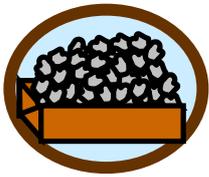


# YOSHIMINE WATER TUBE BOILERS



SOLID  
FUEL  
SERIES



YOSHIMINE CO., LTD

# Yoshimine Boilers - Proven Quality Worldwide

Since its foundation in 1937, Yoshimine has been specializing in the development and manufacture of boilers. But Yoshimine also does much more, offering a full range of related services such as consultation and installation.

Yoshimine developed a water-tube boiler that met all industrial requirements and proved successful in numerous locations in 1953. Since that time, Yoshimine has been concentrating on water-tube boilers and is today the only Japanese manufacturer exclusively engaged in this business.

Yoshimine products are currently being used throughout Asia, the Middle East, Africa, and Latin America. These customers depend on Yoshimine's vast experience and technology and turn to Yoshimine for design, manufacture, and installation of water-tube boilers as well as general advice regarding the operations of such boilers.

Yoshimine's continuing research and development activities and constant dedication to quality and reliability assure your complete satisfaction no matter what your boiler needs.



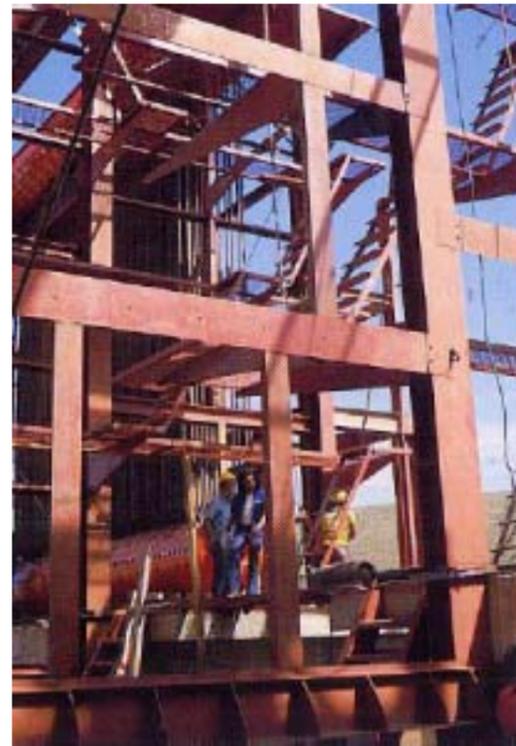
Factory



Shipment



Inside the Factory

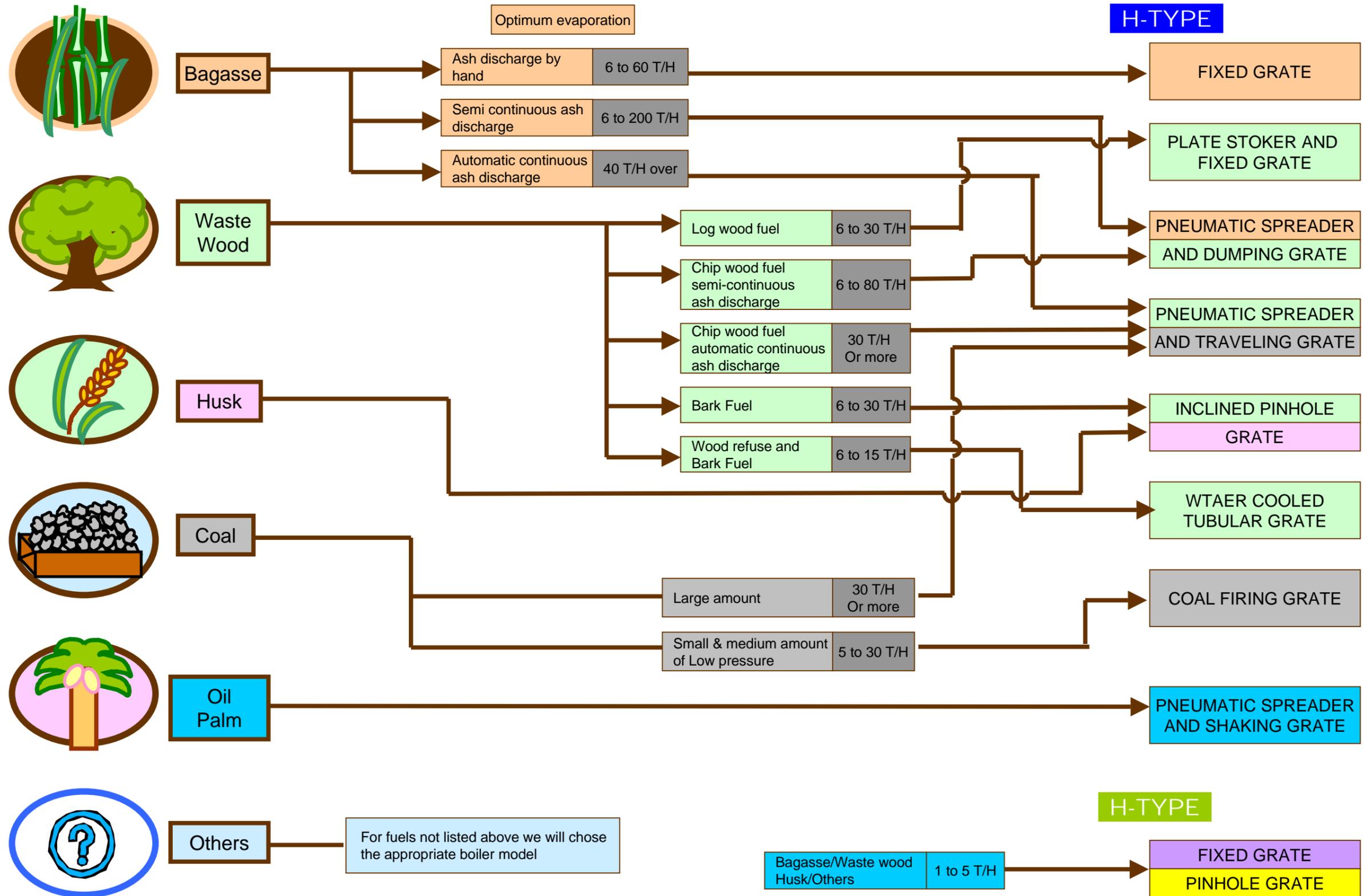


Under construction

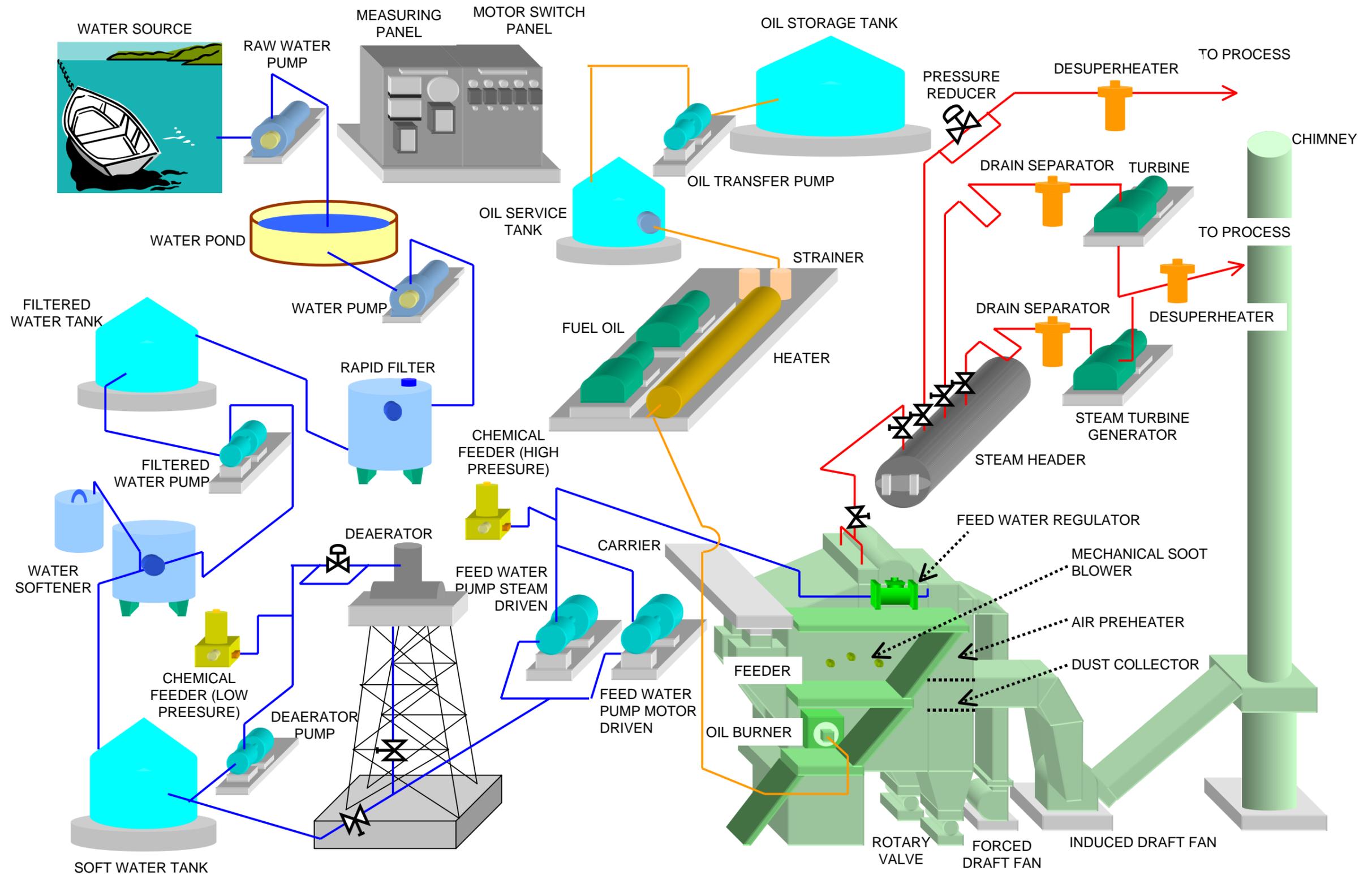


Under operation

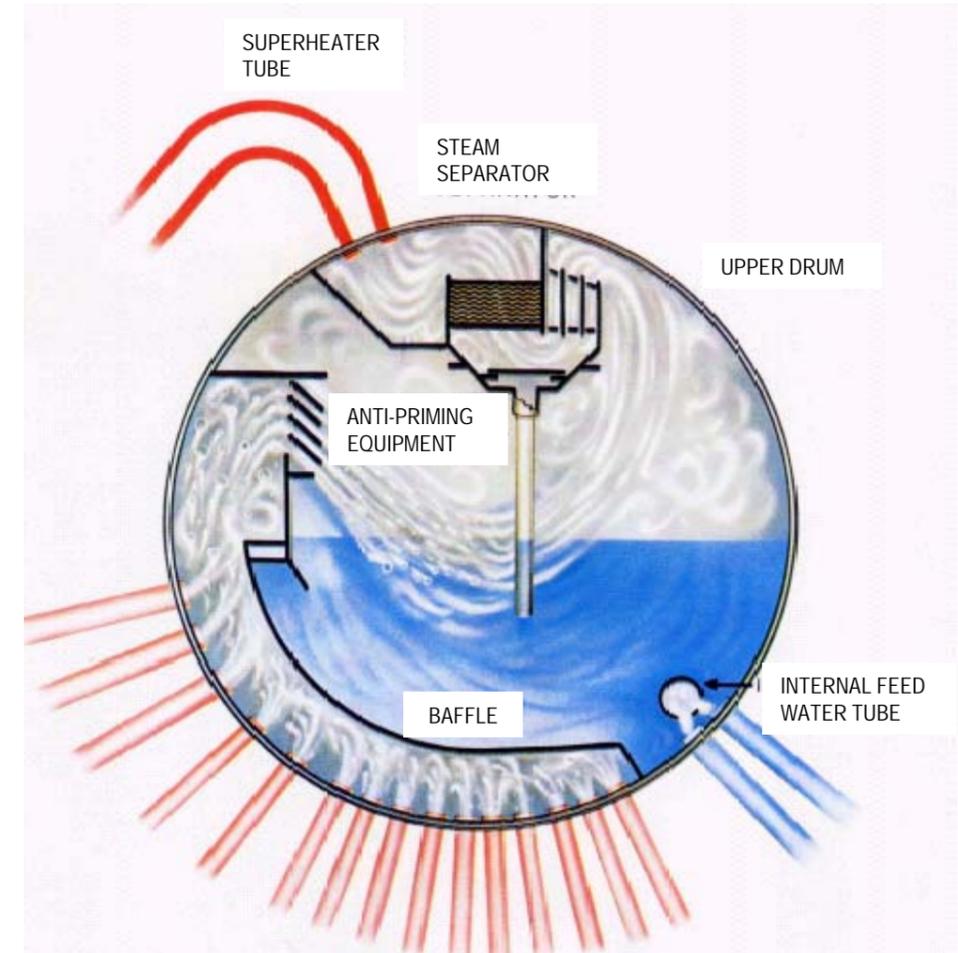
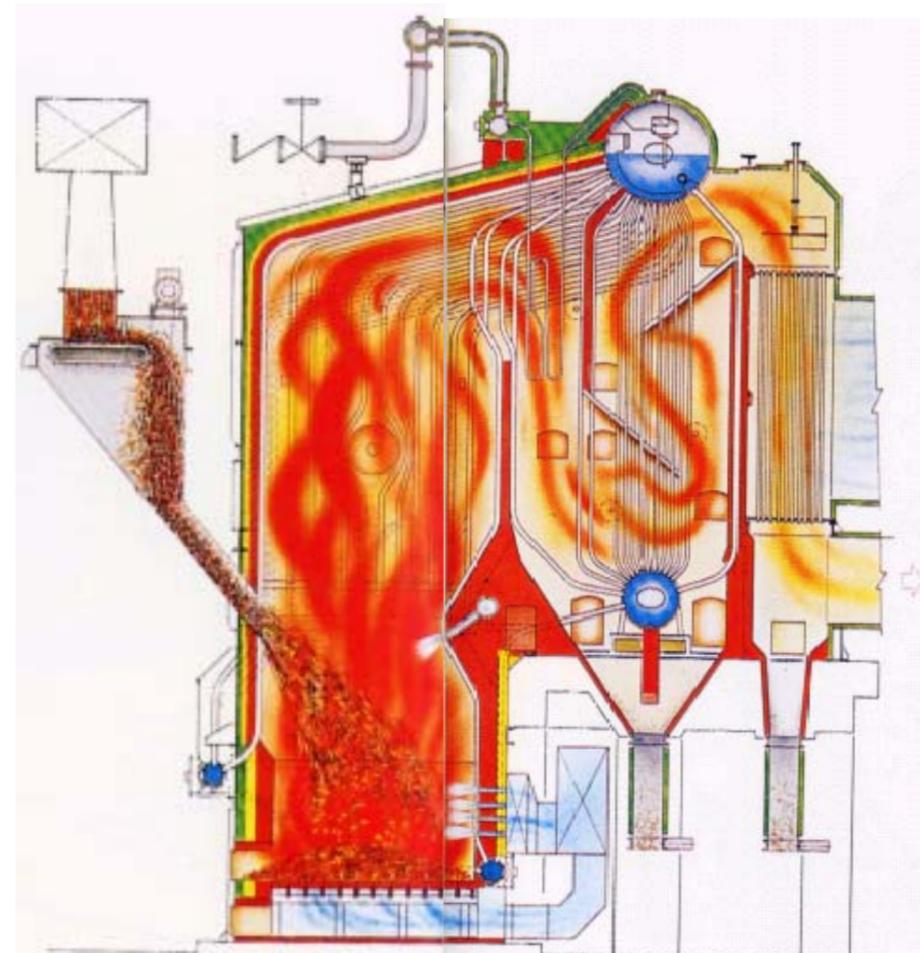
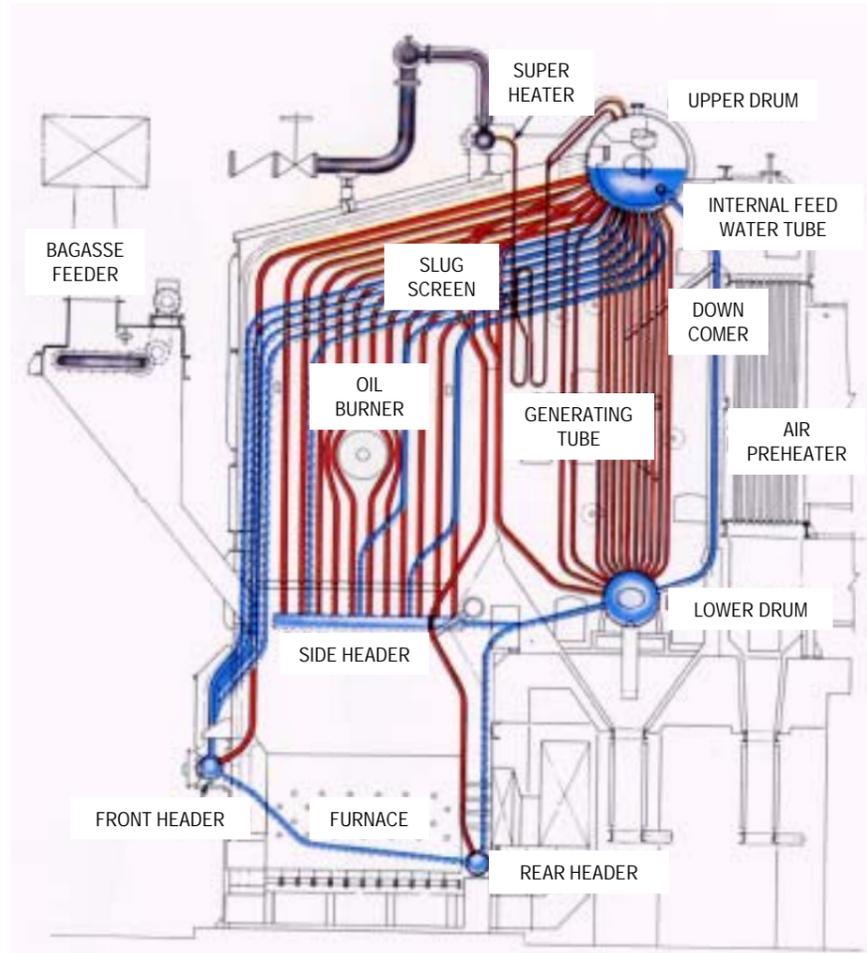
# Solid Fuels Used By Yoshimine Boilers



# System Diagram



# Advanced Features



## The Most Efficient Water Circulation System

Yoshimine's water circulation system ensures the greatest possible heat absorption. Water from the upper drum moves downward (blue lines) and collects in the lower drum and headers before moving up (red lines) and generating a mixture of water and steam. The high heat absorption that results improves the boiler's efficiency for greater overall economy.

## The Most Efficient Gas Circulation

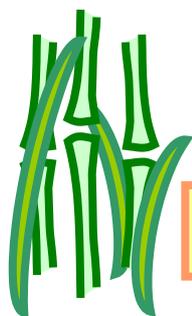
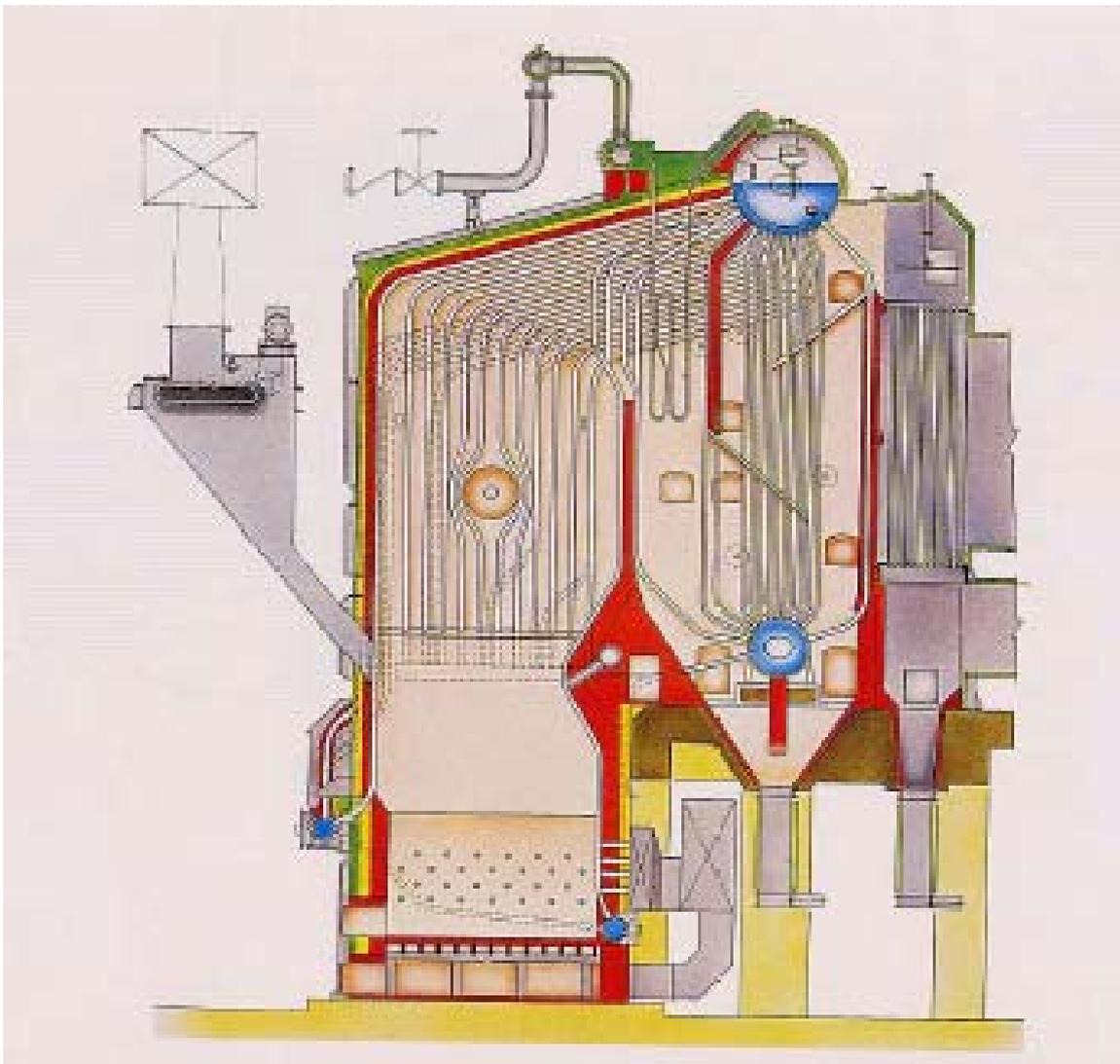
Complete combustion in the large combustion chamber produces heat which radiates and is absorbed by the water walls. Gas passing through the slug screen changes direction three times before passing through the preheater. Ash and cinder are separated from the gas and deposited in special "pockets" as the gas passes. This prevents ash and cinder from accumulating in the tubes and maintains the best possible thermal efficiency even when the boiler is used continuously for many hours.

## The Driest, Highest Quality Steam

Yoshimine employs a unique steam separator in the upper drum to ensure that the steam is exceptionally dry and high in quality. The water and steam mixture is sent under a baffle which changes the mixture's direction before it reaches the upper drum. This removes water droplets from the steam. A steam separator then dries the steam, producing an extremely dry and high-quality steam which in turn improves the boiler's overall efficiency and economy.

# H-TYPE

## FIXED GRATE

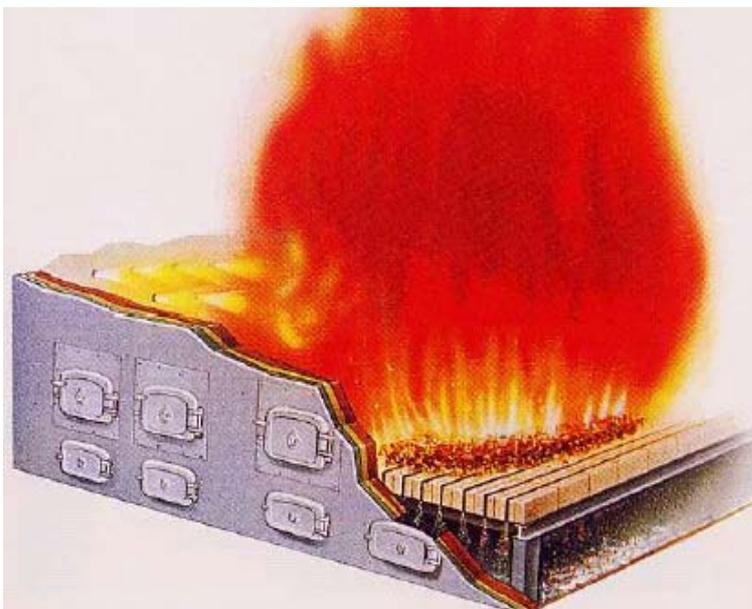
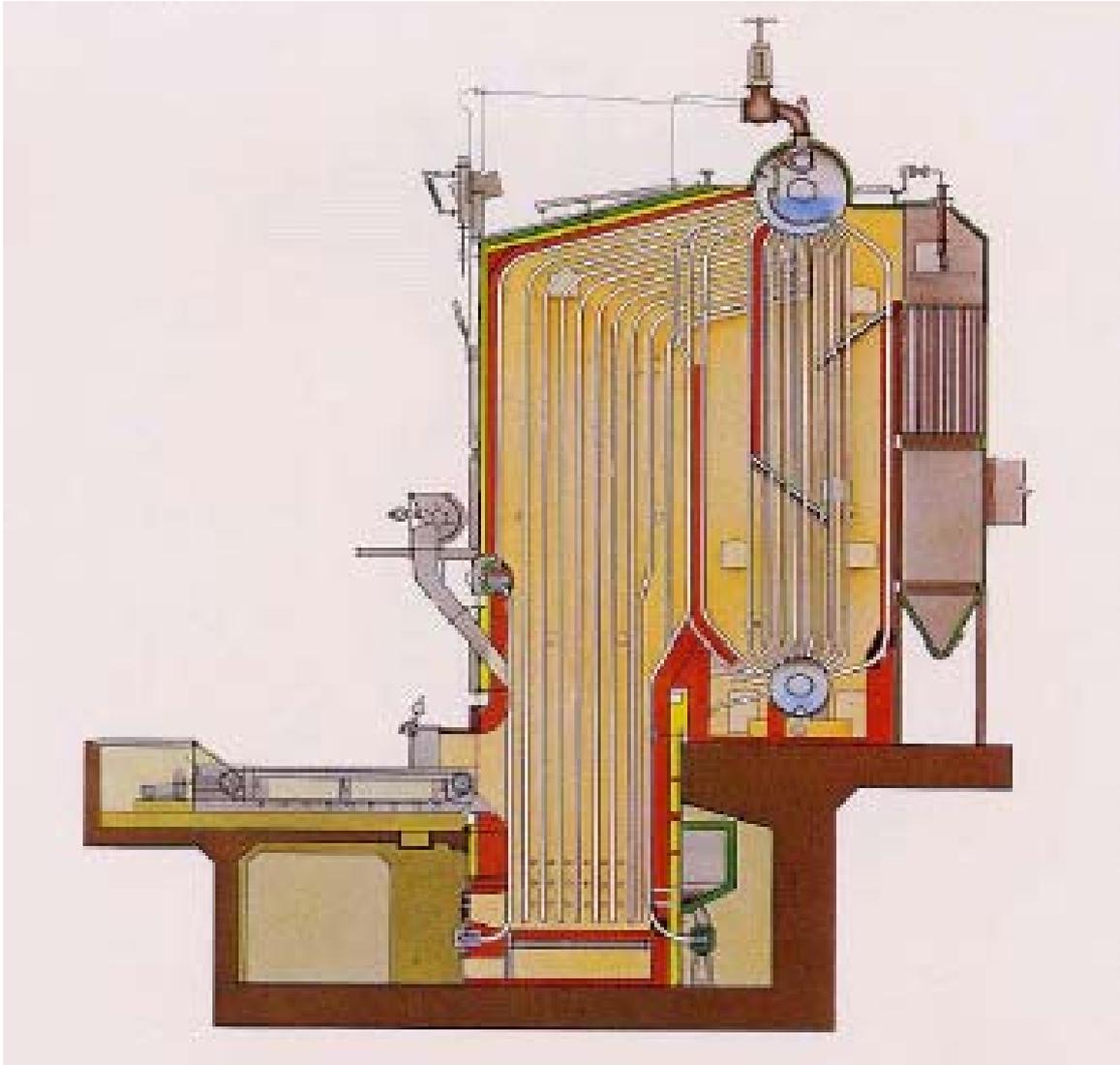


Bagasse



# PLATE STOKER AND FIXED GRATE

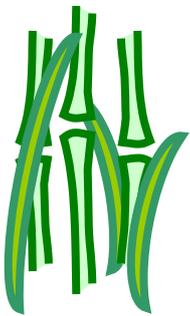
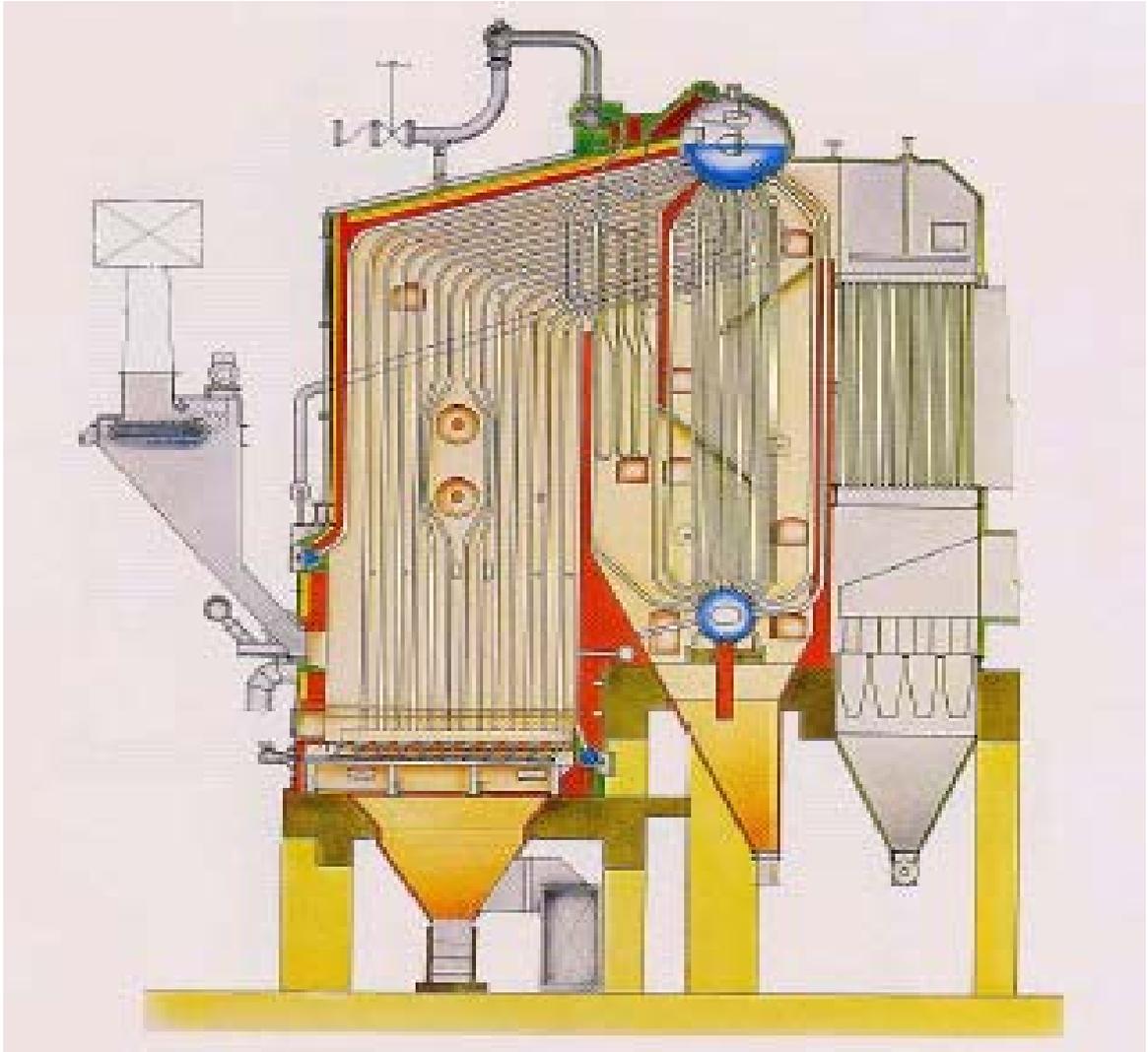
H-TYPE



Waste  
Wood

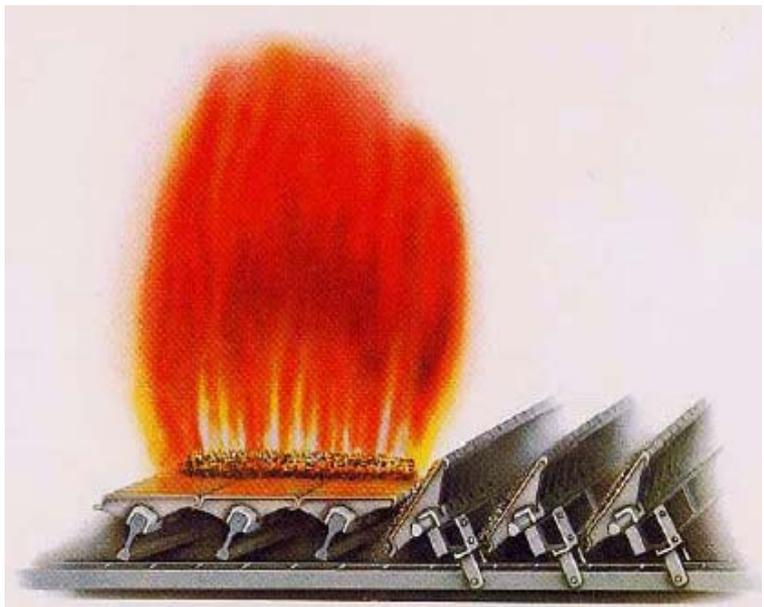
# H-TYPE

## PNEUMATIC SPREADER AND DUMPING GRATE



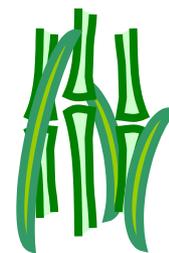
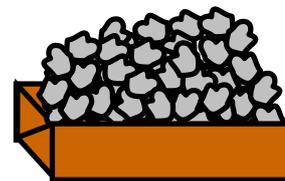
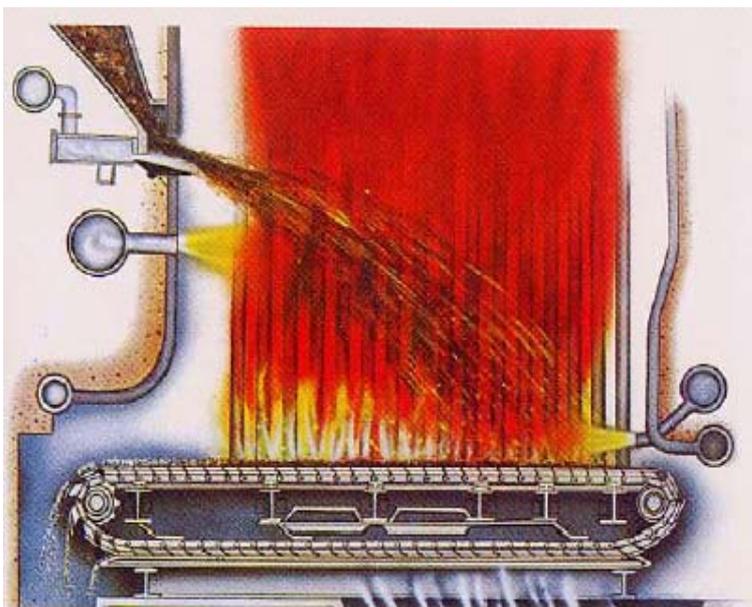
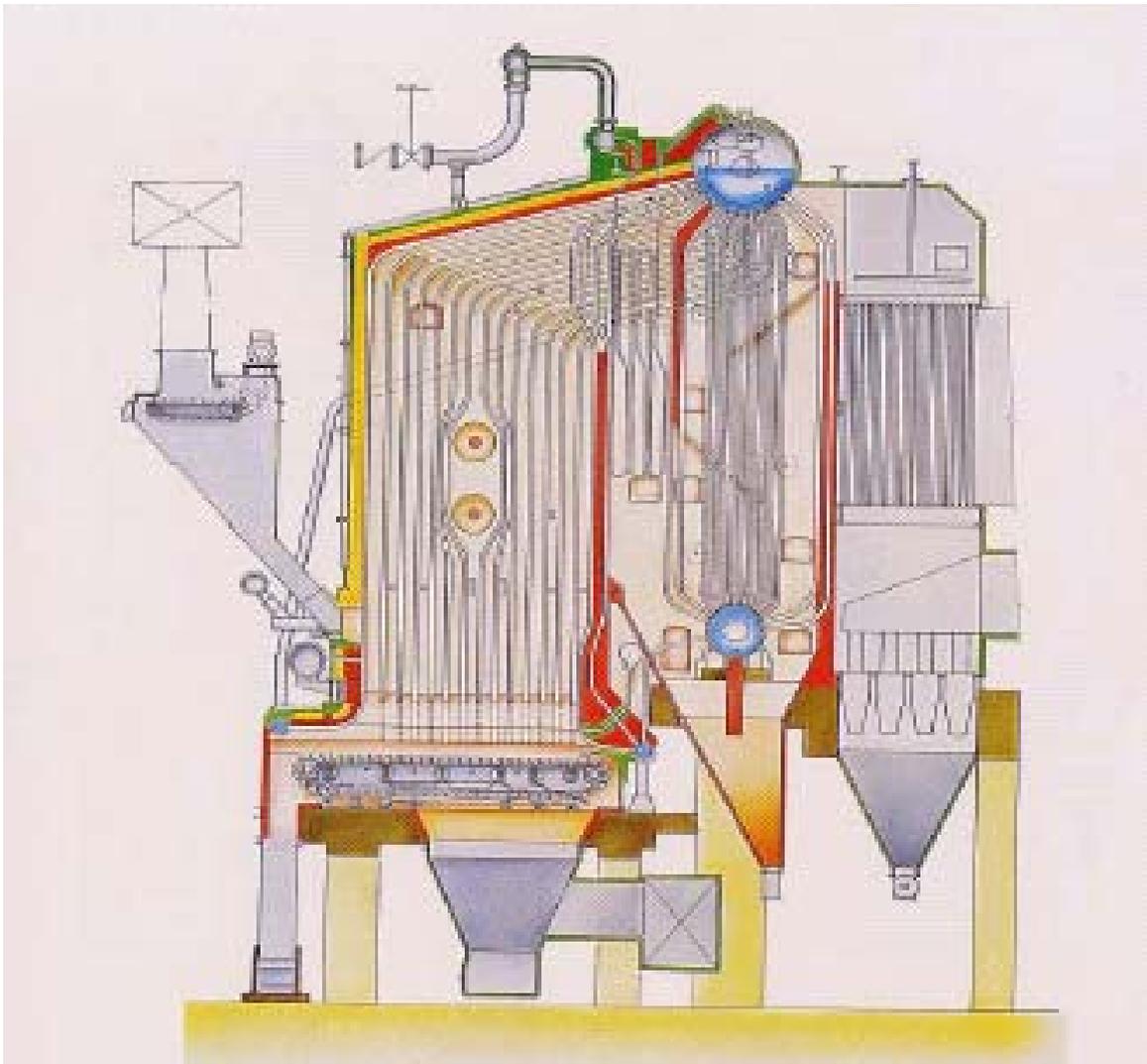
Bagasse

Waste  
Wood



# PNEUMATIC SPREADER AND TRAVELING GRATE

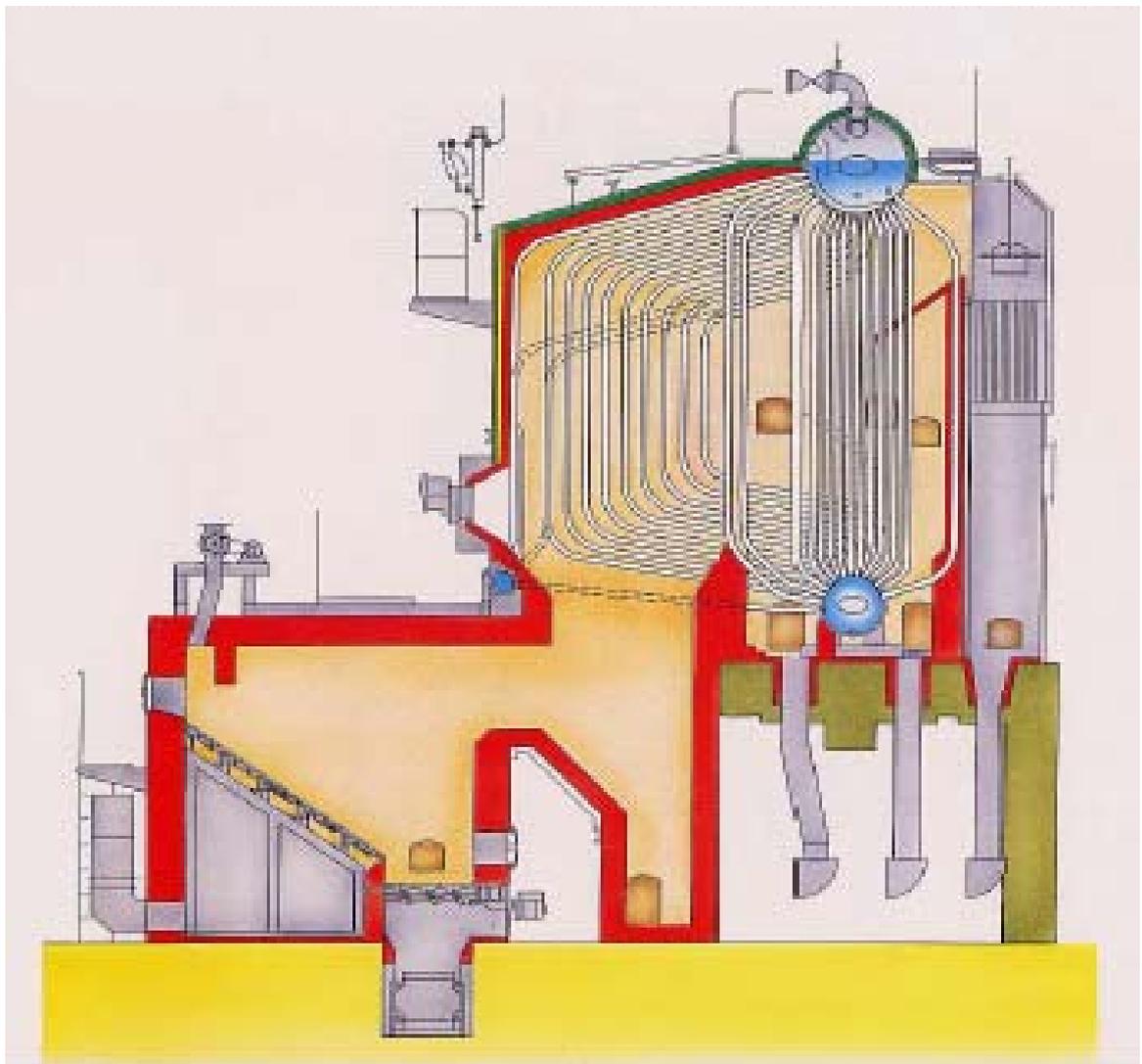
H-TYPE



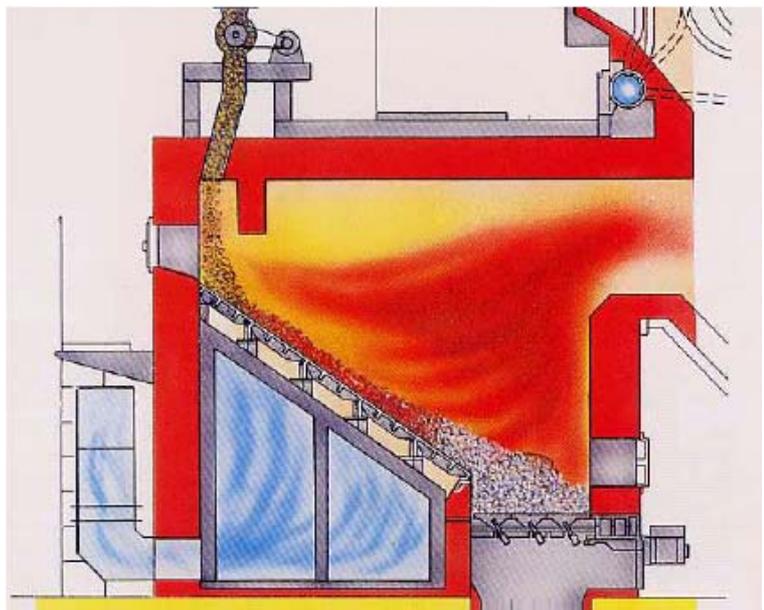
Bagasse  
Coal Wood  
chip

# H-TYPE

# INCLINED PIN HOLE GRATE

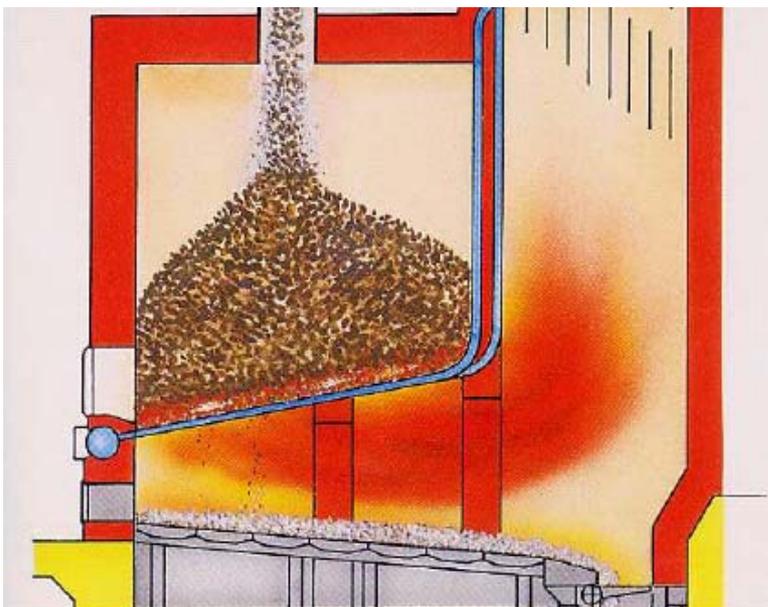
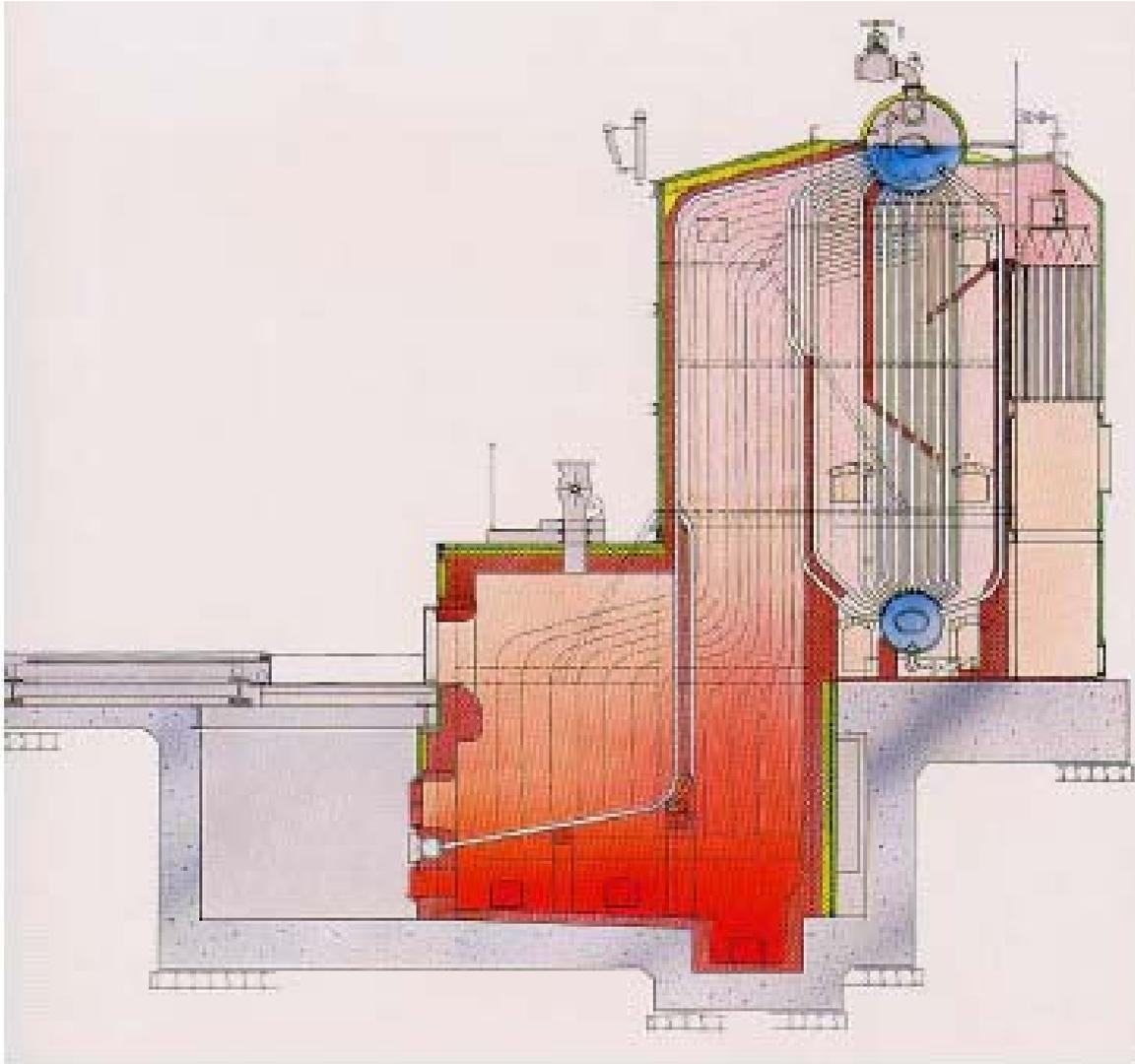


Husk  
Waste Wood



# WATER COOLED TUBULAR GRATE

# H-TYPE

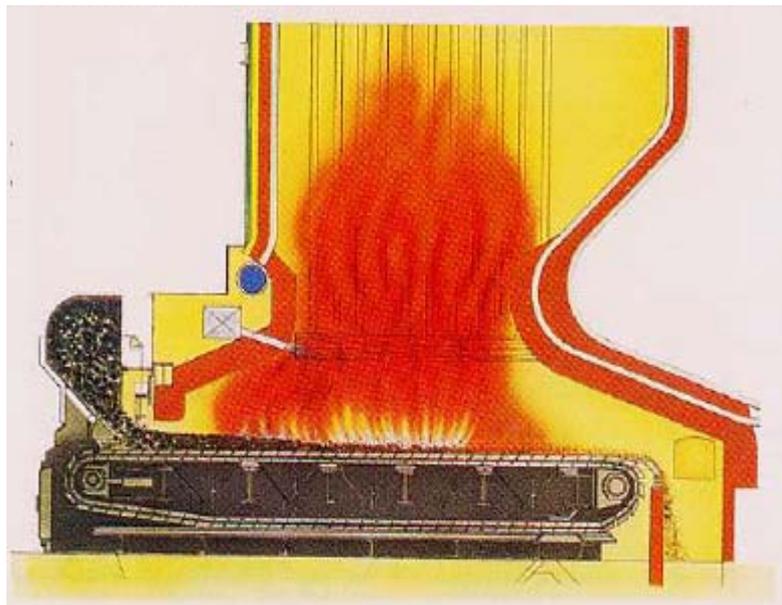
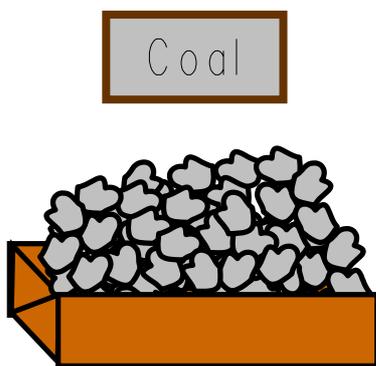
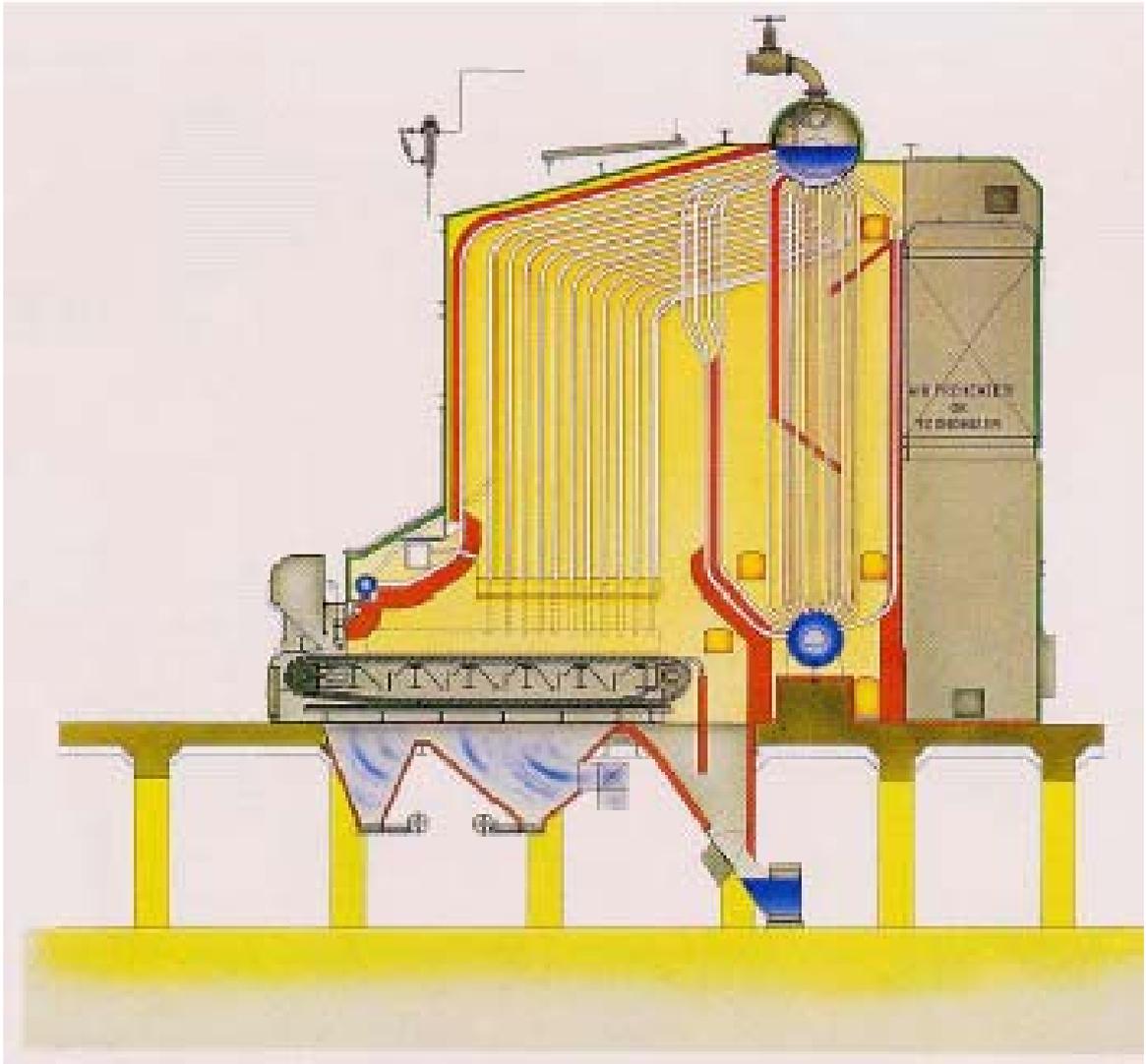


Waste  
Wood



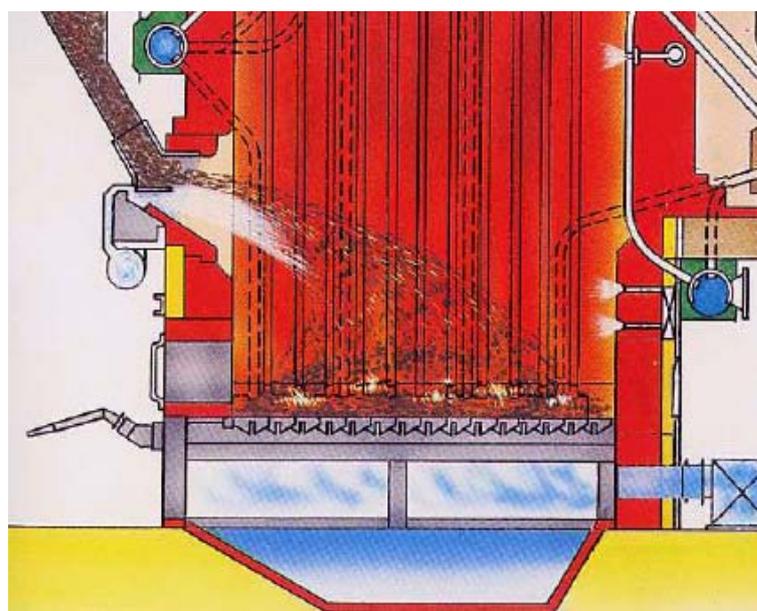
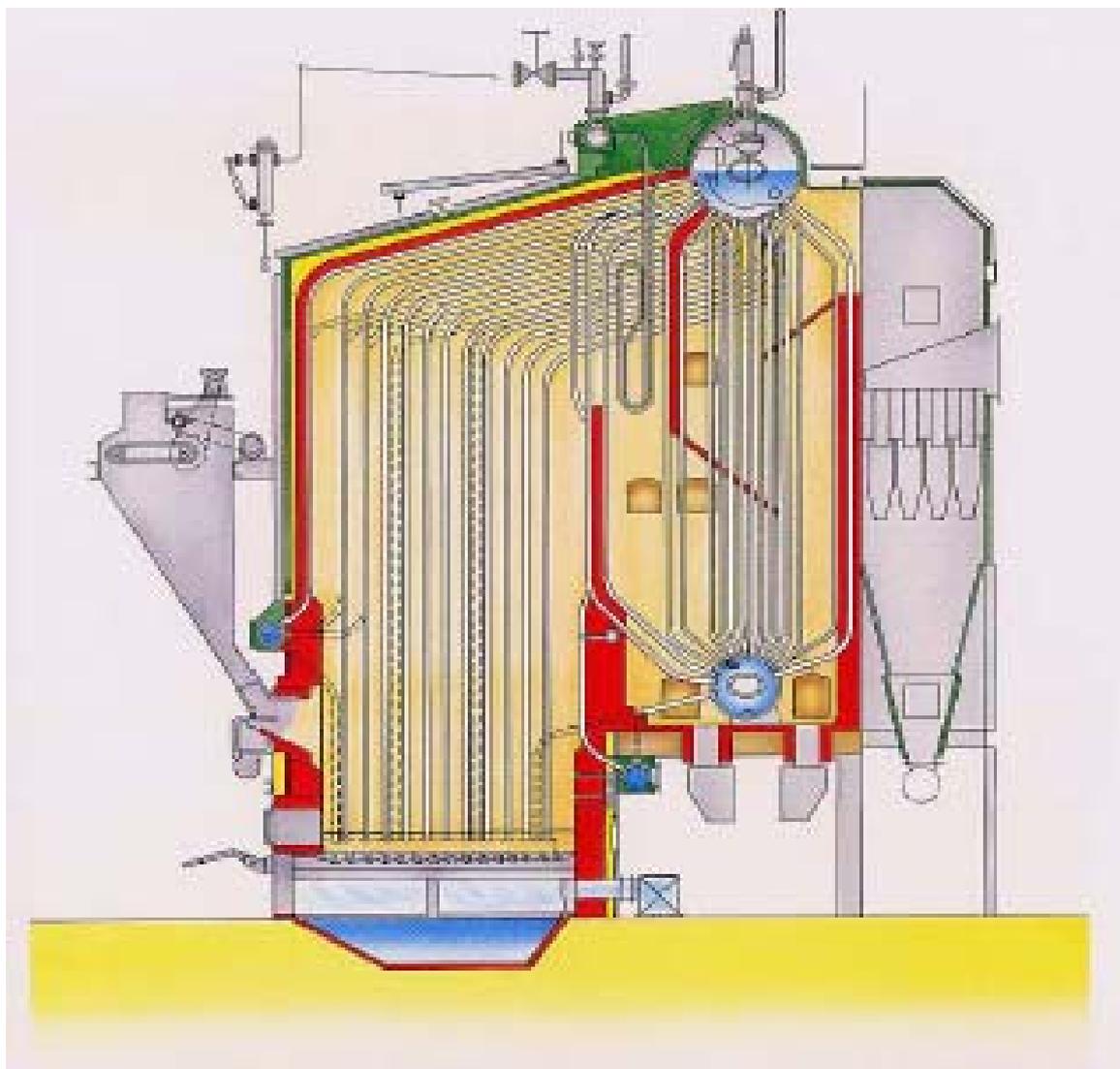
# H-TYPE

## COAL FIRING GRATE



# PNEUMATIC SPREADER AND SHAKING GRATE

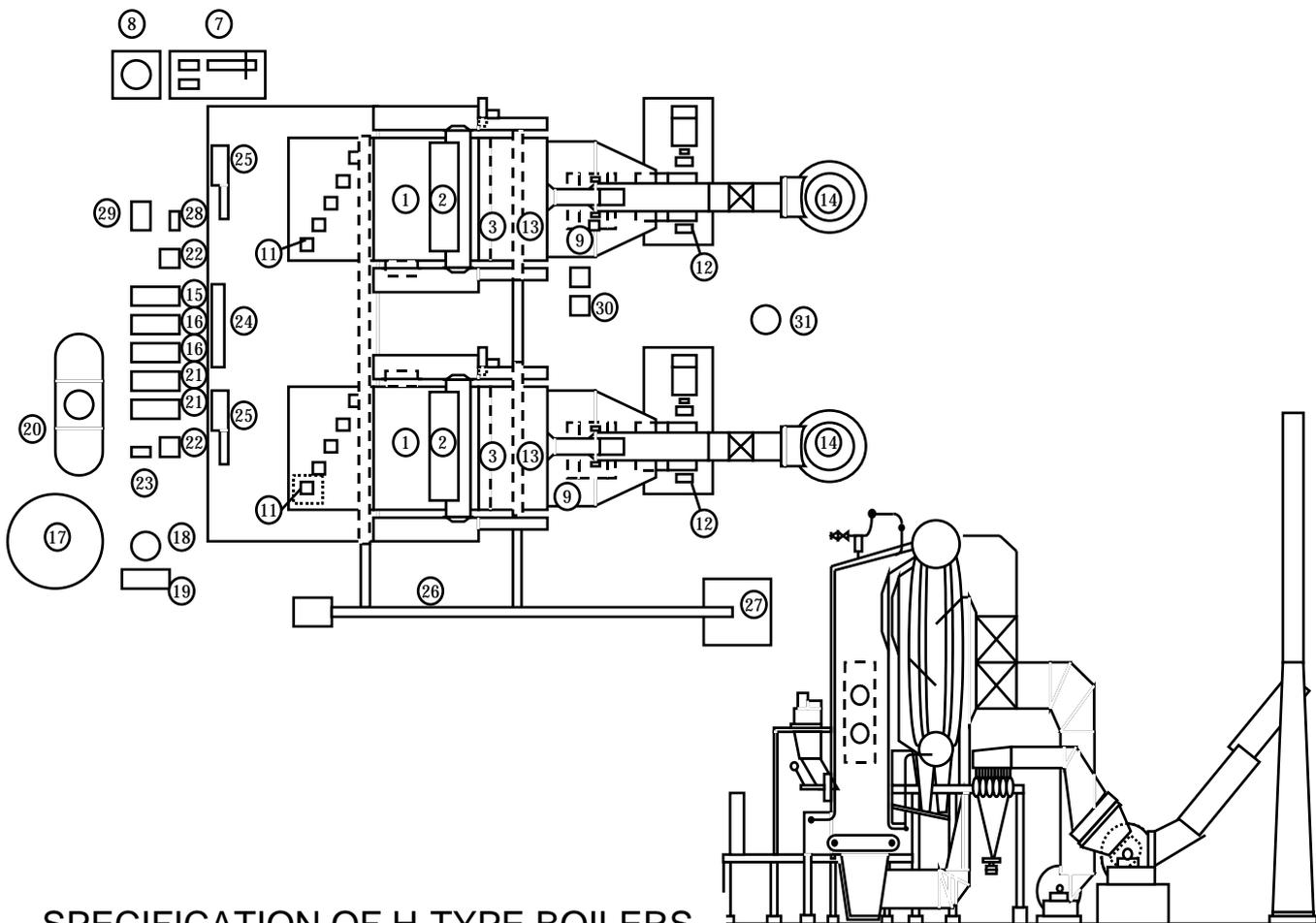
H-TYPE



Oil Palm

# STANDARD LAYOUT FOR H-TYPE BOILERS

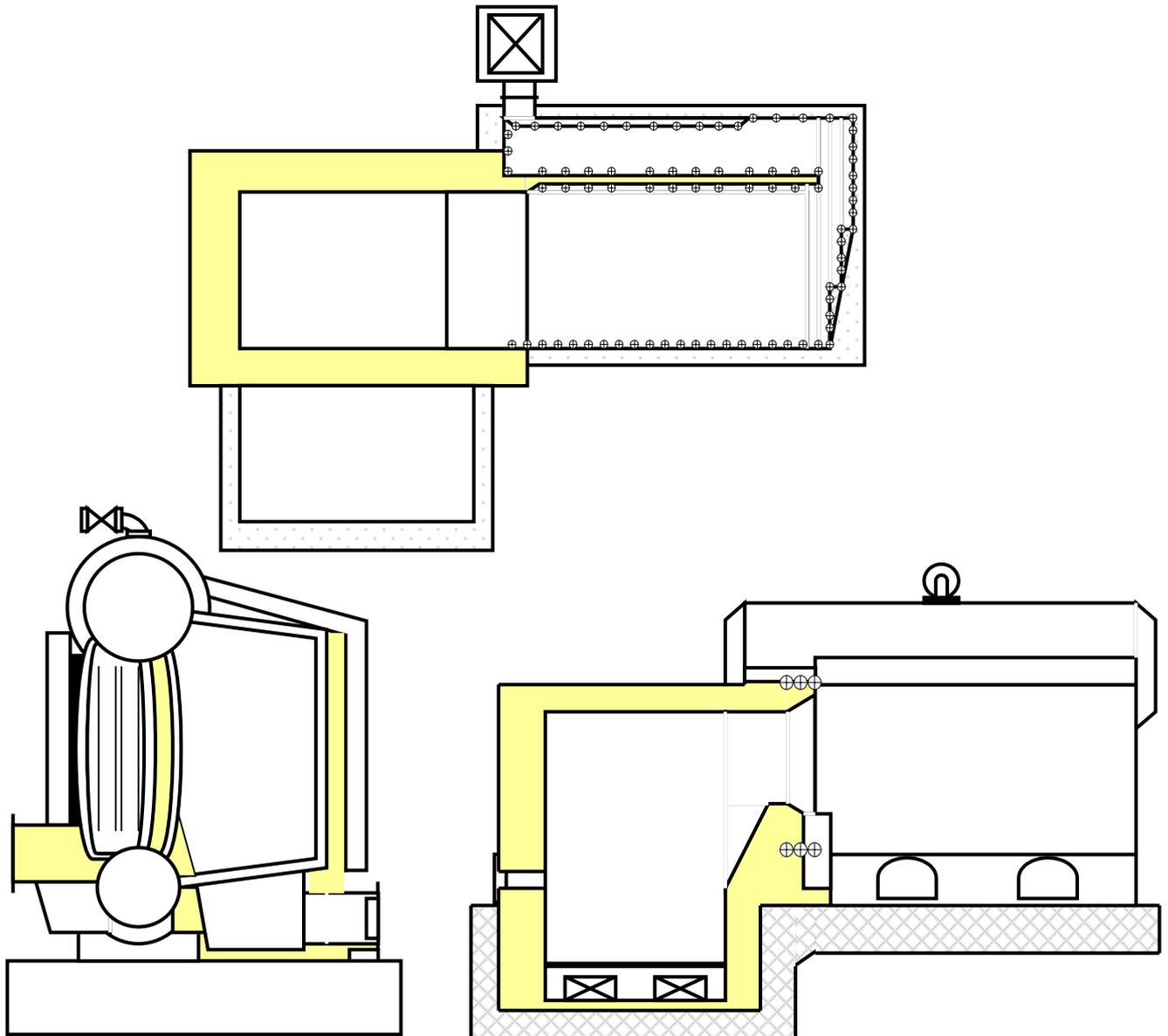
No.	NAME	No.	NAME	No.	NAME
1	BOILER PROPER	12	INDUCED DRAFT FAN	23	CHEMICAL FEEDER (L.P.)
2	SUPERHEATER	13	DUST COLLECTOR	24	STEAM HEADER
3	AIR PREHEATER	14	CHIMNEY	25	PANEL
4	BAGASSE COMB. EQUIP.	15	F.W.PUMP (MOTOR)	26	ASH CONVEYOR
5	BAGASSE FEEDER	16	F.W.PUMP (STEAM)	27	ASH BANKER
6	OIL BURNER	17	FEED.W.TANK	28	AIR COMPRESSOR
7	OIL BURNER UNIT	18	SOFTENER	29	DEHUMIDIFIER
8	OIL SERVICE TANK	19	RAW W.PUMP	30	CONTINUOUS BLOW DOWN
9	PRIMARY F. D. FAN	20	DEAERATOR	31	B.D.FLASH TANK
10	SECONDARY F. D. FAN	21	DEAERATOR FEED.P.		
11	DISTRIBUTION FAN	22	CHEMICAL FEEDER (H.P.)		



## SPECIFICATION OF H-TYPE BOILERS

Evaporation	Setting Dimension mm						Boiler Tube mm				
	Fixed Grate			Dumping Grate			Traveling Grate			Furnace side	Generat -ing
Kg/h	H	W	L	H	W	L	H	W	L		
30,000	7,000	6,990	9,900	8,000	6,110	9,900				76.2	50.8
40,000	7,000	7,760	10,300	8,000	6,990	10,300				76.2	50.8
50,000	7,000	9,850	10,500	9,500	6,110	12,000	9,500	6,110	12,000	76.2	50.8
60,000	7,000	11,500	10,700	10,500	6,990	12,200	10,500	6,990	12,200	76.2	50.8
80,000				10,500	8,970	12,400	10,500	8,970	12,400	76.2	50.8
100,000				10,500	10,180	12,600	10,500	10,180	12,600	76.2	50.8
120,000				12,000	10,730	12,600	12,000	10,730	12,600	76.2	50.8
160,000				12,100	12,850	15,200	12,100	12,850	15,200	76.2	63.5
200,000				12,300	12,850	18,100	12,300	12,850	18,100	76.2	63.5

# STANDARD LAYOUT FOR HAS-TYPE BOILERS



## SPECIFICATION OF HAS-TYPE BOILERS

TYPE				1,000	2,000	3,000	4,000	5,000
Equivalent Steam Evaporation	Max.	Kg/h		1,200	2,400	3,600	4,800	6,000
	Nor.	Kg/h		1,000	2,000	3,000	4,000	5,000
Fuel Consumption	Dia.	Kg/h		317	633	950	1,148	1,435
Main Steam Valve	Dia.	mm		80	80	100	125	125
Feed Water Valve	Dia.	mm		25	25	25	40	40
Blow off Valve	Dia.	mm		25	25	25	25	25
Installation Dimensions	Overall Height	H	mm	2,836	3,306	3,666	3,871	3,871
	Height of Upper Drum center	H'	mm	1,950	2,300	2,600	2,700	2,700
	Overall Width	W	mm	2,074	2,356	2,614	2,884	3,164
	Width of Ash Pit	W'	mm	2,000	2,000	2,000	2,000	2,000
	Overall Length	L	mm	4,342	5,449	6,213	6,785	7,489
Net Weight			Kg/h	22,100	29,500	41,700	60,500	72,800
Total Weight when Full with Water			Kg/h	23,430	32,100	45,200	64,700	77,700