

CUSTOM SOLUTIONS

Enerquip's stainless steel custom vapor condensers are engineered for durability and efficiency, using advanced technology to meet all heating and cooling needs. With expertise in ASME Code, TEMA standards, and decades of industry experience, our engineers design condensers for the most demanding applications, process requirements, and size limitations. Request a quote today.



SOLVENT RECOVERY CONDENSERS

In solvent recovery systems, vapor condensers play a vital role in controlling emissions and recovering valuable solvents. They function by condensing vapors, allowing the condensed liquid to be collected and reused or safely disposed of. These condensers can operate under both vacuum and pressure conditions, ensuring efficient solvent recovery and emission control.

REFLUX CONDENSERS

Reflux condensers are designed to mount directly on a tank or reactor vent flange. Coolant on the shell side cools the tube walls, which causes condensation of the vapor. Vapors rise through the tubes while the condensate drips back down into the tank. Reflux condensers can also be designed as stand-alone condensers mounted vertically or horizontally.



KNOCK-BACK / COLD TRAP CONDENSERS

Designed as vertical U-tube units with a removable tube bundle, they allow vapors to contact the cooled tubes and condense. Vapors enter the shell, make contact with the bundle, and condense out at the bottom. These condensers can include an extended shell section to collect condensate away from the tube bundle.



PHARMACEUTICAL CONDENSERS

In pharmaceutical processes, vapor condensers ensure the purity of product streams during condensation. Featuring polished product contact surfaces and sanitary tri-clamp connections designed to ASME-BPE standards, they maintain the highest levels of hygiene. These condensers typically condense vapors on the tube side of the exchanger, available in single and double tube sheet designs. Electropolished tube-side finishes and various materials, including 304L or 316L SS and Hastelloy, are available.



TERPENE & OIL CONDENSERS

In the essential oils and CBD processing industries, vapor condensers ensure product quality and safety under extreme temperature and pressure conditions. With a focus on sanitary design and ASME certifications, these condensers maintain the integrity of the product stream while meeting all safety requirements. They condense vapors, allowing the collection of high-purity essential oils and CBD extracts.

TECHNICAL SPECIFICATIONS

- **Sizes:** Up to 48" diameter (or larger depending on weight)
- **Styles:** U-tube, straight tube, single-pass or multi-pass
- **Materials:** 304L/316L Stainless Steel, Duplex, AL6XN, Hastelloy, and more
- **Types:** ASME, TEMA (Class B, C, or R), PED, CRN
- **Additional Design Options:** Electropolished tube side surfaces, passivation of tube side surfaces, sight glasses, level gauge ports, CIP spray ball assemblies, condensate collection sumps/chamber, etc.



Want more? Enerquip also designs and builds bayonet heaters, process coolers, and more. Learn for yourself why Enerquip's quality and service is unmatched in the industry. Call us, today!