

6000AL SERIES

Air Loaded, High Pressure, Hydraulic
Pressure Reducing Regulators



Premier 6000AL Series regulators are air-loaded, pistons sensed regulators designed to deliver dependable performance in demanding high pressure hydraulic applications. With inlet pressures up to 10000 PSIG/689.5 BAR, multiple outlet ranges, and Cv options of 0.06, 0.12, 0.20, and 0.30, it provides flexible performance across a wide operating range.

The 6000AL is compatible with electro-pneumatic control systems for automated regulation. Its captured venting design enhances safety by allowing hazardous media to be safely routed away, with a non-venting option available.

FEATURES

- Captured venting (*non-venting mod. available*)
- Flow capacity (Cv): 0.06, 0.12, 0.20, or 0.30
- Piston sensed
- Standard captured venting, with optional non-venting configuration.
- Machined bar stock body eliminates porosity found in castings

SOME APPLICATIONS WILL REQUIRE A CUSTOM SOLUTION.
CONTACT PREMIER INDUSTRIES TO REQUEST A MODIFICATION
OR A CUSTOM DESIGN.

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SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
 - REGULATOR: 10000 PSIG (689.5 bar)
 - AIR ACTUATOR: 100 PSIG (6.89 bar)
- **OUTLET PRESSURE RANGES:**
 - 10-1500 PSIG (0.69 - 103.42 bar)
 - Diameter: 1.000"
 - Area: 0.7854 in²
 - Ratio: 1⁶/₁ **
 - 15-2500 PSIG (1.03 - 172.37 bar)
 - Diameter: 0.750"
 - Area: 0.4418 in²
 - Ratio: 2⁸/₁ **
 - 25-3000 psig (1.7 - 206.8 bar)
 - Diameter: 0.684"
 - Area: 0.3675 in²
 - Ratio: 3⁴/₁ **
 - 50-6000 PSIG (3.45 - 413.69 bar)
 - Diameter: 0.500"
 - Area: 0.1964 in²
 - Ratio: 6⁴/₁ **
 - 100-10000 PSIG (6.89 - 689.5 bar)
 - Diameter: 0.375"
 - Area: 0.1104 in²
 - Ratio: 11⁴/₁ **

** 4.0" diameter diaphragm
Diaphragm area: 12.5664 in²

- **FLOW (Cv):** 0.06, 0.12, 0.20, or 0.30
- **VENT VALVE (Cv):** 0.06
- **AMBIENT OPERATING TEMPERATURES:**
 - -4°F/-20°C to 212°F/100°C (Viton®)*
 - -15°F/-26°C to 212°F/100°C (BUNA-N)*

*lower temperature compounds available upon request

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AFLAS® is a registered trademark of the Asahi Glass Co., Ltd.

Elgiloy® is a registered trademark of Elgiloy Specialty Metals Division

Krytox® is a registered trademark of The Chemours Company FC, LLC.

Contact factory for material certifications. Fees may apply.

MATERIALS OF CONSTRUCTION

- **BODY:** 316 Stainless Steel
- **HOUSING, AIR ACTUATOR :**
 - 6061-T6 Aluminum/clear anodized
- **DIAPHRAGM, AIR ACTUATOR :**
 - Neoprene, nylon fabric-reinforced
- **MAIN VALVE STEM:** 17-4 Stainless Steel (*hardened*)
- **MAIN VALVE SEAT OPTIONS:**
 - 17-4 Stainless Steel, hardened (*standard*)
 - Vespel® SP-1
- **VENT VALVE SEAT OPTIONS:**
 - 17-4 Stainless Steel (*standard*)
 - Vespel® SP-1
- **BACK-UP RINGS:** PTFE & PCTFE
- **ELASTOMER SEAL OPTIONS:**
 - BUNA-N
 - AFLAS®
 - Viton®
 - EPDM
 - Polyurethane
 - FFKM (*Contact factory for pricing*)
 - Low-temperature Nitrile
- **WETTED PARTS:**
 - 316 Stainless Steel
 - 17-4 Stainless Steel
- **STANDARD LUBRICANT:**
 - Krytox® GPL 206

PORTING

- **INLET/OUTLET:**
 - 1/4", 3/8", 1/2", 3/4", 1" FNPT
 - 1/4", 3/8", 1/2", 3/4", 1", SAE J1926
 - 1/4", 3/8", 1/2", 3/4", 1", SAE AS5202**
 - 1/4", 3/8", 9/16, 3/4", 1" Medium Pressure
 - 1/4", 3/8", 3/4", 1" High Pressure
- **AIR ACTUATOR PORT OPTIONS:**
 - 1/8" FNPT
 - 1/4" SAE AS5202
 - 1/4" SAE J19262
- **VENT:** 1/4" (*inlet/outlet port type*)

**SAE AS5202 supersedes MS33649

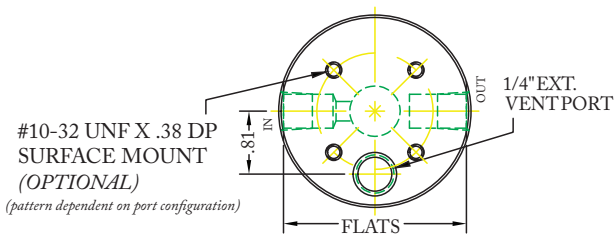
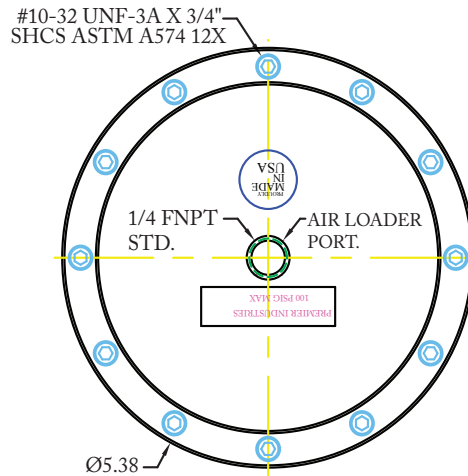
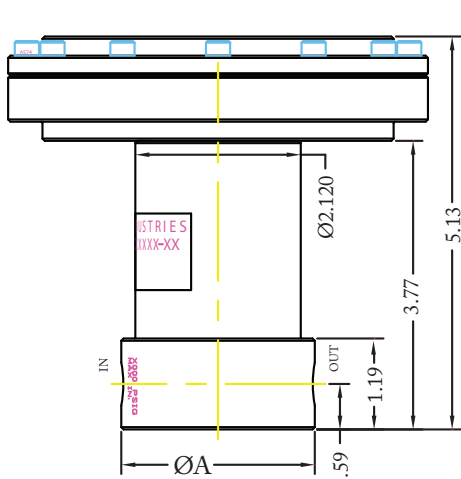
OPTIONS

- Private Label
- Panel mounting bracket: P/N: 30-10059 (Ø2.15 panel hole)
- Surface mounting holes
- NACE MR0175 compatible design
(*all wetted 316 Stainless Steel and Elgiloy®*)
- Non-venting modification

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PART NUMBER: 30-10219









PORT TYPE	ØA	FLATS
NPT	Ø2.48	—
1/4" J1926, M.P., H.P.	Ø2.48	2.36
1/4" AS5202	Ø2.98	2.81
3/8" SAE, M.P., H.P.	Ø2.98	2.81
1/2" SAE	Ø3.23	2.98
9/16" M.P.	Ø3.23	2.98
1" M.P.	Ø4.48	4.20

*3/8" and larger 'L' porting configurations
require a larger ØA*

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PART #	-	1	2	3	4	5	-	6	7	-	MODS
30-10219	-						-			-	

1	OUTLET PRESSURE <small>* 4.0" DIAMETER DIAPHRAGM DIAPHRAGM AREA: 12.5664 IN²</small>	
3	10-1500 PSIG (0.69-103.4 BAR)	DIAMETER: 1.000" AREA: 0.7854 IN ² RATIO: 16/1*
4	15-2500 PSIG (1.0-172.4 BAR)	DIAMETER: 0.750" AREA: 0.4418 IN ² RATIO: 28/1*
6	50-6000 PSIG (3.4-413.7 BAR)	DIAMETER: 0.500" AREA: 0.1964 IN ² RATIO: 64/1*
7	100-10000 PSIG (6.9-689.5 BAR) <small>(STAINLESS STEEL ONLY)</small>	DIAMETER: 0.375" AREA: 0.1104 IN ² RATIO: 114/1*
8	25-3000 PSIG (1.7-206.8 BAR)	DIAMETER: 0.684" AREA: 0.3675 IN ² RATIO: 34/1*
2	MAIN VALVE Cv	
0	Cv 0.06	
1	Cv 0.12	
2	Cv 0.20	
3	Cv 0.30	
<i>VENT VALVE CV: 0.06</i>		
3	PORTING CONFIG.	
A		
C		
D		
K		
L**		
S		

4	PORT SIZE
4	1/4"
6	3/8"
8	1/2"***
9	9/16"****
T	3/4"
W	1"
<p>***1/2" PORTS NOT AVAILABLE IN MEDIUM PRESSURE</p> <p>****9/16" PORTS ONLY AVAILABLE IN MEDIUM PRESSURE</p> <p>GAUGE PORTS: 1/4" FNPT</p> <p>VENT PORT: 1/4" INLET/OUTLET PORT TYPE</p>	
5	PORT TYPE IN/OUT/VENT
1	NPT
2	SAE J1926
3	SAE AS5202 (MS33649**)
4	MEDIUM PRESSURE
5	HIGH PRESSURE
**SAE AS5202 SUPERSEDES MS33649	

VESPEL® AND VITON® ARE REGISTERED TRADEMARKS OF E.I. DUPONT DE NEMOURS AND COMPANY.

KRYTOX® IS A REGISTERED TRADEMARK OF THE CHEMOURS COMPANY FC, LLC.

AFLAS® IS A REGISTERED TRADEMARK OF ASAHI GLASS CO., LTD

** L PORTING CONFIGURATIONS WITH 3/8" PORTS AND LARGER REQUIRE A LARGER BODY DIAMETER

6 7	O-RING MATERIAL
00	BUNA-N
01	AFLAS®
02	VITON®
05	EPDM
08	POLYURETHANE
11	FFKM <small>(CONTACT FACTORY FOR PRICING)</small>
12	LOW-TEMP NITRILE
MODIFICATIONS <small>(SEPARATE MULTIPLE MODS WITH A DASH)</small>	
BLANK	NONE
AC	KRYTOX 240AC
AS	1/4" SAE AS5202 LOADER PORT
E	1/8" NPT AIR LOADER PORT
J	1/4" SAE J1926 LOADER PORT
N	NACE MR0175 COMPATIBLE
NV	NON-VENTING
PTU	PORT TYPE UNIFORM
SM	SURFACE MOUNT
SP1	VESPEL SP-1 SEAT
W	WATER

10000 PSIG MAX INLET, STAINLESS STEEL
THE END USER IS RESPONSIBLE TO ENSURE ADEQUATE FITTINGS ARE USED TO CONNECT REGULATOR TO PLUMBING.

CONTACT FACTORY FOR MATERIAL CERTIFICATIONS. FEES MAY APPLY.