

Gilmore Surface Compact Pressure Regulator

REV	DATE	DESCRIPTION	ORIGIN (issued by)	APPROVED
001	08/22/2022	Document No: 135-081922-001	BP	BR

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Gilmore Surface Compact Pressure Regulator

Gilmore has exceeded industry requirements by qualifying the new Surface Compact Pressure Regulator design to 7,500 cycles, with a flow rate of 4 gpm, at 15,000 psi inlet & 3000 to 9000 psi setpoint with 1% - 4% water glycol test fluid.

The new Gilmore Surface Compact Pressure Regulators are now available for purchase. Gilmore will create other customized Compact Pressure Regulator configurations at customer request.

Features and Benefits:

- 15,000 psi inlet rating
- Extended adjustable regulated pressure range – from 3000 psi to 10,000 psi
- Flow coefficient: Cv 0.08
- Ported vent outlet
- Accurate setpoint reliability
- Material traceability standard on wetted components
- Balanced seal carrier
- Tungsten Carbide seal trim for excellent debris tolerance
- Durable simple design for maximum reliability
- Corrosion resistant materials
 - Suitable for topside weather exposure
- Improved deadband performance
- Medium Pressure and NPT connections available
- Panel Mounting for easy installation
- Well suited for flushing equipment and filling umbilical lines



Figure 1. PN 29163: Surface Compact Pressure Regulator
15,000 psi 1/4" NPT Inlet, 3000 – 10000 psi range 3/8" NPT Outlet

Gilmore Surface Compact Pressure Regulator

Gilmore has exceeded industry requirements by qualifying the new Surface Compact Pressure Regulator designs to 7,500 cycles, at a starting flow rate of 4 gpm per inlet, at 15000 psi, with 1% - 4% water glycol test fluid. Their qualification report is available upon request.

Gilmore's Surface Compact Pressure Regulator are now available for purchase. Please contact Gilmore Customer Service to request a quotation for the Surface Compact Pressure Regulator listed below, or any other configurations required that are not listed.

Table 1. Surface Compact Pressure Regulator

Item	New Valve Description	New Valve PN	New Repair Kit PN	New Seal Kit PN
1	Surface Compact Pressure Regulator, 15,000 psi inlet, 3000-10000 psi range, NPT Ports	29163	29163 RK	29163 SK
	*Other configurations that are not listed available upon request			

Please contact Gilmore Customer Service to request any drawings, manuals, and quotations for these new Surface Compact Regulators to Info@gilmore.com.

Gilmore Surface Compact Pressure Regulator



Figure 2. PN 29163: Surface Compact Pressure Regulator
15,000 psi 1/4" NPT Inlet, 3000 – 10000 psi range 3/8" NPT Outlet

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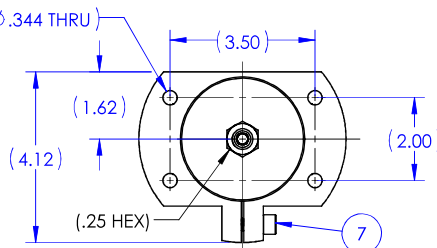
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NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. AS SHOWN ON COMPONENT DRAWING.
- 2 "X" IN THE BOM DEPICTS PARTS IN REPAIR KIT 29163 RK, AND SEAL KIT 29163 SK.
- 3 MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 4 ASSEMBLY PROCEDURE: 50331
STANDARD FAT PROCEDURE: 50332
EXTENDED FAT PROCEDURE: 50333
SERVICE MANUAL: 51033
- 5 ALL STAINLESS STEEL MANUFACTURED ITEMS ARE PASSIVATED
- 6 TORQUE CAPSCREW (ITEM 7) TO 10 FT - LB.
TORQUE CAPSCREW (ITEM 17) TO 5 IN - LB.
TORQUE VENTED PLUG (ITEM 22) TO 20 FT-LB.



PRESSURE DATA

VALVE MAWP: 15,000 PSI
 REGULATED PRESSURE RANGE: 3,000 - 10,000 PSI
 TYPICAL DEADBAND: 900 +/- 100 PSI AT 15,000 PSI SUPPLY
 700 +/- 100 PSI AT 10,000 PSI SUPPLY
 CHANGE IN SETPOINT PER ADJUSTMENT SCREW TURN 700 PSI
 ADJUSTMENT SCREW TORQUE MAX 40 FT-LB.

PORTS

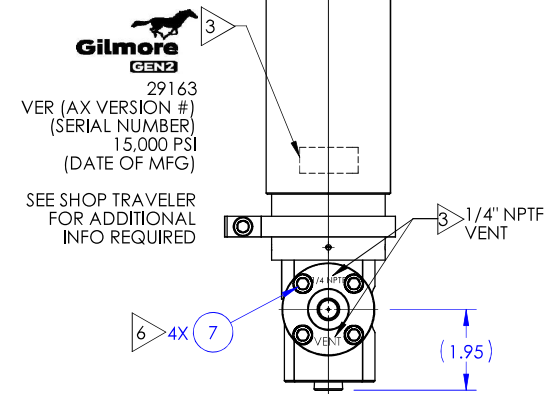
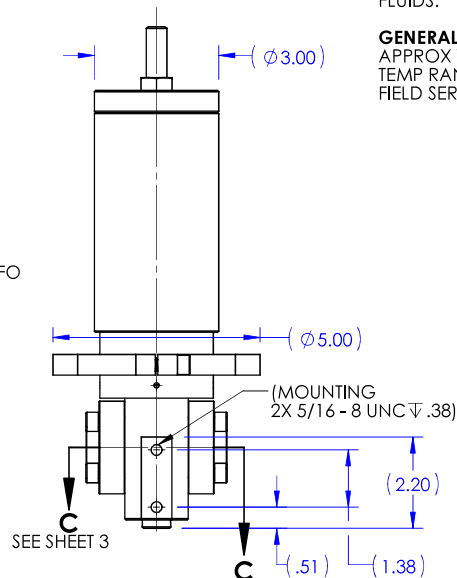
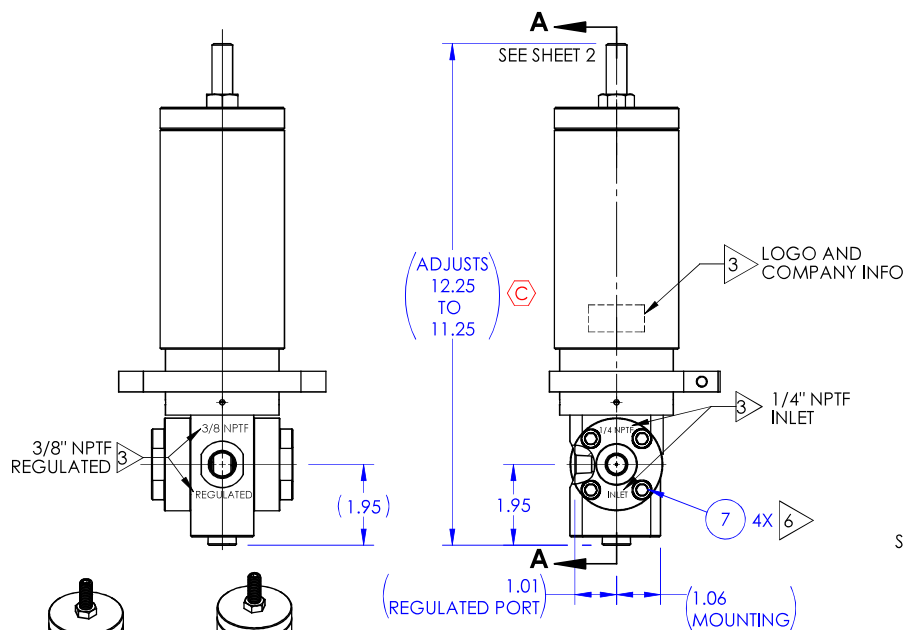
INLET PORT: 1/4" NPTF
 REGULATED PORT: 3/8" NPTF
 VENT PORT: 1/4" NPTF

FLOW DATA

TYPICAL FLOW RATE: 4 GPM
 CV: .08(CALC)
 FLUIDS: WATER BASED DRILLING CONTROL FLUID
 MINERAL OIL BASED DRILLING CONTROL FLUID

GENERAL DATA

APPROX WEIGHT: 14 LBS
 TEMP RANGE: 32 °F TO 150 °F
 FIELD SERVICEABLE



U.S. PATENT 11,261,982

MATERIAL: REFER TO INDIV BOM ITEMS	APPROVAL	
	DRAWN BY	DATE
CONDITION:	DRAFT CHECKED BY	DATE
	ENGR. REVIEW BY	DATE
TREATMENT:	ENGR. APPROVE BY	DATE
	MFG. APPROVE BY	DATE
PROCEDURE NUMBER:	ERN NUMBER	DATE
	02598	1/3/2022



ENGINEERING

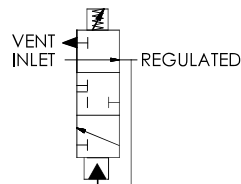
**VALVE, PRESSURE REGULATOR, GEN 2,
 COMPACT, BRACKET, 3/15 KSI,
 3/8" NPTF, TOPSIDE TRIM**

SIZE	DWG NO	REV
B	29163	C
SCALE 1:2	SolidWorks	SHEET 1 OF 4

SCHEMATIC

ESTIMATED WEIGHT:
 14 LBS

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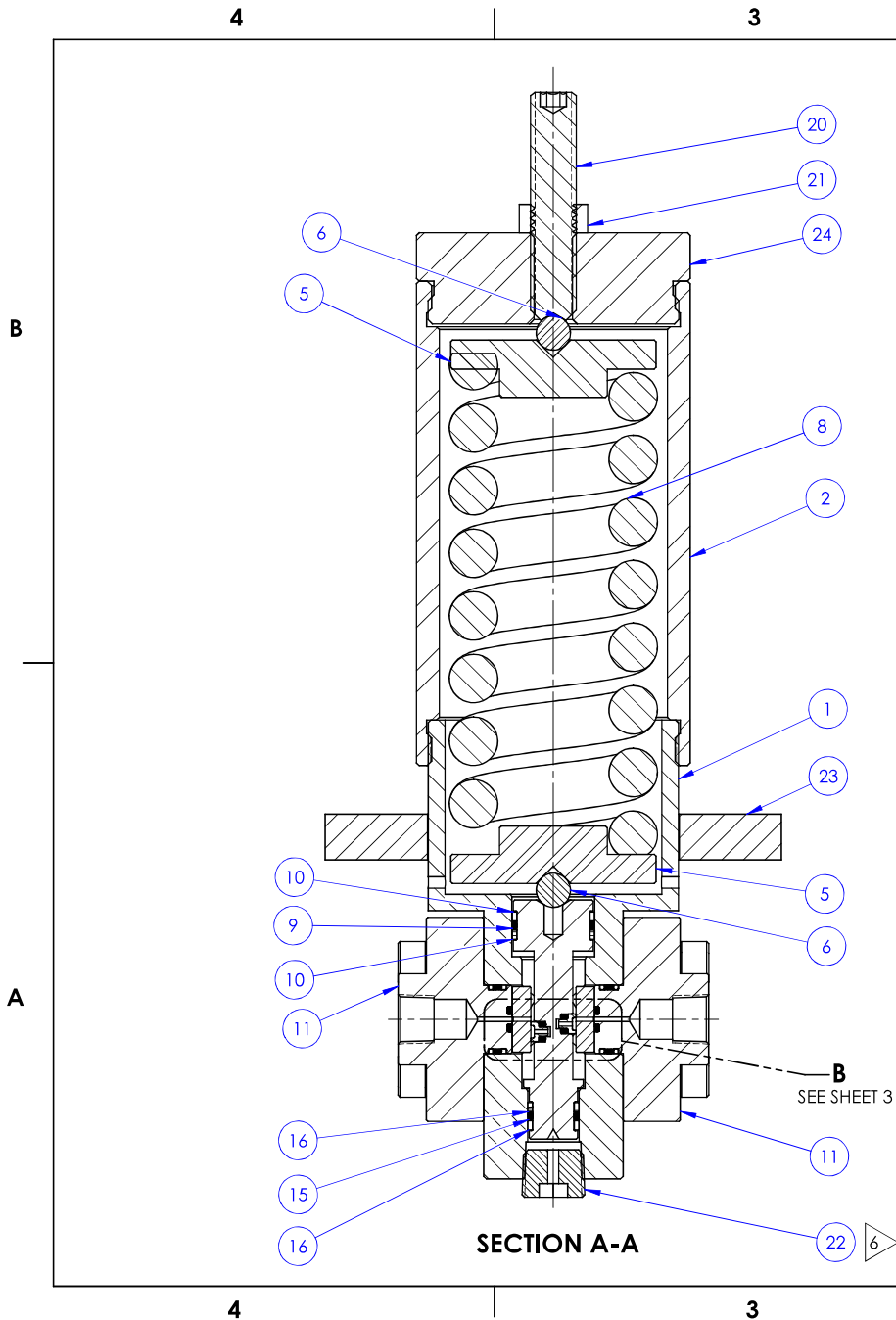


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BILL OF MATERIALS						
ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	216344	BODY, 3/8" NPT, COMPACT REGULATOR GEN 2	A276 TP S20910 (NITRONIC 50)	1		
2	227237	TUBE, SPRING, VALVE, COMPACT REGULATOR, GEN 2	ALUM 6061 ANDZ BLUE	1		
3	205409	PLATE, SEAL, COMPACT REGULATOR	TUNGSTEN CARBIDE /NICKEL	2	X	
4	205410	CONTAINER, SEAL, COMPACT REGULATOR	A276 TP S21800 (NITRONIC 60)	1	X	
5	227240	SPRING DISK	ALUMINUM GRADE 6061	2		
6	18800-007	BALL	A276 TP 316 (316 SS)	2		
7	18224-047	SHCS, 5/16-18 UNC X 1" LG	A453 GR660	9		
8	227236	SPRING, COMPRESSION, COMPACT REGULATOR, TOPSIDE	ASTM A401	1	X	
9	18100-007C	O-RING	BUNA-N	1	X	X
10	212267	BACKUP RING	PEEK	2	X	X
11	205412	FLANGE, 1/4" NPTF, COMPACT REGULATOR	A276 TP 316 (316 SS)	2		
12	205414	HYDRO SEAL, VENT, COMPACT REGULATOR	TUNGSTEN CARBIDE /NICKEL	2	X	
13	18100-014C	O-RING	BUNA-N	2	X	X
14	18100-613K1	O-RING	HNBR	2	X	X
15	18100-013C	O-RING	BUNA-N	1	X	X
16	205415	BACKUP RING	PEEK	2	X	X
17	18221-010G	SHCS #4-40 UNC X 3/8" LG NYLOK	F593 Gr 2 COND A (316 SS)/NYLON	4	X	X
18	18100-001K1	O-RING	HNBR	2	X	X
19	227338	PARBAK, BACK-UP RING	NITRILE	4	X	X
20	227239	ADJUSTMENT SCREWS, 1/2"-13 UNC	18-8 SS	1		
21	216349	JAM - NUT, HEX, 1/2"-13 UNC	TP 316	1		
22	216350	PIPE PLUG, 3/8" NPT, VENTED	TP 316	1		
23	227241	PANEL BRACKET	ALUM 6061 ANDZ BLUE	1		
24	227238	CAP, SPRING, VALVE, COMPACT REGULATOR, GEN 2, TOPSIDE	ALUM 6061 ANDZ BLUE	1		

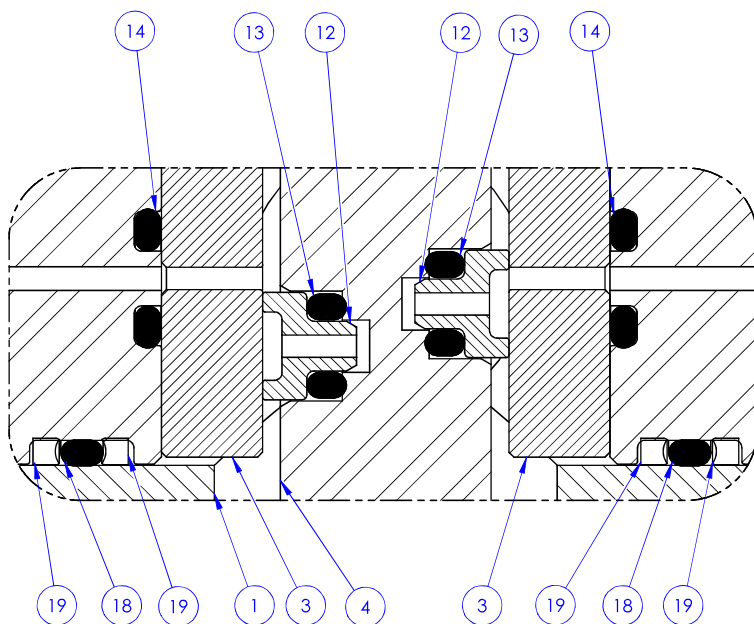
	
SIZE B	DWG NO 29163
SCALE 1:2	SHEET 2 OF 4
SolidWorks	
REV C	

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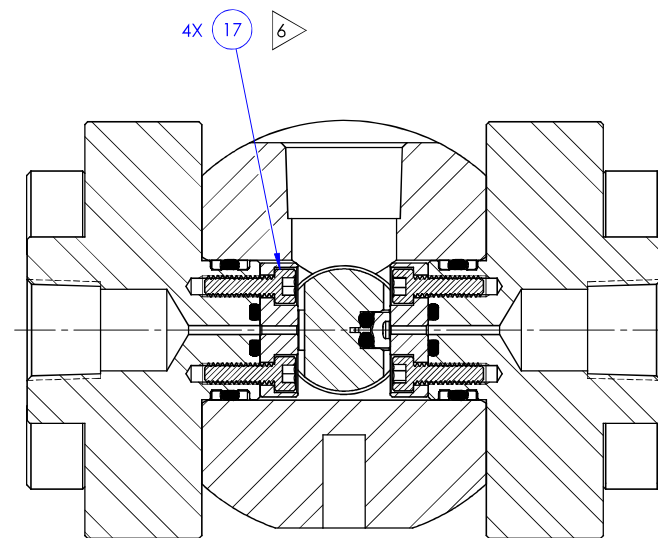
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**DETAIL B**

(REFER TO SHEET 4 FOR POSITIONS)

**SECTION C-C**

			ENGINEERING	
SIZE B	DWG NO	29163		REV C
SCALE 1:2	SolidWorks		SHEET 3 OF 4	

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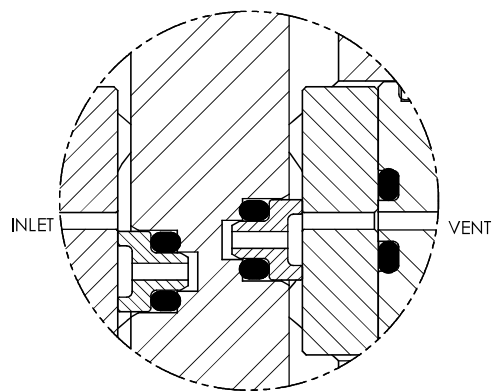
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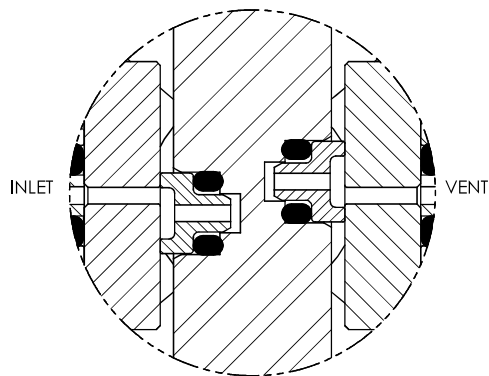
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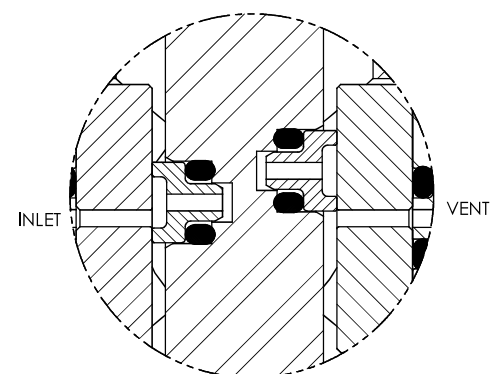
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**DETAIL B
OPEN**



**DETAIL B
CLOSED**



**DETAIL B
VENT**

A

A

4

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		ENGINEERING	
SIZE B	DWG NO	29163	REV C
SCALE 1:2	SolidWorks	SHEET 4 OF 4	