

REMOTE COOLING PACKS



Sullair remote cooling packs are designed for compressor installations where limited space is a consideration and/or where the heat of compression is to be exhausted outside the plant. Sullair remote packs use stacked coolers, and include frost-free traps as standard.

Remote cooling packs are standard on Sullair LS-25S, 250 through 350 hp; LS-32, 400L and 450H; and TS-32S, 400 through 600 hp. They are available as options on most Sullair models.

For additional flexibility, the remote cooler can also be fitted with the EES Heat Recovery System.

APPLICATIONS AND CONSIDERATIONS

To assure proper installation and operation of remote cooling packs, and to avoid costly field reworks and downtime, Sullair Engineering recommends strict adherence to the following guidelines:

Dirt/dust

Remote coolers can be easier to clean than integral coolers; however they are subject to the same dirt limitations as integral coolers.

Temperature

Practical operating range is 32°F to 100°F, to avoid freezing of the aftercooler and to allow proper oil flow at the coldest condition, usually start-up. Direct sunlight will affect cooling capacity in high ambient conditions.

Elements

NEMA 4 electrics, TEAO motor. The cooler will not be affected by rain, but protection from snow and hail is recommended.

Elevation

Altitude correction may be required for cooling capacity. Fan horsepower will be reduced and the lower air density will reduce the cooling capacity, which could affect dryer performance downstream.



Location

Proximity of the remote cooling pack to the compressor is critical. Friction loss in the oil piping must be limited to 10 psi. Oil pipe location and elevation changes must be considered. Height above the compressor must be limited to available sump pressure at unload condition minus friction loss. Oil pumps are required when these limits are exceeded. The presence of walls and fences may create air recirculation and reduce cooling capacity. Prevailing winds may aid or abet cooling capacity.

Corrosion

Corrosive vapors in coastal areas and chemical plant locations can reduce cooler life. Painting of the cooler is not a corrosion protection option, as this reduces heat transfer rates and impairs cooling. Consult factory for recommendations.

Ventilation and cooling

For remote packs mounted on air-cooled compressors, it is necessary to select a location that permits sufficient air flow in and out of the cooling package to keep the operating temperature stable. A minimum distance of 3 feet (91.4 cm) must be maintained between the compressor and surrounding walls. To prevent excessive ambient temperature rise, it is imperative to provide adequate ventilation.

Remote Cooling Packs

Ducting

The ducting limit is the same as with any Sullair compressor. Ducting on the inlet or outlet of the cooler will reduce fan capacity and reduce cooling capability.

Piping

To allow for depressurization of the cooling package and connecting piping between the compressor and the cooling package upon shutdown of the compressor, a 1/2-inch depressurization line must be installed

between the top of the cooler package and the sump tank. This is located on the fluid supply and return line connection bracket. The depressurization line must be placed at a higher level than the supply and return piping for the fluid cooler.

Sizing the piping

The lubricant supply and return line piping for the cooler package should be sized to prevent excessive pressure drop. The total pressure drop in the supply and return line piping for

the cooler package should not exceed 10 psig. If the pressure drop exceeds 10 psig, an oil pump should be installed in the supply and return lines for ease of maintenance.

Noise

The standard cooler pack operates at above 85 dbA; therefore location should be carefully considered. Sullair offers a quiet cooler package option for some machines.

COMBINE THE EES SYSTEM WITH REMOTE COOLER PACKAGES TO ADD INSTALLATION FLEXIBILITY

The Sullair EES System recovers energy that is expended while producing compressed air and converts it into a usable source of heat. The heat is stored in the compressor cooling air as it passes through the remote cooler. This air can then be used as pre-heated make-up air or heating air for plants, warehouses and other buildings. Heat that is not needed is rejected from the system.

To save space, or where installation requirements dictate, your remote cooler package can be equipped with an EES System.

This System has the ability to control the environment that the cooler pack is subjected to during operation. The EES can allow the cooler to function in lower than normal ambient temperature conditions.

For more information on the benefits of the Sullair EES System, please request literature number IPS-10001



Member



Sullair is committed to a program of continuous improvement. Features and specifications may change without notice. Consult your Sullair representative or authorized Sullair distributor.

www.sullair.com

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