

1/4" GEN2 Disc Shuttle Valve Product Line

REV	DATE	DESCRIPTION	ORIGIN (issued by)	APPROVED
001	11-29-2016	Document No: 120-112916-001	AP	SS
002	12-17-2020	Document No: 120-112916-002	SD	
003	5-02-2022	Document No: 120-112916-003	GM	BR

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For more information:
Call (800) 469-8786
Info@gilmore.com

Gilmore
1231 Lumpkin Road
Houston, TX 77043

1/4" GEN2 Disc Shuttle Valve Product Line



Gilmore's GEN2 line of 1/4" Shuttle Valves act as flow logic components that allow the automatic selection of flow from two supply (inlet) ports to be directed through a common function (outlet) port.

The Gilmore 1/4" GEN2 disc shuttle valve has been designed with the same footprint as the legacy Gilmore 1/4" shuttle valves. This thoroughly redesigned product line provides an improvement in cycle life and performance.

Features and Benefits:

- Peek Disc Seal
- Elgiloy Spring
- T316 Body Material
- Nitronic 60 End Caps, Cage and Shuttle
- Spring biased, unbiased, low interflow and high interflow options.

Figure 1. PN 29005: 1/4" NPT GEN2 Disc Shuttle Valve, Low interflow

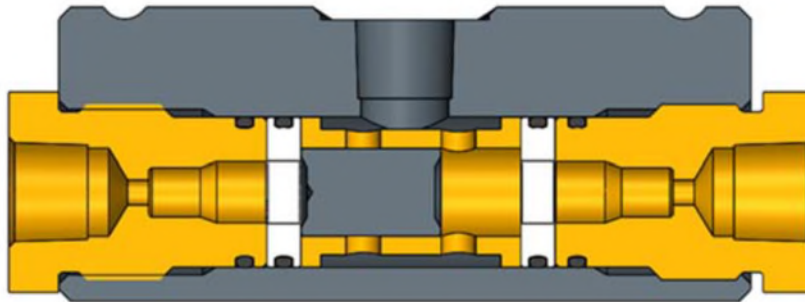
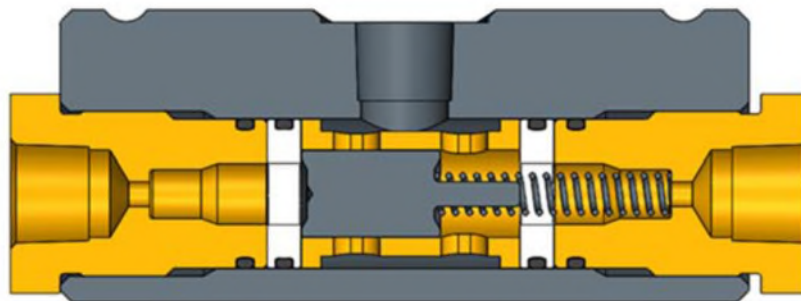


Figure 2. PN 29005-3: Spring Biased 1/4" NPT GEN2 Disc Shuttle Valve, High Interflow





Gilmore has exceeded API 16D requirements by qualifying the new 1/4" GEN2 Shuttle Valve designs to multiple endurance qualification tests to 2500 cycles, at a starting flow rate of 8 gpm (4 gpm for spring-biased version) at 5000 psi, with 1% - 4% water glycol test fluid.

The new Gilmore 1/4" GEN2 Disc Shuttle Valves have an identical footprint to the legacy valves. Note that Gilmore will continue to sell and support the legacy 1/4" shuttle valve repair kits, seal kits and Aftermarket support after new valve sales of the legacy design are discontinued.

Note that GEN2 shuttle valve kits **are not** interchangeable with legacy repair kits and cannot be used in the legacy shuttle valves.

As a result of the new Gilmore 1/4" GEN2 Disc Shuttle Valve product line, please note that sales of the legacy 1/4" Traditional Shuttle Valve part numbers listed below in Table 1 were discontinued on November 30, 2017.

Table 1. New and Legacy 1/4" 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, Shuttle, 1/4 NPT, Spring Biased, Low Interflow	25416	25416 RK	Valve, Shuttle, 1/4 NPT, Spring Biased, Low Interflow, Disc Seat	29005-1	29005-1 RK
2	Valve, Shuttle, 1/4 NPT, Spring Biased, Low Interflow, T316	28443	28443 RK	Valve, Shuttle, 1/4 NPT, Spring Biased, Low Interflow, Disc Seat	29005-1	29005-1 RK
3	Valve, Shuttle, 1/4 NPT, Spring Biased, High Interflow	25416-1	25416-1 RK	Valve, Shuttle, 1/4 NPT, Spring Biased, High Interflow, Disc Seat	29005-3	29005-3 RK
4	Valve, Shuttle, 1/4 NPT, Spring Biased, High Interflow, T316	116518	116519	Valve, Shuttle, 1/4 NPT, Spring Biased, High Interflow, Disc Seat	29005-3	29005-3 RK
5	Valve, Shuttle, 1/4 NPT, Low Interflow	22519	22519 RK	Valve, Shuttle, 1/4 NPT, Non Biased, Low Interflow, Disc Seat	29005	29005 RK
6	Valve, Shuttle, 1/4 NPT, Low Interflow, N60	28195	28198 RK	Valve, Shuttle, 1/4 NPT, Low Interflow, Disc Seat	29005	29005 RK
7	Valve, Shuttle, 1/4 NPT, Low Interflow, T316	28440	28440 RK	Valve, Shuttle, 1/4 NPT, Low Interflow, Disc Seat	29005	29005 RK
8	Valve, Shuttle, 1/4 NPT, High Interflow	22760	22760 RK	Valve, Shuttle, 1/4 NPT, High Interflow, Disc Seat	29005-2	29005-2 RK
9	Valve, Shuttle, 1/4 NPT, High Interflow, T316	28438	28438 RK	Valve, Shuttle, 1/4 NPT, High Interflow, Disc Seat	29005-2	29005-2 RK
10	Valve, Shuttle, 3/8 NPT, Low Interflow	25409	25409 RK	Valve, Shuttle, 3/8 NPT, Low Interflow, Disc Seat	29007	29007 RK
11	Valve, Shuttle, 1/4 SAE, Spring Biased, Low Interflow, T316	109202	109209	Valve, Shuttle, 1/4 SAE, Spring Biased, Low Interflow, Disc Seat	29006-1	29006-1 RK
12	Valve, Shuttle, 1/4 SAE, Low Interflow	25418	25418 RK	Valve, Shuttle, 1/4 SAE, Low Interflow, Disc Seat	29006	29006 RK
13	Valve, Shuttle, 1/4 SAE, Low Interflow	22627	22627 RK	Valve, Shuttle, 1/4 SAE, Low Interflow, Disc Seat	29006	29006 RK

14	Valve, Shuttle, 1/4 SAE, High Interflow	25811	25811 RK	Valve, Shuttle, 1/4 SAE, High Interflow, Disc Seat	29006-2	29006-2 RK
15	Valve, Shuttle, 1/4 SAE, High Interflow, T316	097953	097958	Valve, Shuttle, 1/4 SAE, High Interflow, Disc Seat	29006-2	29006-2 RK
16	Valve, Shuttle, 1/4 SAE, High Interflow, N60	28196	28196 RK	Valve, Shuttle, 1/4 SAE, High Interflow, Disc Seat	29006-2	29006-2 RK
17	Valve, Shuttle, 3/8 SAE, Spring Biased, Low Interflow, T316	28292	28292 RK	Valve, Shuttle, 3/8 SAE, Spring Biased, Low Interflow, Disc Seat	29008-1	29008-1 RK
18	Valve, Shuttle, 3/8 SAE, Low Interflow	25417	25417 RK	Valve, Shuttle, 3/8 SAE, Low Interflow, Disc Seat	29008	29008 RK
19	Valve, Shuttle, Stack, 1/4 SAE, Spring Biased, Low Interflow	109207	109208	Valve, Shuttle, Stack, 1/4 SAE, Spring Biased, Low Interflow, Disc Seat	29036	29036 RK
20	Valve, Shuttle, 3/8 SAE, High Interflow, N60	28196-1	28196-1 RK	Valve, Shuttle, 3/8 SAE, High Interflow, Disc Seat	29008-2	29008-2 RK
21	Valve, Shuttle, 1/4 BSPP, Spring Biased, Low Interflow	25416-2	25416-2 RK	N/A	N/A	N/A
22	Valve, Shuttle, 1/4 BSPP, Spring Biased, Low Interflow, N60	097954	097959	N/A	N/A	N/A

The following legacy 1/4" Shuttle Valves were discontinued November 30, 2017. If a new 1/4" Shuttle Valve part number is not listed for a specific legacy part number, please contact Gilmore Customer Service to request a quotation for a new part number.

Please contact Gilmore Customer Service to request any drawings, manuals and quotations for these new GEN2 regulators at info@gilmore.com

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29005-1 RK AND SEAL KIT 29005-1 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
F	ECO 019512	JZ 9/28/20	CMY 9-28-20	AGP 9/28/20

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 4 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.
2) MINERAL OIL BASED DRILLING CONTROL FLUID.

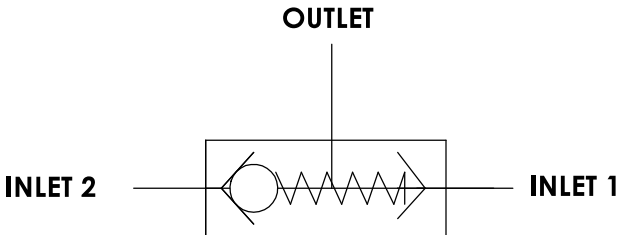
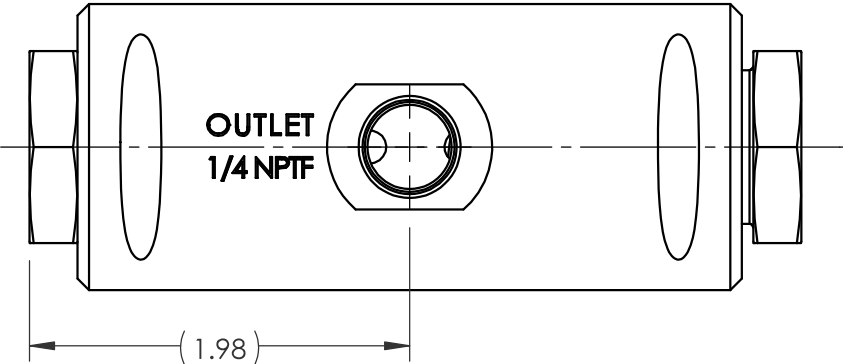
CRACKING PRESSURE <20 PSI

PORTS

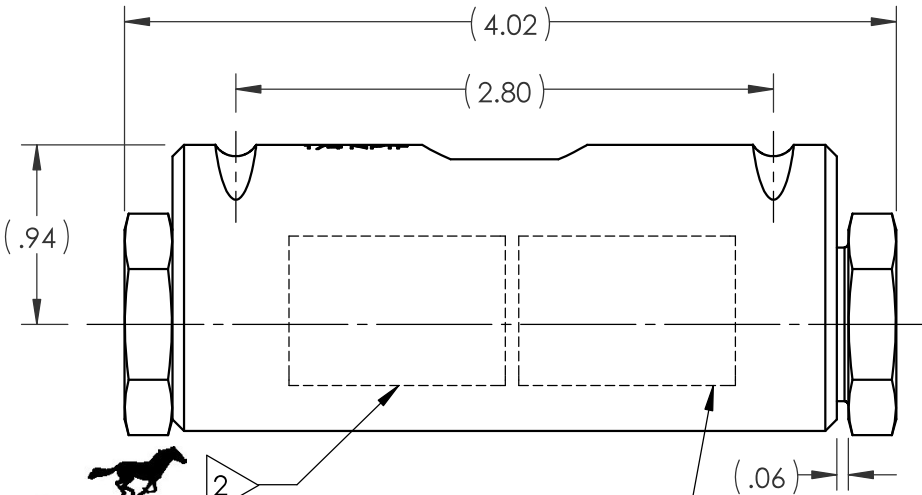
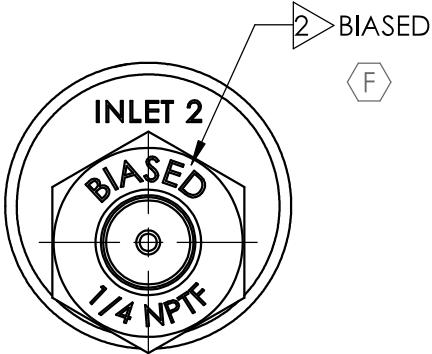
INLETS: 1/4" NPTF
OUTLET: 1/4" NPTF

GENERAL

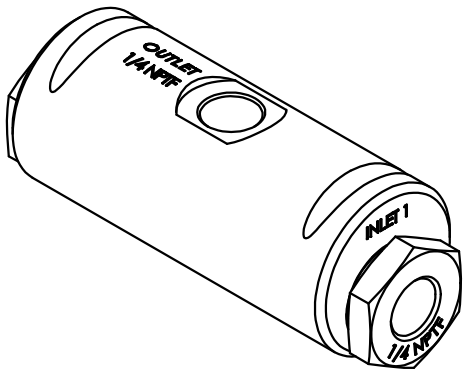
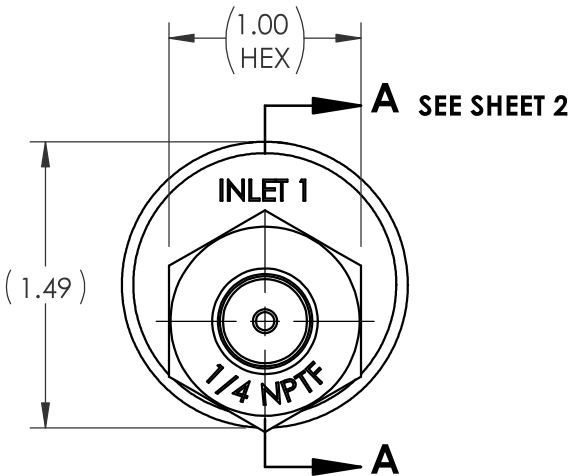
APPROX WEIGHT: 1.6 LBS
TEMPERATURE: 32 °F TO 150 °F
FIELD SERVICEABLE




SCHEMATIC



29005-1
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
US PATENT 10,133,282
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED



U.S. PATENT 10,133,282

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					
CONDITION:			DRAWN BY CMY	DATE 11/11/16	VALVE, SHUTTLE, GEN 2, 1/4" NPTF, LOW INTERFLOW, 5000 PSI, DISC SEAL SPRING BIASED			
			CHECKED BY AP	DATE 11/11/16				
			ENGINEER GM	DATE 11/11/16				
TREATMENT:			ERN NUMBER 02089	DATE 10-14-16				
PROCEDURE NUMBER:	5	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 29005-1	REV F
						SCALE 1:1	SolidWorks	SHEET 1 OF 2

4

3

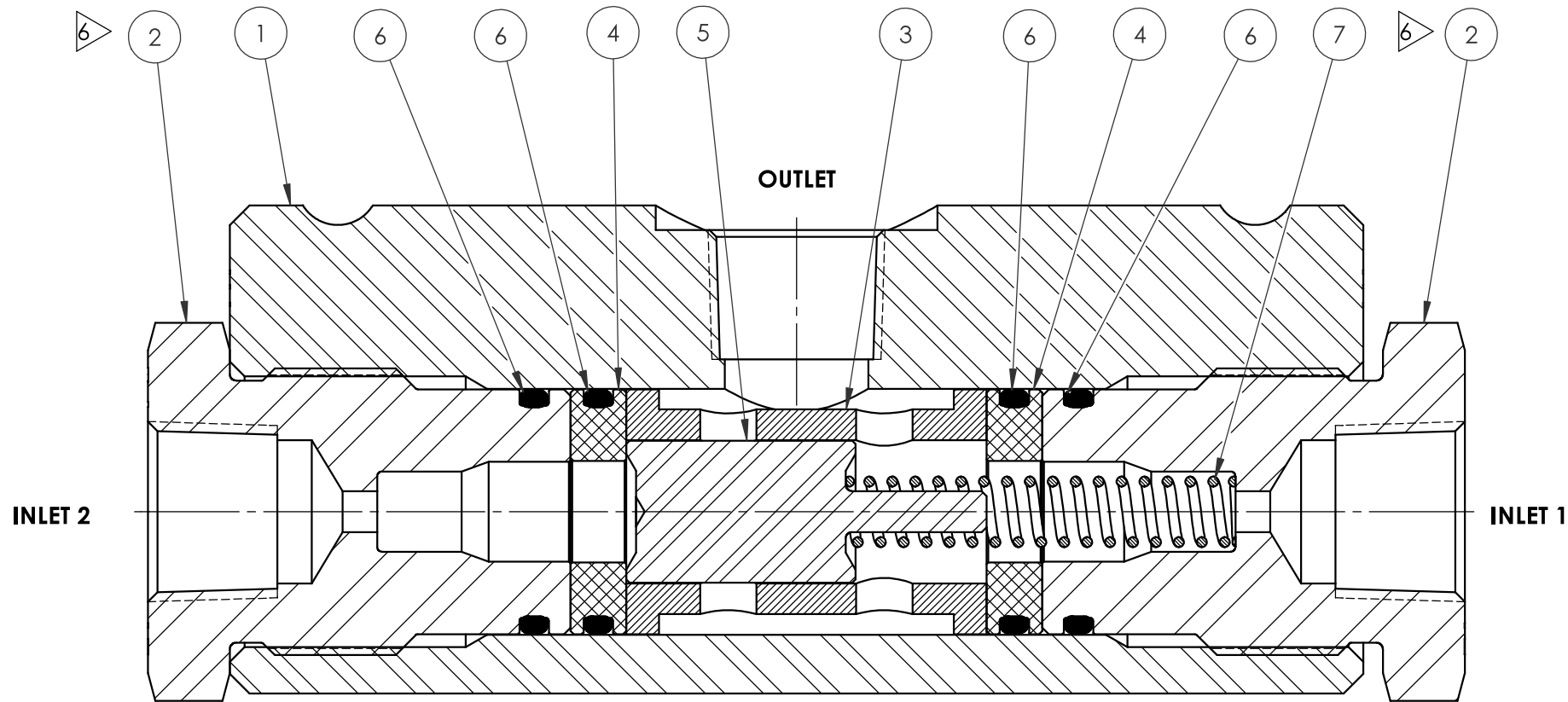
2

1

BILL OF MATERIALS						
ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	108174	BODY- 1/4" NPT	A276 TP 316	1		
2	108178	END CAP- 1/4" NPT	A276 UNS S21800 (NITRONIC 60)	2		
3	108176	CAGE- LI	A276 TP S21800 (NITRONIC 60)	1	X	
4	108175	SEAL, DISC	POLYETHERETHERKETONE (PEEK) PER MIL-P-46183 TYPE 1	2	X	X
5	108177	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	
6	18100-001K1	O-RING	HNBR	4	X	X
7	28441	SPRING	ELGILOY	1	X	

B

B



A

A

SECTION A-A
SCALE 2 : 1

4

3

2

1



ENGINEERING

SIZE	DWG NO	REV
B	29005-1	F
SCALE	1:1	SHEET 2 OF 2
SolidWorks		

4

3

2

1

NOTES:

- 1
- MARKING: MARK COMPONENT WITH ASSEMBLY W.O.
AS SHOWN ON THE COMPONENT DRAWING
- 2
- MARKING: MARK AS SHOWN USING LASER ETCH OR
COMPUTER CONTROLLED DOT PEEN MARKING MACHINE,
.06 HIGH MIN CHARACTERS.
- 3
- ALL METAL ITEMS ARE PASSIVATED
- 4
- 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29005-3 RK
AND SEAL KIT 29005-3 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50190,
FOR MAINTENANCE MANUAL SEE 51014,
FOR EXTENDED FAT PROCEDURE SEE 50188,
FOR STANDARD FAT PROCEDURE SEE 50189.
- 6
- TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
F	ECO 019512	JZ 9/28/20	CMY 9-28-20	AJP 9/28/20

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 4 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL
PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING
CONTROL FLUID.

2) MINERAL OIL BASED DRILLING
CONTROL FLUID.

CRACKING PRESSURE <20 PSI

PORTS

INLETS: 1/4" NPTF

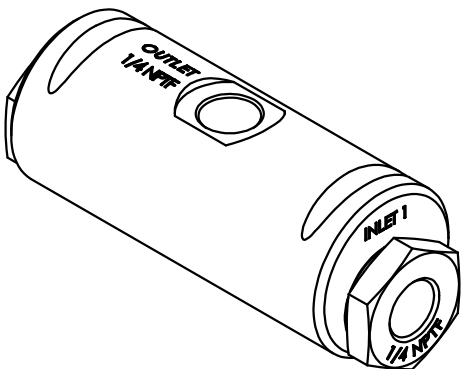
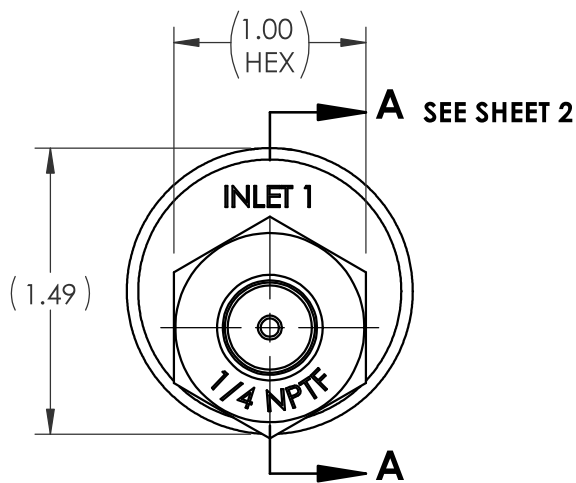
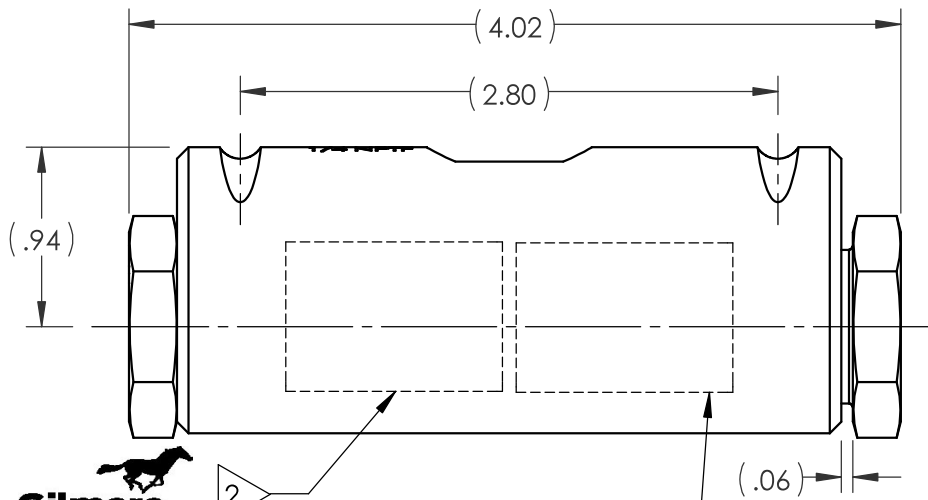
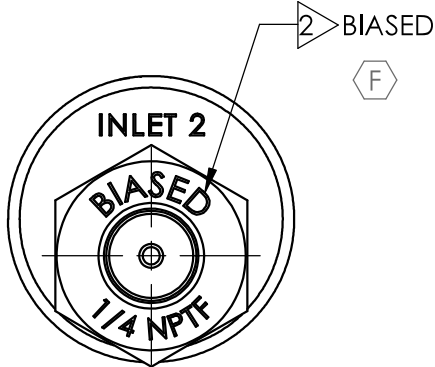
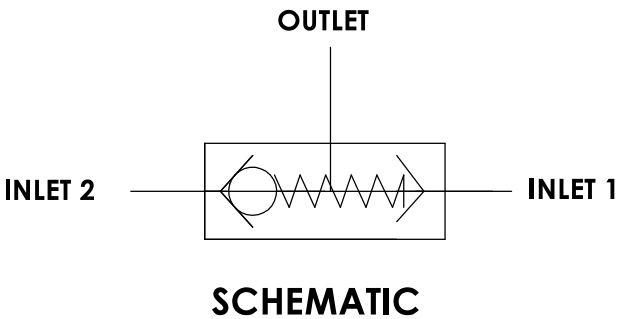
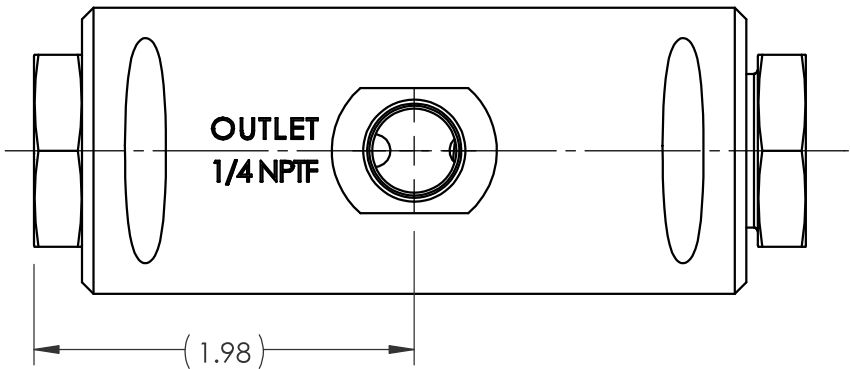
OUTLET: 1/4" NPTF

GENERAL

APPROX WEIGHT: 1.6 LBS

TEMPERATURE: 32 °F TO 150 °F

FIELD SERVICEABLE



Gilmore
GEN2
29005-3
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
US PATENT 10,133,282
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MATERIAL:
SEE PARTS IN BOM

CONDITION:

TREATMENT:

PROCEDURE NUMBER:

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

DRAWN BY	DATE
CMY	11/11/16
CHECKED BY	DATE
AP	11/11/16
ENGINEER	DATE
GM	11/11/16
ERN NUMBER	DATE
02089	10-14-16

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U.S. PATENT 10,133,282



Gilmore
a pro/erv company

ENGINEERING

**VALVE, SHUTTLE, GEN 2, 1/4" NPTF,
HIGH INTERFLOW, 5000 PSI, DISC SEAL
SPRING BIASED**

SIZE

B

DWG NO

29005-3

REV

F

SCALE 1:1

SolidWorks

SHEET 1 OF 2

4

3

2

1

4

3

2

1

3

1

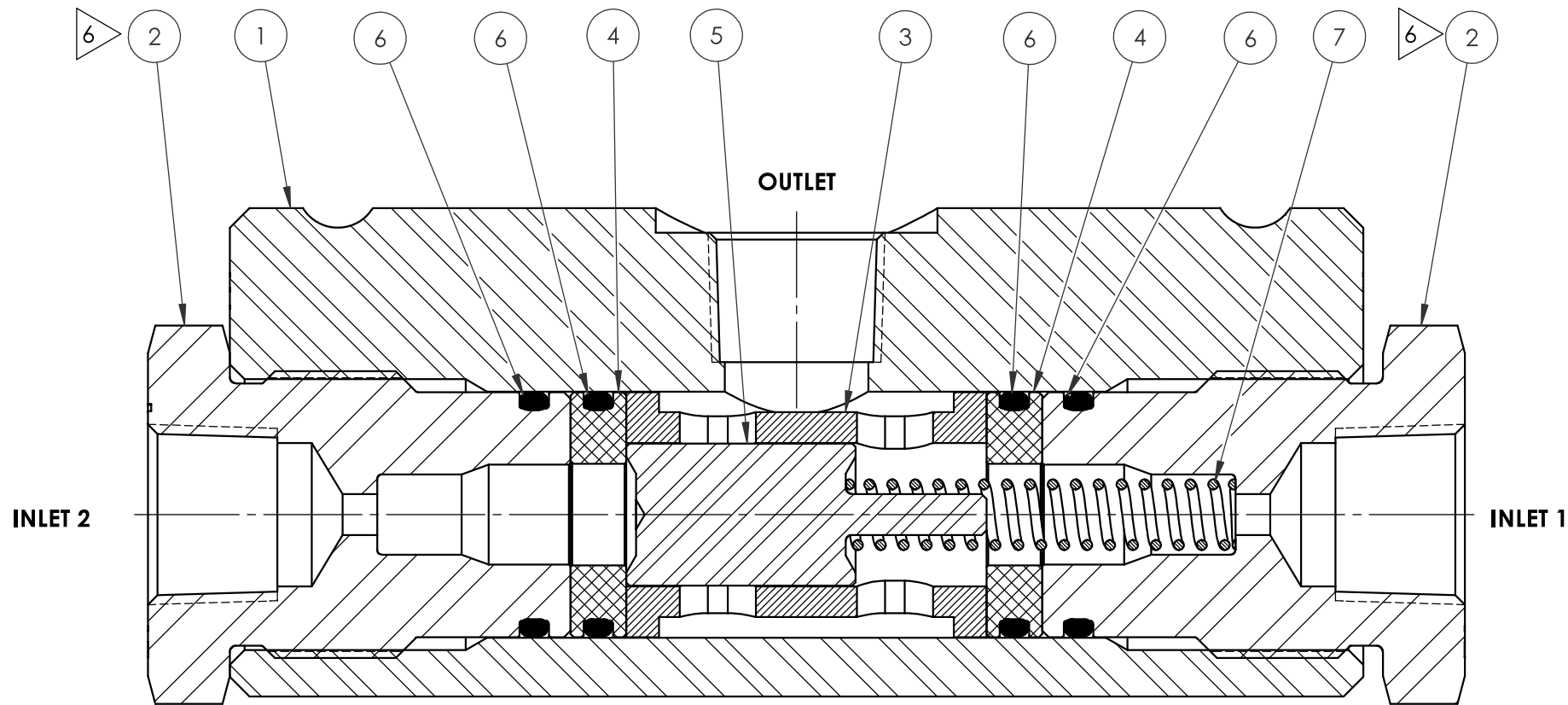
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BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	108174	BODY- 1/4" NPT	A276 TP 316	1		
2	108178	END CAP- 1/4" NPT	A276 UNS S21800 (NITRONIC 60)	2		
3	144628	CAGE- HI	A276 TP S21800	1	X	
4	108175	SEAL, DISC	POLYETHERETHERKETONE (PEEK) PER MIL-P-46183 TYPE 1	2	X	X
5	108177	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	
6	18100-001K1	O-RING	HNBR	4	X	X
7	28441	SPRING	ELGILOY	1	X	

B

B



A

A

SECTION A-A
SCALE 2 : 1

4

3

2

1



ENGINEERING

SIZE

B

DWG NO

29005-3

REV

F

SCALE

1:1

SolidWorks

SHEET 2 OF 2

4

3

2

1

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29005 RK AND SEAL KIT 29005 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
E	ECO 015541	M.S. 4/17/19	4/18/19	APP 4/23/19

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 8 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.
2) MINERAL OIL BASED DRILLING CONTROL FLUID.

CRACKING PRESSURE <20 PSI

PORTS

INLETS: 1/4" NPT

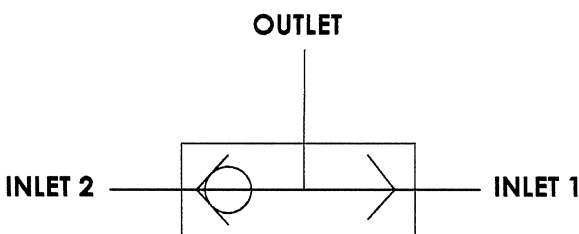
OUTLET: 1/4" NPT

GENERAL

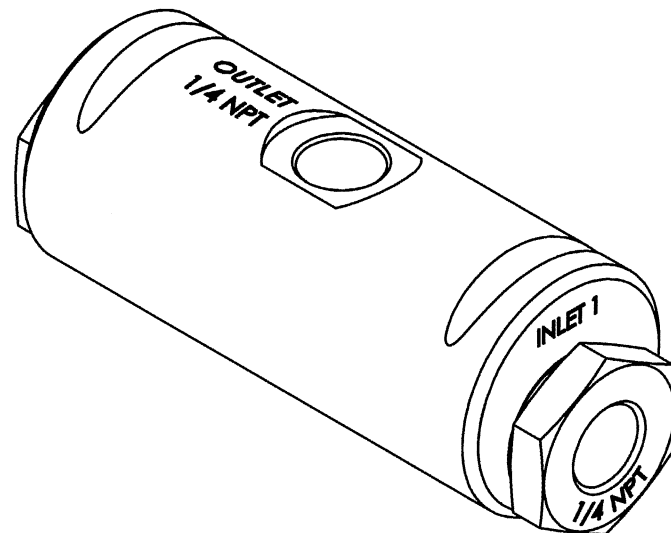
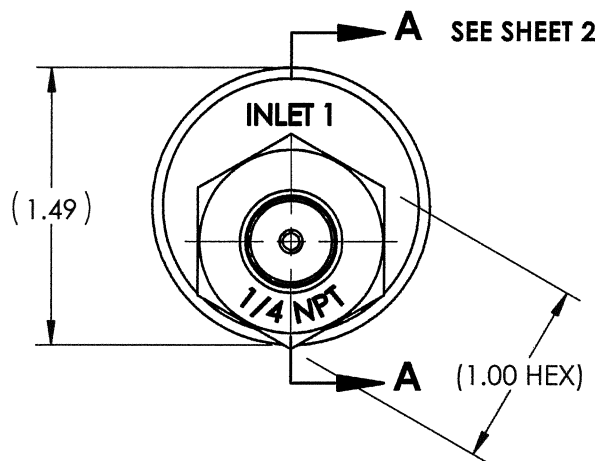
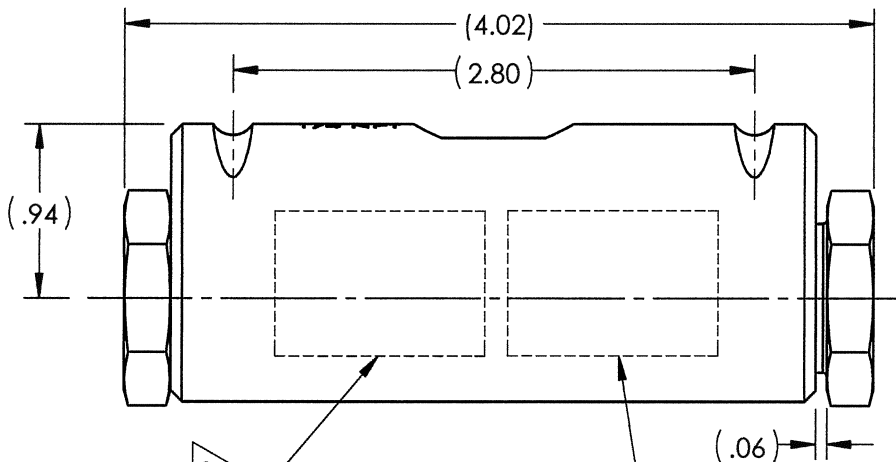
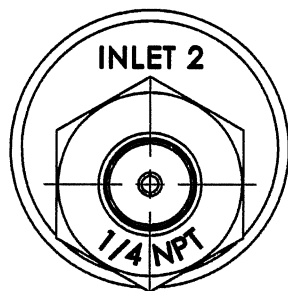
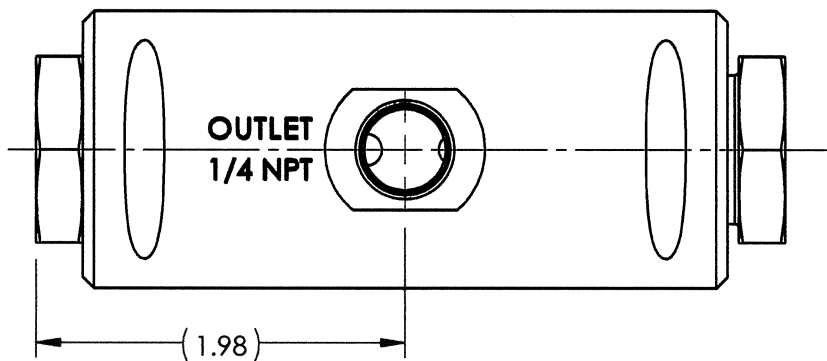
APPROX WEIGHT: 1.6 LBS

TEMPERATURE: 32°F TO 150°F

FIELD SERVICEABLE



SCHEMATIC



29005
VER (AX VERSION NUMBER)
(SERIAL NUMBER)
PATENT PENDING
5,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH LOGO
AND COMPANY
INFORMATION

MATERIAL:
SEE PARTS IN BOM

CONDITION:

TREATMENT:

PROCEDURE NUMBER:

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

DRAWN BY	DATE
CMY	11/11/16
CHECKED BY	DATE
AP	11/11/16
ENGINEER	DATE
GM	11/11/16
ERN NUMBER	DATE
02089	10-13-16

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U.S. PATENT 10,133,282

proserv | Gilmore

VALVE, SHUTTLE, GEN 2, 1/4" NPT,
LOW INTERFLOW, 5000 PSI, DISC SEAL

SIZE DWG NO

B

SolidWorks

29005

REV

E

SCALE 1:1

SHEET 1 OF 2

4

3

2

1

4

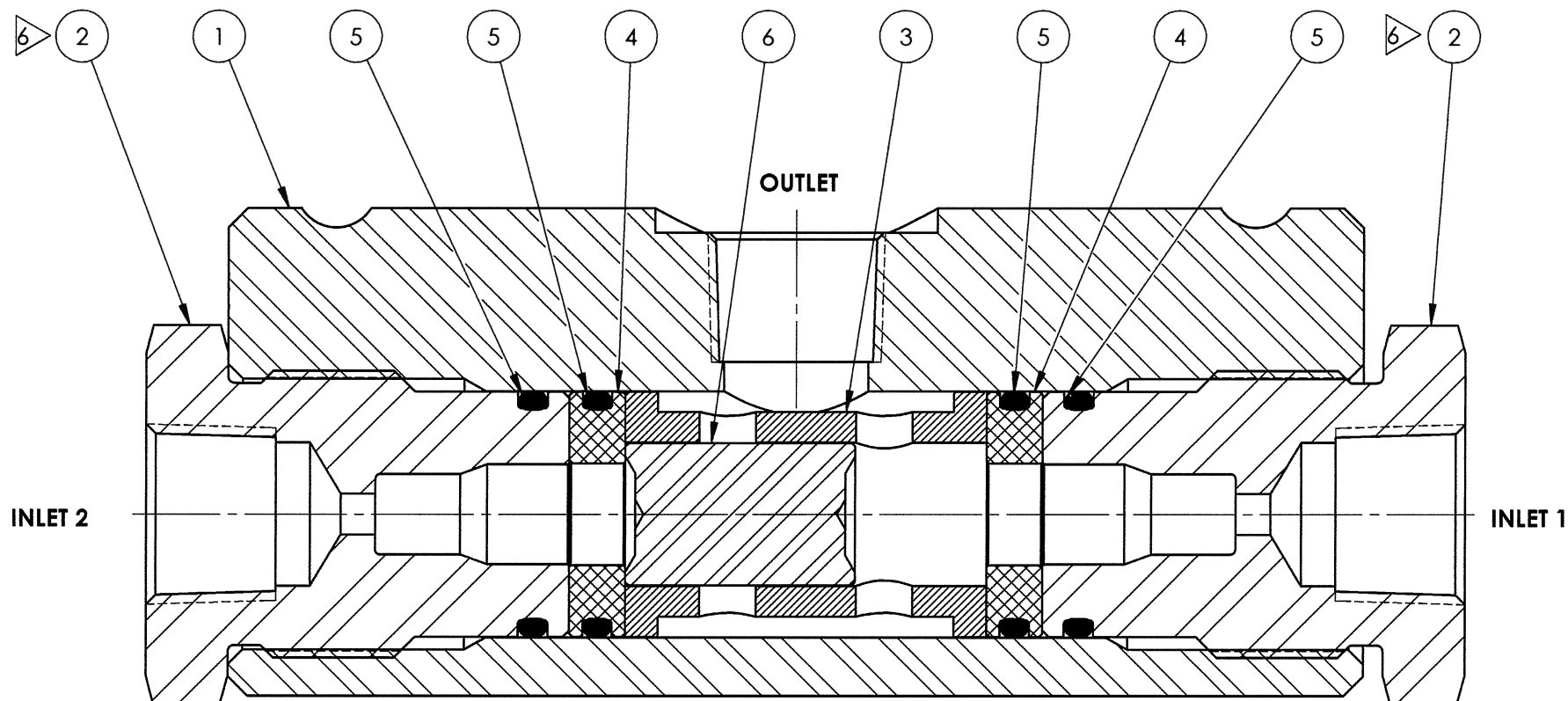
3

2

1

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	108174	BODY- 1/4" NPT	A276 TP 316	1		
2	108178	END CAP- 1/4" NPT	A276 UNS S21800 (NITRONIC 60)	2		
3	108176	CAGE- LI	A276 TP S21800 (NITRONIC 60)	1	X	
4	108175	SEAL, DISC	PEEK	2	X	X
5	18100-001K1	O-RING	HNBR	4	X	X
6	144627	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	



SECTION A-A
SCALE 2 : 1

proserv | Gilmore

SIZE B	DWG NO 29005	REV E
SCALE 1:1	SolidWorks	SHEET 2 OF 2

4

3

2

1

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29005-2 RK AND SEAL KIT 29005-2 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
E	ECO 015541	M.S. 4/17/19	4/18/19	4/23/19

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 8 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.

2) MINERAL OIL BASED DRILLING CONTROL FLUID.

CRACKING PRESSURE <20 PSI

PORTS

INLETS: 1/4" NPT

OUTLET: 1/4" NPT

GENERAL

APPROX WEIGHT: 1.6 LBS

TEMPERATURE: 32°F TO 150°F

FIELD SERVICEABLE

OUTLET

INLET 2

INLET 1

SCHEMATIC

OUTLET
1/4 NPT

(1.98)

(4.02)

(2.80)

INLET 2

1/4 NPT

(.94)

(.06)

(1.00)
HEX

INLET 1

1/4 NPT

(1.49)

SEE SHEET 2

OUTLET
1/4 NPT

INLET 1

1/4 NPT

29005-2

VER (AX VERSION NUMBER)
(SERIAL NUMBER)
PATENT PENDING
5,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH LOGO
AND COMPANY
INFORMATION

MATERIAL:
SEE PARTS IN BOM

CONDITION:

TREATMENT:

PROCEDURE NUMBER:

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

DRAWN BY	DATE
CMY	11/11/16
CHECKED BY	DATE
AP	11/11/16
ENGINEER	DATE
GM	11/11/16
ERN NUMBER	DATE
02089	10-13-16

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THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.

U.S. PATENT 10,133,282

proserv



VALVE, SHUTTLE, GEN 2, 1/4" NPT,
HIGH INTERFLOW, 5000 PSI, DISC SEAL

SIZE DWG NO

B

SolidWorks

29005-2

REV

E

SCALE 1:1

SHEET 1 OF 2

4

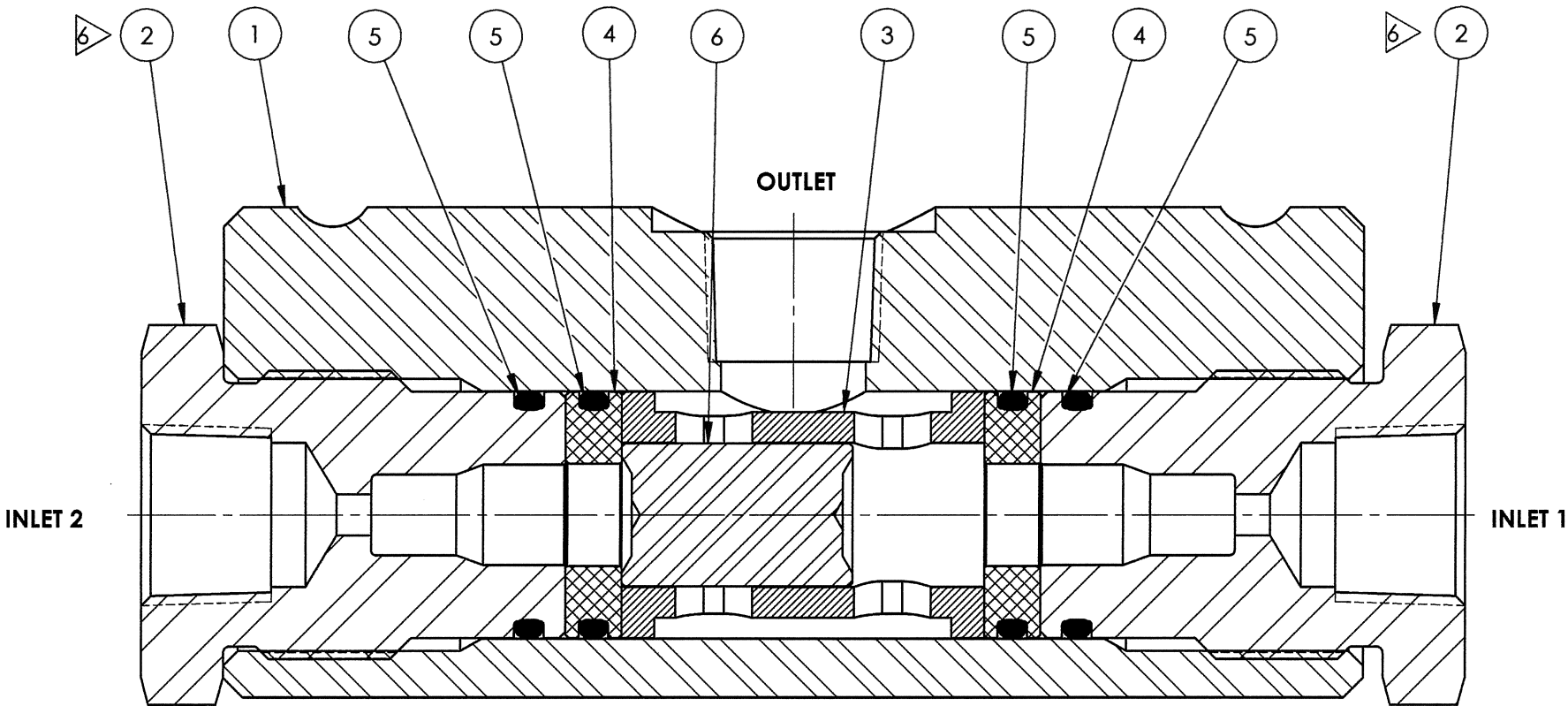
3

2

1

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	108174	BODY- 1/4" NPT	A276 TP 316	1		
2	108178	END CAP- 1/4" NPT	A276 UNS S21800 (NITRONIC 60)	2		
3	144628	CAGE- HI	A276 TP S21800	1	X	
4	108175	SEAL, DISC	PEEK	2	X	X
5	18100-001K1	O-RING	HNBR	4	X	X
6	144627	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	



SECTION A-A
SCALE 2 : 1

proserv |  Gilmore

SIZE B	DWG NO 29005-2	REV E
SCALE 1:1	SolidWorks	SHEET 2 OF 2

4

3

2

1

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29007 RK AND SEAL KIT 29007 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
E	ECO 015541	U.S. 4/17/19	4/18/19	4/23/19

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 8 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.

2) MINERAL OIL BASED DRILLING CONTROL FLUID.

CRACKING PRESSURE <20 PSI

PORTS

INLETS: 3/8" NPT

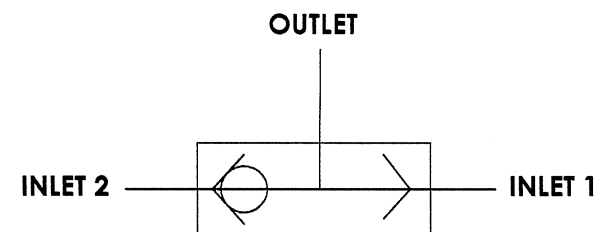
OUTLET: 3/8" NPT

GENERAL

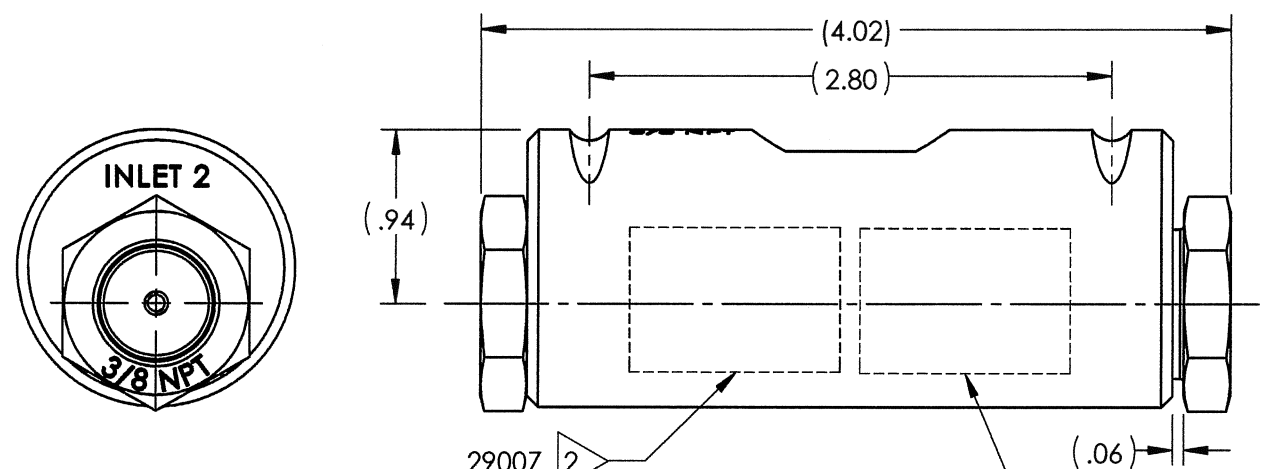
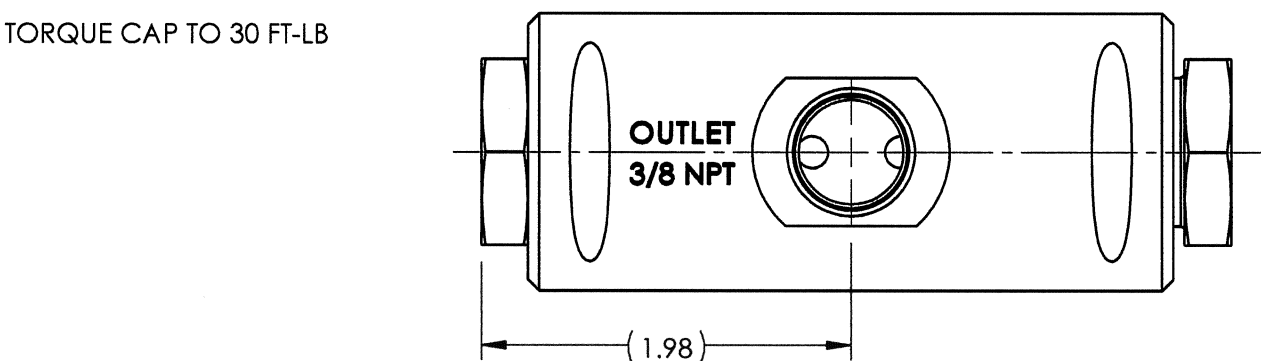
APPROX WEIGHT: 1.6 LBS

TEMPERATURE: 32°F TO 150°F

FIELD SERVICEABLE

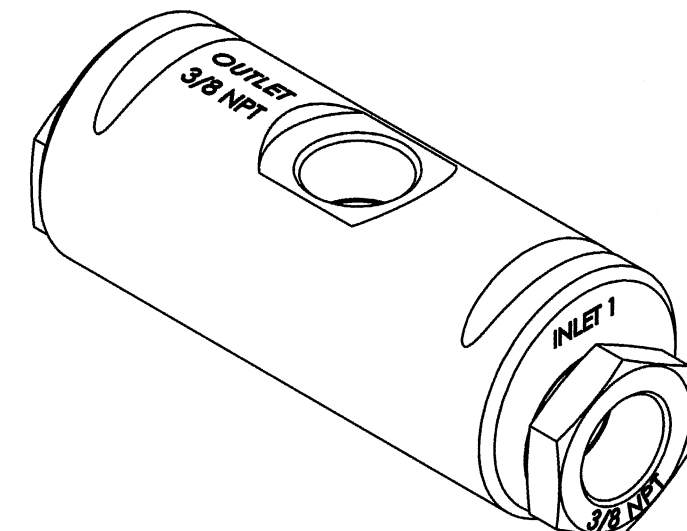
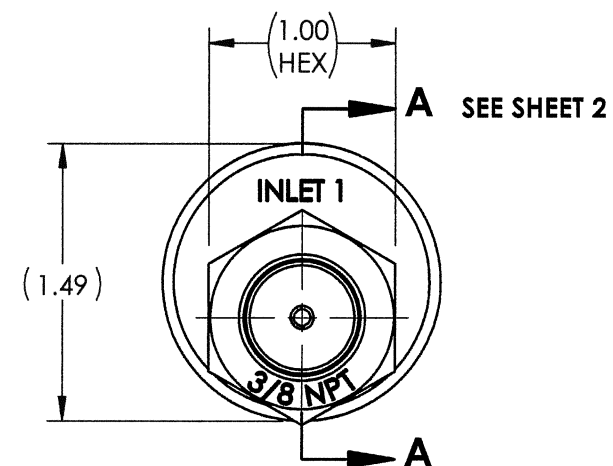


SCHEMATIC



29007
VER (AX VERSION NUMBER)
(SERIAL NUMBER)
PATENT PENDING
5,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH LOGO
AND COMPANY
INFORMATION



U.S. PATENT 10,133,282

MATERIAL:
SEE PARTS IN BOM

CONDITION:

TREATMENT:

PROCEDURE NUMBER:

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	
DRAWN BY	DATE
CMY	11/11/16
CHECKED BY	DATE
AP	11/11/16
ENGINEER	DATE
GM	11/11/16
ERN NUMBER	DATE
02089	10-13-16

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VALVE, SHUTTLE, GEN 2, 3/8" NPT,
LOW INTERFLOW, 5000 PSI, DISC SEAL

SIZE	DWG NO	REV
B	29007	E
SCALE 1:1	SolidWorks	SHEET 1 OF 2

4

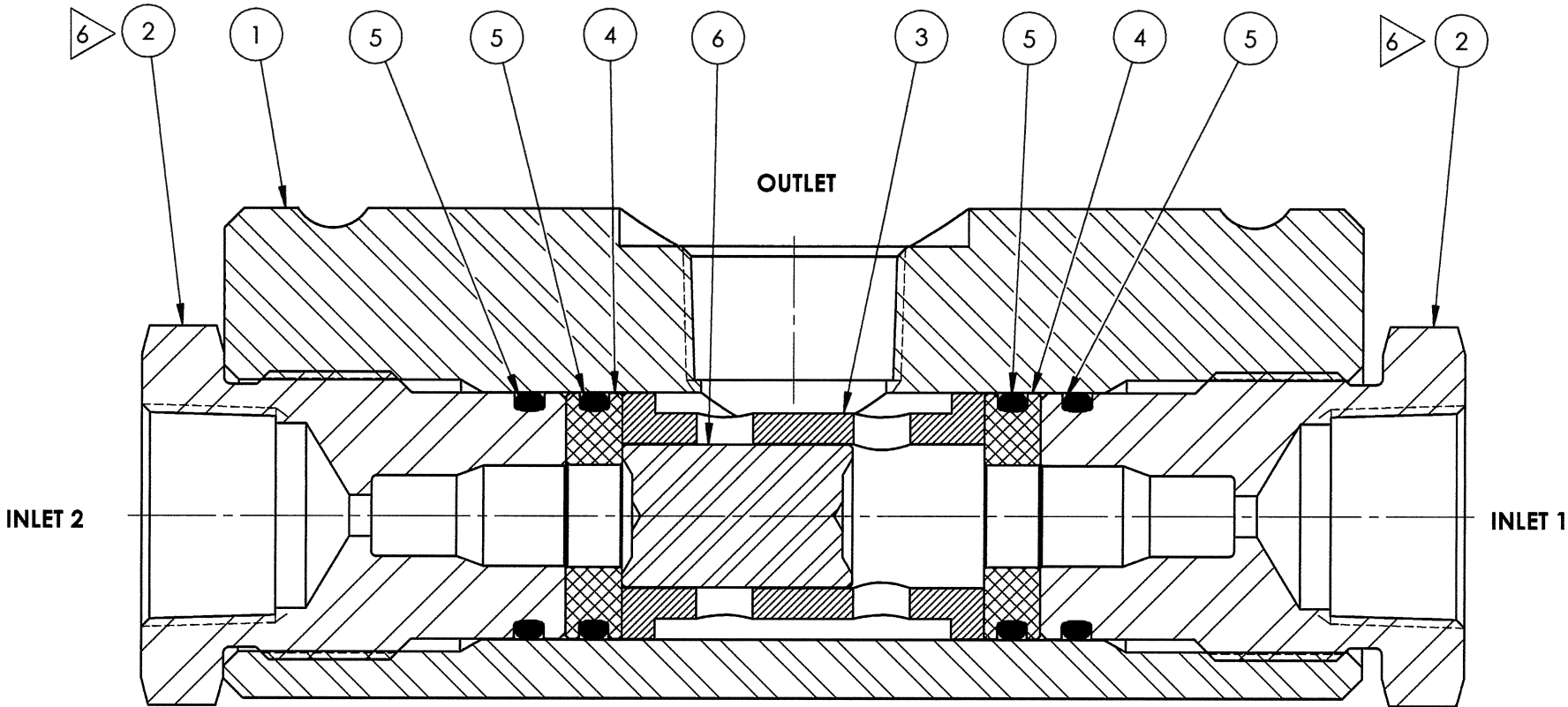
3

2

1

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL -	QTY.	RK	SK
1	145193	BODY- 3/8" NPT	A276 TP 316	1		
2	144711	END CAP- 3/8" NPT	A276 UNS S21800 (NITRONIC 60)	2		
3	108176	CAGE- LI	A276 TP S21800 (NITRONIC 60)	1	X	
4	108175	SEAL, DISC	PEEK	2	X	X
5	18100-001K1	O-RING	HNBR	4	X	X
6	144627	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	



SECTION A-A
SCALE 2 : 1

proserv | Gilmore

SIZE B	DWG NO 29007	REV E
SCALE 1:1	SolidWorks	SHEET 2 OF 2

4

3

2

1

NOTES:

- 1
- MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2
- MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3
- ALL METAL ITEMS ARE PASSIVATED
- 4
- 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29006-1 RK AND SEAL KIT 29006-1 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6
- TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
F	ECO 019512	JZ 9/28/20	CMY 9-28-20	AGP 9/28/20

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 4 GPM
Cv = .6 (CALC)
MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.
2) MINERAL OIL BASED DRILLING CONTROL FLUID.

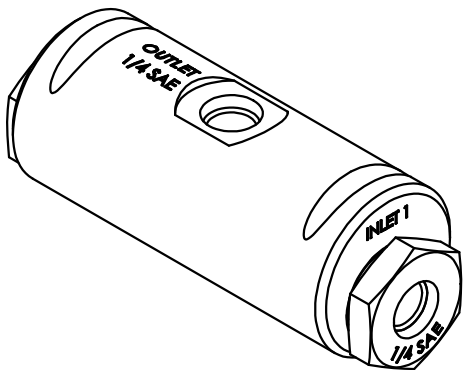
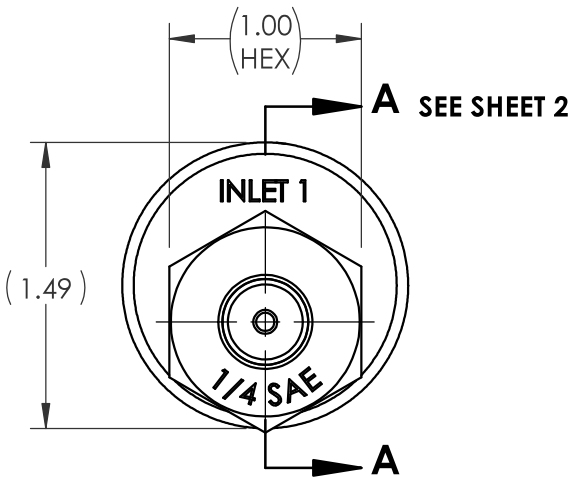
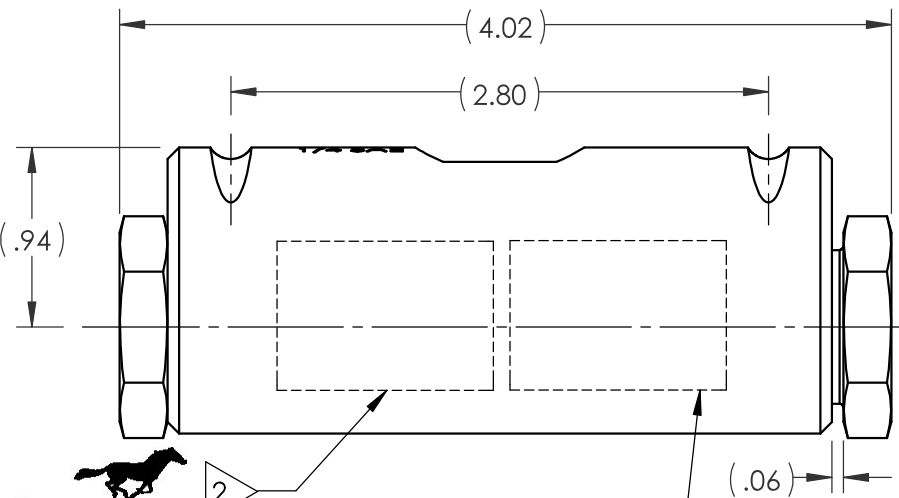
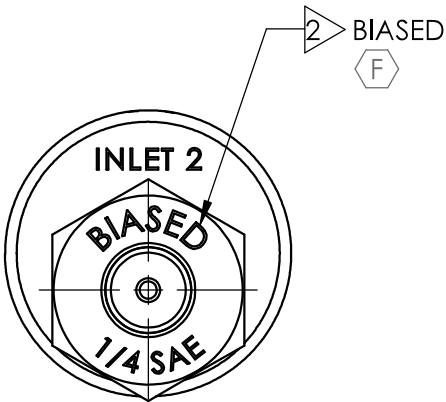
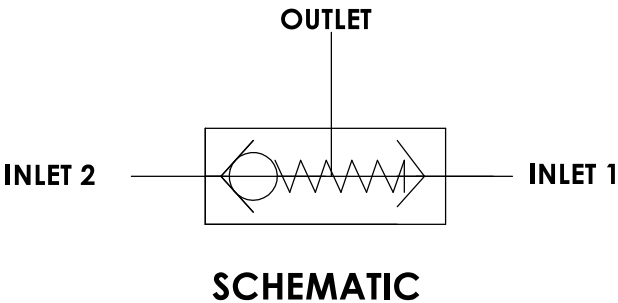
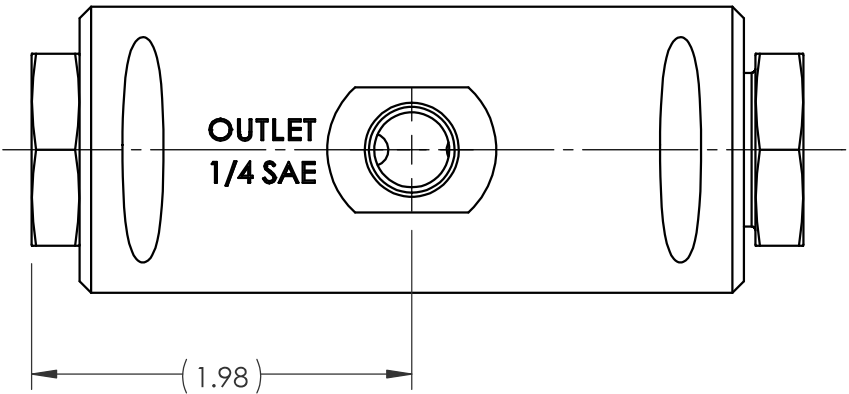
CRACKING PRESSURE <20 PSI

PORTS

INLETS: 1/4" SAE
OUTLET: 1/4" SAE



GENERAL

APPROX WEIGHT: 1.6 LBS
TEMPERATURE: 32 °F TO 150 °F
FIELD SERVICEABLE



29006-1
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
US PATENT 10,133,282
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH COMPANY
INFORMATION

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	
CONDITION:		DRAWN BY CMY	DATE 11/11/16
TREATMENT:		CHECKED BY AP	DATE 11/11/16
PROCEDURE NUMBER:		ENGINEER GM	DATE 11/11/16
		ERN NUMBER 02089	DATE 10-14-16
		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.	

U.S. PATENT 10,133,282



ENGINEERING

VALVE, SHUTTLE, GEN 2, 1/4" SAE,
LOW INTERFLOW, 5000 PSI, DISC SEAL
SPRING BIASED

SIZE B	DWG NO 29006-1	REV F
SCALE 1:1	SolidWorks	SHEET 1 OF 2

4

3

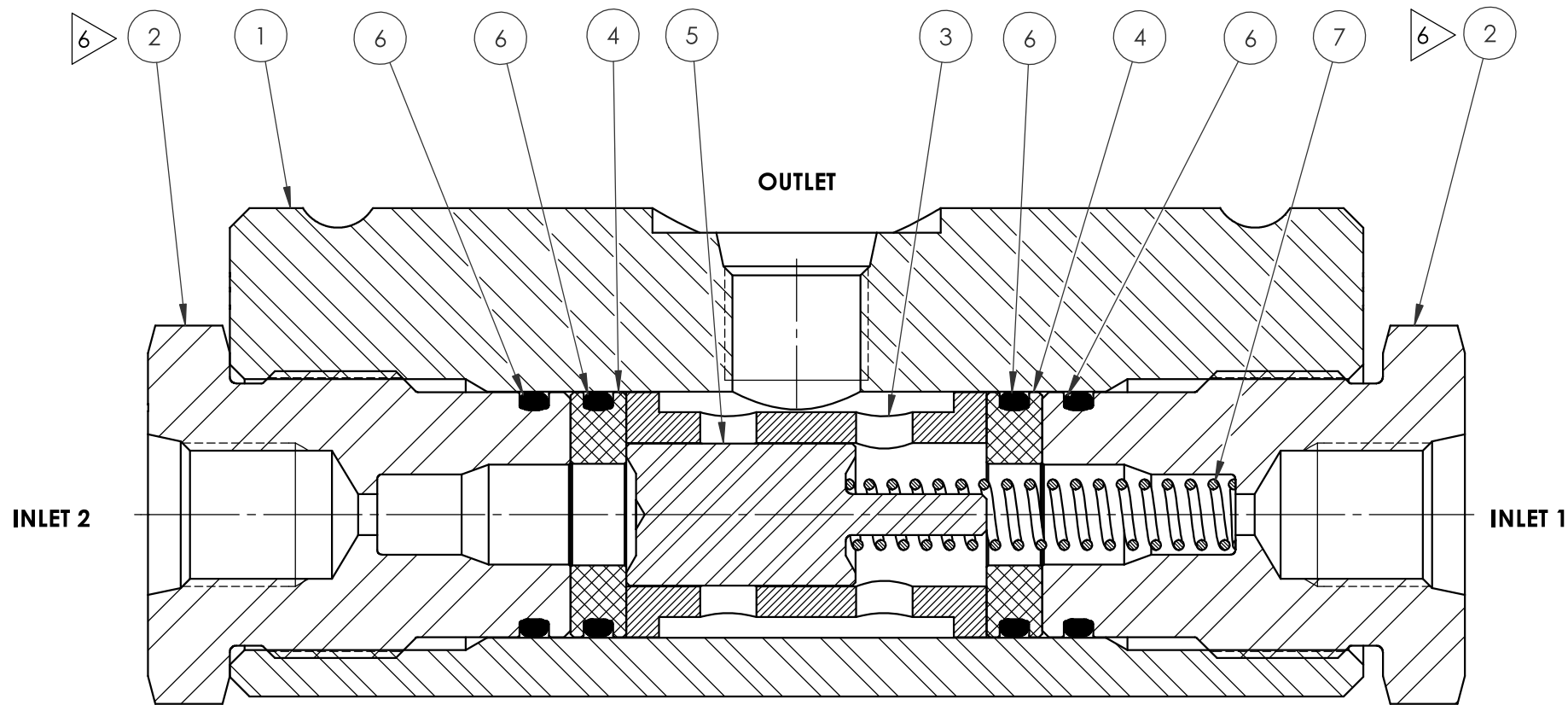
2

1

BILL OF MATERIALS						
ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	145192	BODY- 1/4" SAE	A276 TP 316	1		
2	144713	END CAP- 1/4" SAE	A276 UNS S21800 (NITRONIC 60)	2		
3	108176	CAGE- LI	A276 TP S21800 (NITRONIC 60)	1	X	
4	108175	SEAL, DISC	POLYETHERETHERKETONE (PEEK) PER MIL-P-46183 TYPE 1	2	X	X
5	108177	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	
6	18100-001K1	O-RING	HNBR	4	X	X
7	28441	SPRING	ELGILOY	1	X	

B

B



A

A

SECTION A-A
SCALE 2 : 1

4

3

2

1



ENGINEERING

SIZE	DWG NO	REV
B	29006-1	F
SCALE	1:1	SHEET 2 OF 2
SolidWorks		

4

3

2

1

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29006 RK AND SEAL KIT 29006 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
E	ECO 015541	M.S. 4/17/19	4/18/19	APP 4/23/19

PRESSURE DATA
MAWP: 5,000 PSI

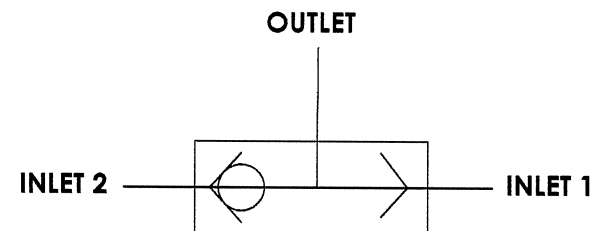
FLOW DATA
MAX FLOW CAPACITY: 8 GPM
Cv = .6 (CALC)
MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.
2) MINERAL OIL BASED DRILLING CONTROL FLUID.

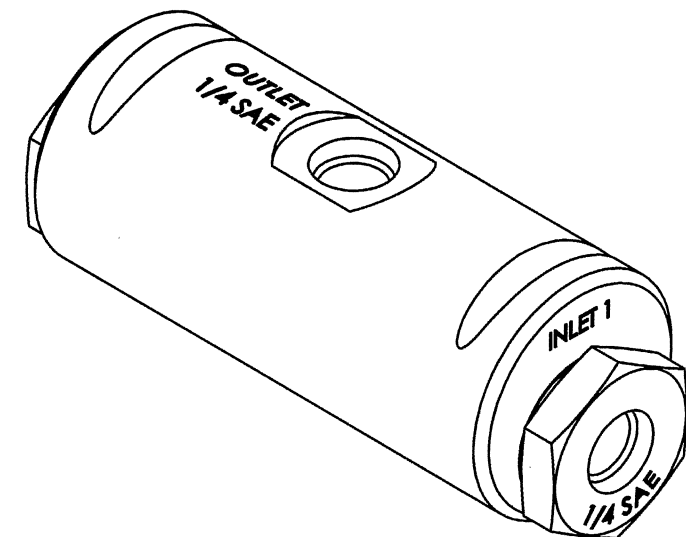
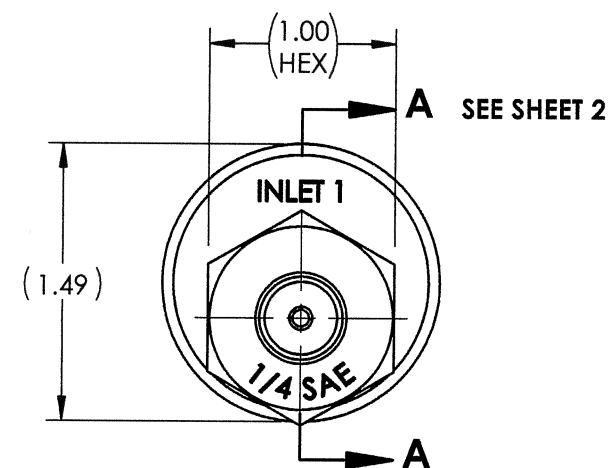
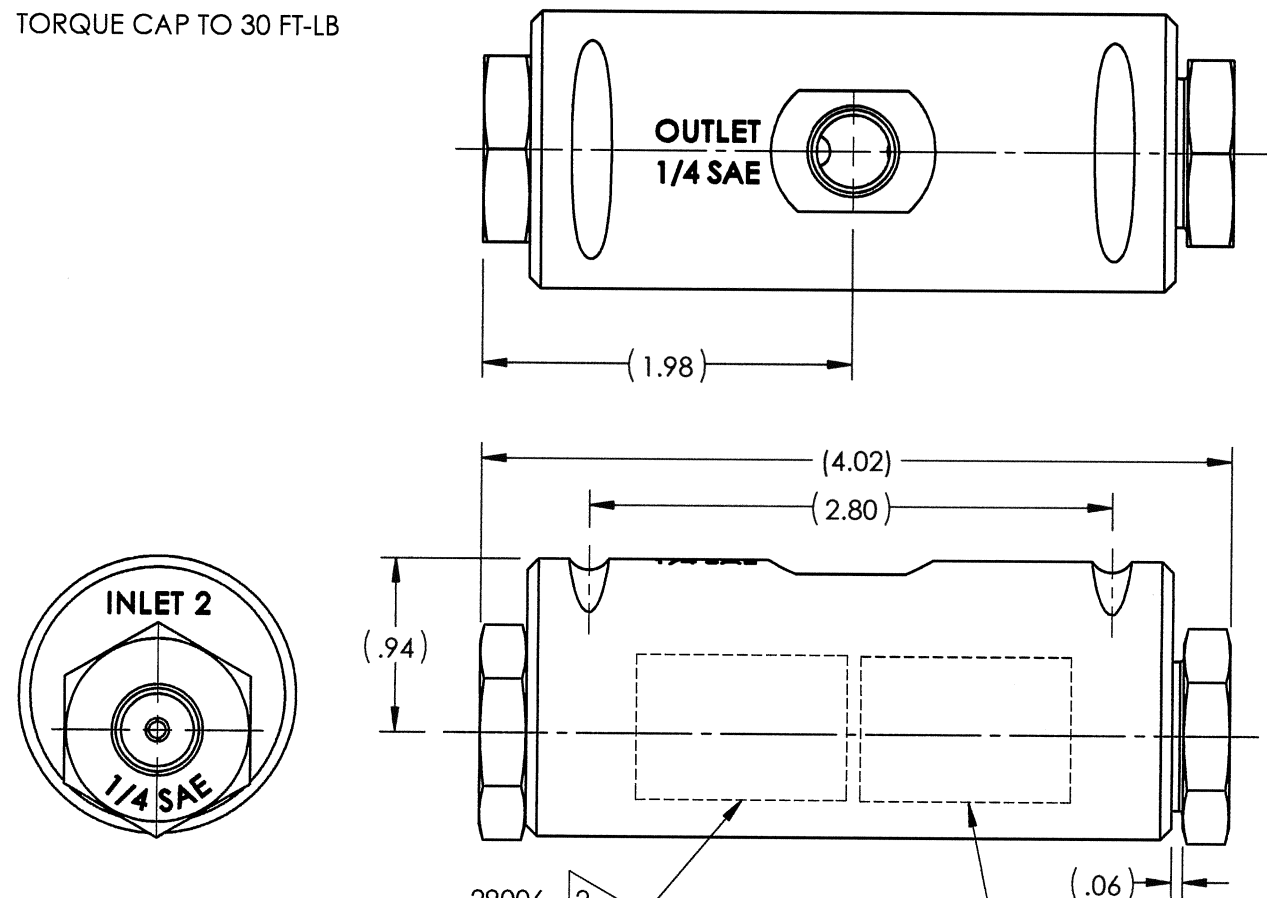
CRACKING PRESSURE <20 PSI

PORTS
INLETS: 1/4" SAE
OUTLET: 1/4" SAE

GENERAL
APPROX WEIGHT: 1.6 LBS
TEMPERATURE: 32°F TO 150°F
FIELD SERVICEABLE



SCHEMATIC



29006
VER (AX VERSION NUMBER)
(SERIAL NUMBER)
PATENT PENDING
5,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH LOGO
AND COMPANY
INFORMATION

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 DRAWN BY CMY DATE 11/11/16 CHECKED BY AP DATE 11/11/16 ENGINEER GM DATE 11/11/16 ERN NUMBER 02089 DATE 10-13-16		U.S. PATENT 10,133,282	
CONDITION:		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.		proserv Gilmore		VALVE, SHUTTLE, GEN 2, 1/4" SAE, LOW INTERFLOW, 5000 PSI, DISC SEAL	
TREATMENT:		SIZE B		DWG NO 29006		REV E	
PROCEDURE NUMBER:	5	SCALE 1:1		SolidWorks		SHEET 1 OF 2	

4

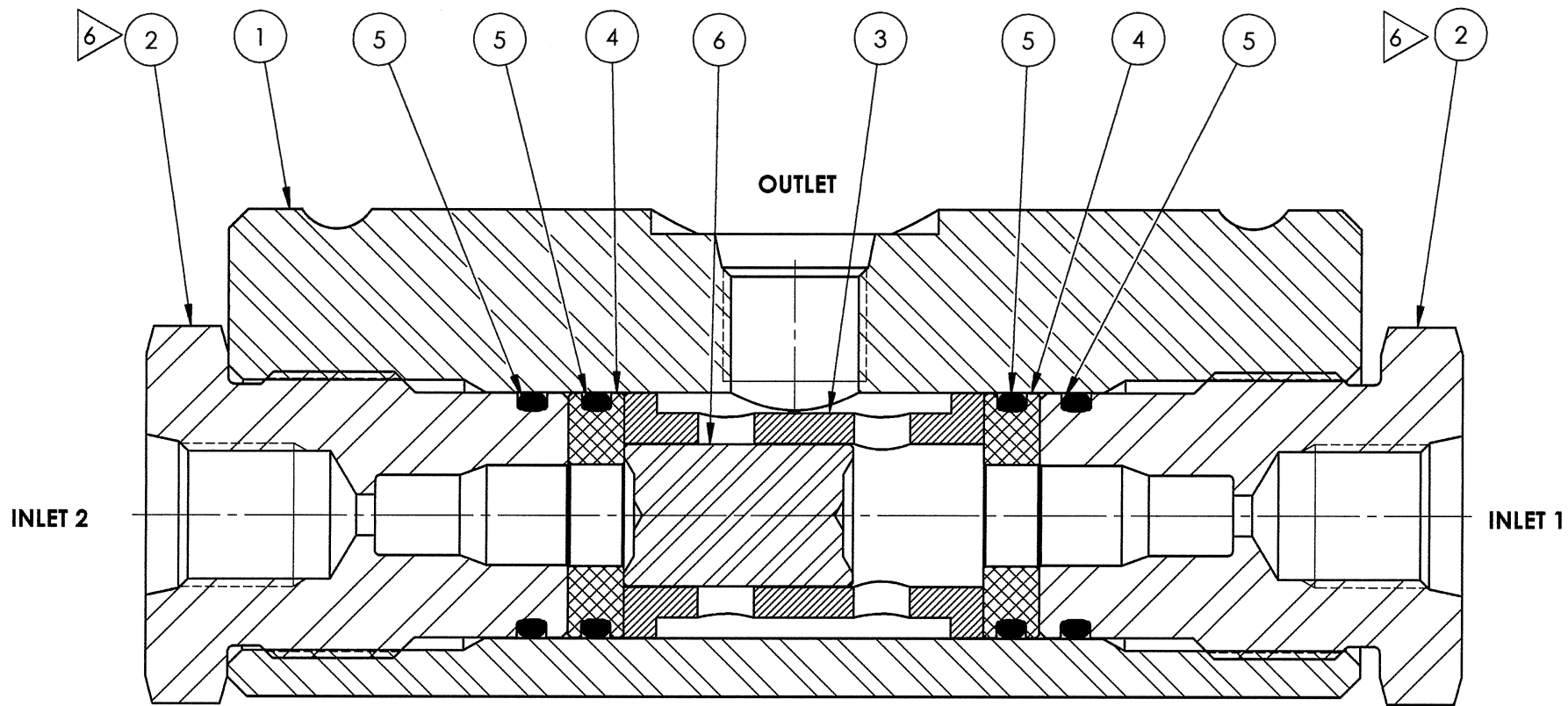
3

2

1

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	145192	BODY- 1/4" SAE	A276 TP 316	1		
2	144713	END CAP- 1/4" SAE	A276 UNS S21800 (NITRONIC 60)	2		
3	108176	CAGE- LI	A276 TP S21800 (NITRONIC 60)	1	X	
4	108175	SEAL, DISC	PEEK	2	X	X
5	18100-001K1	O-RING	HNBR	4	X	X
6	144627	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	



SECTION A-A
SCALE 2 : 1

proserv | Gilmore

SIZE B	DWG NO 29006	REV E
SCALE 1:1	SolidWorks	SHEET 2 OF 2

4

3

2

1

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29006-2 RK AND SEAL KIT 29006-2 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
E	ECO 015541	M.S. 4/17/19	4/18/19	4/23/19

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 8 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.

2) MINERAL OIL BASED DRILLING CONTROL FLUID.

CRACKING PRESSURE <20 PSI

PORTS

INLETS: 1/4" SAE

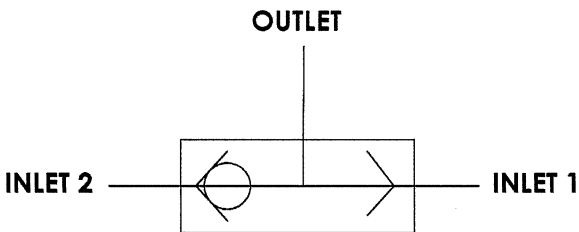
OUTLET: 1/4" SAE

GENERAL

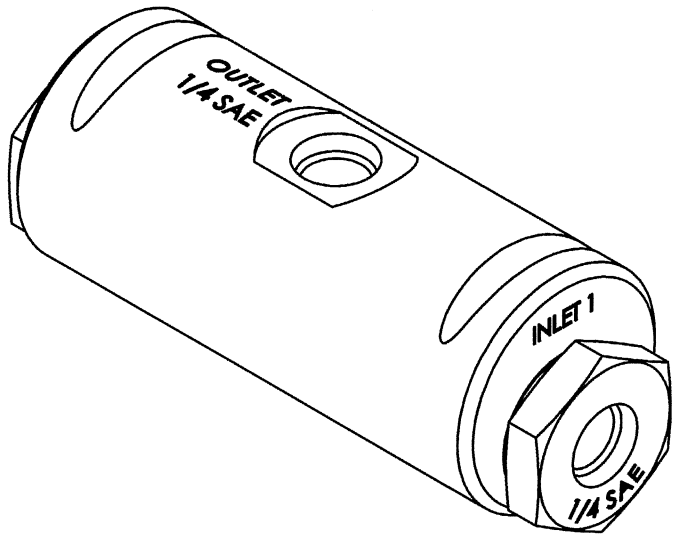
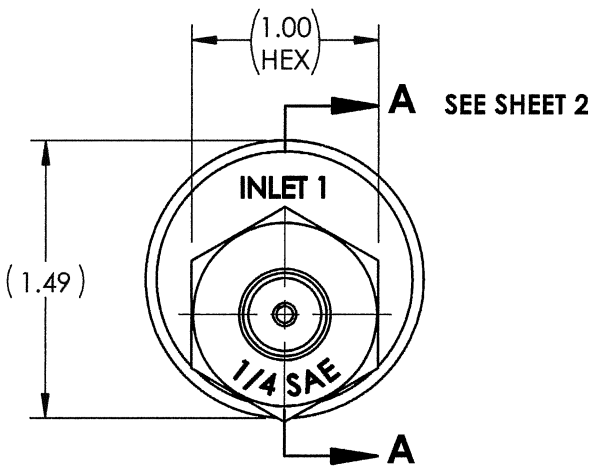
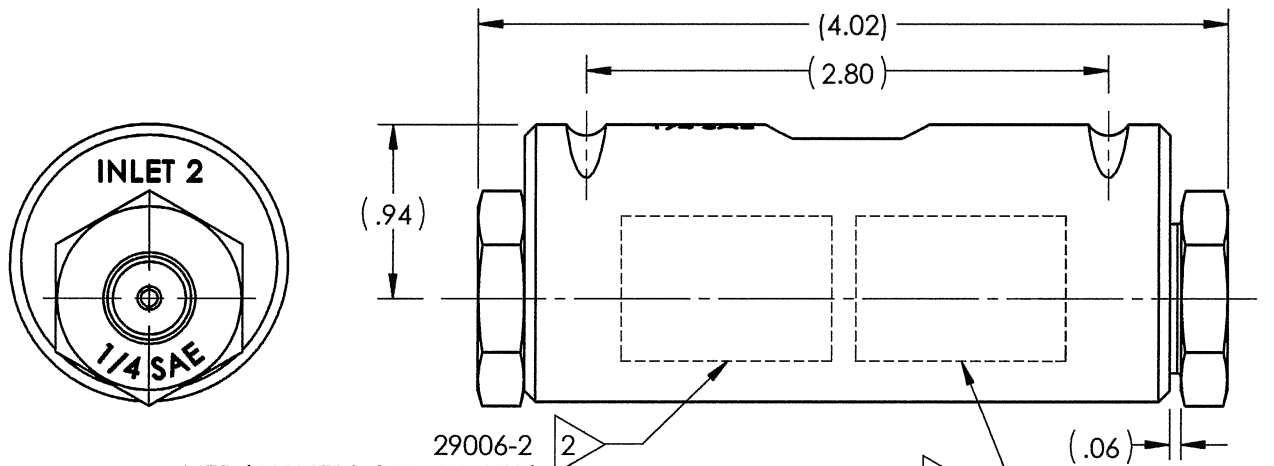
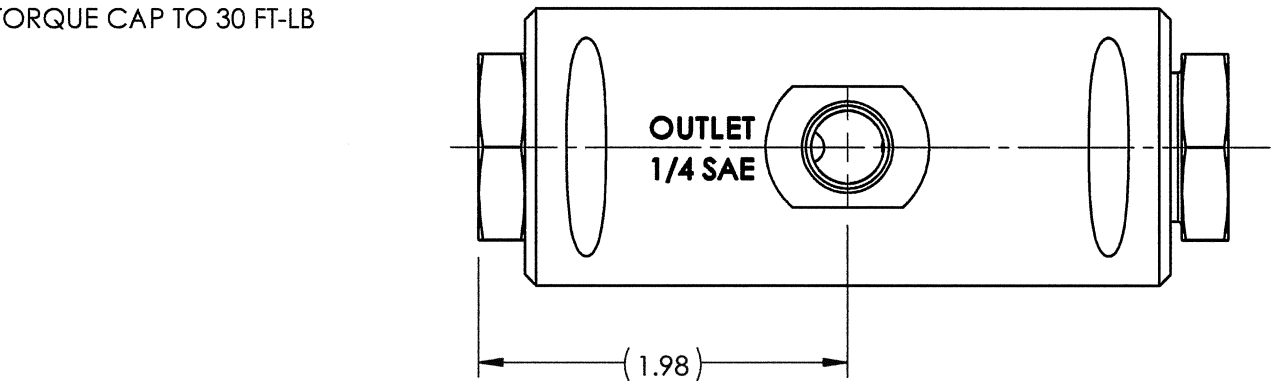
APPROX WEIGHT: 1.6 LBS

TEMPERATURE: 32°F TO 150°F

FIELD SERVICEABLE



SCHEMATIC



U.S. PATENT 10,133,282

MATERIAL:
SEE PARTS IN BOM

CONDITION:

TREATMENT:

PROCEDURE NUMBER:

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

DRAWN BY	DATE
CMY	11/11/16
CHECKED BY	DATE
AP	11/11/16
ENGINEER	DATE
GM	11/11/16
ERN NUMBER	DATE
02089	10-13-16

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proserv



VALVE, SHUTTLE, GEN 2, 1/4" SAE
HIGH INTERFLOW, 5000 PSI, DISC
SEAL

SIZE
B

DWG NO

29006-2

REV
E

SCALE 1:1

SolidWorks

SHEET 1 OF 2

4

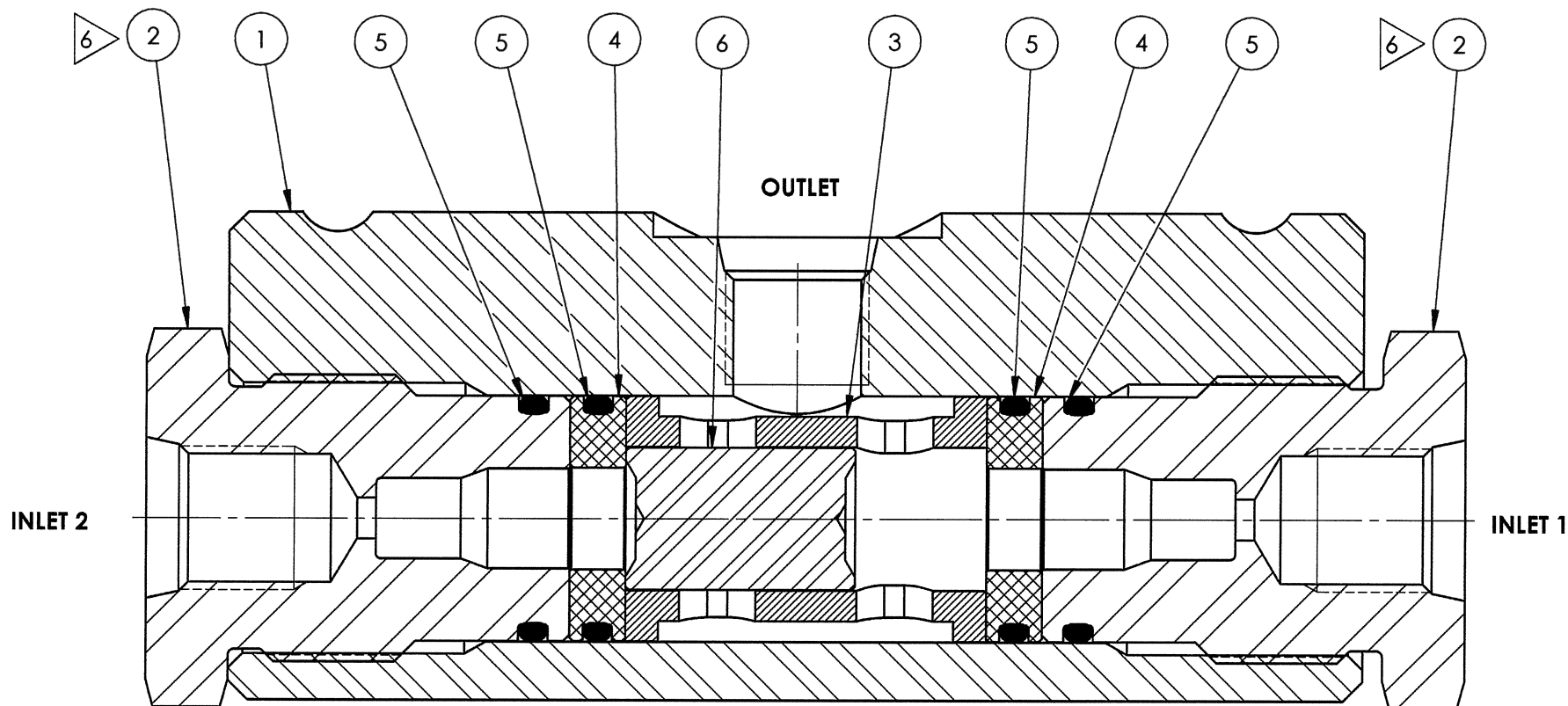
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2

1

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	145192	BODY- 1/4" SAE	A276 TP 316	1		
2	144713	END CAP- 1/4" SAE	A276 UNS S21800 (NITRONIC 60)	2		
3	144628	CAGE- HI	A276 TP S21800	1	X	
4	108175	SEAL, DISC	PEEK	2	X	X
5	18100-001K1	O-RING	HNBR	4	X	X
6	144627	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	



SECTION A-A
SCALE 2 : 1

proserv | Gilmore

SIZE B	DWG NO 29006-2	REV E
SCALE 1:1	SolidWorks	SHEET 2 OF 2

4

3

2

1

4

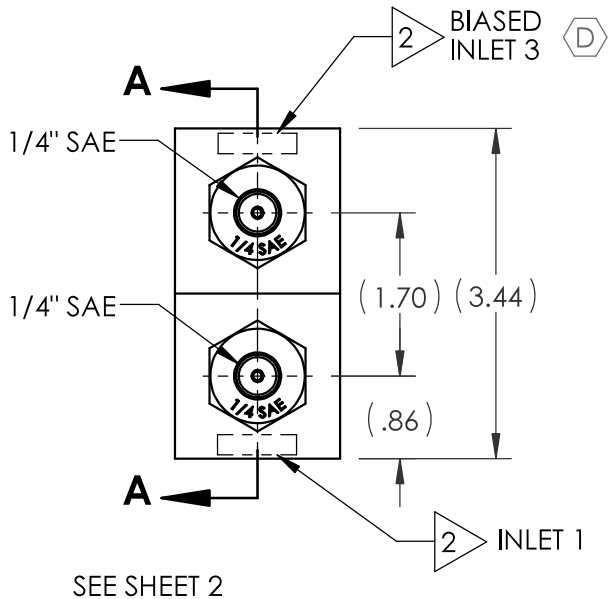
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2

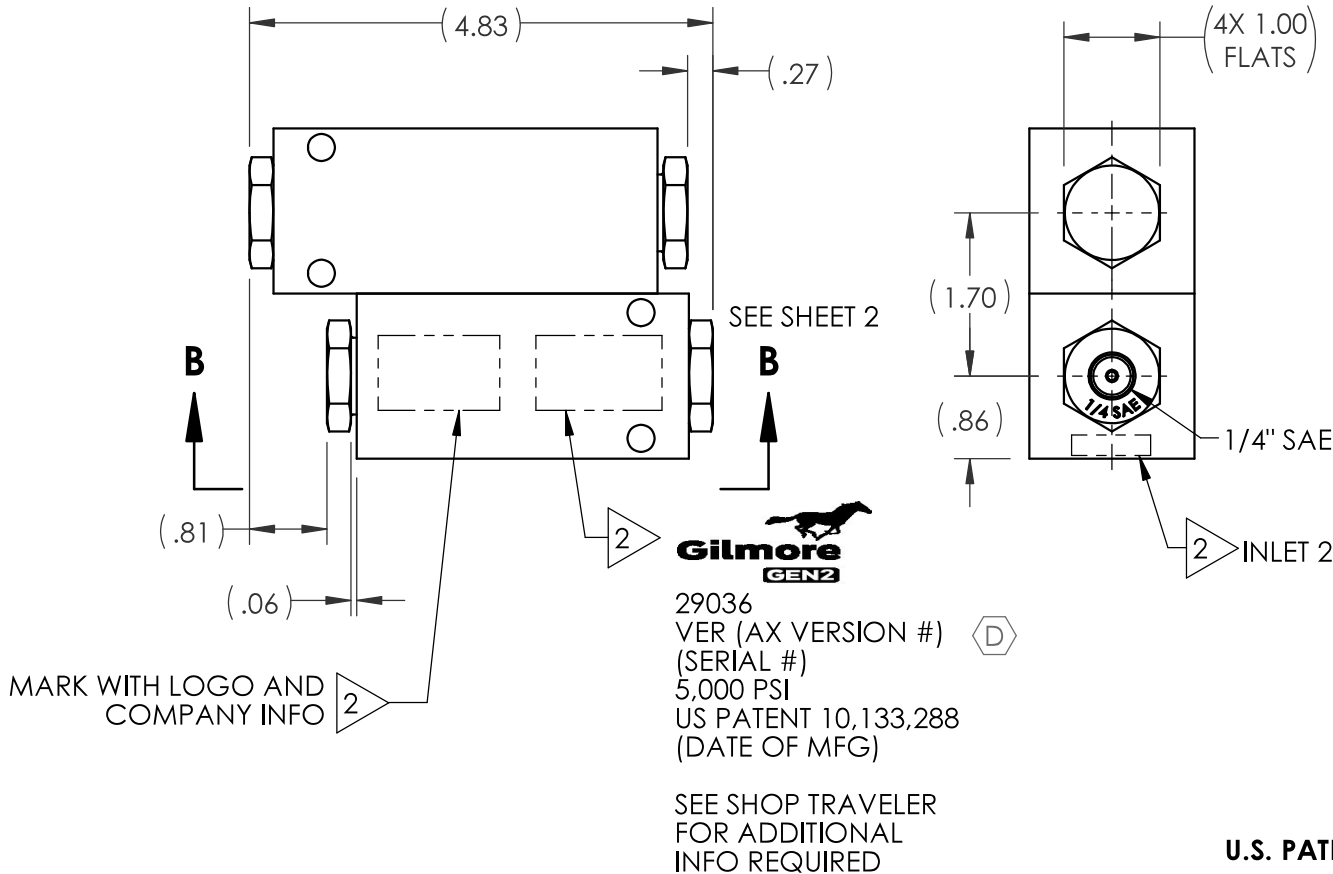
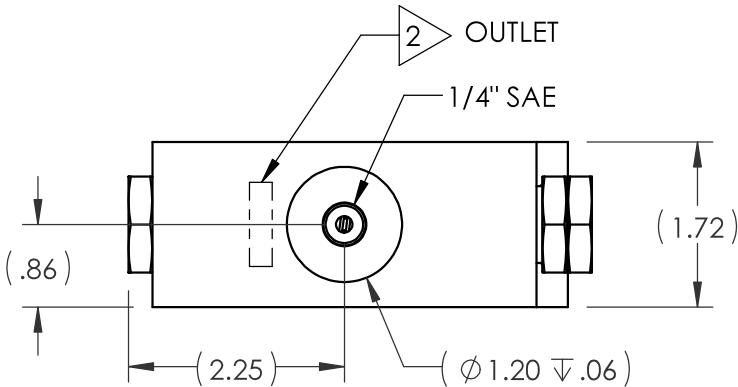
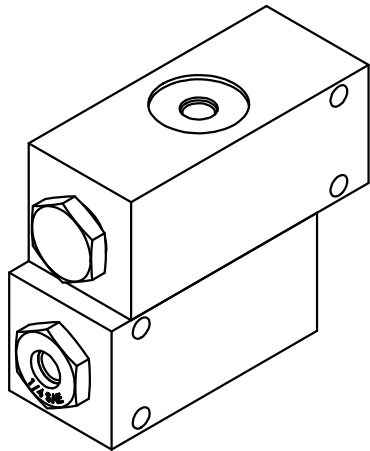
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- NOTES:
- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON COMPONENT DRAWING.
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 TORQUE ITEM 3 & 5 (THREADED INSERT) TO 30 FT/LBS.
- 4 TORQUE ITEM 8 (CAP SCREW) TO 10 FT/LBS.
5. AN 'X' IN THE 'RK' COLUMN OF THE BOM INDICATES PARTS IN THE REPAIR KIT 29036 RK.
6. AN 'X' IN THE 'SK' COLUMN OF THE BOM INDICATES PARTS IN THE SEAL KIT 29036 SK.
- 7 ALL MANUFACTURED ITEMS PASSIVATED.
8. ASSEMBLY PROCEDURE: 50190
MAINTENANCE MANUAL: 51014
EXTENDED FAT PROCEDURE: 50265
STANDARD FAT PROCEDURE: 50264

B



A



U.S. PATENT 10,133,282

REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
D	ECO 019473	JZ 9/21/20	Cmf 9-22-20	AJP 9/21/20

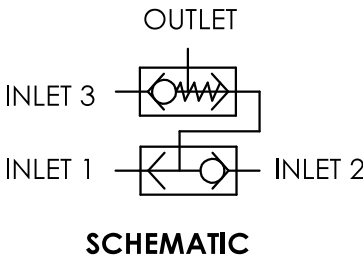
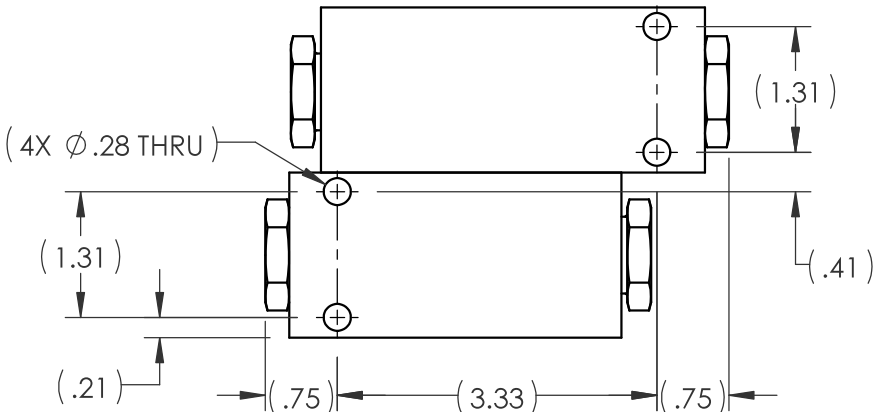
PRESSURE DATA
MAX WORKING PRESSURE: 5,000 PSI

FLOW DATA
FLOW CAPACITY:
INLET 1 8 GPM
INLET 2 8 GPM
INLET 3 4 GPM
0.6 (CALC)
Cv INLET 1-3:
MIN SHIFT FLOW INLET 1&2: 0.1 GPM
MIN SHIFT PRESSURE INLET 3: 200 PSI

FLUIDS: 1.) WATER BASED DRILLING CONTROL FLUID.
2.) MINERAL OIL BASED DRILLING CONTROL FLUID.


CONNECTION
INLET 1-3: 1/4 SAE
OUTLET: 1/4 SAE

GENERAL DATA
APPROX WEIGHT: 6 LBS
TEMPERATURE: 32 °F TO 150 °F
FIELD SERVICEABLE



B

A

MATERIAL: REFER TO INDIV BOM ITEMS	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				
CONDITION:		DRAWN BY MS	DATE 5/24/2018	VALVE, SHUTTLE, STACK, GEN 2 1/4" SAE, LOW INTERFLOW, SPRING BIASED, 3 INLETS, 5000 PSI		
		CHECKED BY CY	DATE 5/24/2018			
		ENGINEER AP	DATE 5/24/18			
		ERN NUMBER 02188	DATE 5/16/2018			
TREATMENT:		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 29036	REV D
PROCEDURE NUMBER:			SCALE 1:2	SolidWorks	SHEET 1 OF 2	

4

3

2

1

4

3

2

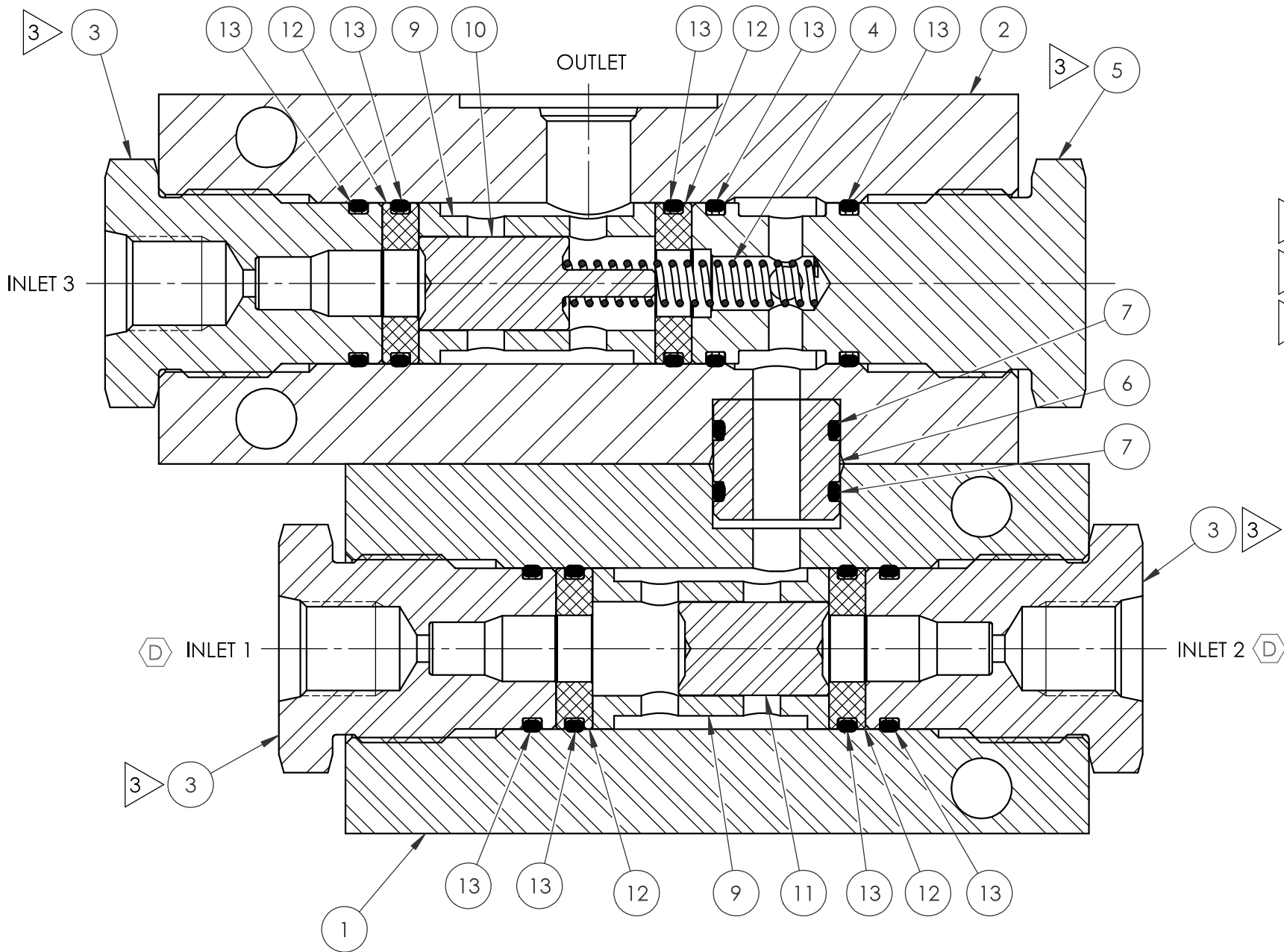
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B

B

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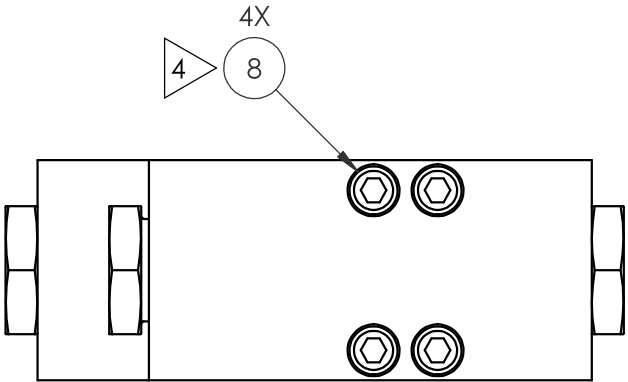
A



SECTION A-A

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	178139	HOUSING, INLET, 1/4" SHUTTLE STACK	A276 TP 316 (316 SS)	1		
2	178551	HOUSING, OUTLET, 1/4" SHUTTLE STACK	A276 TP 316 (316 SS)	1		
3	144713	END CAP- 1/4" SAE	A276 UNS S21800 (NITRONIC 60)	3	X	
4	28441	SPRING	ELGILOY	1	X	
5	178552	END CAP, BLANK, 1/4" SHUTTLE VALVE	A276 S21800 (NITRONIC 60)	1	X	
6	109200	SEAL SUB, 1/4" SHUTTLE, STACK	A276 TP316 (316 SS)	1		
7	18100-013K1	O-RING	HNBR	2	X	X
8	18224-026	SHCS, 1/4-20 UNC X 2" LG	A286 GR660 (DUPLEX)	4		
9	108176	CAGE- LI	A276 TP S21800 (NITRONIC 60)	2	X	
10	108177	SHUTTLE, SPRING BIASED	A276 UNS S21800 (NITRONIC 60)	1	X	
11	144627	SHUTTLE, NON-BIASED	A276 UNS S21800 (NITRONIC 60)	1	X	
12	108175	SEAL, DISC	POLYETHERETHERKETONE (PEEK) PER MIL-P-46183 TYPE 1	4	X	X
13	18100-001K1	O-RING	HNBR	9	X	X



VIEW B-B



ENGINEERING

SIZE

B

DWG NO

29036

REV

D

SCALE

3:2

SolidWorks

SHEET 2 OF 2

NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2 MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3 ALL METAL ITEMS ARE PASSIVATED
- 4 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29008-2 RK AND SEAL KIT 29008-2 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50190, FOR MAINTENANCE MANUAL SEE 51014, FOR EXTENDED FAT PROCEDURE SEE 50188, FOR STANDARD FAT PROCEDURE SEE 50189.
- 6 TORQUE CAP TO 30 FT-LB

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
E	ECO 015541	M.S. 4/17/19	4/18/19	4/23/19

PRESSURE DATA

MAWP: 5,000 PSI

FLOW DATA

MAX FLOW CAPACITY: 8 GPM

Cv = .6 (CALC)

MINIMUM SHIFT FLOW AT 1,500 PSI DIFFERENTIAL PRESSURE 0.10 GPM

FLUIDS: 1) WATER BASED DRILLING CONTROL FLUID.

2) MINERAL OIL BASED DRILLING CONTROL FLUID.

CRACKING PRESSURE <20 PSI

PORTS

INLETS: 3/8" SAE

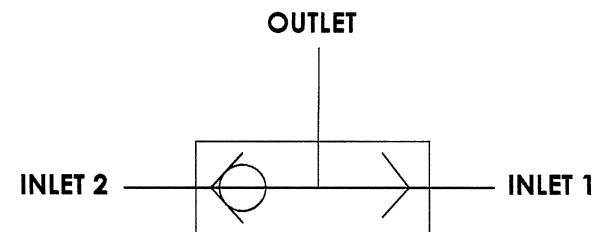
OUTLET: 3/8" SAE

GENERAL

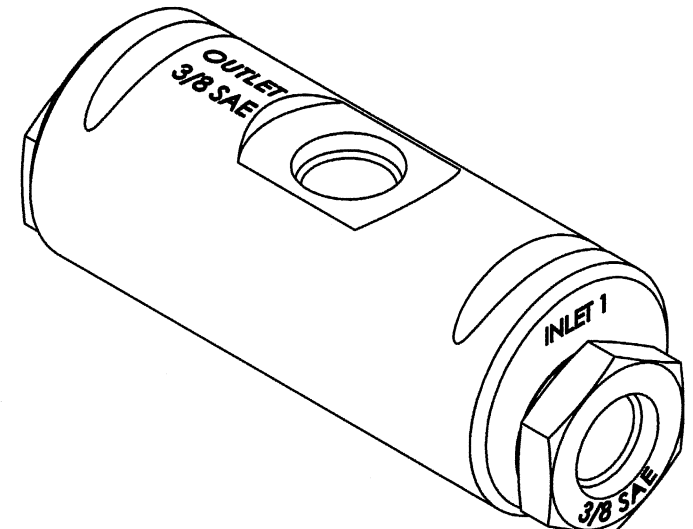
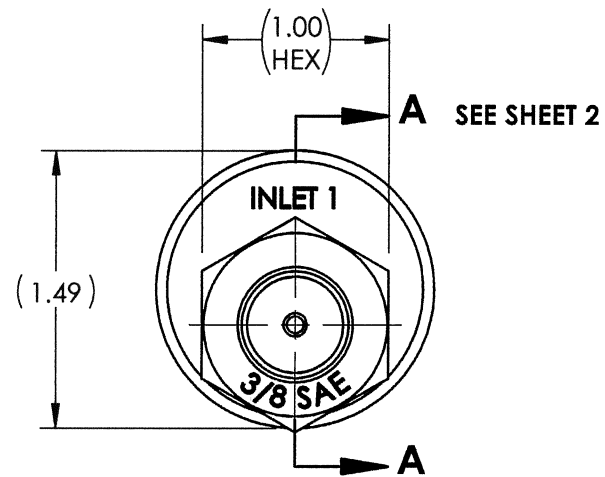
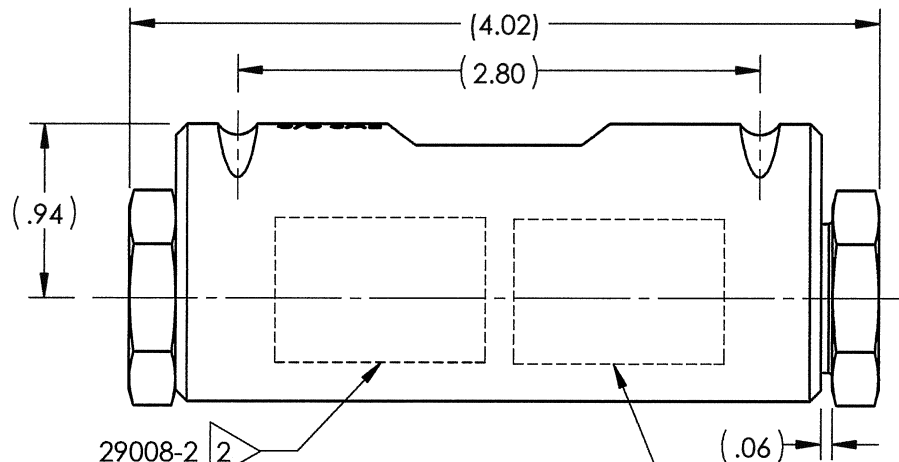
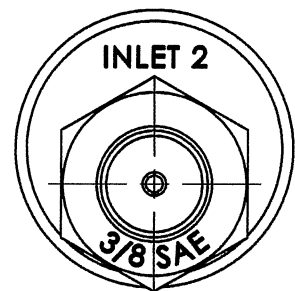
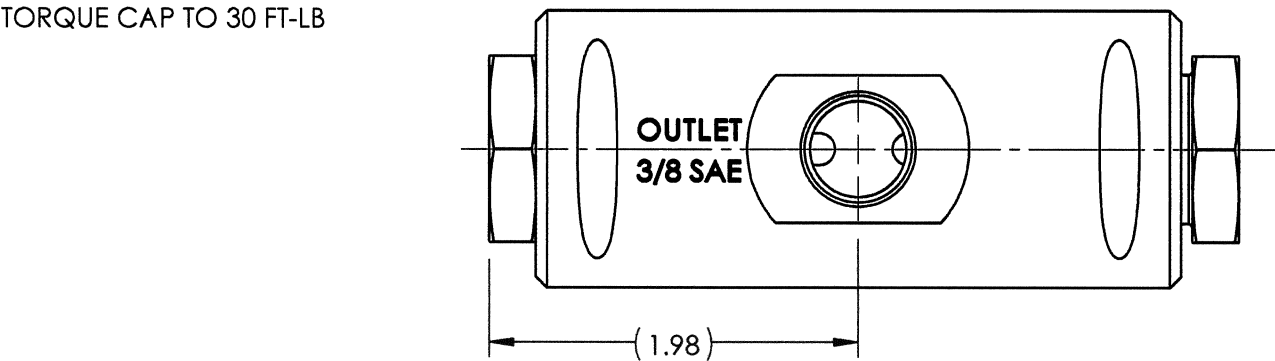
APPROX WEIGHT: 1.6 LBS

TEMPERATURE: 32°F TO 150°F

FIELD SERVICEABLE



SCHEMATIC



29008-2
VER (AX VERSION NUMBER)
(SERIAL NUMBER)
PATENT PENDING
5,000 PSI
(DATE OF MFG)
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH LOGO
AND COMPANY
INFORMATION

MATERIAL:
SEE PARTS IN BOM

CONDITION:

TREATMENT:

PROCEDURE NUMBER:

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	
DRAWN BY	DATE
CMY	11/11/16
CHECKED BY	DATE
AP	11/11/16
ENGINEER	DATE
GM	11/11/16
ERN NUMBER	DATE
02089	10-13-16

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STATED. ANY REPRODUCTION IN PART OR WHOLE WITHOUT
THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.

U.S. PATENT 10,133,282

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VALVE, SHUTTLE, GEN 2, 3/8" SAE,
HIGH INTERFLOW, 5000 PSI, DISC SEAL

SIZE	DWG NO	REV
B	29008-2	E
SCALE 1:1	SolidWorks	SHEET 1 OF 2

4

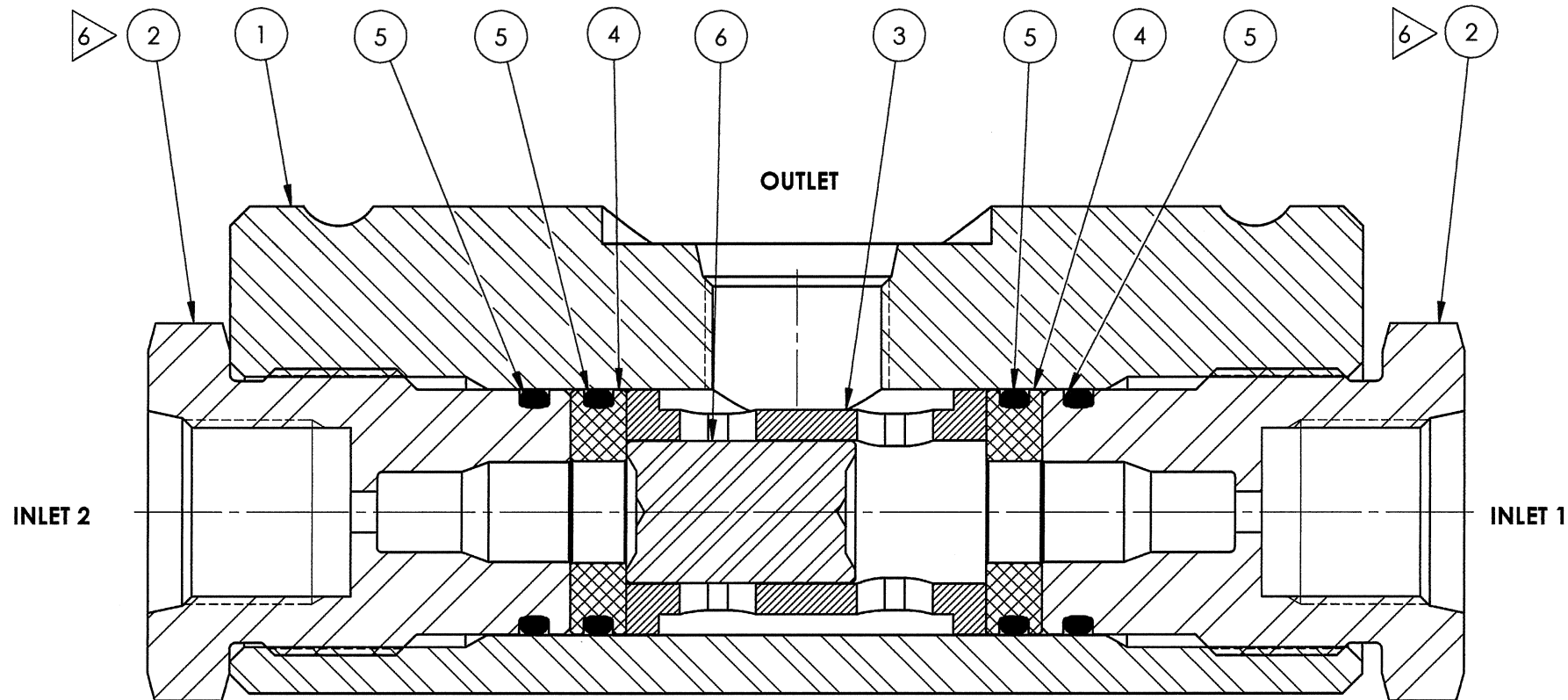
3

2

1

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY.	RK	SK
1	145194	BODY- 3/8" SAE	A276 TP 316	1		
2	144714	END CAP- 3/8" SAE	A276 UNS S21800 (NITRONIC 60)	2		
3	144628	CAGE- HI	A276 TP S21800	1	X	
4	108175	SEAL, DISC	PEEK	2	X	X
5	18100-001K1	O-RING	HNBR	4	X	X
6	144627	SHUTTLE	A276 UNS S21800 (NITRONIC 60)	1	X	



SECTION A-A
SCALE 2 : 1

proserv | Gilmore

SIZE	DWG NO	REV
B	29008-2	E
SCALE	1:1	SHEET 2 OF 2

SolidWorks

4

3

2

1