

CRUDE OIL BURNER

The protection of the environment is of paramount importance, the Oiltest designs allow for the selection of a burner to meet any well conditions.

Crude oil burners are designed for maximum clean burn capability over individual ranges with minimal fall out. The use of compressed air to assist combustion features in all types available, the higher performance units have modified nozzle arrangements which in turn require higher volumes of air. Altering ratios of both air and injected/screen water versus oil production, can enhance the burner performance and visual appearance of the produced smoke.

The crude oil burners come in various head configurations, sized to suit flow conditions. The burner equipment has become a major part of well clean-up hardware. Ever increasing environmental pressures ensure this type of equipment is operated at its maximum performance.



Specifications

Service	H2S
Maximum Working Pressure:	1440 psi
Atomization:	Mixing chamber with vaned Swirl-boss
Oil Capacity:	5000 BOPD per head
Water Screen Pressure:	247 psig
Water Injection Pressure:	247 psig
Pilot:	Pneumo/electric ignitor
Pilot Gas:	Propane
Connections:	
Oil Inlet	3" Fig 602 F
Air Inlet	3" Fig 602 F
Water	3" 602
Pilot	1/2"

Check valves on air and oil line
Removable caps on water outlets in water ring.
Test plugs for all burner tips
ABS certified
Burner head fitted with isolation valve marine anti-corrosion coating

Overall Dimensions:	
Width:	3.5'
Length:	4.5'
Height:	4'
Weight:	550 lbs (250 kg)

Oil lines:	
Maximum Allowable W.P.:	1440 psig
Test pressure:	2160 psig
Design Temperature:	25 to 400°F
Service:	Sour gas (H2S)
Oil capacity (Single head):	5000 bbls/d maximum, variation to fluid parameters
(Triple head):	15000 bbls/d
Water requirements:	3 to 5 bbls min, cooling requirements

Air line:	
Maximum Allowable W.P.:	1440 psig
Test pressure:	2160 psig
Design Temperature:	25 to 400°F
Air capacity:	3000 cuft/min @ 300 psig
Atomising air requirements:	500 scft/bbl Oil

MATERIALS	
Burner Head/Nozzle:	AISI 4130
Piping:	A333 Gr 6
Elbows, tee's:	A420 WPL 6
Flanges:	ASTM A350 LF2
Head cowling:	5 mm Aluminium plate
Skid frame:	BS4360 Gd 43D or equivalent
Hardness requirements:	22 Hrc Max Average (for wetter surface parts)
Impact toughness:	Charpy values at minimum design temperatures
Corrosion allowance:	Minimum 0.0625"

Specifications

NOZZLES/FLANGES & FLOWLINE

Oil lines:	2" Sch 80 line,
Air lines:	3" Sch 80 line,

SAFETY DEVICES

Oil line check valve:	3" Long pattern wafer check valve
Air line check valve:	4" Long pattern wafer check valve

VALVES

Oil Outlet:	3" 600# RF flange Ball Valve
Air line:	2" 600# RF flange Ball Valve

DIMENSIONS

H x L x W:	1.8 x 1.4 x 1.1 metres
Weight:	100 kg (Skid & Three Heads)

CONNECTIONS

Burner head:	
Oil Inlet:	2" Fig 602 Female
Air Inlet:	3" Fig 602 Female
Piping:	
Oil Inlet:	2" Fig 602 Female
Air Inlet:	3" Fig 602 Female

MISCELLANEOUS

Ignition system:	Propane fuel Hi-energy lodge Single igniter
Burner head rotation:	(Optional) 1/2" NPT female port
Base plate rotation:	Slew ring
Oil, Air- line rotation:	3" fig 602 piping swivel joints allowing rotation of burner head centre line.