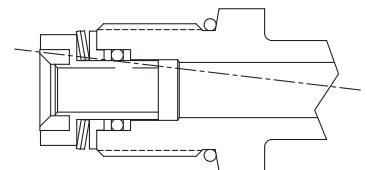
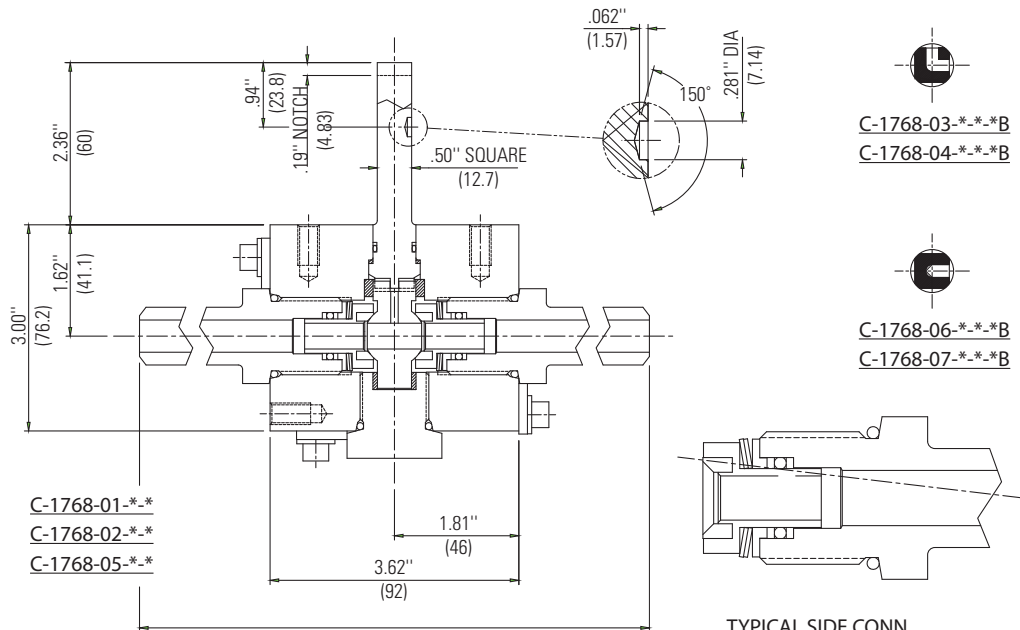
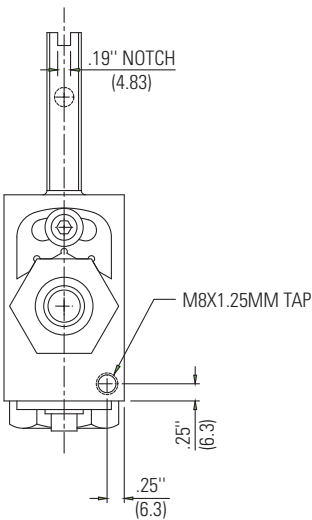
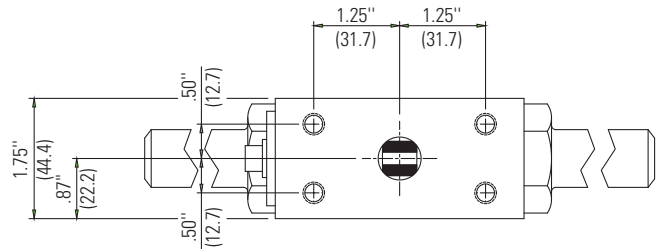


10,000 PSIG

	C-1768-02	C-1768-04	C-1768-05	C-1768-06	C-1768-07
Description	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve
Detail	2-way, 90 deg Turn	3-way, 90 deg Turn	2-way, 90 deg Turn	3-way, 90 deg Turn	3-way, 180 deg Turn
MAWP	10,000 psig	10,000 psig	10,000 psig	10,000 psig	10,000 psig
Orifice	.375"	.375"	.375"	.375"	.375"
CV	2.4	2.4	2.4	2.4	2.4
Barrier	Single	Single	Single	Single	Single
Body	316	316	316	316	316
Stem	Inconel 625	Inconel 625	Inconel 625	Inconel 625	Inconel 625
Trunnion	316	316	316	316	316
O-Ring	Nitrile N1210-90	Nitrile N1210-90	GFLT 9131	GFLT 9131	Nitrile N1210-90
Connection	Various	Various	Various	Various	Various
Actuator	ROV	ROV	ROV	ROV	ROV
Length	3.62"	3.62"	3.62"	3.62"	3.62"
Width	1.75"	1.75"	1.75"	1.75"	1.75"
Height	5.36"	5.36"	5.36"	5.36"	5.36"
Hydrostatic Test Pressure	15,000 psig	15,000 psig	15,000 psig	15,000 psig	15,000 psig
Max Torque on Stem	36 ft-lbs	36 ft-lbs	36 ft-lbs	36 ft-lbs	36 ft-lbs

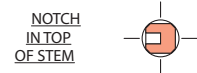
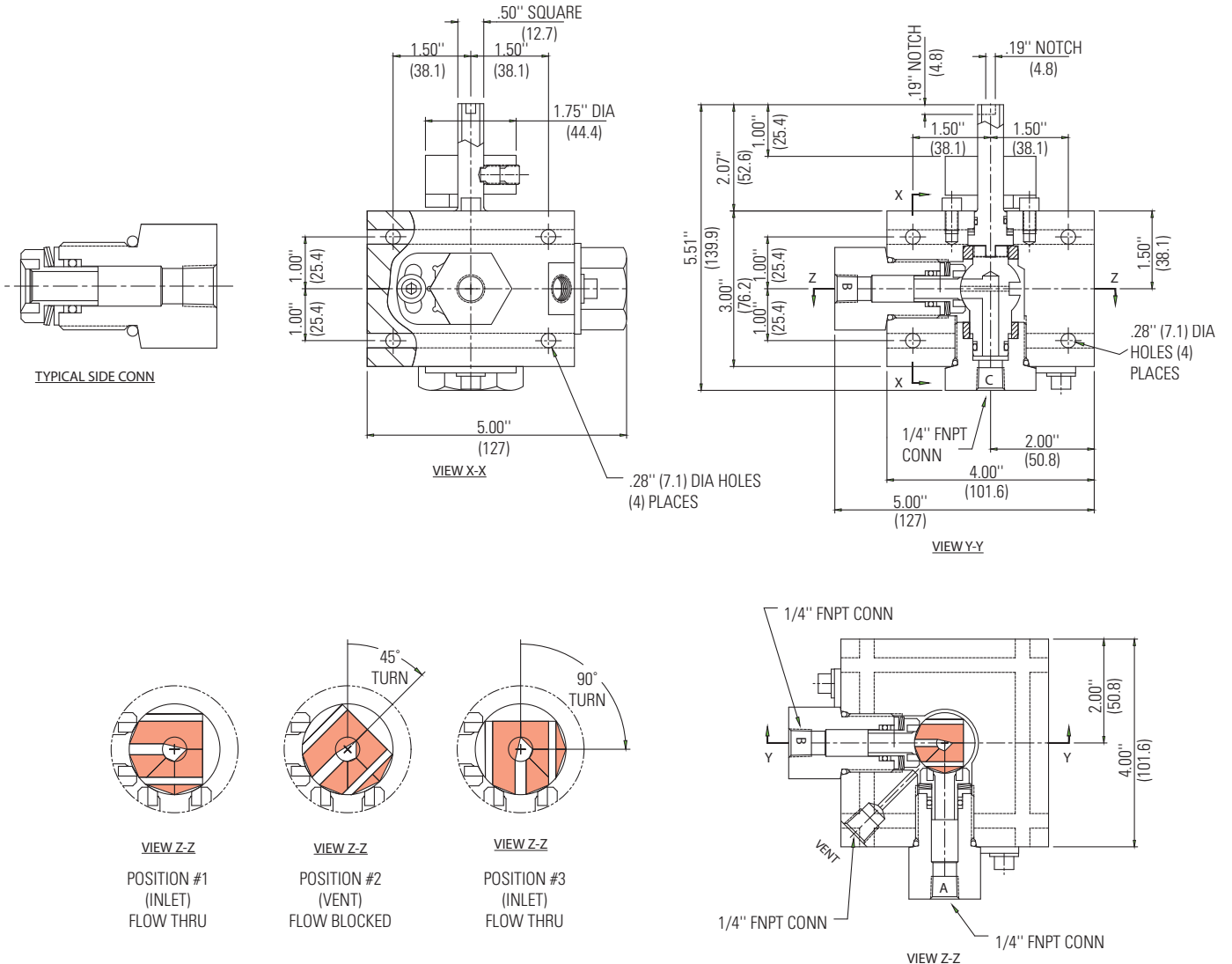
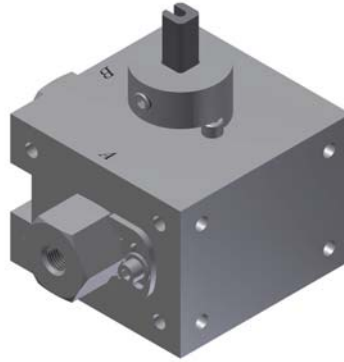


TYPICAL SIDE CONN

	C-2892-01	C-2892-02
Description	Subsea Ball Valve	Subsea Ball Valve
Detail	3-way, 90 deg Turn	3-way, 90 deg Turn
MAWP	10,000 psig	10,000 psig
Orifice	.28"	.28"
CV	1.4	1.4
Barrier	Single	Single
Body	316	316
Stem	Inconel 625	Inconel 625
Trunnion	316	316
O-Ring	Buna-N	Buna-N
Connection	1/4" FNPT	3/8" FNPT
Actuator	ROV	ROV
Length	5.00"	5.00"
Width	5.00"	5.00"
Height	5.51"	5.51"
Hydrostatic Test Pressure	15,000 psig	15,000 psig
Max Torque on Stem	36 ft-lbs	36 ft-lbs

Valve Features

- Internally vented at mid-stroke to prevent cross contamination of injection fluids
- Hub stop included on 1/2" sq. stem
- Low torque operation
- Side bracket mounted
- Other flow patterns available

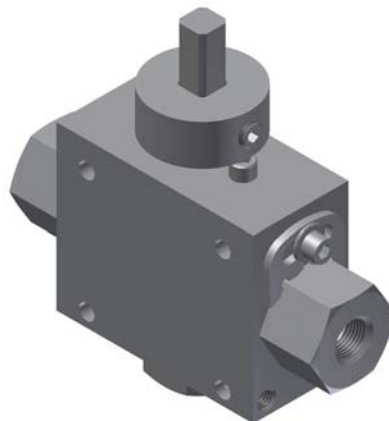


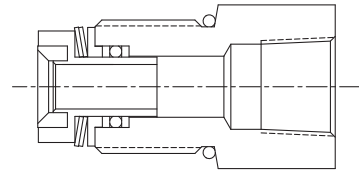
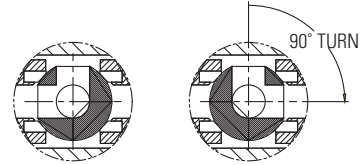
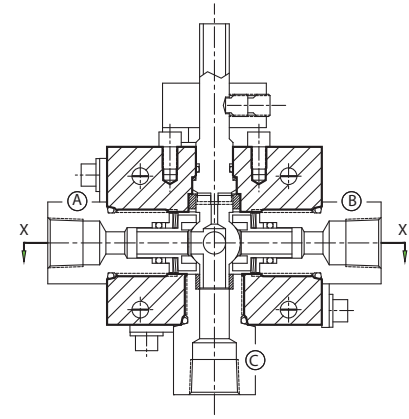
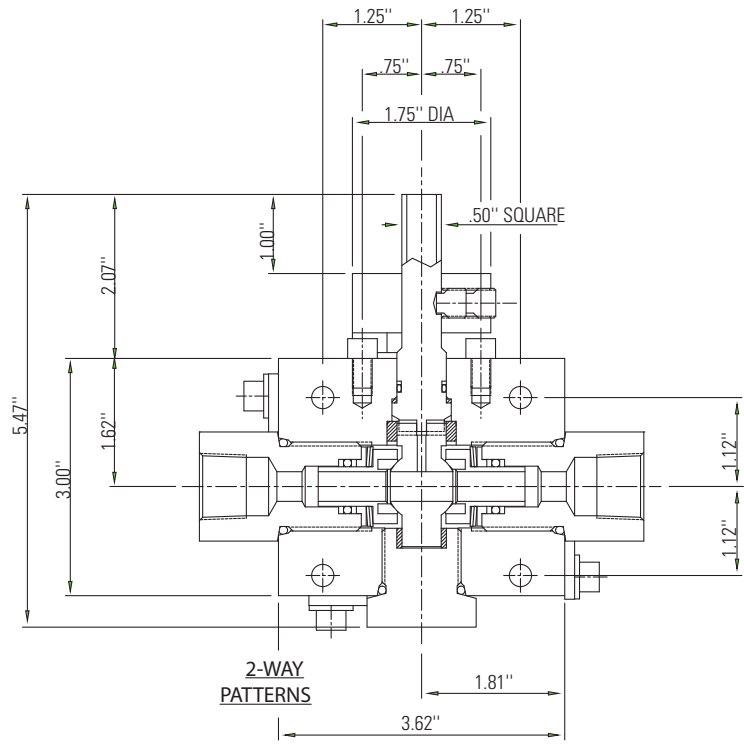
	C-1619-05	C-1619-06	C-1619-07	C-1619-09
Description	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve
Detail	2-way, 90 deg Turn	3-way diverter	3-way diverter	3-way diverter
MAWP	10,000 psig	10,000 psig	10,000 psig	10,000 psig
Orifice	.375"	.375"	.375"	.375"
CV	3.4	2.4	2.4	2.4
Barrier	Single	Single	Single	Single
Body	316	316	316	316
Stem	Inconel 625	Inconel 718	Inconel 625	Inconel 625
Trunnion	316	316	316	316
O-Ring	Buna-N	Buna-N	Buna-N	Buna-N
Connection	Various	Various	Various	Various
Actuator	ROV	ROV	ROV	ROV
Length	3.62"	3.62"	3.62"	3.62"
Width	1.75"	1.75"	1.75"	1.75"
Height	5.47"	5.47"	5.47"	5.47"
Hydrostatic Test Pressure	15,00 psig	15,00 psig	15,00 psig	15,00 psig
Max Torque on Stem	36 ft-lbs	36 ft-lbs	36 ft-lbs	36 ft-lbs

	C-1619-10	C-1619-11	C-1619-12	C-1619-13
Description	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve
Detail	2-way, 90 deg Turn	3-way diverter	3-way diverter	2-way, 90 deg Turn
MAWP	10,000 psig	10,000 psig	10,000 psig	10,000 psig
Orifice	.375"	.375"	.375"	.375"
CV	3.4	2.4	2.4	3.4
Barrier	Single	Single	Single	Single
Body	316	316	316	316
Stem	Inconel 625	Inconel 625	Inconel 625	Inconel 625
Trunnion	316	316	316	316
O-Ring	Buna-N	Buna-N	GFLT 9131	GFLT 9131
Connection	Various	Various	Various	Various
Actuator	ROV	Handle	ROV	ROV
Length	3.62"	3.62"	3.62"	3.62"
Width	1.75"	1.75"	1.75"	1.75"
Height	5.47"	5.47"	5.47"	5.47"
Hydrostatic Test Pressure	15,000 psig	15,000 psig	15,000 psig	15,000 psig
Max Torque on Stem	36 ft-lbs	36 ft-lbs	36 ft-lbs	36 ft-lbs

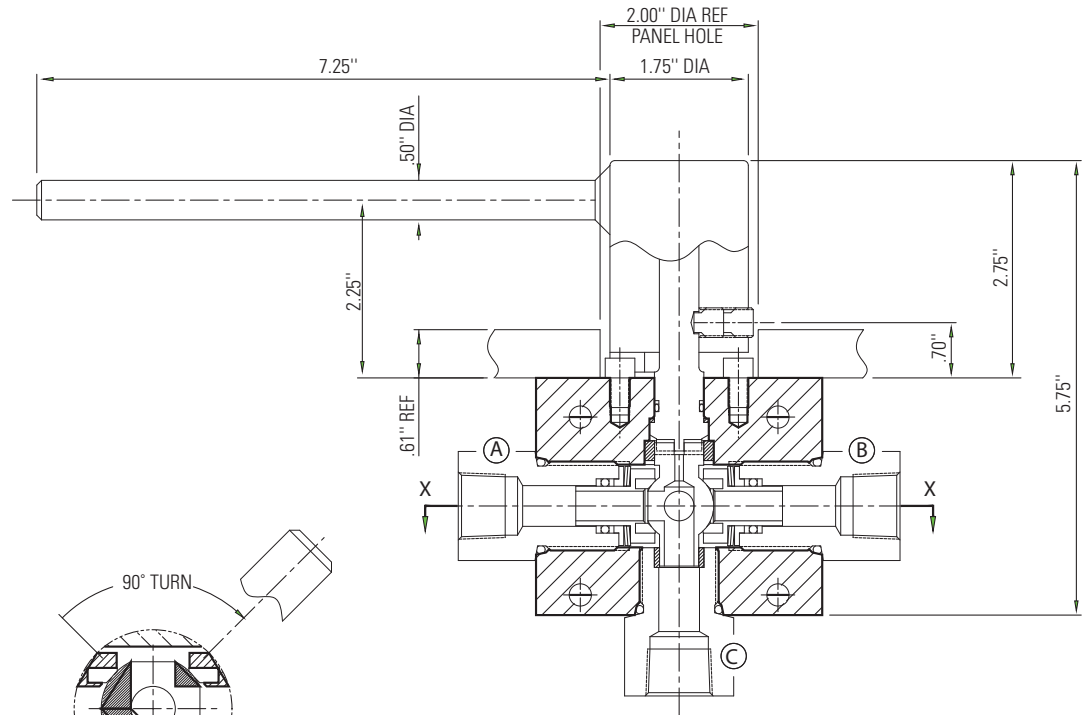
Valve Features

- Economical 316 construction
- 10,000 psi service
- ½" Sq. stem
- Side mounting
- Optional hub and stops

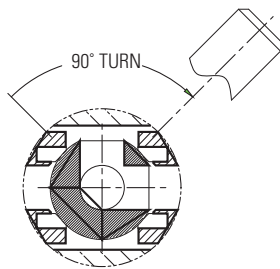
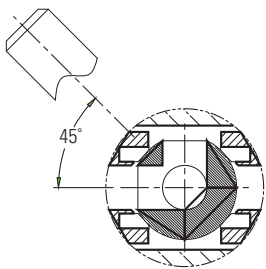




TYPICAL SIDE CONN



C-1619-11-22-22-22B

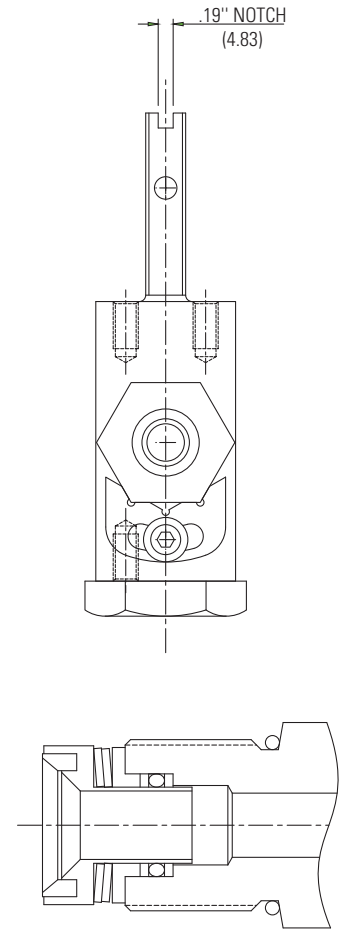
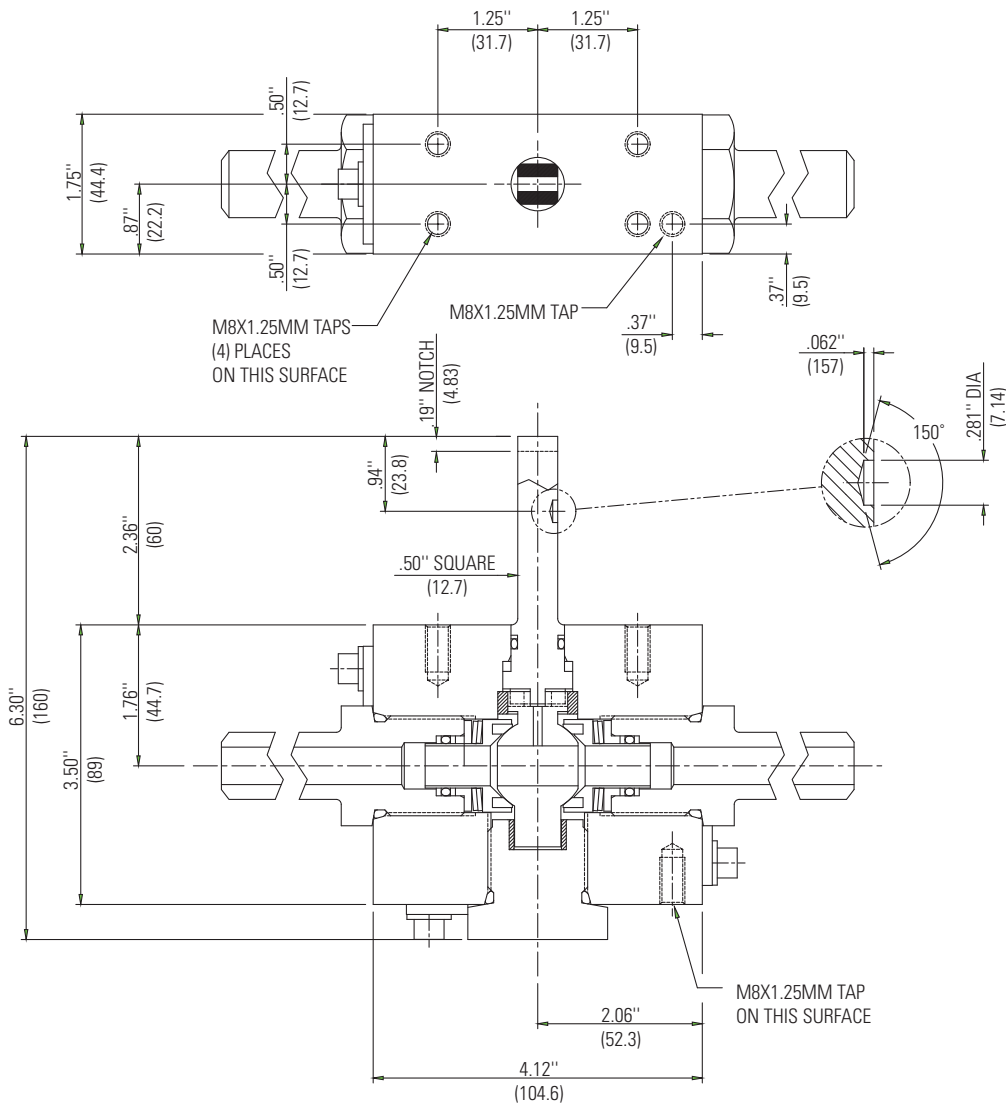
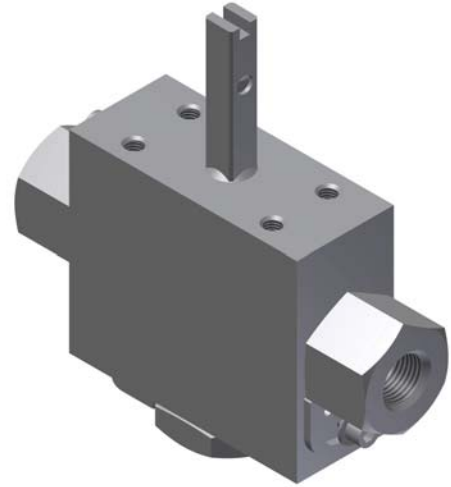


C-1727-02

Description	Subsea Ball Valve
Detail	2-way, 90 deg Turn
MAWP	10,000 psig
Orifice	.500"
CV	10
Barrier	Single
Body	316
Stem	Inconel 625
Trunnion	316
O-Ring	Nitrile N1210
Connection	Various
Actuator	Rov
Length	4.12"
Width	1.75"
Height	6.3"
Hydrostatic Test Pressure	15,000 psig
Max Torque on Stem	36 ft-lbs

Valve Features

- Most common 1/2" sub-sea ball valve
- Economical 316 construction
- 10,000 psi service
- 1/2" Sq. stem
- API bucket mounting



TYPICAL SIDE CONN

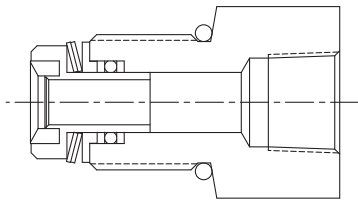
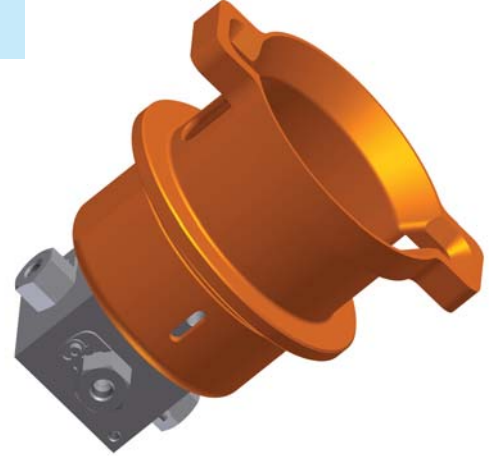


C-3210-01

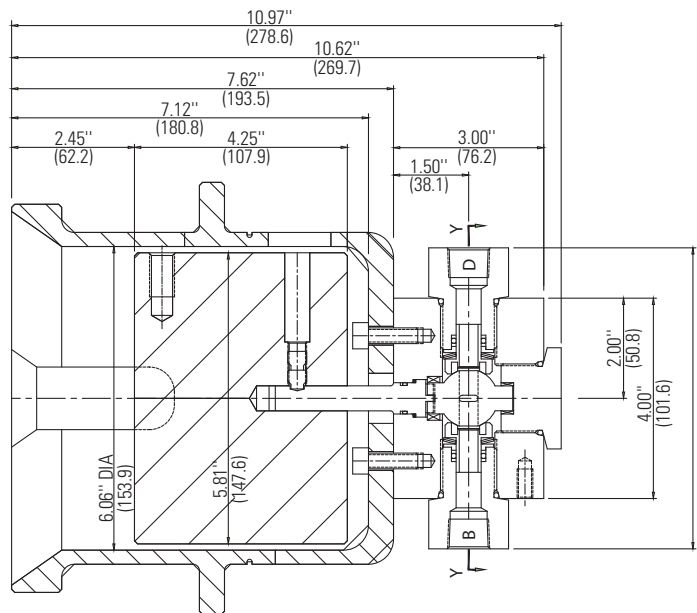
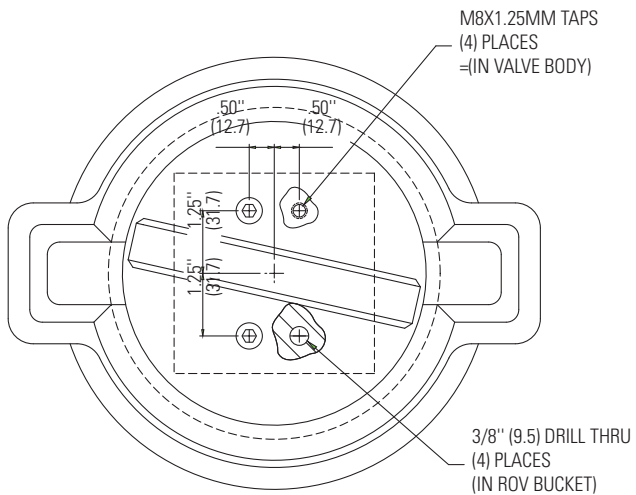
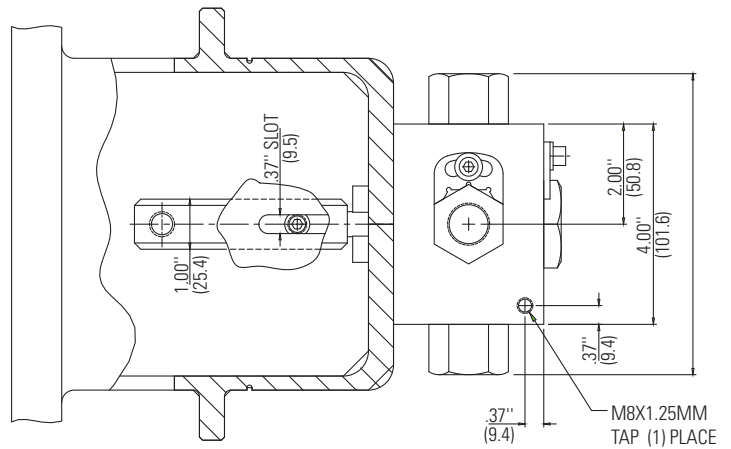
Description	Subsea Ball Valve
Detail	4-way, 90 deg turn
MAWP	10,000 psig
Orifice	.125"
CV	1.2
Barrier	Single
Body	316
Stem	Inconel 625
Trunnion	316
O-Ring	Buna-N
Connection	Various
Actuator	ROV
Length	4.00"
Width	4.00"
Height	8.52"
Hydrostatic Test Pressure	15,000 psig
Max Torque on Stem	36 ft-lbs

Valve Features

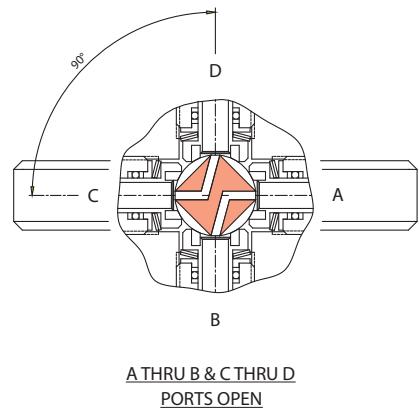
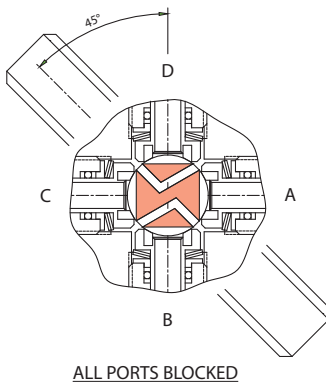
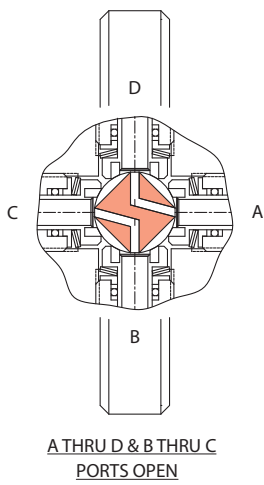
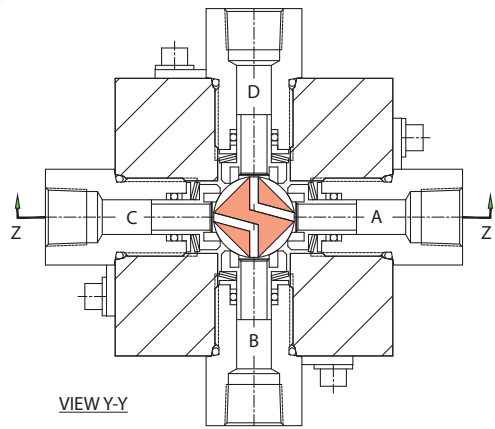
- Unique porting to prevent cross contamination of injection fluids
- Blade handle adapter to 1/2" sq. stem
- API bucket mounted



TYPICAL SIDE CONN



VIEW Z-Z



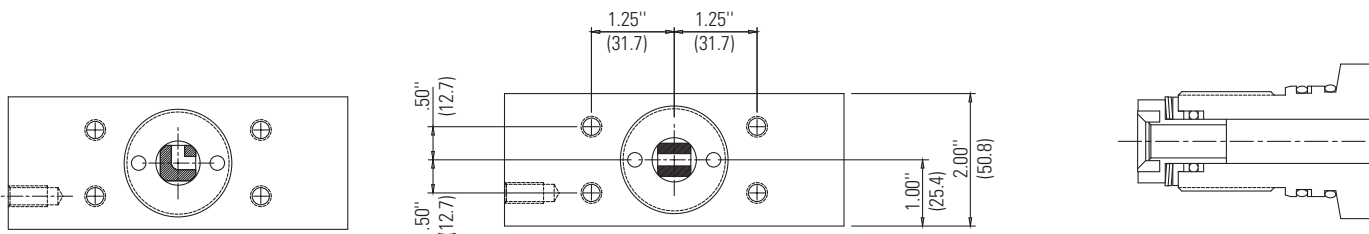
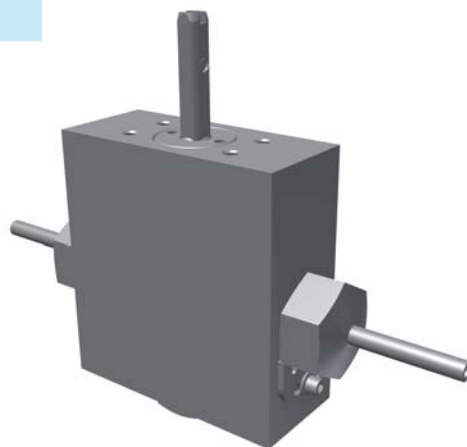
C-3210-01 Flow Patterns

C-1128-01

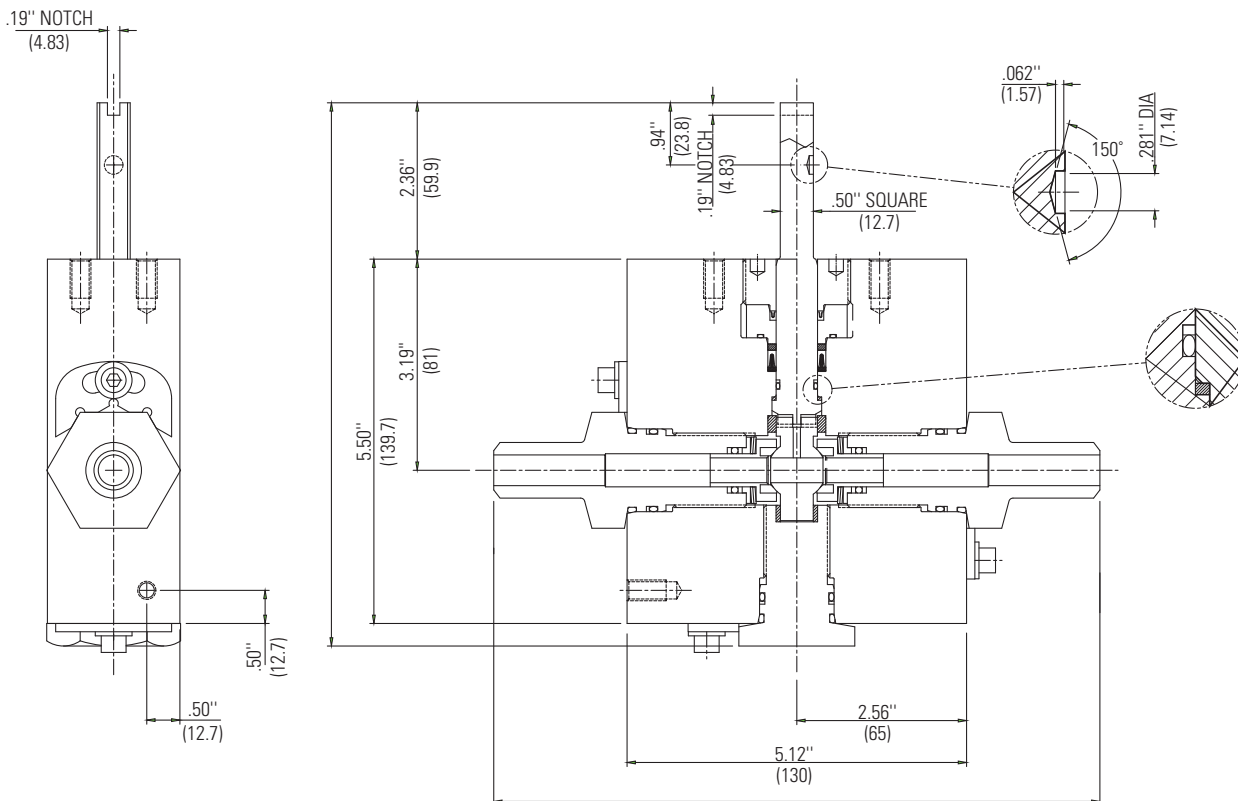
Description	Subsea Ball Valve
Detail	2-way, 90 deg Turn
MAWP	10,000 psig
Orifice	.375"
CV	2.4
Barrier	Double
Body	316
Stem	Inconel 625
Trunnion	316
O-Ring	Nitrile
Connection	Various
Actuator	ROV
Length	5.12"
Width	2"
Height	7.86"
Hydrostatic Test Pressure	15,000 psig
Max Torque on Stem	36 ft-lbs

Valve Features

- Dynamic cup-seal on rotating stem
- Double barrier design
- ½" sq. stub stem
- API Bucket mounted



TYPICAL SIDE CONN



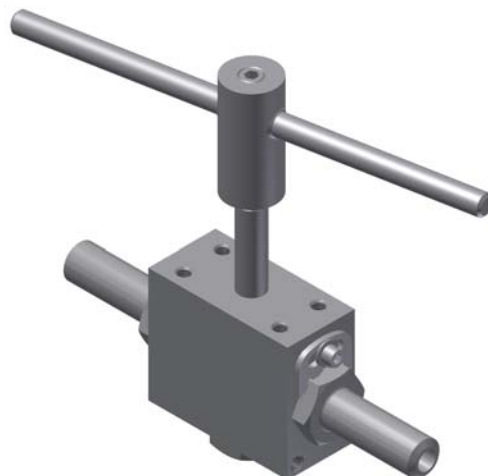


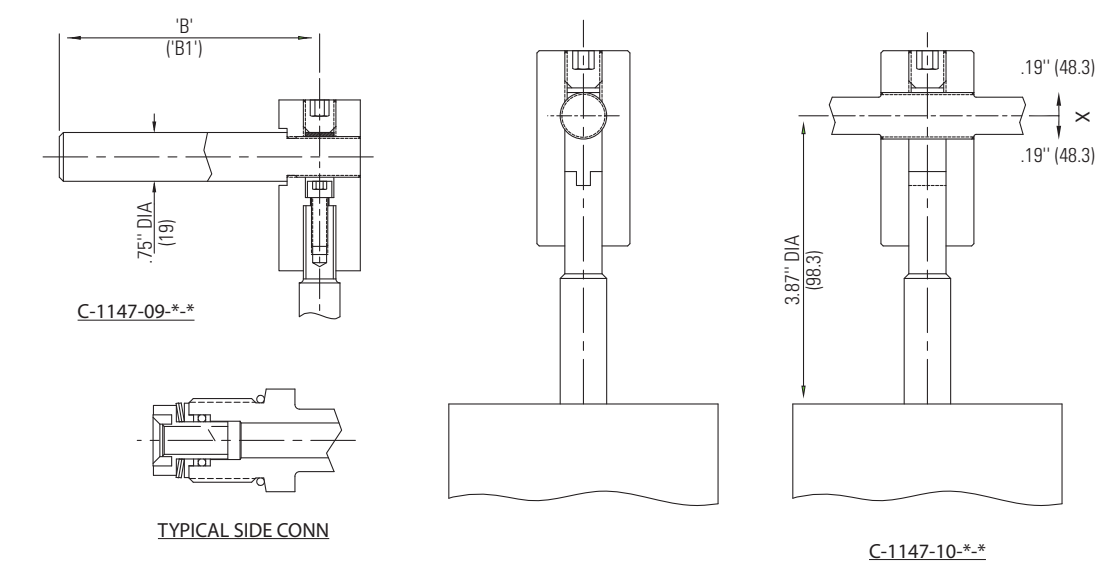
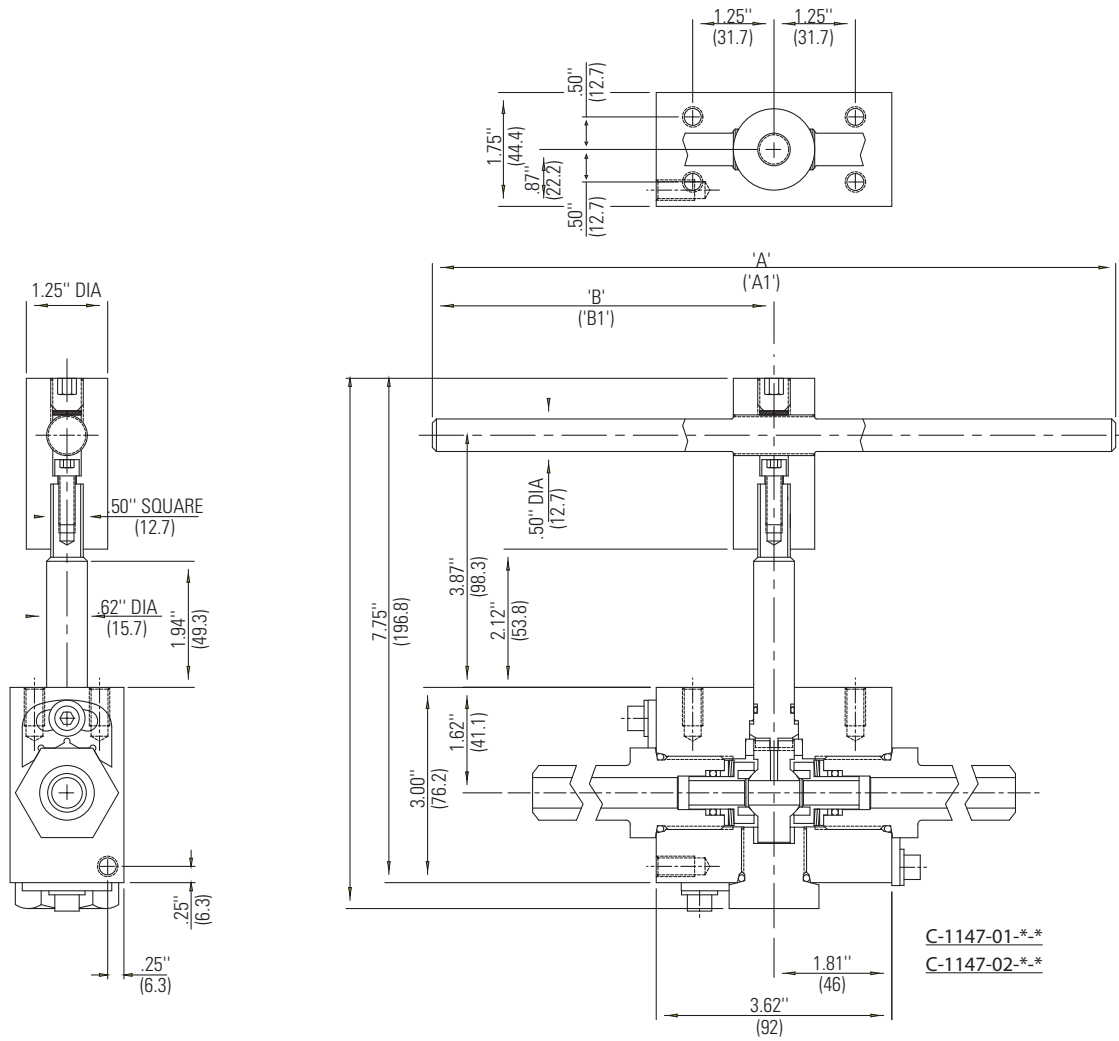
	C-1147-02	C-1147-04	C-1147-05	C-1147-06
Description	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve
Detail	2-way, 90 deg Turn	3-way, 90 deg Turn	3-way, 180 deg Turn	3-way, 90 deg Turn
MAWP	10,000 psig	10,000 psig	10,000 psig	10,000 psig
Orifice	.375"	.375"	.375"	.375"
CV	3.4	2.4	2.4	2.4
Barrier	Single	Single	Single	Single
Body	316	316	316	316
Stem	Inconel 625	Inconel 625	Inconel 625	Inconel 625
Trunnion	316	316	316	316
O-Ring	Nitrile	Nitrile	Nitrile	Viton/Flourosilicone
Connection	Various	Various	Various	Various
Actuator	Handle	Handle	Handle	Handle
Length	3.62"	3.62"	3.62"	3.62"
Width	1.75"	1.75"	1.75"	1.75"
Height	7.75"	7.75"	7.75"	7.75"
Hydrostatic Test Pressure	15,000 psig	15,000 psig	15,000 psig	15,000 psig
Max Torque on Stem	36 ft-lbs	36 ft-lbs	36 ft-lbs	36 ft-lbs

	C-1147-07	C-1147-08	C-1147-09	C-1147-10
Description	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve	Subsea Ball Valve
Detail	3-way, 90 deg Turn	3-way, 90 deg Turn	2-way, 90 deg Turn	2-way, 90 deg Turn
MAWP	10,000 psig	10,000 psig	10,000 psig	10,000 psig
Orifice	.375"	.375"	.375"	.375"
CV	2.4	2.4	3.4	3.4
Barrier	Single	Single	Single	Single
Body	316	316	316	316
Stem	Inconel 626	Inconel 626	Inconel 626	Inconel 625
Trunnion	317	317	317	316
O-Ring	Nitrile	Nitrile	Nitrile	Nitrile
Connection	Various	Various	Various	Various
Actuator	Handle	Handle	Handle	Handle
Length	3.62"	3.62"	3.62"	3.62"
Width	1.75"	1.75"	1.75"	1.75"
Height	7.75"	7.75"	7.75"	7.75"
Hydrostatic Test Pressure	15,000 psig	15,000 psig	15,000 psig	15,000 psig
Max Torque on Stem	36 ft-lbs	36 ft-lbs	36 ft-lbs	36 ft-lbs

Valve Features

- Economical 316 construction
- 10,000 psi service
- ½ Sq. stem
- ROV operation with "T" handle and API bucket mounting
- Offset "T" and "L" handles available



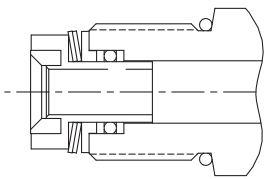
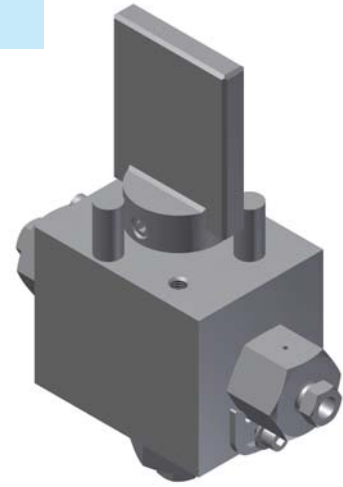


HANDLE DIMENSIONS				
-09	N/A	N/A	4.00"	101.6
-07-09	6.00"	152.4	3.00"	76.2
-01-02-03-04-05-06-10	10.50"	266.6	5.25"	133.3
PARTS LIST CAT#	'A'	'A'	'B'	'B1'

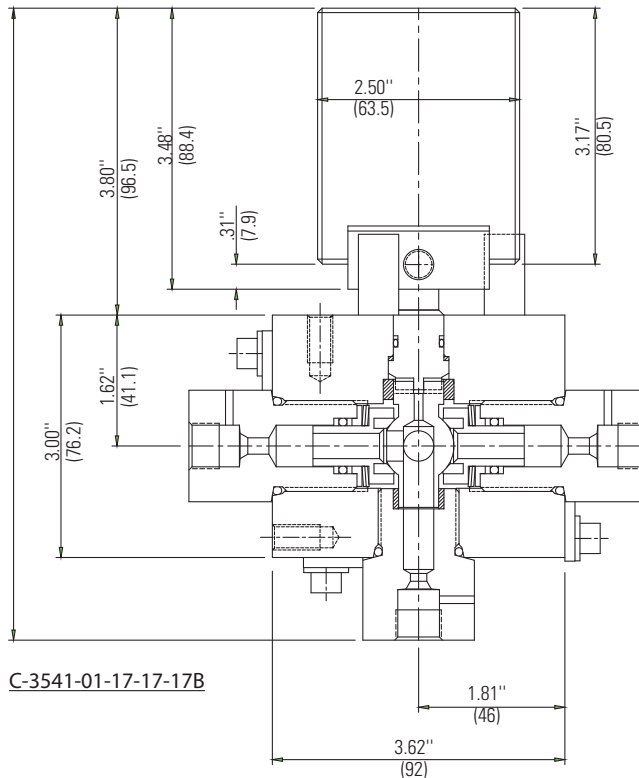
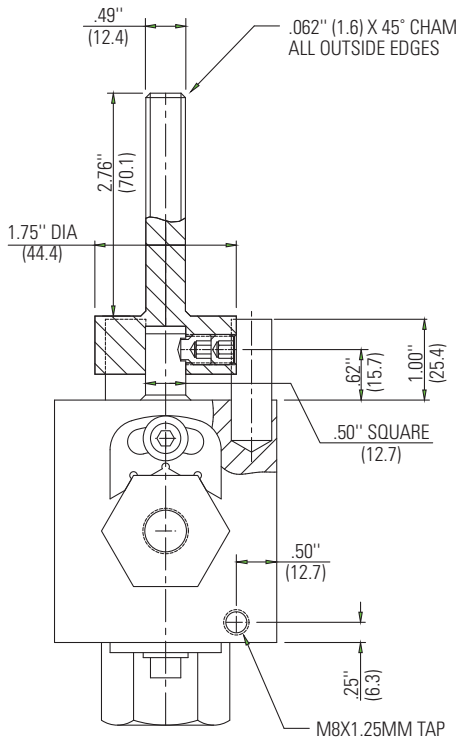
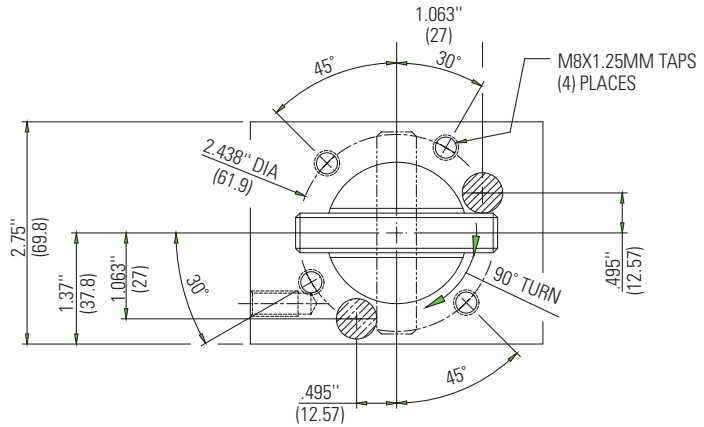
	C-3541-01	C-3541-02
Description	Subsea Ball Valve	Subsea Ball Valve
Detail	3-way, 90 deg Turn	2-way, 90 deg Turn
MAWP	10,000 psig	10,000 psig
Orifice	.312"	.312"
CV	2	2
Barrier	Single	Single
Body	316	316
Stem	Inconel 625	Inconel 625
Trunnion	Inconel 625	Inconel 625
O-Ring	HNBR 2269-90	HNBR 2269-90
Connection	Various	Various
Actuator	ROV	ROV
Length	3.62"	3.62"
Width	2.75"	2.75"
Height	6.80"	6.80"
Hydrostatic Test Pressure	15,000 psig	15,000 psig
Max Torque on Stem	155 ft-lbs	155 ft-lbs

Valve Features

- NACE construction
- Blade handle on 1/2" sq. stub stem
- Robust pin stops
- API Bucket mounted



TYPICAL SIDE CONN



C-3541-01-17-17-17B

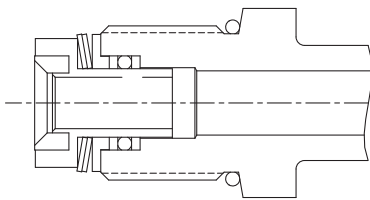
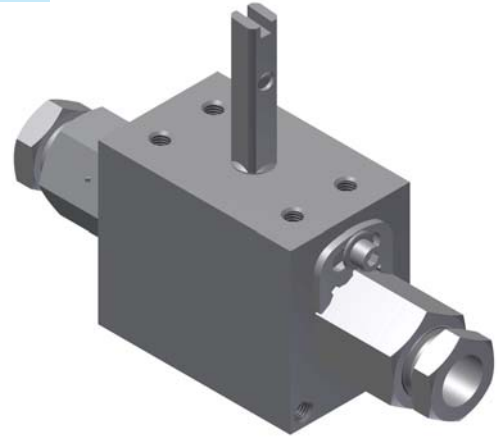


C-2013-02

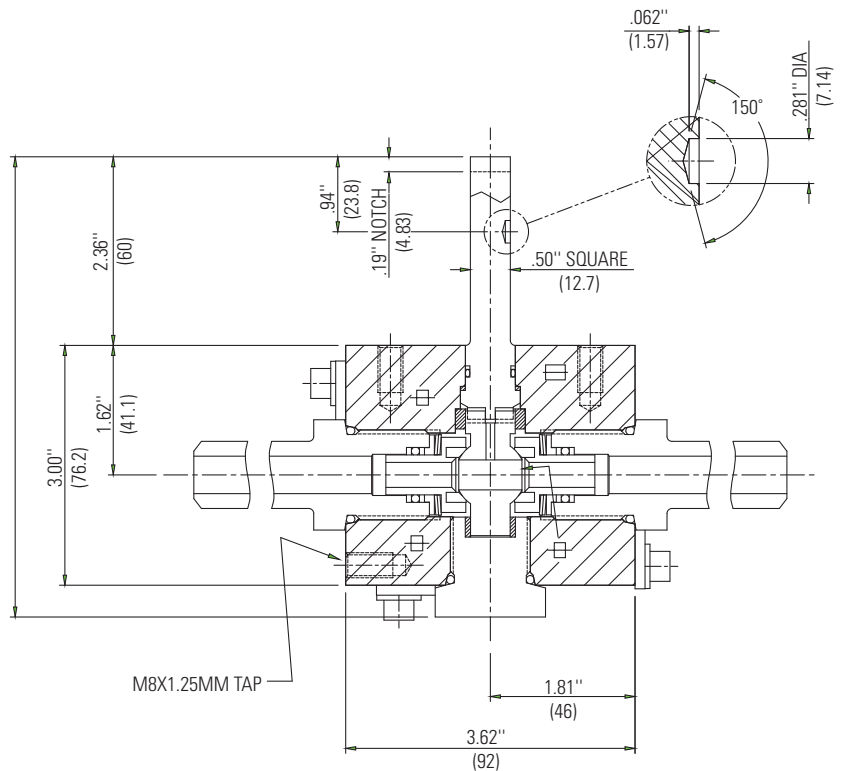
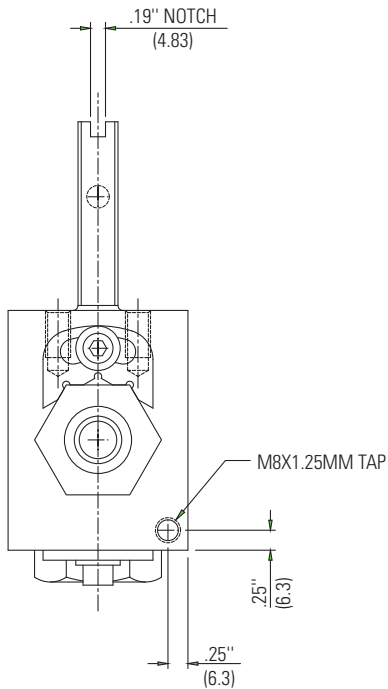
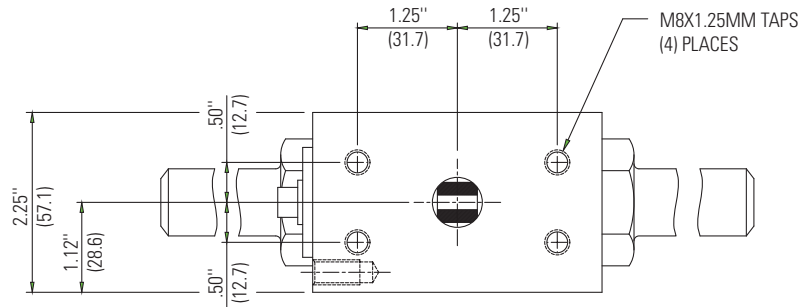
Description	Subsea Ball Valve
Detail	2-way, 90 deg Turn
MAWP	10,000 psig
Orifice	.312"
CV	2
Barrier	Single
Body	316
Stem	Inconel 625
Trunnion	Inconel 625
O-Ring	HNBR 2269-90
Connection	Various
Actuator	ROV
Length	3.62"
Width	2.25"
Height	5.36"
Hydrostatic Test Pressure	15,000 psig
Max Torque on Stem	36 ft-lbs

Valve Features

- 10,000 psi service
- 316 Annealed NACE construction
- ½" Sq. stem
- ROV operation with API bucket mounting



TYPICAL SIDE CONN

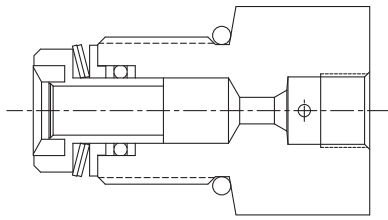
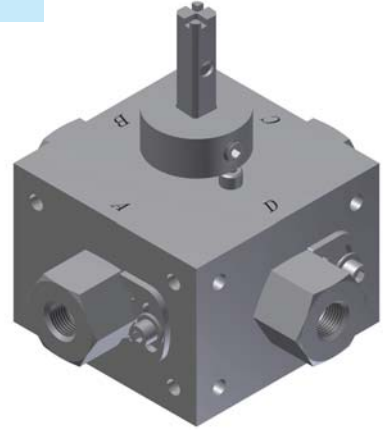


C-2023-01

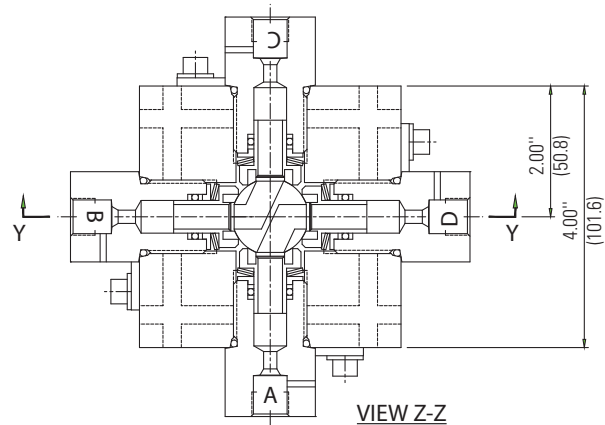
Description	Subsea Ball Valve
Detail	4-way, 90 deg turn
MAWP	10,000 psig
Orifice	.375"
CV	2.4
Barrier	Single
Body	316
Stem	Inconel 625
Trunnion	316
O-Ring	Buna-N
Connection	Various
Actuator	ROV
Length	4.00"
Width	4.00"
Height	5.86"
Hydrostatic Test Pressure	15,000 psig
Max Torque on Stem	36 ft-lbs

Valve Features

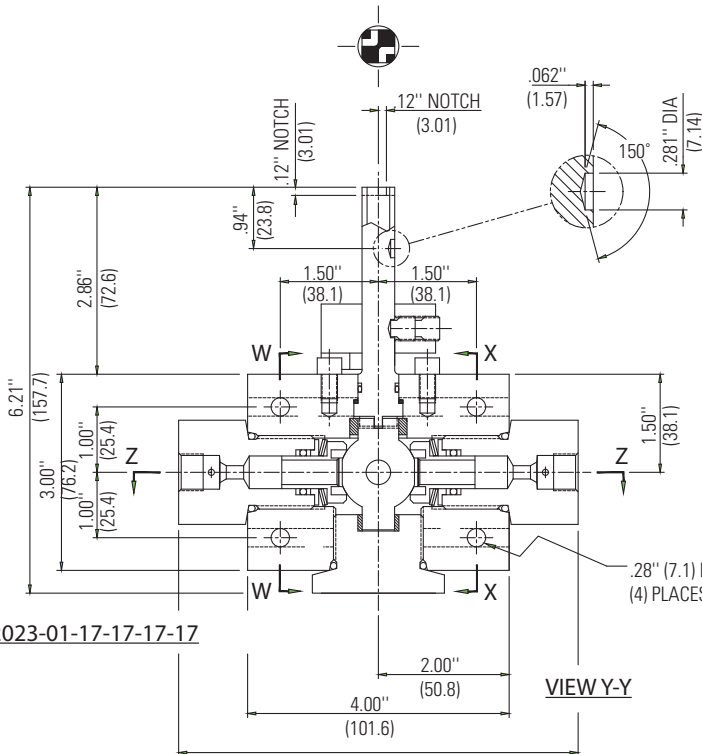
- Economical 316 construction
- Hub stop included on 1/2" sq. stem
- Low torque operation
- Side bracket mounted
- Other flow patterns available



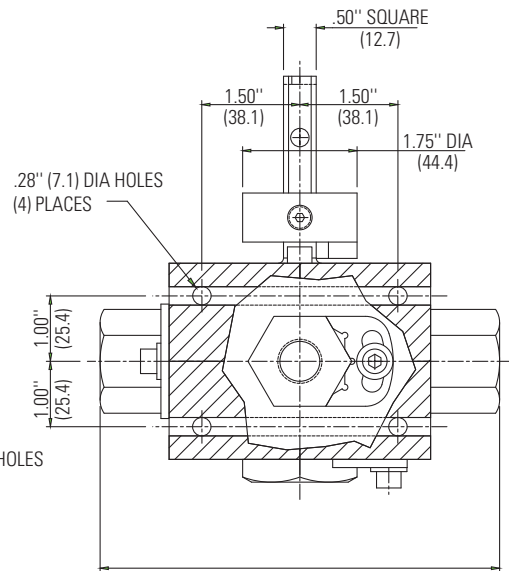
TYPICAL SIDE CONN



VIEW Z-Z



VIEW Y-Y



VIEW W-W
VIEW X-X

C-2023-01-17-17-17-17