

## 3/4" GEN2 Relief Valve Product Line

REV	DATE	DESCRIPTION	ORIGIN (issued by)	APPROVED
002	10-30-2019	Document No: 110-082219-002	AP	SS
001	08-22-2019	Document No: 110-082219-001	AP	SS

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[info@gilmore.com](mailto:info@gilmore.com)

Gilmore  
1231 Lumpkin Road  
Houston, TX 77043

## 3/4" GEN2 Relief Valve Product Line



Gilmore announces the new GEN 2 Relief Valve product line for critical offshore and subsea applications. The GEN 2 Relief Valve has been redesigned with significant improvements, within the same footprint as the legacy Gilmore Relief Valve. Gilmore's proprietary hydro-seal technology provides an order of magnitude improvement in endurance cycle life for improved reliability.

### Features and Benefits:

- Qualified to API 16D requirements
- Proprietary bi-directional Tungsten Carbide metal seal technology ensures seal integrity and prevents back pressure surge failures
- Suitable for panel mounting
- Improved materials for subsea use:
  - Tungsten Carbide (10% Ni) Hydro-Seals
  - Inconel X750 Springs
  - Nitronic 60 Seal Carrier
  - 17-4 PH H1150DA Body
  - PEEK / HNBR Soft Seals
  - 316ss Flange
  - A286 Gr 660 Cap Screws
- Patent Pending
- Wide variety of set point ranges and vent port configurations
- Wide variety of port styles to select from
- Optional inlet check valve and in-situ SAE test port
- **Drop-in replacement for legacy Gilmore relief valves**

Figure 1. PN 29101-4: GEN 2 Relief Valve, 3/4" SAE, Single Vent, Set Point Range 1801 – 3900 psi

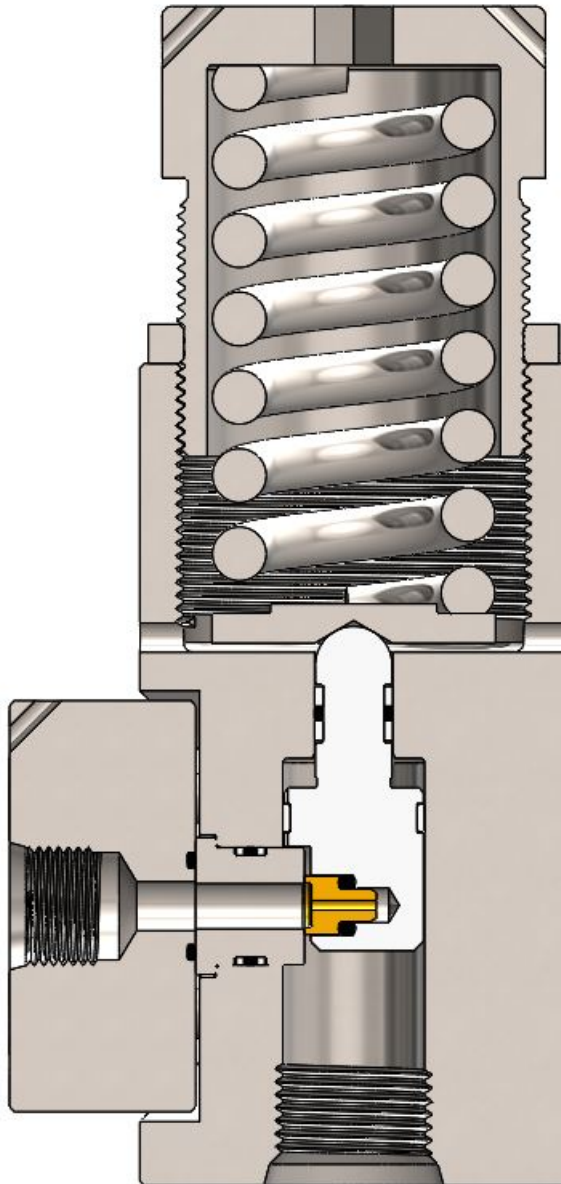


Figure 2. PN 29104-5: GEN 2 Relief Valve, 3/4" SAE, Dual Vent, Set Point Range 3,901 – 5,500 psi

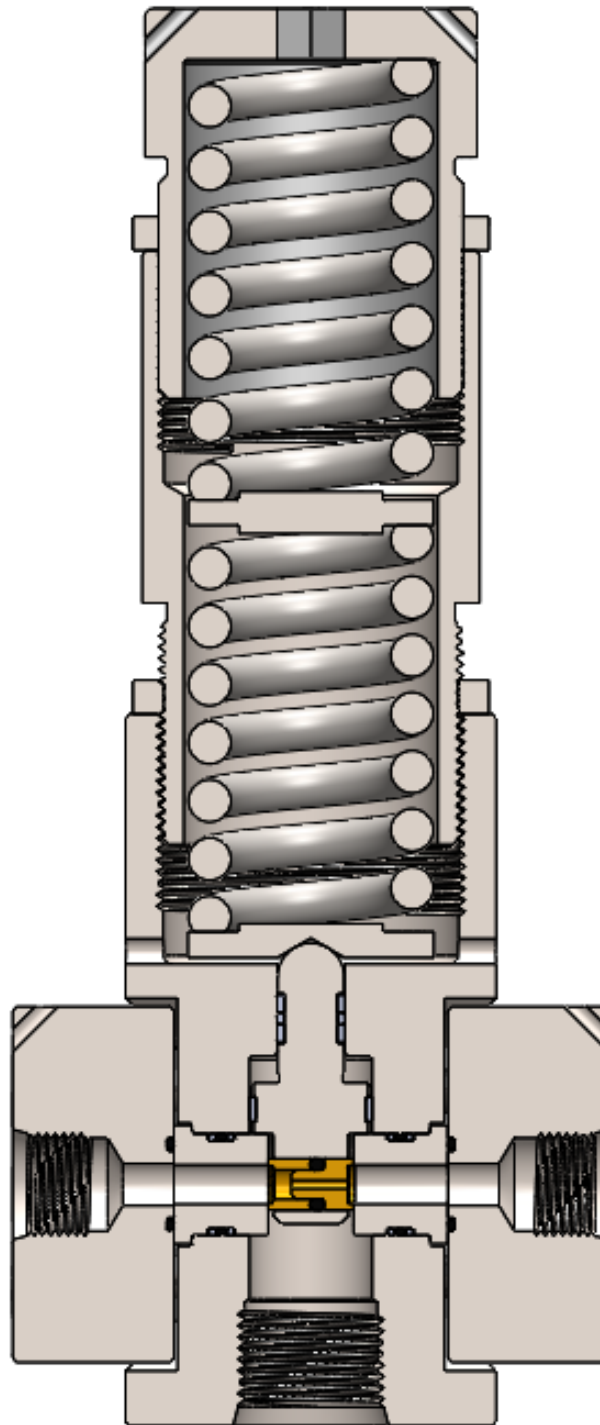
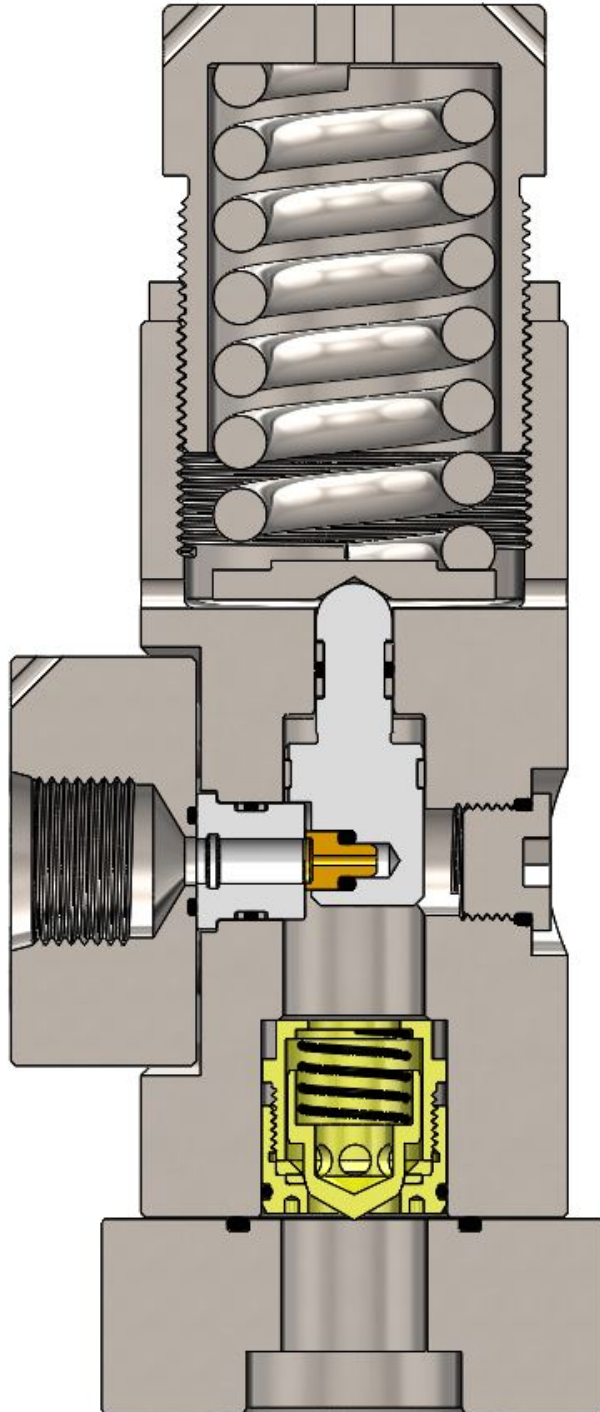


Figure 3. PN 29106-5 New 1" Code 62 x 3/4" SAE, Single Vent, 1/2" SAE In-Situ Test Port, Set Point Range 3,901 – 5500 psi



Gilmore's GEN 2 Relief Valve designs meet API 16D requirements by successfully qualifying to 1000 pressure relieving cycles, across their range of set-points and configurations at 15% over pressurization.

A pressure – flow curve is available for each GEN 2 relief valve part number.

The new GEN 2 Relief Valve has an identical footprint to the legacy valves and are available with the same set points as the legacy valve.

As a result of the new Gilmore GEN 2 Relief Valve product line being available now, we are providing a cross reference between the new improved GEN 2 part number and the existing legacy part number in the tables that follow below:

**Table 1. Legacy and GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, 6 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topsides Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topsides Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
1.1	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 150 to 500 psi	22511-6 25163-6 25327-1 25329-6	22511-6 RK 25163-6 RK 25327-1 RK 25329-6 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 150 to 500 psi	29100-1	29100-1 RK
1.2	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 500 to 1250 psi	22511-1 25163-1 25317-1 25318-1 25329-1	22511-1 RK 25163-1 RK 25317-1 RK 25318-1 RK 25329-1 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 501 to 1200 psi	29100-2	29100-2 RK
1.3	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 1250 to 1850 psi	22511-2 25163-2 25317-2 25318-2 25329-2	22511-2 RK 25163-2 RK 25317-2 RK 25318-2 RK 25329-2 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 1201 to 1800 psi	29100-3	29100-3 RK
1.4	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 1850 to 4500 psi	22511-3 25163-3 25317-3 25318-3 25329-3	22511-3 RK 25163-3 RK 25317-3 RK 25318-3 RK 25329-3 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 1801 to 3900 psi	29100-4	29100-4 RK
1.5	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 4500 to 5000 psi	22511-4 25163-4 25317-4 25318-4 25329-4	22511-4 RK 25163-4 RK 25317-4 RK 25318-4 RK 25329-4 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 3901 to 5500 psi	29100-5	29100-5 RK
1.6	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 5000 to 6000 psi	22511-5 25163-5 25317-5 25318-5 25889-5 25329-5	22511-5 RK 25163-5 RK 25317-5 RK 25318-5 RK 25889-5 RK 25329-5 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 5501 to 6600 psi	29100-6	29100-6 RK
1.7	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 5800 to 6600 psi	25307-1	25307-1 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 5501 to 6600 psi	29100-6	29100-6 RK

**Table 2. Legacy and GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, 6 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topsides Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topsides Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
2.1	Valve, Relief, 3/4 SAE x 3/4 SAE, Single Vent, Set Point Range 150 to 500 psi	25339-6	25339-6 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, Set Point Range 150 to 500 psi	29101-1	29101-1 RK
2.2	Valve, Relief, 3/4 SAE x 3/4 SAE, Single Vent, Set Point Range 500 to 1250 psi	25339-1	25339-1 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, Set Point Range 501 to 1200 psi	29101-2	29101-2 RK
2.3	Valve, Relief, 3/4 SAE x 3/4 SAE, Single Vent, Set Point Range 1250 to 1850 psi	25339-2	25339-2 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, Set Point Range 1201 to 1800 psi	29101-3	29101-3 RK
2.4	Valve, Relief, 3/4 SAE x 3/4 SAE, Single Vent, Set Point Range 1850 to 4500 psi	25339-3	25339-3 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, Set Point Range 1801 to 3900 psi	29101-4	29101-4 RK
2.5	Valve, Relief, 3/4 SAE x 3/4 SAE, Single Vent, Set Point Range 4500 to 5000 psi	25339-4	25339-4 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, Set Point Range 3901 to 5500 psi	29101-5	29101-5 RK
2.6	Valve, Relief, 3/4 SAE x 3/4 SAE, Single Vent, Set Point Range 5000 to 6000 psi	25339-5	25339-5 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Single Vent, Set Point Range 5501 to 6600 psi	29101-6	29101-6 RK

**Table 3. Legacy and GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, 6 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topsides Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topsides Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
3.1	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 150 to 500 psi	25331-6	25331-6 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 150 to 500 psi	29102-1	29102-1 RK
3.2	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 500 to 1250 psi	25331-1	25331-1 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 501 to 1200 psi	29102-2	29102-2 RK
3.3	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 1250 to 1850 psi	25331-2	25331-2 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 1201 to 1800 psi	29102-3	29102-3 RK
3.4	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 1850 to 4500 psi	25331-3	25331-3 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 1801 to 3900 psi	29102-4	29102-4 RK
3.5	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 4500 to 5000 psi	25331-4	25331-4 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 3901 to 5500 psi	29102-5	29102-5 RK
3.6	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 5000 to 6000 psi	25331-5	25331-5 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 5501 to 6600 psi	29102-6	29102-6 RK
3.7	Valve, Relief, 3/4 SAE x 1/2 SAE, Single Vent, Set Point Range 3000 to 5500 psi	28210	28210 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Single Vent, Set Point Range 3901 to 5500 psi	29102-5	29102-5 RK



**Table 4. Legacy and GEN 2, 3/4" NPT x 3/4" NPT, Dual Vent, 6 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topsides Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topsides Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
4.1	Valve, Relief, 3/4 NPT x 3/4 NPT, Dual Vent, Set Point Range 1850 to 4500 psi	25165-3 25167-3	25165-3 RK 25167-3 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Dual Vent, Set Point Range 1801 to 3900 psi	29103-4	29103-4 RK
4.2	Valve, Relief, 3/4 NPT x 3/4 NPT, Dual Vent, Set Point Range 4500 to 6000 psi	25165-5 25164-5 25167-5	25165-5 RK 25164-5 RK 25167-5 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Dual Vent, Set Point Range 3901 to 5500 psi	29103-5	29103-5 RK

**Table 5. Legacy and GEN 2, 3/4" SAE, Dual Vent, 6 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topsides Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topsides Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
5.1	Valve, Relief, 3/4 SAE x 1/2 SAE, Dual Vent, Set Point Range 1850 to 4500 psi	25166-3 25168-1	25166-3 RK 25168-1 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Dual Vent, Set Point Range 1801 to 3900 psi	29104-4	29104-4 RK
5.2	Valve, Relief, 3/4 SAE x 1/2 SAE, Dual Vent, Set Point Range 4500 to 6000 psi	25166-5 25168-2	25166-5 RK 25168-2 RK	Valve, Relief, GEN 2, 3/4" SAE x 1/2" SAE, Dual Vent, Set Point Range 3901 to 5500 psi	29104-5	29104-5 RK
5.3	Valve, Relief, 3/4 SAE x 3/4 SAE, Dual Vent, Set Point Range 1850 to 4500 psi	25169-3	25169-3 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Dual Vent, Set Point Range 1801 to 3900 psi	29107-4	29107-4 RK
5.4	Valve, Relief, 3/4 SAE x 3/4 SAE, Dual Vent, Set Point Range 4500 to 6000 psi	25169-5	25169-5 RK	Valve, Relief, GEN 2, 3/4" SAE x 3/4" SAE, Dual Vent, Set Point Range 3901 to 5500 psi	29107-5	29107-5 RK

**Table 6. Legacy and GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, 10 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topsides Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topsides Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
6.1	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 4000 to 9500 psi	25311-3	25311-3 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 6601 to 11000 psi *See Table 1 for 4000 to 6000 psi	29105-7	29105-7 RK
6.2	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 6600 to 7900 psi	25307-2	25307-2 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 6601 to 11000 psi	29105-7	29105-7 RK
6.3	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 9500 to 11600 psi	25311-2 25335-2	25311-2 RK 25335-2 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 6601 to 11000 psi	29105-7	29105-7 RK
6.4	Valve, Relief, 3/4 NPT x 3/4 NPT, Single Vent, Set Point Range 4000 to 9500 psi	25335-3	25335-3 RK	Valve, Relief, GEN 2, 3/4" NPT x 3/4" NPT, Single Vent, Set Point Range 6601 to 11000 psi *See Table 1 for 4000 to 6000 psi	29105-7	29105-7 RK



**Table 7. New 1" Code 62 x 3/4" SAE, Single Vent, 1/2" SAE In-Situ Test Port, 6 KSI MAWP Part Number Cross References:**

Item	Legacy Description (For Topside Applications)	Legacy Valve PN	Legacy Repair Kit PN	GEN 2 Valve Description (For Subsea and Topside Applications)	GEN 2 Valve PN	GEN 2 Repair Kit PN
7.1	N/A	N/A	N/A	Valve, Relief, GEN 2, 1" Code 62 x 3/4" SAE, Single Vent, 1/2" SAE In-Situ Test Port, Set Point Range 1801 to 3900 psi	29106-4	29106-4 RK
7.2	N/A	N/A	N/A	Valve, Relief, GEN 2, 1" Code 62 x 3/4" SAE, Single Vent, 1/2" SAE In-Situ Test Port, Set Point Range 3901 to 5500 psi	29106-5	29106-5 RK

If a new Gilmore GEN 2 Relief Valve part number is required, but not listed above, please contact Gilmore Customer Service to request the creation of a new GEN 2 Relief Valve part number. Our Customer Service team is always happy to assist with selecting the GEN 2 replacement valve part number ensuring it meets your application requirements.

**Please Note:** Gilmore has no plans to obsolete our legacy relief valves listed within this bulletin. Gilmore will continue to support our legacy product line through new valve sales, repair kits, seal kits and aftermarket support. However, Gilmore has redesignated all legacy relief valve part numbers that utilize Chrome-Vanadium die springs to be suitable for top side applications only.

Please contact Gilmore Customer Service to request drawings and quotations for any of our GEN 2 Relief Valves at [info@gilmore.com](mailto:info@gilmore.com).

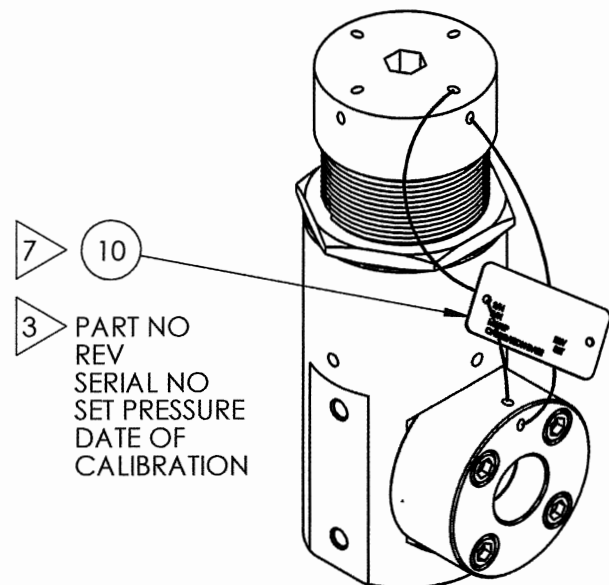
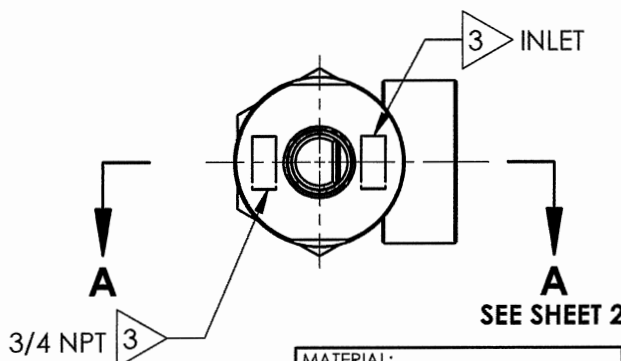
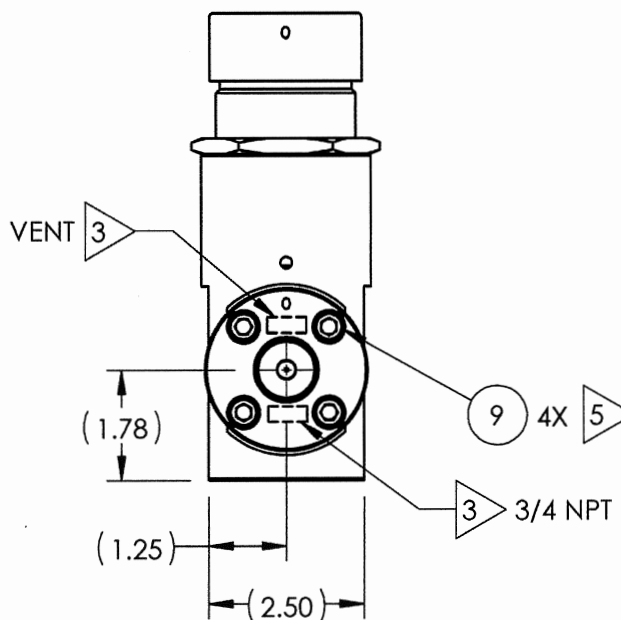
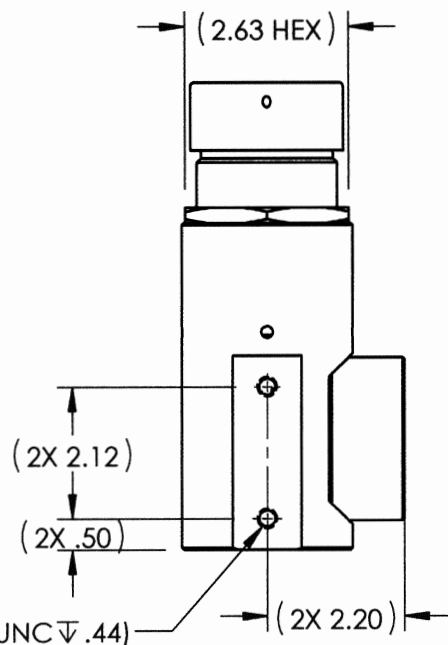
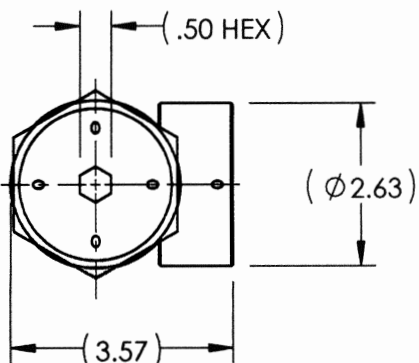
NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. NUMBER AS SHOWN ON COMPONENT DRAWING.
- 2 "X" IN THE BOM DEPICTS PARTS IN REPAIR KIT 29100-5 RK AND SEAL KIT 29100-5 SK.
- 3 MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 4 ALL MANUFACTURED ITEMS ARE PASSIVATED
- 5 TORQUE CAPSCREW TO 12 FT-LBS.
- 6 ASSEMBLY PROCEDURE: 50281  
STANDARD FAT PROCEDURE: 50279  
EXTENDED FAT PROCEDURE: 50280  
SERVICE MANUAL: 51024
- 7 ATTACH TAG KIT BETWEEN CAP AND FLANGE.

LOGO AND COMPANY INFO 3

29100-5  
VER (AX VERSION #)  
(SERIAL NUMBER)  
MWP 6,000 PSI  
(DATE OF MFG)

SEE SHOP TRAVELER  
FOR ADDITIONAL  
INFO REQUIRED



REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02314	8/8/19	8-8-19	8/8/19

PRESSURE DATA

MAX VENT PRESSURE RATING: 6,000 PSI  
SET POINT PRESSURE RANGE: 3901-5500 PSI

FLOW DATA

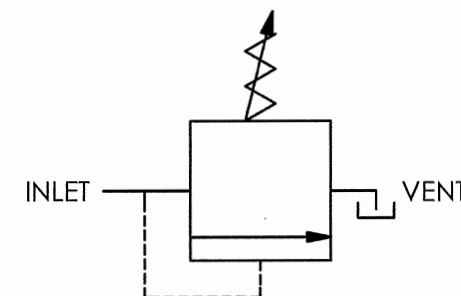
RESET: > 75% OF SET POINT AS PER API 16D.  
FLOW CAPACITY: SEE SHEET 3  
FLUIDS: WATER BASED DRILLING CONTROL FLUID  
MINERAL OIL BASED DRILLING CONTROL FLUID

CONNECTIONS

INLET: 3/4 NPT  
VENT: 3/4 NPT

GENERAL DATA

APPROX WEIGHT: 10 LBS  
TEMP RANGE: 32°F TO 150°F  
FIELD SERVICEABLE



SCHEMATIC

PATENT PENDING

MATERIAL:  
REFER TO INDIV  
BOM ITEMS

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	DATE
DRAWN BY	8/8/19
CHECKED BY	8-8-19
ENGINEER	8/8/19
ERN NUMBER	02314
DATE	06/05/19

THE INFORMATION CONTAINED IN THIS DRAWING IS THE  
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THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.

proserv Gilmore

VALVE, RELIEF, GEN 2, 6KSI, 3/4"  
NPT IN, 3/4" NPT VENT, 3901-5500  
PSI, SUBSEA TRIM

SIZE DWG NO

B

SCALE 1:3

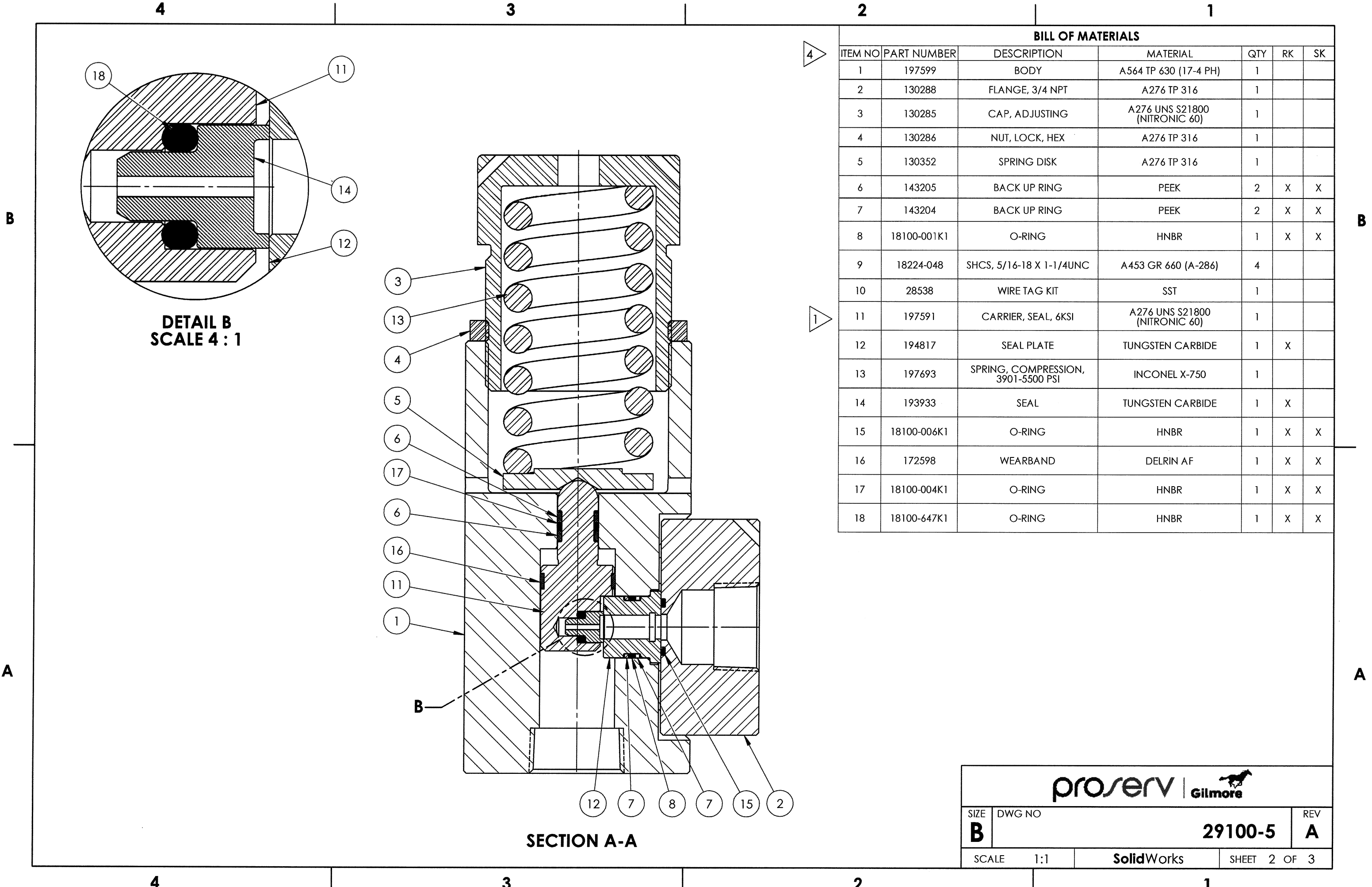
SolidWorks

29100-5

REV

A

SHEET 1 OF 3



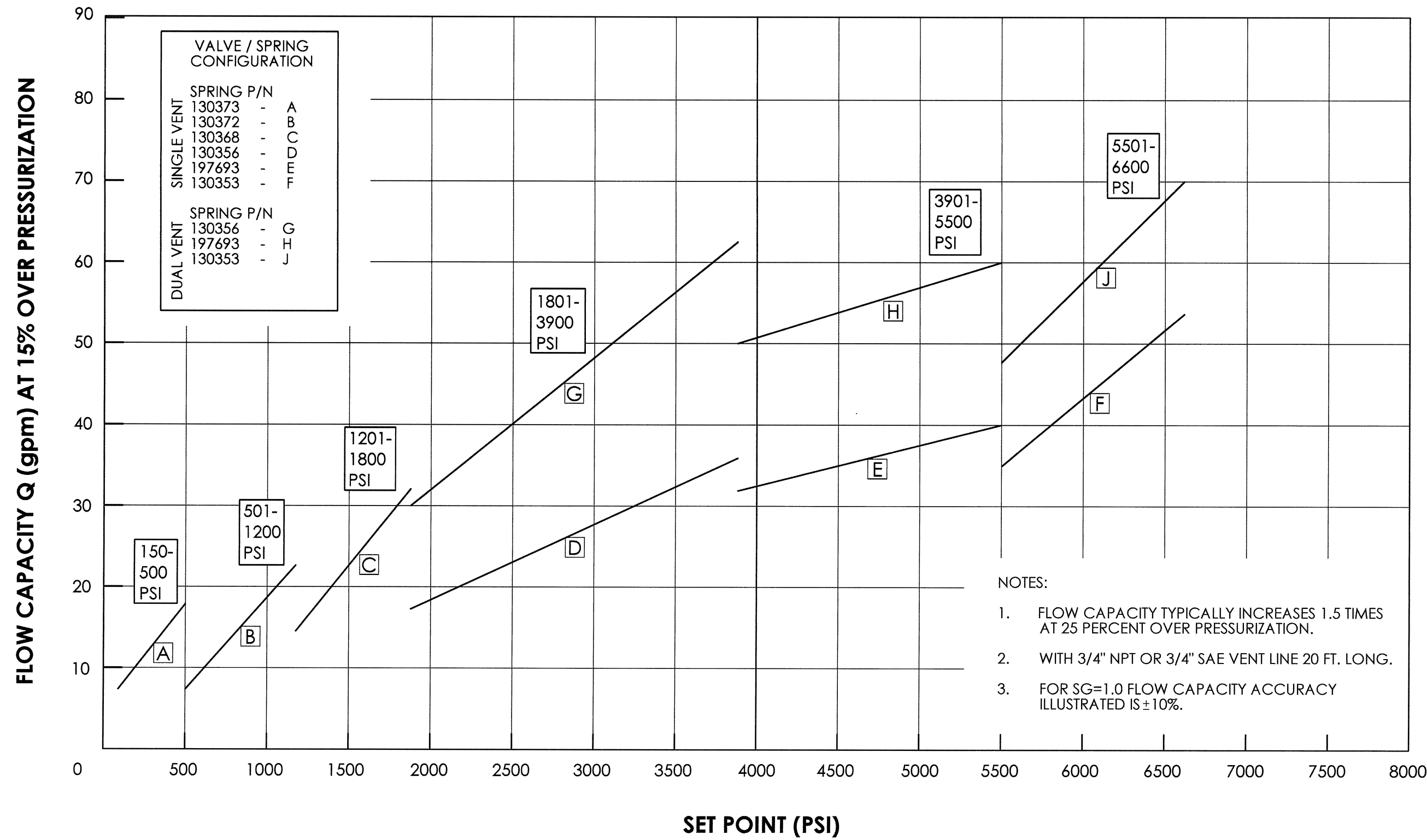
DETAIL B  
SCALE 4 : 1

SECTION A-A

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	197599	BODY	A564 TP 630 (17-4 PH)	1		
2	130288	FLANGE, 3/4 NPT	A276 TP 316	1		
3	130285	CAP, ADJUSTING	A276 UNS S21800 (NITRONIC 60)	1		
4	130286	NUT, LOCK, HEX	A276 TP 316	1		
5	130352	SPRING DISK	A276 TP 316	1		
6	143205	BACK UP RING	PEEK	2	X	X
7	143204	BACK UP RING	PEEK	2	X	X
8	18100-001K1	O-RING	HNBR	1	X	X
9	18224-048	SHCS, 5/16-18 X 1-1/4UNC	A453 GR 660 (A-286)	4		
10	28538	WIRE TAG KIT	SST	1		
11	197591	CARRIER, SEAL, 6KSI	A276 UNS S21800 (NITRONIC 60)	1		
12	194817	SEAL PLATE	TUNGSTEN CARBIDE	1	X	
13	197693	SPRING, COMPRESSION, 3901-5500 PSI	INCONEL X-750	1		
14	193933	SEAL	TUNGSTEN CARBIDE	1	X	
15	18100-006K1	O-RING	HNBR	1	X	X
16	172598	WEARBAND	DELRIN AF	1	X	X
17	18100-004K1	O-RING	HNBR	1	X	X
18	18100-647K1	O-RING	HNBR	1	X	X

GEN 2 RELIEF VALVE PUBLISHED FLOW CAPACITIES



4

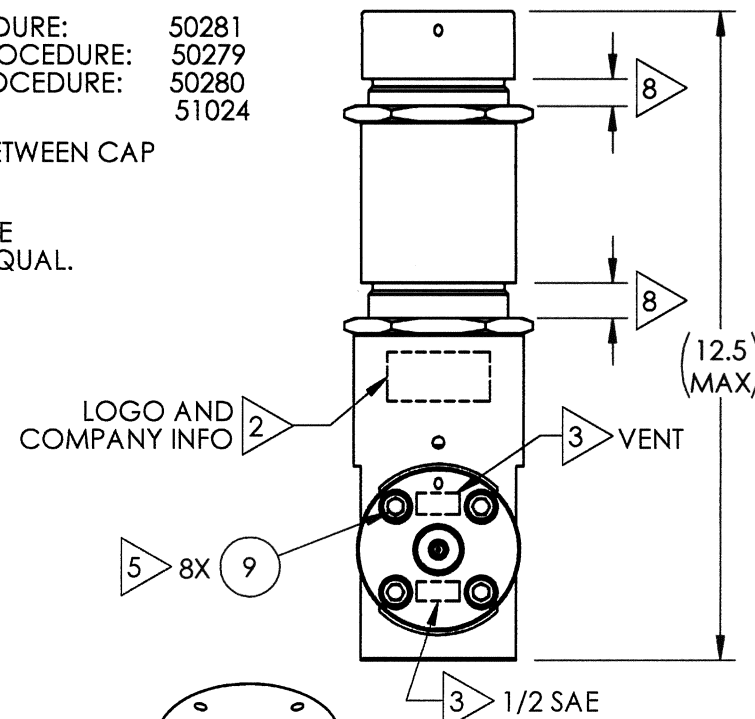
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2

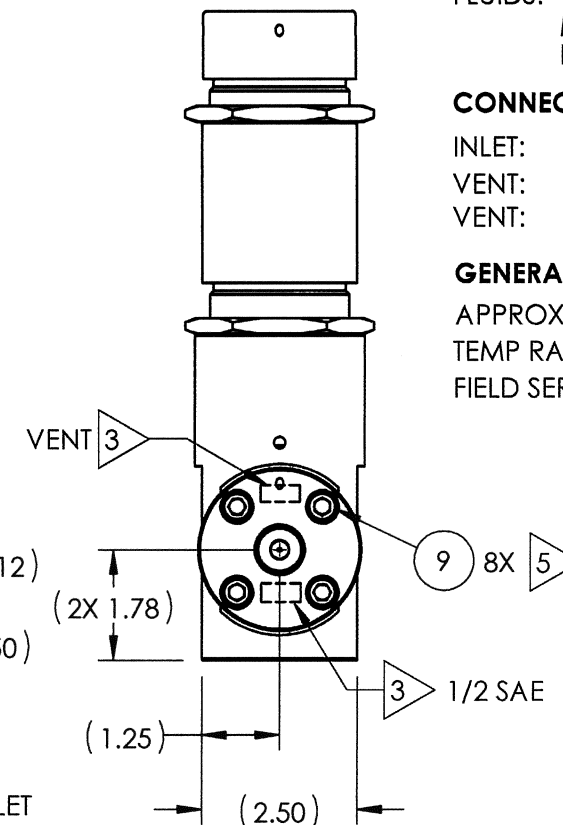
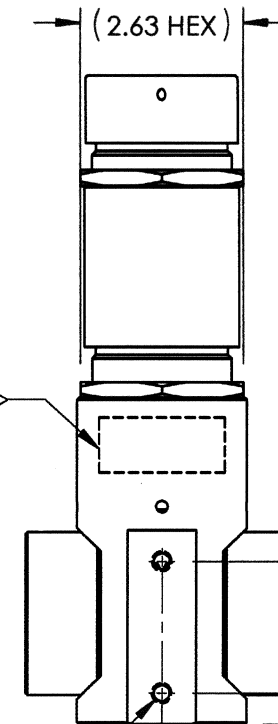
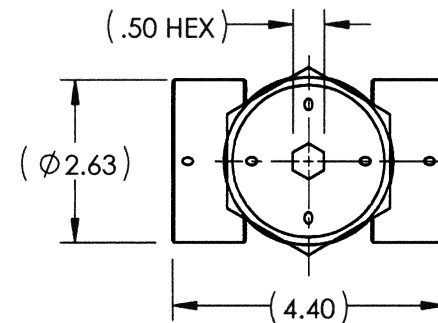
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NOTES:

- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. NUMBER AS SHOWN ON COMPONENT DRAWING.
- 2 "X" IN THE BOM DEPICTS PARTS IN REPAIR KIT 29104-4 RK AND SEAL KIT 29104-4 SK.
- 3 MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 4 ALL MANUFACTURED ITEMS ARE PASSIVATED
- 5 TORQUE CAPSCREW TO 12 FT-LBS.
- 6 ASSEMBLY PROCEDURE: 50281  
STANDARD FAT PROCEDURE: 50279  
EXTENDED FAT PROCEDURE: 50280  
SERVICE MANUAL: 51024
- 7 ATTACH TAG KIT BETWEEN CAP AND FLANGE.
- 8 ADJUST GAPS TO BE APPROXIMATELY EQUAL.



29104-4  
VER (AX VERSION #)  
(SERIAL NUMBER)  
MWP 6,000 PSI  
(DATE OF MFG)  
  
SEE SHOP TRAVELER  
FOR ADDITIONAL  
INFO REQUIRED



REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
A	ERN 02314	8/8/19	ay 8-8-19	8/8/19

PRESSURE DATA

MAX VENT PRESSURE RATING: 6,000 PSI  
SET POINT PRESSURE RANGE: 1801-3900 PSI

FLOW DATA

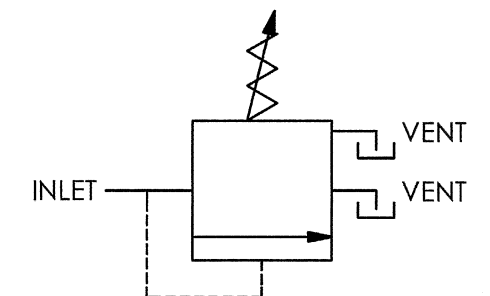
RESET: > 75% OF SET POINT AS PER API 16D.  
FLOW CAPACITY: SEE SHEET 3  
FLUIDS: WATER BASED DRILLING CONTROL FLUID  
MINERAL OIL BASED DRILLING CONTROL FLUID

CONNECTIONS

INLET: 3/4 SAE  
VENT: 1/2 SAE  
VENT: 1/2 SAE

GENERAL DATA

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



SCHEMATIC

PATENT PENDING

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VALVE, RELIEF, GEN 2, 6KSI, DUAL  
VENT, 3/4" SAE IN, 1/2" SAE VENT,  
1801-3900 PSI, SUBSEA TRIM

SIZE	DWG NO.	REV
B	29104-4	A
SCALE 1:3	SolidWorks	SHEET 1 OF 3

4

3

2

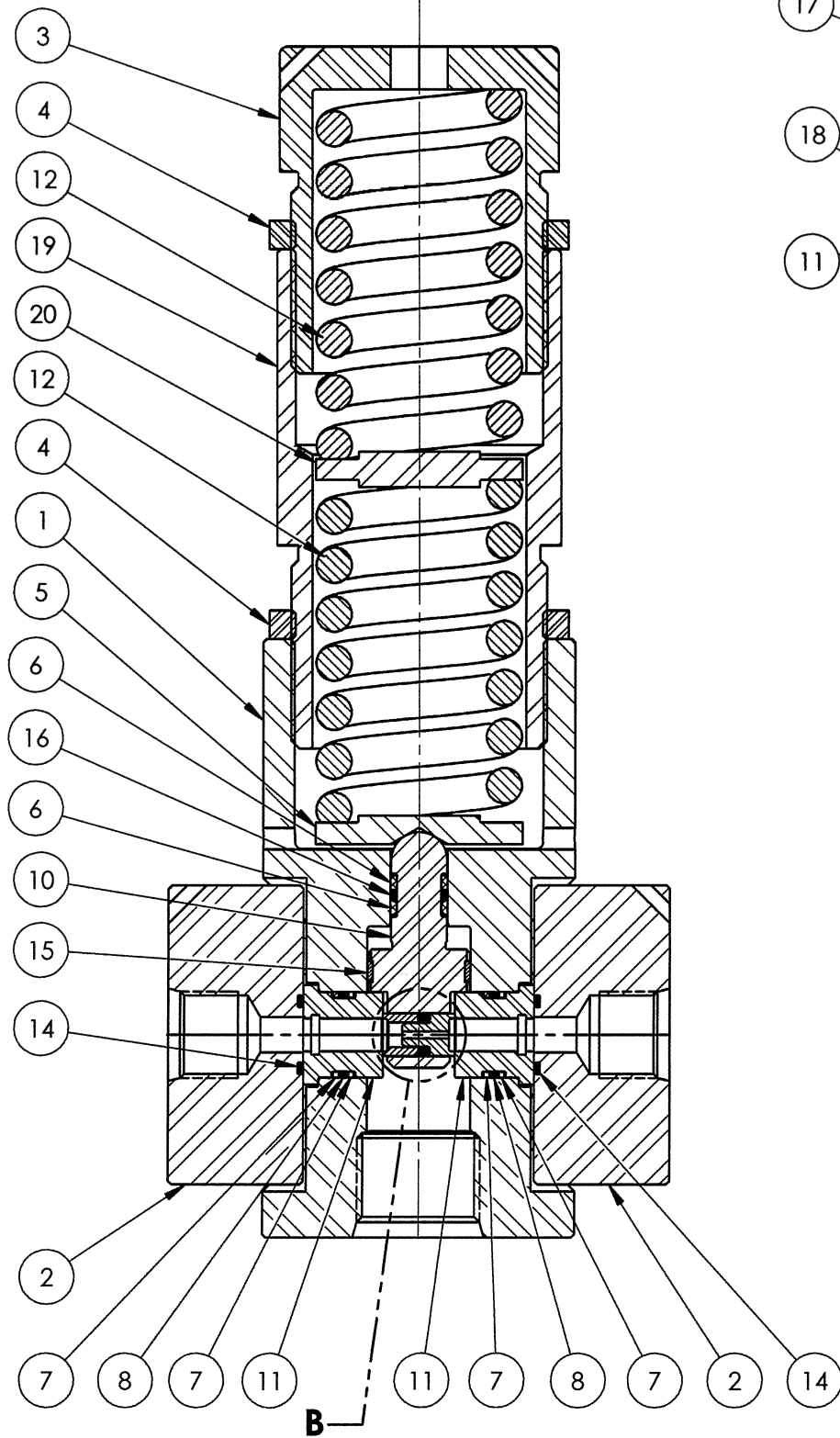
1

4

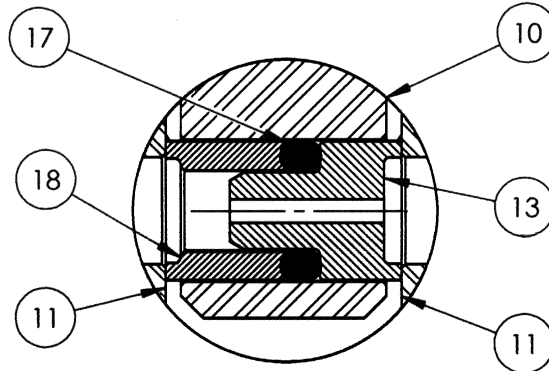
3

2

1



SECTION A-A  
SCALE 1 : 1.5



DETAIL B  
SCALE 2 : 1

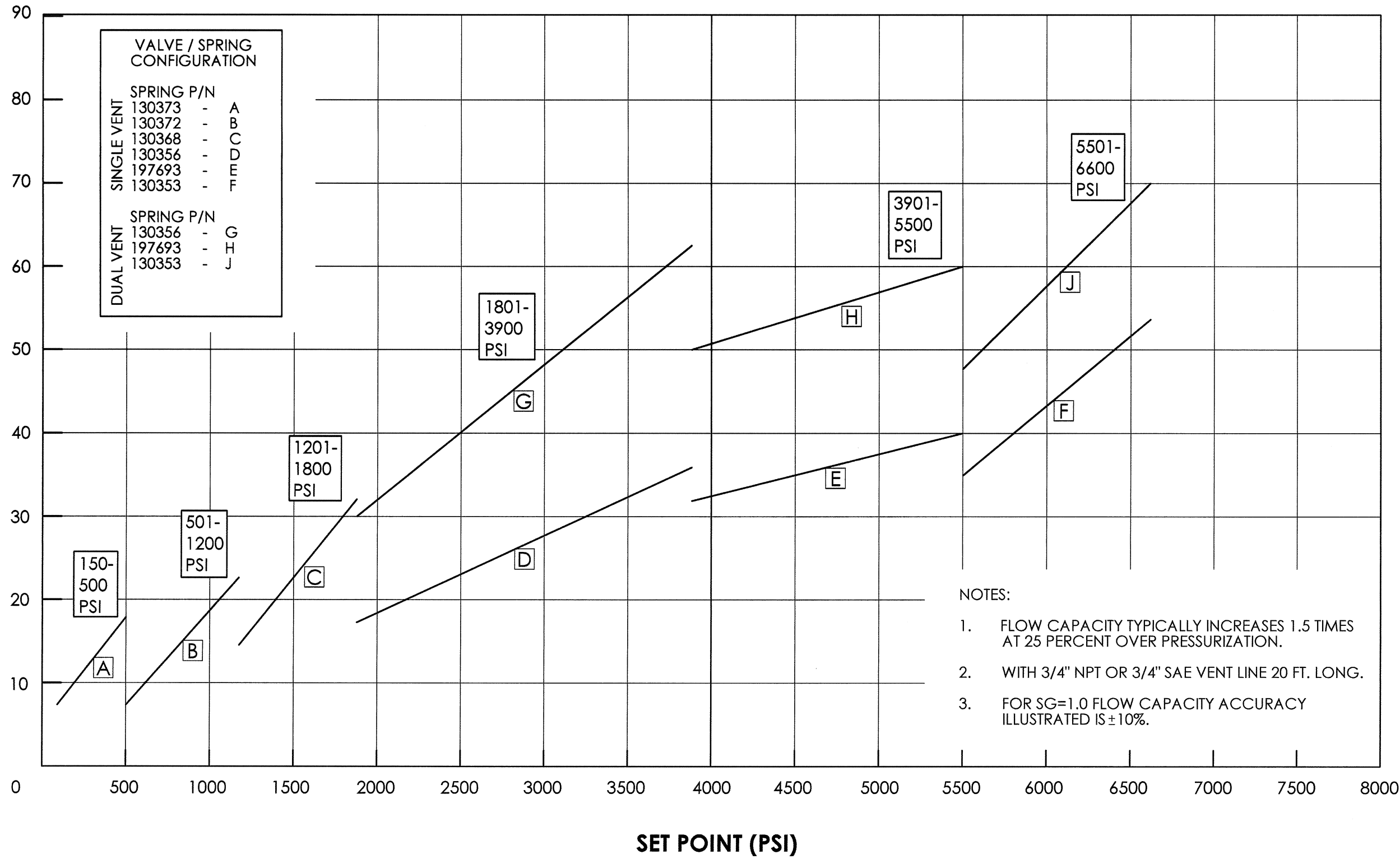
**BILL OF MATERIALS**

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	198962	BODY	A564 TP 630	1		
2	197590	FLANGE, VENT, 1/2 SAE	A276 TP 316	2		
3	130285	CAP, ADJUSTING	A276 UNS S21800 (NITRONIC 60)	1		
4	130286	NUT, LOCK, HEX	A276 TP 316	2		
5	130352	SPRING DISK	A276 TP 316	1		
6	143205	BACK UP RING	PEEK	2	X	X
7	143204	BACK UP RING	PEEK	4	X	X
8	18100-001K1	O-RING	HNBR	2	X	X
9	18224-048	SHCS, 5/16-18 X 1-1/4UNC	A453 GR 660 (A-286)	8		
10	198963	CARRIER, SEAL, DUAL, 6KSI	A276 UNS S21800	1		
11	194817	SEAL PLATE	TUNGSTEN CARBIDE	2	X	
12	130356	SPRING, COMPRESSION, 1801-3900 PSI	INCONEL X-750	2		
13	193933	SEAL, HYDRO	TUNGSTEN CARBIDE	1	X	
14	18100-022K1	O-RING	HNBR	2	X	X
15	172598	WEARBAND	DELFIN AF	1	X	X
16	18100-004K1	O-RING	HNBR	1	X	X
17	18100-647K1	O-RING	HNBR	1	X	X
18	194820	HYDRO SEAL, DUAL	TUNGSTEN CARBIDE	1	X	
19	182650	HOUSING, SPRING DUAL	A276 UNS S21800	1		
20	182653	DISC, SPRING, DUAL	A276 TP 316	1		
21	28538	WIRE TAG KIT	SST	1		

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SIZE <b>B</b>	DWG NO <b>29104-4</b>	REV <b>A</b>
SCALE 1:1	SolidWorks	SHEET 2 OF 3

GEN 2 RELIEF VALVE PUBLISHED FLOW CAPACITIES

FLOW CAPACITY Q (gpm) AT 15% OVER PRESSURIZATION



- NOTES:
- 1. FLOW CAPACITY TYPICALLY INCREASES 1.5 TIMES AT 25 PERCENT OVER PRESSURIZATION.
  - 2. WITH 3/4" NPT OR 3/4" SAE VENT LINE 20 FT. LONG.
  - 3. FOR SG=1.0 FLOW CAPACITY ACCURACY ILLUSTRATED IS  $\pm 10\%$ .



SIZE	DWG NO	REV
B	29104-4	A
SCALE	1:3	SHEET 3 OF 3

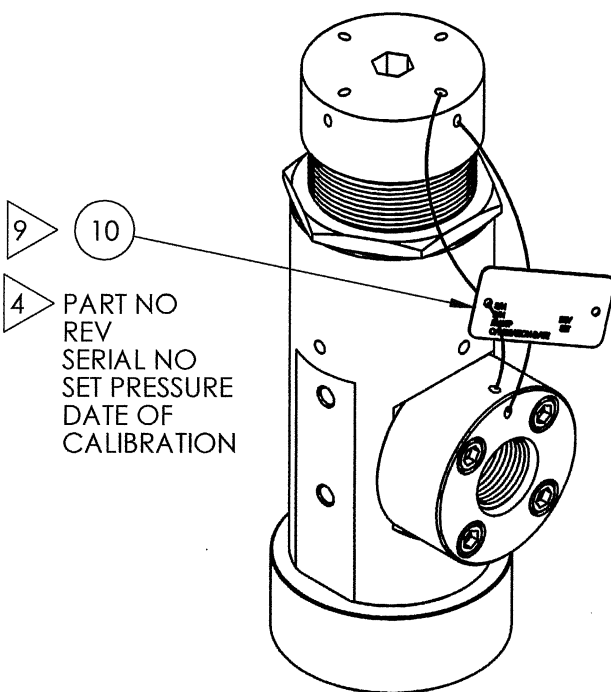


NOTES:

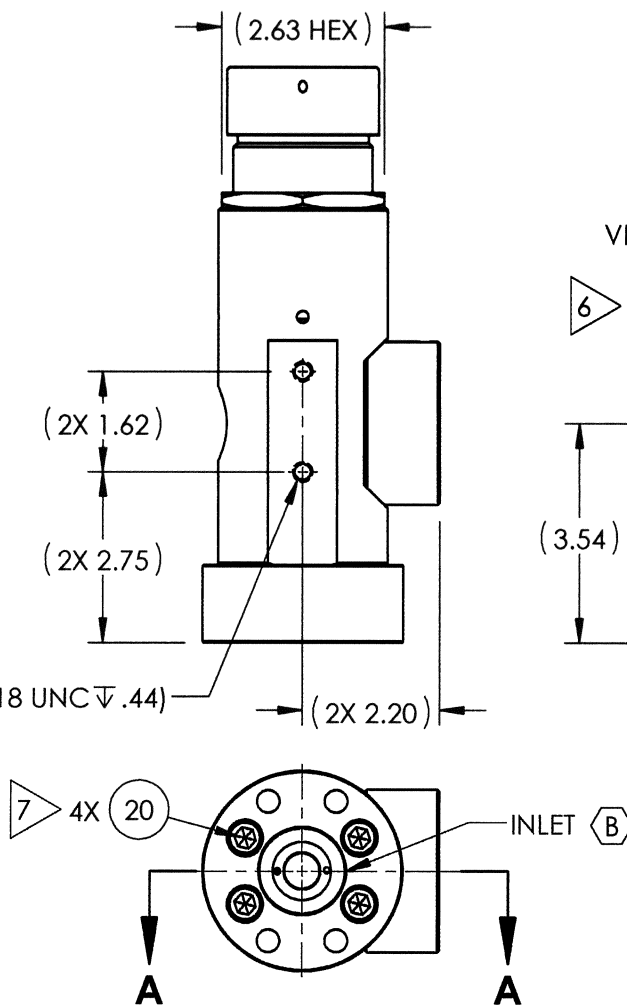
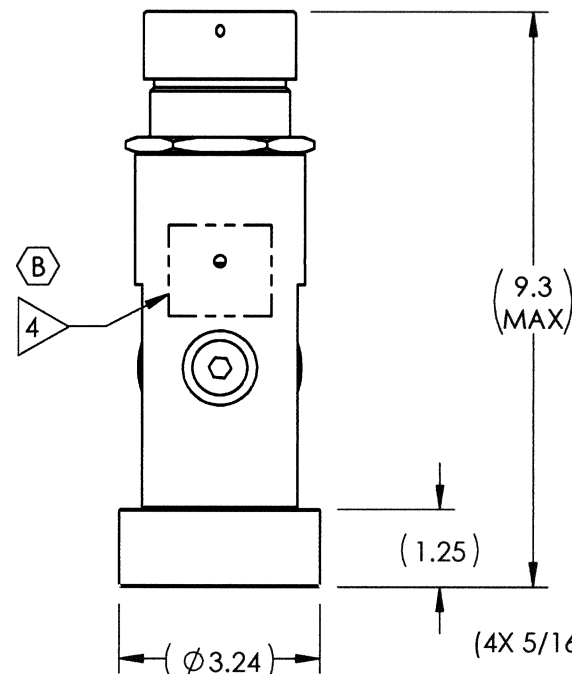
- 1 MARKING: MARK COMPONENT WITH ASSEMBLY W.O. NUMBER AS SHOWN ON COMPONENT DRAWING.
- 2 "X" IN THE BOM DEPICTS PARTS IN REPAIR KIT 29106-5 RK AND SEAL KIT 29106-5 SK.
- 3 ITEMS INCLUDED IN SEAL KIT FROM 27300 SK.
- 4 MARK AS SHOWN USING LASER ETCH OR COMPUTER CONTROLLED DOT PEEN MARKING MACHINE, .06 HIGH MIN CHARACTERS.
- 5 ALL MANUFACTURED ITEMS ARE PASSIVATED
- 6 TORQUE CAPSCREW TO 12 FT-LBS.
- 7 TORQUE CAPSCREW TO 15 FT-LBS.
- 8 ASSEMBLY PROCEDURE: 50281  
STANDARD FAT PROCEDURE: 50279  
EXTENDED FAT PROCEDURE: 50280  
SERVICE MANUAL: 51024
- 9 ATTACH TAG KIT BETWEEN CAP AND FLANGE.

29106-5  
VER (AX VERSION #)  
(SERIAL NUMBER)  
MWP 6,000 PSI  
(DATE OF MFG)

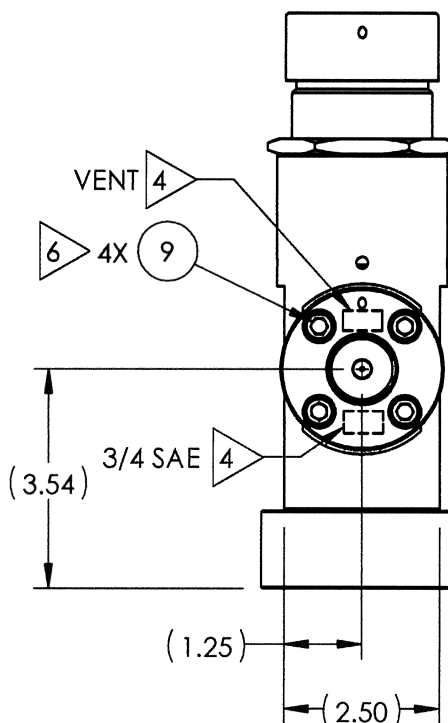
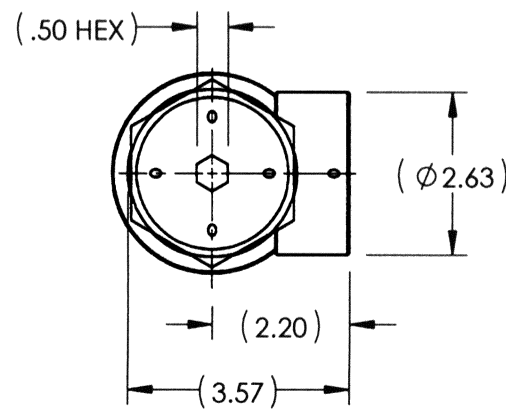
SEE SHOP TRAVELER  
FOR ADDITIONAL  
INFO REQUIRED



10  
PART NO  
REV  
SERIAL NO  
SET PRESSURE  
DATE OF  
CALIBRATION



SEE SHEET 2



REVISIONS

REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
B	ECO 016971	JOP 9/12/19	CY 9-12-19	AJP 9/13/19

PRESSURE DATA

MAX VENT PRESSURE RATING: 6,000 PSI  
SET PRESSURE RANGE: 3901-5500 PSI

FLOW DATA

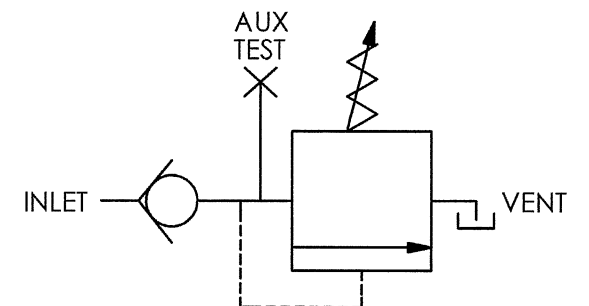
FLOW CAPACITY: SEE SHEET 3  
FLUIDS: WATER BASED DRILLING  
CONTROL FLUID  
MINERAL OIL BASED  
DRILLING CONTROL FLUID

CONNECTIONS

INLET: 1" CODE 62 WITH SEAL SUBS  
VENT: 3/4 SAE  
AUX PORT: 1/2 SAE


GENERAL DATA

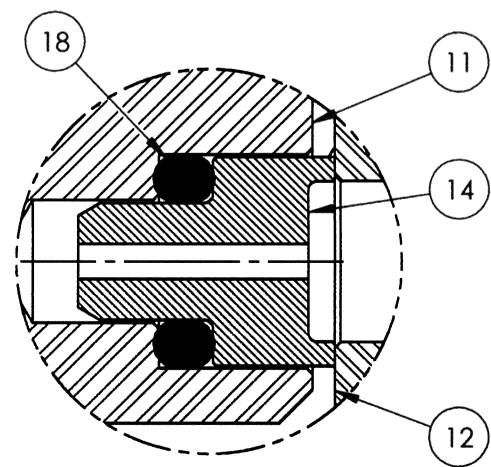
APPROX WEIGHT: 13 LBS  
TEMP RANGE: 32°F TO 150°F  
FIELD SERVICEABLE  
AUX PORT PROVIDED AS MEANS  
TO CONNECT TEST EQUIPMENT AS PER  
SERVICE MANUAL.



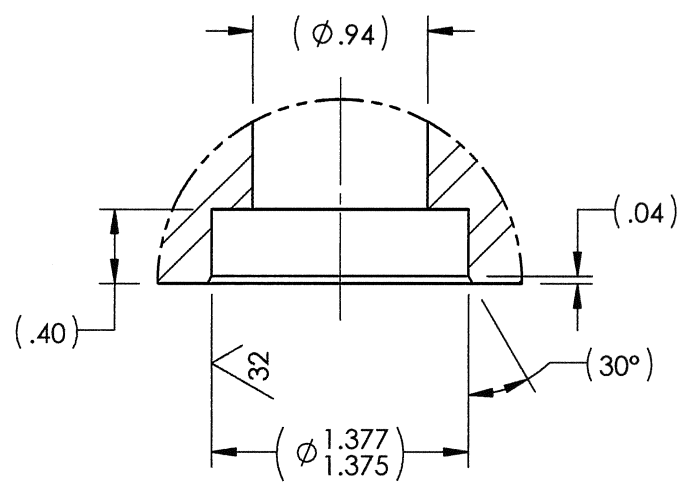
SCHEMATIC

PATENT PENDING

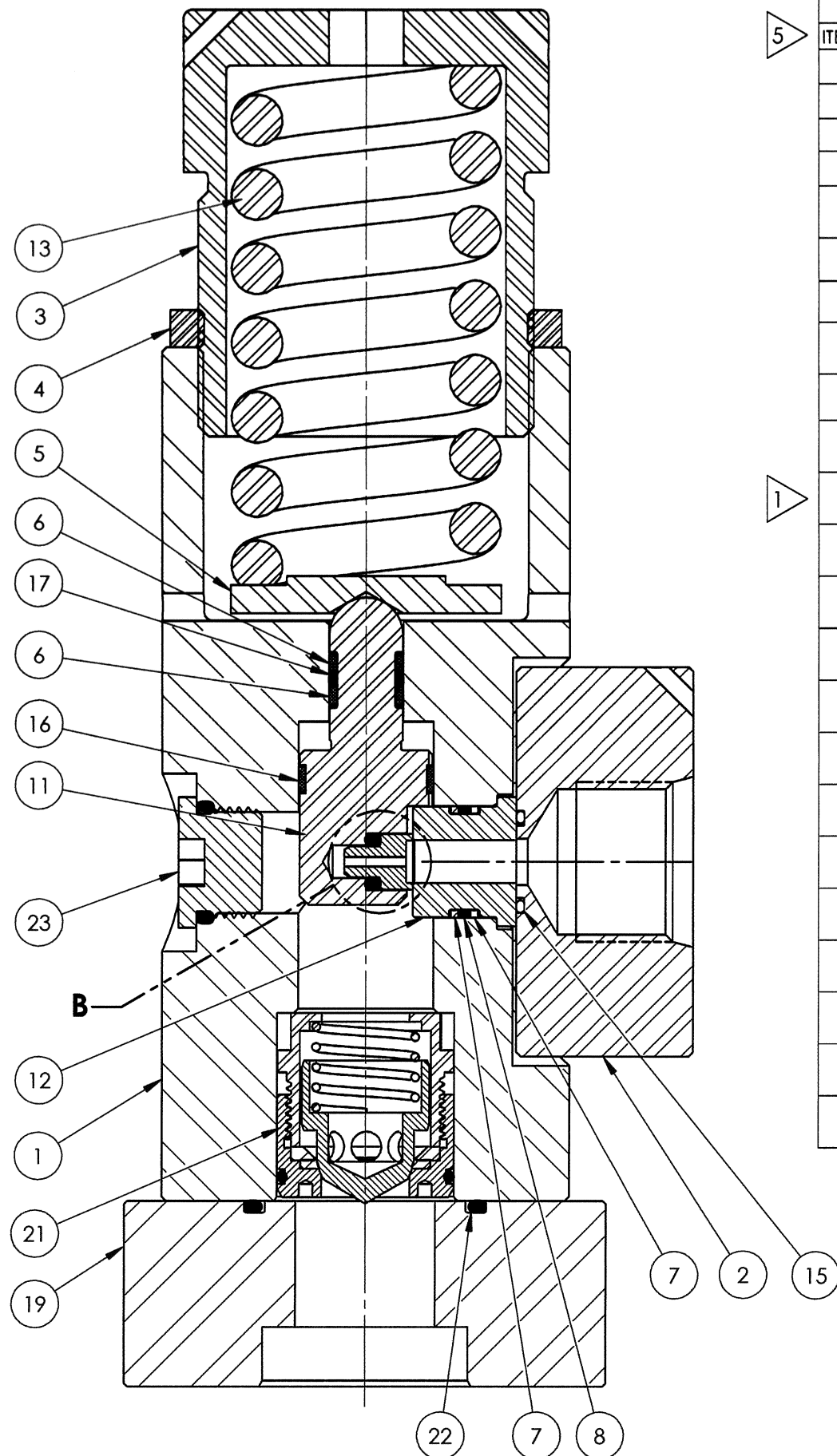
MATERIAL: REFER TO INDIV BOM ITEMS	DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: 1) TOLERANCES:   .X: ±.1 .XX: ±.01 .XXX: ±.005 ANGLES: ±.5° 2) SURFACE TEXTURE: 63 3) CORADIAL FEATURES SHALL BE ☉ WITHIN .010 4) BREAK SHARP EDGES .010 5) INTERNAL RADII SHALL BE .016 MAX 6) DRILL POINTS OPTIONAL WHEN SHOWN UNSPECIFIED, ALL DRILL POINT ANGLES SHALL BE BETWEEN 90°-140°	APPROVAL		<div>proserv</div> <div>Gilmore</div>			
CONDITION:		DRAWN BY JOP	DATE 08/12/19	VALVE, RELIEF, GEN 2, 6KSI, 1" CODE 62 IN, 3/4" SAE VENT, 1/2" SAE AUX TEST PORT, 3901-5500 PSI, SUBSEA TRIM			
		CHECKED BY CY	DATE 08/13/19				
		ENGINEER AJP	DATE 08/13/19				
TREATMENT:		ERN NUMBER 02322	DATE 06/27/19				
PROCEDURE NUMBER: <div>8</div>	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 29106-5	REV B	
				SCALE 1:3	SolidWorks	SHEET 1 OF 3	



DETAIL B  
SCALE 3 : 1



SEAL SUB  
POCKET DETAIL



SECTION A-A

BILL OF MATERIALS

ITEM NO	PART NUMBER	DESCRIPTION	MATERIAL	QTY	RK	SK
1	199652	BODY	A564 TP 630 HH1150	1		
2	130290	FLANGE, VENT, 3/4 SAE	A276 TP 316	1		
3	130285	CAP, ADJUSTING	A276 UNS S21800	1		
4	130286	NUT, LOCK, HEX	A276 TP 316	1		
5	130352	SPRING DISK	A276 TP 316	1		
6	143205	BACK UP RING	PEEK	2	X	X
7	143204	BACK UP RING	PEEK	2	X	X
8	18100-001K1	O-RING	HNBR	1	X	X
9	18224-048	SHCS, 5/16-18 X 1-1/4UNC	A453 GR 660 (A-286)	4		
10	28538	WIRE TAG KIT	SST	1		
11	197591	CARRIER, SEAL, 6KSI	A276 UNS S21800	1		
12	194817	SEAL PLATE	TUNGSTEN CARBIDE	1	X	
13	197693	SPRING, COMPRESSION, 3901-5500 PSI	INCONEL X-750	1		
14	193933	SEAL	TUNGSTEN CARBIDE	1	X	
15	18100-006K1	O-RING	HNBR	1	X	X
16	172598	WEARBAND	DELIN AF	1	X	X
17	18100-004K1	O-RING	HNBR	1	X	X
18	18100-647K1	O-RING	HNBR	1	X	X
19	199780	FLANGE, ADAPTER, 1" C62	A276 TP 316	1		
20	18224-002	SHCS, 3/8-16 UNC X 1.25 LG	A286 GR 660	4		
21	27300	INLET CHECK ASSEMBLY	SEE INDIV PARTS ON BOM	1	X	3
22	18100-090K1	O-RING	HNBR	1	X	X
23	18603-008	HOLLOW HEX PLUG, 1/2" SAE	A240 TP 316	1		

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SIZE <b>B</b>	DWG NO <b>29106-5</b>	REV <b>B</b>
SCALE 1:1	SolidWorks	SHEET 2 OF 3

GEN 2 RELIEF VALVE PUBLISHED FLOW CAPACITIES

