



TBX - TBXL MODULAR CONDENSING BOILERS



MODULARITY AND HIGH WATER CONTENT



The new highly efficient modular condensing boilers TBX and TBXL, are specifically designed for the residential and commercial market, featuring a high water content, at the base of the corporate culture, which implies a guarantee of solid, reliable and long-lasting products.

The strengths of this boiler are:

- latest generation AISI 470 Li stainless steel boiler body;
- high water content;
- double return line;
- passing flame furnace, with fully wet bottom;
- double system return connection, to promote the stratification of temperatures in the boiler;
- plate heat exchange surfaces, which allow recovery of up to 20% of energy;
- premix modulating burner;
- low NOx emissions in compliance with the strictest regulations;
- low noise.

TBX and TBXL are equipped as standard with a premix modulating burner with low NOx emissions and with intelligent control via eterm™ proprietary technology.

The thermal unit is also equipped as standard with all the safety accessories required by INAIL and comes with the relative certification.

ICI Caldaie has launched these new models on the market that offer very high seasonal thermal efficiency and a range of related services that allow you to achieve significant energy savings, combined with the benefits of a product of excellent quality and that is cutting edge in the industry.



TBX also comes in a version suitable for outdoor installation (TBX EXT).

High water content

- very low thermal loads for longer duration over time;
- drastic reduction of burner ignition cycles and consequent limited wear of components;
- reduced consumption of boiler temperature maintenance.

Double system return connection

- very low thermal loads for longer duration over time;
- drastic reduction of burner ignition cycles and consequent limited wear of components;
- reduced consumption of boiler temperature maintenance.

Easy installation and maintenance

- boiler body fully assembled and wired at the factory;
- vertical extension and optional wall installation;
- also suitable for critical installation conditions;
- ease of introduction thanks to reduced width;
- ease of access to the various components through the wide top opening;
- modular versions with the option to intercept a single body;
- easy replacement and repair.

Certifications

- INAIL (ex ISPESL) modular thermal boiler certificate;
- maximum simplification of the documentation to be provided;
- resolution of all issues related to the safety accessories (already supplied and assembled as standard).



CONTROL AND OPTIONAL REMOTE MANAGEMENT WITH ETERM™

Generate heat with maximum efficiency

Thanks to the **eterm™** boiler control panels, burner operation is optimised according to the temperatures required in the various circuits. The control equipment constantly assesses the setpoint temperature required for all the associated circuits, whether they are connected to the equipment itself or to other equipment on the same bus network.

eterm™ can minimize losses by continuously monitoring the actual heat requirement for the utility and by acting in real time on the generation and distribution of heat, adjusting the temperatures and flow according to the actual needs, controlling the boiler pumps, mixing valves and flow pumps to the distribution columns.

eterm™ allows control and remote management of the entire system via the modem option and access from the **www.eterm.it** portal.

SUPPLY METHODS

Boiler assembled on pallet;
in the modular versions,
the equipment also includes the provision of:

- hydraulic and gas manifolds kit;
- flue exhaust kit;
- condensate drain kit.

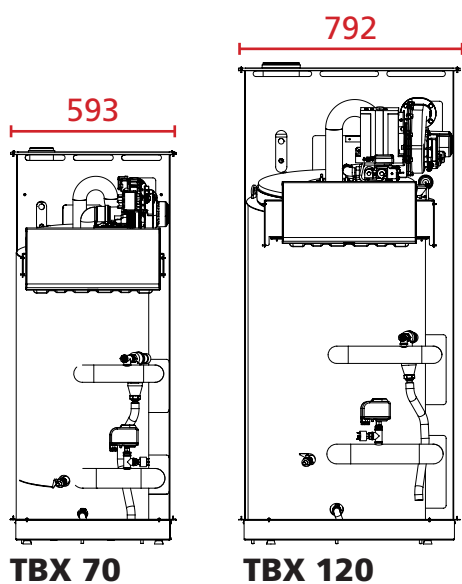
ACCESSORIES AVAILABLE ON REQUEST

- condensate neutralisation kit;
- system management control unit;
- modem kit.

PRODUCT PLUS POINTS

- complete and assembled INAIL accessories (excluding expansion vessel);
- option of being intercepted towards the system;
- INAIL certificate supplied with the unit.

MINIMUM PASSAGE DIMENSION





SINGLE

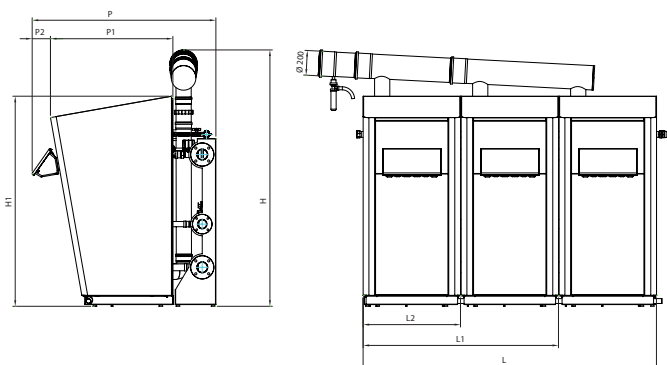
TBX 35 (35 kW)
TBX 50 (50 kW)
TBX 70 (70 kW)

DOUBLE

TBX 100 (100 kW)
TBX 120 (120 kW)
TBX 140 (140 kW)

TRIPLE

TBX 150 (150 kW)
TBX 170 (170 kW)
TBX 190 (190 kW)
TBX 210 (210 kW)



MODEL	H	H1	L	L1	L2	P	P1	P2
	mm	mm	mm	mm	mm	mm	mm	mm
TBX 35	1720	1430	-	-	600	1090	796	175
TBX 50	1720	1430	-	-	600	1090	796	175
TBX 70	1720	1430	-	-	600	1090	796	175
TBX 100	1720	1430	-	1205	-	1300	796	175
TBX120	1720	1430	-	1205	-	1300	796	175
TBX 140	1720	1430	-	1205	-	1300	796	175
TBX 150	1720	1430	1810	-	-	1300	796	175
TBX 170	1720	1430	1810	-	-	1300	796	175
TBX 190	1720	1430	1810	-	-	1300	796	175
TBX 210	1720	1430	1810	-	-	1300	796	175

MODEL	Code product	Effective capacity		Flow Thermal	100% efficiency (ref. C.O.P.)		Efficiency 30% (rif. P.C.I.)		Pressure drop combustion gas	Pressure drop Hydraulic (Dt=12°C)	Water content	Weight total
		Temp. Medium 70°C	Temp. Flow/ Return 50°/30°C		Temp. Medium 70°C	Temp. Flow/ Return 50°/30°C	Temp. Medium 70°C	Temp. Flow/ Return 50°/30°C				
		KW	KW		%	%	%	%			L	kg
TBX 35	81024035	32	35	32,6	98,3	107,5	98,8	108,5	1,1	10	65	110
TBX 50	81024050	46	50	46,5	98,3	107,5	98,8	108,5	2,2	19	65	110
TBX 70	81024070	64	70	65,1	98,3	107,5	98,8	108,5	4,4	38	65	110
TBX 100	81024100	91	100	93,0	98,3	107,5	98,8	108,5	2,2	10	130	220
TBX 120	81024120	110	120	111,6	98,3	107,5	98,8	108,5	3,2	28	130	220
TBX 140	81024140	128	140	130,2	98,3	107,5	98,8	108,5	4,4	38	130	220
TBX 150	81024150	137	150	139,5	98,3	107,5	98,8	108,5	2,2	19	195	330
TBX 170	81024170	155	170	158,1	98,3	107,5	98,8	108,5	2,9	25	195	330
TBX 190	81024190	174	190	176,7	98,3	107,5	98,8	108,5	3,6	31	195	330
TBX 210	81024210	192	210	195,3	98,3	107,5	98,8	108,5	4,4	38	195	330



SINGLE

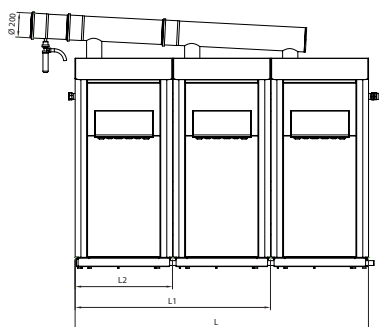
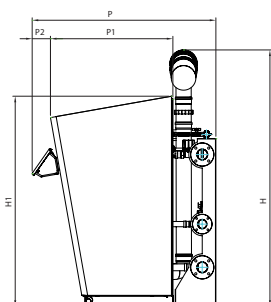
TBXL 90 (90 kW)
TBXL 120 (120 kW)

DOUBLE

TBXL 160 (160 kW)
TBXL 180 (180 kW)
TBXL 210 (210 kW)
TBXL 240 (240 kW)

TRIPLE

TBXL 270 (270 kW)
TBXL 300 (300 kW)
TBXL 330 (330 kW)
TBXL 360 (360 kW)



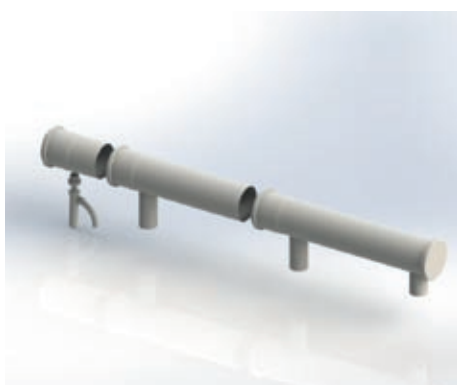
MODEL	H	H1	L	L1	L2	P	P1	P2
	mm	mm	mm	mm	mm	mm	mm	mm
TBXL 90	1725	1725	-	-	800	1320	1006	150
TBXL 120	1725	1725	-	-	800	1320	1006	150
TBXL 160	2050	1725	-	1605	-	1510	1006	150
TBXL 180	2050	1725	-	1605	-	1510	1006	150
TBXL 210	2050	1725	-	1605	-	1510	1006	150
TBXL 240	2050	1725	-	1605	-	1510	1006	150
TBXL 270	2105	1725	2410	-	-	1510	1006	150
TBXL 300	2105	1725	2410	-	-	1510	1006	150
TBXL 330	2105	1725	2410	-	-	1510	1006	150
TBXL 360	2105	1725	2410	-	-	1510	1006	150

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		Temp. Medium 70°C	Temp. Flow/ Return 50°/30°C		Temp. Medium 70°C	Temp. Flow/ Return 50°/30°C	Temp. Medium 70°C	Temp. Flow/ Return 50°/30°C				
		KW	KW		%	%	%	%			L	kg
TBXL 90	81023090	82	90	83,7	98,3	107,5	98,8	108,5	1,4	26	130	200
TBXL 120	81023120	109	120	111,6	98,3	107,5	98,8	108,5	2,4	46	130	200
TBXL 160	81023160	146	160	148,8	98,3	107,5	98,8	108,5	1,1	21	280	480
TBXL 180	81023180	164	180	167,4	98,3	107,5	98,8	108,5	1,4	26	280	480
TBXL 210	81023210	192	210	195,3	98,3	107,5	98,8	108,5	1,8	35	280	480
TBXL 240	81023240	219	240	223,3	98,3	107,5	98,8	108,5	2,4	46	280	480
TBXL 270	81023270	246	270	251,2	98,3	107,5	98,8	108,5	1,4	26	420	710
TBXL 300	81023300	274	300	279,1	98,3	107,5	98,8	108,5	1,7	32	420	710
TBXL 330	81023330	301	330	307,0	98,3	107,5	98,8	108,5	2,0	39	420	710
TBXL 360	81023360	329	360	334,9	98,3	107,5	98,8	108,5	2,4	46	420	710



HYDRAULIC AND GAS MANIFOLDS KIT FOR BOILERS IN CASCADE SEQUENCE

- 3 hydraulic manifolds (flow, low temperature return, medium temperature return);
- gas manifold with connection pipes to the burners;
- support frame;
- 2 probe sample points for housing the flow probe (1 for left outlet, 1 for right outlet);
- low probe;
- pipes connecting the boiler - manifolds;
- 2-way motorised shut-off valve for flow pipe (1 per boiler body);
- 2-way shut-off valve for the low temperature return pipe (1 per boiler body);
- 3-way shut-off valve, with the third way open, for the medium temperature return pipe (1 per boiler body);
- gas shut-off valve (1 per boiler body).



KIT SCARICO FUMI PER GENERATORI IN CASCATA

- exhaust manifold made of polyethylene;
- clapet valves (1 per boiler body);
- pipe connecting the boiler flue exhaust - flue manifold;
- thermometer sample point;
- condensate drain.



CONDENSATE DRAIN KIT FOR CASCADE BOILERS

- condensate drain manifold pipe;
- pipe connecting the boiler drain - manifold.



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