

Uical

# EXOCELL.

THE ANTI-CONDENSATION COMBI BOILER



# *EXOCELL, the dry combustion technology*



EXOCELL is a reversed flame steel boiler, with dry combustion chamber. The walls facing the flame are not directly water cooled; for this reason their temperature is higher than the one of the water cooled walls. The furnace bottom is constituted by a refractory casting and the cast iron front door is provided of ceramic fiber insulation. The flame, therefore, in no case can see water cooled parts and all the elements, that constitute the furnace, contribute to increase the temperature of the zone in which the combustion happens, decidedly improving it.

## *Long duration without condensate*

With the purpose to save fuel, in a few years the management of the central heating system has been modified by lowering the boiler working temperature and with nighttime turning off of the burner, that brings, unfortunately, to a rapid deterioration of the boilers because of the acid condensate that is formed on the walls.

To avoid such phenomenon, the boiler smoke run is constituted by triangular profiles that have the smoke side surface wider than that of water side one. So, the average temperature of such profiles is higher in comparison to that of the smoke pipe type boilers and impedes, therefore, the formation of the condensate at each starting of the burner.

## *The insulation for the maximum efficiency*

A particular attention is given to the boiler insulation with the purpose to limit the heat losses toward the installation room. It is obtained through a mattress of mineral wool, 50 mm thick, directly placed in contact with the boiler body, protected from an external casing in steel plates, painted with epoxy-polyester powders.

# Warm water always available

## The accumulation tank

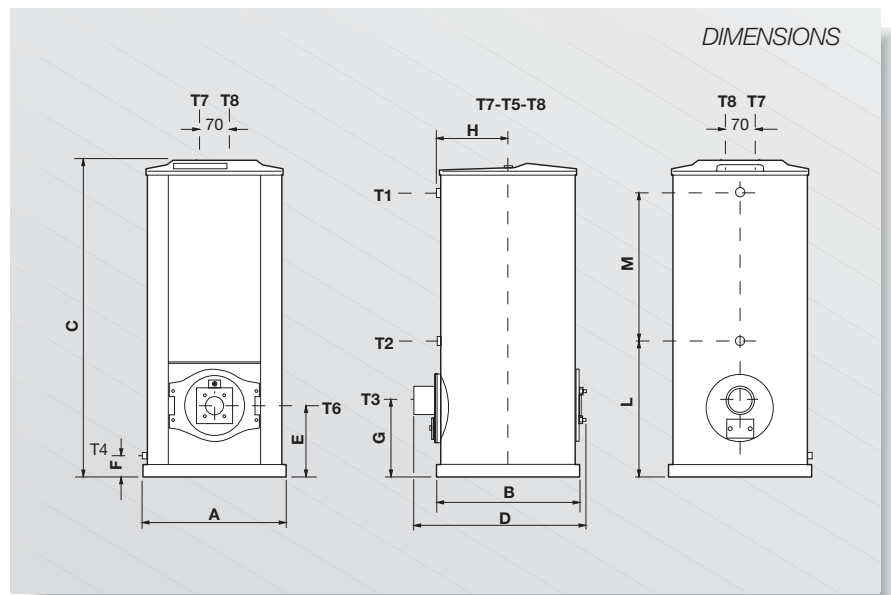
The production of the domestic hot water is guaranteed by a large content accumulation tank, directly plunged vertically into the boiler water in order to facilitate the convective motions of the water of the double wall space, improving the heat exchange for a quick recharge and the production of warm water. The steel accumulation tank is enamelled with two layers of electrostatic powders and besides is equipped with magnesium anode against the corrosion.

## The front door

The front cast iron door is equipped with an insulating ceramic fibre, suitable to withstand the high temperatures of the combustion gases. Under the ceramic fibre there is a ring of elastic insulating material that clamps the burner blast tube and also assures a good thermal insulation in that critical zone. The door, thanks to the interchangeability of the hinges, can be open on both, to the right and to the left hand site. It is, besides, provided of drilling for fixing the burner flange, according to the European norms, and it is endowed with flame sight glass.

## For a safe transportation

It is supplied already complete with casing, in a wooden crate under a thermo-retractable film. It is suggested to transport it, still packed, next to the installation place.



Key:

- T1** - C.H. Flow
- T2** - C.H. Return
- T3** - Chimney connection
- T4** - Boiler drain
- T5** - Magnesium anode connection (supplied with)
- T6** - Burner flange
- T7** - D.H.W outlet
- T8** - D.C.W. inlet

EXOCCELL	A	B	C	D	E	F	G	H	L	M	T1	T2	T3	T4	T5	T6	T7	T8
model	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Rp	Rp	Øe	Rp	Rp	Ø	Rp	Rp
<b>1 - 27</b>	610	610	1350	674	302	90	362	298	550	480	1 1/4	1 1/4	130	1/2	3/4	110	3/4	3/4
<b>30</b>	610	610	1350	674	302	90	362	298	550	480	1 1/4	1 1/4	130	1/2	3/4	110	3/4	3/4

EXOCCELL	Nominal Output on gas	Nominal Input on gas	Nominal Output on oil	Nominal Input on oil	Boiler water content	D.H.W. acc. tank water content	D.H.W. production with a Δt of 30 K	Water side pressure losses*	Smoke side pressure losses	Weight with package
model	kW	kW	kW	kW	l	l	l/h	mm c.a.	mm c.a.	kg
<b>1 - 27</b>	26.5	30	31.4	34.8	85	100	630	80 + 120	1 + 2	166
<b>30</b>	-	-	34.9	38.6	85	100	630	80 + 120	1 + 2	166

\* Pressure losses for a flow rate corresponding to a Δt of 15 K - Boiler max. working pressure: 3 bar - Accumulation tank max. working pressure: 7 bar.

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