

# HORIZONTAL COMBINATION BOILER

5,000

15,000 kg/hr

11,023

33,069 lbs/hr

3MW

9MW



# TITAN MCH

[www.mechmar.com.my](http://www.mechmar.com.my)

**MECHMAR**  
EMBRACE ENERGY



# TITAN MCH

## SOLID FUEL-FIRED BOILER

### Features

- Designed and manufactured to the international standards (BS2790 and BS1113).
- Suitable for burning a wide range of biomass fuels such as palm shells / fibres, wood waste, coconut fibres etc as well as coal.
- Multi-tubular fire-tube section allows for high thermal efficiency hence minimising fuel consumption.
- Designed for complete access to furnace and combustion chamber.
- Fully automated operation provided for control of capabilities, steam pressure and for failsafe operation.
- Allows quick site installation and commissioning coupled with reduced installation cost.
- Rapid steam raising capabilities.
- Available either in 150psig or 250psig.

### Combustion

Option of either fixed pinhole grate, reciprocating grate or travelling grate depending upon fuel type.



### Accessibility and Maintenance

- Adequate manholes and handholes allow for convenient visual inspection, cleaning and maintenance.
- All tubes are expanded and welded into the tube plates. Two manholes are provided each at the top and bottom of shell boiler.
- Complete access to the furnace and combustion chamber through the access opening at the back which facilitate inspection and cleaning.

### Manufactured to International Standards (BS1113)

The Titan MCH's boiler pressure parts are fabricated by our dedicated manufacturing facility in Johor, Malaysia. ISO 9001 certified and licensed by Lloyd's Register of Shipping as a Class 1 Pressure Vessel Manufacturer the Titan MCH is fabricated to the highest possible standards. In addition, all boilers manufactured are subjected to Third Party Inspection by Lloyd's Register.







## Boiler Mountings

The boiler mounting include:

- Main steam valve
- Twin safety valve
- Blowdown valve for steam drum & headers
- Combined feed / check valve
- Water level gauges glasses with isolating valves (reflex type)
- Steam drum vent valve
- Pressure gauges with isolating valves
- Temperature gauges with isolating valve
- Water level H/L alarm
- Water level controller
- Steam auxiliary valve
- Electrical feedwater pump with standby

## Pre-furnace

The pre-furnace consists of a membrane wall connected to the boiler through headers in an "A" shape arrangement. The upper and lower headers is designed as steam uprisers and downcomers respectively which is natural circulation.

## Boiler Feed Water System

Electrically-driven centrifugal pumps are fitted to the boiler with one set of stop/check valve mounted at the inlet of the boiler.

## Water Treatment (Optional)

The purpose of feed water treatment is to prevent corrosions and the formation of scales within the boilers. The water has to be treated, softened and free from suspended particles and impurities.

## Commissioning

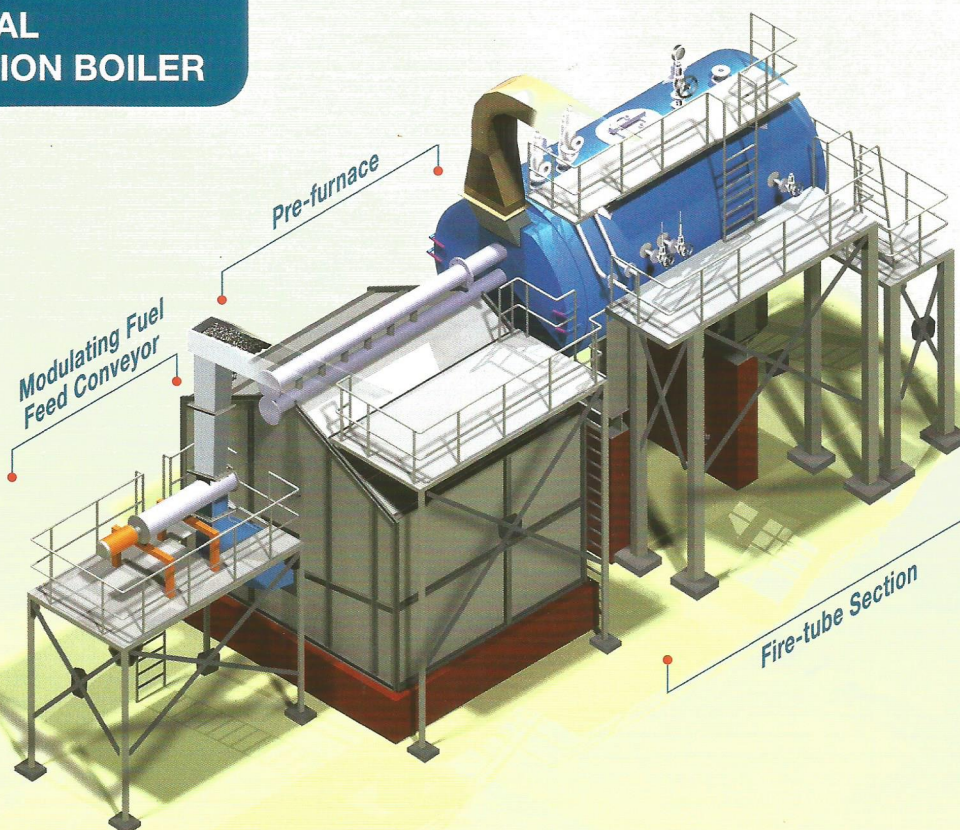
We have a dedicated servicing team with skilled technicians to commission, test and check all the controls upon of the installation.

## Industrial Applications

- Palm oil mills
- Paper and pulp
- Wood processing
- Rubber processing



## HORIZONTAL COMBINATION BOILER



## Boiler Specifications

Boiler Model	Units	MCH 5	MCH 6	MCH 8	MCH 10	MCH 12	MCH 15
Boiler Rating	kw	3134	3761	5015	6269	7523	9403
F&A 100°C (212°C)	kg/hr	5000	6000	8000	10000	12000	15000
	lbs/hr	11023	13228	17637	22046	26455	33069
Shell Length	mm	4500	4638	5088	5240	5300	5360
Furnace Length	mm	2850	3225	3526	4288	4420*	4649
Furnace Width	mm	2980	3267	3386	3844	4050	4262
Shell Diameter	mm	2680	3002	3186	3426	3840	4016
Steam Drum Height	mm	5750	6147	6280	6394	6860	8452



Mechmar Group

### MALAYSIA

#### HEADQUARTERS

**Mechmar Cochran Boilers (M) Sdn Bhd**  
**Mechmar After Sales & Services Sdn Bhd**  
**Mechmar Exports Sdn Bhd**  
 No. 1 Jalan Perunding U1/17,  
 Hi-com Glenmarie Industrial Park,  
 40150 Shah Alam, Selangor Darul Ehsan.  
 Tel : +603-5569-3688  
 Fax : +603-5569-1368  
 Email : enquiries@mechmar.com.my

#### MANUFACTURING

**Mechmar Boilers Sdn Bhd**  
 Lot 14, Jalan Timah,  
 Pasir Gudang Industrial Estate,  
 81700 Pasir Gudang, Johore.  
 Tel : +607-2513-632, +607-2513-633  
 Fax : +607-2525-494  
 Email : enquiries@mechmar.com.my

### INDONESIA

#### MANUFACTURING & SALES

**PT Mechmar Jaya Industries**  
 Kawasan Industri Medan,  
 J.L.K.L. Yos Sudarso KM. 10,5  
 Medan, Indonesia.  
 Tel : +62-61-6850-306  
 Fax : +62-61-6850-307  
 Email : ptmj@mechmar.com.my

#### SALES & MARKETING

**PT Mechmar Jaya Industries**  
 Apartemen Gading Nias Residence  
 Tower Dahlia, Lt. 16, Unit NW  
 J.L. Pegangsaan II No.3, Kelapa Gading  
 Jakarta Utara.  
 Mobile : +0852-1711-5708  
 Email : ptmjkt@mechmar.com.my

### SRI LANKA

#### SALES & MARKETING

**Mechmar Cochran Lanka (Pvt) Ltd**  
 543, Negombo Road, Wattala, Sri Lanka.  
 Tel: +94-11-2947-182, +94-11-4818-896  
 Fax: +94-11-2981982  
 Email: mechmar@sl.lk  
 wicks@mechmar.lk

**Toll Free No: 1800-88-3030**