



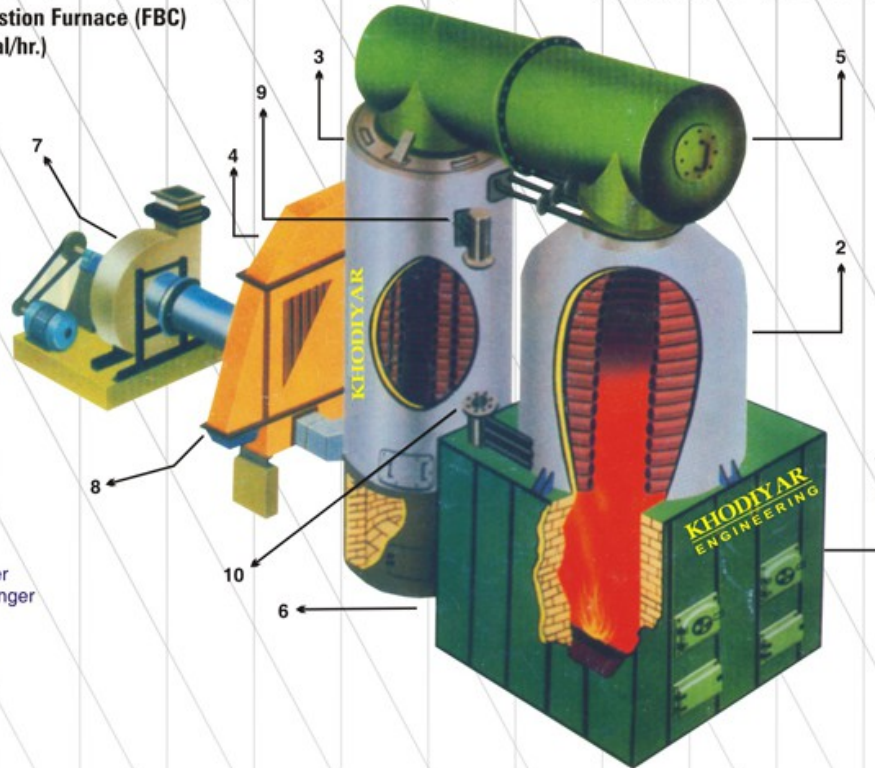
KHODIYAR

ENGINEERING

(Fuel-Coal/Wood/Agro Waste/Baggasse/Saw Dust (3-4-5 Pass)

**HIGH EFFICIENCY MULTI FUEL
VERTICAL & HORIZONTAL
THERMIC FLUID HEATER**

**Fluidised Bed Combustion Furnace (FBC)
(Cup Up to 40 lac Kcal/hr.)**



1. Furnace
2. Radiant head Exchanger
3. Convective Heat Exchanger
4. Air Preheater
5. Refractory Duct
6. Ash Settling Chamber
7. I.D. Fan
8. Provision For F.D. Fan
9. Forward Line Header
10. Return Line Header

TECHNICAL SPECIFICATION

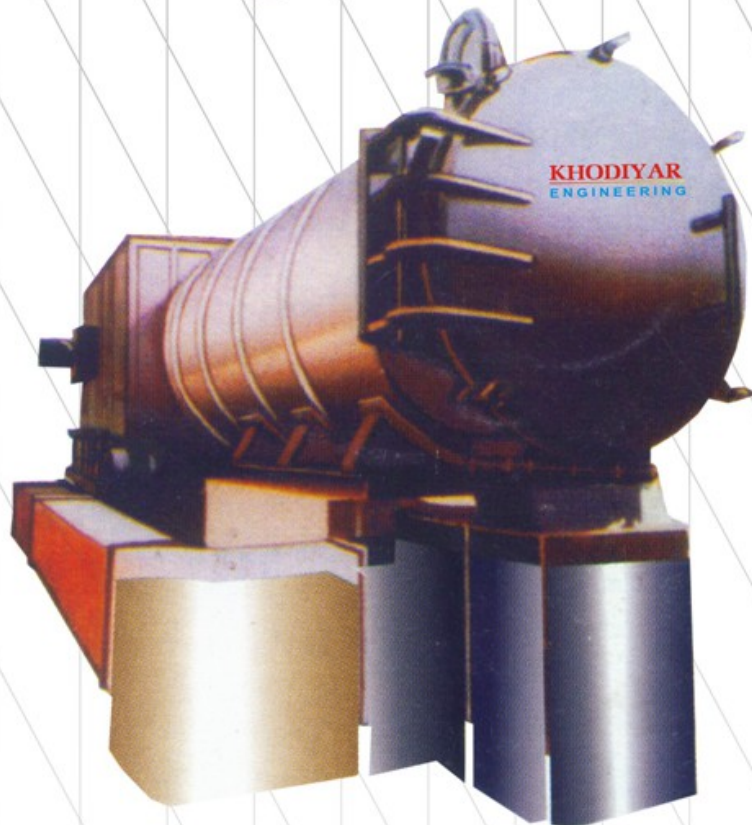
Description	Unit	VTFH-04	VTFH-06	VTFH-10	VTFH-15	VTFH-20	VTFH-25
Heater performance							
Capacity	kcal / hr	4x10 ⁵	6x10 ⁵	1x10 ⁶	1.5x10 ⁶	2x10 ⁶	2.5x10 ⁶
Max. T.F. Outlet Temperature	°C	300	300	300	300	300	300
Flow rate	m ³ /hr	30	50	70	120	160	210
Thermal Efficiency (η ₁ %)	%	76	76	76	76	76	76
T.F. head available at outlet	°mlc	←————— 27 —————→					
Heater Construction features							
Coil hold up capacity	litres	470	550	1200	2350	3100	3700
Material of Construction							
Tubes		ERW as per BS 3059 part 1					
Thermic Fluid Pump							
Flow	m ³ /hr	30	50	70	120	160	210
Head	m	50	50	50	50	60	60
Power	HP	10	15	25	30	40	50
Connected Load							
Coal or Lignite	HP	17	25.5	40	47.5	62.5	80
Wood	HP	17	25.5	40	47.5	62.5	80
Husk	HP	21	31	47	53	75	95
Fuel Consumption							
Coal	kg/hr	117	175	292	439	585	731
Wood	kg/hr	165	247	411	617	823	1128
Husk	kg/hr	188	282	470	705	940	1175
Lignite	kg/hr	176	263	439	658	877	1097

- ▶ GCV For coal is 4500 Kcal/KG
- ▶ GCV For Wood is 3200 Kcal/KG
- ▶ GCV For Lignite is 3000 Kcal/KG
- ▶ GCV For Husk is 2800 Kcal/KG

VERTICAL, 3 PASS SOLID FUEL THERMIC FLUID HEATER



Vertical Three Pass (VTFH)



Horizontal Three Pass (HTFH)

TECHNICAL SPECIFICATION OF SOLID FUEL FIRED IN HORIZONTAL THERMIC FLUID HEATER

DETAIL	UNIT	HTFH10	HTFH20	HTFH30	HTFH40	HTFH60	HTFH100	HTFH150	HTFH200	HTFH250
Hear output	Kcal/hr.	1,00,000	2,00,000	3,00,000	4,00,000	6,00,000	10,00,000	15,00,000	20,00,000	25,00,000
Outlet Temp.	Degree C	300	300	300	300	300	300	300	300	300
Thermal Efficiency	$\eta + -2\%$	70	70	70	70	70	70	70	70	70
Fuel	Lignite	Kg./hr.	48	95	142	190	285	476	719	1190
Consum-	Coal	Kg./hr.	32	64	96	128	192	320	476	794
ption	Wood	Kg/hr.	45	90	135	180	270	445	670	1116
Electric Load	hp	5	7.5	7.5	10	15	20	30	40	50
Thermic Fluid Pump										
Overall Dimensions										
Lenght	mm	3215	3915	4250	5690	6505	7115			
Width	mm	2120	2465	3120	3330	3940	4090			
Height	mm	1230	1575	2115	2365	2365	2795			

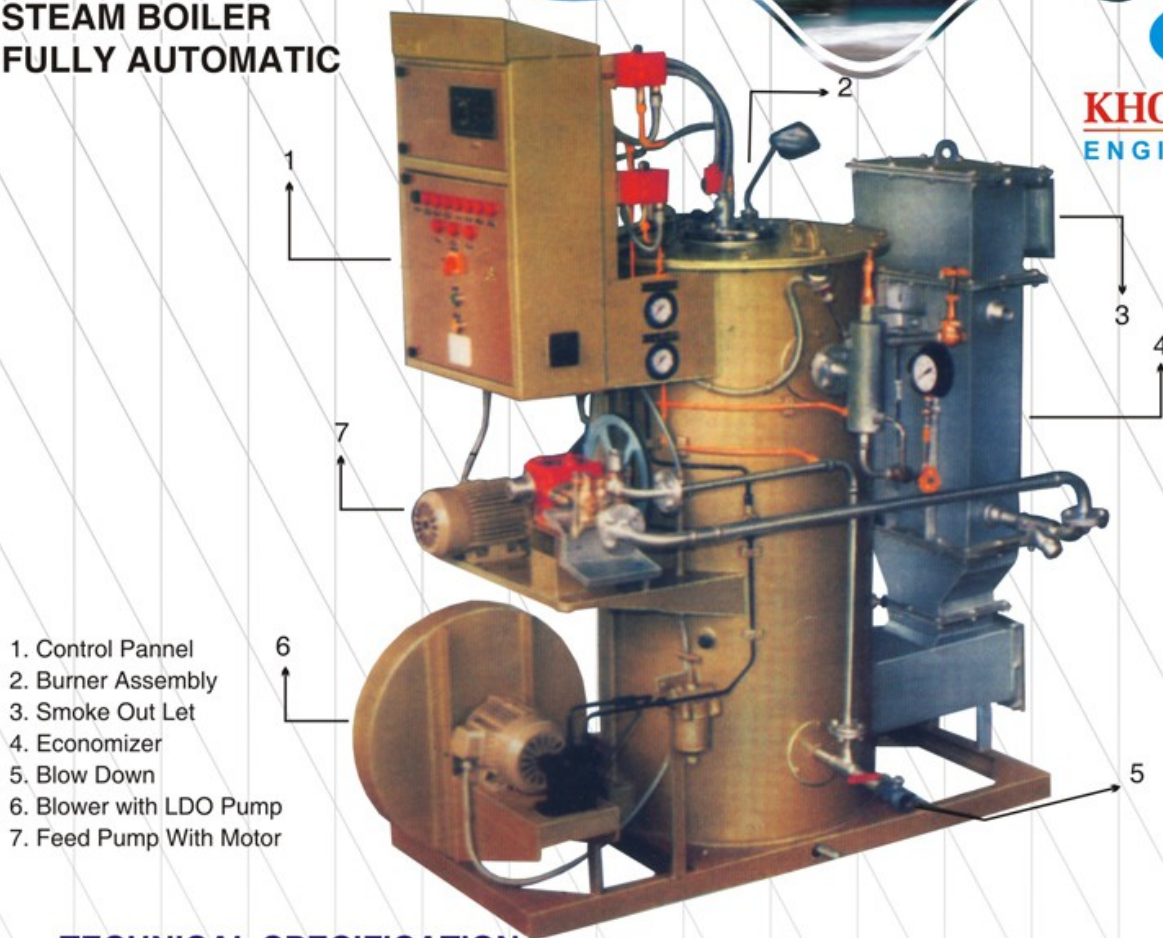
- ▶ GCV For coal is 4500 Kcal/KG
- ▶ GCV For Lignite is 3000 Kcal/KG

- ▶ GCV For Wood is 3200 Kcal/KG
- ▶ GCV For Husk is 2800 Kcal/KG

**A SAFE-ECONOMICAL AND
EFFICIENT REVERSE FLOW
STEAM BOILER
FULLY AUTOMATIC**



**KHODIYAR
ENGINEERING**



1. Control Pannel
2. Burner Assembly
3. Smoke Out Let
4. Economizer
5. Blow Down
6. Blower with LDO Pump
7. Feed Pump With Motor

TECHNICAL SPECIFICATION

PARAMETER	UNIT	VSB-02	VSB-03	VSB-04	VSB-05	VSB-06	VSB-08
OPERATING DATA							
STEAM OUTPUT (F&A 100 C)	Kgs./hr.	200	300	400	500	600	800
STEAM PRESSURE	Kgs./cm ²	10.54 OR 15					
ELECTRICAL DATA**							
FUEL PUMP MOTOR	hp	@	0.5	0.5	0.5	0.5	0.5
FEED WATER PUMP MOTOR	hp	0.75	0.75	0.75	1	1	1
FUEL OIL PREHEATER	hp
BLOWER MOTOR	hp	1	1	2	2	2	3
TOTAL CONNECTED* LOAD	LDO	kw	1.9	2.3	3	3.2	3.2
INCLUDING CONTROL PANEL	FO	kw	5.3	6.0	6.2	6.2	6.2
THERMAL DATA							
EFFICIENCY (NCV) //	%	← 85+2 →					
RATED FUEL	LDO	KG./HR	12	18	24	30	36
	FO	KG./HR	---	19.1	25.4	31.8	38.1
OTHER DATA							
OVERALL DIMENSION]							
HEIGHT	m	1.7	2.0	2.0	2.2	2.2	2.5
LENGTH	m	1.3	1.5	1.5	1.5	1.5	1.5
WIDTH	m	1.1	1.3	1.3	1.3	1.3	1.5
DRY WEIGHT (APPROX)	kg.	800	1000	1000	1100	1100	1500

- Pressure Parts - Out Side The Perview of Indian Boiler Regulation 1950.
- To Use Furnace Oil - 3 KW Electric Pre Heater Required.

- LDO GVC - 10700 KCAL/Kg.
- F. O./ GCV - 10200 KCAL/kg.

**HIGH EFFICIENCY SMOKE TUBE
HORIZONTAL AND VERTICAL
Non-IBR-STEAM BOILER
(CAP. UP TO 900 KG./HR.)
(FUEL. LOD/HSD/GAS/COAL/WOOD)**



**KHODIYAR
ENGINEERING**



COAL FIRED STEAM BOILER

OTHER PRODUCTS :

We are Manufacturing of :

- ♦ HOT AIR/WATER GENERATOR (DIRECT/INDIRECT HEATING)
(Cap. up to 30 Lac. Kcal/hr.) Fuel - LDO/HSD/GAS/COAL/Wood/Agro Waste
- ♦ LIQUID WASTE INCINERATOR
(Cap. up to 5000 Ltr./hr.) Fuel : LDO/HSD/GAS/COAL
- ♦ HOSPITAL WASTE INCINERATOR
Fuel - LDO/HSD/GAS/ELECTRICAL
- ♦ ALL CHEMICAL EQUIPMENTS
- ♦ HEAT TRANSFER COIL (RADIATORS)
- ♦ INDUSTRIAL FAN UP TO 100 HP



**KHODIYAR
ENGINEERING**

Plot No. 52, Golden Industrial Estate, Odhav Circle Ring Road, Odhav, Ahmedabad-382415. (INDIA)

Mobile : 94263 10592

E-mail: khodiyar_eng@yahoo.com • Website: www.khodiyarboilers.com