

Subsea Valves



Table of Contents



Introduction	3
Valve Types & Features	4
Ball Valves Operation Options	5
2-way Subsea Ball Valves: 3/8" Port	6
3-way Subsea Ball Valves: 3/8" Port	8
4 & 5-way Subsea Ball Valves: 3/8" Port	10
2-way Subsea Ball Valves: 1/2" Port	12
3-way Subsea Ball Valves: 1/2" Port	14
3-way Subsea Ball Valves: 1/2" Port	16
2-way Double Barrier Subsea Ball Valves: 3/8" Port	18
3-way Double Barrier Subsea Ball Valves: 3/8" Port	20
Subsea Needle Valve With Non-Rising Stem (0.94" Orifice)	22
Subsea Needle Valve With Non-Rising Stem (0.203" Orifice)	24
Subsea Needle Valve With Non-Rising Stem (0.312" Orifice)	26
Custom Size Needle Valves	28
Subsea Double Block & Bleed Needle Valve with Non-Rising Stem	30
Subsea Check Valves	32



Introduction



BuTech subsea valves meet performance, safety, and reliability expectations in the deepest water and harshest environments in the offshore oil and gas industry. With 30 years experience in the subsea market BuTech has been a leader in developing new and innovative ways to control the increasing temperature and pressure requirements as the industry moves to greater depths.

BuTech's subsea, needle, ball, double block and bleed valves, and assemblies are installed in some of the oil and gas industry's most challenging applications. From ball valves for onshore and topside applications to subsea valves performing in the harsh environments of the deepest offshore waters, BuTech leads the industry in performance, safety, and reliability.

Features and Benefits

- API 6A & 17D, PR2, Annex F/PSL3G qualified valves are available.
- All valves are internally pressure tested to at least 50% over rated pressure.
- Externally sealed design for depths to 14,000 feet (4200 meters).
- Typical service life guarantee of 25 years.
- Custom designed for instrumentation, process control, and chemical injection applications. Remote operated vehicle (ROV) capabilities in template control panels, subsea wellheads, and Christmas trees.
- Subsea valves can be manufactured to meet the requirements of NACE MR0175.
- Trouble free operation in a variety of media including hydrogen sulfides, corrosion inhibitors, paraffin thinners, hydraulic fluids, and other harsh chemicals.

Considerations in Selecting the Proper Subsea Valves

- Pressure / temperature rating
- End connections
- Service conditions and fluids
- Performance requirements
- Material compatibility
- Flow pattern required
- Customer specifications
- Water depth

- Needle or ball valve
- Orifice size needed
- Flow requirements
- Dimensional envelope and weight
- Method of operation
- Service life expectancy
- Handle configuration

Standard Materials of Construction

Standard materials include:

- Super duplex



BuTech subsea ball valves may be produced in any machinable metal with special seal materials. Please consult our factory for custom requirements.

316 cold-worked stainless steel

Page 3 | butech-valve.com

Valve Types & Features



Subsea Ball Valves

- Quarter or half turn action provides quick open/close ROV or diver operation
- Independent spring-loaded seals for full differential pressure
- Trunnion mounted ball design and blowout proof stem for maximum safety
- Externally sealed design for depths to 14.000 feet (4200 meters)
- Easy mounting for ROV, diver, or remote actuation
- Wide selection of end connections available
- Double barrier O-rings or cup seal options available on select valves
- Full port flow path through valve to minimize pressure drop
- Bi-directional flow capabilities

Page 4 | butech-valve.com

- A variety of seal materials are available for different services
- Corrosion-resistant alloys available for extreme service
- PEEK seats to offer resistance to chemicals, heat, and wear/abrasion
- 3/8" and 1/2" sized 2-way & 3-way designs, 3/8" 4-way design



Subsea Needle Valves

- Non-rotating, non-rising stem prevents galling and scoring
- Metal to metal seating
- Stem packing below threads prevents thread galling and fouling
- Positive gland locking device
- Corrosion-resistant alloys available for extreme services
- Bracket or panel mounting
- Externally sealed design for depths to 14,000 feet (4200 meters)
- Various connections available



Subsea Check Valves

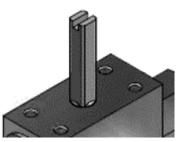
- Ensure flow in only one direction
- Rated to pressures of 15,000 psig and above
- Designed to the same rigorous standards as the Subsea Ball and Needle Valves ensuring a long maintenance-free life
- Corrosion resistant alloys available for extreme services
- Externally sealed design for depths to 14,000 feet (4200 meters)
- Available with metal to metal seat poppet style or gas tight soft seat O-ring style
- Various cracking pressures available



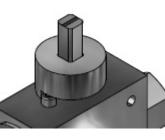
Ball Valves Operation Options



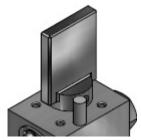
Customers have different requirements for their ROV operators and we can accommodate most requests. Below are the current modes of operation that BuTech offers.



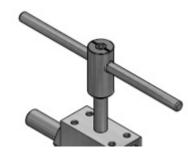
B Square



HS Hub with Stops

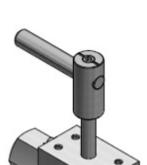


PS Paddle with StopsP Paddle with NO Stops



- **T** 10.5"
- T9 Paddle with NO StopsT6 Paddle with NO Stops

L

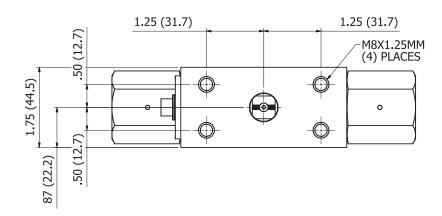


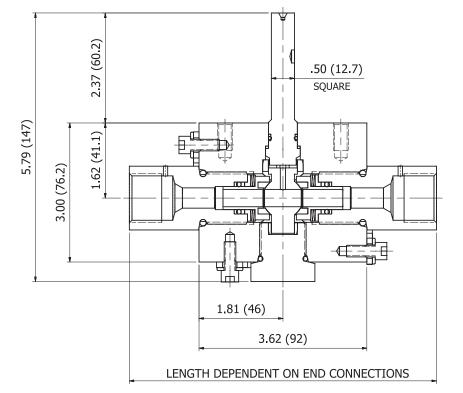
Page 5 | butech-valve.com

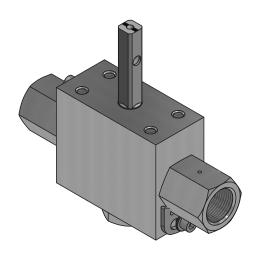
2-way Subsea Ball Valves: 3/8" Port

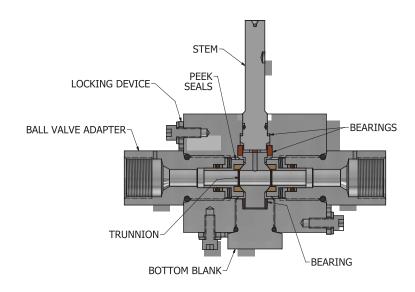
Pressure to 15,000 PSI











2-way Subsea Ball Valves: 3/8" Port

Pressure to 15,000 PSI



Example Catalog Number: 2SB156H3B-6M-PSL3G

Catalog Number:	2	SB	15	6	Н	3	В	-6M	-PSL3G
Valve Description/ Requirements:	 Number of Connections 	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

I. N	umber of Connections	2. V	alve Series	3. Pr	essure Rating	4. Ball	Orifice (Port)	5. O	-Ring Material
2	2-Way Subsea Ball Valve	SB	Subsea Ball Valve	10	10,000 PSI (17D)	6	3/8" Diameter	В	Buna (+275°F)
				15	15,000 PSI			Н	HNBR (+350°F)
								HL	HNBR (17D) (0°F to +250°F)
6. N	laterial of Construction	7. 0	peration	8. En	nd Connections	9. Optio	ons	N	Nitrile (+250°F Max)
3	316 Stainless Steel (17D)	В	Square Stem Only	-4M	1/4" M/P female	-SOG	Sour Gas Service	F	Flurocarbon (Viton +400°F Max)
5	Duplex 2205	HS	Hub with Stops	-6M	3/8" M/P female	-PSL3	Test Level	G	GFLT (+400°F)
6	Alloy 625	Р	Paddle Handle	-9M	9/16" M/P female	-PSL3G	Test Level with Gas	V	Vermilion (17D) (0°F to +250°F)
7	Super Duplex 2507	PS	Paddle Handle with Stops	-12M	3/4" M/P female	-17D	API 6A 17D (at 10K)		
		T	Tee Handle (10.50")	-4P	1/4" NPT female	Blank	No additional option		
		T6	Tee Handle (6.00")	-6P	3/8" NPT female				
		T9	Tee Handle (9.00")	-8P	1/2" NPT female	Modif	fications		

-12P 3/4" NPT female

Consult BuTech for additional connections

Consult BuTech for additional options

(17D) Pressure and Materials used for PR2 Performance qualification test per API 6A Appendix F and API 15D.

L L Handle

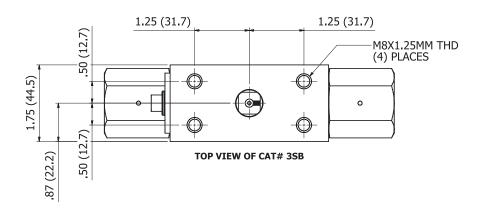
Page 6 | butech-valve.com

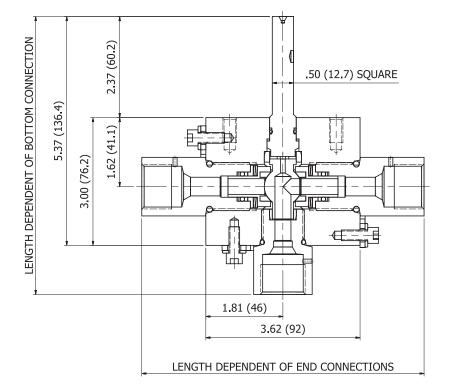
Page 7 | butech-valve.com

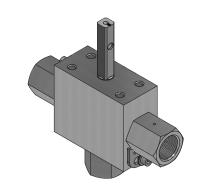
3-way Subsea Ball Valves: 3/8" Port

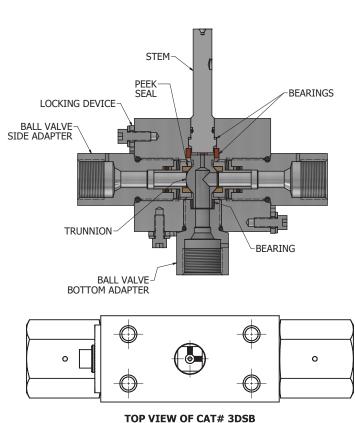
Pressure to 15,000 PSI











3-way Subsea Ball Valves: 3/8" Port

Pressure to 15,000 PSI



Example Catalog Number: 3DSB106N3B-6P

Catalog Number:	3D	SB	10	6	N	3	В	-6P	
Valve Description/ Requirements:	Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

Number of Connections	2. Va	lve Series	3. Pr	essure Rating	4. Ba	l Orifice (Port)	5. 0	-Ring Material
3-Way 180° Subsea Ball Valve	SB	Subsea Ball Valve	10	10,000 PSI (17D)	6	3/8" Diameter	В	Buna (+275°F Max)
3-Way 90° Subsea Ball Valve			15	15,000 PSI			Н	HNBR (+350°F Max)
							HL	HNBR (17D) (0° to +250°F)
Material of Construction	7. Op	eration	8. Er	nd Connections	9. Opt	ions	N	Nitrile (+250°F Max)
316 Stainless Steel (17D)	В	Square Stem Only	-4M	1/4" M/P female	-SOG	Sour Gas Service	F	Flurocarbon (Viton +400°F Max)
Duplex 2205	HS	Hub with Stops	-6M	3/8" M/P female	-PSL3	Test Level	G	GFLT (+400°F)
Alloy 625	P	Paddle Handle	-9M	9/16" M/P female	-PSL3G	Test Level with Gas	V	Vermilion (17D) (0° to +250°F)
Super Duplex 2507	PS	Paddle Handle with Stops	-12M	3/4" M/P female	-17D	API 6A 17D (at 10K, 316SS only)		
	Т	Tee Handle (10.50")	-4P	1/4" NPT female	Blank	No additional option		
	Т6	Tee Handle (6.00")	-6P	3/8" NPT female			,	
	Т9	Tee Handle (9.00")	-8P	1/2" NPT female	Mod	ifications		

-12P 3/4" NPT female

Consult BuTech for additional connections

Consult BuTech for additional options

(17D) Pressure and Materials used for PR2 Performance qualification test per API 6A Appendix F and API 15D.

L L Handle



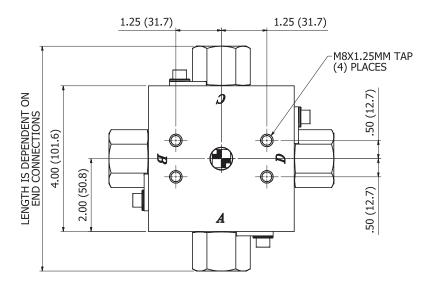
Page 8 | butech-valve.com

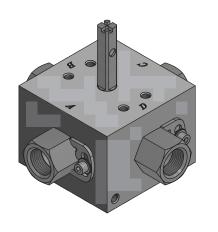
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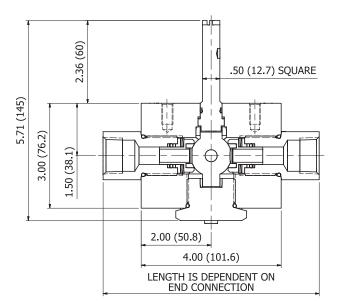
4 & 5-way Subsea Ball Valves: 3/8" Port

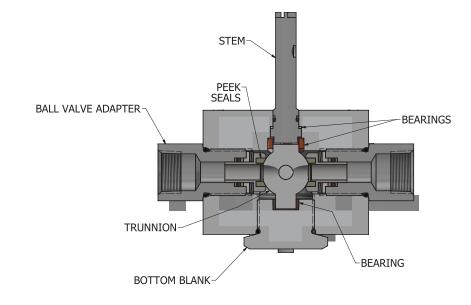
Pressure to 10,000 PSI











4 & 5-way Subsea Ball Valves: 3/8" Port

Pressure to 10,000 PSI



Example Catalog Number: 4SB106B3HS-8P

Catalog Number:	4	SB	10	6	В	3	HS	-8P	
Valve Description/ Requirements:	Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

. N	umber of Connections	2. Va	Ive Series	3. Pro	essure Rating	4. Ball	Orifice (Port)	5. 0-	Ring Material
	4-Way 90° Subsea Ball Valve	SB	Subsea Ball Valve	10	10,000 PSI (17D)	6 3	3/8" Diameter	В	Buna (+275°F)
	5-Way 360° Subsea Ball Valve							Н	HNBR (+350°F)
								HL	HNBR (17D) (0°F to +250°F)
. N	laterial of Construction	7. Op	eration	8. En	d Connections	9. Optio	ns	С	Chemraz (+446°F Max)
	316 Stainless Steel	В	Square Stem Only	-4M	1/4" M/P female	-SOG	Sour Gas Service	N	Nitrile (+250°F Max)
	Duplex 2205	HS	Hub with Stops	-6M	3/8" M/P female	-PSL3	Test Level	F	Flurocarbon (Viton +400°F)
i	Alloy 625	Р	Paddle Handle	-9M	9/16" M/P female	-PSL3G	Test Level with Gas	G	GFLT (+400°F)
	Super Duplex 2507 (17D)	PS	Paddle Handle with Stops	-12M	3/4" M/P female	-17D	API 6A 17D	٧	Vermilion (17D) (0°F to +250°F)
		T	Tee Handle (10.50")	-4P	1/4" NPT female	Blank	No additional option		
		T6	Tee Handle (6.00")	-6P	3/8" NPT female				

Consult BuTech for additional connections

Consult BuTech for additional options

-8P 1/2" NPT female

-12P 3/4" NPT female

Participation of the state of t

(17D) Pressure and Materials used for PR2 Performance qualification test per API 6A Appendix F and API 15D.

T9 Tee Handle (9.00")

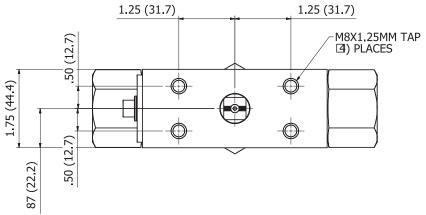
L L Handle

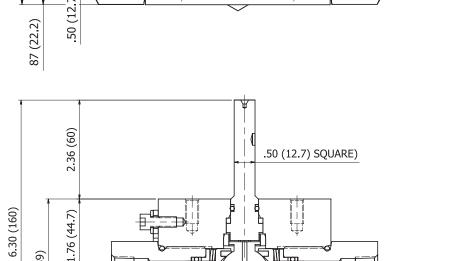
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2-way Subsea Ball Valves: 1/2" Port

Pressure to 10,000 PSI



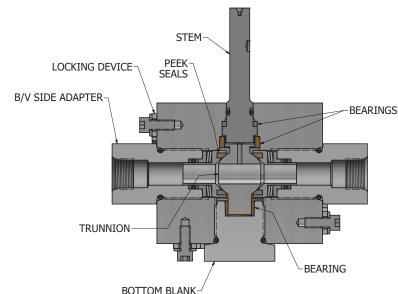




2.06 (52.3)

4.12 (104.6)

LENGTH DEPENDENT ON END CONNECTIONS



2-way Subsea Ball Valves: 1/2" Port

Pressure to 10,000 PSI



Example Catalog Number: 2SB108H3B-9M-17D

Catalog Number:	2	SB	10	8	Н	3	В	-9M	-17D
Valve Description/ Requirements:	1. Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

1. N	umber of Connections	2. Valve Series		3. Pr	essure Rating	4. Ball	Orifice (Port)	5. 0-	Ring Material
2	2-Way Subsea Ball Valve	SB Subsea Ball Valve		10	10,000 PSI (17D)	8	1/2" Diameter	В	Buna (+275°F)
								Н	HNBR (+350°F)
								HL	HNBR (17D) (0°F to +250°F)
6. I	laterial of Construction	7. Op	peration	8. En	d Connections	9. Optio	ons	N	Nitrile (+250°F Max)
3	316 Stainless Steel (17D)	В	Square Stem Only	-6M	3/8" M/P female	-SOG	Sour Gas Service	F	Flurocarbon (Viton +400°F)
5	Duplex 2205	HS	Hub with Stops	-9M	9/16" M/P female	-PSL3	Test Level	G	GFLT (+400°F)
6	Alloy 625	Р	Paddle Handle	-12M	3/4" M/P female	-PSL3G	Test Level with Gas	V	Vermilion (17D) (0°F to +250°F)
7	Super Duplex 2507	PS	Paddle Handle with Stops	-16M	1" M/P female	-17D	API 6A 17D (at 10K)		
		T	Tee Handle (10.50")	-6P	3/8" NPT female	Blank	No additional option		
		T6	Tee Handle (6.00")	-8P	1/2" NPT female				

-12P 3/4" NPT female

Consult BuTech for additional options

Consult BuTech for additional options

(17D) Pressure and Materials used for PR2 Performance qualification test per API 6A Appendix F and API 15D.

L L Handle



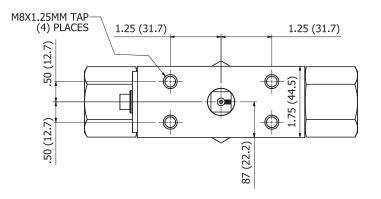
Page 12 | butech-valve.com

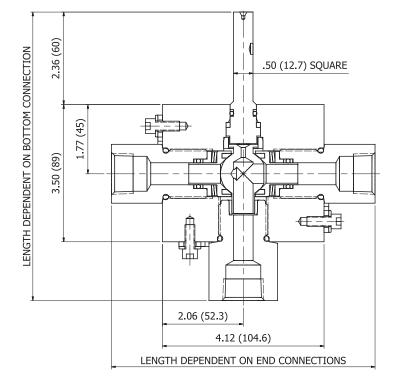
Page 13 | butech-valve.com

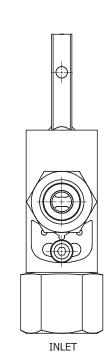
3-way Subsea Ball Valves: 1/2" Port

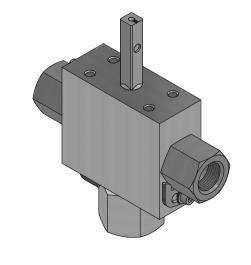
Pressure to 10,000 PSI

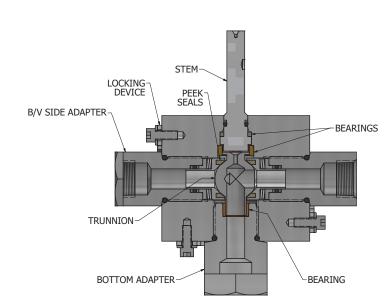












3-way Subsea Ball Valves: 1/2" Port

L L Handle

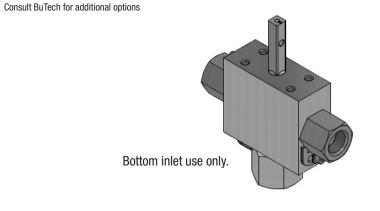
Pressure to 10,000 PSI



Example Catalog Number: 3SB108H3B-9M-17D

Catalog Number:	3	SB	10	8	Н	3	В	-9М	-17D
Valve Description/ Requirements:	Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

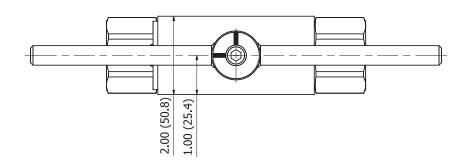
1. N	umber of Connections	2. Va	alve Series	3. Pr	essure Rating	4. Ball	Orifice (Port)	5. 0-	Ring Material
3	3-Way 180° Subsea Ball Valve	SB	Subsea Ball Valve	10	10,000 PSI	8	1/2" Diameter	В	Buna (+275°F Max)
3D	3-Way 90° Subsea Ball Valve							Н	HNBR (+350°F Max)
								HL	HNBR (17D) (0°F to +250°F)
6. N	Naterial of Construction	7. Op	peration	8. En	d Connections	9. Opti	ons	N	Nitrile (+250°F Max)
3	316 Stainless Steel (17D)	В	Square Stem Only	-9M	9/16" M/P female	-SOG	Sour Gas Service	F	Flurocarbon (Viton +400°F Max)
5	Duplex 2205	HS	Hub with Stops	-12M	3/4" M/P female	-PSL3	Test Level	G	GFLT (+400°F)
7	Super Duplex 2507	Р	Paddle Handle	-16M	1" M/P female	-PSL3G	Test Level with Gas	V	Vermilion (17D) (0°F to +250°F)
		PS	Paddle Handle with Stops	-8P	1/2" NPT female	-17D	API 6A 17D (at 10K)		
		T	Tee Handle (10.50")	-12P	3/4" NPT female	Blank	No additional option		
		T6	Tee Handle (6.00")	-16P	1" NPT female				
		T9	Tee Handle (9.00")	Consult	BuTech for additional options	Modif	ications		

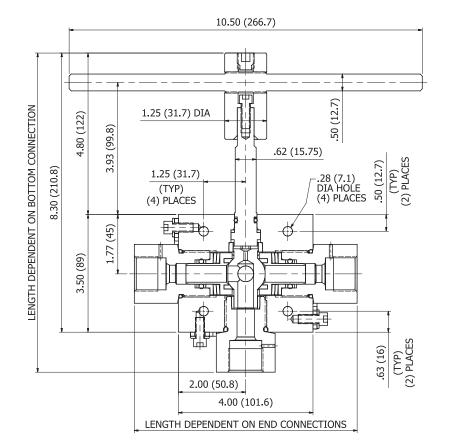


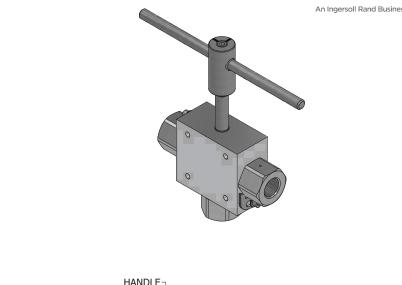
Page 14 | butech-valve.com

3-way Subsea Ball Valves: 1/2" Port

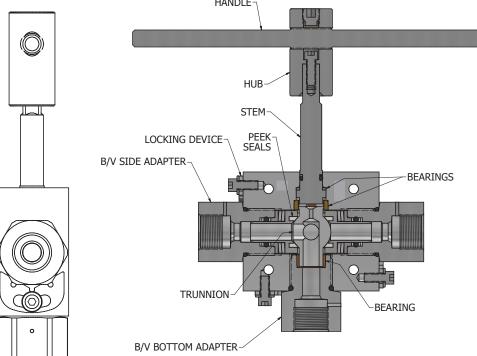
Pressure to 10,000 PSI







Bullech



Page 16 | butech-valve.com

3-way Subsea Ball Valves: 1/2" Port

2. Valve Series

L L Handle

Pressure to 10,000 PSI

1. Number of Connections



5. O-Ring Material

Buna (+275°F Max)

HNBR (+350°F Max)
HNBR (0°F to +250°F)
Nitrile (+250°F Max)

GFLT (+400°F)

Flurocarbon (Viton +400°F Max)

Vermilion (0°F to +250°F)

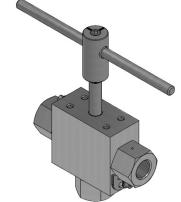
Example Catalog Number: 3SBSL108H7T-9M

Catalog Number:	3	SBSL	10	8	н	7	Т	-9M	
Valve Description/ Requirements:	1. Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

4. Ball Orifice (Port)

3. Pressure Rating

3	3-Way 180° Subsea Ball Valve	SBSL	Subsea Ball Valve	8	8,000 PSI	8	1/2" Diameter	В	
3D	3-Way 90° Subsea Ball Valve			10	10,000 PSI			Н	
									L
6. M	aterial of Construction	7. O	peration	8. En	nd Connections	9. Opti	ons	N	
3	316 Stainless Steel (8 KPSI)*	В	Square Stem Only	-9M	9/16" M/P female	-SOG	Sour Gas Service	F	
5	Duplex 2205**	HS	Hub with Stops	-12M	3/4" M/P female	-PSL3	Test Level	G	
7	Super Duplex 2507**	Р	Paddle Handle	-16M	1" M/P female	-PSL3G	Test Level with Gas	٧	
		PS	Paddle Handle with Stops	-8P	1/2" NPT female	Blank	No additional option		
		T	Tee Handle (10.50")	-12P	3/4" NPT female				
		T6	Tee Handle (6.00")	-16P	1" NPT female	Modif	ications		
		T9	Tee Handle (9.00")	Consult	BuTech for additional options	Consult E	BuTech for additional options		



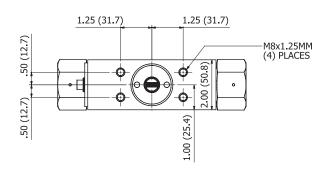
^{*316} SS material to 8,000 PSI Maximum

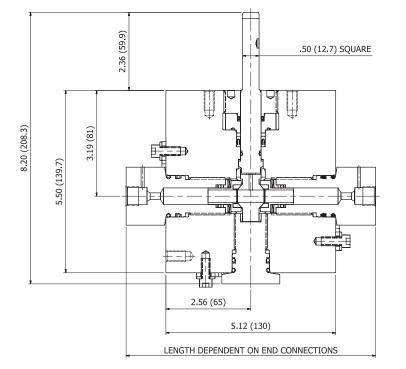
^{**}Side loaded in Duplex & Super Duplex to 10,000 PSI Maximum

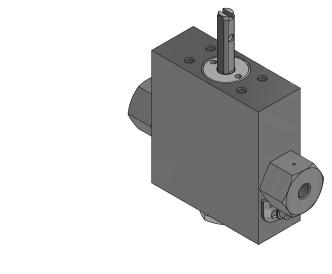
2-way Double Barrier **Subsea Ball Valves: 3/8" Port**

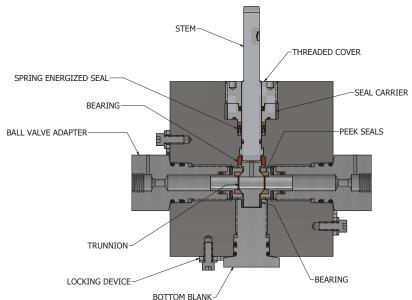


Pressure to 10,000 PSI (15,000 PSI made from Duplex)









10,000 PSI version shown

Page 18 | butech-valve.com

2-way Double Barrier **Subsea Ball Valves: 3/8" Port**



Buna (+275°F Max) HNBR (+350°F Max)

Nitrile (+250°F Max)

HNBR (17D) (0°F to +250°F)

Flurocarbon (Viton +400°F Max)

Vermilion (17D) (0°F to +250°F)

Pressure to 10,000 PSI (15,000 PSI made from Duplex)

Example Catalog Number: 2SBD106H3B-6M

Catalog Number:	2	SBD	10	6	н	3	В	-6M	
Valve Description/ Requirements:	1. Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

1.	Number of Connections	2. \	/alve Series	3. P	ressure Rating	4. Ba	Il Orifice (Port)	5. 0	O-Ring Material
2	2-Way Subsea Ball Valve	SBD	Cup Seal / Double Barrier	10	10,000 PSI (316 SS)	6	3/8" Diameter	В	Buna (+275°F l
	2-Way Subsea Ball Valve			15	15,000 PSI (Duplex) (17D)			Н	HNBR (+350°F
								HL	HNBR (17D) (0°
6.	Material of Construction	7. 0	peration	8. Er	nd Connections	9. Opt	tions	N	Nitrile (+250°F
3	316 Stainless Steel (10 KPSI Max)	В	Square Stem Only	-4M	1/4" M/P female	-SOG	Sour Gas Service	F	Flurocarbon (Vi
5		HS	Hub with Stops	-6M	3/8" M/P female	-PSL3	Test Level	G	GFLT (+400°F)
7		Р	Paddle Handle	-9M	9/16" M/P female	-PSL3G	Test Level with Gas	٧	Vermilion (17D)
1	2.25" thk. Block (17D)	PS	Paddle Handle with Stops	-12M	3/4" M/P female	-6A	API 6A Appendix F		
			Tee Handle (10.50")	-4P	1/4" NPT female	-17D	API 6A/17D (at 15K)		
		T6	Tee Handle (6.00")	-6P	3/8" NPT female	Blank	No additional option		
		Т9	Tee Handle (9.00")	-8P	1/2" NPT female				1
		L	L Handle	-12P	3/4" NPT female	Mod	ifications		
				Consu	It BuTech for additional options	Consult	BuTech for additional options	_	

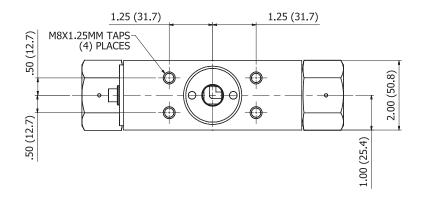
(17D) Pressure and Materials used for PR2 Performance qualification test per API 6A Appendix F and API 15D.

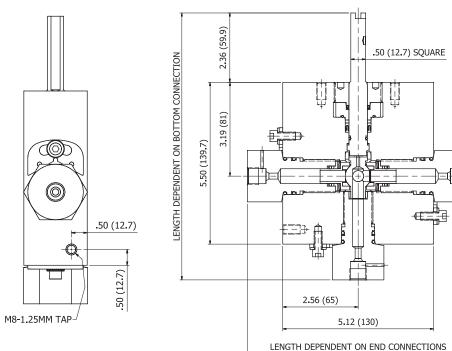


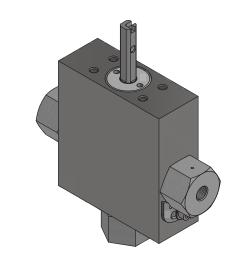
3-way Double Barrier Subsea Ball Valves: 3/8" Port

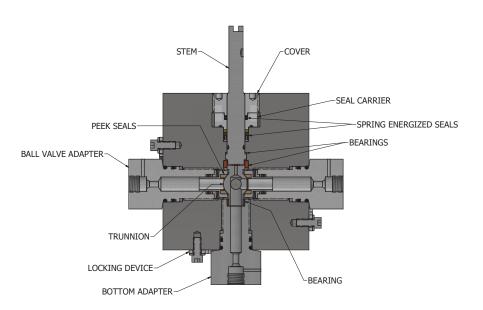
Bullech

Pressure to 10,000 PSI (15,000 PSI made from Duplex)









3-way Double Barrier Subsea Ball Valves: 3/8" Port



Pressure to 10,000 PSI (15,000 PSI made from Duplex)

Example Catalog Number: 3SBD106G3B-6M

Catalog Number:	3	SBD	10	6	G	3	В	-6M	
Valve Description/ Requirements:	Number of Connections	2. Valve Series	3. Pressure Rating	4. Ball Orifice (Port)	5. O-Ring Material	6. Material of Construction	7. Operation	8. End Connections	9. Options

٠.	tuiliber of conficctions		arro 501105	0. 11	coodic nating	54	ormos (r ort)	Ĭ	
1	3-Way 180º Subsea Ball Valve	SBD	Cup Seal / Double Barrier	10	10,000 PSI (316 SS)	6	3/8" Diameter	В	,
D	3-Way 90° Subsea Ball Valve			15	15,000 PSI (Duplex) (17D)			Н	
								Н	L
i. I	Material of Construction	7. 0	peration	8. En	nd Connections	9. Opti	ons	N	l
3	316 Stainless Steel (10 KPSI Max)	В	Square Stem Only	-4M	1/4" M/P female	-SOG	Sour Gas Service	F	
5	Duplex 2205 (15 KPSI Max) 2.25" thk. Block	HS	Hub with Stops	-6M	3/8" M/P female	-PSL3	Test Level	G	i
,	Super Duplex 2507 (15 KPSI Max)	Р	Paddle Handle	-9M	9/16" M/P female	-PSL3G	Test Level with Gas	V	
	(17D) 2.25" thk. Block	PS	Paddle Handle with Stops	-12M	3/4" M/P female	-6A	API 6A Appendix F		
		T	Tee Handle (10.50")	-4P	1/4" NPT female	-17D	API 6A/17D (at 15K)		
		T6	Tee Handle (6.00")	-6P	3/8" NPT female	Blank	No additional option		
		T9	Tee Handle (9.00")	-8P	1/2" NPT female				
		L	L Handle	-12P	3/4" NPT female	Modi	fications		
				Consult	t BuTech for additional options	Consult E	BuTech for additional options		

	Flurocarbon (Viton +400°F Max)
i	GFLT (+400°F)
	Vermilion (17D) (0°F to +250°F)
(

0-Ring Material

Buna (+275°F Max) HNBR (+350°F Max)

Nitrile (+250°F Max)

HNBR (0°F to +250°F) (17D)

(17D) Pressure and Materials used for PR2 Performance qualification test per API 6A Appendix F and API 15D.

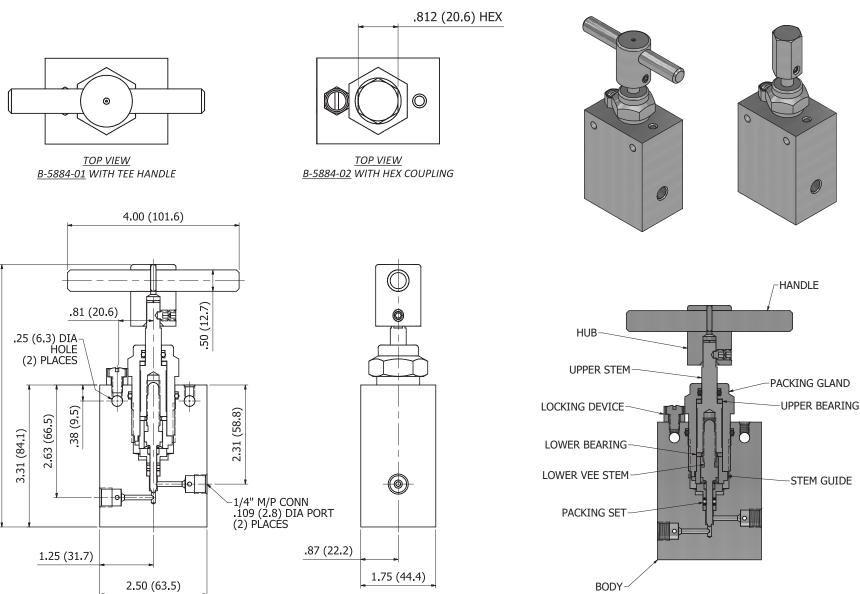
Page 20 | butech-valve.com

Page 21 | butech-valve.com

Subsea Needle Valve With Non-Rising Stem (0.94" Orifice)



Pressure to 20,000 PSI



Subsea Needle Valve With Non-Rising Stem (0.94" Orifice)



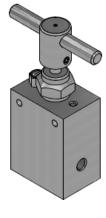
Pressure to 20,000 PSI

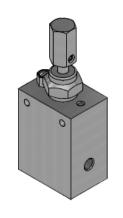
Example Catalog Number: SNV4M2V20B3-C

Catalog Number:	SNV	4M	2	v	20	В	3	-C	
Valve Description/ Requirements:	1. Valve Series	2. Connection	3. Flow Path	4. Stem Type	5. Pressure Rating (See Table 2)	6. O-Ring Material	7. Material of Construction	8. Operation	9. Options

1. Valve Series	2. Connection	3. Flow Path 4. Stem Type	6. O-Ring Material
SNV Subsea Needle Valve	-4M 1/4" M/P female, 20 KPSI	1 Straight through pattern V Vee Stem Tip	B Buna (+275°F Max)
	-4H 1/4" H/P female, 20 KPSI	2 Angle pattern R Regulating Stem Tip	H HNBR (+350°F Max)
	Consult BuTech for additional options	6 Replacable seat (angle pattern)	N Nitrile (+250°F)
			T PTFE
. Material of Construction	8. Operation	9. Options	F Flurocarbon (-20° +400°F)
316 Stainless Steel	Blank Standard Tee Handle	Blank Standard FAT Performed	G GFLT (-20° +400°F)
Duplex 2205	-C Hex Coupling	-PSL3 Test Level	V Vermilion
Super Duplex 2507		-PSL3G Test Level With Gas	

Consult BuTech for additional options





Page 22 | butech-valve.com Page 23 | butech-valve.com

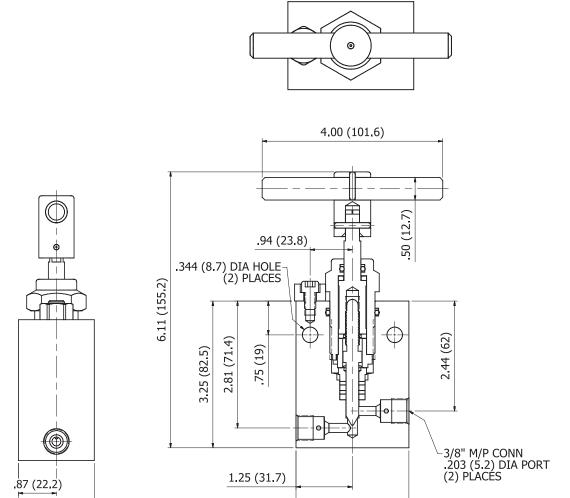
Subsea Needle Valve With Non-Rising Stem (0.203" Orifice)

Bullech

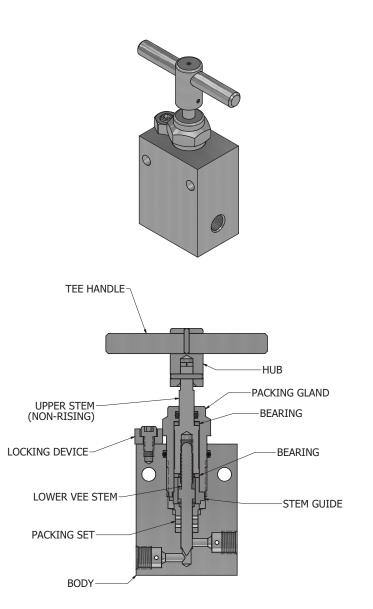
Pressure to 20,000 PSI

1.75 (44.5)

Page 24 | butech-valve.com



2.50 (63.5)





Subsea Needle Valve With Non-Rising Stem (0.203" Orifice)

Blank Standard Tee Handle

Hex Coupling



Pressure to 20,000 PSI

Example Catalog Number: SNV6M2V20B3-C

Catalog Number:	SNV	6M	2	V	20	В	3	-C	
Valve Description/ Requirements:	1. Valve Series	2. Connection	3. Flow Path	4. Stem Type	5. Pressure Rating (See Table 2)	6. O-Ring Material	7. Material of Construction	8. Operation	9. Options

1. Valve Series	2. Connection	3. Flow Path	4. Stem Type	6. O-Ring Material
SNV Subsea Needle Valve	-4P 1/4" FNPT, 15 KPSI	1 Straight through pattern	V Vee Stem Tip	B Buna (+275°F Max)
	-4M 1/4" M/P female, 20 KPSI (.109" Port)	2 Angle pattern	R Regulating Stem Tip	H HNBR (+350°F Max)
	-6M 3/8" M/P female, 20 KPSI	6 Replacable seat (angle pattern)		N Nitrile (+250°F)
	,			T PTFE
	Consult BuTech for additional options			F Flurocarbon (Viton +400°F)
				G GFLT (-20° +400°F)
7. Material of Construction	8. Operation	9. Ontions		V Vermilion

Blank Standard FAT Performed

Consult BuTech for additional options

Test Level

-PSL3G Test Level With Gas

-PSL3



02/04/22 Buffech CAT# 8-4560-01 MAIP 15,000 958720F MAIP 15,708 316CW
MAND 137788 3100- HT# 275788 po# 88617 BODY# B-4560-01-B0 SERIAL NO.6712535-1 INLET

Page 25 | butech-valve.com

316 Stainless Steel

Super Duplex 2507

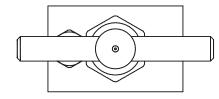
Duplex 2205

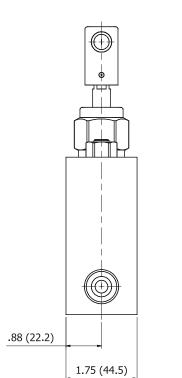
Subsea Needle Valve With Non-Rising Stem (0.312" Orifice)

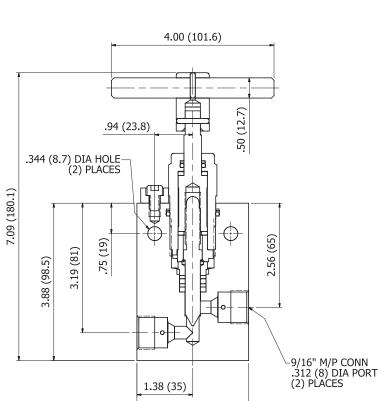
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An Ingersoll Rand Business

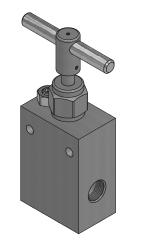
Pressure to 20,000 PSI

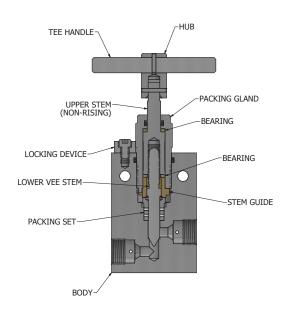






2.75 (70)





Subsea Needle Valve With Non-Rising Stem (0.312" Orifice)



Pressure to 20,000 PSI

Example Catalog Number: SNV9M1V20N3

Catalog Number:	SNV	9М	1	V	20	N	3		
Valve Description/ Requirements:	1. Valve Series	2. Connection	3. Flow Path	4. Stem Type	5. Pressure Rating (See Table 2)	6. O-Ring Material	7. Material of Construction	8. Operation	9. Options

1. Va	Ive Series	2. Co	onnection	3. F	low Path	4.	Stem Type
SNV	Subsea Needle Valve	-9M	9/16" M/P female (20 KPSI)	1	Straight through pattern	V	Vee Stem
		-8P	1/2" FNPT (15 KPSI)	2	Angle pattern	R	Regulating
		Consult	BuTech for additional options	6	Replacable seat (angle pattern)		
						1	
7. M	aterial of Construction	8. Op	eration	9. 0	ptions		
3	316 Stainless Steel	Blank	Standard Tee Handle	Blank	Standard FAT Performed		
5	316 Stainless Steel Duplex 2205	Blank -C	Standard Tee Handle Hex Coupling	Blank -PSL3			
					Test Level		

4. 8	Stem Type	6. 0-	Ring Material
V	Vee Stem Tip	В	Buna (+275°F Max)
R	Regulating Stem Tip	Н	HNBR (+350°F Max)
		N	Nitrile (+250°F)
		Т	PTFE
		F	Flurocarbon (Viton +400°F)
		G	GFLT (+400°F)
		V	Vermilion

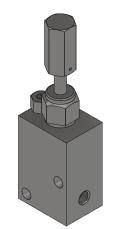


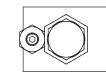
Page 26 | butech-valve.com

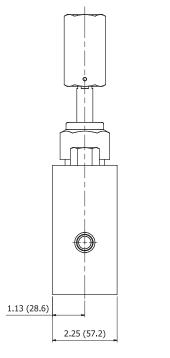
Custom Size Needle Valves

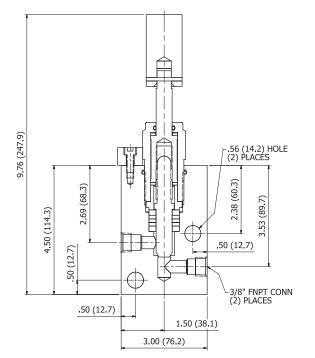
Upon Request

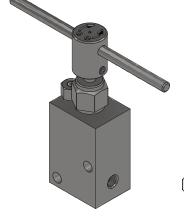




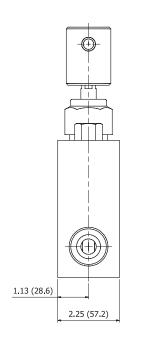


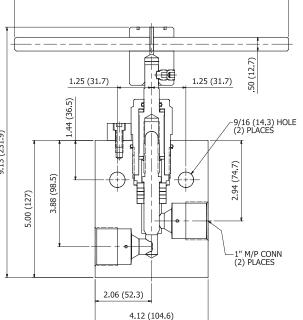








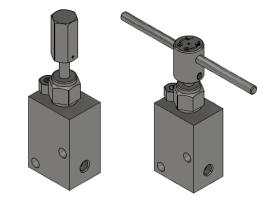




Custom Size Needle Valves

Upon Request

As the Subsea industry grew our customer demands and requirements changed, resulting in many variations of valve design. This catalog shows the most common among them, however, we do have other designs that may be right for you. If you did not find what you need in this catalog, please contact BuTech for additional offerings.



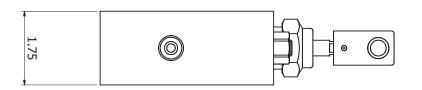


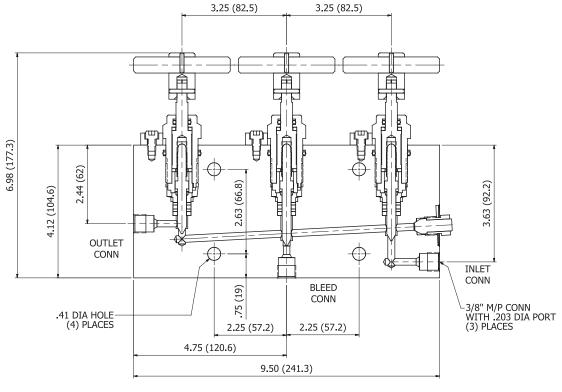


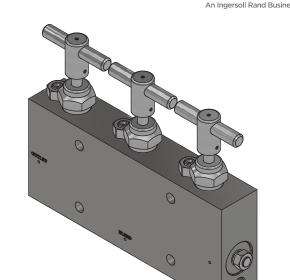
Page 28 | butech-valve.com

Subsea Double Block & Bleed Needle Valve with Non-Rising Stem

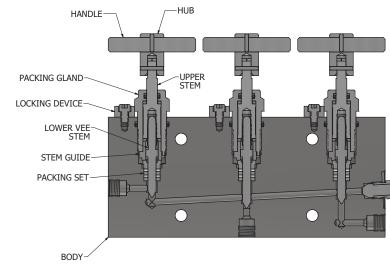
Pressure to 20,000 PSI







Bullech



Subsea Double Block & Bleed Needle Valve with Non-Rising Stem



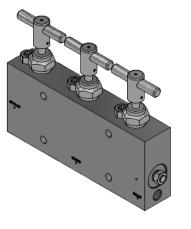
Pressure to 15,000 PSI

Example Catalog Number: SDBV6MV15B3

Catalog Number:	SDBV	6M	V	15	В	3		
Valve Description/ Requirements:	1. Valve Series	2. Connection	3. Stem Type	4. Pressure Rating (See Table 2 and 6)	5. O-Ring Material	6. Material of Construction	7. Operation	8. Options

. V	alve Series	2. Co	onnection	3. St	em Type	4.	Pressure Rating
SDBV	Subsea Double Block & Bleed Valve	-4M	1/4" M/P female (.109" port)	V	Vee Stem Tip	15	15,000 PSI
		-6M	3/8" M/P (.203" port)	R	Regulating Stem Tip		
		-6P	3/8" FNPT (.219" port)				
		-8P	1/2" FNPT (.219" port)				
		Consult	BuTech for additional options				
5. N	Naterial of Construction		BuTech for additional options peration	8. 0	tions		
	Naterial of Construction 316 Stainless Steel (15 KPSI)			8. Op	tions Standard FAT Performed		
		7. Op	peration		Standard FAT Performed		
5. N	316 Stainless Steel (15 KPSI)	7. O p	peration Standard Tee Handle	Blank	Standard FAT Performed Test Level		

5.	O-Ring Material
В	Buna (+275°F Max)
Н	HNBR (+350°F Max)
N	Nitrile (+250°F)
Т	PTFE
F	Flurocarbon (+400°F)
G	GFLT (+400°F)
٧	Vermilion

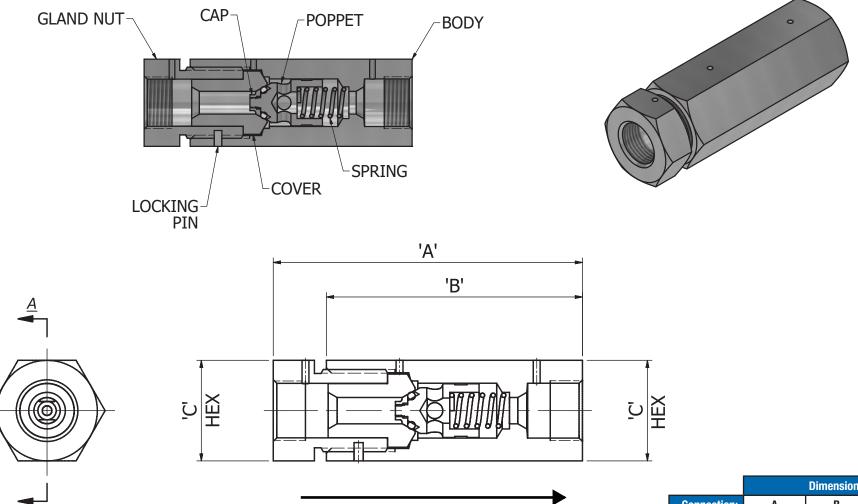


Page 30 | butech-valve.com

Subsea Check Valves

Pressure to 15,000 PSI

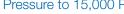




		Dimensions	
Connection:	Α	В	C (hex)
1/4" FNPT	2.94	2.26	0.75
3/8" FNPT	3.56	2.62	1.12
1/2" FNPT	4.62	3.5	1.37
3/8" M/P	3.12	2.62	1.12
9/16" M/P	4.23	3.5	1.37

Subsea Check Valves

Pressure to 15,000 PSI





Example Catalog Number: SSC6M15T3

Catalog Number:	SSC	6M	15	Т	3		
Valve Description/ Requirements:	1. Valve Series	2. Connection	3. Pressure Rating (See Table 2)	4. O-Ring Material	5. Material of Construction	6. Cracking Pressure	7. Options

Val	ve Series	2. Co	onnection	4. 0	-Ring Material
	Subsea Ball Check Valve	-4P	1/4" FNPT (15 KPSI)	В	Buna (+275°F Max)
	Subsea Soft Seat Check Valve	-6P	3/8" FNPT (15 KPSI)	Н	HNBR (+350°F Max)
		-8P	1/2" FNPT (15 KPSI)	N	Nitrile (+250°F)
		-6M	3/8" M/P female (15 KPSI)	Т	PTFE
		-9M	9/16" M/P female (15 KPSI)	F	Fluorocarbon (+400°F)
		Consult	BuTech for additional options	G	GFLT (+400°F)
			·	V	Vermilion

5.	Material of Construction	6	6. Cr	acking Pressure
3	316 Stainless Steel (15 KPSI)	Е	Blank	Standard ~ 15 PSI
5	Duplex 2205 (15 KPSI)	-	50	~ 50 PSI
7	Super Duplex 2507 (15 KPSI)	-	100	~ 100 PSI
		Co	nsult	BuTech for additional options



Page 33 | butech-valve.com

7. Options

-PSL3 Test Level

Blank Standard FAT Performed

-PSL3G Test Level With Gas

Consult BuTech for additional options



BuTech, a business of Ingersoll Rand, is a leading brand of high-pressure valves, fittings and tubing designed to meet the critical requirements of today's most demanding applications.

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

Ingersoll Rand (NYSE:IR), is a global leader in mission-critical flow creation and industrial technologies. For more information, visit www.IRCO.com.