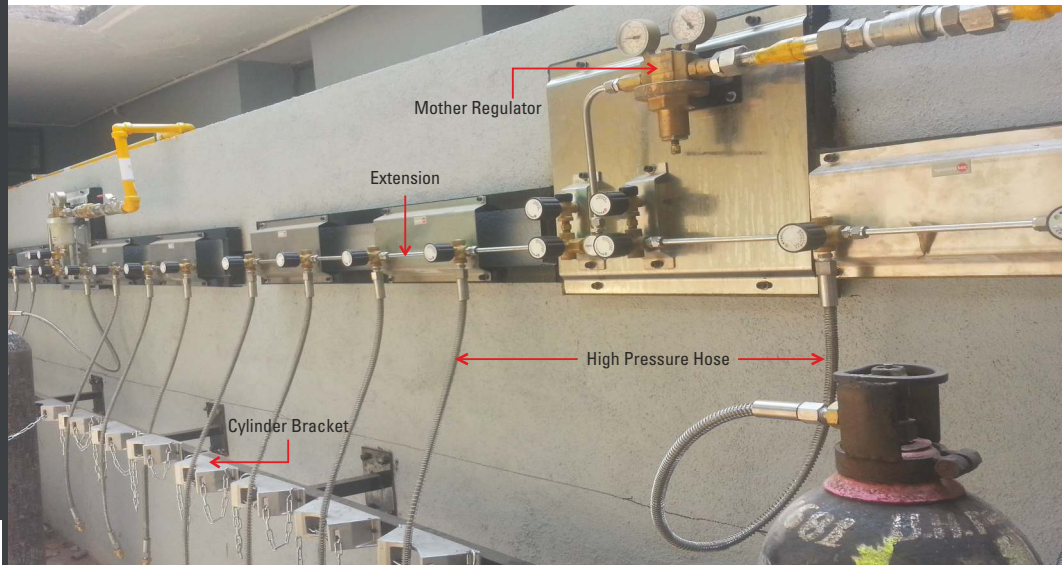


# GAS MANIFOLD SYSTEMS

UNINTERRUPTED GAS SUPPLY FOR YOUR APPLICATIONS



## PRODUCT

Gas cylinders are used for many applications in factories, workshops, laboratories, hospitals, universities, etc. The gases used have many different physical and chemical properties and they may cause dangerous situations if not handled properly. The best solution is to locate gas cylinder outside the working area and distribute the gas by pipeline to the point of use. Apart from safety, this approach offers quite a few advantages over using single cylinders at the point of use as below -

### Safety

- + Leaking gas cylinders may create dangerous situations Viz., - fire, explosion, toxic gases: injuries, suffocation etc.,
- + Cylinders may drop and damages or cause injuries, as compressed gas cylinders can fly like rockets in case they are damaged at the valve area.

### Reliability

- + Uninterrupted gas supply by pressure monitoring and/or automatic change-over of the manifold systems.
- + EStable working pressure of the gases on a continuous basis.

### Other advantages

- + Manifolding reduces clutter & increases working space in the shop floor
- + Less damage to pressure regulators, hoses and other fittings
- + Easier control of leak tightness

### A Central Distribution System for gases must fulfil the following requirements:

- + Uninterrupted supply of gas
- + Maintain the integrity and purity of the gas up to the point of use
- + Safe distribution of the gas

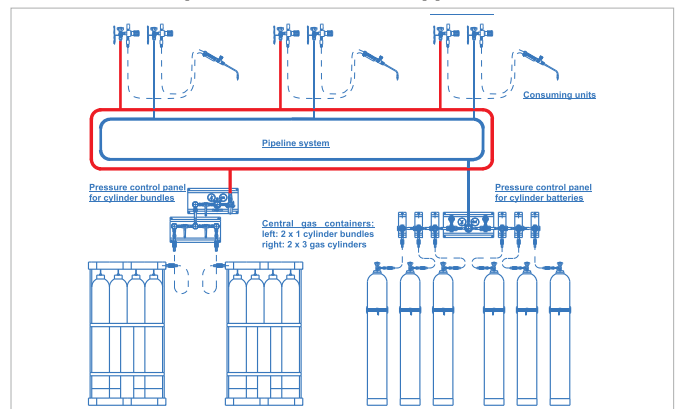
### Gas purity

- + The purity of the gas is maintained by using specially designed and cleaned - equipment with integrated purge valves

### Cost savings

- + Gas cylinders at a central location are easier to handle
- + You can have lesser no of gas cylinders working and save on cylinder rentals
- + Cylinder control panels ensure more efficient use of the gas cylinders
- + Due to better control of the gas purity, all related equipment have a much longer life time

### Schematic example for a central gas supply system



# REGULATORS FOR MANIFOLD APPLICATIONS

RELIABLE, VERSATILE,  
COMPACT &  
INTERNATIONALLY PROVEN



## PRODUCT

### Regulators and Panels for Acetylene



- + We have regulators and panels specially designed for Acetylene service.
- + BT61AC, U11AC, U13AC, U23AC & U47AC regulators are all available for flow rate from 6m<sup>3</sup>/hr to a max flow rate of 240m<sup>3</sup>/hr for U47AC.
- + We offer panels with quick acting shut-off valve (manual) or automatic quick acting shut-off device (SSE) along with BAM approved FBAs.
- + Acetylene Pressure control Panels like BT2000AC, BU13AC with Over Pressure Valve (SV73) comply with EN ISO 14114 & EN ISO 15615.

#### Technical Data

Type	single-stage
Inlet pressure P <sub>1</sub>	max. 25 bar
Outlet pressure P <sub>2</sub>	max. 1.5 bar
Materials	
Body regulator:	brass
Diaphragm regulator:	EPDM
Valve seat regulator:	PA
Mounting plate:	stainless steel
Ball valve:	Steel, zinc-plated
Connection tube:	Steel, zinc-plated
Temperature range	-30°C to +60°C
Leak rate	<10 <sup>-4</sup> mbar l/s He

### Line Pressure Regulator LT2000



- + Ergonomically designed line pressure regulator
- + For non-corrosive technical gases
- + Single-stage type with high control accuracy
- + Central filter in the regulator
- + Safety pressure gauges acc. to DIN-EN-ISO 5171
- + Compact design
- + Models for inlet pressure up to 300 bar available

#### Technical Data

Type	single-stage
Inlet pressure P <sub>1</sub>	max. 40/300 bar
Outlet pressure P <sub>2</sub>	
for P <sub>1</sub> ≤ 40 bar:	1.5/4/10 bar
for P <sub>1</sub> > 40 bar:	10/25/50/100/200 bar
Materials	
Body, bonnet:	Brass
Diaphragm regulator:	EPDM
Valve seat regulator:	PA

### Pressure Regulator U13



- + Diaphragm pressure regulator
- + For non-corrosive industrial gases
- + Single-stage with high control accuracy
- + Central filter in the pressure regulator
- + Safety pressure gauge acc. to DINEN562
- + Pressure regulator with integrated relief valve
- + Pressure regulator for oxygen with filter in inlet fitting
- + Accessories like wall brackets and in-/outlet fittings are also available

#### Technical Data

Type	single-stage
Flow rate Q	max. 500 m <sup>3</sup> /h
Inlet pressure P <sub>1</sub>	max. 40 / 200 / 300 bar
Outlet pressure P <sub>2</sub>	see table below
at P <sub>1</sub> = 40 bar:	max. 5...30 bar
at P <sub>1</sub> = 300 bar:	max. 14...35 <sup>1)</sup> bar for oxygen up to 30 bar available!

#### Materials

Body regulator:	brass
Bonnet:	Alu (powder coated)
Diaphragm regulator:	NBR
Valve seat regulator:	PA

### Pressure Control Panels BT2000



- + Wall-mounting pressure control panels
- + For non-corrosive industrial gases
- + Ergonomically designed
- + Modular design (to be extended to 2, 3 etc. cylinders)
- + Filter at the process gas inlet valve
- + Central filter in the regulator
- + Regulator with high control accuracy
- + Shut-off-valves with On/Off position indicators



#### Technical Data

Type	single-stage
Inlet pressure P <sub>1</sub>	max. 300 bar
Outlet pressure P <sub>2</sub>	max. 10/20/50/100 bar
for 2L-models:	8-12 bar / 17-23 bar / 46-54 bar / 95-105 bar

#### Materials

Bodies:	Brass
Diaphragm (P up to 20 bar):	EPDM
Piston (P > 20 bar):	Brass
Valve seat regulator:	PA
Mounting plate:	Stainless steel
Filter process gas valve:	Sintered bronze
Filter regulator:	Sintered SS 316L

### Control Panels BU13



- + Pressure control panels for high flow rates
- + For non-corrosive technical gases
- + Ergonomically designed
- + Modular design (to be extended to 1x2, 1x3, 2x2, 2x3 etc. cylinders)
- + Filter at the process gas inlet valve
- + Central filter in the regulator
- + Regulator with high control accuracy and integrated relief valve
- + Shut-off valves with On/Off-position indicators
- + Process gas and purge valve on the inlet pressure side
- + Safety pressure gauges acc. to DIN-EN-ISO 5171: 2010

#### Technical Data

Type	single-stage
Inlet pressure P	max. 300 bar
Outlet pressure P	max. 10 / 20 / 35 bar Oxygen: max. 30 bar

#### Materials

Body:	Brass
Bonnet:	Aluminium, coated
Diaphragm regulator:	NBR
Valve seat regulator:	PA 11
Filter process gas valve:	Sintered bronze
Filter regulator:	Nickel
Mounting plates:	Stainless steel

## TAPPING POINT REGULATOR ET65



- + Tapping points for wall mounting
- + For non-corrosive industrial gases
- + For flows up to 50 m<sup>3</sup>/h
- + Single-stage pressure regulator with high accuracy
- + Central filter in the pressure regulator
- + Safety pressure gauge acc. to DIN EN ISO 5171
- + Inlet pressure shut off with ball valve
- + For easy installation

### Technical Data

Type	single-stage
Inlet pressure P <sub>1</sub>	max. 40 bar
for acetylene:	max. 1.5 bar
Outlet pressure P <sub>2</sub>	
for P = 40 bar:	1.5 / 2.5 / 10 / 20 bar
for P = 1.5 bar (acetylene):	1.5 bar
Materials	
Bodies:	Brass
Diaphragm:	EPDM
Valve cone:	PA

## Filter F11 + F25



- + Brass - filter for separating dirt particles such as rust, sand, or chips carried along in gas piping
- + For non-corrosive technical gases
- + Protection against wear and damages of the downstream equipment
- + Easy change of the filter cartridges

### Technical Data

Type	single-stage
Flow rate Q*	F 11: max. 18000 Nm <sup>3</sup> /h F 25: max. 24000 Nm <sup>3</sup> /h
Operating pressure P	F 11: max. 300 bar F 25: max. 200 bar
Pore diameter (F 11)	40-45 µm
Mesh size (F 25)	0.068 mm
Filter area	F 11: 29 cm <sup>3</sup> F 25: 62 cm <sup>3</sup>
Materials	
Body:	brass
Filter cartridge:	F 10: sintered bronze F 25: tin bronze

## High Pressure Hoses



### Technical Data

DESCRIPTION	O <sub>2</sub> /Ar/CO <sub>2</sub> /ACM	HYDROGEN	HELIUM	ACETYLENE
Inner Tube	PTFE Extruded Teflon	ETFE Extruded Tube		Thermoplastic Elastomer
Outer Cover	Double Wire Braiding of SS 304			Double Wire Braiding of HT Steel with Polyurethane Cover
Working Pressure		300 Bar		20 Bar
Hydrostatic Test Pressure		450 Bar		150 Bar
Pneumatic Test Pressure		330 Bar		100 Bar
Hydrostatic Min Bursting Pressure		900 Bar		105
Conformance To		EN ISO 14113		EN ISO 14113