

CONDENSA

GAS-FIRED, WALL HUNG,
CONDENSING BOILERS



CE





Lochinvar Corporation has been designing, manufacturing and distributing water heating products in USA since 1919 and has built an enviable reputation for reliable, efficient and cost effective water heaters and boilers.



In the UK the company is based in Banbury, ideally located to support its established products with a service which is second to none with Area Sales Managers and a head office staff covering Technical support, Service Technicians, Accounts and General Administration.

Water heating equipment was first sold in the UK under the Lochinvar name in 1976. The "Knight" and "Charger" ranges of direct gas fired Storage Water Heater were among the first of their type to be sold in this country and their popularity has continued to grow due to their suitability for the concept of System Separation and Decentralisation.

In 1981 Lochinvar introduced Copper-Fin® Water Heaters and Boilers and with various models available can offer outputs of up to 568kW. Most recent addition to the Copper-Fin® series is Intelli-Fin™, which has net thermal efficiencies of up to 108% from an incredibly small footprint.

The addition of the Condensa and CP-M Boiler ranges offer further flexibility of choice, offering wall-hung boilers with outputs from 23 to 180kW, all of which offer high levels of efficiency.

All Lochinvar water heaters and boilers have a range of ancillary equipment designed for the specific needs of the UK market, are CE marked and WRAS (Water Research Advisory Service) listed.



WALL HUNG EFFICIENCY



Lochinvar gas-fired Condensa Boilers are the answer for a wide range of heating applications in large domestic and commercial properties. They are wall-hung, saving valuable floor space and have room sealed fan assisted balanced flue assemblies allowing for neat and cost effective installation.

Operating at high efficiencies of up to 108% net Condensa Boilers also modulate from 100 to 20% of output, which ensures that high efficiency is maintained even under part load conditions.

There are 3 models available with outputs of 22, 30 and 48 kW. All models are Energy Efficiency Recommended and are rated in the SEDBUK A band.

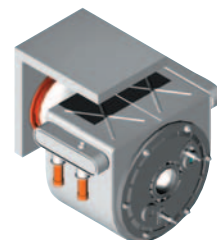


LOW NO_x EMISSIONS

In addition to its high operating efficiency, Condensa is also environmentally friendly where NO_x emissions are concerned, meeting the most stringent requirements (class 5) of EN483.

STAINLESS STEEL HEAT EXCHANGER

The stainless steel heat exchanger will operate at working pressures of up to 3.0. bar and offers a compact and durable design.



BALANCED FLUE OPTIONS

A one-metre horizontal concentric balanced flue assembly is supplied with each Condensa Boiler as standard and horizontal extensions up to a maximum 5 metre total length are available. Vertical flue assemblies of up to 5 metres are also achievable.

Further flexibility is offered with a twin flue pipe option which offers combined flue runs of up to 40 metres (models 23N and 32NN). Combined twin pipe flue runs of up to 18 metres are available on Condensa 50M.

CONTROL

Microprocessor control is a standard feature on all Condensa Boilers. This will allow for connection to a Weather Compensation and/or Remote Control.

Another useful feature of the Condensa range is the ability to set the CH Temperature Sensor to a maximum of 45°C. This makes Condensa particularly suitable for low temperature applications such as underfloor heating without the requirement for additional external controls.

FAULT FINDING MADE EASY

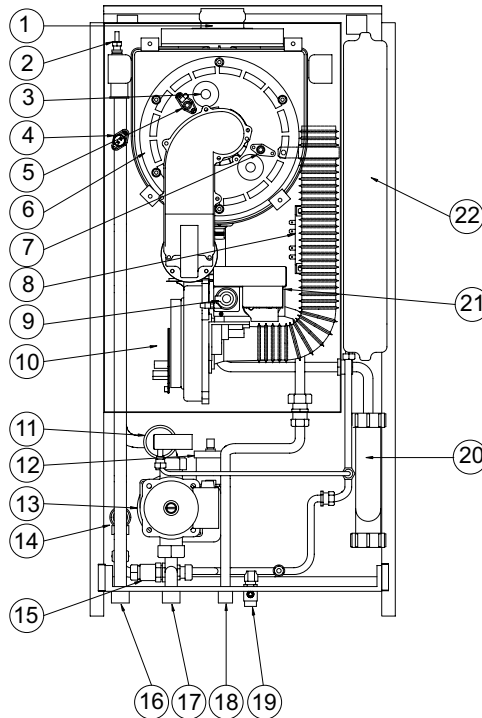
Each Lochinvar Condensa boiler has a built-in intelligence that displays any fault as a number within the display panel. This number is easily cross referred within the operator's manual for instant diagnosis.



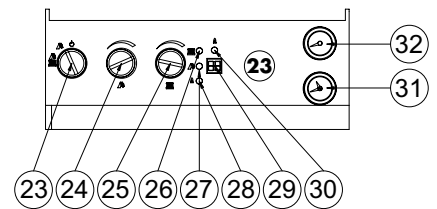
CONDENSA BOILERS

Condensa 23N & 32NN

1. Flue ducts inlet/outlet
2. CH temperature sensor
3. Burner sight glass
4. Safety thermostat
5. Ignition electrode
6. Burner plate
7. Ionisation electrode
8. 24V transformer
9. Gas valve
10. Fan
11. Water pressure switch
12. Air vent
13. Pump
14. Safety valve
15. By-pass
16. Central heating flow
17. Central heating return
18. Gas inlet
19. Drain valve
20. Condense trap (with drain)
21. Burner control unit
22. Expansion vessel



23. Selector switch
24. DHW temperature adjustment (not functional)
25. CH temperature adjustment
26. Central heating lamp
27. DHW lamp (not functional)
28. Burner on lamp
29. Display
30. Reset
31. Pressure gauge
32. Thermometer

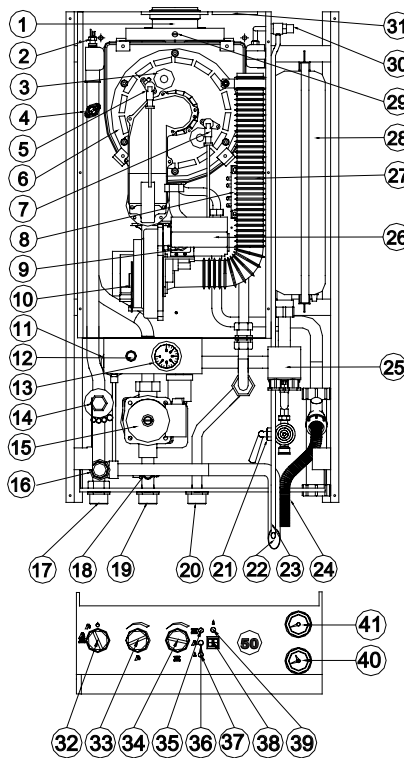


Electronic control panel

Flow and return connections on Condensa 23N and 32NN are 3/4" BSPM. Gas connection is 1/2" BSPM.

Condensa 50M

1. Flue ducts inlet/outlet
2. CH temperature sensor
3. Burner sight glass
4. Safety thermostat
5. Ignition electrode
6. Burner plate
7. Ionisation electrode
8. 24V transformer
9. Gas valve
10. Fan
11. Water pressure switch
12. High limit thermostat
13. Limit thermostat
14. Pocket for sensors
15. Pump with air vent
16. Safety valve
17. CH flow
18. Drain valve
19. CH return
20. Gas inlet
21. External pressure gauge isolation valve
22. Drain for safety valve
23. Venting drain
24. Condense drain
25. Safety water pressure switch



26. Burner control unit
27. Air inlet
28. Expansion vessel
29. Flue gas test point
30. Venting valve
31. Inlet air cap
32. Selector switch
33. DHW temperature adjustment (not functional)
34. CH temperature adjustment
35. CH lamp
36. DHW lamp (not functional)
37. Burner on lamp
38. Display
39. Reset
40. Pressure gauge
41. Thermometer

Electronic control panel

Flow and return connections on Condensa 50M are 1" BSPM. Gas connection is 3/4" BSPM.

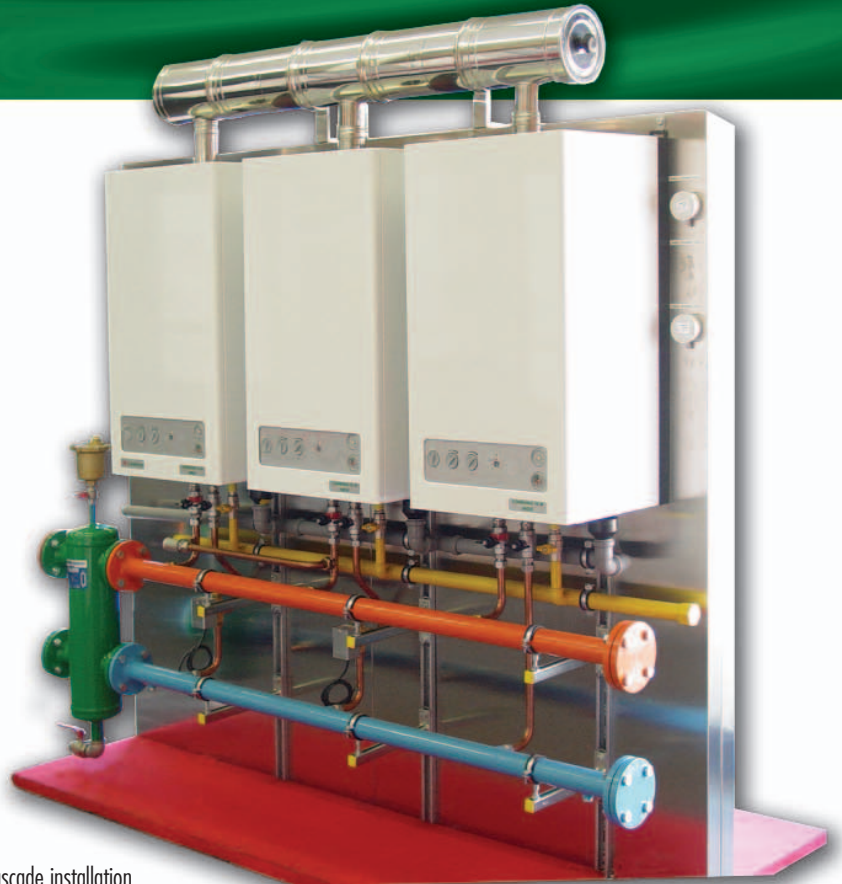
TECHNICAL SPECIFICATION

Condensa 50M - MODULAR OPTIONS

Condensa 50M can be installed in a modular option with 2, 3 or 4 boiler packages being available. This offers an efficient, flexible installation with stand-by in the event of component failure on an individual Boiler.

A variety of packages are available including:

- ▼ Pre-fabricated Manifold pipework
- ▼ Sequence Control
- ▼ Multi-flue options



Example of cascade installation

MODEL		23N	32NN	50M	
Performance Data	Nominal output at 80/60°C	kW	21.6	29.4	47.2
	Nominal output at 50/30°C	kW	23.3	31.8	51.0
	Nominal Input (net)	kW	22.0	30.0	48.0
	Nominal Input (gross)	kW	24.4	33.3	53.3
	Efficiency up to % (net)	%	106	106	106
	Efficiency up to % (gross)	%	96	96	96
Height	mm	900	900	900	
Width	mm	450	450	500	
Depth	mm	250	320	420	
Flue Diameter (Concentric)		60/100	60/100	80/125	
Flue Diameter (Twin Pipe)		80	80	80	
Weight (empty)	kg	44	52	65	

Condensa Boilers are available for heating options only.
Natural Gas Only.

CONDENSA FEATURES

- ▼ Fully Condensing design
- ▼ Room-sealed balanced flue
- ▼ Working Pressure - up to 3.0.bar
- ▼ Stainless Steel Heat Exchanger
- ▼ Ultra Low NO_x Emissions
- ▼ 'User-friendly' fault-finding controls

ANCILLARY OPTIONS

- ▼ Remote Control Operation
- ▼ External Temperature Sensor (Weather Compensation)
- ▼ Wide range of flue options
- ▼ Manifold Pipework (Condensa 50M)
- ▼ Sequence Control Packages (Condensa 50M)
- ▼ Multi-flue header (Condensa 50M)



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