

navien NCB

Condensing Combi Boiler / System Boiler

THE WORLD OF NAVIEN
IS OPEN TO YOU



INSIDE THE WORLD OF NAVIEN

Navien is one of the fastest growing companies in the heating sector in North America and Russia. Navien has also achieved international recognition for its states-of-the-art, high efficiency, reliable, sophisticated, and robust designs, technology. It's also the heating brand of choice for world famous hotels in the USA including the Hilton, Best Western and the MGM Grand in Las Vegas.

When it comes to world-leading Korean brands, Navien is in great company. Sitting amongst household names such as Samsung, LG, Hyundai and Kia, Navien shares their position as leaders in innovation, reliability and value.



WHAT WE DO

Navien brings world-leading condensing technology to condensing gas combi boilers, system boilers and water heaters. It's our mission to continue to provide high quality products that are beneficial to both customers and the environment.



PART OF SOMETHING BIGGER

Navien in the UK is backed by our parent company, KD Navien. With more than 35 years of experience in advanced boiler and water heating technology, their in-depth knowledge and market expertise helps to elevate our position and reach.

Our factory in South Korea



THE WORLD OF OPPORTUNITY IS OPEN TO YOU

Choosing Navien is a smart choice for keeping heating costs down.
The A rated Condensing Combi Boiler offers high efficiency, high performance and high quality.



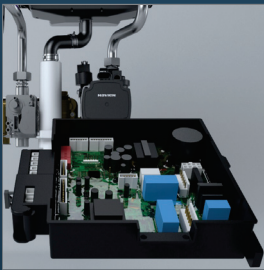
Dual stainless steel heat exchangers

Resist corrosion providing longer boiler life and improving efficiency.



NOx emissions CLASS 6

Eco-friendly pre-mixed burner lowers NOx emissions, ready for ErP.



Coated PCB

Water-Resistant circuit board. (IPX5D)



LPG Compatible

LPG conversion kit included.



High performance & easy service

Optimised water path design maintains the desired water pressure and makes replacement of parts and service easier.



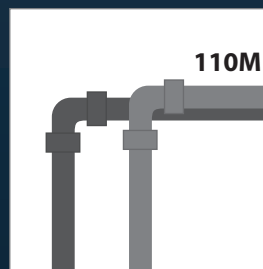
Domestic Hot Water

Class leading water flow rates from all Navien combination boilers.



Installation Flexibility

Water-Resistant User Interface (IPX5D).



Venting up to 110 M

Centralised flue provided. Either Coaxial or Twin flue system available.



Low standby power 3W or less

Saves money on your electricity bill.



Energy Saving Trust

Energy Saving Trust endorses energy efficient products that have met industry agreed standards for energy performance

CONFIDENCE ABOUT NAVIEN

TRAINING

What product and installation training is available?



We have three training options: Introduction: to enable installation of Navien boilers, Level 1: for fault finding and Level 2: to become a Service Agent. As all our field staff are Gas Safe we know what level we need to train to. The initial introduction Level training is carried out on site from our training vehicle in just 20 minutes. This means in the time it takes for a tea break we provide everything you need to become a Navien installer, increasing your install margins.



For the initial Introduction Level training you have no time off work so have no loss of income. Training Level 1 and 2 are half day each and by the end of Level 2 you will become a Navien Service agent.

WARRANTY

Some manufacturers have longer warranties than Navien's.



Navien have a "Warranty that works". Unlike some manufacturers we will not make customers pay for a visit to cover any non-warranty call-outs. We also guarantee that water carrying parts will not be excluded from cover because of poor water quality. Our only caveats are that if the heat exchanger is blocked this would not be covered or if annual service is not carried out the warranty is void.



If you install correctly and the customer has a service when notified by the built-in indicator, we guarantee **seven years** of trouble-free running. We also underwrite our own warranty so there are no disputes between manufacturer and installer.

SERVICE

What if the boiler breaks down?



We have a network of service engineers and agents to cover all areas. Our service level agreement is two working days from receiving the call, although we have been responding within 24hrs. To reach our service team, call Navien on 0844 332 2323.



Due to the size of Navien globally, we have the ability to match all other manufacturers on service. Also because all field staff are Gas Safe trained we know the importance of good service to our customers, both installers and end users.

FUTURE

How do I know Navien will be here in the future?



In 2012, Navien became the 4th largest wall-hung gas boiler manufacturer in the world and reached the full capacity of production. In 2013, we built a new factory which could produce 2m boilers (the biggest in the world) this was purely to move into the UK and Europe.



Navien have a long-term strategy to become a major player in the European market. We are currently developing gas boilers, fuel cells and mCHP. If you become a Navien installer you can feed into future developments and have a impact on future products.



SMART TOK? Smart Choice! (Option)

01 The large back lit screen means you are able to see the controls at night or in poor light conditions

02 Monitor the boilers hours of operation over any 24hr period

03 A hot water pre heat give a quick response to hot water demands

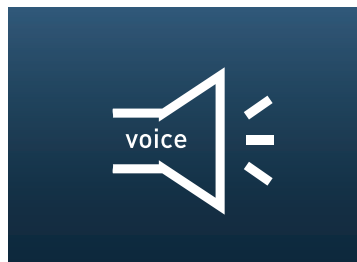
NR-35D



SMART CONTROL

Total control via smartphone app with a connected Room Controller

Get connected to your boiler from anywhere via your smart devices
With Navien NR-35D you can quickly and easily control your heating from anywhere in the world
Navien NR-35D helps you connect with your home and save energy



SMART VOICE


Room controller with voice conformation Talk! TOK!

Get smart connected - now with built in Wi-Fi
"24hour program mode. Turning the dial to set the desired time for heating"
Listen and Save!



SMART SAVE

Choose from 3 heat intensity settings Power, Standard and Economic

Press the heating strength button, the  on the LCD screen will blink
The intensity of heating can be selected to suit your lifestyle
Turning the dial to set Power, Standard and Economic mode, then press OK button



Navien Condensing NCB System Boiler

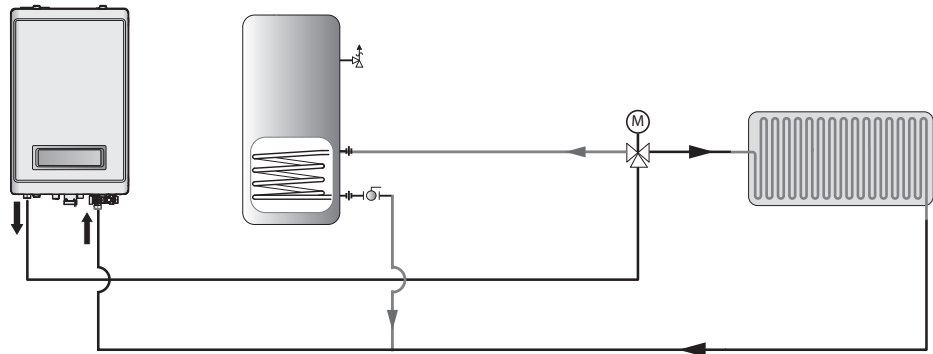
Suitable for larger homes with higher hot water demand

Key components built-in the boiler allows easy installation and service

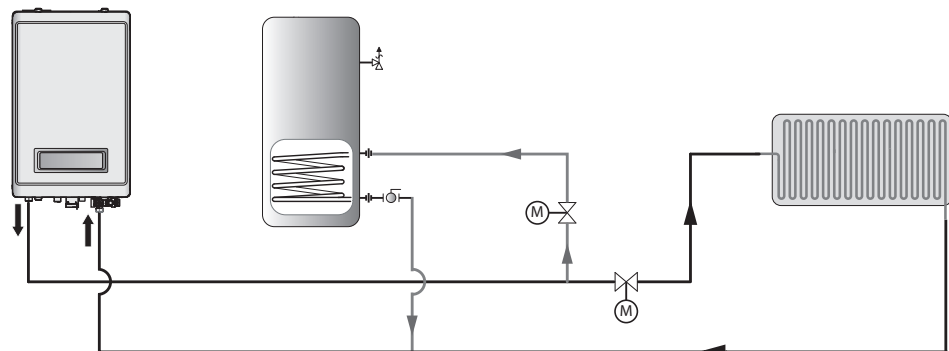
Can be used as an independent heating system with hot water cylinder or with renewable heating system such as solar panels

Refer to the following examples to properly implement a system for space heating, DHW supply, or both. These examples are provided to suggest basic guidelines when you installing the boiler system. However, the actual installation may vary depending on the circumstances, local building codes or regulations.

Y Plan Layout



S Plan Layout



Specifications

The following tables list the general specifications for **Navien Combi Boiler**.

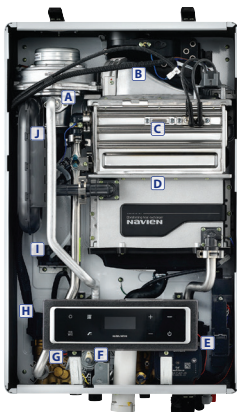
Description	units	NCB-24LDWE	NCB-28LDWE	NCB-34LDWE	NCB-40LDWE
Central Heating					
Modulation of Heating and DHW		✓	✓	✓	✓
Heat input range	kW	20.0/4.2	24.0/4.2	29.0/5.1	34.0/4.0
Heat output range @ 80/60°C	kW	19.5/3.9	23.4/3.9	28.3/4.9	33.2/3.8
Condensing heat output range @ 50/30°C	kW	21.4/4.5	25.6/4.5	31.1/5.4	36.3/4.3
Full load efficiency at Max./Min. output @ 80/60°C	%	97.5/96.4	97.5/96.4	97.6/96.4	97.6/95.8
Full load efficiency at Max./Min. output @ 50/30°C (Condensing)	%	106.9/107.8	106.6/107.8	107.3/106.9	106.9/106.9
Partial load (30%) efficiency with 47°C return temp.	%	101.9	103.1	102.0	103.1
Partial load (30%) efficiency with 30°C return temp.	%	108.6	108.9	108.5	108.8
Max. heating operation pressure	bar	2.5			
Max. heating temperature	°C	90			
Adjustable heating temperature range	°C	40-90			
Domestic Hot Water					
DHW heat input range	kW	24.0/4.2	28.0/4.2	34.0/5.1	40.0/4.0
DHW output range	kW	23.8/4.1	27.7/4.1	33.7/5.0	39.6/3.9
Min. DHW working pressure	bar	1.0	1.2	1.4	1.4
Max. DHW working pressure	bar	10			
Adjustable DHW temperature range	°C	30-65			
DHW flow rate @ 25°C temp. rise.	l/min	13.8	16.1	19.5	22.9
DHW flow rate @ 35°C temp. rise.	l/min	9.9	11.5	13.9	16.4
DHW flow rate for kitchen @ 45°C temp. rise	l/min	7.6	8.9	10.8	12.7
Flue					
Flue exhaust/Air intake system types		B23-B33-B53-C13-C33-C43-C53-C63-C83			
Flue exhaust/Air intake system diameters	mm	Coaxial Ø60/100 and Ø80/125–Dual duct Ø80/80			
Multi-directional fluing LH, RH, Rear and Vertical		✓	✓	✓	✓
Max. horizontal coaxial length ø60/100	m	20			
Max. horizontal coaxial length ø80/125	m	68			
Max. dual duct length ø80/80	m	110			
Equivalent elbow length @ 90° ø80	m	2.2			
Equivalent elbow length @ 45° ø80	m	1.4			
Electrical					
Electrical power supply		230 V / 50 Hz			
Appliance protection rating		IP X5D			
Fault finding diagnostics		✓	✓	✓	✓
Built-in frost thermostat		✓	✓	✓	✓
General Data					
Seasonal efficiency rate (SEDBUK 2009)		89.0	89.1	89.0	89.1
NOx Classification		Class 6			
Category		II2H3P			
LPG fuel conversion, including the package		✓	✓	✓	✓
Hydraulic connection diameter	Central Heating	mm	22		
	DHW	mm	15		
	Gas supply	mm	22		
Free Valve kit		✓	✓	✓	✓
Dimensions (Width x Depth x Height)	mm	440 x 358 x 695		440 x 408 x 695	
Total boiler weight (lift weight)	kg	38		42	

* KD Navien reserves the right to change specifications at anytime without prior notice.

The following tables list the general specifications for **Navien System Boiler**.

Description		units	NCB-20LHWE	NCB-23LHWE	NCB-28LHWE	NCB-33LHWE
Central Heating						
Heat input range		kW	20.0/4.2	24.0/4.2	29.0/5.1	34.0/4.0
Heat output range @ 80/60°C		kW	19.5/3.9	23.4/3.9	28.3/4.9	33.2/3.8
Condensing heat output range @ 50/30°C		kW	21.4/4.5	25.6/4.5	31.1/5.4	36.3/4.3
Full load efficiency at Max./Min. output @ 80/60°C		%	97.5/96.4	97.5/96.4	97.6/96.4	97.6/95.8
Full load efficiency at Max./Min. output @ 50/30°C (Condensing)		%	106.9/107.8	106.6/107.8	107.3/106.9	106.9/106.9
Partial load (30%) efficiency with 47°C return temp.		%	101.9	103.1	102.0	103.1
Partial load (30%) efficiency with 30°C return temp.		%	108.6	108.9	108.5	108.8
Max. heating operation pressure		bar	2.5			
Max. heating temperature		°C	90			
Adjustable heating temperature range		°C	40-90			
Flue						
Flue exhaust/Air intake system types			B23-B33-B53-C13-C33-C43-C53-C63-C83			
Flue exhaust/Air intake system diameters		mm	Coaxial Ø60/100 and Ø80/125–Dual duct Ø80/80			
Multi-directional fluing LH, RH, Rear and Vertical			✓	✓	✓	✓
Max. horizontal coaxial length ø60/100		m	20			
Max. horizontal coaxial length ø80/125		m	68			
Max. dual duct length ø80/80		m	110			
Equivalent elbow length @ 90° ø80		m	2.2			
Equivalent elbow length @ 45° ø80		m	1.4			
Electrical						
Electrical power supply			230 V/50 Hz			
Appliance protection rating			IP X5D			
Fault finding diagnostics			✓	✓	✓	✓
Built-in frost thermostat			✓	✓	✓	✓
General Data						
Seasonal efficiency rate (SEDBUK 2009)			89.0	89.1	89.0	89.1
NOx Classification			Class 6			
Category			II2H3P			
LPG fuel conversion, including the package			✓	✓	✓	✓
Hydraulic connection diameter	Central Heating	mm	22			
	DHW	mm	15			
	Gas supply	mm	22			
Free Valve kit		mm	✓	✓	✓	✓
Dimensions (Width x Depth x Height)		mm	440 x 358 x 695		440 x 408 x 695	
Total boiler weight (lift weight)		Kg	38		42	

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- | | |
|-----------------------------------|----------------------------|
| A Single Venturi | F Gas Valve |
| A* Dual Venturi (40kW - TDR 1:10) | G Hot Water Heat Exchanger |
| B Pre-mixed Burner | H Diverter Valve Assembly |
| C Primary STS Heat Exchanger | I Air Pressure Sensor |
| D Secondary STS Heat Exchanger | J Air Balancing Tube |
| E Circulation Pump | |

NAVIEN'S

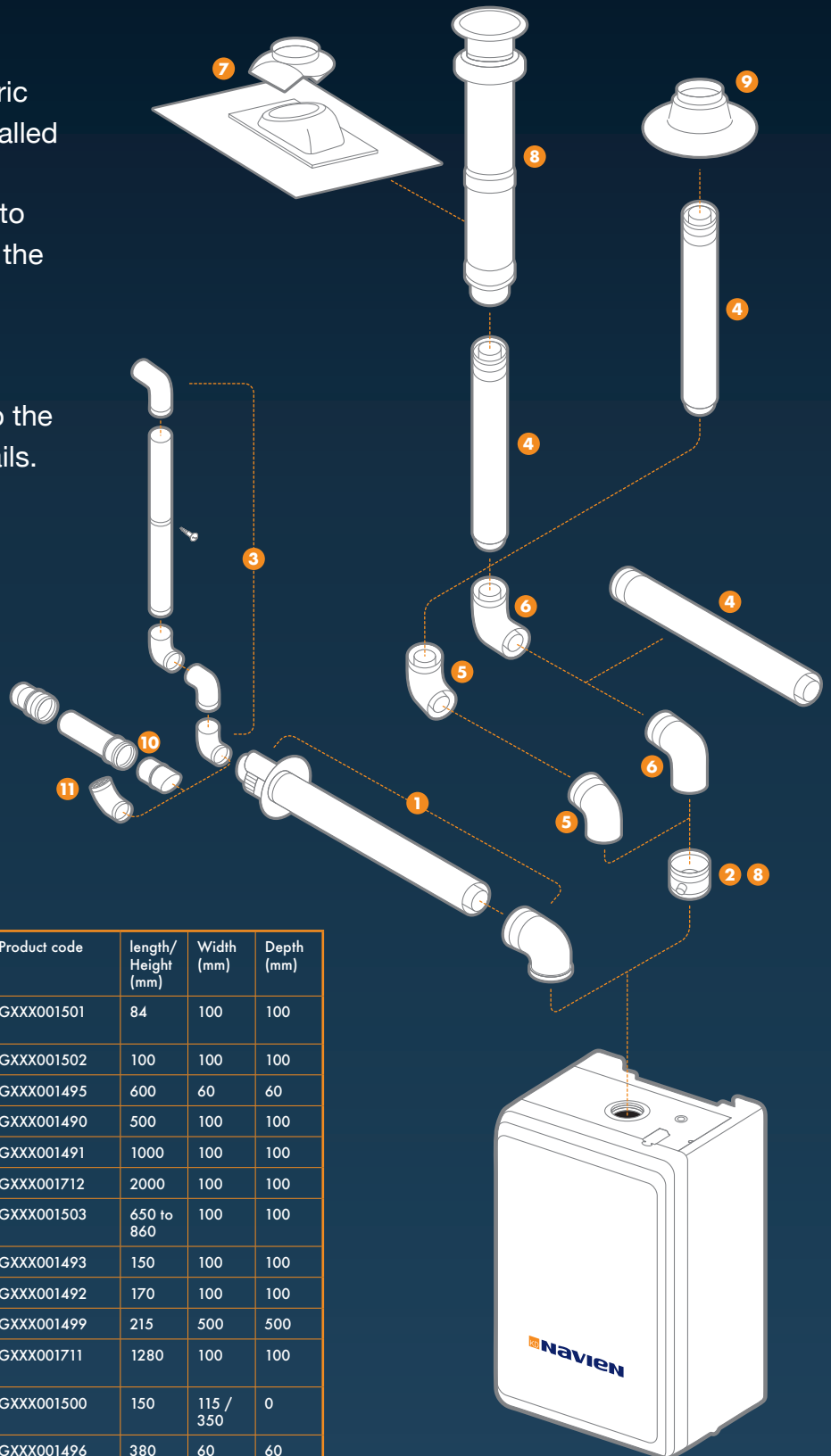
FLUE OPTIONS 60/100

FLUE MANAGEMENT

The Navien NCB range can be fitted with our 60/100 concentric flue system, which can be installed horizontally or vertically.

Our flues can be extended up to 20 meter in both cases, this is the Max length without bends.

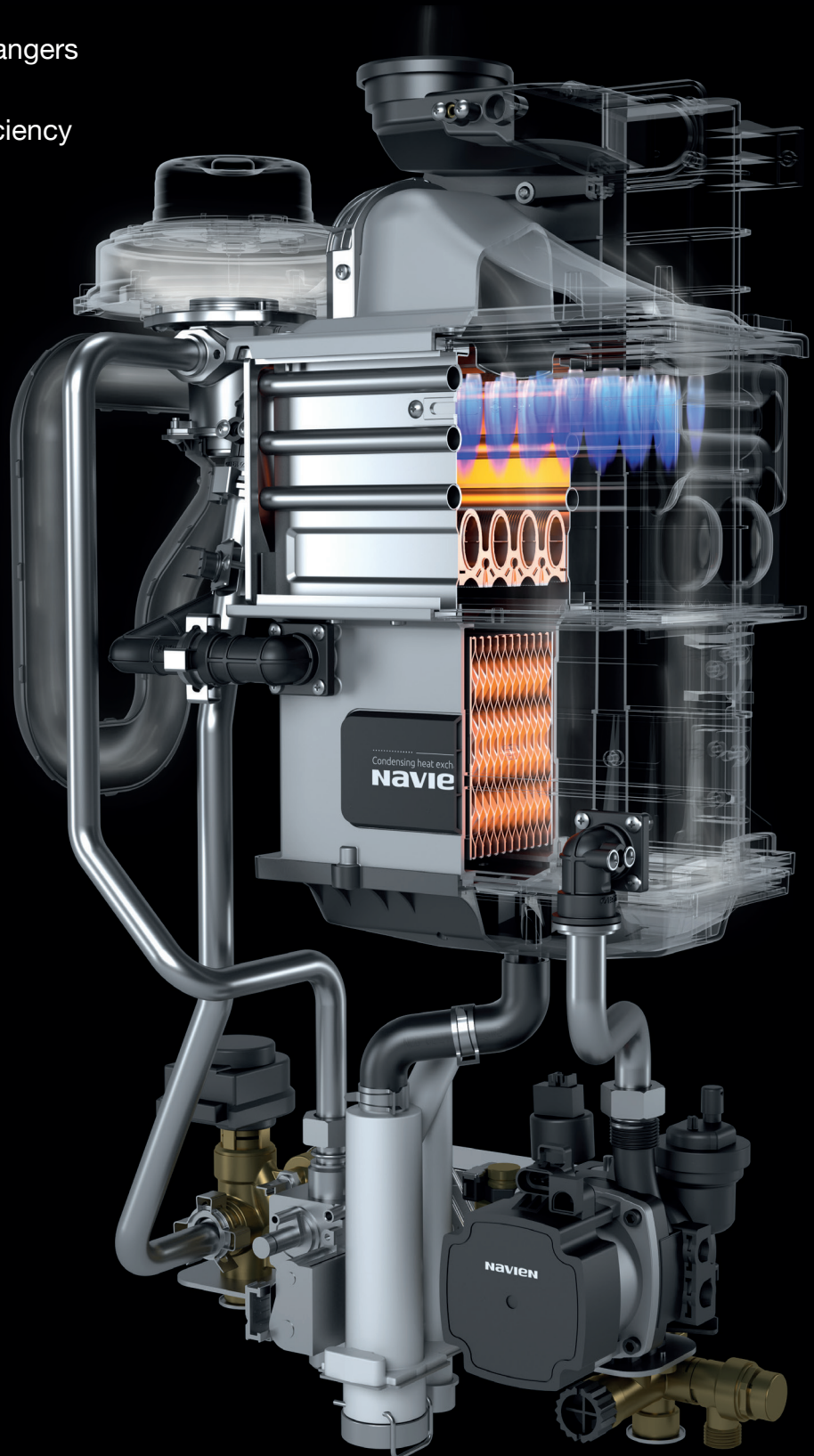
The flue arrangements above should be suited to most installations but please refer to the installation manual for full details.



No.	Product description	Product code	length/ Height (mm)	Width (mm)	Depth (mm)
1	WALL TERMINAL KIT;pp, 60/100(Standard Horizontal flue kit)	GXXX001501	84	100	100
2	NAVIEN VERTICAL FLUE ADAPTOR (MOQ 3)	GXXX001502	100	100	100
3	Navien Plume Management Kit	GXXX001495	600	60	60
4	Navien Flue Extension 500mm	GXXX001490	500	100	100
4	Navien Flue Extension 1000mm	GXXX001491	1000	100	100
4	Navien Flue Extension 2000mm	GXXX001712	2000	100	100
4	WALL TERMINAL KIT; Extended Telescopic	GXXX001503	650 to 860	100	100
5	Navien 45deg. Elbow short	GXXX001493	150	100	100
6	Navien 90deg. Elbow short	GXXX001492	170	100	100
7	Navien Weather Slate pitched roof	GXXX001499	215	500	500
8	Navien Vertical Flue 60/100 (including adaptor)	GXXX001711	1280	100	100
9	Navien Weather Slate flat roof	GXXX001500	150	115 / 350	0
10	Balcony kit	GXXX001496	380	60	60
11	Deflector kit	GXXX001497	85	60	60

NAVIEN'S STAINLESS STEEL HEAT EXCHANGERS

- Stainless steel heat exchangers
- Brass and stainless steel components for high Efficiency and reliability
- NOx class 6
- DHW ErP A (XL profile)





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