

ERP



Atlas D Range

High efficiency cast iron floor standing boiler


ferrolli

> OVERVIEW

ATLAS D range consists in cast iron boilers with 3 pass flues sections, operating on liquid fuel, featuring high efficiency and a modern electronic equipment.



ATLAS D

Only heating boiler, fit for jet burner installation. 5 models from 25 to 75 kW



ATLAS D UNIT

Includes an oil burner, lodged inside the casing. 25, 37, 50 models, heating only



ATLAS D SI UNIT

Includes embedded oil burner and plates exchanger for DHW production. Models 25 and 37



ATLAS D K UNIT

Oil generator for DHW production through an enameled storage. Models 25 and 37, with respectively 100 and 130 liters tank

Atlas D range represents the maximum achievable efficiency by a traditional boiler. It complies with Erp (Energy Related Products) Regulation introduced by European Community to drive use of performing heat generators in the EU market. The Regulation introduced also an energy labelling, with efficiency in heating and eventual sanitary mode. All models are able to carefully govern a heating and sanitary system, eventually with climatic control, also in the basic version. Atlas D is labeled with class B on heating mode.

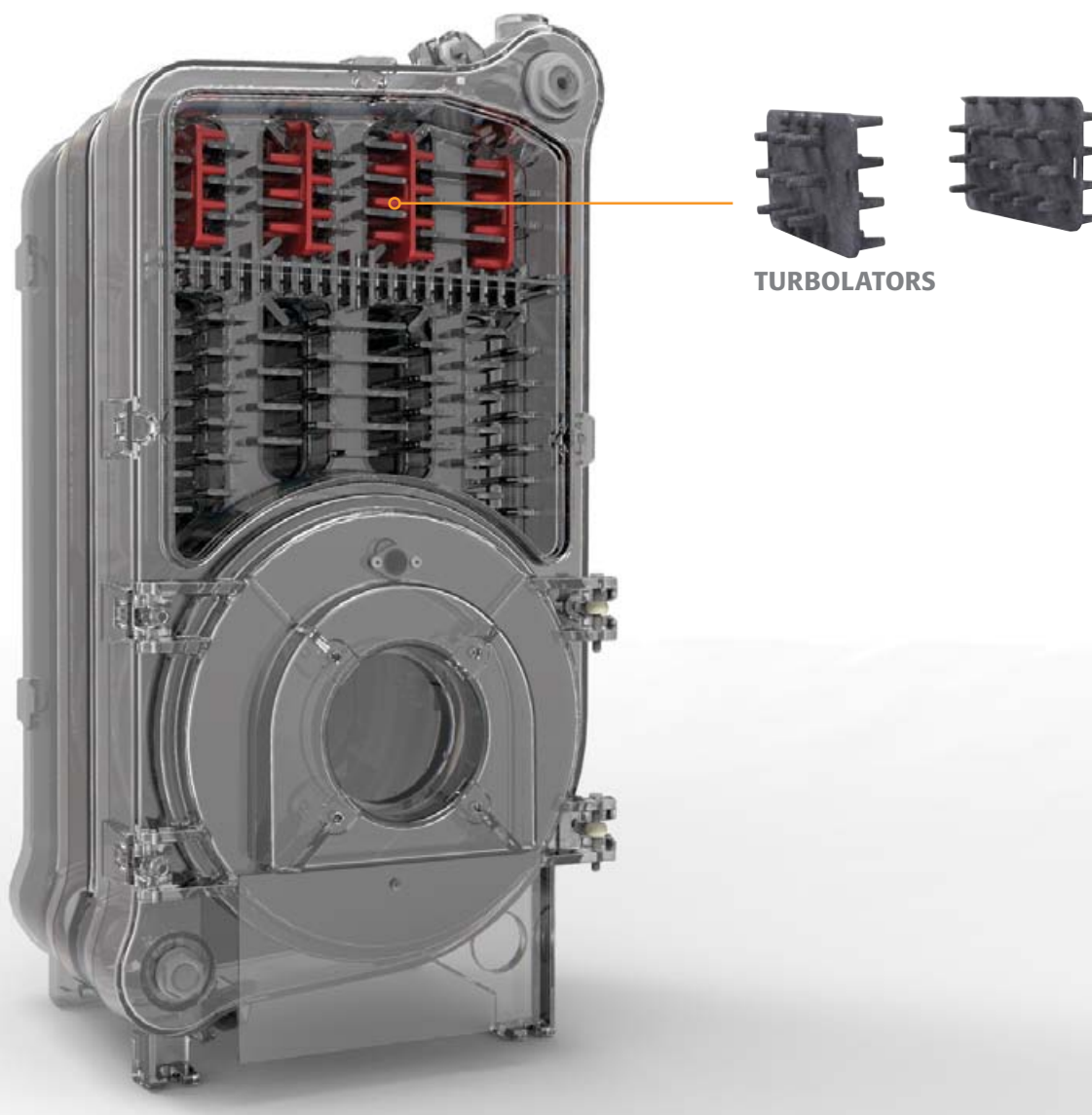
> **THE HEART** BOILER BODY

BOILER BODY IS MADE BY EN-GJL-200 (GG20) CAST IRON SECTIONS, CASTED IN FERROLI'S FOUNDRY IN SAN BONIFACIO, NORTHERN ITALY.

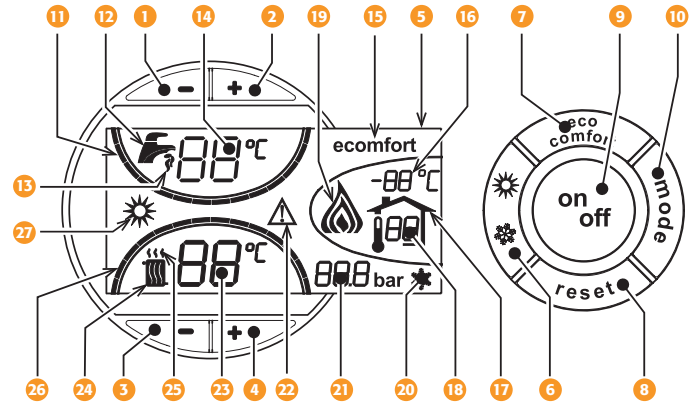
Casting process is subjected to tough protocols according to ISO 9001:2008, ISO 14001 (Environmental management) and of course, internal procedures, result of half a century experience in casting processes. Production is severely monitored, from raw material selections (chemical and process analysis, quantometric test, pure elements integration) to casting (tensile-hardness tests) until complete verification of the cast iron section.

ATLAS D boasts a **3 pass-flues** technology: flues reverse twice, passing 3 times the boiler body, thus decreasing their temperature, increasing water thermal exchange and implying obvious benefits in terms of **efficiency**. The wise use of specially sized **turbolators** further boosts the boiler's efficiency, having flue gas forced in a extended "embrace" with water channels of boiler body

Flue path is carefully studied to drastically reduce flues turbulence, thus offering a particularly **silent** operation.



> THE MIND CONTROL PANEL



KEY 1 DHW temperature setting decrease button 2 DHW temperature setting increase button 3 Heating system temperature setting decrease button 4 Heating system temperature setting increase button 5 Display 6 Summer / Winter mode selection button 7 Economy / Comfort mode selection button 8 Reset button 9 Unit On / Off button 10 System flow temperature compensation menu button 11 Indicates DHW setpoint reached 12 DHW symbol 13 DHW operation 14 DHW outlet temperature / setting 15 Eco (Economy) or Comfort mode 16 Outdoor temperature (if optional outdoor probe connected) 17 Appears connecting the external Probe or the Remote Control (optionals) 18 Room temperature (if optional Remote Control connected) 19 Burner On 20 Antifreeze operation 21 Heating system pressure 22 Fault indication 23 Heating flow temperature / setting 24 Heating symbol 25 Heating operation 26 Indicates heating flow setpoint reached 27 Summer mode

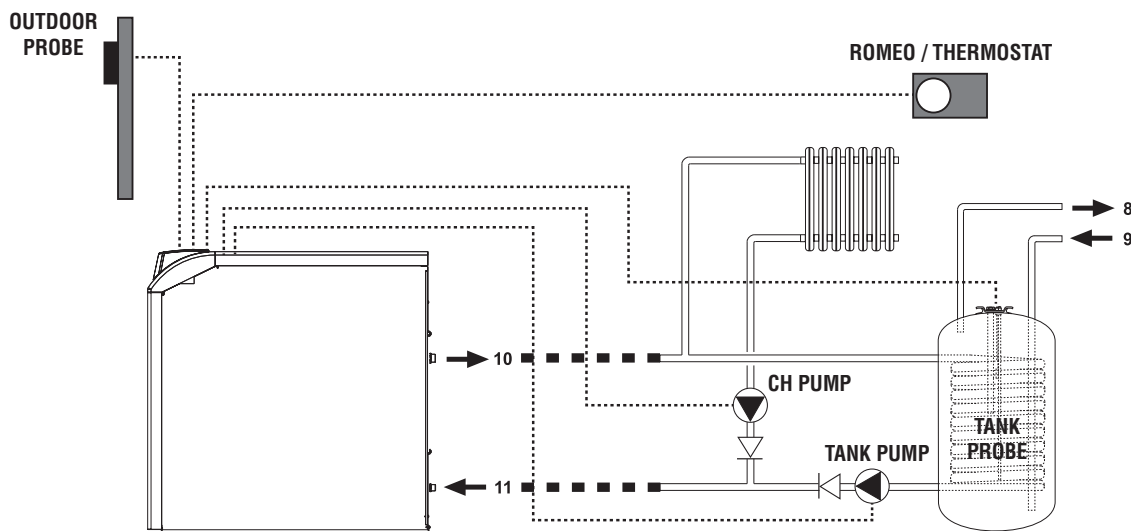
SYSTEM MANAGEMENT

Atlas D series is equipped with electronics able to manage all main components of a modern heating system. The wiring includes two outputs for central heating pump and DHW pump (or diverting valve) and three inputs for outdoor probe, Opentherm remote control (or room thermostat) and DHW tank probe.

The operation of installed accessories can be monitored and set from the control panel or even from Romeo remote control, if connected.

IN THE SCHEME HEREBELOW:

sample of an heating system and DHW storage managed directly from control panel of a generator of Atlas D series, with no need of additional electronic controller.



> **PRODUCT FEATURES**

COMPONENTS AND FUNCTIONS

> **OPENTHERM**

The Opentherm communication protocol is adopted in ATLAS D control board. Opentherm allows integration of other system ancillaries, such for example, FZ4 zoning electronic controller, or Romeo remote control, specially studied to combine with the boiler's microprocessor operational logics. Opentherm, as a digital protocol, permits complete integration boiler-satellite, with full control of functions and information from the boiler and likewise from its satellite.

> **FLOW TEMPERATURE COMPENSATION**

When the optional outdoor probe is installed, boiler automatically operates with flow temperature compensation, ensuring the maximum reactivity of the system to the external conditions.

In this mode, the temperature of the heating system is controlled according to the outside weather conditions, to ensure high comfort and energy saving throughout the year, thanks to the adaptation of the system thermal load.

> **ECO-COMFORT FUNCTION**

ATLAS D can manage COMFORT function (also with time planning using Romeo remote control). Comfort mode, on instant combi model keeps DHW setpoint temperature in the sanitary exchanger. As a consequence domestic hot water supply is even faster and more comfortable. In ECO operation, domestic hot water production is managed in the traditional way.

In case only heating Atlas D is connected to a tank, tap water won't be heated with ECO mode active. This is the case of Atlas D K unit as well. Unavailability of DHW can be planned through Romeo, shouldn't sanitary water be required for a long period, thus avoiding useless expenses.

> **ANTIFROST**

Boiler PCB manages protection of the appliance against frost damages. In case temperature in the boiler drops below 5°C, burner and pump are ignited, thus limiting temperature reduction in the system as well. Boiler needs to be regularly supplied with fuel and electricity and in stand-by mode.

> **BURNER**

"Unit" versions of ATLAS D range already include a Ferroli SUN G oil burner inside the casing. This solution is nice from aesthetic point of view and protects the burner and other components from dust and accidental interferences.

Burner is preset for boiler output and complies with ERP rules for electric absorption. Acoustic comfort is assured by the soundproof insulation of burner plastic cover.

SUN G is fitted with a geared pump that includes a connection for two pipes (fuel inlet and return) or just one, with a bypass between the inlet and outlet circuits. It is also easy to be regulated: adjustment of the combustion head and air intake through micrometric screws, front connection for pressure gauge and vacuumeter, situated on the pump.

> OPENTHERM ACCESSORIES

ROMEO MODULATING REMOTE CONTROLLER



Thanks to the digital Opentherm protocol adopted, Romeo remote control enables monitoring and setting of boiler functions directly from the room where it is installed. Comfort planning is possible on weekly basis, including also holiday function. Romeo is available with wired or wireless connection.

THE FUNCTIONS

Like a standard programmable thermostat:

- Weekly planning of room temperature, also with pre-heating function and antifreeze program
- Displaying of hour/day/room temperature
- Summer/winter mode

Further functions, unlike a programmable thermostat:

- Weekly planning of DHW function (COMFORT/ECO): on instant boilers COMFORT keeps exchanger warm, on storage combi boilers ECO excludes tank heating
- Holiday function, programmable from 1 hour to 45 days
- Remote setting of heating and DHW temperatures
- If outdoor probe is installed: displaying of outdoor temperature and setting of compensation curve/offset
- Monitoring of boiler operation status
- Displays CH/DHW temperatures and, depending on the boiler model, CH pressure and DHW flow rates
- Remote reset in case of shutdown
- Possible remote system filling (if solenoid valve installed)
- Doesn't require batteries (2 wires, low voltage connection)
- Phone input, for connection of a dialer (not supplied)
- Modulation of flow temperature according to Δt between room temperature and setpoint: implies a more precise "hit" of setpoint and less temperature fluctuations

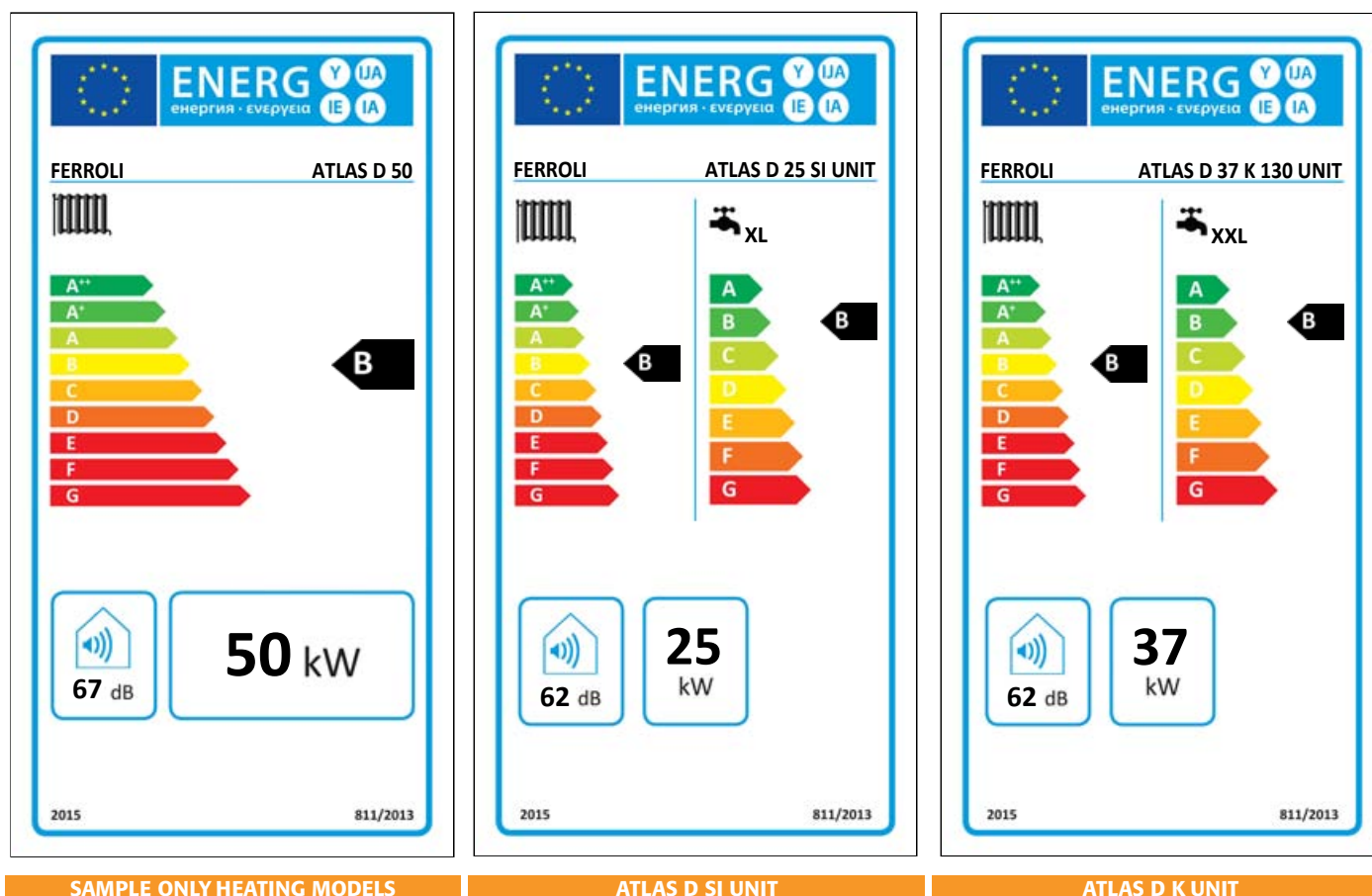
ZONING CONTROLLER

FZ4 zoning controller is the natural complement for smart zoning management. It controls up to 3 zones (max 2 mixed) via local Romeo or also room thermostats. Application of Romeo controllers and an outdoor probe implies each zone may have a customized flow temperature compensation curve and the whole system can be specifically calibrated and monitored.



> EU REGULATIONS ENERGY LABELLING

ATLAS D series is rated with heating energy efficiency class B, i.e. the maximum for a traditional boiler. Besides, models including domestic hot water production reach very interesting results.



The tapping profile indicates the maximum flow capacity at the declared sanitary efficiency (from XS to XXL)

HIGH EFFICIENCY CIRCULATOR

The heating circulator installed on Atlas D unit models permits a power absorption drop of more than 50% if compared to a standard, recent pump rated 85 W input. As this device is the most energy-intensive component of the boiler, global important power saving are thus achieved. Circulator chosen by Ferrolí's engineers can be set on a pre-fixed speed (3 modes). Alternatively, a variable setting mode is possible: pump speed will be reduced when pressure drop decreases. In this way further savings will be reached, along with noise reduction. This operating option is particularly effective in systems with thermostatic valves on radiators or with zone valves. Finally the pump includes a self protection function, venting routine and a LED diagnostic.

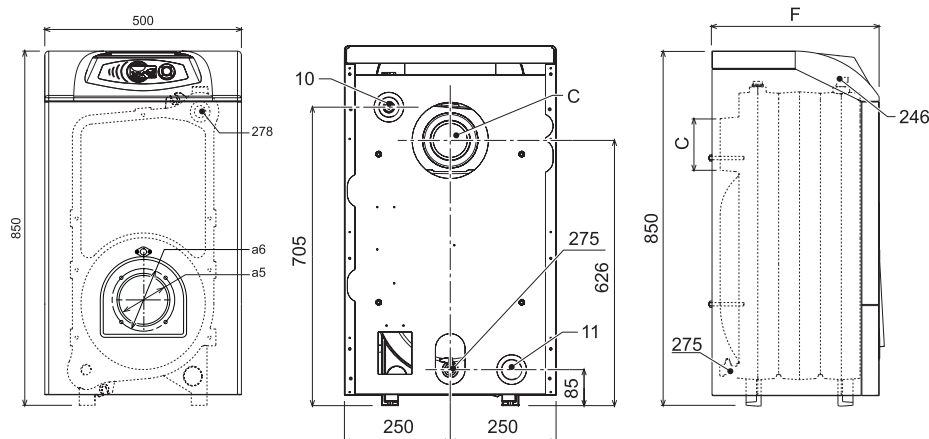
> ATLAS D



CAST IRON BOILER, FOR OIL JET BURNER, FOR CENTRAL HEATING

- Can handle a CH pump and a DHW pump or diverting valve, both with anti-seize function
- Can handle as a standard a DHW tank with legionella programmable protection
- Burner door and front jacket optimised for easy installation of the burner
- The burner door features reversible hinges and can be quickly opened for inspection and cleaning
- In EU shall be equipped with Ferrol oil burner shown in the chart herebelow or alternatively with an oil burner with electric input ≤ 150 W (mod. 25-37) or ≤ 200 W (mod. 50÷75)
- Possible matching, outside EU, with an oil or gas burner
- Conic 120-130 mm stack, to fit different tolerances adopted by flues producers

MODEL		D 25	D 37	D 50	D 63	D 75
Number of sections	no.	3	4	5	6	7
ERP class		B	B	B	B	B
Heating seasonal efficiency	η_s %	86	86	87	86	86
Heating capacity (min-max)	kW	22,4 - 28,3	22,3 - 41,9	33,4 - 56,6	44,5 - 71,3	55,8 - 86,4
Heat output in heating (min-max)	kW	20 - 25	20 - 37	30 - 50	40 - 63	50 - 75
Efficiency Pmax (80-60°C)	%	93,9	94,0	94,1	94,1	94,5
Efficiency 30% load	%	98,2	97,4	97,3	96,7	96,4
Working pressure in heating (min-max)	bar	0,8 - 6	0,8 - 6	0,8 - 6	0,8 - 6	0,8 - 6
Heating water content	L	18	23	28	33	38
Protection rating	IP	X0D	X0D	X0D	X0D	X0D
Power supply voltage	V/Hz	230/50	230/50	230/50	230/50	230/50
Empty weight	kg	127	166	205	244	283
Pressure drop on flues side	mbar	0,11	0,35	0,38	0,5	0,6
Ferrol burner matching		SUN G6	SUN G6	SUN G10	SUN G10	SUN G10



KEY

- 10 System flow 1" 1/2"
- 11 System return 1" 1/2"
- 246 Pressure transducer
- 275 Heating system drain
- 278 Double sensor (heating+safety)
- a5 Burner hole
- a6 Burner connection

MODEL	C ø mm	F mm	a5 ø mm	a6 ø mm
ATLAS D 25	120-130	400	115	150
ATLAS D 37	120-130	500	115	150
ATLAS D 50	120-130	600	115	150
ATLAS D 63	120-130	700	115	150
ATLAS D 75	120-130	800	115	150

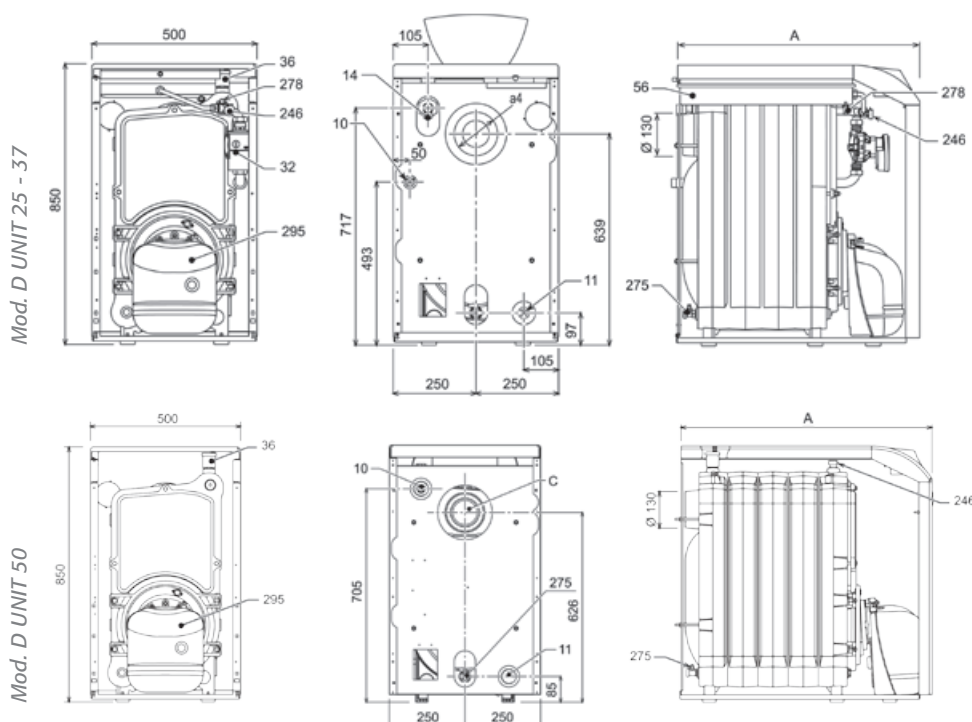
> ATLAS D UNIT



CAST IRON OIL BOILER, FOR CENTRAL HEATING

- Already fit with Ferrol light oil burner
- The embedded position of the burner inside the casing, together with plastic cover's internal lining, drastically reduce sound pressure
- In addition 3 pass flues layout of the boiler body decrease also turbulence, permitting a particular silent operation
- Can handle a CH pump and a DHW pump or diverting valve, both with anti-seize function. System circulator already included on models 25 and 37
- Can handle a free-standing DHW tank with legionella protection
- Conic 120-130 mm stack, to fit different tolerances adopted by flues producers

MODEL		25 UNIT	37 UNIT	50 UNIT
Number of elements	no.	3	4	5
ERP class		B	B	B
Heating seasonal efficiency	η_s %	86	86	87
Heating capacity (min-max)	kW	22,4 - 28,3	22,3 - 41,9	33,4 - 56,6
Heat output in heating (min-max)	kW	20 - 25	20 - 37	30 - 50
Efficiency Pmax (80-60°C)	%	93,9	94,0	94,1
Efficiency 30% load	%	98,2	97,4	97,3
Operating pressure in heating (min-max)	bar	0,8 - 6	0,8 - 6	0,8 - 6
Heating water content	l	18	23	28
Heating expansion tank capacity	l	10	12	-
Protection rating	IP	X0D	X0D	X0D
Power supply voltage	V/Hz	230/50	230/50	230/50
Empty weight	kg	157	196	232



KEY

- 10 System delivery 3/4"
- 11 System return 1"
- 14 Heating safety valve (mod 25-37)
- 32 Heating circulating pump
- 36 Automatic air vent
- 56 Expansion tank
- 246 Pressure transducer
- 278 Double sensor (Heating+Safety)
- 275 Heating system drain cock
- 295 Burner

MODEL	A
ATLAS D 25 UNIT	630
ATLAS D 37 UNIT	730
ATLAS D 50 UNIT	830

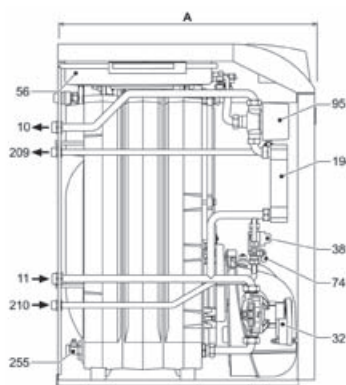
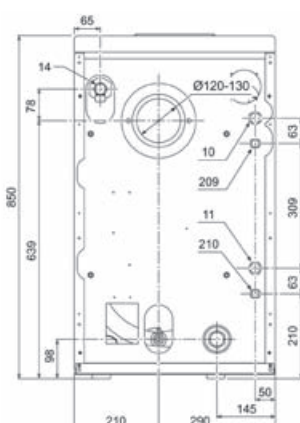
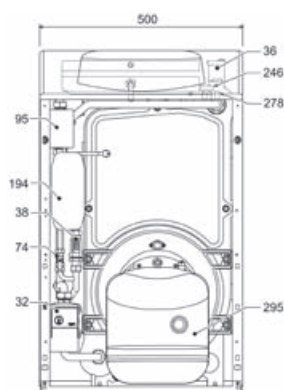
> ATLAS D SI UNIT



CAST IRON OIL BOILER, FOR CENTRAL HEATING AND INSTANTANEOUS DOMESTIC HOT WATER

- Already fit with Ferrolit light oil burner
- The embedded position of the burner inside the casing, together with its plastic cover internally lined, drastically reduce sound pressure
- Instantaneous DHW production through stainless steel plate exchanger fed by diverting valve. Priority to DHW, activated by flow switch.
- Comfort settable function, which allows to keep DHW exchanger warm. Tap water supply is consequently very quick. The function may be also weekly planned, in case Romeo remote control is used.
- Conic 120-130 mm stack, to fit different tolerances adopted by flues producers

MODEL		25 SI UNIT	37 SI UNIT
Number of elements	no.	3	4
			
ERP class		 	 
Heating seasonal efficiency	η_s %	86	86
Heating capacity (min - max)	kW	22,4 - 28,3	22,3 - 41,9
Heat output (min - max)	kW	20 - 25	20 - 37
Efficiency Pmax (80-60°C)	%	93,9	94,0
Efficiency 30% load	%	98,2	97,4
Operating pressure in heating (min - max)	bar	0,8 - 6	0,8 - 6
Heating water content	litres	20	25
Heating expansion tank capacity	litres	8	10
DHW flowrate Δt 25°C	l/min	14,3	21,2
DHW flowrate Δt 30°C	l/min	11,9	17,7
Protection rating	IP	X0D	X0D
Power supply voltage	V/Hz	230/50	230/50
Empty weight	kg	160	200



KEY

- 10 System delivery Ø 3/4"
- 11 System return Ø 3/4"
- 14 Safety valve
- 32 Heating circulating pump
- 36 Automatic air vent
- 38 Flowswitch
- 56 Expansion tank
- 74 System filling cock
- 95 Diverter valve
- 194 DHW exchanger
- 209 Domestic hot water outlet
- 210 Cold water inlet
- 246 Pressure transducer
- 255 System water drain
- 278 Double sensor (Safety+Heating)
- 295 Burner

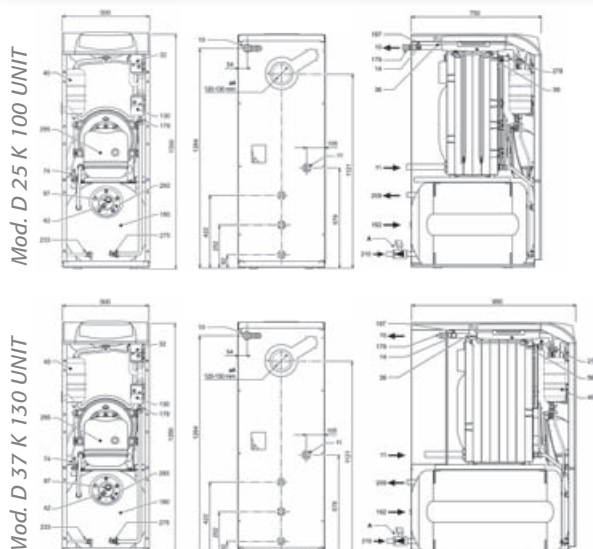
> ATLAS D K UNIT



CAST IRON OIL BOILER, INCLUDING ENAMELLED DOMESTIC HOT WATER STORAGE TANK

- Already fit with Ferrol light oil burner
- The embedded position of the burner inside the casing, together with its plastic cover's internal lining, drastically reduce sound pressure
- Includes a DHW tank, equipped with recirculation connection and with legionella protection function, managed by microprocessor
- The tank is with enamelled lining, protected by a magnesium anode
- DHW operation can be excluded through economy program, also with weekly timer in case Romeo remote control is installed.
- Two pumps, for system and the tank, both with anti-seize function

MODEL		D 25 K 100 UNIT	D 37 K 130 UNIT
Number of elements	no.	3	4
ERP class		B	B
		XL B	XXL B
Heating seasonal efficiency	η_s %	86	86
Heating capacity (min-max)	kW	22,4 - 28,3	22,3 - 41,9
Heat output in heating (min-max)	kW	20 - 25	20 - 37
Efficiency Pmax (80-60°C)	%	93,9	94,0
Efficiency 30% load	%	98,2	97,4
Operating pressure in heating	bar	0,8 - 6	0,8 - 6
Heating water content	l	21	26
Heating expansion tank capacity	l	8	10
Operating pressure in DHW (min-max)	bar	0,1 - 9	0,1 - 9
DHW tank content	l	90	117
DHW expansion tank capacity (optional)	l	3	3
Hot water flow rate Δt 30°C l/10 min		195	250
Hot water flow rate Δt 30°C l/h		750	850
Protection rating	IP	X0D	X0D
Power supply voltage	V/Hz	230/50	230/50
Empty weight	kg	225	265



KEY 10 System delivery Ø 3/4" 11 System return Ø 1" 14 Heating safety valve 32 Heating circulating pump 34 Heating temperature sensor 36 Automatic air vent 40 DHW expansion tank (optional) 42 DHW temperature probe 56 Expansion tank 74 System filling cock (optional) 97 Magnesium anode 130 Hot water tank circulating pump 180 Hot water tank 192 Recirculation 197 Manual air vent 209 Hot water tank delivery Ø 3/4" 210 Hot water tank return Ø 3/4" 233 Hot water tank drain cock 246 Pressure transducer 275 Heating system drain cock 278 Double sensor (safety+heating) 293 Hot water tank inspection flange 295 Burner A Safety and no-return valve a4 Flues stack



NOTICE FOR DEALERS:

As part of its efforts to constantly improve its range of products, with the aim of increasing the level of customer satisfaction, the company stresses that the appearance, dimensions, technical data and accessories may be subject to variation.

Consequently, ensure that the customer is provided with up-to-date technical and/or sales documents (price lists, catalogues, brochures, etc....).

Ferroli spa

37047 San Bonifacio (VR) Italy - Via Ritonda 78/A

tel. +39.045.6139411

fax +39.045.6100233

www.ferroli.com - export@ferroli.it