

# LASER WELDING GAS SUPPLY SYSTEMS

## DESCRIPTION

Each of the manufacturers of laser gas welding systems has their own specifications for the gas transfer system. The systems presented here generally meet or exceed the requirements of virtually all of the manufacturers. The manual, semi-automatic, and fully automatic systems have worked very successfully in many laser applications and contain all of the basic components required to protect the laser and maintain gas purity and flow. If for any reason, one of these systems does not meet your requirements contact us to discuss a custom system that is correct for your laser.

## FEATURES

- All high purity construction.
- Purge assemblies installed on each pigtail to ensure cylinder-to-cylinder purity on change-outs. (Cylinder connections with integral check valves in place of purge assemblies are available as an option.)
- Built-in safety relief valve prevents laser over pressurization.
- Built-in 2 micron filter eliminate particulate contamination of the laser.
- Pigtails are 3' stainless steel flexible hose with stainless steel inner core to ensure contamination-free gas transfer and eliminate helium diffusion leakage.
- Convenient wall mounting bracket provided.
- High purity brass pressure regulator(s) with stainless steel diaphragms included.
- Designed to provide continuous gas flow to laser during cylinder change-outs.



## SPECIFICATIONS AND MATERIALS OF CONSTRUCTION

Max. inlet pressure	3000 psig
Inlet pressure gauges	0-4000 psig
Outlet pressure range	0-100 psig
Outlet pressure gauge	0-200 psig
Safety relief valve	set @100 psig
Outlet line filter	2 micron sintered stainless steel
Body	brass
Diaphragms	stainless steel
Seats and seals	Teflon, Tefzel, or Kel-F
Pigtails	316 stainless steel with brass cylinder connections
Operating Temp.	-40 to 140°F

## HOW TO ORDER

Model*	Changeover Control
917-LASER-CGA-4610	manual system with purge assemblies on pigtails
917-LASER-CV-CGA	manual system with integral check valves, but no purge assemblies
914-LASER-CGA-4610	914 semi-automatic changeover manifold (see page 42) with purge assemblies
914-LASER-CV-CGA	914 semi-automatic changeover manifold (see page 42) with integral check valves, but no purge assemblies
918TS-LASER-CGA-4610	918TS Auto-Logic II changeover manifold (see page 40) with purge assemblies
918TS-LASER-CV-CGA	918TS Auto-Logic II changeover manifold (see page 40) with integral check valves, but no purge assemblies
919TS-LASER-CGA-4610	919TS Ultra-Logic changeover manifold (see page 38) with purge assemblies
919TS-LASER-CV-CGA	919TS Ultra-Logic changeover manifold (see page 38) with integral check valves, but no purge assemblies

\* Specify CGA connection when ordering.

### Options\*\*

917PS-XXX	pressure switch alarm assembly (XXX – specify pressure setting desired 300 psig recommended).
912-AVA	audio/visual alarm module for 917 gas transfer system (see page 40).
914-3B	pressure switch alarm assembly (XXX – specify pressure setting desired 300 psig recommended).
914-AVA	audio/visual alarm module for 914 changeover manifold (see page 40).

\*\*918TS and 919TS changeover manifolds have a built-in alarm system as standard.