

**1" GEN2 Pressure Regulator, Failsafe Air Motor (AKR)**

REV	DATE	DESCRIPTION	ORIGIN (issued by)	APPROVED
002	05/24/22	Document No: 135-022521-002	AP	BR
001	02/25/21	Document No: 135-022521-001	AP	GM

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## 1" GEN2 Pressure Regulator, Air Motor (AKR)

Gilmore announces the new 1" GEN2 Pressure Regulator with failsafe Air Motor product line for critical offshore and onshore applications. The GEN2 Air Motor Pressure Regulator has been designed with the same hydraulic porting footprint as the legacy AKR Pressure Regulators. This thoroughly redesigned product offering provides an improvement in cycle life and performance.

### Features and Benefits:

- Qualification exceeds API 16D requirements – 10,000 cycles at full flow rates and pressures
- Extended adjustable regulated pressure range – available up to 5500 psi with Air Motor
- Failsafe adjustment maintains set point hydraulic pressure indifferent of pneumatic pressure loss
- Proprietary guided hydraulic dampening technology
- Improved deadband performance
- Enhanced bolted plunger guide
- Upgraded dynamic plunger T-Seal
- Threaded seal carrier alignment
- CRA Material Construction
  - Refined Tungsten Carbide seal trim
  - Nitronic 60 Plunger and Seal Carrier
  - T316 Spring Housing
- Patent #10,739,796

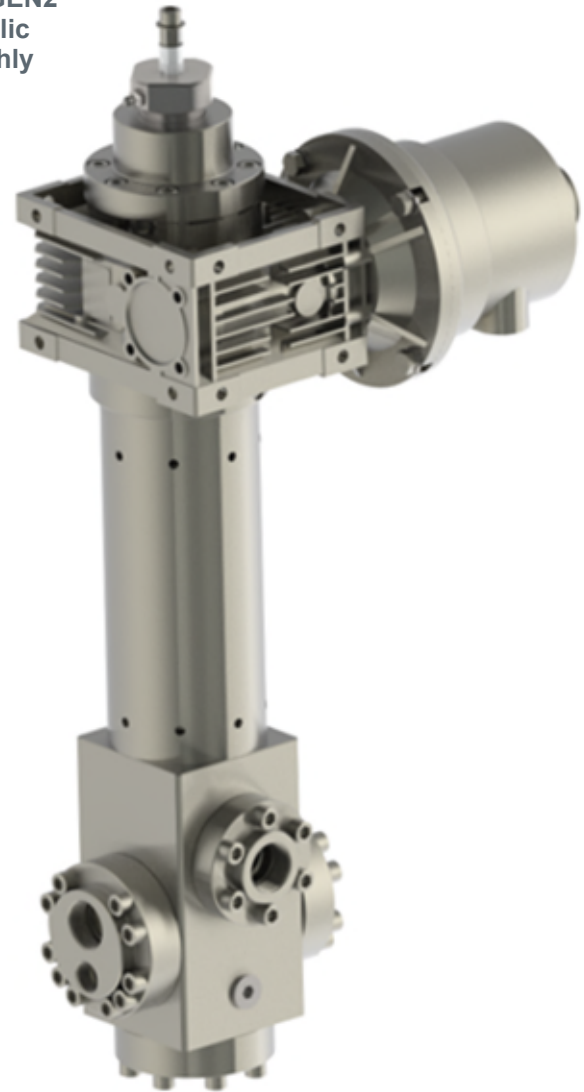


Figure 1. PN 29137: GEN2 Pressure Regulator, Air Motor  
1" NPT Outlet, 1" NPT Inlet, 1500 – 3500 psi range

## 1" GEN2 Pressure Regulator, Air Motor (AKR)

Gilmore has exceeded API 16D requirements by qualifying the new 1" GEN2 Air Motor Regulator designs to 10,000 cycles, at a starting flow rate of 125 gpm per inlet, at 5000 psi, with 1% - 4% water glycol test fluid. Their qualification report is available upon request.

The new Gilmore 1" GEN2 AKR Pressure Regulators have an identical hydraulic port footprint to the legacy regulators for simply drop-in replacement.

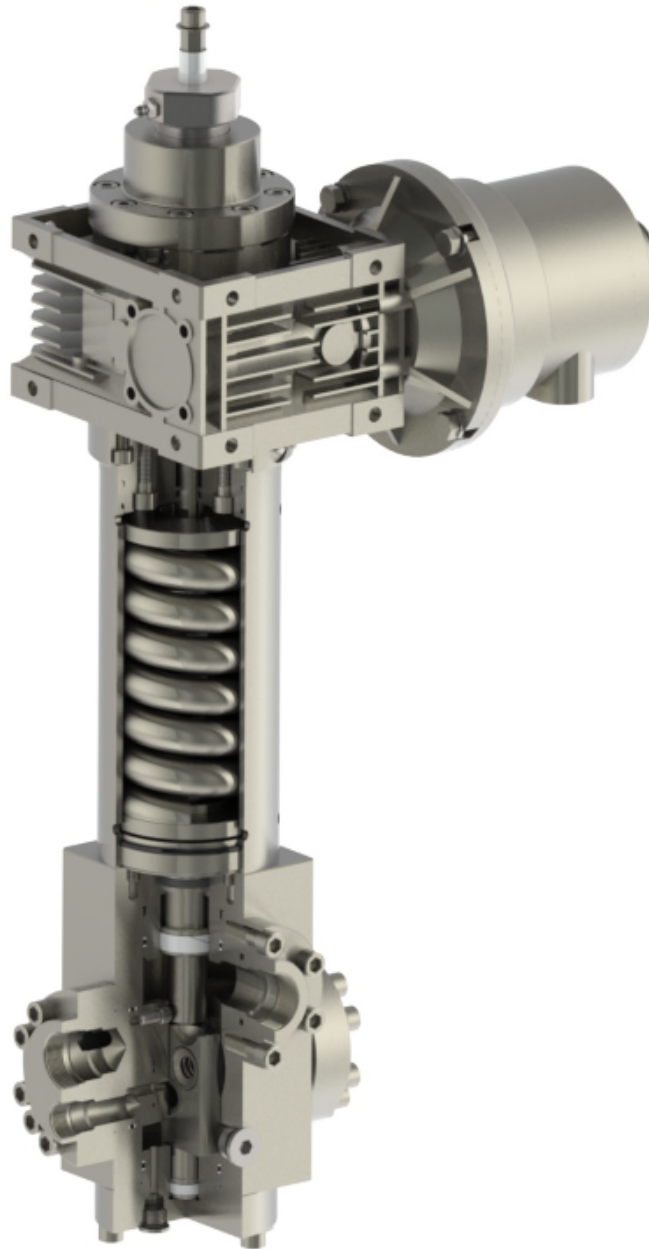
Gilmore will continue to sell and support the legacy 1" Air Motor Regulators with valve sales, repair kits, seal kits and Aftermarket support. Please note that GEN2 Air Motor regulator kits **are not** interchangeable with legacy repair kits and seal kits and cannot be used in legacy regulators.

Gilmore's 1" GEN2 Air Motor Regulators are now available for purchase. Please contact Gilmore Customer Service to request a quotation for the 1" GEN2 Air Motor Pressure Regulators listed below, or any other configurations required that are not listed.

**Table 1. 1" GEN2 Air Motor Pressure Regulators and Legacy Cross-References:**

Item	New Valve Description	Legacy PN Reference	New Valve PN	New Repair Kit PN	New Seal Kit PN
1	Valve, Pressure Regulator, GEN2, Air Motor, 1500-500 psi range, NPT Ports, Single Inlet	44579-99	29096*	29096 RK	29096 SK
2	Valve, Pressure Regulator, GEN2, Air Motor, 3500-1500 psi range, NPT Ports, Single Inlet	44577-98 44577-W30	29137*	29137 RK	29137 SK
3	Valve, Pressure Regulator, GEN2, Air Motor, 1500-500 psi range SAE Ports, Single Inlet	45000-1 44579-98 45000	29138*	29138 RK	29138 SK
4	Valve, Pressure Regulator, GEN2, Air Motor, 5500-2500 psi range, SAE Ports, Single Inlet	N/A	29139	29139 RK	29139 SK
5	Valve, Pressure Regulator, GEN2, Air Motor, 1500-3500 psi range, SAE Ports, Double Inlet	N/A	29144	29144 RK	29144 SK
6	Valve, Pressure Regulator, GEN2, Air Motor, 3500-1500 psi range, Code 62 Ports, Single Inlet	44577-96	29160*	29160 RK	29160 SK
7	Valve, Pressure Regulator, GEN2, Air Motor, 2500-100 psi range, NPT Ports, Single Inlet	44577-W15	29161*	29161 RK	29161 SK
8	Valve, Pressure Regulator, GEN2, Air Motor, 1500-500 psi range, Code 62 Ports, Single Inlet	44579-97	29162*	29162 RK	29162 SK

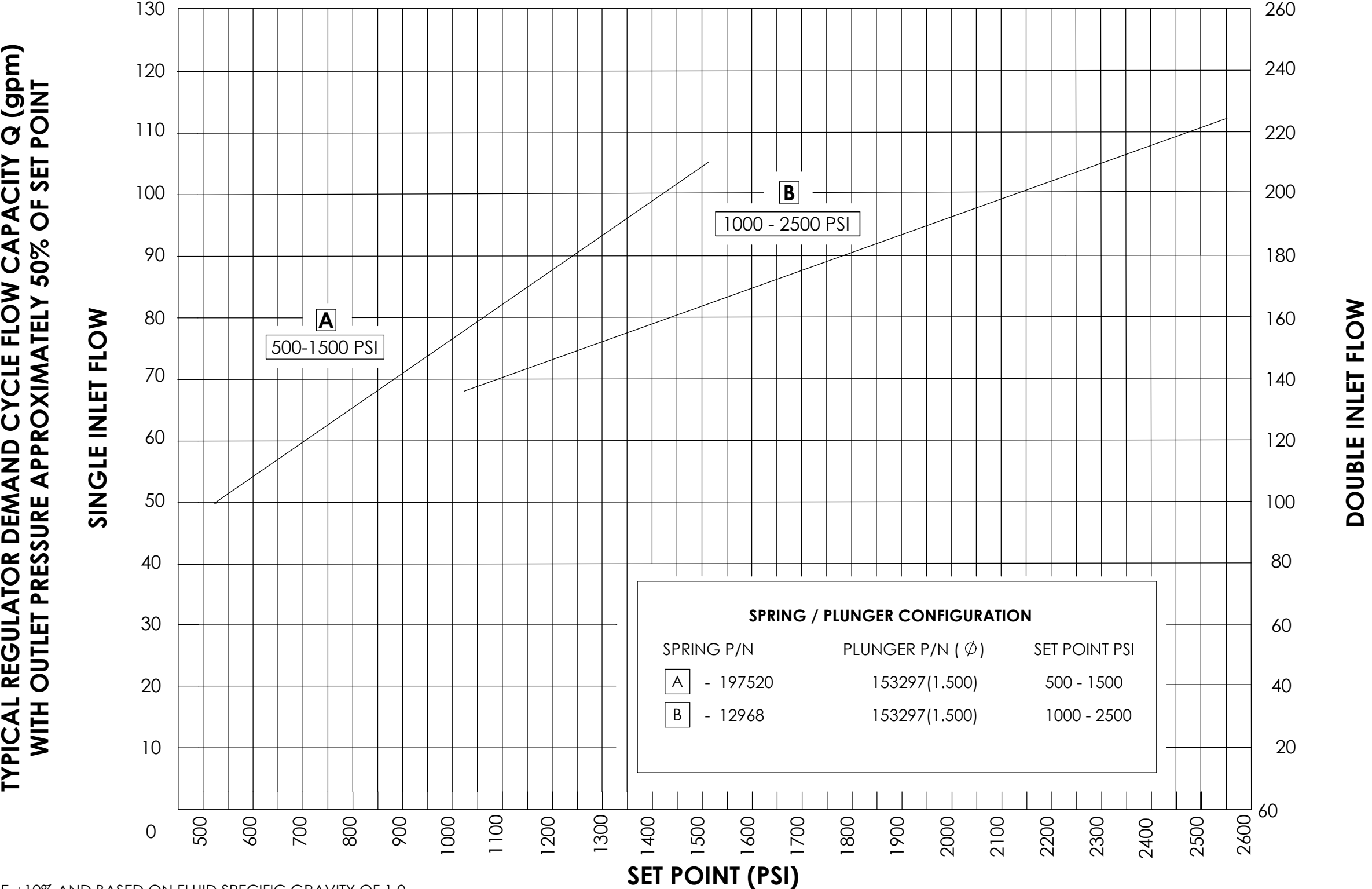
\*Gage port improvement from NPT to SAE.

**1" GEN2 Pressure Regulator, Air Motor (AKR)**

**Figure 2. PN 29096: GEN2 Pressure Regulator, Air Motor, 1" NPT Outlet, 1" NPT Inlet, 1500 – 500 psi range**


Please contact Gilmore Customer Service to request any drawings, manuals and quotations for these new GEN2 Air Motor Regulators to [Info@gilmore.com](mailto:Info@gilmore.com)

GEN 2 PRESSURE REGULATOR FLOW RATES FOR SET POINT RANGE - 3000 PSI SUPPLY



- NOTES:
- 1. FLOW CAPACITIES ARE ±10% AND BASED ON FLUID SPECIFIC GRAVITY OF 1.0
  - 2. FLOW CAPACITIES ARE APPROXIMATELY DOUBLED WHEN TWO INLETS ARE PROVIDED.
  - 3. BASED ON INLET AND REGULATED LINE SIZE OF 1 INCH XH PIPE @ 40 FEET LONG.
  - 4. ACTUAL SYSTEM FLOW RATES MAY VARY.
  - 5. CONSULT WITH GILMORE ENGINEERING IF OPERATING OUTSIDE THE LISTED SET POINT RANGE.

REVISIONS				
REV	ERN /ECO NUMBER	DRAWN	CHECKED	APPROVED
B	ECO 04997	JZ 9/14/20	CMY 9-14-20	AGP 9/14/20

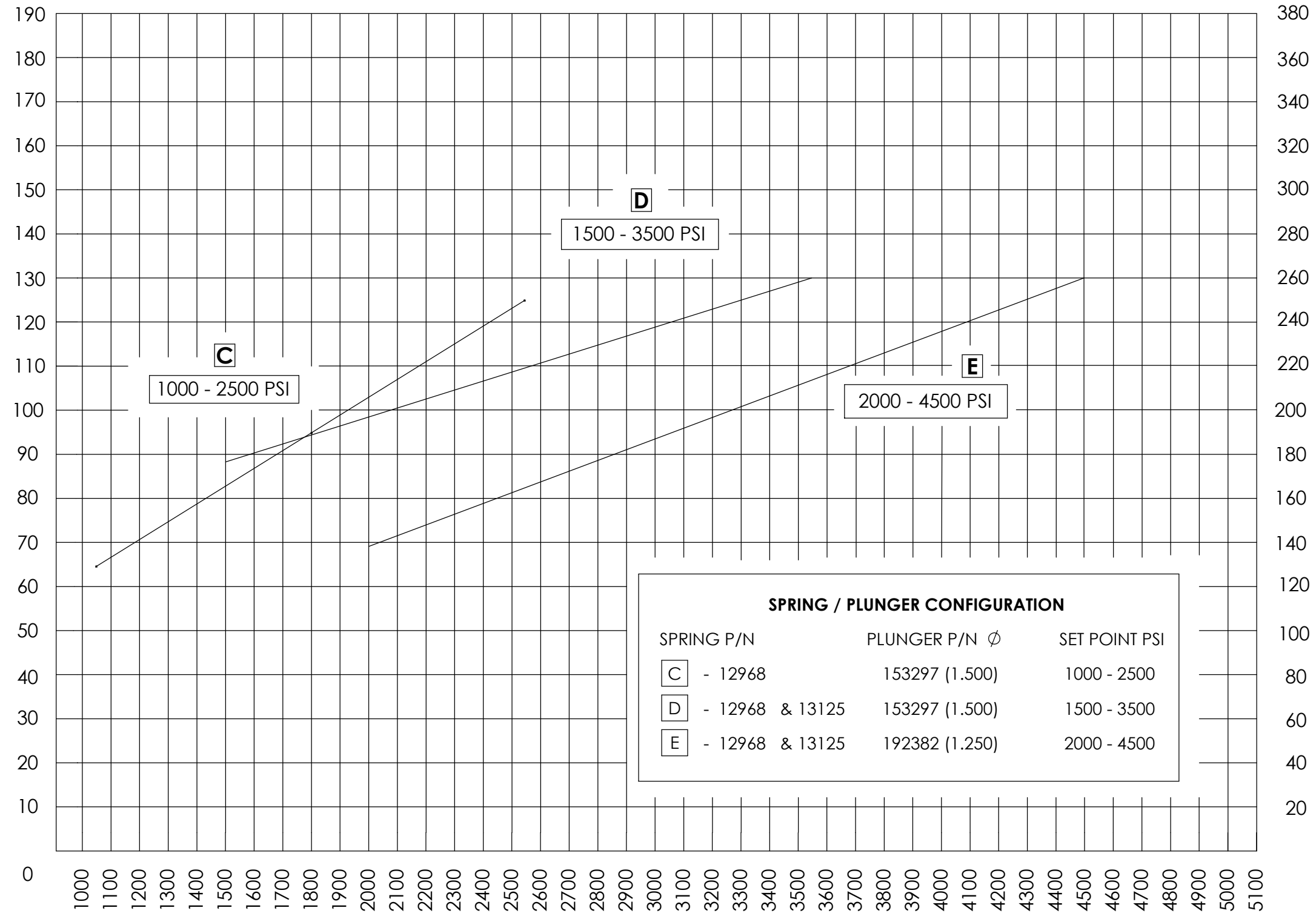
MATERIAL:	DIMENSIONS AND TOLERANCES ARE IN INCHES PER ASME Y14.5M-1994. UNLESS OTHERWISE SPECIFIED: 1) TOLERANCES: .X: ±.1 .XX: ±.01 .XXX: ±.005 ANGLES: ±.5° 2) SURFACE TEXTURE: 63 / 3) CORADIAL FEATURES SHALL BE ☉ WITHIN .010 4) BREAK SHARP EDGES .010 5) INTERNAL RADII SHALL BE .016 MAX 6) DRILL POINTS OPTIONAL WHEN SHOWN UNSPECIFIED, ALL DRILL POINT ANGLES SHALL BE BETWEEN 90°-140°	APPROVAL		 <b>ENGINEERING</b>			
CONDITION:		DRAWN BY	JOP	DATE	6/9/20		
		CHECKED BY	CMY	DATE	6/9/20		
		ENGINEER	AP	DATE	6/9/20		
TREATMENT:		ERN NUMBER	02366	DATE	6/9/20		
PROCEDURE NUMBER:		THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF GILMORE VALVE CO UNLESS OTHERWISE STATED. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF GILMORE VALVE CO IS PROHIBITED.					
		SIZE	DWG NO				REV
		B	84006				B
SCALE		1:3		SolidWorks		SHEET 1 OF 3	

# GEN 2 PRESSURE REGULATOR FLOW RATES FOR SET POINT RANGE - 5000 PSI SUPPLY

TYPICAL REGULATOR DEMAND CYCLE FLOW CAPACITY Q (gpm)  
WITH OUTLET PRESSURE APPROXIMATELY 50% OF SET POINT

SINGLE INLET FLOW

DOUBLE INLET FLOW



SPRING / PLUNGER CONFIGURATION		
SPRING P/N	PLUNGER P/N $\phi$	SET POINT PSI
C - 12968	153297 (1.500)	1000 - 2500
D - 12968 & 13125	153297 (1.500)	1500 - 3500
E - 12968 & 13125	192382 (1.250)	2000 - 4500

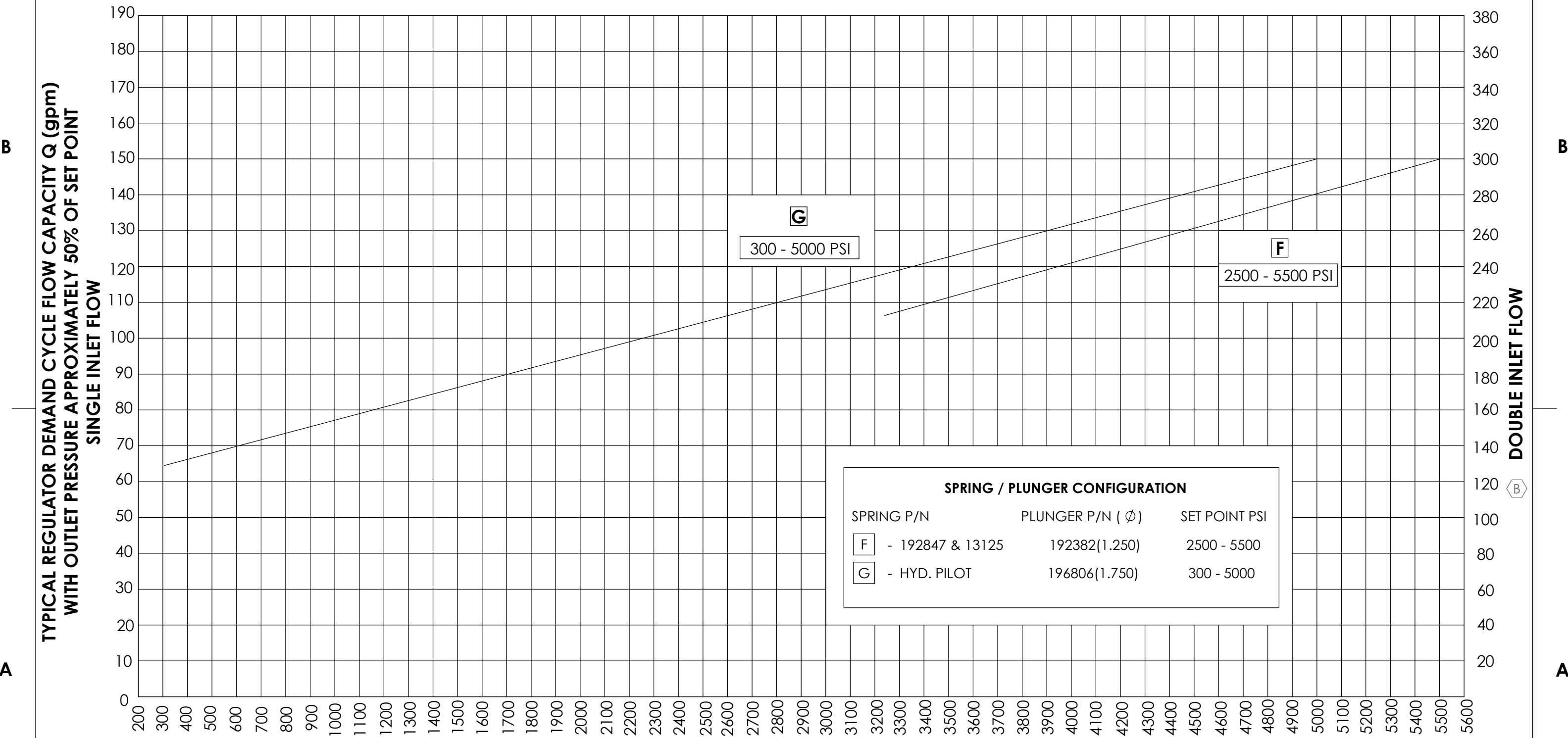
- NOTES:
- 1. FLOW CAPACITIES ARE  $\pm 10\%$  AND BASED ON FLUID SPECIFIC GRAVITY OF 1.0
  - 2. FLOW CAPACITIES ARE APPROXIMATELY DOUBLED WHEN TWO INLETS ARE PROVIDED.
  - 3. BASED ON INLET AND REGULATED LINE SIZE OF 1 INCH XH PIPE @ 40 FEET LONG.
  - 4. ACTUAL SYSTEM FLOW RATES MAY VARY.
  - 5. CONSULT WITH GILMORE ENGINEERING IF OPERATING OUTSIDE THE LISTED SET POINT RANGE.



ENGINEERING

SIZE <b>B</b>	DWG NO <b>84006</b>	REV <b>B</b>
SCALE 1:3	SolidWorks	SHEET 2 OF 3

GEN 2 PRESSURE REGULATOR FLOW RATES FOR SET POINT RANGE - 6000 PSI SUPPLY



Spring / Plunger Configuration		
Spring P/N	Plunger P/N ( Ø )	Set Point PSI
F - 192847 & 13125	192382(1.250)	2500 - 5500
G - HYD. PILOT	196806(1.750)	300 - 5000

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  - 3. BASED ON INLET AND REGULATED LINE SIZE OF 1 INCH XH PIPE @ 40 FEET LONG.
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ENGINEERING

SIZE	DWG NO	REV
B	84006	B
SCALE	1:3	SHEET 3 OF 3
SolidWorks		