



STELT SERIES
75 TO 320 KILOWATTS



EFFICIENCY



CONDENSING HOT WATER BOILERS

STELT SERIES 75 kW – 320 kW

ICI CALDAIE STELT is a high efficiency condensing boiler ranging from 75 to 320kW for single or modular use. STELT has a maximum efficiency of 107% and an operating pressure of 500kpa.

FEATURES

- **Connectible to pressure jet burners operating on gaseous fuels.** According to 90/36/CEE (gas directive, CE 311/06 (efficiency) label, 89 /366/CEE (electromagnetic compatibility), 72/23/CEE (low voltage)
- **Inclined boiler body** for condensate drainage support.
- **Large cylindrical combustion chamber** with reversed flame composed out of AISI 316 Ti stainless steel, TIG pulse welded, able to withstand acid condensate attack.
- **Stainless steel fuel passage** with special profiles, placed inside the combustion chamber in order to extend flue gas development and consequently increase.
- **Heat exchange**, or increase boiler efficiency (and obtain low NOx emissions in conjunction with LowNOx burners) Heat exchange surfaces made from AISI 316 Ti stainless steel, welded with TIG method, consisting of stainless plates characterized by a particular corrugated shape being able to increase heat exchange surface, and facilitate droplet condensate formation allowing adequate drainage.
- **Welded using TIG, MIG** and plasma procedures, methods that guarantee stainless steel main mechanical characteristics, without sacrificing corrosion resistance to acid condensation.
- **Flanged delivery connection** and two system return connections for boiler differential input and ensure minimum possible temperature and take advantage of condensation benefits even in case of medium-high

temperature returns.

- **Flue gas chamber** able to collect resulted condensate and discharge it through a water trap connected to a neutralizer (where provided) to the domestic water drainage system.
- **Burner mounting plate**, for attaching pressure jet burners for gaseous fuels use.
- **Heat dispersion surface insulation** with thick glass wool mattress, protected with steel varnished panels that can be easily removed.
- **Front door** with reversible steel sheet opening thermally insulated with ceramic fiber.

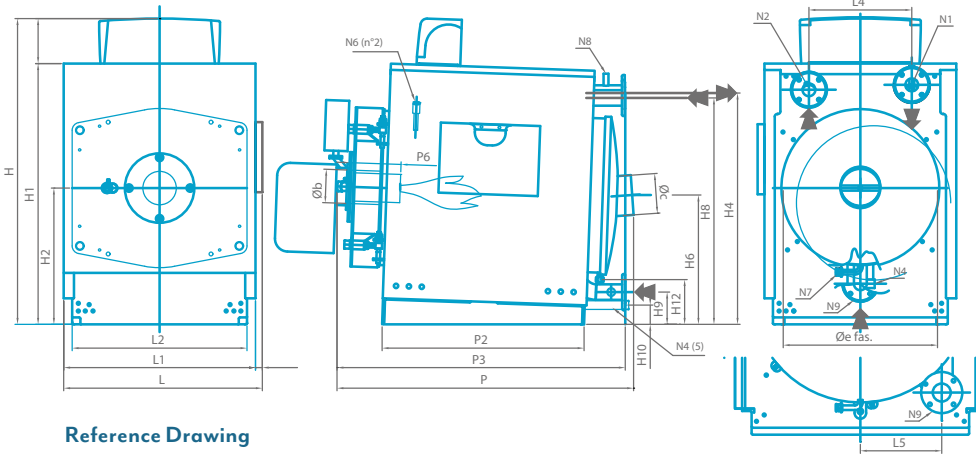
BENEFITS

- Small dimensions
- High water content
- Twin water return,
- Can be used on the traditional heating circuits as well (radiators, heating fan coils, etc.) increasing the efficiency up to 107%.

APPLICATIONS

- Hospital
- Commercial buildings
- Government buildings
- Commercial and industrial applications

STELT SERIES



Reference Drawing

Legend:

- N1 Boiler flow
- N2 Medium temperature return
- N4 System load/drain connection
- N6 Bulb pocket
- N7 Boiler condensate drain
- N8 Control cover

Standard equipment

- Outer casing with high density insulation
- Boiler control panel complete with:
 - 1 main switch
 - 2 control thermostat
 - 1 safety limit thermostat - manual reset
 - 1 pump thermostat
 - 1 burner on/off switch
 - 1 pump on/off switch
 - 1 boiler thermometer

CHARACTERISTICS MODEL	EFFECTIVE CAPACITY TEMP. TOTAL MEDIUM	EFFECTIVE CAPACITY FLOW/RETURN 50°/30°C	100% EFFICIENCY TEMP. MEDIUM 70°C	100% EFFICIENCY TEMP. FLOW/RETURN 50°/30°C	PRESSURE DROP COMBUSTION GAS	PRESSURE DROP HYDRAULIC (ΔT=12°C)	WATER CONTENT	WEIGHT TOTAL
STELT	kW	kW	%	%	mbar	mbar	lt	kg
STELT 75	68,5	75	98,5	107,8	1,6	7	97	220
STELT 90	82,2	90	98,5	107,8	2,0	11	97	220
STELT 120	110,2	120	98,5	107,3	2,8	19	97	220
STELT 160	146,9	160	98,5	107,3	2,4	34	112	270
STELT 220	201,0	220	98,5	107,8	3,2	64	149	360
STELT 270	246,7	270	98,5	107,8	3,3	34	230	430
STELT 320	293,8	320	98,5	107,3	3,5	48	230	430

DIMENSIONS

Dimensions	H	H1	H2	H4	H6	H8	H9	H10	H12	L	L1	L2	L4	L5	P	P2	P3	P6	Øb	Øc	Øe fas.	N1	N2	N1/N2	N4	N6	N7	N8	N9
Model	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	DN/in	DN/in	PN	DN/in	DN/in	DN/in	DN/in	DN/in
STELT 75	1190	1015	529	900	503	881	125	-	174	773	746	680	400	-	1155	785	1121	150-250	130	150	624	50	50	6	3/4"	1/2"	3/4"	1/2"	50
STELT 90	1190	1015	530	900	503	881	126	-	174	773	746	680	400	-	1155	785	1121	150-250	130	150	624	50	50	6	3/4"	1/2"	3/4"	1/2"	50
STELT 120	1190	1015	530	900	503	881	126	-	174	773	746	680	400	-	1155	785	1121	150-250	130	150	624	50	50	6	3/4"	1/2"	3/4"	1/2"	50
STELT 160	1290	1115	580	1000	553	980	126	-	174	873	846	780	400	-	1155	785	1147	150-250	170	180	724	50	50	6	3/4"	1/2"	3/4"	1/2"	50
STELT 220	1290	1115	580	1000	553	980	126	-	174	873	846	780	400	-	1410	1040	1373	150-250	170	180	724	50	50	6	3/4"	1/2"	3/4"	1/2"	50
STELT 270	1290	1115	550	1035	524	922	133	59	77	1003	976	920	633	317	1463	1040	1436	170-250	180	200	854	65	65	6	1/2"	1/2"	3/4"	1/2"	65
STELT 320	1290	1115	550	1035	524	922	133	59	77	1003	976	920	633	317	1463	1040	1436	170-250	180	200	854	65	65	6	1/2"	1/2"	3/4"	1/2"	65

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