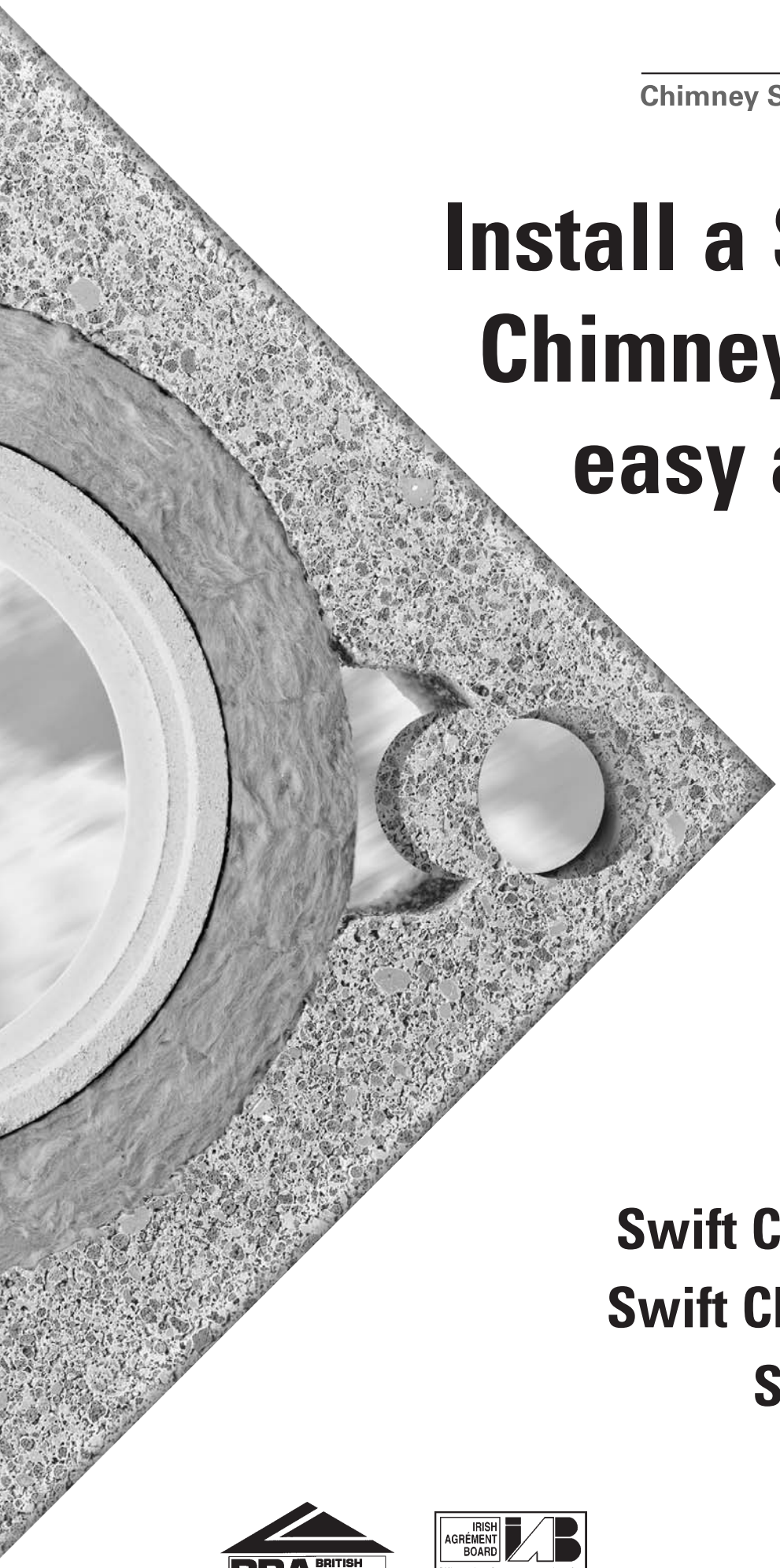
SCHIEDEL

Chimney Systems



# Install a Schiedel Chimney - it's as easy as ABC...

**Swift Internal**

**Swift External**

**Swift Cooker**

**Swift Stove**

**Swift Central Heating**

**Swift Chimney Stacks**

**Swift Bend Kits**

BBA BRITISH BOARD OF AGRÉMENT
CERTIFICATE No 03/4019

IRISH AGRÉMENT BOARD
BUILDING PRODUCT CERTIFICATION
CERTIFICATE No. 01/0121

March 2007

## Insertion of Insulation and Flue

This section is common to all systems

**1** Bend and place the insulation into the chimney block. Care should be taken to insure the slots in the mineral wool are compressed inwards.

**2** Clean the end of the flue pipe with a sponge. Apply the ceramic high temperature sealant to the bottom rebate.

**3** Place the flue pipe into the chimney block. Make sure the socket rebate is uppermost.

**4** Excess ceramic sealant should be removed with a sponge.

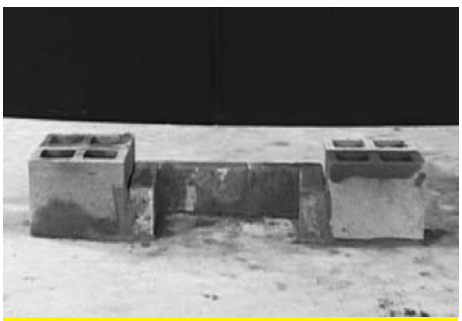
## Application of Mortar Shield

**5** Use the mortar shield provided when applying mortar to the chimney block. The mortar shield will give a constant mortar bed and prevent mortar falling into the flue liner.

## Structural Ties

**6** The chimney blocks and hollow blocks should be tied every meter to a structural wall.

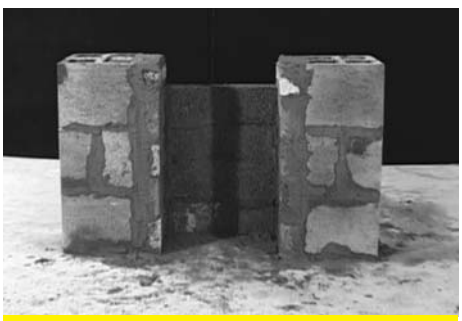
## Internal



**1** Construct the foundation in the traditional manner. Mark the fireplace location (1640mm) and lay a damp proof course on the base. For sub-floor, place 2 hollow blocks at each end. Place the special sized concrete block beside the hollow blocks and at the back on a bed of mortar. This forms the fire chamber.

**2** For finished floor build 2 courses of concrete blocks on the flat and continue to build as in 1.

**3** For timber frame construction keep 40mm away from the stud.



**4** Build up the sides and back of the fire chamber, 3 hollow blocks high for sub-floor and 2 hollow blocks and concrete block on flat for finished floor. Use the supplied soap bars to bring the concrete blocks level with at the hollow blocks.

**5** Position the one piece lintel on top of the pedestals.

**6** Fill out the side of the lintel with a special sized concrete block and a soap bar.

## Plain Swift Stack

Aerials + satellite dishes should not be connected to the chimney stack.

**1** Continue to use the plastic connectors in all 4 corners of the block when building the stack. Locate & secure each block on the plastic connectors.


**2** On the last chimney block, make sure the last flue liner does not extend above the mark on the expansion plate. After cutting the last flue liner, put the expansion plate on a bed of mortar on the chimney block.

**3** Place the coping on a bed of mortar on top of the expansion plate.

**4** Place the chimney pot on the coping ensuring the space between the pot and coping is sealed with mortar or other non-porous material.

**5** Also inside the chimney pot seal the space between the pot and expansion plate with mortar or other non-porous material.

**6** Finally apply an exterior waterproof render.

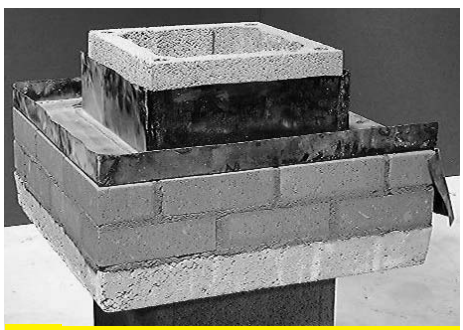
## Brick or Block Rendered Stack

Aerials + satellite dishes should not be connected to the chimney stack.

**1** Continue to use the plastic connectors in all 4 corners of the block when building the stack. Locate & secure each block on the plastic connectors.

**2** A corbel is required for brick or block cladding. This gives a stack of 675mm x 675mm or 3 bricks by 3 bricks.

**3** Continue to build the chimney block on the corbel. Keep the cavity between the block and outer skin clear of motar.



**4** A chimney tray is recommended for brick clad stacks. Fit the chimney tray over the chimney block and let it rest on the bricks as shown with the apron on the slope side.Wall weeps should be put into the brick joints to ventilate and remove any trapped moisture.

**5** On the last chimney block, make sure the last flue liner does not extend above the mark on the expansion plate. After cutting the last flue liner, put the expansion plate on a bed of mortar on the chimney block.

**6** It is important that the chimney block and the outer skin are level at the top of the stack.

**7** Cover the base of the flue aperture in the lintel with high temperature sealant.

**8** The first chimney block is now set on a bed of mortar on top of the lintel. The insulation and Ceramic liner are inserted in the standard way.

**9** The chimney breast is formed either side of the chimney block by using the hollow blocks.

**10** The chimney blocks and hollow blocks should be tied every meter to a structural wall with the supplied masonry/steel frame tie.

**11** Standard timber frame ties should be used in timber frame construction.

**12** Put the supplied expanded metal between the blocks to prevent cracking.

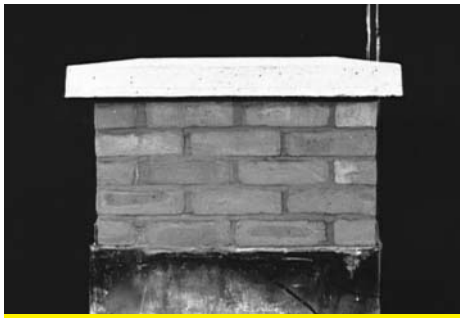
**13** Continue to build the chimney breast with chimney blocks and hollow blocks, inserting the flue liners and insulation until the top of the chimney breast is reached.

**14** Place 6 concrete blocks over the blocks at the top of the chimney breast.

**15** Where the chimney passes through floor or ceiling joists, these need to be trimmed out leaving a gap of 40mm for timber and 30mm for concrete. This gap is then filled with non-combustible material..

**16** Continue to build the chimney as a single block to the stack. Special plastic connectors are inserted in all 4 corners of the chimney block to provide stability against wind loading. These should be used from a point 1 meter below the last point of lateral support.

Further details of all Schiedel Chimney Systems are available on the web site www.schiedel.co.uk and www.schiedel.ie



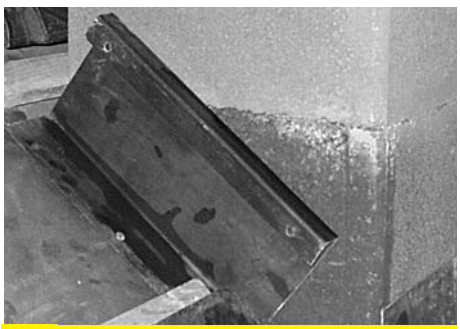
**7** Place the coping on a bed of mortar on top of the expansion plate.

**8** Place the chimney pot on the coping ensuring the space between the pot and coping is sealed with mortar or other non-porous material.

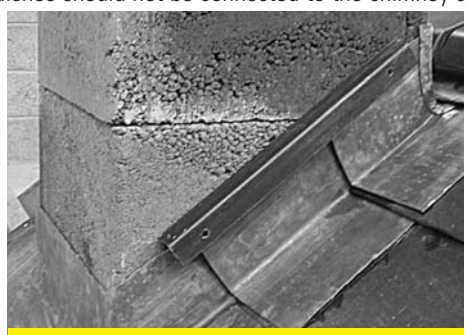
**9** Also inside the chimney pot seal the space between the pot and expansion plate with mortar or other non-porous material.

## Pre-fabricated Stack

Aerials + satellite dishes should not be connected to the chimney stack.



**1** Once the roof has been covered with the waterproof membrane start by securing the anchoring plates to the roof joists, position an anchoring plate on each side of the stack.

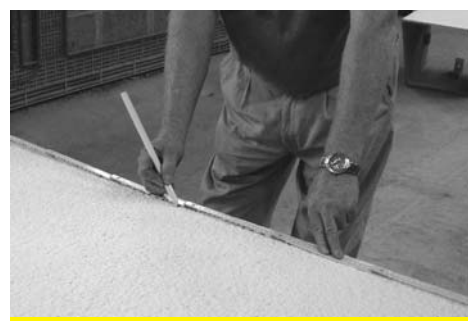


**2** Flash around the chimney and the anchoring plates in the normal fashion.

**3** Carefully measure the height of the leading edge of the chimney stack.

**4** Then measure the height of the upper edge.

**5** Mark out the bigger height on one edge of the prefabricated stack, measuring from the top of the prefabricated stack.



**6** And mark out the smaller height on the opposite edge.

**7** Now draw the angle of the roof slope across the prefabricated stack.

**8** Cut the prefabricated stack to the required height. The stack shown here is for a roof slope. A similar procedure should be followed for a stack at the ridge.

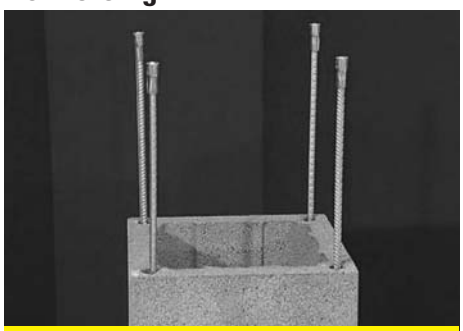
**9** Lower the prefabricated stack over the chimney blocks using the sky hooks on the coping. Once in position the sky hooks can be removed.

**10** Secure the prefabricated stack to the anchoring plate at the lower and upper ends of the stack.


**11** Repeat on the other side.
Use 60mm tech fasteners.

**12** Insert the chimney pot into the hole on top of the stack. Fill the gap around the pot and on the inside with mortar or other non-porous material.

## Reinforcing

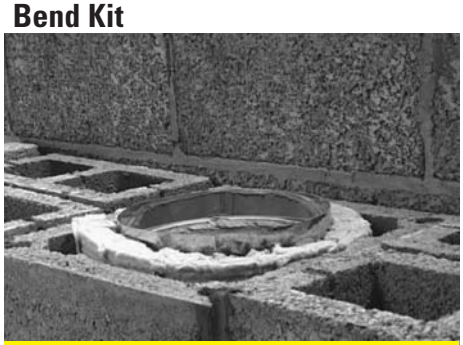


**1** Reinforcement bars should be used instead of the plastic connectors for chimney stacks over 1.2m high. The bars must start 1m below the last point of lateral support.

**2** Start by inserting the plastic stoppers into the holes on the block before the first one with bars.

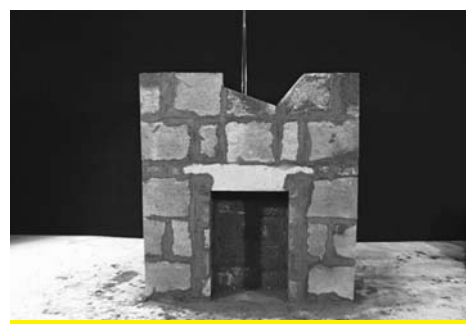
**3** Screw the bars together and inset equal lengths into the 4 holes. The liquid grouting mortar should be poured into the reinforcing channels. Keep the reinforcing bars centred.

## Bend Kit



**1** Build the chimney to the point where the bend is required. The steel locking band should be placed around the liner in the chimney block before the bend.

**2** Place the first chimney bend block on top of the standard chimney block.



**3** Place the two cut hollow blocks next to the chimney block for support.

**4** Add the second chimney bend block with the angled edge face down.

**5** Insert the first insulated flue bend.

**6** Wrap the locking band round the top of the bend.

**7** Place the straight edge of the third chimney bend block on top.

**8** Insert the insulated ceramic return bend into the bend block.

**9** Position the final bend block angle edge down to return the kit to the horizontal.

**10** To complete the kit place the 2 triangular cut blocks and the last half hollow block. This gives a horizontal offset of 200mm.

**11** A second Bend Kit is available for all other applications including the external chimney. The offset is achieved in a similar manner. The bend should be supported in the traditional way.

An installation video is also available. For further details contact our technical department or visit the web sites www.schiedel.co.uk and www.schiedel.ie

## External

**1** The fire chamber should be built in the traditional manner. The inner and outer blocks or bricks are built on a suitable foundation. The outer brick or block work should be at least 6.5 brick by 2 brick wide (1460x450mm).

**2** The fire opening should be 600mm(24") wide by 550mm(22") to the back of the cavity. The blockwork piers should be built on their flat side to a height of 750mm from finish floor.

**3** Place the lintel marked BACK (smaller) in position, on a bed of mortar. Apply the high temperature sealant on the inner side of the lintel.

**4** Place the lintel marked FRONT (larger) beside the back lintel, on a bed of mortar.

**5** Seal between the lintels with mortar.

**6** Place on the first chimney block so that it is flush with the inside of the cavity. The insulation and ceramic liners should be added in the standard way. Place standard concrete blocks either side of the chimney block. Cavity wall ties should be used to tie the chimney to the outside skin.

**7** Standard concrete blocks are now placed on top of the lintels forming the inside wall. Continue to build the chimney up to roof level in a similar way.

**8** The internal dimensions of the chimney remain the same but the external dimensions are increased to suit the external wall. The cavity around the chimney block should be maintained. A chimney tray is recommended for brick built chimneys.

**9** For timber frame houses a concrete lintel is required to carry the inside course of brick or block work in the roof space.

## Back to Back Timber Frame

**1** Bring the 2 separate chimneys up to roof level.

**2** Mortar the chimney blocks and add the cut corbels.

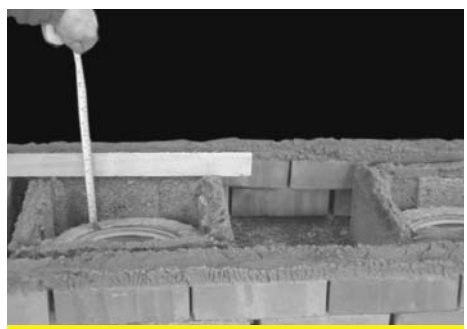
**3** Build standard concrete blocks around the chimney blocks.

**4** Build in the next chimney block with the liner and insulation.

**5** Add the chimney tray for brick stacks Place the first angle iron across the cavity at the front of the stack.

**6** Start to build the outer skin of the stack. It is important that the chimney blocks and the outer skin of the stack are level at the top of the stack.

**7** Place the second angle iron at the back of the stack, and in the case of bricks add the back strip of lead tray. Continue to build the chimney blocks and outer skin to the required height, ensuring that both are level before adding the expansion plate.

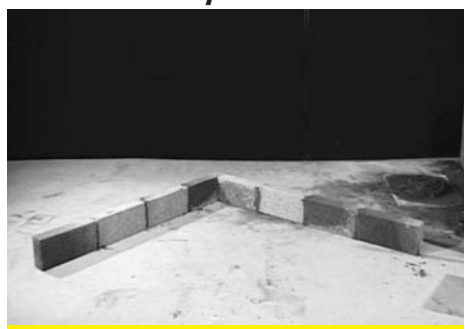


**8** Cut the last flue liner so that it does not extend above the mark on the expansion plate. The distance from the expansion plate to the liner is 75mm. Before fitting the expansion plate, lay a bed of mortar on the chimney blocks & the outer wall of the stack.

**9** Position the extendible expansion plate across the 2 chimneys and the cavity. The expansion plate comes in 3 sections. The middle section has 2 strips of waterproof sealant which when pressed on top of the other 2 sections form a watertight joint.

## Corner Chimney

**10** Finish the chimney in the standard way adding the picture frame coping and the chimney pots.



**1** Measure 600mm along each of the walls from the corner of the room and mark out a line across the floor.

**2** Build the concrete blocks to the appropriate height along this line to give a fire opening of 600x550mm. Place the 2 piece lintel on to the pedestals. Place the lintel half marked back at the back.

**3** Use the high temperature sealant to join the 2 halves and seal the top with mortar.

**4** Place the first chimney block at an angle to the line of the fire opening and parallel to the wall on a bed of mortar.

**5** Build a standard bend kit on top of this being sure to support the bend with block work. The chimney is now parallel to the wall. The chimney breast can be built up using brick or stud.

**6** The chimney blocks should be tied every meter to a structural wall with the supplied masonry/steel frame tie.

**7** Standard timber frame ties should be used in timber frame construction.

**8** The chimney should then be built as a single block in the standard way using the plastic connectors.

## Cooker

**1** Build up block work to the appropriate height for the cooker. Place the base stone on a bed of mortar and seal round the rebate with high temperature sealant.

**2** Position the first chimney block around the base stone on a bed of mortar.

**3** Place the first special cut block on top.

**4** Insert the insulation.

**5** Insert the cooker adapter pipe. Here the 45 degree adaptor is shown but the 90 degree adaptor is also available. The adaptor pipe should be at the same level as the output pipe from the cooker.

**6** Cut and fit insulation around the sides of the adaptor pipe.

**7** Adjust the adaptor pipe to suit the VE pipe from the cooker.

**8** Build the chimney system in the normal way.

Further details of all Schiedel Chimney Systems are available on the web site www.schiedel.co.uk and www.schiedel.ie

## Stove

**1** Form a chamber in blocks or bricks to suit the stove.

**2** Place the concrete heads on a bed of mortar.

**3** Place the support block on a bed of mortar on the heads.

**4** Secure the metal adaptor to the under side of the support block.

**5** Place the chimney block on a support block on a bed of mortar.

**6** The chimney is then built in the standard manner as a single block.

## Central Heating

**1** Mark out and build a suitable base to the same level as finished floor. Apply a bed of mortar to this base. Place and level the base stone on a bed of mortar.

**2** Place the first precut chimney block on the mortar. Bend the insulation and insert it into the block, keeping the slots of the mineral wool to the inside and cut off flush with the top of the block.

**3** Place the next cut chimney block on a bed of mortar. Bend the insulation around the inside of the chimney block. Once fitted, cut the insulation along the ventilation channel.

**4** Position of ventilation channel.

**5** Put high temperature sealant around the bottom rebate of the inspection pipe and place it into the chimney block (socket uppermost).

**6** Place a standard chimney block on a bed of mortar. Bend and insert insulation. Next place the final cut block on a bed of mortar.

**7** Bend and place the insulation around the inside of the cut block and cut along the ventilation channel. Apply high temperature sealant to the socket end of junction pipe and place into block.

**8** Add a standard block on bed of mortar. Fit insert insulation around inspection pipe.

**9** Fit the ventilation grill, inspection door and ceramic insert. Continue to build chimney up to corbel using standard chimney blocks, insulation and ceramic liners.

**10** After the chimney blocks have been plastered it is recommended to score the outside plaster of the junction pipe. Score an area approx 5 mm wide and 5 mm deep to ensure plaster does not crack.

**11** Where the chimney passes through floor or ceiling joists, these need to be trimmed out leaving a gap of 40mm.

**12** The space between the clay junction pipe and the metal appliance pipe should be sealed with a ceramic rope or other non-combustible material.

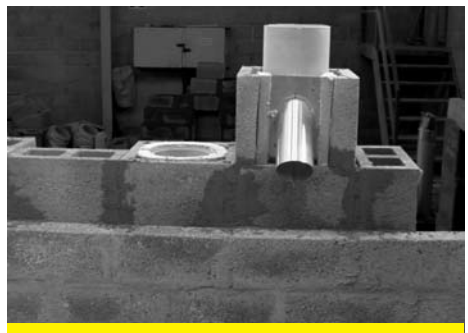
## Internal Combination

**1** Build the open fire against the party wall up to lintel level.

**2** Place the base stone on a bed of mortar at the required position on the lintel.

**3** Place the first chimney block on the lintel over the base stone and insert the insulation.

**4** Place the cut block on top of the first cooker chimney block. The cut side should be facing into the room with the cooker.



**5** Insert the cooker adaptor pipe into the cut block. This can be 45 or 90 degree depending on the appliance. The height of the adaptor pipe should be set to the required height for the cooker.

**6** Continue to build the open fire & the cooker flue. An inspector door can be added if desired.

**7** The two flues are built up side by side to form one chimney stack at roof level. The chimney blocks should be tied each meter and plastic connectors used in the normal way.

The Schiedel web sites: www.schiedel.co.uk and www.schiedel.ie contain comprehensive information on the chimney systems.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