

SEM 2550 SERIES

Single Stage, High Purity, Diaphragm Sensed
Pressure Reducing Regulators



Premier SEM 2550 Series regulators are engineered for high-purity applications, featuring a single-stage, diaphragm-sensed design for precise pressure reduction.

Inlet Pressure Ratings:
Up to 600 PSIG (41.4 bar) or 3500 PSIG (241.3 bar)

Flow Coefficients (Cv):
Available in 0.08 or 0.20 for flexible flow control

Wetted Materials:
Constructed from 316/316L stainless steel for corrosion resistance and purity

Surface Finish:
Maximum roughness of 10 Ra or 15 Ra microinch, ensuring ultra-clean performance

Ideal for:
Semiconductor manufacturing
Analytical instrumentation
High-purity gas delivery systems

FEATURES

- Maximum surface roughness:
10 Ra microinch or 15 Ra microinch
- Inboard leak rate: 1×10^{-9} SCCS He
- Flow capacity (Cv): 0.08 or 0.20
- Metal to metal body diaphragm seal
- Economical pricing

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

SPECIFICATIONS

- **MAXIMUM INLET PRESSURE:**
 - 3500 PSIG (241.3 BAR)
 - 600 PSIG (41.4 BAR)
- **OUTLET PRESSURE RANGES:**
 - 0-30 PSIG (0 - 2.07 BAR)
 - 0-60 PSIG (0 - 4.14 BAR)
 - 0-100 PSIG (0 - 6.89 BAR)
 - 0-150 PSIG (0 - 10.34 BAR)
- **FLOW (Cv):** 0.08 or 0.20
- **MAXIMUM SURFACE ROUGHNESS:**
 - 15 Ra microinch (316L Stainless Steel Electropolished)
 - 10 Ra microinch (316L VAR Stainless Steel Electropolished)
- **INBOARD LEAK RATE:** $<1 \times 10^{-9}$ ATM SCCS He
- **OPERATING TEMPERATURE RANGE:**
 - -40°F to 140°F / -40°C to 60°C

MATERIALS OF CONSTRUCTION

- **BODY:**
 - 316L Stainless Steel Electropolished (standard)
 - 316L VAR Stainless Steel Electropolished (optional)
- **WETTED COMPONENTS:**
 - 316 Stainless Steel
 - 316L Stainless Steel
- **MAIN VALVE SEAT:**
 - PCTFE
- **DIAPHRAGM:**
 - Hastelloy® C276
- **DIAPHRAGM SEAL:**
 - PTFE (standard)
 - Indium (optional)
- **NON-WETTED COMPONENTS:**
 - Stainless Steel, Aluminum, Plated Steel, Viton-A®

PORTING

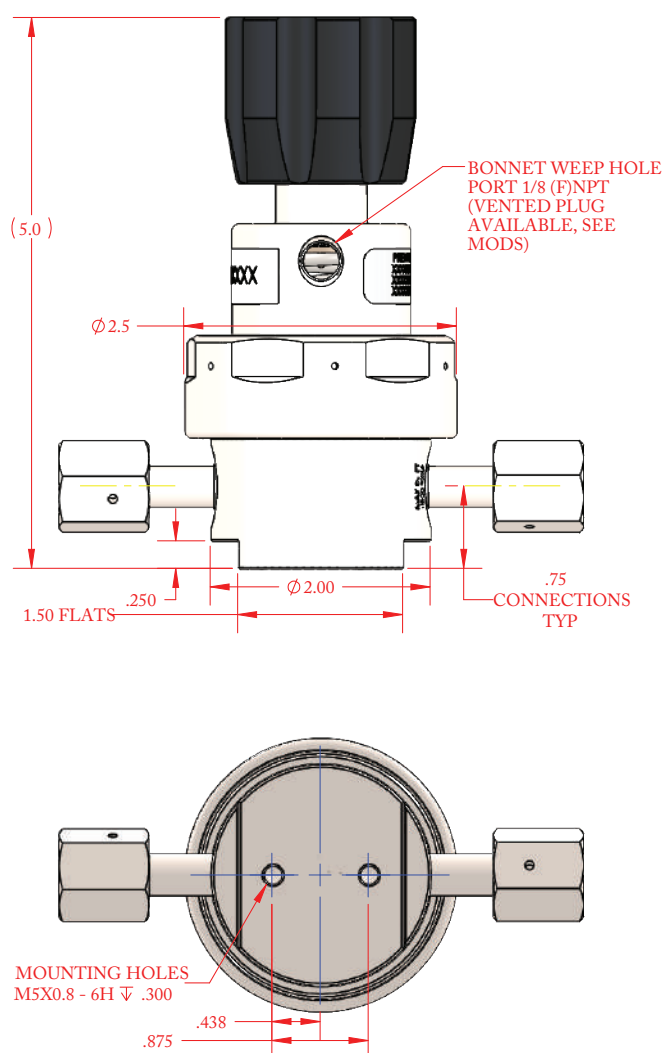
- **INLET PORTING OPTIONS:**
 - 1/4" female swivel face seal, male swivel face seal, tube stub
 - 1/2" female swivel face seal, male swivel face seal, tube stub
 - 3/8" tube stub
- **OUTLET PORTING OPTIONS:**
 - 1/4" female swivel face seal, male swivel face seal, tube stub
 - 1/2" female swivel face seal, male swivel face seal, tube stub
 - 3/8" tube stub
- **OPTIONAL GAUGE PORTS:**
 - 1/4" male swivel face seal

OPTIONS

- Outlet gauge
- Inlet and outlet gauge
- Vented weep hole plug

*Hastelloy® is a registered trademark of Haynes International, Inc.
Viton® is a registered trademark of E.I. du Pont de Nemours and Company*

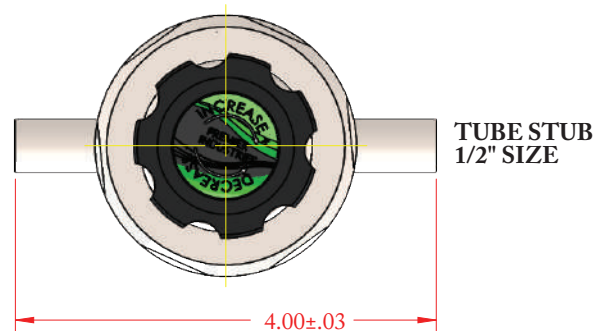
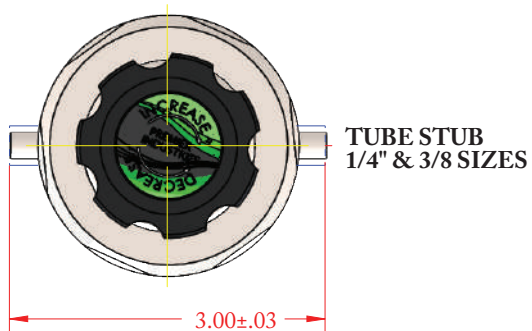
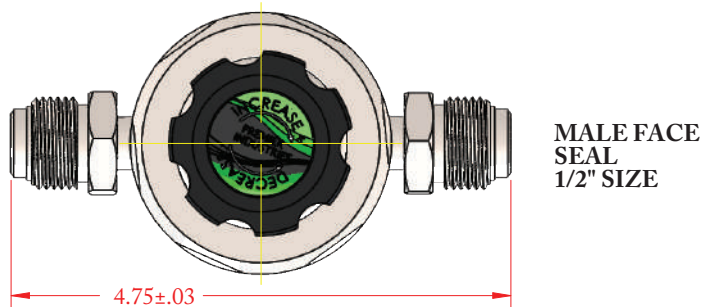
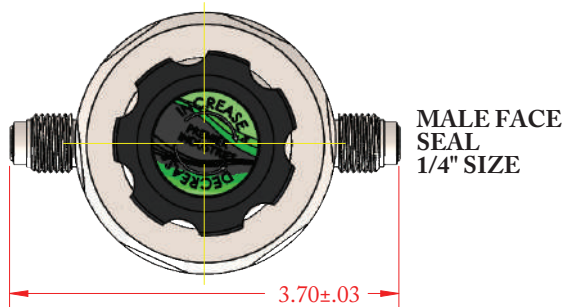
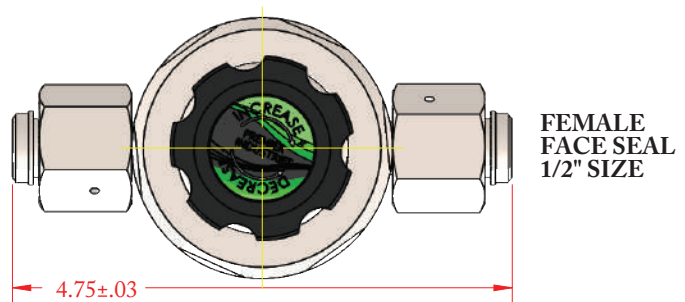
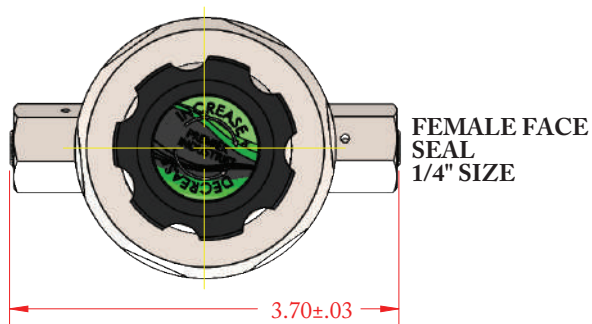
PART NUMBER: 50-13388



INLET/OUTLET CONNECTION REFERENCE

NOTE:

CONNECTION TYPES MAY BE MIXED.
CONNECTION SIZES MAY NOT BE MIXED.



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PART #	-	1	-	2	3	-	4	5	6	-	7	-	8	-	MODS
50-13388	-		-			-				-		-		-	

1	BODY MATERIAL/ FINISH
1	316L STAINLESS STEEL ELECTROPOLISH (15Ra MAX)
2	316L VAR STAINLESS STEEL ELECTROPOLISH (10Ra MAX BODY INTERNALS)
2	INLET PRESSURE
1	600 PSIG MAX (41.4 BAR)
2	3500 PSIG (241.3 BAR)
3	OUTLET PRESSURE
1	0-30 PSIG (0 - 2.07 BAR)
2	0-60 PSIG (0 - 4.14 BAR)
3	0-100 PSIG (0 - 6.89 BAR)
4	0-150 PSIG (0 - 10.34 BAR)
4	PROCESS INLET AND OUTLET CONNECTION SIZE
1	1/4"
2	1/2"
3	3/8" (TUBE STUB CONNECTION TYPE ONLY)

5	INLET CONNECTION TYPE
F	FEMALE SWIVEL FACE SEAL
M	MALE SWIVEL FACE SEAL
T	TUBE STUB
6	OUTLOOK CONNECTION TYPE
F	FEMALE SWIVEL FACE SEAL
M	MALE SWIVEL FACE SEAL
T	TUBE STUB
7	GAUGE CONNECTIONS
0	NONE
1	OUTLET GAUGE PORT (1/4" MALE SWIVEL FACE SEAL CONNECTION)
2	INLET AND OUTLET GAUGE PORTS (1/4" MALE SWIVEL FACE SEAL CONNECTIONS)

CONTACT FACTORY FOR MATERIAL
CERTIFICATIONS. FEES MAY APPLY.

8	Cv RATING
1	Cv 0.08 (MAX OPEN CONDITION)
2	Cv 0.20 (MAX OPEN CONDITION)
MODIFICATIONS	
BLANK	STANDARD CONFIGURATION
G	GAUGE(S) INCLUDED (MUST SELECT GAUGE PORT OPTION 2 OR 3)
W	VENTED WEEP HOLE PLUG
N	INDIUM (4N PURITY) DIAPHRAGM SEAL

PORTING / GAUGE REFERENCE

STANDARD CONFIG.	
G1 MOD	
G2 MOD	