

13 Engineered Module Systems

Engineered Module Tritium Removal Facility LPCE Skid



The Liquid Phase Catalytic Exchange Skid is a part of the Tritium Removal Plant. It is designed to remove tritium from tritiated heavy water to the deuterium gas phase. The skid consists of two packed bed catalyst columns (mounted off the skid), transfer pumps, heaters, filters and nitrogen heat exchangers. The nitrogen heat exchanger is used to regenerate and dry the catalyst.

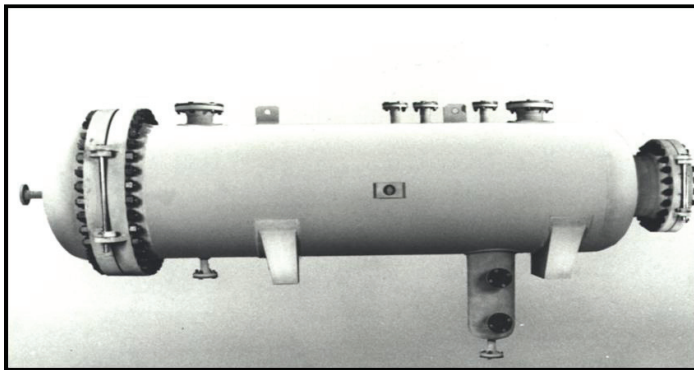
Engineered Module Tritium Removal Facility Dryer Skid



The Dryer Skid is a part of the Tritium Removal Plant. It is designed to remove heavy water from deuterium gas. Deuterium gas containing heavy water flows to the pre-dryer condenser to condense heavy water vapor that is collected. Cold saturated D_2 gas is then processed in a multistep process in a desiccant dryer. Dried D_2 gas and condensed heavy water are transferred downstream for further processing.

14 Pressure Vessels & Tanks

Pressure Vessels



Pressure Vessels are designed to ASME pressure vessel code. They operate at high pressures from approximately 150 psi to over 3000 psi. Pressure vessels can be a simple empty tank for storage of fluids under high pressure or it can incorporate a complex interior in order to achieve a particular process.

Tanks



Tanks are usually designed for atmospheric or low pressure. Their main usage is for storage or mixing of liquids. CCI Thermal custom designs and manufactures pressure vessels and tanks in accordance with ASME code and plant specific requirements.