

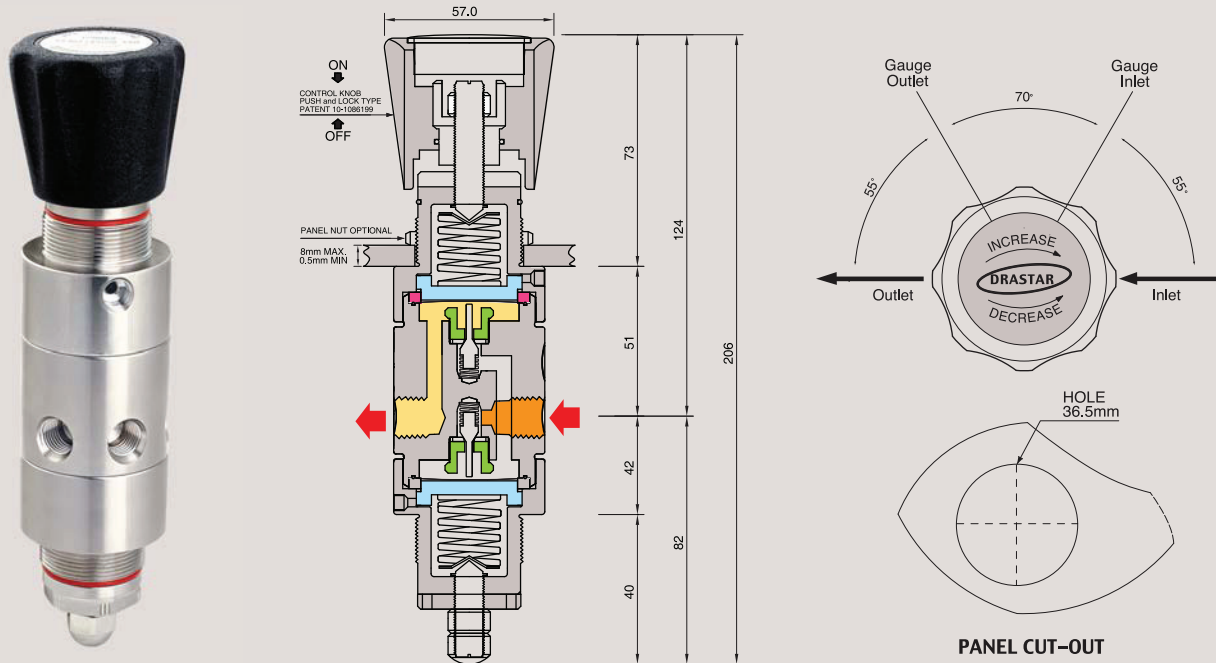
# 2000 S E R I E S



Dual-Stage Low Pressure Regulators



## FUNCTIONAL SCHEMATIC



## Two Stage Low Pressure NPT type (1/4")

2000시리즈는 고압가스 실린더를 저압에서 보다 더 정밀하고 안정적으로 사용할 수 있도록 고안된 Two Stage (2단 감압 타입) 레귤레이터 시리즈입니다.

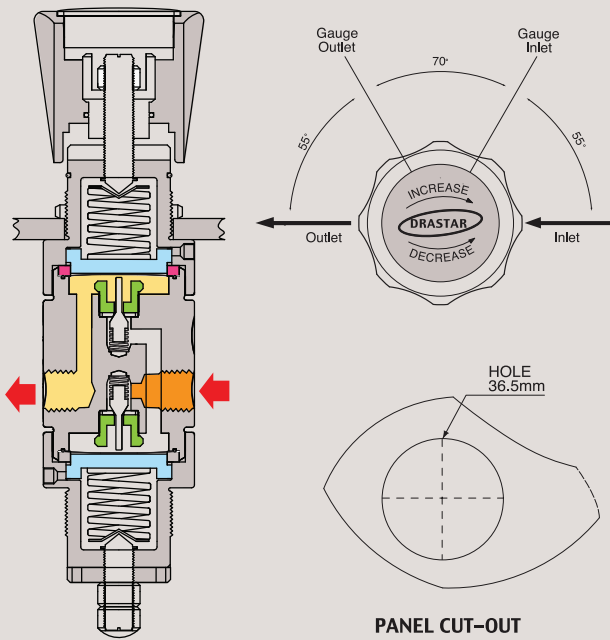
- 모델에 따라 본체와 내부의 모든 부품은 Stainless Steel 316L로 이루어져 있으며, 실린더 가스, Bulk Gas Line, 실험실, 분석용 특수 가스, 또는 고순도 가스, 믹싱용 가스, 그리고 각종 부식성 가스 등에서 모두 사용할 수 있도록 설계, 제작 되었습니다.
- 입구압력은 250bar(3600psig), 출구압력은 20bar(290psig)까지 사용하기에 적합한 제품입니다.

2000 Series is a 1/4" NPT type two stage low pressure reducing regulator specially designed to regulate the high pressure gas cylinder to low pressure applications more accurately and safely. Max inlet pressure is 250bar(3600psig) and outlet pressure ranges from 0.3bar(5psig) up to 20bar(290psig).

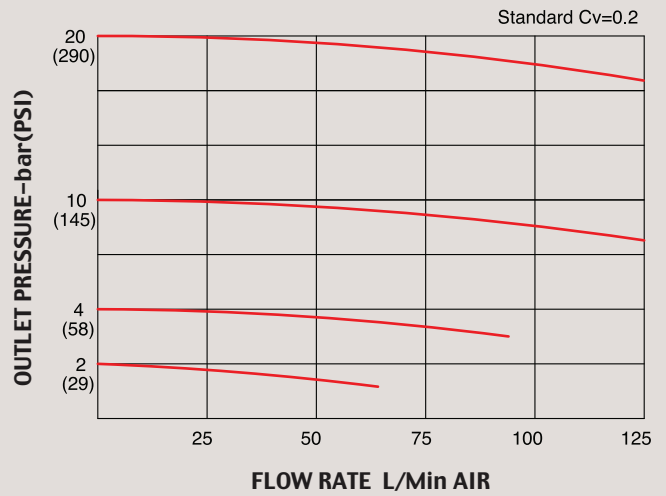
※ 사용 중 가스라인이나 외부의 미세 진동 등으로 인하여 초기 압력 셋팅 값이 미세하게 변동하는 현상을 완전히 해결한 당사 Push and Lock 조절 손잡이 (당사 특허 #10-1086199)를 적용하여 사용하기에 더욱 편리합니다. 조절 손잡이를 누르면 (lock) 압력 셋팅 값이 변하는 것을 완전히 방지할 수 있고, 손잡이를 앞으로 당기면(unlock) 자유롭게 원하는 압력으로 다시 셋팅 할 수 있습니다.

## Specifications

In/Outlet Port Size	1/4" FNPT / Gauge port: 1/4" NPT
Body	Stainless Steel 316L / Nickel Plated Brass
Bonnet	Nickel Plated Brass (Standard) / Stainless Steel (Option)
Diaphragm	Stainless Steel 316L / Hastelloy C (optional)
Main Valve	Stainless Steel 316L / Hastelloy C (optional)
Valve Spring	Stainless Steel 316L
Valve Seat	Teflon
Maximum Inlet Pressure	250bar (3,600 psig)
Outlet Pressure Range	2bar (29psig), 5bar (75psig), 10bar (145psig), 20bar(290psig)
Design Proof Pressure	150% of maximum rated
Leakage	to 2x10 <sup>-6</sup> atmcc/secHeliumavailable
Operating Temperature	-40°C to +70°C(-40°F to +160°F) (Standard)
Flow Capacity	Cv = 0.06 (Standard), 0.2 (Option)
Weight	Approx. 1.6kgs



**FLOW CHART**



With DRASTAR's patented (patent #10-1086199) "push and lock type handle", you can operate it easily and stably; "locking" by pushing down the handle will prevent any slight change of pre-set pressure value, which could possibly be caused by any vibration from gas pipeline or ambient applications and the other way "unlocking" by pulling it back enables you to adjust the pressure value freely again.

**Features & Applications**

- 1/4" NPT type regulator
- Suitable for the high pressure labs, industrial control
- Inlet pressure is 250bar(3600psig) and outlet pressures are 2bar(30psig), 5bar(75psig), 10bar(145psig), 20bar(290psig)
- Panel mounting nut available as option
- Design proof pressure: 150% of maximum rated
- Applicable for cylinder gas, bulk gas line, research labs, analytical specialty gas, high purity gas, mixing gases, and corrosive gases.

※ DRASTAR's all pressure regulators are assembled, cleaned, inspected, and packed in clean-room equipped with clean bench, helium detector, particle counter, ultrasonic cleaner, ultrapure water system, vacuum packaging machine, etc. through oxygen cleaning procedure in compliance with process and regulations indicated in CGA 4.1. and or ASTM G-93 and are free of any grease or oils.

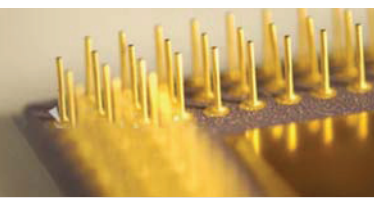
※ **Caution:** Filtering (gas 7 $\mu$ m~15 $\mu$ m, water 15 $\mu$ m~80 $\mu$ m) is a MUST to use in the general gas application other than high purity gases. Otherwise, it may cause a failure to the regulators. It is strongly recommended to install filter for extension of life span and saving the maintenance expense.

※ **주의 :** 크린라인이 아닌 일반 라인에 사용 할 경우 반드시 필터링(gas 7 $\mu$ m~15 $\mu$ m, water 15 $\mu$ m~80 $\mu$ m)을 하여야 하며, 그렇지 않을 경우 바로 고장의 원인이 됩니다. 모든 제품은 필터링하여 사용하면 A/S 비용 절감과 제품의 수명연장에 많은 도움이 됩니다.

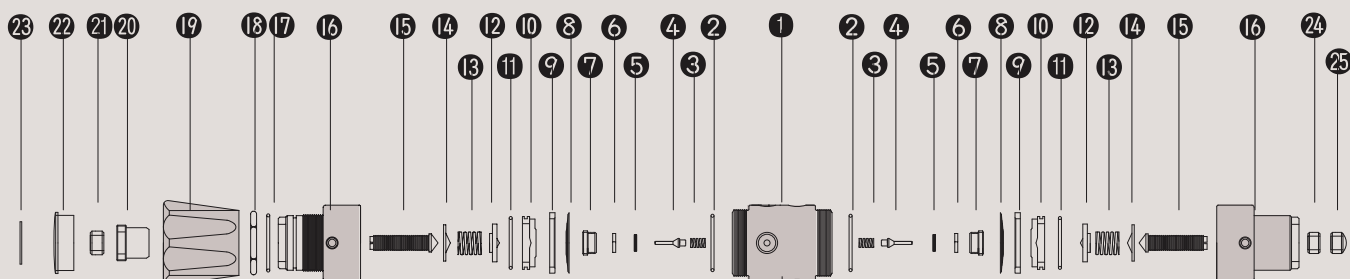
**ORDERING INFORMATION**

**2000 S - 002 - 1 S H - V**

BASIS SERIES NUMBER	BODY MATERIAL	OUTLET PRESSURE RANGE	INLET AND OUTLET PORTS SIZE	FLOW CAPACITY	DIAPHRAGM MATERIAL	SELF - VENTING
Standard Inlet Pressure 250 bar (3600psig)	B = Brass S = Stainless Steel 316L	002 = .1-2bar (1-29psig) 005 = .1-5bar (5-75psig) 010 = .1-10bar (10-145psig) 020 = .1-20bar (20-290psig)	1 = 1/4" NPT  Previous NP4 = NPT1/4"	S = Cv 0.06 Standard  O = Cv 0.2 Optional	STS 316L Standard  H = Hastelloy-C Optional	V = Self - venting  Optional



## 2000 SERIES PART LIST



### STANDARD MODEL SERIES

Item No.	Description	Part No.	Model Application
01	Body	2000-02-01	02-01 Stainless Steel 316L body / 02-02 Brass body
02	Body O-Ring	2000-02-00	All Model Same
03	Valve Spring	2000-04-01	04-01 STS 316L / 04-03 Hastelloy-C-22 / 04-04 Monel
04	Main Valve	2000-06-01	06-01 STS 316L / 06-03 Hastelloy-C-22 / 06-04 Monel
05	Valve Seat	2000-10-01	10-01 PFA / 10-05 Vespel / 10-06 Peek
06	Valve Seat Cartridge	2000-08-01	08-01 Stainless Steel 316L / 08-02 Brass
07	Locking Screw	2000-12-01	All Model Same
08	Diaphragm	2000-16-01	16-01 STS 316L / 16-02 Hastelloy C-22
09	Diaphragm Plate	2000-22-02	All Model Same
10	Back-up Plate	2000-26-03	All Model Same
11	Back-up Plate O-Ring	2000-28-01	All Model Same
12	Spring Plate	2000-30-01	All Model Same
13	Load Spring	2000-38-01	11-01 26psi / 11-02 50psi / 11-03 100psi / 11-05 250psi / 11-07 500psi
14	Pivot	2000-40-01	All Model Same
15	Adjusting Screw	2000-42-01	All Model Same
16	Bonnet	2000-44-02	02-01 Stainless Steel 316L / 44-02 Brass 1st. 44-03 STS316L 44-04 Brass
17	Push & Lock O-Ring	2000-46-01	All Model Same
18	Panel mount Nut	2000-48-01	All Model Same
19	Control Knob	2000-50-01	50-01 ABS / 50-04 Aluminum Control knob
20	Push & Lock Handle nut	2000-52-01	All Model Same
21	Locking Nut	2000-54-01	All Model Same
22	Name Cap	2000-56-01	56-01 ABS
23	Name Cap Plate	2000-58-01	59-01 2bar, 59-02 5bar, 59-03 10bar, 59-02 4bar, 59-04 20bar,
24	1st Bonnet Locking Nut	2000-	All Model Same
25	1st Bonnet Cap Nut	2000-	All Model Same