

Well Flow Management

Well Testing | Separation

Indirect Fired Heater

Indirect fired heaters are used to heat the well production after it flows out of the wellhead and before it enters the separation process.

Heaters used for well testing usually use water or glycol mixtures as the heat transfer medium. These heaters reheat the process fluid after it is cooled by the pressure drop expansion across the choke.

It may become necessary to heat the well production during testing operations for several reasons:

- Prevent hydration
- Improve separation of oil/water emulsions and foaming oils by reducing surface tension and viscosity
- Dissolve paraffin and asphaltenes to prevent deposits forming on the interior components of separation equipment
- Reduce viscosity of oil to improve burner efficiency

Indirect-gas or diesel-fired heaters consist of a large, low-pressure tank that contains water or glycol heated by a gas or diesel burner in a tube. The fluid to be heated passes through high-pressure flow tubes or coils installed in the tank and covered by water or glycol.

The coils make multiple passes inside the tank to provide the largest amount of surface area possible for heat transfer.

Applications

- Onshore and offshore oil and gas well testing
- Heavy oil operation

Features and benefits

- Improves efficiency by preventing hydrate formation
- Aids emulsion breakdown and reduces viscosity
- Modular design conforms to ISO specifications for improved portability
- Atmospheric water bath vessel
- Adjustable chokes with 2" seat
- Flame arrestor on burner air inlet, spark arrestor on chimney exhaust





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Technical specifications			
Pressure rating psi (bar)	5,000 (345)	5,000 (345)	10,000 (690)
Heat capacity MMBtu/hr	2.00	3.00	3.00
Choke (2 inch) psi (bar)	5,000 (345)	5,000 (345)	10,000 (690)
Heater OD inches (mm)	68 (1,220)	72 (1,830)	72 (1,830)
Skid dimensions (L x W x H) ft. (m)	29.94 x 8 x 9.5 (9.12 x 2.44 x 2.90)		
Skid weight lbs (kgs)	30,000 lbs (13,608 kgs)	37,000 lbs (16,783 kgs)	38,000 lbs (17,237 kgs)
Inlet connection	3-in.Fig 602 female	3-in.Fig 602 female	3-in.Fig 1502 female
Outlet connection	3-in.Fig 602 male	3-in.Fig 602 male	3-in.Fig 1502 male
Drain connection	2-in. - 150 lbs	2-in. - 150 lbs	2-in. - 150 lbs

Note: Designed and manufactured to ANSI B31.3, API 6A, API 12K, NACE MR0175 (H2S)

Other sizes, configurations and pressure ratings are available to meet most applications, for more information contact your local Expro representative or email welltesting@expro.com