

COMMERCIAL SYSTEMS

System Chimneys, Flues & Vents



Vents, flues & chimneys

SCHIEDEL RITE-VENT

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 9001-2000 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 Rite-Vent has unrivalled experience that you can rely on whatever the scale or nature of your project - from chimneys to exhaust and venting systems.

On-site, our technical team can provide site analysis and application advice as required. We can design and manufacture for projects in the U.K. and Europe, and arrange for on-site installation from a small commercial installation to a large industrial application.



Services

- Site survey
- System selection for optimum cost and performance
- System sizing
- Termination siting advice to comply with Clean Air Act
- Design and layout drawings
- On-site installation
- Ongoing technical support including facilities management and CCTV

Typical Applications

- Chimney Systems
 - Fluing 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.

For further details visit

www.schiedel.co.uk/training

or scan the link below with your mobile phone.



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.

Client
NHS Fife

Architect
BDP

Consultant
BBESL

Contractor
BBESL



Sector
Hospital

Product
**ICS
ICS 5000**

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



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.

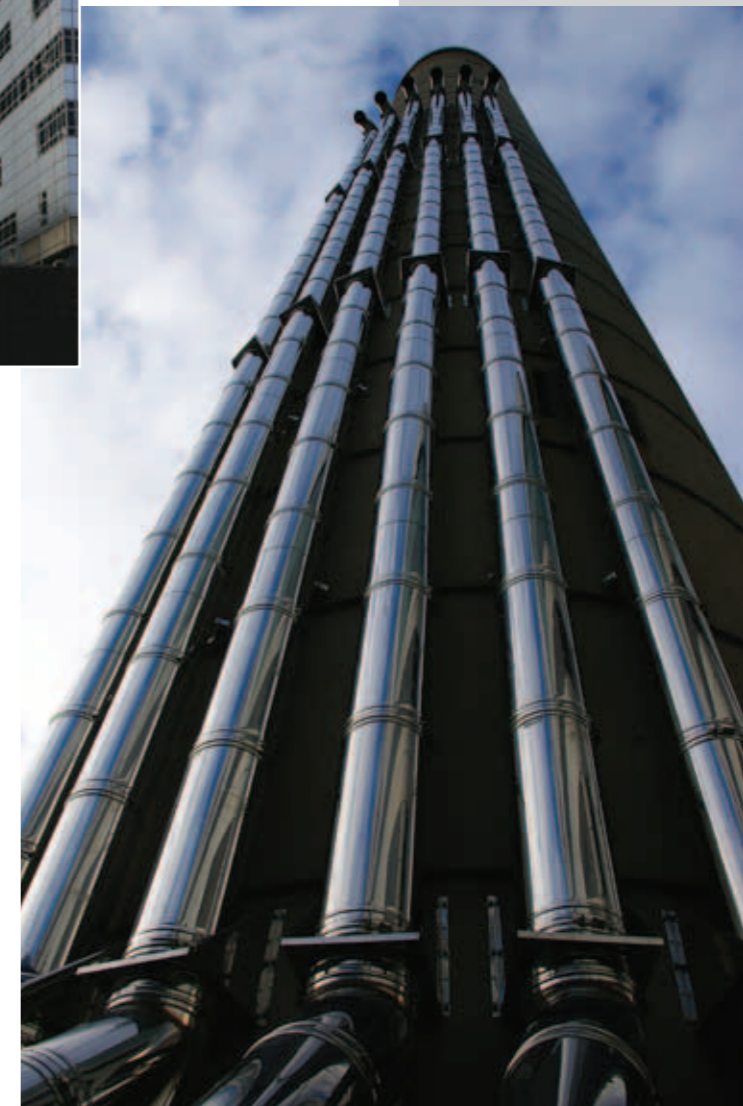


Client
**NHS Greater Glasgow
& Clyde**

Architect
BMJ Architects

Consultant
FLN Consulting Engineers

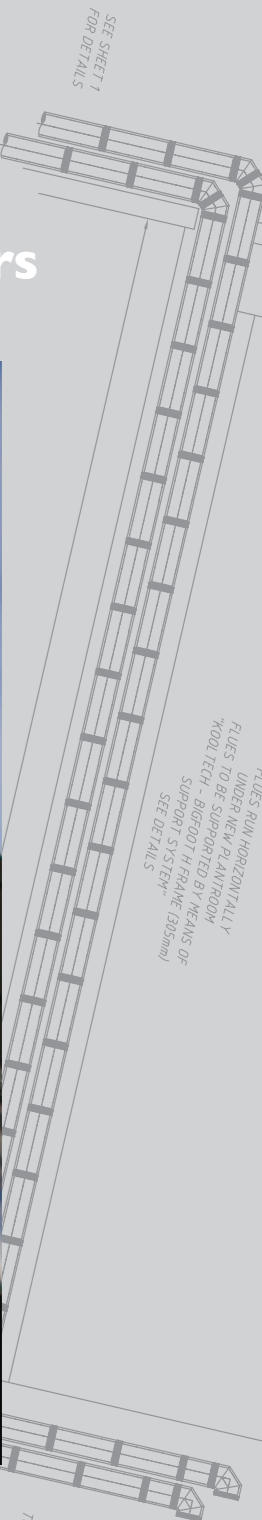
Contractor
Thistle Generators



Sector
Hospital

Product
ICS 5000

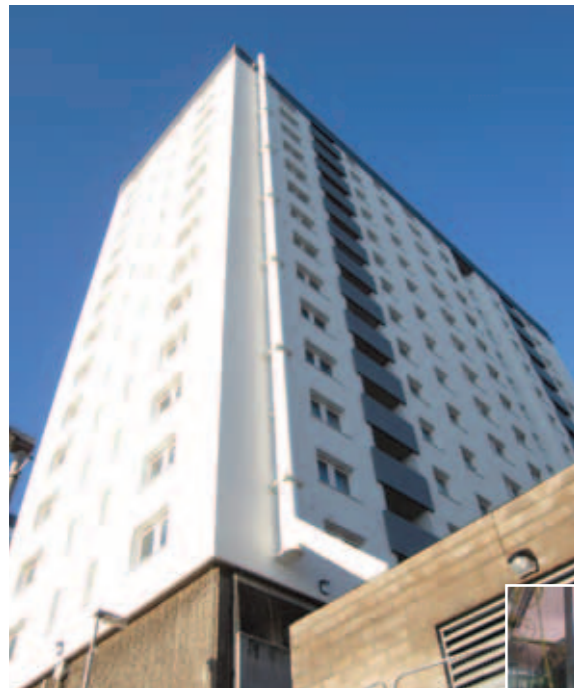
Application
Generators



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 be precisely positioned at a 3° slope to the horizontal. This ensures that condensates run to the appropriate drain connections.



Client
**Dundee City Council's
Housing Investment Unit**

Architect
**Dundee City
Architectural Services**

Consultant
McGILL

Contractor
McGILL



Sector
**Public Sector
Offices**

Product
**ICS
ICS Plus**

Application
Gas Boilers

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.



Client
**NHS Ayrshire & Annan
Primary Care**

Architect
JM Architects

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

Contractor
FES



Sector
Hospital

Product
ICS

Application
Steam Boilers

ERISED
ROOM

BYWORTH BOILER
MODEL MX 1500

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 multicore 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.

Client
The County Durham & Darlington NHS Foundation

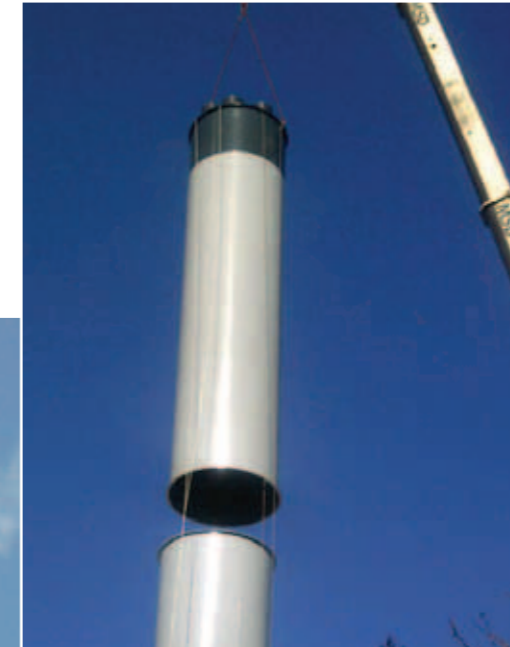
Architect
Dewjoc Architects

Consultant
Corrigenda Group Services & RPS Gregory

Contractor
Crown House Technologies



Arrival of multicore chimney



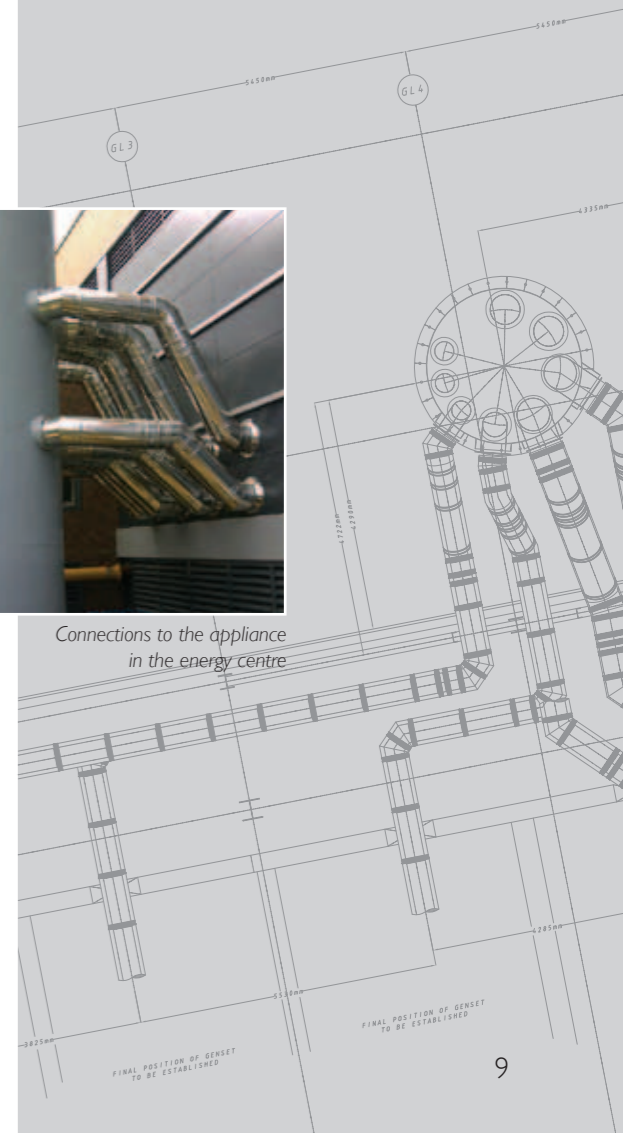
Base section goes into place



Completed 40m multicore chimney

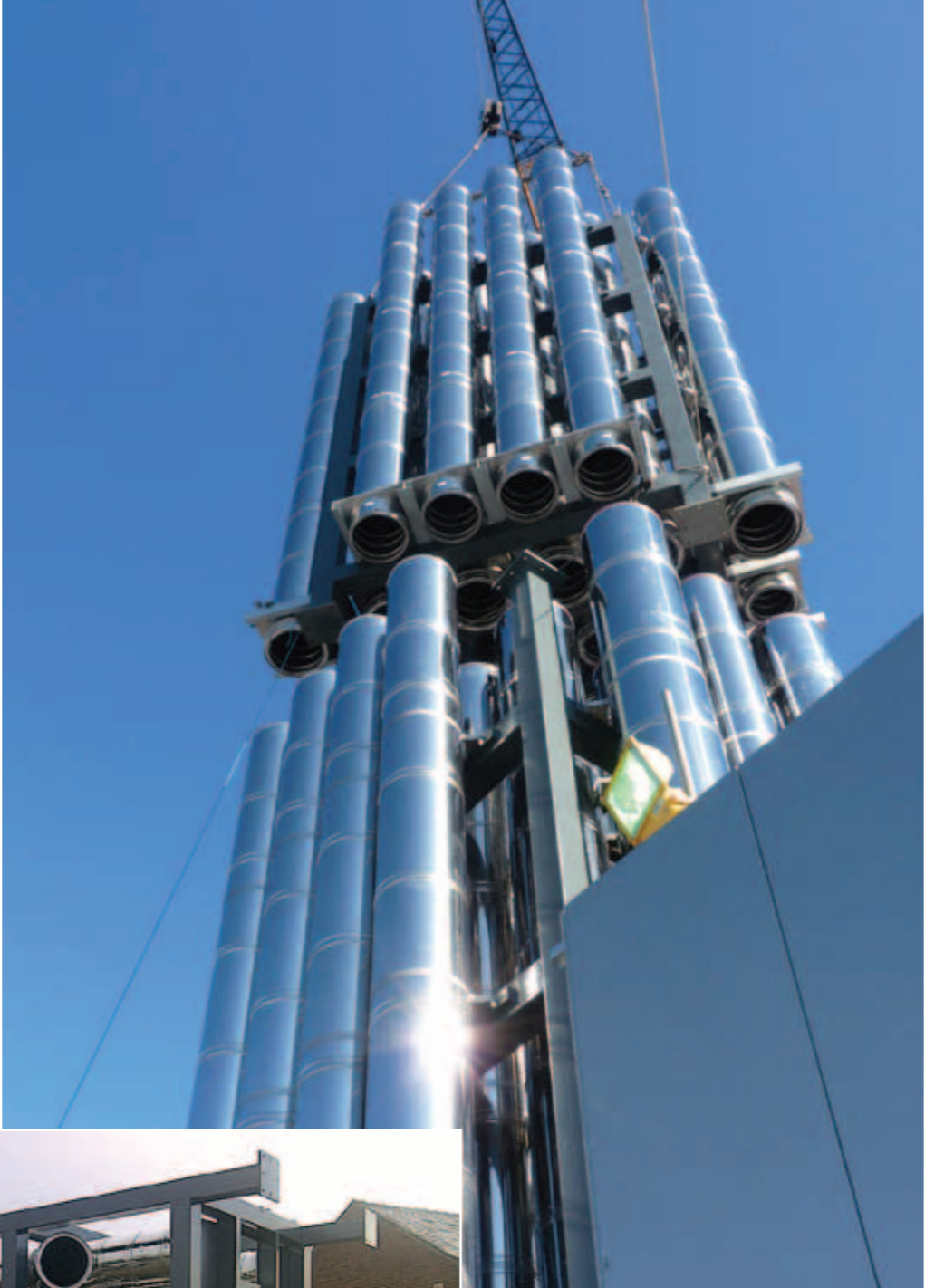


Connections to the appliance in the energy centre



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 F G 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 floor 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.



Top section being lifted into place



Prefabricated sections arrive

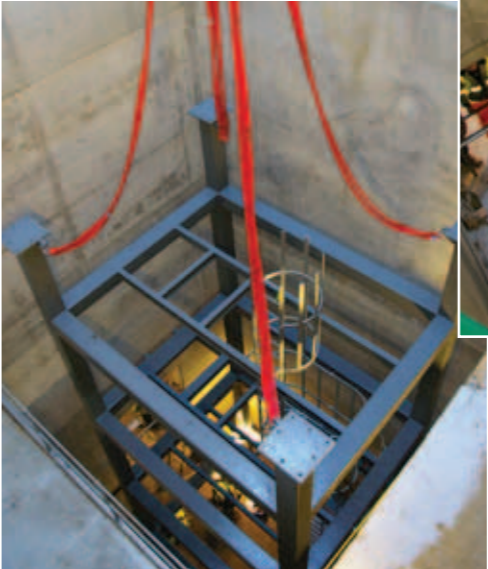
Client
**NHS Greater Glasgow
& Clyde**

Architect
Nightingale Associates

Consultant
Max Fordham

Contractor
Mercury Engineering

Chimneys ready to
be connected to
the appliances



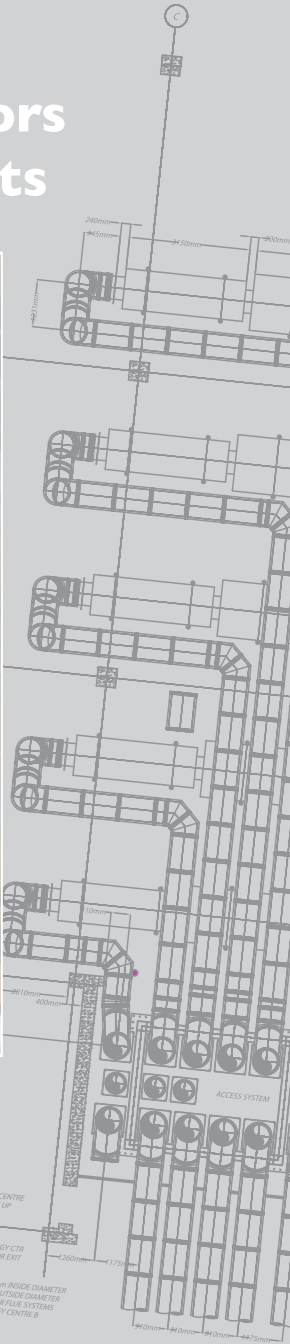
Base frame being lowered into place
in purpose made space for chimneys



Sector
Hospital

Product
**HP 5000
ICS 5000
ICS Plus**

Application
**Generators
CHP Units**



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.

Client
Newcastle University

Consultant
H. Malones & Sons

Contractor
H. Malones & Sons



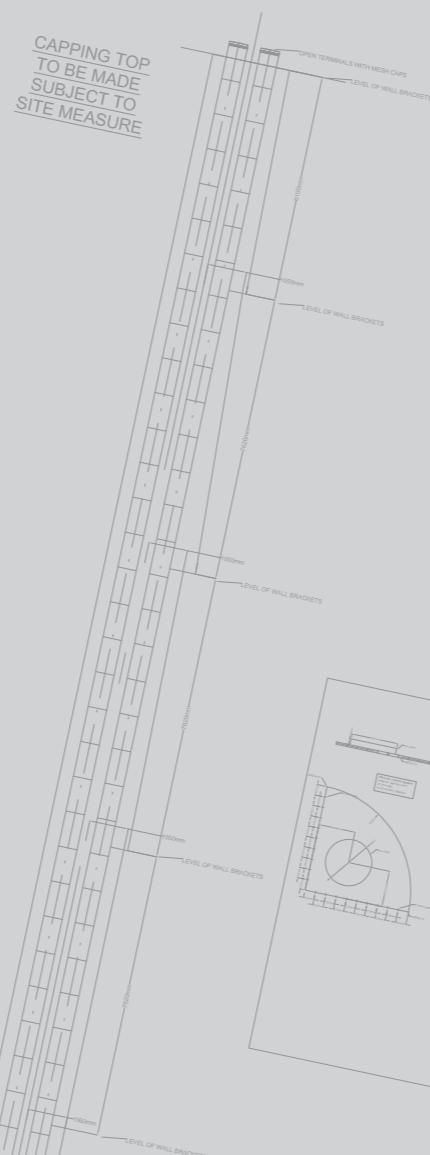
Chimney relining in progress



Sector
University

Product
**ICS
Prima Plus Imm**

Application
Gas Boilers



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 aluminum 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.



Client
**Education Culture
& Sport**

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

Consultant
Rybka

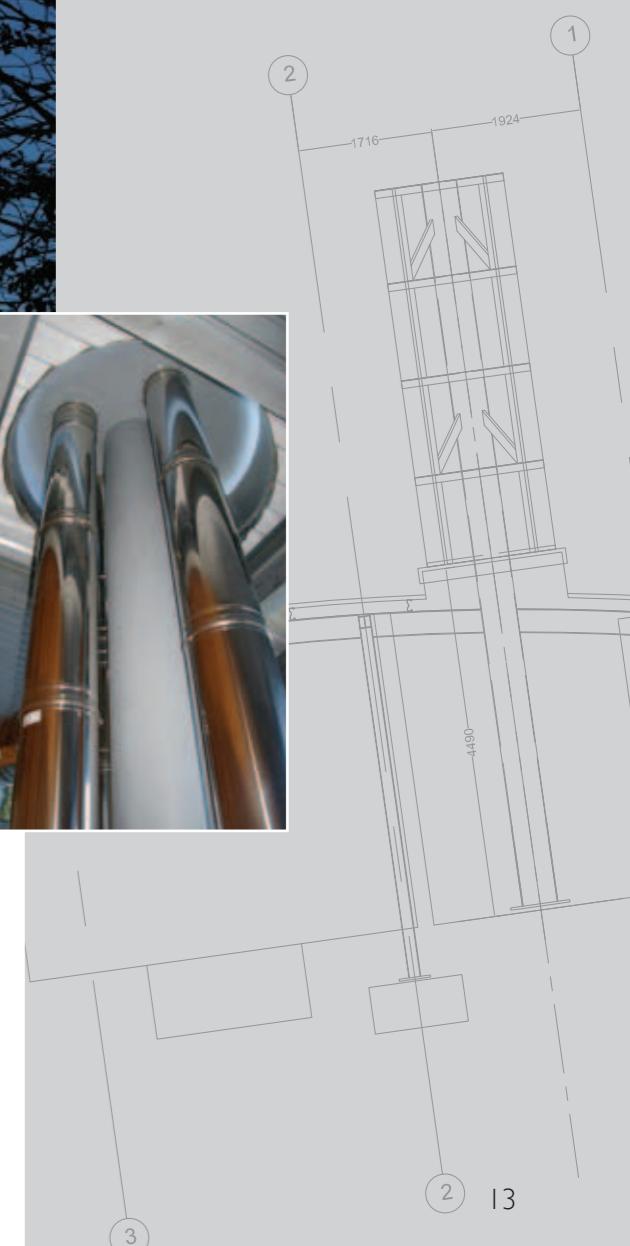
Contractor
G A Barnie Building Services



Sector
School

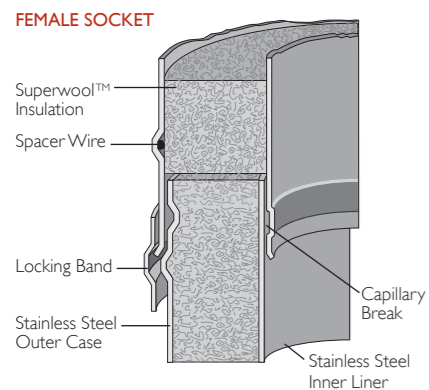
Product
ICS

Application
**Gas Boiler
Biomass Boiler**



ICS

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



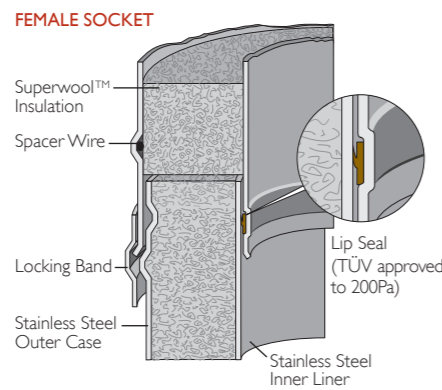
MALE SPIGOT

- Sleeve joint with locking band for:
 - Quick and sure assembly
 - Lateral strength
 - Assured insulation continuity
 - Easy condensate draindown
- Capillary break prevents moisture egress
- Inner liner free to expand, even withstanding chimney fire
- Corrosion resistant design and construction

Fuel: Gas, oil, wood, coal
Firing temp: 450°C
Thermal shock: 1000°C
Mode of operation: Negative Pressure (NI)
Pressure capabilities: 40Pa
Diameter range: 80-700mm
Approvals: BS EN 1856-1
• ICS25 is designated as: T450 NI DV3 LXX050 GXXX
• ICS50 is designated as: T600 NI DV3 LXX050 GXXX
• 4 Hour fire rating to BS 476 Part 20
• FPC approved to BS EN ISO 9001

ICS Plus

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



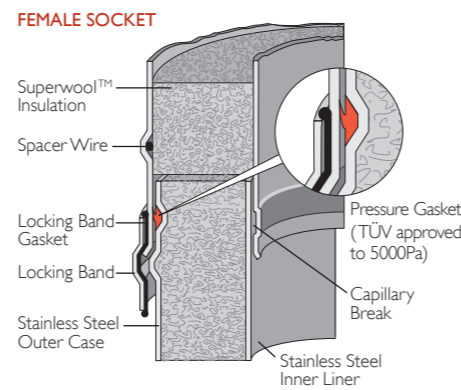
MALE SPIGOT

- Sleeve joint with integral lip seal on the liner and locking band for:
 - Quick and sure assembly
 - Lateral strength
 - Assured insulation continuity
 - Easy condensate draindown
- 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

Fuel: Gas, oil
Firing temp: 200°C
Mode of operation: Positive Pressure (PI)
Pressure capabilities: 200Pa
Diameter range: 80-700mm
Approvals: BS EN 1856-1
• ICS Plus is designated as: T200 PI WV2 LXX050 OXXX
• 4 Hour fire rating to BS 476 Part 20
• FPC approved to BS EN ISO 9001

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.



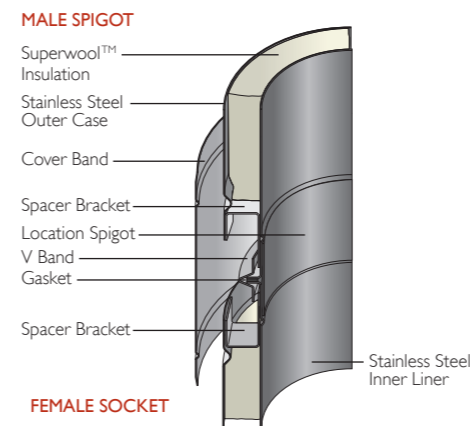
MALE SPIGOT

- Sleeve joint with integral pressure gasket and locking band for:
 - Quick and sure assembly
 - Lateral strength
 - Assured insulation continuity
 - Easy condensate draindown
- Pressure seal on outer case protected by insulation for longest life
- Locking band gasket provides additional security
- Inner liner free to expand, no need for expansion joints

Fuel: Diesel, gas, oil, process wastes
Firing temp: 600°C
Thermal shock: 1000°C
Mode of operation: High Positive Pressure (HI)
Pressure capabilities: 5000Pa
Diameter range: 80-600mm
Approvals: BS EN 1856-1
• ICS 5000 is designated as: T600 HI DV3 L50050 OXXX
• 4 Hour fire rating to BS 476 Part 20
• FPC approved to BS EN ISO 9001

HP5000

Highly engineered flanged multi-purpose ducting system designed to handle high positive pressure on both high and low temperature and fire rated installations.



FEMALE SOCKET

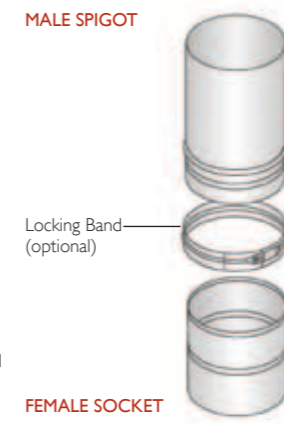
- Flanged joint with V band for optimum pressure resistance
- Pre-installed gasket gives high temperature performance
- Integral spigot giving ease of installation
- 0.6 and 1mm material options available to suit performance requirement
- Corrosion resistant design and construction
- Single wall version available in 0.6 and 1mm thickness

Fuel: Diesel, gas, oil, process wastes
Firing temp: 600°C
Thermal shock: 1000°C
Mode of operation: High Positive Pressure (HI)
Pressure capabilities: 5000Pa
Diameter range: 130-700mm
Approvals: BS EN 1856-1/2
• HP5000 Twin Wall is designated as: T600 HI WV2 L50060 GXXX
• HP5000 Single Wall is designated as: T600 HI WV2 L50060 GXXX
• 4 Hour fire rating to BS 476 Part 20 (Insulated product)
• FPC approved to BS EN ISO 9001 (All product)

Prima Plus

Non-condensing

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



FEMALE SOCKET

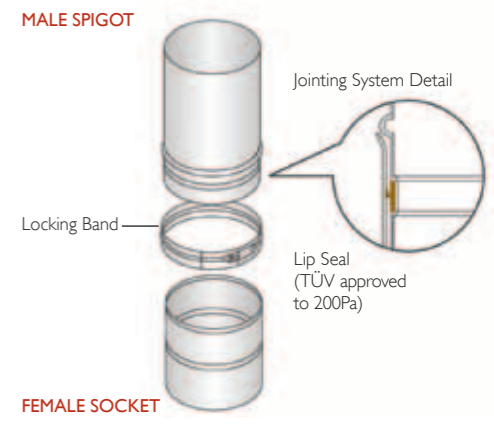
- Sleeve joint with optional locking band for:
 - Lateral strength
 - Easy condensate draindown
- Capillary break prevents moisture egress
- Corrosion resistant design and construction
- Adjustable elbows and headers enable quick and precise alignment of flue runs
- 0.6 and 1mm thickness options to suit application

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 NI WV2 L50060 GXXX M
• Chimney Liner is designated as: T600 NI WV2 L50060 G
• FPC approved to BS EN ISO 9001

Prima Plus

Condensing

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



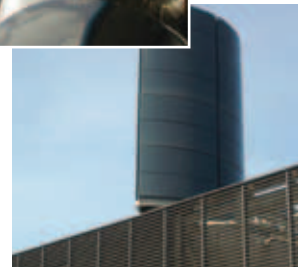
FEMALE SOCKET

- Sleeve joint with lip seal and locking band for:
 - Lateral strength
 - Easy condensate draindown
- 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

Fuel: Gas, oil
Firing temp: 200°C
Thermal shock: 1000°C
Mode of operation: Positive Pressure (PI)
Pressure capabilities: 200Pa
Diameter range: 80-750mm
Approvals: BS EN 1856-2
• Connecting Flue Pipe is designated as: T200 PI WV2 L50060 OXXX M
• Chimney Liner is designated as: T200 PI WV2 L50060 O
• FPC approved to BS EN ISO 9001

More Schiedel Projects

- Royal Bank of Scotland HQ
- BBC Headquarters, White City
- Taikoo Project, Hong Kong
- Palais des Expos, Brussels
- Durham University
- St Andrews University
- Strathclyde University
- Napier University, Edinburgh
- Glasgow PFI Schools
- North Lanarkshire Schools
- Olympic Stadia Athens
- Stadio Olimpico, Rome
- Tyneside Swimming Pool
- Dunston Leisure Centre
- UCL Hospitals, London
- St Vincent's Hospital, Dublin
- SW Acute Hospital, Enniskillen
- Queens Park Hospital, Blackburn
- King Abdullah Hospital, Irbid
- Farah Hospital, Amman
- British Library
- Scottish Parliament
- HM Prisons, Durham, Portsmouth & Perth
- Rolls Building, London
- National Museum, Amman
- Al-Nadwa Royal Palace, Amman
- Marks & Spencer, London, Bristol & Newcastle
- Asda Superstores
- TIM Telecommunications, Italy
- Sanofi Chemicals, Fawdon
- 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



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