

IR6000 Series

Two-Stage, General-Purpose
Pressure Regulator
Internally Threadless • Stainless Steel



Value Proposition:

With an inlet pressure up to 4,000 psig, Parker's IR6000 two-stage regulator offers high pressure capability with stable pressure control. This general-purpose series features a large, convoluted Hastelloy® diaphragm that provides high corrosion resistance. Close tolerances and tight alignment of moving components minimizes hysteresis and improves cycle life.



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Product Features:

- Unique compression member loads the seal to the body without requiring a threaded nozzle or additional seals
- Internally threadless design reduces particle generation; low internal volume reduces purge times
- Cleaned for O₂ service is standard
- Positive upward and downward stops increase cycle life by preventing over stroking of the diaphragm
- Selection of seat materials for media compatibility and temperature applications

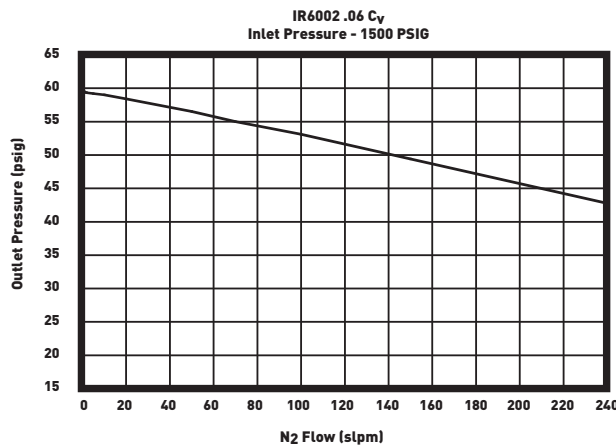
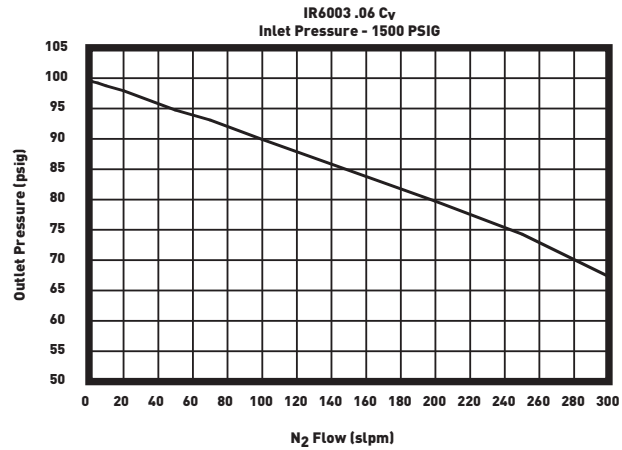
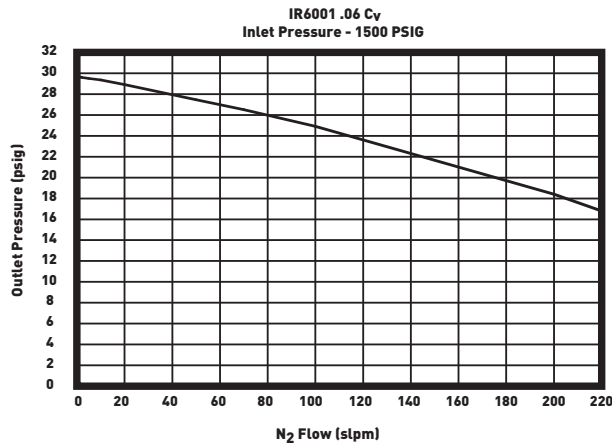


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IR6000 Series

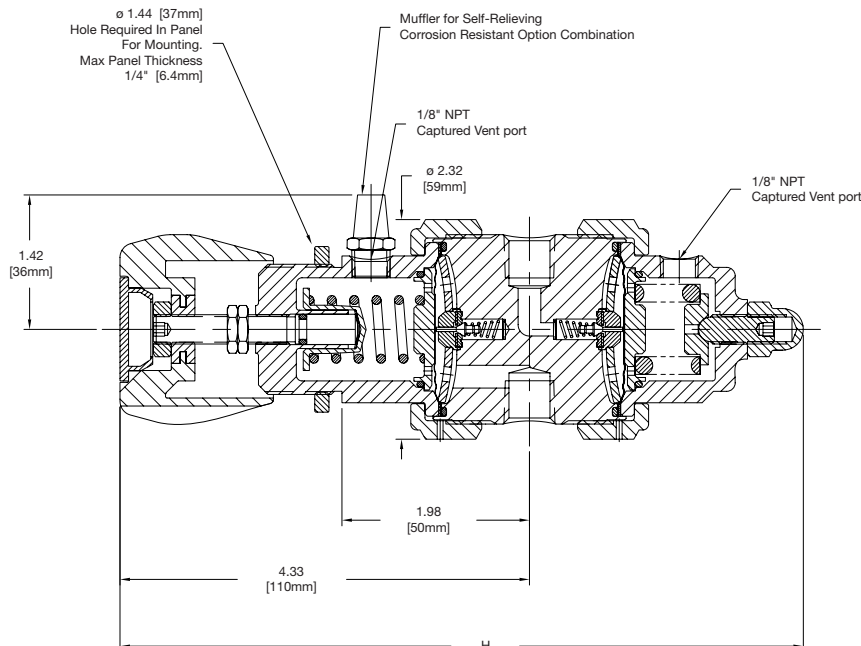
Flow Curves

Additional flow curves available upon request



Basic Model	Range Table		
	Max Inlet PSIG		
	0.06 C _v	0.02 C _v	0.15 C _v
IR6000	4,000	4,000	1,250
IR6001	4,000	4,000	1,250
IR6002	4,000	4,000	1,250
IR6003	4,000	4,000	1,250
IR6004	4,000	4,000	1,250
IR6015	4,000	4,000	1,250

Dimensional Drawing



Basic Model	Overall Height Table	
	H	
IR6000	7.22	[183.4mm]
IR6001	7.22	[183.4mm]
IR6002	7.22	[183.4mm]
IR6003	7.22	[183.4mm]
IR6004	7.81	[198.4mm]
IR6015	7.22	[183.4mm]

Safety Guide and Installation and Operating Instructions available at
www.parker.com/veriflo

IR6000 Series

Ordering Information

Build an IR6000 Series regulator by replacing the numbered symbols with an option from the corresponding tables below.

Contact factory for most up to date lead time information.

Blue = Configurations that have selections in blue will require a price quote from the factory.

1
2
3
4
5
6
7
8
9
10
11

Sample: **IR60 02 S K 4P 01 30 4 B S 580**

Finished Order: **IR6002SK4P01304BS580**

1 Basic Series

Range	Outlet Gauge
00 = 0 - 10 psig	0 - 30 psig
01 = 1 - 30 psig	0 - 60 psig
02 = 2 - 60 psig	0 - 100 psig
03 = 3 - 100 psig	0 - 200 psig
15 = 5 - 150 psig	0 - 200 psig
04 = 10 - 250 psig	0 - 400 psig

2 Body Material

S = 316L Stainless Steel
 H = Hastelloy C-22® SST gauges
 M = Monel® SST gauges

3 Flow Capacity

= 0.06 Cv Standard
 1 = 0.02 Cv
 2 = 0.15 Cv

4 Seat Material

K = PCTFE
 P = PEEK™
 V = Vespel®

5 Porting

2P = 2 Ports No X required for gauges, inlet & outlet ports only
 3P = 3 Ports One X for gauge port
 4P = 4 Ports Two X's for gauge ports
 4PB = 4 Ports One X for gauge port
 5P = 5 Ports Two X's for gauge ports
 6P = 6 Ports Two X's for gauge ports

Note: Ports may be plugged for NPT threaded product.

6 Outlet Gauge

Outlet Gauge	Basic Series
03 = 0 - 30 psig	IR6000
OL = 0 - 60 psig	IR6001
01 = 0 - 100 psig	IR6002
2 = 0 - 200 psig	IR6003
4 = 0 - 400 psig	IR6004
X = No Gauge	

7 Inlet Gauge

X = No Gauge
 30 = 3,000 psig Standard
 20 = 2,000 psig with the 0.15 Cv option
 40 = 4,000 psig

8 Port Style

4 = 1/4" NPT Female
 4T = 1/4" A-LOK®
 All Gauge ports are 1/4" NPT Female

9 Port Mounting

B = Standard - No other options

10 Optional Features

This section can have multiple options

- C = Corrosion Resistant External Stainless Steel Cap
- G = Tamper Proof Not available with M option
- M = Metal Knob (Black) Not available with G option. Required for temperatures above 150° F
- L = PTFE Backup O-Ring PCTFE and PEEK™ Seats Only
- R2 = Relief Valve, 2nd Stage (LP) 4PB, 5P and 6P Only
- S = Self-Relieving Temperature rating -40°F to 150°F (-40°C to 66°C)
- V = Outlet Valve NV17SS44MF
- T = Hastelloy Trim Includes carrier and backup washer. Option is for Stainless Steel body - Hastelloy® trim is standard with Hastelloy® and Monel® bodies

Note: Panel Mount Option:
 Order Panel Nut Ring p/n: 41900363 as a separate line item.
 Vent Muffler Option:
 Order Vent Muffler p/n: 46600581 as a separate line item.

Vent Muffler is standard for the Self-relieving (S), Corrosion Resistant (C) option combination.

11 CGA#

350, 510, 580, or 590
 Do not exceed the rated pressure of the CGA connection.

IR6000 Series

Specifications

Materials of Construction	
Wetted	
Body Options	316L Stainless Steel (std) or Hastelloy C-22® or Monel® <i>(Hastelloy® Trim is std with Hastelloy® and Monel® bodies)</i>
Compression Member	Inconel 625®
Diaphragm	Hastelloy C-22®
Poppet	Hastelloy C-276®
Poppet Spring	Inconel X750®
Seat Options	PCTFE (std), Vespel® or PEEK™
Carrier Options	316L Stainless Steel (std) or Hastelloy C-22®
Washer Backup Options	316 Stainless Steel (std) or Hastelloy C-276®
O-ring Backup Options	FKM (std) or PTFE
Inlet Screen / Filter	316 Stainless Steel (std) (60µm mesh screen, 10µm Filter) Hastelloy® (on Hastelloy®, Monel® bodies)
Self-Relieving Seat	PEEK™
Non-wetted	
Cap Options	Nickel Plated Brass (std) or Stainless Steel
Nut	Stainless Steel
Knob Options	ABS (std) (ambient temp) or Aluminum

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PEEK™ is a trademark of Victrex plc.
Inconel® and Monel® are registered trademarks of Special Metals Corporation.
Vespel® is a registered trademark of DuPont Performance Elastomers L.L.C.

Functional Performance	
Design	
Burst Pressure	12,000 psig (828 barg)
Proof Pressure	6,000 psig (414 barg)
Flow Capacity	
C _V Options	C _V 0.06 (std), C _V 0.02, C _V 0.15
Leak Rate	
Internal	Bubble Tight
External	Bubble Tight
Supply Pressure Effect	
Based upon C _V Option	
0.02 C _V	0.01 psig/100 psig (0.0007 barg/7 barg)
0.06 C _V	0.01 psig/100 psig (0.0007 barg/7 barg)
0.15 C _V	0.02 psig/100 psig (0.001 barg/7 barg)
Internal Volume	
8.1 cc without fittings	
Approx. Weight	
3.5 lbs. (1.6 kg)	
Operating Conditions	
Maximum Inlet	Refer to Range Table for specific information
Outlet Options	0-10 psig (0.7 barg), 1-30 psig (2 barg), 2-60 psig (4 barg), 3-100 psig (7 barg), 5-150 psig (10 barg), 10-250 psig (17 barg)
Temperature	Metal Knob required for temperatures above 150°F
PCTFE	-40°F to 150°F (-40°C to 66°C)
PEEK™	-40°F to 275°F (-40°C to 135°C)
Vespel®	-40°F to 500°F (-40°C to 260°C)
Self-Relieving Option	-40°F to 150°F (-40°C to 66°C)

For additional information on materials of construction, functional performance and operating conditions, see Regulator Technical Bulletin.

OFFER OF SALE:

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