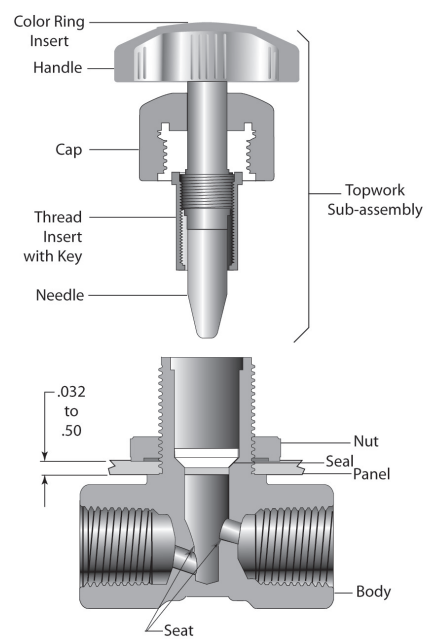




## **Throttle Master™ NEEDLE VALVES**

**Installation procedure  
and parts list**



## Please...read these instructions...

Marquest needle valves may be used in a wide range of services where the materials of construction are suitable in the chemical. Thermal, and general environment limits of the installation.

Specific applications should be evaluated on the basis of pressure, temperature (see temperature chart and data sheet for particular materials) and the joining system.

### MOUNTING VALVES

To relieve strain on the system and its components, the Marquest valve can be mounted on a panel or bracket in the following manner: After providing the proper hole to the "template dimensions," it is necessary to remove the top work subassembly and panel nut from the body. It is not required or recommended to disassemble the top work sub-assembly for this purpose. The body is then inserted into the hole, the panel nut secured, and the top work sub-assembly replaced.

**CAUTION:** *Care should be taken to back off or position the needle sufficiently so that it will not engage the seat while tightening the "cap" on reassembly. \*See position of "Threaded insert with key" on adjacent drawing. Note space between threaded insert and cap.*

### CONNECTIONS

The 1/4", 3/8" and 1/2" ports are standard pipe threads (NPT) and may be adapted to tube fittings, socket adapters or other piping components.

PTFE tape is recommended as a thread sealant. Pipe dope should not be used unless specifically recommended for plastic pipe by the manufacturer.

A firm, hand tight torque is normally sufficient for small plastic pipe threads; over tightening may deform threads and cause leaking.

### STEM SEAL

The single seat in the Marquest Needle Valve is precision machined of virgin PTFE and is virtually immune to chemical attack and it will NOT contaminate sensitive media.

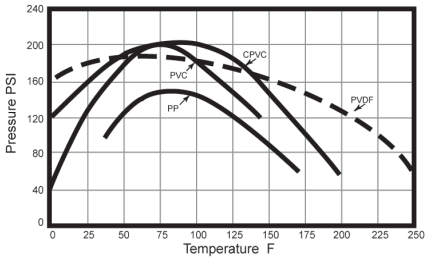
This stability, low friction, and high sealing effectiveness, provides an almost unlimited life potential in this component - the small wear can be taken up by simple tightening of the cap.

### CHEMICAL RESISTANCE DATA

Chemical resistance data is not provided by MARQUEST due to the complex potential of combinations, concentrations, temperature and degree of safety factors required.

A specific inquiry to MARQUEST providing complete service data and service requirements will provide you with an opinion as to suitability.

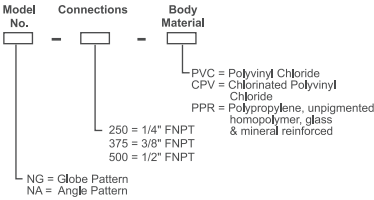
**Pressure/Temperature Range  
Non-Shock**



**Specifications**

	1/4" & 3/8"		1/2"	
	Globe Pattern	Angle Pattern	Globe Pattern	Angle Pattern
Orifices				
Inlet	0.187"	0.250"	0.218"	0.250"
Outlet	0.187"	0.187"	0.218"	0.218"
C <sub>v</sub>	0.310	0.426	0.620	0.780

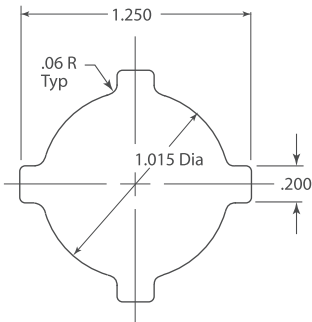
**How to Order**



**Mounting Template**

The template provided, outlines the hole and orientation slots for the panel or bracket, where required. The orientation slots may be cut in multiple positions to allow versatility in mounting the valve to accommodate the piping alignment requirements.

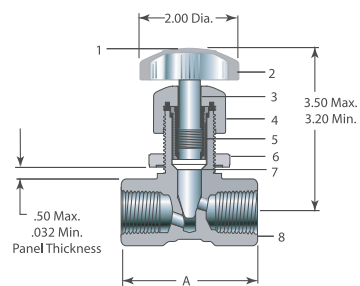
Panel thickness of 0.32" to .50" is the accepted range.



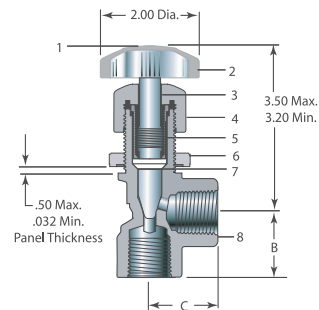
**Dimensions/Inches**

Size	A	B	C
1/4"	2.31	1.16	1.17
3/8"	2.39	1.19	1.21
1/2"	2.65	1.31	1.32

Globe Configuration



Angle Configuration



### Parts List

Item	Description
1	Colored Ring Insert
2	Handle
3	Needle
4	Cap
5	Threaded Ring Insert
6	Panel Nut
7	PTFE Seal
8	Body

Special connections available on request.



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