

1.0- System Description

Peroxide Cabinet Cooler consists of two compressed air cooling units and associated compressed air lines. A custom-made starter and control panel (Free issue by others) shall be fitted on a common skid underneath the cabinet for a fully automated operation.

High pressure 6.9 Barg (min) dry / filtered and oil free air is supplied to the cabinet from the top of the unit whereby the air passes over the Peroxide Boxes as a cooling media to pick-up the heat generated by these vessels. The warm air naturally rises at high level within the insulated cabinet cooler and the extract channels as part of the air cooler remove this warm air from the cabinet.

This cold supply and warm extract operation continues as long as the compressed air line provides 30 SCFM @ 6.9 Barg air supply per nozzle. Once this air flow is stopped the cabinet would stay cold, as long as the doors are kept shut, for a considerable time. This time entirely depends on the surrounding room temperature but in principal the higher the room temperature the shorter the holding period.

High-pressure compressed air is connected at the bottom of the cabinet as a common supply for both nozzles and this common line is extended to the top of the unit, whereby it splits into two lines to feed each nozzle separately. The extract air from the cabinet is discharged to the surrounding room air. This constant supply and extract mode completes the air cycle refrigeration.

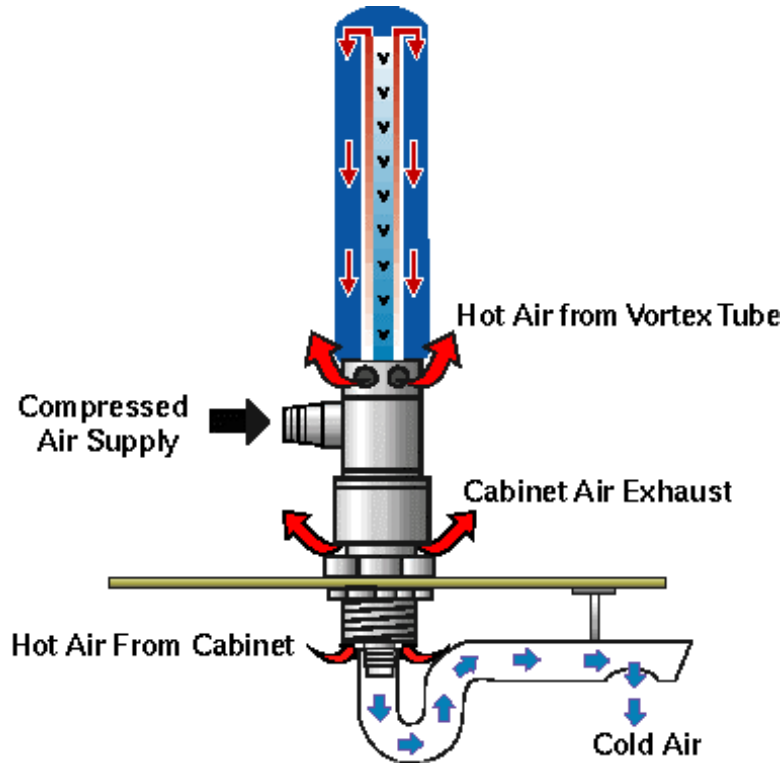
A thermostat (supplied & fitted by others) controls a solenoid valve to isolate the compressed air line and a cabinet thermostat provides an automatic start signal, which in return initiates the air cooling cycle by simply activating the inline solenoid valve. The rest of the cooling operation and internal cabinet temperature controls are provided via an internal temperature controller (supplied and fitted by others) which shall be positioned underneath the cabinet.

All the necessary internal mechanical safety switches and functions (supplied & fitted by others) are provided in accordance with the relevant safety standards for a safe and reliable operation.

The unit is supplied with fully adjustable Stainless Steel legs to suit the floor level and the adjustment to these legs can be applied by simply turning them clock-wise to extend and anti-clockwise to reduce the height.

2.0- System Components

Compressed Air Coolers ; 2 Identical , Model : AC-30-10 compressed air cooler complete with air discharge and distribution kit.



Cold Air Distribution Kit; $\frac{1}{2}$ " plastic hose kit complete with fixing arms are incorporated as part of the cold air distribution system for a satisfactory air movement within the cabinet.

Cabinet; A Stainless Steel, Model : Zircon-H224 complete with pre-insulated tow door and body without any shelf. Adjustable Stainless Steel legs. Room for a control panel underneath the units is provided.

