



TECHNICAL BULLETIN

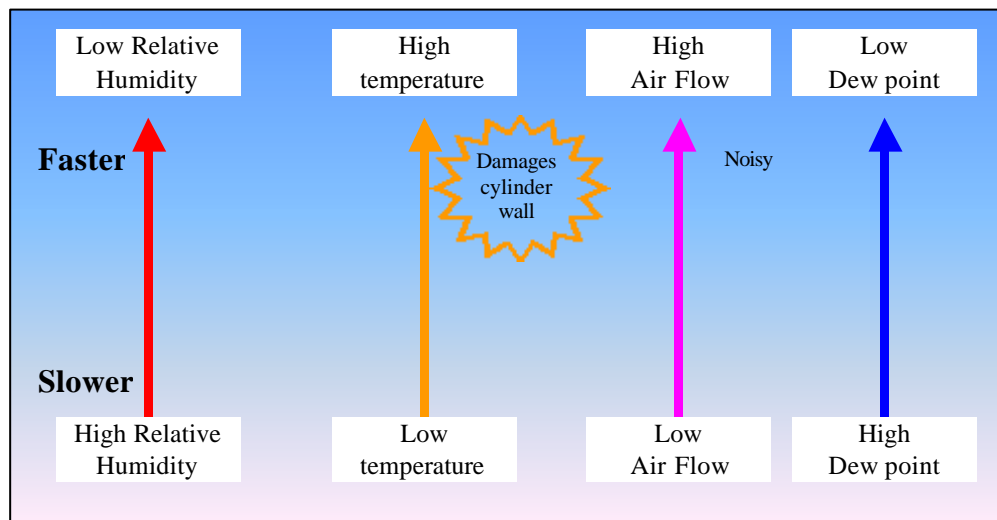
SUBJECT: CYLINDER DRYING

Introduction

The basic requirement is to impart energy to the water attached to the cylinder wall or puddled in the base to allow it to evaporate and be carried away by the air stream. Galiso have considerable experience in this area; a brief summary of the individual techniques is described for reference.

Hot air drying

The air itself carries the energy to aid evaporation and carries away the moisture. Air does not absorb energy easily – heater elements for example need to be well designed to avoid poor performance, hot spots and premature failure.



- Any individual machine solution is a compromise. A hot low flow air stream may perform in a similar manner to cool high flow airflow.
- Generally a lower temperature is preferred to prevent damage to the cylinder – especially with aluminium and composite cylinders

Hot water

Hot water imparts energy to the cylinder wall. It is heated outside the drying process and either poured or injected into the cylinder to transfer energy to the cylinder wall. When air is passed through the cylinder the hot wall gives the latent heat of evaporation to allow the water to pass into the airstream and hence be carried away.

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Equipment Options

IDS (Inverter Dryer Station)

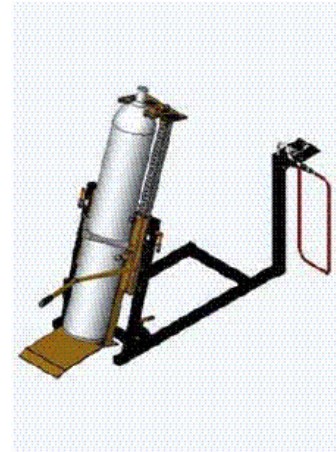
Manually inverts, drains and dries in one operation

Speed and Simplicity

Load a cylinder onto the compact IDS to invert the cylinder, insert the air/hot water probe into the cylinder neck, and –

- a burst of air purges test water from the cylinder.
- Hot water is injected to speed drying (a heater is needed)
- Another burst of air “flash dries” the cylinder, so in minutes it is dry and ready for final inspection.

Also available for inverting only



PCT cylinder inverter Dryers

The PCT-ADW series of driers are offered in **two models**, the PCT-15-ADW to service a single cylinder, and the PCT-122-ADW to service two cylinders per operation.

The cylinder is clamped, inverted, air is used to purge the water out, hot water is injected (from a customer supplied heater) and air purged again to dry the cylinder.

The whole process takes only 3 minutes (or less)

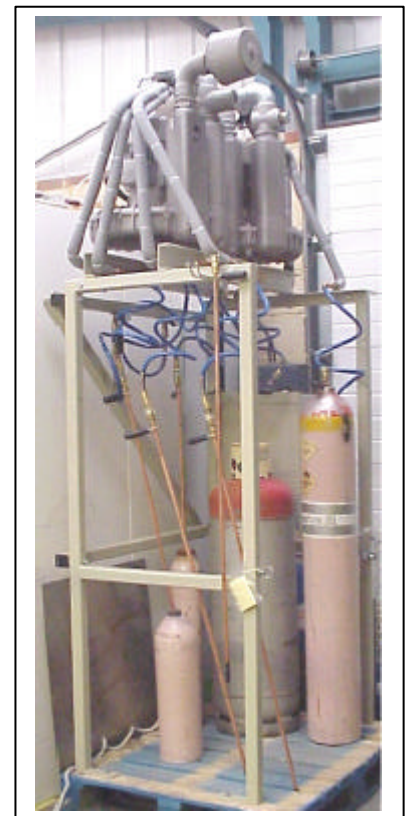


Bancroft Hot air dryer

The rack can dry up to 8 cylinders in less than 20 minutes, depending on ambient conditions and the amount of "puddled" internal water.

The equipment can be built to be incapable of exceeding 90°C

Cylinders are placed in a “U” configuration with air tubes inserted, the high flow high pressure (400mbar) output uses the principle of high air movement, relatively cool (90°C) air



Small Cylinder dryer rack

INTRODUCTION

The Small Cylinder Rack Drier and Blower is well designed and ideal for quick drying of scuba, SCBA, fire extinguishers, and up to 55 lbs. CO₂ cylinders.



FEATURES

- The detachable hot/cold blower assembly seats into the rack and generates air temperatures up to 160 degrees to speed cylinder drying. It may also be used to simply move cool air through cylinders to refresh them.
- This compact rack is economical, efficient, highly reliable and requires minimal shop space.

OPERATION

The user simply inverts the drained cylinder and carefully places it over one of the 5 probes that hold a cylinder in place during the drying process. Usual drying time is 10 to 20 minutes.

SPECIFICATIONS:

Dimensions: 66" L x 24" W x 30" H

Electrical Requirements: 115 volt, 60 Hz.

Capacity: Up to 55 lbs. CO₂ Cylinders

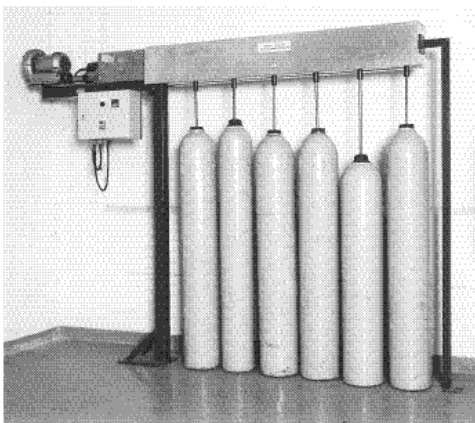


Heater blower combination

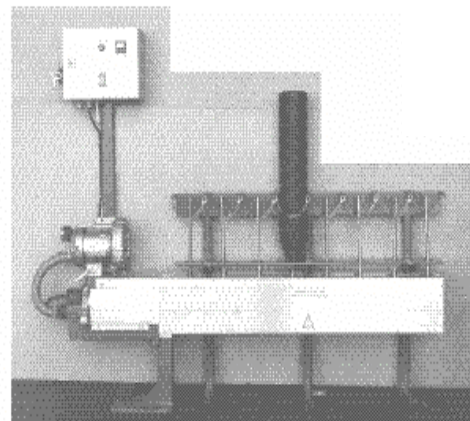
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- ✓ The heater blower combination can be used to dry larger cylinders with the use of a suitable connection tube.

Refer to Bancroft for further details

Ronning Small and Large Racks



Uses a 10 kW heater and high pressure blower. Fitted with process timer and cool down timer.



The dryer accommodates small cylinders of (up to 7 litres). They are dried upside down once drained