

Process Gas Equipment

Regulators for Ultra High Purity (UHP) AP/SL/AP/AZ



- For UHP gas delivery in semiconductor and other clean industries
- Body material: 316L SS secondary remelt or 316L SS
- Electropolished wetted parts
- External metal seal construction

Series	Type	Application	Body material	Connection type	Connection size
AP/SL	Single stage	Distribution (Compact)	316L SS secondary remelt	Face seal Tube weld	1/4", 3/8"
AP/SL	Single stage	Distribution			1/4", 3/8", 1/2", 3/4"
AP/SL	Single stage	Bulk gas	316L SS		1/2", 3/4", 1"
AP/SL	Single stage	Source	316L SS secondary remelt		1/4", 3/8", 1/2", 3/4"
AP/SL	Single stage	Sub-atmospheric pressure			1/4", 3/8", 1/2", 3/4"
AP	Two stage	Source	316L SS		1/4", 3/8"
AZ	Single stage	Distribution			1/4", 3/8", 1/2"
AZ	Single stage	Source			1/4", 3/8", 1/2"
AZ	Single stage	Sub-atmospheric pressure			1/4", 3/8", 1/2"

Regulator/Back Pressure Regulator for General Applications AK/BP



- For a wide variety of applications from semiconductor to general
- Body material of 316 SS or brass is available depending on the gas.

Series	Type	Application	Body material	Connection type	Connection size
AK	Single stage	Distribution	316 SS or Brass	NPT female, Compression	1/4", 3/8", 1/2"
AK	Single stage	Source			1/4", 3/8", 1/2"
AK	Single stage	Sub-atmospheric pressure			1/4", 3/8", 1/2"
AK	Two stage	Source			1/4"
BP	Back pressure regulator	—			1/4"

Diaphragm Valve for Ultra High Purity AP



- For UHP gas delivery in semiconductor and other clean industries
- Used as a gas shutoff valve
- No spring is used for the wetted parts and the drive part is also separated from the diaphragm. Dead space in the flow path is small in order to suppress particle generation.

Series	Type	Body material	Connection type	Connection size
AP	Air operated type	316L SS secondary remelt	Face seal Tube weld	1/4", 3/8", 1/2", 3/4"
AP	Manually operated type			1/4", 3/8", 1/2", 3/4"

Diaphragm Valve for Ultra High Purity AZ



- Cleaned for high-purity semiconductor applications and clean room assembled
- Helium leak tested
- SEMI Standards-compliant
- User-friendly forged body

Series	Type	Body material	Connection type	Connection size
AZ	Air operated type	316L SS	Face seal Tube weld	1/4", 3/8", 1/2"
AZ	Manually operated type			1/4", 3/8", 1/2"

Process Gas Equipment

Check Valve/Vacuum Generator/Flow Switch AP



[Check valve]

- Fluid backflow is prevented by back pressure.
- Unique design with only one moving part in the gas stream, an O-ring
- Springless structure suppresses particle generation by vibration or chattering and pressure fluctuations on the downstream side

[Vacuum generator]

- Vacuum generation equipment
- Applicable to the exhaustion of unnecessary gas remaining inside the piping during gas cylinder replacement

[Flow switch]

- Detects excess flow above a given flow rate caused by pipe breakage, etc.

Series	Type	Body material	Connection type	Connection size
AP	Check valve	316L SS secondary remelt	Face seal Tube weld	1/4", 3/8"
AP	Vacuum generator	316L SS		1/4", 3/8"
AP	Flow switch	316L SS secondary remelt, 316L SS		1/2", 3/4"

Diaphragm Valve for General Applications AK



- Rc, R, and NPT connections have been added to the series.
- For a wide variety of applications from semiconductor to general
- Cleaned for O₂ service
- Compact and lightweight due to the shortening of the actuator (AK3542/4542)
- M5 actuation port (AK3542/4542)
- Compact and lightweight due to the modifying of the knob design (AK3652/4652)
- The knob features a unique design that combines a scalloped round knob with a raised rectangular section to provide two choices of gripping. (AK3652/4652)

Series	Type	Body material	Connection type	Connection size
AK	Air operated type	316 SS	Compression Rc, R, NPT	1/4", 3/8"
AK	Manually operated type			1/4", 3/8"

Regulator for General Applications AK1000T



- For a wide variety of applications from semiconductor to general
- Compact and lightweight:
Weight: 0.52 kg, Height: 97.5 mm
- Minimum dead leg construction
- Various piping configurations are available:
Select from compression, NPT female, or Rc thread.

Series	Type	Body material	Connection type	Connection size
AK1000T	Manually operated type	316 SS	Compression Rc, NPT	1/4", 3/8"