0.7
AE-16M-B	16mm	16mm		76.0	32.0	32.0	100.0	100.0	92.0	16.0	10.0	276.0	6.0	0.7
CE-12M-B	12mm	12mm		89.0	49.0	49.0	100.0	100.0	110.0	12.0	8.0	289.0	11.0	2.5
CE-14M-B	14mm	14mm		89.0	49.0	49.0	100.0	100.0	110.0	14.0	10.0	289.0	11.0	2.5
CE-16M-B	16mm	16mm		89.0	49.0	49.0	100.0	100.0	110.0	16.0	10.0	289.0	11.0	2.5
CE-18M-B	18mm	18mm		89.0	49.0	49.0	100.0	100.0	110.0	18.0	12.0	289.0	11.0	2.5
CE-22M-B	22mm	22mm		89.0	49.0	49.0	100.0	100.0	110.0	22.0	16.0	289.0	11.0	2.5
CE-25M-B	25mm	25mm		89.0	49.0	49.0	100.0	100.0	110.0	25.0	17.0	289.0	11.0	2.5
CE-8-B	1/2"	1/2"	Pipe Weld	89.0	49.0	49.0	100.0	100.0	110.0			289.0	11.0	2.5
CE-12-B	3/4"	3/4"		89.0	49.0	49.0	100.0	100.0	110.0			289.0	11.0	2.5

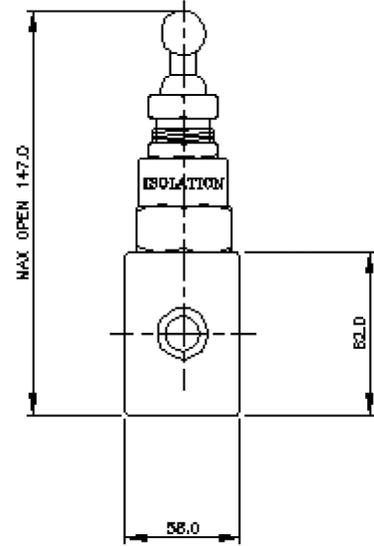
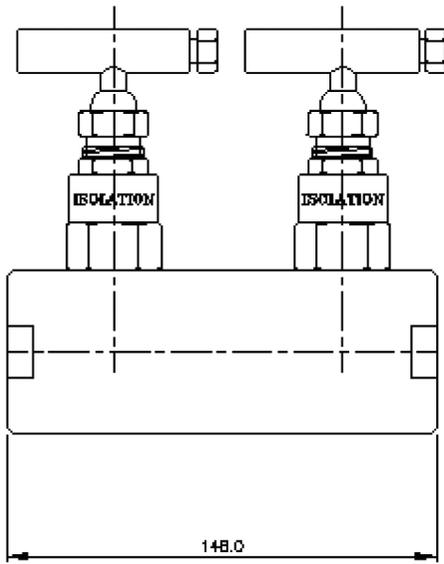
For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A



AM/CM Series - Double Needle Valves - Tube Socket Weld



Standard: ANSI B16.34

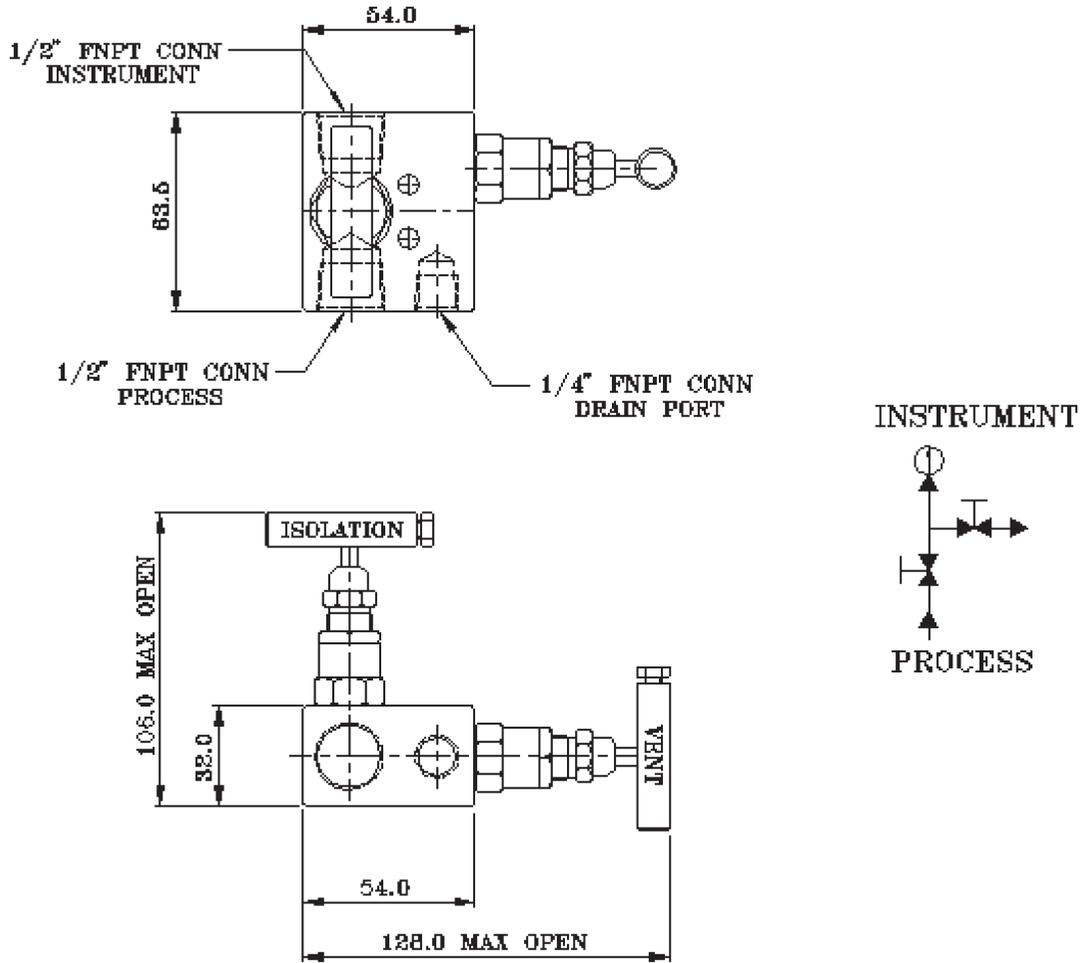
Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing with (-H option)

Model	Inlet x Outlet		Orifice (mm)
	Size	Connection	
AM-14M-T-321	14 mm	Tube Socket Weld	6.0
AM-16M-T-321	16 mm		6.0
CM-14M-T-321	14 mm		11.0
CM-16M-T-321	16 mm		11.0

For other connections and sizes, contact factory or local distributor

Two Valve Manifold - Pipe to Pipe



Two Valve Manifold – Block and Bleed

Standard: ANSI B16.34, Class 2500

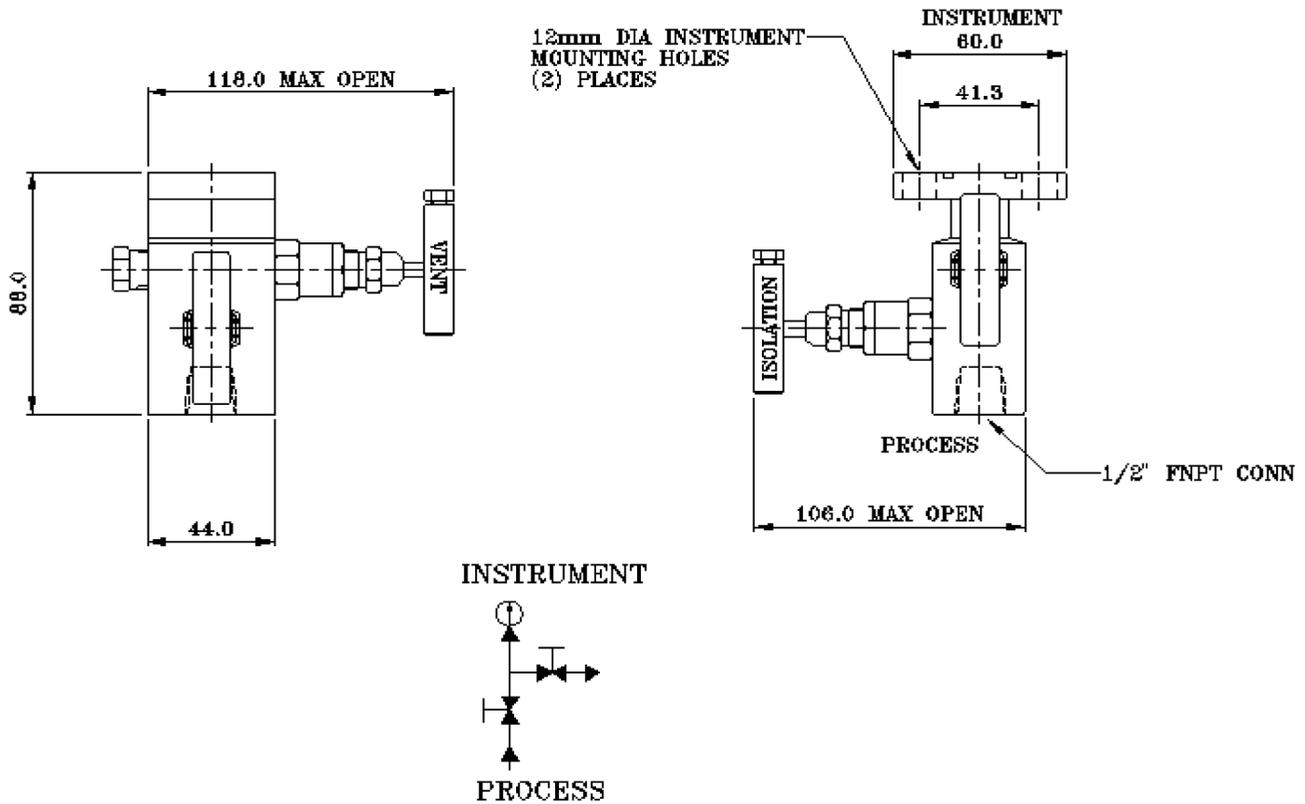
Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Process	Instrument	Drain	Connection
2M-01-316	1/2"	1/2"	1/4"	FNPT

For other connections and sizes, contact factory or local distributor

Two Valve Manifold - Pipe to Flange



Two Valve Manifold

Standard: ANSI B16.34, Class 2500

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

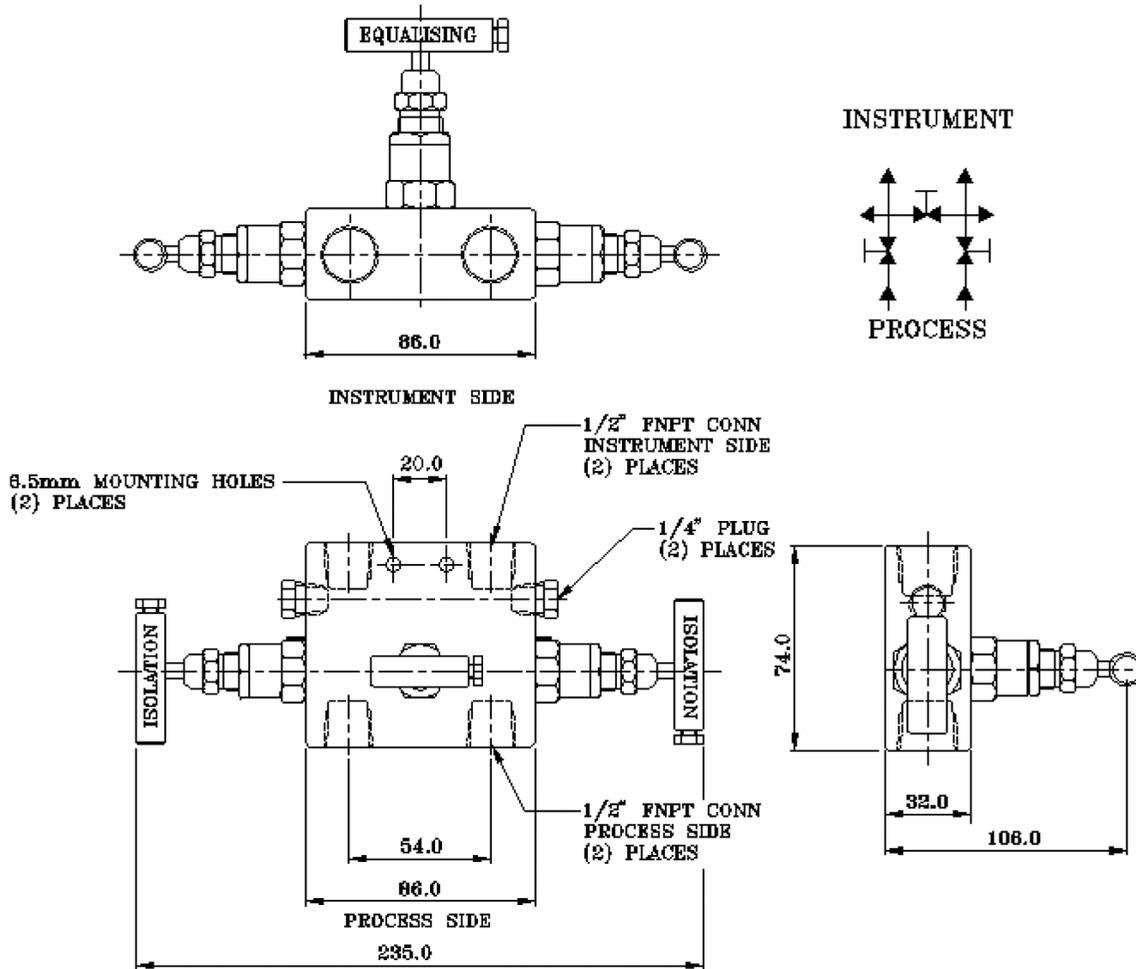
Model	Process	Connection	Instrument
2M-02-316	1/2"	FNPT	Flange

For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A

Three Valve Manifold - Pipe to Pipe



Three Valve Manifold

Standard: ANSI B16.34, Class 2500

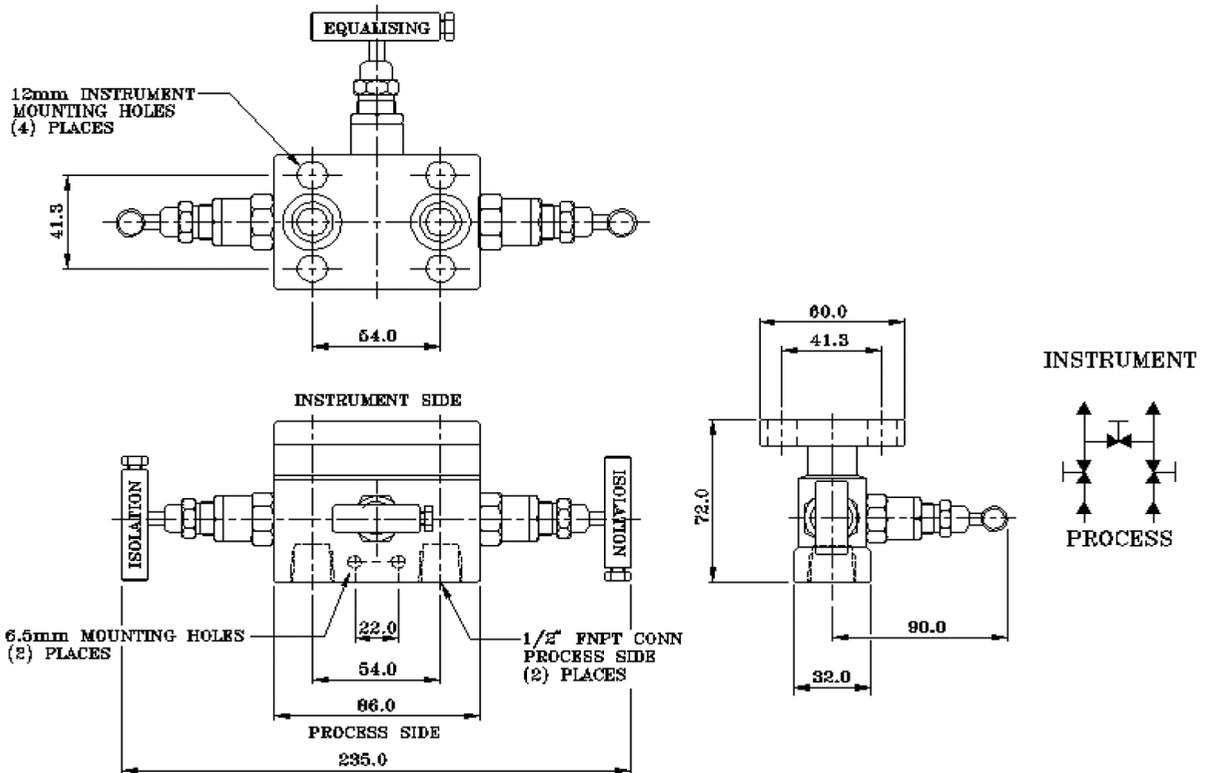
Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Process	Connection	Instrument
3M-01-316	1/2"	FNPT	FNPT

For other connections and sizes, contact factory or local distributor

Three Valve Manifold - Pipe to Flange - Type 'T'



Three Valve Manifold

Standard: ANSI B16.34, Class 2500

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

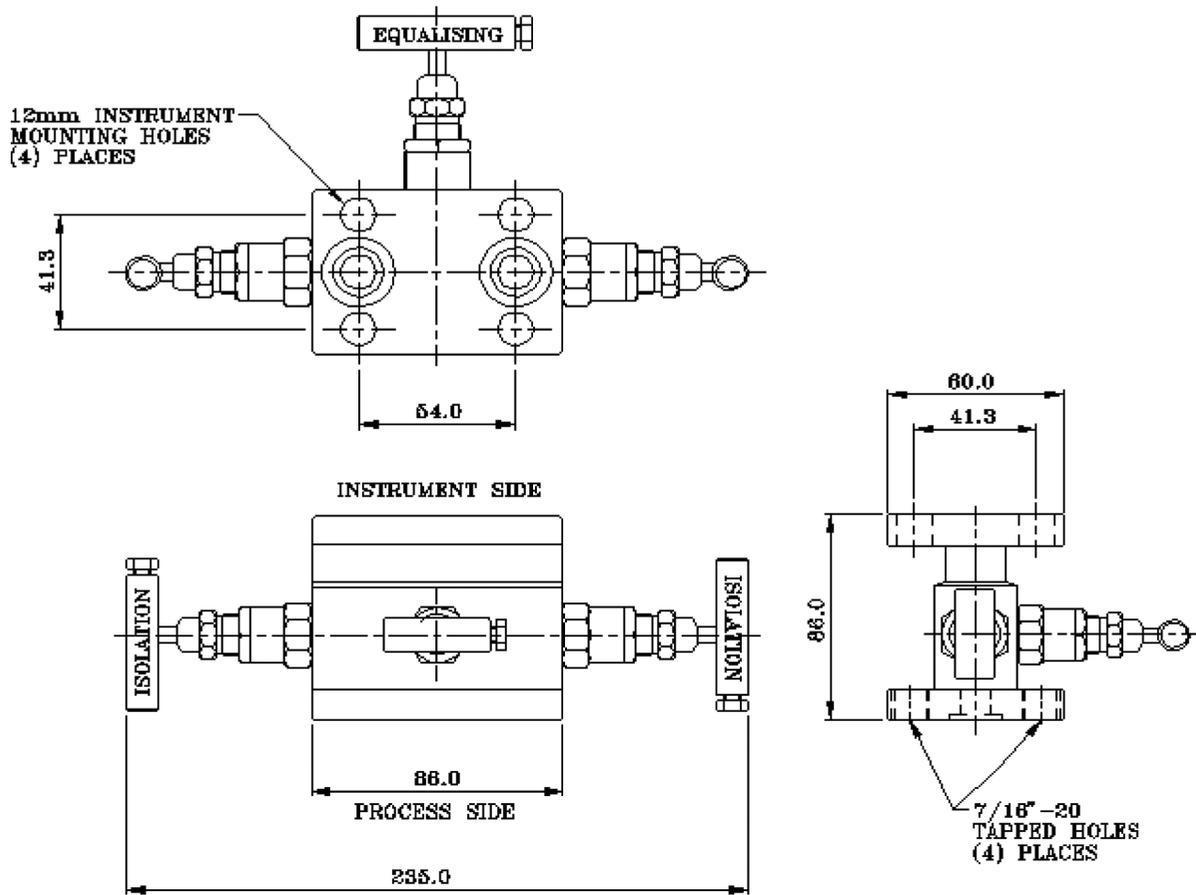
Model	Process	Connection	Instrument
3M-02-316	1/2"	FNPT	Flange

For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A.

Three Valve Manifold - Flange to Flange - Type 'H'



Three Valve Manifold

Standard: ANSI B16.34, Class 2500

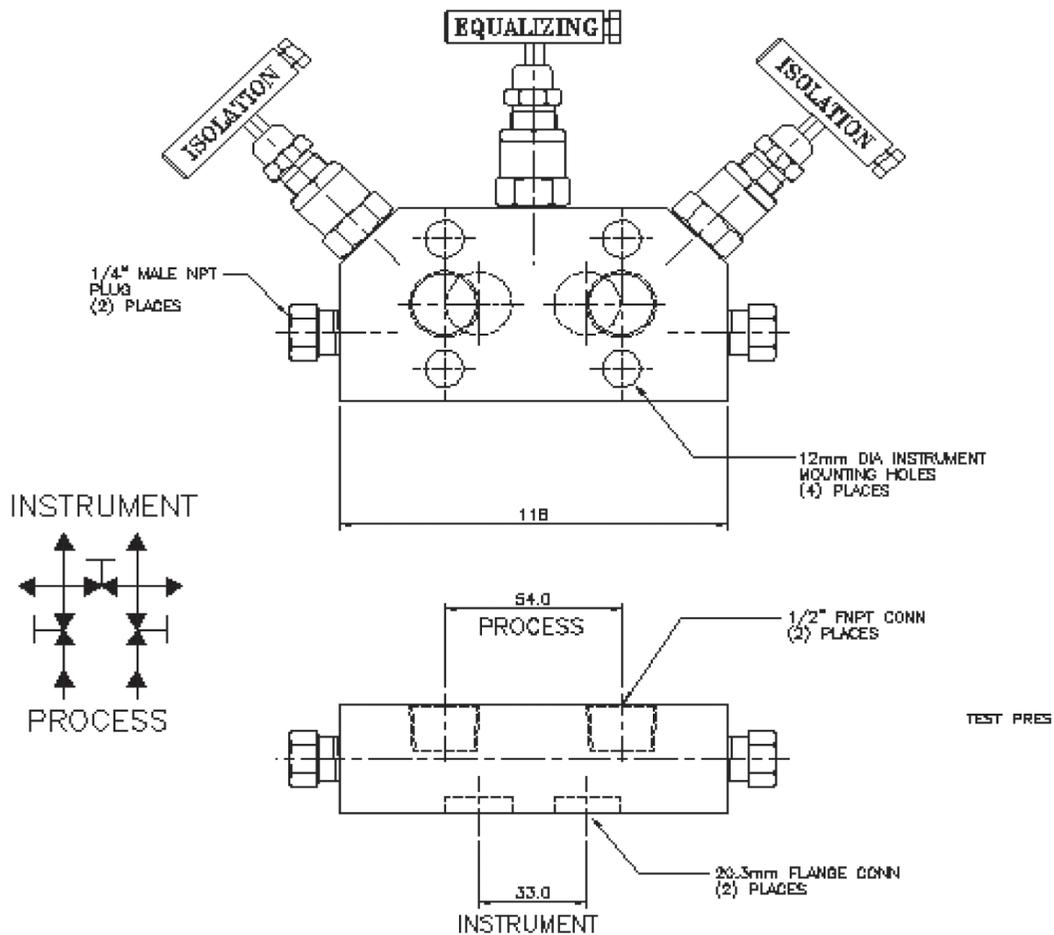
Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Process	Instrument
3M-03-316	Flange	Flange

For other connections and sizes, contact factory or local distributor

Three Valve Manifold - Pipe to Flange -Type '3051'



Three Valve Manifold

Standard: ANSI B16.34, Class 2500

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648° wit Graphite packing (-H option)

Model	Process	Connection	Instrument
3MS-04-316	1/2"	FNPT	Flange

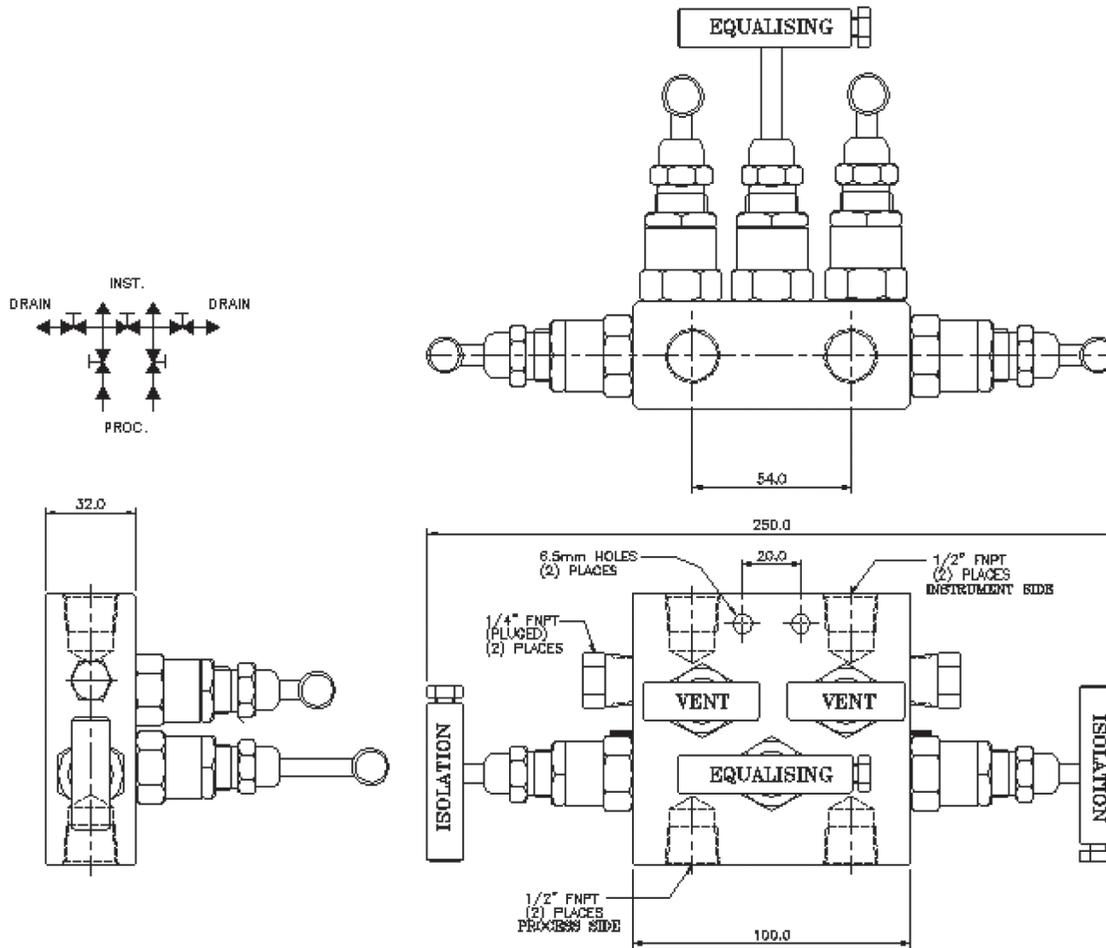
For other connections and sizes, contact factory or local distributor



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Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A



Five Valve Manifold - Pipe to Pipe



Five Valve Manifold—Pipe to Pipe

Standard: ANSI B16.34, Class 2500

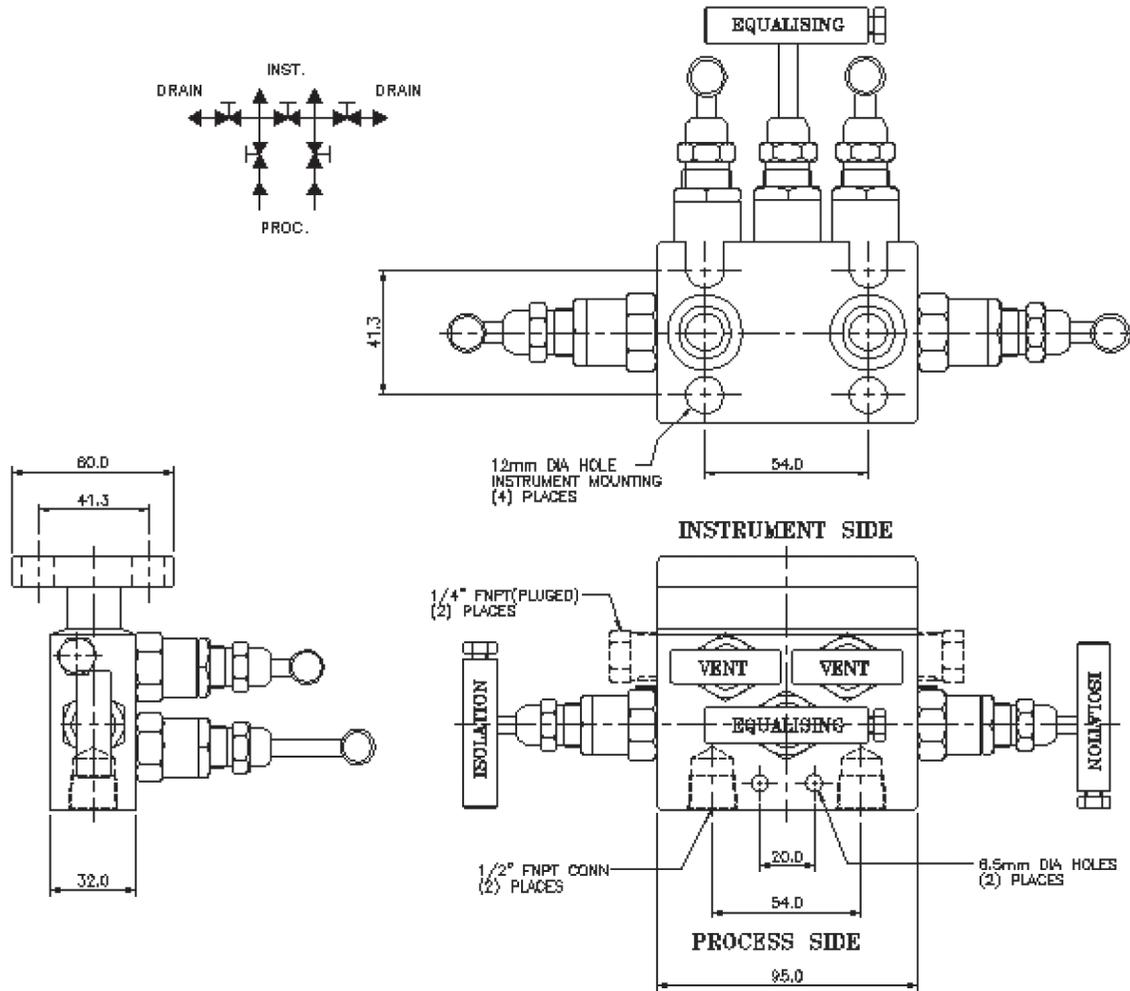
Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Process	Instrument	Drain	Connection
5M-01-316	1/2"	1/2"	1/4"	FNPT

For other connections and sizes, contact factory or local distributor

Five Valve Manifold - Pipe to Flange - Type 'T'



Five Valve Manifold—Integral 'T' Type

Standard: ANSI B16.34, Class 2500

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

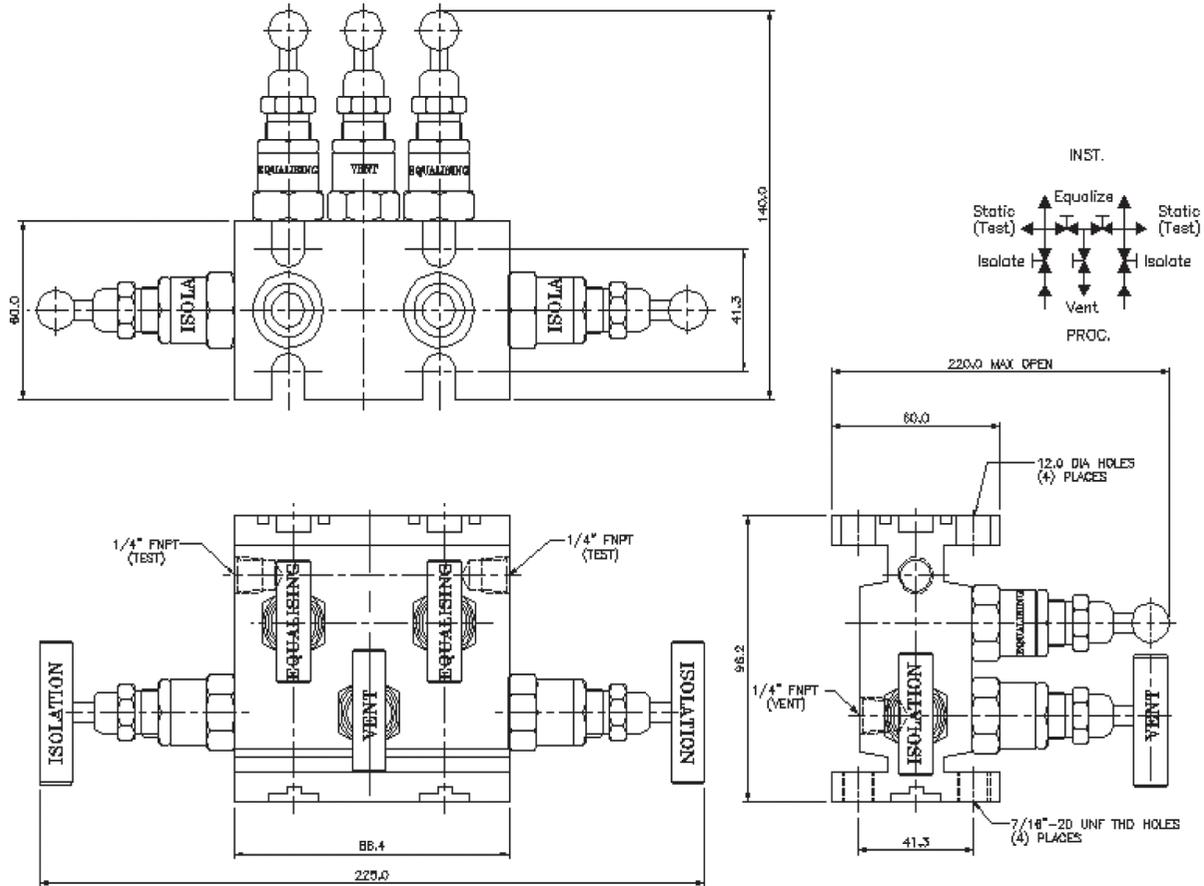
Model	Process	Instrument	Drain	Connection
5M-02-316	1/2"	Flange	1/4"	FNPT to Flange

For other connections and sizes, contact factory or local distributor



All dimensions are for reference only and are subject to change.
Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A

Five Valve Manifold - Flange to Flange - Type 'H'



Five Valve Manifold—Flange to Flange

Standard: ANSI B16.34, Class 2500

Working Pressure: 483 Bar @ 25°C
246 Bar @ 648°C

Temperature Rating: 232°C with PTFE packing
648°C with Graphite packing (-H option)

Model	Process	Instrument	Static Test
5M-03-316	1/2" Flange	1/2" Flange	1/4" FNPT

For other connections and sizes, contact factory or local distributor

H-Series Fittings

BuTech H-Series Fittings are ingeniously designed and popularly known for their superior quality. A wide range of fittings has been developed to meet the needs of petrochemical, pharmaceutical, power, food, pulp and paper, semiconductor, biotechnology, LNG, LPG, CNG, aeronautic and astronautic industries. Various connection types and alternate materials are generally available.

Connection Type

Double Ferrule, Thread Type (NPT, BSPP, BSPT, etc.), Socket-Weld, Butt-Weld

Material

For Double Ferrule: Standard: Brass, 316 SS

Optional: Carbon Steel, Monel, Hastelloy, Inconel

For other connection: Standard: Brass, Carbon Steel, 316 SS, 321 SS, 316 L

Optional: Monel, Hastelloy, Inconel

*For other materials, contact factory or local distributor

Pressure Rating

For Double Ferrule: Effective seal pressure up to the burst pressure of the connected tube

*Calculated burst pressure is 4 times the maximum allowable working pressure

Other connections: 3000PSI, 6000PSI, 9000PSI

*For services above 9000PSI, contact factory or local distributor

Temperature Range

The temperature range of H-Series fittings is from -198°C to +648°C

*In case of different materials with different ranges, contact factory or local distributor

Size

Connection	Inlet Size	Outlet Size
Double Ferrule	1/16"~1"; Φ 3mm~25mm	1/16"~1"; Φ 3mm~25mm
Thread Type	1/8"~2"	1/8"~2"
Socket Weld	1/8"~2"	1/8"~2"
Butt-weld	1/8"~2"	1/8"~2"

For services above 1200°F, contact factory or local distributor



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All equipment manufactured in U.S.A

H-Series Fittings

Instructions for Double Ferrule Connection

BuTech H-series double Ferrule fittings are used to connect with tube. The fittings have been carefully manufactured and tested by the most advanced computerized automation to withstand the demands such as high pressure, impulse vibration, vacuum and high temperature and cryogenic application. Cleaned by special ways, BuTech H-series double ferrule fittings can be used for oxygen service and nuclear service. Effective seal pressure of the fittings is up to the burst pressure of the connected tube, and at the same time, the fittings offer excellent vacuum capability-leaktight at vacuum levels of 10^{-9} torr while tested with a leakage sensitivity of 10^{-9} sccs. The temperature range of the fittings is from -198°C to $+648^{\circ}\text{C}$.

BuTech H-series Double Ferrule fittings are composed of 4 parts: 1) body 2) front ferrule 3) back ferrule and 4) nut. All components are made of the same material. In case different materials of front and back ferrules are required, contact factory or local distributor. The fittings can be assembled and disassembled repeatedly and can be completely interchangeable with the similar fittings of certain other manufacturers.

Assembly instructions (*Please see the tubing instruction before assembly)

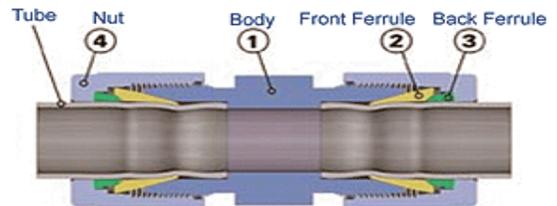
Insert the tubing resting it against the shoulder in the fitting body and be sure the nut is finger tight, then simply tighten the nut 1-1/4 turns.

Reassembly instructions:

Insert the tubing end with the previously set ferrules into the fitting body and tighten the nut to a hand-tight position, then tighten the nut with a wrench until a sharp rise in torque is felt, then simply snug with wrench.

Additional tubing considerations:

- 1 Metallic tubing material should be softer than fitting material. For example: stainless steel tubing should not be used with brass fittings
- 2 when tubing and fittings are made of the same material, tubing must be fully annealed
- 3 Always use an insert with extremely soft or pliable plastic tubing
- 4 Extremes of wall thickness should always be checked against fitting manufacturer's suggested minimum and maximum wall thickness limitations
- 5 Surface finish is very important to proper sealing. Tubing with any kind of depression, scratch, raised portion or other surface defect will be difficult to seal, particularly in gas service
- 6 Tubing that is oval, that will not easily fit through fitting nuts, ferrules and bodies should never be forced into fitting
- 7 Suitable Tubing Materials: Stainless Steel-seamless, fully annealed and welded redrawn, suitable for bending
- 8 Maximum Hardness-Rockwell B90; ASTM A269, ASTM A213
Type: 304 and 316 stainless steel



Pipe Fitting

Size ranges from 1/8" through 2"

Fittings are properly packaged with the exposed threads protected to ensure undamaged delivery

Materials include 316 stainless steel, brass, and carbon steel; special alloys available

Full thread engagement ensures reliable make-up of pipe connections

Attractive finishes meet quality appearance requirements for precision equipment

Male threads are protected to ensure thread integrity

All pipe threads meet the requirement of ANSI B1.20.1(1983) for tapered pipe threads(NPT)

Working pressures calculated in accordance with Power Piping Code ANSI B31.1, Refinery Piping

Code ANSI B31.3 and section VIII of ASME Boiler Pressure Vessel Code

Material	Specification	
	Barstock	Forging
316 Stainless Steel	ASME SA479 ASME A276	ASME SA182 ASME A182
Brass	ASME B16 ASME B453	ASME B283
Carbon Steel	ASME A108	

Ordering Information & Options

UNIONS

A  B

Types	Connection Size*	Connection Type	Material	Options																																																				
<p>U Normal</p> <p>U11 Nut+Gaskets+Nipple</p> <p>U12 Bulkhead Union</p> <p>U13 Bored-Through Union</p>	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr><td>8M</td><td>8mm</td></tr> <tr><td>10M</td><td>10mm</td></tr> <tr><td>14M</td><td>14mm</td></tr> <tr><td>16M</td><td>16mm</td></tr> <tr><td>4</td><td>1/4"</td></tr> <tr><td>8</td><td>1/2"</td></tr> <tr><td>12</td><td>3/4"</td></tr> <tr><td>16</td><td>1"</td></tr> </tbody> </table>	A	B	8M	8mm	10M	10mm	14M	14mm	16M	16mm	4	1/4"	8	1/2"	12	3/4"	16	1"	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr><td>B</td><td>Butt-Weld</td></tr> <tr><td>T</td><td>Tube Socket Weld</td></tr> <tr><td>P</td><td>Pipe Socket Weld</td></tr> <tr><td>M</td><td>Male NPT</td></tr> <tr><td>F</td><td>Female NPT</td></tr> <tr><td>G</td><td>Double Ferrule</td></tr> <tr><td>H</td><td>Special</td></tr> </tbody> </table> <p>Omit "B" connection if same as "A" connection</p>	A	B	B	Butt-Weld	T	Tube Socket Weld	P	Pipe Socket Weld	M	Male NPT	F	Female NPT	G	Double Ferrule	H	Special	<table border="1"> <tbody> <tr><td>316</td><td>316 SS</td></tr> <tr><td>316L</td><td>316L SS</td></tr> <tr><td>321</td><td>321 SS</td></tr> <tr><td>M</td><td>Monel</td></tr> <tr><td>Ti</td><td>Titanium</td></tr> <tr><td>B</td><td>Brass</td></tr> <tr><td>Al</td><td>Aluminum</td></tr> <tr><td>A</td><td>Alloy</td></tr> <tr><td>CS</td><td>Carbon Steel</td></tr> </tbody> </table>	316	316 SS	316L	316L SS	321	321 SS	M	Monel	Ti	Titanium	B	Brass	Al	Aluminum	A	Alloy	CS	Carbon Steel	<p>(If "U11" specified)</p> <p>1-----Teflon Gasket</p> <p>2-----Copper Gasket</p> <p>3-----316LSS Gasket</p>
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Metric size first

ELBOWS

A  B

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TEES

A  B C

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Omit "B" size if same as "A" size
Omit "C" size if same as "B" size
Metric size first

Omit "B" connection if same as "A" connection

Omit "C" connection if same as "B" connection

For pressure above 6000psi, contact factory or local distributor.

***For fractional connections, multiply actual size by 16.**

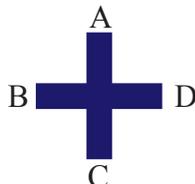
For metric connections, specify actual millimeter size followed by "M"



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Dimensions in parentheses are millimeters (mm)
All equipment manufactured in U.S.A

Ordering Information & Options

CROSSES



Connection Size*

A	B	C	D
10M	10mm		
14M	14mm		
4	1/4"		
8	1/2"		

Omit "B" size if same as "A" size
Omit "C" size if same as "B" size
Omit "D" size if same as "C" size
Metric size first

Connection Type

A	B	C	D
B	Butt-Weld		
T	Tube Socket Weld		
P	Pipe Socket Weld		
M	Male NPT		
F	Female NPT		
G	Double Ferrule		
H	Special		

Omit "B" connection if same as "A" connection
Omit "C" connection if same as "B" connection
Omit "D" connection if same as "C" connection

Material

316	316 SS
316L	316L SS
321	321 SS
M	Monel
Ti	Titanium
B	Brass

Options

Spell out in clear text

CAPS & PLUGS

PC
PP

Connection Size*

10M	10mm
14M	14mm
4	1/4"
8	1/2"

*PC stands for CAPS
PP stands for PLUGS

Connection Type

B	Butt-Weld
T	Tube Socket Weld
P	Pipe Socket Weld
M	Male NPT
F	Female NPT
G	Double Ferrule
H	Special

Material

316	316 SS
316L	316L SS
321	321 SS
M	Monel
Ti	Titanium
B	Brass

Options

Spell out in clear text

SPARE PARTS

HA
HB
HC
HS

HA-Front ferrule
HB-Back ferrule
HC-Nut
HS-Special

Connection Size*

10M	10mm
14M	14mm
4	1/4"
8	1/2"

Material

316	316 SS
316L	316L SS
321	321 SS
M	Monel
Ti	Titanium
B	Brass

Options

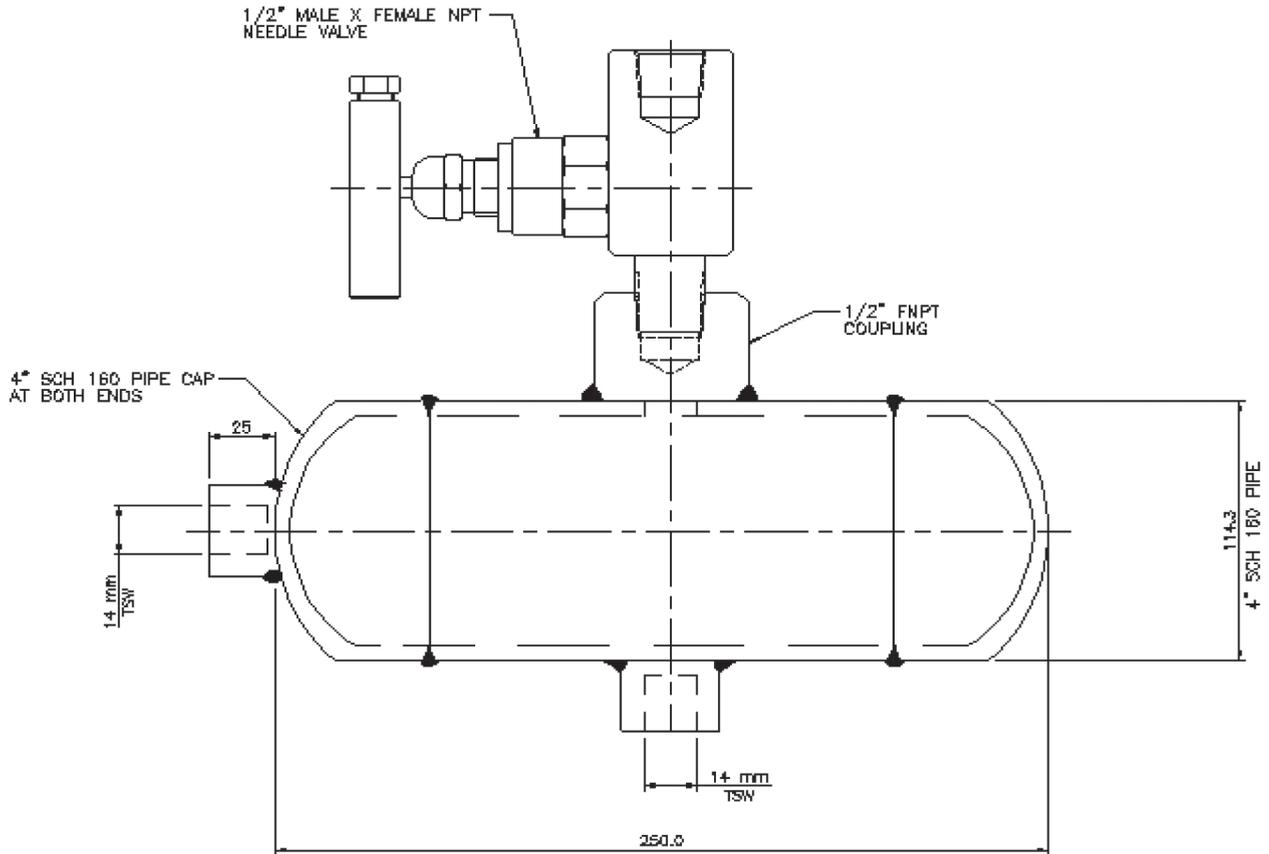
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For pressure above 6000psi, contact factory or local distributor.

*For fractional connections, multiply actual size by 16.

For metric connections, specify actual millimeter size followed by "M"

Condensate Pot



Standard: ANSI B16.34, Class 900#~2500#

Model	Pipe	Cap	Coupling	TSW	Pressure	Material
BCP01-321-100M-900	4" NB SCH 80	4" NB SCH 80	1/2" FNPT	14 mm	900#	321 SS
BCP01-321-100M-1500	4" NB SCH 120	4" NB SCH 120	1/2" FNPT	14 mm	1500#	321 SS
BCP01-321-100M-2500	4" NB SCH 160	4" NB SCH 160	1/2" FNPT	14 mm	2500#	321 SS

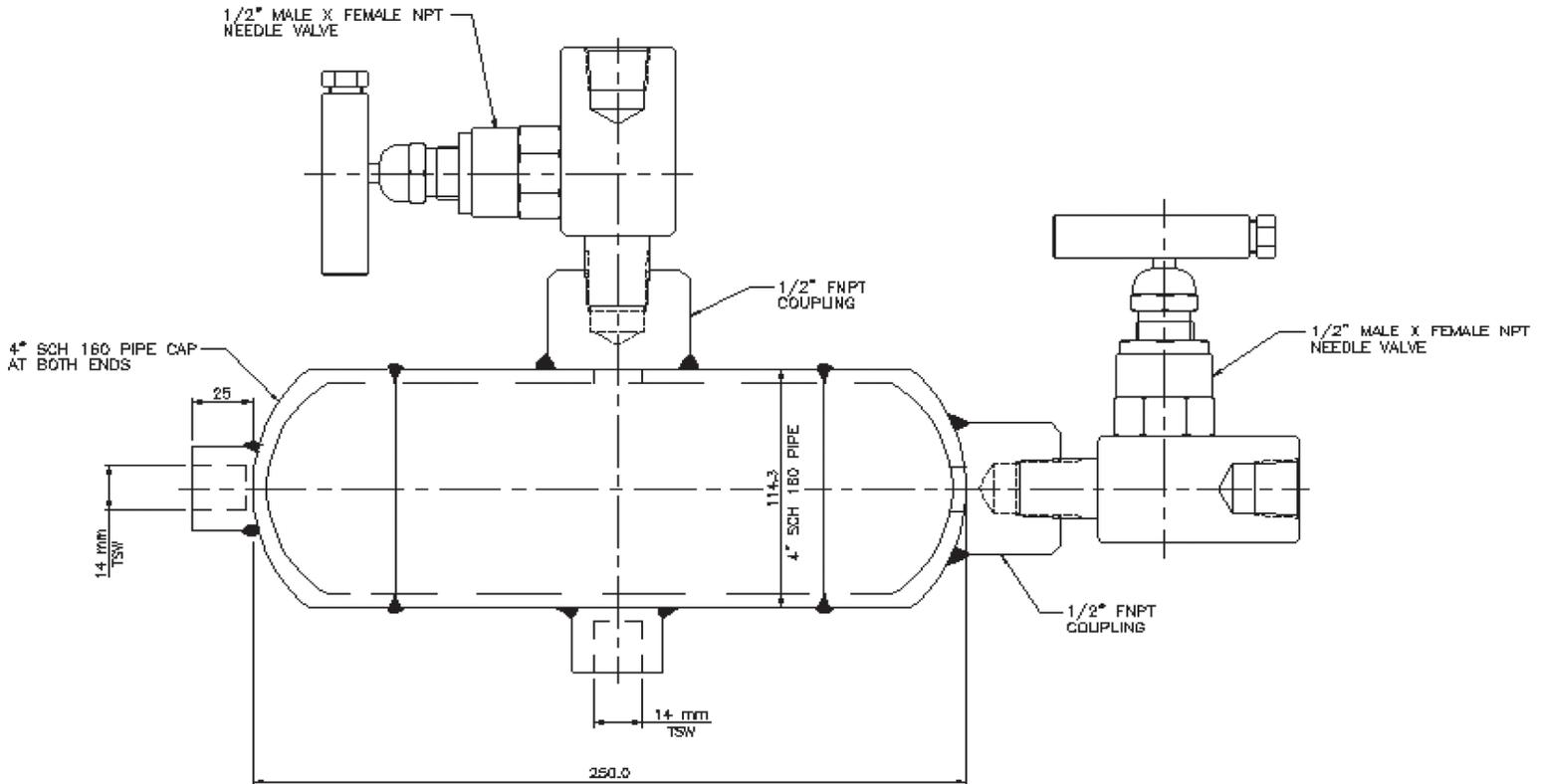
For other connections and sizes, contact factory or local distributor



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Condensate Pot

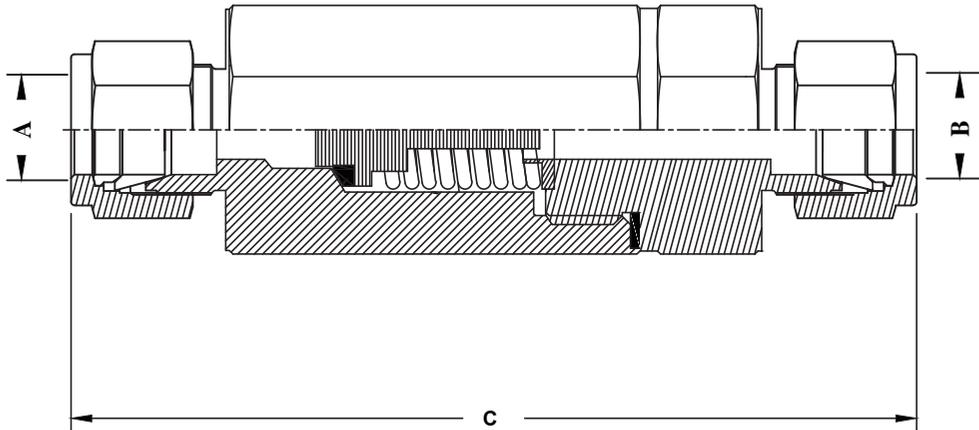


Standard: ANSI B16.34, Class 900#~2500#

Model	Pipe	Cap	Coupling	TSW	Pressure	Material
BCP02-321-100M-900	4" NB SCH 80	4" NB SCH 80	1/2" FNPT	14mm	900#	321 SS
BCP02-321-100M-1500	4" NB SCH 120	4" NB SCH 120	1/2" FNPT	14mm	1500#	321 SS
BCP02-321-100M-2500	4" NB SCH 160	4" NB SCH 160	1/2" FNPT	14mm	2500#	321 SS

For other connections and sizes, contact factory or local distributor

BC Series - Check Valves - High Pressure



NOTE: Standard Cracking Pressure - 1Kg/cm to 2 Kg/cm

Standard: ANSI B16.34

Working Pressure: **414 Bar @ 25°C**
 207 Bar @ 204°C

Temperature Rating: **-23~204°C**

Model	Inlet x Outlet			Dimmension
	Size 'A'	Size 'B'	Connection	C(mm)
BC-8M-G-321	8mm	8mm	Doubel ferrule	93
BC-8-G-321	1/2"	1/2"		102
BC-14M-G-321	14mm	14mm		104

For other connections and sizes, contact factory or local distributor

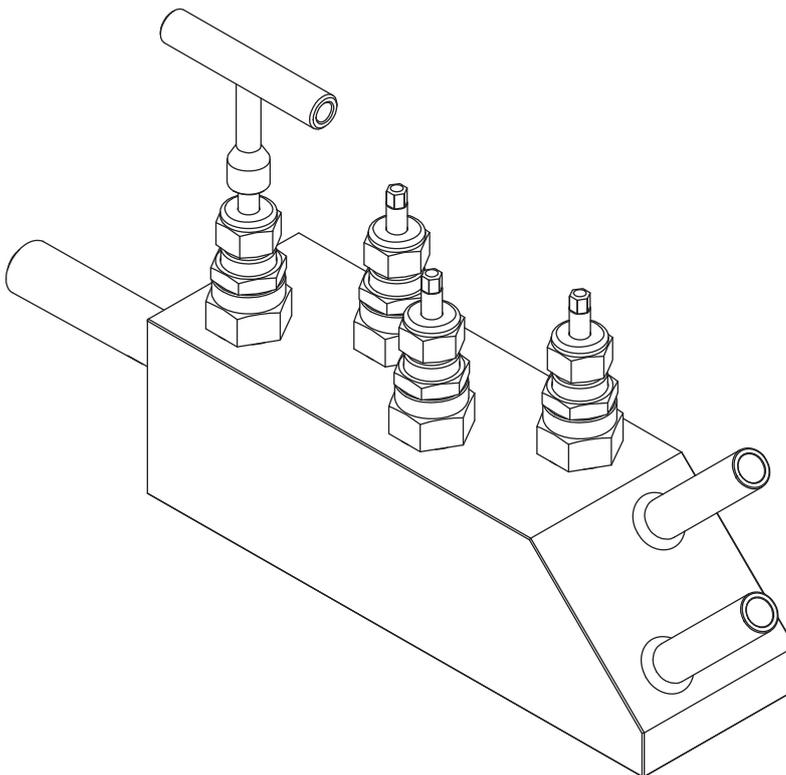


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CQP Series

Main Feature

1. One-piece body
2. CQP series with two sides short nipple (60-100mm) is integral with valve body together
3. Seat: body+STL, Disc: Gr.660+STL
4. Standard inner diameter size: 11mm
5. Stem threads are hardened to prevent biting
6. Grease for stem threads is isolated from the system medium
7. The non-rotating lower stem moves up and down, reducing packing friction with each stroke and biting between the seat and the head
8. The externally adjusted gland is not constrained by stem threads
9. Each valve is sealed with nitrogen or compressed air at rated working pressure before delivery.
10. Design standard is accordance with ASME B 16.34, ASME B16.11, ASME B16.25
11. Test standard is accordance with API598

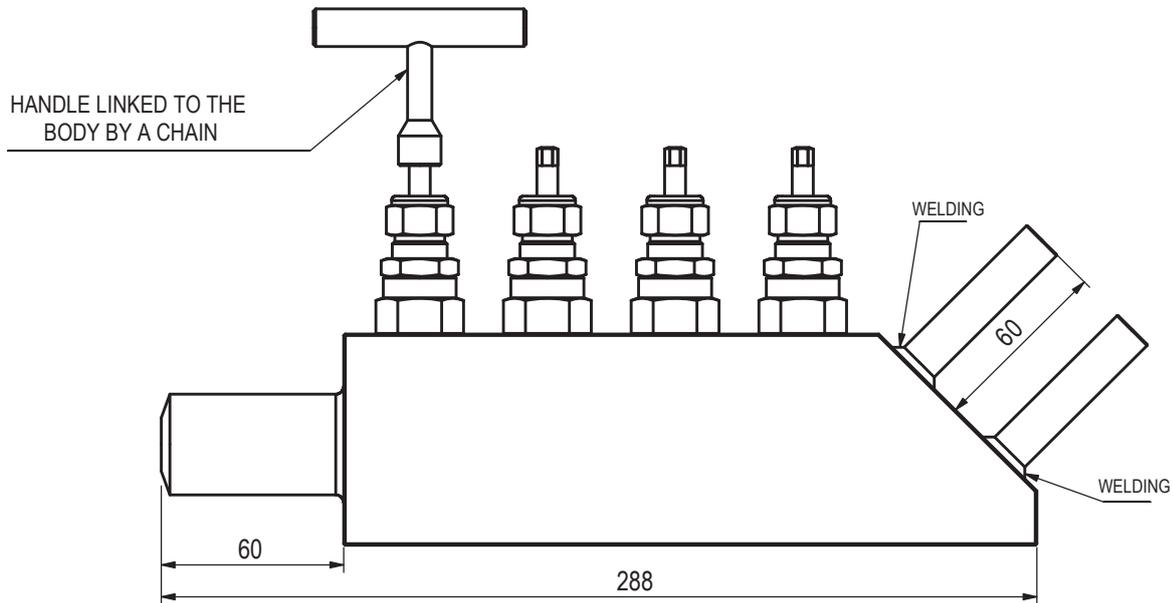


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Page 1

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ITEM	DESCRIPTION	MATERIAL		
		STD Temperature	HIGH Temperature	Stainless Steel
1	BODY	ASTM A105	ASTM A182-F11/F22/F91/F92	ASTM A182-F316/F321/F347
2	BONNET	ASTM A182 316SS	ASTM A182-F321	ASTM A182-F316/F321/F347
3	DISC	321SS+STL	321SS+STL	321SS+STL
4	SEAT	ASTM A105+STL	ASTM A182-F11/F22/F91/F92+STL	ASTM A182-F316/F321/F347+STL
5	STEM	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS
6	GASKET	304SS/316L	304SS/316L	304SS/316L
7	HANDLE	304SS	304SS	304SS
8	PACKING	GRAPHITE	GRAPHITE	GRAPHITE

Note:Butech can customize materials and body lengths to meet customer requirements



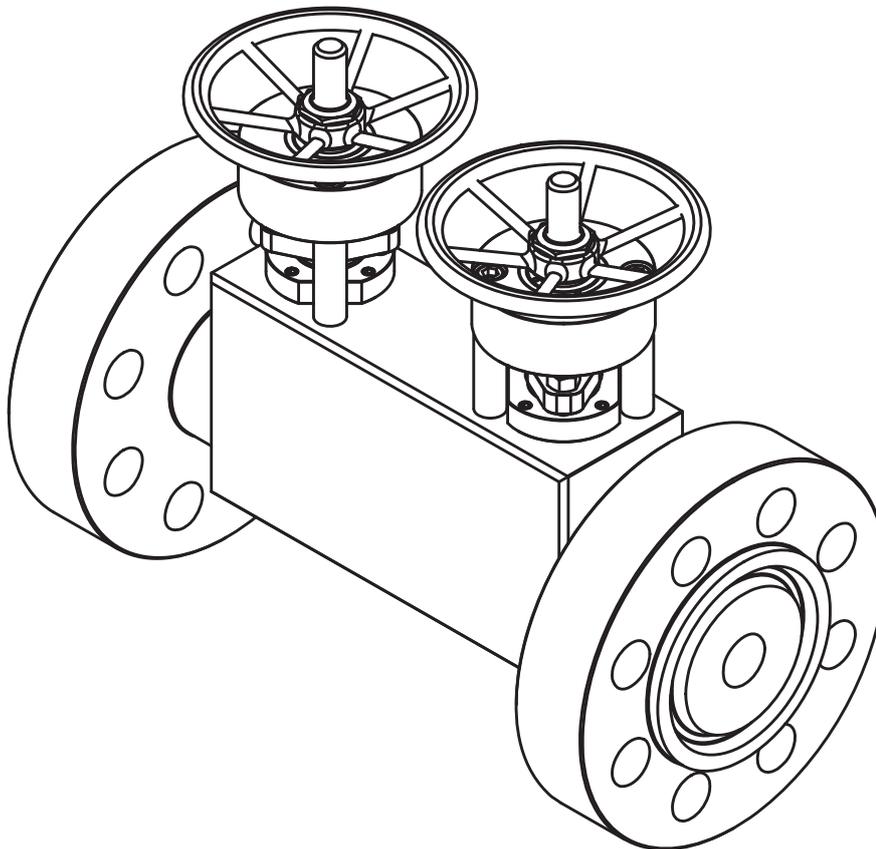
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Printed in USA

Main Feature

1. One-piece forge body
2. CMG series are double wedge gate valves with PSB-BG-OS&Y type bonnets.
3. Seat & Disc: STL
4. Standard inner diameter size (API 602) : 18mm, 28mm
5. Stem threads are hardened to prevent biting
6. Grease for stem threads is isolated from the system medium
7. The non-rotating stem moves up and down, reducing packing friction with each stroke and biting between the seat and the head
8. Valves size is from 1/2" PSW-2" RTJ
9. Each valve is sealed with nitrogen or compressed air at rated working pressure before delivery.
10. Design standard is accordance with ASME B 16.34, API 602, ASME B16.11, ASME B16.25
11. Test standard is accordance with API 598

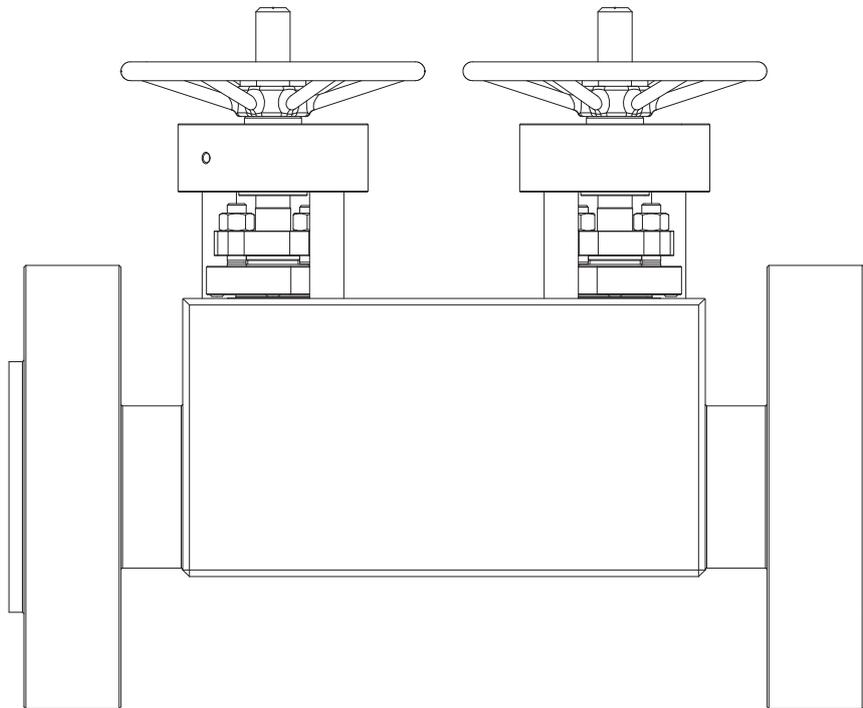


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Page 1

BuTech
an Accudyne Industries brand

Printed in USA



ITEM	DESCRIPTION	MATERIAL		
		STD Temperature	HIGH Temperature	Stainless Steel
1	BODY	ASTM A105	ASTM A182-F11/F22/F91/F92	ASTM A182-F316/F321/F347
2	BONNET	ASTM A105	ASTM A182-F11/F22/F91/F92	ASTM A182-F316/F321/F347
3	DISC	Gr.660+STL	Gr.660+STL	Gr.660+STL
4	SEAT	ASTM A105+STL	ASTM A182-F11/F22/F91/F92+STL	ASTM A182-F316/F321/F347+STL
5	STEM BOLTS	ASTM A276-420	ASTM A276-420	ASTM A276-420
6	STEM	ASTM A276-F6a	ASTM A276-F6a	ASTM A276-F6a
7	GASKET	304SS/316L	304SS/316L	304SS/316L
8	HANDWHEEL	A197	A197	A197
9	PACKING	GRAPHITE	GRAPHITE	GRAPHITE
10	BOLTS	ASTM A193-B7	ASTM A193-B16	ASTM A193-B8

Note: Butech can customize materials and body lengths to meet customer requirements



All dimensions are for reference only and are subject to change.
 Dimensions in parentheses are millimeters (mm)
 All equipment manufactured in U.S.A

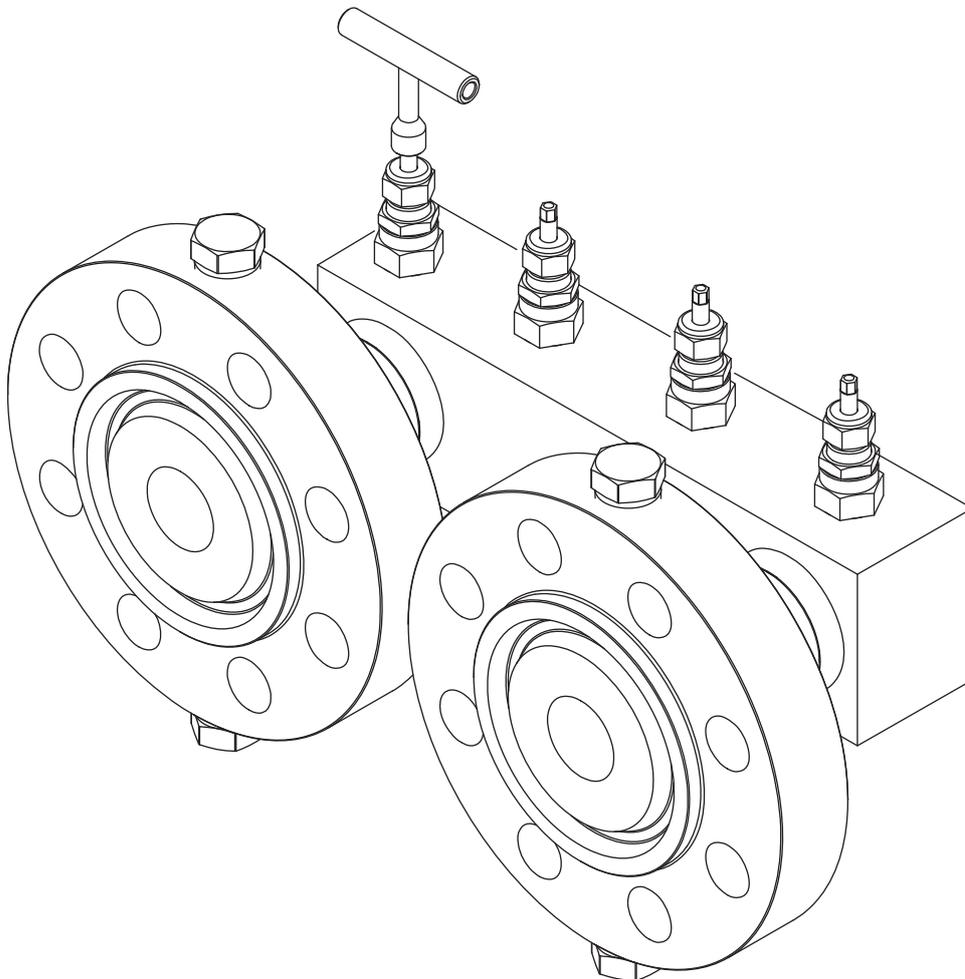


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CQF Series

Main Feature

1. 4-valves are one-piece body
2. CQF series with two sides short nipple(60-100mm) and flanges are welded with valve body together
3. Seat:body+STL, Disc:Gr.660+STL
4. Standard inner diameter size:15mm
5. Stem threads are hardened to prevent biting
6. Grease for stem threads is isolated from the system medium
7. The non-rotating lower stem moves up and down, reducing packing friction with each stroke and biting between the seat and the head
8. The externally adjusted gland is not constrained by stem threads
9. Each valve is sealed with nitrogen or compressed air at rated working pressure before delivery.
10. Design standard is accordance with ASME B 16.34,ASME B16.11,ASME B16.25,ASME B16.5
11. Test standard is accordance with API598



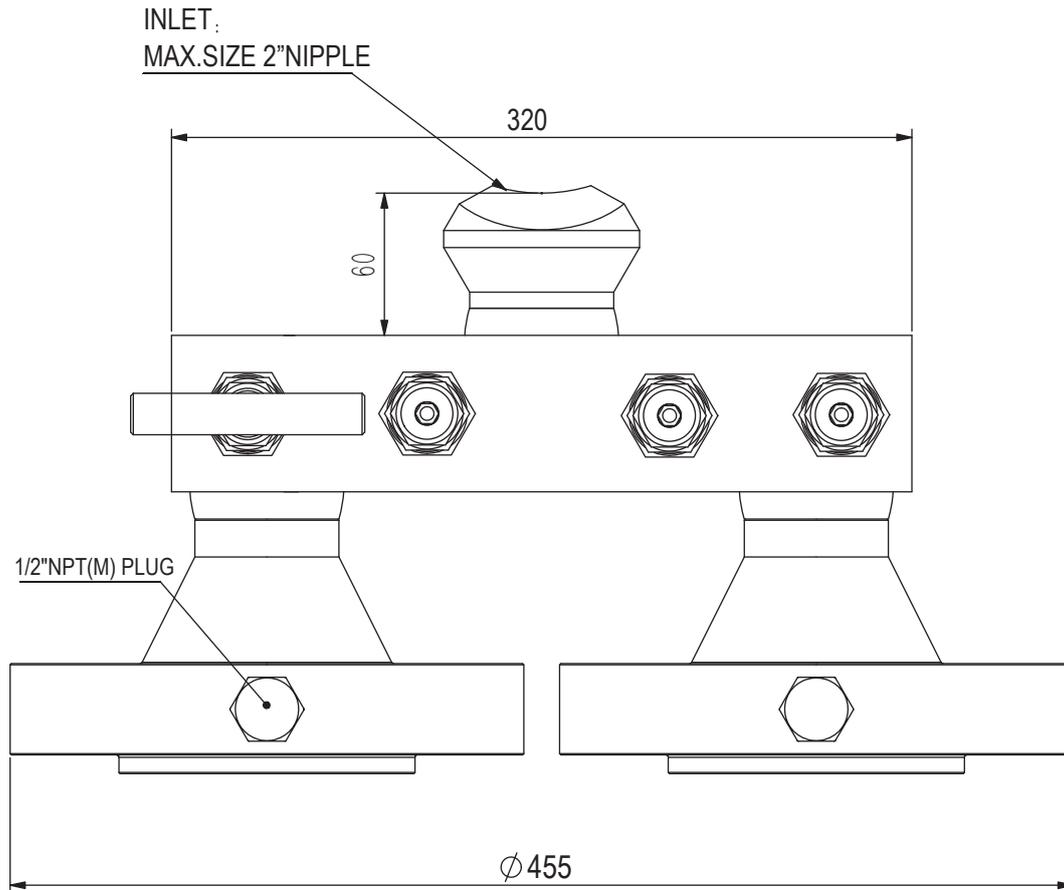
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ITEM	DESCRIPTION	MATERIAL		
		STD Temperature	HIGH Temperature	Stainless Steel
1	BODY	ASTM A105	ASTM A182-F11/F22/F91/F92	ASTM A182-F316/F321/F347
2	BONNET	ASTM A182 316SS	ASTM A182-F321	ASTM A182-F316/F321/F347
3	DISC	321SS+STL	321SS+STL	321SS+STL
4	SEAT	ASTM A105+STL	ASTM A182-F11/F22/F91/F92+STL	ASTM A182-F316/F321/F347+STL
5	STEM	ASTM A182 316SS	ASTM A182 316SS	ASTM A182 316SS
6	GASKET	304SS/316L	304SS/316L	304SS/316L
7	HANDLE	304SS	304SS	304SS
8	PACKING	GRAPHITE	GRAPHITE	GRAPHITE

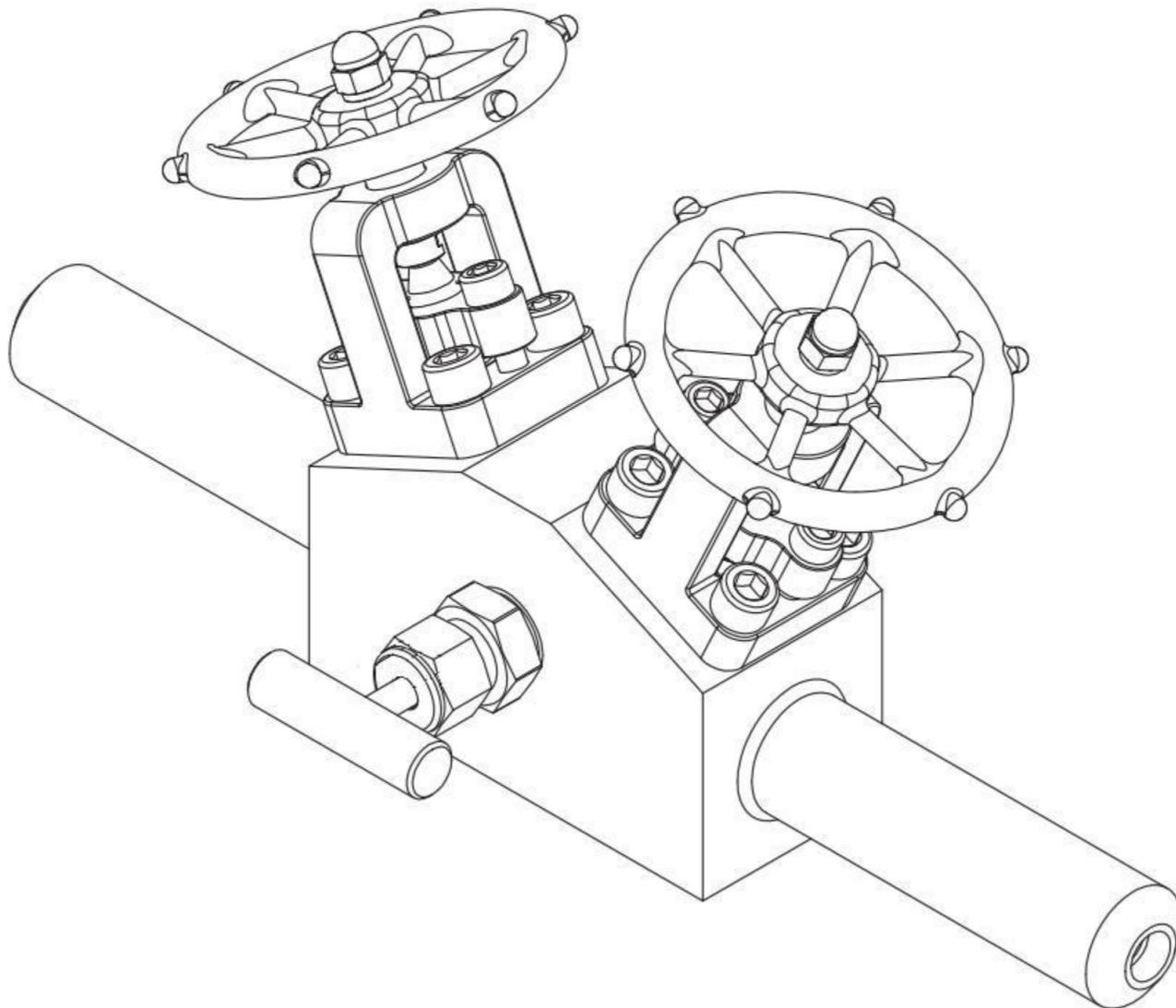
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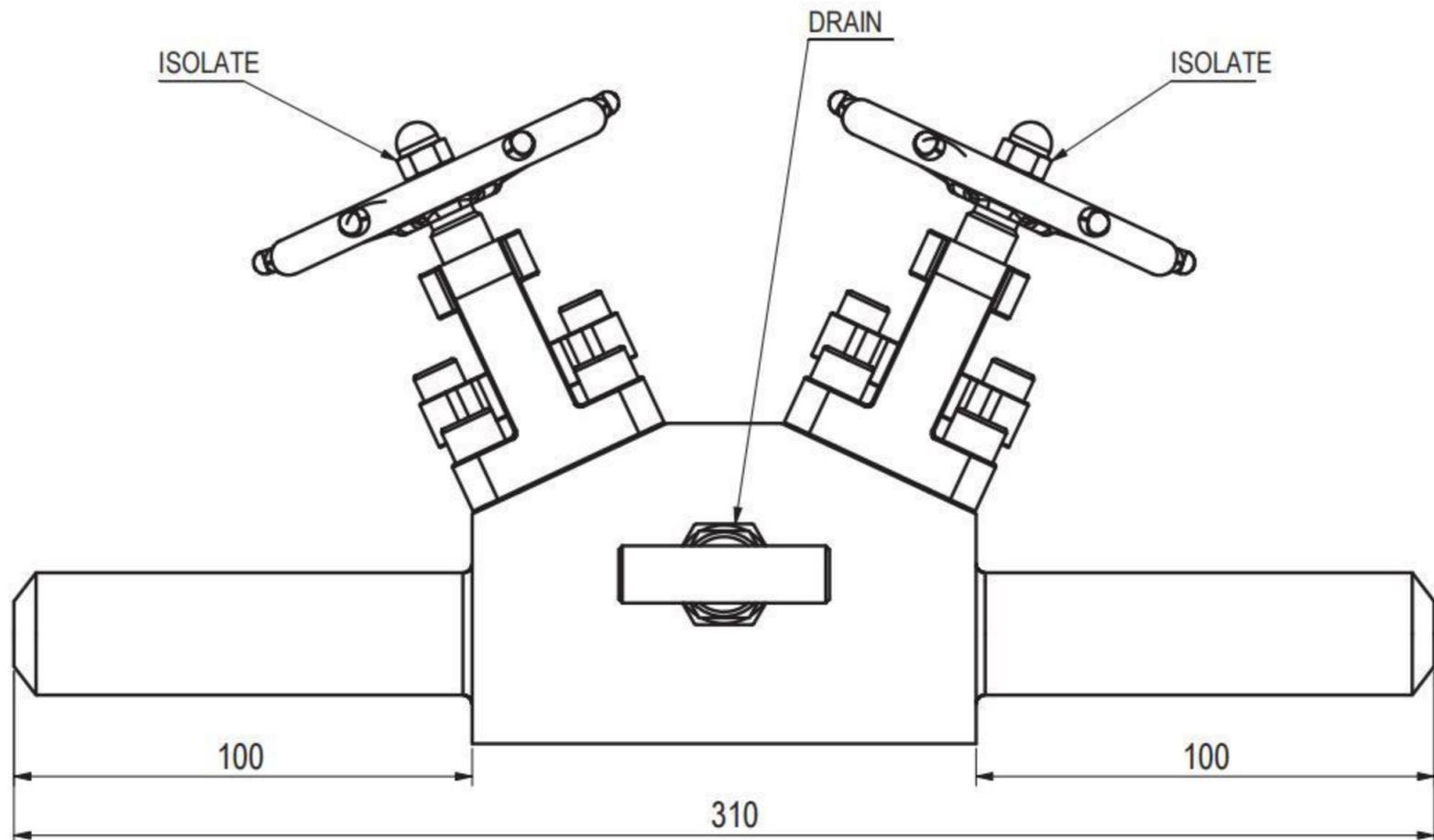


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Main Feature

1. One-piece body
2. COB series with two sides short nipple (60-100mm) is integral with valve body together
3. Seat: body+STL, Disc: Gr.660+STL
4. Standard inner diameter size: 11mm, 14mm, 18mm
5. Stem threads are hardened to prevent biting
6. Grease for stem threads is isolated from the system medium
7. The non-rotating lower stem moves up and down, reducing packing friction with each stroke and biting between the seat and the head
8. The externally adjusted gland is not constrained by stem threads
9. Each valve is sealed with nitrogen or compressed air at rated working pressure before delivery.
10. Design standard is accordance with ASME B 16.34, API 602, ASME B16.11, ASME B16.25
11. Test standard is accordance with API598





ITEM	DESCRIPTION	MATERIAL		
		STD Temperature	HIGH Temperature	Stainless Steel
1	BODY	ASTM A105	ASTM A182-F11/F22/F91/F92	ASTM A182-F316/F321/F347
2	BONNET	ASTM A105	ASTM A182-F11/F22/F91/F92	ASTM A182-F316/F321/F347
3	DISC	Gr.660+STL	Gr.660+STL	Gr.660+STL
4	SEAT	ASTM A105+STL	ASTM A182-F11/F22/F91/F92+STL	ASTM A182-F316/F321/F347+STL
5	STEM BOLTS	ASTM A276-420	ASTM A276-420	ASTM A276-420
6	STEM	ASTM A276-F6a	ASTM A276-F6a	ASTM A276-F6a
7	GASKET	304SS/316L	304SS/316L	304SS/316L
8	HANDWHEEL	A197	A197	A197
9	PACKING	GRAPHITE	GRAPHITE	GRAPHITE
10	BOLTS	ASTM A193-B7	ASTM A193-B16	ASTM A193-B8

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