



CORE AXIS
GLOBAL SOLUTIONS

a part of **Dehu Group of Companies**



COMBI-FLAME

Capacity - 2 TPH to 25 TPH

Key Features

- Flexible Feeding System
- Multi-Fuel Capability
- User-Friendly Design
- Optimized Energy Performance
- 1-Year Warranty
- Cost-Effective Operation

"Reliable. Renewable. Worldwide"

www.coreaxisglobal.com



ABOUT US

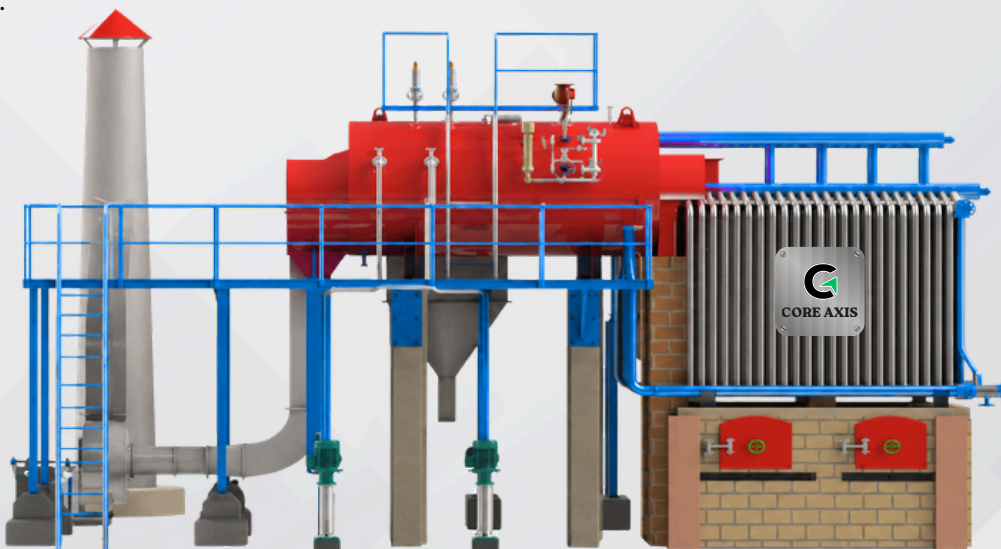
Core Axis Global Solutions is one of the leading names in the field of Boilers and heating systems for over three decades. We have established a strong manufacturing and sales presence across key regions of India, including Maharashtra, Uttar Pradesh, Andhra Pradesh, Telangana, Tamil Nadu, Rajasthan, and other major industrial locations, enabling us to efficiently serve customers nationwide. Our management comprises technically qualified people both at management levels and at the technical support level. Our business mission is to provide maximum efficiency and sustainable solutions with our products and services.

With decades of experience in the process industry, we customize integrated solutions for project requirements, processing, and many more areas.



CAGS COMBI-FLAME

As the name suggests, COMBI-FLAME is a Shell & Water walled membrane panel Boiler. It has the advantage of both Fire Tube and Water Tube Steam Boiler. The Radiant Zone of the Furnace is the Membrane Panel forming the 1st pass of the Boiler, and the 2nd & 3rd Pass constitute the Fire Tubes Convection Zone. Thus, the radiant zone recovers the radiant heat, and the smoke tubes provide a large water and steam holding volume to give the maximum advantage. COMBI-FLAME is available with different designs and grating to suit a variety of fuels.



TECHNICAL SPECIFICATION OF 'COMBI-FLAME'

Description	Unit	CAGS-SF-MW-150	CAGS-SF-MW-200	CAGS-SF-MW-300	CAGS-SF-MW-400	CAGS-SF-MW-500	CAGS-SF-MW-600
Capacity (F&A 100)	kg/hr	1500	2000	3000	4000	5000	6000
Design Pressure	kg/cm ² g	10.54/17.5/21/25					
Efficiency	%	84 (As per BS845 Part 1 NCV Basis)					
Fuel		AGRO WASTE/COAL/WOOD/BRIQUETTE/PETCOKE/HUSK					
Fuel Firing Systems		Automatic (with Independent Fuel Feeding System)					
Fuel Consumption	kg/hr	265-275	350-360	530-540	710-720	885-895	1060-1070
Connected Electrical Load							
Standard Unit (Without PCE)	HP	13.5	16.0	26.0	34.0	44.5	55.0
with MDC / TCDC	HP	14.0	16.5	27.0	35.0	45.0	56.0
Dimensions & Weight							
Unit Assembly (LxWxH)	m	6.0x2.5x3.0	6.0x2.5x3.0	7.0x2.85x4	7.1x3.0x5	7.6x3.0x5	9.2x2.85x5
Chimney Top Diameter	mm	450	500	600	700	800	900
Dry Weight (10.54)	Ton	9.5	12	14	22.0	26.0	29.0



CAPACITY : 1500-25000 KG/HR & HIGHER PRESSURES SPECIFICATIONS SHALL BE SUBMITTED ON REQUEST.

SALIENT FEATURES OF COMBI-FLAME

“SAVES COST/KG OF STEAM GENERATED”

Core Axis COMBI-FLAME Series model is offered for process steam requirement and co-generation requirement:

1. MODE OF FIRING

Manual Firing: Core Axis are provided with optimally sized firing doors for conveniently feeding the fuel.

Pneumatic Firing: Core Axis offers a pneumatic feeding option for feeding unconventional fuels like sawdust, coal dust, and bagasse. The system can also be provided as a supplementary system along with FBC Firing.

Fluidised Bed Combustion System: For high combustion efficiency and complete combustion for coal and paddy husk.

2. FULLYAUTOMATIC DESIGNED SYSTEM

For Maximum Safety and Consistent Steam Supply.

3. BALANCED DRAFT SYSTEM

Core Axis offers a balanced draft system for measured and consistent flow of flue gas through the boiler.

4. LOW POWER CONSUMPTION

Core Axis are designed and provided with suitably designed drives resulting in low power consumption and saving energy costs.

5. STAINLESS STEEL NOZZLES AND FURRELE

Extended tube life and lifelong durability.

6. VERTICAL FEED WATER PUMPS

Lower Power Consumption & Trouble-free Working.

7. CAST STEEL SAFETY VALVE

Good quality safety valve for guaranteeing safety.

8. MAINTENANCE FRIENDLY BOILER

Core Axis are maintenance-friendly. Quick shutdown time for cleaning is a unique plus point. Core Axis are provided with an adequate number of cleaning manholes on the water tube side and optimally designed opening doors in the flue gas path for easy access to clean the system.

COMBI-FLAME

As the name suggests, Core Axis COMBI-FLAME has the option of feeding various types of fuels manually and mechanically. Depending on the application, the COMBI-FLAME series is offered along with different grates and feeding systems.

1. COMBI-FLAME (S):

COMBI-FLAME (S) is a stationary grate boiler suitable for waste wood chips, coal, and briquettes. The grate bars are specially designed, i.e., in a box pattern, and are cast with the best proportion of Cr-Mn casting to provide strength and long life.



STATIONARY GRATE

2. COMBI-FLAME (RE):

COMBI-FLAME (RE) Series is a Combination Boiler provided with a Reciprocating grate. The Boiler is equipped with a reciprocating grate driven by a motor. The Fuel is fed through a service hopper fitted at the front end of the Furnace. The ignited fuel travels through the furnace, and complete combustion occurs until it reaches the end of the grate. The ash drops into the ash chamber. Ash can be removed from the ash door. The COMBI-FLAME (RE) is suitable for multiple fuels like: Bagasse, Groundnut shell, Wood waste, and other agro fuels.



RECIPROCATING GRATE

3. COMBI-FLAME (T):

COMBI-FLAME (T) Series is a Combination Boiler provided with a traveling grate. The Boiler is equipped with a traveling grate driven by a motor. The fuel is fed through a service hopper fitted at the front end of the furnace. The ignited fuel travels through the furnace, and complete combustion occurs until it reaches the end of the grate. The ash drops into the ash chamber, and ash can be removed from the ash door. Multiple fuels are suitable for the traveling grate, such as coal, briquettes, and wood waste.



TRAVELLING GRATE

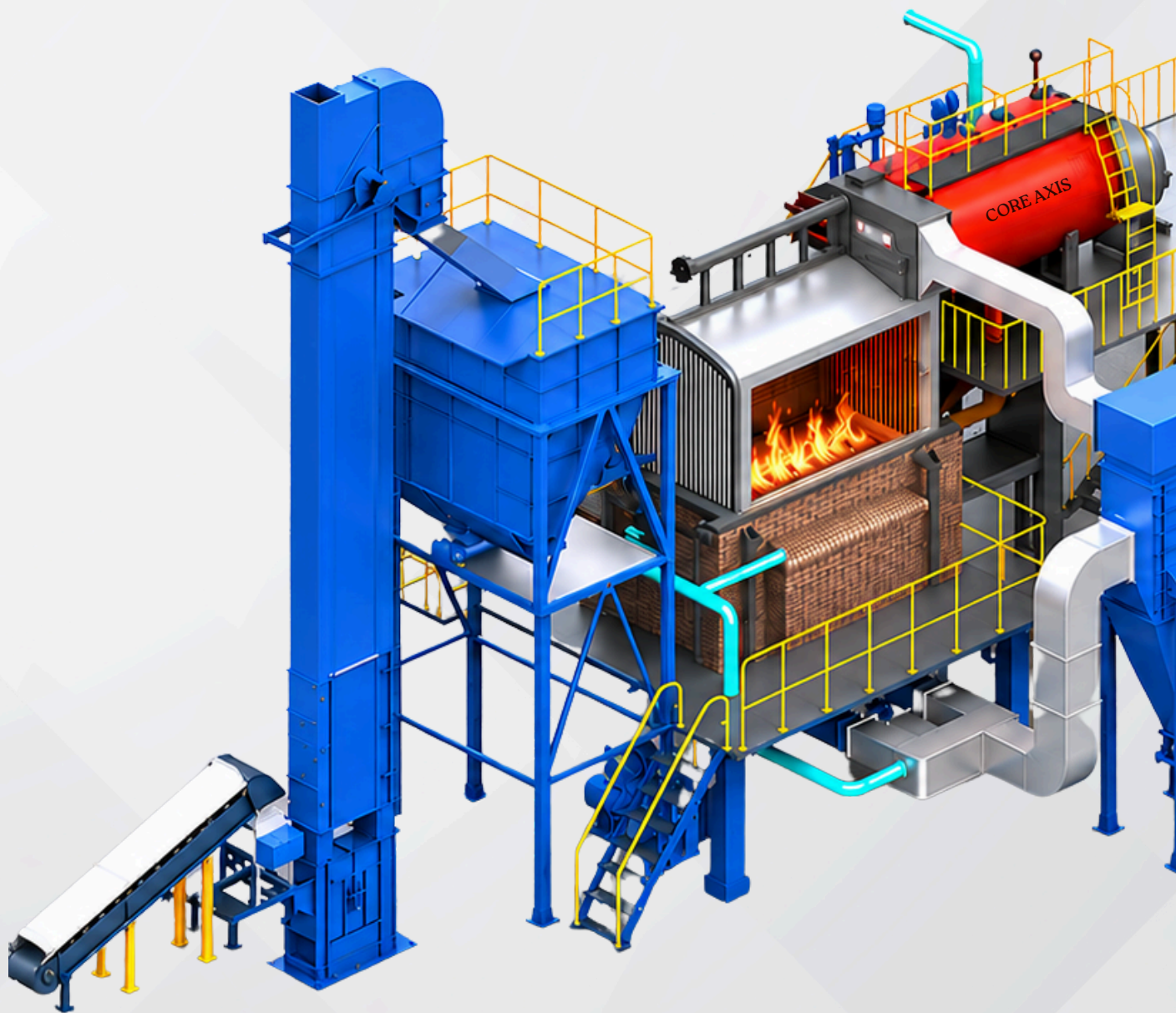
4. COMBI-FLAME (FBC):

COMBI-FLAME (FBC) is supplied as a Fluidized Bed Combustion Boiler. A specially designed In-Bed Coil Assembly is placed in the Furnace combustion Zone. The fuel is fed under-bed or over-bed depending on the type and quality of fuel. Specially designed high-temperature stainless steel bar stock fabricated air nozzles are fitted on the air box for uniform and controlled distribution of air required for combustion. COMBI-FLAME (FBC) offers very high combustion and overall efficiency due to fluidization and maximum heat recovery in the In-Bed Assembly zone. The boiler is fitted with the best-in-class fuel feeding system with VFD. COMBI-FLAME (FBC) is best suited for pulverized coal and paddy husk.

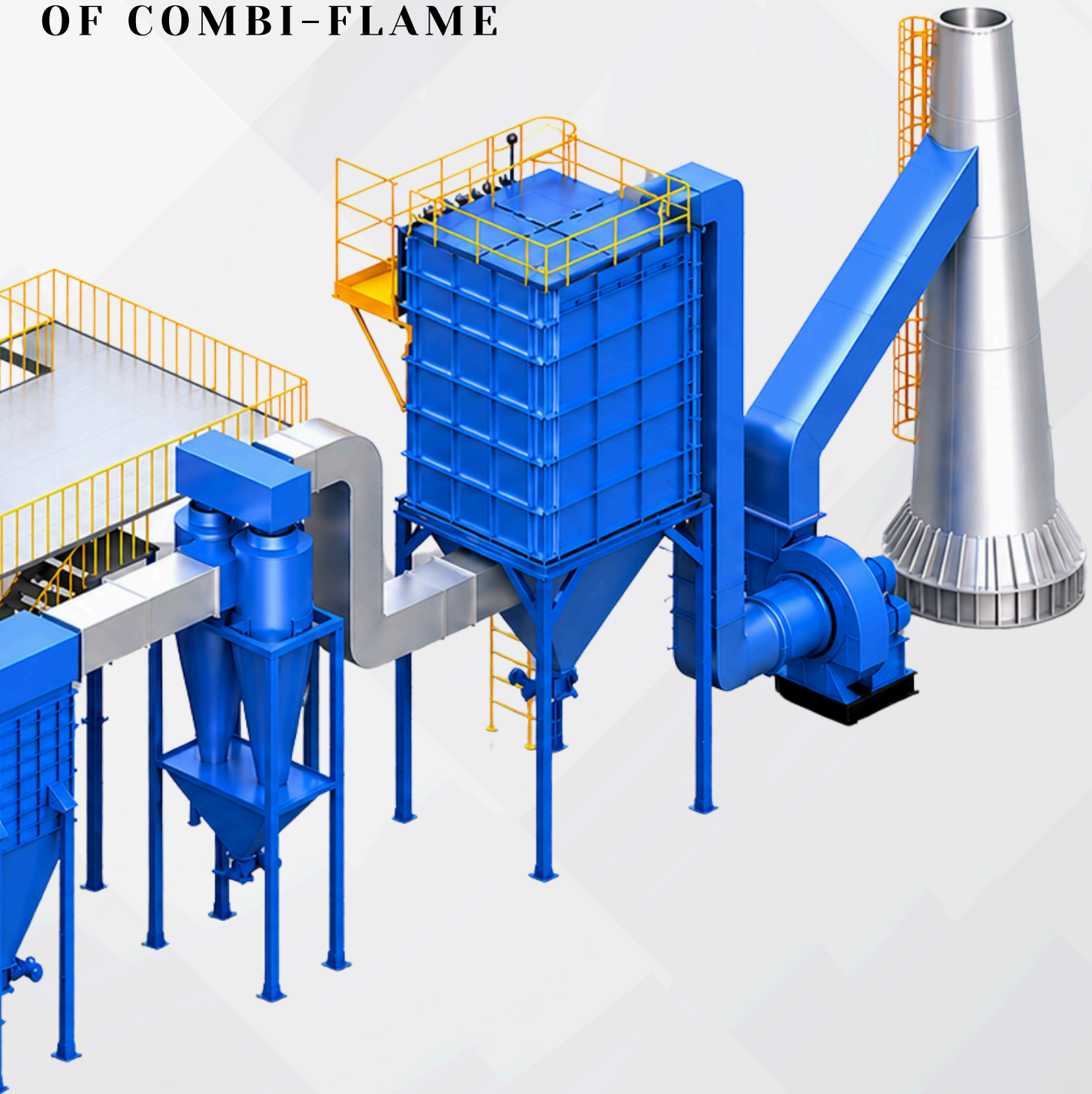
5. COMBI-FLAME (POF):

COMBI-FLAME (POF) is a Pneumatic Over Feed Boiler best suited for multiple fuel applications. It is designed for multi-fuel applications. Fuel is fed into the combustion chamber with a screw feeder arrangement. Air nozzles or firebars are fitted to the airbox for even distribution of air required for combustion.

ENGINEERED FOR INDUSTRIAL EXCELLENCE



GENERAL ARRANGEMENT OF COMBI-FLAME



OUR INFRASTRUCTURE



**AKAYA
ENGINEERING LLP**
(A Joint venture with **Dehu** Group)



**Uttar Pradesh
Manufacturing Unit**

Delhi Office

The Delhi Office, serving as our strategic planning and engineering management hub, is located in Delhi. This facility oversees the execution of all our marketing, design, purchasing, and project management activities.



**Pune Manufacturing
Unit**

In Pune, our facility is equipped to handle the production of pressure parts with a minimum capacity of 5000 MT per year. Additionally, we manage the production of non-pressure parts with value-added equipment, boasting a minimum capacity of 3000 MT per year. Both capacities can be scaled upwards, to meet specific needs.



CORPORATE OFFICE – NEW DELHI

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OFFICE – DURGAPUR (East Zone)

Location - DurgaPur

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MANUFACTURING UNIT – PUNE

Location - Gat No. 390, Dehu-Alandi Road,
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UPCOMING MANUFACTURING UNIT – NORTH

Location - Khasra No: 587/2, Jansath Road,
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SCAN HERE

