faces. To do this, the pressure in the intermediate cavity between seals must be maintained between 15 psig and 50 psig. Minimum flow rate for each seal is 0.5 GPM and can be monitored on the flowmeters.

The dual inlet/outlet flowmeter system detects system leaks. If the outlet flow rate exceeds the inlet flow rate, process fluid must be leaking into the seal water discharge. If seal water is leaking into the process fluid the outlet flow rate will be smaller than the inlet flow rate. Either of these conditions indicates a seal problem prompting further investigation and/or repair.

A 10 inch, TFE expansion joint is supplied in the suction line to the pump to absorb mechanical vibrations and lateral and axial movements due to thermal growth.

MAIN CONDENSER

The main condenser is a shell and tube heat exchanger with vapor from the 5th effect condensing on the shell side and cooling water running through the tubes. The shell has an outside diameter of 48 inches and contains 875 tubes, 17.6 ft long, 1 inch outside diameter with a .049 inch wall thickness. The tubes are arranged in a 4 pass configuration. The tubeside design pressure is 80 psig and is stamped in accordance with ASME. The shell design pressure is 15 psig. All wetted materials are 316L stainless steel with 2.75% minimum molybdenum content.

The shell contains a single baffle running the length of the shell. Vapor flows down the shell beneath the tubes, then up on the other side of the baffle through a small portion of tubes and out through the six, 4 inch vent connections.

VENT CONDENSER

The vent condenser is a shell and tube heat exchanger with vent vapor from the main condenser condensing in the inside of the tubes and cooling water flowing on the shell side. The shell has an outside diameter of 22 inches and contains 222 tubes, 17.1 ft long, 1 inch O.D. with a .049 inch wall thickness. The tubeside design pressure is 15 psig. The shell design pressure is 80 psig and is stamped in accordance with ASME.

The shell contains 31 baffles to provide for high turbulence of the cooling water. The tubeside is a one pass design.