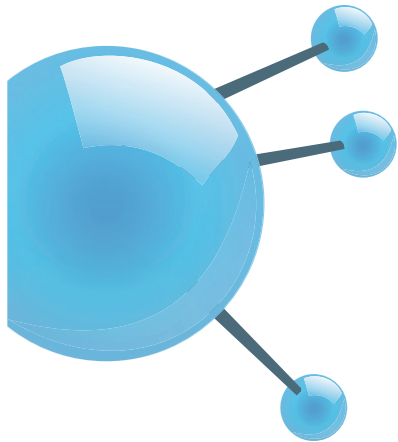


Doping Gas Mixer



Fully automatic system generating doping gas mixtures.

On demand production.

High on-line concentration accuracy monitoring.





Applications

Supply chain improvement through replacement of cylinder supply by on-site generation

Operation

Filling of an integrated gas buffer with a precise gas mixture generated by Mass Flow Controllers (MFC) and ready to be supplied at the Point Of Use (POU). The generated mixture concentration is continuously monitored by a gas analyzer.

MFCs are driven by an advanced algorithm chosen for dedicated flow ranges.

-  ✓ ppm level concentration
-  ✓ Better repeatability and process stability compared to cylinder supply
- ✓ Increased safety by eliminating manual handling of cylinders
- ✓ Increased user tool availability by eliminating recalibration
- ✓ Unsurpassed cost savings

Doping Gas Mixer



Product description

Features

- Fully automatic system with PLC and 10" color touch screen HMI with real-time information: schematic, pressure and alarms
- On-line analyzers with automatic recalibration
- Automatic control of MFC drift
- Back-up connection
- Automatic MFC and analyzer purge for maintenance
- Venturi for efficient purge during component changeout
- TCP/IP Ethernet communication for SCADA monitoring
- Buffer vessel

Options

- Mass flow meter
- Quality Check Valve
- Dual AC source

Safety features

- Reduced operator intervention
- Fire detection
- Gas detection management
- Standard exhaust flow alarm
- Easy and permanent survey of alarm status
- Critical functions protected by multi-level password
- Individual relief valve on buffer vessel
- Inboard-helium-leak tested

Technical specifications

Specifications

- Typical doping gases: B_2H_6 , GeH_4 , Ph_3 ,...
- Typical balance gases: H_2 , N_2 , Ar
- Flow range: 0 to 10 slpm or 0 to 30 slpm
- Mixing ratio $\geq 0.5\%$
- Accuracy down to 100 ppm
- Outlet mixing pressure 6b

Utility requirements

Inlet mixing gases	Max. 7 bar 30 slpm
Venturi service nitrogen	6 bar 50 slpm
Clean dry air	6 bar 10 slpm
Vent / exhaust	Connected to scrubber
Electricity (power & ground)	Single phase, 85-240 VAC, 250 VA, 50/60 Hz, Uninterruptible Power Supply

Dimensions

Cylinder enclosure specifications	Cabinet model	Size inches Width x Depth x Height
Mixer Cabinet	CC3	42.91 x 30.39 x 80.91" 1,090 x 772 x 2,109mm

Certifications

- CE Mark
- Semi S2, Selo, ASME on request

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