



FTTX SOLUTION



# FTTH GPON FIBER DISTRIBUTION HUB SOLUTION WITH SPLICING



# FTTH GPON Fiber Distribution Hub Solution with Splicing

The FTTH GPON Fiber Distribution Hub Solution with Splicing enables the construction of the distribution part of a GPON network using fiber distribution hubs. The entire network is designed for 100% penetration, minimizing the need for additional work when connecting customers who initially did not allow the installation of a fiber drop during construction.

To accommodate future expansion or network sharing with another operator, the design includes a minimum 25% fiber reserve.

## Microducts and Cables

- Drops up to 12 fibers – 7/4 mm microduct.
- Distribution section between pillars and the central office (CO):
  - for cables up to 12 fibers – 10/6 mm microduct,
  - for cables up to 48 fibers – 12/8 mm microduct.

## Cable blowing recommendations:

- The cable diameter must not exceed 3/4 of the inner microduct diameter to ensure smooth blowing.
- Every cable exit from the microduct must be sealed with a properly rated gas block. This ensures protection against moisture and dust, increasing network reliability.

## Pillars

Each pillar includes a fiber organizer that allows:

- clear organization of spliced fibers,
- storage of fiber reserves in dedicated areas,
- integration of "small format" splitters.

Each pillar is equipped with split grommets, enabling cable routing without the need to splice midspan fibers.

## Splitters

- Split ratio used – 1:128.
- Two-stage splitting – 1:8 and 1:16.
- Splitters are installed as close to the customer as possible, which reduces the total fiber count and number of splices in the network.

Tip: The number of splices can be found in the item 8c.

## How to Work with the Solution

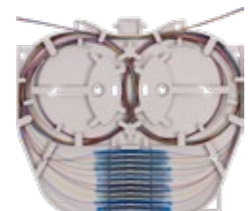
- A complete list of materials is available in the Product Table section. It includes:
  - product names,
  - ordering codes,
  - short labels used within the solution.
- Color coding of products improves navigation.
- The city scheme with product labels serves as a reference design for network planning.
- Required materials are listed at each point in the network.
- The Fiber Plan – shown on the right side of the city scheme – is detailed in the Fiber Plan section, where individual item lists are displayed for each network point.
- Interactive labels – by clicking on a label, you'll be taken directly to the product detail page on the website. This makes the solution a functional gateway to all related products.



Fiber Management – FibeRoad™ (included in MDP OZ)



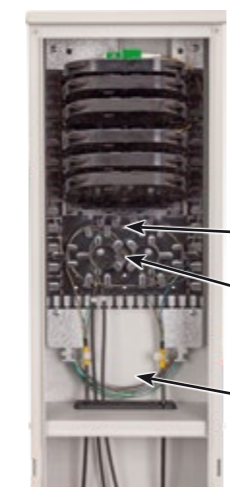
Tray KM 4 for Heat Shrinkable Protection, 24F (trays are not included in MDP OZ – 144S, 288S, 432S)



Tray KM 9 for Heat Shrinkable Protection, 12F (trays are not included in MDP OZ – 576S, 864S)



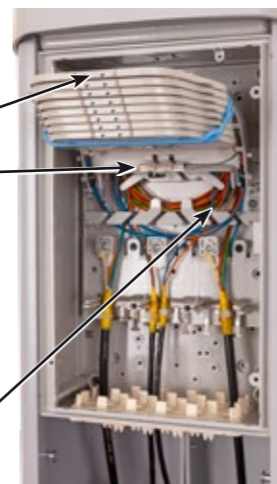
In all pillars, microducts are terminated with a gas block in the base.



OUP 72S 6x KM3



Tray KM 3, 12F (trays included in OUP)



MDP S 96S SFMS



Tray SFMS SC Long, 12F (trays included in MDP S)

1...

Product ID	Ordering Code	Fiber Distribution Hub OUP
1	85GP40/000XF	OUP 72S 6x KM3

2...

Product ID	Ordering Code	Fiber Distribution Hub MDP S
2	859F00/0001F	MDP S 96S SFMS

3...

Product ID	Ordering Code	Fiber Distribution Hubs MDP OZ
3a	85GB.00/0000F	MDP OZ 144S
3b	85GB.20/0000F	MDP OZ 288S
3c	85GB.40/0000F	MDP OZ 432S
3d	85C3.79/000X	KM 4 Kit for Heat Shrinkable Protection

4...

Product ID	Ordering Code	Fiber Distribution Hubs MDP OZ
4a	85GB.60/0000F	MDP OZ 576S
4b	85GB.80/0000F	MDP OZ 864S
4c	85AV.52/000X	KM 9 SC (tray for 12 splices)

5...

Product ID	Ordering Code	Microducts
5a	710717	MT Micro, 7/4, HDPE, blue
5b	On request	MT Micro, 7/4, HDPE, various colors
5c	711067	MT Micro, 10/6, HDPE, blue
5d	On request	MT Micro, 10/6, HDPE, various colors
5e	710817	MT Micro, 12/8, HDPE, blue
5f	On request	MT Micro, 12/8, HDPE, various colors

6...

Product ID	Ordering Code	Gas Blocks
6a	497238	Microduct Seal 7 mm (yellow, 2.3–3.0 mm)
6b	497242	Microduct Seal 10 mm (yellow, 2.5 mm)
6c	On request	Duct Seal Slim 12 mm (red, 5.0–6.5 mm)

7...

Product ID	Ordering Code	Fiber Optic Cables
7a	711361	Cable Optical, Air Blown, 2F, G.657A1, Central Tube, 2.5 mm
7b	711362	Cable Optical, Air Blown, 4F, G.657A1, Central Tube, 2.5 mm
7c	On request	Cable Optical, Air Blown, 8F, G.657A1, Central Tube, 2.5 mm
7d	711328	Cable Optical, Air Blown, 12F, G.657A1, Central Tube, 2.5 mm
7e	711365	Cable Optical, Air Blown, 24F, G.657A1, 2x12, 5.1 mm
7f	711366	Cable Optical, Air Blown, 42F, G.657A1, 4x12, 5.1 mm

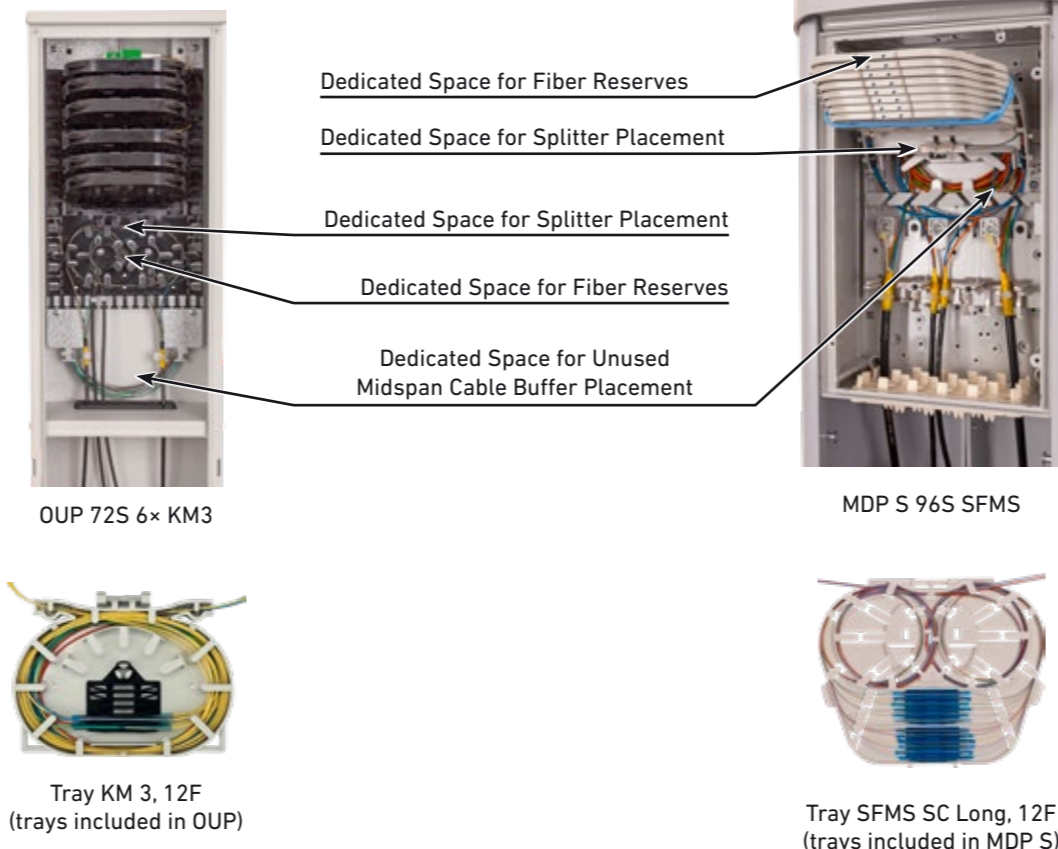
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Product ID	Ordering Code	Optical Splitters and Splice Holders
8a	710449	Splitter PLC 1:8, fiber to fiber, 0.25 mm to 0.25 mm, 2m, G.657A1
8b	710263	Splitter PLC 1:16, fiber to fiber, 0.25 mm to 0.25 mm, 2m, G.657A1
8c	493520	TS 12 – Splice Holder (heatshrink)

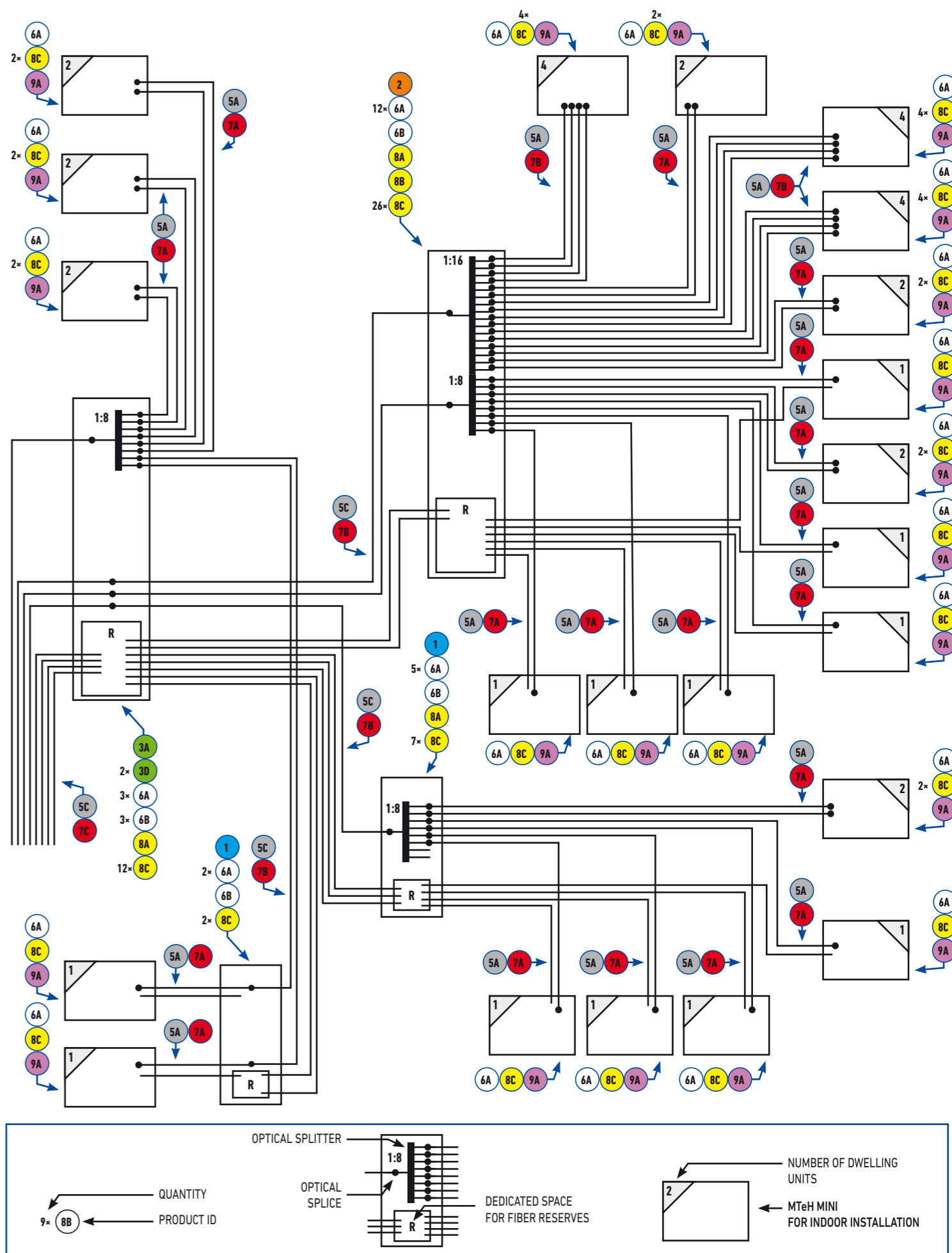
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Product ID	Ordering Code	Fiber Optic Boxes for Indoor Installation
9a	85GR.00/0000F	MTeH MINI (8x SC / 16x LC connector, 12 splices)
9b	85U8.17/000X	MDB XS – A (12x SC / 24x LC connector, 24 splices)
9c	85TG.20/000X	MDB S – A (24x SC / 48x LC connector, 48 splices)
9d	85C3.92/000X	MDB M – B (32x SC / 64x LC connector, 96 splices)

**ATTENTION!**  
Use the Product ID for better navigation within the solution.



## FIBER PLAN





# FTTH GPON Fiber Distribution Hub Solution with Splicing

3...



### MDP OZ 432S

- UP TO 432 SPLICES
- 18x TRAY KM 4
- OPTIONAL PLACING OF PLC SPLITTERS
- FIBEROAD™ SYSTEM COMPATIBLE
- UP TO 36 CABLE INPUTS
- HINGEABLE/REMOVABLE SPLICING SECTION

3...



### MDP OZ 288S

- UP TO 288 SPLICES
- 12x TRAY KM 4
- OPTIONAL PLACING OF PLC SPLITTERS
- FIBEROAD™ SYSTEM COMPATIBLE
- UP TO 36 CABLE INPUTS
- HINGEABLE/REMOVABLE SPLICING SECTION

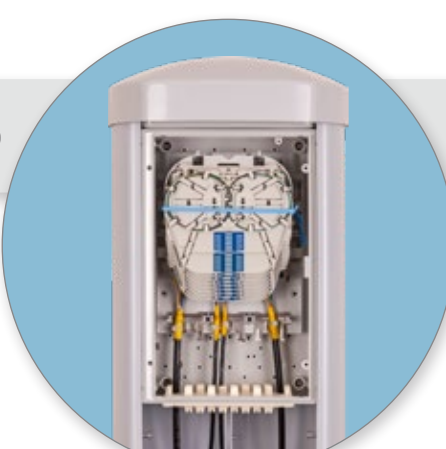
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### MDP OZ 144S

- UP TO 144 SPLICES
- 6x TRAY KM 4
- OPTIONAL PLACING OF PLC SPLITTERS
- FIBEROAD™ SYSTEM COMPATIBLE
- UP TO 36 CABLE INPUTS
- HINGEABLE/REMOVABLE SPLICING SECTION

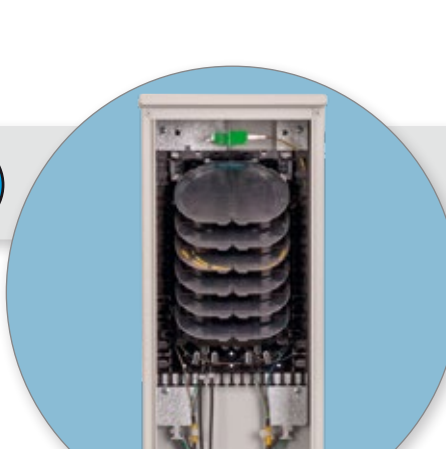
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### MDP S 96S SFMS

- UP TO 96 SPLICES
- 8x TRAY SFMS SC LONG
- UP TO 2 PLC SPLITTERS (1:8, 1:16)
- FIBER MANAGEMENT
- UP TO 36 CABLE INPUTS

1...



### OUP 72S 6x KM3

- UP TO 72 SPLICES
- 6x TRAY KM 3
- OPTIONAL PLACING OF PLC SPLITTERS (1:8)
- FIBER MANAGEMENT
- UP TO 11 CABLE INPUTS
- OPTIONAL FLUSH MOUNTING

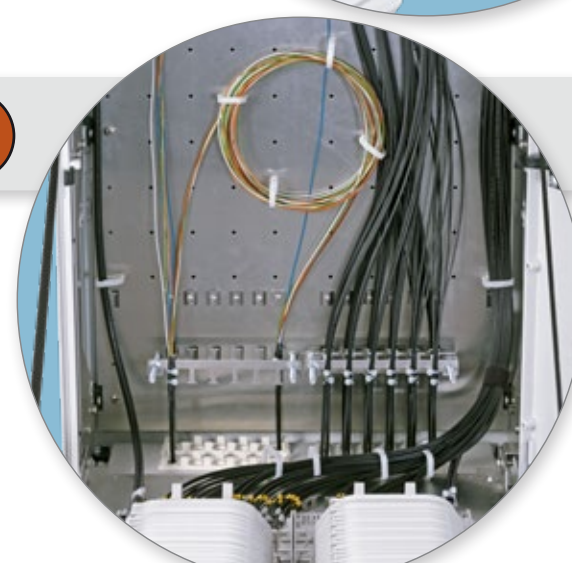
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### MDP OZ 576S

- UP TO 576 SPLICES
- 48x TRAY KM 9
- OPTIONAL PLACING OF PLC SPLITTERS
- FIBEROAD™ SYSTEM COMPATIBLE
- UP TO 102 CABLE INPUTS
- HINGEABLE/REMOVABLE SPLICING SECTION

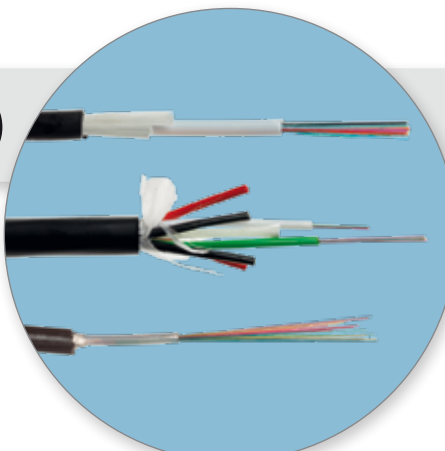
4...



### MDP OZ 864S

- UP TO 864 SPLICES
- 72x TRAY KM 9
- OPTIONAL PLACING OF PLC SPLITTERS
- FIBEROAD™ SYSTEM COMPATIBLE
- UP TO 102 CABLE INPUTS
- HINGEABLE/REMOVABLE SPLICING SECTION

7...



### Fiber Optic Cables

- FOR BLOWING INTO MICRODUCTS

5...



### Microducts

- THICK-WALLED FOR DIRECT BURIAL
- FOR BLOWING MICRO CABLES
- INTERNAL MICRO-RIBBING

6...



### Gas Blocks

- FOR TERMINATION OF MICRODUCT
- GAS- AND WATER-TIGHT UP TO 0.5 BAR
- PRE-SLIT FOR RETROFIT INSTALLATION

