PUMP DOWN PROCEDURE

When “pumping down a system you are in effect storing all the refrigerant within the system between the compressor (discharge valve) and the receiver (rotolock valve). This procedure is most commonly done when you wish to change a drier without losing the refrigerant charge.

The procedure is as follows:

1: Remove valve and seal caps from compressor valves, attach gauges to compressor, crack open valves and purge air from the hoses at the gauge bar.

2: Remove valve cap from valve on receiver tank, front seat valve completely (fully clockwise).

3: Start unit, watch low pressure gauge; on engine driven systems, compressor clutch will automatically disengage when the low pressure control on the suction accumulator shuts off: On 110V systems, run the unit until gauge reads 20 inches of vacuum (about 5 minutes) and then shut off.

4: With center hose on gauges capped off, crack high side valve on gauge open, then crack low side valve on gauge open. This is done to raise the pressure on the low side from being in a vacuum to a positive pressure of 1 to 2 psig. Close off both valves.

5: The system is now ready to be opened up. After installing the new drier, tighten all the flare nuts, but do not tighten the nut on the outlet side of the sightglass.

6: Check open high and low side valves on gauge, a small amount of gas will come out of copper line by the loose nut at the sightglass. Close valves on gauges. Crack open (turn counterclockwise) valve on receiver, a small amount of gas will come out of the same place, tighten the nut at the sightglass while the gas is escaping.

7: Open (turn counterclockwise) valve on receiver completely, liquid and gas refrigerant rush through sightglass to holding plates.

8: Switch system back on, check sightglass. When holding plates are very close to, or frozen, the sightglass should be full or have very small bubbles. Charge system with more refrigerant (if sightglass is full of bubbles or has a level visible) as necessary.

Procedure completed.