HOT WATER HEATER

100% made in Malaysia

DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA

and **DEPARTMENT OF ENVIRONMENT** regulations complied

Operating under atmospheric pressure (no pressure).

Design granted exclusion by DEPARTMENT OF OCCUPATIONAL SAFETY AND HEALTH MALAYSIA and **no certified boiler man require** operating the boiler.
Low operating costs.

Long, huge and separated furnace and heat exchanger.

- **Allow husk to burn well using gentle blowing air;** hence ashes will not fly around and sucked into heat exchanger. Clean hot air which enter into fire tubes will further prolong its life time.
- **12 step pushing grate stoker** allow enough time for rice husk to burn completely.

The pushing grate is design for **robust and long lasting usage. Bearing roller carriage** which moves the pushing grates will ensure a smooth stoker movement and require very little effort to move it around, more over the stoker is controlled by hydraulic cylinders, further enhance the durability and smoothness of the stoker movement.

Water Jackets pushing grate.

Husk burning on top of the water jackets resulting in longer life span of the furnace and also efficient transfer of heat.

STORAGE TANK

Large heat exchange area. (284 M²) Heat from the burning husk transfer efficiently to the circulating water by going through the water jackets, water wall and fire tube heat exchanger.

REFILL PUMP

Inside the furnace room, paddy husk stay on top of pushing grate while burning, being slowly push down to the discharge screw conveyor. The burning **process can easily be monitored** to make sure the husk is completely burnt. No large volume of turbulent air inside the combustion chamber, and therefore less wear and tear inside the furnace.

Thick Material Used: 55 tons of metal are used in heater construction.

FUEL ROTARY

ASH ROTARY

ASH DISCHARGE

ID FAN

CHIMNEY

DRYERS

Pushing grate can be use effectively in husk fuel. The pushing grate stoker can push and **discharge molten ash** and all other ashes, which cause by excessive burning temperature.

ASH SCREW 1

CIRCULATION PUMP

FD FAN

Inverter for ID Fan and FD Fan controls

- **Inverter will control ID and FD Fan** flow rate accurately hence smooth burning without turbulence can be achieved.

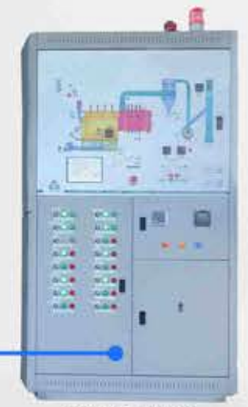
Pushing grate is always cool by incoming FD fan and water jacket. When pushing grate is not running, it will retract under water jacket to avoid excessive heat and disconnected from hot burning husk.

ASH SCREW 2

ASH DISCHARGE

Operating Automatically by PLC.

Normal **operator with less education qualification can operate** the heater by pressing only 1 button for start and stop of the heater operation. Operator only needs to set the required water temperature and the boiler operate automatically by adjusting the air volume and husk input quantity.



CONTROL PANEL

By IPMA®

198501004398 (136837-P)

www.ipmaindustry.com Tel : +6 04-917 8799 / 917 1799 / 917 0255 Fax : +6 04-917 6799 Email : ipma@ipmaindustry.com Address : Lot 1266, Bandar Darulaman Industrial Park, 06000 Jitra, Kedah Darulaman, Malaysia.