



Oil-fired steam boiler
for diesel oil, heavy fuel oil or sludge/waste oil

UNEX™ CHB



UNEX™ CHB is a vertical, cylindrical steam boiler designed with bare smoke tubes. It can operate as a steam drum for exhaust gas economisers.

Steam generating capacity:
0.75-15 t/h
Standard design pressure:
10-18 bar (g)
Thermal output: Up to 10 MW

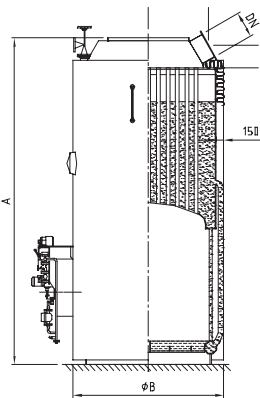
Description

UNEX™ CHB consists of a large furnace welded to vertical, plain type convection tubes. The low-alloyed plate material is durable against cracking, and it is easy to weld.

UNEX™ CHB boilers with a steam capacity of up to 6 t/h have fully water-cooled furnaces. They are constructed without refractory.

The furnaces of boilers with larger capacities are welded using gas-tight membrane water tubes connected to the dome-shaped top of the furnace.

Adequate furnace dimensioning guarantees good combustion, moderate loading and low material stresses. With an efficiency level of approx. 85%, the CHB has an economical operation and offers savings in fuel costs.



Due to the standard built-in water washing device, the UNEX™ CHB boiler is easy to clean.

UNEX™ CHB can operate as a steam drum for an exhaust gas economiser. If the economiser capacity is high, the height of the boiler will be increased accordingly.

Features

- Fuel types burned: marine gas oil, diesel oil, heavy fuel oil up to 700 cSt/50°C or sludge (waste) oil.
- The boiler can be equipped with rotary cup (KB 150 – 3400), steam atomising (KBSA 600 – 4200) or pressure jet burner (Monobloc).
- Control system can be processor-based or a relay system.
- Adequate furnace dimensioning guarantees good combustion, moderate loading and low material stresses.
- No refractory in smaller range.
- Integrated water-washing device.

Standard scope of supply

- The complete boiler with connections, foundation, inspection hatches, man-

hole, hand-holes and insulation with sheeting.

- Valves and fittings for the boiler, either loose or pre-assembled.
- Boiler water regulation and control system which can be selected to either on/off or continuous regulation functions.
- Fuel oil burner: type according to the size of the boiler and the type of fuel oil used
- Control panel for burner with safety and alarm system.
- Spare parts according to classification society demands.

Accessories (Optional)

- Exhaust gas economiser(s)
- Fuel oil pumps with preheater
- Feed water and circulation water pumps
- Feed water treatment system
- Feed water tank
- Oil observation system
- Smoke density meter
- O2 analyzer
- Water softener
- Sample cooler

STANDARD PRODUCT RANGE

Capacity and dimensions

Boiler type	Steam	Height	Diameter	Gas outlet	Dry weight #	Water volume
	kg/h	A mm	B mm	DN	kg	m ³
CHB 750	750	2,945	1,400	200	3,250	1.5
CHB 1000	1,000	3,465	1,400	200	3,860	1.6
CHB 1500	1,500	3,560	1,600	250	5,100	2.1
CHB 2000	2,000	3,985	1,700	300	6,000	2.5
CHB 2500	2,500	4,150	1,900	300	7,700	3.8
CHB 3000	3,000	4,420	2,000	300	9,000	4.4
CHB 4000	4,000	4,670	2,200	350	10,400	5.6
CHB 5000	5,000	5,150	2,300	400	12,650	6.2
CHB 6000	6,000	5,300	2,300	400	15,900	6.6
Membrane tube furnace						
CHB 6000	6,000	5,680	2,500	400	16,100	6.3
CHB 8000	8,000	5,920	2,700	500	17,000	6.7
CHB 10000	10,000	6,760	2,800	500	25,300	8.4
CHB 12000	12,000	7,180	3,000	600	26,500	10.0
CHB 15000	15,000	7,800	3,000	700	27,500	10.5

Dry weight including burner, valves, fittings and insulation.