

3/4" GEN2 V-Seal Shuttle Valve

REV	DATE	DESCRIPTION	ORIGIN (issued by)	APPROVED
001	06-10-2020	Document No: 120-061020-001	AP	SS
002	12-18-2020	Document No: 120-061020-002	SD	BR
003	04-21-2022	Document No: 120-061020-003	GM	BR

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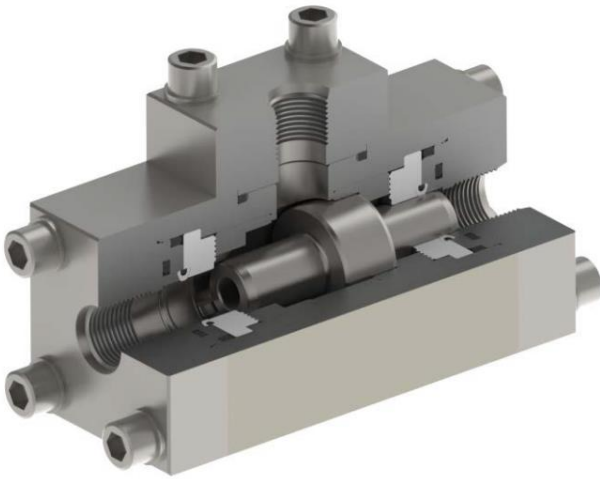
For more information:

Call (800) 469-8786

INFO@Gilmore.com

Gilmore
1231 Lumpkin Road
Houston, TX 77043

3/4" GEN2 V-Seal Shuttle Valve

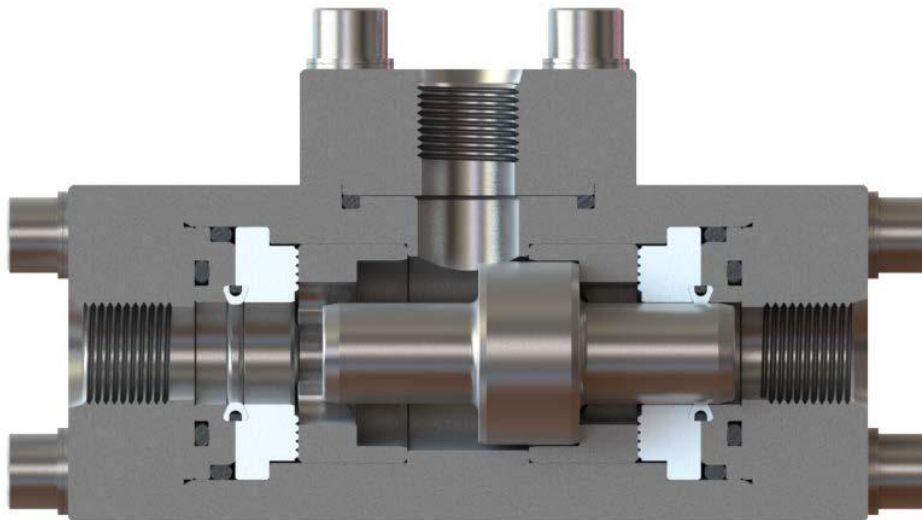


Gilmore announces the new 3/4" GEN2 V-Seal Shuttle Valve product line for critical offshore and subsea applications. The 3/4" GEN2 V-Seal Shuttle Valve has been designed with the same footprint as the legacy Traditional Shuttle Valve for easy drop-in replacement. Gilmore's proprietary dynamic V-Seal technology provides an order of magnitude improvement in valve cycle life.

Features and Benefits:

- Qualification exceeds API 16D requirements
 - Two separate full flow tests at 2500 cycles each
- Proprietary V-Seal and hydraulic dampening technology
- Improved Valve Materials:
 - 316 SS Body and Flanges
 - Nitronic 60 Shuttle, Sleeve and Cap
 - PEEK Spacer
 - PTFE/Nitrile 90 Duro V-Seal
 - A286 Gr 660 Cap Screws with 254 SMO Nordlock Washers

Figure 1. PN 29058: 1/2" SAE Traditional GEN2 Shuttle Valve, 3000 psi, Low Interflow



Gilmore has exceeded API 16D requirements by qualifying the new 3/4" GEN2 V-Seal Shuttle Valve designs to multiple endurance qualification tests to 2500 cycles, at a starting flow rate of 70 gpm at 5000 psi, with 1% - 4% water glycol test fluid.

The new Gilmore 3/4" GEN2 V-Seal Shuttle Valves have an identical footprint to the legacy valves for simple retrofitting.

As a result of the new Gilmore 3/4" GEN2 V-Seal Shuttle Valve product line, please note that new valve sales of the legacy 3/4" Traditional Shuttle Valve part numbers listed below in Table 1 were discontinued after June 9th, 2021.

The new Gilmore 3/4" GEN2 V-Seal Shuttle Valve is now available as a replacement for the legacy 3/4" Traditional Shuttle Valves.

Gilmore will continue to sell and support the legacy 3/4" shuttle valve repair kits, seal kits and Aftermarket support after new valve sales of the legacy design are discontinued.

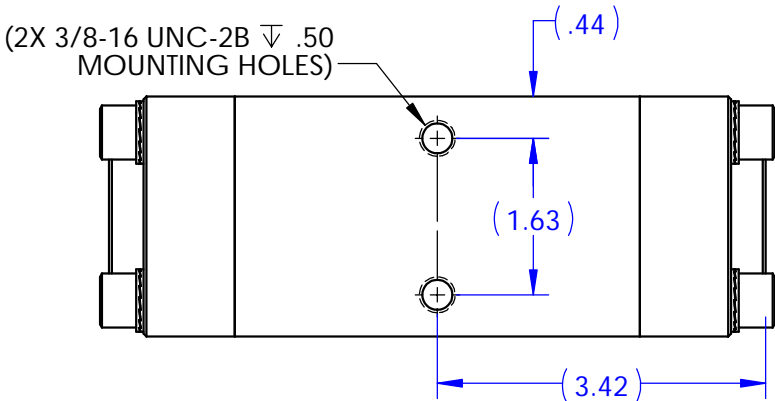
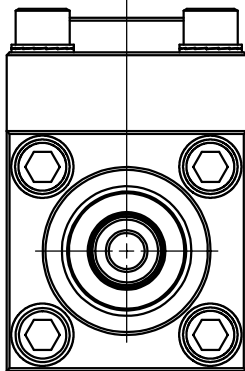
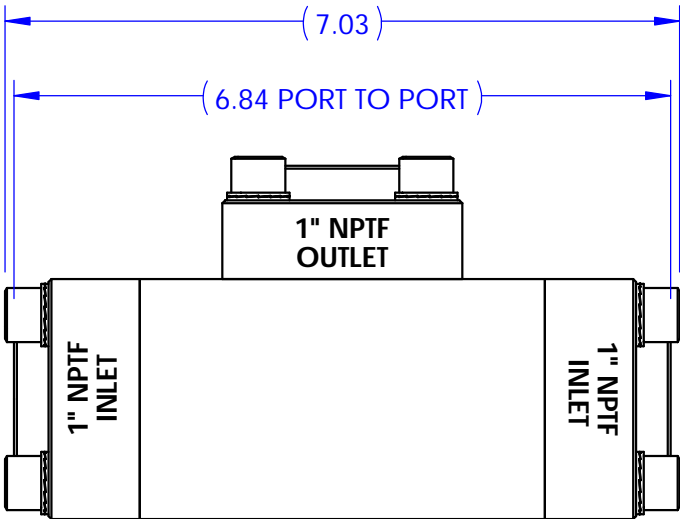
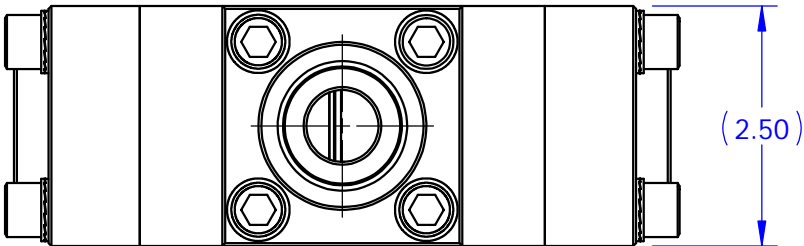
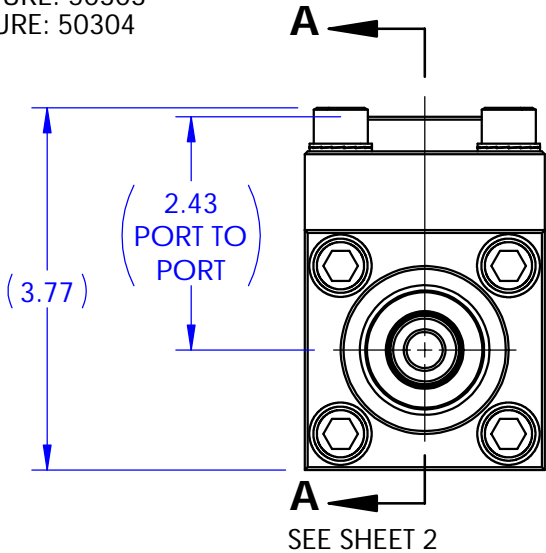
Table 1. New and Legacy 3/4" Shuttle Valve Part Numbers:

Item	Legacy Description	Legacy Valve PN	Legacy Repair Kit PN	New Valve Description	New Valve PN	New Repair Kit PN
1	Valve, 3/4", Shuttle, Traditional, 1" NPT, Low Interflow, 3000 psi	25412	25412 RK	Valve, 3/4", Shuttle, GEN2, 1" NPT, Low Interflow, 3000 psi	29057	29057 RK
2	Valve, 3/4", Shuttle, Traditional, 1/2" NPT, Low Interflow, 3000 psi	25412-2	25412-2 RK	Valve, 3/4", Shuttle, GEN2, 1/2" NPT, Low Interflow, 3000 psi	29112	29112 RK
3	Valve, 3/4", Shuttle, Traditional, 1" NPT, High Interflow, 3000 p	25415	25415 RK	Valve, 3/4", Shuttle, GEN2, 1" NPT, High Interflow, 3000 psi	29113	29113 RK
4	Valve, 3/4", Shuttle, Traditional, 1/2" SAE, Low Interflow, 3000 psi	25426	25426 RK	Valve, 3/4", Shuttle, GEN2, 1/2" SAE, Low Interflow, 3000 psi	29058	29058 RK
5	Valve, 3/4", Shuttle, Traditional, 1" NPT, Low Interflow, 3000 psi, N60 trim	181664	181666	Valve, 3/4", Shuttle, GEN2, 1" NPT, Low Interflow, 3000 psi	29057	29057 RK
6	Valve, 3/4", Shuttle, Traditional, 1" NPT, High Interflow, 3000 psi, N60 trim	181667	181671	Valve, 3/4", Shuttle, GEN2, 1" NPT, High Interflow, 3000 psi	29113	29113 RK
7	Valve, 3/4", Shuttle, Traditional, 1/2" SAE, Low Interflow, 3000 psi, N60 trim	181672	181674	Valve, 3/4", Shuttle, GEN2, 1/2" SAE, Low Interflow, 3000 psi	29058	29058 RK
8	Valve, 3/4", Shuttle, Traditional, 1/2" BSPP, Low Interflow, 3000 psi	25412-1	25412-1 RK	Valve, 3/4", Shuttle, GEN2 Traditional, 1/2" BSPP, Low Interflow, 3000 psi	29098	29098 RK
9	Valve, 3/4", Shuttle, Traditional, Seal Sub Mount, Low Interflow, 3000 psi	28337	28337 RK	Valve, 3/4", Shuttle, GEN2 Traditional, Seal Sub Mount, Low Interflow, 3000 psi	29097	29097 RK

Please note that GEN2 repair kits are not interchangeable with legacy repair kits and cannot be used in the legacy Traditional Shuttle Valves. Please contact Gilmore Customer Service to assist you with selecting GEN2 replacement valve part numbers.

Please contact Gilmore Customer Service to request drawings and quotations for these 3/4" GEN2 V-Seal Shuttle Valves at INFO@GILMORE.com.

- NOTES:
- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONET DRAWING.
 - 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
 - 3 "X" IN COLUMN RK DENOTES PARTS CONTAINED IN REPAIR KIT 29057 RK.
 - 4 "X" IN COLUMN RK DENOTES PARTS CONTAINED IN SEAL KIT 29057 SK.
 - 5 ALL METAL ITEMS PASSIVATED
 - 6 TORQUE ITEM 8 AT ASSEMBLY TO 20 FT-LBS. (12X)
 - 7 ASSEMBLY PROCEDURE: 50302
MAINTENANCE MANUAL: 51029
STANDARD FAT PROCEDURE: 50303
EXTENDED FAT PROCEDURE: 50304



REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
D	ECO 019456	CMJ 9-15-20	JZ 9/15/20	AJP 9/16/20

PRESSURE DATA
MAX WORKING PRESSURE: 3,000 PSI

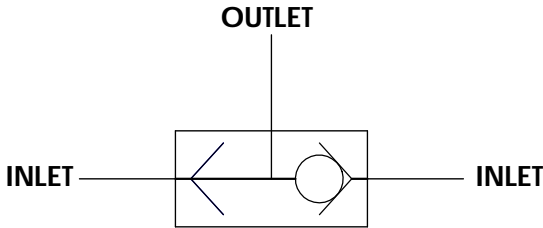
PORTS
INLETS: 1" NPTF
OUTLET: 1" NPTF

FLOW DATA
C_V: 3 (CALCULATED)
MAX FLOW CAPACITY: 70 GPM
MINIMUM SHIFT FLOW: 0.5 GPM

GENERAL DATA
APPROX WEIGHT: 10.7 LBS
TEMPERATURE: 32 °F TO 150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.

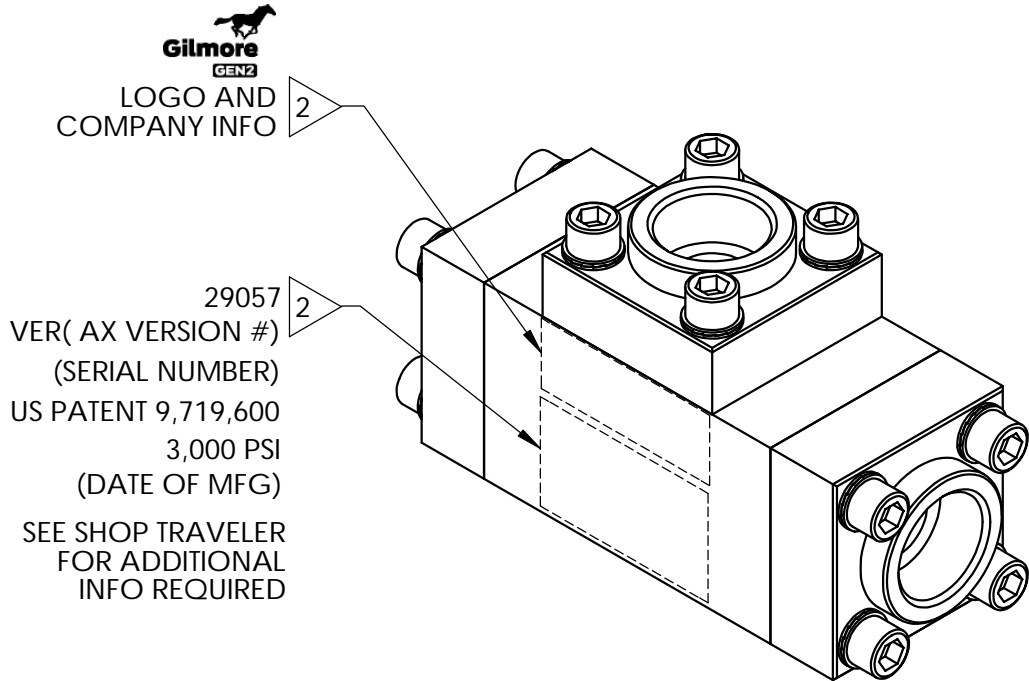
FIELD SERVICEABLE, REPAIR KITS AVAILABLE





RECOMMENDED INSTALLED POSTION IS HORIZONTAL CENTERLINE, A VERTICAL CENTERLINE WILL INCREASE MINIMUM SHIFT FLOW REQUIRED AND GRAVITY MAY CAUSE SHUTTLE TO MOVE TO LOWEST POSITION

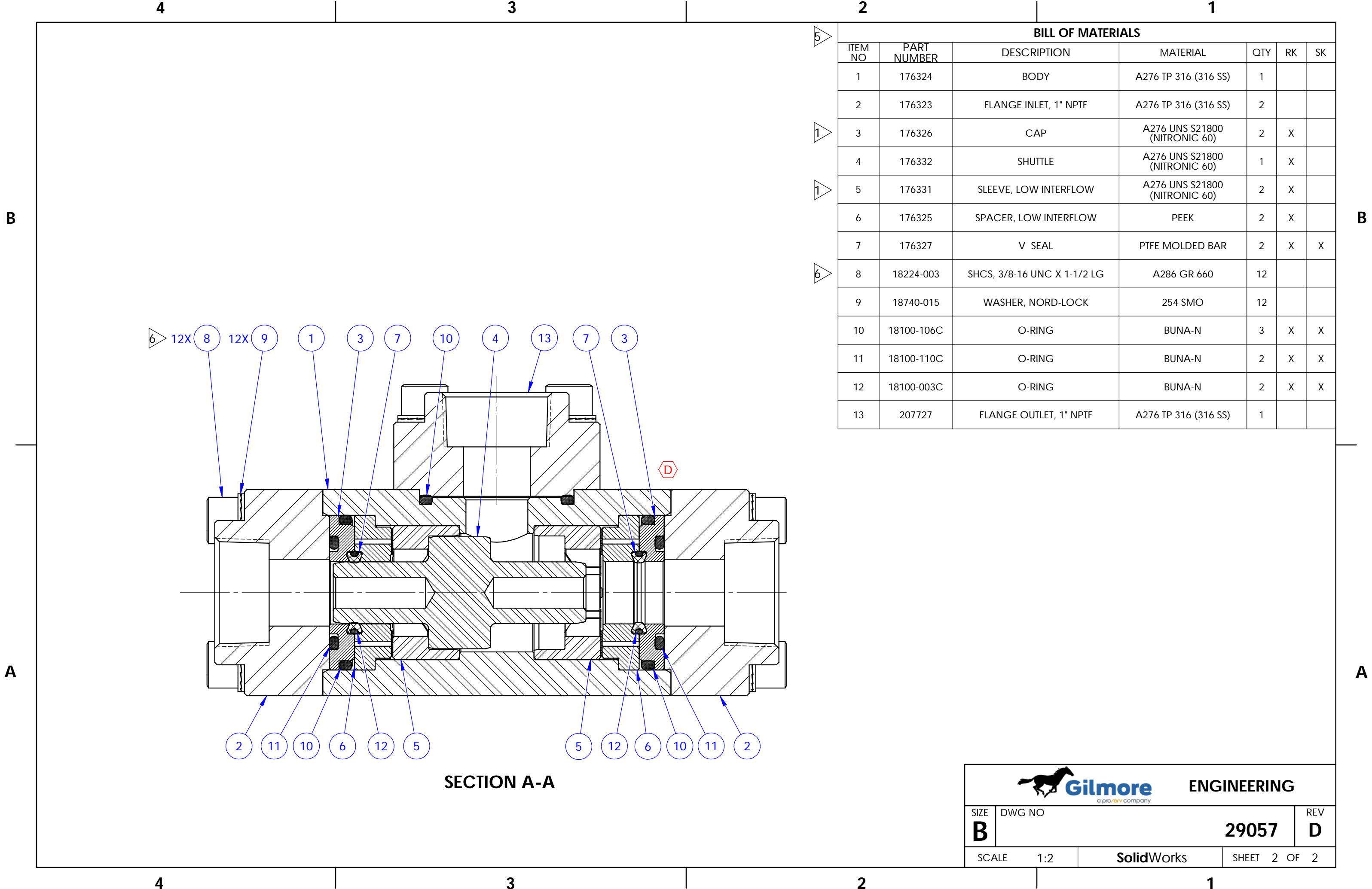


SCHEMATIC

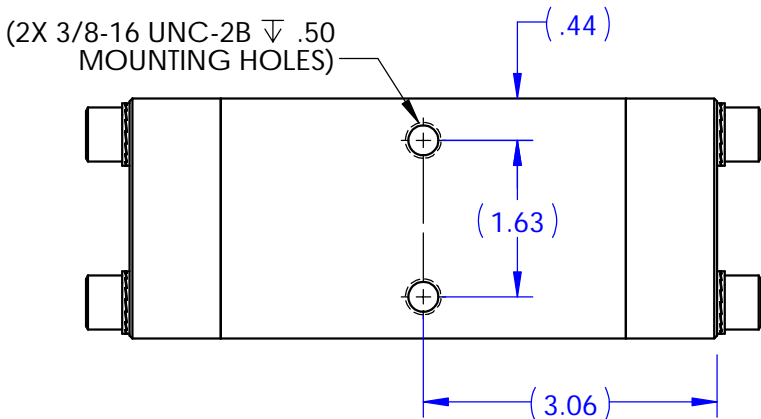
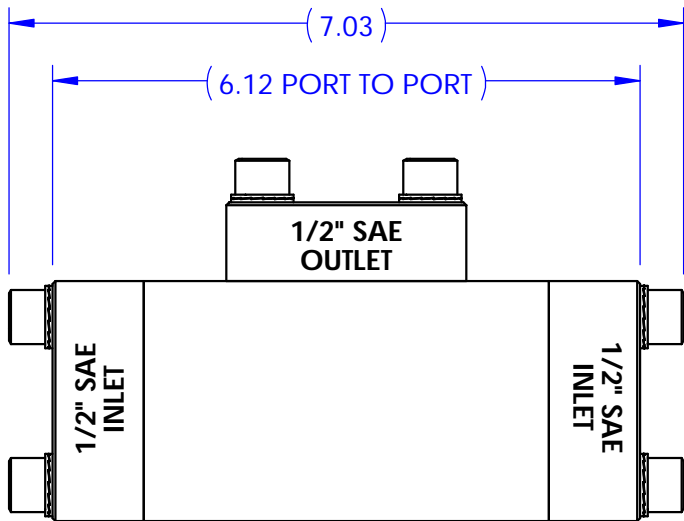
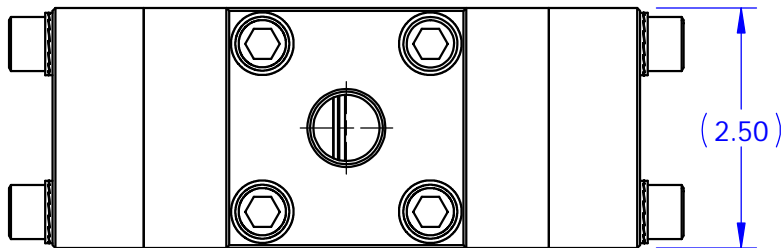
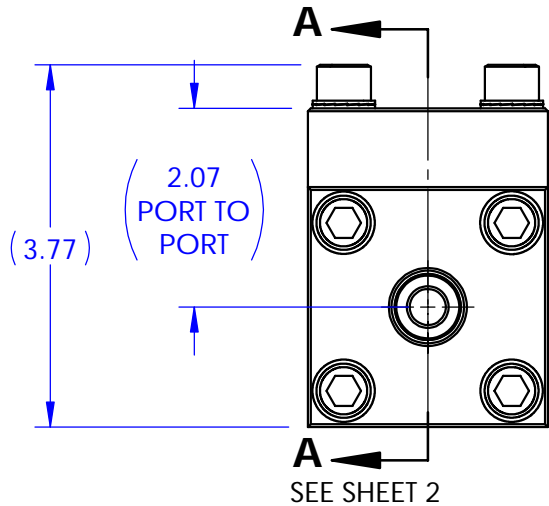
U.S. PATENT 9,719,600



MATERIAL: SEE PARTS IN BOM		DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: 1) TOLERANCES: .X: ±.1 .XX: ±.01 .XXX: ±.005 ANGLES: ±.5° 2) SURFACE TEXTURE: 63 /  3) CORADIAL FEATURES SHALL BE  WITHIN .010 4) BREAK SHARP EDGES .010 5) INTERNAL RADII SHALL BE .016 MAX 6) DRILL POINTS OPTIONAL WHEN SHOWN UNSPECIFIED, ALL DRILL POINT ANGLES SHALL BE BETWEEN 90°-140°	APPROVAL		 Gilmore ENGINEERING <small>a pro-erv company</small>		
CONDITION:			DRAWN BY CY	DATE 5-8-18	VALVE, SHUTTLE, 3/4", GEN 2, 1" NPTF IN, 1" NPTF OUT, 3000PSI, LOW INTERFLOW		
TREATMENT:			CHECKED BY JP	DATE 5-8-18			
			ENGINEER AP	DATE 5-10-18			
			ERN NUMBER 02186	DATE 5-7-18			
PROCEDURE NUMBER:		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GILMORE VALVE CO UNLESS OTHERWISE STATED. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.		SIZE B	DWG NO 29057	REV D	
				SCALE 1:2	SolidWorks	SHEET 1 OF 2	



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 - 7 ASSEMBLY PROCEDURE: 50302
MAINTENANCE MANUAL: 51029
STANDARD FAT PROCEDURE: 50303
EXTENDED FAT PROCEDURE: 50304



PRESSURE DATA
MAX WORKING PRESSURE: 3,000 PSI

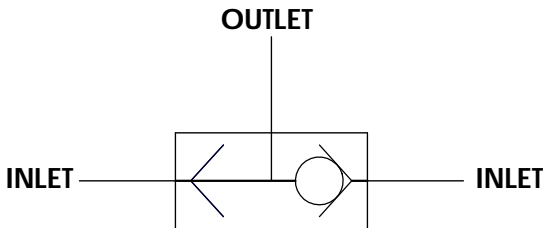
PORTS
INLETS: 1/2" SAE
OUTLET: 1/2" SAE

FLOW DATA
C_v: 3 (CALCULATED)
MAX FLOW CAPACITY: 70 GPM
MINIMUM SHIFT FLOW: 0.5 GPM

GENERAL DATA
APPROX WEIGHT: 10.6 LBS
TEMPERATURE: 32 °F TO 150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.

FIELD SERVICEABLE, REPAIR KITS AVAILABLE

RECOMMENDED INSTALLED POSTION IS HORIZONTAL CENTERLINE, A VERTICAL CENTERLINE WILL INCREASE MINIMUM SHIFT FLOW REQUIRED AND GRAVITY MAY CAUSE SHUTTLE TO MOVE TO LOWEST POSITION

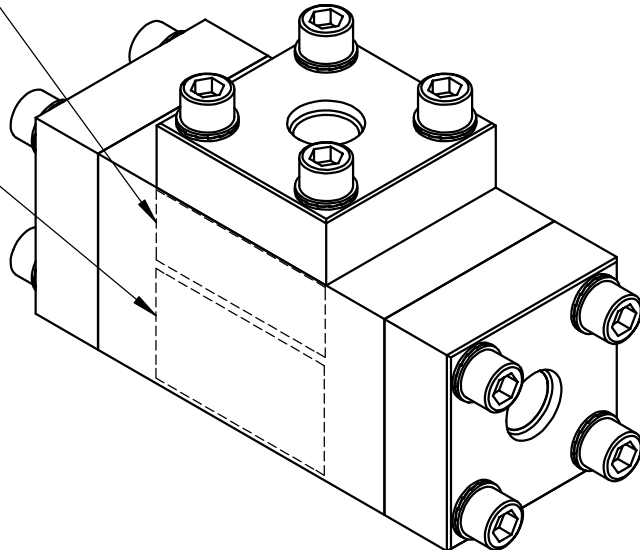







SCHEMATIC

U.S. PATENT 9,719,600



29058
VER(AX VERSION #)
(SERIAL NUMBER)
US PATENT 9,719,600
3,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED



MATERIAL: SEE PARTS IN BOM		<div>DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: 1) TOLERANCES: X: ±.1 XX: ±.01 XXX: ±.005 ANGLES: ±.5° 2) SURFACE TEXTURE: 63 /  3) CORADIAL FEATURES SHALL BE  WITHIN .010 4) BREAK SHARP EDGES .010 5) INTERNAL RADII SHALL BE .016 MAX 6) DRILL POINTS OPTIONAL WHEN SHOWN UNSPECIFIED, ALL DRILL POINT ANGLES SHALL BE BETWEEN 90°-140°</div>	APPROVAL		 ENGINEERING		
CONDITION:			DRAWN BY CY	DATE 5-8-18	VALVE, SHUTTLE, 3/4", GEN 2, 1/2" SAE IN, 1/2" SAE OUT, 3000 PSI, LOW INTERFLOW		
			CHECKED BY JP	DATE 5-8-18			
TREATMENT:			ENGINEER AP	DATE 5-10-18			
<div>5</div>			ERN NUMBER 02186	DATE 5-7-18			
PROCEDURE NUMBER:		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GILMORE VALVE CO UNLESS OTHERWISE STATED. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.			SIZE B	DWG NO 29058	REV D
<div>7</div>					SCALE 1:2	SolidWorks	SHEET 1 OF 2

4

3

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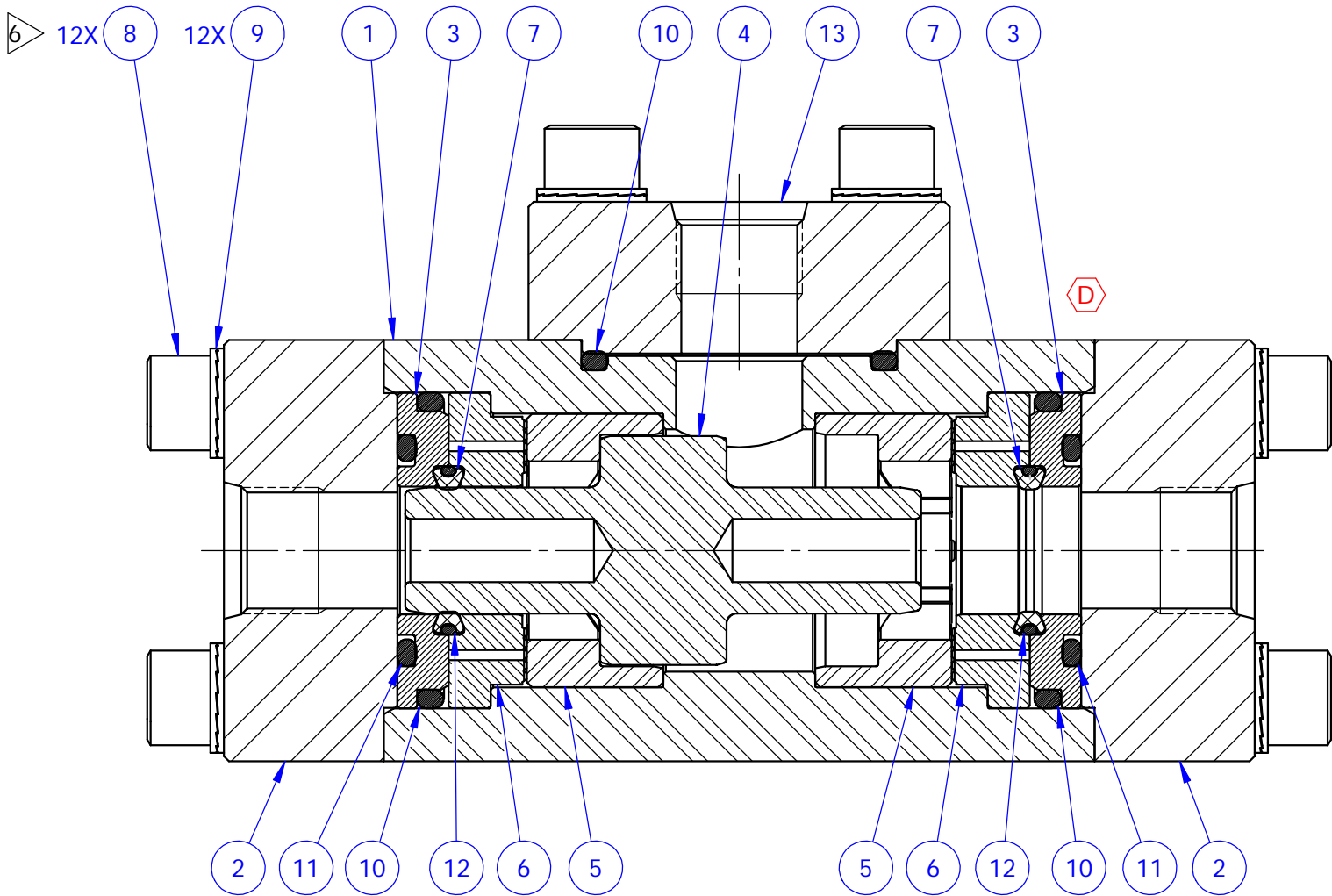
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SECTION A-A

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	176324	BODY	A276 TP 316 (316 SS)	1		
2	176322	FLANGE INLET, 1/2" SAE	A276 TP 316 (316 SS)	2		
3	176326	CAP	A276 UNS S21800 (NITRONIC 60)	2	X	
4	176332	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	
5	176331	SLEEVE, LOW INTERFLOW	A276 UNS S21800 (NITRONIC 60)	2	X	
6	176325	SPACER, LOW INTERFLOW	PEEK	2	X	
7	176327	V SEAL	PTFE MOLDED BAR	2	X	X
8	18224-003	SHCS, 3/8-16 UNC X 1-1/2 LG	A286 GR 660	12		
9	18740-015	WASHER, NORD-LOCK	254 SMO	12		
10	18100-106C	O-RING	BUNA-N	3	X	X
11	18100-110C	O-RING	BUNA-N	2	X	X
12	18100-003C	O-RING	BUNA-N	2	X	X
13	207753	FLANGE OUTLET, 1/2" SAE	A276 TP 316 (316 SS)	1		



ENGINEERING

SIZE

B

DWG NO

29058

REV

D

SCALE

1:2

SolidWorks

SHEET 2 OF 2

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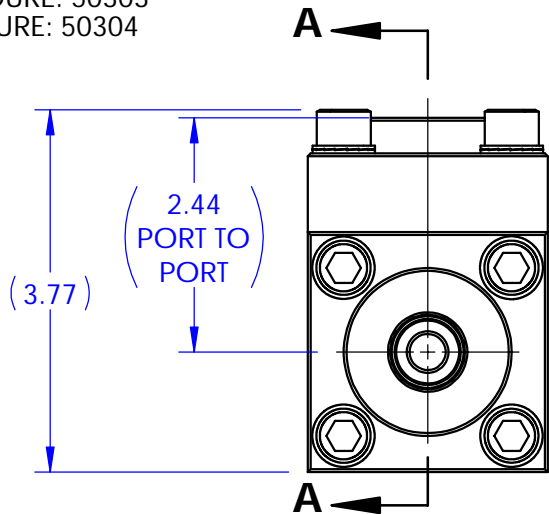
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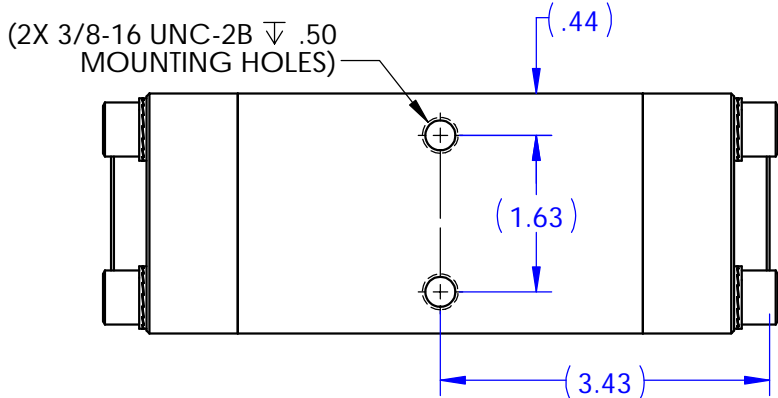
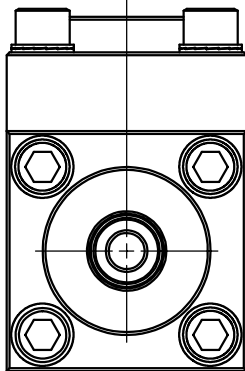
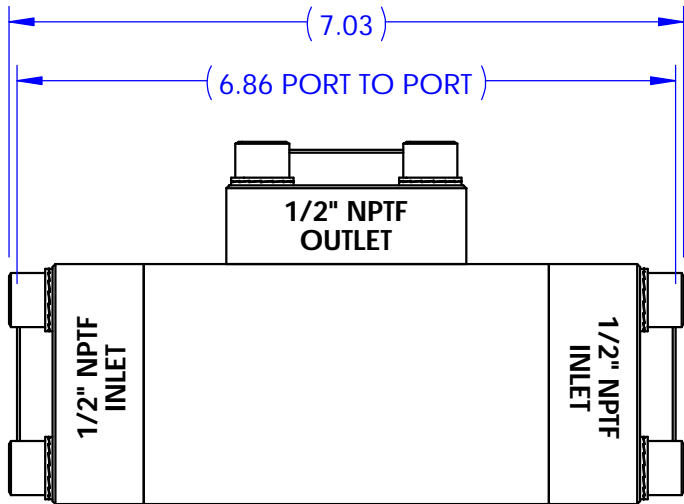
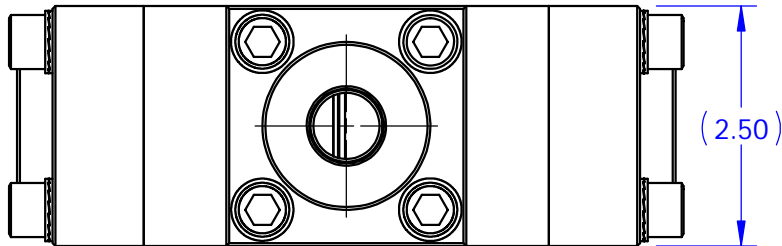
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- 7 ASSEMBLY PROCEDURE: 50302
MAINTENANCE MANUAL: 51029
STANDARD FAT PROCEDURE: 50303
EXTENDED FAT PROCEDURE: 50304

B



SEE SHEET 2



REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
B	ECO 019456	CMJ 9-16-20	JZ 9/16/20	AJP 9/16/20

PRESSURE DATA
MAX WORKING PRESSURE: 3,000 PSI

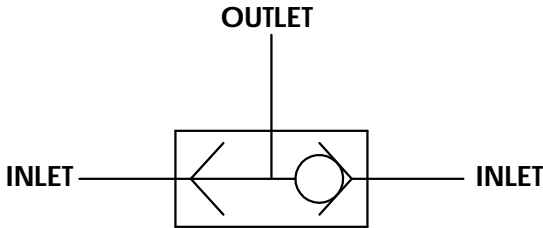
PORTS
INLETS: 1/2" NPTF
OUTLET: 1/2" NPTF

FLOW DATA
C_v: 3 (CALCULATED)
MAX FLOW CAPACITY: 70 GPM
MINIMUM SHIFT FLOW: 0.5 GPM

GENERAL DATA
APPROX WEIGHT: 10.7 LBS
TEMPERATURE: 32 °F TO 150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
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FIELD SERVICEABLE, REPAIR KITS AVAILABLE

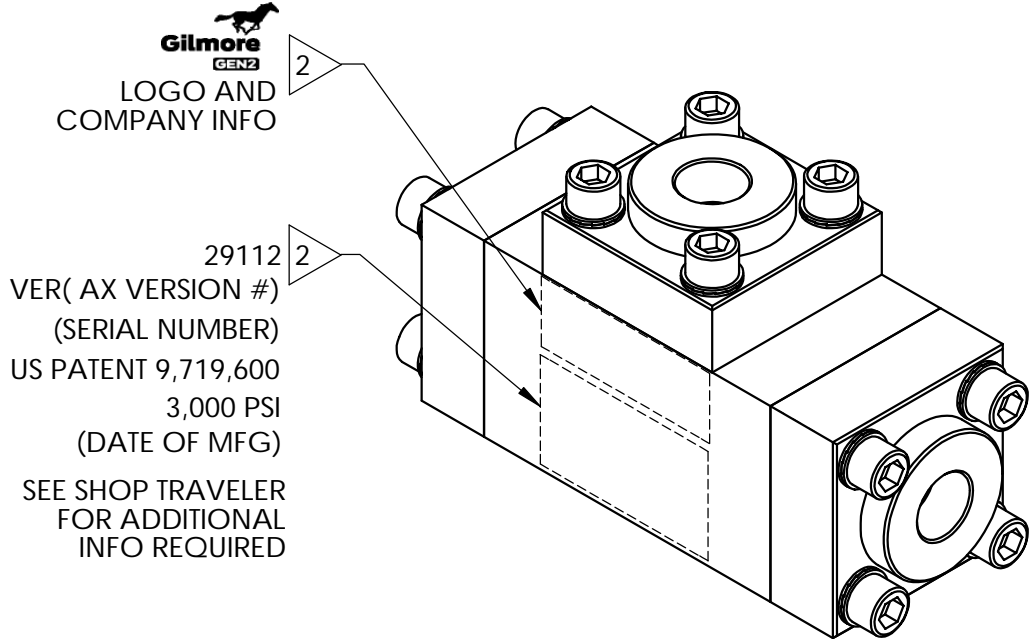
RECOMMENDED INSTALLED POSTION IS HORIZONTAL CENTERLINE, A VERTICAL CENTERLINE WILL INCREASE MINIMUM SHIFT FLOW REQUIRED AND GRAVITY MAY CAUSE SHUTTLE TO MOVE TO LOWEST POSITION








SCHEMATIC

U.S. PATENT 9,719,600

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29112
VER(AX VERSION #)
(SERIAL NUMBER)
US PATENT 9,719,600
3,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MATERIAL: SEE PARTS IN BOM		<div>DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: 1) TOLERANCES: X: ±.1 XX: ±.01 XXX: ±.005 ANGLES: ±.5° 2) SURFACE TEXTURE: 63 /  3) CORADIAL FEATURES SHALL BE  WITHIN .010 4) BREAK SHARP EDGES .010 5) INTERNAL RADII SHALL BE .016 MAX 6) DRILL POINTS OPTIONAL WHEN SHOWN UNSPECIFIED, ALL DRILL POINT ANGLES SHALL BE BETWEEN 90°-140°</div>	APPROVAL		 Gilmore ENGINEERING <small>a proserv company</small>		
CONDITION:			DRAWN BY JZ	DATE 4-21-20	VALVE, SHUTTLE, 3/4", GEN 2, 1/2" NPTF IN , 1/2" NPTF OUT, 3000 PSI, LOW INTERFLOW		
			CHECKED BY JOP	DATE 4-21-20			
			ENGINEER AP	DATE 4-21-20			
TREATMENT:			ERN NUMBER 02385	DATE 2/5/2020			
PROCEDURE NUMBER:		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GILMORE VALVE CO UNLESS OTHERWISE STATED. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.			SIZE B	DWG NO 29112	REV B
					SCALE 1:2	SolidWorks	SHEET 1 OF 2

4

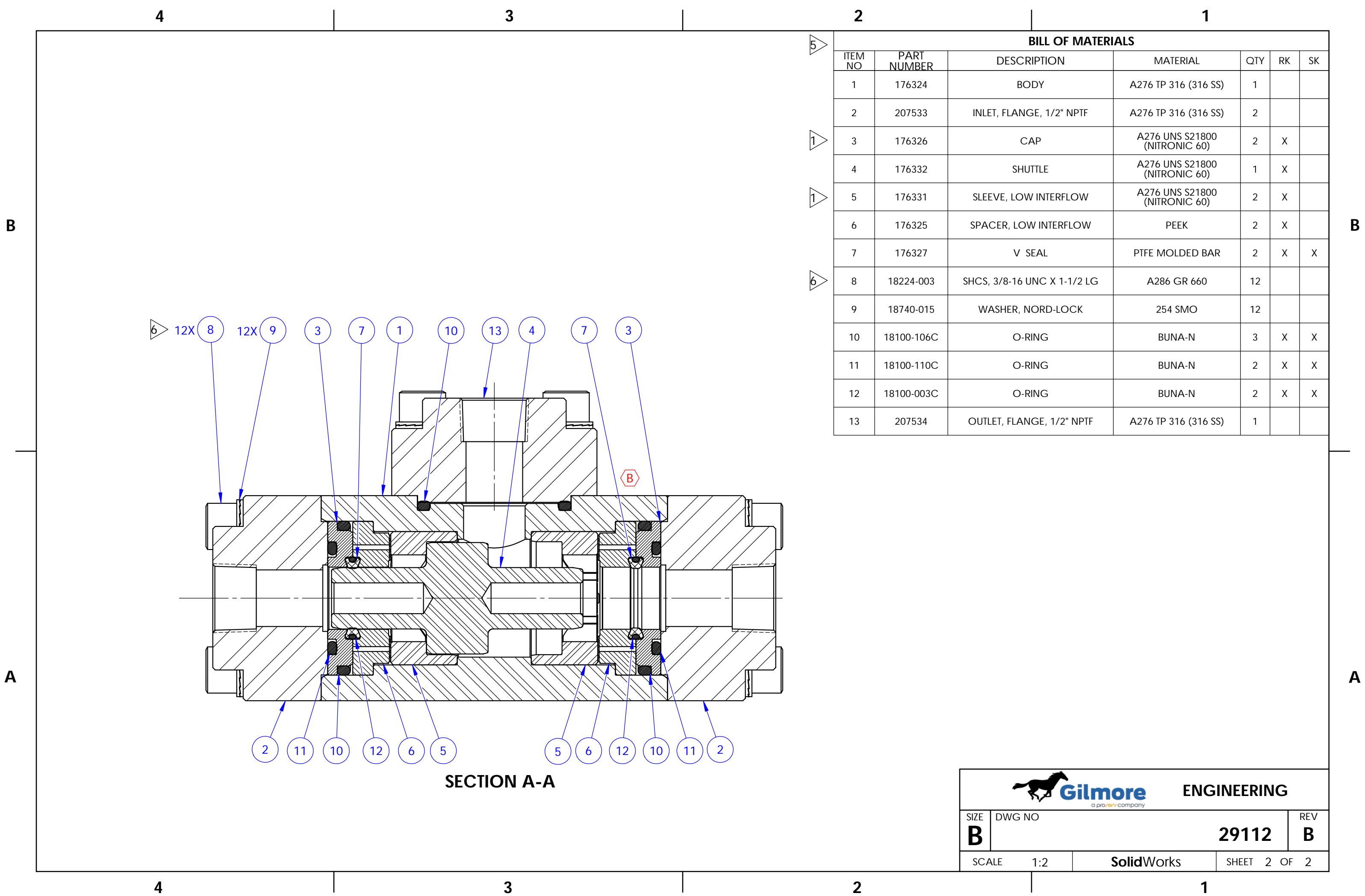
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2

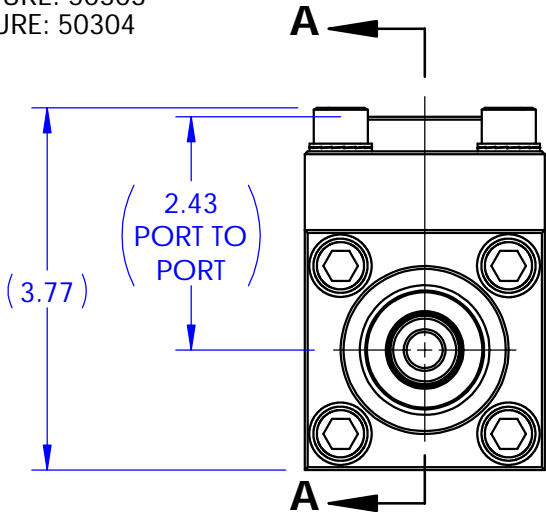
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B

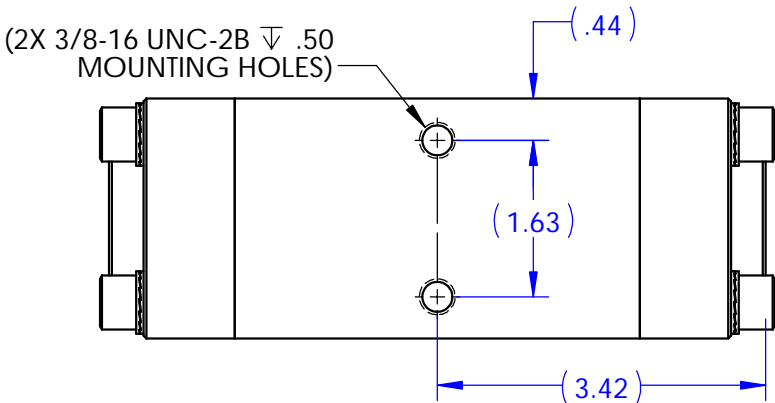
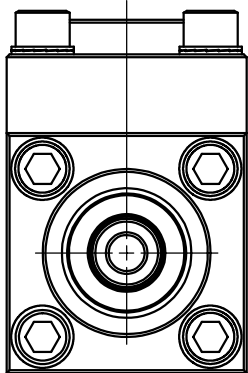
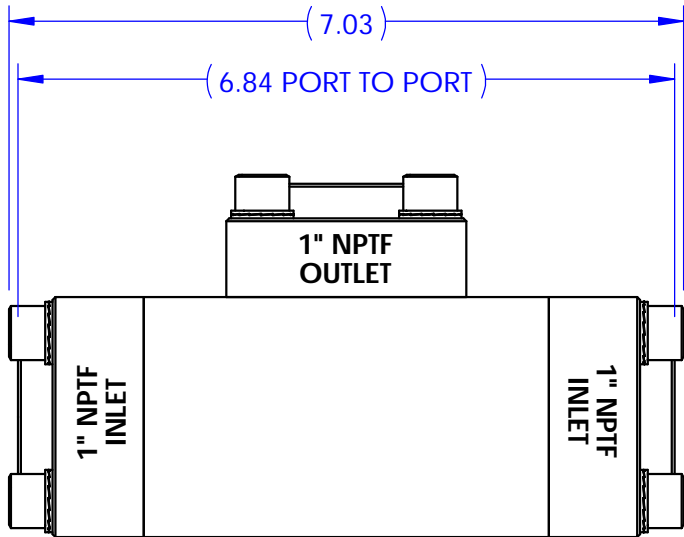
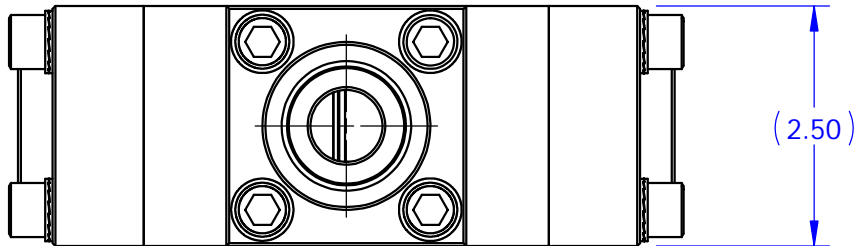
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- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONET DRAWING.
 - 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
 - 3 "X" IN COLUMN RK DENOTES PARTS CONTAINED IN REPAIR KIT 29113 RK.
 - 4 "X" IN COLUMN RK DENOTES PARTS CONTAINED IN SEAL KIT 29113 SK.
 - 5 ALL METAL ITEMS PASSIVATED
 - 6 TORQUE ITEM 8 AT ASSEMBLY TO 20 FT-LBS. (12X)
 - 7 ASSEMBLY PROCEDURE: 50302
MAINTENANCE MANUAL: 51029
STANDARD FAT PROCEDURE: 50303
EXTENDED FAT PROCEDURE: 50304



SEE SHEET 2



REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
B	ECO 019456	CMCJ 9-15-20	JZ 9/15/20	AJP 9/16/20

PRESSURE DATA
MAX WORKING PRESSURE: 3,000 PSI

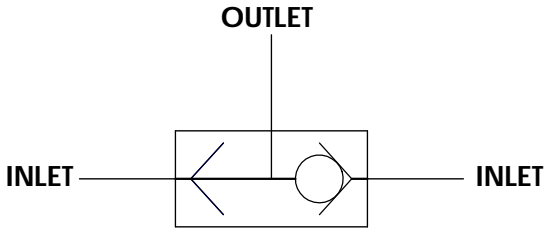
PORTS
INLETS: 1" NPTF
OUTLET: 1" NPTF

FLOW DATA
C_v: 3 (CALCULATED)
MAX FLOW CAPACITY: 70 GPM
MINIMUM SHIFT FLOW: 3 GPM

GENERAL DATA
APPROX WEIGHT: 10.7 LBS
TEMPERATURE: 32 °F TO 150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.

FIELD SERVICEABLE, REPAIR KITS AVAILABLE

RECOMMENDED INSTALLED POSTION IS HORIZONTAL CENTERLINE, A VERTICAL CENTERLINE WILL INCREASE MINIMUM SHIFT FLOW REQUIRED AND GRAVITY MAY CAUSE SHUTTLE TO MOVE TO LOWEST POSITION

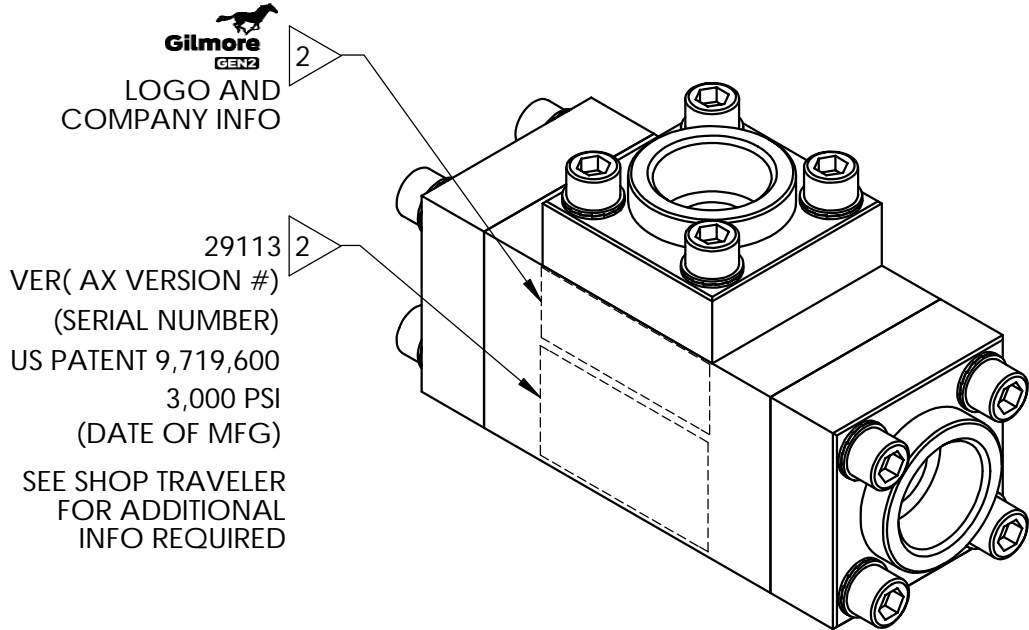



SCHEMATIC

U.S. PATENT 9,719,600

A

A



MATERIAL: SEE PARTS IN BOM		<div>DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: 1) TOLERANCES: X: ±.1 XX: ±.01 XXX: ±.005 ANGLES: ±.5° 2) SURFACE TEXTURE: 63/✓ 3) CORADIAL FEATURES SHALL BE ◎ WITHIN .010 4) BREAK SHARP EDGES .010 5) INTERNAL RADII SHALL BE .016 MAX 6) DRILL POINTS OPTIONAL WHEN SHOWN UNSPECIFIED, ALL DRILL POINT ANGLES SHALL BE BETWEEN 90°-140°</div>	APPROVAL		<div>ENGINEERING</div>					
CONDITION:	DRAWN BY		JZ	DATE	4-21-20					
	CHECKED BY		JOP	DATE	4-21-20					
TREATMENT:	ENGINEER		AP	DATE	4-21-20					
	ERN NUMBER		02385	DATE	2/6/202					
PROCEDURE NUMBER:	THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GILMORE VALVE CO UNLESS OTHERWISE STATED. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.					SIZE	DWG NO		REV	
						B	29113		B	
				SCALE 1:2		SolidWorks		SHEET 1 OF 2		

4

3

2

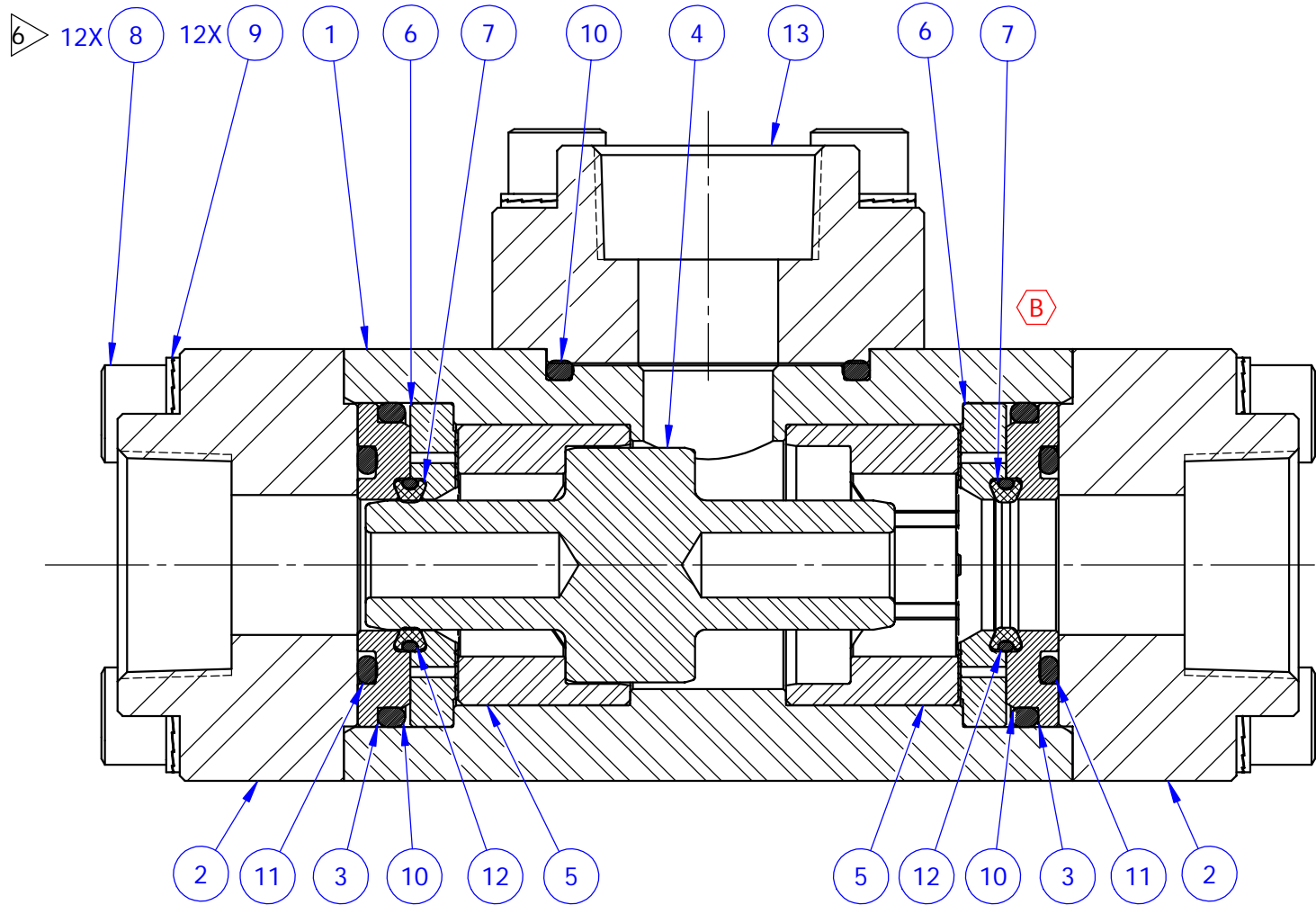
1

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SECTION A-A

4

3

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1

6

BILL OF MATERIALS						
ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	176324	BODY	A276 TP 316 (316 SS)	1		
2	176323	INLET, FLANGE, 1" NPTF	A276 TP 316 (316 SS)	2		
3	176326	CAP	A276 UNS S21800 (NITRONIC 60)	2	X	
4	176332	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	
5	207535	SLEEVE, HIGH INTERFLOW	A276 UNS S21800 (NITRONIC 60)	2	X	
6	207536	SPACER, HIGH INTERFLOW	PEEK	2	X	
7	176327	V SEAL	PTFE MOLDED BAR	2	X	X
8	18224-003	SHCS, 3/8-16 UNC X 1-1/2 LG	A286 GR 660	12		
9	18740-015	WASHER, NORD-LOCK	254 SMO	12		
10	18100-106C	O-RING	BUNA-N	3	X	X
11	18100-110C	O-RING	BUNA-N	2	X	X
12	18100-003C	O-RING	BUNA-N	2	X	X
13	207727	OUTLET, FLANGE, 1" NPTF	A276 TP 316 (316 SS)	1		



ENGINEERING

SIZE

B

DWG NO

29113

REV

B

SCALE

1:2

SolidWorks

SHEET 2 OF 2