



FULL RANGE  
AVAILABLE

# Commercial Systems

System chimneys, flues & vents

**SCHIEDEL**



# Vents, flues & chimneys

## SCHIEDEL

Schiedel is the leading supplier of prefabricated chimney systems in Europe with the widest choice of chimney and flue products. Schiedel is at the forefront in product and service innovation, with systems and solutions that are reliable, innovative and cost-effective.

Our products conform to the most stringent standards of design, manufacture and performance required world-wide, and are CE certified in accordance with EN1856 and manufactured under BS EN ISO 9001 quality control systems.



## THE COMPLETE SERVICE

Whether it's a biomass flue system, a multi-flue chimney, a fan dilution system or a generator exhaust, we have a product to suit every commercial or industrial application. We also offer a full CAD design service and technical support. Both in the private and public-sector Schiedel has unrivalled experience that you can rely on whatever the scale or nature of your project - from chimneys to exhaust and venting systems.

Our technical team can provide site analysis and application advice as required. We design and manufacture for projects not just in the UK and Europe, but worldwide where we have been providing practical and installer friendly solutions for both on land and maritime requirements for more than quarter of a century.



# Services

- Site survey
- System selection for optimum cost and performance
- System sizing
- Termination siting advice to comply with the Clean Air Act
- Design and layout drawings
- Ongoing technical support



## Typical applications

### CHIMNEY SYSTEMS

- Flueing systems for biomass, gas and oil boilers
- Natural draught
- Fan assisted/positive pressure
- Fan dilution
- Condensing
- Modular header
- CLV

### EXHAUST SYSTEMS

- Generators, turbines, CHP

### OTHER VENTING SYSTEMS

- Process plant
- Bakery ovens
- Smoke extraction
- Passive ventilation
- Fire rated service duct, cable duct
- Rubbish chutes

### SUPPORT SYSTEMS

- Building supported, internal, external
- Mast supported, free standing single/multi-leg
- Windshield
- Relining existing stack

### BIOMASS TRAINING

Schiedel also offers a range of biomass training courses for those interested in knowing more about biomass installations and for installers wishing to upgrade their skills to include biomass installations.

The H005 Biomass Installer course counts towards MCS installer accreditation. The courses are held in Schiedel's HETAS approved training centre in Washington, Tyne & Wear, UK.

# Victoria Hospital, Kirkcaldy, Fife

The Victoria Hospital was a new NHS hospital in Kirkcaldy. It was a challenging chimney installation, designed to service 2 Biomass boilers, 4 diesel generators and 3 steam boilers. The flues were supported on a 19m high supporting structure.

The job was complicated with a late decision to install a CHP system at the new hospital. The decision was taken after the main mast and the originally specified flues had been erected. The challenge was to incorporate the CHP flue system in the mast structure. Schiedel Chimney Systems integrated the addition flues into the overall structure in an economically and efficient manner.

**Sector**  
Hospital

**Product**  
ICS  
ICS 5000

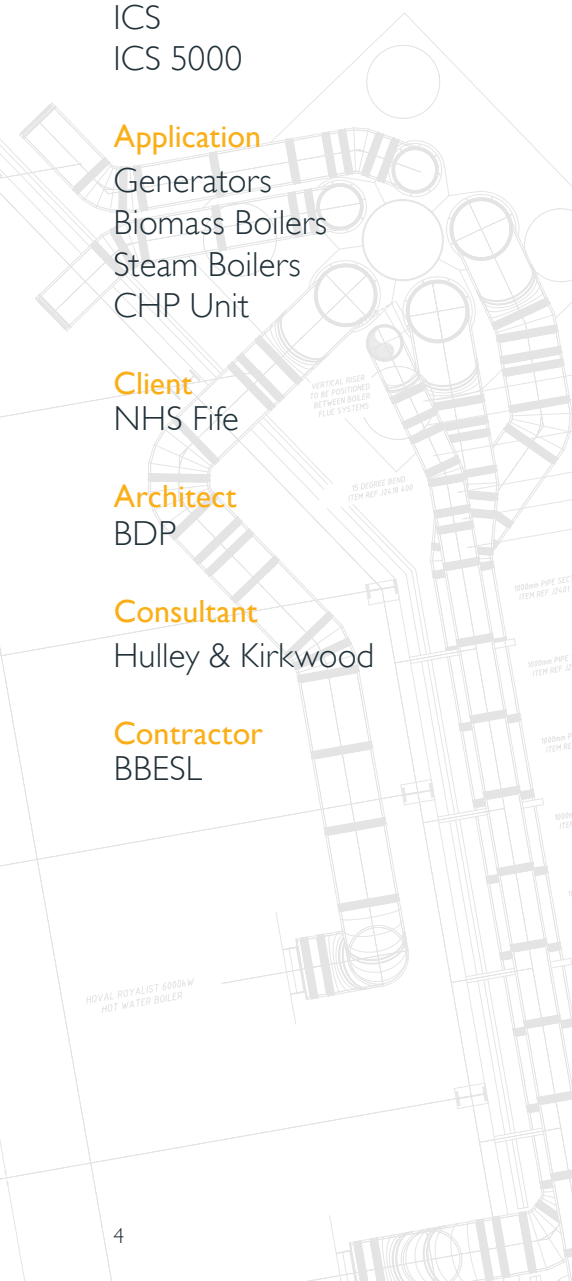
**Application**  
Generators  
Biomass Boilers  
Steam Boilers  
CHP Unit

**Client**  
NHS Fife

**Architect**  
BDP

**Consultant**  
Hulley & Kirkwood

**Contractor**  
BBESL





# Glasgow Royal Infirmary

Glasgow Royal Infirmary, in the east of the city, provides a wide range of district general hospital, regional, supra-regional and national acute clinical services.

The brief for Schiedel Chimney Systems was to establish a new route for the exhaust systems serving six FG Wilson Gensets. The systems had to be routed horizontally above one of the entrances to the hospital, vertically to the roof of the Energy Centre then horizontally across the roof to the existing concrete stack. All six flue systems then rose vertically up the outside of the chimney to terminate above the main hospital block.



**Sector**  
Hospital

**Product**  
ICS 5000

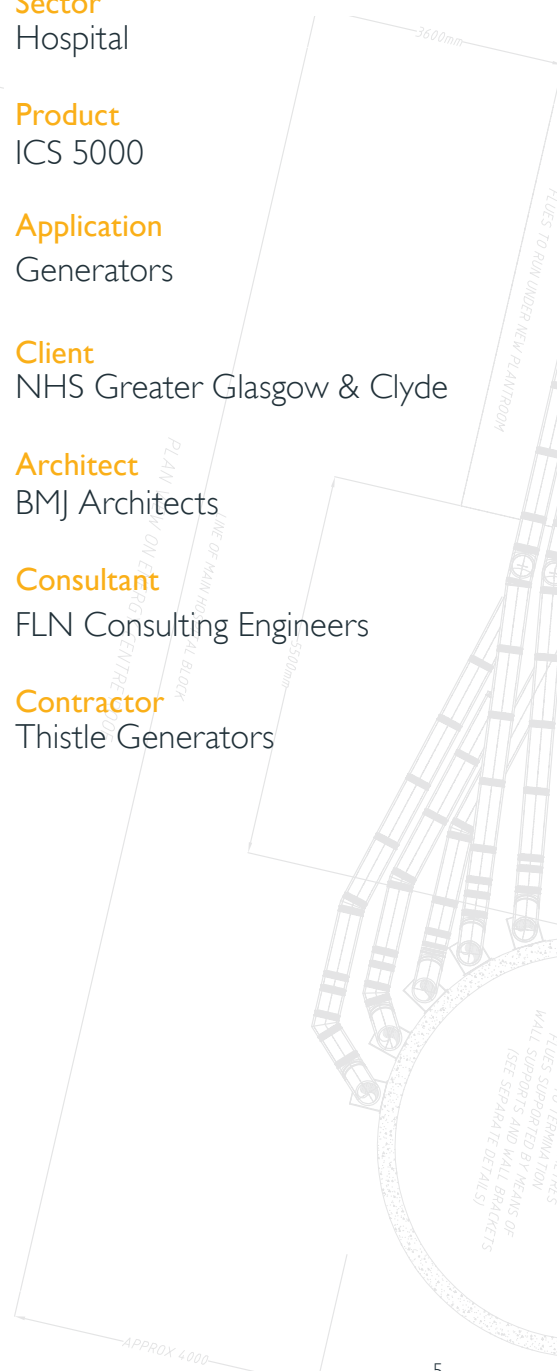
**Application**  
Generators

**Client**  
NHS Greater Glasgow & Clyde

**Architect**  
BMJ Architects

**Consultant**  
FLN Consulting Engineers

**Contractor**  
Thistle Generators



# Dundee Council Housing Investment Unit Offices

The main requirement for this installation was that the external sections of the system chimney had to match in with building. To achieve this, the external lengths of the flue and support components were powder coated to match the colour of the building. Support locations and spacing were predetermined to make the dimensions of flue appear uniform along its entire length.

The installation was complicated by required for 'horizontal runs' of flue that had to precisely positioned at a 3° slope to the horizontal. This ensures that condensates run to the appropriate drain connections.

## Sector

Public Sector Offices

## Product

ICS  
ICS Plus

## Application

Gas Boilers

## Client

Dundee City Council's  
Housing Investment Unit

## Architect

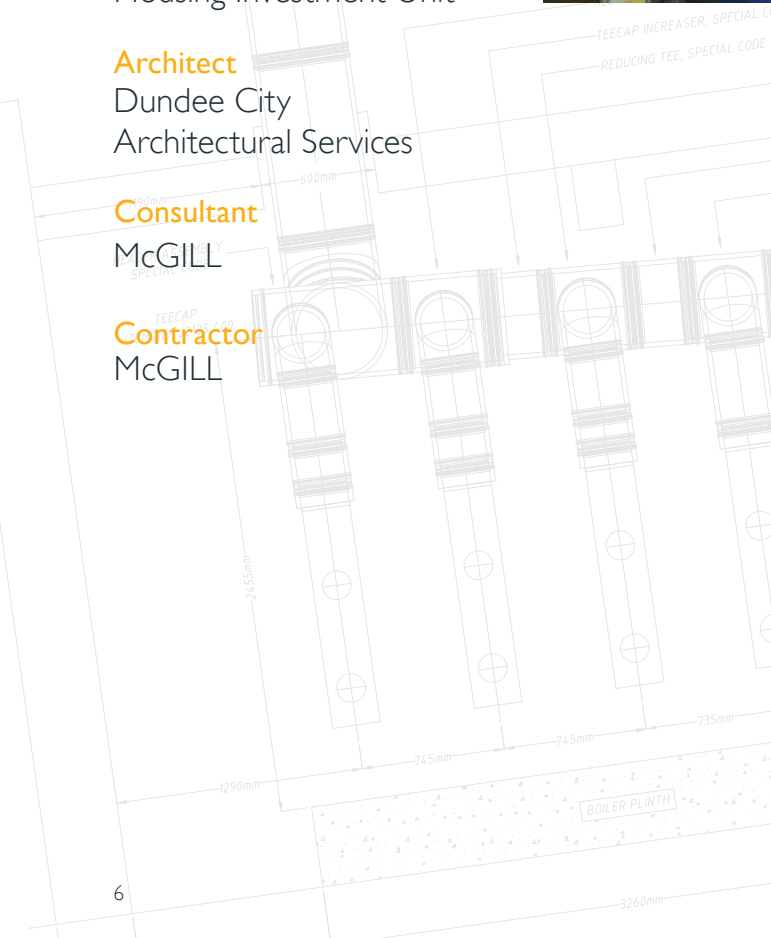
Dundee City  
Architectural Services

## Consultant

McGILL

## Contractor

McGILL





# Ayrshire Central Hospital, Irvine

The brief was to provide flues for the three dual fuel Byworth MX1500 package steam boilers.

As is often the case the boilers were housed in external containerised plant rooms. This meant that a supporting mast structure was required to support the 10 meter vertical length of the flues. The internal flue diameter flues were 300mm and 350mm.



**Sector**  
Hospital

**Product**  
ICS

**Application**  
Steam boilers

**Client**  
NHS Ayrshire & Annan  
Primary Care

**Architect**  
JM Architects

**Consultant**  
RSP Consulting Engineers LLP  
& Curtins consulting engineers

**Contractor**  
FES



# The construction of the flueing system at Darlington Memorial Hospital

The primary heating services at Darlington Memorial Hospital were upgraded to create a new state-of-the-art energy centre which will reduce energy usage and deliver a significant reduction in the trust's carbon emissions. This will help to fulfil the Trust's goal of being a sustainable hospital.

The energy centre has three Cummins Generators, two Byworth Steam Boilers, a Byworth LPHW Boiler and space for a future CHP boiler.

Schiedel Chimney Systems were engaged to supply and install all of the boiler, generator and CHP exhausts to the Energy Centre together with a 40 metre high free-standing multi-core chimney. The system was designed for a 30 year working life.

Noise was a crucial issue because of the proximity of residential housing. As a result the flues were fitted with silencers to reduce the noise levels. The plant-room was also acoustically insulated.

**Sector**  
Hospital

**Product**  
ICS Plus

**Application**  
Generators  
Biomass Boilers  
Steam Boilers  
LPHW Boiler  
CHP Unit

**Client**  
The County Durham  
& Darlington NHS Foundation

**Architect**  
Dewjoc Architects

**Consultant**  
Corrigenda Group Services  
& RPS Gregory

**Contractor**  
Crown House  
Technologies





# South Glasgow Hospital system chimney takes shape

The requirement at the new Southern General Hospital was to supply and install 22 stainless steel flue systems servicing FG Wilson Generator Sets and CHP units within the energy centre. The specialist flue systems had to be installed in four separate plant rooms over two floors of the energy centre, before rising the required height on a support mast. The mast with the flues pre-assembled had to be lowered in four sections into a central void less than 500m wider than the mast. The internal flue diameters were 450mm, 550mm and 600mm.



**Sector**  
Hospital

**Product**  
ICS 5000  
ICS Plus

**Application**  
Generators  
CHP Units

**Client**  
NHS Greater Glasgow & Clyde

**Architect**  
Nightingale Associates

**Consultant**  
Max Fordham

**Contractor**  
Mercury Engineering



# Relining of existing brick chimney, Newcastle University

The brief was to supply and install four new flues for a brand new plant room. The new gas-fired Hoval SR Plus Type 3000 Boilers were connected using ICS twin wall insulated flue. The twin wall flues were then connected to the Prima Plus single wall liners, used to re-line the existing brick built chimney. In this way the decorative chimney stack, which is such a feature of the site was able to continue functioning as a working chimney. The flues were installed in a metal frame to securely hold them securely in place. The installation work was carried out by a team of steeple jacks who accessed the inside of the chimney stack by abseiling down its length. Following the installation of the flues a new capping plate was placed at the top of the chimney.

**Sector**  
University

**Product**  
ICS  
Prima Plus 1mm

**Application**  
Gas Boilers

**Client**  
Newcastle University

**Architect**  
Dewjoc Architects

**Consultant**  
H. Malones & Sons

**Contractor**  
H. Malones & Sons





# Lochaber High School

Lochaber High School is the six-year comprehensive school, which serves the town of Fort William and the greater Lochaber area.

Schiedel was contracted to supply & install three 250mm internal diameter flue systems serving Viessmann Vitoplex 200 condensing boilers and a 350mm internal diameter flue system for a Viessmann Kob Pyrot biomass boiler. On exiting the plant room all of the flue systems have to travel horizontally, before entering an aluminium clad windshield which rises through the curved roof of the Energy Centre plant room.

Schiedel was selected for the job because of their expertise in installing flues for biomass boilers.



**Sector**  
School

**Product**  
ICS

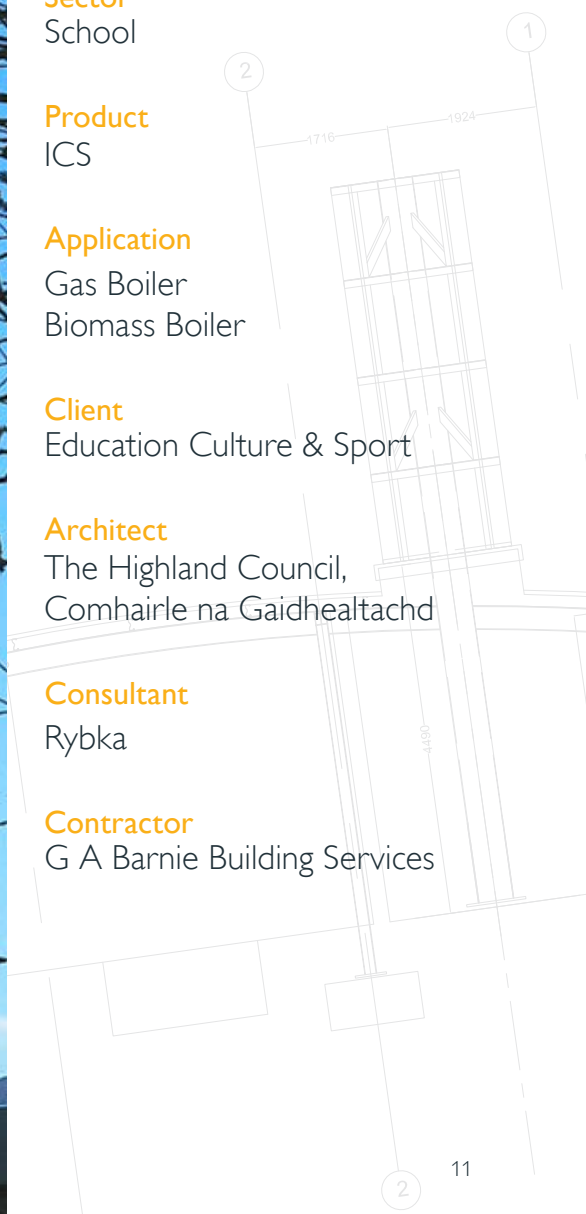
**Application**  
Gas Boiler  
Biomass Boiler

**Client**  
Education Culture & Sport

**Architect**  
The Highland Council,  
Comhairle na Gaidhealtachd

**Consultant**  
Rybka

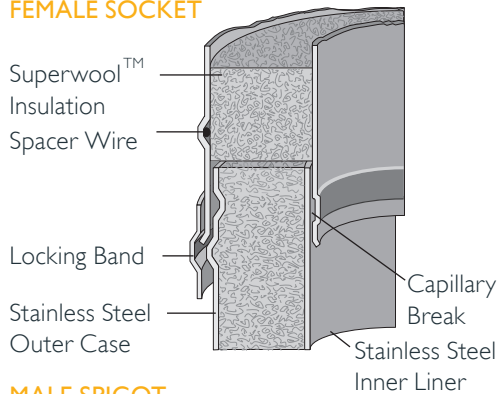
**Contractor**  
G A Barnie Building Services



# ICS

A Twin Wall Insulated System Chimney designed for gas, oil and multi-fuel appliances.

## FEMALE SOCKET



## MALE SPIGOT

Sleeve joint with locking band for:

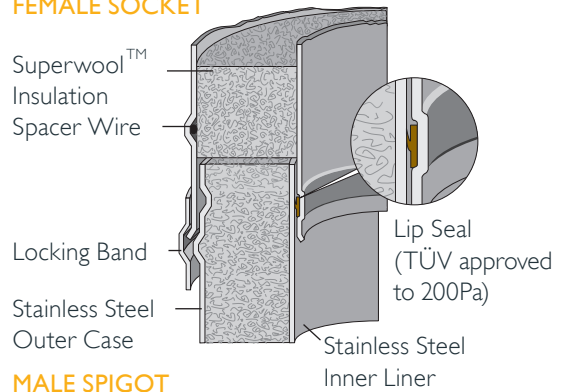
- Quick and sure assembly
- Lateral strength
- Assured insulation continuity
- Easy condensate drain down

Capillary break prevents moisture egress. Inner liner free to expand, even withstanding chimney fire. Corrosion resistant design and construction.

# ICS Plus

A Twin Wall Insulated System Chimney designed for condensing gas and oil appliances.

## FEMALE SOCKET



## MALE SPIGOT

Sleeve joint with integral lip seal on the liner and locking band for:

- Quick and sure assembly
- Lateral strength
- Assured insulation continuity
- Easy condensate drain down

Approved Lip Seal to prevent moisture egress at up to 200Pa at Temperature rating T200. Inner liner free to expand. Corrosion resistant design and construction.

Technical characteristics	
Fuel	Gas, oil, wood, coal
Firing temp.	450°C
Thermal shock	1000°C
Mode of operation	Negative Pressure (N1)
Pressure capabilities	40Pa
Diameter range	80-700mm
Approvals	
EN 1856-1 and EN 1856-2	
ICS25 is designated as	
T450 N1 D V3 LXX050 GXXX	
T450 N1 W V2 LXX050 GXXX	
ICS50 is designated as	
T600 N1 D V3 LXX050 GXXX	
T600 N1 W V2 LXX050 GXXX	
4 Hour Fire rating to BS476 Part 20	
EI 120 Fire rating to EN 1366-13 Chimneys	
FPC approved to BS EN ISO 9001	

Technical characteristics	
Fuel	Gas, oil
Firing temp.	200°C
Mode of operation	Positive Pressure (P1)
Pressure capabilities	200Pa
Diameter range	80-700mm
Approvals	
EN 1856-1 and EN 1856-2	
ICS Plus is designated as	
T200 P1 W V2 LXX050 OXXX	
4 Hour Fire rating to BS476 Part 20	
EI 120 Fire rating to EN 1366-13 Chimneys	
FPC approved to BS EN ISO 9001	

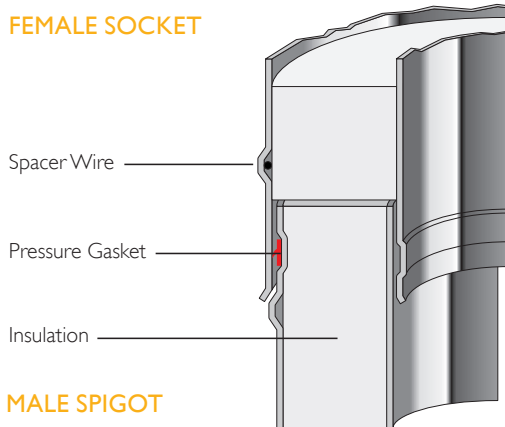
For details on XX & XXX information - please refer to Approvals page on [www.schiedel.com](http://www.schiedel.com)



# ICS 5000

A Multi-functional Twin Wall Insulated Venting System for use on a wide range of heating appliances, stand-by power engines, CHP and service ducting.

## FEMALE SOCKET



## MALE SPIGOT

Sleeve joint with integral pressure gasket and locking band for:

- Quick and sure assembly
- Lateral strength
- Assured insulation continuity
- Easy condensate drain down

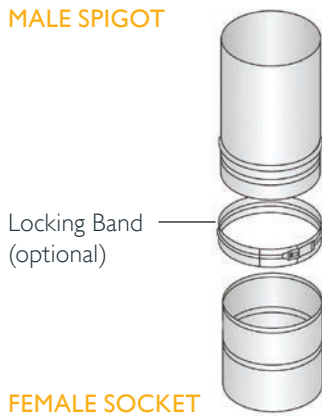
Pressure seal on outer case protected by insulation for longest life.  
Inner liner free to expand, no need for expansion joints.

Technical characteristics	
Fuel	Diesel, gas, oil, process wastes
Firing temp.	600°C
Mode of operation	High Positive Pressure (H1)
Pressure capabilities	5000Pa
Diameter range	80-600mm
Approvals	
EN 1856-1 and EN 1856-2	
ICS 5000 is designated as	
T600 H1 D V3 L50050 OXXX 4 Hour Fire rating to BS476 Part 20 EI 120 Fire rating to EN 1366-13 Chimneys FPC approved to BS EN ISO 9001	

# Prima Plus

## Non-condensing

High performance multi-purpose single wall for use on multi-fuel applications as a connecting flue pipe or as a chimney liner.



Sleeve joint with optional locking band for:

- Lateral strength
- Easy condensate drain down

Capillary break prevents moisture egress

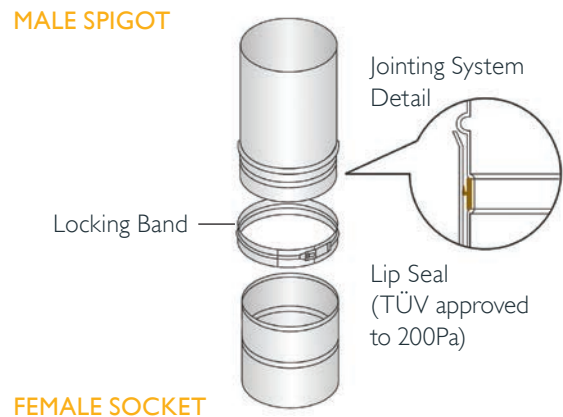
Corrosion resistant design and construction

Adjustable elbows and headers enable quick and precise alignment of flue runs 0.6 and 1mm thickness options to suit application

# Prima Plus

## Condensing

High performance multi-purpose single wall for use on gas and oil condensing applications as a connecting flue pipe or as a chimney liner.



Sleeve joint with lip seal and locking band for:

- Lateral strength
- Easy condensate drain down

Approved Lip Seal to prevent moisture egress at up to 200Pa at Temperature rating T200

Adjustable elbows and headers enable quick and precise alignment of flue runs 0.6 and 1mm thickness options to suit application

Corrosion resistant design and construction

Technical characteristics	
Fuel	Gas, oil, wood, coal
Firing temp.	600°C
Thermal shock	1000°C
Mode of operation	Negative Pressure (NI)
Pressure capabilities	40Pa
Diameter range	80-750mm
Approvals	
BS EN 1856-2	
Connecting Flue Pipe is designated as	
T600 N1 WV2 L50060 GXXX M	
Chimney Liner is designated as	
T600 N1 WV2 L50060 G	
FPC approved to BS EN ISO 9001	

Technical characteristics	
Fuel	Gas, oil
Firing temp.	200°C
Thermal shock	250°C
Mode of operation	Positive Pressure (P1)
Pressure capabilities	200Pa
Diameter range	80-750mm
Approvals	
BS EN 1856-2	
Connecting Flue Pipe is designated as	
T200 P1 W V2 L50060 OXXX M	
Chimney Liner is designated as	
T200 P1 W V2 L50060 O	
FPC approved to BS EN ISO 9001	

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# More Schiedel projects

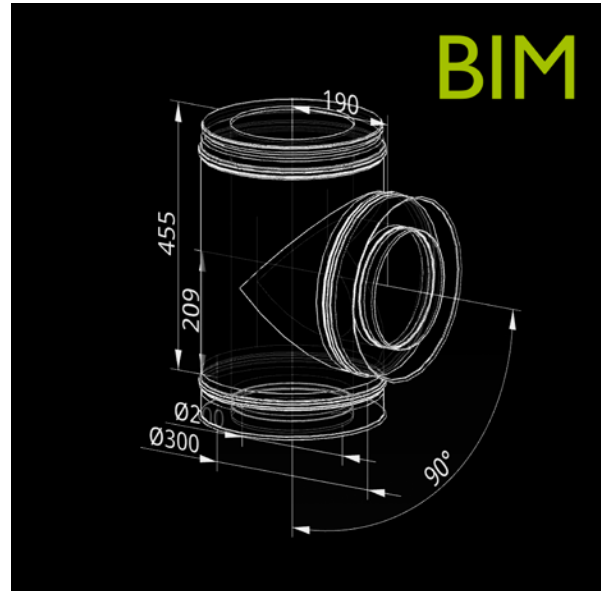
- Royal Bank of Scotland HQ
- BBC Headquarters, White City
- TIM Telecommunications, Italy
- Taikoo Project, Hong Kong
- Palais des Expos, Brussels
  
- Durham University
- St Andrews University
- Strathclyde University
- Napier University, Edinburgh
- Glasgow PFI Schools
- University of Jordan - Amman
- North Lanarkshire Schools
  
- UCL Hospitals, London
- St Vincent's Hospital, Dublin
- SW Acute Hospital, Enniskillen
- Queens Park Hospital, Blackburn
- King Abdullah Hospital, Irbid
- Farah Hospital, Amman
- Kwong Wah Hospital - Hong Kong
- Mother and Child Hospital - Angola
  
- British Library
- Scottish Parliament
- HM Prisons, Durham, Portsmouth and Perth
- Rolls Building, London
- National Museum, Amman
- Al-Nadwa Royal Palace, Amman
- Marks & Spencer, London, Bristol & Newcastle
- Sanofi Chemicals, Fawdon
  
- Olympic Stadia Athens
- Stadio Olimpico, Rome
- Tyneside Swimming Pool
  
- BAE Systems
- Dead Sea Kempinski Hotel
- Amman Sheraton Hotel
- Radisson SAS Hotel, Aqaba
- Heathrow Airport, UK
- Schiphol Airport, Netherlands
- Vienna Airport, Austria
- Larnaca Airport, Cyprus
- Kraljevo District Heating System - Serbia

# Schiedel BIM catalogue

A range of Schiedel Products for Commercial and Residential are now available within our new 3D BIM (Building Information Modelling) Catalogue.

Engineers, planners and architects now can have a significant influence on making Schiedel the choice of the chimney at the beginning of the planning process, with the comprehensive data available for a range of components.

All BIM and AEC CAD formats, like Autodesk Revit, Nemetschek Allpan and Grafisoft Archicad for the respective CAD systems are available to engineers, planners and purchasers for free. You can add these formats under your own account section. Schiedel BIM is free to use and you just need to enter your email address to register and download your formats (for free!).



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INDUSTRIES COMPANY