

97177



Shand & Jurs Co.

A COGNESENSE BRAND

Double Port Pressure Regulator (Modulating Low-Pressure Gas Regulator)

The Shand & Jurs® Model 97177 regulates downstream pressure in low-pressure gas systems, maintaining stable control as flow demand changes. Installed in a supply line, the regulator opens as downstream pressure falls below the adjustable setpoint, typically operating up to 20" W.C. service. The valve can be configured as a backpressure (upstream) regulator or as a pressure-reducing (downstream) regulator to maintain a constant downstream pressure.

Opposing seats balance diaphragm forces so outlet pressure remains stable while flowing greater capacity than single-seat regulators at comparable settings. The large sensing diaphragm responds to actual demand changes rather than to local turbulence, preventing pressure swings and unstable operation during varying gas production or consumption rates. This provides steady delivery to burners, flares, and other fuel-gas equipment like boiler/heat exchangers, rather than cycling the supply pressure.

Rated for inlet pressures up to 2 PSIG and available in 2"–12" sizes, the Model 97177 serves as a primary downstream pressure control device where continuous modulation and low-pressure stability are required.



Key Features

Dual balanced valve seats

Passes higher flow at low pressure while maintaining control accuracy.

Large diaphragm sensing element

Responds to demand changes without pressure oscillation.

Continuous downstream modulation

Adjusts position smoothly instead of cycling open/closed.

Adjustable spring setpoint

Allows precise tuning of operating pressure in service.

Serviceable internal assembly

Enables cleaning in wet gas and condensate environments.

Cast aluminum body

Provides corrosion resistance in methane service.



Benefits



STABLE OUTLET PRESSURE

Maintains steady combustion and equipment operation.



HIGHER LOW-PRESSURE CAPACITY

Prevents starvation during peak demand conditions.



CONTINUOUS PRESSURE CONTROL

Eliminates nuisance shutdowns and flame instability.



ACCURATE FUEL DELIVERY

Avoids excess blower energy consumption.



MAINTAINABLE CONSTRUCTION

Reduces labor required for routine service in wet gas systems.



CONTROLLED GAS USE

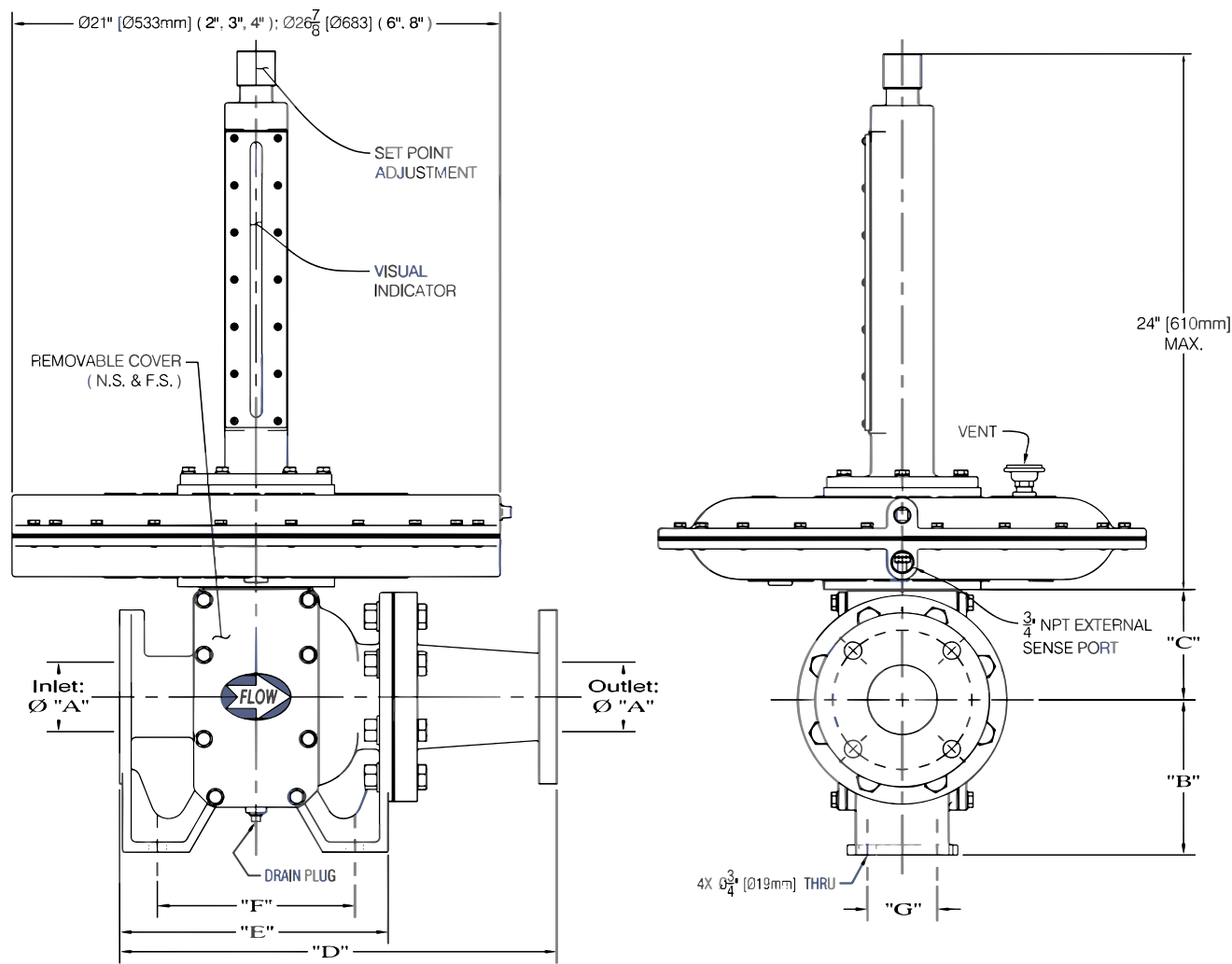
Prevents the waste of gas equivalent to thousands of pounds per year per regulator.

Key Performance Data

Parameter	Value
Operating Function	Downstream Pressure Regulator
Typical Control Range	+/- 3" W.C. of Factory Set up to a Maximum of 20" W.C.
Maximum Inlet Pressure	2 PSIG
Line Sizes	2" – 12"
Connection	150 lb. ANSI FF Flange
Body Material	Cast Aluminum
Seat	Aluminum / Stainless (size dependent)
Diaphragm	Reinforced Elastomer
Spring	Stainless Steel



Dimensions



Consult Factory for additional sizes.

Valve Size (Inches [mm])	Table of Dimensions (Inches [mm])						
	"A"	"B"	"C"	"D"	"E"	"F"	"G"
2 [50]	2 [50]	6 5/8 [168]	4 [100]	17 1/8 [435]	11 [279]	8 1/2 [216]	2 1/4 [57]
3 [80]	3 [76]	6 1/16 [170]	4 3/4 [121]	18 13/16 [478]	11 3/4 [298]	8 1/2 [216]	3 [76]
4 [100]	4 [100]	6 3/4 [171]	5 1/2 [140]	24 1/16 [611]	15 [381]	10 [254]	4 [100]
6 [150]	6 [150]	10 1/4 [260]	7 1/2 [191]	29 1/4 [743]	18 [457]	13 1/2 [343]	4 1/2 [114]
8 [200]	8 [200]	12 1/2 [318]	9 1/2 [241]	36 [914]	24 [610]	16 7/8 [429]	6 [150]



Model Number Selection

The model number will have a base number 97177 followed by 5 digit numbers. These digits will represent 5 sets of option tables.

97177 - AB - CD - E

Table A - Valve Body Material

Option A	Valve Body Material
1	Aluminum
2	Cast Steel
3	Cast Iron

Table B - Line Size

Option B	Line Size
2	2"
3	3"
4	4"
6	6"
8	8"

Table C - Pressure Range Valve Configuration

Option C	Pressure Range
1	2-10" W.C.
2	10-20" W.C.

* Specify operating set point. Valve range will be +/- 3" W.C. of set point.

** Range will not exceed listed range (i.e. 2" with set point of 3" will have a range of 2"-8")

For wider ranges, please Consult Factory.

Table D - Control

Option D	Description
1	Back Pressure
2	Pressure Reducing

Table E - Accessories

Option E	Description
0	None
1	Insulation Jacket

Summary

Low-pressure gas systems require steady delivery as demand changes. The Model 97177 provides continuous downstream pressure control while handling higher flow than single-seat regulators, maintaining stable equipment operation instead of cycling supply pressure. Used as a primary fuel-gas pressure regulator, it improves reliability and reduces shutdowns without complex control equipment.

info@cognesense.com
Tel: (708) 236-6000
5911 Butterfield Road Hillside, Illinois 60162 USA

This document is for information purposes only. All designs subject to change. Certified dimensions, specifications, and performance data available upon request