

Steam Heat Exchanger

SURFACE EQUIPMENT

Overview

With 6 million BTU/Hr heat transfer capability the steam heat exchanger aids in improving separation and reducing the potential for hydrate formation. With high and low pressure coils, the steam heat exchanger is ideal to use on high pressure wells, allowing pressure reductions to be taken in stages. Comprising of a pressurized shell with process coils and fed steam via a steam generator, the well effluent is heated as it travels through the coils. Temperature control is available via an outlet control valve and the system is protected on both shell and process sides with overpressure sensors and/or relief valves.

Applicable Information

- Offshore deep water and onshore operations
- Well conditioning
- High volume gas or oil wells
- High pressure wells
- Used in zone rated areas where indirect fired heaters are prohibited
- Well testing, flow back, and well intervention services
- Early production facilities and extended appraisal testing

Features

- Split coil with choke to allow for more pressure control
- Steam inlet control
- System safety with integral relief valves

Benefits

- Increased safety by eliminating fire risk of traditional line heaters
- Aids in separation, reduce emulsions and paraffin's
- Reduces hydrate formation
- Can be used in zoned areas
- Steam trap on return line
- API 6A, ASME BPVC VIII and NACE compliant





Equipment Specifications - Steam Heat Exchanger	
Heat Capacity (btu/hr)	6 million
Steam Required (lbs)	4,000 to 6,000
Upstream Coils Pressure	5,000 psig - 3" XXH
Downstream Coils Pressure	5,000 psig - 4" XXH
Vessel Pressure (psig)	350
Pressure Relief Valve (RF) Inlet Union Outlet	Pilot Actuated 4" - 300 RF 6" - 300 RF
Steam Control Valve	2" Fisher Valve
Steam Trap Inlet Outlet	2" - 300 RF 2" - 300 RF
Service	NACE
Choke	3-1/8" API - 5,000 psig Adjustable / 2" Orifice Max
3 Valve Heater Bypass	3-1/8" 5K Gate Valve / API - 6A
Vessel Dimensions (ID x S/S)	48" x 12'
Skid Dimensions (L x W x H)	19' x 8'4" x 9'9"
Connections Inlet Outlet	3-1/8" 5K API Flange 3-1/8" 5K API Flange
Weight (lbs)	39,500
Applicable Codes	NACE MR0175 / ASME Sec. VIII Div. 1 / ANSI B31.3 / DNV 2.7-1

Note: Various sizes and configurations available.