



Catalog No. H-HPGR
Nov. 2020

Ultra High Purity Regulator - Pressure Reducing

HPGR-400 & HPGR-800 Series



HPGR-400 & HPGR-800 Series

- 100% Di Water Cleaning
- 100% Clean Room Assembly, Testing, Packing
- 100% Helium Leak Test
- Maximum Inlet Pressures up to 600 psig (41 bar)
- 1/4 & 1/2 in. End Connections

HY-LOK CORPORATION

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HPGR-400 Series



Series	Size	Pressure Rate		Flow Rate	Leak Rate	Cv	Grade
		Inlet (psig)	Outlet (psig)	LPM	Std. cm ³ /s		
HPGR-400	1/4 in.	600	0-60, 0-100, 0-150, 0-250	200	1x10 ⁻⁹	0.15	EP

* Flow rate : N2 gas, at inlet pressure 500psig and outlet pressure 100psig

HPGR-800 Series



Series	Size	Pressure Rate		Flow Rate	Leak Rate	Cv	Grade
		Inlet (psig)	Outlet (psig)	LPM	Std. cm ³ /s		
HPGR-800	1/2 in.	600	0-60, 0-100, 0-150, 0-250	500	1x10 ⁻⁹	0.5	EP

* Flow rate : N2 gas, at inlet pressure 500psig and outlet pressure 100psig

All dimensions are in millimeters(inches) reference only, subject to change.

HPGR-400 Series

Regulator- Pressure Reducing

In Order to use at the Semiconductor all Internal Surface are Finished with 10 Ra, 5 Ra μm . Up to EP Grade to Ensure Minimize Particle Generation
Metal to Metal Diaphragm Seals Provide Enhanced Leak Tight Integrity

Specifications

Operations

- **Maximum Inlet Pressure**
600 psig (41 bar)
- **Outlet Pressure Range**
0-60 psig (0-4 bar)
0-100 psig (0-7 bar)
0-150 psig (0-10 bar)
0-250 psig (0-17 bar)
- **Design Proof Pressure**
150% maximum rated
- **Inboard Helium Leak Rate (ASME E498)**
 1×10^{-9} std cm^3/s
- **Operating and Fluid Media Temperature**
-15°F to 176°F (-26°C to 80°C)
- **Flow Capacity**
 $C_v = 0.15$ (Non-Venting)
- **Flow Rates**
200 LPM at 500 psig Inlet

Media Contact Materials

- **Body**
316L Stainless Steel or VOD (Single Melting)
- **Valve Seat**
PCTFE
- **Diaphragm**
Elgiloy[®]
- **Main Valve, Valve Bush, Valve Spring**
316L Stainless Steel

Other

- **Particle Count**
 $0 \leq 0.1 \mu\text{m}$ Based on ASTM F1394
- **Internal Surface Finish**
10 Ra or 5 Ra μm . (0.25 or 0.13 μm)
- **Connections**
1/4" Inlet and Outlet, Gauge Ports
- **Weight (without gauges)**
2 lbs (0.9 kg)



Applications

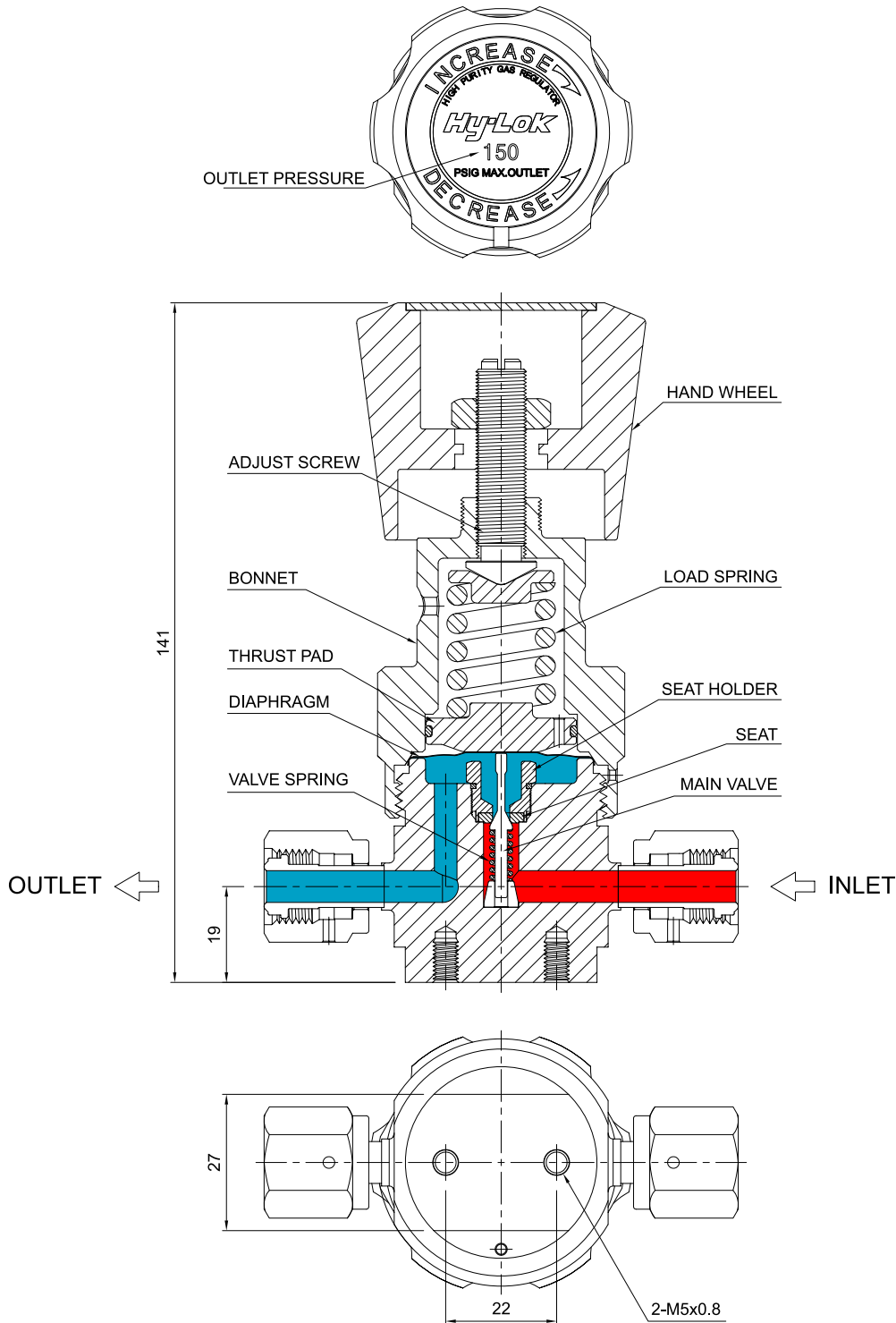
- Ultra High Pure Gas Lines
- Semiconductor Hook-up Line
- Bulk Gas Lines

Features and Benefits

- Metal to Metal Diaphragm Seals Leak Tight Integrity
- Internal Surface EP 10 Ra or 5 Ra μm .
- All Performed in Class 10 Clean Room
- Available for Semiconductor Applications

HPGR-400 Series

Regulator - Pressure Reducing Functional Schematic

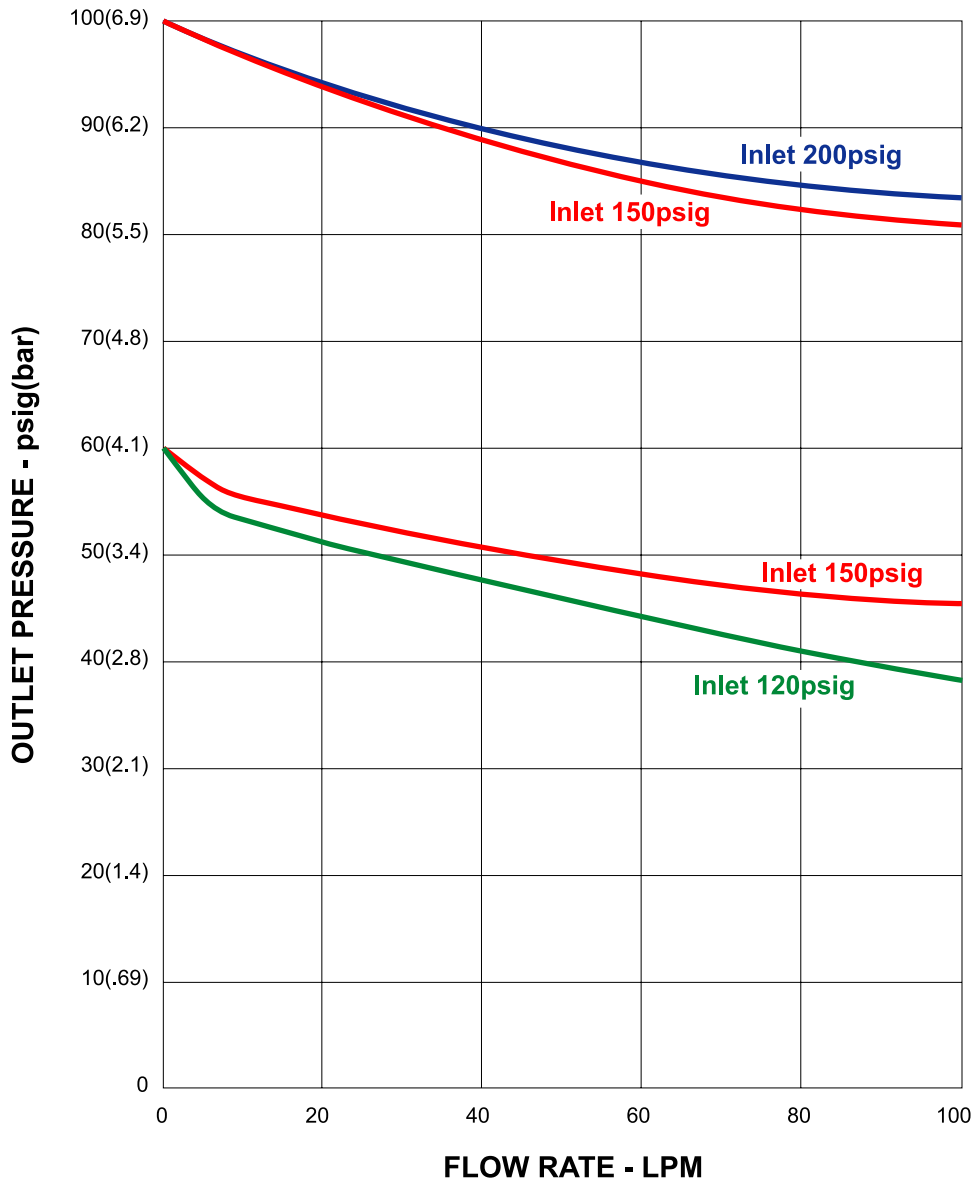


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HPGR-400 Series

Regulator- Pressure Reducing

Flow Chart



Ordering Information

Series	Inlet Pressure	Outlet Pressure	Valve Seat Material	Inlet & Outlet Port Type	Gauge Port	Grade	Body Material
HPGR-400	<u>1</u> : 600 psig	1 : 0-60 psig 2 : 0-100 psig 3 : 0-150 psig 4 : 0-250 psig	P : PCTFE	HL : 1/2 in. Hy-Lok End ZF : 1/2 in. ZCR Female	A : Non B : 1 Gauge	B : BA H : EP	316L : SS 316L SM6L : SS 316L VOD Single Melting

Example for Selecting a Part Number : **HPGR-400 1 2 P ZF B - H / SM6L**

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HPGR-800 Series

■ Regulator- Pressure Reducing

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Metal to Metal Diaphragm Seals Provide Enhanced Leak Tight Integrity

■ Specifications

Operations

- **Maximum Inlet Pressure**
600 psig (41 bar)
- **Outlet Pressure Range**
0-60 psig (0-4 bar)
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- **Design Proof Pressure**
150% maximum rated
- **Inboard Helium Leak Rate (ASME E498)**
 1×10^{-9} std cm^3/s
- **Operating and Fluid Media Temperature**
-15°F to 176°F (-26°C to 80°C)
- **Flow Capacity**
 $C_v = 0.5$ (Non-Venting)
- **Flow Rates**
500 LPM at 500 psig Inlet

Media Contact Materials

- **Body**
316L Stainless Steel or VOD (Single Melting)
- **Valve Seat**
PCTFE
- **Diaphragm**
Elgiloy[®]
- **Main Valve, Valve Bush, Valve Spring**
316L Stainless Steel

Other

- **Particle Count**
 $0 \leq 0.1 \mu\text{m}$ Based on ASTM F1394
- **Internal Surface Finish**
10 Ra or 5 Ra μin . (0.25 or 0.13 μm)
- **Connections**
1/4" Inlet and Outlet, Gauge Ports
- **Weight (without gauges)**
3.2 lbs (1.5 kg)



Applications

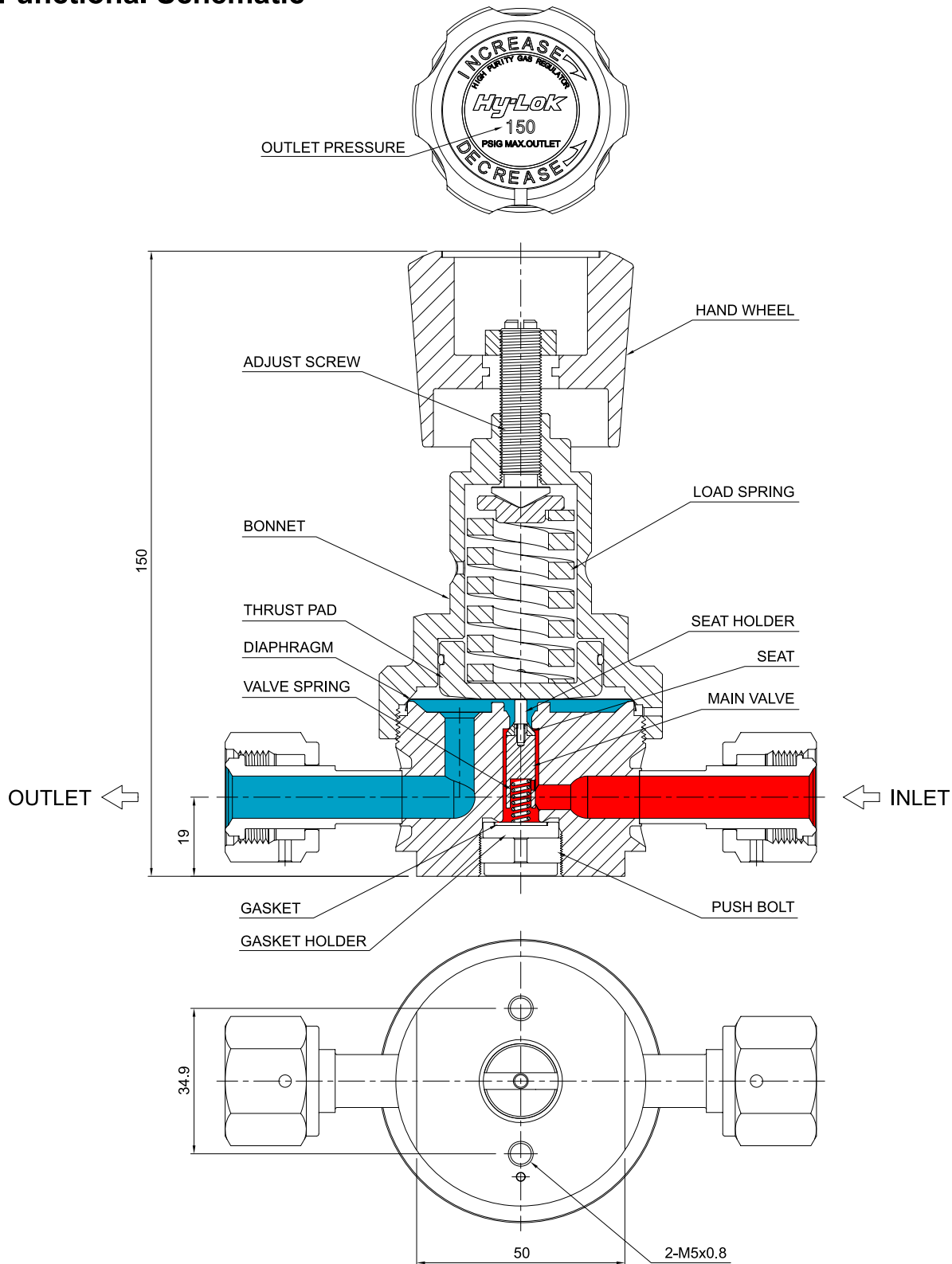
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HPGR-800 Series

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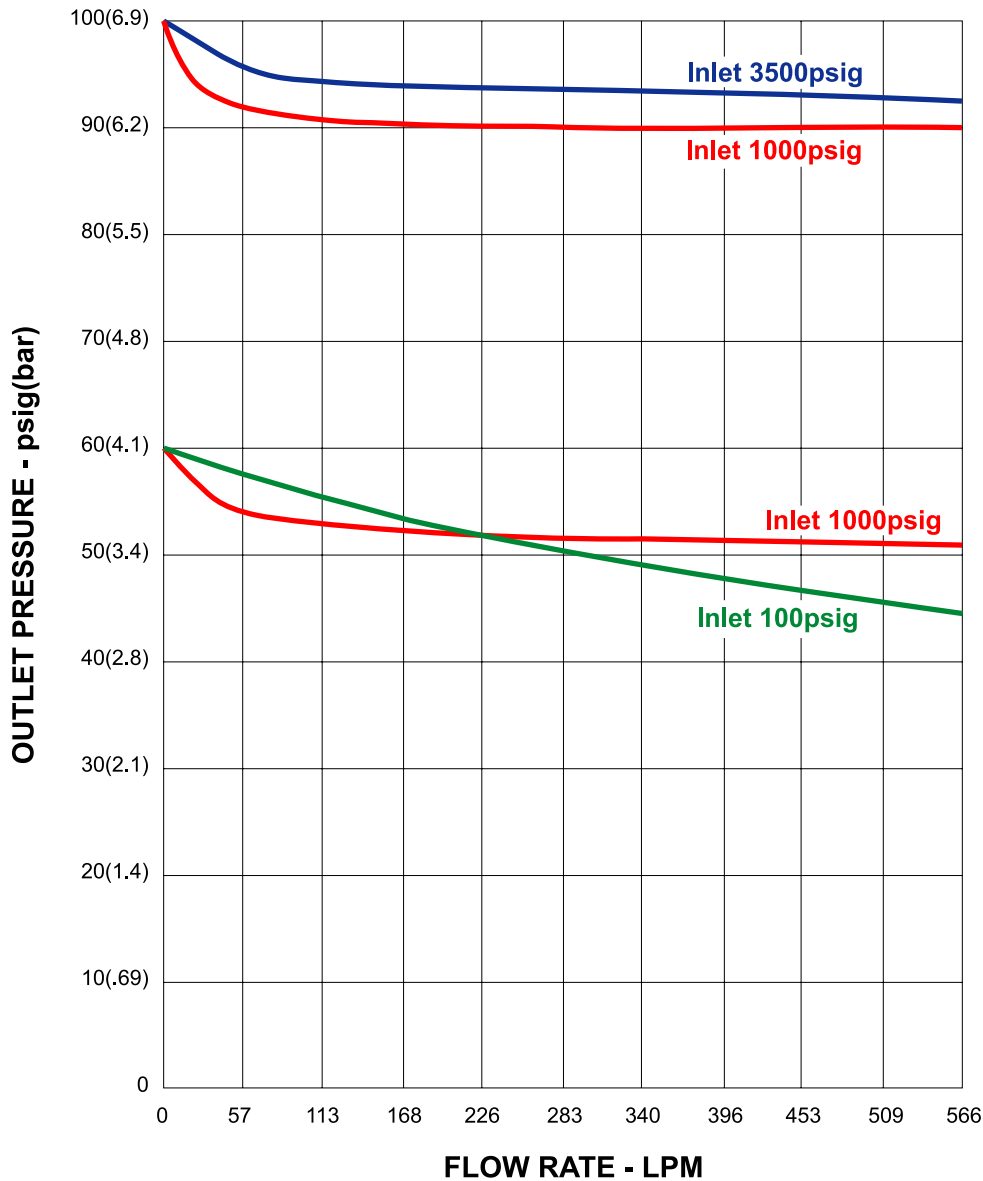


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