

MB MARSH *BELLOFRAM*

Type-51ss



Stainless Steel
Precision
Air Regulators
& Filter Assemblies

ISO 9001:2000
CERTIFIED

MB T-51ss Stainless Steel Precision Air Regulators

FEATURES

- Ideal for sour gas and corrosive applications or environments
- Excellent stability and repeatability
- Low droop
- Tapped vent for exhaust gas capture
- Built-in filter assemblies and dripwells
- Manual or automatic drain options
- Filter only assemblies available
- Panel, bracket or pipe mounting

DESCRIPTION

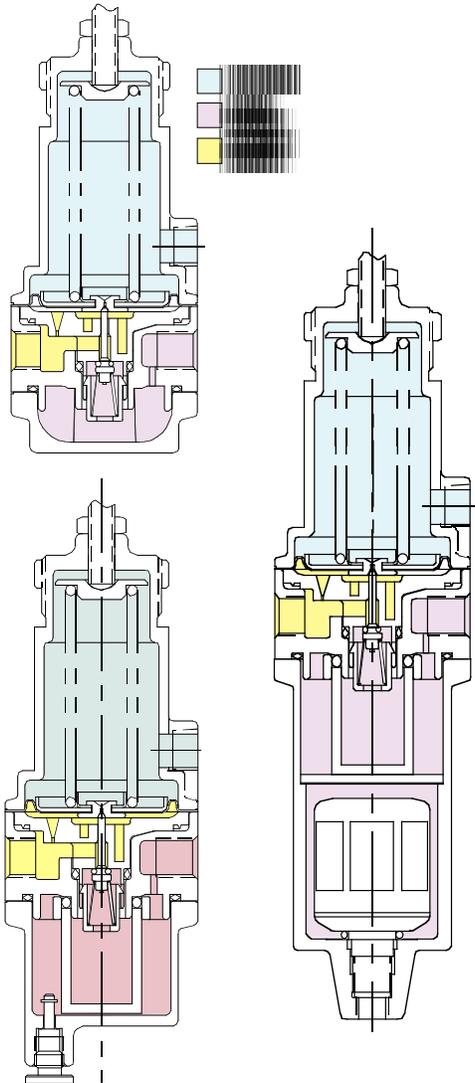
The Type 51SS regulator product line is designed for service with a wide variety of corrosive gases and environments. Special construction features include 316 stainless steel for the housing and filter assemblies, with fluorocarbon elastomers used for the control diaphragm and the supply valve.

These corrosion resistant materials are compatible with sour gas and for use in off-shore environments. Typical applications include petrochemical processing, chemical plants, food processing and paper/pulp mills.

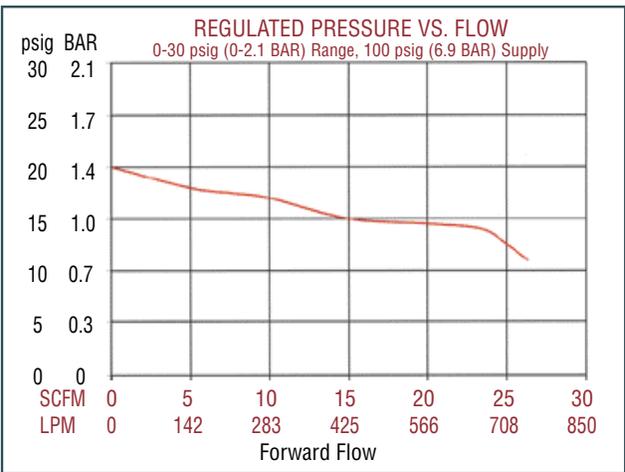
This ruggedly built regulator operates in pressure ranges up to 150 psig (10.3 BAR). The Type 51SSFR and Type 51SSAR Regulators and the Type 51SSF and Type 51SSAF filter assemblies have built-in dripwells which trap water, oil and other contaminants. The contaminants are easily flushed out of the dripwell via a convenient manual or automatic drain valve. The 40-48 Micron Filter is constructed of sintered 316 stainless steel, and is easily removed.

The Type 51SS products can be through-panel mounted with the mounting nut supplied (regulators only), bracket-mounted using the optional bracket (regulators only), or pipe mounted by its ports (regulators and filters).

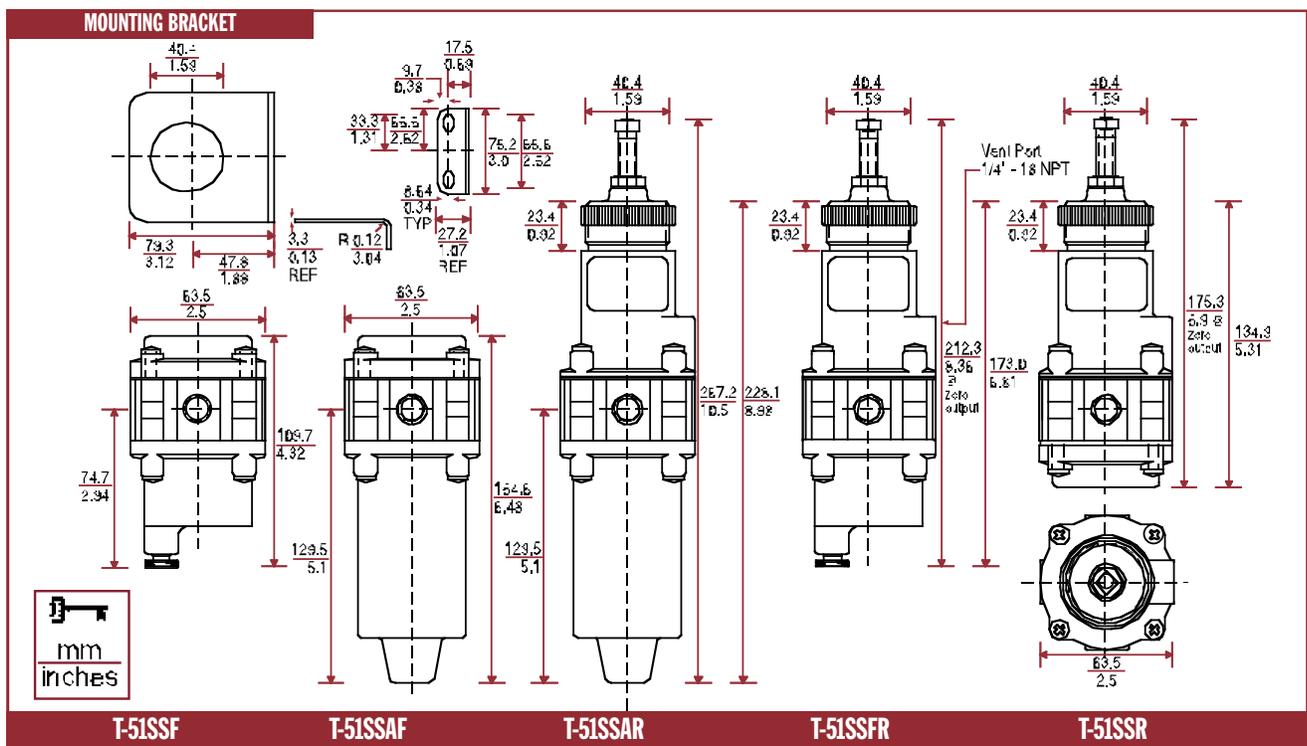
The regulators and filter assemblies comply with NACE standard MR0175, "Metals for Sulfide Stress Cracking and Stress Corrosion Cracking Resistance in Sour Oilfield Environments."



Once set to a desired pressure, the Marsh Bellofram Type 51 Stainless Steel Regulators maintain their settings permanently. The integral convoluted diaphragm provides constant adjustment to downstream pressure drop, downstream pressure increase & changes in forward flow.



	TYPE 51SSR Regulator	TYPE 51SSFR Filter Regulator	TYPE 51SSAR Auto Filter Regulator	TYPE 51SSF	TYPE 51SSAF
Filter	n/a	built in 40 micron filter with manual drain	built in 40 micron filter with auto-drain	40 micron filter	40 micron filter
Maximum Supply Pressure	250 psig (17.3 BAR)	250 psig (17.3 BAR)	250 psig (17.3 BAR)	250 psig (17.3 BAR)	250 psig (17.3 BAR)
Output Pressure Range	0-30 psig (0-2.1 BAR) 0-60 psig (0-4.1 BAR) 0-100 psig (0-6.9 BAR) 2-150 psig (0.1-10.3 BAR)	0-30 psig (0-2.1 BAR) 0-60 psig (0-4.1 BAR) 0-100 psig (0-6.9 BAR) 2-150 psig (0.1-10.3 BAR)	0-30 psig (0-2.1 BAR) 0-60 psig (0-4.1 BAR) 0-100 psig (0-6.9 BAR) 2-150 psig (0.1-10.3 BAR)	n/a	n/a
Supply Pressure Sensitivity @ 25 psig / 1.7 BAR change in supply	0.45 psig (0.03 BAR) output change	0.45 psig (0.03 BAR) output change	0.45 psig (0.03 BAR) output change	n/a	n/a
Sensitivity	1" water column	1" water column	1" water column	n/a	n/a
Repeatability	0.1 psig (0.01 BAR)	0.1 psig (0.01 BAR)	0.1 psig (0.01 BAR)	n/a	n/a
Flow @ 100 psig (6.9 BAR) Supply 20 psig (1.4 BAR) outlet	20 SCFM (566 LPM)	20 SCFM (566 LPM)	20 SCFM (566 LPM)	n/a	n/a
Exhaust Capacity @ 5 psig (0.3 BAR) above setpoint	0.1 SCFM (2.8 LPM)	0.1 SCFM (2.8 LPM)	0.1 SCFM (2.8 LPM)	n/a	n/a
Temperature Limits	-20° to 180°F (-29° to 82°C)	-20° to 180°F (-29° to 82°C)	-20° to 180°F (-29° to 82°C)	-20° to 180°F (-29° to 82°C)	-20° to 180°F (-29° to 82°C)
Air Consumption	6 SCFH (2.84 LPM) Maximum	6 SCFH (2.84 LPM) Maximum	6 SCFH (2.84 LPM) Maximum	n/a	n/a
Port Size	1/4" NPT or 3/8" NPT	1/4" NPT or 3/8" NPT	1/4" NPT or 3/8" NPT	1/4" NPT or 3/8" NPT	1/4" NPT or 3/8" NPT
Materials of Construction	316 Stainless Steel housing & screen fluorocarbon elastomers	316 Stainless Steel housing & filter assemblies fluorocarbon elastomers	316 Stainless Steel housing & filter assemblies fluorocarbon elastomers	316 Stainless Steel housing & filter assemblies fluorocarbon elastomers	316 Stainless Steel housing & filter assemblies fluorocarbon elastomers



ORDERING INFORMATION

PART NUMBER:

Part Type	Number	Control Range	
		psig	BAR
51SSR	960-245-000	0-30	0-2.1
	960-246-000	0-60	0-4.1
	960-247-000	0-100	0-6.9
	960-248-000	2-150	0.1-10.3
51SSFR	960-242-000	0-30	0-2.1
	960-243-000	0-60	0-4.1
	960-244-000	0-100	0-6.9
	960-241-000	2-150	0.1-10.3
51SSAR	960-249-000	0-30	0-2.1
	960-250-000	0-60	0-4.1
	960-251-000	0-100	0-6.9
	960-252-000	2-150	0.1-10.3
51SSF	960-253-000	-	-
51SSAF	960-254-000	-	-

REGULATOR OPTIONS & ACCESSORIES
COALESCING FILTER

Replaces the 40 micron filter for both moisture and particulate filtration. (T-51SSAR & T-51SSAF only) P/N 010-312-000

NON RELIEVING

Used in applications where it is desirable to relieve pressure downstream and not at the regulator. Non-relieving regulators should not be used for low or no flow applications.

SOCKET HEAD BUILD SCREW

Socket head build screws are provided in place of phillips drive screws.

5 MICRON FILTER

Replaces the 40 micron filter for more complete air filtration. (Except T-51SSR) P/N 836-000-002

MOUNTING BRACKET

316 Stainless Steel bracket for side mounting. P/N 607-000-128

PRESSURE GAUGE

Dual scale (psi / kPa) 2 1/2" (63mm) gauges. Ranges include 0-60 psi (0-410 kPa), 0-100 psi (0-690 kPa) and 0-200 psi (0-1400 kPa). When specified with regulator, the correct range will be supplied. Note: Gauges do not meet MR-01-75 NACE requirement P/N: 0-60 psi 625-000-016
0-100 psi 625-000-017
0-200 psi 625-000-018

OPTIONS

• = option is available

	T-51SSR	T-51SSFR	T-51SSAR	T-51SSF	T-51SSAF
1 Coalescing Filter			•		•
2 Non-Relieving	•	•	•		
3 Socket Head Build Screw	•	•	•	•	•
4 5 Micron Filter		•	•	•	•
5 Low Temperature	•	•	•		
6 Plated 2-150 Spring	•	•	•		
7 Mounting Bracket	•	•	•		
8 Pressure Gauge	•	•	•	•	•
9 Tamper-Resistant Cover	•	•	•		
10 Low Bleed	•	•	•		
11 3/8" Port	•	•	•	•	•

OPTION ORDERING MATRIX:

Add three digits from table below to end of part number.

Option	1	2	3	4	5	6	7	8	9	10	11
1 Coalescing Filter	001	021	031	041	051	061	071	081	091	101	111
2 Non-Relieving		002	032	042	052	062	072	082	092	102	112
3 Socket Head Build Screw			003	043	053	063	073	083	093	103	113
4 5 Micron Filter				004	054	064	074	084	094	104	114
5 Low Temperature					005	065	075	085	095	105	115
6 Plated 2-150 Spring						006	076	086	096	106	116
7 Mounting Bracket							007	087	097	107	117
8 Pressure Gauge								008	098	108	118
9 Tamper-Resistant Cover									009	109	119
10 Low Bleed										010	110
11 3/8" NPT Port											011

LOW TEMPERATURE

Low Temperature Nitrile replaces the standard fluorocarbon elastomer to expand the T51SS Temperature Range to -40 to 180F (-10°C to 20°C)

TAMPER-RESISTANT COVER

A 316 stainless steel hexagonal cover placed over the adjusting screw and threaded onto the bonnet of the regulator with a wrench, prevents ordinary hand adjustments.

LOW BLEED DIAPHRAGM

(Soft Relief Seat): Used in applications where it is desirable to minimize the standard bleed rate of the regulator while maintaining the ability to relieve excess pressure at the regulator. (Bleed rate is reduced from less than 6 SCFH (2.8 LPM) to less than 0.1 SCFH (0.05 LPM).

PLATED 2-150 SPRING

Cadmium Plated 2-150 PSIG range spring. replaces standard Inconel spring. (Only available in 2-150 PSIG range)



USA

State Route 2, Box 305
Newell, WV 26050
800- 727-5646 or (304) 387-1200
FAX (304) 387-4417
info@marshbellofram.com

EUROPE

9 Castle Park, Queens Drive
Nottingham NG2 1AH, UK
Tel +44 (0) 115 993 3300
Fax +44 (0) 115 993 3301
bellofram@aol.com

IMPORTANT NOTICE

Our recommendations, if any, for the use of this product are based on tests believed to be reliable. The greatest care is exercised in the selection of our raw materials and in our manufacturing, no guarantee or warranty, express or implied is made as to such use or effects incidental to such use, handling or possession or the results to be obtained, whether in accordance with the directions or claimed so to be. The manufacturer expressly disclaims responsibility therefor. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing laws and/or patents covering any material use.



SALES & APPLICATIONS
(800)727-5646 fax:(304) 387-4417
www.marshbellofram.com