



Product Information Bulletin

1" & 1-1/2" GEN2 Check Valve Product Line

REV	DATE	DESCRIPTION	ORIGIN (issued by)	APPROVED
REV 002	9/06/22	Document No: 100-063021-002	AP	BR
REV 001	6/30/21	Document No: 100-063021-001	AP	GM

COMPANY PROPRIETARY INFORMATION

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For more information:

Sales@Gilmore.com

Gilmore
1231 Lumpkin Road
Houston, TX 77043

1" & 1-1/2" GEN2 Check Valve Product Line

Gilmore announces the new GEN2 Check Valve product line for critical offshore and subsea applications. The 1" & 1-1/2" GEN2 Check Valves have been redesigned with significant improvements, within the same cavity & footprint as the legacy Check Valve, allowing direct replacement inline or within existing Gilmore Check Valve Cartridge manifolds. Gilmore's proprietary valve technology provides an order of magnitude improvement in cycle life.

Features and Benefits:

- Qualification exceeds API 16D requirements
 - Two valves, 2500 cycles each
- Multiple cracking pressure options
- Improved Seat design
- Bolted Cover design
- Damped SealSleeve
- Improved valve materials:
 - A286 Gr 660 SHCS
 - 17-4 (H1150D) Body
 - Inconel X-750 Spring
 - Nitronic 60 Seal Sleeve and Cage
 - Nitronic 60 Piston Rod
 - PEEK Back Up rings
 - HNBR Soft Seals
 - Delrin 511P Seats

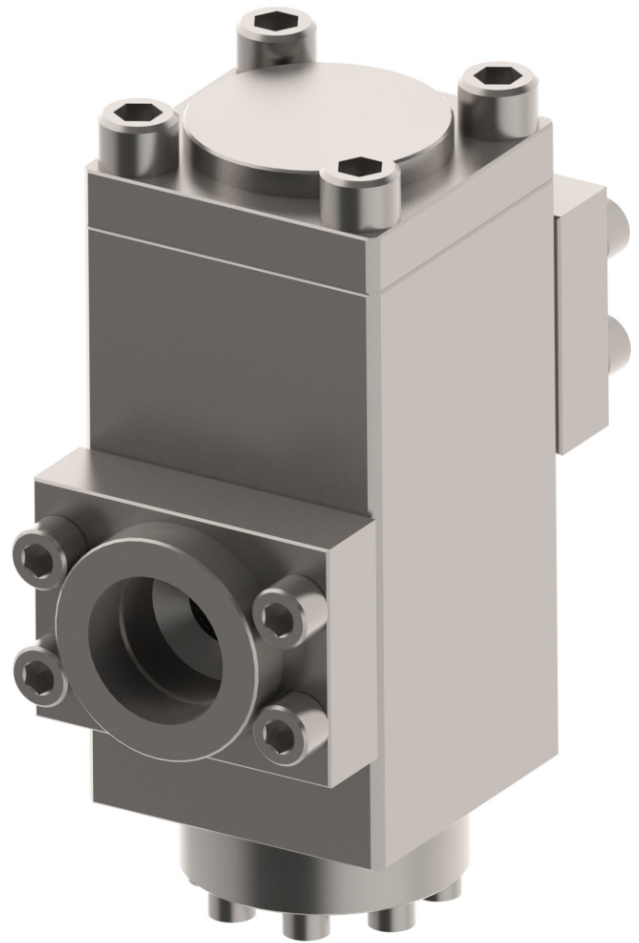


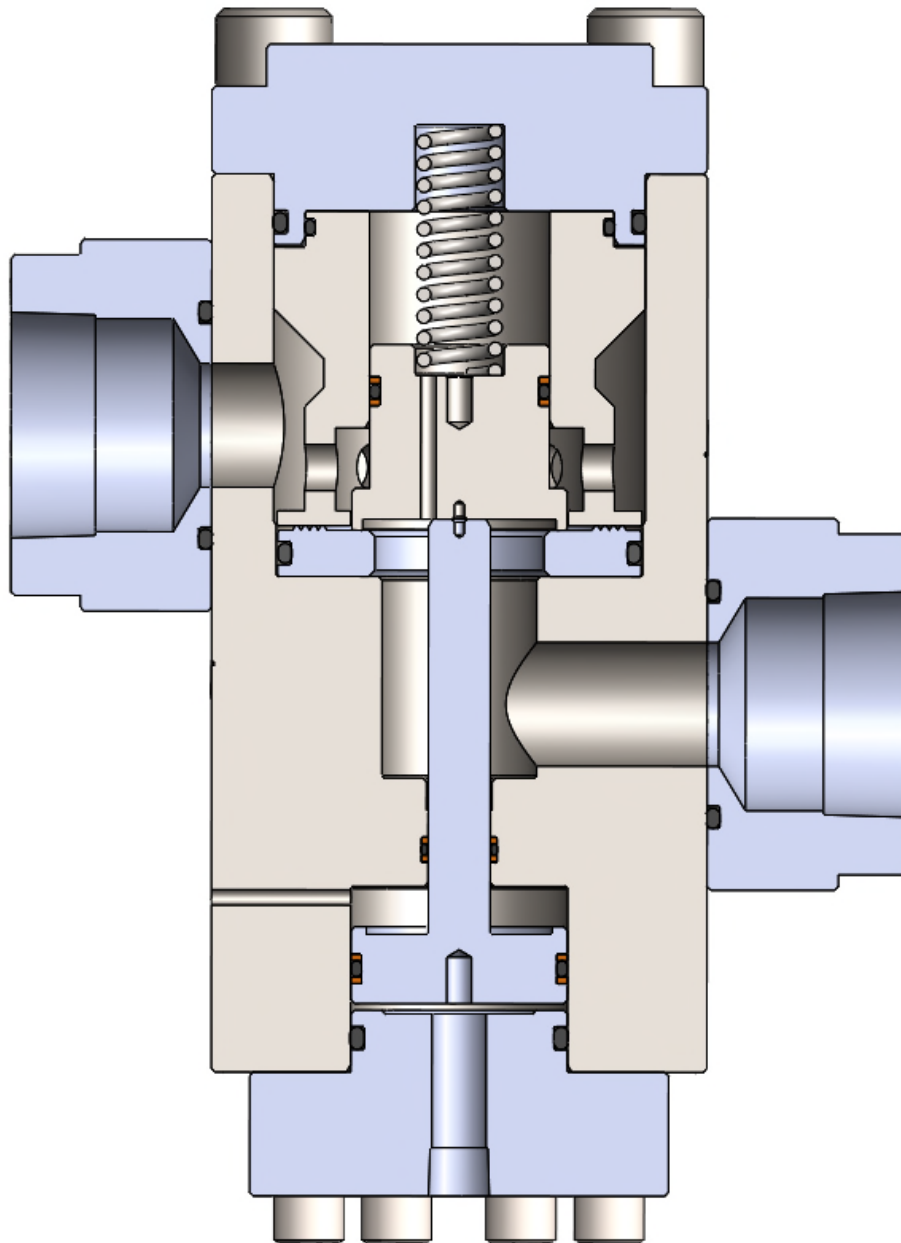
Figure 1. PN 29153: GEN2 Check valve, Pilot Operated,
Externally Vented Piston, 1-1/2 NPT, 5 ksi MAWP

Product Information Bulletin

1" & 1-1/2" GEN2 Check Valve Product Line

Figure 2.

PN 29153: GEN2 Check Valve, Pilot Operated, Externally Vented Piston, 1-1/2 NPT, 5 ksi MAWP





Product Information Bulletin

1" & 1-1/2" GEN2 Check Valve Product Line

Gilmore has exceeded API 16D requirements by qualifying the new Gilmore 1" and 1-1/2" GEN2 Check Valves to 2,500 cycles, with a 1" flow rate of 200 gpm and 1-1/2" flow rate of 300 gpm, at 5000 psi inlet with 1% - 4% water glycol test fluid.

The new 1" & 1-1/2" GEN2 Check Cartridge and Valve have the identical cavity and valve footprint dimensions as the legacy Check Valves, allowing drop-in replacement.

Gilmore will continue to sell and support the legacy 1" and 1-1/2" Check Valves with new valve sales, repair kits, seal kits and Aftermarket support.

The new 1" & 1-1/2" GEN2 Check Cartridge and Valve listed below are now available as drop-in replacements for the legacy 1" & 1-1/2" Check Cartridge and Valve:

Table 1. New and Legacy 1" Check Valve and Cartridge Part Number Cross Reference:

Item	Legacy Description	Legacy Valve PN	Legacy Repair Kit PN	GEN2 Description	New Valve PN	New Repair Kit PN
1	Valve, 1" Check, Piloted, Internal Vent, Standard Cracking, 5 ksi Inlet, 1" NPT Ports, 1/4" NPT Pilot	25100	25100 RK	Valve, 1" Check, GEN2, Piloted, Internal Vent, Standard Cracking, 5 ksi Inlet, 1" NPT Ports, 1/4" NPT Pilot	29142	29142 RK
2	Valve, 1" Check, Piloted, Internal Vent, Standard Cracking, 5 ksi Inlet, 1" SAE Ports, 3/8" SAE Pilot	25145 28493	25145 RK 28493 RK	Valve, 1" Check, GEN2, Piloted, Internal Vent, Standard Cracking, 5 ksi Inlet, 1" SAE, 3/8" SAE Pilot	29146	29146 RK
3	Valve, 1" Check, Non-Piloted, Low Cracking, 5 ksi Inlet, 1" NPT Ports	27232-4	27232-4 RK	Valve, 1" Check, GEN2, Non-Piloted, Low Cracking, 5 ksi Inlet, 1" NPT Ports (Legacy Body Dimensions)	29173	29173 RK
4	Valve, 1" Check, Non-Piloted, Low Cracking, 5 ksi Inlet, 1" SAE Ports	27232-3	27232-3 RK	Valve, 1" Check, GEN2, Non-Piloted, Low Cracking, 5 ksi Inlet, 1" SAE Ports (Legacy Body Dimensions)	29185	29185 RK
5	Valve, 1" Check, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1" SAE Ports	27232-2	27232-2 RK	Valve, 1" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1" SAE (Legacy Body Dimensions)	29174	29174 RK
6	Cartridge, 1" Check, Standard Cracking, 5 ksi Inlet	27162	27162 RK	Cartridge, 1" Check, GEN2 Standard Cracking, 5 ksi Inlet (Legacy Bolting Pattern)	29179	29179 RK

Product Information Bulletin

1" & 1-1/2" GEN2 Check Valve Product Line

Table 2. New and Legacy 1-1/2" Check Valve and Cartridge Part Number Cross Reference:

Item	Legacy Description	Legacy Valve PN	Legacy Repair Kit PN	GEN2 Description	New Valve PN	New Repair Kit PN
7	Double Valve, 1-1/2" Check, Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" SW ports, 1/4" NPT Pilot	25155-0.2	25155-0.2 RK	Double Valve, 1-1/2" Check, GEN2, Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" SW Ports, 1/4" NPT Pilot	29158	29158 RK
8	Double Valve, 1-1/2" Check, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" Code 62 Ports	28608	28608 RK	Double Valve, 1-1/2" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" Code 62 Ports	29157	29157 RK
9	Valve, 1-1/2" Check, Piloted, Low Cracking, 5 ksi Inlet, 1-1/2" NPT Ports, 1/4" NPT Pilot	28485	28485 RK	Valve, 1-1/2" Check, GEN2, Piloted, Externally Vented, Low Cracking, 5ksi Inlet, 1-1/2" NPT Ports, 1/4" NPT Pilot	29153	29153 RK
10	Valve, 1-1/2" Check, Non-Piloted, 5 ksi Inlet, 2" Code 62 Ports	28260	28260 RK	Valve, 1-1/2" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 2" Code 62 Ports	29147	29147 RK
11	Valve, 1-1/2" Check, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" NPT Ports	27235-1	27235-1 RK	Valve, 1-1/2" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" NPT Ports (Legacy Body Dimensions)	29170	29170 RK
12	Valve, 1-1/2" Check, Non-Piloted, Low Cracking, 5 ksi Inlet, 1-1/2" Code 62 Ports	27235-3	27235-3 RK	Valve, 1-1/2" Check, GEN2, Non-Piloted, Low Cracking Pressure, 5 ksi Inlet, 1-1/2" Code 62 Ports (Legacy Body Dimensions)	29171	29171 RK
13	Valve, 1-1/2" Check, Non-Piloted, Standard Cracking, 5 ksi Inlet, 2" Code 62 Ports, Offset Spool	28521	28526 RK	Valve, 1-1/2" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 2" Code 62 Ports, Offset Spool	29154	29154 RK
14	Cartridge, 1-1/2" Check, Low Cracking, 5 ksi Inlet	25120-0.2 209012	25120-0.2 RK 209012 RK	Cartridge, 1-1/2" Check, GEN2, Low Cracking, 5 ksi Inlet (Legacy Bolt Pattern)	29172	29172 RK

Product Information Bulletin

1" & 1-1/2" GEN 2 Check Valve Product Line

Please note that GEN2 Check valve and GEN2 Pilot Operated Check Valve kits **are not** interchangeable with legacy repair kits and seal kits and cannot be used in legacy check valves. Please contact Gilmore Customer Service to assist you with drawings and quotations when selecting a GEN2 check valve replacement part number, Sales@gilmore.com.

Table 3. Further GEN2 Part Numbers with additional standardization and features:

Item	Additional GEN2 Description	Additional GEN2 Valve PN	Additional GEN2 Repair Kit PN	Comment
15	Valve, 1" Check, GEN2, Piloted, External Vent, Standard Cracking, 5 ksi Inlet, 1" SAE Ports, 3/8" SAE Pilot	29175	29175 RK	Same as GEN2 PN 29142 except externally vented
16	Valve, 1" Check, GEN2, Non-Piloted, Low Cracking, 5 ksi Inlet, 1" NPT Ports	29140	29140 RK	Same as GEN2 PN 29173 except weight reduced
17	Valve, 1" Check, GEN2, Non-Piloted, Low Cracking, 5 ksi Inlet, 1" SAE Ports	29186	29186 RK	Same as GEN2 PN 29185 except weight reduced
18	Valve, 1" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1" SAE Ports	29145	29145 RK	Same as GEN2 PN 29174 except weight reduced
19	Valve, 1-1/2" Check, GEN2, Non-Piloted, Low Cracking, 5 ksi Inlet, 1-1/2" Code 62 Ports	29152	29152 RK	Same as GEN2 PN 29171 except weight reduced
20	Valve, 1-1/2" Check, GEN2, Non-Piloted, Standard Cracking, 5 ksi Inlet, 1-1/2" NPT Ports	29151	29151RK	Same as GEN2 PN 29170 except weight reduced

4

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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 29146 RK AND SEAL KIT 29146 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50335, FOR STANDARD FAT PROCEDURE SEE 50336, FOR EXTENDED FAT PROCEDURE SEE 50337, FOR MAINTENANCE MANUAL SEE 51034.
- 6
- LOCTITE 242 (BLUE) AND TORQUED ITEM 9 CAPSCREWS TO 100 FT-LB
- 7
- TORQUE ITEM 10 CAPSCREWS TO 20 FT-LB

PRESSURE DATA

MAXIMUM SUPPLY PRESSURE: 5,000 PSI
MAXIMUM PILOT PRESSURE: 5,000 PSI
CRACKING PRESSURE: 80 PSI ±10 PSI
PILOT PRESSURE/OUTLET RATIO: 1:4
PILOT PISTON VENT: INTERNAL

FLOW DATA

MAX FLOW CAPACITY: 200 GPM
CV (CALV): 9

CONNECTION

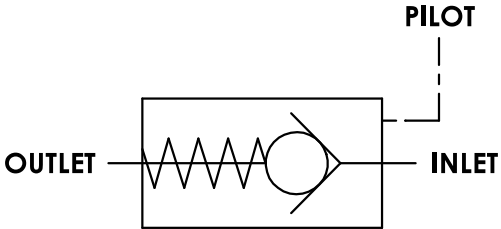
INLET: 1" SAE
OUTLET: 1" SAE
PILOT: 3/8" SAE

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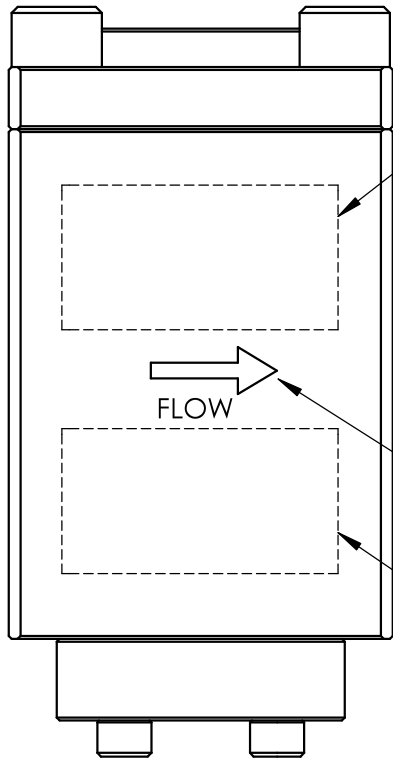
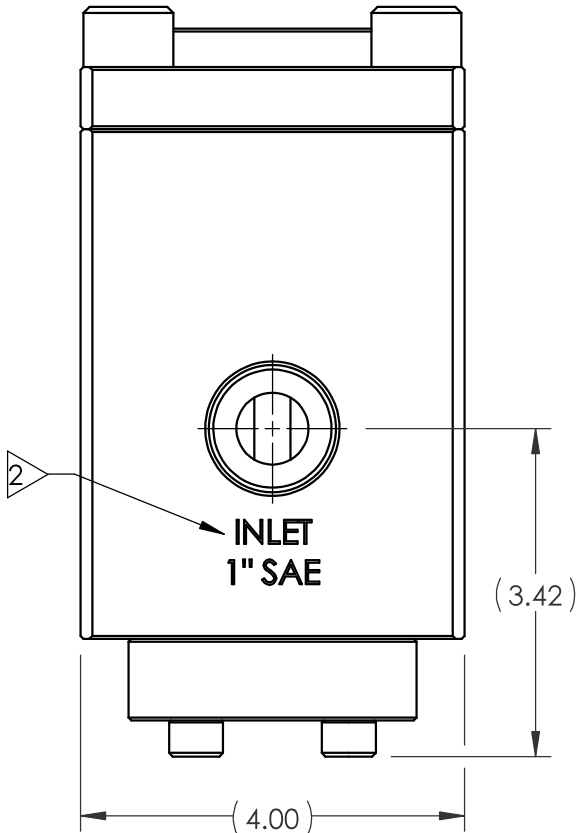
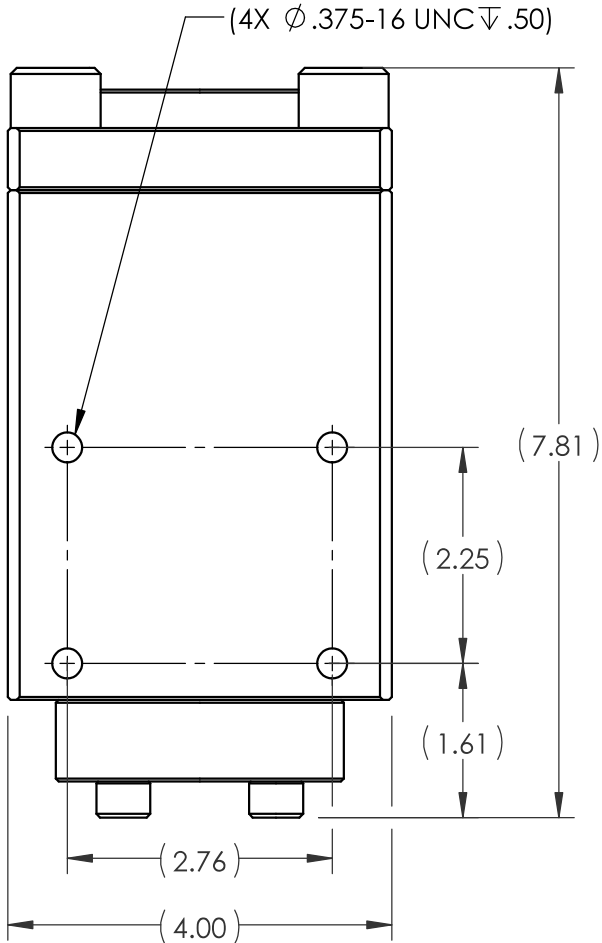
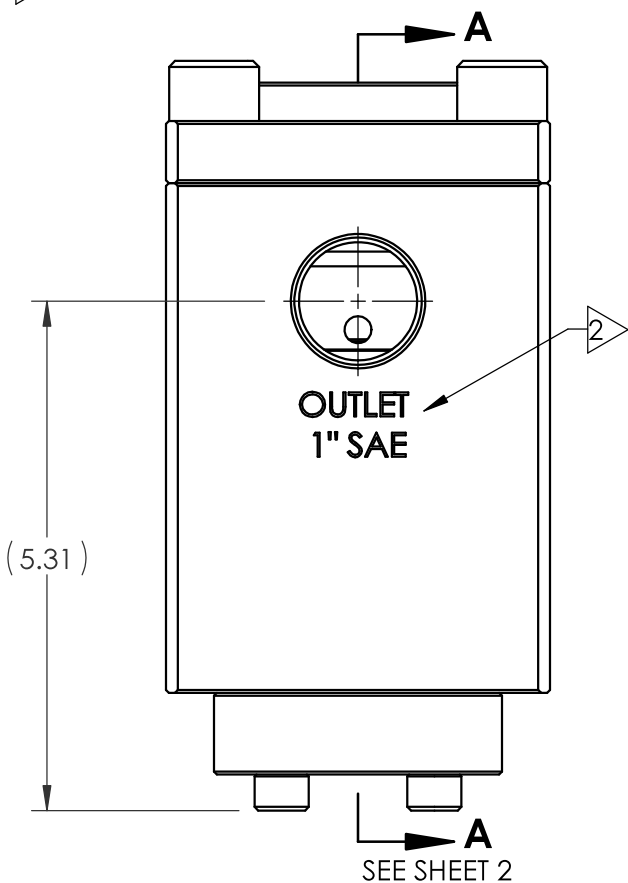
APPROX WEIGHT: 26.8 LBS
TEMPERATURE RANGE: +32 °F TO +150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.
FIELD SERVICEABLE

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02453	JZ 4/5/21	CMJ 4-6-21	AGP 4/5/21



SCHEMATIC



29146
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
PATENT PENDING
(DATE OF MFG)

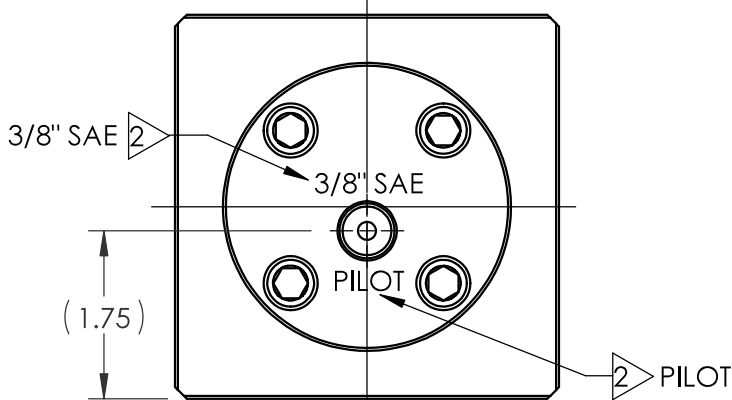
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FOR ADDITIONAL
INFO REQUIRED

MARK WITH
ARROW AND
TEXT "FLOW"


MARK WITH
LOGO AND
COMPANY
INFORMATION
OPPOSITE SIDE
FROM P/N

A

A



PATENT PENDING

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 4/5/21	<div>VALVE, 1" CHECK, GEN 2, PILOT OPERATED, 1" SAE, INT PISTON VENT, STD CRACKING</div>		
			CHECKED BY Cmcf	DATE 4-6-21			
			ENGINEER AGP	DATE 4/5/21			
TREATMENT:	3		ERN NUMBER 02453	DATE 12/18/20			
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	REV A
					SCALE 1:2	SolidWorks	SHEET 1 OF 2

4

3

2

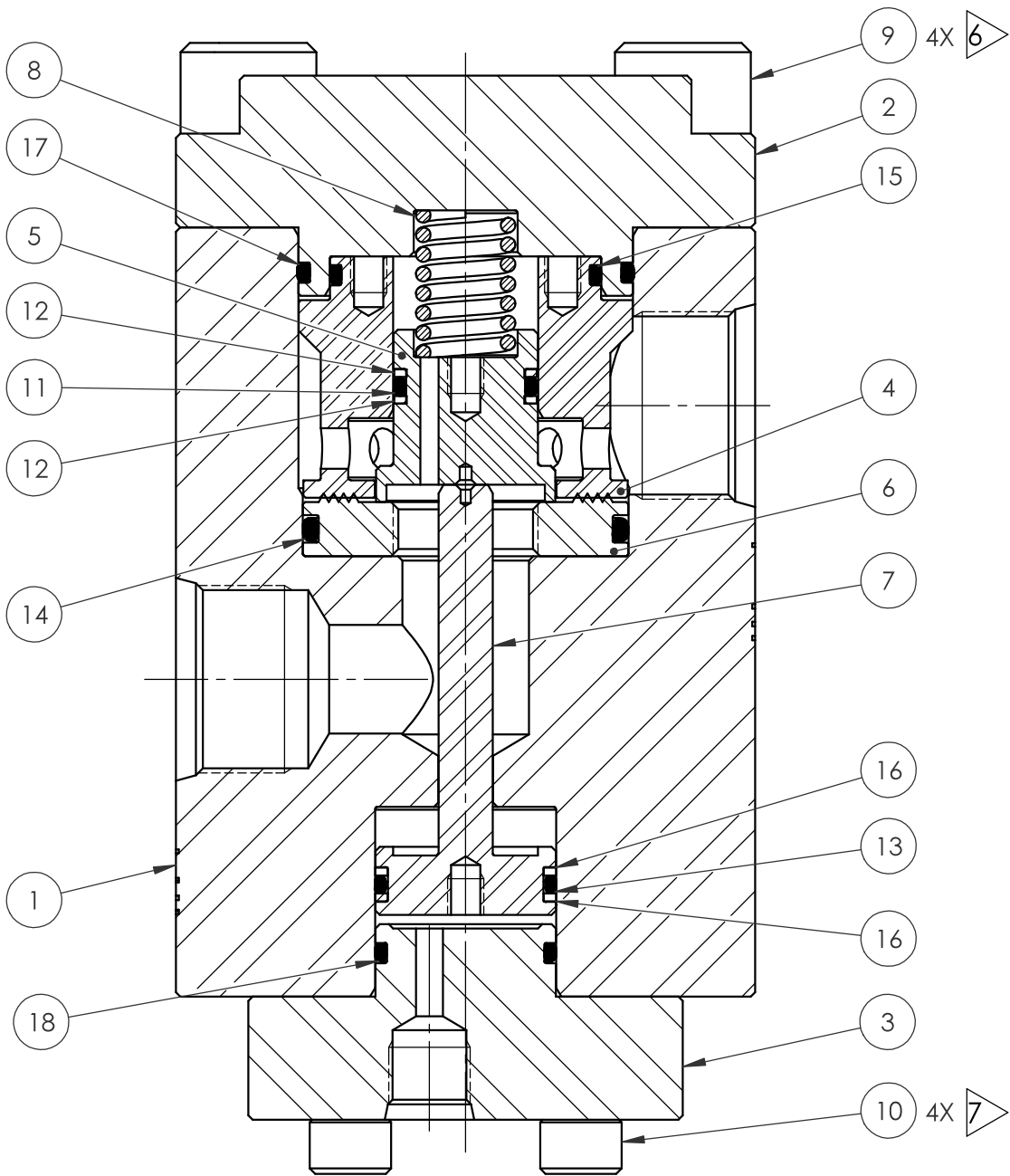
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4

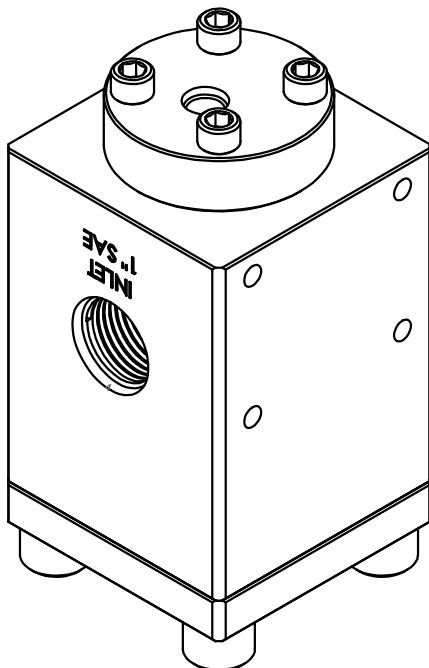
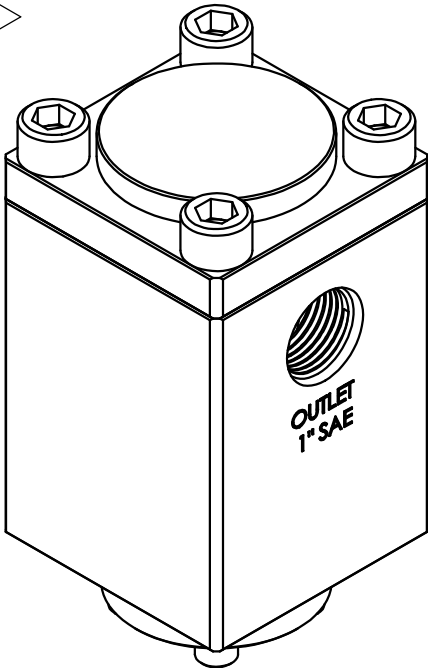
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2

1



SECTION A-A



Gilmore
a proserv company

ENGINEERING

SIZE

B

DWG NO

29146

REV

A

SCALE

1:2

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 29152 RK AND SEAL KIT 29152 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50335, FOR STANDARD FAT PROCEDURE SEE 50336, FOR EXTENDED FAT PROCEDURE SEE 50337, FOR MAINTENANCE MANUAL SEE 51034.
- 6
- LOCTITE 242 (BLUE) AND TORQUED ITEM 7 CAPSCREWS TO 100 FT-LB

PRESSURE DATA

MAXIMUM SUPPLY PRESSURE: 5,000 PSI
CRACKING PRESSURE: 40 PSI ± 10 PSI

FLOW DATA

MAX FLOW CAPACITY: 300 GPM
CV (CALC): 15

CONNECTION

INLET: 1-1/2" CODE 62
OUTLET: 1-1/2" CODE 62

REVISIONS

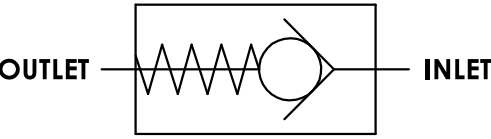
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A	ERN 02466	JZ 4/27/21	CMJ 4-27-21	AJP 4/28/21

GENERAL DATA

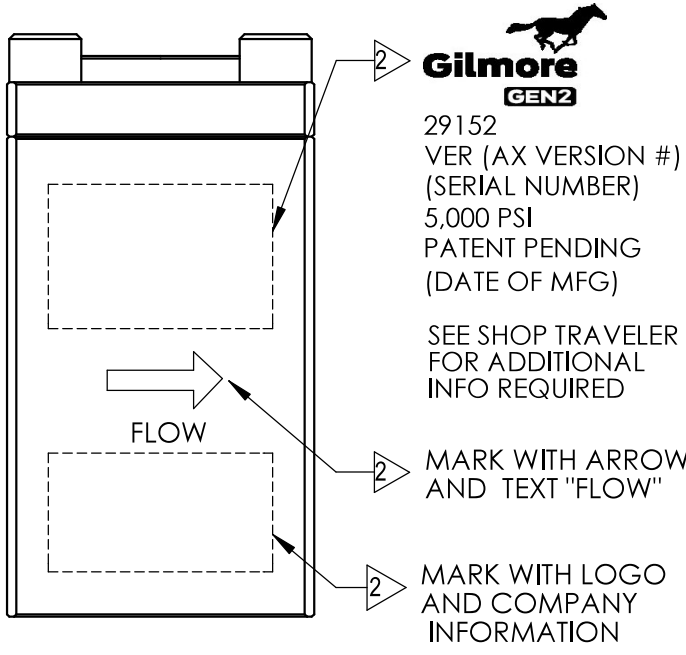
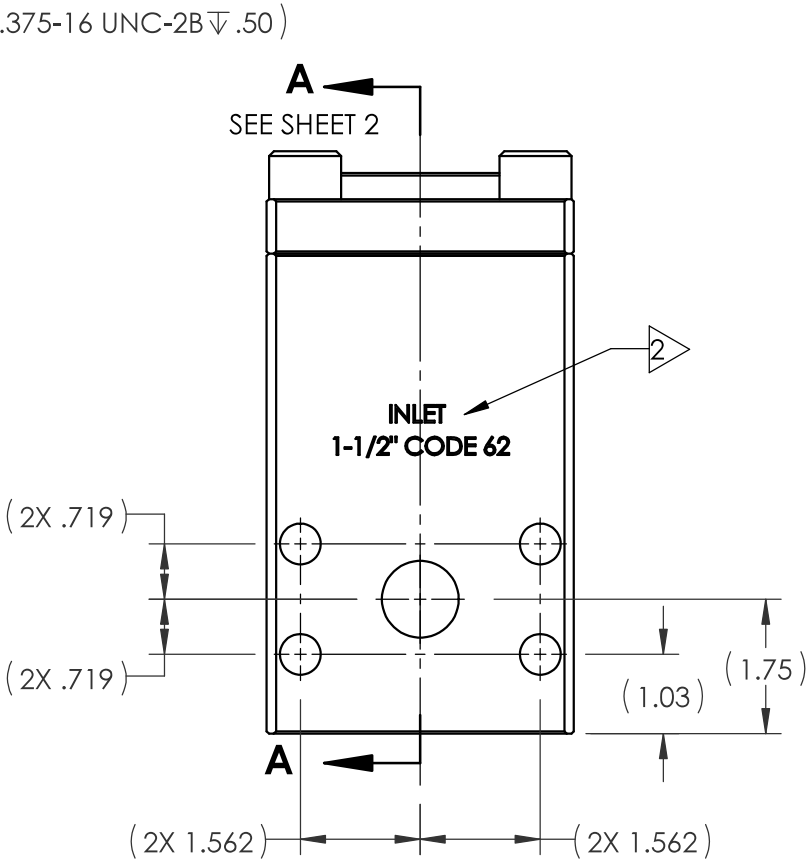
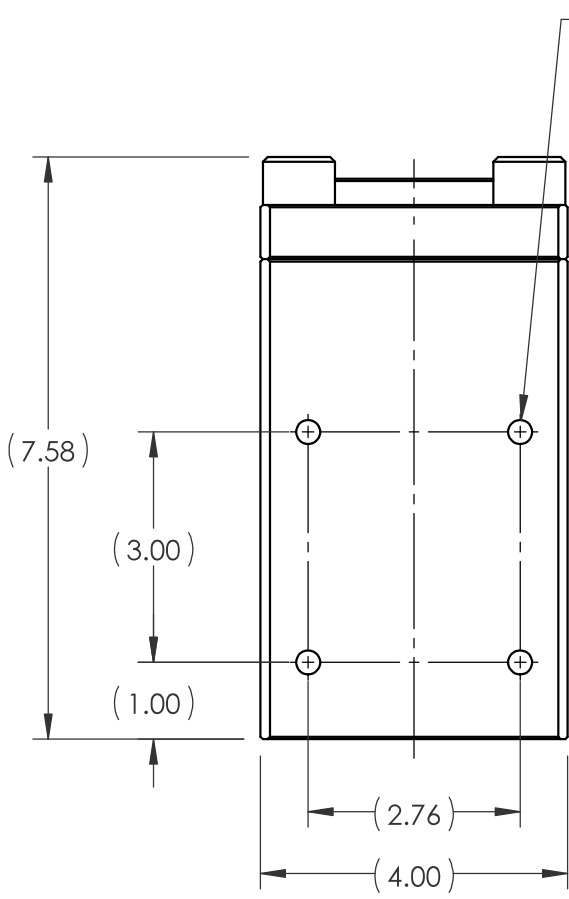
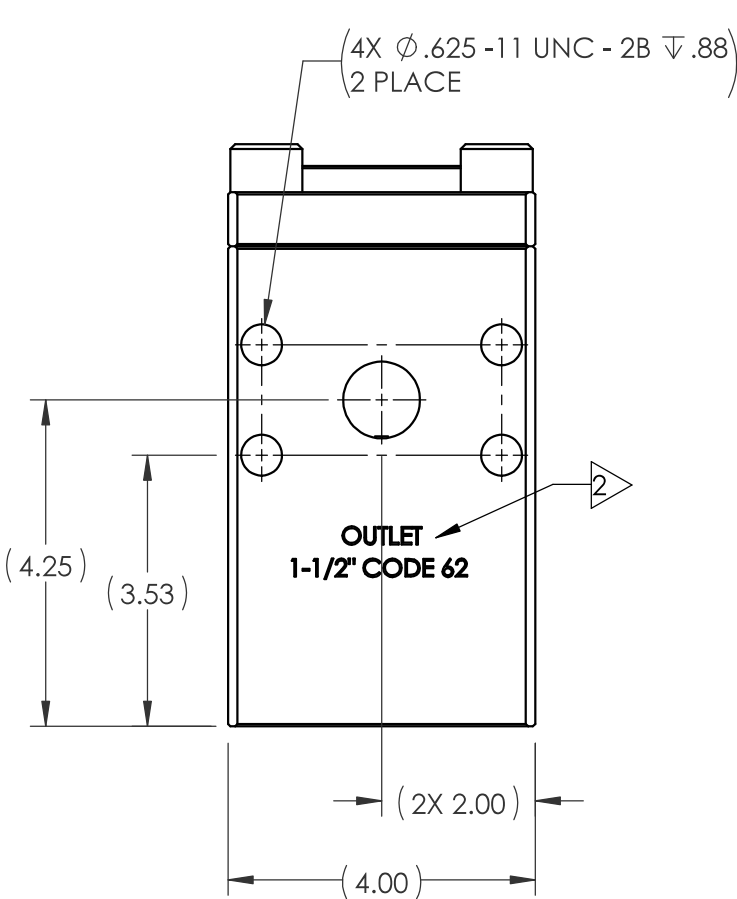
APPROX WEIGHT: 28.2 LBS
TEMPERATURE RANGE: +32 °F TO +150 °F

FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.

FIELD SERVICEABLE



SCHEMATIC



PATENT PENDING

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		ENGINEERING		
					DRAWN BY JZ	DATE 4/27/21			
					CHECKED BY CMJ	DATE 4-27-21	VALVE, 1-1/2" CHECK, GEN 2, 1-1/2" CODE 62, NON - PILOTED, LOW CRACKING		
					ENGINEER AJP	DATE 4/28/21			
					ERN NUMBER 02466	DATE 1/22/21	SIZE B	DWG NO	REV A
					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.			SCALE 1:3	SHEET 1 OF 2

1



A



A



REV

A

SHEET 2 OF 2

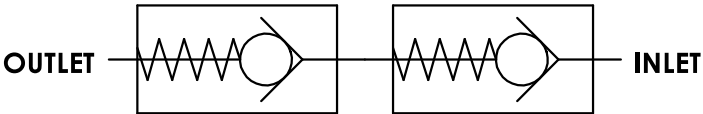
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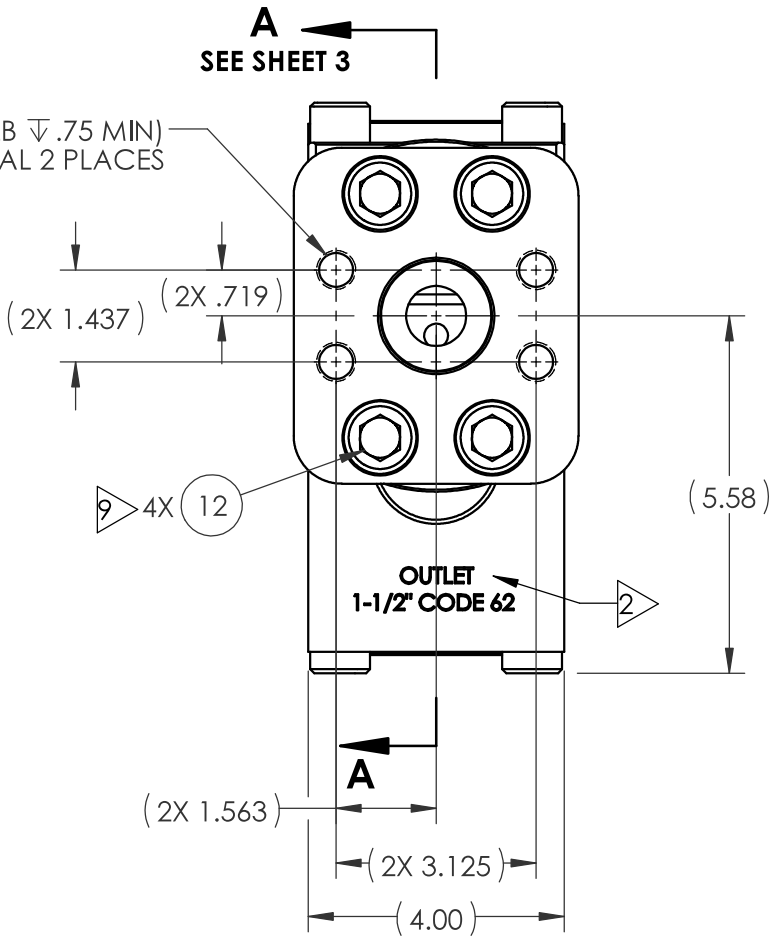
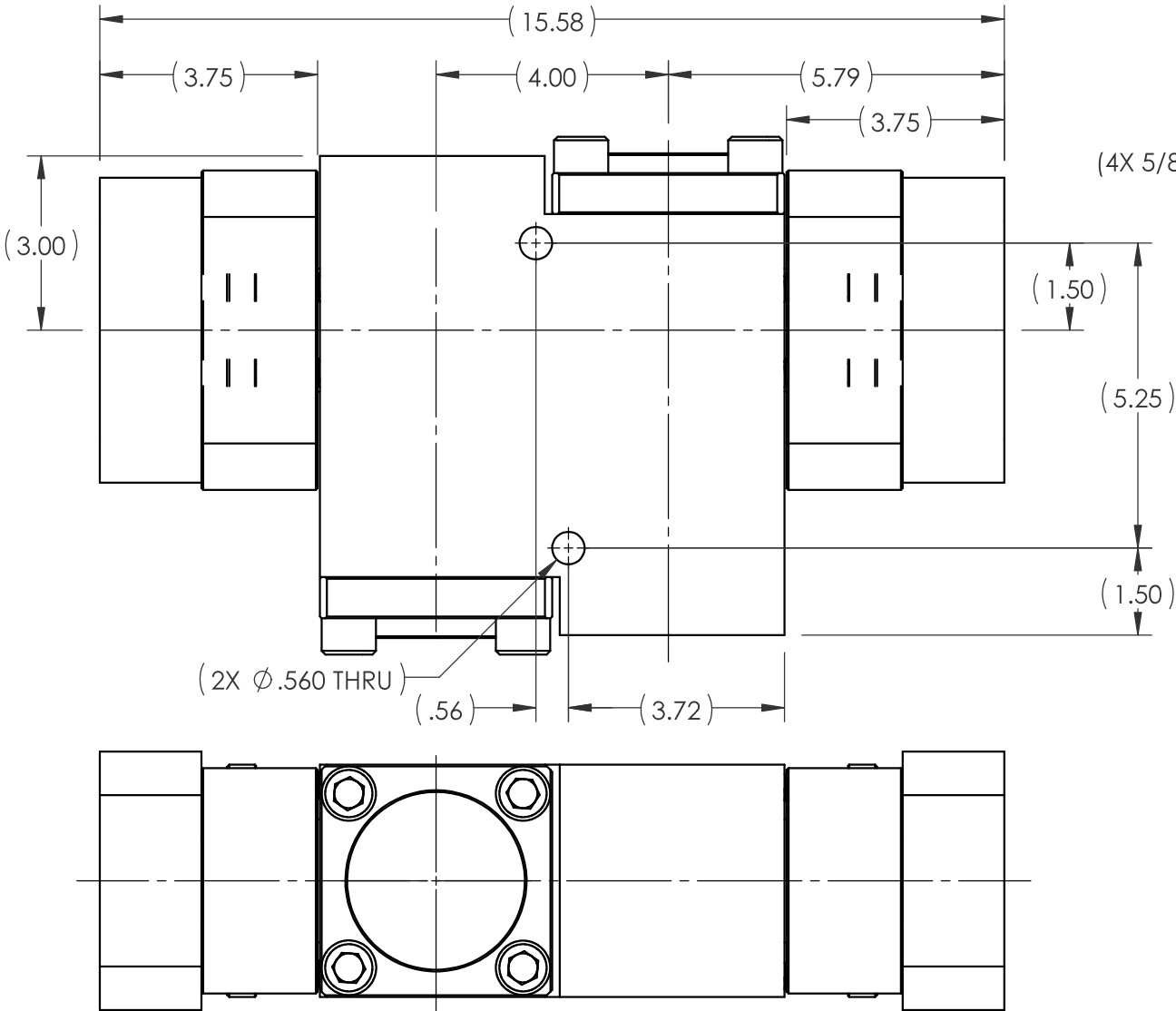
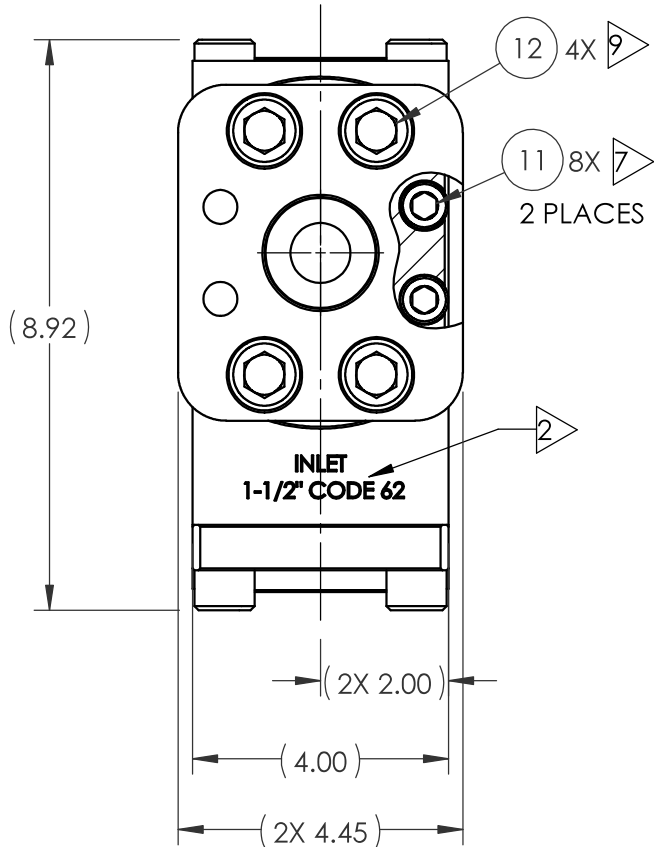
REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02466	JZ 4/27/21	CMC 4-27-21	AQP 4/28/21



SCHEMATIC

B

B




A SEE SHEET 3

PATENT PENDING

A

A

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 <small>a pro/erv company</small> ENGINEERING				
CONDITION:			DRAWN BY <i>JZ</i>	DATE 4/27/21					
			CHECKED BY <i>CMCf</i>	DATE 4-27-21	VALVE, 1-1/2" CHECK, GEN 2, DOUBLE, C62 SEAL SUB, NON-PILOT, STANDARD CRACKING				
			ENGINEER <i>AQP</i>	DATE 4/28/21					
TREATMENT:			ERN NUMBER 02466	DATE 2/1/21				SIZE B	DWG NO
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.						29157	
					SCALE 1:4	SolidWorks	SHEET 1 OF 3		

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 29157 RK
AND SEAL KIT 29157 SK.
- 5 FOR ASSEMBLY PROCEDURE SEE 50335,
FOR STANDARD FAT PROCEDURE SEE 50336,
FOR EXTENDED FAT PROCEDURE SEE 50337,
FOR MAINTENANCE MANUAL SEE 51034.
- 6 LOCTITE 242 (BLUE) AND TORQUED ITEM 10
CAPSCREWS TO 100 FT-LB
- 7 TORQUED ITEM 11 CAPSCREWS TO 20 FT-LB
- 8 TORQUED ITEM 7 HEX PLUG TO 100 FT-LB
- 9 TORQUED ITEM 12 CAPSCREWS TO 100 FT-LB

PRESSURE DATA

MAXIMUM PRESSURE 5,000 PSI
CRACKING PRESSURE 80 ± 10 PSI

FLOW DATA

MAX FLOW CAPACITY: 300GPM
CV (CALC): 10

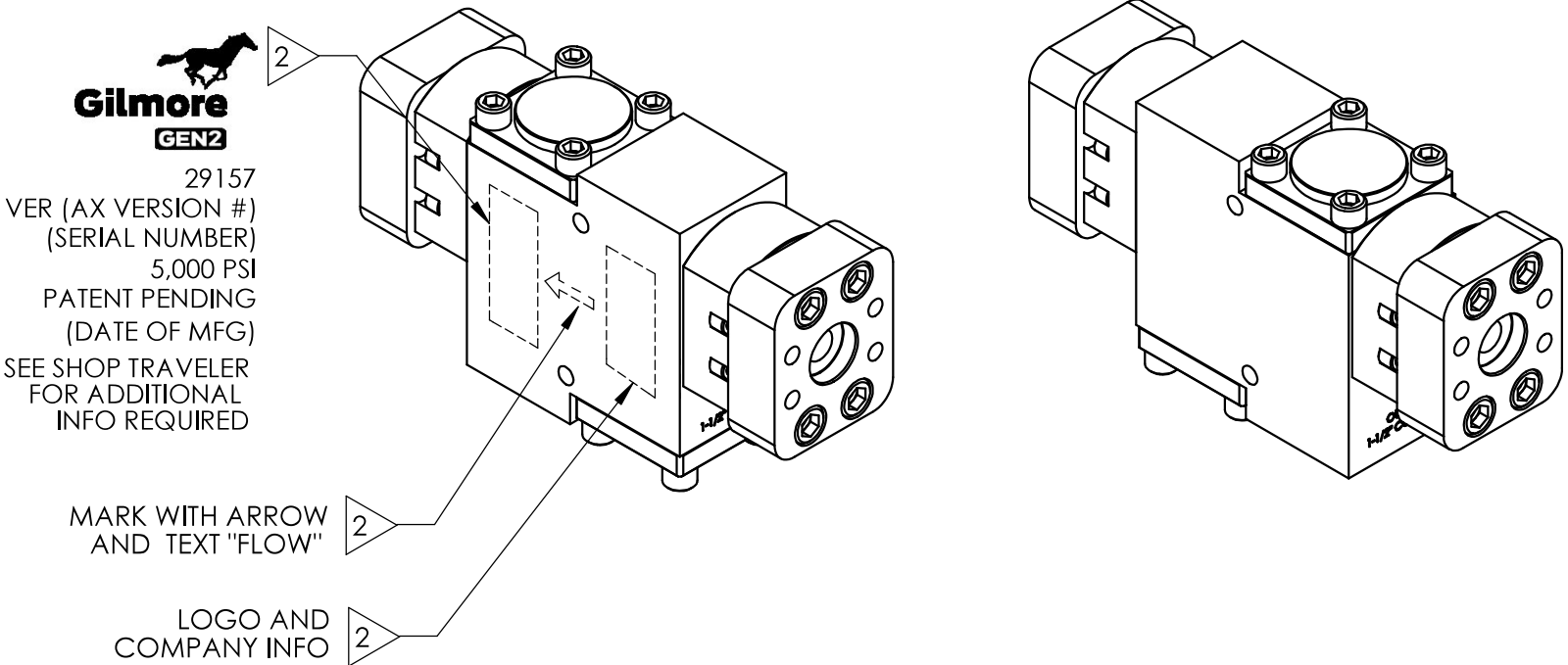
FLUIDS: 1.) WATER BASED DRILLING
CONTROL FLUID.
2.) MINERAL OIL BASED DRILLING
CONTROL FLUID.


PORTS

INLET: 1-1/2" CODE 62 SEAL SUB
OUTLET: 1-1/2" CODE 62 SEAL SUB

GENERAL DATA

APPROX WEIGHT: 101 LBS
TEMPERATURE RANGE: 32 °F TO 200 °F
FIELD SERVICEABLE



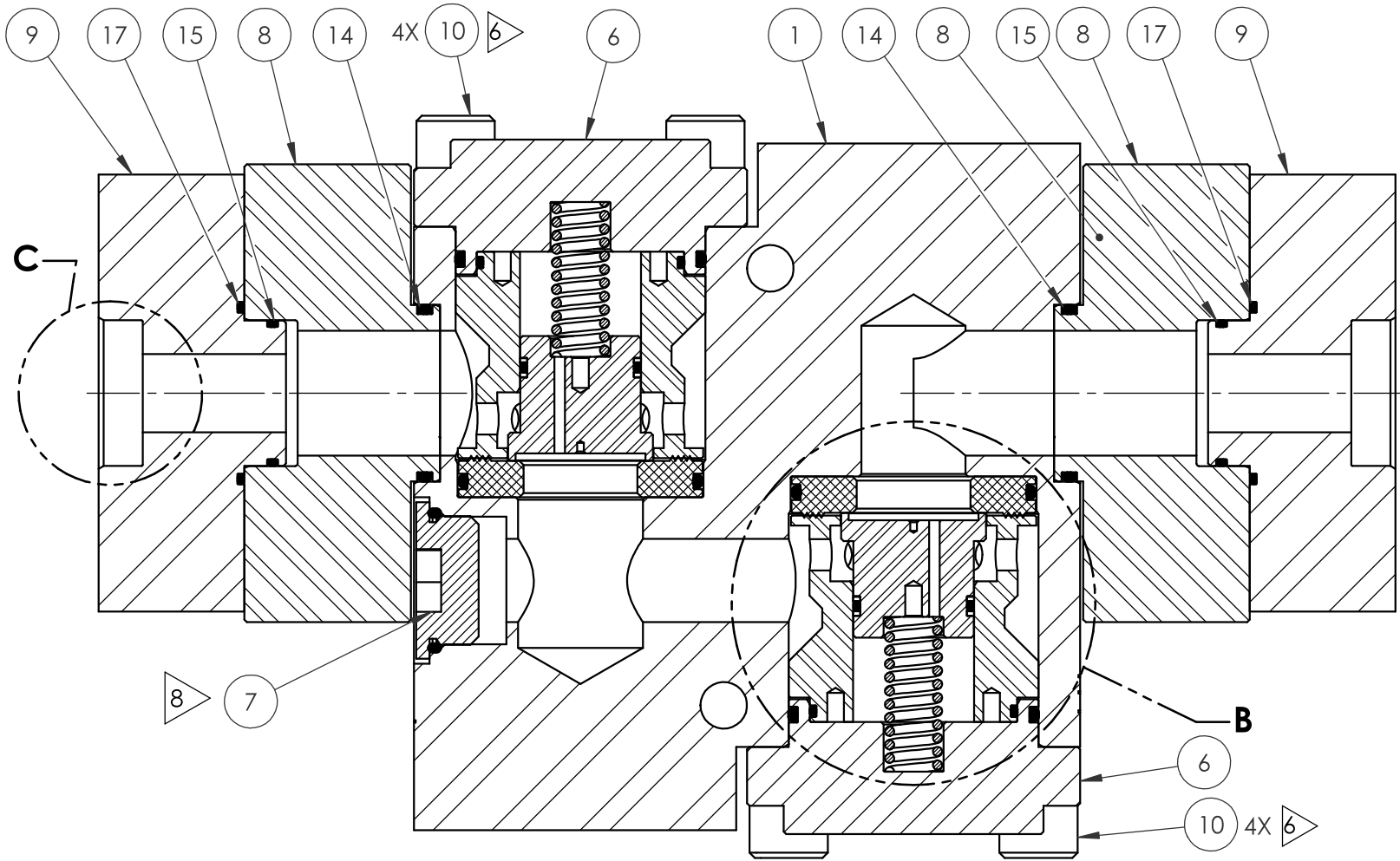
		GILMORE VALVE 1231 LUMPKIN RD, HOUSTON, TX 77043	
SIZE B	DWG NO	29157	REV A
SCALE 1:4	SolidWorks		SHEET 2 OF 3

4

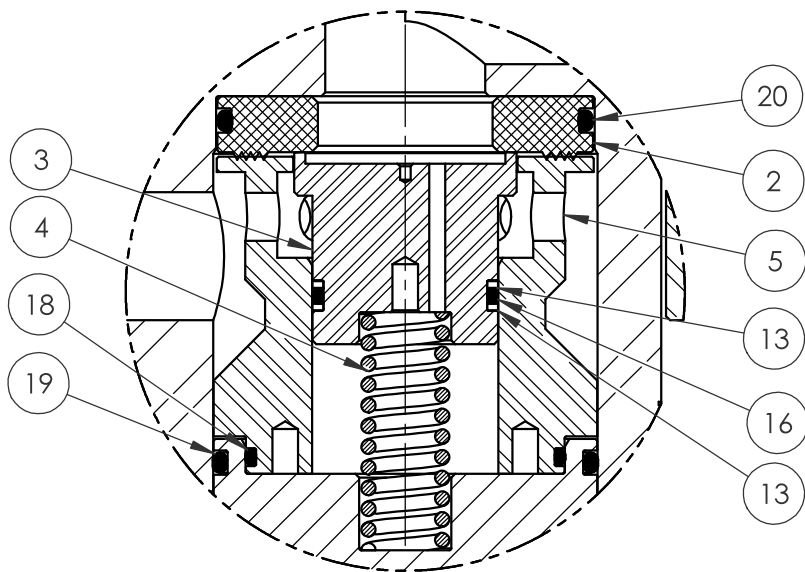
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2

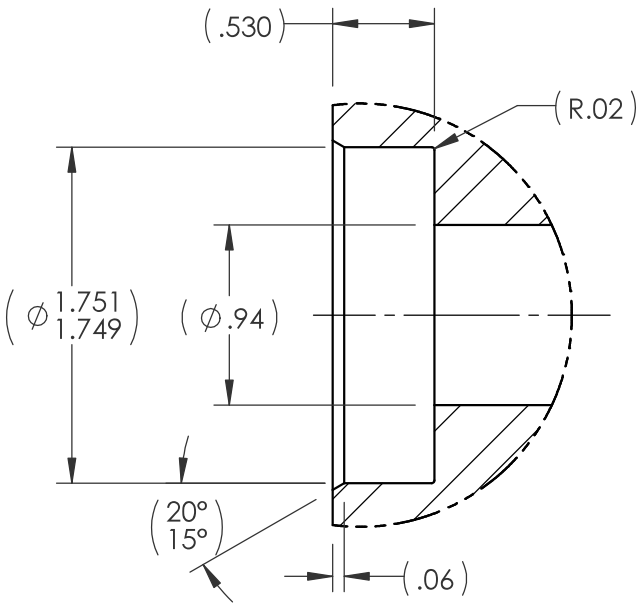
1



SECTION A-A
SCALE 1 : 2



DETAIL B
2 PLACES



DETAIL C
2 PLACES

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	216938	BODY, 1-1/2" CHECK VALVE, GEN 2, NON-PILOT, DOUBLE, C62 SEAL SUB	A 564 TP 630 (17-4PH)	1		
2	216193	SEAL, 1-1/2" CHECK VALVE, GEN 2	DELTRIN 511P	2	X	X
3	216194	SEAL SLEEVE, 1-1/2" CHECK VALVE, GEN 2	A276 UNS S21800 (NITRONIC 60)	2	X	
4	216190	SPRING, COMPRESSION, 1-1/2" CHECK VALVE, GEN 2	INCONEL X-750	2	X	
5	216192	CAGE, 1-1/2" CHECK VALVE, GEN 2	A276 UNS S21800 (NITRONIC 60)	2		
6	216056	COVER, 1-1/2" CHECK VALVE, GEN 2, STD CRACKING PRESSURE	A276 TP 316 (316 SS)	2		
7	18603-020	HOLLOW HEX PLUG, 1-1/4"	A240 TP 316	1		
8	218981	INLET FLANGE, 1-1/2" CHECK VALVE, GEN 2, DOUBLE, C62 SEAL SUB	A276 TP 316 (316L)	2		
9	28610	FLANGE, 1-1/2" CHECK VALVE, GEN 2 DOUBLE, C62 SEAL SUB	A276 UNS S21800 (NITRONIC 60)	2		
10	18224-013	SHCS 0.625-11 UNC x1.5 0 LG	A-286	8		
11	18224-018	SHCS 1/2-13 UNC x1.75 LG	A-286	8		
12	18224-039	SHCS .750-10 UNC x 2.00 LG.	A-286	8		
13	18110-138P	BACKUP RING	PEEK	4	X	X
14	18100-117C	O-RING	BUNA-N	2	X	X
15	18100-055C	O-RING	BUNA-N	2	X	X
16	18100-070B	O-RING	BUNA-N	2	X	X
17	18100-073C	O-RING	BUNA-N	2	X	X
18	18100-061K1	O-RING	HNBR	2	X	X
19	18100-115K1	O-RING	HNBR	2	X	X
20	18100-155K1	O-RING	HNBR	2	X	X



GILMORE VALVE

1231 LUMPKIN RD, HOUSTON, TX 77043

SIZE

B

DWG NO

29157

REV

A

SCALE

1:4

SolidWorks

SHEET 3 OF 3

- 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 29171 RK AND SEAL KIT 29171 SK.
 - 5 FOR ASSEMBLY PROCEDURE SEE 50335, FOR STANDARD FAT PROCEDURE SEE 50336, FOR EXTENDED FAT PROCEDURE SEE 50337, FOR MAINTENANCE MANUAL SEE 51034.
 - 6 LOCTITE 242 (BLUE) AND TORQUED ITEM 7 CAPSCREWS TO 100 FT-LB

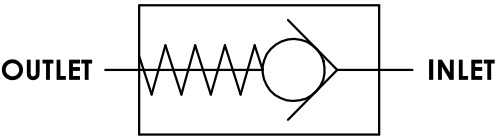
PRESSURE DATA
MAXIMUM SUPPLY PRESSURE: 5,000 PSI
CRACKING PRESSURE: 40 PSI ± 10 PSI

FLOW DATA
MAX FLOW CAPACITY: 300 GPM
CV (CALC): 15

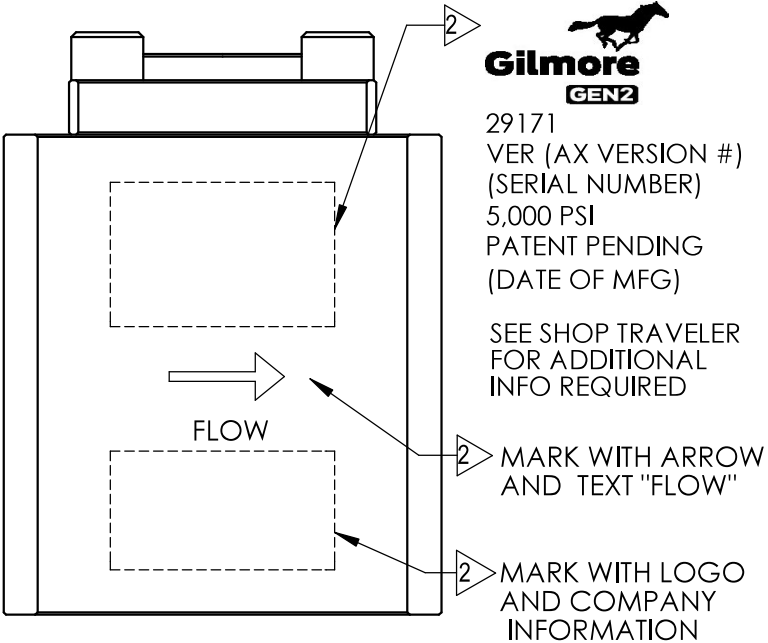
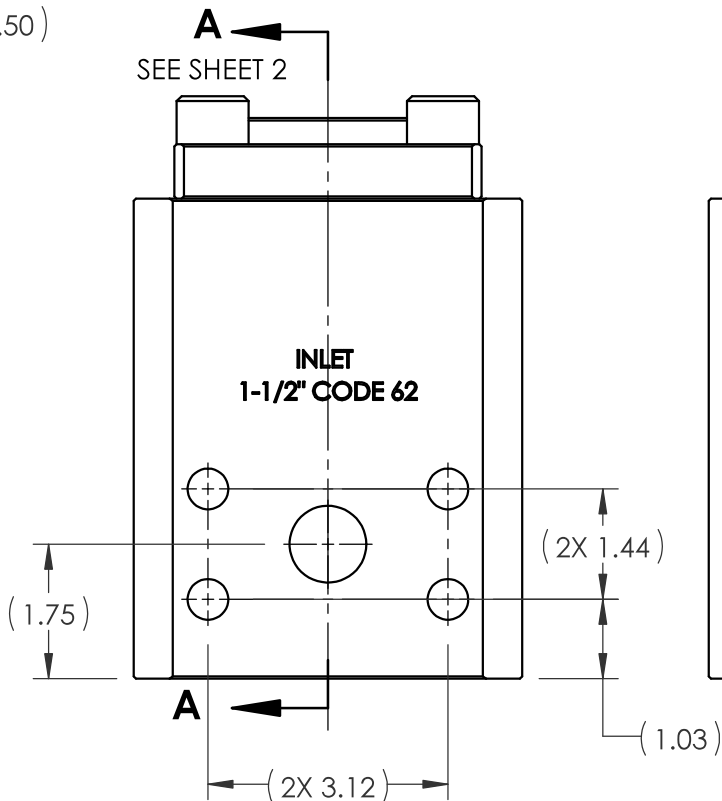
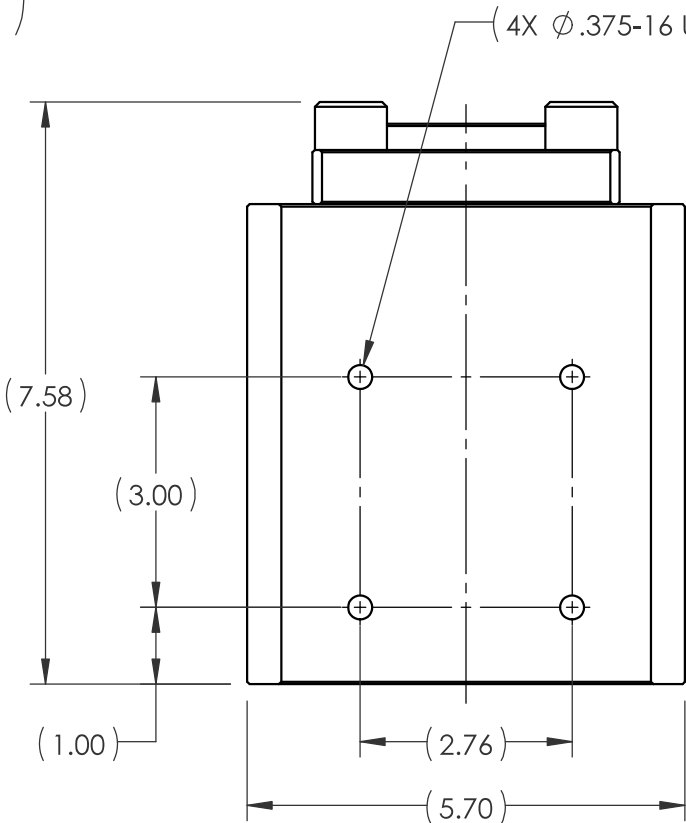
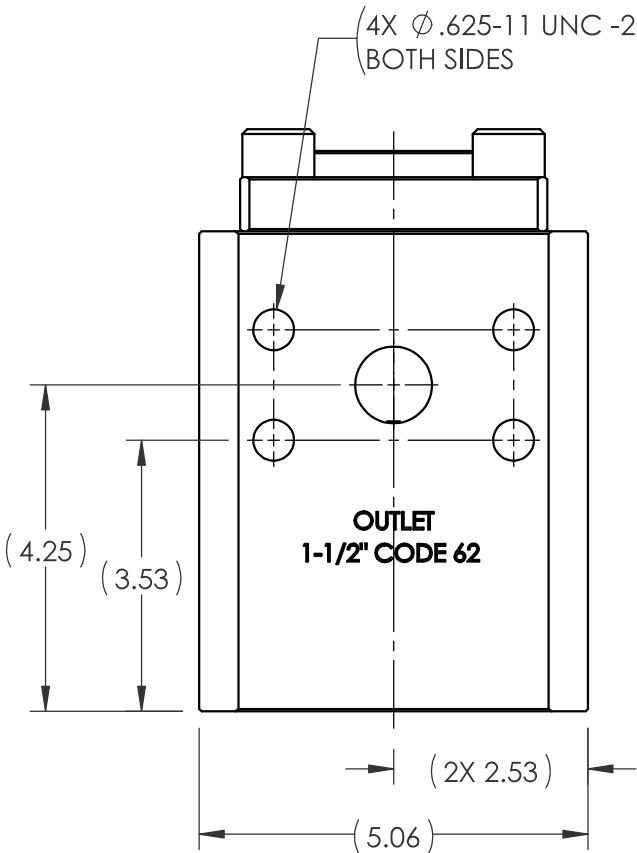
CONNECTION
INLET: 1-1/2" CODE 62
OUTLET: 1-1/2" CODE 62

REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02466	JZ 4/27/21	Cmf 4-27-21	AGP 4/28/21


GENERAL DATA
APPROX WEIGHT: 49.7 LBS
TEMPERATURE RANGE: +32 °F TO +150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.
FIELD SERVICEABLE

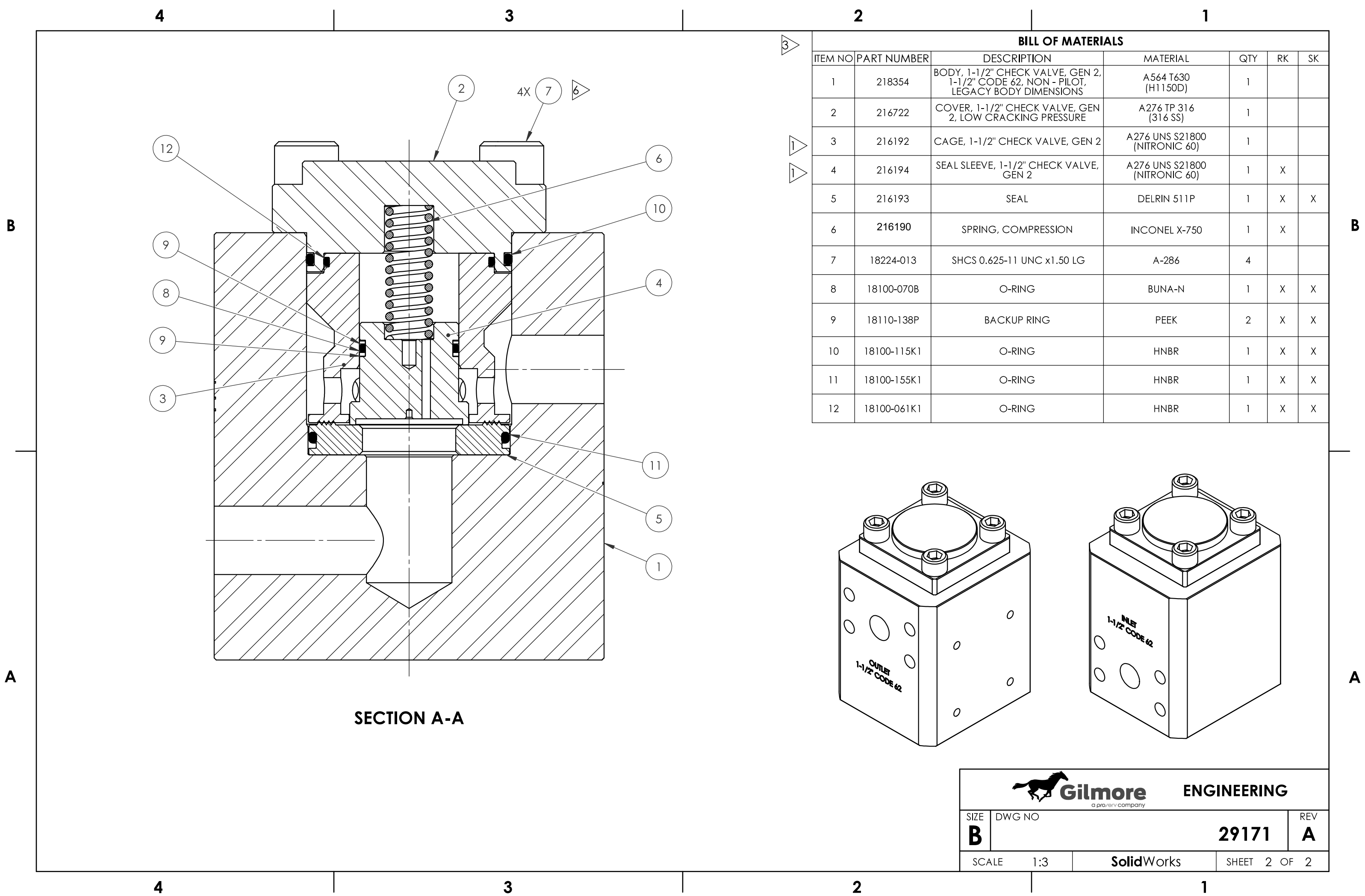


SCHEMATIC



PATENT PENDING

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 <small>a proserv company</small> ENGINEERING		
CONDITION:			DRAWN BY JZ	DATE 4/27/21			
			CHECKED BY Cmf	DATE 4-27-21			
			ENGINEER AGP	DATE 4/28/21			
TREATMENT:	3	ERN NUMBER 02466	DATE 3/20/21	VALVE, 1-1/2" CHECK, GEN 2, 1-1/2" CODE 62, NON-PILOT, LOW CRACKING, LEGACY BODY DIMENSION			
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		REV A		
		SCALE 1:3	SolidWorks		SHEET 1 OF 2		



4

3

2

1

NOTES:

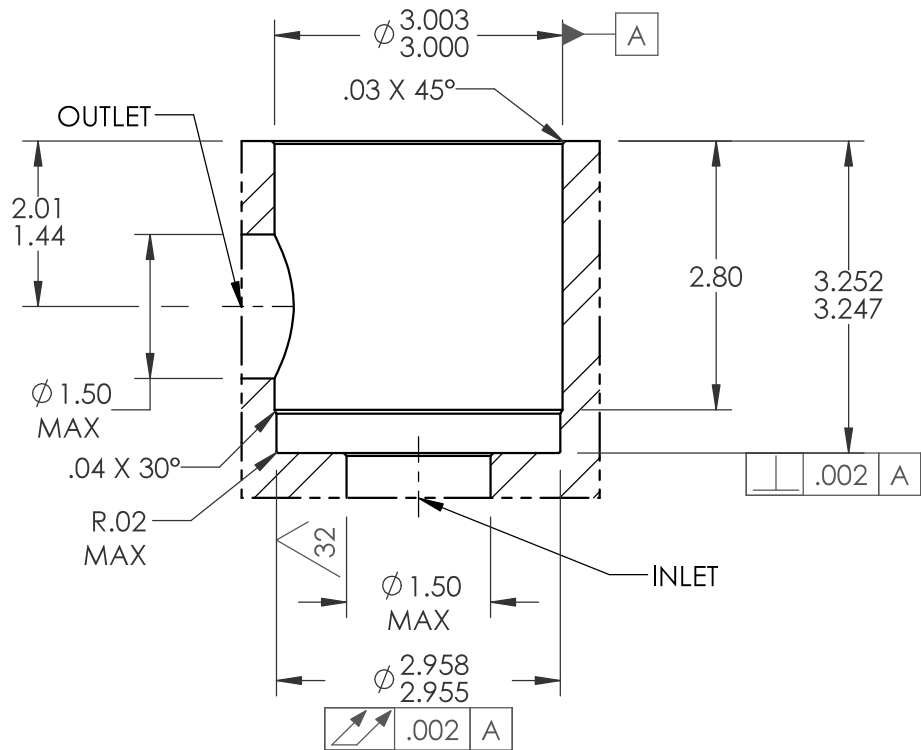
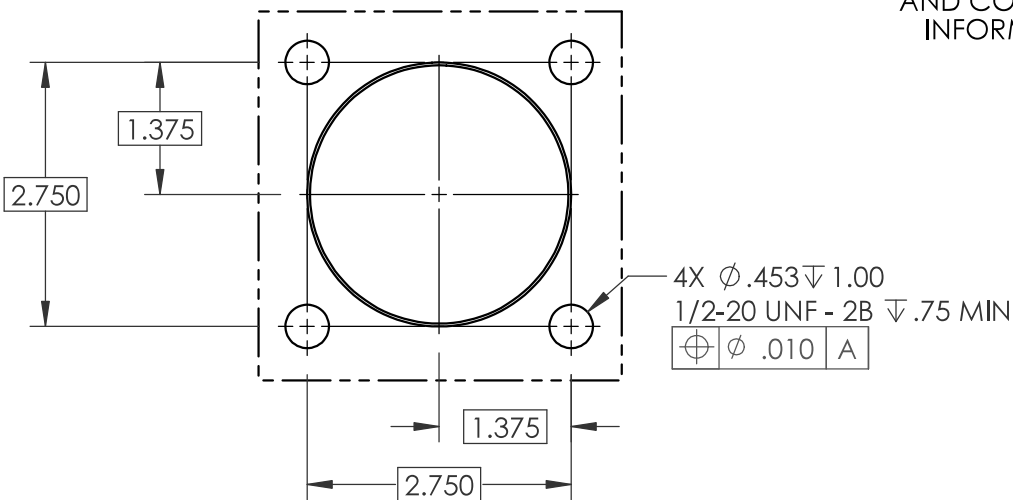
- 1
- MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON THE COMPONENT DRAWING
- 2
- MARKING: MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 3
- ALL METAL ITEMS ARE PASSIVATED
- 4
- 'X' IN THE BOM DEPICTS PARTS IN REPAIR KIT 29172 RK AND SEAL KIT 29172 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50335, FOR STANDARD FAT PROCEDURE SEE 50336, FOR EXTENDED FAT PROCEDURE SEE 50337, FOR MAINTENANCE MANUAL SEE 51034.
- 6
- LOCTITE 242 (BLUE) AND TORQUED ITEM 11 CAPSCREWS TO 50 FT-LB



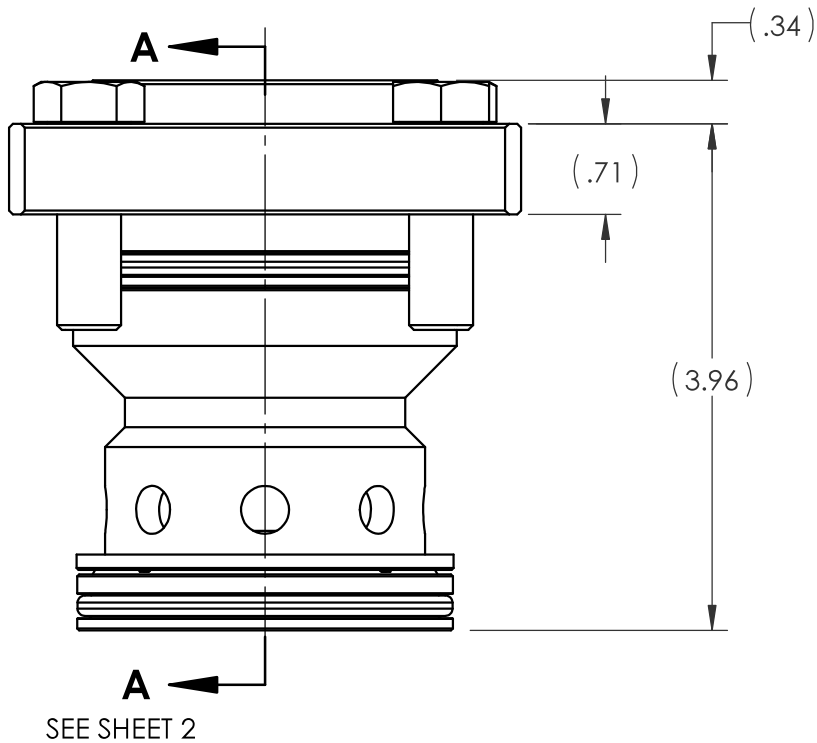
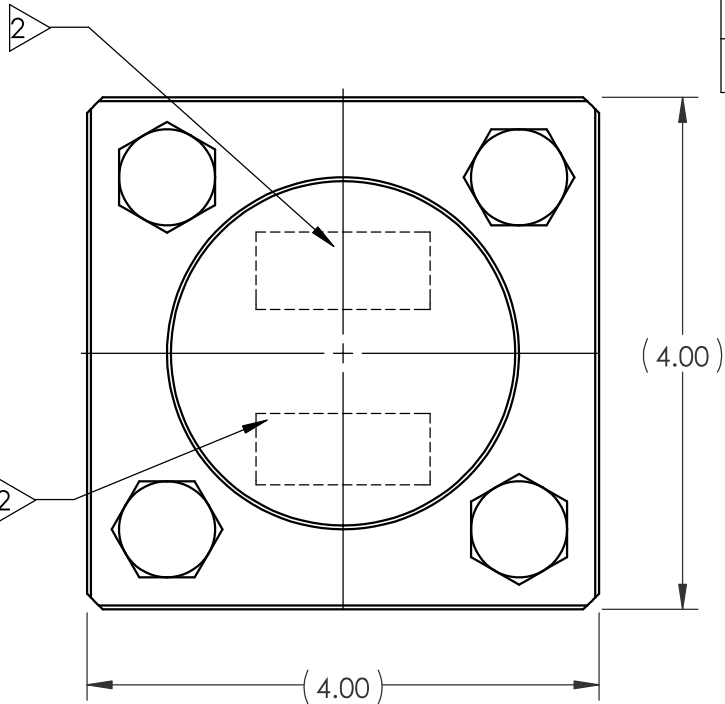
29172
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
PATENT PENDING
(DATE OF MFG)

SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH LOGO
AND COMPANY
INFORMATION



CAVITY DETAILS



REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02466	JZ 4/27/21	CMJ 4-27-21	AJP 4/28/21

PRESSURE DATA

MAXIMUM SUPPLY PRESSURE: 5,000 PSI
CRACKING PRESSURE: 40 PSI ± 10 PSI

FLOW DATA

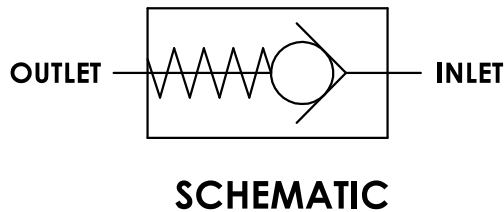
MAX FLOW CAPACITY: 300 GPM
CV (CALC): 15

GENERAL DATA


APPROX WEIGHT: 8.0 LBS
TEMPERATURE RANGE: +32 °F TO +150 °F

FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.

FIELD SERVICEABLE



PATENT PENDING

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> Gilmore <small>a pro/erv company</small></div> <div>ENGINEERING</div>	
CONDITION:				DRAWN BY JZ	DATE 4/27/21		
TREATMENT: <div>3</div>				CHECKED BY <i>CMJ</i>	DATE 4-27-21		
				ENGINEER <i>AJP</i>	DATE 4/28/21		
PROCEDURE NUMBER: <div>5</div>				ERN NUMBER 02466	DATE 3/22/21	SIZE B	
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.				VALVE, 1-1/2" CHECK, GEN 2, CARTRIDGE, LOW CRACKING, LEGACY BOLT PATTERN		29172	SHEET 1 OF 2
				SCALE 1:3		SolidWorks	

1



A

A technical line drawing of a mechanical component, likely a flange or a mounting plate. The component consists of a square flange with a central circular feature. Four hexagonal bolts are used to secure the flange, with two bolts visible on the top face and two on the bottom face. The base of the component is threaded, suggesting it is designed to be mounted onto a shaft or a post. The drawing is a perspective view, showing the top and side of the component.

		ENGINEERING	
SIZE B	DWG NO <div style="text-align: right;">29172</div>		REV A
SCALE 1:3		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 29173 RK AND SEAL KIT 29173 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50335, FOR STANDARD FAT PROCEDURE SEE 50336, FOR EXTENDED FAT PROCEDURE SEE 50337, FOR MAINTENANCE MANUAL SEE 51034.
- 6
- LOCTITE 242 (BLUE) AND TORQUED ITEM 7 CAPSCREWS TO 100 FT-LB

PRESSURE DATA

MAXIMUM SUPPLY PRESSURE: 5,000 PSI
CRACKING PRESSURE: 40 PSI ± 10 PSI

FLOW DATA

MAX FLOW CAPACITY: 200 GPM
CV (CALC): 9

CONNECTION

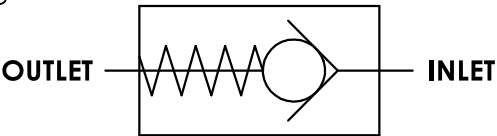
INLET: 1" NPTF
OUTLET: 1" NPTF

REVISIONS

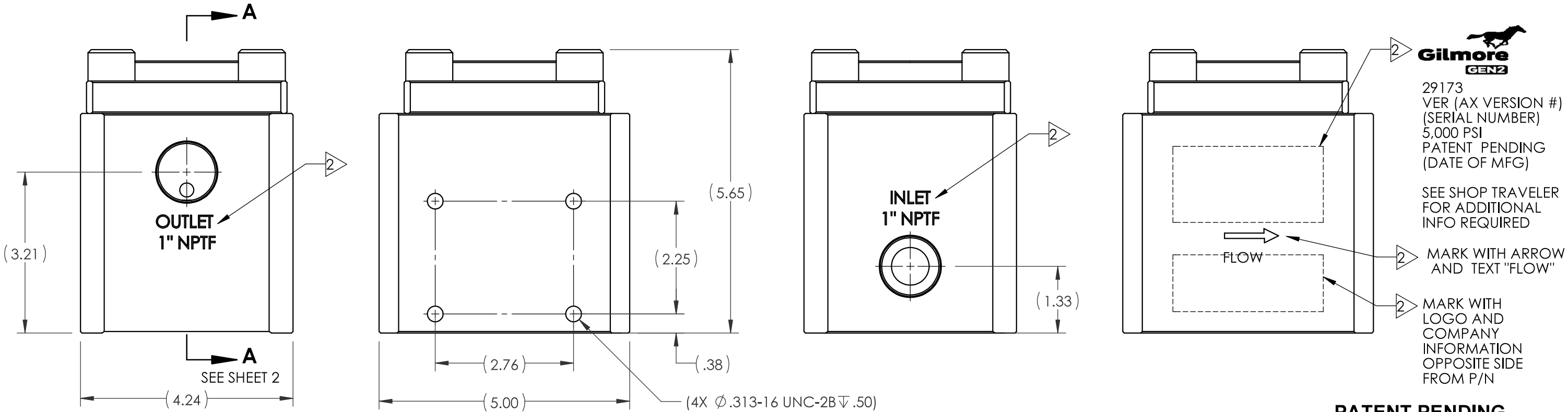
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02453	JZ 4/5/21	Cmf 4-6-21	AJP 4/5/21

GENERAL DATA

APPROX WEIGHT: 28.0 LBS
TEMPERATURE RANGE: +32 °F TO +150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.
FIELD SERVICEABLE



SCHEMATIC





29173
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
PATENT PENDING
(DATE OF MFG)

SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

MARK WITH ARROW
AND TEXT "FLOW"

MARK WITH
LOGO AND
COMPANY
INFORMATION
OPPOSITE SIDE
FROM P/N

PATENT PENDING

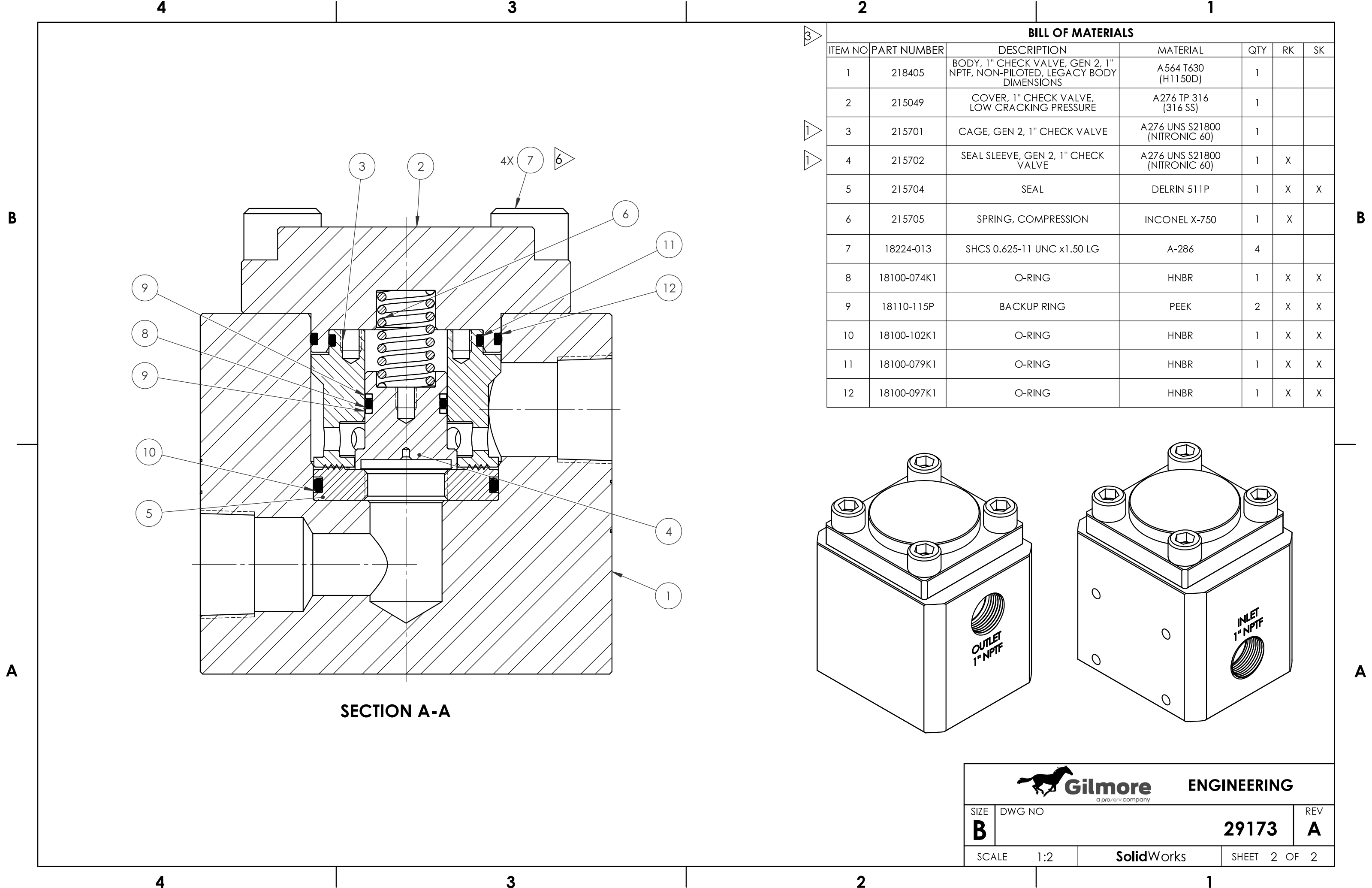
MATERIAL: SEE PARTS IN BOM		DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED:		APPROVAL		 ENGINEERING	
CONDITION:		1) TOLERANCES: .X: ±.1 .XX: ±.01 .XXX: ±.005 ANGLES: ±.5°		DRAWN BY JZ	DATE 4/5/21		
TREATMENT:		2) SURFACE TEXTURE: 63/		CHECKED BY Cmf	DATE 4-6-21		
PROCEDURE NUMBER:		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°		ENGINEER AJP	DATE 4/5/21		
				ERN NUMBER 02453	DATE 3/22/21	VALVE, 1" CHECK, GEN 2, 1" NPTF, NON-PILOT, LOW CRACKING, LEGACY BODY DIMENSIONS	
				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 29173
						SCALE 1:2	SolidWorks
						SHEET 1	OF 2

4

3

2

1



BILL OF MATERIALS						
ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	218405	BODY, 1" CHECK VALVE, GEN 2, 1" NPTF, NON-PILOTED, LEGACY BODY DIMENSIONS	A564 T630 (H1150D)	1		
2	215049	COVER, 1" CHECK VALVE, LOW CRACKING PRESSURE	A276 TP 316 (316 SS)	1		
3	215701	CAGE, GEN 2, 1" CHECK VALVE	A276 UNS S21800 (NITRONIC 60)	1		
4	215702	SEAL SLEEVE, GEN 2, 1" CHECK VALVE	A276 UNS S21800 (NITRONIC 60)	1	X	
5	215704	SEAL	DELRIN 511P	1	X	X
6	215705	SPRING, COMPRESSION	INCONEL X-750	1	X	
7	18224-013	SHCS 0.625-11 UNC x1.50 LG	A-286	4		
8	18100-074K1	O-RING	HNBR	1	X	X
9	18110-115P	BACKUP RING	PEEK	2	X	X
10	18100-102K1	O-RING	HNBR	1	X	X
11	18100-079K1	O-RING	HNBR	1	X	X
12	18100-097K1	O-RING	HNBR	1	X	X



Gilmore
a proserv company

ENGINEERING

SIZE

B

DWG NO

29173

REV

A

SCALE

1:2

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 29175 RK AND SEAL KIT 29175 SK.
- 5
- FOR ASSEMBLY PROCEDURE SEE 50335, FOR STANDARD FAT PROCEDURE SEE 50336, FOR EXTENDED FAT PROCEDURE SEE 50337, FOR MAINTENANCE MANUAL SEE 51034.
- 6
- LOCTITE 242 (BLUE) AND TORQUED ITEM 9 CAPSCREWS TO 100 FT-LB
- 7
- TORQUE ITEM 10 CAPSCREWS TO 20 FT-LB

PRESSURE DATA

MAXIMUM SUPPLY PRESSURE: 5,000 PSI
MAXIMUM PILOT PRESSURE: 5,000 PSI
CRACKING PRESSURE: 80 PSI ±10 PSI
PILOT PRESSURE/OUTLET RATIO: 1:4
PILOT PISTON VENT: EXTERNAL

FLOW DATA

MAX FLOW CAPACITY: 200 GPM
CV (CALV): 9

CONNECTION

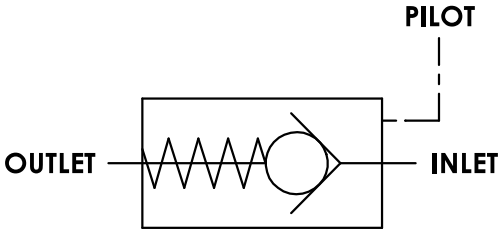
INLET: 1" SAE
OUTLET: 1" SAE
PILOT: 3/8" SAE

GENERAL DATA

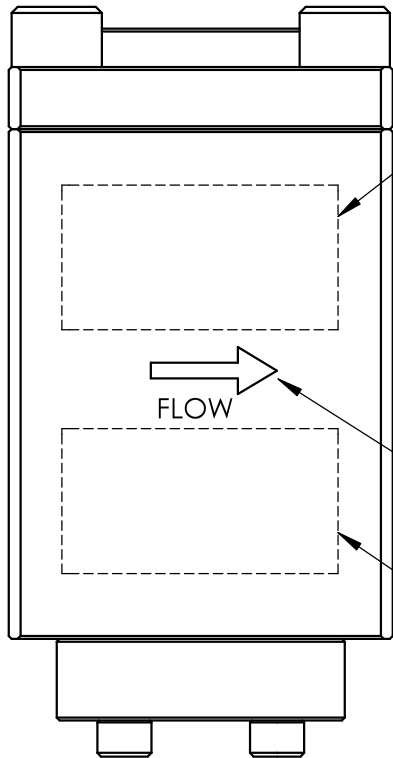
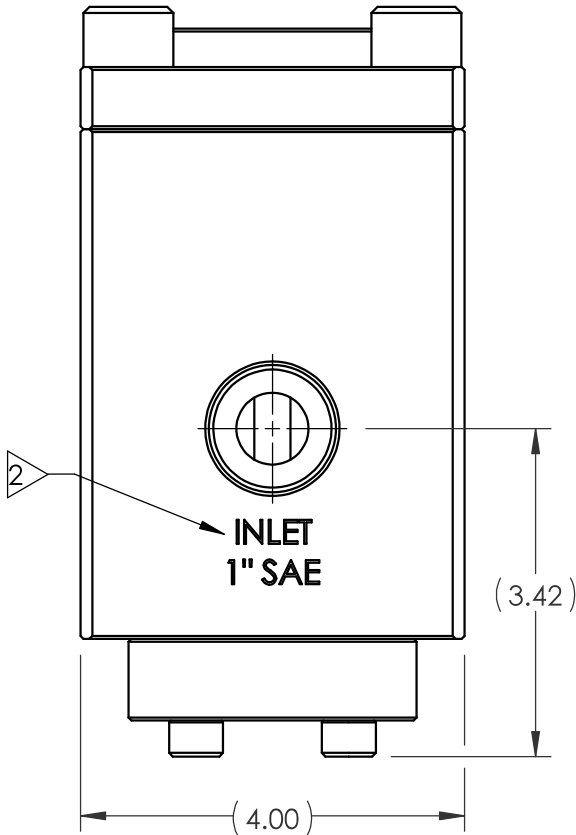
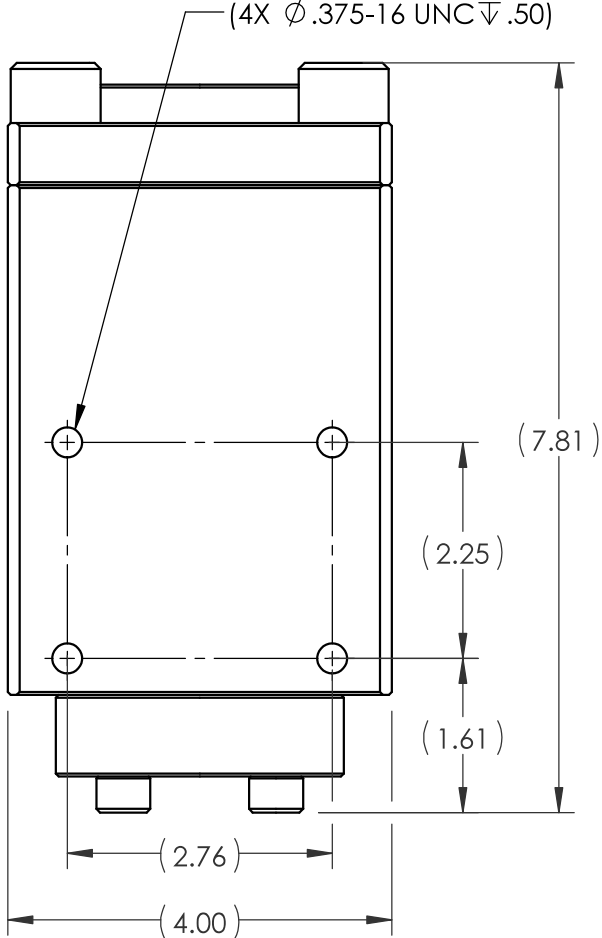
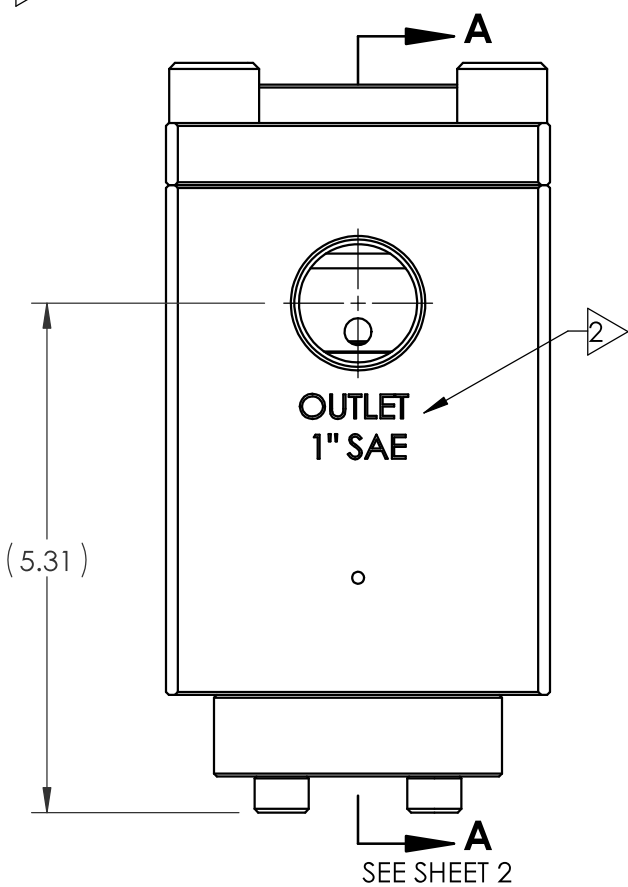
APPROX WEIGHT: 27.5 LBS
TEMPERATURE RANGE: +32 °F TO +150 °F
FLUIDS: - WATER BASED DRILLING CONTROL FLUID.
- MINERAL OIL BASED DRILLING CONTROL FLUID.
FIELD SERVICEABLE

REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02453	JZ 4/5/21	CMCf 4-6-21	AQP 4/5/21



SCHEMATIC



29175
VER (AX VERSION #)
(SERIAL NUMBER)
5,000 PSI
PATENT PENDING
(DATE OF MFG)

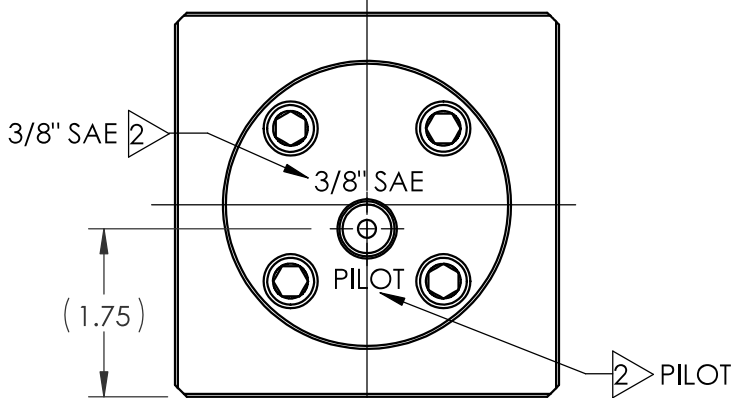
SEE SHOP TRAVELER
FOR ADDITIONAL
INFO REQUIRED

2 MARK WITH
ARROW AND
TEXT "FLOW"

2 MARK WITH
LOGO AND
COMPANY
INFORMATION
OPPOSITE SIDE
FROM P/N

A

A



PATENT PENDING

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	JZ	DATE	4/5/21
CHECKED BY	CMCf	DATE	4-6-21
ENGINEER	AQP	DATE	4/5/21
ERN NUMBER	02453	DATE	3/23/21

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.



ENGINEERING

VALVE, 1" CHECK, GEN 2, PILOT
OPERATED, 1" SAE, EXT PISTON
VENT, STD CRACKING

SIZE

B

DWG NO

29175

REV

A

SCALE 1:2

SolidWorks

SHEET 1 OF 2

4

3

2

1

