

# Condens 7000 WP Installer guide

Quick installation, easy maintenance



# **Condens 7000 WP**

# Power up your installation

An ideal choice for applications where space is restricted but there is a demand for a modern, high output, high efficiency heating solution.

Control strategies can provide cascade and sequencing for up to 16 boilers at a time for up to 2.2MW of power.

Our Condens 7000 WP wall-hung boiler is suitable for large domestic properties, multi-family housing and commercial installations. It can also be used in combination with high output heat pumps to create a flexible hybrid solution.





# Why install the Condens 7000 WP?



#### Guaranteed

5 years peace of mind for you and your customers\*



## **Easy maintenance**

Components accessible from the front



# **Quick installation**

Rapid installation thanks to our new frame kit design



#### Connected

Touch-screen display for faster commissioning and fault-finding



Automatic modulation to match heat demand



#### High output

Outputs from 50kW up to 145kW with the ability to cascade up to 860kW

# Commercial boiler series

# High efficiency, compact size



Available in outputs of 50, 65, 85, 100, 125 and 145kW. The Condens 7000 WP can be cascaded in banks of up to 6 boilers per bank providing up to 858.6kW at 50/30 per bank.

Each boiler can automatically modulate its output to precisely match the heat demand, reducing fuel consumption and improving overall seasonal efficiency.

# Why choose Bosch?



### Tried and tested

With over 15 years of expertise, Bosch is an established leader in boiler technology.



### Get ahead

Training and support to go from newbie to expert.



### **End-to-end support**

Full project support, from buying and design to installation and spares.

# **Quality performance**

Reliable solution

The Condens 7000 WP is a versatile wall-hung boiler that is suitable for commercial properties and larger domestic homes.

James Massingham, Technical Officer – Commercial Products



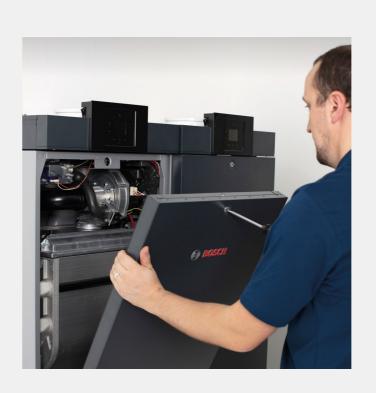
### **Electrical connection**

Easily accessible from the top with reliefs for secure cables, MM100 module can be installed.



## **Patented ALU-Plus** heat exchanger

The maintenance-reducing heat exchanger is lightweight, robust and allows for a rapid transfer of heat.



# Easy access and assembly

The front cover is easily removable, with just one click to access key components.



### **Reduced installation time**

Expect to save up to 60% on the average installation time compared to GB162 V2\*.





**Exhaust gas connection** 

100/160 as standard, rotatable by 360°, flue gas measuring points integrated.

# The inside story

### GC7000WP 50-100kW



- 1 Basic controller BC30.2 for EMS plus
- 2 Ceramic burner with modulation ratio up to 1:5
- 3 Mounting option on the base frame for floor installation with "push and click-in" function for easy assembly
- 4 Simple connection of the control components from the top
- 5 All components accessible from the front for ease of maintenance and service
- 6 Patented ALU-Plus heat exchanger

### GC7000WP 125-145kW



- 1 Basic controller BC30.2 for EMS plus
- 2 PFK grade burner with modulation ratio up to 1:6
- 3 Mounting option on the base frame for floor installation with "push and click-in" function for easy assembly
- 4 Simple connection of the control components from the top
- 5 All components accessible from the front for ease of maintenance and service
- 6 Patented ALU-Plus heat exchanger

# **Boiler configurations** Single boiler

The Condens 7000 WP can be configured in various ways to meet the heating demands of your installation. Please use the numbered steps below to choose the correct boiler configuration for your project. Please contact us if you require assistance.



1,429mm 458mm 125-145kW 1,429mm<sup>1</sup> 588mm \*\*ErP only relevant to 50kW and 65kW models

†Height with pump group

### (1) Boiler

Description	Part number
Bosch Condens GC7000WP 50kW	7 736 702 194
Bosch Condens GC7000WP 65kW	7 736 702 195
Bosch Condens GC7000WP 85kW	7 736 702 196
Bosch Condens GC7000WP 100kW	7 736 702 197
Bosch Condens GC7000WP 125kW	7 736 702 198
Bosch Condens GC7000WP 145kW	7 736 702 199

### (2) Pump group (1 required per boiler)

Description	Part number
Pump group 70kW (3 bar PRV) (for use with 50kW and 65kW boilers)	7 736 701 864
Pump group 100kW (3 bar PRV) (for use with 85kW and 100kW boilers)	7 736 701 865
Pump group 150kW (4 bar PRV) (for use with 125kW and 145kW boilers)	7 736 702 214

### (3) Wall hung or frame set option

Wall hung	Part number
Pump group insulation	7 736 701 876
Pump group connection set	5 584 552

Floor standing frame*	Part number
TL1 frame set with insulation*	7 736 701 912
Pump group connection set	5 584 552

<sup>\*</sup>TL1 floor standing frame available with flow and return headers if required, please contact your local CTM.

## (4) Hydraulic separation options (if required)

### Low loss header\*\*

Optional accessories	Part number
Sinus LLH 180kW***	8 920 097 2

Required accessories	Part number
Temperature sensor pocket (R1/2")	5 446 142

<sup>\*\*</sup>Bosch 300kW LLH available if required, please contact your local CTM.

#### Plate heat exchanger

Optional accessories	Part number	PHE connection type
50KW Plate heat exchanger	7 733 600 013	1 ¼" Male BSPP flat face
65KW Plate heat exchanger	7 733 600 014	1 ¼" Male BSPP flat face
80-100KW Plate heat exchanger	7 733 600 016	1 ¼" Male BSPP flat face
101-140KW Plate heat exchanger	7 733 600 017	2" Male BSPP flat face
141-180KW Plate heat exchanger	7 733 600 018	2" Male BSPP flat face

# (**5**) Controls

Bosch controls	Part number	BMS integration	Part number	3rd party controls	Part number
Greenstar Sense II (interface controller)	7 738 111 064	MU100 Programmer	7 738 110 145	RTH Converter (included as standard with	7 807 9
MM100 (one required per zone)	7 738 110 140		50 and 65kW variants)		

6 The inside story Single boiler 7

<sup>\*\*\*</sup>Output requirements over 100kW must be designed to 20K  $\Delta T$ .

# **Boiler configurations**

# Cascade boiler sets

Our Condens 7000 WP can be cascaded on a six boiler cascade frame set to achieve up to 860kW.

An ideal choice for applications where space is restricted but there is a demand for a modern high output, high efficiency heating solution. Control strategies can provide cascade and sequencing for up to 16 boilers at a time for up to 2.2MW of power.

### (1) Boiler

Description	Part number
Bosch Condens GC7000WP 50kW	7 736 702 194
Bosch Condens GC7000WP 65kW	7 736 702 195
Bosch Condens GC7000WP 85kW	7 736 702 196
Bosch Condens GC7000WP 100kW	7 736 702 197
Bosch Condens GC7000WP 125kW	7 736 702 198
Bosch Condens GC7000WP 145kW	7 736 702 199

### (2) Pump group (1 required per boiler)

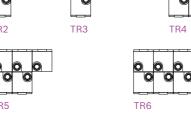
Description	Part number
Pump group 70kW (3 bar PRV) (for use with 50kW and 65kW boilers)	7 736 701 864
Pump group 100kW (3 bar PRV) (for use with 85kW and 100kW boilers)	7 736 701 865
Pump group 150kW (4 bar PRV) (for use with 125kW and 145kW boilers)	7 736 702 214

### (3) Cascade frame sets

Cascade setup	Description	Part number
TL2	2 Boiler in-line cascade set with insulation	7 736 701 883
TL3	3 Boiler in-line cascade set with insulation	7 736 701 884
TL4	4 Boiler in-line cascade set with insulation	7 736 701 885
TL5	5 Boiler in-line cascade set with insulation	7 736 701 886
TL6	6 Boiler in-line cascade set with insulation	7 736 701 887

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TL2	TL3		TL4			
0 0 0 0	0	0 0	0	0	0	(
TL5		TL6				_

Description	Part number
2 Boiler back-to-back cascade set with insulation	7 736 701 888
3 Boiler back-to-back cascade set with insulation	7 736 701 889
4 Boiler back-to-back cascade set with insulation	7 736 701 890
5 Boiler back-to-back cascade set with insulation	7 736 701 891
6 Boiler back-to-back cascade set with insulation	7 736 701 892
	2 Boiler back-to-back cascade set with insulation 3 Boiler back-to-back cascade set with insulation 4 Boiler back-to-back cascade set with insulation 5 Boiler back-to-back cascade set with insulation



# (4) Victaulic connections

Only required when NOT using a Bosch specified low loss header. If using a low loss header skip to 6.

Cascade setup	Description	Part number
TL1		
TL2/TR2	Victaulic 2.5" to flange connection DN65 PN6 (Pack Qty. 2)	7 736 701 914
TL3/TR3		
TL4/TR4	Victaulic 4" to flange connection DN100 PN6 (Pack Qty. 2)	7 736 701 913
TL5/TR5	. , ,	
TL6/TR6		

# **Boiler configurations**

# Cascade with plate heat exchanger or low loss header

A plate heat exchanger can be used to separate the boiler from the system in both open vented and sealed systems. This provides greater protection for the boiler, especially where the water quality in the existing system is poor.



A low loss header is a device that hydraulically separates the boiler from the heating circuit. This helps to improve the efficiency and performance of the heating system by regulating the pressure and flow rate of the system.



### (**5**) Plate heat exchangers

Description	Part number	PHE connection type
50KW Plate heat exchanger	7 733 600 013	1 ¼" Male BSPP flat face
65KW Plate heat exchanger	7 733 600 014	1 ¼" Male BSPP flat face
80-100KW Plate heat exchanger	7 733 600 016	1 ¼" Male BSPP flat face
101-140KW Plate heat exchanger	7 733 600 017	2" Male BSPP flat face
141-180KW Plate heat exchanger	7 733 600 018	2" Male BSPP flat face
181-230KW Plate heat exchanger	7 733 600 020	2" Male BSPP flat face
231-280KW Plate heat exchanger	7 733 600 021	2 ½" Male BSPP flat face
281-400KW Plate heat exchanger	7 733 600 023	2 ½" Male BSPP flat face
401-520KW Plate heat exchanger	7 733 600 025	2 ½" Male BSPP flat face
521-640KW Plate heat exchanger	7 733 600 026	2 ½" Male BSPP flat face
641-860kW Plate heat exchanger	7 733 600 027	DN100 compact flange

### (6) Low loss header

Cascade Setup	Description	Part number	Optional flanges	Part number
TL1	Laurian handar i lauriation 2001/W	7 700 701 007	Threaded flares DNCF DNC	7 700 700 407
TL2/TR2	Low loss header + Insulation 300kW	7 736 701 907	Threaded flange DN65 PN6	7 736 700 487
TL3/TR3				
TL4/TR4	Low loss header + Insulation 900kW	7 736 701 908	Threaded flange DN100 PN6	7 736 700 964
TL5/TR5				
TL6/TR6				

# (**7**) Controls

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Bosch intelligent controls	Part number	Bosch sequencing controls	Part number	BMS integration	Part number	
8313 Control	7 736 602 245	MC400 Cascade sequencer	7 738 111 001			
Temperature sensor set EMS plus 200mm	7 735 600 656	Temperature sensor set TF HW EMS2 200mm (MC400	7 735 600 657	interface module)		
FM-CM Module (cascade	7 736 602 098	required accessory)				
sequencer)		MM100 Zone	7 738 110 140			
FM-MM Module (2 heating	8 718 598 828	control module				
circuits)		Greenstar Sense II	7 738 111 064			
FM-MW Module (1 heating, 1 hot water circuit)	8 718 598 831	(interface controller, MM100 required accessory)				

# **Accessories**

### Accessories designed to help enhance operation and overall efficiency.

Accessor	ies	Part number
	TL1 frame set with insulation Single hydraulic frame kit set (TL1 set up) with insulation for use with the Condens 7000 WP boiler. Includes frame kit and insulation only.	7 736 701 912
	TL1 frame set with insulation & flow and return headers Single hydraulic frame kit set (TL1 set up) with insulation for use with the Condens 7000 WP boiler. Includes flow and return headers and frame.	7 736 701 882
	Flange connection 2.5" incl. Victaulic Victaulic 2.5 inch to DN65, PN6 flange connection (pack qty. 2).	7 736 701 914
	Flange connection 4" incl. Victaulic Victaulic 4 inch to DN100, PN6 flange connection (pack qty. 2).	7 736 701 913
0	4 Bar pressure relief valve (50-100kW) 4 bar pressure relief valve.	7 095 595
	LPG conversion kit (45-50kW)	7 736 702 378
	LPG conversion kit (60-70kW)	7 736 702 379
0 %	LPG conversion kit (80-85kW)	7 736 702 380
	LPG conversion kit (90-100kW)	7 736 702 381
	LPG conversion kit (125kW)	7 736 701 860
	LPG conversion kit (145kW)	7 736 701 861
	RTH converter RTH converter to enable the use of 3rd party 230Vac controls. Included as standard with the 50 & 65 models.	7 807 9
^	CO Sensor In case of CO detection an alarm is activated. Batteries are built in and installation is easy through wireless connection.	7 736 606 211
0 Meter	CO Sensor & boiler cut-off module CO-detector with boiler cut-off module. This combined accessory is able to shut down boilers via control signal to the appliance (included with Bosch cascade flues).	7 736 606 214
	Non return valve for overpressure flue cascade kit 50-100kW (not required for 125 & 145kW).	7 736 701 917

Controls		Part number
•	MU100 Programmer BMS interface module (0-10Vdc control).	7 738 110 145
211	Greenstar Sense II Intelligent weather compensation boiler control, used for single boiler installations.	7 738 111 064
in the	MM100 Heating & hot water zone module for use with Sense II.	7 738 110 140
0=	MC400 Cascade sequencer Cascade module for up to 4 boilers (0-10Vdc control). Temperature sensor set is required.	7 738 111 001
	Temperature sensor set:	
	EMS2 200mm Required if using an MC400 cascade sequencer.	7 735 600 657
	EMSplus 200mm Required if using an 8313 controller.	7 735 600 656
100 m	8313 Control Intelligent commercial control offering internet connected remote access and weather compensation as standard.	7 736 602 245
FMCM	FM-CM Module Cascade module used with the 8313 to offer a sequencing strategy of up to 4 boilers per module.	7 736 602 098
THE STATE OF THE S	FM-MM Module Heating circuit module used with the 8313 capable of controlling up to two mixed heating circuits.	8 718 598 828
	FM-MW Module Heating and DHW circuit module used with the 8313 capable of controlling one mixed heating circuits and one DHW circuit.	8 718 598 831
•	Bosch EasyControl (White) Smart internet connected room thermostat.	7 736 701 341
— <b>⊚</b>	Bosch EasyControl (Black) Smart internet connected room thermostat.	7 736 701 392

# **Flues**

#### Flue lengths 50-85kW

Maximum flue lengths inc. terminal (mm)				
Diameter	Direction	50kW	65kW	85kW
160mm	Horizontal	11,000	16,000	11,000
160mm	Vertical	21,000	22,000	16,000

#### Flue lengths 100-145kW

Maximum flue lengths inc. terminal (mm)				
Diameter	Direction	100kW	125kW	145kW
160mm	Horizontal	12,000	3,000	3,000
160mm	Vertical	16,000	5,000	5,000

Note: For every 87° flue bend deduct 1,500mm. For every 45° flue bend deduct 500mm.

#### Horizontal and vertical fluing options

110/160mm diameter				
	Horizontal flue kit	7 738 113 669		
Ê	Vertical flue kit	7 738 113 668		
	0.5m flue extension	7 738 113 099		
	1m flue extension	7 738 113 100		
	2m flue extension	7 738 113 101		
	87º bend	7 738 113 105		
	√ 45° bend			
√ 30° bend		7 738 113 103		
	15° bend	7 738 113 102		
$\bigcirc$	Flue wall clamps 160mm dia. (3 pack)	7 738 113 677		
Д	Flat roof flashing 166mm dia. 0°	7 738 113 126		
	Flat roof flashing 166mm dia. 0-15°	7 738 113 127		
	Pitched roof flashing 166mm dia. 5-25° black			
	Pitched roof flashing 166mm dia. 25-45° black	7 738 113 129		

#### Plume management

110/160mm diameter	
Plume management kit, Ø110/160	7 738 113 670
Pipe concentric Ø110/160, 0,5m stainless	7 738 113 140
Pipe concentric Ø110/160, 1,0m stainless	7 738 113 141
Supply air intake Ø110/160, stainless	7 738 113 147
Elbow concentric Ø110/160, 45° stainless	7 738 113 145
Elbow concentric Ø110/160, 87° stainless	7 738 113 146
Wall bracket Ø160, 40-65mm stainless (pack qty. 1)	7 738 113 149

# **Getting started**



To register a boiler or cascade system and activate the 5 year guarantee, visit the link below, or scan the QR code:

www.bosch-industrial.co.uk/guarantee





In order to book commissioning for a boiler or cascade system, simply visit the below link, or scan the QR code, and complete the pre-commissioning checklist:

www.bosch-industrial.co.uk/commissioning



10 Accessories Flues 11

# **Training**

### Install with confidence

Learn all you need to know about the Condens 7000 WP commercial boiler range. We specifically tailor all our product courses to meet your needs. This hands-on course is perfect for those who want to specify and install the Condens 7000 WP boilers for commercial and domestic applications.

### Supporting you

Our courses are here to support your installation from beginning to end. The Condens 7000 WP course covers:

- ► Specification and installation
- ► Service and maintenance
- ► Fault finding and diagnostics

Our product training courses will help you get hands-on experience and understand all the features and benefits.



Scan to start your training:

worcester-bosch.co.uk/eacademy

# Get in touch

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Tel: 0330 123 3641

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# Share

We would love to see your installations!

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