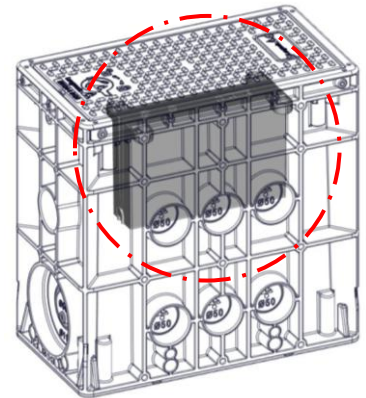
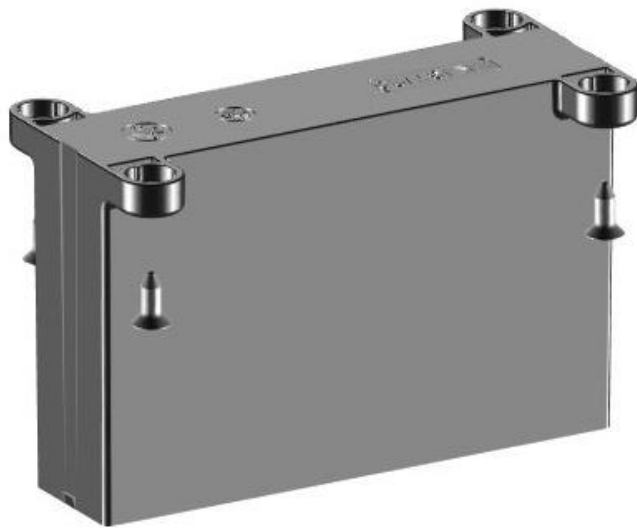


Installation Instructions

Retrofit kit for optical fibre transfer manhole



Contents

<u>1</u>	<u>General information</u>	<u>3</u>
<u>2</u>	<u>Safety information</u>	<u>3</u>
<u>3</u>	<u>Product description</u>	<u>4</u>
	<u>3.1 Dimensions</u>	<u>4</u>
	<u>3.2 Technical data</u>	<u>4</u>
	<u>3.3 Scope of delivery</u>	<u>5</u>
<u>4</u>	<u>Required tools (not included)</u>	<u>5</u>
<u>5</u>	<u>Installation</u>	<u>6</u>
	<u>5.1 Removing the cover from the optical fibre transfer manhole</u>	<u>6</u>
	<u>5.2 Installing the diving-bell cabinet on the cover</u>	<u>6</u>
	<u>5.3 Inserting the optical fibre cable</u>	<u>7</u>
	<u>5.4 Installing the strain relief panels (drop)</u>	<u>7</u>
	<u>5.5 Opening the splice unit</u>	<u>8</u>
	<u>5.6 Cabling the splice unit – splices 1 to 24</u>	<u>8</u>
	<u>5.7 Cabling the splice unit – splices 25 to 48</u>	<u>9</u>
	<u>5.8 Inserting the splice unit into the diving-bell cabinet</u>	<u>9</u>
	<u>5.9 Inserting the cover with diving-bell cabinet into the optical fibre transfer manhole</u>	<u>9</u>
	<u>5.10 Locking the cover</u>	<u>10</u>
<u>6</u>	<u>Accessories</u>	<u>10</u>
<u>7</u>	<u>Material defects</u>	<u>11</u>
<u>8</u>	<u>Quality management</u>	<u>11</u>
<u>9</u>	<u>Disclaimer/Warranty</u>	<u>11</u>
<u>10</u>	<u>Contact</u>	<u>11</u>

1 General information

These instructions are supplied with the equipment.



Warning!

Any person involved in the installation, operation and repair of the product must first read, understand, and follow these installation instructions. They must also read the installation instructions and other product-related documents, and retain them for subsequent use. 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 optical fibre transfer system is designed for stationary and underground installation as

- telecommunication distribution points / fibre distribution points,
- energy distribution systems.

Langmatz GmbH warns against the misuse of the product.

Work on electrical or electronic fixtures may only be performed by qualified electricians or skilled optical fibre personnel.

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.

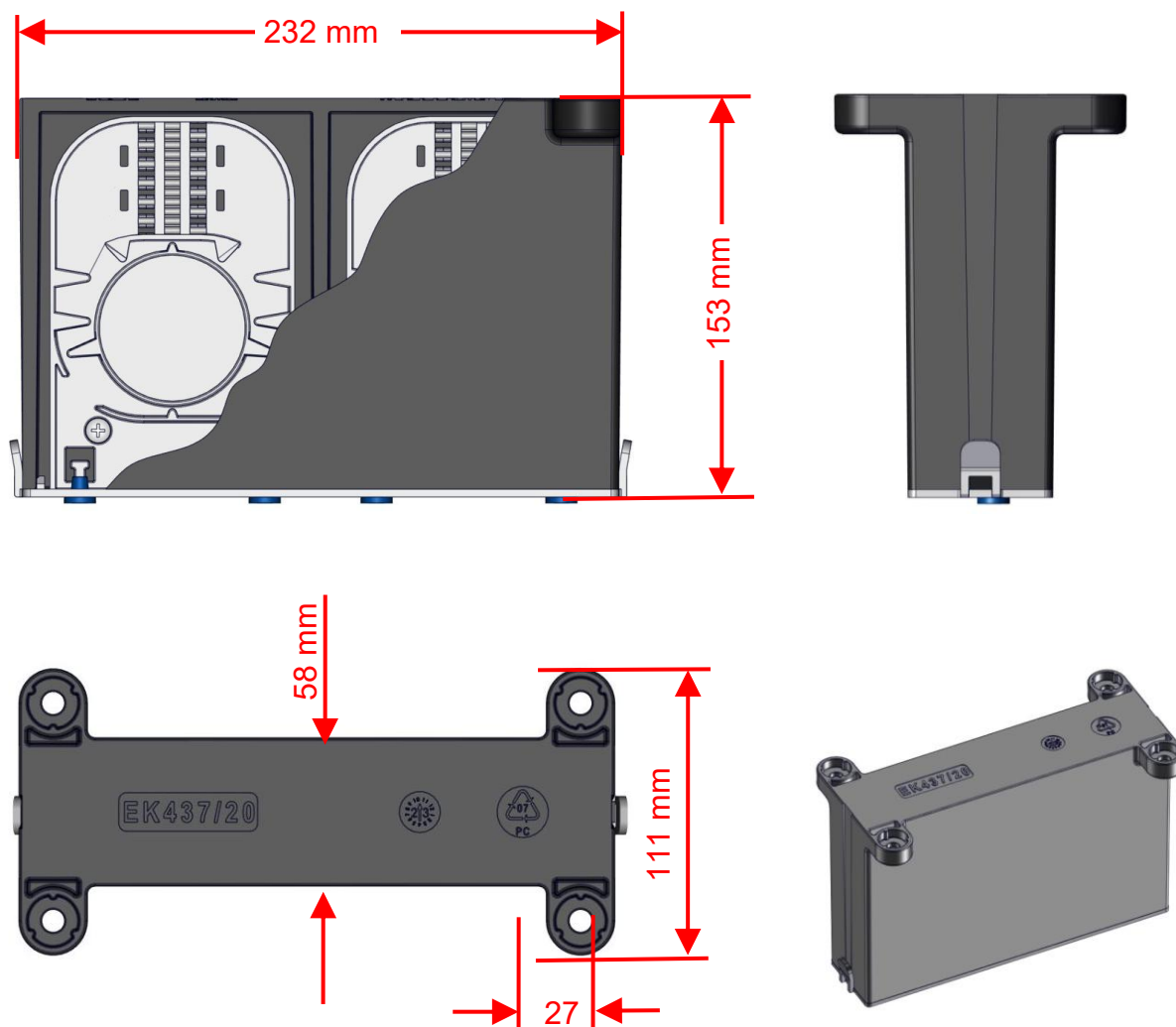
The operator is responsible for installing, operating and maintaining the fixtures.

The operator is responsible for the following:

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

3 Product description

3.1 Dimensions



3.2 Technical data

External dimensions (L x W x H):	232 x 111 x 153 mm
Total weight	approx. 0.8 kg
Material	polycarbonate (PC)
Splice protection tray	for 48x heat shrink splice protectors
Water penetration depth in the diving-bell cabinet with a water column above the upper edge of the manhole	15 mm with 1 m of water column 25 mm with 2 m of water column

3.3 Scope of delivery

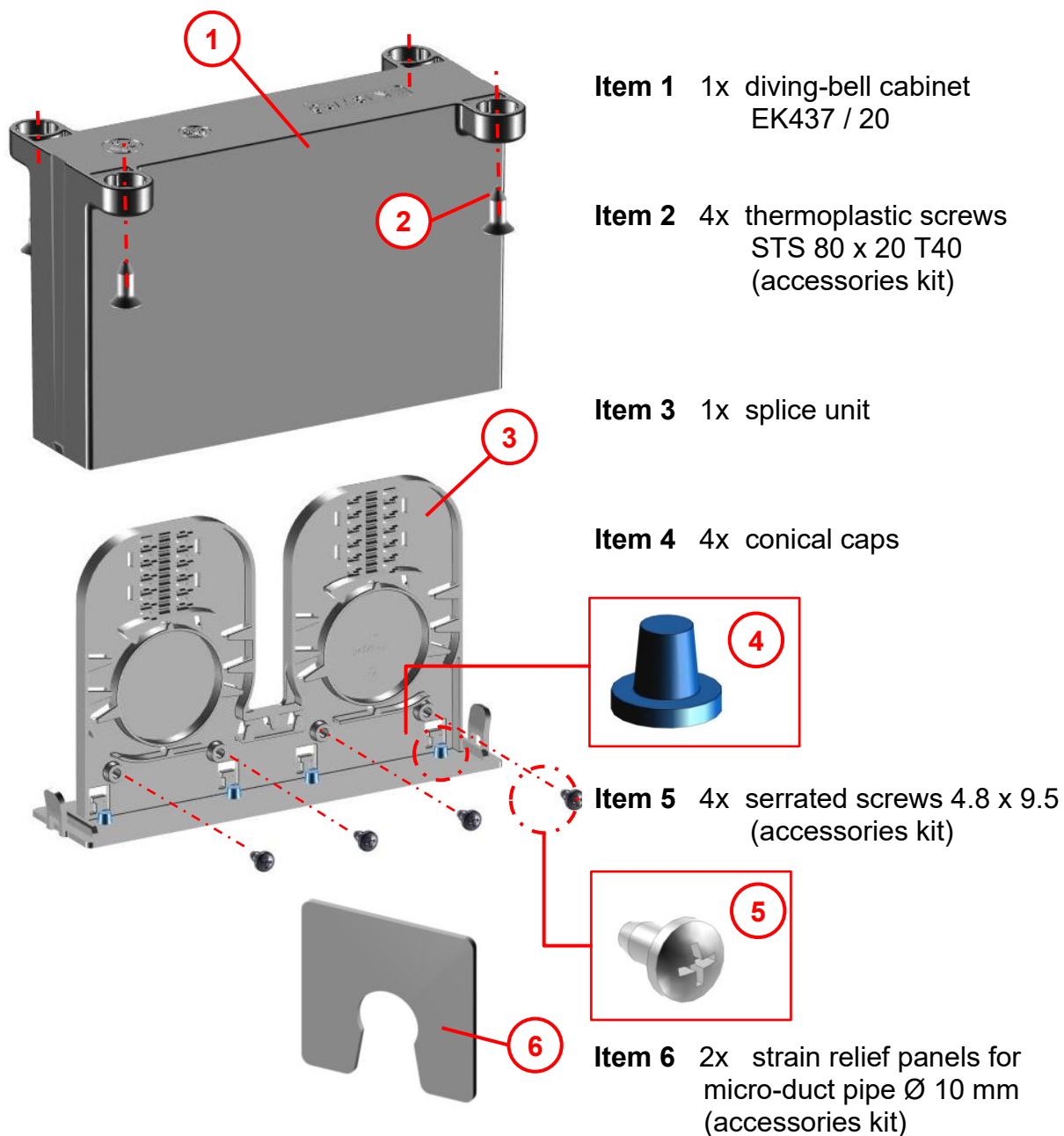


Fig. 1

4 Required tools (not included)



- 1** Phillips screwdriver (for serrated screws 4.8 x 9.5)
- 2** Torx T40 screwdriver (to screw the diving-bell cabinet using the thermoplastic screws STS 80 x 20 T40).

Fig. 2

5 Installation

5.1 Removing the cover from the optical fibre transfer manhole

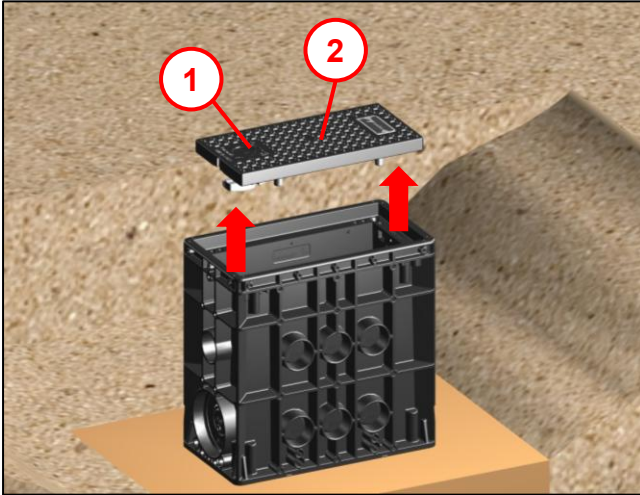


Fig. 3

- Use an appropriate key to unlock **(1)** the cover **(2)** of the optical fibre transfer manhole.
- Remove the cover.

5.2 Installing the diving-bell cabinet on the cover

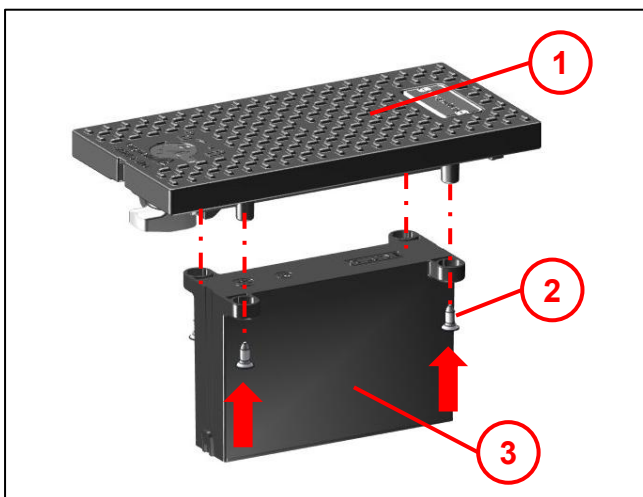


Fig. 4

- Screw the diving-bell cabinet **(3)** to the underside of the cover **(1)** using 4x thermoplastic screws STS 80 x 20 T40 **(2)**.

5.3 Inserting the optical fibre cable

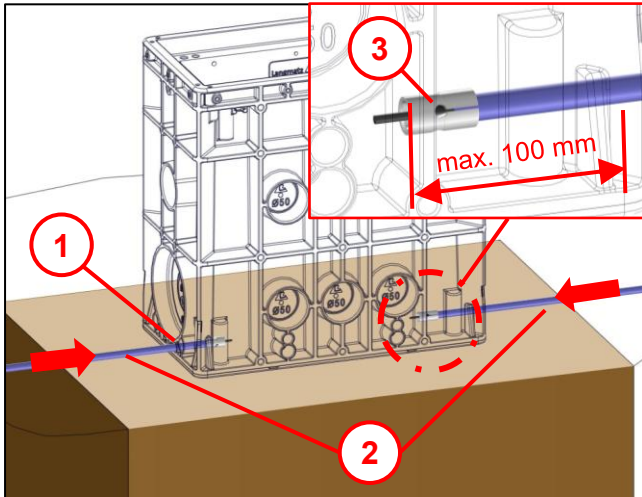


Fig. 5

- Punch through the corresponding predetermined breaking point (1) on the optical fibre transfer manhole.
- Insert the micro-duct pipe (2) into the manhole.

Note!

Entry of the micro-duct pipe into the manhole
max. 100 mm from the internal wall of the manhole!

- Fit a micro-duct gas stop (3) to the micro-duct pipe.
(not included).



Caution! – When using in conjunction with Langmatz optical fibre transfer system distribution and termination boxes.

Use an appropriate tool to shorten the pre-assembled micro-duct pipe to avoid damaging the internal optical fibre cable!

5.4 Installing the strain relief panels (drop)

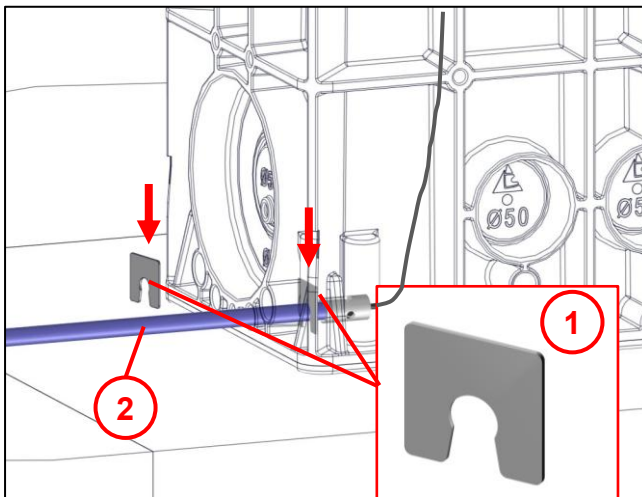


Fig. 6

- Attach 2x strain relief panels (1) directly to the manhole wall onto the micro-duct pipe (2) (1x on the inside – 1x on the outside).

Note!

Two additional strain relief panels are supplied with the Langmatz optical fibre distribution and termination boxes for installation at the “feeder”.

5.5 Opening the splice unit

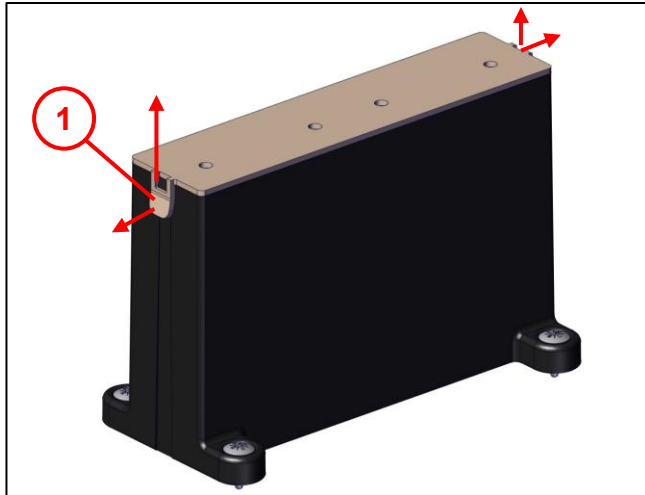


Fig. 7

- Open up 2x cover lugs (1) on the left and right by pulling **manually** simultaneously in a controlled manner.

Note!

Open the cover lugs without using a tool as there is otherwise a risk of damage.

5.6 Cabling the splice unit – splices 1 to 24

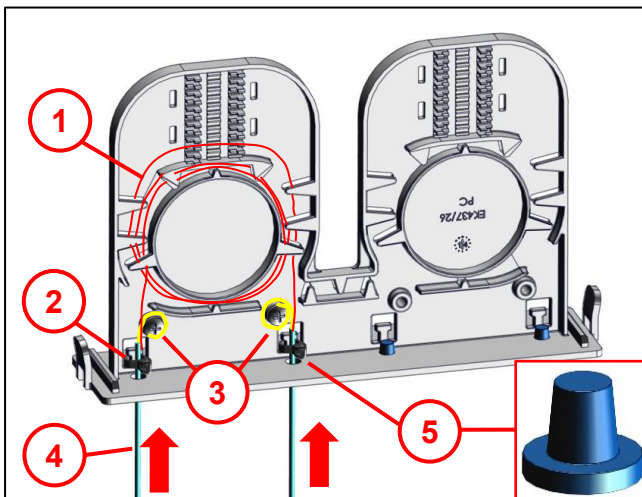


Fig. 8

Remove the splice unit from the optical fibre transfer manhole for cabling.

- Remove 2x conical caps (5).
- Insert the optical fibre cable (4) as far as the mounting bar (2) and use cable ties to attach it to it.
- Fasten the aramid yarn of the optical fibre cable to the splice unit with a serrated screw (3) to provide strain relief.
- Splice and store the fibres (1).

Note!

Only use heat shrink splice protectors to protect the splice connections.

We recommend using heat shrink splice protectors art no. 700893847 (see 6 Accessories)
Min. heat shrink temperature: 110 °C
Max. heat shrink time: 60 seconds

5.7 Cabling the splice unit – splices 25 to 48

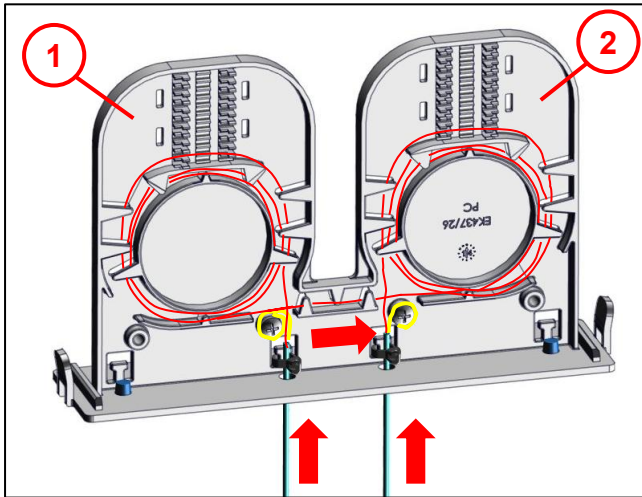


Fig. 9

Cables with over 24 fibres:

- Splice 24x fibres.
- Store the fibres on the left side (1).
- Route the remaining fibres on the right side (2).
- Splice and store the fibres.

Note!

Maximum accommodation capacity:
24x heat shrink splice protectors on the left
24x heat shrink splice protectors on the right.

5.8 Inserting the splice unit into the diving-bell cabinet

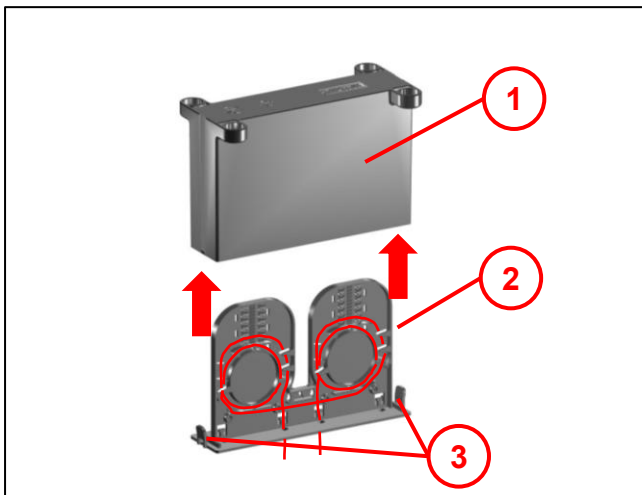


Fig. 10

- Insert the splice unit (2) into the diving-bell cabinet (1) until the side lugs (3) lock.

5.9 Inserting the cover with diving-bell cabinet into the optical fibre transfer manhole

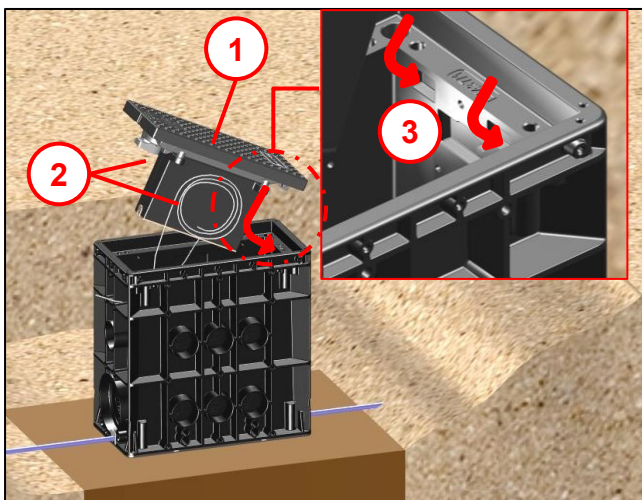
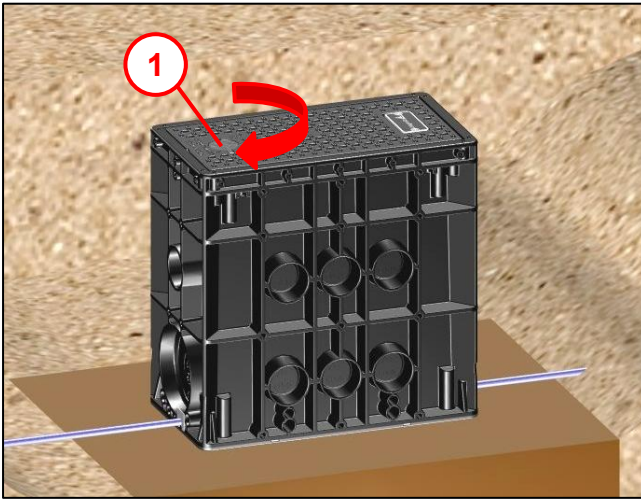


Fig. 11

- Store excess lengths of optical fibre cables (2) in the manhole on the left and right of the diving-bell cabinet.
- Insert the cover with diving-bell cabinet (1) into the manhole at an angle.
- Insert the cover with the formed hook into the recesses provided (3) and close.

5.10 Locking the cover



- Use an appropriate tool to lock the cover.

Fig. 12

6 Accessories

No.	Description	Art. no.
1	Heat shrink splice protectors 2.4x40 mm Packaging unit of 100	700893847

7 Material defects

Langmatz GmbH accepts liability for material defects in the product as per Section 434 BGB (German Civil Code) for 24 months, 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.

8 Quality management

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

9 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.

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