FACI

il calore che conviene.

MIXED COMBUSTION BOILER

mod. FACI

mod. ECO

BOILERS FACI

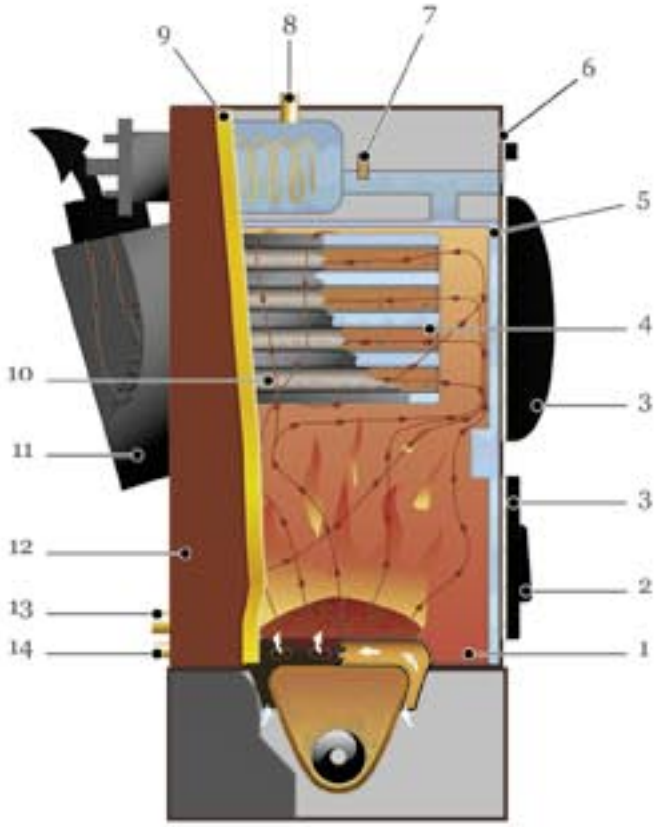
WHEN TECHNOLOGY MEETS QUALITY.

Our boilers are constructed with the best steel, build to use as fuel crushed materials or, alternatively, even solid or gaseous fuel. The horizontal structure is made of a thick steel slab, ideal to sustain thermic solicitations and pressure with proper traction bars.

The boiler's body has a hollow space full of water where lies lies the great combustion chamber. From here the flame and the smokes are lead through water pipes, fully exploiting the combustion and obtaining peak efficiency and a remarkable energy saving.

Internal structure of the boiler

The central heat exchanger of the Faci boiler is made by a pipecylinder inserted in the combustion chamber realized with smoke pipes in SS steel drown in water to give maximum thermic output. They are linked to the smoke box, used for the ashes storage, that can be opened and cheched for the cleaning and removal of the combustion dumps.

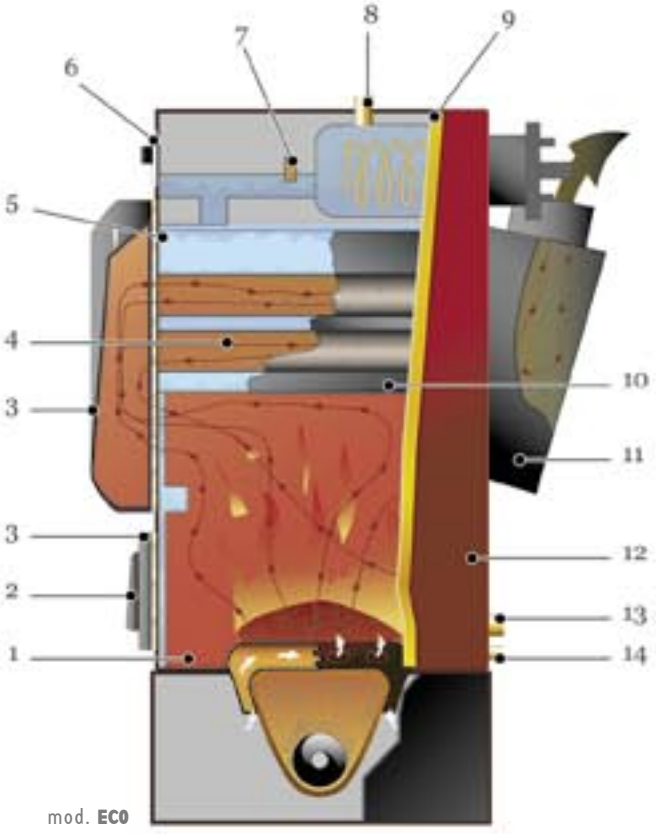


In the ECO boiler the heat exchanger is made by a pipe-cylinder inserted in the combustion chamber realized with smoke pipes in SS steel drown in water to give maximum thermic output. They are linked to the smoke box, used for the ashes storage, that can be opened and cheked for the cleaning and removal of the combustion dumps. The ECO boiler with two smoke recovery stages is made by a combustion chamber where the first smoke-passage takes place; the second one takes place along the smoke boxes.

They start from two different fluxes; the first ones are side-ones, tengent to the combustion chamber. The others are headed to the cylynder and thanks to the back draught they are lead to the smoke-pipes to make the compulsory three-circles trip obtaining a maximum output of about 78% with the proper fuels.

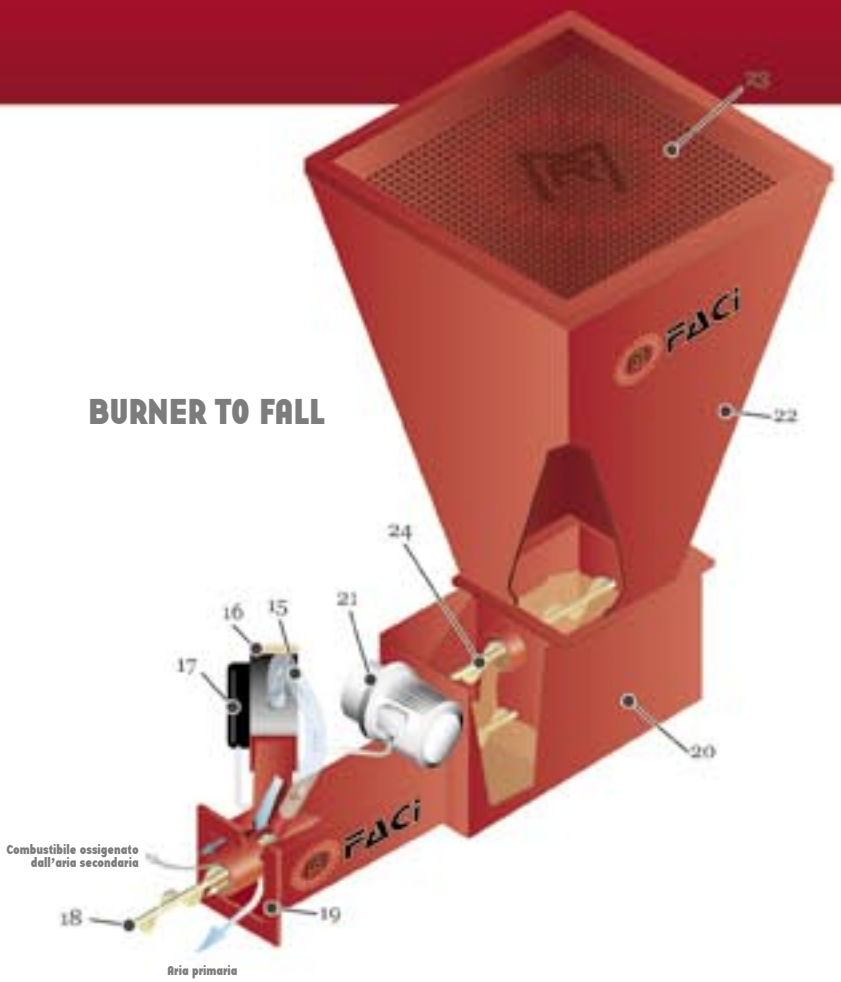
mod. **FACI**

The faci boilers with three smoke-recovery stages is the only one that have a forced trip of smoke, starting from two different fluxes; the first ones are side-ones, tengent to the combustion chamber. The others are headed to the cylinder and thanks to the back draught they are lead to the smoke-pipes to make the compulsory three-circles trip obtainning a maximum output of about 86% with proper fuel and a remarkable power saving.



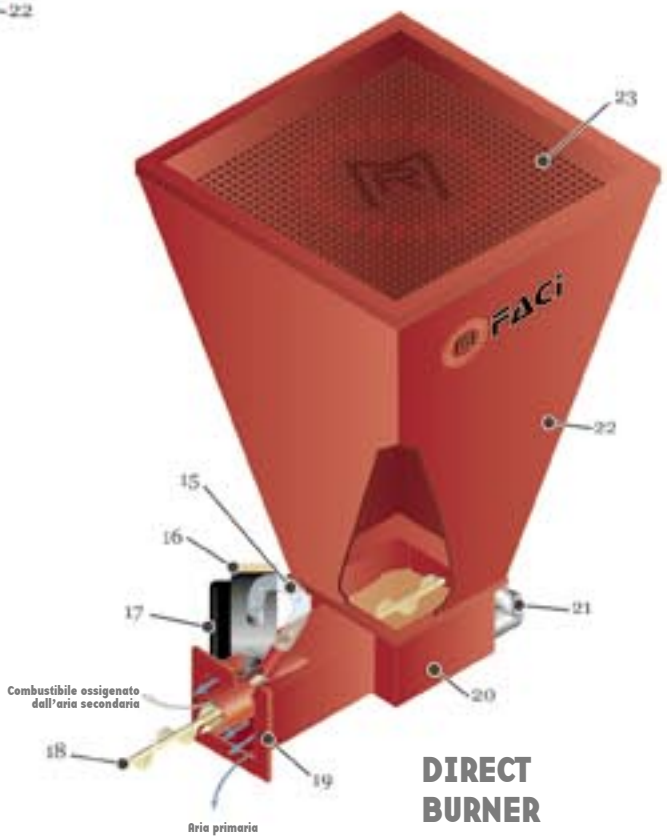
mod. **ECO**

BURNER TO FALL

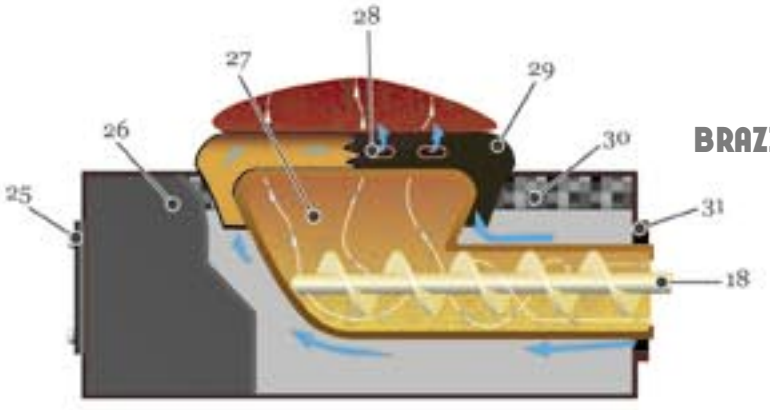


The electronic burner of the pellet boiler is ideal for every crushed fuel. It is made by a double conveyor that avoids the back fire in a totally natural way bacause there in no direct link between the storage silo and the conveyor that leads to the boiler's burner.

Furthermore, the frame is totally insulated from the air that could favour the backfire, so this boiler is the only one to garauntee full compatibility with every crushed fuels, like the pellets.



DIRECT BURNER



BRAZIER BASEMENT

The boiler's base is made of steel slab, and section in chrome cast-iron laid in a metal frame to diffuse primary and combustion air.

1. Big combustion chamber with wet walls easy to access for ordinary and exstraordinary cleaning.
2. Extra air-hatch.
3. Hatches for the eventual load of great size fuels of for the usual cleaning of the burner.
4. Pipe cylinder.
5. Water tank.
6. Control panel.
7. Control probes link.
8. Hydraulic sending link.
9. High density and anti-radiating insulating panel.
10. Steel smohe pipes.
11. Smoke box.
12. Steel plugging slab painted with protective paits.
13. Hydraulic back link.
14. Dump.
15. Secondary air driver.
16. Air entrance.
17. Fan.
18. Steel conveyor to transport crushed fuels.
19. Boiler's link flange.
20. Steel frame.
21. Movement variator for the conveyor.
22. Storage silo for crushed material.
23. Sifter.
24. Double storage conveyort.
25. Inspection hatch.
26. Steel slab.
27. Oxygenated fuel.
28. Primary air circuit.
29. Chrome cast-iron parts.
30. Refractory coating.
31. Boiler's link flange.

Command panels and thermal changer

Pannello di controllo standard compreso nella fornitura

Analogical

As optional it is also possible to ask for the installation of the digital control panelon the boiler. It represents the last technological news by Faci on the boilers. The digital schedule besides visualizes all the data on a bright display, allows to hold the fuel always turned, to avoid the possible manual relighting; besides, from a statistic investigations, the electronic systems used on the boilers Faci allows an electric energy saving of around the 80% in comparison to those traditional, also a 50% decrease of the material risks of breakups and usury.

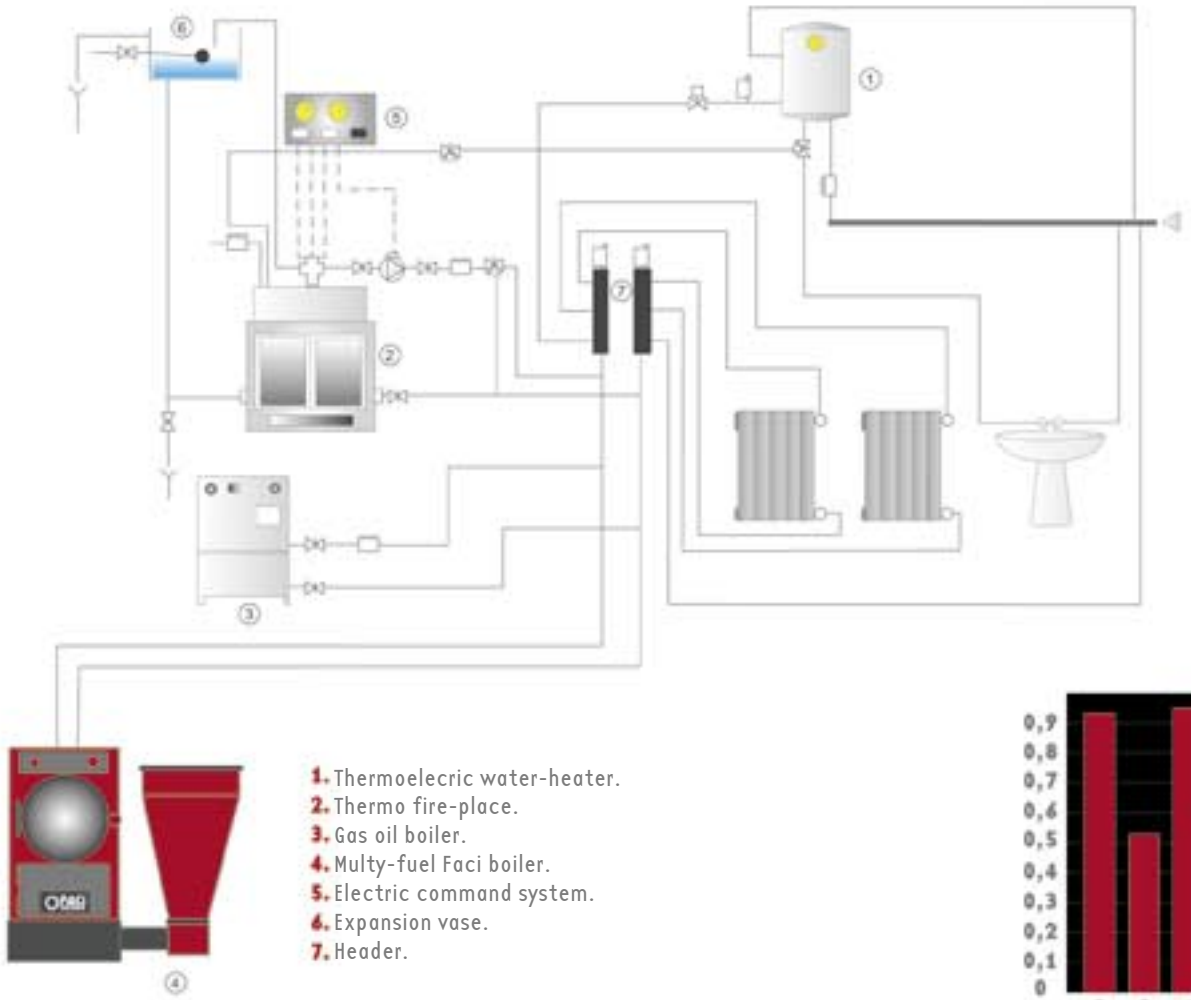
Digital

As an optional, the sanitary thermic exchanger can be bought. Faci uses the best thermic excange system when the fluid outside the pipe has an exchange coefficient minor than the internal fluid's one.
The serpentine, drown in a water chamber, produces sanitary warm water for every domestic need.

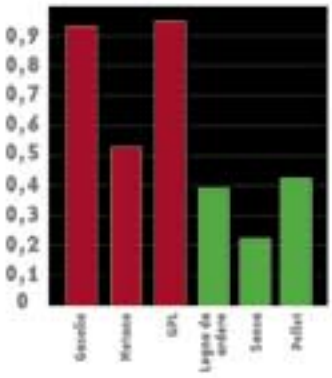
Thermic exchanger's parts:

- Copper winged pipe of various sizes (according to the size of the boiler)
- Brass links
- Bolts, washers and O.R.
- Linking flange
- In and out links

Contemporary use of heating sources



1. Thermoelecric water-heater.
2. Thermo fire-place.
3. Gas oil boiler.
4. Multy-fuel Faci boiler.
5. Electric command system.
6. Expansion vase.
7. Header.



Our boilers can be used with others heat sources at the same time; it's important to garauntee an ideal implant to obtain the best results. They can be used with every heating system such as steel, cast iron and aluminium radiators, thermo-convectors, radiating panels and ground or wall plants.

CONSUMI MEDI

Kcal/h Kw	Ambiente riscaldabile m³/m²	Sansa Kg/h min - max	Pellets Kg/h min - max	Bucce di mand., pinoli, noc. Kg/h	Legna Kg/h min - max	Gas Gasolio Metano
26.000 31	210/630	3 - 6	2 - 5	2,5 - 7,2	3 - 10	1,9 - 3,8 L 0,9 - 1,8 Kg 0,9 - 1,8 M³
29.900 35	280/750	3,2 - 8	2,5 - 6	2,7 - 7,5	4 - 12	2 - 4 L 1 - 2 Kg 1 - 2 M³
40.000 46	380/1.140	4,5 - 13	4 - 9	5 - 10	8 - 16	5 - 8 L 2,5 - 4 Kg 2,5 - 4 M³
50.000 57	480/1.296	11 - 16	7 - 11,5	8 - 13	13 - 20	7 - 10 L 3,5 - 4 Kg 3,5 - 4 M³
70.000 80	700/2.100	14 - 21	9 - 16	11,5 - 18	16 - 28	9 - 14 L 4,5 - 7 Kg 4,5 - 7 M³
100.000 115	1.000/3.000	18 - 28	13 - 13	16 - 26	24 - 40	14 - 20 L 7 - 10 Kg 7 - 10 M³
Residui di cenere caldaie FRCI		5%	1%	3%	7%	

Fossil and bio-masses fuels compared: the price of an equal litre of gas oil.

The chart compares the three main domestic fossil fuels (gas oil, methane and GPL) and the three main biomasses (burning wood, sawdust and pellet).
It's clear that the cost of the vegetal biomass energy is always lower.
The money saving is remarkable and allows a fast recovery of the capital invested in the implant. In this situation the biomass heating solution can be very convenient, expecially for huge buildings. On the contrary big houses habitated during the whole year have heat needs superior to 50.000 Kw/h every year.

Description of the FACI boiler functioning

These are the few simple maintenance operations to be done on a minced fuel boiler,

Filling - standard silos approx 0,16 m3 **(approx 7 min.)** capacity 100-120 kg for combustible/fuels of 500 to 700 kg/m³

First ignition boiler with gas-oil or other liquid flammable fuels **(approx 6 min.)**

Regulation flame through special knobs **(approx 4 min.)**

Ordinary cleaning (every 2/3 days) consisting in the removal of ashes **(approx 3 min.)** and extraordinary (every 20 days)for the cleaning of the smoke pipes **(around 6 min.)**

and which can subsequently be reduced asking for the followings automatic cleaning system.

Photo ash drawer

Photo ashes removal

Photo automatic turbo slides

Such automatic maintenance systems are subsequently recommended in the case of using maize, oat and all the typologies of fuel with consistent containment of starch because of theirs greater residues.

SERIAL ENDOWMENT

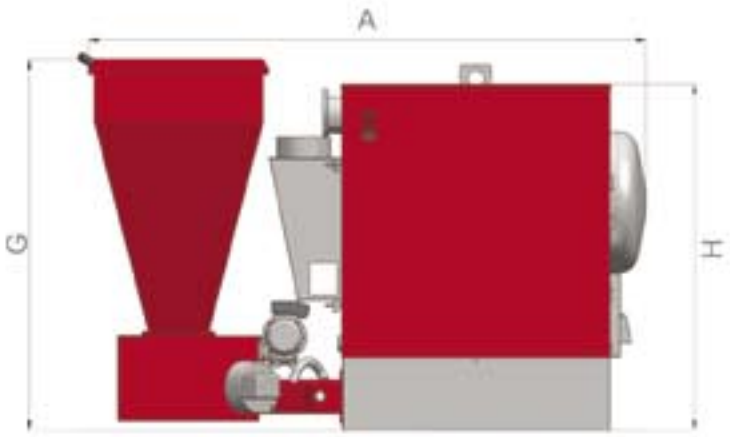
BOILER
- complete panelling
(with 2 frontal doors and 1 chimney)
- analogical control panel
- panel connector

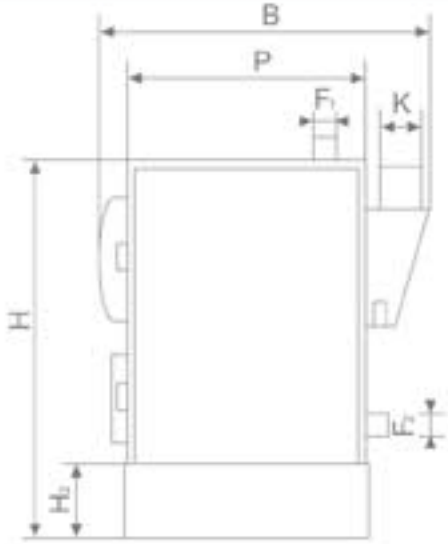
BASEMENT
- brazier
- inspection outer opening
- thermal isolation

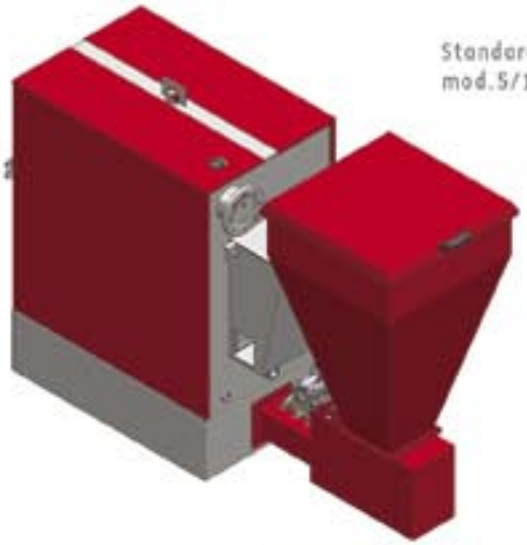
STOCKAGE CONTAINER/SILO
- sieve
- cover with gaskets (only for double fall burner version)

DIRECT BURNER OR DOUBLE FALL BURNER
- tested electric wiring
- swab for tube cleaning
- user and maintenance manual
- testing and guarantee certification

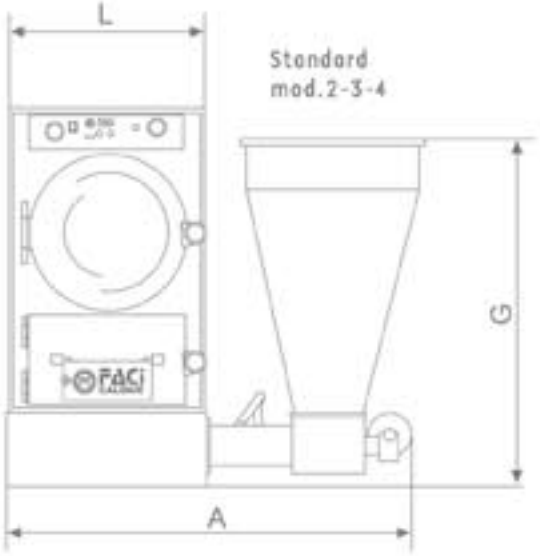
Dimensions and technical characteristics







Standard
mod.S/100



Standard
mod.2-3-4

MISURE D'INGOMBRO E CARATTERISTICHE TECNICHE

Sup Sur (m2)	Pot. resa Kcal/h(KW)	Pot.Bruciata Kcal/h(KW)	M2	H	A	L	G	P	B	K	F1	F2	Pot.elettr. installata KW	Pressione d'esercizio (Bar)	Portata Fumi 250°C(Mc/h)	Contenuto acqua (Lt)	Optional Prod. Acqua Calda sanit. LT/MIN a 48°
2	27.000(31)	29.000(34)	300	1300	1300	500	1320	560	900	160	1"	1"	0,7	2	160	52	13
3	29.900(35)	35.000(42)	300	1300	1350	630	1320	560	900	200	1"	1"	0,7	2	210	77	15
4	40.000(46)	48.000(52)	300	1300	1350	630	1320	730	1080	200	1"	1"	0,7	2	315	99	17
5	50.000(57)	66.000(77)	300	1300	1982	630	1320	950	1300	200	1"	1"	0,7	2	420	135	20
7	70.000(80)	90.000(105)	300	1300	1982	700	1320	950	1300	200	2"	2"	0,9	2	530	190	20
10	100.000(115)	132.000(152)	300	1700	2032	800	1820	1000	1350	220	2"	2"	1	2	650	220	22
13	130.000(150)	168.000(194)	300	1700	2350	800	1820	1300	1650	220	2"	2"	1	2	855	240	25
16	160.000(185)	204.000(236)	300	1700	2550	800	1820	1500	1850	220	2"	2"	1	2	1.130	300	27
20	200.000(231)	264.000(307)	300	1700	2700	1000	2200	1400	1820	250	2"	2"	1,2	2	1.370	530	A RICHIESTA
25	250.000(291)	312.000(361)	300	2000	2800	1000	2200	1500	1950	250	3"	3"	1,2	2	1.710	750	
30	300.000(349)	360.000(419)	300	2000	3000	1000	2200	1700	2000	250	3"	3"	1,5	2	2.060	810	
40	400.000(464)	480.000(557)	300	2200	3500	1200	2350	1900	2200	300	4"	4"	1,7	2	2.740	940	
50	500.000(580)	600.000(698)	300	2200	3600	1200	2350	2000	2500	300	4"	4"	1,7	2	3.420	1.100	
60	600.000(698)	720.000(836)	300	2500	3700	1580	2350	2100	2600	400	4"	4"	2	2	4.100	1.450	
70	700.000(814)	840.000(977)	300	3500	3900	1380	3000	2300	2800	450	4"	4"	2,5	2	4.800	1.750	
80	800.000(929)	960.000(1115)	300	3500	4100	1380	3000	2500	3100	500	4"	4"	3	2	5.500	1.950	Prestazione con temperatura caldaia tra 70/80° e pressione di esercizio 1,2 ATM MAX
90	900.000(1044)	1.080.000(1256)	300	3500	4100	1380	3000	2700	3500	500	4"	4"	3	2	6.150	2.100	
100	1.000.000(1161)	1.200.000(1394)	300	3500	4100	1500	3000	2660	3500	500	4"	4"	3,5	2	6.000	2.380	

FACI

The firm Faci is born in Spoltore (Pescara) in the 1961 graces to the spirit of initiative of Rocco Matricciani that with tenacity began his handicraft adventure in the sector of the construction of boilers getting from the Office of the Industry, Commerce and Craftsmanship the "Brevet for Industrial Invention". After some years they obtained the first certificates of merit as, for instance, the Oscar of the economic Activities "gold Apollo" and the spaces of the shop start to be narrow to the point that activity moves to a new shed placed in the Industrial Area of Chieti Scalo able to entertain the increased demands of production. In 1998 the fatherly traditions are handed down by father to son, who widens the horizons with strong entrepreneurial character both commercial and of production of Faci. New technologies become integral part of the system of production that uses high professionalisms for the laser cut, folding, robot welding and the traditional system of the electrode. The typology of the boilers mostly become diversified and to them ovens, heaters and thermo fireplaces are added and thanks to the created commercial net not only distributed constantly on the Italian territory but also foreign. In December 2004 the firm received the last "Diploma of merit with gold medal" achieved by the Chamber of Commerce of Pescara with the tall Patronage of the President of the Italian Republic.

FACI dal 1961

Oscar Attività Economiche
APOLLO D'ORO 1976

ISO 9001
UKAS

WOOD-BURNING BOILERS

SAWDUST BOILERS

PRESSURED BOILERS

HALF-PRESSURED BOILERS

MIXED COMBUSTION BOILER

PELLETS BOILERS WITH BLOW BURNER

WARM AIR GENERATORS

BARBECUE OVENS

STOVES

Oscar Attività Economiche
APOLLO D'ORO 1974

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