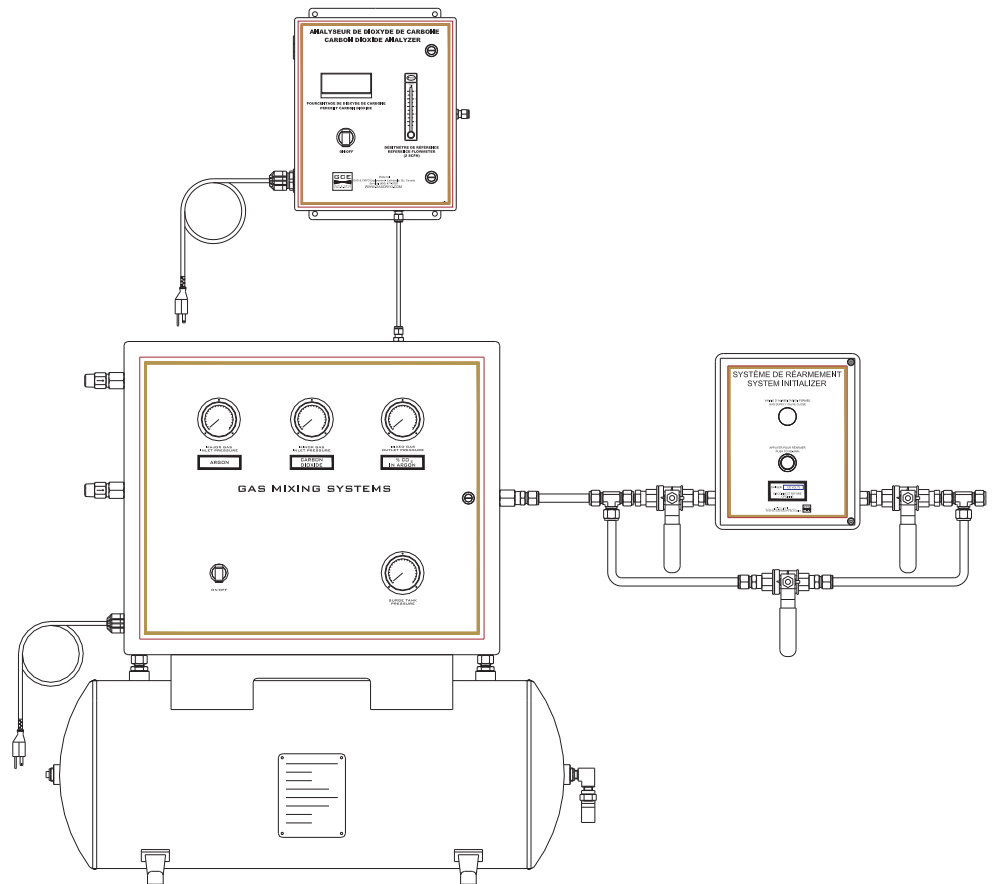




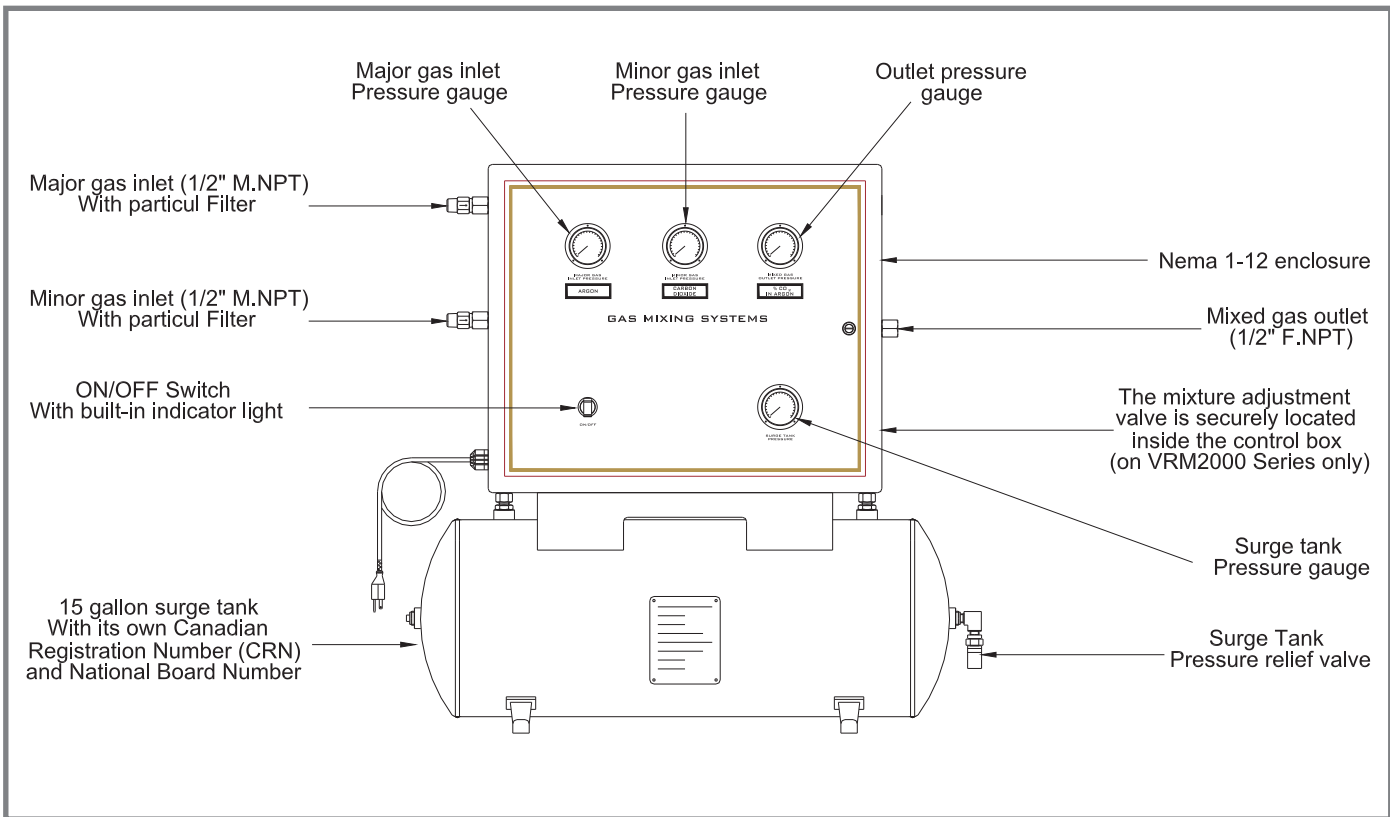
EQUIPMENT BROCHURE

Fixed & Variable Ratio Gas Mixers 2000 scfh



*Helping our customers
to become more effective*





DESCRIPTION - 2000 SCFH MIXERS

DESCRIPTION - 2000 SCFH MIXERS

The GCE VRM2000 is a variable ratio gas mixer for argon, carbon dioxide, helium, nitrogen and oxygen. The mixer is suitable for different applications such as welding, modified atmosphere packaging, process control and similar applications. The gas mixture can be changed in the field by adjusting a single calibrated dial located inside the mixer control box. The VRM2000 gas mixer will deliver constant gas mixture concentration up to 2000 scfh while the mixer is still cycling.

The GCE FRM2000 is a fixed ratio gas mixer. It has the same configuration as the VRM1200, but as a result of the fixed flow device, the mixture cannot be changed in the field. It is pre-calibrated at the factory. Although the tank and overall dimensions remain the same, the internal components allow flows up to 2000 scfh while the mixer is still cycling.

HOW TO ORDER - PART NUMBER MATRIX

FRM2000	- [] - [] - [] - []			
Series FRM2000 = Fixed	Major gas See gas selection table	Minor gas See gas selection table	Minor gas concentration set point	Option <input type="checkbox"/> GA = Gas analyser <input type="checkbox"/> SI = System initializer (Leave blank if none)
VRM2000	- [] - [] - [] - []			
Series FRM2000 = Fixed	Major gas See gas selection table	Minor gas See gas selection table	Minor gas concentration set point	Option <input type="checkbox"/> GA = Gas analyser <input type="checkbox"/> SI = System initializer (Leave blank if none)

Gas selection table

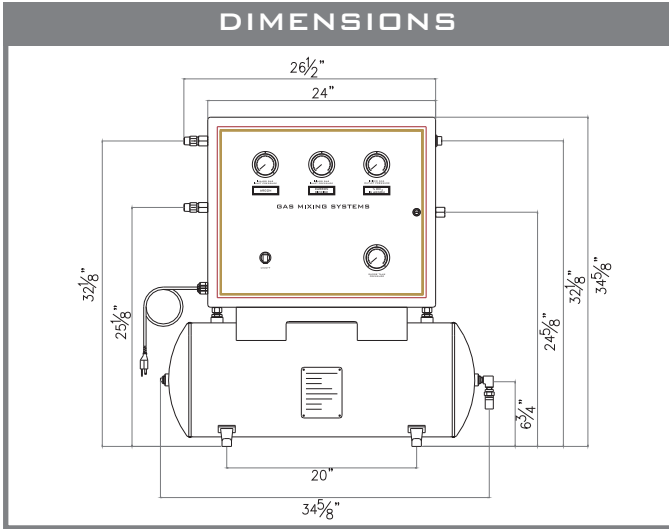
- Argon
- Carbon dioxide
- Helium
- Nitrogen
- Oxygen

Refer to technical specifications for acceptable gases and related concentrations

PRINCIPLE OF OPERATION

The supply gases are individually filtered at the inlet of the mixer to remove particles. The pressure of each gas is then regulated at the exact same pressure before entering their respective flow restrictors. The flow restrictors are adjusted to ensure the requested gas mixture. The gases are blended in a mixing tee before entering the surge tank. The tank is constantly monitored by a pressure switch which actuates the solenoid valve on & off to allow the mixture to fill the surge tank at a constant pressure and flow. The mixture pressure is controlled by a line regulator before entering the pipeline.

DIMENSIONS



FIXED RATIO MIXERS

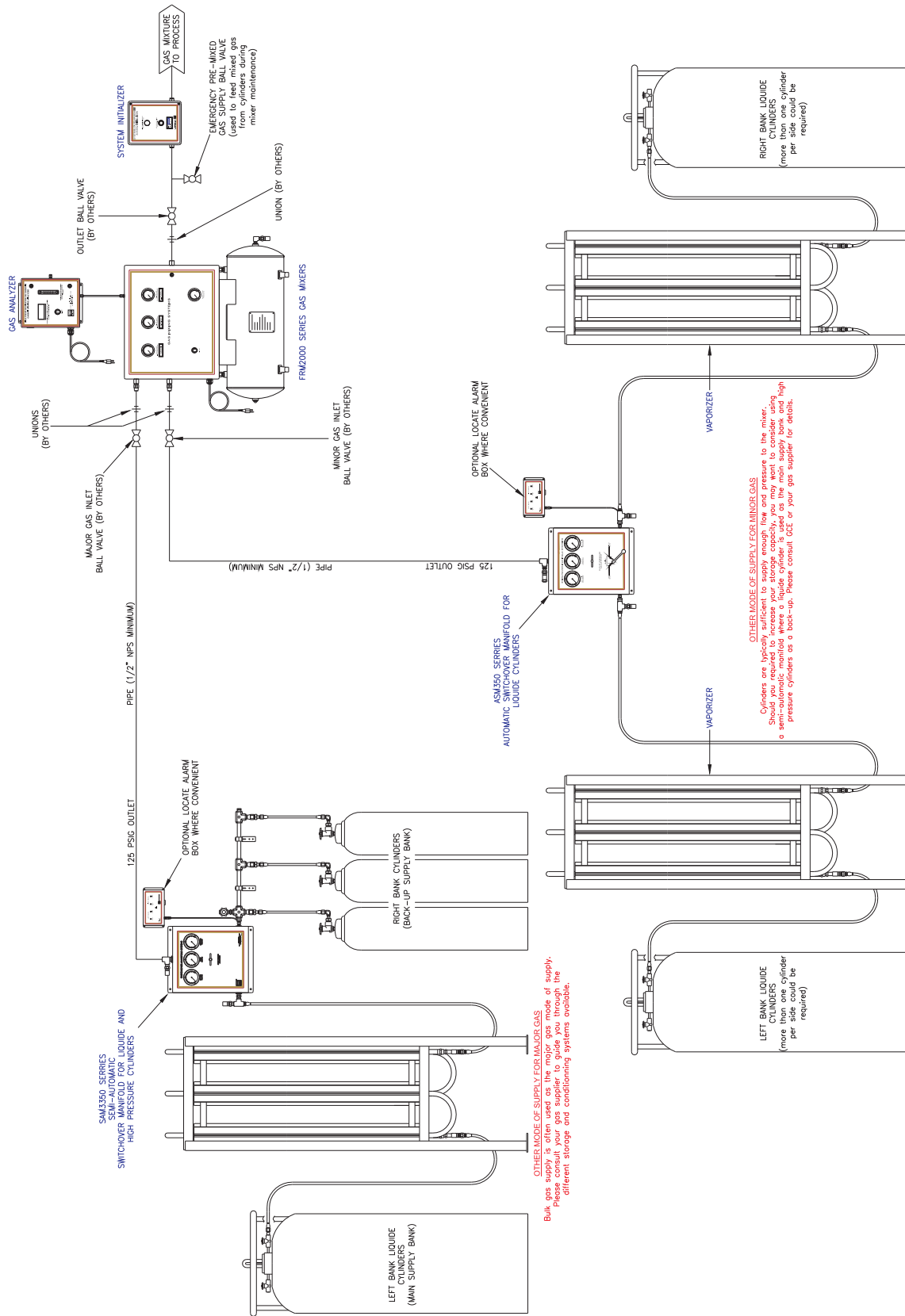
Fixed	Variable
<ul style="list-style-type: none"> □ Greater mixture accuracy (+/- 2%) of minor gas □ Wide range of mixtures □ Prevents operators from changing mixture concentrations 	<ul style="list-style-type: none"> □ Field adjustable mixture. □ For applications where mixture accuracy is not critical. □ Possibility of changing mixture concentrations by operators.

TECHNICAL SPECIFICATIONS

Description	Fixed - FRM2000	Variable - FRM2000
Available mixtures	0-100% CO ₂ in Argon 0-100% Oxygen in Argon 0-100% Helium in Argon 0-100% Nitrogen in Argon 0-100% CO ₂ in Nitrogen 0-100% Oxygen in Nitrogen 0-100% Helium in Nitrogen	0-35% CO ₂ in Argon 0-35% Oxygen in Argon 0-35% Helium in Argon 0-35% Nitrogen in Argon 0-35% CO ₂ in Nitrogen 0-35% Oxygen in Nitrogen 0-35% Helium in Nitrogen
Flow capacity (still cycling)	2000 scfh	2000 scfh

For both Fixed & Variable mixers

Operating temperature	(-20°F to + 100°F)
Maximum inlet pressure	200 psig
Factory set inlet pressure	125-150 psig
Maximum outlet pressure	50 psig
Size of pressure gauges	2"
Surge tank pressure relief valve	150 psig
Outlet connection	1/2" FNPT
Inlet connections	1/2" M.NPT
Tank capacity	15 gallons
Power requirement	110 VAC, 50/60 Hz, 5 Amp
Mixture accuracy	+/- 2% of minor gas



TYPICAL INSTALLATION - FRM2000