

Installation Instructions

VarioPipe optical fibre building cable & pipe entry system

for underground installation

for wall thicknesses from 200 mm;

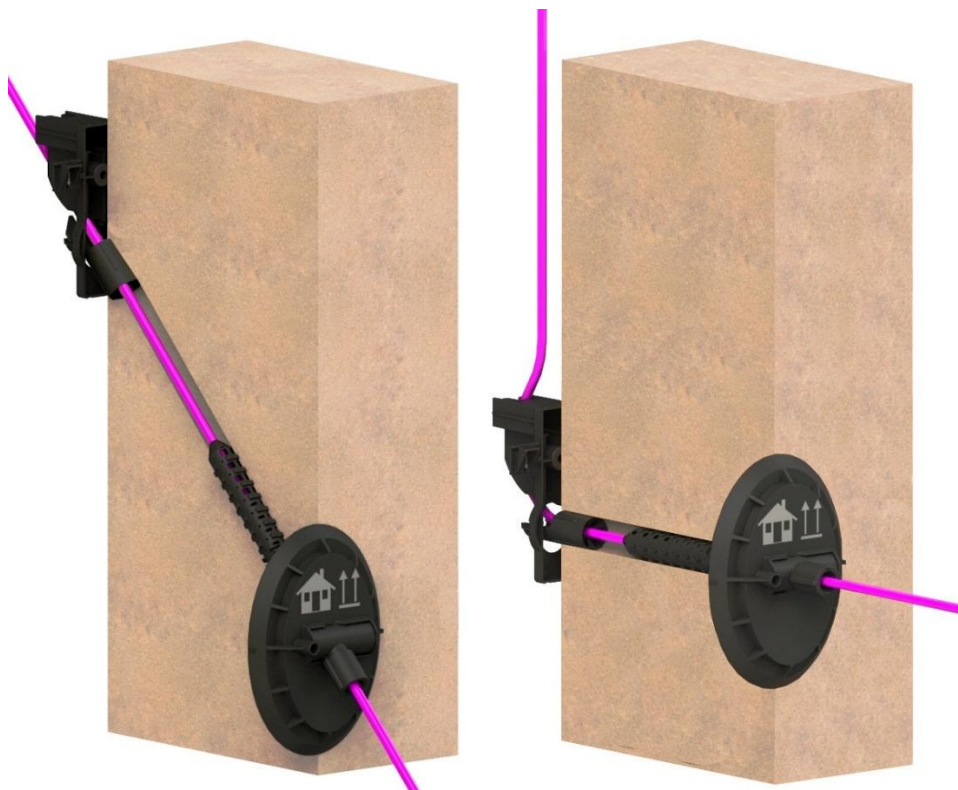
for core drill hole $\varnothing$ 25 mm;

for media cables: 1x copper or optical fibre cable $\varnothing$ 6–13 mm

2x micro-duct pipes $\varnothing$ 7–12 mm

1x oval cable 4/8 mm

2x micro-duct pipes $\varnothing$ 7 mm



1	General information	3
2	Safety information	3
3	L100 2-component sealing foam Storage, shelf life and working temperatures	4
4	Product description	4
4.1	Installation options	4
4.2	Dimensions	5
5	Scope of delivery	5
6	Required tools.....	6
7	Installation.....	7
7.1	Drill hole	7
7.2	Preparing the optical fibre building cable & pipe entry system	8
7.3	Preparing the media cable	10
7.4	Inserting the optical fibre building cable & pipe entry system.....	11
7.5	Inserting the media cable	13
7.6	Injecting the 2-component sealing foam	14
7.7	Continued routing of the media cable	15
7.8	Fitting the cover (optional).....	16
8	Accessories.....	16
9	Material defects.....	17
10	Quality management.....	17
11	Disclaimer/Warranty.....	17
12	Disposal	17
13	Safety information for L100 2-component sealing foam.....	18
14	Contact	18

1 General information

These instructions are supplied with the equipment.



Note!

Any person involved in the installation, operation and repair of the product must first read, understand and follow these instructions. We accept no liability for damage and operating malfunctions caused by failure to comply with these instructions.

In the interest of further development, we reserve the right to change individual assemblies and accessories as considered necessary for enhanced safety and performance improvements, while preserving the main features.

The copyright of these instructions remains with Langmatz GmbH.

2 Safety information

The product complies with the state-of-the-art technology at the time of printing and is delivered in an operationally safe condition.

Unauthorised modifications, particularly to safety-related parts, are prohibited.

Langmatz GmbH warns against the misuse of the product.

The operator is responsible for installation, operation and maintenance of the fixtures.

The operator is responsible for the following:

- Preventing danger to the life and limb of users and third parties.
- Ensuring safe operation.
- Preventing downtime and environmental impact due to incorrect handling.
- Ensuring that protective clothing is worn when working with or on the product.



Use of a damaged product is prohibited. Please contact the hotline (see section 14 Contact).



Note!

Comply with applicable occupational safety and environmental protection regulations during installation, operation, maintenance and repair.



Warning!

Note the following when using L100 2-component sealing foam:
As from 24/08/2023, appropriate training must be given before industrial or commercial use – for link, see cartridge imprint or section 13.
In general, the safety instructions on the cartridge must be observed!

3 L100 2-component sealing foam

Storage, shelf life and working temperatures

The product is hygroscopic. Store the cartridge tightly sealed in a dry, cool and well-ventilated place. Protect from moisture.

Storage temperature:	+5 °C to +40 °C (ideally +20 °C)
Shelf life	18 months from filling date – refer to the printed date on the cartridge
Working temperature:	+5 °C to +40 °C (surface temperature) +5 °C to +40 °C (ambient temperature) (ideally +10 °C to +25 °C)

Temperatures affect the reaction time: the warmer it is, the faster the reaction.
Heat the product before use in low ambient temperatures.

4 Product description

The optical fibre building cable & pipe entry system is used for the gas- and water-tight sealing of openings for micro-duct pipes and copper or optical fibre cables into buildings.

Area of application:

- For underground installation
- For wall thicknesses of ≥ 200 mm
- For installation in all common types of wall
- Gas- and water-pressure-tight up to 1 bar
- Water impact classes W1.1-E, W1.2-E and W2.1-E in accordance with DIN 18533
- Waterproof concrete stress class 1 and 2 to DAfStb 2017 (Waterproof Concrete Structures Directive)

4.1 Installation options

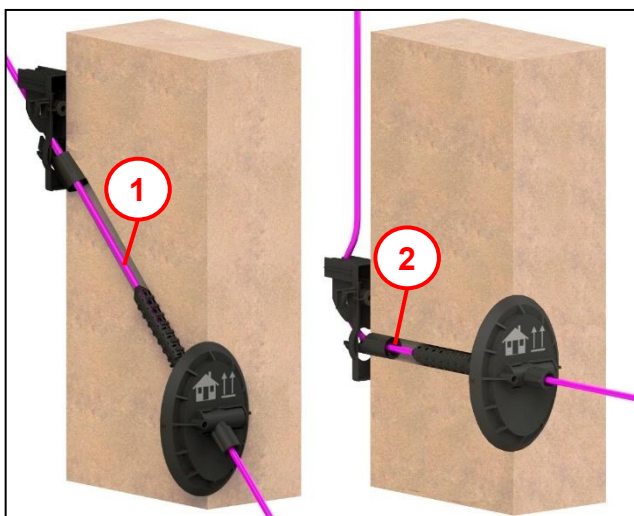


Fig. 1

The system can be installed straight at 90° (2) or inclined (1) up to 45° upwards. Installation is identical in both cases.

Straight installation is illustrated in these instructions.

4.2 Dimensions

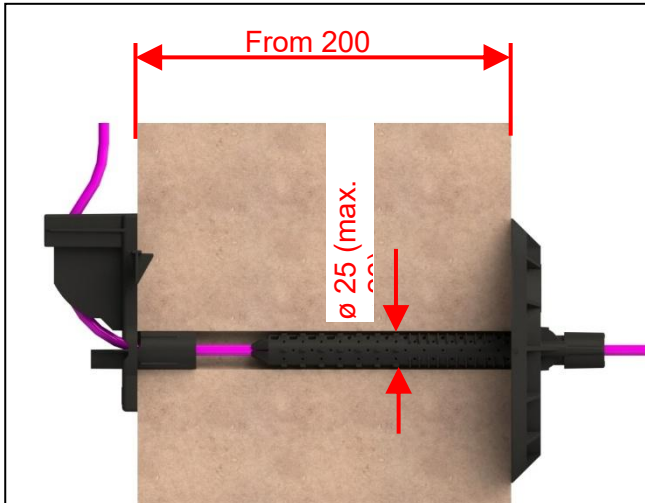


Fig. 2

- For wall thicknesses of from 200 mm
- Core hole ø 25 mm (max. ø 26 mm)

5 Scope of delivery



Fig. 3

- Item 1** Internal guide
- Item 2** Foam pipe
- Item 3** Outside flange
- Item 4** Dust protection cap for micro-duct pipe
- Item 5** Seal for 1x ø 6–13 mm
- Item 6** Seal for 2x ø 7 mm
- Item 7** Dowel nail 6 x 40 mm
- Item 8** L100 2-component sealing foam cartridge with mixing pipe
- Item 9** Disposable glove
- Item 10** Cover (depending on model)

6 Required tools

- 2-component cartridge gun (such as Ponal PPGUN) (Fig. 4) or Ponal PP 6 (Fig. 5)
- Alternatively standard cartridge gun (Fig. 6) with adapter for cartridge gun **(1)** (see also section 8 Accessories).
- Not shown:
 - Rubber mallet
 - Drill bit Ø 25 mm
 - Philips screwdriver Pozidriv size 2



Fig. 4

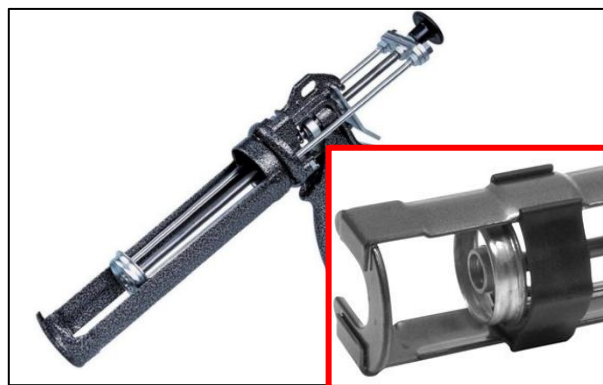


Fig. 5

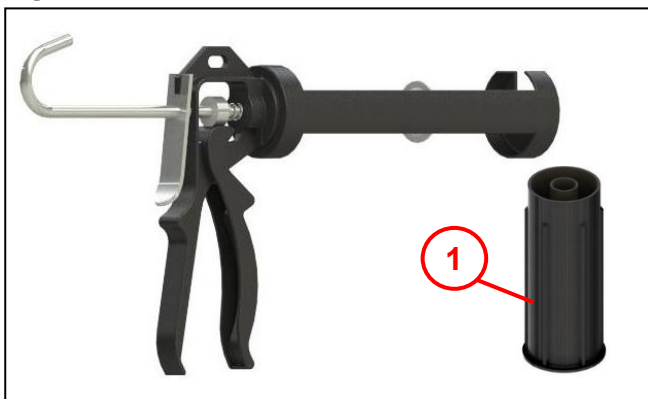


Fig. 6

7 Installation

7.1 Drill hole

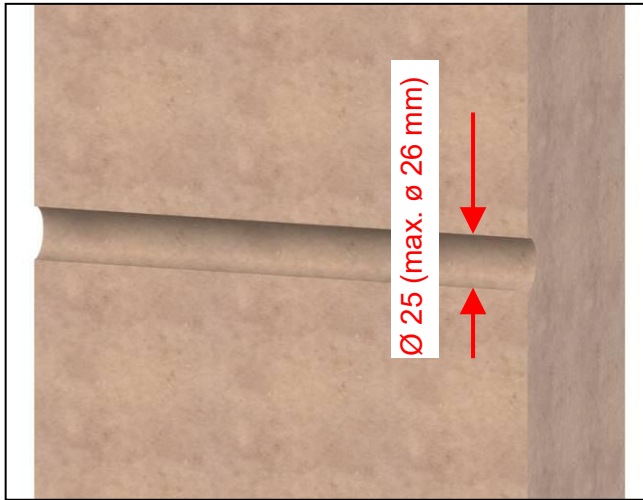


Fig. 7

- The substrate must be clean, largely dry, free of dust and grease, and there should be no standing water.
- Drill a $\varnothing 25$ mm (max. $\varnothing 26$ mm) hole from the inside to the outside.
- At the drill exit point (if present), cut out and remove thermal insulation (polystyrene or rigid foam panels) including any dimpled sheet that may be present.
- **Caution!**
Even out any uneven exterior masonry around the contact surface of the outside flange by sanding or with quick-setting mortar.
Ensure that the entire surface of the outside flange can be in contact.
- Properly restore plaster chipping or spalling > 50 mm as well as damaged bitumen coatings in “tanked walls” that are not covered completely by the outside flange of the optical fibre building cable & pipe entry system.

Note!

The bitumen coating must be touched up in accordance with DIN 18533. Ensure a seamless join to the existing coating.

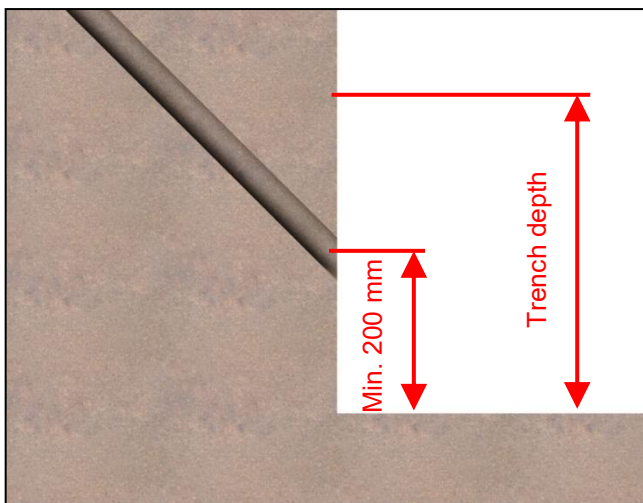


Fig. 8

Note for inclined installation:

Trench depth = wall hole exit + 200 mm.
This clearance is needed for installation.

7.2 Preparing the optical fibre building cable & pipe entry system



Fig. 9

- Fold together the foam pipe **(1)**.

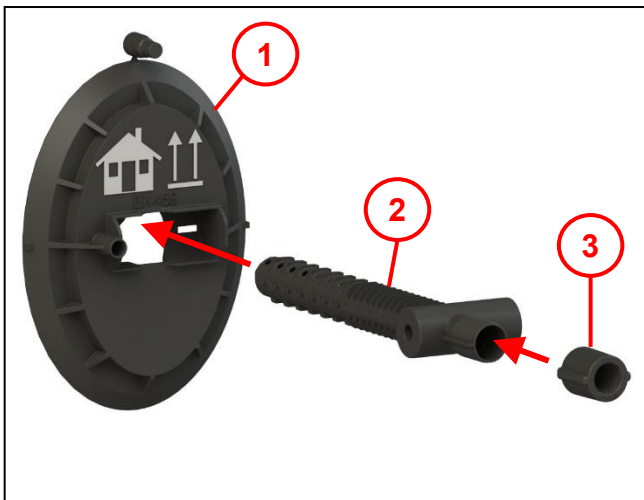


Fig. 10

- Attach the universal seal $\varnothing$ 6–13 mm or 2x $\varnothing$ 7mm **(3)** to the foam pipe **(2)**.
- Insert the foam pipe into the outside flange **(1)**.

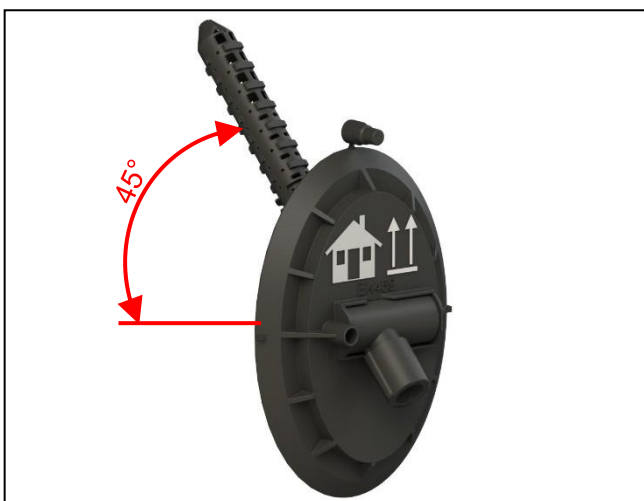


Fig. 11

Inclined installation is possible up to 45° upwards.

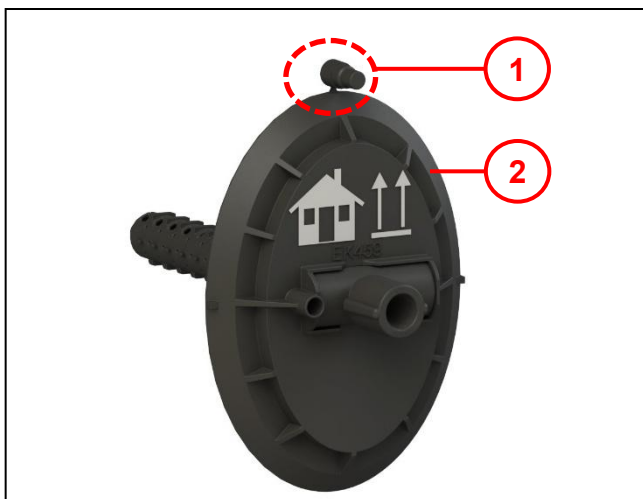


Fig. 12

- Remove the dust cap **(1)** from the outside flange **(2)**.

7.3 Preparing the media cable

Note! Clean the micro-duct pipe before use!

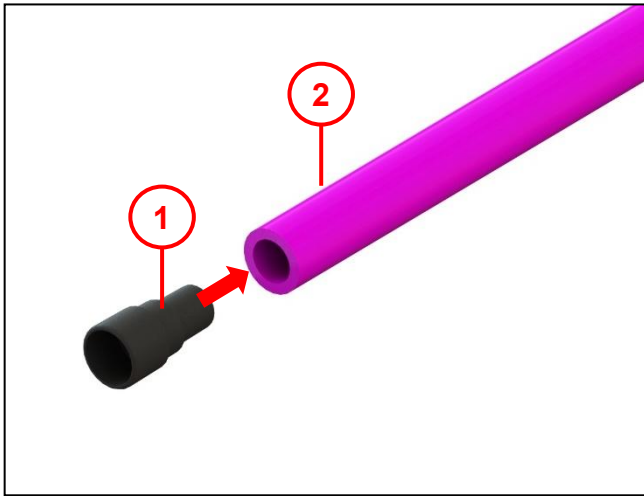


Fig. 13

- Use the dust cap (1) with micro-duct pipes $\varnothing$ 12 mm (2).

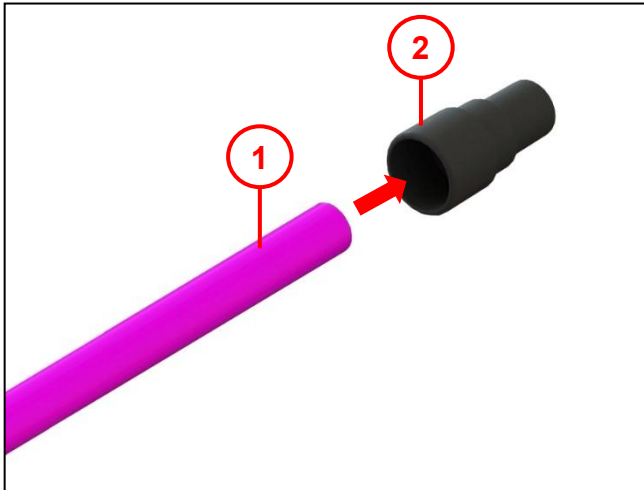


Fig. 14

- Use the dust cap (2) with micro-duct pipes $\varnothing$ 7 mm or $\varnothing$ 10 mm (1).

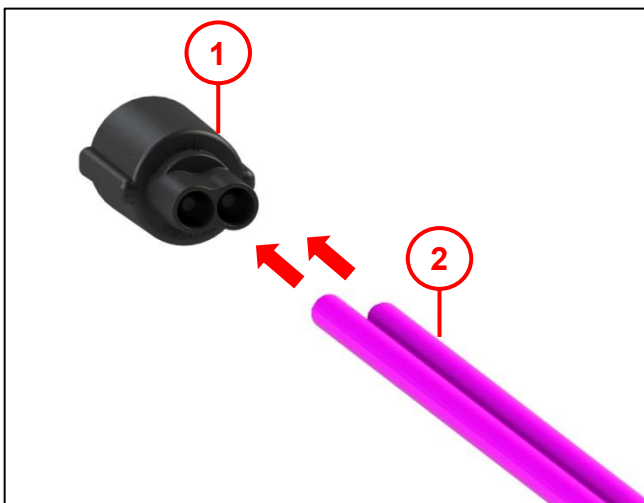


Fig. 15

- The dust caps are built into the seal (1) for 2x micro-duct pipes with $\varnothing$ 7 mm (2).

Note!

Do not use a separate dust guard here!

7.4 Inserting the optical fibre building cable & pipe entry system

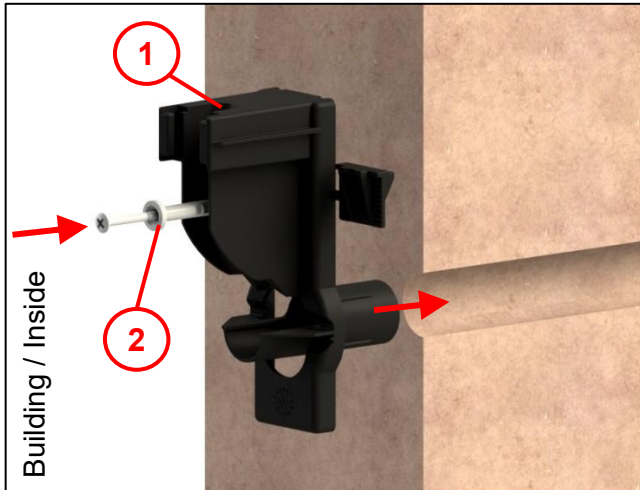


Fig. 16

Note!

Continue with Fig. 18 when installing the optical fibre building cable & pipe entry system tightly above the base plate.

- Position the guide (1) at the hole and drive in until the base plate is in contact with the wall.
- Drill a hole $\varnothing$ 6 mm at least 50 mm deep.
- Drive the dowel nail 6 x 40 mm (2) into the wall and tighten.

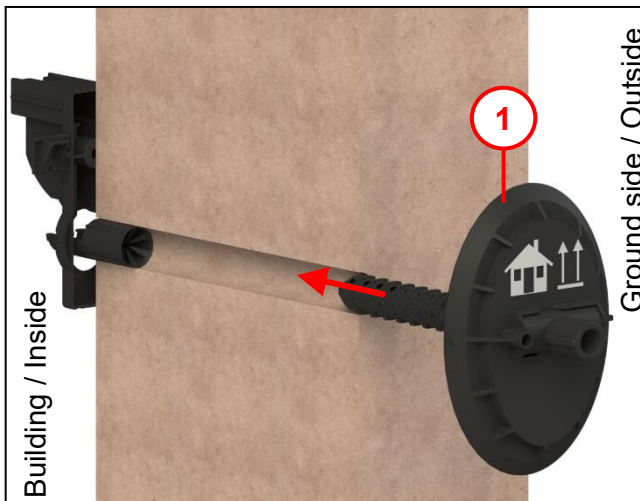


Fig. 17

- Place the foam pipe with outside flange (1) into the drill hole and insert as far as the beginning of the snap lug (Note Fig. 20).
- Drive in the foam pipe with outside flange with a rubber mallet until the outside flange is fully in place.

Note!

Alternatively, the guide (1) can also be installed after the outside flange (2), but **Note:** the wall duct must be completely installed before foaming!

Continue with Fig. 20

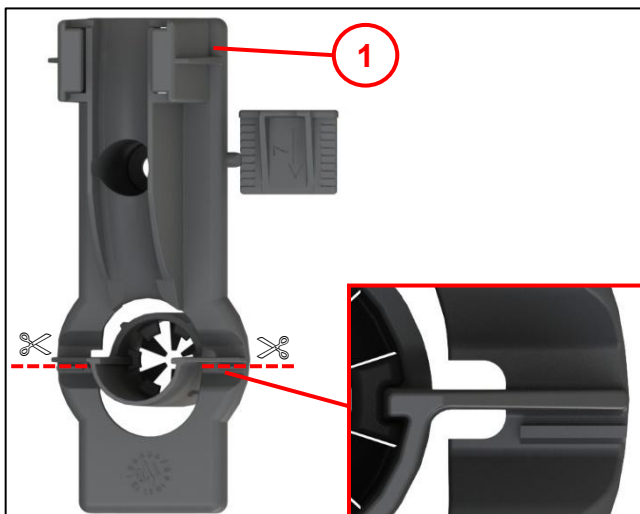


Fig. 18

Cut off the lower part of the guide when installing the optical fibre building cable & pipe entry system just above the base plate.

- Cut off the guide (1) below the marking ridges.

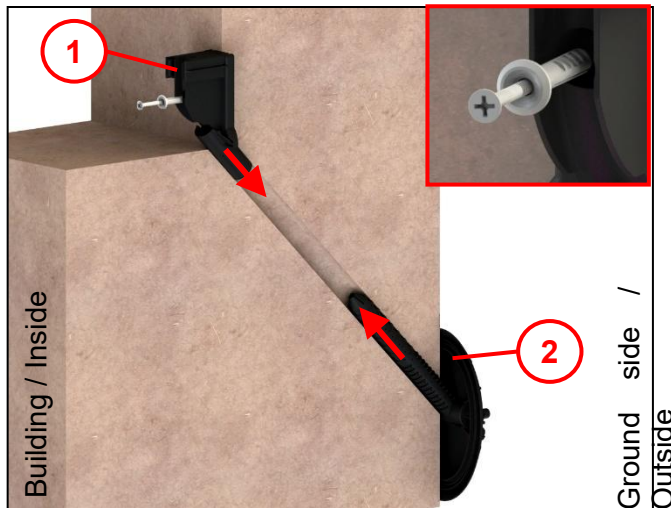


Fig. 19

- Position the shortened guide (1) at the hole and drive in until the base plate is in contact with the wall.
- Drill a hole $\varnothing 6$ mm at least 50 mm deep.
- Drive the dowel nail 6 x 40 mm (3) into the wall and tighten.
- Place the foam pipe with outside flange (2) into the drill hole and insert as far as the beginning of the snap lug.
- Drive in the foam pipe with outside flange with a rubber mallet until the outside flange is fully in place.

Note!

Alternatively, the guide (1) can also be installed after the outside flange (2) but **Note:** the wall duct must be completely installed before foaming!

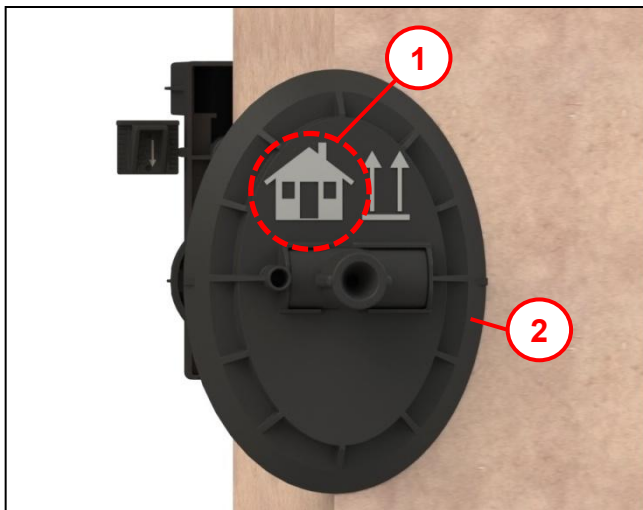


Fig. 20

Note!

When inserting the outside flange (2), pay attention to the direction of installation: install with the "house pointing up" (1).

7.5 Inserting the media cable

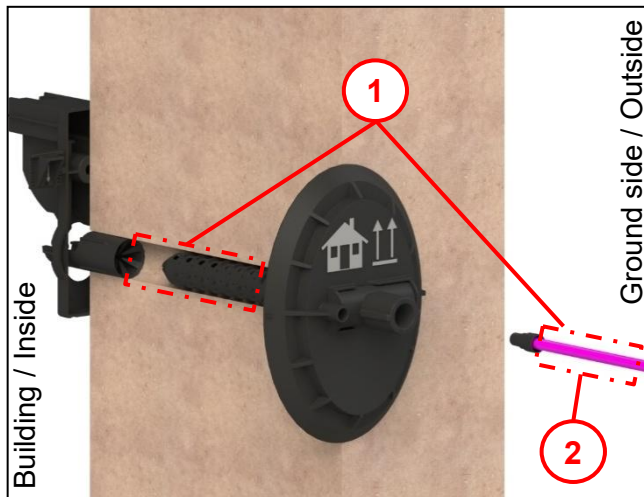


Fig. 21

Note!

Keep the media cable (2) free of grease in the foaming area (1).

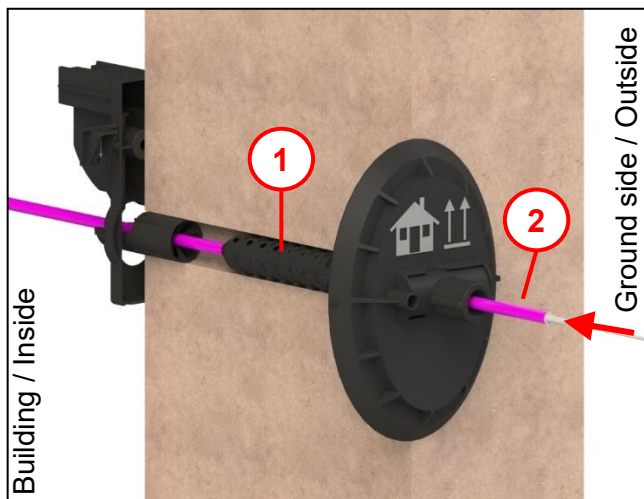


Fig. 22

- Pull the media cable (2) straight and insert it through the foam pipe (1) from the ground side.

Note!

Ensure sufficient cable length (on the basement side)! The cable can no longer be pulled further once the L100 2-component sealing foam has been injected.

7.6 Injecting the 2-component sealing foam

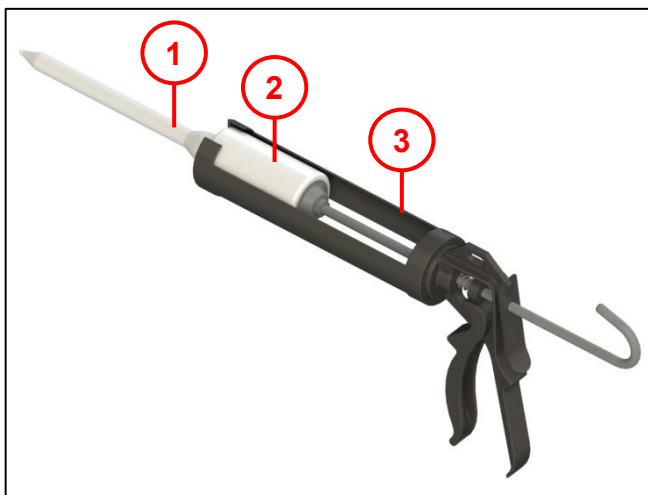


Fig. 23

- Put on the disposable glove.
- Place the cartridge (2) into the cartridge gun (3).
- Remove the cap and screw on the mixing nozzle (1).
- Fill the mixing nozzle using the cartridge gun.

- Reconfiguration is no longer possible after filling with foam!
- Use a suitable cartridge gun or alternatively an adapter (see section 8) for the cartridge (2).

Note the best before date for the 2-component sealing foam! Refer to the printed date on the cartridge: Filling date + 18 months

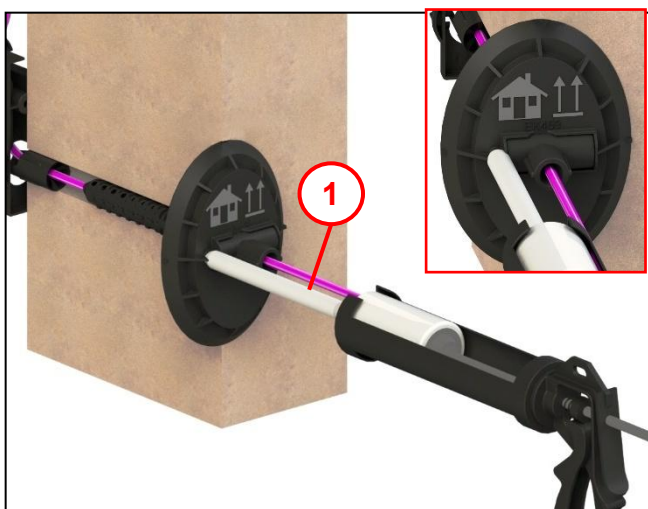


Fig. 24

- Insert the mixing nozzle (1) into the filling opening (2).
- Inject the L100 2-component sealing foam and always **empty the cartridge completely**.
- Leave the mixing nozzle with cartridge in the filling opening for a few minutes (for disposal, see section 12).

7.7 Continued routing of the media cable

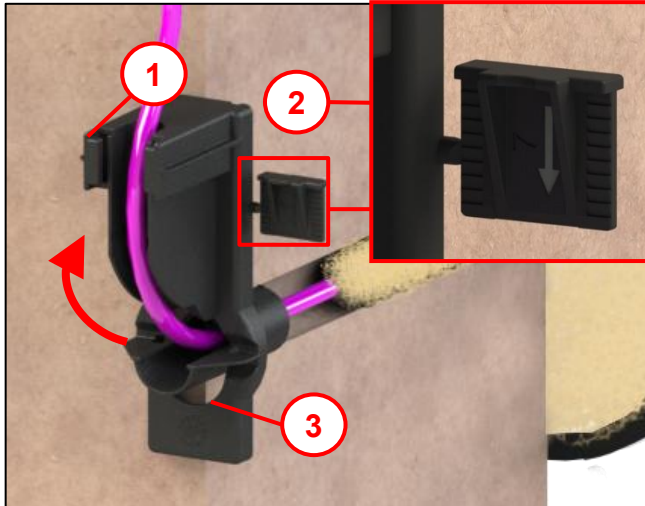


Fig. 25

- Guide the media cable (1) over the guide (3) to the wall.
- Remove the wedge (2) from the guide.

Note!

- Before continuing, remove the dust cap and, if necessary, use a suitable tool to shorten the micro-duct pipe.
- Only route the media cable upwards **after** the cable has been blown in!
- Note the minimum bending radius of the cable and micro-duct pipe!

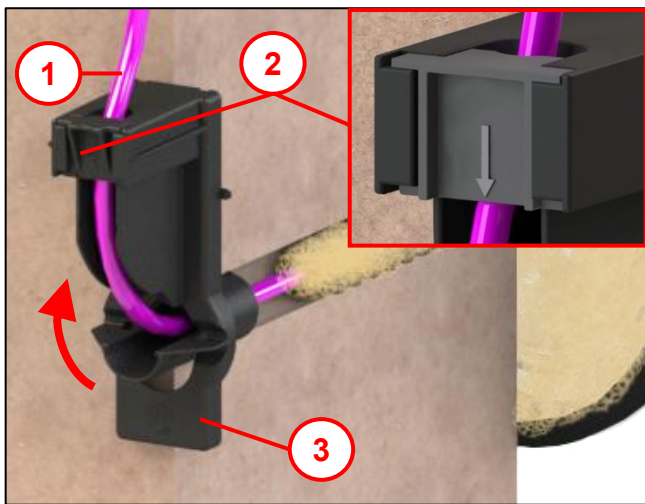


Fig. 26

- Secure the media cable (1) with the wedge (2).
- Insert the wedge flush into the guide (3) from above.

Note!

Pay attention to the direction of installation of the wedge, see Fig. 27.

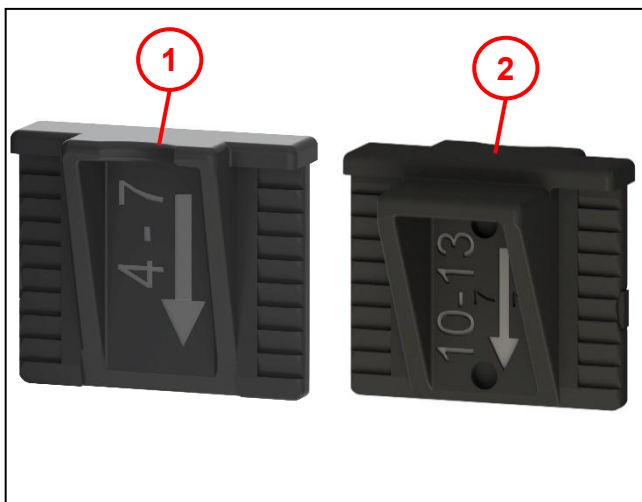


Fig. 27

- Item 1** With media cables $\varnothing$ 6–9 mm, the lettering “7” or “4-7” must be facing outwards.
- Item 2** The lettering “10-13” must be facing outwards with media cables $\varnothing$ 10–13 mm or two media cables $\varnothing$ 7 mm.

7.8 Fitting the cover (optional)

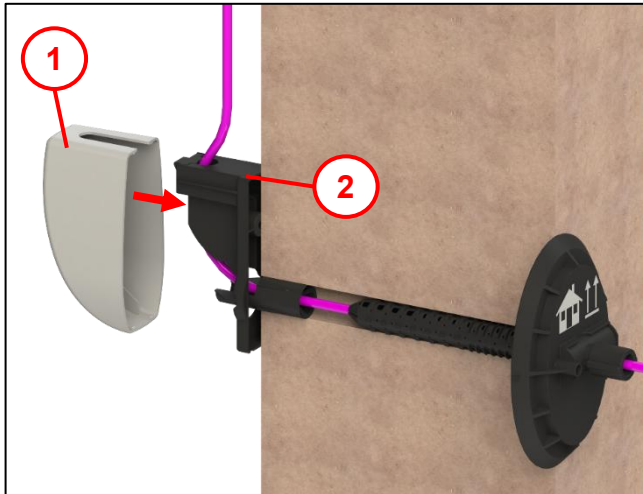


Fig. 28

- Place the cover (1) on the guide (2).

8 Accessories

Article number	Designation	Figure
700732500 / 012	Cartridge gun adapter Packaging unit: 12x	
094592020 / 012	Cover for optical fibre building cable & pipe entry system Packaging unit: 12x	

9 Material defects

Langmatz GmbH assumes liability for material defects in the product for 24 months as per Section 434 BGB (German Civil Code), starting from the date on the purchase receipt.

Within the scope of liability, all parts that become damaged due to manufacturing faults or material defects will be replaced or repaired free of charge.

The purchaser must report any deficiency complaints immediately in writing.

Claims by the purchaser for damages due to material defects or for whatever legal reason will not be accepted.

Any damage or failure caused by the following are also excluded from liability

- Incorrect use,
- Natural wear and tear,
- Intervention by third parties.

We accept no liability for damage caused by force majeure or transport.

Repairs due to a complaint about a defect do not extend the warranty period for the replaced parts or for the product.

This product conforms to the latest state-of-the-art technology. Nevertheless, if you experience any problems with it, please contact our hotline (see section 14 Contact).

10 Quality management

The Langmatz GmbH quality management system is certified to DIN EN ISO 9001.

11 Disclaimer/Warranty

The information in this technical document is presented appropriately and correctly in compliance with the technical regulations, and to the best of our knowledge. However, this does not confer any guarantee of particular properties. In this context, the operator of the Langmatz GmbH products is expressly obliged to decide, based on their own judgement, whether the products are suitable and appropriate for the application or use being considered. The product liability accepted by Langmatz GmbH relates exclusively to our conditions of sale, delivery, and payment. Langmatz GmbH accepts no liability on the basis of random, indirect and resultant consequential damage, or of any damage attributable to any use of the product other than its intended purpose as described.

12 Disposal

Dispose of the contents and containers in accordance with all local, regional, national and international laws.

13 Safety information for L100 2-component sealing foam



Isocyanate training

<https://isopa-aisbl.idloom.events/048-de>

T048: 048 Professional application of adhesives and sealants
/ Small packaging at ambient temperature



Safety information sheet

<https://www.q-wa.net/doku/Dichtschaum%20L%20100>

14 Contact

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