suction connection. Usually this level can be observed in the lower sight glass of the refrigerant tank. The valve is then closed and the blowdown process is complete.

The refrigerant will gradually return to the refrigerant tank as it is boiled out of the solution, but it should return in a more pure state. In other words, the refrigerant purification or blowdown is basically a distillation process.

The best time to blow down a unit is just after start up when the refrigerant level is fairly low in the tank. Occasionally it may be necessary to blow the refrigerant down more than once at low load. To do this, close the blowdown valve which will let the level rise back up again, then open the blowdown valve again until the level falls again. If you try to blow down the refrigerant at full load, the rate at which the refrigerant is being replenished by the condenser may be greater than the blowdown rate, consequently the level will never fall in the tank. This is not to say purification will not occur, only that it is difficult to know when to stop the process.

There will be a noticeable reduction in unit cooling capacity while the blowdown valve is open.

The method used to measure the amount of solution contamination in the refrigerant requires special tools and procedures and is best left to the YORK Service Engineer. At the time of start-up, the YORK Service Engineer should train the operating personnel in the proper blowdown procedure. He will also measure the actual amount of refrigerant contamination in the unit after start-up and he will check the contamination level at each subsequent inspection visit during the first year of the units operation. He should let the operating personnel know if the blowdown frequency is sufficient.

Refrigerant Quality

The refrigerant used in the ParaFlow unit consists of de-ionized water. Should it be necessary to charge refrigerant into a unit, a de-ionizing unit may be used to process ordinary tap water. A reverse osmosis syetm can also provide de-ionized quality water. Usually local water treatment companies will rent a *mix bed* de-ionizer tank with an indicator light that will tell you when the tank needs recharging. Each charge is normally good fro over a thousand gallons of water.

The allowable impurities after conditioning can be found below.

Refrigerant Impurity Limits

pH	7
Hardness (Ca, Mg)	20 ppm
Oil	0 ppm
Cl	10 ppm
SO4	50 ppm
Na, K	50 ppm
NH3	0 ppm
Cu	5 ppm