



# 6000 PSI DOME LOAD REDUCING REGULATORS MODELS 1026 & 1092

## GENERAL INFORMATION

The 1026 and 1092 dome load regulators function in the same way. The 1092 uses a larger, balanced poppet valve cartridge and handles higher flow rates than the 1026. They are non-vented reducing regulators that track any applied dome pressure. Regulation accuracy is generally much better than spring loaded regulators.

An optional loading spring permits biasing the regulator up to 300 PSI above dome pressure. The spring bias feature permits use in a number of special applications. One application is control of cascade systems used for filling air or CNG (compressed natural gas) tanks. When used between the storage banks and tank being filled the regulators can deliver gas from the lowest pressure bank until equalized, then the next higher pressure bank etc without operator assistance. Consult the factory for application details.

A one inch thread section is provided for mounting to a panel or plate.

## TECHNICAL SPECIFICATIONS

- Maximum pressure
  - inlet ----- 6000 PSI (40 MPa)
  - differential ----- 6000 PSI
  - outlet ----- 6000 PSI
  - dome ----- 6000 PSI
- Ports,
  - inlet ----- 1/4" or 1/2" MNPT
  - outlet ----- 1/4" FNPT
- Flow coefficient (Cv)
  - model 1026 ----- .05 (.07" orifice)
  - model 1092 ----- 0.8 (0.23" orifice)
- Materials,
  - body ----- anodized aluminum
  - internals ----- brass & stainless
  - seals ----- Viton(TM) & KEL-F
- Outlet pressure variation ----- 17 PSI increase per  
with inlet pressure 1000 PSI drop in  
inlet pressure
- Spring bias options ----- 0 to 300 PSI available  
not field adjustable
- Size
  - mod 1026 ----- 1.37" hex. x 7.0" long
  - mod 1085 ----- 2.25" dia. x 8.7" long



**Dome Load Regulator  
Model 1026**



**High Flow  
Dome Load Regulator  
Model 1092**

### Aqua Environment Inc.

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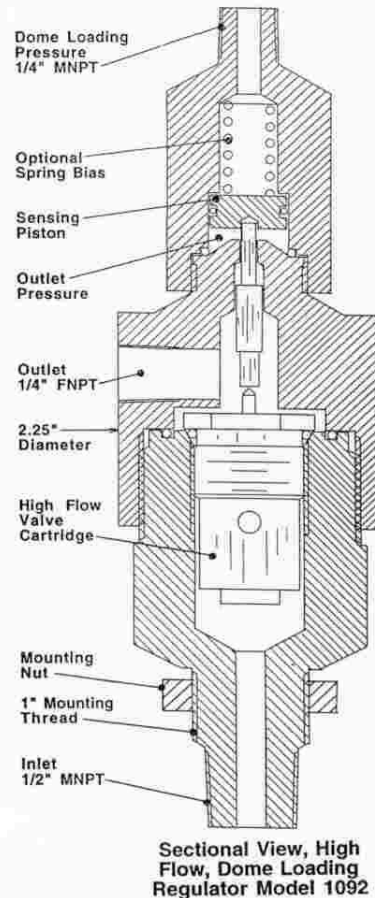
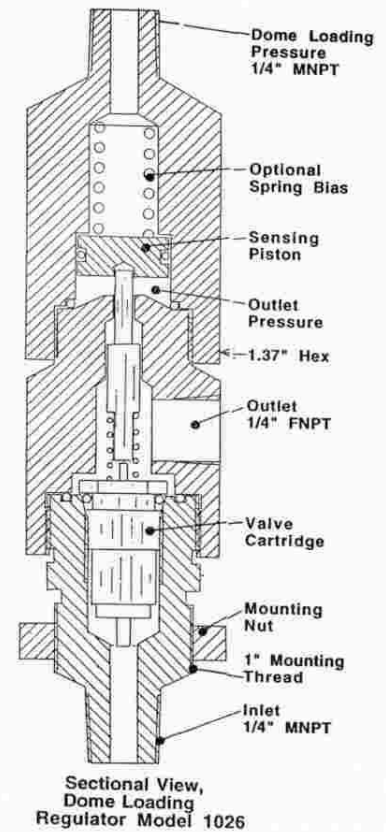
## TYPICAL APPLICATIONS

- Automatic control of flow from cascade banks of air, CNG or other gases to portable tanks.
- Supplying seal gases to pump shaft seals.
- \* Applications where it is economical or desirable not to have electric controls such as in CNG fill stations where electric controls could be a hazard.
- \* Applications where more accurate pressure regulation is required than possible with spring loaded regulators. Here a small spring loaded regulator can load the dome.
- Numerous other applications where a reference pressure is used to control regulator output pressure.

## FUNCTIONAL DESCRIPTION

The 1026 and 1092 regulators function the same way. The only difference is the larger 1092 regulator has a balanced poppet cartridge permitting much higher flow rates. The same dome loading caps are used on both valves. The valve cartridge contains the valve seat, poppet, seals, and filtration system in a factory cleaned and assembled unit. Consequently in field servicing, should it be required, is reduced to the fast, simple task of replacing an inexpensive cartridge. These cartridges are also used on our 415 and 873 series regulators and have proved highly dependable over the years. Flow enters at the bottom of the regulator and exits out the side port shown.

An optional spring bias of up to 300 PSI permits the regulator output pressure to track up to 300 PSI above dome pressure.



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