

SIG Cavity Wall Insulation Party Wall Installation Manual





# SIG CWI PARTY WALL

SIG CWI Party Wall insulation is a blown glass mineral wool insulation

• Designed with a specialist installation method for Party Cavity Walls

• Non-combustible

• Excellent sound absorbing properties

• Inert – will not react with metals or plastics

• Suitable for new-build or retrofit

#### What is a Party Wall?

• A 'party wall' or 'party separating wall' is the dividing wall between two attached buildings

• Many existing party walls have been built with a cavity to reduce sound transmission between the buildings

• This cavity can allow cold air from outside to circulate and steal heat from adjoining buildings

• This heat 'bypasses' the thermal envelope, is deposited outside and is wasted







# Technician Training, Assessment, Approval and Inspections

# THE FOLLOWING IS A GUIDE TO TRAINING REQUIREMENTS PRIOR TO APPROVAL OF THE INSTALLATION TECHNICIAN.

# **EXISTING APPROVED INSTALLING COMPANY**

- A training programme to be carried out by the installing company to include, company induction, health & safety, customer care and on-site training with qualified technician(s) covering all aspects of installation procedures
- Attend an approved training centre for training course on flues, chimneys and combustion air ventilators (NOTE: Not to be completed online)
- Attend a SIG Retrofit System Support classroom training session as required. Continuation of on-site training with qualified technician(s) overseen by SIG Retrofit System Support (Technical System Support Manager)
- Technician assessment and approval. An assessment will be carried out by SIG Retrofit System Support (Technical System Support Manager) at the end of the training period to ascertain if the trainee technician is competent to become an approved technician. When approved the technician will be supplied with an ID card confirming approval and notification sent to British Board of Agrément (BBA)
- Technician ID card should be kept on person at all times for on-site inspection

# NEW APPROVED INSTALLING COMPANY

- Technician training for a new approved installing company will be carried out under the guidance and supervision of SIG Retrofit System Support as the BBA System Certificate Holder
- Attend an approved training centre for training course on flues, chimneys and combustion air ventilators (NOTE: Not to be completed online)
- Installing company training should include, introduction into the company, general health & safety and customer care
- Attend a SIG Retrofit System
   Support classroom training session
   which covers all basic installation
   procedures when installing cavity
   wall insulation
- Technician assessment and approval.
   An assessment will be carried out by SIG Retrofit System Support (Technical System Support Manager) at the end of the training period to ascertain if the trainee technician is competent to become an approved technician. When approved the technician will be supplied with an ID card confirming approval and notification sent to British Board of Agrément (BBA)
- Technician ID card should be kept on person at all times for on-site inspection

#### **ON-SITE INSPECTIONS**

- Following approval each Technician will be inspected on-site a minimum of four times in each year evenly spread throughout the year
- A technician's card will be withdrawn where it is shown that the technician no longer has the capability, intention or competence to undertake the installation in a correct manner

**NOTE:** Prior to assessment the following would be required:

- a) Copy of valid ACoP's certificate for flues, chimneys and combustion air ventilators
- b) Documentation from installing company listing training development
- c) Recent passport sized photograph

# SIG Cavity Wall Insulation Party Wall Training Programme

Unce	all boxes are ticked, please contact your SIG Tec	chnical S	bystem Support Manager for assessment.
Comp	any:		
Appro	ved installer:		
Name	of technician:		
Startir	ng date:		
Persoi	n responsible for training:		
	External ACoPs accreditation validated		Fitting cavity barriers
	Induction course (office)		Sleeving and reinstatement of air bricks
	On-site training		Operation of blowing machine
	Health and safety		On-site quality control (test box etc.)
	Customer care		Filling operation
	Pre-installation checks		Making good
	Drilling patterns		Post-installation checks
	Drilling operation		Flues and combustion air
	end of the training programme, SIG Retrofit System Supp sure that he or she has acquired a good basic knowledge o		
Decla	ration		
This is	s to confirm that		has completed the above training
on the	2		System(s)
BBA n	o/s		
Techn	ical System Support Manager signature:		
Techn	ician's signature:		

Representation of SIG Retrofit System Support Training Programme available on request.

# Typical Equipment Check List

- ✓ Approved blowing machine (see page 17)
- ✓ 3 x 15m length hose @ 51mm diameter (ribbed)
- √ 51mm hose couplings and clips
- √ 1 x 22mm ball valve nozzle (for face fill/direct injection)
- √ 1 x long reach nozzle (for lateral fill)
- √ 1 x 500mm x 500mm x 100mm test box (either a steel or a wooden box)
- √ 0 2 kg spring balance scales
- ✓ Forward looking borescope
- ✓ Drilling machines (with dust extraction attachments if appropriate)
- ✓ 24mm drill bits
- ✓ Cavity barriers and chain (or similar)

#### **GENERAL EQUIPMENT**

- ✓ HSE approved extending ladders
- ✓ Additional approved access equipment as required
- ✓ Inspection lamps
- ✓ Pipe and wire detector
- ✓ Smoke matches
- ✓ Making good equipment: trowel, jointing bar/trowel, mortar hawk, mortar or sand & cement, range of colour pigments, rendering finishes, mixing bowl/bucket
- ✓ Yard brush, shovel, dustpan & brush, rubbish bags
- √ Vacuum cleaner
- ✓ Water hose and couplings
- ✓ Personal protective equipment and access safety kit
- ✓ Tool kit: spanners, screwdrivers, hacksaw, hammer, pliers
- ✓ Dust sheets and carpet protection
- ✓ Protective overshoes

### **Customer Care**

# THE FOLLOWING POINTS MAY SEEM OBVIOUS BUT IT IS IMPORTANT TO REMEMBER THAT THIS COULD BE THE CUSTOMER'S FIRST EXPERIENCE OF CWI.

#### **PRE-INSTALLATION**

- 1 Confirm that you are at the correct address and identify yourself to the customer, addressing them by name and presenting your credentials
- **2** Ensure vehicle is parked safely and not causing obstruction
- **3** Ensure both neighbours have agreed to the work to be carried out. If they have not, installation cannot take place
- **4** Identify and communicate any issues including defects to the customer and report on work card before commencing work

#### **DURING INSTALLATION**

- **1** Avoid criticism of competitor companies
- 2 Do not respond negatively to any complaints simply follow procedure by recording, referring to your company and assuring the customer that it will be dealt with in an efficient and timely manner
- **3** Do not argue with the customer under any circumstance
- **4** Ensure any damage caused however small is reported both to the customer and to your company

#### **POST-INSTALLATION**

- 1 Remove all rubbish and thoroughly clean up any mess once work is complete
- **2** Ask the customer to examine and inspect the work carried out and sign any appropriate compliance and satisfaction paperwork

### Pre Installation Checks

Before installation commences, the following must be carried out firstly by the surveyor, and also by the installation crew to ensure that the property is suitable:

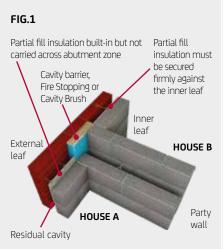
- Familiarise yourself with the form and design of the property.
- Check if the property is stepped or staggered to ensure you know the extent of the wall to be filled.
- It is necessary to drill inspection holes to carry out the checks within the cavity described in CIGA's Best Practice Guide. It will be necessary to use a good quality forward looking borescope or video endoscope on each elevation and around features likely to cause obstructions to filling.

#### **EXTERNAL WALL CAVITY CHECKS**

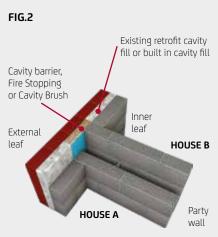
- Check the external wall cavity.
- Check that a cavity barrier, fire stopping or cavity brush is
  present at the junction of the party wall and external wall
  to prevent migration of the material from the party wall
  cavity to the external wall of either adjoining dwelling. Fig.1
- If the external wall contains partial fill insulation check that the partial fill insulation is firmly fixed back to the masonry and cannot be dislodged by filling the party wall cavity.
- If the property to be filled is a flat, check whether the cavity is permanently closed from the flats above and below. If not, then the flats above and below will also need to be filled otherwise filling cannot take place.

#### **PARTY WALL CAVITY CHECKS**

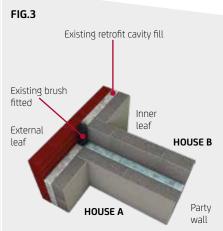
- Check that the cavity extends all the way to the underside of the roof. If not, cap off the cavity by friction fitting a slab or roll of glass mineral wool.
- Check that the block or brick work is complete especially in roof spaces and basements. If there are small holes these should be filled with pieces of mineral fibre.
- Where the party wall is between stepped properties, ensure the cavity tray is complete along the roof line. Check it is shedding water away from the party wall cavity and that there is no water staining visible.
- Carry out a minimum of 3 borescope inspections per elevation including one just above the floor level and one at the highest point possible below roof level to ensure the cavity is clean and free from debris.
- If debris or obstructions are found in the cavity it is preferable that pictures are captured using a video endoscope before and after removal as a record that the cavity is now suitable for filling.
- It is important that steps are taken to avoid drilling into cables when drilling the walls. Use a suitable detector to locate any services which may be buried in the wall lining.
- Cavity widths can vary considerably within one building. Therefore at least ten cavity width measurements should be made at various heights in the building before installation (cavity widths can tend to vary the greater distance from ground level).
- The cavity should not be filled if the measurement is less than 65mm.



The migration of SIG CWI Party Wall into any adjoining cavity must be prevented.



If there is a sleeved cavity barrier or fire stopping already present across the party wall cavity then this will suffice. Fig.2



If a cavity barrier or fire stopping is not present then a cavity brush should be installed prior to installation of SIG CWI Party Wall.

#### **PIPES, WIRES AND FLUES**

- Identify the location and routing of all pipes and wires embedded in the wall using a suitable detector before any drilling takes place.
- Identify the location and routing of all chimneys and flues in the wall before any drilling takes place.
- Carry out spillage test as described in CIGA's Flues, Chimneys and Combustion Ventilators manual.
- Ensure that the property has adequate ventilation for combustion appliances.

#### **OBSTRUCTIONS**

• Identify and log any obstructions to filling.

#### These might include;

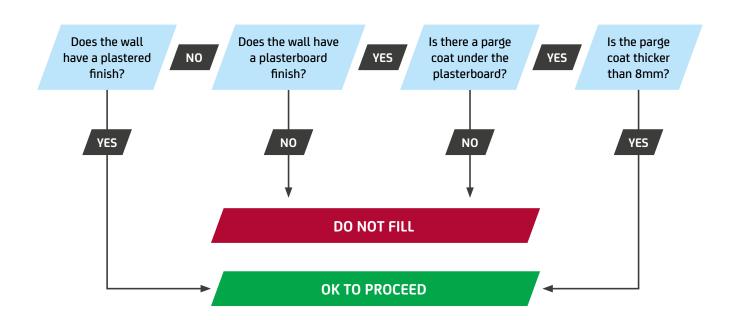
- Tiled walls
- Kitchen cupboards
- Stairs
- Counters and worktops
- Meter cupboards
- Large furniture or built in furniture
- In most cases the obstruction should be moved to allow the standard drilling pattern.

#### WALL CONDITION AND LINING

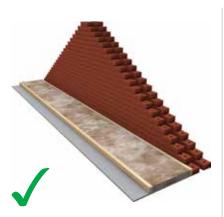
- Check for damp, cracks and mould in the party wall as you would for an external wall. Any damp problems must be rectified before filling takes place.
- The wall lining has an impact on the acoustic performance of the wall.
- Wet plaster and parge coat seal holes in the masonry and result in a more sound-proof wall.
- Walls that are only dry lined with plasterboard can hide imperfections in the wall.
- Walls without parge or plaster should not be filled.

The parge coat may be visible from;

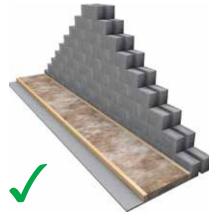
- Within the attic at the junction with the ceiling
- The intermediate floor junction with the party wall
- From a trial drill hole through the plasterboard
- If the wall has a plasterboard finish and it is not possible to check for a parge coat then the wall should not be filled.
- If the wall has a plasterboard finish and you cannot say for certain that the wall has a parge coat of 8mm nominal thickness (and no less than 6mm thick at any one point) then the wall should not be filled.
- Positive identification of a sufficiently thick parge coat must be recorded on the job sheet.



# Loft Survey



**CAVITY WALL IN BRICKWORK** May be suitable for insulation

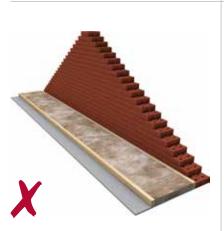


**CAVITY WALL IN BLOCKWORK** May be suitable for insulation

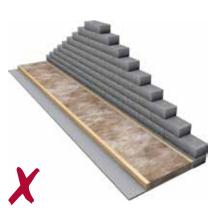


**CAPPED CAVITY WALL IN BRICKWORK** 

Not suitable for insulation



**SOLID WALL IN BRICKWORK** Not suitable for insulation



**SOLID WALL IN BLOCKWORK** (LAID FLAT)

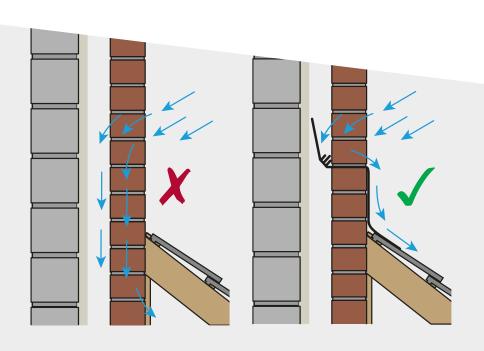
Not suitable for insulation



**SOLID WALL IN BLOCKWORK** (WITH TRANSITION)

Not suitable for insulation

- Check the cavity tray from the loft to ensure any cavity tray is complete and no water staining is visible.
- For a stepped or staggered gable abutment to be protected against rain the damp protection system must follow the pitch of the roof.
- This protection must then link with an appropriate flashing to weatherproof the physical join between masonry and roof.



# Drilling Operation - for installation from inside the property

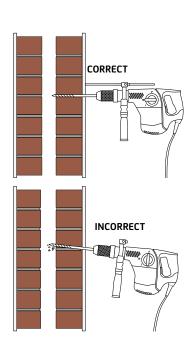
- Before drilling DO ensure that you have protected carpets, furniture and customer belongings from dust generated during the drilling process.
- **DO** use a drill depth stop both during survey and installation.
- **DO** take every care to minimise the amount of debris that falls into the cavity.
- **DO** drill extra holes around building features to ensure completeness of fill.
- DO NOT hold the drill at an angle whilst drilling.
- **DO NOT** start filling until all holes are drilled in that elevation.
- DO NOT drill holes within 300mm of pipes or wires.
- DO NOT drill holes within a metre of a chimney breast or flue.
- **DO** use a vaccuum cleaner to clear any dust which is generated during the drilling process.

#### PIPES, WIRES AND FLUES

- There are expected to be the following services buried in the walls;
  - Water Pipes.
  - Gas Pipes.
  - · Electrical Wiring.
  - Flues and Chimneys.
- The area to be drilled must be scanned with a cable/pipe locator before drilling.
- Care must be taken to identify flues and chimney runs before drilling.

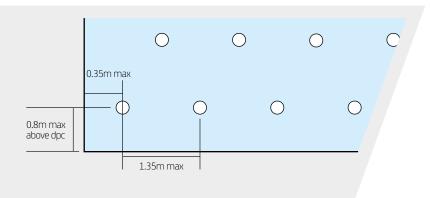
#### CALCULATE THE CAVITY WIDTH USING THE FOLLOWING FORMULA:

- Cavity width = depth of hole thickness of the inner leaf.
- This depth of hole will vary according to the thickness of masonry and the thickness of plaster or dry lining.
- Check the thickness of the masonry in the loft.
- Using a suitably narrow masonry drill bit, drill a test hole to gauge the depth of the wall.
- The thickness of plaster or dry lining should be obvious within the drill hole.
- Measure the depth of the wall leaf from the plaster face to the cavity face.
- The cavity should not be filled if the measurement is less than 65mm
- Spalling masonry can cause a reduction in acoustic performance of the wall so the drill and drilling method are extremely important.
- A drill with a depth gauge and, that allows the hammer action to be de-activated, is essential equipment (e.g. an SDS type drill).
- The drilling operation is designed to stop spalling masonry falling into the cavity.
- The thickness of the wall leaf should be determined set the hammer drill depth gauge to that thickness less 25mm.
- Stop drilling when the depth is reached and switch off the hammer action.
- Complete the hole with the hammer action switched off.
- Repeat for the remainder of the drill pattern.
- Complete all drilling before starting to install SIG CWI Party Wall.



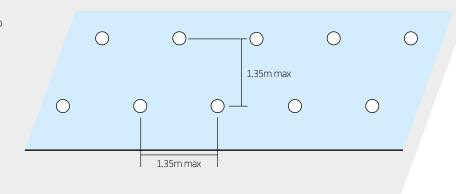
#### INTERNAL DRILLING PATTERN

The first row of drill holes should be no more than 0.8m above the floor level and no more than 1.35m from one hole to the next.

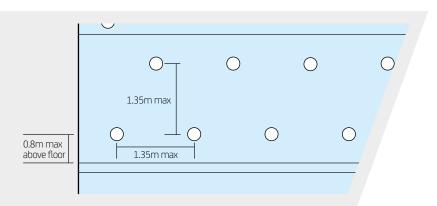


The second row of drill holes should be no more than 1.35m above the first row.

Wherever possible, a diamond pattern should be used so that a drill hole in the second row is midway between two holes in the row below.

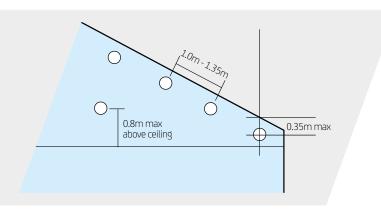


The drill pattern should be repeated at first floor and in each successive storey if applicable.

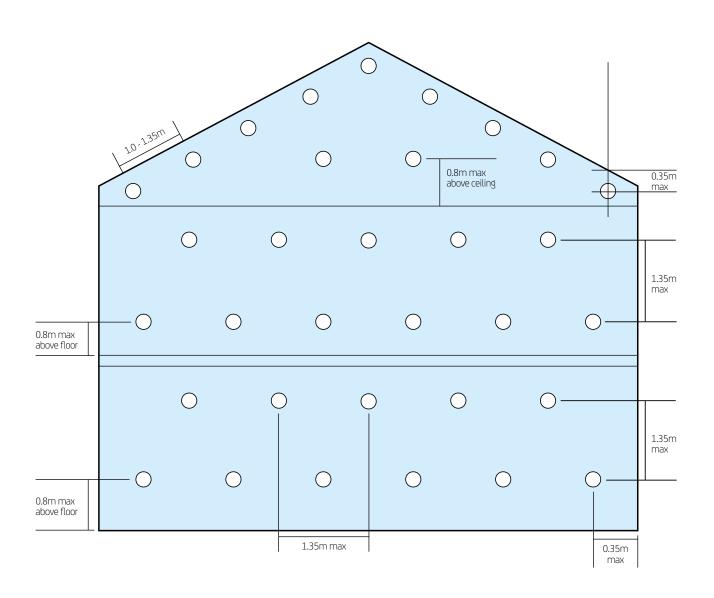


At the tops of walls the topmost injection holes should not be more than 350mm below the roofline.

The rows of holes should be between 1.0 and 1.35m apart depending on the pitch of the roof; the lower the pitch, the closer the holes.



#### TYPICAL SIG CWI PARTY WALL DRILLING PATTERN - INTERNAL INSTALLATION



#### DRILLING OPERATION - FOR INSTALLATION FROM OUTSIDE THE PROPERTY

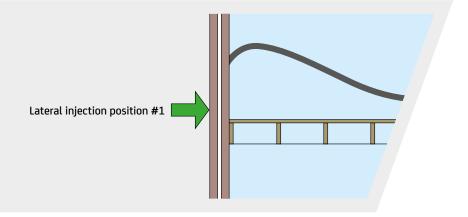
Standard drilling equipment can be used

- This method has been proven to project the material up to 5m from each injection point along the length of the party wall cavity.
- A long reach 300mm blowing nozzle must be used to ensure access to the party wall cavity.
- This can be pushed past existing cavity barriers and brushes.



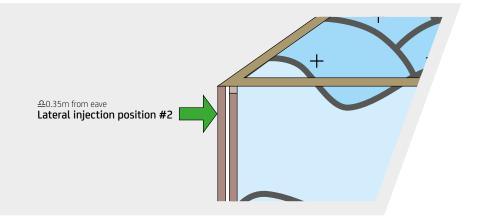
The first drill hole should be

- Centred on the party wall line.
- No more than 2.5m above the damp course.

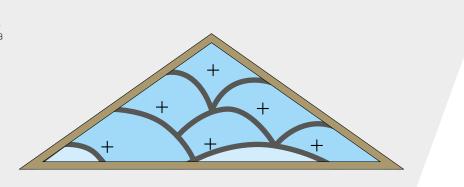


The highest drill hole should be

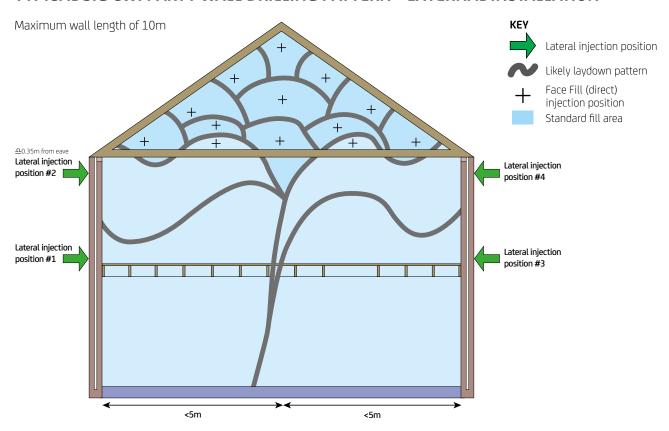
• No more than 0.35m below the eaves.



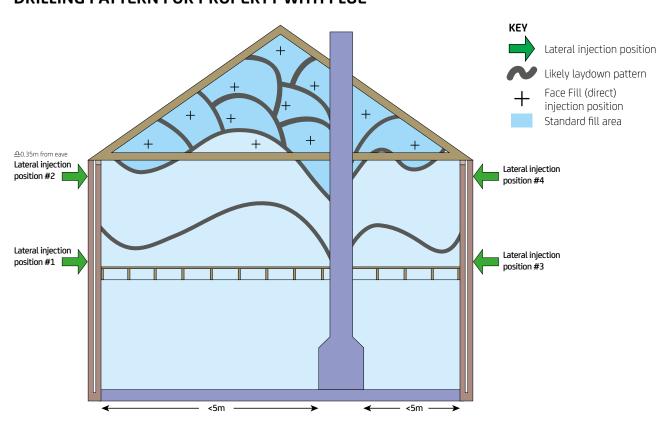
Access is required to the property to fill the party wall up to the roofline using a standard drill pattern



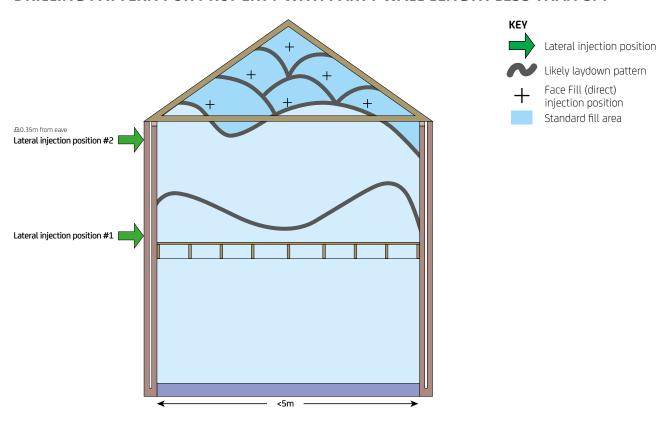
#### TYPICAL SIG CWI PARTY WALL DRILLING PATTERN - EXTERNAL INSTALLATION



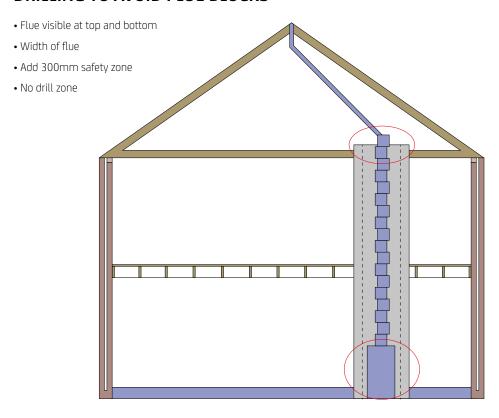
#### DRILLING PATTERN FOR PROPERTY WITH FLUE



#### DRILLING PATTERN FOR PROPERTY WITH PARTY WALL LENGTH LESS THAN 5M



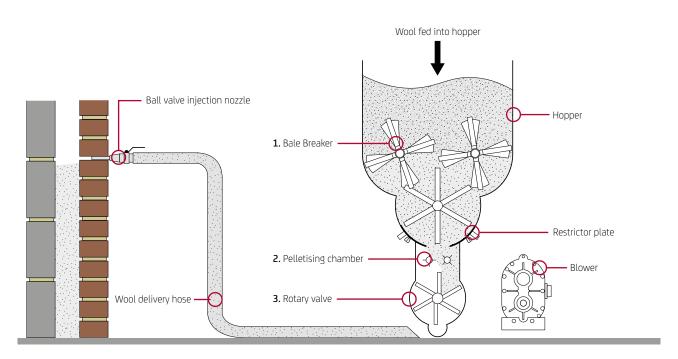
#### **DRILLING TO AVOID FLUE BLOCKS**



# Injection Machinery

SIG CWI Party Wall insulation must be installed using an approved blowing machine. The following blowing machines are approved by the British Board of Agrément (BBA):

• Stewart Energy Diesel • Stewart Energy Electric • Timco • Krendl KR 2300 (750 & 1000) (500)



Each blowing machine is identified as being approved by a plate/label showing the BBA Certificate No. 19/5625 (SIG CWI Party Wall).

As far as the handling and treatment of SIG CWI Party Wall is concerned, the blowing machines are virtually identical.

#### The job of each piece of equipment is detailed below:

- The BALE BREAKER opens up the compressed bale of blowing wool.
- In the PELLETISING section, the bale is agitated.
- The adjustable RESTRICTOR PLATE at the base of the pelletising chamber controls the wool residence time in the chamber, which in turn controls the pellet characteristics to achieve the required installed density.
- As the processed insulation passes through the ROTARY VALVE it enters the airstream generated by the BLOWER and passes into the blowing hose and through the nozzle for delivery in to the cavity being insulated.
- A pressure switch is connected to the machine control circuits, when actuated it causes the drive clutches to disengage thus stopping the blower and wool feed once the cavity wall area is filled to the required density.
- An air adjustment control is fitted to all blowing machines and is used for control of the installed density.

### Quality Checks

The Blowing Wool to be used has been subjected to strict quality control procedures during manufacture and it is necessary to check that it has been kept clean and dry.

#### **PRESSURE SWITCH**

A daily calibration check should be carried out to ensure that the blowing machine pressure switch is operating correctly.

Start the engine and insert the nozzle into a breathable bag. Start blowing wool into the bag whilst watching the blowing pressure gauge. Block off the nozzle gently inside the bag. Blowing should cease when the correct pressure is achieved

If necessary adjust the switch. To adjust, using a small screwdriver turn the screw in to increase the pressure and out to lower the pressure.

#### NOTE

The air dump valve fitted to the blowing machines should be used for fine control of the density.

To increase density - reduce air being dumped.

To reduce density - increase air being dumped.

# Recommended blowing machine operating pressure:

- Air only: 120-160 mbar
- Air & wool: 180-220 mbar

#### **WOOL DENSITY CHECK**

- ✓ Start up machine and blow into a breathable bag.
- Ensure machine is operating correctly.
- ✓ Fill test box with wool and note time taken (between 20 - 50 seconds). Target test box weight will be determined by fill method.

#### Please refer to the table below for correct values:

	Lateral Fill	Face Fill
Test box time (secs)	20-50	20-50
Target box weight (kg)	1.15	0.9
Target box weight range (kg)	1.05-1.25	0.8-1.0

- ✓ Check visually that the box has been completely filled.
- Empty the contents into a plastic bag and weigh.
- If the weight is below the minimum density shown in the table above, close the restrictor plate one quarter turn.
- ✓ If the weight is greater than the maximum density shown in the table above, open the restrictor plate one quarter turn.
- ✓ Then blow into a bag to empty the pipe and re-fill the text box.
- ✓ Re-check and repeat if necessary.



# The Filling Operation

Filling should proceed from the bottom to the top of walls and from the most to the least restricted sections. Filling from the bottom ensures a uniform fill.

The blowing machine is simple to operate, 1 - 2 bales of wool can be emptied into the hopper at once. It is not recommended to allow the hopper to get less than half full. The feed rate is automatically controlled by the worm screw and the only necessary adjustment will be to the restrictor plate, dump valve or engine revs in order to obtain the correct density fill.

If the machine cuts off prematurely or if it is felt that the hole has not filled correctly, remedial action must be taken to ensure adequacy of fill.

Remedial action could include at least the following as deemed necessary;

- Additional borescope inspection
- Emptying the nozzle and hose of insulation and attempting to re-inject
- Removal of any obstruction found
- Drilling additional injection hole

In an area where filling problems have occurred these must be recorded on the job sheet and additional post installation checks with a borescope undertaken.

Insulant should be introduced into each injection hole in turn. Starting at the lowest recommended drill hole position and working vertically up the wall.

The 22mm diameter tip of the long reach nozzle is located in the pre-drilled hole. Nozzle rotation is not required.

Once the blowing unit has started, the insulant will continue to flow at a steady rate until a signal from the pressure switch de-energises the clutches indicating that the part of the cavity adjacent to the injection hole is now filled to within the required nominal density of 18kg/m<sup>3</sup>.

When filling the hole is complete, shut off the ball valve. Once the nozzle has been moved to the next injection hole, re-open the ball valve so that injection of insulant can continue by activating the start switch.



### Post Installation Checks

Post-Installation Checks must be carried out to ensure that the installation has been completed, and that no damage has occurred to the property.

#### **INSTALLED DENSITY CHECKS**

To check that the correct fill has been obtained, the number of bales used on site and average cavity width should be recorded on the work card and an average installed density calculated.

#### **MAKING GOOD**

The importance of making good after the installation, cannot be over-emphasised. Leaving the property in the same condition that you found it in, is the best possible recommendation and source of new leads.

#### **MAKING GOOD HOLES**

A mortar mix should be made up before the installation begins. That way the preceding holes can be made good while the next hole is filling. It also allows adjustments to be made to the colour match when required.

Where making good a plastered wall, discuss and document with the client whether they prefer the making good brought to the surface or left below the surface.

By leaving the mortar below the surface, subsequent decorative filling can be better achieved with fine fillers by the client, after the mortar has dried.

#### **FOR EXAMPLE:**

The wall area was 40m<sup>2</sup>
The party wall cavity width was 70mm (which is 0.07m)
The number of bags of SIG CWI Party Wall insulation used was 3
The weight of each bag of SIG CWI Party Wall is 17.6kg

#### So to calculate density ...

Number of bags x weight of each bag = Weight of material used 3bags x 17.6kg = 52.8kg

Wall area x cavity width = wall volume  $40m^2 \times 0.07m = 2.8m^3$ 

Weight of material used  $\div$  wall volume = installed density  $52.8kg \div 2.8m^3 = 18.8kg/m^3$ 

#### NOTE:

For an average density of 18kg/m3 the following coverage can be obtained.

Cavity Width - mm	65	75	85	95	100
Coverage - m²/bale	15.00	13.00	10.90	10.30	9.80

All heating appliances/ventilators must be checked for safe operation and results documented and make sure that the customer is satisfied before leaving site.

# Technician's Safety Check Sheet

Installing firm's name, address and contact details (or letterhead)

# TECHNICIAN'S SAFETY CHECK SHEET - FLUES, CHIMNEYS AND COMBUSTION AIR VENTILATORS

This check sheet specifies the minimum checks, and actions that <u>must</u> be carried out during the installation of CWI to buildings containing fuel-burning appliances.

Fuel type(s)	<b>SURVEY -</b> Identify and record			
Flue/chimney location(s)   Internal wall - External wall, front, side, rear	*	Gas	· - 0	il - Coal - Wood
Front elevation - Side elevation - Rear elevation  Front elevation - Side elevation - Rear elevation  Comments  Appliance identified, flue/chimney routes, internal & external Appliance un Appliance un Appliance en Appliance encked femoke test/spillage test) Appliance checked femoke test/spillage test) Appliance check description are supply adequate Appliance roun at maximum for a minimum of five minutes Ap	Appliance type(s)	Boil	ler -	Gas Fire - Open Fire - Balance Flue
PRE-INSTALLATION  *Appliance identified, flue/chimney routes, internal & external  *Appliance run  *Appliance run  *Appliance run  *Appliance dentified, flue/chimney routes, internal & external  *Appliance run  *Appliance dender colour  *Appliance dender  *Applianc	<sup>1</sup> Flue/chimney location(s)	Inte	rnal w	vall - External wall, front, side, rear
*Appliance identified, flue/chimney routes, internal & external  *Appliance run  *Appliance run  *Combustion gases checked externally  *Appliance checked (smoke test/spillage test)  *Appliance run at maximum for a minimum of five minutes  *Appliance run a	<sup>1</sup> Location of combustion air ventilator(s)	Fror	nt elev	vation - Side elevation - Rear elevation
**Pappliance run  **View and note flame colour  **Combustion gases checked externally  **Appliance checked (smoke test/spillage test)  **Smoke/spillage test satisfactory  **Combustion air supply adequate  **Installation - Visually check  **Installation - Visually check  **Installation - Visually check  **Installation  **Ombustion air ventilator(s) unobstructed  **V N  **Ombustion air ventilator(s) unobstructed  **V N  **Ombustion air ventilator(s) unobstructed  **V N  **Omments	PRE-INSTALLATION			Comments
*View and note flame colour  *Combustion gases checked externally  *Appliance checked (smoke test/spillage test)  *Smoke/spillage test satisfactory  *Combustion air supply adequate  *INSTALLATION - Visually check  *Flue/chimney routes to avoid drilling into them  *Flue/chimney routes to avoid drilling into them  *Flue/chimney routes to avoid ingress of material  *Combustion air ventilator(s) unobstructed  *Y N  *POST INSTALLATION  *Appliance run at maximum for a minimum of five minutes  *Appliance run at maximum for a minimum of five minutes  *Nowle test/spillage test satisfactory  *If results were unclear, re-test after a further 10 minutes  *Re-test satisfactory  *Only on appliances fitted to flues & chimneys on external walls  *If there is any doubt or any question answered 'N' then -  1. Switch OFF appliance and  2. Issue WARNING NOTICE and  3. ADVISE occupants and owner, and  4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  Installation address	Appliance identified, flue/chimney routes, internal & external	Υ	N	
*Combustion gases checked externally  *Appliance checked (smoke test/spillage test)  *Smoke/spillage test satisfactory Combustion air supply adequate  *NSTALLATION - Visually check  Flue/chimney routes to avoid drilling into them Flue/chimney routes to avoid ingress of material Combustion air ventilator(s) unobstructed  *Y N  *POST INSTALLATION  *Appliance run at maximum for a minimum of five minutes  *Visual check that flame compares with pre-installation  *Appliance run at maximum for a minimum of five minutes  *Visual check that flame compares with pre-installation  *Tresults were unclear, re-test after a further 10 minutes  *Re-test satisfactory  *Only on appliances fitted to flues & chimneys on external walls  *If there is any doubt or any question answered 'N' then -  1. Switch OFF appliance and 2. Issue WARNING NOTICE and 3. ADVISE occupants and owner, and 4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  Name of Technician  Name of Technician  **Nore test-spillage test satisfactory  Y N  **Tresults were unclear, re-test after a further 10 minutes  **Re-test satisfactory  **Only on appliances fitted to flues & chimneys on external walls  **If there is any doubt or any question answered 'N' then -  1. Switch OFF appliance and  3. ADVISE occupants and owner, and  4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  **Nore test-spillage test satisfactory  **Nore test-spillage test satisfactory  Y N  N  Nore test-spillage test-spillage test satisfactory  Y N  N  Nore test-spillage test-spillage test satisfactory  N N  Nore test-spillage test-s	*Appliance run	Υ	N	
**Appliance checked (smoke test/spillage test)  **Smoke/spillage test satisfactory Combustion air supply adequate  **N  **Smoke/spillage test satisfactory Combustion air supply adequate  **N  **N  **N  **N  **N  **N  **N  *	*View and note flame colour	Υ	N	
*Smoke/spillage test satisfactory Combustion air supply adequate  NSTALLATION - Visually check Flue/chimney routes to avoid drilling into them Flue/chimney routes to avoid ingress of material Combustion air ventilator(s) unobstructed  POST INSTALLATION  *Appliance run at maximum for a minimum of five minutes *Visual check that flame compares with pre-installation *Smoke test/spillage test satisfactory *If results were unclear, re-test after a further 10 minutes *Re-test satisfactory  Only on appliances fitted to flues & chimneys on external walls  f there is any doubt or any question answered 'N' then -  . Switch OFF appliance and 2. Issue WARNING NOTICE and 3. ADVISE occupants and owner, and 4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  nstallation address Name of Technician	*Combustion gases checked externally	Υ	N	
NSTALLATION - Visually check Flue/chimney routes to avoid drilling into them Flue/chimney routes to avoid ingress of material Combustion air ventilator(s) unobstructed  POST INSTALLATION POST	*Appliance checked (smoke test/spillage test)	Υ	N	
NSTALLATION - Visually check Flue/chimney routes to avoid drilling into them Flue/chimney routes to avoid ingress of material Combustion air ventilator(s) unobstructed  POST INSTALLATION  *Appliance run at maximum for a minimum of five minutes *Visual check that flame compares with pre-installation *Smoke test/spillage test satisfactory *If results were unclear, re-test after a further 10 minutes *Re-test satisfactory  PONITY on appliances fitted to flues & chimneys on external walls  *If there is any doubt or any question answered 'N' then -  1. Switch OFF appliance and 2. Issue WARNING NOTICE and 3. ADVISE occupants and owner, and 4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  Name of Technician	*Smoke/spillage test satisfactory	Υ	N	
Flue/chimney routes to avoid drilling into them  Flue/chimney routes to avoid ingress of material  Y N  Y N  Y N  Comments  Y N  Y N  Y N  Y N  Y N  Y N  Y N  Y	Combustion air supply adequate	Υ	N	
Flue/chimney routes to avoid ingress of material.  Combustion air ventilator(s) unobstructed  POST INSTALLATION  *Appliance run at maximum for a minimum of five minutes  *V N  *Appliance run at maximum for a minimum of five minutes  *Visual check that flame compares with pre-installation  *Smoke test/spillage test satisfactory  *If results were unclear, re-test after a further 10 minutes  *Re-test satisfactory  *Only on appliances fitted to flues & chimneys on external walls  If there is any doubt or any question answered 'N' then -  1. Switch OFF appliance and  2. Issue WARNING NOTICE and  3. ADVISE occupants and owner, and  4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  nstallation address Name of Technician	NSTALLATION - Visually check			Comments
Combustion air ventilator(s) unobstructed  Y N  Comments  *Appliance run at maximum for a minimum of five minutes  *Visual check that flame compares with pre-installation  *Smoke test/spillage test satisfactory  *If results were unclear, re-test after a further 10 minutes  *Re-test satisfactory  *Only on appliances fitted to flues & chimneys on external walls  If there is any doubt or any question answered 'N' then -  1. Switch OFF appliance and  2. Issue WARNING NOTICE and  3. ADVISE occupants and owner, and  4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  nstallation address Name of Technician	Flue/chimney routes to avoid drilling into them	Υ	N	
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*Smoke test/spillage test satisfactory *If results were unclear, re-test after a further 10 minutes *Re-test satisfactory  Only on appliances fitted to flues & chimneys on external walls  f there is any doubt or any question answered 'N' then Switch OFF appliance and Issue WARNING NOTICE and ADVISE occupants and owner, and CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  nstallation address Name of Technician	*Appliance run at maximum for a minimum of five minutes	Υ	N	
*If results were unclear, re-test after a further 10 minutes  *Re-test satisfactory  *N  Only on appliances fitted to flues & chimneys on external walls  f there is any doubt or any question answered 'N' then -  . Switch OFF appliance and 2. Issue WARNING NOTICE and 3. ADVISE occupants and owner, and 4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  Installation address Name of Technician	*Visual check that flame compares with pre-installation	Υ	N	
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4. CALL OUT a competent body or person such as fuel supplier or maintenance contractor (e.g. CORGI for gas)  nstallation address Name of Technician	2. Issue WARNING NOTICE and			
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	<ol> <li>CALL OUT a competent body or person such as f</li> </ol>	uels	uppl	ier or maintenance contractor (e.g. CORGI for gas)
	nstallation address			Name of Technician
Signature				Signature
				Date:

 $<sup>^1</sup>$  It is the installing firm's responsibility to ensure that the Technician is trained to be able to discharge these responsibilities

<sup>&</sup>lt;sup>1</sup> Failure to carry out these safety checks could lead to the death of an occupant and prosecution of the Technician.



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