

FROSTBYTE

A NEWSLETTER FROM CRYOGENIC INDUSTRIES

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MOFS self-contained and portable gas fill plant reduces cylinder fill costs

ACD's new Medical Oxygen Filling System (MOFS) is designed to fill high pressure gas cylinders in a convenient, reliable, and transportable manner. MOFS units have proven to be the cost-effective choice for converting low pressure liquid oxygen, nitrogen, and argon to high pressure gas.

The 2'11"W x 6'3"H x 6' L (0.9m W x 1.9m H x 1.5m L) MOFS, single skid package can fit through a standard doorway and is powered by a 30 amp, 220/230 volt, single phase power cord. It utilizes a vacuum-jacketed liquid pump driven by a 5 horsepower electric motor that sends the high pressure liquid into the vaporizer and out to the cylinder filling rack or other supply application. MOFS can deliver oxygen, nitrogen or argon at up to 3000 psig with minimal product venting during operation. With two flow rates, 4100 scfh (0.6 gpm) and 8300 scfh (1.2 gpm), the unit has the ability to fill up to seventy medical 'E' cylinders in twenty minutes.

Within the compact frame of the system are a Cryoquip high pressure ambient air vaporizer, an ACD WDPD pump (.875" or 1.20" bore) with a motor and gearbox, a start/stop panel, a gas control panel, and pressure switches. The standard configuration features a quiet pump running at a conservative speed of 350 rpm, automatic shut-off capabilities, and lockable roller wheels. For the convenience of MOFS users, all system components for low and high flow units are identical with the exception of the pump fluid end, which has two different piston diameters.

Distinct advantages of the MOFS unit include an oxygen-compatible vacuum pump, a high pressure gas accumulator, a gas purge valve,



and the ability to maintain continuous operation as opposed to batch filling. MOFS can be used with liquid cylinders, Microbulk or customer station liquid product supplies. It is ideal for filling Medical D/E cylinders and argon or nitrogen cylinders for small fill plant applications. Ease of operation and maintenance facilitates use in mobile or temporary applications. The self-contained system is readily transportable and no foundation is required for operation. MOFS is suitable for both indoor and outdoor operation and is ideally suited for inert gas purging or pressure testing operations.

Specifically designed for oxygen USP cylinder filling, MOFS is compliant with all applicable CGA standards. Independent, third party validation ensures compliance with FDA guidelines for 'process validation'.

MOFS is manufactured using premium quality, industry-standard components. The system is designed and produced by the industry's leading ISO-9001 certified supplier of cryogenic pumping equipment.

ACD's MOFS saves costs by reducing cylinder transportation and cylinder inventories in remote geographic locations. Distributors can lease MOFS units to end users and provide a complete customer gas supply system. With low set-up costs and excellent product support from the worldwide Cryogenic Industries service centers, the MOFS package is economical and dependable.

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