BUITINK TECHNOLOGY
Advanced Lightweight Structures

01. Manual

Product	Liquid containment sill, foam-filled, drive-over
Model	Ø 70 mm (also Ø 100 / Ø 150 mm)
Manufacturer	Buitink Technology, Duiven, the Netherlands
Date	2026-09-16
Version	01

⚠ READ BEFORE INSTALLATION

This manual describes the installation, commissioning, inspection and maintenance of the liquid containment sill made by Buitink Technology.

The sill is installed by the technical department or contractor of the customer. Read the manual completely before you start and keep the data sheets of the sealant manufacturer at hand.

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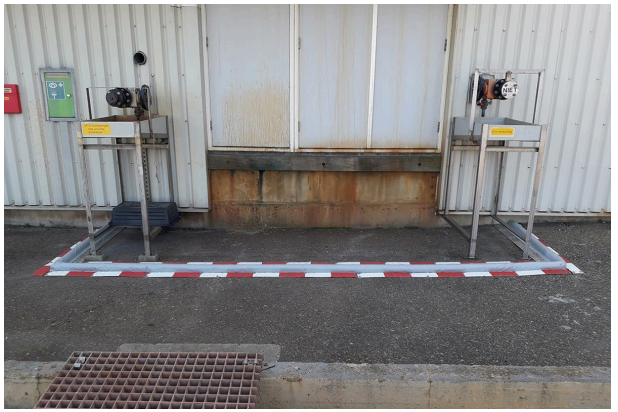
About this product and this manual

The liquid containment sill is a flexible, foam-filled sill that is fixed permanently to the floor. In the event of an incident (leakage, spillage during loading and unloading, fire-fighting water) the sill forms a basin together with the existing floor and walls. The liquid stays within the zone and does not run into the sewer, the soil or an adjacent room.

The passage stays open: forklift trucks and lorries simply drive over the sill. The foam compresses and springs back.

The containment volume is the floor area inside the sill multiplied by the sill height. Example: 20 m × 15 m × 0.07 m = 21 m³.

Sills installed in a production hall with forklift traffic



U-shape around a filling point, with red-and-white warning marking

Who this manual is for

Buitink Technology manufactures the sill to size and ships it. Installation is carried out by the technical department or contractor of the customer. This manual describes how to do that.

Buitink Technology supplies the aluminium clamping strip and the nylon nail plugs (hammer-fixing plugs fischer N 6×40) as standard. Little force acts on the strip: the nail plug only keeps the strip in place, the sealant does the sealing. Sealant, primer and degreaser are **not** supplied by Buitink Technology; the chapter "Required materials" lists internationally available products that are suitable. On asphalt a longer nail plug is needed, which you purchase yourself or request with your order.

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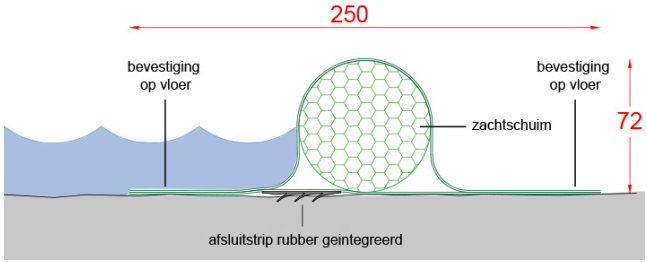
Construction of the sill

Core	**Round foam, open cell, Ø 70 mm (soft polyether foam)**
Installed height	**Approximately 72 mm (Ø 70 mm foam plus fabric)**
Cover	**PVC-coated polyester fabric (polyvinyl chloride), approximately 1500 g/m², increased puncture resistance**
Base strip	**250 mm wide, same fabric, high-frequency welded to the cover**
Sealing rubber	**Rubber strip under the base, centred under the foam roll, stitched through three times; seals against the floor**
Ends	**Closed by welding**
Corners	**Welded in as one continuous piece: 90° standard, 45° to 135° possible; L- and U-shapes**



Cross-section: base strip 250 mm, height 72 mm, integrated sealing rubber ("afsluitstrip rubber"), fixing to the floor on both foot edges ("bevestiging op vloer"), soft foam ("zachtschuim")

Length per element	**Up to approximately 22 m in one piece; longer lines in several elements**
Weight	**Approximately 1.5 kg per metre**
Colour	**Grey (standard) or blue; red-and-white warning marking possible**
Variants	**Ø 100 mm and Ø 150 mm (less suitable for heavy traffic); PU-coated fabric (polyurethane) for fuels, oils and chemicals**

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Scope of delivery and checks on receipt

What you receive

- Sill elements made to size, with welded-in corners and (if ordered) vertical upstands of 200 mm.
- Aluminium clamping strip 40 × 3 mm, pre-drilled, for both foot edges (stainless steel A4 if ordered).
- Nylon nail plugs fischer N 6×40 (hammer-fixing plug with nail screw) for the clamping strip, for fixing at 400 to 500 mm centres.
- This installation manual.
- Not supplied: sealant, primer, degreaser and tools. Longer nail plugs for asphalt (N 8×80) only on request.

Check immediately on receipt

- Packaging undamaged; elements complete according to the packing list.
- Lengths, corners (number and degrees) and position of the upstands against the order confirmation.
- Cover, welds and base strip free of cuts or tears; clamping strips and nail plugs complete.
- Report any deviation immediately to sales@buitink-technology.com, with a photo and the order number.

Storage until installation

- Dry, out of the sun, not under heavy loads; leave rolled up or loosely folded, do not kink.

Elements packed on a pallet, labelled per element

Element rolled up for transport

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Required materials

The sealant seals; the clamping strip with nail plugs keeps the strip in place (little force acts on it). Clamping strip and nail plugs are supplied; sealant, primer and degreaser you purchase yourself.

Material	Suitable products	Remark
Sealant (preferred): MS polymer, also called hybrid sealant	Soudal Fix All Turbo or Fix All High Tack, Tec7, Bostik Simson MSR CA, Innotec Adheseal	Bonds to PVC fabric and concrete, also on slightly damp substrates; weather- and UV-resistant (ultraviolet). Apply at +5 °C to +35 °C.
Sealant (alternative): polyurethane	Sikaflex-11 FC Purform with Sika Primer-3 N on concrete and Sika Primer-215 on the fabric	Strong bond on porous concrete; primer mandatory; not on bitumen.
Pre-treatment and primer	Fabric: Soudal Surface Activator (MS sealant) or Sika Primer-215 (Sikaflex). Concrete: Soudal Primer 150 or Sika Primer-3 N	Lightly roughen and activate the underside of the base strip; primer on porous concrete and under permanent water load.
Degreaser	Acetone or methyl ethyl ketone (MEK)	Degrease the substrate and the underside of the fabric; ventilate well.
Clamping strip (supplied)	Aluminium 40 × 3 mm, pre-drilled; stainless steel A4 for aggressive chemicals (option)	Holes Ø 6.5 mm at 400 to 500 mm centres; ends rounded off.
Nail plugs (supplied)	fischer nail plug N 6×40: nylon hammer-fixing plug with nail screw	Drill hole Ø 6 mm, drilling depth approximately 50 mm, 400 to 500 mm centres. Drive in with a hammer; no mortar, no curing time.
Nail plugs for asphalt (purchase yourself or supplied on request)	fischer nail plug N 8×80 or a comparable longer nail plug	Drill hole Ø 8 mm, drilling depth approximately 90 mm. On very soft or crumbling asphalt, drive a test plug first.

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Sealant consumption and tools

Sealant consumption

Allow for two continuous beads of Ø 8 to 10 mm along both edges of the base strip, plus a zigzag bead under the foam roll.

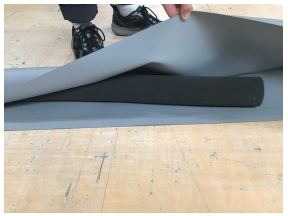
Two beads Ø 8 mm	**Approximately 100 ml per metre of sill**
Cartridge 290 to 300 ml	**Approximately 3 m of sill**
Sausage 600 ml	**Approximately 6 m of sill**
Reserve	**10 to 15 % extra for waste, corners and sealing the plug heads and ends**
Sika Primer-3 N	**1 litre is sufficient for approximately 125 m of sill (two beads)**

Practical example: for 99 m of sill in a production hall (indoors, without clamping strip) 36 cartridges of 290 ml were used, that is 1 cartridge per 2.75 m.

Tools

- Hammer drill with masonry bit Ø 6 mm (concrete) and Ø 8 mm (asphalt).
- Sealant gun for cartridges or for 600 ml sausages (sausage gun).
- Tape measure, straight edge or chalk line, chalk or marker.
- Hammer for the nail plugs, rubber mallet for the base strip, screwdriver matching the nail screw.
- Vacuum cleaner or broom and brush, clean cloths.
- Sealant spatula or smoothing knife for finishing the joints.
- Personal protection: gloves, safety glasses, good ventilation when degreasing.

⚠ Read the data sheets and safety data sheets of the sealant, primer and degreaser before use. They take precedence for application, curing time and personal protection.



Foam core on the base strip with the stitched-through sealing rubber

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Preparing the substrate

A good seal starts with the substrate. The sealant must bond to the floor and the base strip must lie flat over its full width of 250 mm.

Substrate requirements

- Clean, dry and free of grease; no loose cement skin, sand, dust, oil or old coating residues.
- Flat: level out unevenness of more than a few millimetres under the base strip, or fill it with sealant.
- Temperature of substrate and surroundings between +5 °C and +35 °C during installation and curing.
- Sloping floors: the sill on the low side of the protected zone is under the most pressure; check that the basin closes there.
- Tiled and concrete floors: fill joints and cracks under the base strip with sealant beforehand.
- Asphalt: sealant does not bond to bitumen. There the sealant only seals and the clamping strip is fixed with a longer nail plug (see "Installation on asphalt").

Concrete, tiles, resin floor

- Sweep and vacuum thoroughly; degrease with acetone or methyl ethyl ketone.
- Porous or sandy concrete: apply primer according to the data sheet and observe the flash-off time (Sika Primer-3 N: 30 minutes to 8 hours).

Marking the position and trial laying

1. Lay out the elements in the intended position and let them relax for at least an hour, preferably at installation temperature.
2. Check the connection to walls, kerbs, door posts and adjacent elements. Ends butt against an upstand or against each other.
3. Mark the outer edge of the base strip with chalk or a chalk line on both sides. Mark the corner points and the nail plug positions (400 to 500 mm centres, first and last plug approximately 50 mm from the end).
4. Remove the elements and clean the marked track once more.

⚠ The sealing rubber under the centre of the base strip must bear fully on the floor. Choose the position so that no joint, drain or floor edge lies directly under the foam roll.

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Installation on concrete: sealing and placing

1. Lightly roughen the underside of the base strip and treat it with the pre-treatment of the sealant manufacturer (Soudal Surface Activator or Sika Primer-215). Observe the prescribed waiting time.
2. Using the sealant gun, apply two continuous beads of Ø 8 to 10 mm to the floor, each approximately 20 mm inside the marked outer edges of the base strip.
3. Between them, apply a zigzag bead where the foam roll and the sealing rubber will lie.
4. Work per element and per length of approximately 3 to 4 metres, so that the sealant has not yet skinned over (MS sealant: skin formation after 5 to 15 minutes).
5. Lay the element into the sealant, starting at a corner or a wall connection, and press the base strip down from the centre towards the edges. Use the rubber mallet to tap the strip flat into the sealant.
6. Walk the whole length: the base strip lies in the sealant over its full width, without folds or trapped air.
7. Remove squeezed-out sealant immediately with a spatula; leave a small fillet on the outside as a seal.

U-shape with two welded-in 90° corners, ready to be laid into the sealant

⚠ Sealant does not bond to damp, dusty or greasy surfaces, nor to bitumen. If in doubt: seal a 0.5 m test piece and check it after 24 hours.

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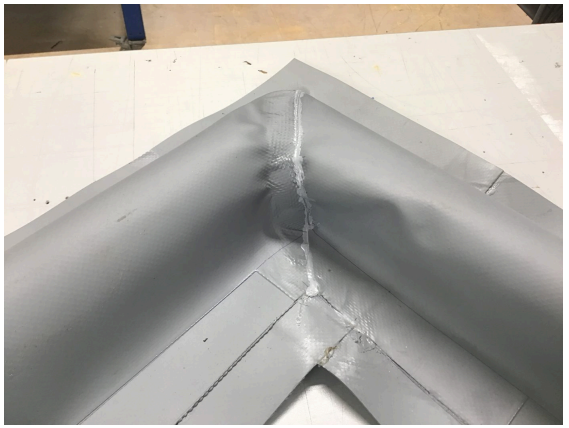
Installation on concrete: clamping strip and sealing

1. Lay the 40 × 3 mm clamping strip on both foot edges of the base strip, approximately 10 mm from the outer edge. Apply a thin bead of sealant under the strip as an additional seal.
2. Using the hammer drill, drill through the holes in the strip and through the fabric into the floor: masonry bit Ø 6 mm, approximately 50 mm deep. Vacuum away the drilling dust.
3. Insert the nail plug (fischer N 6×40) through the strip and the fabric into the drill hole and drive the nail screw in with a hammer until the strip lies flat on the fabric. Give the final turn with a screwdriver if needed. Do not overdrive; the fabric must not tear.
4. Repeat every 400 to 500 mm. At corners, place an extra nail plug on each side of the corner point.
5. Seal all plug heads and the ends of the strips.
6. Seal the outer edge of the base strip over its full length with a triangular fillet (sealant spatula), so that liquid cannot run under the strip.
7. Seal the ends: against the wall, the kerb, the door post or the adjoining element. Also apply extra sealant to the weld between cover and base strip at corners and ends.



Welded-in corner: apply extra sealant here to the weld and the transition to the base strip

Closed welded end; seal completely against the wall or the adjoining element

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Installation on asphalt

⚠ Sealant does not bond to bituminous substrates. On asphalt the sealant is a seal only; the clamping strip is kept in place with a longer nylon nail plug, for example fischer N 8×80. The supplied nail plugs N 6×40 are too short for asphalt; the longer plugs you purchase yourself or request with your order.

1. Prepare the substrate as described in "Preparing the substrate": sweep, remove loose chippings, dry and free of grease.
2. Mark the position and trial-lay the elements.
3. On very soft or crumbling asphalt, first drive a test plug in an inconspicuous spot: drill hole Ø 8 mm, approximately 90 mm deep, insert the plug, drive in the nail screw. If the plug sits tight and cannot be pulled out by hand, the asphalt is suitable.
4. Apply the two beads and the zigzag bead as for concrete. Here the sealant acts only as a seal between fabric and asphalt, not as a bond.
5. Lay the element into the sealant and press the base strip down from the centre towards the edges, as for concrete.
6. Lay the clamping strip on both foot edges and drill through the strip and the fabric into the asphalt: masonry bit Ø 8 mm, approximately 90 mm deep. Drill gently so that the asphalt around the hole does not crumble. Vacuum away the drilling debris.
7. Insert the nail plug N 8×80 and drive the nail screw in with a hammer until the strip lies flat on the fabric; at 400 to 500 mm centres, with an extra plug on each side of every corner point.
8. Seal the plug heads, the strip ends, the outer edge of the base strip and the ends of the sill.

Points of attention on asphalt

- Asphalt deforms in warm weather and under heavy traffic. During the first weeks, check weekly that the strips and the sealant joint still fit tightly.
- If a plug does not sit tight, drill a new hole approximately 50 mm further along and seal the old hole.
- On old, badly crumbling asphalt where even the test plug finds no grip: consult Buitink Technology about a concrete strip or a different position.

Why a nail plug is sufficient

The sill is not loaded in tension; the clamping strip only has to stay in place while the sealant provides the seal. A small nylon nail plug is sufficient for that, hardly damages the asphalt and can be loaded immediately after driving in. Heavier fixings are not needed.

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Vertical upstand against a wall or kerb

Where the sill ends against a wall, door post or kerb, the basin only closes when that connection is sealed as well. For this purpose the end can be made as a vertical upstand of 200 mm (option, specify when ordering).

1. Clean and degrease the wall or kerb over the height of the upstand plus 50 mm.
2. Apply a full layer of sealant to the wall where the upstand will sit; prime rough or porous walls first.
3. Set the upstand into the sealant and press it flat, from bottom to top. The transition between base strip and wall must be fully embedded in sealant.
4. Where there is traffic or vibration, fix a short length of clamping strip vertically over the upstand with two or three nail plugs; seal the plug heads.
5. Seal all edges of the upstand with a continuous joint: top edge, side edges and the corner where the upstand meets the base strip.

End on a tiled floor; fill the joints under the base strip with sealant beforehand

⚠ Kerbs and facades are rarely flat. After curing, check with a watering can or bucket of water that the connection is tight. Re-seal wherever water comes through.

Without upstand

If an element ends with a plain closed end against a wall or kerb, seal the end and the connection of the base strip to the wall completely. A fillet of sealant between wall and sill over the full height of 72 mm is sufficient on a flat, smooth wall.

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Curing and commissioning

Moment	Allowed	Explanation
Immediately after installation	Nothing: close off the zone	No traffic, do not walk on the sill itself
After approximately 3 hours (Soudal Fix All Turbo)	Light load	Hand-tight after 20 minutes, loadable after 3 hours according to the data sheet
After 24 hours	First traffic	MS sealant cures approximately 3 mm per 24 hours; traffic at the earliest after 24 hours
After 2 to 3 days	Full load	Beads of 8 to 10 mm are then cured through; full strength reached
Nail plugs	Loadable immediately	No curing time; the sealant determines when traffic is allowed

Low temperatures and high humidity extend the curing time. If in doubt, allow the longer time.

Checks before commissioning

- All nail plugs driven in, strips flat, plug heads sealed.
- Continuous sealant joint along both foot edges, at ends, corners and upstands, without interruption.
- Base strip flat on the floor everywhere; no folds, no air under the strip.
- Cover undamaged; foam roll springs back after being pressed down.

Water test (recommended)

- After full curing, pour water along the inside of the sill, especially at corners, ends and upstands.
- Check the outside after 10 minutes for leakage. If it leaks: dry, re-seal, cure again and test again.
- Record the test with date and photo; this is your evidence of a checked installation.

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Use, inspection and maintenance

Use

- The sill can be driven over by forklift trucks and lorries; it is in use on loading bays with lorry traffic and in production halls with forklift trucks.
- Drive over it at right angles and at low speed. Do not brake or steer on the sill.
- Do not drag loads or pallets over the sill; do not pull sharp objects (forklift forks, sack trucks with steel edges) over the cover.
- Do not use as a bumper, impact protection or parking stop.
- Wear of the cover on the wheel track is normal and visible; the foam keeps working. Replace the element before the cover wears through.

Inspection (monthly and after every incident)

- Cover: cuts, abrasion, worn-through spots on the wheel track.
- Sealant joint along both foot edges, at corners, ends and upstands: continuous, not detached, no cracks.
- Clamping strips and nail plugs: tight, not bent, plug heads still sealed.
- Foam roll: springs back to full height after being driven over.
- Record the inspection with date and findings.

Maintenance and cleaning

- Clean with water and a mild detergent; no solvents, no high-pressure cleaner on the sealant joint.
- After an incident: dispose of the contained liquid according to the applicable rules for that substance; then clean the sill and check the sealant joint and the cover. After prolonged contact with oil, fuel or chemicals, check the cover for softening or swelling.

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Repair and replacement

Situation	Cause	Action
Small cut or abrasion in the cover (up to approximately 50 mm)	Sharp load, sack truck, forklift forks	Clean and degrease the spot; glue on a patch of PVC fabric with contact adhesive for PVC fabric, seal the edges. Repair material is available on request from Buitink Technology.
Larger damage, worn-through cover or open weld	Wear from traffic, mechanical damage	Replace the element. When ordering, state the length, corners and upstands; the sill is available per element.
Sealant joint detached or cracked	Insufficient pre-treatment, bitumen, movement of the substrate, chemical attack	Remove the old sealant completely, clean and degrease substrate and fabric, re-seal and cure. On asphalt: check clamping strip and nail plugs.
Clamping strip loose or bent	Collision, nail plug worked loose	Replace the nail plug (new hole approximately 50 mm further along, seal the old hole); replace a bent strip; re-seal the plug heads.
Sill lifts or shifts when driven over	No or insufficient fixing; sealant on bitumen	Detach the element, repair the substrate, re-install with clamping strip and nail plugs.
Cover softened or swollen	Prolonged contact with fuel, oil or solvent	Replace the element; for this application choose the version with PU-coated fabric.

Removing an element: unscrew the nail screws with a screwdriver or pull the clamping strip loose (the nylon plug breaks or comes out with it), take off the clamping strips, cut through the sealant joint with a knife and pull the element loose. Remove the old sealant from the floor and seal the old drill holes before re-installation.

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Safety and liability

⚠ The sill is a liquid containment ("liquid-retaining") provision. Whether the provision complies with the regulations in your situation (in the Netherlands among others PGS 15 and the Environmental Activities Decree; in Germany among others the AwSV and TRwS 779; in Belgium VLAREM II) is decided by the competent authority or your insurer. Buitink Technology gives no guarantee in this respect.

⚠ Buitink Technology gives no guarantee on the liquid-tightness of the existing floor, walls, joints or drains. The basin is only as tight as its weakest connection. The customer is responsible for the condition of the substrate and for the execution of the installation.

⚠ Check the chemical resistance of the fabric and of the sealant for each substance. PVC-coated fabric resists water, fire-fighting water, diluted acids and alkalis, detergents, fertiliser solutions and short-term contact with oil. For petrol, diesel, solvents or prolonged contact with oil: choose the version with PU-coated fabric and a sealant that resists these substances. If in doubt, consult the manufacturer's resistance table or ask Buitink Technology for advice.

⚠ The data sheets and safety data sheets of the sealant and primer manufacturers take precedence for application, curing time, load capacity and personal protection. This manual gives general instructions and does not replace those documents.

- Wear gloves and safety glasses when sealing, degreasing, drilling and driving in the nail plugs. Ensure ventilation when using acetone or methyl ethyl ketone.
- Close off the installation zone to traffic until the sealant has cured.
- The sill has not been tested for a maximum axle load or tonnage; use under very heavy or intensive traffic is at the user's own assessment and risk.

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Contact and support

Buitink Technology

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The Netherlands

Telephone: +31 (0)316 250 830

E-mail: sales@buitink-technology.com

Website: www.buitink-technology.com

Remote installation guidance

Would you like to discuss the installation beforehand or have someone check along during the work? Buitink Technology offers remote installation guidance by video call, charged per hour. Schedule this via sales@buitink-technology.com.

Ordering additional elements or repair material

When ordering or asking a question, always state the order number of the original delivery, the length and corners of the element and a photo of the situation.

Keep at hand

- Order confirmation with the dimensions.
- Data sheets of the sealant and primer used.
- Photos and date of the installation and the water test.