



**FANEX HEAT EXCHANGERS
WITH AMASPHER TURBULATION**

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INSTALLATION PLANNING

1. Provide adequate space around the heat exchanger for unrestricted flow of air at entrance to the fan and discharge from the coil.
2. Provide valves and bypasses on the piping system so that the tube side may be isolated for inspection, cleaning and repairs.
3. Provide adequate supports for mounting the heat exchanger so that nozzles will not be required to carry the full weight of the exchanger.
4. **NOTE:** Tubes contain non-removable turbulators to enhance performance. Care should be taken to provide reasonably clean tube side fluid.
5. Connect oil inlet at bottom of side opposite fan. This will insure proper venting as well as providing maximum performance.

INSTALLATION AT JOB SITE

CAUTION: Care should be taken in handling this equipment. Wear hard hats and shoes as required. Use proper rigging to handle the weights of these heat exchangers.

1. On receipt of heat exchanger at jobsite, inspect for shipping damage. If damage is evident, inspect for possible contamination and replace protective covers as required. If damage is extreme, notify the carrier immediately.
2. When installing, set heat exchanger level and square so that pipe connections can be made without forcing.
3. Before piping up, inspect openings for foreign material and remove if necessary.
4. After initial wiring of fan, start the fan momentarily and disconnect it. Observe the rotation of the blade to be sure rotation is in proper direction. Do not allow the fan to run backward except momentarily.
5. Do not remove fan guard except when fan is not running and power is disconnected.

OPERATION

CAUTION: The heat exchanger is a pressure vessel designed for operation at certain specified limits of pressure and temperature. The design conditions should not be exceeded during operation. All operating personnel should be made aware of these specific design pressures and temperatures.

1. Be sure entire system is clean before starting operation to prevent plugging of the tubes or fin passages with refuse. The use of filters or settling tanks in pipe lines leading to the heat exchanger is recommended.
2. Open vent connections before starting up.

3. Start operating gradually. Start fan first. Then start tube side fluid. (When shutting down, shut down tube side fluid first and then fan.)
4. After the tube side system is completely full of oil and the air has been vented, close all manual vent connections.
5. Be sure all connections are in a leak-tight condition. Leaks may cause dangerously slippery floors. Tube side fluid may be at high enough temperatures to cause physical burns to personnel in area.
6. Never remove fan guard when fan is running and not unless power is disconnected.
7. Check to see that no excessive vibration is induced to the exchanger via interconnecting piping or thru the mounts when unit is in operation.

MAINTENANCE

1. Always open disconnect switch and lock it in open position before servicing the fan.
2. Motors with provisions for lubrication should be lubricated periodically. For specific lubricating instructions, check lubrication tag on motor or consult manufacturer. Motors with no provision for lubrication are equipped with sealed bearings and require no maintenance.
3. Motors are intended to operate at or below their rated ambient temperature. Operation above this temperature is permissible, except that motor life may be decreased.
4. **NOTE:** Tubes contain turbulators to enhance performance. Care should be taken to insure clean tube side fluids. Therefore, filters or other cleaning devices should be replaced or cleaned at recommended intervals.
5. To clean the tube side, flush out the tubes using a solvent compatible with the tube side fluid, copper tubes, and aluminum turbulators.
NOTE: Turbulators are non-removable. Do not rod or attempt to push through.
6. Periodically check coil fins for accumulation of dirt and other debris and clean if necessary.

Low pressure compressed air may be used to remove most of the accumulated dirt. More thorough cleaning can be accomplished by removing the coil from the assembly and flushing with solvent compatible with aluminum.

CAUTION: Use proper care when handling cleaning agents to prevent injury. Use eye protection. When cleaning with compressed air, make sure that other personnel in the area take adequate safety precautions.