

# INSTALLATION INSTRUCTIONS

## S7 and S6 Tank Sump Systems

### Installation Instructions for:

#### Round Cover Systems

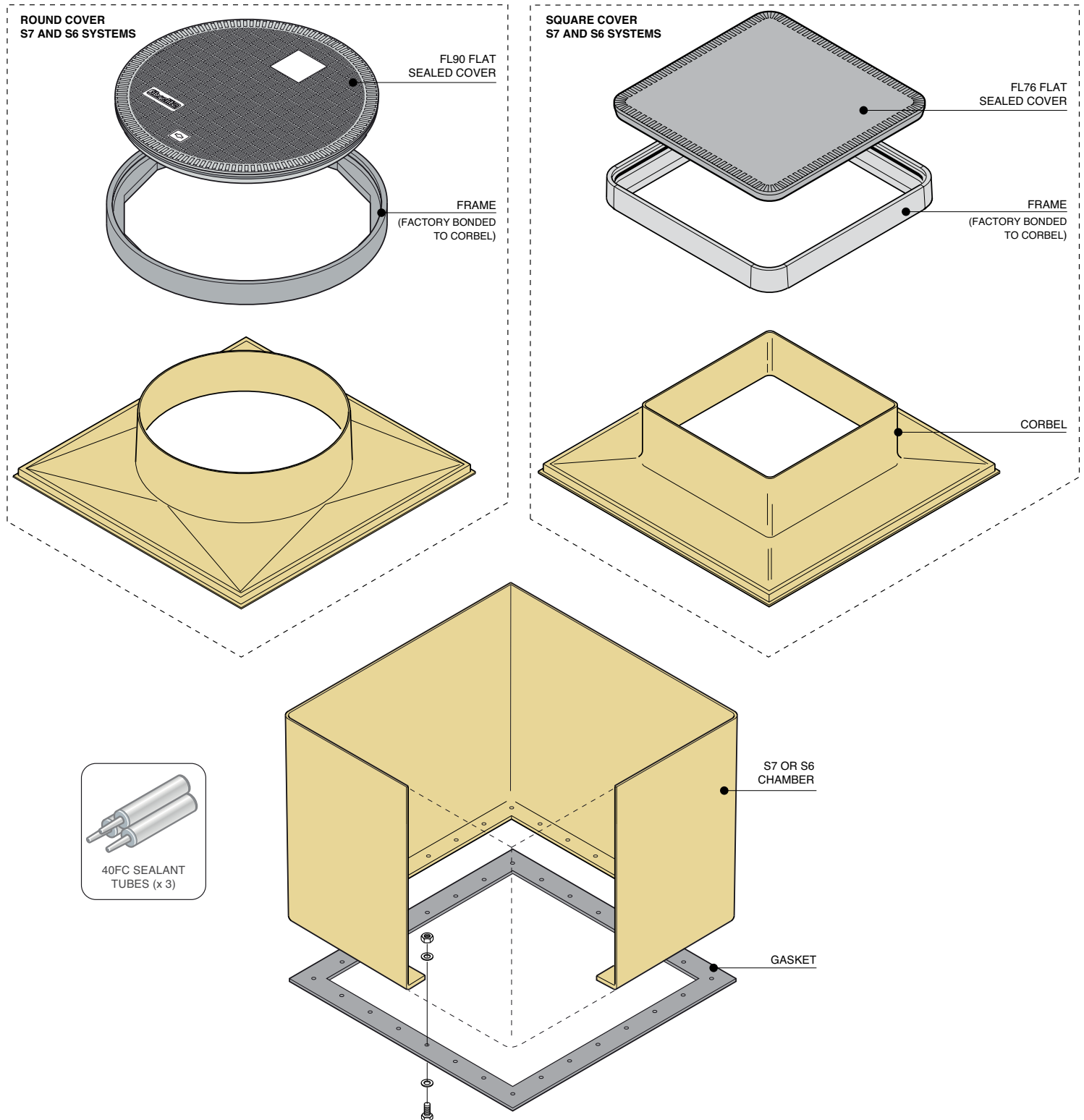
S6-290

S7-290

#### Square Cover Systems

S6-276

S7-276



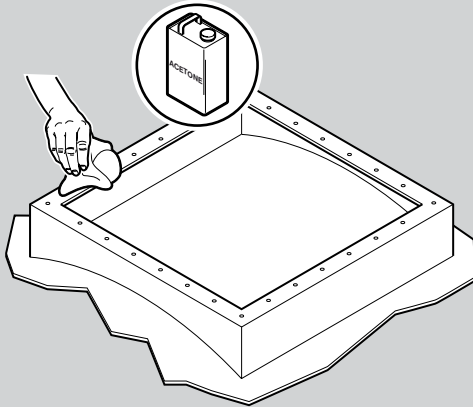
# INSTALLATION INSTRUCTIONS

( Sump Installation )

**FIBRELITE**

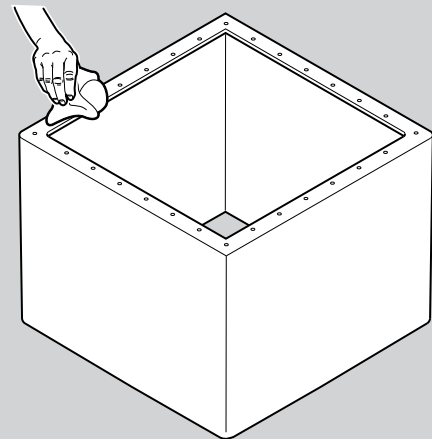
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1



Clean the tank connection flange and ensure it is free of all grit etc. Check for flatness and deformation as this can cause the Chamber to become distorted or fail to seal. If in doubt contact our technical department + 44 (0)1756 799773

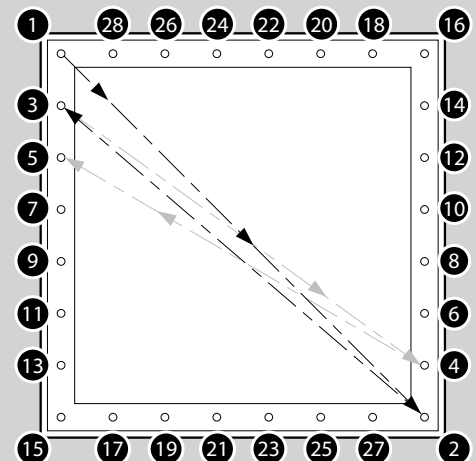
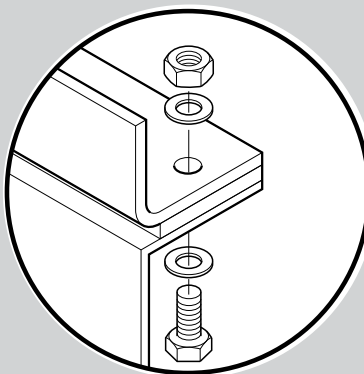
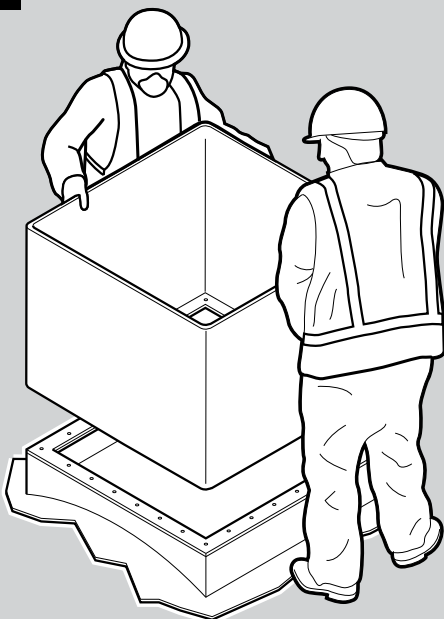
2



Remove protective cover from base of chamber and position chamber onto tank flange, aligning the holes.

Ensure the seal on the base of chamber is not damaged and is free from grit etc.

3



Note: For LBL systems, 40 No. holes

Fit a bolt and washer into each hole (use only those supplied). Fit a washer and nut to each of the bolts. Tighten each bolt to 13.5Nm/10lbfft torque, employing the following method, to avoid distortion of chamber.

Starting with any bolt tighten to 7Nm/5lbfft torque. Move to the bolt positioned at 180° and tighten to 7Nm/5lbfft torque. Move 180° plus one bolt pitch and tighten to 7Nm/5lbfft of torque. Repeat until all bolts are tightened to 7Nm/5lbfft torque.

Now repeat the procedure tightening all bolts to 13.5Nm/10lbfft torque.

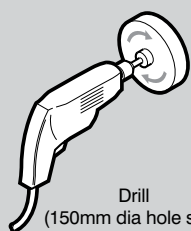
As the nuts and bolts are stainless steel “thread galling” maybe experienced. To overcome this we recommend Lubricating the internal and/or external threads. The suggested lubricants should contain substantial amounts of molybdenum disulfide (moly), graphite, mica, or talc. Some proprietary, extreme pressure waxes may also be effective. Slowing down the installation RPM speed will also reduce thread galling.

**Note:** The seal will initially relax and it is an advantage if each bolt is tighten to 13.5Nm/10lbfft torque after a period of 24 to 48 hours after initial assembly.

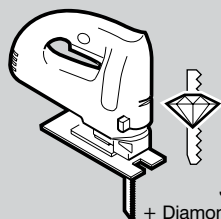
# INSTALLATION INSTRUCTIONS

( Pipework and Entry Seal Kits )

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Drill  
(150mm dia hole saw)



Jigsaw  
+ Diamond tipped blades



Gloves

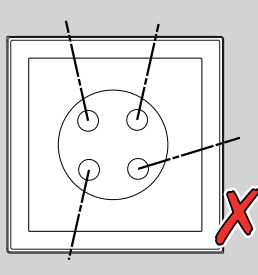
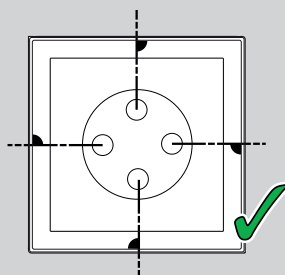


Safety Goggles

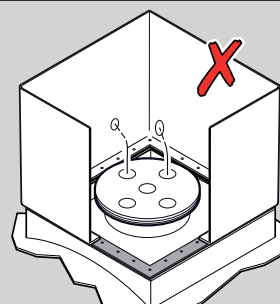
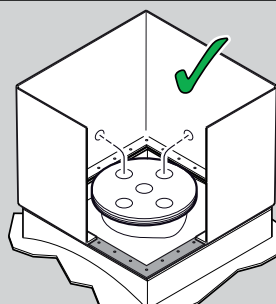


Face Mask

4



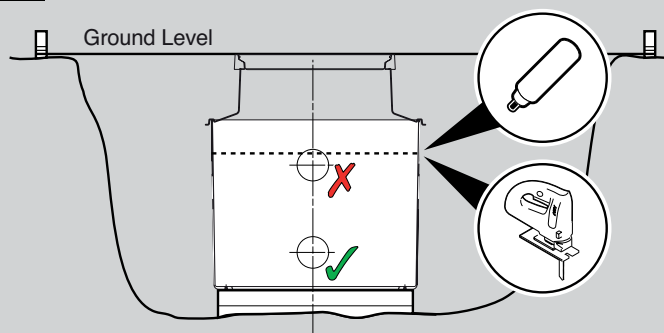
Position pipeway at 90° angles to the sump wall.



Ensure pipe entry boot is positioned away from the joints.

**WARNING** Care must be taken to position the pipework and conduit so it exits the sump at 90° angle to the sump wall. Otherwise undue stress will be placed on the sump wall and entry boot, which may lead to leaks in the future.

5



Before installing pipework, fix a string line at ground level across the sump to check if material needs to be cut off the sump. If so, mark the sump with a line along the cut mark.

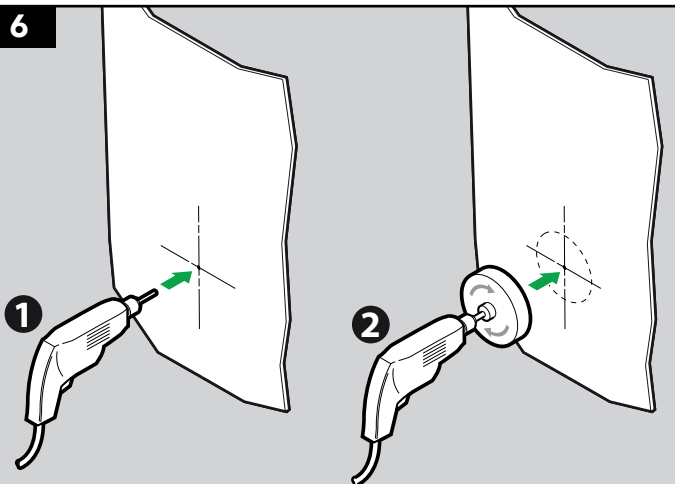
Check to ensure you have the necessary minimum clearance required from the top of the sump to the centreline of the pipework/pipe entry kits.

Standard Entry Kit = 145mm

Large Entry Kit = 170mm

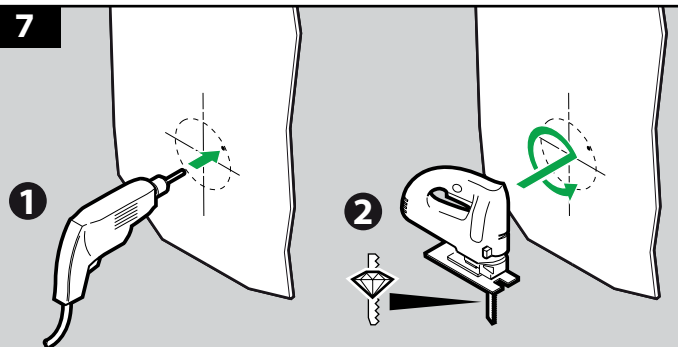
For shallow burials, it may be necessary to cut less material off the sump. **PLAN THIS CAREFULLY.**

6



Mark a centre point in the centre of a sump panel. Drill a pilot hole to ensure the hole saw can be positioned and used safely.

7



For larger holes (190mm) we recommend that the hole is marked and jigsaw is used to cut the hole. Drill a hole through the wall, so the jigsaw can be inserted and used easily and safely.

*(Fibreglass will blunt normal blades very quickly, we recommend diamond tipped blades or blades to cut ceramics).*

**NOTE :** When backfilling ensure the pipework is not disturbed.

**WARNING :** Do not backfill until the sump has been vacuum tested.

# INSTALLATION INSTRUCTIONS

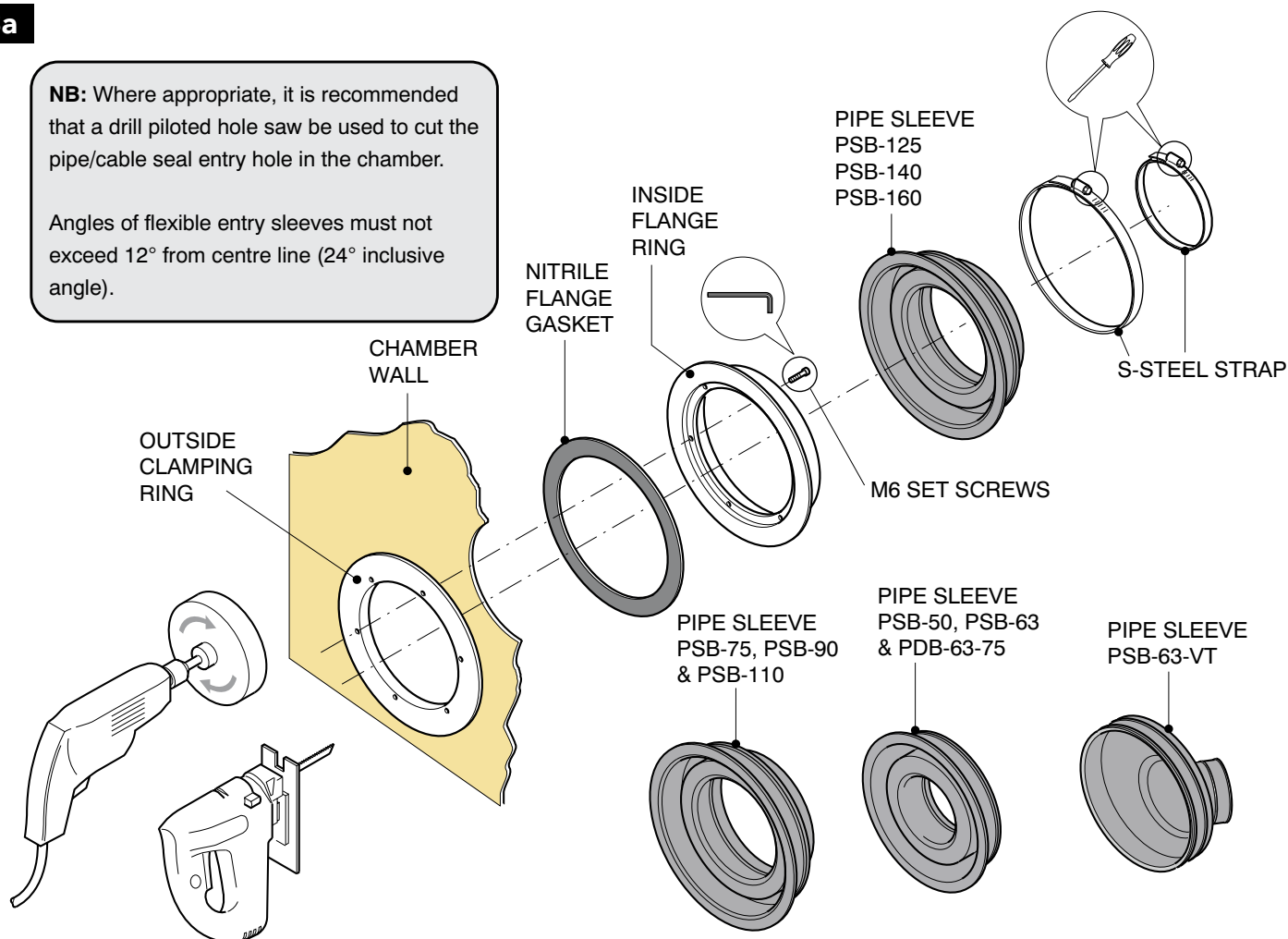
## ( Pipe Sealkit Fitting Instructions )

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8a

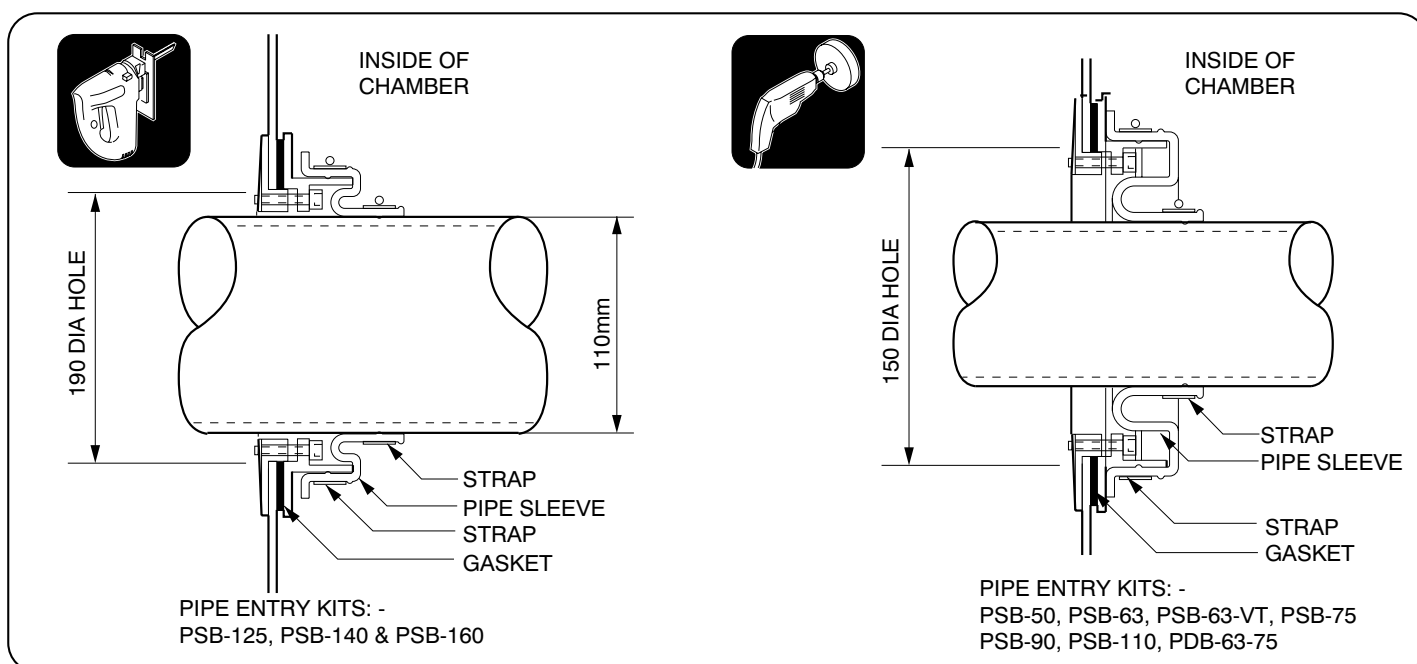
**NB:** Where appropriate, it is recommended that a drill piloted hole saw be used to cut the pipe/cable seal entry hole in the chamber.

Angles of flexible entry sleeves must not exceed 12° from centre line (24° inclusive angle).



DRILL AND HOLE SAW  
ATTACHMENT OR JIGSAW

**NB:** Straps-clips are to be tightened in accordance with the pipe manufacturers recommendation



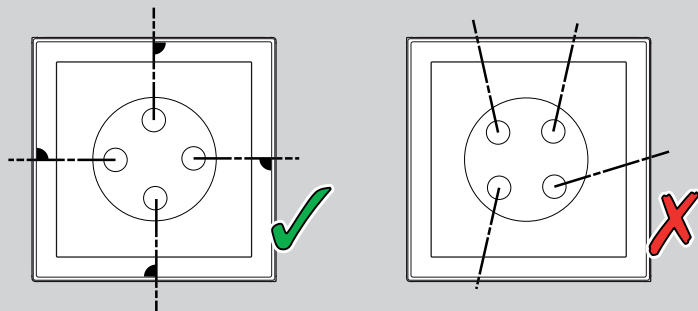
The exit position of the pipework through the chamber wall must be as close as possible to 90°. The pipe kit should be fitted so that the pipework is centrally positioned to the seal. When backfilling ensure that the pipework is not disturbed from this central position.

# INSTALLATION INSTRUCTIONS

( Conduit Entry Seal Kit Installation Guide )

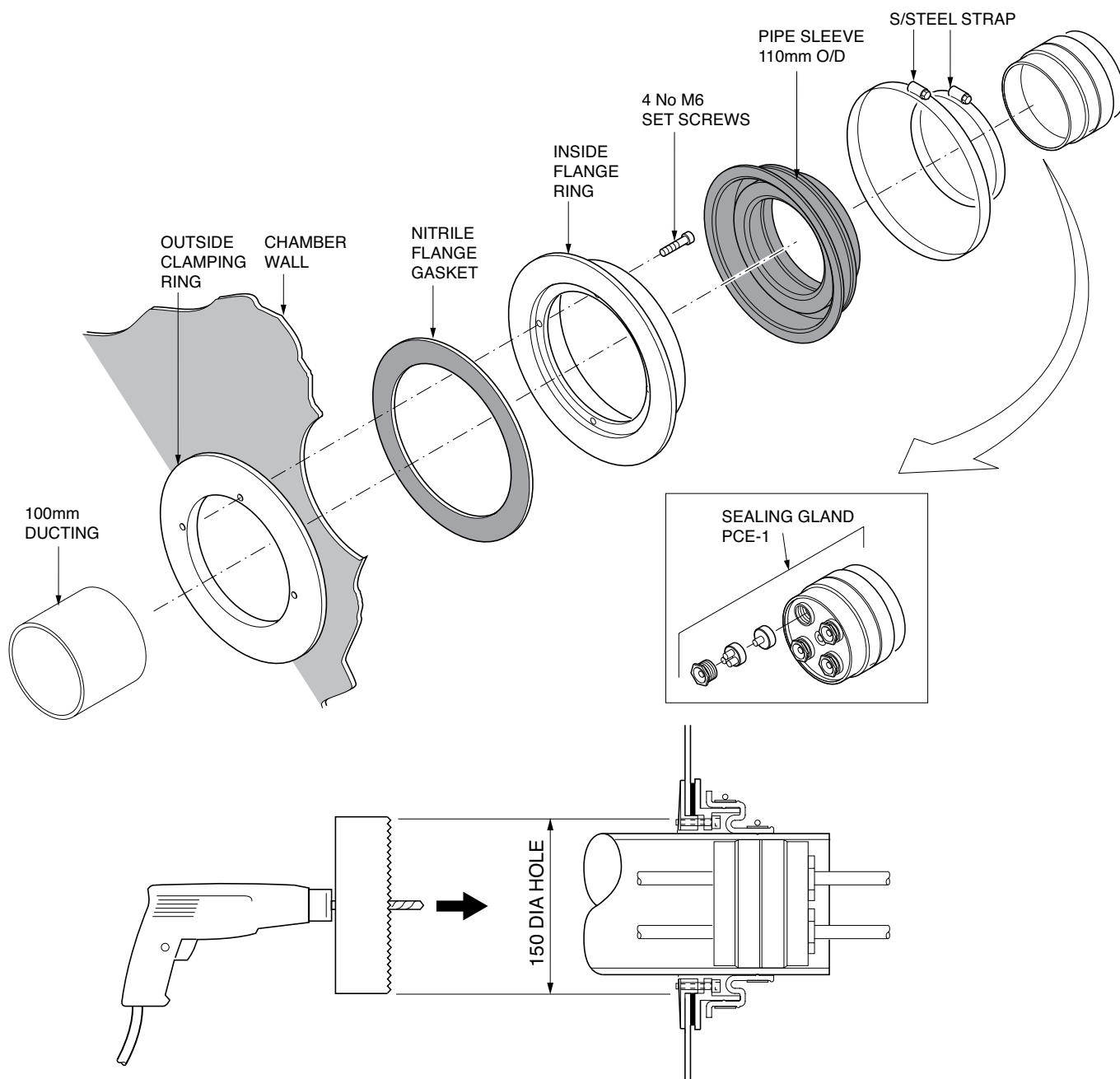
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8b



## PCE-1-KIT

Conduit must be installed at 90° angle to the side wall.

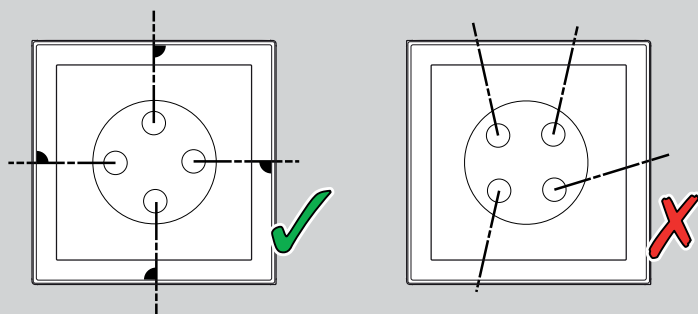


**NB:** Use the correct size drill piloted hole saw for each entry kit. The cable entry seal must be fitted perpendicular to the chamber wall and the conduit must enter the entry kit perfectly aligned. When backfilling ensure the conduit is not disturbed.

# INSTALLATION INSTRUCTIONS

( Conduit Entry Seal Kit Installation Guide )

8c



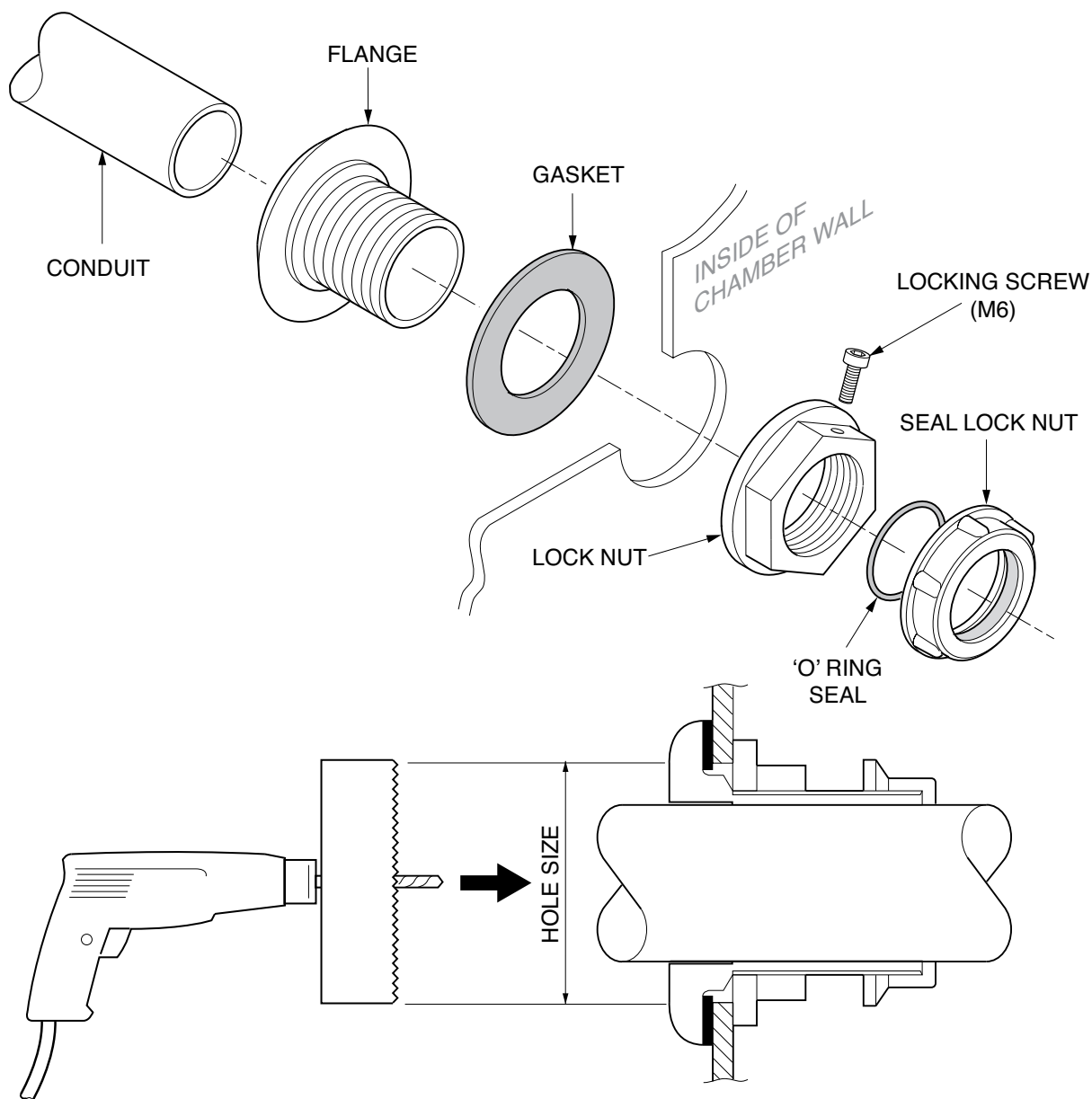
## PEC KITS

Refer to pipe entry boot instructions on positioning of the hole.

Conduit must be installed at 90° angle to the side wall.

Use Fibrelite entry seal kit model PEC-32 to fit UPP + NUPI 32mm conduit.

PEC-27, PEC-33, PEC-50 to fit metal conduit sizes 3/4", 1" and 1 1/2" respectively.



**NB:** Use the correct size drill piloted hole saw for each entry kit. The cable entry seal must be fitted perpendicular to the chamber wall and the conduit must enter the entry kit perfectly aligned. When backfilling ensure the conduit is not disturbed.

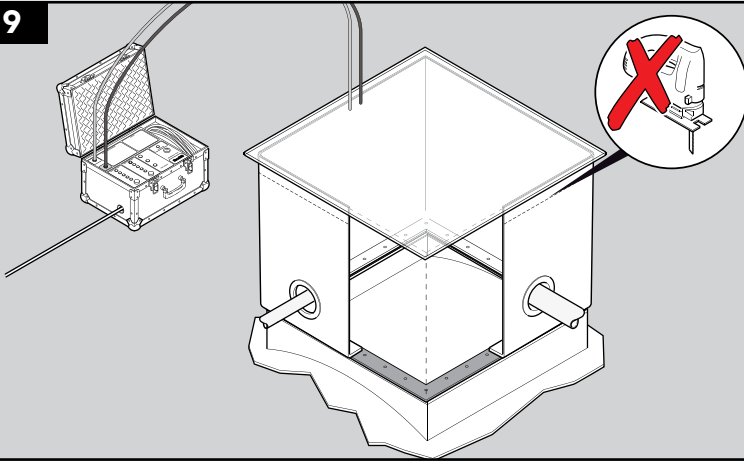
ENTRY KIT	HOLE SIZE
PEC-27	Ø51mm
PEC-32	Ø51mm
PEC-33	Ø60mm
PEC-50	Ø73mm

# INSTALLATION INSTRUCTIONS

## ( Sump Vacuum Test )

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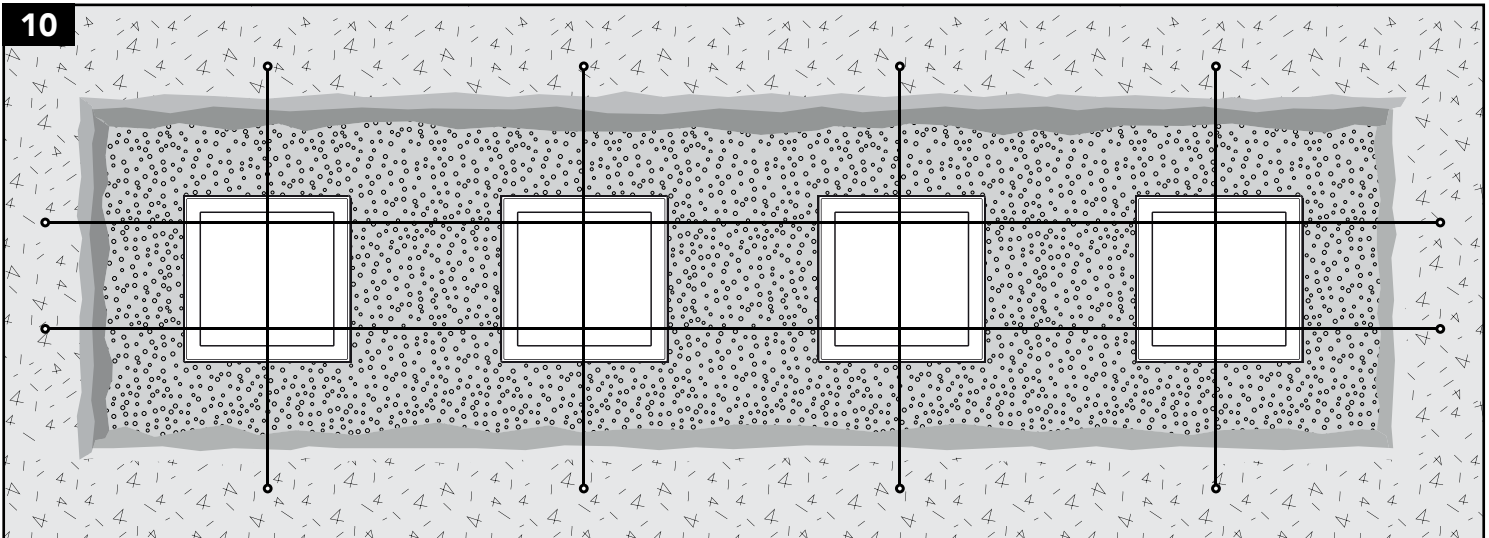
After penetrations have been fitted, ensure all connections on the manway lid are sealed.

Refer to Vacuum test instructions and perform a mandatory vacuum test.

Do not backfill around sump or cut material off the sump until the test has passed successfully.

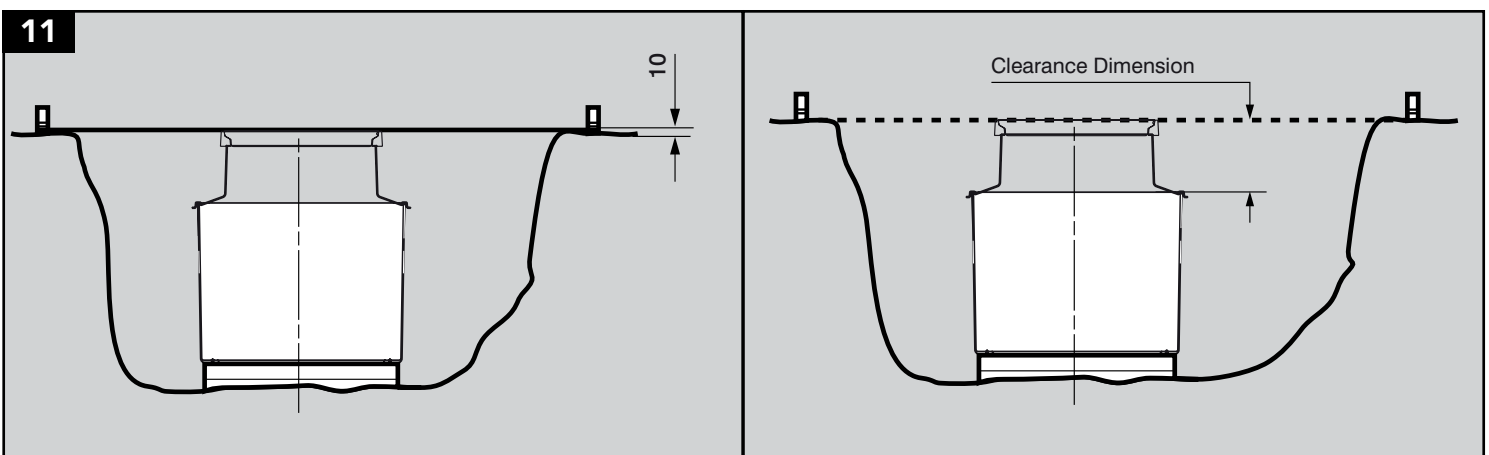
**Note:** Sump to be tested to a depth setting of 0.6 meters.

10



Fix string lines 10mm above grade level across the sump lengths and widths of the tank farm to highlight any falls.

11



Place the corbel onto the sump (only 'dry fit' the corbel do not bond at this stage). Check the measurement from the top of the frame to the string line, which is set 10mm above the general grade level. Check all sides of the sump and select the largest and smallest measurement to take account of falls across the forecourt.

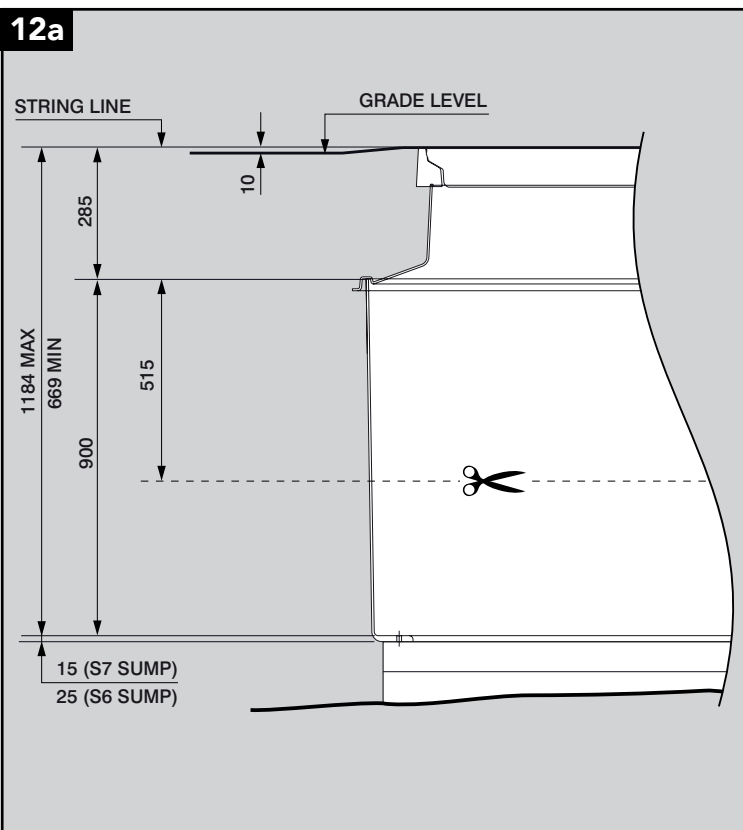


# INSTALLATION INSTRUCTIONS

( Achieving the Correct Height )

## Round Cover Systems

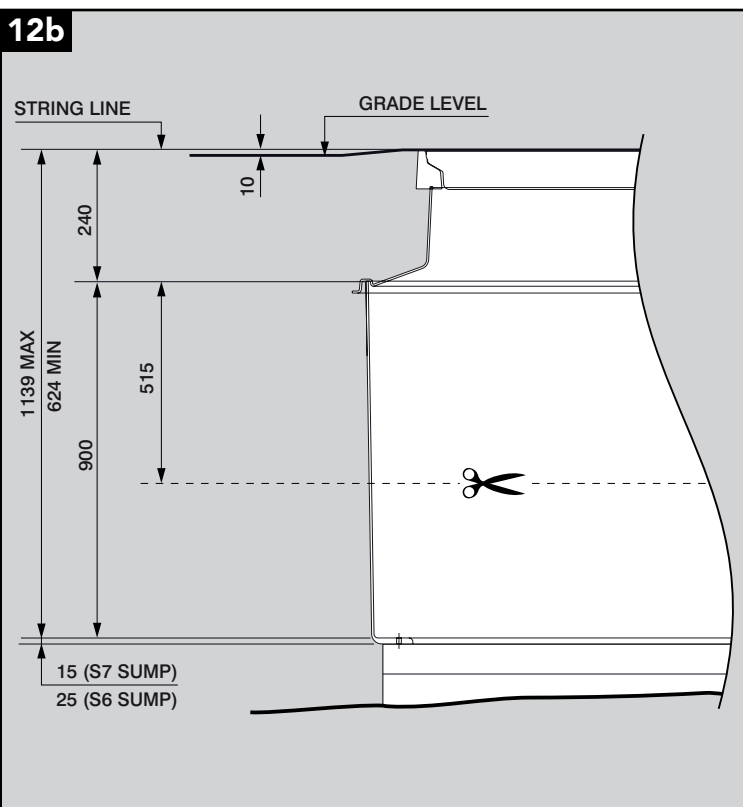
### 12a



Measurement (clearance dimension)	Action
285mm	No trimming required, corbel can be bonded onto the sump.
less than 285mm	Trim the sump so that it does not exceed the maximum system depth of 1184mm. A maximum depth of 515mm can be trimmed from the top of the sump.
more than 285mm	The burial depth of the tank is greater than the maximum burial depth of the standard system. Bond a 300mm extension onto the sump. Then proceed as above.

## Square Cover Systems

### 12b



Measurement (clearance dimension)	Action
240mm	No trimming required, corbel can be bonded onto the sump.
less than 240mm	Trim the sump so that it does not exceed the maximum system depth of 1139mm. A maximum depth of 515mm can be trimmed from the top of the sump.
more than 240mm	The burial depth of the tank is greater than the maximum burial depth of the standard system. Bond a 300mm extension onto the sump. Then proceed as above.

See page 9 for extension bonding instructions

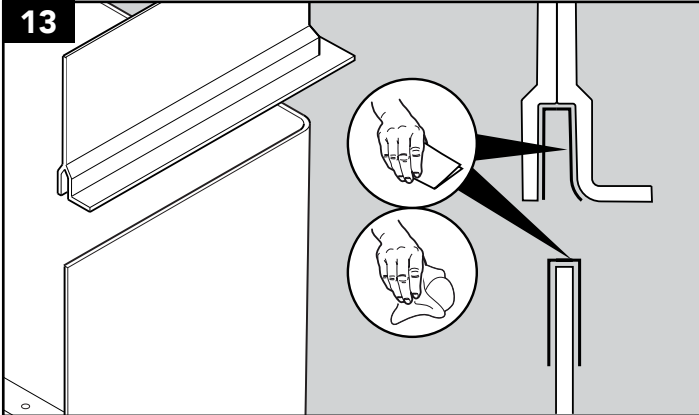


# INSTALLATION INSTRUCTIONS

( Optional Extension Bonding )

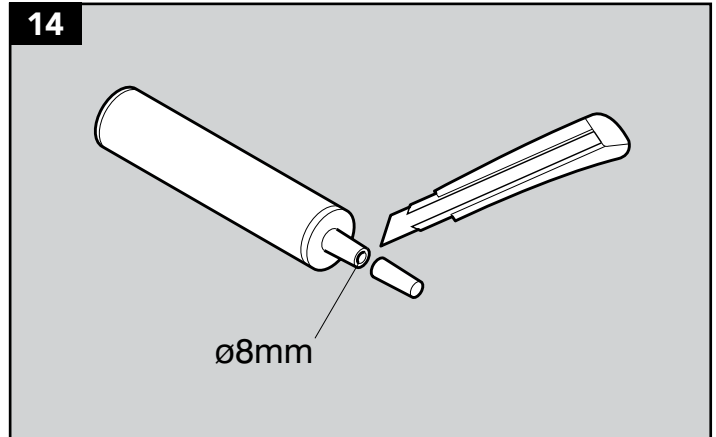
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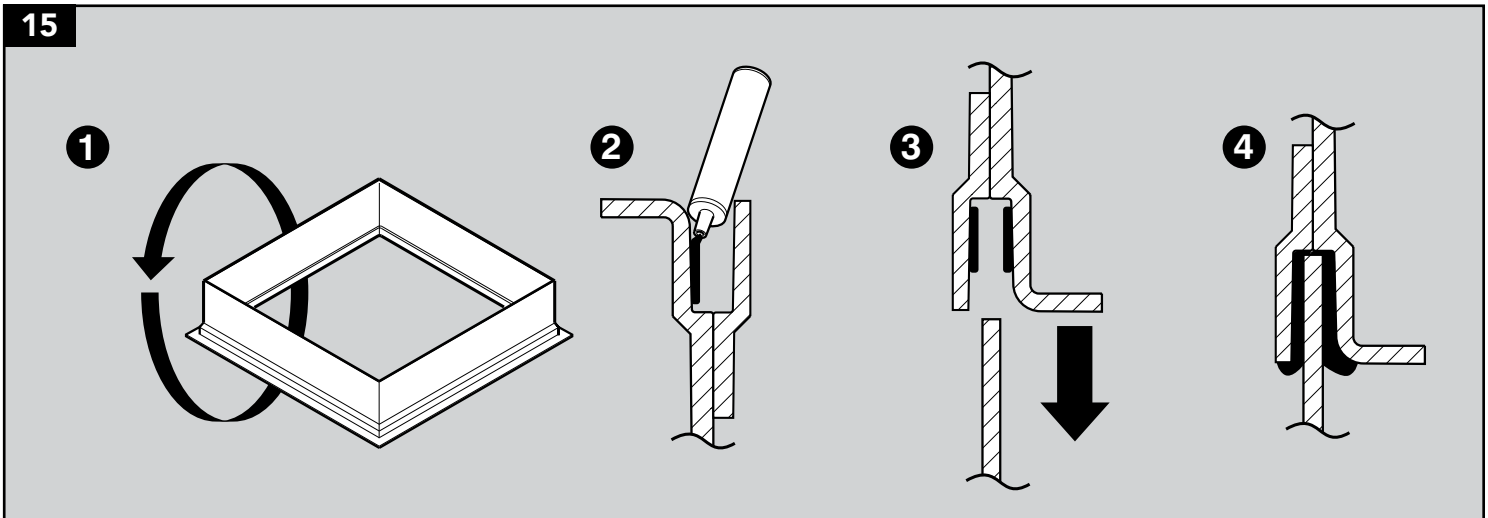
Abrade and wipe with a degreasing solvent the chamber top edge / wall and the extension recess shoulder

14



Cut nozzle of the adhesive sealant tube to approx. Ø8mm.

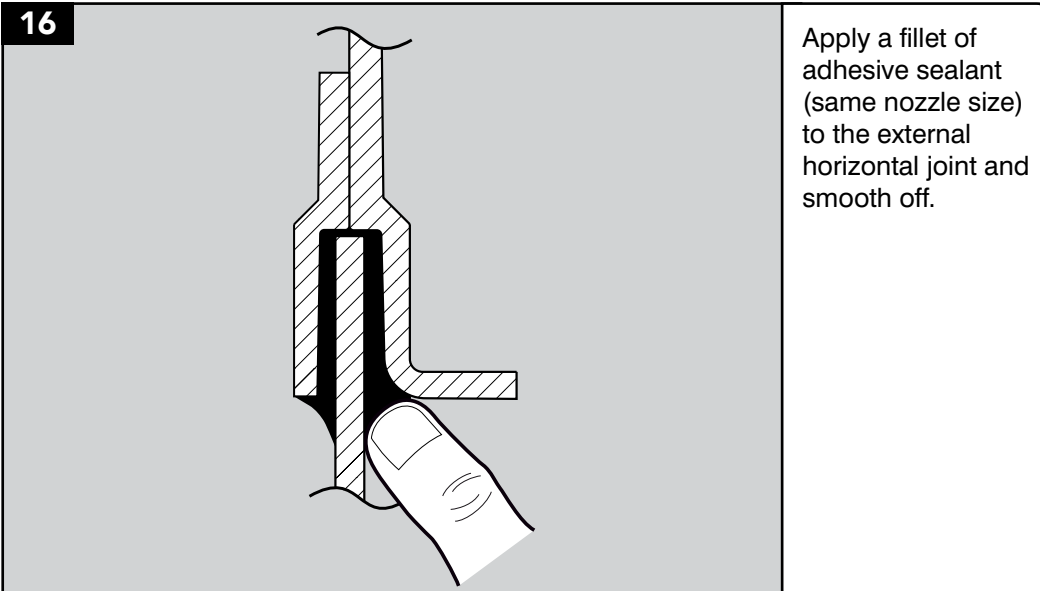
15



To permanently fix the extension, invert the extension and apply a bead of adhesive sealant to the vertical wall of the extension recess.

Position the extension(s) onto the sump, ensure the extension is horizontal and press down uniformly.

16



Apply a fillet of adhesive sealant (same nozzle size) to the external horizontal joint and smooth off.

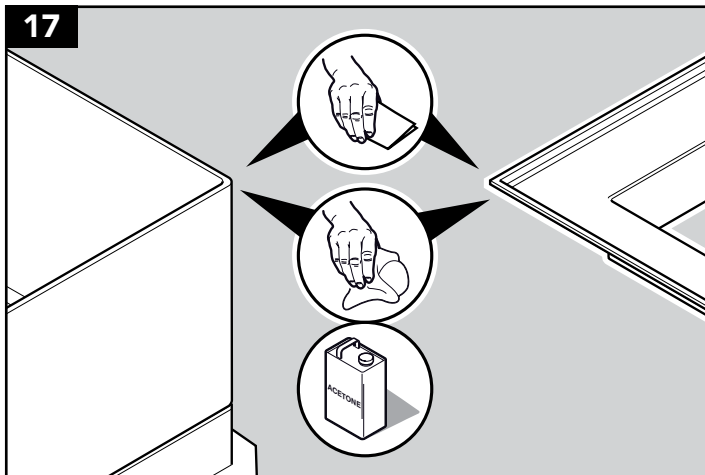
# INSTALLATION INSTRUCTIONS

( Bonding the Corbel )

**FIBRELITE** 

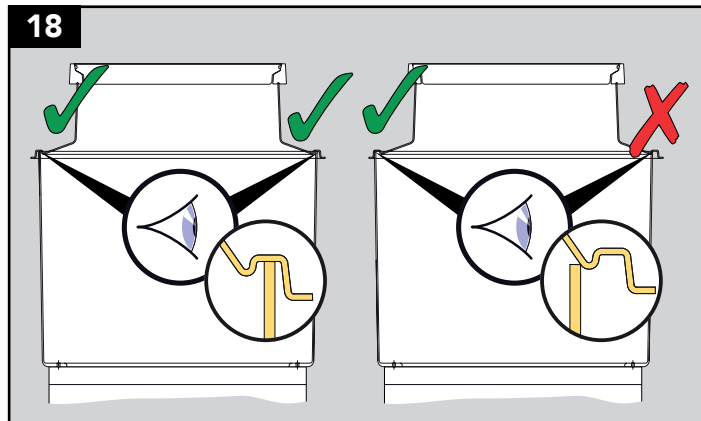
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17



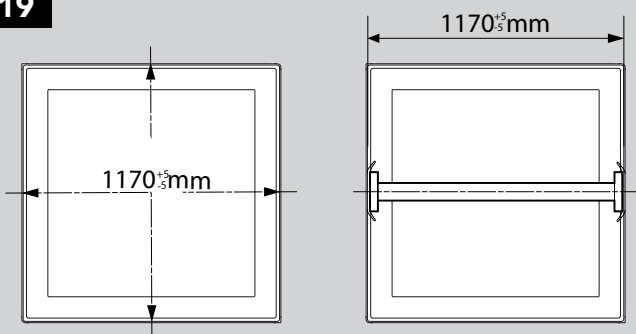
Abrade and wipe with a degreasing solvent the sump or extension top edge/wall and the corbel groove.

18



Dry fit the corbel on the sump to ensure it fits - push corbel groove onto sump wall. If it does not fit, pipework may have distorted the sump wall shape.

19

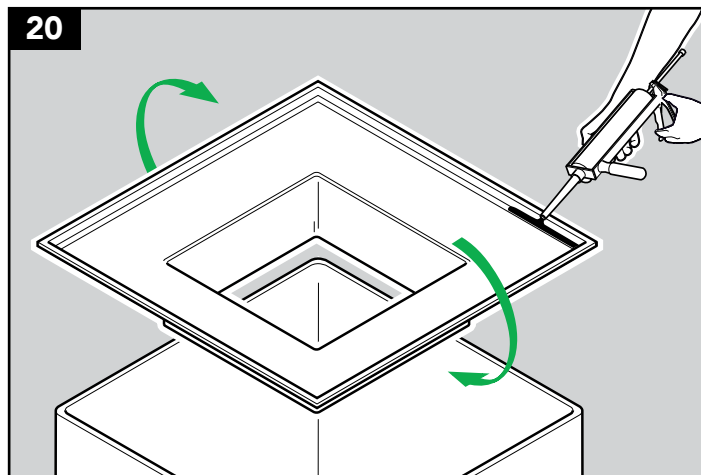


Measure distance between opposite walls, this should be 1170mm. If less than this you will need to brace out the sump.

Using wooden batons (1170  $\pm$  5mm long) with timber spreader plates (150 x 150) to spread the load, brace out the sump to the correct size.

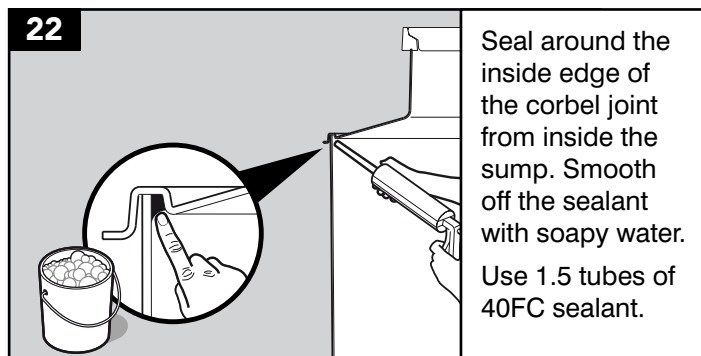
Repeat this process on all walls to get the correct shape.

20



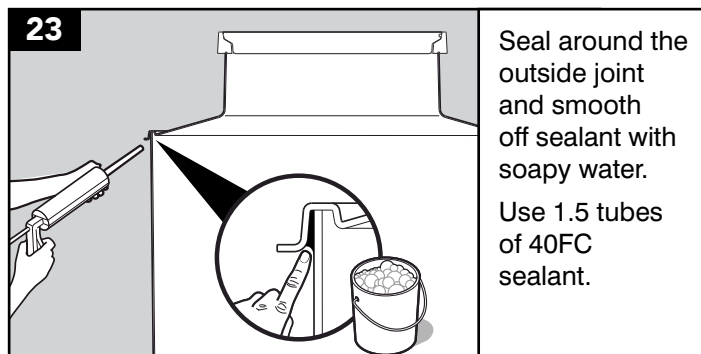
Apply 2 tubes of Soudaflex 40FC sealant in the groove of the corbel. Sealant should fill 1/2 the groove.

22



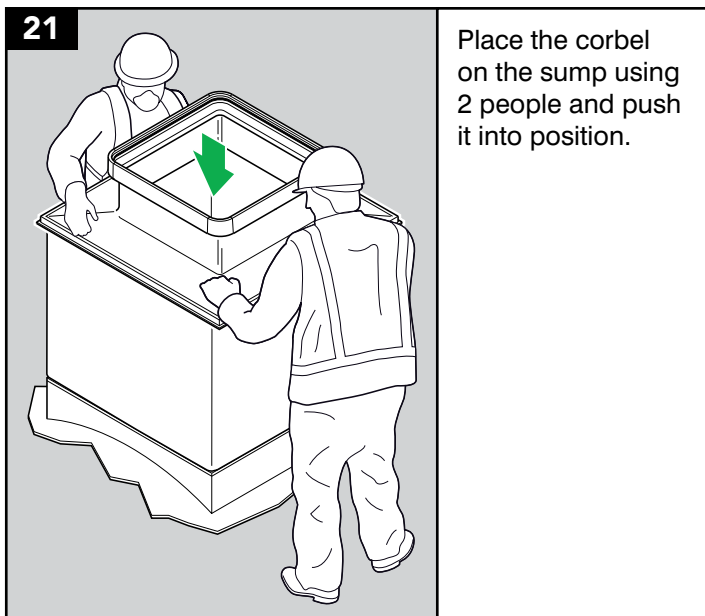
Seal around the inside edge of the corbel joint from inside the sump. Smooth off the sealant with soapy water. Use 1.5 tubes of 40FC sealant.

23



Seal around the outside joint and smooth off sealant with soapy water. Use 1.5 tubes of 40FC sealant.

21



Place the corbel on the sump using 2 people and push it into position.

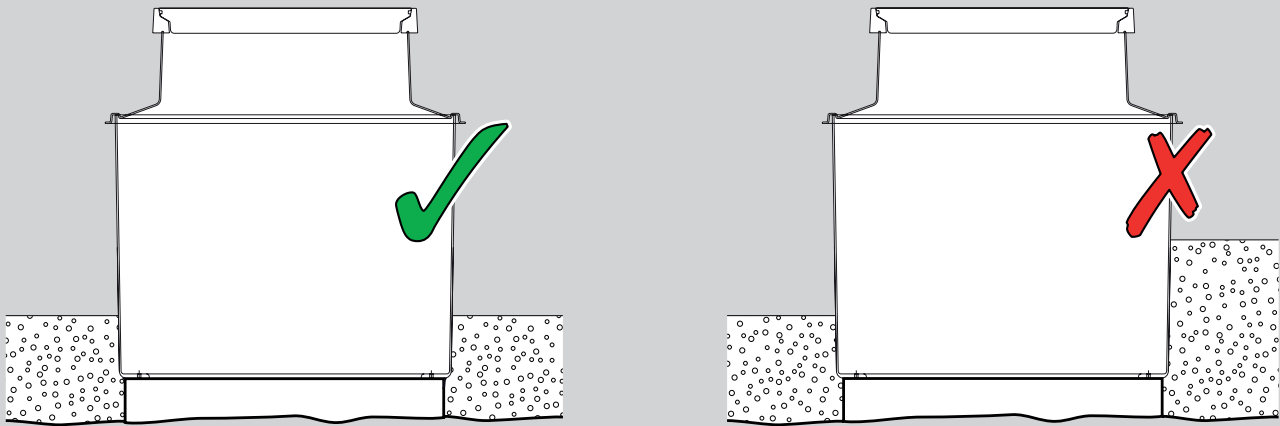
# INSTALLATION INSTRUCTIONS

( Backfilling / Concreting )

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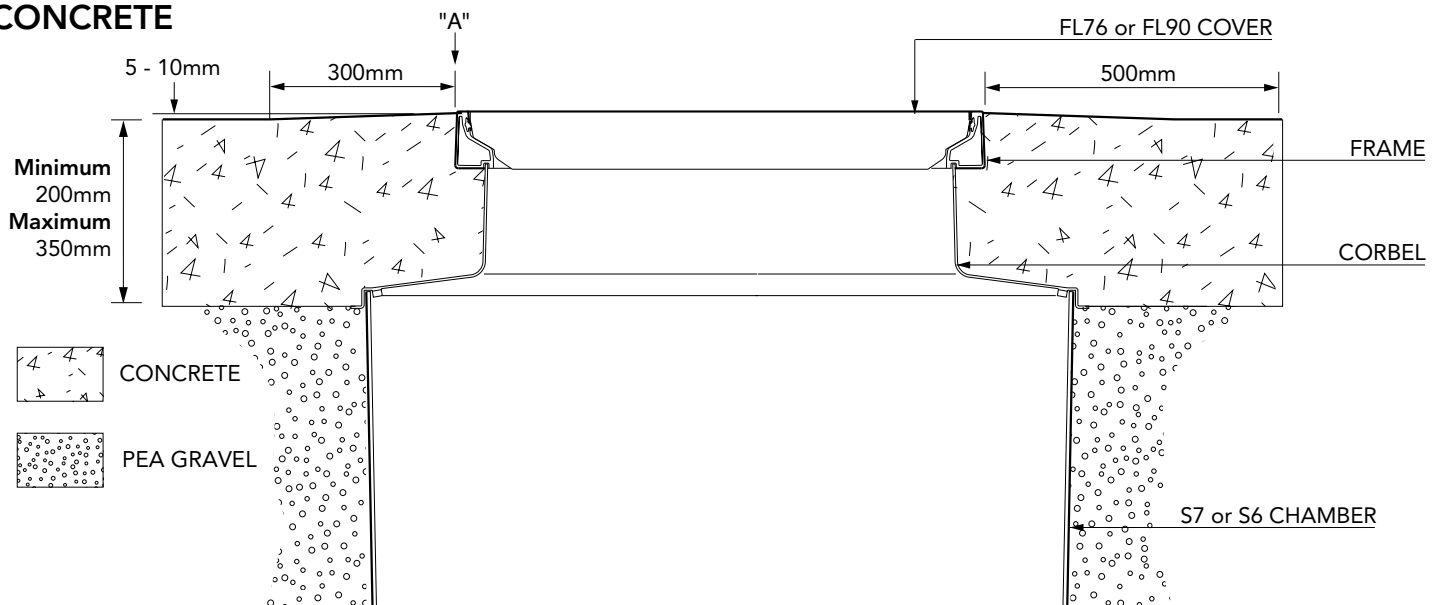
Once the corbel test has been performed with a PASS result, the area around the sump can be carefully backfilled with peagravel or sand. Back-fill equally around the sump in layers to prevent damage or deformation.

25

**VERY IMPORTANT**  
OUTER EDGE "A" OF FRAME SET 5 - 10MM  
ABOVE GENERAL FORECOURT AREA WITH  
CONCRETE RAMPED AWAY OVER 300MM.

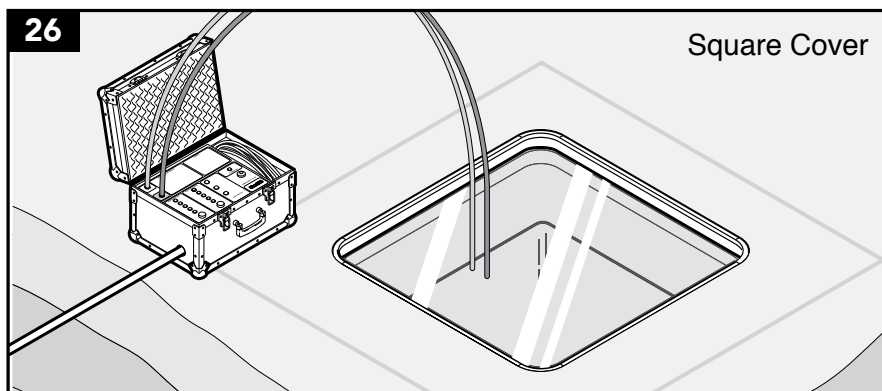
## TYPICAL INSTALLATION

### CONCRETE



Complete backfilling to appropriate level. Frame must be supported by a minimum depth of 200mm of concrete  
Concrete ties must be inserted as close to the frame as possible. Minimum block of 500mm square around the frame.  
Joint must be tied as per diagram. Continuous pour preferred if possible.

26

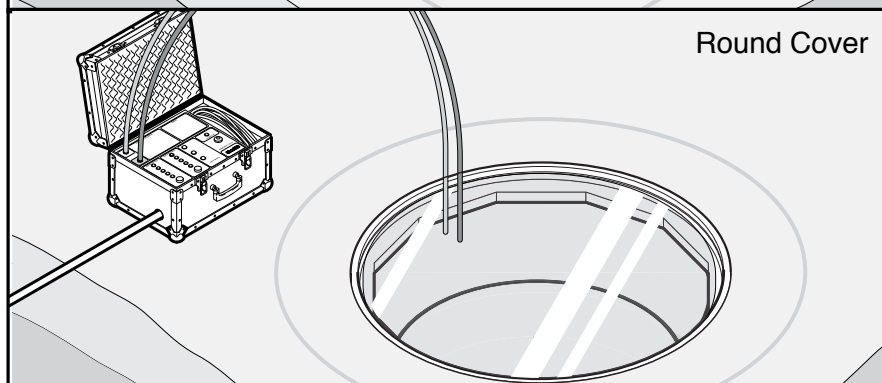


Square Cover

## Test completed system (Optional)

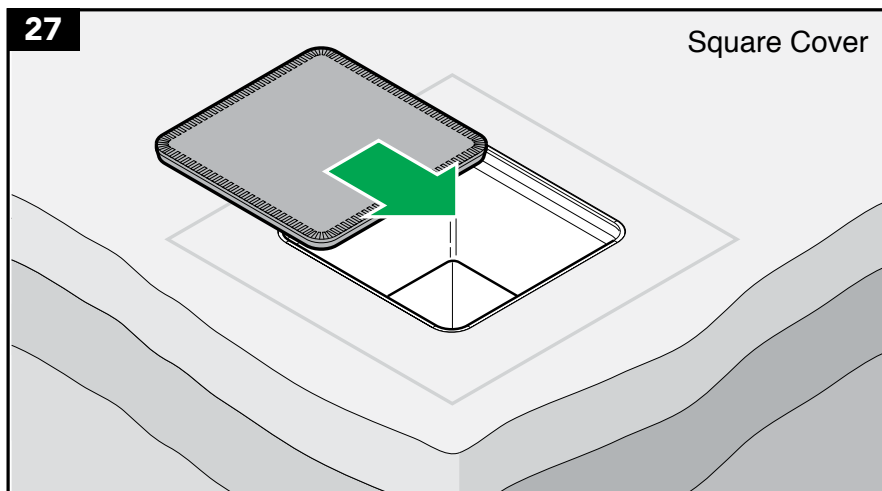
Vaccum test the system at the frame.

**Warning:** Test the corbel at a 0.6m depth setting only or irreparable damage may occur.



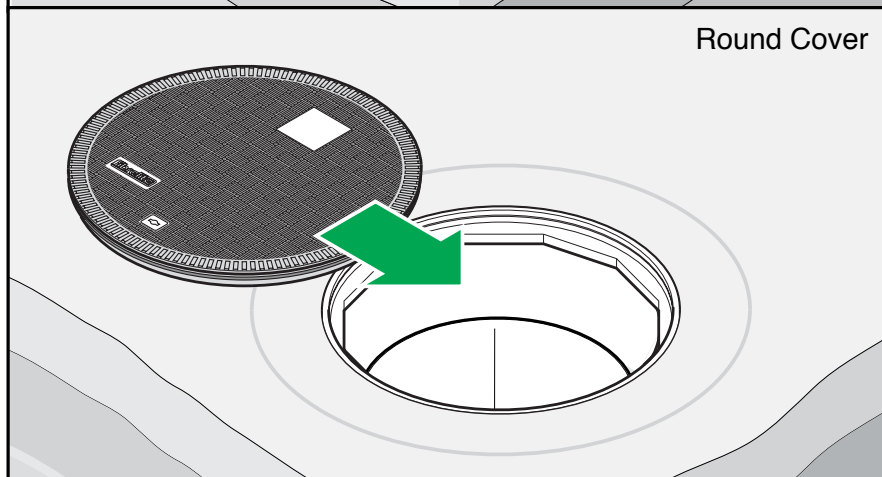
Round Cover

27



Square Cover

Fit the manhole covers.



Round Cover