



GREENSTAR CAMRAY 12/18

Oil Product Guide 2008/2009

Oil-fired and renewable
energy solutions from
Worcester, Bosch Group

 **WORCESTER**
Bosch Group



Worcester and you. Making a difference.

Worcester, Bosch Group
headquarters

Working together for many years, heating professionals and Worcester have been making a real difference in hundreds of thousands of homes across the UK. We are recognised as a market leader in condensing boiler technology and are also committed to providing renewable energy solutions.

As part of the Bosch Group, our products are designed and manufactured to provide the high levels of quality and reliability which are synonymous with the Bosch name throughout the world.

We're a leading British company, employing approximately 2,000 people at our headquarters and manufacturing plants in Worcester and at Clay Cross in Derbyshire, including a nationwide network of over 300 Service Engineers and over 80 technically-trained Field Sales Managers.

As part of Europe's largest supplier of heating products, Worcester, Bosch Group has the UK-based resources and support capability to offer you the value-added solutions we feel you deserve.



"At Worcester we recognise the vital role you, our customer, has in the specification and installation of 'A' rated, energy efficient appliances in homes across the UK. We will continue to invest in our products, people, facilities and added value services such as training, to give you the support you require in providing a total solution for your customers' comfort."

Richard Soper,
Managing Director, Worcester, Bosch Group



Everything you need to know about the complete Worcester oil-fired product range

Rising fuel prices and changes in legislation from April 2007 means the oil-fired boiler market is changing and we all need to be prepared.

We are in the best position to offer you the products, service and advice you need during this time.

Worcester can offer the biggest and best oil-fired boiler offering available in the UK, backed by the best training, service and parts organisation in the sector.

In this easy-to-use pocket guide you will find essential information on every oil-fired heating and hot water appliance currently available from the Worcester range, as well as information about our renewable energy solutions. This includes brief details of current legislation applicable to the installation of central heating boilers, technical data such as dimensions, outputs, flue options, accessories, product codes and much more – all laid out clearly and concisely with the aid of diagrams, tabulated text and a comprehensive contents page.



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Building Regulations

Part L - Conservation of fuel & power in dwellings

When Part L of the Building Regulations came into effect in April 2005 oil was considered an exception, but from April 2007 installation of oil-fired boilers in all existing dwellings must be condensing*.

| | England & Wales | Scotland | Northern Ireland | Southern Ireland |
|---------------------------------------|--|------------|---|------------------|
| Implementation date | April 2005 | May 2007 | Nov 30th 2006 | 1st July 2006 |
| Minimum SEDBUK Band gas-fired boilers | 86% Band B | 86% Band B | 86% Band B | 78% Band D |
| Minimum SEDBUK Band oil-fired boilers | 85% (82% Combis Band C) 86% April 1st 2007 Band B | 86% Band B | 82% Band C 86% April 1st 2007 Band B | 78% Band D |
| New build properties | Yes | Yes | Yes | Yes |
| Existing properties | Yes | Yes | Yes | Unconfirmed |

Part P - Electrical safety in dwellings

- Since 1st January 2005, any electrical work that involved adding new circuits to dwellings must either be:
 - Completed by a person competent to do the work, and be notified to/inspected by the Local Authority Building Control (LABC).
 - Completed by a Competent Person registered with a Part P self-certification scheme. The Competent Person must then notify the scheme provider.
- Small jobs carried out in areas such as kitchens and bathrooms (e.g. replacing socket-outlets on existing circuits), will also need to be notified to the LABC.

OFTEC have been operating competent person's self certification schemes for heating installers since April 2005. Further information will be available on the web site - www.oftec.org.

Latest information can be found on the Communities and Local Government website – www.communities.gov.uk.

Oil

An industry recognised accreditation is also available for installers who fit oil-fired boilers. More information about the OFT105E is available from OFTEC - www.oftec.org.

Self certification and compliance

The Government realises that enforcement of the new Building Regulations is important, but LABCs will not be able to inspect every new and replacement boiler installation.

Competent Person's schemes are therefore being run by organisations such as OFTEC to allow installers to self-certify that their work complies with Building Regulations.

- To register on these schemes you will need to complete a recognised training programme.
- Installers must inform the scheme provider about every installation and provide information on the boiler type, details of exceptions situations, etc.
- The scheme provider will issue a Building Regulations compliance certificate to the householder, and notify the LABC. Installers who do not belong to a Competent Person's scheme will have to obtain a Building Control notice before installing any boiler, so you can see how important it is that you are able to self-certify.



Greenskies solar water heating

People across the UK are warming to solar energy as part of the solution to providing their hot water. It's an effective and very environmentally-friendly way of contributing to the hot water we all need.

Worcester has developed solar water heating technology for the UK and in 2005 launched the Greenskies solar water heating system. Greenskies solar water heating panels operate on the principle of light absorption and don't depend on long spells of direct sunshine.

The panels work perfectly with Greenstar regular and system boilers, and on average, over a year, can provide between 50%-70% of the hot water required in the home.

The Worcester Greenskies solar package includes both portrait and landscape panels and a range of twin-coil hot water cylinders.



Greenstore ground source heat pumps

Ground source heat pumps are a proven technology. They are relatively new to the UK but have been used for many years – particularly in Northern Europe.

These highly innovative products tap into the energy from the sun which is absorbed by the earth. They simply extract that energy from below the surface of the land around your customer's property.

The technology behind GSHPs is very simple. The system works on a similar principle to a domestic fridge. Pipework is laid in the soil outside the property and a water/glycol liquid mix circulates through the pipes extracting the stored heat from the earth and transferring it to the heat pump. This stored heat is used to provide the heating and hot water for the house.

The market for renewable energy solutions is growing and opportunities exist for installers to work with Worcester in providing these solutions to UK homes.





Greensource air to water heat pumps

Worcester heat pumps make use of the latent energy from the outside air by converting it into heat which can be used with a typical wet heating and hot water system.

The heat pumps use the constant energy available in the air with a refrigerant circuit to allow the temperatures to be boosted to a useful level for the provision of heating or hot water for the home.

The system comprises an external energy collector and an internal Building Regulation G3 compliant heating and hot water distribution unit with a hot water store and heat delivery system, preferably to underfloor heating or alternatively to oversized radiators.

Worcester heat pumps are intended to be the sole source of heating and hot water production for the home, giving the homeowner the option of removing the existing heat source from the property.

Greensource air to air heat pump

An air to air heat pump is an all-in-one heating and cooling system that's designed to provide year-round comfort.






Outside air, even on cold days, contains latent heat which can be converted to provide environmentally-friendly, low cost heating for a wide range of domestic and commercial properties. Using a similar principle to the refrigerator, but in reverse, the Greensource air to air heat pump's outdoor unit draws in and warms the outside air before transferring it into the property where it is circulated by an indoor fan unit. It is an extremely efficient process which could produce up to 5 times more heat than the electrical energy it uses and, as an added benefit, this operating process can be reversed in the warmer months to provide cooling air.

The Greensource air to air heat pump also incorporates Plasmacluster Ion-technology, a unique active air purification feature which neutralises airborne bacteria, viruses and allergens and is particularly beneficial to asthma and hay fever sufferers. This technology is also effective against odours such as tobacco smoke.

SEDBUK ratings

Oil Boilers

| Appliance | Efficiency Rating % | SEDBUK Band | Compatible Features |
|---|---------------------|-------------|---|
| Greenstar Camray (kitchen) 25/32 | 94.2 | A |   |
| Greenstar Camray (kitchen) System 25/32 | 94.2 | A |   |
| Greenstar Camray Utility 25/32 | 94.2 | A |   |
| Greenstar Camray Utility System 25/32 | 94.2 | A |   |
| Greenstar Camray External 25/32 | 94.2 | A |   |
| Greenstar Camray 18/25 | 93.2 | A |   |
| Greenstar Camray (kitchen) System 18/25 | 93.2 | A |   |
| Greenstar Camray Utility 18/25 | 93.2 | A |   |
| Greenstar Camray Utility System 18/25 | 93.2 | A |   |
| Greenstar Camray External 18/25 | 93.2 | A |   |
| Greenstar Camray (kitchen) 12/18 | 93.1 | A |   |
| Greenstar Camray (kitchen) System 12/18 | 93.1 | A |   |
| Greenstar Camray Utility 12/18 | 93.1 | A |   |
| Greenstar Camray Utility System 12/18 | 93.1 | A |   |
| Greenstar Camray External 12/18 | 93.1 | A |   |
| Greenstar Utility 32/50 | 93.0 | A |   |
| Greenstar Danesmoor 18/25 | 92.8 | A |   |
| Greenstar Danesmoor Wall Mounted 18/25 | 92.8 | A |   |
| Greenstar Danesmoor Wall Mounted 12/18 | 92.6 | A |   |
| Greenstar Utility 18/25 | 92.8 | A |   |
| Greenstar Utility 50/70 | 92.5 | A |   |
| Greenstar Heatslave 25/32 | 90.3 | A |  |
| Greenstar Heatslave External 25/32 | 90.3 | A |  |
| Greenstar Heatslave 12/18 | 90.2 | A |  |
| Greenstar Heatslave External 12/18 | 90.2 | A |  |
| Greenstar Heatslave 18/25 | 90.1 | A |  |
| Greenstar Heatslave External 18/25 | 90.1 | A |  |
| Camray 5 40/65 Regular | 85.7 | C |  |

| Appliance | Efficiency Rating % | SEDBUK Band | Compatible Features |
|----------------------------|---------------------|-------------|---|
| Camray 5 95/130 Regular | 85.6 | C |  |
| Camray 5 150/200 Regular | 85.3 | C |  |
| Camray 5 65/90 Regular | 85.1 | C |  |
| Camray 5 200/240 Regular | 85.1 | C |  |
| Camray 5 50/70 Internal WM | 85.1 | C |  |
| Heatslave 15/19 | 82.8 | C | |
| Heatslave 20/25 | 82.8 | C | |
| Heatslave 12/14 | 82.5 | C | |
| Heatslave 26/32 | 82.5 | C | |

Seasonal efficiency is given as the SEDBUK number. The value is used in the UK Government's Standard Assessment Procedure (SAP) for energy rating of dwellings. The test data from which it has been calculated has been certified by a notified body as indicated.



Compatible with Solar



Energy Saving product recommended by the Energy Savings Trust.



Wall mounted condensing regular boilers

Greenstar Danesmoor wall mounted boilers

Greenstar Danesmoor WM 12/18

Clearances

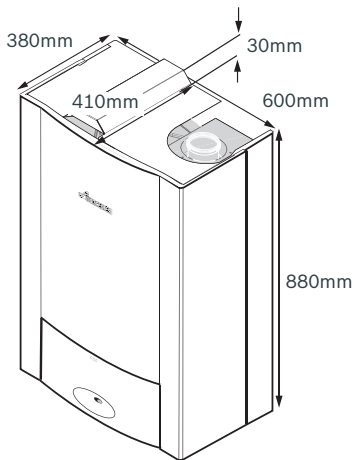
Above: 300mm

Left: 10mm

Right: 10mm

Front: 600mm*

*20mm to a removable door



| | |
|-------------------------|--|
| Boiler output | 12 to 18kW (41,000 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Total weight (unpacked) | 109kg |
| Lift weight | 72kg |

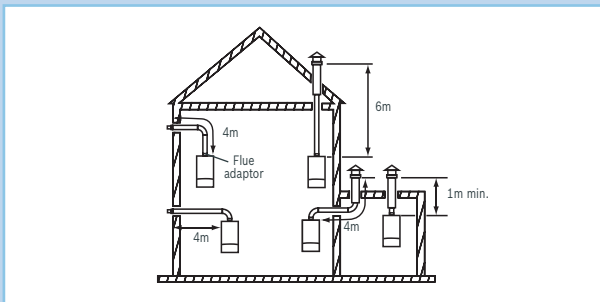
Part number
7 716 100 124

Programmer options

Twin Channel Digital
7 716 192 033



Flue options
Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 3m |

(2x45° bends equivalent to 1x90° bend)

Flue options

Horizontal (125mm diameter)

| | | | | |
|--|---|--|---|---|
| Horizontal Flue Standard 7 716 190 031 | 45° Flue Bend (Pair) 7 716 190 035 | 90° Flue Bend 7 716 190 034 | 1,000mm Extension 7 716 190 033 | Conventional Flue Adaptor Kit 7 716 190 036 |
| Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m) | 1,000mm extension kit (100mm dia.) 7 716 190 066* | 500mm Extension Kit (100mm dia.) 7 716 190 067* | Telescopic Extension (100mm dia.) 7 716 190 068* | |
| 45° Bend (100mm dia.) 7 716 190 069* | Wall Cover Plate Kit (100mm dia.) 7 716 190 074 | Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064 | Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062 | |

Vertical (150mm diameter)

| | | |
|---|--|--|
| 1,000mm Extension 7 716 190 045 | 45° Flue Bend (Pair) 7 716 190 047 | Vertical RS Flue Kit (100x150mm) Greenstar Camray 25/32 internal models only 7 716 190 059 |
|---|--|--|

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050

*Stainless steel



Wall mounted condensing regular boilers

Greenstar Danesmoor wall mounted boilers

Greenstar Danesmoor WM 18/25

Clearances

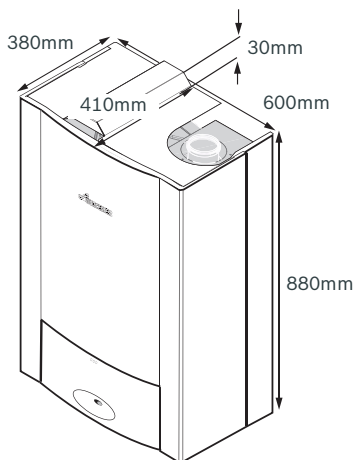
Above: 300mm

Left: 10mm

Right: 10mm

Front: 600mm*

*20mm to a removable door



| | |
|-------------------------|--|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Total weight (unpacked) | 109kg |
| Lift weight | 72kg |

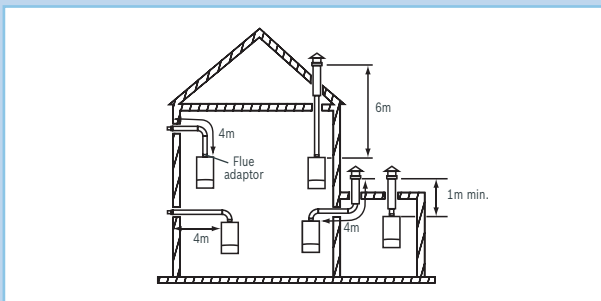
Part number
7 716 100 125

Programmer options

Twin Channel Digital
7 716 192 033



Flue options
Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 3m |

(2x45° bends equivalent to 1x90° bend)

Flue options

Horizontal (125mm diameter)

| | | | | |
|--|---|--|--|---|
| 600mm Horizontal Flue Standard 7 716 190 031 | 45° Flue Bend (Pair) 7 716 190 035 | 90° Flue Bend 7 716 190 034 | 1,000mm Extension 7 716 190 033 | Conventional Flue Adaptor Kit 7 716 190 036 |
| Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m) | 1,000mm extension kit (100mm dia.) 7 716 190 066* | 500mm Extension Kit (100mm dia.) 7 716 190 067* | Telescopic Extension (100mm dia.) 7 716 190 068* | Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062 |
| 45° Bend (100mm dia.) 7 716 190 069* | Wall Cover Plate Kit (100mm dia.) 7 716 190 074 | Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064 | | |

Vertical (150mm diameter)

| | | |
|---|--|--|
| 1,000mm Extension 7 716 190 045 | 45° Flue Bend (Pair) 7 716 190 047 | Vertical RS Flue Kit (100x150mm) Greenstar Camray 25/32 internal models only 7 716 190 059 |
|---|--|--|

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050

*Stainless steel



Floor standing condensing combi boilers
(internal)

Greenstar Heatslave boilers

Greenstar Heatslave
12/18 CF/RS

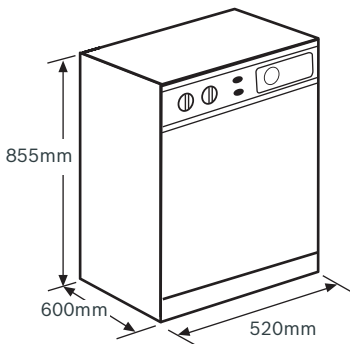
Clearances

Above: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm



*Note: Although clearance above the Heatslave range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.

| | |
|----------------------|---|
| Flow rate | 15lt/min* |
| Boiler output | 12 to 18kW (41,000 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 40 Suitable for kerosene (28 sec oil) only |

*Restricted DHW flow rate

Part number
7 716 100 097

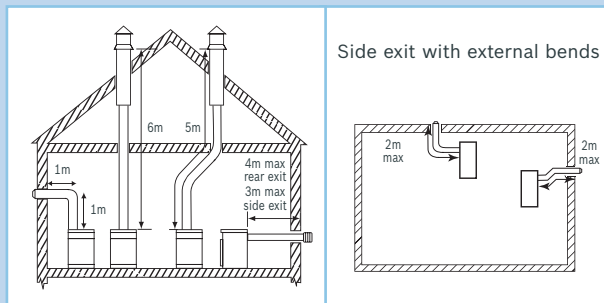
Programmer options

Twin Channel Digital
7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|--|---|--|---|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | |
|---|---|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> |
|---|---|

Note: Horizontal left hand fluing within the cabinet height will require the internal expansion vessel to be re-sited externally.

Accessories

| | | |
|--|---|---|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|--|---|---|

*Stainless steel



Floor standing condensing combi boilers (internal)

Greenstar Heatslave boilers

Greenstar Heatslave 18/25 CF/RS

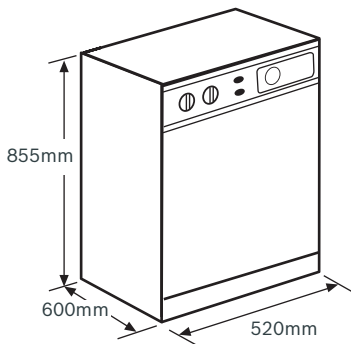
Clearances

Above: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm



*Note: Although clearance above the Heatslave range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.

| | |
|----------------------|---|
| Flow rate | 18lt/min* |
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 50 Suitable for kerosene (28 sec oil) only |

*Optimum DHW flow rate

Part number
7 716 100 098

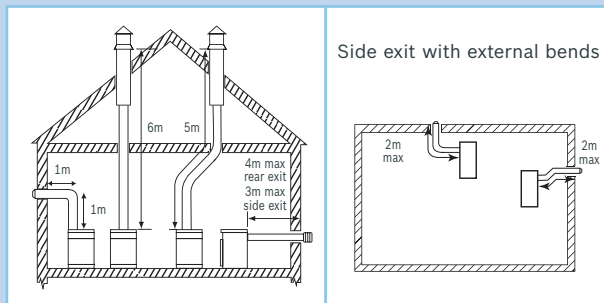
Programmer options

Twin Channel Digital
7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|--|---|--|---|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | |
|---|---|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> |
|---|---|

Note: Horizontal left hand fluing within the cabinet height will require the internal expansion vessel to be re-sited externally.

Accessories

| | | |
|--|---|---|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|--|---|---|

*Stainless steel



Floor standing condensing combi boilers (internal)

Greenstar Heatslave boilers

Greenstar Heatslave 25/32 CF/RS

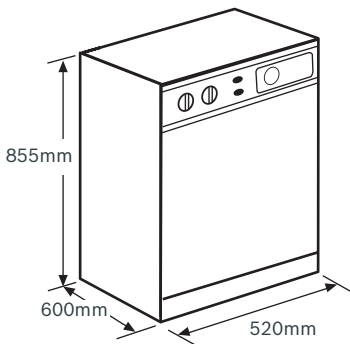
Clearances

Above: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm



*Note: Although clearance above the Heatslave range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.

| | |
|----------------------|--|
| Flow rate | 22lt/min* |
| Boiler output | 25 to 32kW (85,300 to 109,200 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |

*Optimum DHW flow rate

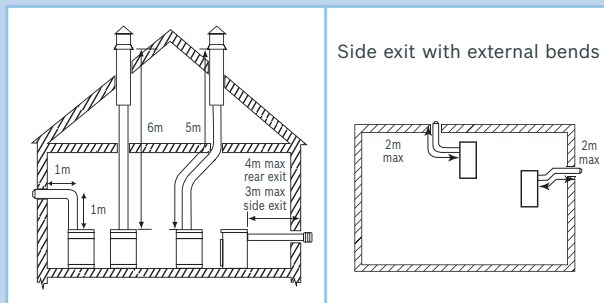
Part number
7 716 100 099

Programmer options

Twin Channel Digital
7 716 192 033



Flue options
Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|---|--|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | |
|--|--|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> |
|--|--|

Note: Horizontal left hand fluing within the cabinet height will require the internal expansion vessel to be re-sited externally.

Accessories

| | | |
|---|--|--|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|---|--|--|

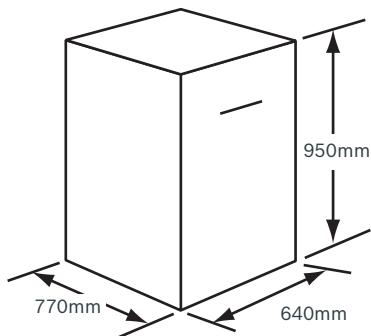
*Stainless steel



Floor standing condensing combi boilers
(external)

Greenstar Heatslave External boilers

Greenstar Heatslave
External 12/18

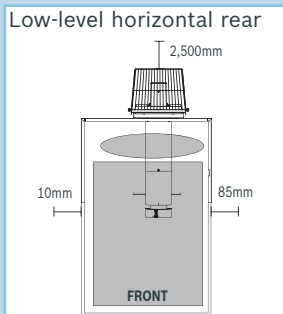


| | |
|----------------------|---|
| Flow rate | 15lt/min* |
| Boiler output | 12 to 18kW (41,000 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 40 Suitable for kerosene (28 sec oil) only |

*Restricted DHW flow rate

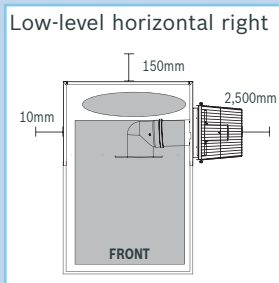
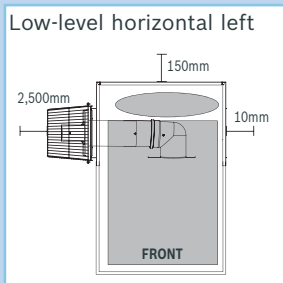
Part number
7 716 100 117

Flue options



| Clearances: Minimum service & flue clearances | |
|---|--------|
| Above | 600mm |
| Front | 600mm |
| RH/LH flue outlet on opposite side | 10mm |
| RH flue outlet on rear | 85mm |
| LH flue outlet on rear | 10mm |
| Rear=flue outlet on side | 150mm |
| Rear=rear flue outlet | 2500mm |

It is strongly recommended that the flue terminal faces away from walls to reduce the possibility of wetting occurring.



Flue options (125mm diameter)



Horizontal



Low Level Horizontal Standard
7 716 190 052



90° Flue Bend
7 716 190 034



Horizontal External Flue Kit (80/125mm dia.)
7 716 190 057



External Flue Extension (80/125mm dia.)
7 716 190 054



External 45° Bends (80/125mm dia.)
7 716 190 056



External 90° Bend (80/125mm dia.)
7 716 190 055

(90° Flue Bend required for LH and RH fluing)

Vertical



Vertical External Flue Kit (80/125mm dia.)
7 716 190 053



External Flue Extension (80/125mm dia.)
7 716 190 054



External 45° Bends (80/125mm dia.)
7 716 190 056



External 90° Bend (80/125mm dia.)
7 716 190 055

Accessories



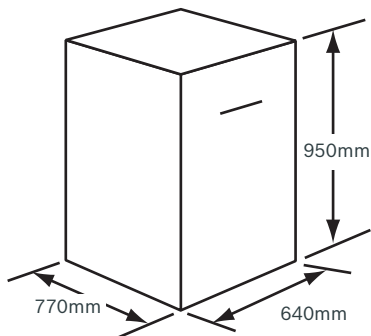
Stainless Steel Flue Terminal Guard
7 716 190 050



Floor standing condensing combi boilers
(external)

Greenstar Heatslave External boilers

Greenstar Heatslave
External 18/25



| | |
|----------------------|---|
| Flow rate | 18lt/min* |
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 50 Suitable for kerosene (28 sec oil) only |

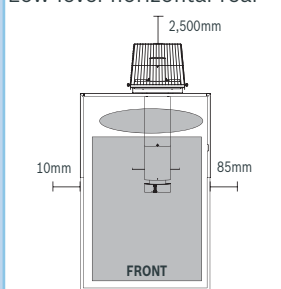
*Optimum DHW flow rate

Part number
7 716 100 118

Flue options



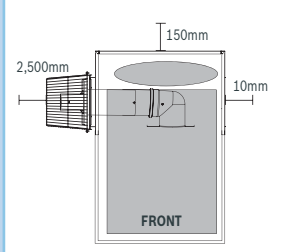
Low-level horizontal rear



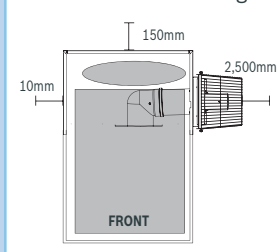
| Clearances: Minimum service & flue clearances | |
|---|--------|
| Above | 600mm |
| Front | 600mm |
| RH/LH flue outlet on opposite side | 10mm |
| RH flue outlet on rear | 85mm |
| LH flue outlet on rear | 10mm |
| Rear=flue outlet on side | 150mm |
| Rear=rear flue outlet | 2500mm |

It is strongly recommended that the flue terminal faces away from walls to reduce the possibility of wetting occurring.

Low-level horizontal left



Low-level horizontal right



Flue options (125mm diameter)



Horizontal



Low Level Horizontal Standard
7 716 190 052



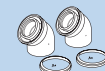
90° Flue Bend
7 716 190 034



Horizontal External Flue Kit (80/125mm dia.)
7 716 190 057



External Flue Extension (80/125mm dia.)
7 716 190 054



External 45° Bends (80/125mm dia.)
7 716 190 056



External 90° Bend (80/125mm dia.)
7 716 190 055

(90° Flue Bend required for LH and RH fluing)

Vertical



Vertical External Flue Kit (80/125mm dia.)
7 716 190 053



External Flue Extension (80/125mm dia.)
7 716 190 054



External 45° Bends (80/125mm dia.)
7 716 190 056



External 90° Bend (80/125mm dia.)
7 716 190 055

Accessories



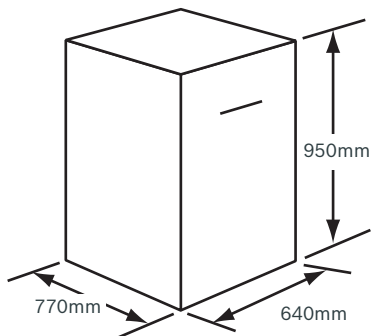
Stainless Steel Flue Terminal Guard
7 716 190 050



Floor standing condensing combi boilers
(external)

Greenstar Heatslave External boilers

Greenstar Heatslave
External 25/32

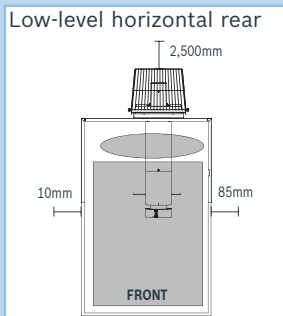


| | |
|----------------------|--|
| Flow rate | 22lt/min* |
| Boiler output | 25 to 32kW (85,300 to 109,200 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |

*Optimum DHW flow rate

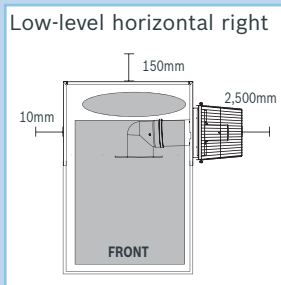
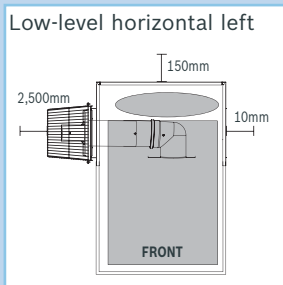
Part number
7 716 100 119

Flue options



| Clearances: Minimum service & flue clearances | |
|---|--------|
| Above | 600mm |
| Front | 600mm |
| RH/LH flue outlet on opposite side | 10mm |
| RH flue outlet on rear | 85mm |
| LH flue outlet on rear | 10mm |
| Rear=flue outlet on side | 150mm |
| Rear=rear flue outlet | 2500mm |

It is strongly recommended that the flue terminal faces away from walls to reduce the possibility of wetting occurring.



Flue options (125mm diameter)



Horizontal



Low Level Horizontal Standard
7 716 190 052



90° Flue Bend
7 716 190 034



Horizontal External Flue Kit (80/125mm dia.)
7 716 190 057



External Flue Extension (80/125mm dia.)
7 716 190 054



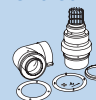
External 45° Bends (80/125mm dia.)
7 716 190 056



External 90° Bend (80/125mm dia.)
7 716 190 055

(90° Flue Bend required for LH and RH fluing)

Vertical



Vertical External Flue Kit (80/125mm dia.)
7 716 190 053



External Flue Extension (80/125mm dia.)
7 716 190 054



External 45° Bends (80/125mm dia.)
7 716 190 056



External 90° Bend (80/125mm dia.)
7 716 190 055

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050

Floor standing condensing regular boilers



Greenstar Camray boiler series

Greenstar Camray (kitchen) 12/18

Clearances

Above: 10mm (annual service)

Above: 300mm

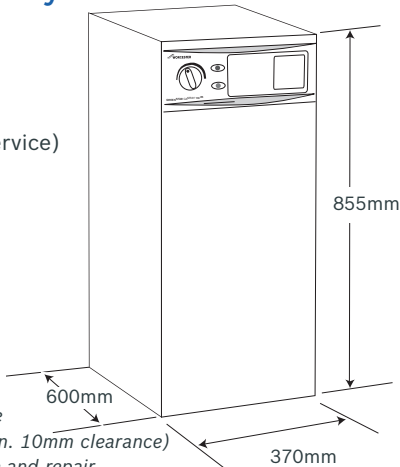
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



| | |
|----------------------|--|
| Boiler output | 12 to 18kW (40,900 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Lift weight | 100kg |

Part number

7 716 100 105

Programmer options

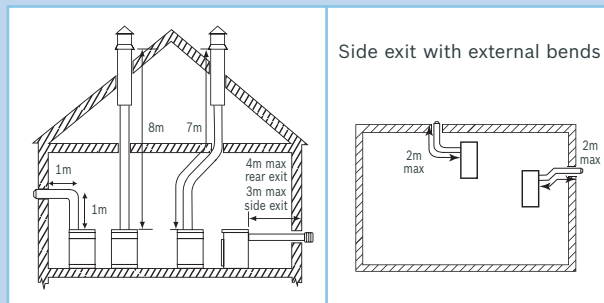
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

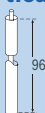
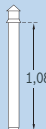

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|--|---|
|  Horizontal Flue Standard 7 716 190 031 |  45° Flue Bend (Pair) 7 716 190 035 |  90° Flue Bend 7 716 190 034 |  Conventional Flue Adaptor Kit 7 716 190 036 |
|  Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m) |  1,000mm extension kit (100mm dia.) 7 716 190 066* |  500mm Extension Kit (100mm dia.) 7 716 190 067* |  Telescopic Extension (100mm dia.) 7 716 190 068* |
|  45° Bend (100mm dia.) 7 716 190 069* |  Wall Cover Plate Kit (100mm dia.) 7 716 190 074 |  Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064 |  Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062 |

Vertical

| | | |
|---|---|--|
|  1,000mm Extension 7 716 190 033 |  Vertical BF Kit 7 716 190 032 |  45° Flue Bend (Pair) 7 716 190 035 |
|---|---|--|

Accessories

| | | |
|--|---|---|
|  Flashing Kit - Flat Roof 7 716 191 090 |  Flashing Kit - Pitched Roof 7 716 191 091 |  Stainless Steel Flue Terminal Guard 7 716 190 050 |
|--|---|---|

*Stainless steel



Floor standing condensing regular boilers

Greenstar Camray boiler series

Greenstar Camray (kitchen) 18/25

Clearances

Above: 10mm (annual service)

Above: 300mm

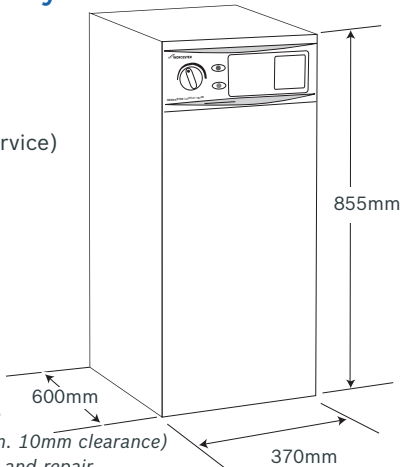
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



| | |
|----------------------|--|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 102kg |

Part number

7 716 100 106

Programmer options

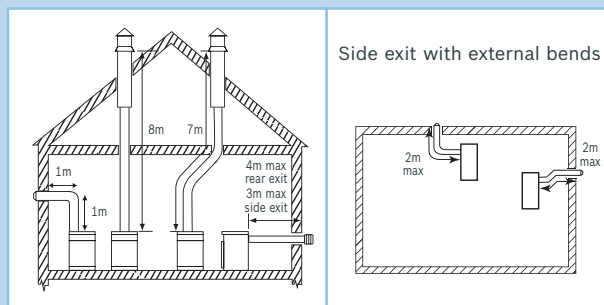
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|---|--|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | | |
|--|--|---|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> |
|--|--|---|

Accessories

| | | |
|---|--|--|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|---|--|--|

*Stainless steel



Floor standing condensing regular boilers

Greenstar Camray boiler series

Greenstar Camray (kitchen) 25/32

Clearances

Above: 10mm (annual service)

Above: 300mm

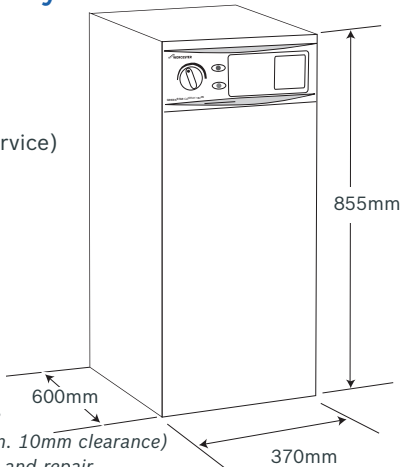
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



| | |
|----------------------|--|
| Boiler output | 25 to 30kW (85,300 to 102,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 108kg |

Part number

7 716 100 107

Programmer options

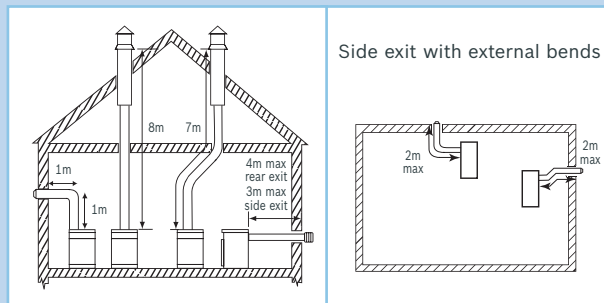
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

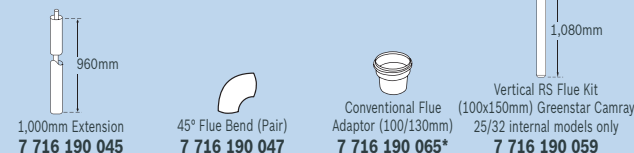
(2x45° bends equivalent to 1x90° bend)

Flue options

Horizontal (125mm diameter)



Vertical (150mm diameter)



Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050

*For Greenstar Camray 25/32 models use
CF Adaptor Kit 7 716 190 036 &
CF Adaptor (100/130mm) 7 716 190 065
**Stainless steel



Floor standing condensing regular boilers

Greenstar Danesmoor boiler

Greenstar Danesmoor 18/25 CF/RS

Clearances

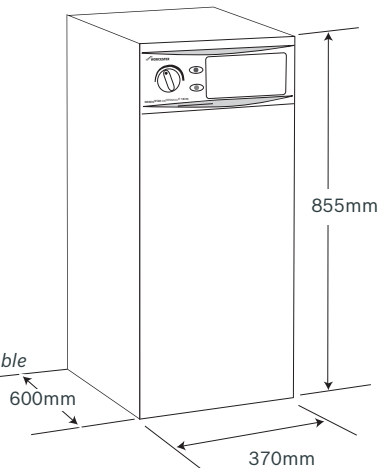
Above flue: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm

*Note: Although clearance above the Danesmoor range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.



| | |
|----------------------|---|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 50 Suitable for kerosene (28 sec oil) only |
| Lift weight | 119kg |

Part number

7 716 100 095

Programmer options

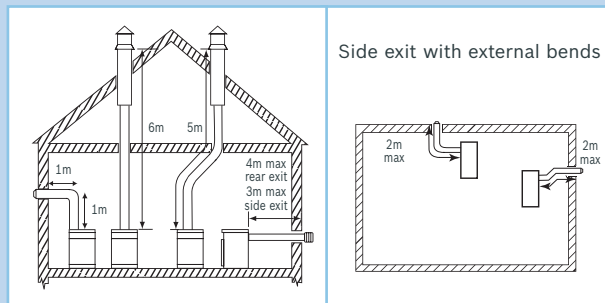
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|---|--|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | |
|--|--|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> |
|--|--|

Accessories

| | | |
|---|--|--|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|---|--|--|

*Stainless steel



Floor standing condensing system boilers

Greenstar Camray boiler series

Greenstar Camray (kitchen) System 12/18

Clearances

Above: 10mm (annual service)

Above: 300mm

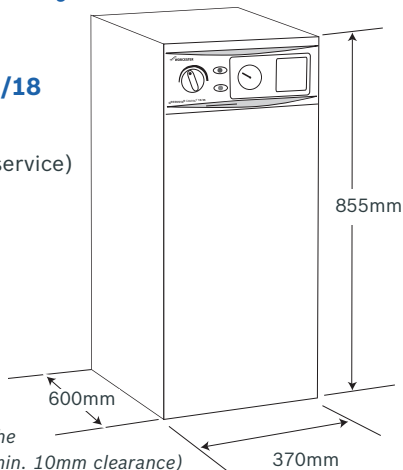
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



| | |
|----------------------|--|
| Boiler output | 12 to 18kW (40,900 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Lift weight | 100kg |

Part number

7 716 100 121

Programmer options

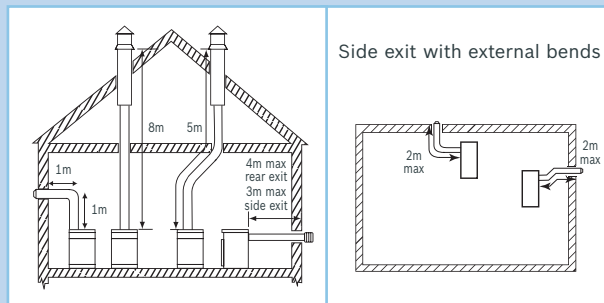
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|---|--|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | | |
|--|--|---|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> |
|--|--|---|

Accessories

| | | |
|---|--|--|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|---|--|--|

*Stainless steel



Floor standing condensing system boilers

Greenstar Camray boiler series

Greenstar Camray (kitchen) System 18/25

Clearances

Above: 10mm (annual service)

Above: 300mm

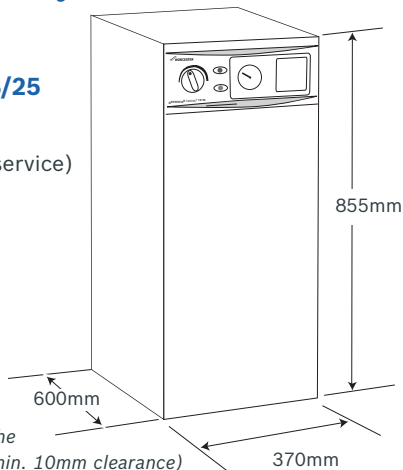
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



| | |
|----------------------|--|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 102kg |

Part number

7 716 100 122

Programmer options

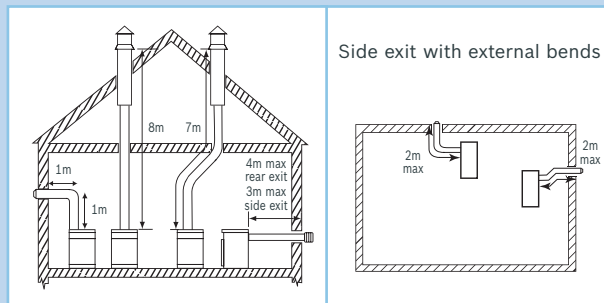
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

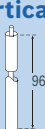
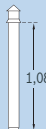

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|--|---|
|  Horizontal Flue Standard 7 716 190 031 |  45° Flue Bend (Pair) 7 716 190 035 |  90° Flue Bend 7 716 190 034 |  Conventional Flue Adaptor Kit 7 716 190 036 |
|  Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m) |  1,000mm extension kit (100mm dia.) 7 716 190 066* |  500mm Extension Kit (100mm dia.) 7 716 190 067* |  Telescopic Extension (100mm dia.) 7 716 190 068* |
|  45° Bend (100mm dia.) 7 716 190 069* |  Wall Cover Plate Kit (100mm dia.) 7 716 190 074 |  Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064 |  Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062 |

Vertical

| | | |
|---|---|--|
|  1,000mm Extension 7 716 190 033 |  Vertical BF Kit 7 716 190 032 |  45° Flue Bend (Pair) 7 716 190 035 |
|---|---|--|

Accessories

| | | |
|--|---|---|
|  Flashing Kit - Flat Roof 7 716 191 090 |  Flashing Kit - Pitched Roof 7 716 191 091 |  Stainless Steel Flue Terminal Guard 7 716 190 050 |
|--|---|---|

*Stainless steel



Floor standing condensing system boilers

Greenstar Camray boiler series

Greenstar Camray (kitchen) System 25/32

Clearances

Above: 10mm (annual service)

Above: 300mm

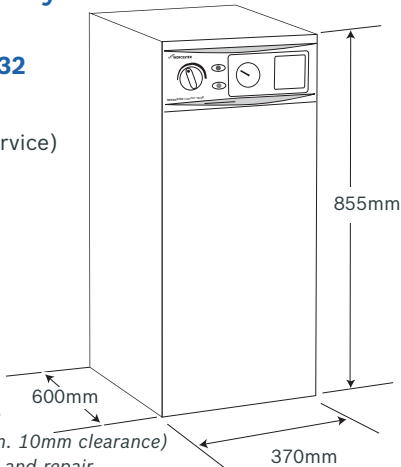
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



| | |
|----------------------|--|
| Boiler output | 25 to 30kW (85,300 to 102,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 108kg |

Part number

7 716 100 123

Programmer options

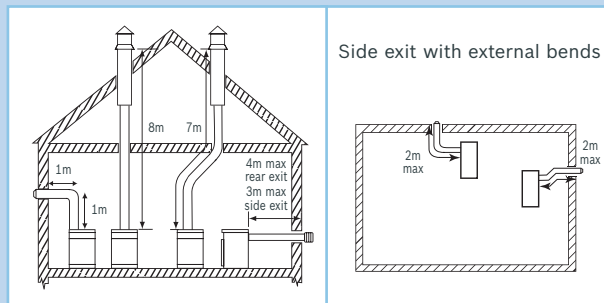
Twin Channel Digital

7 716 192 033



Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options

Horizontal (125mm diameter)

- Horizontal Flue Standard 600mm: 7 716 190 031
- 45° Flue Bend (Pair): 7 716 190 035
- 90° Flue Bend: 7 716 190 034
- 1,000mm Extension: 7 716 190 033
- Conventional Flue Adaptor Kit: 7 716 190 036
- Oilfit Flexi Flue Kit (100mm): 7 716 190 076 (8m), 7 716 190 077 (12m), 7 716 190 078 (15m)
- 1,000mm extension kit (100mm dia.): 7 716 190 066**
- 500mm Extension Kit (100mm dia.): 7 716 190 067**
- Telescopic Extension (100mm dia.): 7 716 190 068**
- 45° Bend (100mm dia.): 7 716 190 069**
- Wall Cover Plate Kit (100mm dia.): 7 716 190 074
- Standard Telescopic Flue Kit (80/125mm dia.): 7 716 190 064
- Short Telescopic Flue Kit (80/125mm dia.): 7 716 190 062

Vertical (150mm diameter)

- 1,000mm Extension: 7 716 190 045
- 45° Flue Bend (Pair): 7 716 190 047
- Conventional Flue Adaptor (100/130mm): 7 716 190 065*
- Vertical RS Flue Kit (100x150mm) Greenstar Camray 25/32 internal models only: 7 716 190 059

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050

*For Greenstar Camray 25/32 models use CF Adaptor Kit 7 716 190 036 & CF Adaptor (100/130mm) 7 716 190 065
**Stainless steel



Floor standing condensing regular utility boilers

Greenstar Camray boiler series

Greenstar Camray Utility 12/18

Clearances

Above: 10mm (annual service)

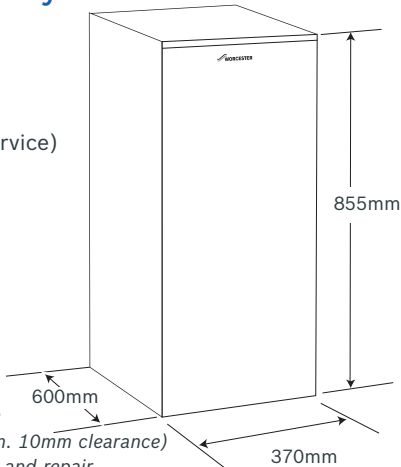
Above: 300mm (maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.

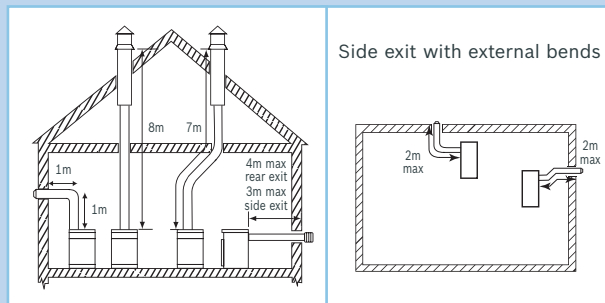


| | |
|----------------------|--|
| Boiler output | 12 to 18kW (40,900 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Lift weight | 101kg |

Part number
7 716 100 108

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

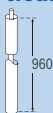
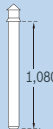

Flue options (125mm diameter)



Horizontal

| | | | |
|--|---|---|--|
|  Horizontal Flue Standard 7 716 190 031 |  45° Flue Bend (Pair) 7 716 190 035 |  90° Flue Bend 7 716 190 034 |  Conventional Flue Adaptor Kit 7 716 190 036 |
|  Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m) |  1,000mm extension kit (100mm dia.) 7 716 190 066* |  500mm Extension Kit (100mm dia.) 7 716 190 067* |  Telescopic Extension (100mm dia.) 7 716 190 068* |
|  45° Bend (100mm dia.) 7 716 190 069* |  Wall Cover Plate Kit (100mm dia.) 7 716 190 074 |  Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064 |  Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062 |

Vertical

| | | |
|--|--|---|
|  1,000mm Extension 7 716 190 033 |  Vertical BF Kit 7 716 190 032 |  45° Flue Bend (Pair) 7 716 190 035 |
|--|--|---|

Accessories

| | | |
|---|--|--|
|  Flashing Kit - Flat Roof 7 716 191 090 |  Flashing Kit - Pitched Roof 7 716 191 091 |  Stainless Steel Flue Terminal Guard 7 716 190 050 |
|---|--|--|

*Stainless steel



Floor standing condensing regular utility boilers

Greenstar Camray boiler series

Greenstar Camray Utility 18/25

Clearances

Above: 10mm (annual service)

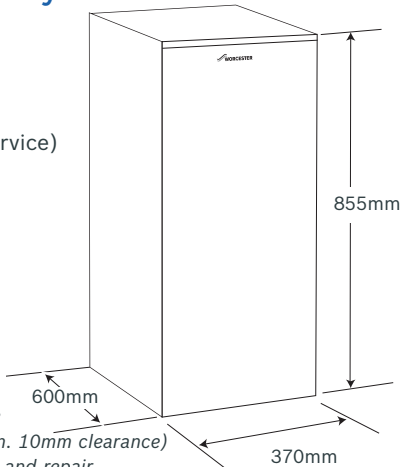
Above: 300mm (maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.

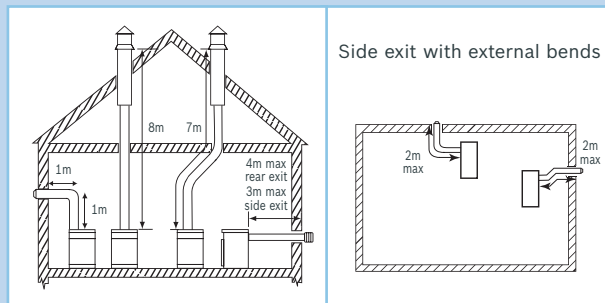


| | |
|----------------------|--|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 103kg |

Part number
7 716 100 109

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

- Horizontal Flue Standard (600mm) **7 716 190 031**
- 45° Flue Bend (Pair) **7 716 190 035**
- 90° Flue Bend **7 716 190 034**
- Conventional Flue Adaptor Kit **7 716 190 036**
- Oilfit Flexi Flue Kit (100mm) **7 716 190 076** (8m)
- Oilfit Flexi Flue Kit (100mm) **7 716 190 077** (12m)
- Oilfit Flexi Flue Kit (100mm) **7 716 190 078** (15m)
- 1,000mm extension kit (100mm dia.) **7 716 190 066***
- 500mm Extension Kit (100mm dia.) **7 716 190 067***
- Telescopic Extension (100mm dia.) **7 716 190 068***
- 45° Bend (100mm dia.) **7 716 190 069***
- Wall Cover Plate Kit (100mm dia.) **7 716 190 074**
- Standard Telescopic Flue Kit (80/125mm dia.) **7 716 190 064**
- Short Telescopic Flue Kit (80/125mm dia.) **7 716 190 062**

Vertical

- 1,000mm Extension **7 716 190 033**
- Vertical BF Kit **7 716 190 032**
- 45° Flue Bend (Pair) **7 716 190 035**

Accessories

- Flashing Kit - Flat Roof **7 716 191 090**
- Flashing Kit - Pitched Roof **7 716 191 091**
- Stainless Steel Flue Terminal Guard **7 716 190 050**

*Stainless steel



Floor standing condensing regular utility boilers

Greenstar Camray boiler series

Greenstar Camray Utility 25/32

Clearances

Above: 10mm (annual service)

Above: 300mm

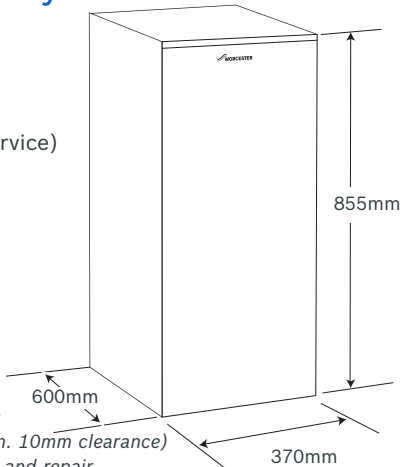
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



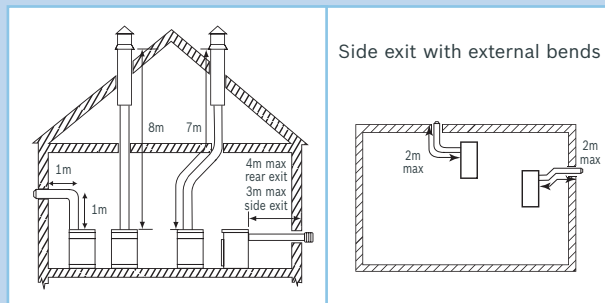
| | |
|----------------------|--|
| Boiler output | 25 to 30kW (85,300 to 102,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 110kg |

Part number

7 716 100 110

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options

Horizontal (125mm diameter)

- Horizontal Flue Standard 7 716 190 031
- 45° Flue Bend (Pair) 7 716 190 035
- 90° Flue Bend 7 716 190 034
- 1,000mm Extension 7 716 190 033
- Conventional Flue Adaptor Kit 7 716 190 036
- Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m)
- 1,000mm extension kit (100mm dia.) 7 716 190 066**
- 500mm Extension Kit (100mm dia.) 7 716 190 067**
- Telescopic Extension (100mm dia.) 7 716 190 068**
- 45° Bend (100mm dia.) 7 716 190 077 (12m)
- 7 716 190 078 (15m)
- Wall Cover Plate Kit (100mm dia.) 7 716 190 074
- Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064
- Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062

Vertical (150mm diameter)

- 1,000mm Extension 7 716 190 045
- 45° Flue Bend (Pair) 7 716 190 047
- Conventional Flue Adaptor (100/130mm) 7 716 190 065*
- Vertical RS Flue Kit (100x150mm) Greenstar Camray 25/32 internal models only 7 716 190 059

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050

*For Greenstar Camray 25/32 models use CF Adaptor Kit 7 716 190 036 & CF Adaptor (100/130mm) 7 716 190 065
**Stainless steel



Floor standing condensing regular utility boilers

Greenstar Utility boilers

Greenstar Utility 18/25 CF/RS

Clearances

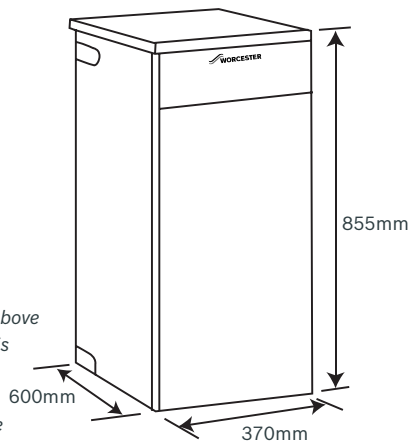
Above flue: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm

*Note: Although clearance above the Greenstar Utility range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.

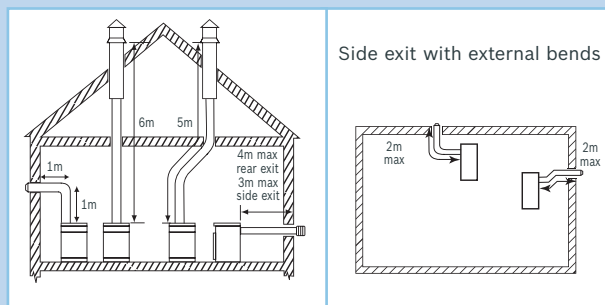


| | |
|----------------------|---|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 50 Suitable for kerosene (28 sec oil) only |
| Lift weight | 119kg |

Part number
7 716 100 101

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90°)

Flue options (125mm diameter)



Horizontal

- Horizontal Flue Standard (600mm) **7 716 190 031**
- 45° Flue Bend (Pair) **7 716 190 035**
- 90° Flue Bend **7 716 190 034**
- Conventional Flue Adaptor Kit **7 716 190 036**
- Oilfit Flexi Flue Kit (100mm) **7 716 190 076** (8m)
- Oilfit Flexi Flue Kit (100mm) **7 716 190 077** (12m)
- Oilfit Flexi Flue Kit (100mm) **7 716 190 078** (15m)
- 1,000mm extension kit (100mm dia.) **7 716 190 066***
- 500mm Extension Kit (100mm dia.) **7 716 190 067***
- Telescopic Extension (100mm dia.) **7 716 190 068***
- 45° Bend (100mm dia.) **7 716 190 069***
- Wall Cover Plate Kit (100mm dia.) **7 716 190 074**
- Standard Telescopic Flue Kit (80/125mm dia.) **7 716 190 064**
- Short Telescopic Flue Kit (80/125mm dia.) **7 716 190 062**

Vertical

- 1,000mm Extension **7 716 190 033**
- Vertical BF Kit **7 716 190 032**

Accessories

- Flashing Kit - Flat Roof **7 716 191 090**
- Flashing Kit - Pitched Roof **7 716 191 091**
- Stainless Steel Flue Terminal Guard **7 716 190 050**

*Stainless steel



Floor standing condensing regular utility boilers

Greenstar Utility boilers

Greenstar Utility 32/50 CF/RS

Clearances

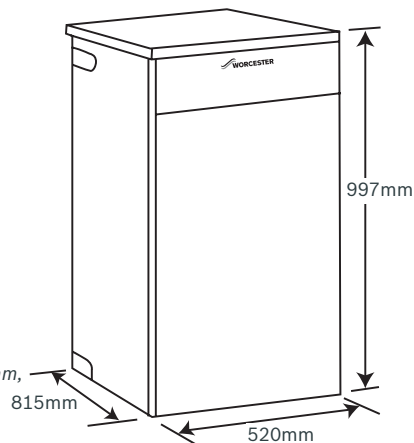
Above flue: 300mm*

Left: 10mm

Right: 10mm

Front: 600mm

*Note: Although clearance above the Greenstar Utility range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.

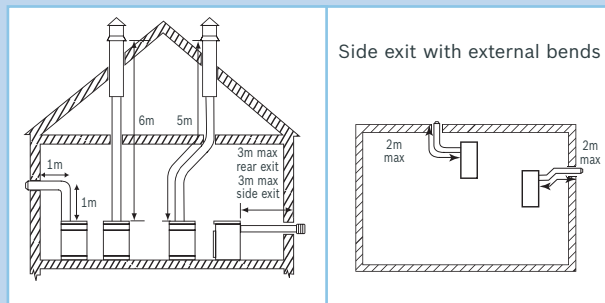


| | |
|----------------------|--|
| Boiler output | 32 to 50kW (109,184 to 170,600 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 133 Suitable for kerosene (28 sec oil) only |
| Lift weight | 270kg |

Part number
7 716 100 103

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (150mm diameter)



Horizontal

- Horizontal Flue Standard (880mm)
7 716 190 043
- 45° Flue Bend (Pair)
7 716 190 047
- 90° Flue Bend
7 716 190 046
- Conventional Flue Adaptor
7 716 190 049
- Oilfit Flexi Flue Kit (130mm)
7 716 190 079 (8m)
7 716 190 080 (12m)
7 716 190 081 (15m)
- 1,000mm extension kit (130mm dia.)
7 716 190 070*
- 500mm Extension Kit (130mm dia.)
7 716 190 071*
- Telescopic Extension (130mm dia.)
7 716 190 072*
- 45° Bend (130mm dia.)
7 716 190 073*
- Wall Cover Plate Kit (130mm dia.)
7 716 190 075

Vertical

- 1,000mm Extension
7 716 190 045
- Vertical BF Kit
7 716 190 044

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 051

*Stainless steel



Floor standing condensing regular utility boilers

Greenstar Utility boilers

Greenstar Utility 50/70 CF/RS

Clearances

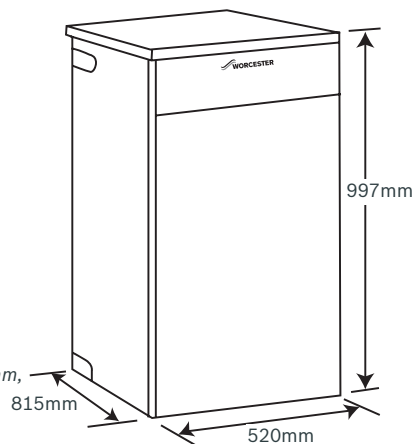
Above flue: 300mm*

Left: 10mm

Right: 10mm

Front: 600mm

*Note: Although clearance above the Greenstar Utility range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.



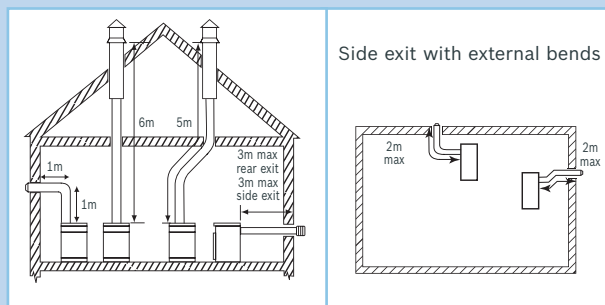
| | |
|----------------------|--|
| Boiler output | 50 to 70kW (170,600 to 238,840 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Bentone Sterling 146 Suitable for kerosene (28 sec oil) only |
| Lift weight | 280kg |

Part number

7 716 100 104

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5m |

(2x45° bends equivalent to 1x90° bend)

Flue options (150mm diameter)



Horizontal

- Horizontal Flue Standard 880mm
7 716 190 043
- 45° Flue Bend (Pair)
7 716 190 047
- 90° Flue Bend
7 716 190 046
- Conventional Flue Adaptor
7 716 190 049
- Oilfit Flexi Flue Kit (130mm)
7 716 190 079 (8m)
7 716 190 080 (12m)
7 716 190 081 (15m)
- 1,000mm extension kit (130mm dia.)
7 716 190 070*
- 500mm Extension Kit (130mm dia.)
7 716 190 071*
- Telescopic Extension (130mm dia.)
7 716 190 072*
- 45° Bend (130mm dia.)
7 716 190 073*
- Wall Cover Plate Kit (130mm dia.)
7 716 190 075

Vertical

- 1,000mm Extension
7 716 190 045
- Vertical BF Kit
7 716 190 044

Accessories



Stainless Steel Flue Terminal Guard
7 716 190 051

*Stainless steel



Floor standing condensing utility system boilers

Greenstar Camray boiler series

Greenstar Camray Utility System 12/18

Clearances

Above: 10mm (annual service)

Above: 300mm

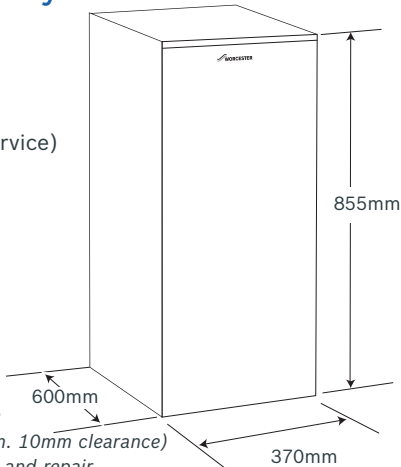
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



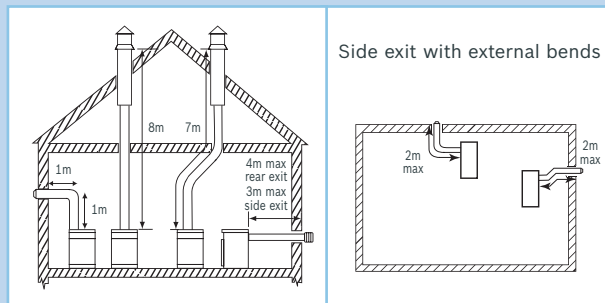
| | |
|----------------------|--|
| Boiler output | 12 to 18kW (40,900 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Lift weight | 109kg |

Part number

7 716 100 111

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|---|--|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | | |
|--|--|---|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> |
|--|--|---|

Accessories

| | | |
|---|--|--|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|---|--|--|

*Stainless steel



Floor standing condensing utility system boilers

Greenstar Camray boiler series

Greenstar Camray Utility System 18/25

Clearances

Above: 10mm (annual service)

Above: 300mm

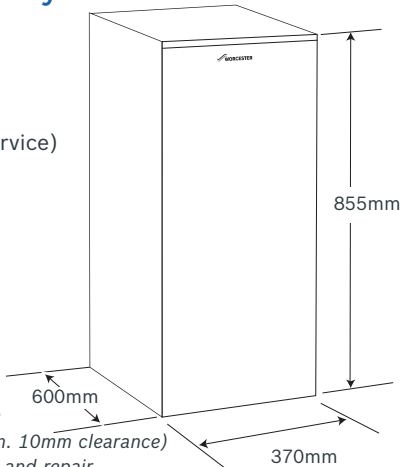
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



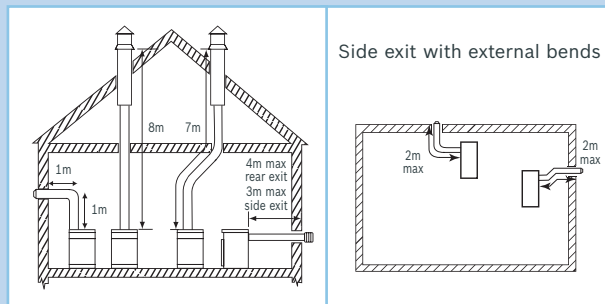
| | |
|----------------------|--|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 111kg |

Part number

7 716 100 112

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options (125mm diameter)



Horizontal

| | | | |
|---|--|---|--|
| <p>Horizontal Flue Standard 7 716 190 031</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> | <p>90° Flue Bend 7 716 190 034</p> | <p>Conventional Flue Adaptor Kit 7 716 190 036</p> |
| <p>Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m)</p> | <p>1,000mm extension kit (100mm dia.) 7 716 190 066*</p> | <p>500mm Extension Kit (100mm dia.) 7 716 190 067*</p> | <p>Telescopic Extension (100mm dia.) 7 716 190 068*</p> |
| <p>45° Bend (100mm dia.) 7 716 190 069*</p> | <p>Wall Cover Plate Kit (100mm dia.) 7 716 190 074</p> | <p>Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064</p> | <p>Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062</p> |

Vertical

| | | |
|--|--|---|
| <p>1,000mm Extension 7 716 190 033</p> | <p>Vertical BF Kit 7 716 190 032</p> | <p>45° Flue Bend (Pair) 7 716 190 035</p> |
|--|--|---|

Accessories

| | | |
|---|--|--|
| <p>Flashing Kit - Flat Roof 7 716 191 090</p> | <p>Flashing Kit - Pitched Roof 7 716 191 091</p> | <p>Stainless Steel Flue Terminal Guard 7 716 190 050</p> |
|---|--|--|

*Stainless steel



Floor standing condensing utility system boilers

Greenstar Camray boiler series

Greenstar Camray Utility System 25/32

Clearances

Above: 10mm (annual service)

Above: 300mm

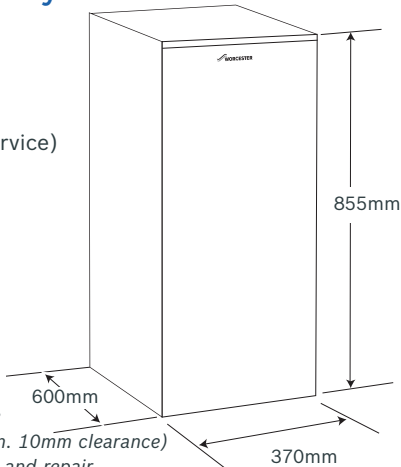
(maintenance & repair)

Left: 5mm

Right: 5mm

Front: 600mm

The appliance is suitable for an under worktop installation providing that the worktop above the boiler (min. 10mm clearance) is removable for maintenance and repair.



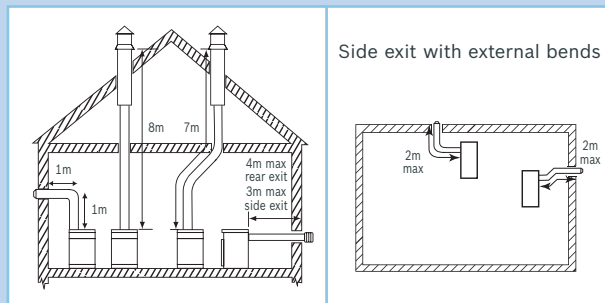
| | |
|----------------------|--|
| Boiler output | 25 to 30kW (85,300 to 102,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 118kg |

Part number

7 716 100 113

Flue options

Flue bends



| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 3m |
| 2 bends | 2m |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 7m |

(2x45° bends equivalent to 1x90° bend)

Flue options

Horizontal (125mm diameter)

| | | | | |
|---|---|---|--|--|
| Horizontal Flue Standard 7 716 190 031 | 45° Flue Bend (Pair) 7 716 190 035 | 90° Flue Bend 7 716 190 034 | 1,000mm Extension 7 716 190 033 | Conventional Flue Adaptor Kit 7 716 190 036 |
| Oilfit Flexi Flue Kit (100mm) 7 716 190 076 (8m) 7 716 190 077 (12m) 7 716 190 078 (15m) | 1,000mm extension kit (100mm dia.) 7 716 190 066** | 500mm Extension Kit (100mm dia.) 7 716 190 067** | Telescopic Extension (100mm dia.) 7 716 190 068** | Short Telescopic Flue Kit (80/125mm dia.) 7 716 190 062 |
| 45° Bend (100mm dia.) 7 716 190 069** | Wall Cover Plate Kit (100mm dia.) 7 716 190 074 | Standard Telescopic Flue Kit (80/125mm dia.) 7 716 190 064 | | |

Vertical (150mm diameter)

| | | | |
|------------------------------------|---------------------------------------|---|---|
| 1,000mm Extension 7 716 190 045 | 45° Flue Bend (Pair) 7 716 190 047 | Conventional Flue Adaptor (100/130mm) 7 716 190 065* | Vertical RS Flue Kit (100x150mm) Greenstar Camray 25/32 internal models only 7 716 190 059 |
|------------------------------------|---------------------------------------|---|---|

Accessories

Stainless Steel Flue Terminal Guard
7 716 190 050

*For Greenstar Camray 25/32 models use CF Adaptor Kit 7 716 190 036 & CF Adaptor (100/130mm) 7 716 190 065
**Stainless steel



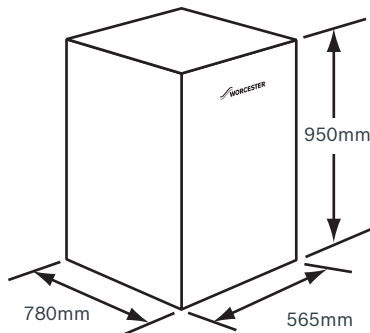
Floor standing condensing external regular boilers

Greenstar Camray boiler series

Greenstar Camray External 12/18

Clearances

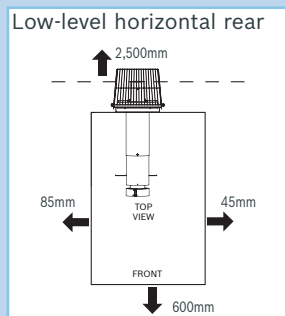
Please refer to the installation manual for full details.



| | |
|----------------------|--|
| Boiler output | 12 to 18kW (40,900 to 61,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |
| Lift weight | 114kg |

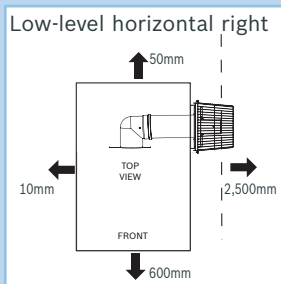
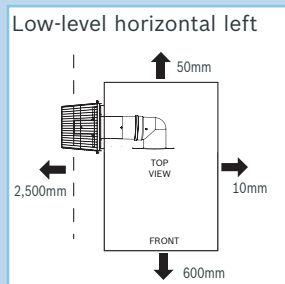
Part number
7 716 100 114

Flue options



| Clearances: Minimum service & flue clearances | |
|---|--------|
| Above | 600mm |
| Front | 600mm |
| RH/LH flue outlet on opposite side | 10mm |
| RH flue outlet on rear | 45mm |
| LH flue outlet on rear | 85mm |
| Rear=flue outlet on side | 50mm |
| Rear=rear flue outlet | 2500mm |

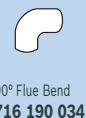
It is strongly recommended that the flue terminal faces away from walls to reduce the possibility of wetting occurring.



Flue options (125mm diameter)



Horizontal



(90° Flue Bend required for LH and RH fluing)

Vertical



Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050



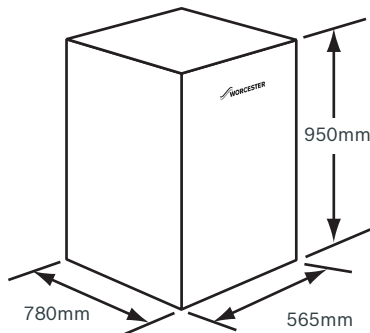
Floor standing condensing external regular boilers

Greenstar Camray boiler series

Greenstar Camray External 18/25

Clearances

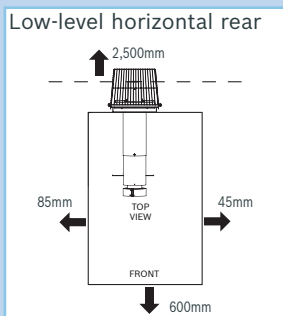
Please refer to the installation manual for full details.



| | |
|----------------------|--|
| Boiler output | 18 to 25kW (61,400 to 85,300 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 115kg |

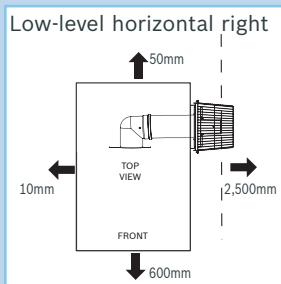
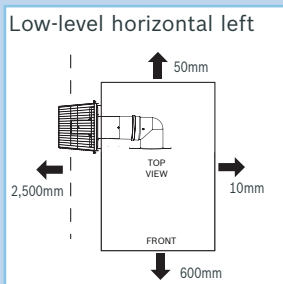
Part number
7 716 100 115

Flue options



| Clearances: Minimum service & flue clearances | |
|---|--------|
| Above | 600mm |
| Front | 600mm |
| RH/LH flue outlet on opposite side | 10mm |
| RH flue outlet on rear | 45mm |
| LH flue outlet on rear | 85mm |
| Rear=flue outlet on side | 50mm |
| Rear=rear flue outlet | 2500mm |

It is strongly recommended that the flue terminal faces away from walls to reduce the possibility of wetting occurring.



Flue options (125mm diameter)

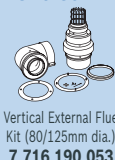


Horizontal



(90° Flue Bend required for LH and RH fluing)

Vertical



Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050



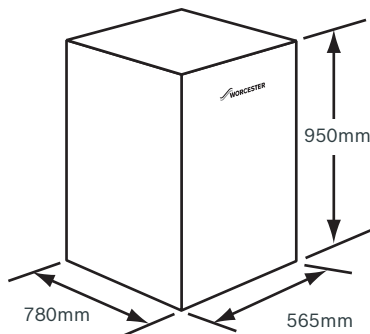
Floor standing condensing external regular boilers

Greenstar Camray boiler series

Greenstar Camray External 25/32

Clearances

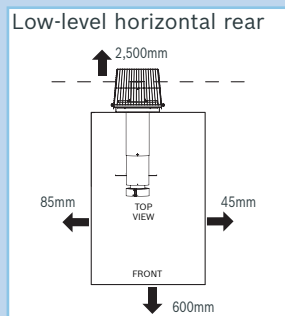
Please refer to the installation manual for full details.



| | |
|----------------------|--|
| Boiler output | 25 to 30kW (85,300 to 102,400 Btu/h) |
| Flue gas temperature | Below 100°C |
| Oil burner | Riello RDB 2.2 Suitable for kerosene (28 sec oil) only |
| Lift weight | 122kg |

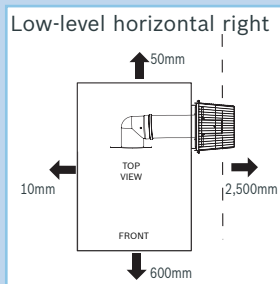
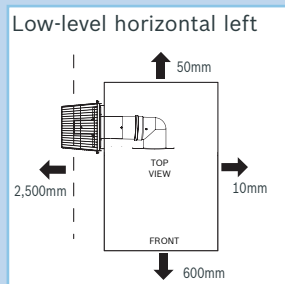
Part number
7 716 100 116

Flue options



| Clearances: Minimum service & flue clearances | |
|---|--------|
| Above | 600mm |
| Front | 600mm |
| RH/LH flue outlet on opposite side | 10mm |
| RH flue outlet on rear | 45mm |
| LH flue outlet on rear | 85mm |
| Rear=flue outlet on side | 50mm |
| Rear=rear flue outlet | 2500mm |

It is strongly recommended that the flue terminal faces away from walls to reduce the possibility of wetting occurring.



Flue options (125mm diameter)

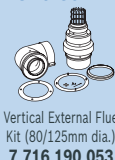


Horizontal



(90° Flue Bend required for LH and RH fluing)

Vertical



Accessories



Stainless Steel Flue Terminal Guard
7 716 190 050



Camray Wall Mounted External boiler

Camray 5 50/70 WM External RS

Clearances

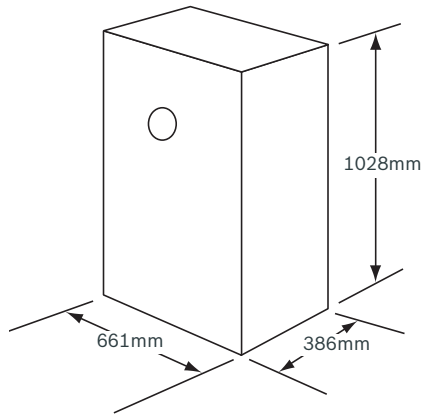
Above flue: 460mm

Left: 10mm

Right: 10mm

Below: 150mm

Front: 600mm



| | |
|----------------------|--|
| Boiler output | 15 to 20kW (50,000 to 70,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |

Part number

7 716 110 020



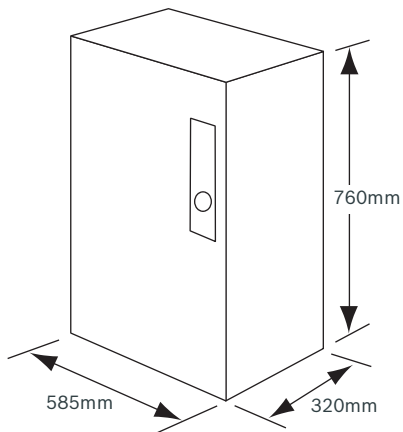
Wall mounted internal regular oil boilers

Camray Wall Mounted Internal boiler

Camray 5 50/70 WM Internal RS

Clearances

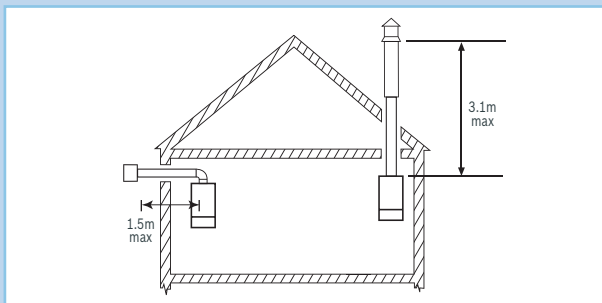
- Above flue: 200mm
- Left: 10mm
- Right: 10mm
- Below: 150mm
- Front: 450mm



| | |
|----------------------|--|
| Boiler output | 15 to 20kW (50,000 to 70,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Riello RDB 1 Suitable for kerosene (28 sec oil) only |

Part number
7 716 110 021

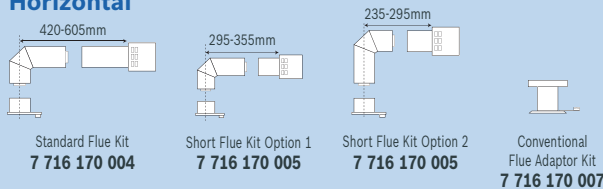
Flue options Flue bends



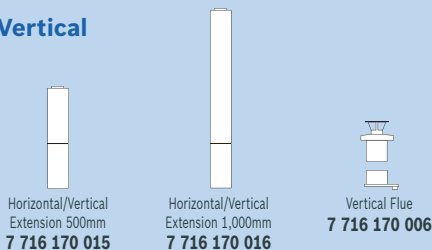
| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 1,555mm |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 3,175mm |

(2x45° bends equivalent to 1x90° bend)

Flue options Horizontal



Vertical



Accessories



Standard Flue Terminal Guard
7 716 175 004



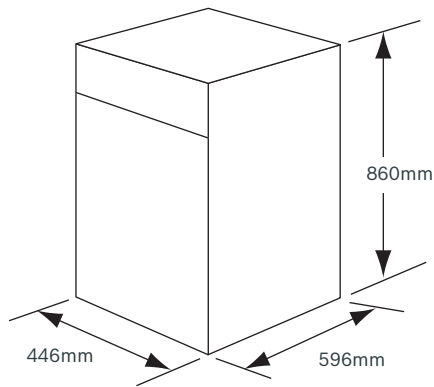
Floor standing regular utility boilers – balanced flue

Camray 5 Regular Utility boilers

Camray 5
40/65 Utility RS

Clearances

Left: 10mm
Right: 10mm
Front: 600mm



| | |
|----------------------|--|
| Boiler output | 11.7 to 19kW (40,000 to 65,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Riello RDB484T50 Suitable for kerosene (28 sec oil) only |

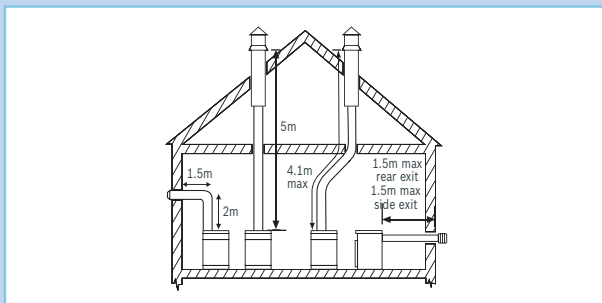
Part number
7 716 110 002

Programmer options

Suitable for connection to an external programmer
See Installation Manual for instructions

Flue options (135mm diameter)

Flue bends

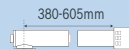


| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 1,555mm |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5,175mm |

(2x45° bends equivalent to 1x90° bend)

Flue options

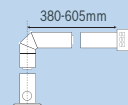
Horizontal



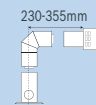
Standard Flue Kit
7 716 170 000



Short Flue Kit
7 716 170 001



Standard High Level
Flue Kit
7 716 170 002



Short High Level
Flue Kit
7 716 170 003



45° Bend
7 716 170 019



Horizontal/Vertical
Extension 500mm
7 716 170 015

Vertical



Vertical Flue
7 716 170 008



Conventional Flue Adaptor
102mm (4") 40/65, 65/90
7 716 170 009



Conventional Flue Adaptor
127mm (5") 95/130 only
7 716 170 010



Horizontal/Vertical
Extension 1,000mm
7 716 170 016

Accessories



Standard Flue Terminal Guard
7 716 175 004



Stainless Steel Flue Terminal Guard
7 716 175 006



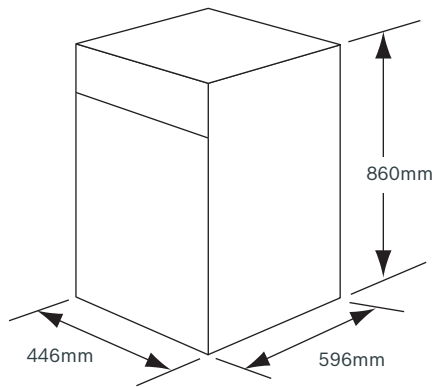
Floor standing regular utility boilers – balanced flue

Camray 5 Regular Utility boilers

Camray 5
65/90 Utility RS

Clearances

Left: 10mm
Right: 10mm
Front: 600mm



| | |
|----------------------|--|
| Boiler output | 19 to 26.4kW (65,000 to 90,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Riello RDB483T50 Suitable for kerosene (28 sec oil) only |

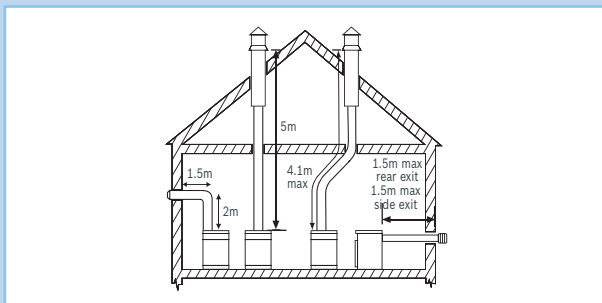
Part number
7 716 110 001

Programmer options

Suitable for connection to an external programmer
See Installation Manual for instructions

Flue options (135mm diameter)

Flue bends

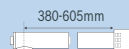


| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 1,555mm |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5,175mm |

(2x45° bends equivalent to 1x90° bend)

Flue options

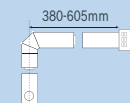
Horizontal



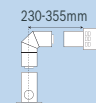
Standard Flue Kit
7 716 170 000



Short Flue Kit
7 716 170 001



Standard High Level
Flue Kit
7 716 170 002



Short High Level
Flue Kit
7 716 170 003



45° Bend
7 716 170 019



Horizontal/Vertical
Extension 500mm
7 716 170 015

Vertical



Vertical Flue
7 716 170 008



Conventional Flue Adaptor
102mm (4") 40/65, 65/90
7 716 170 009



Conventional Flue Adaptor
127mm (5") 95/130 only
7 716 170 010



Horizontal/Vertical
Extension 1,000mm
7 716 170 016

Accessories



Standard Flue Terminal Guard
7 716 175 004



Stainless Steel Flue Terminal Guard
7 716 175 006



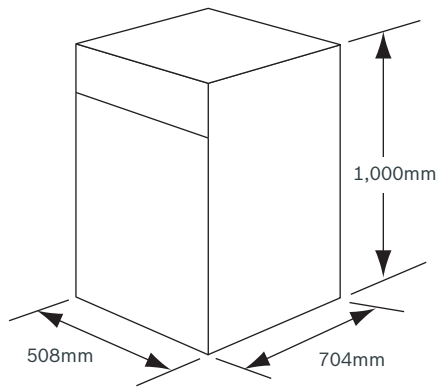
Floor standing regular utility boilers – balanced flue

Camray 5 Regular Utility boilers

Camray 5
95/130 Regular
Utility RS

Clearances

- Above: 300mm
- Left: 10mm
- Right: 10mm
- Front: 600mm



| | |
|----------------------|--|
| Boiler output | 27.8 to 38.1kW (95,000 to 130,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Riello RDB487T50 Suitable for kerosene (28 sec oil) only |

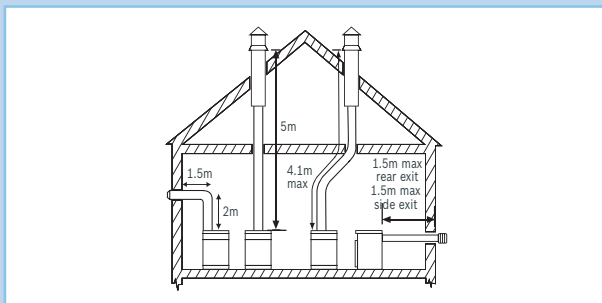
Part number
7 716 110 009

Programmer options

Suitable for connection to an external programmer
See Installation Manual for instructions

Flue options (135mm diameter)

Flue bends

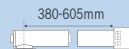


| Horizontal | |
|-----------------|------------------|
| Number of bends | Max. flue length |
| 1 bend | 1,555mm |
| Vertical | |
| Number of bends | Max. flue length |
| 2 x 45° bends | 5,175mm |

(2x45° bends equivalent to 1x90° bend)

Flue options

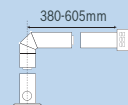
Horizontal



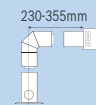
Standard Flue Kit
7 716 170 000



Short Flue Kit
7 716 170 001



Standard High Level
Flue Kit
7 716 170 002



Short High Level
Flue Kit
7 716 170 003



45° Bend
7 716 170 019



Horizontal/Vertical
Extension 500mm
7 716 170 015

Vertical



Vertical Flue
7 716 170 008



Conventional Flue Adaptor
102mm (4") 40/65, 65/90
7 716 170 009



Conventional Flue Adaptor
127mm (5") 95/130 only
7 716 170 010



Horizontal/Vertical
Extension 1,000mm
7 716 170 016

Accessories



Standard Flue Terminal Guard
7 716 175 004



Stainless Steel Flue Terminal Guard
7 716 175 006

**Floor standing combi boilers –
balanced flue**

Heatslave Combi boiler series

Heatslave 15/19 RS

Clearances

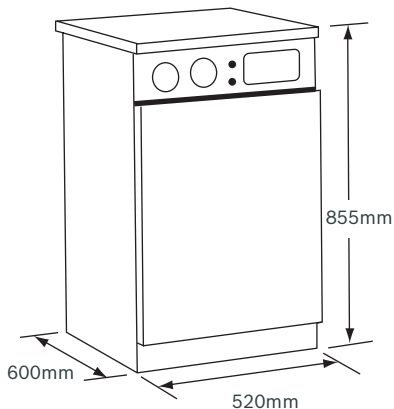
Above flue: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm

**Note: Although clearance above the Heatslave range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.*



| | |
|-----------------------------|---|
| Boiler output | 15 to 19kW (51,000 to 65,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Bentone Inter B9B Suitable for kerosene (28 sec oil) only |

Part number

7 716 100 044

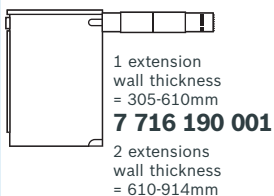
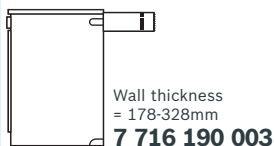
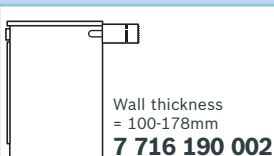
Programmer options

Grey Twin Channel
7 716 192 007

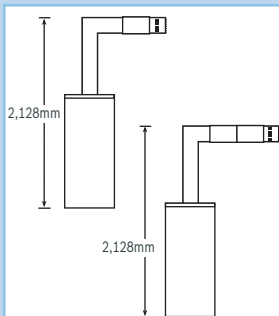


Flue options

**Low level rear
(below cabinet)**



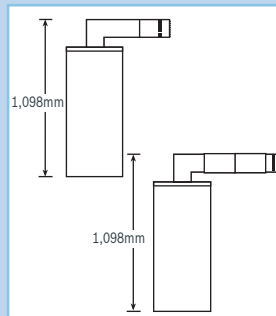
**High level
left/right/rear**



This option allows LH, RH or rear fluing. This requires kit no. **7 716 190 007** and the required low level rear kit

7 716 190 003 or **7 716 190 002**
and if necessary up to 2 extensions
7 716 190 001

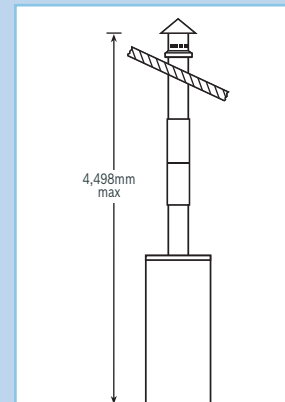
**Low level
left/right/rear**



This option allows LH, RH or rear fluing. This requires kit no. **7 716 190 008** and the required low level rear kit

7 716 190 003 or **7 716 190 002**
and if necessary up to 2 extensions
7 716 190 001

Vertical



This option allows vertical fluing. This requires kit no. **7 716 190 013** and up to 2 extensions
7 716 190 006

**Floor standing combi boilers –
balanced flue**

Heatslave Combi boiler series

Heatslave 20/25 RS

Clearances

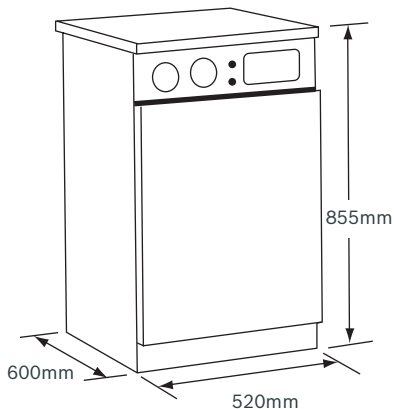
Above flue: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm

**Note: Although clearance above the Heatslave range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.*



| | |
|-----------------------------|--|
| Boiler output | 20 to 25kW (68,000 to 85,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Bentone Inter B11C Suitable for kerosene (28 sec oil) only |

Part number

7 716 100 084

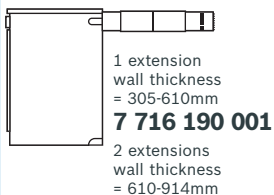
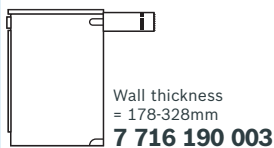
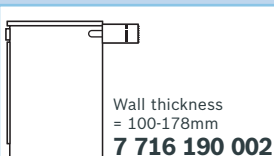
Programmer options

Grey Twin Channel
7 716 192 007

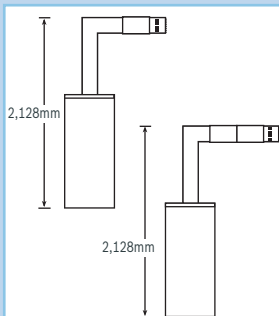


Flue options

**Low level rear
(below cabinet)**



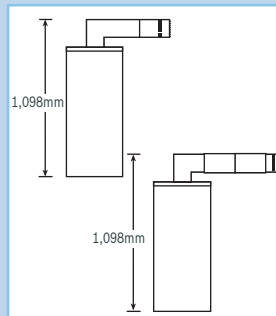
**High level
left/right/rear**



This option allows LH, RH or rear fluing. This requires kit no. **7 716 190 007** and the required low level rear kit

7 716 190 003 or **7 716 190 002**
and if necessary up to 2 extensions
7 716 190 001

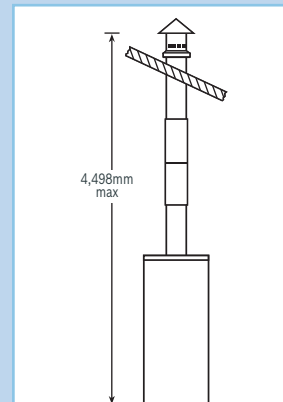
**Low level
left/right/rear**



This option allows LH, RH or rear fluing. This requires kit no. **7 716 190 008** and the required low level rear kit

7 716 190 003 or **7 716 190 002**
and if necessary up to 2 extensions
7 716 190 001

Vertical



This option allows vertical fluing. This requires kit no. **7 716 190 013** and up to 2 extensions
7 716 190 006

**Floor standing combi boilers –
balanced flue**

Heatslave Combi boiler series

Heatslave 26/32 RS

Clearances

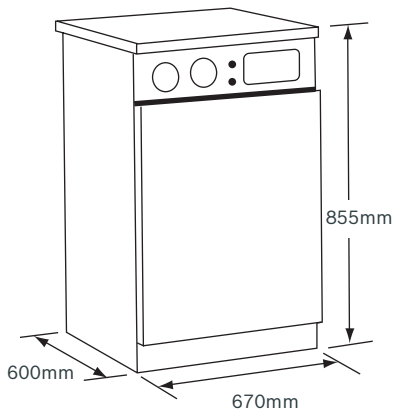
Above flue: 300mm*

Left: 5mm

Right: 5mm

Front: 600mm

**Note: Although clearance above the Heatslave range is stated to be 300mm, a removable worktop may be placed directly above the boiler, allowing 10mm clearance.*



| | |
|-----------------------------|---|
| Boiler output | 26 to 32kW (89,000 to 109,000 Btu/h) |
| Flue gas temperature | Below 250°C |
| Oil burner | Bentone Sterling 40 Suitable for kerosene (28 sec oil) only |

Part number

7 716 100 066

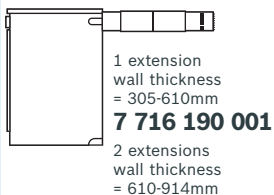
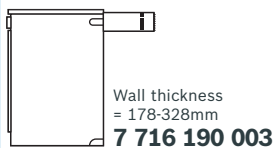
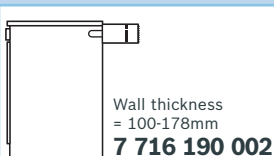
Programmer options

Grey Twin Channel
7 716 192 007

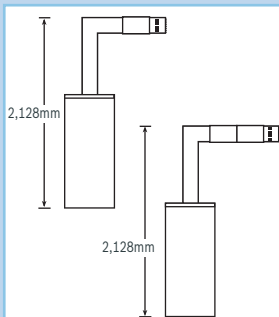


Flue options

**Low level rear
(below cabinet)**



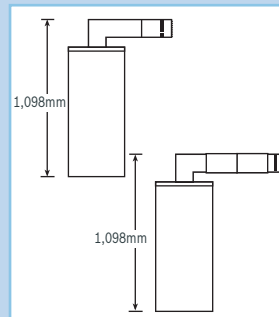
**High level
left/right/rear**



This option allows LH, RH or rear fluing. This requires kit no. **7 716 190 007** and the required low level rear kit

7 716 190 003 or **7 716 190 002**
and if necessary up to 2 extensions
7 716 190 001

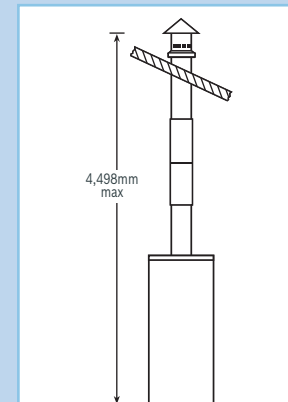
**Low level
left/right/rear**



This option allows LH, RH or rear fluing. This requires kit no. **7 716 190 008** and the required low level rear kit

7 716 190 003 or **7 716 190 002**
and if necessary up to 2 extensions
7 716 190 001

Vertical



This option allows vertical fluing. This requires kit no. **7 716 190 013** and up to 2 extensions
7 716 190 006

Greenskies solar panels



CORGI Award winner Energy
Efficient Product of the Year 2007

Greenskies FKC-1S (Portrait) and FKC-1W (Landscape) solar panels

The Greenskies solar water heating system gives even more siting flexibility from portrait or landscape and in-roof or wall mounted. The Greenskies range also includes a range of twin coiled cylinders.

For more information refer to
Solar Tech & Spec Part Number: 8 716 110 080

or visit www.worcester-bosch.co.uk

| | |
|--------------|--|
| Efficiency | Absorption 95% Emission 12% |
| Surface area | Gross 2.37m ² Net 2.23m ² |

Part numbers

7 747 025 748 (FKC-1S) Portrait

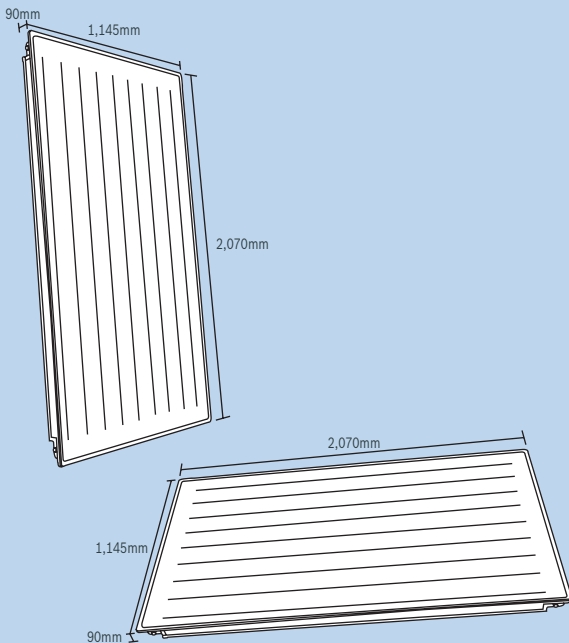
7 747 025 749 (FKC-1W) Landscape

Controller option

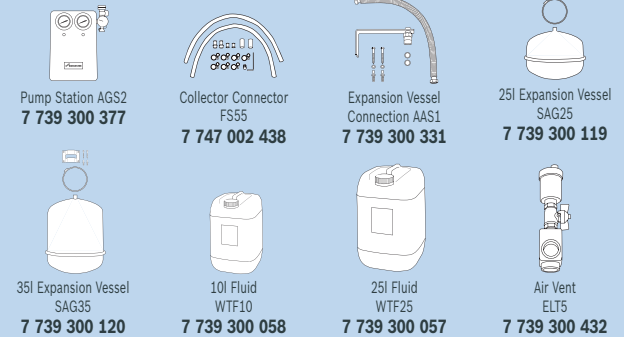
TDS10 Solar Controller
7 739 300 378



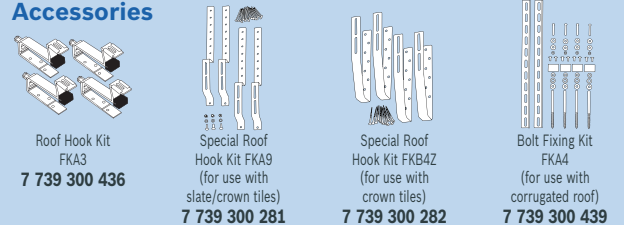
Panel dimensions & clearances



Main components



Accessories



For full list of accessories please refer to
Solar Tech & Spec Part Number: 8 716 110 080
See page 90-93 for Greenskies cylinders

Greenskies solar panels



CORGI Award winner Energy
Efficient Product of the Year 2007

Greenskies FKT-1S (Portrait) and FKT-1W (Landscape) solar panels

The Greenskies solar water heating system gives even more siting flexibility from portrait or landscape and in-roof or wall mounted. The Greenskies range also includes a range of twin coiled cylinders.

For more information refer to
Solar Tech & Spec Part Number: 8 716 110 080

or visit www.worcester-bosch.co.uk

| | |
|--------------|--|
| Efficiency | Absorption 95% Emission 5% |
| Surface area | Gross 2.37m ² Net 2.23m ² |

Part numbers

7 747 025 750 (FKT-1S) Portrait

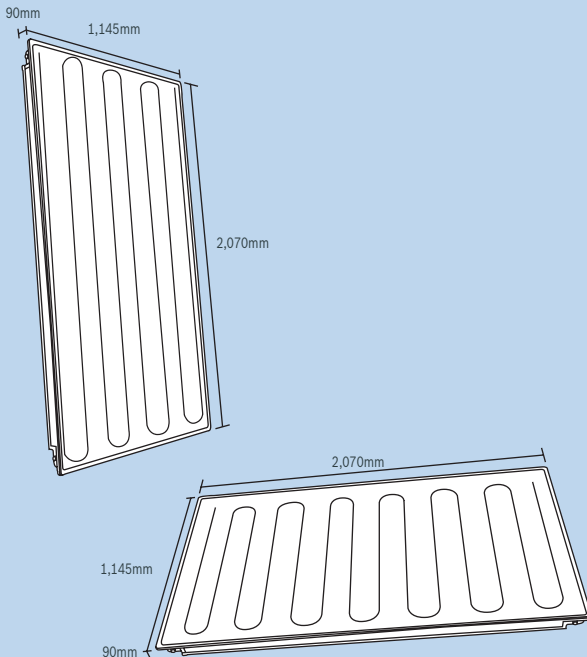
7 747 025 751 (FKT-1W) Landscape

Controller option








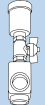
TDS10 Solar controller
7 739 300 378



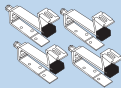
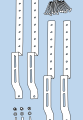

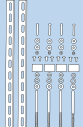
Panel dimensions & clearances



Main components

| | | | |
|--|---|---|---|
|  Pump Station AGS2 7 739 300 377 |  Collector Connector FS55 7 747 002 438 |  Expansion Vessel Connection AAS1 7 739 300 331 |  25l Expansion Vessel SAG25 7 739 300 119 |
|  35l Expansion Vessel SAG35 7 739 300 120 |  10l Fluid WTF10 7 739 300 058 |  25l Fluid WTF25 7 739 300 057 |  Air Vent ELT6 7 739 300 433 |

Accessories

| | | | |
|---|---|--|---|
|  Roof Hook Kit FKA3 7 739 300 436 |  Special Roof Hook Kit FKA9 (for use with slate/crown tiles) 7 739 300 281 |  Special Roof Hook Kit FKB4Z (for use with crown tiles) 7 739 300 282 |  Bolt Fixing Kit FKA4 (for use with corrugated roof) 7 739 300 439 |
|---|---|--|---|

For full list of accessories please refer to
Solar Tech & Spec Part Number: 8 716 110 080
See page 90-93 for Greenskies cylinders

Greenskies cylinders

Greenskies Cylinder series

Greenskies 180 Cylinder



Greenskies 210 Cylinder



| | |
|---------------------------|------------|
| Volume domestic hot water | 180 litres |
| Weight full | 230kg |

Part number

7 716 192 554

| Features |
|--|
| Inlet control set (pressure reducing valve, strainer, non-return valve and expansion relief valve) |
| Temperature & pressure relief valve |
| 15mm/22mm Tundish |
| Expansion vessel 18 litre |
| Wall mounting bracket (for the expansion vessel) |
| 22mm DZR compression connections |
| 1 x 15mm end feed tee |
| Expansion valve (to discharge) |
| Expansion vessel hose |
| Immersion heater with thermostat and thermal cut out |
| 2 x two port valves |
| Wiring centre |
| Pockets for thermostat points |
| 1 x dual thermostat and 1 x high limit thermostat |
| Greenskies cylinders are WRAS and BBA approved products to meet G3 Building Regulations |

Only for use with one fossil fuel appliance and one solar system
(the use of two fossil fuel appliances is not permitted)

| | |
|---------------------------|------------|
| Volume domestic hot water | 210 litres |
| Weight full | 265kg |

Part number

7 716 192 555

| Features |
|--|
| Inlet control set (pressure reducing valve, strainer, non-return valve and expansion relief valve) |
| Temperature & pressure relief valve |
| 15mm/22mm Tundish |
| Expansion vessel 18 litre |
| Wall mounting bracket (for the expansion vessel) |
| 22mm DZR compression connections |
| 1 x 15mm end feed tee |
| Expansion valve (to discharge) |
| Expansion vessel hose |
| Immersion heater with thermostat and thermal cut out |
| 2 x two port valves |
| Wiring centre |
| Pockets for thermostat points |
| 1 x dual thermostat and 1 x high limit thermostat |
| Greenskies cylinders are WRAS and BBA approved products to meet G3 Building Regulations |

Only for use with one fossil fuel appliance and one solar system
(the use of two fossil fuel appliances is not permitted)

Greenskies cylinders

Greenskies Cylinder series

Greenskies 250 Cylinder



Greenskies 300 Cylinder



| | |
|---------------------------|------------|
| Volume domestic hot water | 250 litres |
| Weight full | 310kg |

Part number

7 716 192 556

| Features |
|--|
| Inlet control set (pressure reducing valve, strainer, non-return valve and expansion relief valve) |
| Temperature & pressure relief valve |
| 15mm/22mm Tundish |
| Expansion vessel 19 litre |
| Wall mounting bracket (for the expansion vessel) |
| 22mm DZR compression connections |
| 1 x 15mm end feed tee |
| Expansion valve (to discharge) |
| Expansion vessel hose |
| Immersion heater with thermostat and thermal cut out |
| 2 x two port valves |
| Wiring centre |
| Pockets for thermostat points |
| 1 x dual thermostat and 1 x high limit thermostat |
| Greenskies cylinders are WRAS and BBA approved products to meet G3 Building Regulations |

Only for use with one fossil fuel appliance and one solar system
(the use of two fossil fuel appliances is not permitted)

| | |
|---------------------------|------------|
| Volume domestic hot water | 300 litres |
| Weight full | 365kg |

Part number

7 716 192 557

| Features |
|--|
| Inlet control set (pressure reducing valve, strainer, non-return valve and expansion relief valve) |
| Temperature & pressure relief valve |
| 15mm/22mm Tundish |
| Expansion vessel 24 litre |
| Wall mounting bracket (for the expansion vessel) |
| 22mm DZR compression connections |
| 1 x 15mm end feed tee |
| Expansion valve (to discharge) |
| Expansion vessel hose |
| Immersion heater with thermostat and thermal cut out |
| 2 x two port valves |
| Wiring centre |
| Pockets for thermostat points |
| 1 x dual thermostat and 1 x high limit thermostat |
| Greenskies cylinders are WRAS and BBA approved products to meet G3 Building Regulations |

Only for use with one fossil fuel appliance and one solar system
(the use of two fossil fuel appliances is not permitted)

Ground source heat pumps

Greenstore ground source heat pumps

Greenstore 6 System

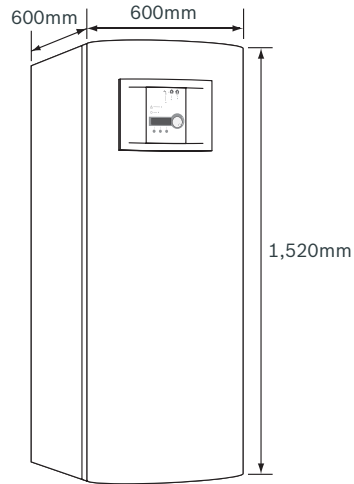
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|-----|
| Output kW 0/35°C ¹ | 5.7 |
| Output kW 0/50°C ¹ | 5.4 |
| CoP* 0/35°C ¹ | 3.8 |
| CoP* 0/50°C ¹ | 2.8 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

¹ According to BS EN 14511

* Coefficient of Performance

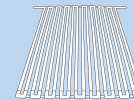
Part number

7 716 180 009

Accessories



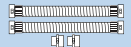
100L Primary Water Storage Tank
7 716 192 418



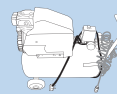
Compact Collector
7 716 192 419



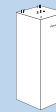
Filling Pump Unit
7 716 192 420



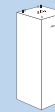
Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore 180 Cylinder
7 716 180 017



Greenstore 280 Cylinder
7 716 180 018

Ground source heat pumps

Greenstore ground source heat pumps

Greenstore 7 System

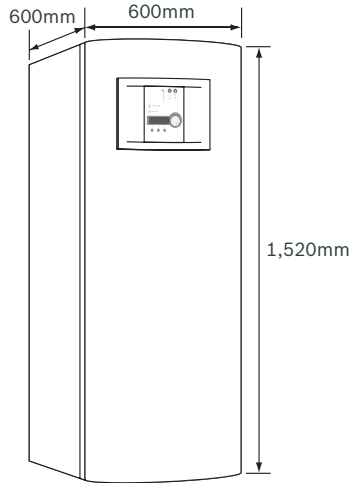
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|-----|
| Output kW 0/35°C ¹ | 7.2 |
| Output kW 0/50°C ¹ | 6.8 |
| CoP* 0/35°C ¹ | 3.9 |
| CoP* 0/50°C ¹ | 2.9 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

¹ According to BS EN 14511

* Coefficient of Performance

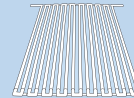
Part number

7 716 180 010

Accessories



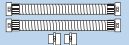
100L Primary Water Storage Tank
7 716 192 418



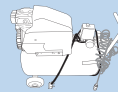
Compact Collector
7 716 192 419



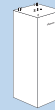
Filling Pump Unit
7 716 192 420



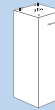
Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore 180 Cylinder
7 716 180 017



Greenstore 280 Cylinder
7 716 180 018

Ground source heat pumps

Greenstore ground source heat pumps

Greenstore 9 System

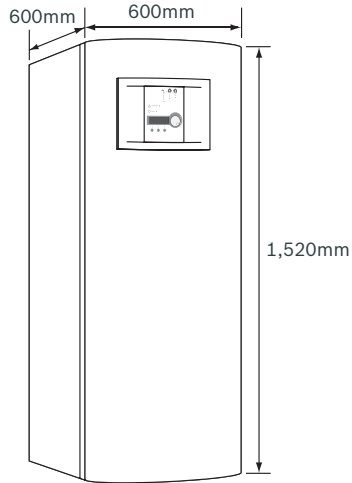
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|-----|
| Output kW 0/35°C ¹ | 9.1 |
| Output kW 0/50°C ¹ | 8.5 |
| CoP* 0/35°C ¹ | 4.1 |
| CoP* 0/50°C ¹ | 3.0 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

¹ According to BS EN 14511

* Coefficient of Performance

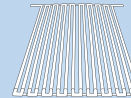
Part number

7 716 180 011

Accessories



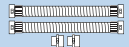
100L Primary Water Storage Tank
7 716 192 418



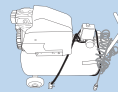
Compact Collector
7 716 192 419



Filling Pump Unit
7 716 192 420



Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore 180 Cylinder
7 716 180 017



Greenstore 280 Cylinder
7 716 180 018

Ground source heat pumps

Greenstore ground source heat pumps

Greenstore 11 System

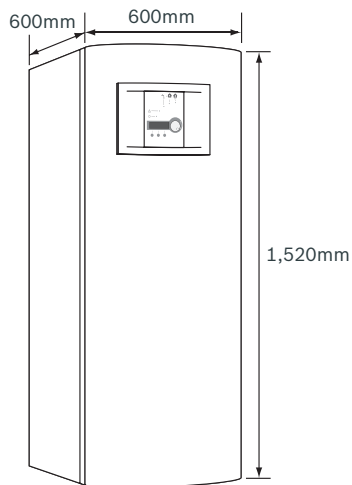
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|------|
| Output kW 0/35°C ¹ | 10.9 |
| Output kW 0/50°C ¹ | 10.1 |
| CoP* 0/35°C ¹ | 4.6 |
| CoP* 0/50°C ¹ | 3.2 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

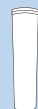
¹ According to BS EN 14511

* Coefficient of Performance

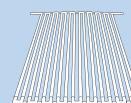
Part number

7 716 180 012

Accessories



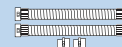
100L Primary Water Storage Tank
7 716 192 418



Compact Collector
7 716 192 419



Filling Pump Unit
7 716 192 420



Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore 180 Cylinder
7 716 180 017



Greenstore 280 Cylinder
7 716 180 018

Ground source heat pumps

Compliant with
Building Regulation
G3

Greenstore ground source heat pumps

Greenstore 6 Combi

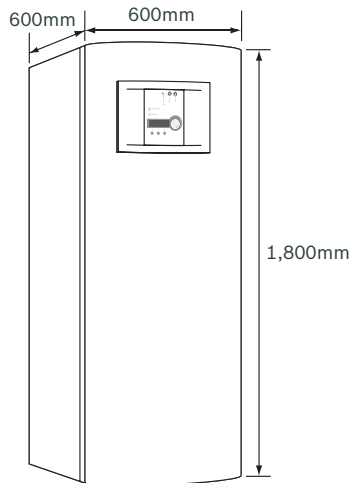
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|-----|
| Cylinder capacity (ltr) | 185 |
| Output kW 0/35°C ¹ | 5.7 |
| Output kW 0/50°C ¹ | 5.4 |
| CoP* 0/35°C ¹ | 3.8 |
| CoP* 0/50°C ¹ | 2.8 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

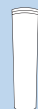
¹ According to BS EN 14511

* Coefficient of Performance

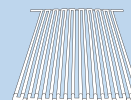
Part number

7 716 180 013

Accessories



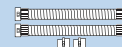
100L Primary Water
Storage Tank
7 716 192 418



Compact Collector
7 716 192 419



Filling Pump Unit
7 716 192 420



Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore
180 Cylinder
7 716 180 017



Greenstore
280 Cylinder
7 716 180 018

Ground source heat pumps

Compliant with
Building Regulation
G3

Greenstore ground source heat pumps

Greenstore 7 Combi

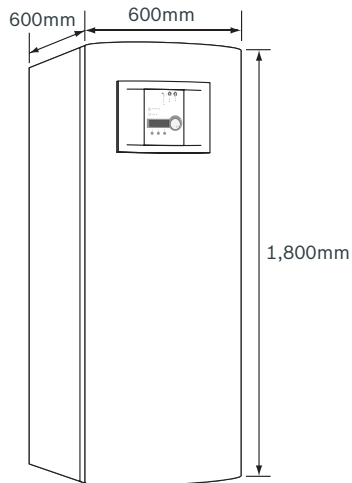
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|-----|
| Cylinder capacity (ltr) | 185 |
| Output kW 0/35°C ¹ | 7.2 |
| Output kW 0/50°C ¹ | 6.8 |
| CoP* 0/35°C ¹ | 3.9 |
| CoP* 0/50°C ¹ | 2.9 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

¹ According to BS EN 14511

* Coefficient of Performance

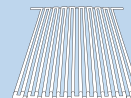
Part number

7 716 180 014

Accessories



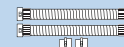
100L Primary Water
Storage Tank
7 716 192 418



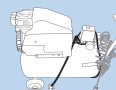
Compact Collector
7 716 192 419



Filling Pump Unit
7 716 192 420



Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore
180 Cylinder
7 716 180 017



Greenstore
280 Cylinder
7 716 180 018

Ground source heat pumps

Compliant with
Building Regulation
G3

Greenstore ground source heat pumps

Greenstore 9 Combi

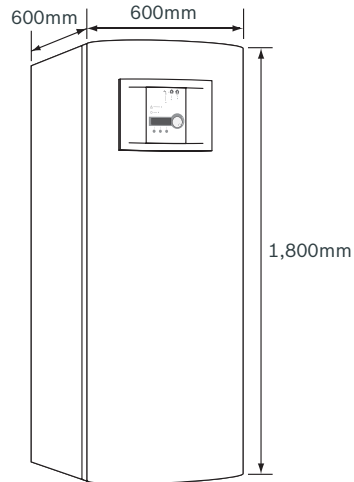
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|-----|
| Cylinder capacity (ltr) | 185 |
| Output kW 0/35°C ¹ | 9.1 |
| Output kW 0/50°C ¹ | 8.5 |
| CoP* 0/35°C ¹ | 4.1 |
| CoP* 0/50°C ¹ | 3.0 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

¹ According to BS EN 14511

* Coefficient of Performance

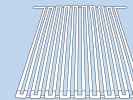
Part number

7 716 180 015

Accessories



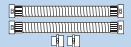
100L Primary Water
Storage Tank
7 716 192 418



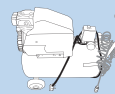
Compact Collector
7 716 192 419



Filling Pump Unit
7 716 192 420



Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore
180 Cylinder
7 716 180 017



Greenstore
280 Cylinder
7 716 180 018

Ground source heat pumps

Compliant with
Building Regulation
G3

Greenstore ground source heat pumps

Greenstore 11 Combi

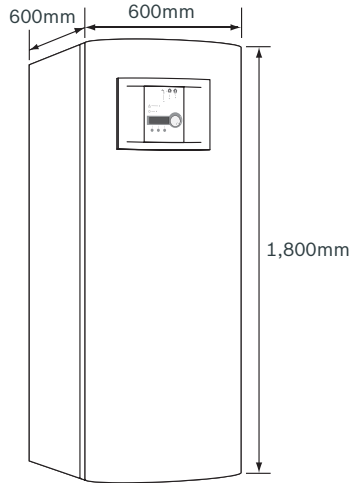
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|-------------------------------|------|
| Cylinder capacity (ltr) | 185 |
| Output kW 0/35°C ¹ | 10.9 |
| Output kW 0/50°C ¹ | 10.1 |
| CoP* 0/35°C ¹ | 4.6 |
| CoP* 0/50°C ¹ | 3.2 |

Note: 0/35°C is used to designate in a situation where the collector side of the system generates a temperature of 0°C and the flow temperature from the heat pump is 35°C.

¹ According to BS EN 14511

* Coefficient of Performance

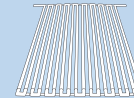
Part number

7 716 180 016

Accessories



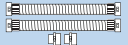
100L Primary Water
Storage Tank
7 716 192 418



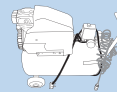
Compact Collector
7 716 192 419



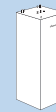
Filling Pump Unit
7 716 192 420



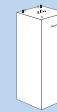
Filling Pump Hose Kit
7 716 192 421



Air Compressor
7 716 192 422



Greenstore
180 Cylinder
7 716 180 017



Greenstore
280 Cylinder
7 716 180 018

Greenstore cylinders

Greenstore Cylinder series

Greenstore 180 Cylinder

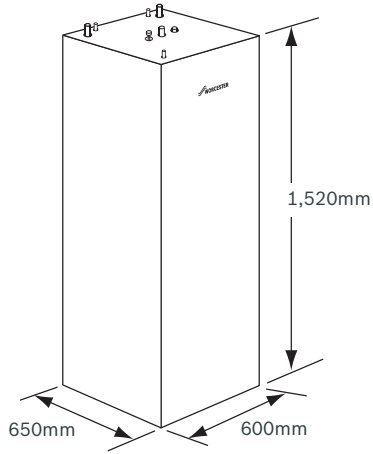
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|---------------------------|------------|
| Volume domestic hot water | 180 litres |
| Volume primary water | 105 litres |
| Dry weight | 97kg |

Part number
7 716 180 017

Greenstore cylinders

Greenstore Cylinder series

Greenstore 280 Cylinder

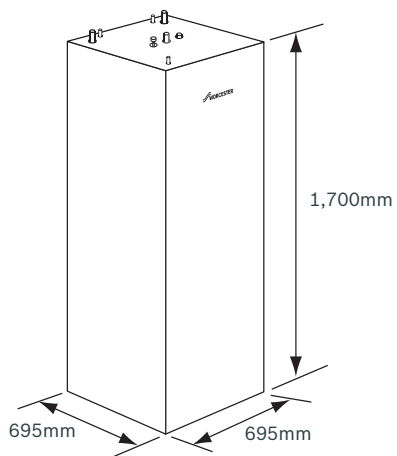
Clearances

Above: 300mm

Left: 20mm

Right: 20mm

Front: 600mm



| | |
|---------------------------|------------|
| Volume domestic hot water | 280 litres |
| Volume primary water | 180 litres |
| Dry weight | 136kg |

Part number

7 716 180 018

Training support

Training Centres throughout the UK

Worcester's network of regional training centres are strategically located across the country and include the 'A' Rated Training Academy at the company's headquarters. This facility has recently been extended to include an oil-fired appliance workshop and a renewable energies workshop in addition to the extensive gas-fired training facilities.

In addition to these outstanding facilities there are centres at Clay Cross in Derbyshire and Bangor in Northern Ireland. Further 'A' Rated Academies are open at West Thurrock in Essex and Bradford in West Yorkshire as well as additional training opportunities available throughout the UK. Please phone 01905 752526 for more information about a course near you. Each course is run by specialist trainers and is superbly equipped to deliver a combination of classroom theory and practical hands-on experience that's second to none.

College-linked Learning

A number of the UK's leading proactive technical colleges are equipped with Worcester products and offer excellent practical tuition on a more local level.

Distance Learning/Web Based Learning

Worcester has produced a selection of Distance Learning CD ROMs/DVDs which are packed with information. Call 01905 752556 for your copies, or visit www.worcester-bosch.co.uk for information on Web Based Learning.

Mobile training

Our 7.5 tonne mobile oil training vehicle with working boilers, is now available throughout the country for hands-on oil training and OFTEC courses.

Courses on Air to Water and Air to Air are now available please check with your local Technical Sales Manager and the Worcester website www.worcester-bosch.co.uk. Phone 01905 752526 to book your place.

Get on course for a more profitable future now.

Call now for more information 01905 752526 or visit www.worcester-bosch.co.uk/training



Worcester training courses

| Worcester training courses | |
|--|---|
| Greenstar Camray high efficiency condensing oil-fired boilers | |
| Models covered | Greenstar Camray (kitchen) Greenstar Camray (kitchen) System Greenstar Camray Utility Greenstar Camray Utility System Greenstar Camray External |
| Duration | 1 day |
| Greenstar Danesmoor & Heatslave high efficiency condensing oil-fired boilers | |
| Models covered | Greenstar Danesmoor Greenstar Utility Greenstar Heatslave Greenstar Heatslave External |
| Duration | 1 day |
| OFTEC Training | |
| OFTEC 101 | |
| Covering | Domestic/Light Commercial Pressure Jet Commissioning and Servicing |
| Duration | 3 day course (2 days training plus 1 days assessment) |
| OFTEC 105e | |
| Covering | Domestic/Light Commercial Pressure Jet Boiler Installation |
| Duration | 1 day assessment |
| OFTEC 101 & 105e | |
| Covering | Domestic/Light Commercial Pressure Jet Installation, Commissioning and Servicing |
| Duration | 3 day course (2 days training plus 1 days assessment comprising 2 theory and 1 practical) |
| OFTEC 600a | |
| Covering | Oil Tank Installation and Associated Controls |
| Duration | 1 day assessment course |
| OFTEC 101/105e/600e | |
| Covering | Domestic/Light Commercial Pressure Jet Boiler Installation, Commissioning, Servicing and Oil Tank Installation and Associated Controls |
| Duration | 4 days (2 days training and 2 days assessment) |
| Mobile OFTEC | |
| All above covered throughout the country on the mobile training vehicle as well as in all our centres. | |

| Certificate in Energy Efficiency for Domestic Heating Course | |
|--|---|
| Covering | Key elements of energy-efficient heating and hot water systems and products, compliance with the latest Building Regulations, how condensing boilers work and how they differ to non condensing products. |
| Duration | 1 day |
| Unvented Cylinder Course | |
| Covering | All G3 Regulations for the Installation, Servicing and Commissioning of Unvented Cylinders. The course includes recognised accreditation by Logic Certification. |
| Duration | 1 day |
| Greenskies Solar System | |
| Covering | Installation, Commissioning and Servicing. The course includes recognised accreditation by Logic Certification for eligibility of low carbon buildings programme funding. |
| Duration | 2 days |
| Greenstore Ground Source Heat Pumps | |
| Covering | Installation, Commissioning and System Design |
| Duration | 2 days |
| Greensource Heat Pumps – Air to Water | |
| Covering | Installation, Commissioning and System Design |
| Duration | 2 days |
| Greensource Heat Pumps – Air to Air | |
| Covering | Installation, Commissioning and System Design |
| Duration | 1 day |

Useful contacts



Energy Savings Trust Tel: 020 7222 0101



OFTEC Tel: 0845 65 85 080



Institute of Plumbing and Heating Engineers Tel: 01708 472 791



CORGI Tel: 01256 372 200



Association of Plumbing & Heating Contractors Tel: 02476 470 626



Heating & Ventilation Contractors Association Tel: 0207 313 4900



Heating and Hotwater Industry Council Tel: 01926 430 486



Benchmark Tel: 0845 600 2200



Society of British Gas Industries Tel: 01926 334 357



Sentinel Tel: 0151 420 9595



Grundfos Pumps Tel: 01525 850 000



British Standards Institution Tel: 0208 996 7070



Worcester, Bosch Group Contact Centre Tel: 08457 256 206

Other Bosch companies



BOSCH
Invented for life

Bosch Power Tools Tel: 01895 834 466



BOSCH
Invented for life

Robert Bosch Domestic Appliances Tel: 01908 328 200



BOSCH
Invented for life

Bosch Lawn & Garden Tel: 01449 742 000



Blaupunkt Tel: 01895 838 880



Bosch Car Services Tel: 01895 838 815

Metric & imperial measures

Imperial to metric units

| | | |
|------------------------------|----------------------------------|----------------------------|
| 1 inch | = 25.4 mm | = 2.54 cm |
| 1 foot | = 304.8 mm | = 0.3048 m |
| 1 yard | = 914.4 mm | = 0.9144 m |
| 1 mile | = 1609 m | = 1.609 km |
| 1 square inch | = 645.2 mm ² | = 6.452 cm ² |
| 1 square foot | = 929.0 cm ² | |
| 1 square yard | = 0.8361 m ² | |
| 1 acre | = 4047 m ² | = 0.4047 ha |
| 1 cubic inch | = 16390 mm ³ | = 0.016 39 dm ³ |
| 1 cubic foot | = 0.02832 m ³ | = 28.3 dm ³ |
| 1 cubic yard | = 0.7647 m ³ | |
| 1 pint | = 0.5683 litre | = 568.3 ml |
| 1 gallon | = 4.546 litre | = 4.546 kg of water |
| 1000 gallons | = 4.546 m ³ | |
| 1 grain | = 0.06480 g | |
| 1 ounce | = 28.35 g | |
| 1 pound | = 453.6 g | = 0.4536 kg |
| 1 ton | = 1016 kg | = 1.016 tonne |
| 0.1 inches water gauge | = 0.25 mbar | |
| 1.0 inch water gauge | = 2.5 mbar | |
| 1 atmosphere | = 1.01325 bar | |
| British thermal unit | = 1055 J | |
| 1000 Btu | = 1.055 MJ | |
| 1 therm | = 105.5 MJ | |
| 1000 Btu/h | = 0.2931 kW | = 1.055 MJ/h |
| 1 horsepower | = 745.7 W | = 2.685 MJ/h |
| 1 Btu/sft ³ | = 0.03796 MJ/m ³ (st) | |
| 1 Btu/sft ³ (dry) | = 0.03723 MJ/m ³ (st) | |
| 1 Btu/lb | = 2326 J/kg | |

Metric to imperial units

| | | |
|---------------------|----------------------------|--------------------------------------|
| 1 millimetre | = 0.03937 in | |
| 1 metre | = 39.37 in | = 3.281 ft = 1.094 yd |
| 1 kilometre | = 0.6214 mile | = 1094 yd |
| 1 square millimetre | = 0.001550 in ² | |
| 1 square metre | = 1.196 yd ² | |
| 1 acre | = 119.6 yd ² | = 0.0247 hectare |
| 1 hectare | = 11960 yd ² | = 2.471 acre |
| 1 cubic millimetre | = 0.000061 in ³ | |
| 1 cubic decimetre | = 61.02 in ³ | = 0.035 31 ft ³ |
| 1 cubic metre | = 35.31 ft ³ | = 1.308 yd ³ = 220.0 gal |
| 1 millilitre | = 0.001760 pint | |
| 1 litre | = 1.760 pint | = 0.2200 gal = 0.035 ft ³ |
| 1 gram | = 0.03527 oz | = 15.43 grains |
| 1 kilogram | = 2.205 lb | |
| 1 kilowatt | = 3412 Btu/h | |

Consumer and technical literature, CDs and DVDs

| Gas | |
|---|---------------------------|
| | Worcester Part No. |
| Consumer | |
| Sales brochure, Greenstar Gas Products | 8-716-109-642-0 |
| Promotional brochure, Handy Hints | 8-716-104-727-0 |
| Heating professional | |
| Product guide, Gas-fired & Renewable Products | 8-716-145-138-0 |
| Tech & Spec, Condensfit II & Plume Management | 8-716-112-174-0 |
| Tech & Spec, Greenstar Ri | 8-716-106-251-0 |
| Tech & Spec, Greenstar i Junior & i System | 8-716-108-900-0 |
| Tech & Spec, Greenstar Si | 8-716-108-901-0 |
| Tech & Spec, Greenstar CDi combi | 8-716-109-213-0 |
| Tech & Spec, Greenstar CDi regular & system | 8-716-109-919-0 |
| Tech & Spec, Greenstar Highflow 440/550CDi | 8-716-106-250-0 |
| Tech & Spec, Pack, Greenstar Gas-fired Products | 8-716-102-418-0 |

| Oil | |
|---|---------------------------|
| | Worcester Part No. |
| Consumer | |
| Sales Brochure, Greenstar Oil-fired Products | 8-716-110-393-0 |
| Heating professional | |
| Product Guide, Oil-fired & Renewable Products | 8-716-111-685-0 |
| Tech & Spec, Greenstar Danesmoor/Utility | 8-716-110-391-0 |
| Tech & Spec, Greenstar Heatslave | 8-716-110-392-0 |
| Tech & Spec, Greenstar Camray | 8-716-113-356-0 |
| Tech & Spec, Pack, Oil-fired Products | 8-716-102-419-0 |

To order any of these items please phone 01905 752556 or you can download them from www.worcester-bosch.co.uk

| Renewables | |
|---|---------------------------|
| | Worcester Part No. |
| Consumer | |
| Combined Renewables Brochure | 8-716-114-405-0 |
| Sales Brochure, Greenskies Solar | 8-716-110-053-0 |
| Sales Brochure, Greenstore Ground Source Heat Pumps | 8-716-112-115-0 |
| Sales Brochure, Greensource Air Source Heat Pumps | 8-716-115-320 |
| Heating professional | |
| Tech & Spec, Greenskies Solar | 8-716-110-080-0 |
| Tech & Spec, Greenstore Ground Source Heat Pumps | 8-716-112-116-0 |
| Tech & Spec, Greensource Air to Air Heat Pumps | 8-716-115-438 |
| Tech & Spec, Greensource Air to Water Heat Pumps | 8-716-115-319 |

| Training | |
|--|---------------------------|
| | Worcester Part No. |
| Heating professional | |
| Training Pack - Information on Courses | 8-716-112-218-0 |
| Technical Bulletins | 8-716-112-999-0 |

| Other | |
|---|---------------------------|
| | Worcester Part No. |
| Consumer | |
| Brochure - Worcester Products & Services (Consumer) | 8-716-112-666-0 |
| Heating professional | |
| Brochure - Worcester Products & Services (Trade) | 8-716-112-665-0 |

| Multimedia | |
|---|---------------------------|
| | Worcester Part No. |
| Consumer | |
| Consumer DVD – Greenstar, Greenskies, Greenstore | 8-716-112-668-0 |
| Heating professional | |
| Heating Professional CD ROM – Greenstar, Greenskies, Greenstore | 8-716-112-667-0 |
| Technical CD ROM | 8-716-104-960-0 |
| Spares Catalogue | 8-716-106-466-0 |
| Greenstar CDi/i Junior Installation CD-ROM | 8-716-112-251-0 |

Useful numbers

Sales

Tel: 01905 752640

Fax: 01905 456445

Service

Tel: 08457 256206

Fax: 01905 757536

Livingston (Scotland)

Fax: 01506 441687

Spare Parts

Tel: 01905 752576

Fax: 01905 754620

Training

Tel: 01905 752526

Fax: 01905 752535

Technical

(Pre- & Post-Sales)

Tel: 08705 266241

Fax: 01905 752741

Literature Line

Tel: 01905 752556

or download instantly

from our website

www.worcester-bosch.co.uk



Worcester, Bosch Group, Cotswold Way, Warndon, Worcester, WR4 9SW
Tel 01905 754624 Fax: 01905 7543130

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Part No. 8 716 111 685 Issue C 10/08