

COMPRESSOR COOLING REQUIREMENT DOCUMENT

1. Compressor Ventilation Information:

When installing a compressor system the most common error is made in the inadequate ventilation of the room and the compressor unit leading to early component failure and a short purification cartridge life. Even a larger room will have an over heating issue if there is not an appropriately sized exhaust fan and the movement of air.

Installation procedures:

- Place the equipment as close as possible to the fresh cooling air source. It is very important to have a continuous supply of cool air to maintain the compressor at the correct operating temperature.
- It is recommended the inlet source of the cooling air be as low as possible in the wall and preferably located close to the compressor mounted cooling fan assembly.
- The opening area of the intake air is to be 2.5 times the area in square feet of the compressor mounted cooling fan.
- A full flow exhaust fan is to be installed high on the wall above the compressor to exhaust the hot air; the fan is to be interlocked to start when the compressor is in operation.
- Enclosed ultra-silent units are to have a duct installed from the compressor to the exhaust fan.

2. Fan volume in SCFM based on the compressor size:

- **Compressors of 5 to 7.5 HP** are to have an exhaust fan size of 1200 to 1500 SCFM (for unit size IK100II to IK120II).
- **Compressors of 10 HP** are to have an exhaust fan size of 1800 to 2200 SCFM (for unit size IK12.14II).
- **Compressors of 15 to 20 HP** are to have an exhaust fan size of 3000 to 3500 SCFM (for unit size IK15.1II to IK18.1II).
- **Compressors of 30 to 50 HP** are to have an exhaust fan size of 5000 to 7500 SCFM (for unit size IK22.0 to IK23.0).

Note: compressor rooms will always require an exhaust-venting fan in order to stop the recycling of the cooling air and provide reliable compressor service life and the longest filter cartridge process capacity.