



# ICS

80-300mm Diameter Range  
Twin Wall Insulated System Chimney for  
Gas, Oil, Wood and Multi-fuel Applications

A photograph of a man in a dark polo shirt standing in a utility room. He is smiling and holding a handful of light-colored wood pellets in his cupped hands. In the background, there is a large orange and grey boiler, a white water tank, and some copper pipes. The lighting is bright, suggesting a daytime indoor setting.

**UPDATED  
RANGE!**  
from diameters  
80-300mm

A collection of stainless steel ICS chimney components, including various pipe sections, a flue collar, and a transition piece, all featuring a polished, reflective surface.

ICS LIT DOC/CP3/50 SAP Issue 2 May 2014

Part of the BRAAS MONIER BUILDING GROUP

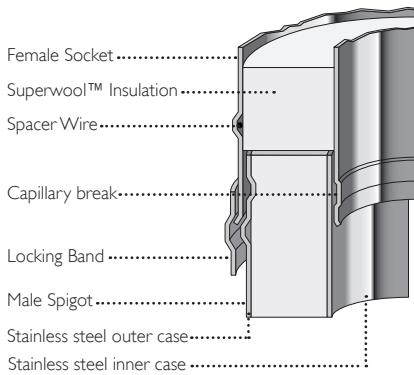
# Application

**ICS** is a twin wall insulated chimney system for use on open and closed stoves, open fires, residential and small commercial multi-fuel appliances, with continuous operating temperatures up to 450°C and short firing up to 550°C.

**ICS Plus** ICS is converted into ICS Plus by adding a lip seal to each component with a male form on the liner (see ICS Plus diagram below). This creates a twin wall insulated chimney system designed for the new generation of condensing gas and oil appliances, with continuous operating temperatures up to 200°C, short firing up to 250°C, and positive pressure up to 200Pa at the appliance outlet.

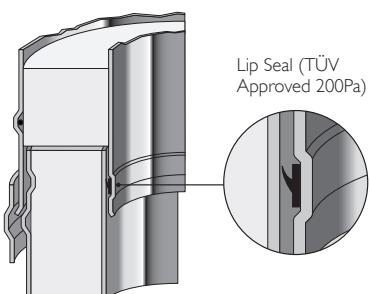
**Other ICS Ranges** For larger commercial and industrial applications of ICS in diameters 350mm to 700mm please refer to our separate sales brochure. For higher pressure applications up to 5000Pa e.g. generators, combustion and process equipment, please see the commercial brochure.

## Product Description



### ICS PRODUCT FEATURES

- Simple push-fit jointing system, secured by locking band.
- Advanced corrosion resistant design and construction uses laser welded 316L stainless steel inner liners and stainless steel case. The only stainless steel system to have passed the internationally recognised GASTEC corrosion test.
- The jointing system increases rigidity and ensures easy draindown of any condensate in the flue.
- Capillary break prevents moisture being drawn through the joint.
- Because of the sleeve joint, the insulation in the pipe is able to be continuous over the length of the system ensuring no hot spots.
- The 25mm high efficiency Superwool™ blanket maintains flue gas temperature, maximising efficiency, improving flue draught on start up and minimises condensation.
- Low external case temperature.
- The assembly method allows the inner liner to expand and contract with temperature at the female end. The flue can withstand the temperatures of a soot fire without losing the integrity of the joints.
- Generous lead-in edges on liner and case for ease of jointing.



### ICS PLUS PRODUCT FEATURES

- ICS Plus for condensing appliances is created by adding a lip seal gasket that can maintain positive pressure up to 200Pa. All the design and construction benefits of ICS apply.

## Approvals



**CE TÜV**

ICS is CE Certified to EN1856-1 TÜV 0036 CPR 9195 001 with designations:

ICS is CE Certified to EN1856-2 TÜV 0036 CPR 9195 041 with designations:

| System Chimney EN1856-1   |  |  |
|---|--|--|
| T450 NI WV2 L50050 G60<br>T450 NI DV3 L50050 G60<br>60mm Distance to combustibles in a combustible shaft* | T450 NI WV2 L50050 G50<br>T450 NI DV3 L50050 G50<br>50mm Distance to combustibles in a non combustible shaft or in free air* | T200 PI WV2 L50050 O00<br>Zero distance to combustibles* |
| Connecting Flue Pipe EN1856-2   |  |  |
| <b>T450 NI D V2 L50050 G100 M</b>   |  |  |

\* For full information please see p.17 - Distance to combustibles section

- Kitemarked to BS4543 Parts 2 & 3 for gas, oil and solid fuel ( $\varnothing$  80mm - 200mm inclusive)
- Manufactured under a Quality Management Scheme approved to BS EN ISO 9001: 2008
- 4 Hour Fire Rating to BS476 Part 20
- Certified for corrosion resistance on gas, oil and solid fuel by Gastec, MPA and TÜV
- HETAS listed for use on solid fuel applications.

# Corrosion Resistance

Chimneys are subject to significant corrosion attack by flue gas condensates, particularly from solid fuel and condensing appliances. ICS is specifically designed and manufactured to resist this corrosion. It is the only stainless steel chimney system in the world to have passed the internationally recognised Gastec corrosion test.

## Flue Size Selection Guide

The chimney size should be as recommended by the appliance manufacturer. Where there is a requirement for a flue diameter smaller than the appliance spigot, then the operational requirements of the appliance and the configuration of the flue must satisfy the flue sizing requirements of 13384-1 (single appliances) and 13384-2 (multi appliances). For more information contact the installer helpline (0191 416 6666). The information and sizes below are provided as a nominal guide only. Flue sizing for appliances, particularly commercial/industrial applications, will vary depending on siting details and appliance manufacturer's instructions and design criteria. These will override the sizing guide and reference must be made to appliance manufacturer. For Inglenook and nonstandard openings, the diameter of the flue must be at least 15% of the cross sectional area of the fireplace opening.

|                                     | 80 mm          | 100 mm         | 130 mm         | 150 mm         | 180 - 300mm |
|-------------------------------------|----------------|----------------|----------------|----------------|-------------|
| <b>Gas - Atmospheric Boiler</b>     |                |                |                |                |             |
| Input up to 25kW                    | •              |                |                |                |             |
| Input 25kW to 40kW                  |                | •              |                |                |             |
| Input 40kW to 60kW                  |                |                | •              |                |             |
| <b>Gas - Commercial/Ind. Boiler</b> |                |                |                |                |             |
| Input 50kW to 70kW                  |                |                |                | • <sup>2</sup> |             |
| <b>Gas Fires</b>                    |                |                |                |                |             |
| 'Radiant' to BS7977-1 2002          |                | •              |                |                |             |
| 'Inset' to BS7977-1 2002            |                | • <sup>1</sup> | • <sup>1</sup> |                |             |
| 'Backboiler' to BS7977-2 2003       |                | •              |                |                |             |
| <b>Gas Water Heaters</b>            |                |                |                |                |             |
| Input up to 25kW                    | •              | •              |                |                |             |
| Input 25kW to 55kW                  |                | •              |                |                |             |
| Input 55kW to 60kW                  |                |                | •              |                |             |
| Input over to 60kW                  |                |                |                | • <sup>2</sup> |             |
| <b>Gas Warm Air Unit</b>            |                |                |                |                |             |
| Input up to 18kW                    | •              |                |                |                |             |
| Input 18kW to 35kW                  |                | •              |                |                |             |
| Input 35kW to 60kW                  |                |                | •              |                |             |
| Input over to 60kW                  |                |                |                | • <sup>2</sup> |             |
| <b>Gas Stove/Cooker</b>             |                |                |                |                |             |
| Kerosene (28sec Class C2)           | • <sup>2</sup> | • <sup>2</sup> | • <sup>2</sup> |                |             |
| Heating Boiler                      |                |                |                |                |             |
| Output up to 25kW                   | •              |                |                |                |             |
| Output 25kW to 45kW                 |                | •              |                |                |             |
| Output 45kW to 70kW                 |                |                | •              |                |             |
| Kerosene Stove/Cooker               | • <sup>3</sup> | • <sup>3</sup> | • <sup>3</sup> |                |             |
| <b>Kerosene Water Heater</b>        |                |                |                |                |             |
| Input up to 41kW                    |                |                | •              |                |             |
| <b>Kerosene Visual Effect Stove</b> |                |                |                |                |             |
| Output up to 17kW                   | • <sup>3</sup> | • <sup>3</sup> |                |                |             |

### Notes:

- 1 Subject to appliance manufacturer's testing criteria.
- 2 Subject to manufacturer's input rating and chimney height.
- 3 Subject to manufacturer's output rating and chimney height.
- 4 Min 300mm depending on opening, chimney size and height.
- S Smokeless fuel only.
- SC Smokeless fuel or coal.

## Technical Data

|                                    | ICS                                  | ICS Plus          |
|------------------------------------|--------------------------------------|-------------------|
| Fuel                               | Gas, Oil, Wood, Coal                 | Gas, Oil          |
| Firing Temp                        | 450°C                                | 200°C             |
| Short Firing Temp                  | 550°C                                | 250°C             |
| Thermal Shock                      | 1000°C                               | -                 |
| Mode of Operation                  | Zero & Negative Pressure             | Positive Pressure |
| Pressure Capabilities              | 40Pa                                 | 200Pa             |
| Fire Rating                        | 4 Hour Fire Rating to BS 476 Part 20 |                   |
| Outer Case (Standard)              | Stainless Steel                      |                   |
| Outer Case (Option)                | Galvanised                           |                   |
| Outer Case Thickness               | 0.6mm                                |                   |
| Seam                               | Laser or inert gas welded            |                   |
| Liner                              | 316L : 1.4404 : X2CrNiMo 17-12-2     |                   |
| Liner Thickness (mm)               | 0.5mm                                |                   |
| Seam                               | Laser or inert gas welded            |                   |
| Insulation                         | High Performance Mineral Fibre       |                   |
| Insulation Thickness               | 25mm                                 |                   |
| Average Thermal Resistance (200°C) | 0.508m <sup>2</sup> kW               |                   |

|   | 100 mm         | 130 mm | 150 mm         | 180 mm          | 200 mm          | 230 mm          | 250 mm          | 300 mm         |
|---|----------------|--------|----------------|-----------------|-----------------|-----------------|-----------------|----------------|
| <b>Gas Boiler - Forced Draught</b>                                |                |        |                |                 |                 |                 |                 |                |
| Input up to 25kW  | •              |        |                |                 |                 |                 |                 |                |
| Input 25kW to 45kW  |                | •      |                |                 |                 |                 |                 |                |
| Input 45kW to 50kW  |                |        | •              |                 |                 |                 |                 |                |
| Input 50kW to 75kW  |                |        |                | •               |                 |                 |                 |                |
| Input 75kW to 100kW   |                |        |                |                 | •               |                 |                 |                |
| Input over to 100kW   |                |        |                |                 | •               | • <sup>2</sup>  |                 |                |
| <b>Gas Fires</b>  |                |        |                |                 |                 |                 |                 |                |
| 'Inset' to BS7977-1 2002  | • <sup>1</sup> |        |                |                 |                 |                 |                 |                |
| 'Decorative' BSEN 509:2000  |                |        | •              |                 |                 |                 |                 |                |
| <b>Gas Oil (35sec Class D)</b>                                    |                |        |                |                 |                 |                 |                 |                |
| Heating Boiler  |                |        |                |                 |                 |                 |                 |                |
| Output up to 25kW   |                | •      |                |                 |                 |                 |                 |                |
| Output 25kW to 45kW   |                |        | •              |                 |                 |                 |                 |                |
| Output 45kW to 70kW   |                |        |                | •               |                 |                 |                 |                |
| Output 70kW to 100kW  |                |        |                |                 | •               |                 |                 |                |
| Output over 100kW   |                |        |                |                 |                 | • <sup>3</sup>  | • <sup>3</sup>  | • <sup>3</sup> |
| <b>Solid Fuel</b>   |                |        |                |                 |                 |                 |                 |                |
| Heating Boiler  |                |        |                |                 |                 |                 |                 |                |
| Input up to 20kW  |                |        | • <sup>5</sup> | • <sup>SC</sup> |                 |                 |                 |                |
| Input 20kW to 30kW  |                |        |                | • <sup>5</sup>  | • <sup>SC</sup> | • <sup>SC</sup> |                 |                |
| Input 30kW to 60kW  |                |        |                |                 | • <sup>SC</sup> | • <sup>SC</sup> | • <sup>SC</sup> |                |
| <b>Open Fires (standard opening)</b>                              |                |        |                |                 |                 |                 |                 |                |
| 500mm x 550mm   |                |        |                | 200mm           | •               |                 |                 |                |
| Avant Garde Feature Open Fires                                    |                |        |                |                 |                 |                 | • <sup>4</sup>  |                |
| <b>Room Heaters</b>   |                |        |                |                 |                 |                 |                 |                |
| Wood Burning Stoves & Cookers                                     |                |        |                | • <sup>5</sup>  |                 |                 |                 |                |
| Use only seasoned wood.   |                |        |                | • <sup>1</sup>  | •               | •               | •               | •              |
| <b>Inglenook/<br/>non-standard opening</b>                        |                |        |                |                 |                 |                 |                 |                |
| Flue size dependant on cross-sectional area of fireplace opening. |                |        |                |                 |                 | 230mm           | •               |                |

### Notes:

- 1 Subject to appliance manufacturer's testing criteria.
- 2 Subject to manufacturer's input rating and chimney height.
- 3 Subject to manufacturer's output rating and chimney height.
- 4 Min 300mm depending on opening, chimney size and height.
- 5 Smokeless fuel only.
- SC Smokeless fuel or coal.

# System Design

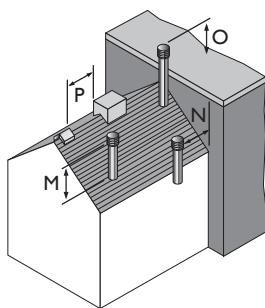
## OUTLET SITING

Flue terminations for solid fuel & oil are subject to EN15287-1 2007. Figures A and B illustrate recommendations for the most commonly encountered outlet terminations. Flue terminations for gas in domestic situations are governed by the BS5440-1 2008 Section 4.2. Figure C illustrates recommendations for the most common siting situations encountered. Adjacent taller structures may require increased height. The minimum flue projection through the roof is 600mm to the underside of the terminal.

## LOCATION OF OUTLET

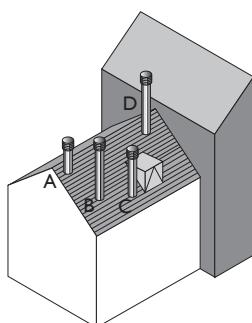
**Fig. A**

Outlet siting for Oil Appliances (<45kW)



**Fig. B**

Outlet siting for Solid Fuel Appliances (<50kW)



## Outlet siting for Oil Appliances (<45kW)

| Location of outlet  | Pressure Jet Burner | Vapourising Burner |
|---|---------------------|--------------------|
| M   Above the highest point of an intersection with the roof  | 600mm               | 1000mm             |
| N   From a structure to the side of the terminal  | 750mm               | 2300mm             |
| O   Above a vertical structure which is less than 750mm (pressure jet burner) or 2300mm (vapourising burner) horizontally from the side of the terminal | 600mm               | 1000mm             |
| P   From a ridge terminal to a vertical structure on the roof   | 1500mm              | Should not be used |

## FLUE ROUTING

The chimney should remain as straight as possible through its vertical run to assist flow. Should it be necessary to offset a chimney run the following guidelines should be adhered to:

It is recommended that a vertical rise of 600mm should be allowed immediately above the appliance before any change of direction. Within a system, on all fuels, there should be no more than 4 changes of direction of maximum 45°.

90° Factory made bends or tees within the system may be treated as being equal to two 45° bends (see Document J of the Building Regulations issued October 1st 2010).

## TERMINAL TYPES

On solid fuel appliances, an open termination is normally recommended. However in certain conditions, rain caps or anti-downdraught terminals may be used.

Rain caps and anti-downdraught terminals are available in two versions, with anti bird mesh and without mesh. Where a terminal with mesh is used, there is a risk of soot build up, and therefore regular cleaning is required to avoid blockage, particularly when using oil or solid fuel.

## PROVISION FOR SWEEPING, CLEANING & MAINTENANCE

Provision should be made for inspecting and cleaning the chimney. To aid cleaning, sufficient distance should be left between changes of direction to permit the safe passage of cleaning brushes within the system. This is particularly important on solid fuel applications. It is recommended that chimneys serving solid fuel appliances be swept as frequently as necessary but at least twice a year. Choose an access component suitable for your installation unless cleaning/inspection can be done through the appliance.

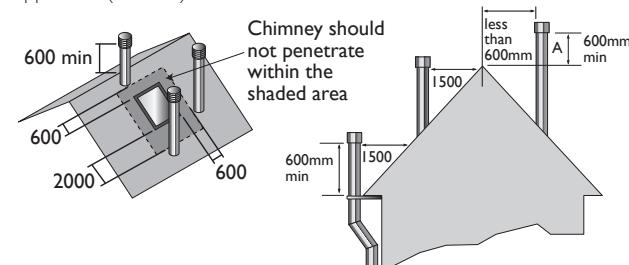
## Outlet siting for Solid Fuel Appliances (<50kW)

| Point where flue passes through weather surface (Notes 1, 2)  | Clearance to flue outlet   |
|---|--|
| A   At or within 600mm of the ridge   | At or within 600mm above the ridge   |
| B   Elsewhere on the roof (whether pitched or flat)   | At least 2300mm horizontally from the nearest point on the weather surface and:<br>a) at least 1000mm above the highest point of intersection of the chimney and the weather surface; or<br>b) at least as high as the ridge |
| C   Below (on a pitched roof) or within 2300mm horizontally to an openable rooflight, dormer window or other opening (Note 3) | At least 1000mm above the top of the opening   |
| D   Within 2300mm of an adjoining or adjacent building, whether or not beyond the boundary (Note 3)                           | At least 600mm above any part of the adjacent building within 2300mm   |

1. The weather surface is the building external surface, such as its roof, tiles or external walls.
2. A flat roof has a pitch less than 10°.
3. The clearance for A or B, as appropriate, will also apply.
4. A vertical flue fixed to an outside wall should be treated as equivalent to an inside flue emerging at the nearest edge of the roof.

**Fig. C**

BS 5440-1 Outlet siting for Gas Appliances (<70kW)



## ROOM VENTILATION

The room carrying the appliance should have an air vent either direct to an external air source or vented into a room that has an external vent direct to an air source. This is required to provide adequate air supply to allow the appliance and flue to operate efficiently. These requirements are specified in the Building Regulations (Document J) also by CIBSE and BS5440.

## COMMERCIAL INSTALLATIONS

Schiedel Rite-Vent can provide a full design & flue sizing advice service for commercial installations. The ICS range contains all the required components for commercial use including time-saving telescopic header tees for increasingly popular multi-boiler installations.

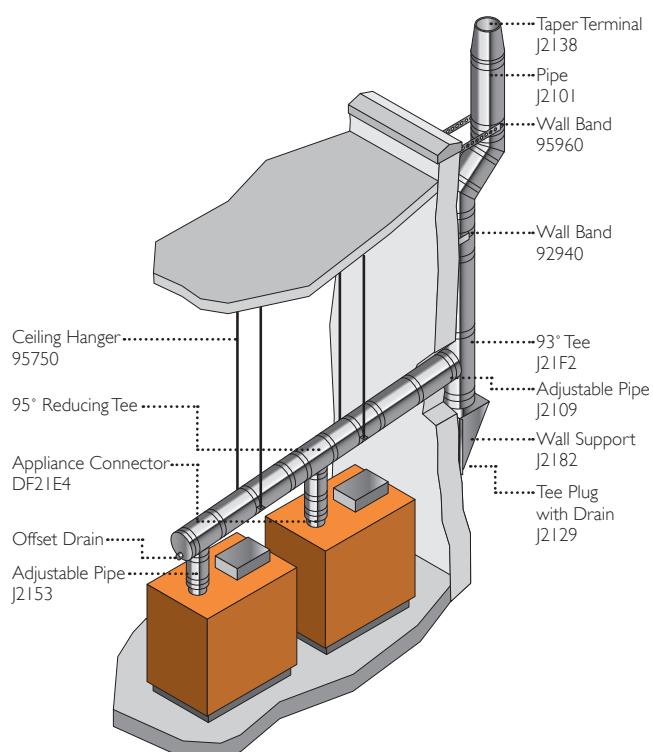
## PROVISION FOR CONDENSATE DISPOSAL (subject to appliance manufacturer recommendations)

Normally solid fuel and atmospheric gas and oil appliances will not need a drain unless rain ingress is significant. Most condensing appliances however need provision for drainage. As a rule of thumb a condensing boiler produces 1 to 1.5 litres of condensate per hour per 10kW of input.

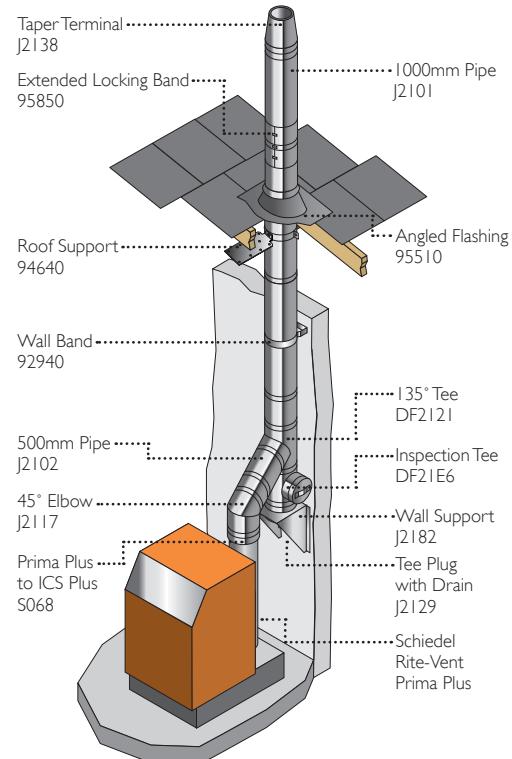
This is a significant amount of acidic liquid which must be drained from the system. Choose appropriate flue drainage components, normally fitted at the base of the stack and close to the appliance outlet.

On high efficiency or on condensing systems, a 3° slope on horizontal runs is advised, using the appropriate 87° bend and 93° tee.

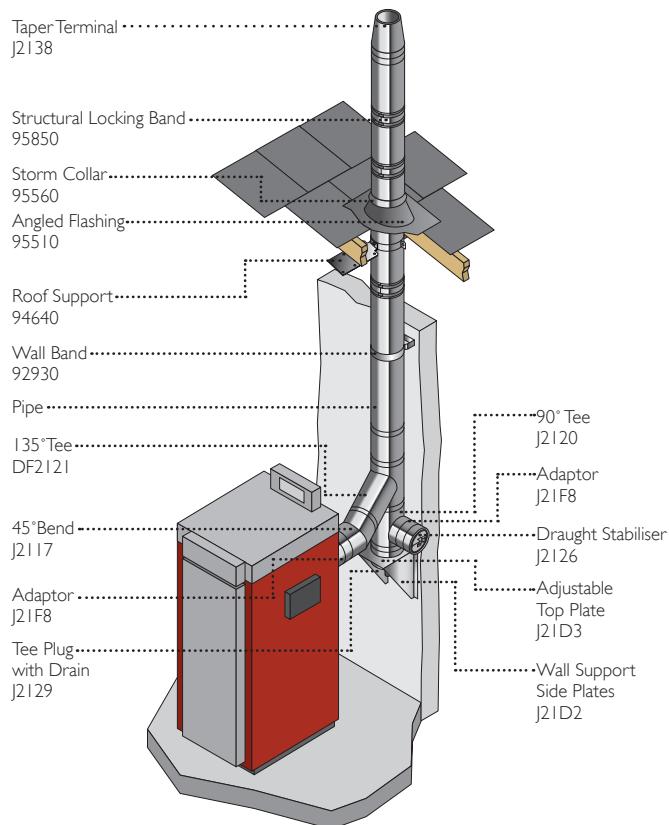
# Typical Installations



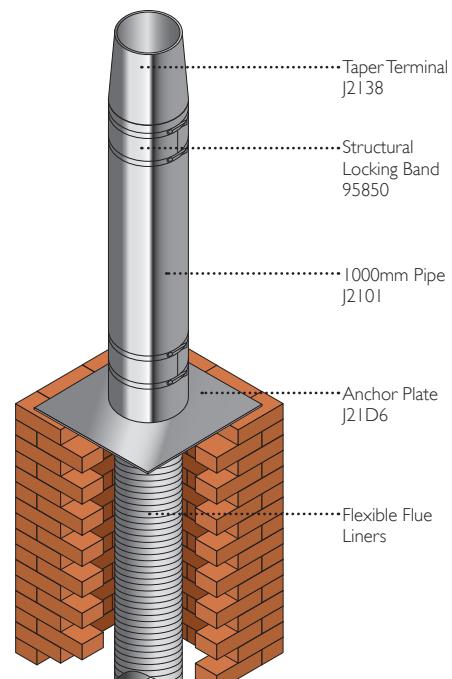
**TYPICAL CONDENSING BOILER  
INSTALLATION USING ICS PLUS**



**TYPICAL  
INSTALLATION USING ICS PLUS**



**TYPICAL BIOMASS  
INSTALLATION USING ICS**



**TYPICAL CHIMNEY EXTENSION  
INSTALLATION USING ICS**

# Dimensions

The dimensions of the flue are:

|                |     |     |     |     |     |     |     |     |     |
|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| <b>Int Ømm</b> | 80  | 100 | 130 | 150 | 180 | 200 | 230 | 250 | 300 |
| <b>Ext Ømm</b> | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 350 |

# Product Ordering

From April 2014 the new SAP codes should be used to order materials.

Prior to Mar 31st 2014 please order as follows:-

To identify fully the component required it is necessary to state the product code followed by diameter as follows.

- Quote the product code followed by the internal diameter. Eg. for a 150mm Int Ø ICS 45° bend, the full code would be J2117150.
- Codes starting with a number 9 are universal accessories common to a number of Schiedel Rite-Vent ranges and therefore require definition of the external diameter: eg, to specify a wall band 50mm to suit a 150mm Int Ø system, the external diameter is 200mm therefore the full code is 92940200.

## ICS Plus

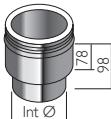
ICS components are converted to ICS Plus components by adding a gasket to each component. When ordering ICS Plus, order the internal diameter sized gasket for each component. Some components are specifically manufactured for condensing appliances. The code for these are prefixed with 'DF'.

# Finish

ICS & ICS Plus can be supplied painted in any RAL colour (additional costs apply).

# Starting Components

## Appliance Connector



ICS J2147

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 110466 | 110688 | 110916 | 111158 | 111468 | 111593 | 111960 | 112147 | 112636 |

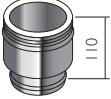
## Connector - Prima Plus to ICS



ICS S068

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 101176 | 101177 | 101178 | 101179 | 101180 | 101181 | 101360 | 101182 | 101183 |

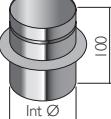
## Connector - Prima Smooth to ICS



ICS PS068

|                 |     |     |        |        |     |     |
|-----------------|-----|-----|--------|--------|-----|-----|
| <b>Int Ømm</b>  | 80  | 100 | 125    | 150    | 180 | 200 |
| <b>Ext Ømm</b>  | 130 | 150 | 180    | 200    | 230 | 250 |
| <b>SAP Code</b> | -   | -   | 125388 | 126291 | COA | COA |

## Starting Connector



ICS J2169

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 109926 | 110046 | 110293 | 110509 | 110771 | 110921 | 111325 | 111519 | 112111 |

COA: code on application

## Adaptor - ICS to Prima Plus



ICS J2178

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 101190 | 101191 | 101192 | 101193 | 101194 | 101195 | 101361 | 101196 | 101197 |

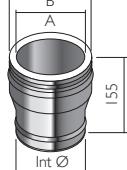
## Adaptor - ICS to TecnoFlex Plus



ICS J2179

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 130561 | 124814 | 111031 | 111281 | 111535 | 111743 | 112043 | 112255 | 112770 |

## Increasing

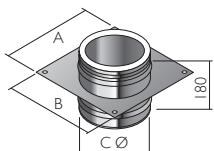


ICS J2171

|                 |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    |
| <b>A</b>        | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>B</b>        | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 101890 | 101891 | 101892 | 101893 | 101894 | 101895 | 101896 | 101897 |

### Anchor Plate

ICS J21D6



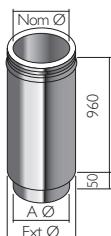
|                 |        |     |        |        |        |        |        |        |        |
|-----------------|--------|-----|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100 | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150 | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 250    | 270 | 300    | 300    | 320    | 350    | 370    | 400    | 420    |
| <b>B</b>        | 220    | 240 | 270    | 270    | 290    | 320    | 340    | 370    | 390    |
| <b>C Ø</b>      | 80     | 100 | 125    | 130    | 150    | 180    | 200    | 230    | 250    |
| <b>SAP Code</b> | 104394 | COA | 125626 | 101003 | 101004 | 101005 | 101336 | 101006 | 101007 |

Order code for Increase Anchor Plate from 125 to 130mm is J21D6125130

COA: code on application

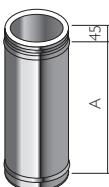
### Stove Starter Pipe

ICS J2175



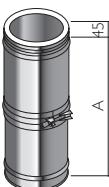
|                 |     |     |        |        |        |        |
|-----------------|-----|-----|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80  | 100 | 130    | 150    | 180    | 200    |
| <b>Ext Ø</b>    | 130 | 150 | 180    | 200    | 230    | 250    |
| <b>A Ø</b>      | -   | -   | 125    | 150    | 175    | 200    |
| <b>SAP Code</b> | -   | -   | 125640 | 126204 | 126908 | 127506 |

## Pipes



### Effective Length

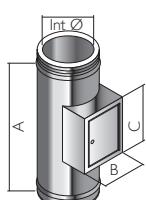
|                     | <b>A</b>  | <b>955</b> | <b>455</b> | <b>205</b> | <b>150</b> |
|---------------------|-----------|------------|------------|------------|------------|
|                     | Part ref. | ICS        | J2101      | J2102      | J2103      |
| <b>Int Ømm</b>      | 80        | 100        | 130        | 150        | 180        |
| <b>Ext Ømm</b>      | 130       | 150        | 180        | 200        | 230        |
| <b>SAP Code 955</b> | 116493    | 117091     | 17623      | 117960     | 118311     |
| <b>SAP Code 455</b> | 113542    | 114693     | 115393     | 115902     | 116368     |
| <b>SAP Code 205</b> | 111569    | 111980     | 112593     | 112909     | 113364     |
| <b>SAP Code 150</b> | 111160    | 111471     | 111949     | 112244     | 112673     |
|                     |           |            |            | 112961     | 113282     |
|                     |           |            |            | 113516     | 100663     |



### Adjustable Pipe

|                            | <b>A</b>  | <b>585-1005</b> | <b>375-585</b> | <b>270-375</b> | <b>195-250</b> |
|----------------------------|-----------|-----------------|----------------|----------------|----------------|
|                            | Part ref. | ICS             | J2154          | J2153          | J2109          |
| <b>Int Ømm</b>             | 80        | 100             | 130            | 150            | 180            |
| <b>Ext Ømm</b>             | 130       | 150             | 180            | 200            | 230            |
| <b>SAP Code 585 - 1005</b> | 124592    | 124572          | 125622         | 126175         | 126888         |
| <b>SAP Code 375 - 585</b>  | 115682    | 116193          | 116882         | 117207         | 117556         |
| <b>SAP Code 270 - 375</b>  | 100713    | 100714          | 100715         | 100716         | 100717         |
| <b>SAP Code 195 - 250</b>  | 112821    | 118924          | 114523         | 114975         | 115450         |
|                            |           |                 |                | 115885         | 116270         |
|                            |           |                 |                | 116481         | 117047         |

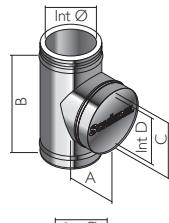
To change into ICS Plus a total of 3 gaskets are required on adjustable pipes.



### Inspection Length - ICS

ICS J2111

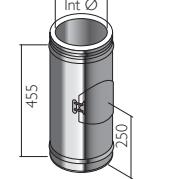
|                 |     |     |        |        |        |        |        |        |        |
|-----------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80  | 100 | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130 | 150 | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | -   | -   | 292    | 292    | 292    | 292    | 411    | 411    | 411    |
| <b>B</b>        | -   | -   | 114    | 114    | 114    | 114    | 202    | 202    | 202    |
| <b>C</b>        | -   | -   | 173    | 173    | 173    | 173    | 292    | 292    | 292    |
| <b>SAP Code</b> | -   | -   | 113207 | 115319 | 115429 | 116120 | 117404 | 117515 | 117871 |



### Inspection Length - ICS Plus

ICS Plus DF21E6

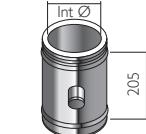
|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 125    | 135    | 150    | 160    | 175    | 185    | 180    | 210    | 238    |
| <b>B</b>        | 255    | 275    | 305    | 325    | 355    | 375    | 375    | 375    | 375    |
| <b>C</b>        | 145    | 155    | 170    | 180    | 195    | 205    | 205    | 205    | 205    |
| <b>Int D</b>    | 130    | 150    | 180    | 200    | 230    | 250    | 250    | 250    | 250    |
| <b>SAP Code</b> | 100893 | 100894 | 100895 | 100896 | 100897 | 100898 | 101304 | 100899 | 100900 |



### Inspection Pipe - ICS

ICS J21A4

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 130550 | 124795 | 115391 | 115905 | 116364 | 116717 | 117046 | 117323 | 117693 |



### Measure Pipe

ICS J2195

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 101140 | 101141 | 101142 | 101143 | 101144 | 101145 | 101343 | 101146 | 101147 |

## Pipes (contd.)



**Vertical Drain Pipe**

ICS J21A5

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 101154 | 101155 | 101156 | 101157 | 101158 | 101159 | 101359 | 101160 | 101161 |

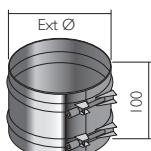


**Locking Band**

ICS J2183

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 104464 | 104465 | 104420 | 104421 | 104468 | 104423 | 104424 | 104470 | 104471 |

Supplied with components as standard with female form.



**Structural Locking Band**

95850

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ø</b>    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 101124 | 101125 | 101126 | 101127 | 101128 | 101129 | 101130 | 101131 | 101132 |

For static loading information please see p.15

## Gasket to convert ICS to ICS Plus

Fit into the groove form on all female socket (liners) and into grooves on adjustable pipe liner.



**Silicon Gasket (Gas only)**

S000

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 124582 | 120423 | 120421 | 120419 | 126611 | 127185 | 127750 | 119581 | 128693 |

For use on condensing gas applications with a pressure rating of up to 200Pa.



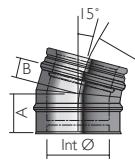
**Viton Gasket (Gas & Oil)**

V000

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | 124618 | 124919 | 125721 | 119577 | 119575 | 127653 | 128059 | 128521 | 129009 |

For use on condensing gas and oil applications with a pressure rating of up to 200Pa.

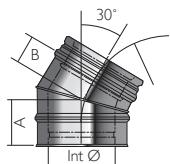
## Bends



**15° Bend**

ICS J2118

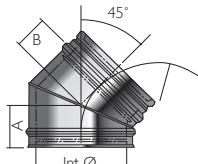
|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 95     | 95     | 95     | 95     | 100    | 100    | 100    | 105    | 105    |
| <b>B</b>        | 55     | 55     | 55     | 55     | 60     | 60     | 60     | 65     | 65     |
| <b>SAP Code</b> | 111089 | 111396 | 111830 | 112167 | 112623 | 112854 | 113177 | 113431 | 100734 |



**30° Bend**

ICS J2119

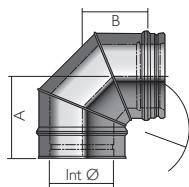
|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 95     | 100    | 108    | 110    | 115    | 120    | 120    | 125    | 130    |
| <b>B</b>        | 55     | 60     | 68     | 70     | 75     | 80     | 80     | 85     | 90     |
| <b>SAP Code</b> | 111091 | 111398 | 111793 | 112174 | 100745 | 113543 | 114518 | 114815 | 100748 |



**45° Bend**

ICS J2117

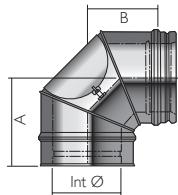
|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 110    | 115    | 120    | 125    | 130    | 135    | 145    | 145    | 155    |
| <b>B</b>        | 70     | 75     | 80     | 85     | 90     | 95     | 105    | 105    | 115    |
| <b>SAP Code</b> | 111522 | 111937 | 112487 | 112806 | 113246 | 114388 | 114968 | 115303 | 100762 |



**90° Bend**

ICS J2115

| Int Ømm  | 80     | 100    | 130    | 150   | 180    | 200    | 230   | 250    | 300    |
|----------|--------|--------|--------|-------|--------|--------|-------|--------|--------|
| Ext Ømm  | 130    | 150    | 180    | 200   | 230    | 250    | 280   | 300    | 350    |
| A        | 168    | 176    | 192    | 201   | 216    | 228    | 244   | 252    | 281    |
| B        | 132    | 140    | 156    | 165   | 180    | 192    | 208   | 216    | 237    |
| SAP Code | 112105 | 112748 | 114190 | 14761 | 115710 | 116033 | 16429 | 117015 | 100817 |

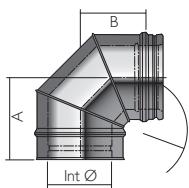


**Inspection Bend**

ICS J21A2

| Int Ømm  | 80  | 100    | 130    | 150    | 180 | 200 | 230 | 250    | 300    |
|----------|-----|--------|--------|--------|-----|-----|-----|--------|--------|
| Ext Ømm  | 130 | 150    | 180    | 200    | 230 | 250 | 280 | 300    | 350    |
| A        | -   | 136    | 152    | 161    | 176 | 188 | 204 | 212    | 237    |
| B        | -   | 180    | 196    | 205    | 220 | 232 | 248 | 256    | 281    |
| SAP Code |     | 109584 | 109585 | 109586 | COA | COA | COA | 109589 | 117563 |

COA: code on application

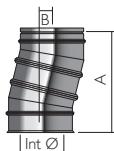


**87° Bend**

ICS J21F3

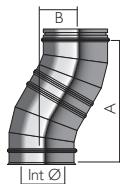
| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230 | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|-----|--------|--------|
| Ext Ømm  | 130    | 150    | 180    | 200    | 230    | 250    | 280 | 300    | 350    |
| A        | 166    | 173    | 189    | 198    | 213    | 225    | -   | 248    | 271    |
| B        | 130    | 137    | 153    | 162    | 177    | 189    | -   | 212    | 232    |
| SAP Code | 130566 | 124825 | 125614 | 126163 | 126879 | 127468 | -   | 128377 | 128884 |

## Offsets (made by assembling 2 bends)



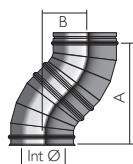
**15° Offset**

| Int Ømm | 80  | 100 | 130 | 150 | 180 | 200 | 230 | 250 | 300 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ext Ømm | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 350 |
| A       | 295 | 295 | 295 | 295 | 315 | 315 | 315 | 334 | 334 |
| B       | 39  | 39  | 39  | 39  | 41  | 41  | 41  | 44  | 44  |



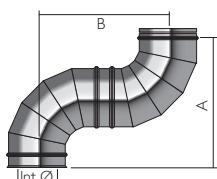
**30° Offset**

| Int Ømm | 80  | 100 | 130 | 150 | 180 | 200 | 230 | 250 | 300 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ext Ømm | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 350 |
| A       | 280 | 299 | 327 | 336 | 355 | 373 | 373 | 392 | 411 |
| B       | 75  | 80  | 88  | 90  | 95  | 100 | 100 | 105 | 110 |



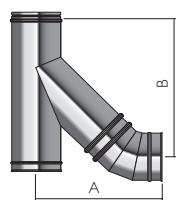
**45° Offset**

| Int Ømm | 80  | 100 | 130 | 150 | 180 | 200 | 230 | 250 | 300 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ext Ømm | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 350 |
| A       | 307 | 324 | 341 | 358 | 376 | 393 | 427 | 427 | 461 |
| B       | 127 | 134 | 141 | 148 | 156 | 163 | 177 | 177 | 191 |



**90° Offset**

| Int Ømm | 80  | 100 | 130 | 150 | 180 | 200 | 230 | 250 | 300 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ext Ømm | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 350 |
| A       | 300 | 316 | 348 | 366 | 396 | 420 | 452 | 468 | 518 |
| B       | 300 | 316 | 348 | 366 | 396 | 420 | 452 | 468 | 518 |

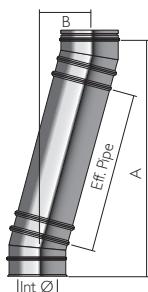


**Offsets for 135° Tee & 45° Bend**

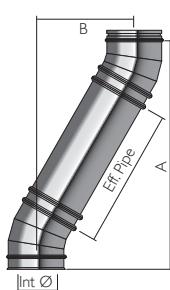
| Int Ømm | 80  | 100 | 130 | 150 | 180 | 200 | 230 | 250 | 300 |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ext Ømm | 130 | 150 | 180 | 200 | 230 | 250 | 280 | 300 | 350 |
| A       | 343 | 370 | 437 | 445 | 452 | 496 | 523 | 537 | 592 |
| B       | 305 | 324 | 404 | 406 | 415 | 473 | 475 | 499 | 556 |

# Typical Offsets (made by assembling 2 bends and a standard pipe section)

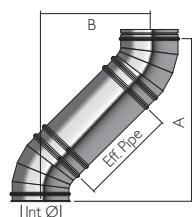
15° Offset with standard Pipe lengths



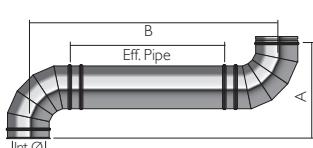
30° Offset with standard Pipe lengths



45° Offset with standard Pipe lengths



90° Offset with standard Pipe lengths



|                       |          |      |      |      |      |      |      |      |      |
|-----------------------|----------|------|------|------|------|------|------|------|------|
| <b>Int Ømm</b>        | 80       | 100  | 130  | 150  | 180  | 200  | 230  | 250  | 300  |
| <b>Ext Ømm</b>        | 130      | 150  | 180  | 200  | 230  | 250  | 280  | 300  | 350  |
| <b>Effective Pipe</b> | <b>A</b> | 1218 | 1218 | 1218 | 1218 | 1238 | 1238 | 1238 | 1257 |
|                       | <b>B</b> | 286  | 286  | 286  | 286  | 288  | 288  | 288  | 291  |
| <b>Effective Pipe</b> | <b>A</b> | 735  | 735  | 735  | 735  | 755  | 755  | 774  | 774  |
|                       | <b>B</b> | 157  | 157  | 157  | 157  | 159  | 159  | 162  | 162  |
| <b>Effective Pipe</b> | <b>A</b> | 493  | 493  | 493  | 493  | 513  | 513  | 532  | 532  |
|                       | <b>B</b> | 92   | 92   | 92   | 92   | 94   | 94   | 97   | 97   |
| <b>Effective Pipe</b> | <b>A</b> | 445  | 445  | 445  | 445  | 465  | 465  | 484  | 484  |
|                       | <b>B</b> | 79   | 79   | 79   | 79   | 81   | 81   | 84   | 84   |

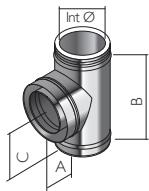
|                       |          |      |      |      |      |      |      |      |      |
|-----------------------|----------|------|------|------|------|------|------|------|------|
| <b>Int Ømm</b>        | 80       | 100  | 130  | 150  | 180  | 200  | 230  | 250  | 300  |
| <b>Ext Ømm</b>        | 130      | 150  | 180  | 200  | 230  | 250  | 280  | 300  | 350  |
| <b>Effective Pipe</b> | <b>A</b> | 1107 | 1126 | 1154 | 1163 | 1182 | 1200 | 1200 | 1219 |
|                       | <b>B</b> | 553  | 558  | 566  | 568  | 573  | 578  | 578  | 588  |
| <b>Effective Pipe</b> | <b>A</b> | 674  | 693  | 721  | 709  | 765  | 765  | 784  | 793  |
|                       | <b>B</b> | 303  | 308  | 316  | 318  | 323  | 328  | 328  | 338  |
| <b>Effective Pipe</b> | <b>A</b> | 458  | 477  | 505  | 514  | 533  | 551  | 551  | 589  |
|                       | <b>B</b> | 178  | 183  | 191  | 193  | 198  | 203  | 203  | 213  |
| <b>Effective Pipe</b> | <b>A</b> | 414  | 433  | 461  | 470  | 489  | 507  | 507  | 545  |
|                       | <b>B</b> | 153  | 158  | 166  | 168  | 173  | 178  | 178  | 188  |

|                       |          |     |     |      |      |      |      |      |      |
|-----------------------|----------|-----|-----|------|------|------|------|------|------|
| <b>Int Ømm</b>        | 80       | 100 | 130 | 150  | 180  | 200  | 230  | 250  | 300  |
| <b>Ext Ømm</b>        | 130      | 150 | 180 | 200  | 230  | 250  | 280  | 300  | 350  |
| <b>Effective Pipe</b> | <b>A</b> | 982 | 999 | 1016 | 1033 | 1051 | 1068 | 1102 | 1102 |
|                       | <b>B</b> | 802 | 809 | 816  | 823  | 831  | 838  | 852  | 866  |
| <b>Effective Pipe</b> | <b>A</b> | 629 | 646 | 663  | 680  | 698  | 715  | 749  | 783  |
|                       | <b>B</b> | 449 | 456 | 463  | 470  | 478  | 485  | 499  | 513  |
| <b>Effective Pipe</b> | <b>A</b> | 452 | 469 | 486  | 503  | 521  | 538  | 572  | 606  |
|                       | <b>B</b> | 272 | 279 | 286  | 293  | 301  | 308  | 322  | 336  |
| <b>Effective Pipe</b> | <b>A</b> | 417 | 434 | 451  | 468  | 486  | 503  | 537  | 571  |
|                       | <b>B</b> | 237 | 244 | 251  | 258  | 266  | 273  | 287  | 301  |

|                       |          |      |      |      |      |      |      |      |      |
|-----------------------|----------|------|------|------|------|------|------|------|------|
| <b>Int Ømm</b>        | 80       | 100  | 130  | 150  | 180  | 200  | 230  | 250  | 300  |
| <b>Ext Ømm</b>        | 130      | 150  | 180  | 200  | 230  | 250  | 280  | 300  | 350  |
| <b>Effective Pipe</b> | <b>A</b> | 296  | 315  | 345  | 366  | 415  | 414  | 445  | 464  |
|                       | <b>B</b> | 1251 | 1270 | 1300 | 1321 | 1370 | 1369 | 1400 | 1419 |
| <b>Effective Pipe</b> | <b>A</b> | 296  | 315  | 345  | 366  | 415  | 414  | 445  | 464  |
|                       | <b>B</b> | 751  | 770  | 800  | 821  | 870  | 869  | 900  | 919  |
| <b>Effective Pipe</b> | <b>A</b> | 296  | 315  | 345  | 366  | 415  | 414  | 445  | 464  |
|                       | <b>B</b> | 501  | 520  | 550  | 571  | 620  | 619  | 650  | 669  |
| <b>Effective Pipe</b> | <b>A</b> | 296  | 316  | 345  | 366  | 415  | 414  | 445  | 464  |
|                       | <b>B</b> | 446  | 466  | 495  | 516  | 565  | 564  | 595  | 614  |
| <b>Effective Pipe</b> | <b>A</b> | 296  | 316  | 345  | 366  | 415  | 414  | 445  | 464  |
|                       | <b>B</b> | 446  | 466  | 495  | 516  | 565  | 564  | 595  | 614  |

# Tees

**90° Tee**

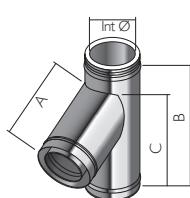


ICS J2120

| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ømm  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 145    | 155    | 170    | 180    | 195    | 205    | 220    | 230    | 258    |
| B        | 250    | 270    | 305    | 325    | 355    | 375    | 405    | 425    | 480    |
| C        | 145    | 155    | 170    | 180    | 195    | 205    | 220    | 230    | 258    |
| SAP Code | I12880 | I13386 | I14584 | I15231 | I16187 | I16706 | I17416 | I17805 | I00886 |

To change into ICS Plus a total of 2 gaskets are required on tee sections.

**135° Tee**

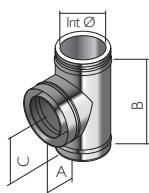


ICS (Dry System) J2121  
ICS Plus (Wet System) DF2121

| Int Ømm            | 80  | 100    | 130    | 150    | 180    | 200     | 230    | 250    | 300    |
|--------------------|-----|--------|--------|--------|--------|---------|--------|--------|--------|
| Ext Ømm            | 130 | 150    | 180    | 200    | 230    | 250     | 280    | 300    | 350    |
| A                  | -   | 262    | 298    | 322    | 358    | 382     | 419    | 443    | 509    |
| B                  | -   | 327    | 375    | 403    | 445    | 474     | 516    | 544    | 622    |
| C                  | -   | 262    | 298    | 322    | 358    | 382     | 419    | 443    | 509    |
| SAP Code ICS (Dry) | -   | I14914 | I16671 | I17052 | I17406 | I100856 | I18345 | I18527 | I00858 |
| SAP Code ICS+(Wet) | -   | I24794 | 25612  | I26146 | I26865 | I27451  | I27968 | I28359 | I28861 |

To change into ICS Plus a total of 2 gaskets are required on tee sections.

**93° Tee**

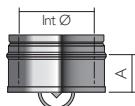


J21F2

| Int Ømm  | 80  | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ømm  | 130 | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | -   | 162    | 178    | 189    | 206    | 216    | 233    | 244    | 264    |
| B        | -   | 278    | 309    | 329    | 359    | 379    | 405    | 455    | 490    |
| C        | -   | 166    | 178    | 189    | 206    | 216    | 233    | 257    | 268    |
| SAP Code | -   | I24827 | I25651 | I26217 | I26922 | I27523 | I27997 | I28433 | I28933 |

To change into ICS Plus a total of 2 gaskets are required on tee sections.

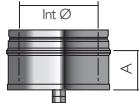
**Tee Plug**



ICS J2125

| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ømm  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 35     | 32     | 38     | 41     | 44     | 44     | 48     | 48     | 48     |
| SAP Code | I01104 | I01105 | I01106 | I01107 | I01108 | I01109 | I01342 | I01110 | I01111 |

**Tee Plug with Drain**



ICS J2129

| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ømm  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 35     | 32     | 38     | 41     | 44     | 44     | 48     | 48     | 48     |
| SAP Code | I01028 | I01029 | I01030 | I01031 | I01032 | I01033 | I01338 | I01034 | I01035 |

**Draught Stabiliser Section**

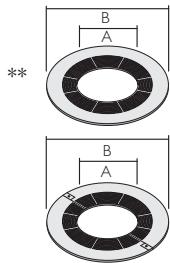


ICS J2126

| Int Ømm  | 80  | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ømm  | 130 | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| SAP Code | -   | I24800 | I01204 | I01205 | I01206 | I01207 | I01208 | I01209 | I01210 |

# Firestop Components

## Round Ventilated Firestop Plates - Combustible Floor



I Piece - 9423\*  
2 Piece - 9424\*

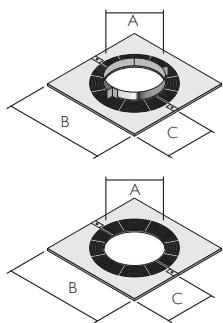
| Int Ømm            | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø              | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    |
| A                  | 133    | 153    | 183    | 203    | 233    | 253    | 283    | 303    |
| B                  | 330    | 350    | 380    | 400    | 430    | 450    | 480    | 500    |
| SAP Code IPC Plain | I25501 | I25902 | I26661 | I27227 | I27772 | I28213 | I28639 | I28715 |
| SAP Code IPC Black | I25499 | I25900 | I26659 | I27225 | I27770 | I28211 | I28637 | I28713 |
| SAP Code IPC White | I25500 | I25901 | I26660 | I27226 | I27771 | I28212 | I28638 | I28714 |
| SAP Code 2PC Plain | I25504 | I25905 | I26664 | I27230 | I27775 | I28216 | I28642 | I28718 |
| SAP Code 2PC Black | I25502 | I25903 | I26662 | I27228 | I27773 | I28214 | I28640 | I28716 |
| SAP Code 2PC White | I25503 | I25904 | I26663 | I27229 | I27774 | I28215 | I28641 | I28717 |

\* Codes and Finish Options  
Plain Galvanised Steel 9423P0 + Ext Ø  
Black RAL 9005 Matt 9423B0 + Ext Ø  
White RAL 9016 Matt 9423W0 + Ext Ø

\*\* One piece firestop available for use exclusively with stove starter pipe.

## Ventilated Support Plate

### Rectangular Ventilated Firestop Plate - Combustible Floor



2 Piece - 95260

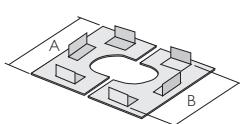
2 Piece - 94250

| Int Ømm             | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    |
|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø               | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    |
| A                   | 133    | 153    | 183    | 203    | 233    | 253    | 283    | 303    |
| B                   | 330    | 350    | 380    | 400    | 430    | 450    | 480    | 500    |
| C                   | 165    | 175    | 190    | 200    | 215    | 225    | 240    | 250    |
| SAP Code Support P  | I25507 | I25908 | I26667 | I27234 | I27778 | I28219 | I28645 | I28721 |
| SAP Code Firestop P | I25506 | I25907 | I26666 | I27232 | I27777 | I28218 | I28644 | I28720 |

## Firestop Plate

### - Non Combustible Floor

94670

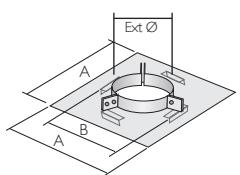


| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 300    | 300    | 330    | 350    | 380    | 400    | 430    | 450    | 500    |
| B        | 230    | 250    | 280    | 300    | 330    | 350    | 380    | 400    | 450    |
| SAP Code | I25489 | I25891 | I26624 | I27200 | I27755 | I28197 | I28625 | I28698 | I29131 |

## Support Plate

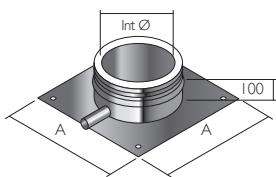
### - Non Combustible Floor

95680



| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 300    | 300    | 330    | 350    | 380    | 400    | 430    | 450    | 500    |
| B        | 230    | 250    | 280    | 300    | 330    | 350    | 380    | 400    | 450    |
| SAP Code | I25495 | I25896 | I26646 | I27210 | I27762 | I28203 | I28631 | I28705 | I29138 |

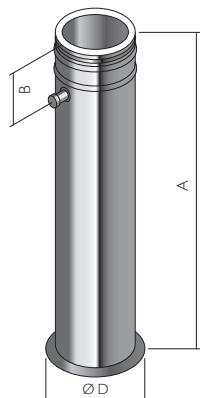
# Support Components



Base Support Plate with Drain

ICS J2191

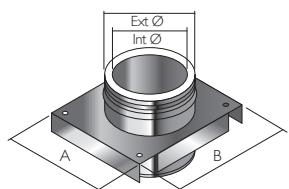
|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 230    | 250    | 280    | 300    | 330    | 350    | 380    | 400    | 450    |
| <b>SAP Code</b> | 101320 | 101321 | 104557 | 104558 | 100989 | 100990 | 101322 | 104559 | 104560 |



Base Drain Plug Support

Refer to SAP code

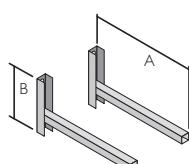
|                 |     |     |        |        |        |        |        |        |        |
|-----------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80  | 100 | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ø</b>    | 130 | 150 | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | -   | -   | 1045   | 1045   | 1045   | 1045   | 1045   | 1045   | 1045   |
| <b>B</b>        | -   | -   | 160    | 160    | 160    | 160    | 160    | 160    | 160    |
| <b>Ø D</b>      | -   | -   | 226    | 246    | 276    | 296    | 326    | 346    | 401    |
| <b>SAP Code</b> | -   | -   | 100994 | 100995 | 100996 | 100997 | 101330 | 100998 | 100999 |



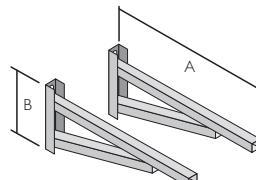
Adjustable Top Plate

J21D3

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ø</b>    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 188    | 208    | 238    | 258    | 278    | 285    | 315    | 335    | 385    |
| <b>B</b>        | 256    | 276    | 306    | 326    | 356    | 353    | 383    | 403    | 453    |
| <b>SAP Code</b> | 130555 | 124805 | 125636 | 126194 | 126900 | 127496 | 127984 | 128406 | 128910 |



Cantilever Support  
Type 325 - 95420001  
Type 475 - 95420002

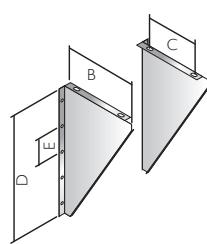


Cantilever Support  
Type 570 - 95420003

|                    |          |          |          |
|--------------------|----------|----------|----------|
| <b>Type</b>        | 325      | 475      | 570      |
| <b>Int Ø Range</b> | 80 - 150 | 80 - 300 | 80 - 300 |
| <b>A</b>           | 325      | 475      | 570      |
| <b>B</b>           | 242      | 242      | 330      |
| <b>SAP Code</b>    | 101742   | 101743   | 101744   |

Used in combination with  
Adjustable Top Plate.

Used in combination with  
Adjustable Top Plate.



Wall Support Side Plates

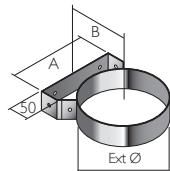
J21D2

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>B</b>        | 215    | 235    | 265    | 285    | 315    | 335    | 365    | 385    | 440    |
| <b>C</b>        | 145    | 165    | 195    | 215    | 245    | 265    | 295    | 315    | 370    |
| <b>D</b>        | 470    | 470    | 470    | 470    | 470    | 470    | 470    | 470    | 470    |
| <b>E</b>        | 100    | 100    | 100    | 100    | 100    | 100    | 100    | 100    | 100    |
| <b>SAP Code</b> | 101042 | 101043 | 101044 | 101045 | 101046 | 101047 | 101339 | 101048 | 101049 |

Used in combination with Adjustable Top Plate.

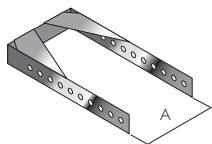
# Support Components (contd.)

Wall Band (60mm)



92930

| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 128    | 148    | 178    | 198    | 228    | 248    | 278    | 298    | 350    |
| B        | 125    | 135    | 150    | 160    | 175    | 180    | 200    | 210    | 235    |
| SAP Code | I25497 | I25898 | I26648 | I27213 | I27764 | I28205 | I28633 | I28707 | I29140 |

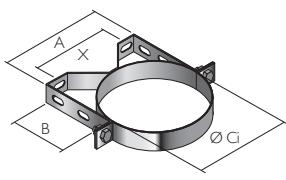


Adjustable Back Bracket for Wall Band 60 - 300mm

95950

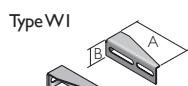
| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 131    | 151    | 181    | 201    | 231    | 251    | 281    | 301    | 351    |
| SAP Code | I25488 | I25890 | I26623 | I27199 | I27754 | I28196 | I28624 | I28697 | I29130 |

Structural Wall Band (50mm)



95430

| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A        | 138    | 158    | 188    | 208    | 238    | 258    | 288    | 308    | 358    |
| B        | 116    | 126    | 141    | 151    | 166    | 176    | 191    | 201    | 225    |
| Ø Ci     | 131    | 151    | 181    | 201    | 231    | 251    | 281    | 301    | 350    |
| X        | 100    | 120    | 150    | 170    | 200    | 220    | 250    | 270    | 320    |
| SAP Code | I01263 | I01264 | I01265 | I01266 | I01267 | I01268 | I01402 | I01269 | I01270 |



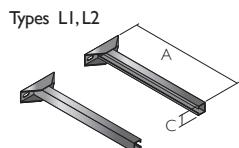
Structural Wall Band  
Extension

W1 - 95440001

L1 - 95440004

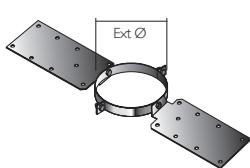
L2 - 95440005

| Type     | W1       | L1        | L2        |
|----------|----------|-----------|-----------|
| Adj.     | 55 - 100 | 100 - 250 | 100 - 440 |
| A        | 130      | 300       | 450       |
| B        | 36       | -         | -         |
| C        | -        | 32        | 32        |
| SAP Code | I01735   | I01738    | I01739    |



Roof Support

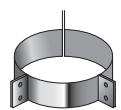
94640



| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| SAP Code | I00960 | I00961 | I00962 | I00963 | I00964 | I00965 | I00966 | I00967 | I29146 |

Guy Wire Bracket

95900



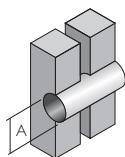
| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| SAP Code | I00639 | I00640 | I00641 | I00642 | I00643 | I00644 | I28627 | I00646 | I29134 |



Ceiling Hanger

95750

| Int Ømm  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| SAP Code | I10118 | I10199 | I10392 | I12037 | I12279 | I12503 | I28623 | I12870 | I29129 |



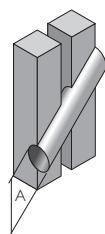
Wall Sleeve 90°

Masonry - 94980

Timber Frame - 94810

| Int Ømm           | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Ext Ø             | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| A Masonry         | 180    | 200    | 230    | 250    | 280    | 300    | 330    | 350    | 400    |
| A Timber F        | 250    | 270    | 300    | 320    | 350    | 370    | 400    | 420    | 470    |
| SAP Code Masonry  | I25493 | COA    | I26642 | I27206 | I27760 | I28201 | COA    | I28703 | I29137 |
| SAP Code Timber F | I25496 | I25897 | I26647 | I27212 | I27763 | I28204 | I28632 | I28706 | I29139 |

COA: code on application



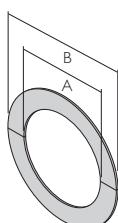
Wall Sleeve 45°

Masonry - 94620

Timber Frame - 94910

| Int Ømm           | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    |  |
|-------------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Ext Ø             | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    |  |
| A Masonry         | 180    | 200    | 230    | 250    | 280    | 300    | 330    | 350    |  |
| A Timber F        | 250    | 270    | 300    | 320    | 350    | 370    | 400    | 420    |  |
| SAP Code Masonry  | I25492 | I25894 | I26641 | I27205 | I27759 | I28200 | I28629 | I28702 |  |
| SAP Code Timber F | I25494 | I25895 | I26643 | I27207 | I27761 | I28202 | I28630 | I28704 |  |

Supplied as a 1m long mitred tube to be cut to length on site.



2 - Piece Trim Collar 90°

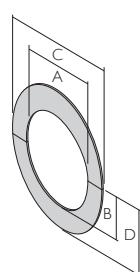
9599\*

| Int Ømm        | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    |  |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Ext Ø          | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    |  |
| A              | 134    | 154    | 184    | 204    | 234    | 254    | 284    | 304    |  |
| B              | 280    | 300    | 330    | 350    | 380    | 400    | 430    | 450    |  |
| SAP Code Plain | I25719 | 26338  | I27040 | I27644 | I28057 | I28512 | I28649 | I29007 |  |
| SAP Code Black | I25720 | 126339 | I27041 | I27645 | I28058 | I28513 | I28650 | I29008 |  |

\* Codes and Finish Options

Plain BA Stainless Steel 9599P0 + Ext Ø

Black RAL 9005 Matt 9599B0 + Ext Ø



2 - Piece Trim Collar 45°

9579\*

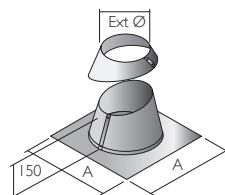
| Int Ømm        | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    |  |
|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--|
| Ext Ø          | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    |  |
| A              | 134    | 154    | 184    | 204    | 234    | 254    | 284    | 304    |  |
| B              | 94     | 108    | 130    | 144    | 165    | 179    | 200    | 214    |  |
| C              | 280    | 300    | 330    | 350    | 380    | 400    | 430    | 450    |  |
| D              | 192    | 206    | 227    | 242    | 263    | 277    | 298    | 312    |  |
| SAP Code Plain | I25717 | I26335 | I27035 | I27639 | I28055 | I28510 | I28647 | I29004 |  |
| SAP Code Black | I25718 | I26336 | I27036 | I27640 | I28056 | I28511 | I28648 | I29005 |  |

\* Codes and Finish Options

Plain BA Stainless Steel 9579P0 + Ext Ø

Black RAL 9005 Matt 9579B0 + Ext Ø

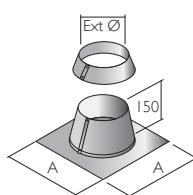
# Flashings



**Angled Flashing Kit 5° - 45°**

95510

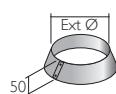
|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ø</b>    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 610    | 610    | 610    | 700    | 700    | 700    | 800    | 800    | 860    |
| <b>SAP Code</b> | I25487 | I25889 | I26621 | I27197 | I27753 | I28195 | I28622 | I20884 | I29128 |



**Flat Flashing Kit**

95530

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ø</b>    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>        | 610    | 610    | 610    | 610    | 610    | 610    | 610    | 610    | 800    |
| <b>SAP Code</b> | I25490 | I25892 | I26625 | I27201 | I27756 | I28192 | I28626 | I28699 | I29132 |

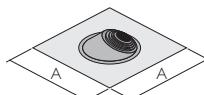


**Storm Collar**

95560

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ø</b>    | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | I06136 | I06138 | I06140 | I06141 | I06142 | I06143 | I00975 | I06144 | I06145 |

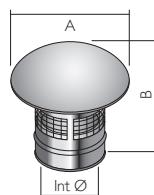
**Uniflash**



|                     |          |           |           |
|---------------------|----------|-----------|-----------|
| <b>Product Code</b> | 94540001 | 94540002  | 94540003  |
| <b>Ext Ømm</b>      | 80 - 100 | 150 - 300 | 250 - 450 |
| <b>A</b>            | 500      | 685       | 800       |
| <b>SAP Code</b>     | I12198   | I12197    | I14341    |

Universal EPDM rubber/aluminium flashing. Just pull the required diameter tab on the rubber seal.

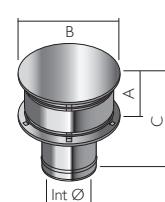
# Terminals



**Raincap**

with mesh ICS J2137  
without mesh ICS J2156

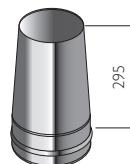
|                           |        |        |        |        |        |        |        |        |        |
|---------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>            | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>            | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>                  | 266    | 266    | 266    | 362    | 362    | 362    | 362    | 362    | 490    |
| <b>B</b>                  | 210    | 213    | 219    | 213    | 217    | 220    | 225    | 229    | 271    |
| <b>SAP Code with mesh</b> | I12769 | I13085 | I13534 | I14970 | I15364 | I15702 | I16037 | I16222 | I17060 |
| <b>SAP Code without</b>   | I12499 | I12795 | I13183 | I14575 | I15005 | I15242 | I15729 | I15942 | I16792 |



**Anti-splash Anti-downdraught Terminal (Gastec Approved)**

with mesh ICS J2144  
without mesh ICS J2143

|                           |     |     |        |        |        |        |        |        |        |
|---------------------------|-----|-----|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>            | 80  | 100 | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>            | 130 | 150 | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>A</b>                  | -   | -   | 130    | 175    | 200    | 200    | 250    | 275    | 330    |
| <b>B</b>                  | -   | -   | 254    | 304    | 359    | 409    | 459    | 509    | 609    |
| <b>C</b>                  | -   | -   | 220    | 265    | 290    | 290    | 340    | 365    | 420    |
| <b>SAP Code with mesh</b> | -   | -   | I14904 | I15166 | I16258 | I16970 | I17466 | I18025 | I18645 |
| <b>SAP Code without</b>   | -   | -   | I14352 | I14830 | I15893 | I16496 | I17167 | I17700 | I18432 |



**Insulated Tapered Terminal**

ICS J2138

|                 |        |        |        |        |        |        |        |        |        |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Int Ømm</b>  | 80     | 100    | 130    | 150    | 180    | 200    | 230    | 250    | 300    |
| <b>Ext Ømm</b>  | 130    | 150    | 180    | 200    | 230    | 250    | 280    | 300    | 350    |
| <b>SAP Code</b> | I20565 | I01213 | I01214 | I01215 | I01216 | I01217 | I14420 | I14704 | I15212 |

# Installation

These notes should be read in conjunction with the detailed ICS Installation Instructions.

## MANDATORY REQUIREMENTS

Connection to an appliance which is not connected to the fuel supply, may be carried out by a competent person. However, connection to an appliance that is connected to the fuel supply must be carried out by a GAS SAFE (gas) or OFTEC (oil) registered installer. We recommend the use of HETAS approved installers for solid fuel applications.

The flue system must be installed to comply with Building Regulations Document J (in England, Wales & Northern Ireland). Separate Building Regulations apply in Scotland. The installation must also comply with BS EN15287 Parts 1 & 2 and BS5440 pt 1: 2000 for gas flues up to 70kW.

## JOINTING

Pipes, bends, tees and flue gas carrying components are joined together by a simple push fit. The joint is then secured by fitting a locking band. The male spigot should be uppermost and pointing in the direction of the terminal as indicated on the product label. All components with a female form will be supplied with a locking band.

Gaskets must be used for ICS Plus (ordered separately and are required for high efficiency and condensing applications) and should be fitted dry and lubrication applied to the internal of the female liner socket.

Joints are not permitted within wall and ceiling spaces. Any flue pipe (i.e. single wall) connection to the chimney must be made in the same room as the appliance. The chimney must project at least 425mm below the ceiling. Where a chimney passes through a wall, a wall sleeve must be used to prevent damage to the chimney and the building.

## ADJUSTABLE LENGTH

The ICS range of adjustable pipes provides flexibility during installation. Assembly is achieved by the removal of the insulation (if necessary) to the desired length, and is then secured using the jointing band supplied. The adjustable length is not loadbearing, therefore adequate support must be provided immediately above.

## CONNECTION TO APPLIANCE

Use the appropriate appliance connector, sealing with fire rope and fire cement or high temperature sealant on solid fuel appliances and the appropriate lip seal in the case of condensing appliances. The inner liner should not project below the appliance outlet spigot and can be cut to length if required.

## APPLIANCE REMOVAL

Use of an adjustable length immediately above the appliance enables removal of the appliance later without dismantling the full system.

## PAINTING

If required to be painted, simply clean the surface with a solvent cleaner (White Spirit), apply a coat of primer and a top coat of high temperature paint e.g. enamel. Extreme care must be taken when cleaning with solvent to ensure that it does not come into contact with the insulation within the cavity or gasket if fitted.

## ENCLOSURES/SHAFTS

With the exception of the room containing the appliance, where the chimney passes through any part of the building, where there is a risk of accidental human contact, i.e. a bedroom etc., or where there is a risk of contact with combustible materials stored in a cupboard or in the roof-space, the chimney must be enclosed in an appropriate way to meet Building Regulations. This can be achieved by boxing in the chimney in habitable rooms, or by the use of a protective wire mesh frame in roof spaces etc. In all cases the minimum distance to any combustible material, including loft insulation, must be respected according to the table on p.2, and any enclosure should be ventilated using the appropriate ventilated fire stops (see p.10).

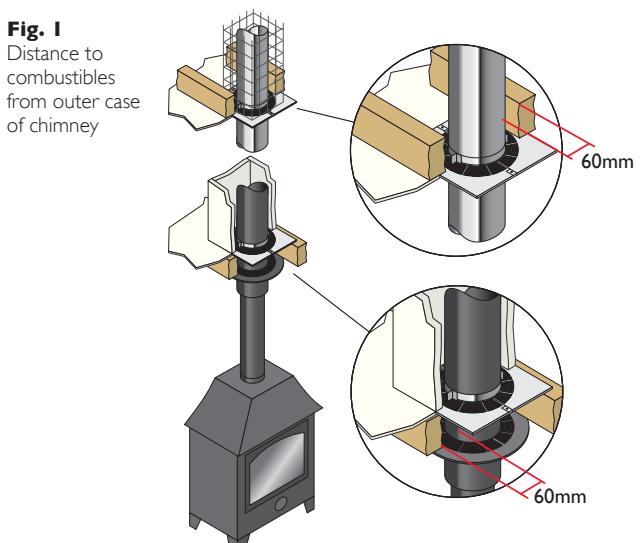
## DISTANCE TO COMBUSTIBLES

In accordance with building regulations it is essential that the correct distance to combustible material is maintained. On solid fuel applications, where there is a risk of soot fire, a distance of 60mm to combustibles must be maintained within a combustible floor and within a combustible shaft (see Fig. I). There is no need to line the area within the floor cavity with plasterboard; however the ventilated fire stop plate and ventilated support plate must be used.

On gas and oil applications, a distance of 50mm to combustibles must be maintained within a combustible floor and within a combustible shaft. The ventilated fire stop plate and ventilated support plate must be used.

Where the chimney penetrates a non combustible floor and where a non combustible shaft is used, a distance of 50mm to the shaft is sufficient. In this case, non ventilated fire stops and non ventilated support plates may be used at first floor level with a ventilated fire stop being used where the chimney penetrates into the roof space.

On condensing appliances, where temperatures will not exceed 200°C, the tested and approved distance to combustibles is zero mm.



TYPICAL INSTALLATION OF ICS25 THROUGH A COMBUSTIBLE FLOOR & SHAFT

# Installation (contd.)

## SUPPORT COMPONENTS

The weight of a chimney system is considerable and requires independent support. Minimal weight should be taken by the appliance. The weight of the chimney can be supported from floor level using a Base support plate or Telescopic floor support; from the wall by using wall support top plates together with side plates or cantilever brackets; or from first floor level using a support plate and clamp fixed to the floor/ceiling joist.

Wall brackets and roof brackets are not load bearing and provide lateral support only.

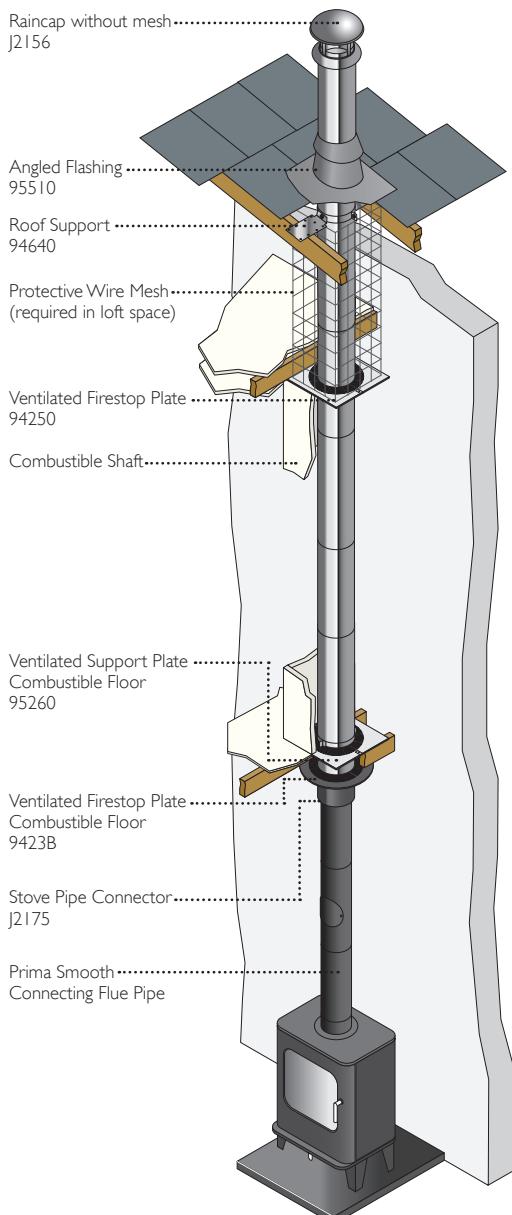
Refer to load bearing tables on p.15 for full details of maximum loadings.

Where the flue is free standing above the roof and its height exceeds 1.5m beyond the last support or the roof, a guy wire bracket must be used, and every 1.5m thereafter. Alternatively, a height of up to 3m can be achieved unsupported with the use of a structural locking band at the joint immediately below and every joint above the roof level.

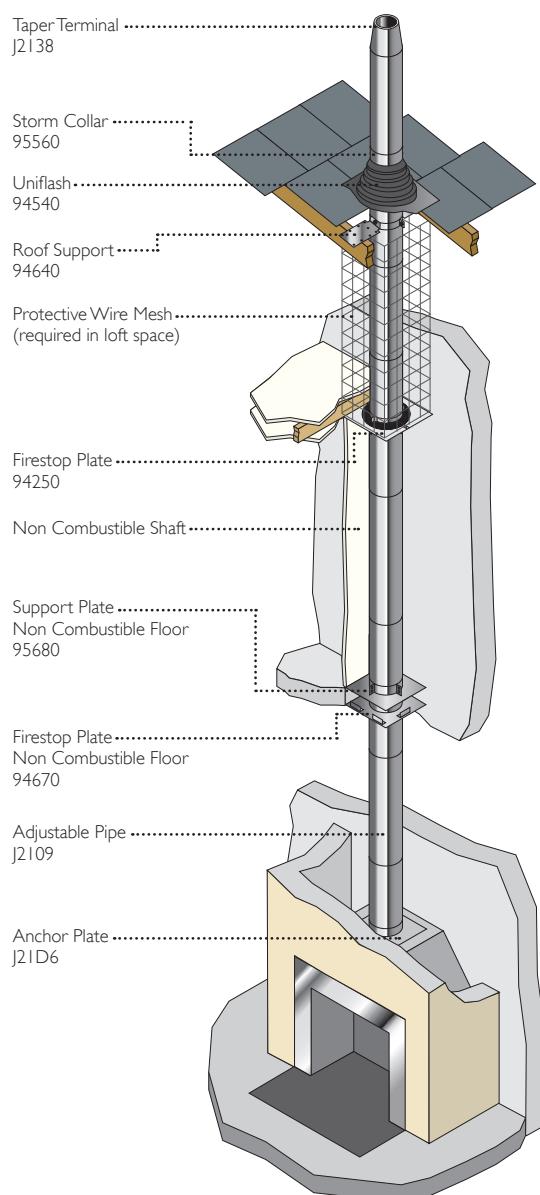


For a direct link to the ICS Installation Instructions scan the QR code.

## Typical Installations



WOOD/MULTI-FUEL INSTALLATION



OPEN FIRE INSTALLATION

# Load Bearing Data

## MAXIMUM LOAD BEARING (metres of pipe)

| Internal Dia. (mm)                   | 80 - 130 | 150 - 180 | 200 - 250 | 300 |
|--------------------------------------|----------|-----------|-----------|-----|
| Base Drain Section                   | 22       | 18        | 18        | 18  |
| Drain Plug Support                   | 18       | 18        | 18        | 18  |
| Adjustable Top Plate + Locking Band  | 15       | 15        | 15        | 15  |
| Telescopic Floor Support             | 18       | 18        | 18        | 18  |
| Pair of Side Plates (see diagram A)  | 15       | 15        | 15        | 15  |
| Pair of Side Plates (see diagram B)  | 10       | 10        | 10        | 10  |
| Cantilever Support                   | 22       | 18        | 18        | 18  |
| Extension Support (Anchor Plate)     | 1.5      | 1.5       | 1.5       | 1.5 |
| Ventilated Support Plate (All types) | 12       | 12        | 9         | -   |
| Support Plate                        | 12       | 12        | 9         | -   |
| Ceiling Hanger                       | 1.5      | 1.5       | 1.5       | 1.5 |
| Wall Band 50/60mm                    | 3        | 3         | 3         | 3   |
| Adjustable Wall Band 60-300mm        | 3        | 3         | 3         | 3   |
| Structural Wall Band                 | 4        | 4         | 4         | 4   |
| Extension for Structural Wall Band   | 4        | 4         | 4         | 4   |
| Guy Wire Bracket                     | 1.5      | 1.5       | 1.5       | 1.5 |
| Roof Support (above truss)           | 6        | 6         | 6         | 5   |
| Roof Support (below truss)           | 4        | 4         | 4         | 3   |
| 90° Tee + Locking Band               | 22       | 18        | 18        | 18  |
| 93° Tee + Locking Band               | 22       | 18        | 18        | 18  |
| 135° Tee + Locking Band              | 15       | 10        | 10        | 10  |
| Inspection Tee (Round)               | 22       | 18        | 18        | 18  |
| Inspection Tee (Rectangular)         | 22       | 18        | 18        | 18  |

## APPROXIMATE WEIGHT OF PRODUCTS (kg)

| Internal Dia. (mm) | Length (mm) | 1000  | 500  | 250  | 195  |
|--------------------|-------------|-------|------|------|------|
| 80                 |             | 4.32  | 2.13 | 1.09 | 0.85 |
| 100                |             | 5.14  | 2.53 | 1.29 | 1.01 |
| 130                |             | 6.35  | 3.14 | 1.60 | 1.24 |
| 150                |             | 7.18  | 3.54 | 1.86 | 1.41 |
| 180                |             | 8.40  | 4.14 | 2.11 | 1.65 |
| 200                |             | 9.22  | 4.55 | 2.31 | 1.80 |
| 230                |             | 10.44 | 5.13 | 2.62 | 2.03 |
| 250                |             | 11.24 | 5.53 | 2.81 | 2.19 |
| 300                |             | 15.08 | 7.58 | 3.44 | 2.47 |

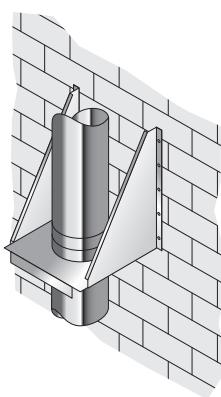


Diagram 1

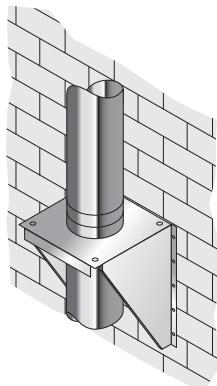


Diagram 2

# After Installation

## TESTING BEFORE USE

This is carried out using a flue flow test as described in BS EN 15287 parts 1 & 2, with reference to the appropriate appliance type.

## MAINTENANCE

It is essential that the flue way be kept clear at all times in the interest of good practice and health, safety and appliance performance. The system should be checked regularly during the appliance maintenance.

(Refer to appliance manufacturer's instructions).

## PRODUCT WARRANTY

Under normal operating conditions and providing the system is installed correctly, it should last the lifetime of the appliance which is normally 10 years. ICS carries a 10 year conditional warranty.

The conditions are that the chimney is:

- Correctly sized and installed
- Properly maintained
- Burning only approved fuels in accordance with the Schiedel Rite-Vent and appliance manufacturer's instructions.

For recommended fuels listings, please refer to the HETAS guide ([www.hetas.co.uk](http://www.hetas.co.uk)), or appliance manufacturer's instructions. Warranty registration details are provided with installation instructions for completion and registration with Schiedel RiteVent.

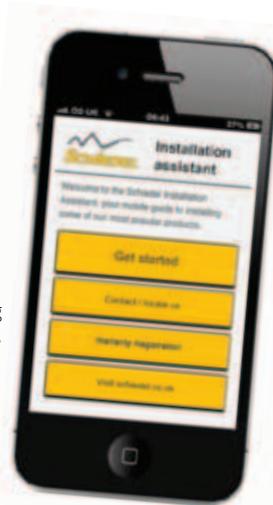


**INSTALLER HELPLINE**  
**+44 (0) 191 416 6666**

More information on [www.schiedel.co.uk](http://www.schiedel.co.uk)



Scan QR code to download the Schiedel Installation App incorporating Product Warranty Registration function.



## Complementary products and services from Schiedel Chimney Systems



### ECO ICID

The NEW highly Insulated Twin Wall System Chimney for stoves.

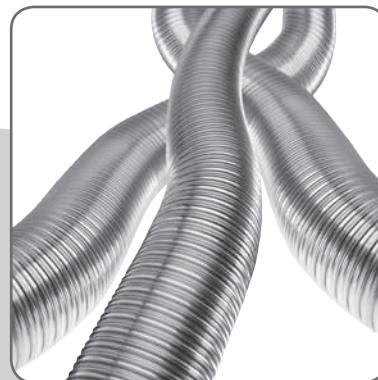
- Easy twist lock connection
- Effective insulation
- 125-200mm Internal diameter range



### PRIMA SMOOTH

Single Wall Stainless Steel Connecting Flue Pipe for use on wood and multi-fuel applications.

- 316L Grade stainless steel
- Available in matt black or steel finish
- Excellent aesthetics
- Lightweight
- 125-200mm Diameter range



### TECNOFLEX PLUS

For relining existing chimneys to take gas, oil, wood, multi-fuel appliances and open fires.

- Twin skin TecnoFlex Plus available in 316L or 904L options for oil, wood, multi-fuel & open fires
- 80-300mm Diameter range



### PRIMA PLUS

Single Wall Stainless Steel Flue System.

- Prima Plus available 0.6mm for domestic multi-fuel stoves
- Prima Plus for large residential & commercial condensing gas & oil appliances & chimney relining
- 80-300mm Diameter range



### ABSOLUT XPERT

The world's 1st Passivhaus certified chimney system.

- GW3 rated - condensate resistant after a chimney fire
- Safe connection to room sealed appliances passes blower door test with no additional rendering of the blocks



### DM & LINERS

Pumice System Chimneys, Firechessts and Liners.



full details at [www.schiedel.co.uk](http://www.schiedel.co.uk)

#### Schiedel Chimney Systems

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Tyne & Wear NE38 0AQ  
Tel. +44 (0)191 416 1150  
Fax. +44 (0)191 415 1263  
[info@schiedel.co.uk](mailto:info@schiedel.co.uk)  
[www.schiedel.co.uk](http://www.schiedel.co.uk)

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