

EcoTOP.

Disposable Cylinder and Lecture Bottle Replacement.
Environmentally Responsible.



RSH and OSQ Introduction

Today's diverse industry requires a variety of analytical equipment for a growing list of applications. Analyzers and monitors are used in quality control, process steering, monitoring of environmental pollution, and others. A wide range of specialty gases are used to calibrate these instruments to ensure their correct operation.

Depending on consumption and required mobility, the size of the gas cylinder may vary up to 50-litre water content. When mobility is required to verify the correct operation of remote gas monitoring equipment, 1 to 10 - litre cylinders are used, with gases supplied in either high pressure, or disposable non-refillable gas cylinders.

Requirements

Pressurized calibration gases require a regulator to reduce the pressure of the cylinder down to a safe working pressure. The protection cap of the cylinder does not cover these regulators. The result is an increased safety risk when

these combinations are transported during their use. Additionally, end users must connect the regulator from one cylinder to the other; dedicated training will be a necessity.

Solution

Messer has developed a unique solution to this problem. EcoTOP is a small refillable cylinder that is equipped with a combination cylinder valve, fixed regulator and flow meter. These devices are fully integrated within the cylinder protection cap. The result is an easy, ready for use system. The end user only needs to open the cylinder valve and connect it to his system. Depending on the application, the model RSH or OSQ can be chosen.

The RSH is suited for use with positive pressure requirements, and is equipped with a flow selector with predefined flow ranges. While the most common outlet desired is a hose barb, a quick-connector system is available for the model RSH.

The OSQ model is suited for sub-atmospheric pressures and is an on-demand flow type; it adapts the flow to the pump capacity. Often this is for docking systems for calibration and the preferred outlet is a quick connector that can be combined with Swagelok Quick connectors. Quick connect couplings provide a secure connection and are recommended for tubing that is repeatedly connected and disconnected from stationary systems. With hose barb outlets tubing may be pulled off due to tension or vibration, posing a safety risk to end users. With repeated use tubing may become distorted and degrade the seal with the hose barb. As a result ambient air can enter the tubing impacting the quality of the measurement.

Gas Compatibility

The RSH and OSQ are suited for non-corrosive pure gases as well as gas mixtures that might contain noncorrosive as well as mild corrosive components. These units do not comply with requirements for gases with oxidizing potential. As a result, pure oxygen (including all oxidizing gases and gas mixtures) may not be supplied with these models. Further, these models are not suited for liquefied gases.

Technical Data

	R Series	O Series
Height with Valve	40.8 cm (16.1 in)	40.8 cm (16.1 in)
Weight with Valve	2.4 kg (5.3 lb)	2.5 kg (5.5 lb)
Diameter	8.1 cm (3.2 in)	8.1 cm (3.2 in)
Cylinder Material	Aluminum	Aluminum
Maximum Fill Pressure	2,216 psig	2,216 psig
Maximum Outlet Pressure	55 psig	1.4 - 3 psig
Pressure/Flow Device	Regulator with flow control valve	On-demand flow regulator
Outlet Construction	Stainless Steel	Stainless Steel
Standard Outlet Connection	Hose Barb, 6 & 8 mm	Quick Connector for Swagelok compression type QM adaptors
Outlet Flow	Variable Preset: 0.25, 0.3, 0.5, 1.0, 1.5, 2.5, 8.0 L/min.	3.0 L/min. $\pm$ 15%

Note: All cylinder dimensions are approximate and may vary according to manufacturers' specifications.



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