



FACI

il calore che conviene



MIXED COMBUSTION BOILER

*& Calore
Ambiente*



Faci Boilers

WHEN TECNOLOGY MEETS QUALITY

Our boilers are made with the best steel, built to use as fuel crushed materials or in alternative, even solid or gaseous fuel. The horizontal structure is made of a thick steel slab, ideal to sustain thermal solicitations and pressure with proper traction bars. The boiler body has a hallow space full of water where the big combustion chamber lies.

From here the flame and the smokes lead through water pipes, fully exploiting the combustion and obtaining peak efficiency and a remarkable energy saving.



MOD. FACI

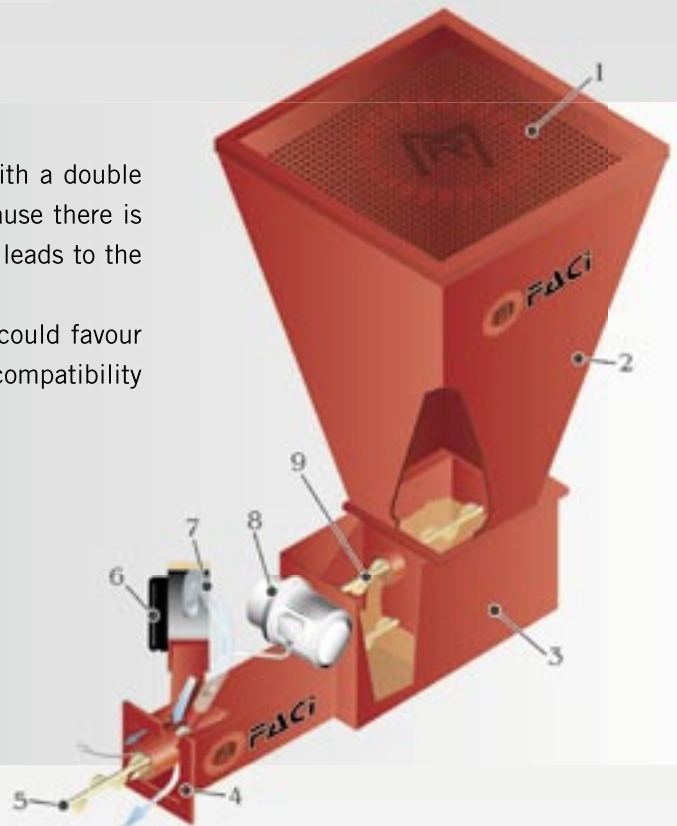


MOD. ECO

The Faci burner is ideal for every crushed fuel. It is made with a double conveyor that avoids the back fire in a total natural way because there is no direct link between the storage silo and the conveyor that leads to the boilers burner.

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

- 1 SIFTER.
- 2 SILO.
- 3 BURNER BODY.
- 4 BURNER FLANGE LINK.
- 5 STAINLESS STEEL CONVEYOR.
- 6 FAN.
- 7 SECONDARY AIR ACCESS PIPE.
- 8 MOTOR AND RIDUCTION.
- 9 TOP SILO.



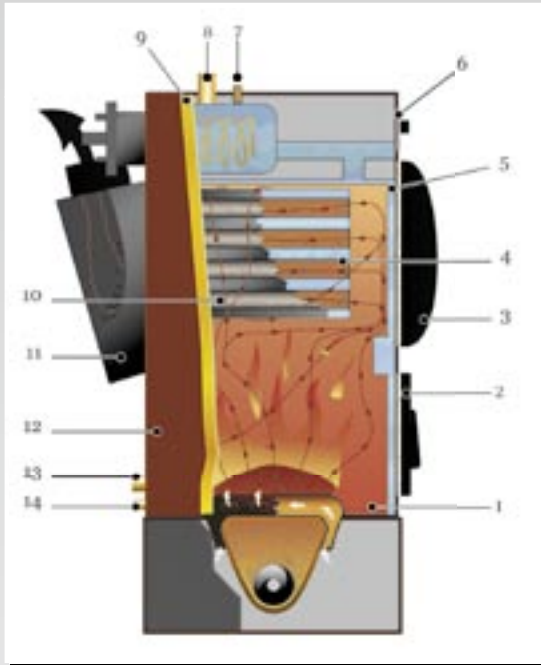
- 1 INSPECTION HATCH.
- 2 STEEL SHEET.
- 3 AIRED COMBUSTIBLE.
- 4 PRIMARY AIR CIRCUIT.
- 5 CHROMED CAST-IRON PARTS.
- 6 REFRACTORY COATING.
- 7 BURNER FLANGE LINK.
- 8 LOWER STAINLESS STEEL CONVEYOR FOR CHIPED FUELS.

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

Internal structure of the Boiler

The central heat exchanger of the Faci boiler is made by a pipe cylinder inserted in the combustion chamber realized with smoke pipes in SS steel immersed in water to give maximum thermal output. They are linked to the smoke box, used for the storage of the ashes, that can be opened and checked for the cleaning and for the removal of the combustion wastes. The Faci boilers with three smoke recovery stages are the only ones to have a forced turn of smoke, starting from two different fluxes; the first, side-ones, tangent to the combustion chamber. The others are headed to the cylinder and thanks to the back draught they lead to the smoke-pipes to make the compulsory three-circle turn obtaining a maximum output of about 90% with proper fuel and a remarkable power saving.

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- 1 HIGH VOLUME COMBUSTION CHAMBER WITH WATER CAVITY WALL FOR EASY CLEANING ACCESS.
- 2 LOWER HATCH FOR LOADING LARGE CHUNKS OF COMBUSTIBLE AND FOR PERIODIC CLEANING OF THE BRAZIER
- 3 TOP HATCH FOR PIPE CYLINDER ACCESS
- 4 PIPE CYLINDER
- 5 WATER CAVITY WALL
- 6 CONTROL PANEL
- 7 CONTROL SENSOR CONNECTIONS
- 8 HYDRAULIC SENDING LINK
- 9 HIGH INTENSITY ANTI-RADIATING PANEL
- 10 STEEL SMOKE PIPES
- 11 SMOKE BOX
- 12 STEEL OUTER PANELS WITH PROTECTIVE PAINT
- 13 HYDRAULIC RETURN LINK
- 14 HYDRAULIC DISCHARGE LINK

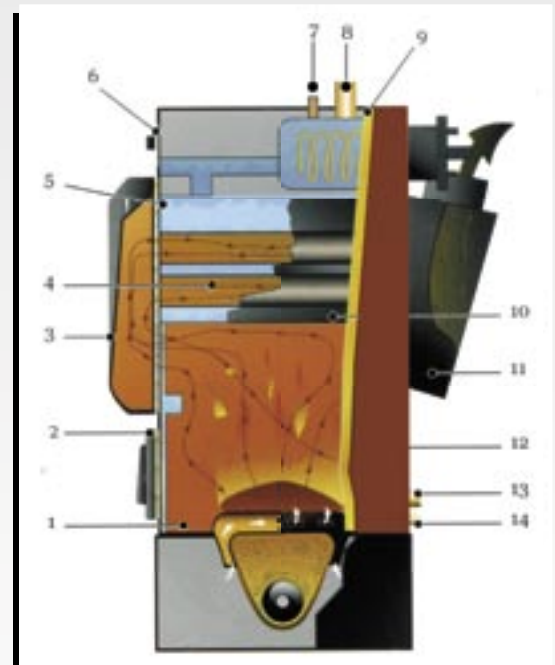
In the ECO boiler the heat exchanger is made by a pipe cylinder inserted in the combustion chamber realized with smoke pipes in SS steel immersed in water to give maximum thermal output. They are linked to the smoke box, used for the storage of the ashes, that can be opened and checked for the cleaning and removal of the combustion wastes. 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 box.

They start from two different fluxes; the first ones are side-ones, tangent 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 circle turn obtaining a maximum output of about 78% with the proper fuels.

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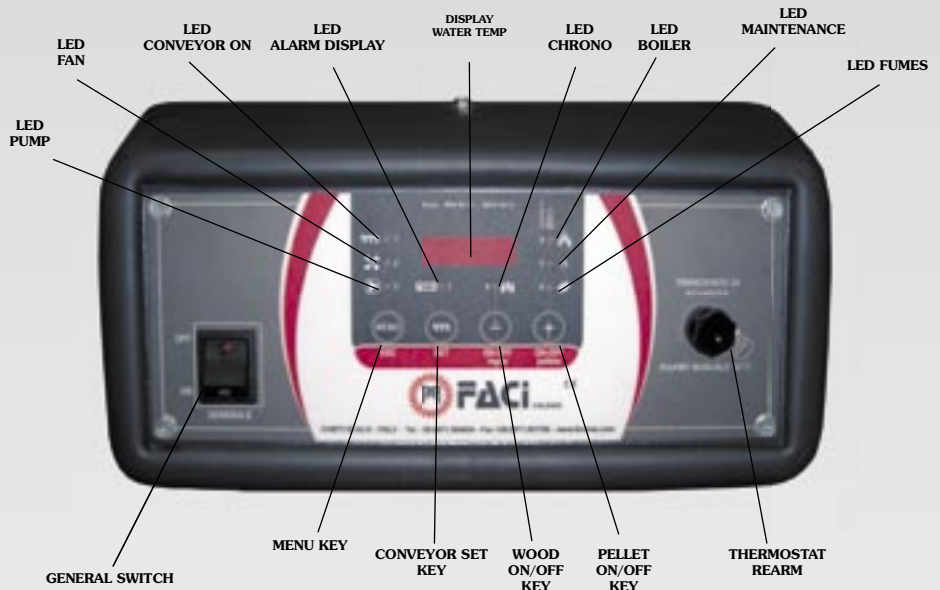
Digital panel and thermal changer

ANALOG PANEL



DIGITAL PANEL

As an optional it is also possible to ask for the installation of the digital panel control. It represents the last technological innovation for the Facci boilers. The digital panel visualizes all the data on a display, allowing to hold the fuels turned on to avoid the possible manual relighting; besides, from the statistics, the electronic systems used on the Facci boilers allows an electricity energy saving of around 80% in comparison to the traditional ones, also a 50% decrease of the material risks of breaking.

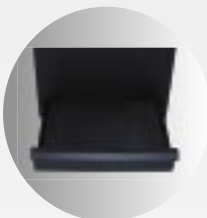


OPTIONAL



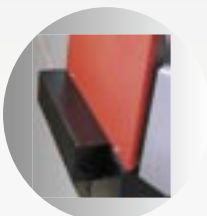
HEATING COIL

Copper winged heating coil. The heating coil, immersed in the water chamber produces hot water for all the household needs.



PULL OUT DRAWER

Allows you to collect all the ash wastes without intervening in the combustion chamber.



AUTOMATIC TURN ON

Allows you to turn on the combustible in the boiler at any time.

DIGITAL PANEL

SERIES EQUIPMENT

BOILER BODY COMPLETE WITH:

- 1 TOP HATCH
- 2 LOWER HATCH
- 3 SMOKE BOXE
- 4 PANELS
- 5 STANDARD CONTROL PANEL
- 6 ELECTRICAL WIRING
- 7 CLEANING BRUSH
- 8 INSTRUCTION BOOK
- 9 DOCUMENTATION

BASE COMPLETE WITH:

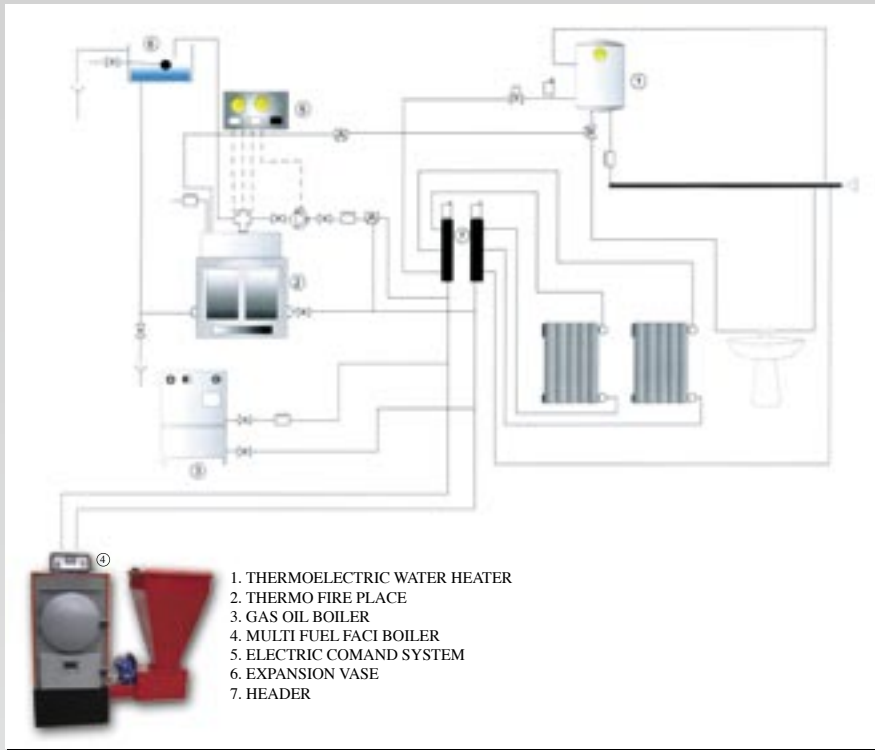
- 1 CAST-IRON BRAZIER
- 2 INSPECTION CAP
- 3 THERMAL INSULATION

SILO COMPLETE WITH:

- 1 SIFTER
- 2 CAP WITH CASKET
(ONLY FOR DOOBLE FALL BURNER)

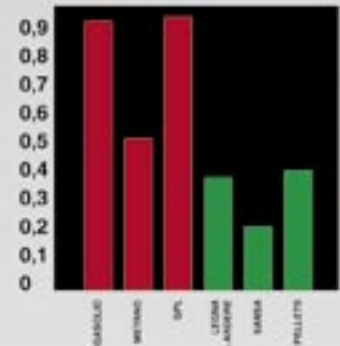
BURNER ELECTRICAL WIRING

Contemporary use of heating sources



Our boilers can be used with other heating sources at the same time, it is important to guarantee an ideal implant to obtain the best results.

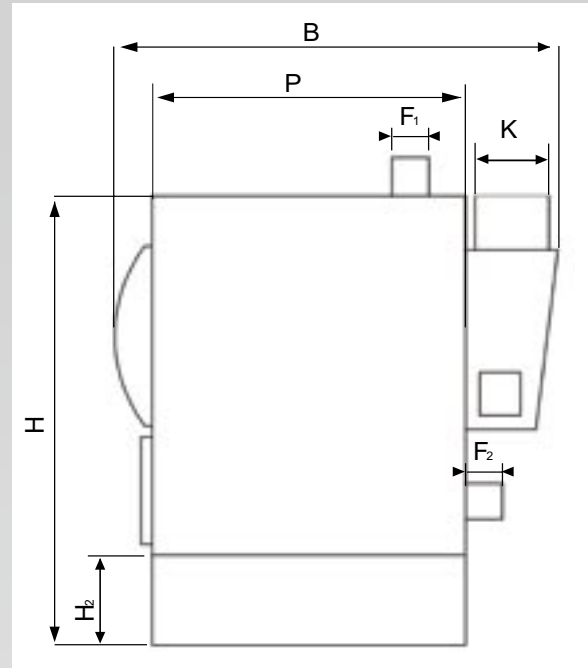
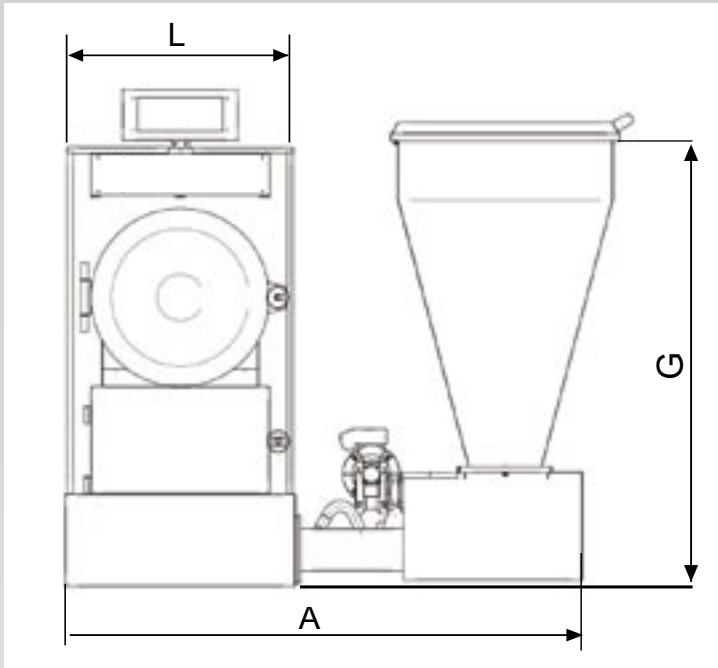
They can be used with every heating system such as steel, cast-iron and aluminium radiators, thermo-convectors, radiating panels and ground or wall plants.



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

MEDIUM CONSUMPTION

Kcal/h Kw	heating environment m ² /m ³	residues min/max	Pellets Kg/h min/max	almond/ pinenut/nut skinsKg./h	Wood Kg/h min/max	Gas Oil Metano
26.000 31	210/630	3/6	2/5	2,5/7,2	3/10	1.9/3.8L 0.9/1.8Kg 0.9/1.8M ³
29.900 34	280/750	3,2/8	2,5/6	2,7/7,5	4/12	2/4L 1/2Kg 1/2M ³
40.000 47	380/1.140	6,5/13	4/9	5/10	8/16	5/8L 2,5/4Kg 2,5/4M ³
50.000 58	480/1.296	11/16	7/11,5	8/13	13/20	7/10L 3,5/4Kg 3,5/4M ³
70.000 81	700/2.100	14/21	9/16	11,5/18	16/28	9/14L 4,5/7Kg 4,5/7M ³
100.000 115	1.000/3.000	18/28	13/13	16/26	24/40	14/20L 7/10Kg 7/10M ³
residui di cenere caldaie FACI		5%	1%	3%	7%	



WORK AREA AND TECNICAL CHARACTERISTICS

Mod. FACI	Minimum Power available Kcal/h(KW)	Maximum Power available Kcal/h(KW)	Weight	H2	H	A	L	G	P	B	K	F1	F2	Installed electrical power W	Volume Silos m ³	Operating pressure (bar)	Smoke capacity 250°C (Mc/h)	Water capacity (LT)	Optional: hot water LT/min a 48°
2	27.000 (31)	29.000 (34)	200	230	1.300	1.400	500	1.420	550	930	160	1"½	1"½	0,7	0,2m ³	2,5	160	50	13
3	29.000(34)	35.000(41)	290	230	1.330	1.550	630	1.420	550	950	200	1"½	1"½	0,7	0,2m ³	2,5	210	77	15
4	40.000(47)	48.000(56)	380	230	1.330	1.550	630	1.420	680	1.080	200	1"½	1"½	0,7	0,2m ³	2,5	315	99	17
5	50.000(58)	66.000(77)	440	230	1.330	1.950	630	1.420	930	1.350	200	1"½	1"½	0,7	0,2m ³	2,5	420	135	20
7	70.000(81)	90.000(104)	540	230	1.330	1.950	700	1.420	930	1.350	200	1"½	1"½	0,9	0,2m ³	2,5	530	190	20
10	100.000(115)	128.000(148)	880	230	1.700	2.150	830	1.420	1.100	1.550	220	2"	2"	1	0,2m ³	2,5	650	220	
13	130.000(151)	168.000(195)	920	230	1.700	2.300	830	1.420	1.250	1.550	200	2"	2"	1	0,2m ³	2,5	855	240	
16	160.000(186)	204.000(237)	1.200	230	1.700	2.500	830	1.420	1.460	1.900	220	2"½	2"½	1	0,2m ³	2,5	1.130	300	
20	200.000(232)	264.000(306)	1.730	300	2.000	3.550	1.000	1.500	1.400	1.850	250	2"½	2"½	1,2	0,4m ³	2,5	1.370	530	
25	250.000(290)	312.000(362)	2.010	300	2.000	3.950	1000	1.500	1.800	2.250	250	2"½	2"½	1,2	0,4m ³	2,5	1.710	750	
30	300.000(348)	360.000(418)	2.130	300	2.000	4.150	1000	1.500	2.000	2.450	250	3"	3"	1,5	0,4m ³	2,5	2.060	810	
40	400.000(465)	480.000(558)	3.200	400	2.400	3.900	1.250	1.500	1.780	2.330	250	3"	3"	1,7	0,5m ³	2,5	2.740	940	
50	500.000(581)	600.000(698)	3.700	400	2.400	4.250	1.250	1.500	2.100	2.650	250	4"	4"	1,7	0,5m ³	2,5	3.420	1.100	
60	600.000(598)	720.000(837)	4.150	400	2.700	4.250	1.500	1.500	2.190	2.890	450	4"	4"	2	0,5m ³	2,5	4.100	1.450	
70	700.000(814)	840.000(977)	4.450	400	2.700	4.550	1.500	1.500	2.390	3.090	450	4"	4"	2,5	0,5m ³	2,5	4.800	1.750	
80	800.000(930)	960.000(1116)		400	2.700	4.800	1.500	1.500	2.590	3.290	450	4"	4"	3	0,5m ³	2,5	5.500	1.950	
100	1.000.000(1163)	1.200.000(1395)		1.000	3.300	4.550	1.500	1.500	2.390	3.090	500	4"	4"	3,5	0,5m ³	2,5	6.800	2.300	

The descriptions and illustrations of the production FACI intends of furnish simple indicative title. The firm reserves the right to bring possible changes for any demand of constructive and commercial character.



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