

# Hydrogenation Shell and Tube Heat Exchanger

This heat exchanger is designed for hydro-cracking, hydro-desulfurizing, and other hydro-processing installations to meet procedural and energy-saving requirements. The typical structure of this shell and tube heat exchanger ensures efficient heat transfer.



## Overview

### High-Performance Hydrogenation Heat Exchanger

Designed specifically for ultra-severe operating conditions, this shell and tube heat exchanger is optimized for hydro-cracking, hydro-desulfurizing, and other critical hydro-processing installations. It incorporates advanced material science, including 2 1/4 Cr1 Mo cladding overlay and high-alloy stainless steel components, to ensure safety and operational reliability. The unit is engineered to meet rigorous procedural requirements while maximizing energy efficiency in petrochemical environments.

## Construction & Materials

Shell Material	2 1/4 Cr1 Mo cladding overlay Tp309+347
Gasket Material	Austenite Stainless Steel, Dual-phase Stainless Steel, Super-low C Content

## Engineering Standards

### Key Manufacturing Processes

- Strict material examination protocols
- Advanced welding technology
- Precise solution heat-treatment of U-bend tubes
- Post-Weld Heat Treatment (PWHA) for stress relief

## Applications

### Recommended Applications

Hydro-cracking • Hydro-desulfurizing • Petrochemical Engineering • Hydro-processing