

# DRA 100 S E R I E S

UHP LOW PRESSURE VCR TYPE

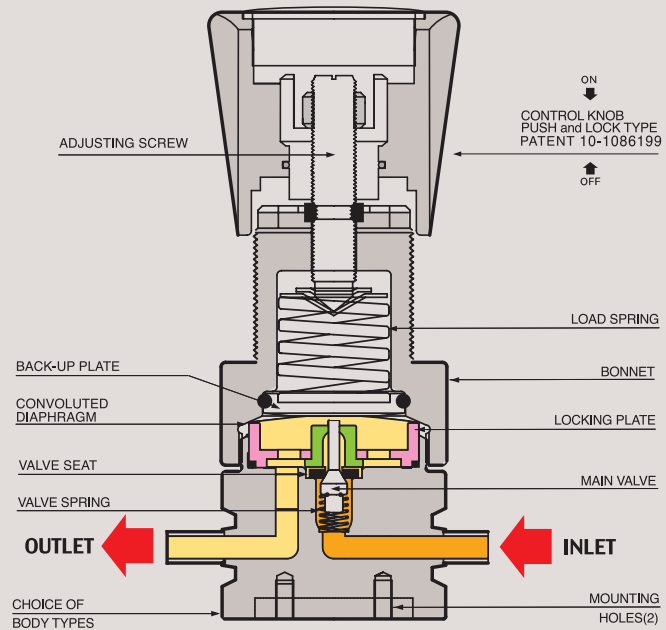




## DRA100 SERIES



## FUNCTIONAL SCHEMATIC



## DRA100(Non-tied-type)

### UHP Low Pressure VCR type (1/4" 3/8" 1/2" 3/4")

DRA100 시리즈는 초 고순도 반도체 제조라인, 특수 가스 라인, Bulk Gas Line, 기타 설비 라인 등에 적합하도록 개발된 저압용 UHP VCR Type Pressure Reducing regulator입니다.

- 내부 표면을 B.A. 25Ra, E.P. 10Ra, 또는 5Ra microinch까지 처리하여 반도체 생산 hook-up 라인 등에 적합합니다.
- 입구 압력은 3,600psig(250bar) or 600psig (42bar)이고 출구압력은 5psig(0.3bar)에서 최대 250psig(17bar)까지 사용 가능하며, 용도에 따라 2-ports, 3-ports, 4-ports 사용 가능합니다.
- 용접, 조립, 실험, 세정 등 모든 공정은 100-class와 10-class 크린룸에서 작업합니다.
- Locking-plate seal system (당사 특허 No. 10-0753280) 적용으로 파티클(particle) 방지 기능이 더욱 강화되었습니다.
- 사용 중 가스라인이나 외부의 미세 진동 등으로 인하여 초기 압력 셋팅 값이 미세하게 변동하는 현상을 완전히 해결한 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.

**DRA 100 Series** is an UHP low pressure reducing regulator with B.A. 25Ra, E.P. 10Ra, or E.P. 5Ra surface finish and applicable for high purity semiconductor manufacturing, specialty gas, and bulk gas lines as well as other facilities. Inlet pressures are 3600psig (250bar) or 600psig (42bar) and outlet pressure are 5psig(0.3bar) up to 250psig (17bar).

With DRASTAR's patented (patent #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 and Applications

- 1/4", 3/8", 1/2", and 3/4" VCR type
- Non-tied diaphragm type
- Surfaces finishes to B.A. 25Ra, E.P. 10 Ra or E.P. 5 Ra microinch
- Push and lock type handle (DRASTAR patent #10-1086199) mounted
- Threadless type: enhanced particle prevention by adopting the locking-plate seal system (DRASTAR patent #10-0753280)
- All works of welding, assembly, test and cleaning are performed in class 100 and class 10 clean-rooms
- Design proof pressure: 150% of maximum rated
- Applicable for Semiconductor manufacturing, specialty gases, bulk gas line and other facilities

### 권장사항

각 제품들은 최고의 안전성과 쉬운 조작성을 고려하여 제작되었습니다. 그러나 가장 안전하고 효율적인 Regulator 사용을 위해서는 실제 사용 압력을 각각 모델의 사용 압력에 25% ~ 75% 이내에서 사용하면 가장 이상적인 압력을 사용할 수 있습니다. 정밀하고 원활한 작동과 제품의 수명 연장을 위해서는 각 모델의 사용 범위 내에서 사용하기를 적극 권장합니다.

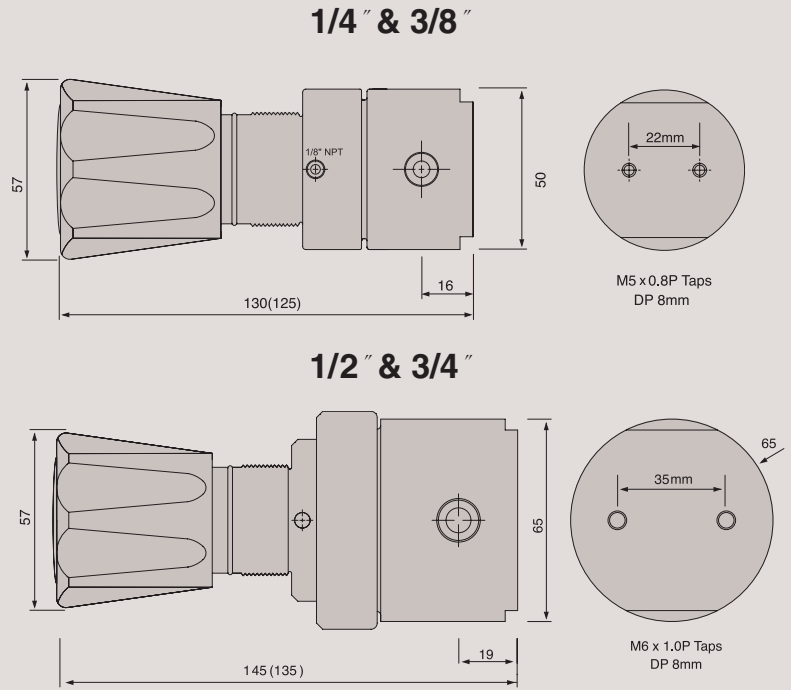
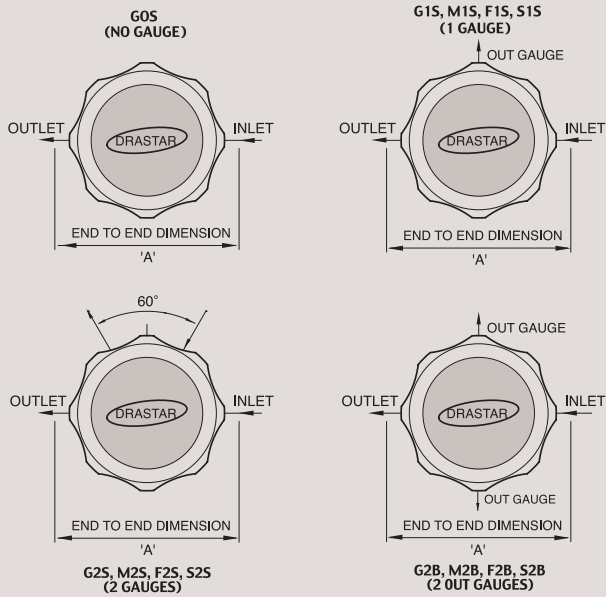
Each product is manufactured taking into consideration of the best safety and easy manipulation. However in order to use the regulator in most safe, effective, precise and smooth way and prolong its life time, you are recommended to use the actual pressure within the range of 25% ~ 75% of its rated pressure.

**REFERENCE**

This catalogue is printed as of January 2018, and the dimensions and/or specifications in this catalogue can be changed without prior notice in the course of constant upgrading and improvement of our products.

**INSTALLATION DIMENSIONS**  
METRIC EQUIVALENTS ARE IN PARENTHESES

■ GAUGE PORT OPTIONS



**ORDERING INFORMATION**

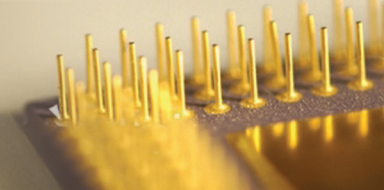
**DRA100 - A 025 S - H P S - 4MS - G0S**

- BASIS SERIES**
- BODY MATERIAL & SURFACE FINISH**  
A = 316L, B.A. .... 25Ra  
B = 316L, E.P. .... 10Ra  
C = 316L, E.P.(P.E.P) .... 5Ra  
D = 316L, E.P. VAR .... 10Ra  
E = 316L, E.P. VAR(P.E.P) .... 5Ra  
B.A.= Brigh Annealed., E.P.= Electropolished.
- OUTLET PRESSURE RANGE**  
025 = 1-25psi (.1-1.7bar)  
050 = 1-50psi (.1-3.5bar)  
100 = 1-100psi (.1-7bar)  
250 = 1-250psi (.2-17bar)
- DIAPHRAGM MATERIAL**  
S = STS 316L  
H = Hastelloy-C
- MAX. INLET PRESSURE**  
H = 3600psi(250bar)  
L = 600psi(42bar)
- SEAT MATERIAL**  
P = PCTFE  
T = Teflon  
V = Vespel

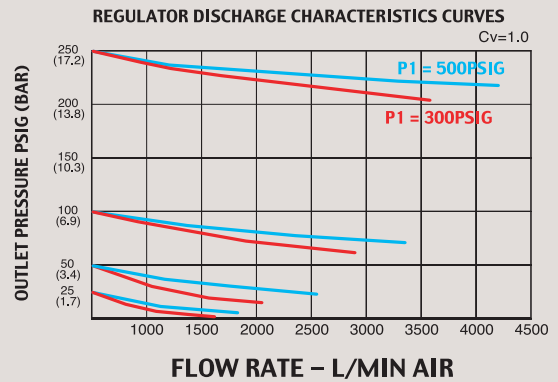
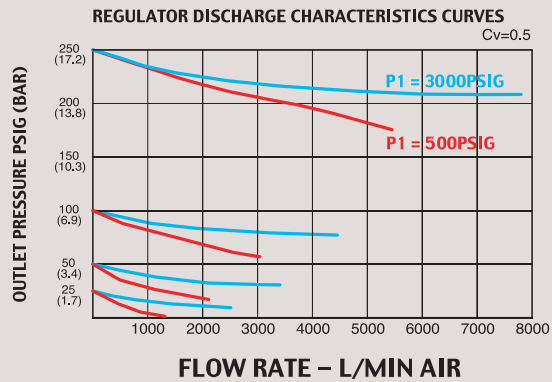
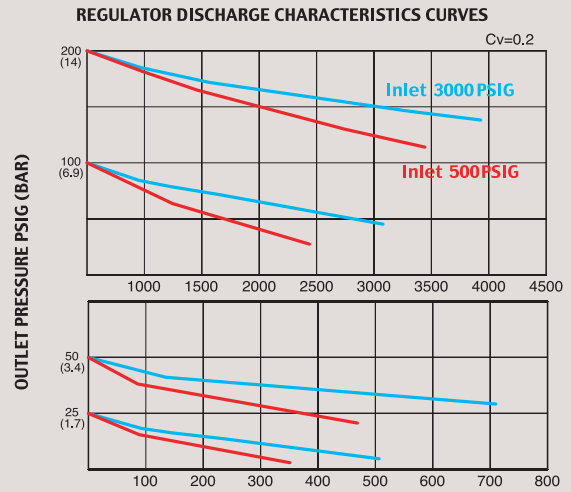
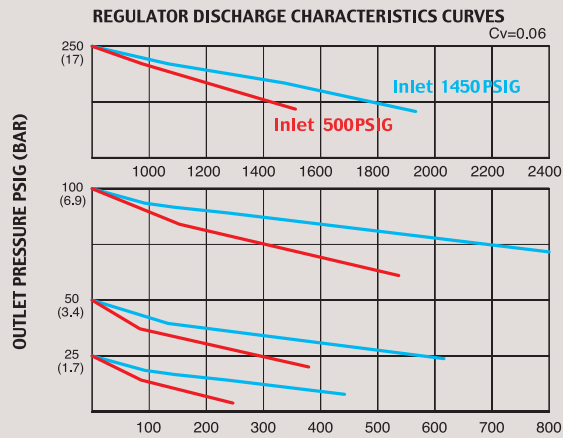
- GAUGE PORTS OPTIONS**

|                            |                             |
|----------------------------|-----------------------------|
| G0S = None ..... 0         | <b>Gauge Ports</b>          |
| G1S = 1/4" H.P.I.C ..... 1 | F1S = 1/4" Femle Swivel. 1  |
| G2S = 1/4" H.P.I.C ..... 2 | F2S = 1/4" Femle Swivel. 2  |
| G2B = 1/4" H.P.I.C ..... 2 | F2B = 1/4" Femle Swivel. 2  |
| M1S = 1/4" Male Swivel. 1  | S1S = 1/4" Fixed Male ....1 |
| M2S = 1/4" Male Swivel. 2  | S2S = 1/4" Fixed Male ....2 |
| M2B = 1/4" Male Swivel. 2  | S2B = 1/4" Fixed Male ....2 |

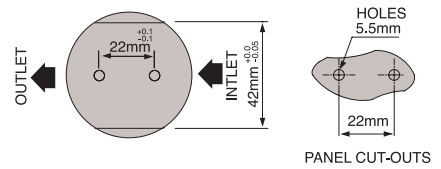
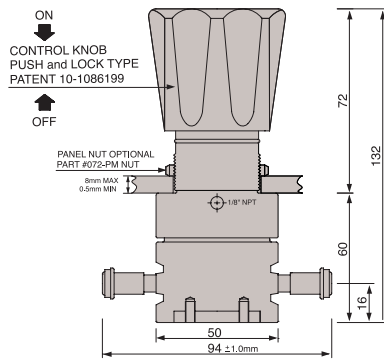
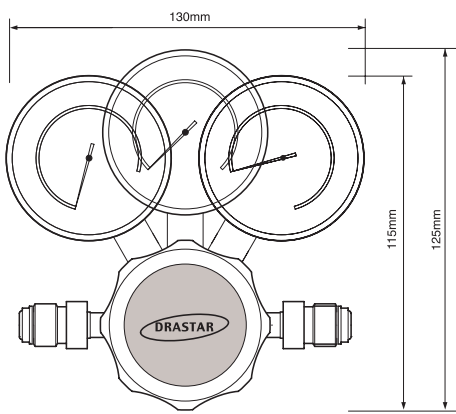
- INLET / OUTLET PORTS SIZE & Type "A" ±1.5mm**  
4HP = 1/4" H.P.I.C  
4MS & 4FS = 1/4" Male, Femail Swivel ..... 94mm  
4ML & 4FL = 1/4" Male, Femail Swivel ..... 114.00mm  
8MS & 8FS = 3/8" Male, Swivel ..... 120.00mm  
8ML & 8FL = 3/8" Male, Femail Swivel ..... 120.00mm  
2MS & 2FS = 1/2" Male, Femail Swivel ..... 140.00mm  
2ML & 2FL = 1/2" Male, Femail Swivel ..... 180.00mm  
3MS & 3FS = 3/4" Male, Femail Swivel ..... 160.00mm  
3ML & 3FL = 3/4" Male, Femail Swivel ..... 000mm  
IMF = In Port Male / Out Port Female ..... 000mm  
IFM = In Port Female / Out Port Male ..... 000mm  
4TS = 1/4" Tube Stubs ..... 94.00mm  
3TS = 3/4" Tube Stubs ..... 160.00mm
- FLOW CAPACITY**  
S = Cv 0.06 Standard (Inlet 3000psi) (1/4")  
O = Cv 0.2 Optional (Inlet 500psi) (1/4")  
S = Cv 0.2 Standard (3/8")  
S = Cv 0.5 Standard (1/2")  
O = Cv 1.0 Optional (1/2")  
S = Cv 1.2 Standard (3/4")



## FLOW CHART

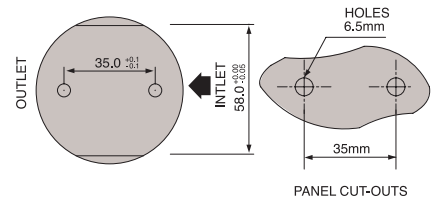
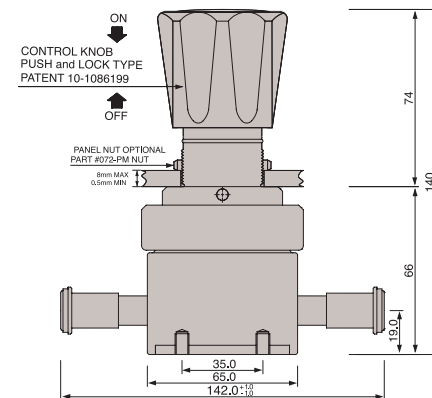
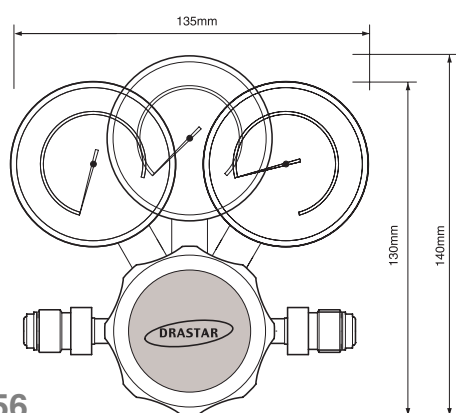


### DRA100 Series 1/4" & 3/8"



For 1/4" 4MS and 4FS Model 94mm  
For 1/4" 4ML and 4FL Model 000mm  
For 3/8" 8MS and 8FS Model 120mm  
For 3/8" 8ML and 8FL Model 000mm

### DRA100 Series 1/2" & 3/4"



For 1/2" Model 2MS and 2FS 142mm  
For 1/2" Model 2ML and 2FL 180mm  
For 3/4" Model 3MS and 3FS 180mm  
For 3/4" Model 3ML and 3FL 000mm