



ARES Pro 150-600kW

Floor Standing Condensing Boilers
Technical Brochure

The ARES Pro range of high water content condensing boilers have been designed and manufactured to meet the needs of new and replacement/retrofit applications, with the added advantage of being tolerant to older heating systems.

Featuring high performance components including a stainless steel heat exchanger, ARES Pro boilers offer many advantages to specifiers and building occupiers alike. Delivering superior and reliable functionality this powerful workhorse is designed to aid quick installation and ensure long term performance and cost efficiency.

PRODUCT CHOICE

- Seven models available in range
- Outputs ranging from 150-600kW

PERFORMANCE BENEFITS

- High water content design reducing burner switch on/off cycles and improving seasonal efficiency
- Stainless steel heat exchanger for maximum combustion performance and safety
- Financial savings as pump and hydraulic separator/plate heat exchanger not required
- Low resistance waterways

SITING & INSTALLATION ADVANTAGES

- Less installation space needed due to compact footprint
- Direct connection to the system, not necessary to use headers
- Option to use existing pump to minimise install work

BOILER CONFIGURATION

- Heat exchanger constructed in 316 stainless steel
- Easy to maintain vertical tube burner assembly
- Patented pipes in stainless steel, with multi-fin inserts, tilted to improve flow of condensate
- Low NOx metallic multi-fibre cylindrical burner
- Double ignition electrodes to ensure smooth and safer operation

- Premix system with pneumatic control of the combustion ratio
- Flue non-return valve (clapet) fitted to fan outlet

MAIN FEATURES

- Easy access combustion chamber with pneumatic lift up burner assembly
- Retractable step, supplied as standard for the 348, 400, 500 and 600 models (optional for 150 to 300 models)
- Integrated HSCP (Heating System Control Panel) manages programming and settings
- HSCP pre-programmed to manage 1 direct heating zone and 1 DHW cylinder
- Capable of managing up to 8 boilers in cascade (with optional cascade regulator)

DESIGN AND CONSTRUCTION

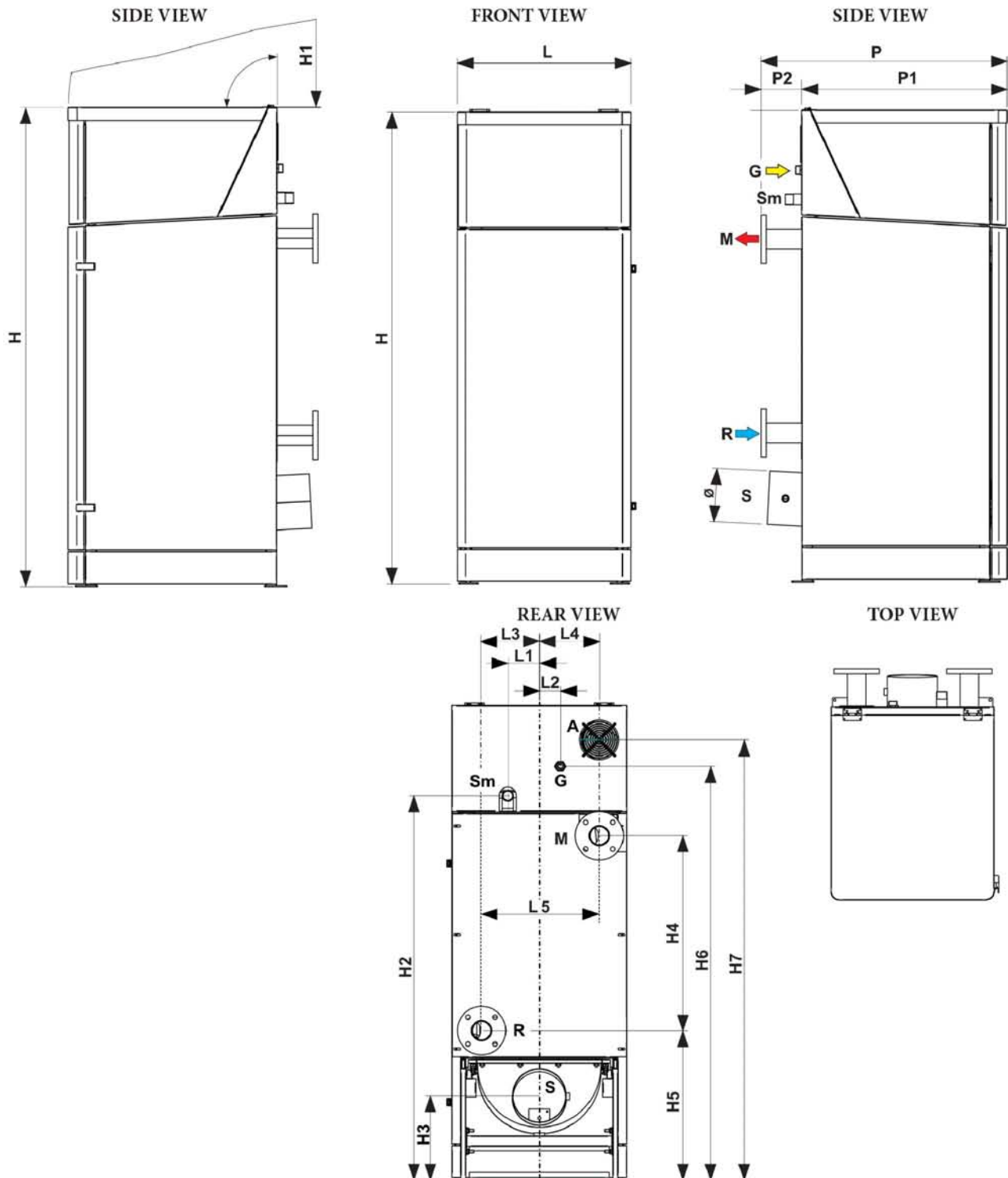
- The stainless steel tube bundle is immersed directly into the system water
- System return pipe is located diagonally to the flow pipe, ensuring maximum efficiency
- Large hydraulic manifolds to obtain maximum water circulation and low head losses
- No return temperature limit for a range of system temperatures with adjustable temperature difference



ARES Pro Technical Data

ARES Pro model		150	230	300	348	400	500	600
Maximum nominal heat input	kW	140	214	280	348	380	450	550
Minimum nominal heat input	kW	35	50	65	90	90	115	125
Nominal heat output (80/60°C)	kW	136.36	209.29	274.54	341.42	373.01	441.95	540.32
Minimum heat output (80/60°C)	kW	32.52	48.25	63.57	87.67	87.8	111.09	118.53
Nominal heat output (50/30°C)	kW	145.88	226.84	292.88	363.31	399	427.05	581.19
Minimum nominal heat output (50/30°C)	kW	36.54	54.6	70.01	99.09	97.2	124.09	135.88
Efficiency at nominal heat output (80/60°C)	%	97.4	97.8	98.05	98.11	98.16	98.21	98.24
Efficiency at minimum heat output (80/60°C)	%	92.92	96.5	97.8	97.41	97.55	96.6	94.82
Efficiency at nominal heat output (50/30°C)	%	104.2	106	104.6	104.4	105	104.9	105.67
Efficiency at minimum heat output (50/30°C)	%	104.4	109.2	107.7	110.1	108	107.9	108.7
Stack losses with burner ON	%	2.21	2.14	1.84	1.78	1.77	1.78	1.72
Stack losses with burner OFF	%	0.22	0.18	0.12	0.27	0.27	0.27	0.24
Casing losses with burner ON	%	0.4	0.1	0.1	0.1	0.1	0.03	0.04
Casing losses with burner OFF	%	0.22	0.18	0.12	0.27	0.27	0.27	0.24
NOx Class		6	6	6	6	6	6	6
CO at maximum heat input (0% O2)	mg/kWh	13.73	18.05	28.08	25.27	18.25	22.46	22.1
Gas flow rate to burner at max. and min. heat output with natural gas (G20)	m ³ /h	14.80 - 3.70	22.63 - 5.29	29.61 - 6.87	36.80 - 9.52	40.18 - 9.52	47.58 - 12.16	58.15 - 13.22
Maximum pressure at the base of chimney	Pa	100	100	100	100	100	100	100
Flue exhaust mass flow rate at nominal heat output	kg/h	229	350	458	569	621	735	899
Flue exhaust max temperature (setting temperature 20° C and operation at 80/60°C)	°C	44.2	42.7	36.7	35.6	35.4	35.5	34.3
Maximum operation temperature	°C	90	90	90	90	90	90	90
Set heating temperature	°C	20 - 85	20 - 85	20 - 85	20 - 85	20 - 85	20 - 85	20 - 85
Central heating circuit max pressure	bar	6	6	6	6	6	6	6
Maximum condensate production	l/hr	11.5	13.7	15.8	29.1	28.5	28.8	31
Power supply	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50
Installed electric power	kW	0.19	0.195	0.21	0.27	0.425	0.555	0.59
Electric protection index	IP	X4D	X4D	X4D	X4D	X4D	X4D	X4D
Empty appliance weight	kg	347	399	459	610	610	610	755
Appliance water content	l	153	210	270	340	340	340	425

ARES Pro Dimensions



ARES PRO	DIMENSIONS [mm]																
	Depth			Width						Height							
	P	P1	P2	L	L1	L2	L3	L4	L5	H	H1	H2	H3	H4	H5	H6	H7
150	944	788	156	666	120	81	228,5	228,5	457	1809	65,6	1467	323,5	770	554,5	1579	1679
230	1092	954	141	846	120	43	277	277	554	1917	65,6	1557	356	800	604,5	1697	1768
300	1181	1036	144	910	100	200	297	297	594	1946	65,6	1618	353	825	600,5	1741	1796
348	1276	1152	124	996	100	200	338	338	676	2130	65,6	1712	390	853	664	1794	1974
400	1276	1152	124	996	100	200	338	338	676	2130	65,6	1712	390	853	664	1794	1974
500	1276	1152	124	996	100	200	338	338	676	2130	65,6	1712	390	853	664	1794	1974
600	1398	1256	142	1096	200	220	386	386	772	2206	65,6	1753	390	900	673	1863	2052



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