

CPM SP Gas-fired Cascade Boiler Packages



- Outputs from 232 to 464kW at 50/30°C
- High Efficiency Condensing Technology
- Stainless Steel Heat Exchanger
- Low NOx emissions
- Integral Controls



Lochinvar[®]
HIGH EFFICIENCY BOILERS & WATER HEATERS

CPM SP

Gas-fired Cascade Boiler Packages

Our range of CPM SP cascade boiler packages can be provided with 2, 3 or 4 fully condensing boilers, each of which is supplied complete with flow and return header pipework, has header pipework and mounting frame.

These packages feature products from our well-established CPM gas-fired condensing boiler range, each of which incorporates a stainless steel heat exchanger. CPM SP are available for Natural Gas or LPG and provide a convenient, cost-effective solution for a range of commercial buildings.

Standard CPM SP Features

- Low NOx emissions of 45mg/kWh
- High efficiencies – up to 97% Gross CV
- A-rated shunt pump
- Stainless steel heat exchanger
- Downturn ratio 4:1 per boiler

Integral Control – Standard Features

A major feature of the CPM SP range lies in the integral controls, which provide many standard features:

- Cascade control
- Shunt pump control
- 0-10v remote flow temperature set point control
- 0-10v remote burner input control
- External DHW pump or diverter valve control
- DHW calorifier control
- Pasteurisation control for DHW calorifier
- Up to 3 programmable heating/hot water settings per day
- Direct weather compensation control (requires external sensor)

CPM SP Cascade Boiler Package Components

To assist with site access, each of the three packages are supplied 'boxed' with all required parts for assembly of the Boiler Cascade system, including:

- **Hydraulic Pipework with low Velocity Header**
Includes the flow/return and gas headers along with all required brackets and connecting parts. A suitably sized low velocity header is also included, and this can be mounted at either side of the hydraulic group
- **Connecting Pipework and Shunt Pump**
A set of flow/return and gas connecting pipework is supplied for each boiler within the cascade. A high efficiency A-rated shunt pump is also provided.
- **Mounting Frame**
Designed to be securely fastened to a wall, with boilers mounted on the frame and secured with locking plates



CPM Boiler Control Display



CPM SP232

2-boiler package

Output at 50/30°C	232
Output at 80/60°C	212
Cascade Downturn ratio	8:1

Cascade Package Dimensions

Height	1948 mm
Width	1358 mm
Depth	610 mm



CPM SP348

3-boiler package

Output at 50/30°C	348
Output at 80/60°C	318
Cascade Downturn ratio	12:1

Cascade Package Dimensions

Height	1948 mm
Width	1914 mm
Depth	610 mm



CPM SP464

4-boiler package

Output at 50/30°C	464
Output at 80/60°C	424
Cascade Downturn ratio	16:1

Cascade Package Dimensions

Height	1948 mm
Width	2393 mm
Depth	610 mm

Technical Specification

Boiler model		CPM SP232	CPM SP348	CPM SP464
Number of boilers in the Cascade		2	3	4
Nominal Input (Gross) min-max	kW	28.9-246	28.9-369	28.9-492
Nominal Input (Nett) min-max	kW	26-222	26-333	26-444
Gas Flow Rate (G20) min-max (In Cascade)	m³/hr	2.75-23.6	2.75-35.4	2.75-47.2
Output @50/30°C min-max (In Cascade)	kW	27.2-232	27.2-348	27.2-464
Output @80/60°C min-max (In Cascade)	kW	24.7-212	24.7-318	24.7-424
Cascade turndown ratio		8.1	12.1	16.1
Efficiency Data - Building Regulations				
Seasonal Efficiency (Gross CV)	%	95.4	95.4	95.4
Efficiency Data - ErP and Energy Label				
EcoDesign Energy Label rating		n/a	n/a	n/a
Seasonal space heating energy efficiency	%	92.6	92.6	92.6
NOx Emmissions				
NOx emissions (according to EN15502)@0% O2	mg/kWh	45	45	45
NOx class according to EN15502		6		
General Data				
Dimensions Cascade Height	mm	1948	1948	1948
Dimensions Cascade Width (with LLH)	mm	1358	1914	2393
Dimensions Cascade Depth	mm	610	610	610
Water Content (Per boiler)	litres	8.3	8.3	8.3
Weight (Empty per boiler)	kg	83	83	83
Weight (Full per boiler)	kg	91.3	91.3	91.3
Flow Connection - Header (Inches)	BSP	1½"	2½" PN6	3" PN6
Return Connection - Header (Inches)	BSP	1½"	2½" PN6	3" PN6
Gas Connection - Header (Inches)	BSP	1½"	1½"	2"
Flue connection (Concentric)	mm	100/150	100/150	100/150
Flue connection (Twin-pipe)	mm	100-100	100-100	100-100
Electrical Requirements		230V /1Ph/ 50hz		
Maximum Power Consumption (Per boiler)	W	280	280	280
Sound Power Level (Per boiler)	LWA(db)	62	62	62
Nominal Flue Gas Temperature	°C	85	85	85
Max Flow Temperature	°C	90	90	90
Working Pressure Minimum	bar	1.0	1.0	1.0
Working Pressure Maximum	bar	4.0*	4.0*	4.0*

* CPM SP models can operate at up to 6 bar working pressure (see Ancillary options)
Energy Label, Product Fiche and ErP Data Table are available at www.lochinvar.ltd.uk

Ancillary Options

- Hydraulic Plate Separators
- Condensate neutralisation kits
- Pressurisation units
- External temperature sensor for weather compensation control
- Cascade flue assemblies
- Factory-fitted 6 bar pressure switch

Complementary Products for the generation of Domestic hot water

- Indirect Water Heaters / Calorifiers
- Packaged Plate Heat Exchangers
- Direct gas-fired Water Heaters

For further information on the Herald Floor Standing Condensing Boilers, including ICM & User Instructions and our full Warranty Terms and Conditions, please visit our website: www.lochinvar.ltd.uk

