

MicroDucts Figure-8 Aerial

Highly efficient, cost-effective aerial FTTH deployments

Recommended for rural environments and other areas where digging is challenging

Figure-8 Aerial is a dielectric (non-metallic) self-supporting solution for aerial fibre networks. It is particularly useful in places where subscriber density and/or terrain make direct burial cost prohibitive, e.g. rural and/or rocky areas, and the provision of multiple pathways for a single installation cost provide a more future-proof alternative to stranded or lashed cable. The Figure-8 Aerial design removes the need for a separate messenger and the metal-free construction means the product can be attached to both telecom and power poles, alongside electrical cables without the need for grounding.

Key benefits:



- **Cost effective:** reduce the cost of an FTTH deployment by 20% versus direct-burial



- **Time-efficient:** reduce the duration of an FTTH deployment by 30% versus direct-burial



- **Future-proof:** install once and provision vacant pathways for future expansion



- **Robust:** protect fibre-optic cables against extreme weather conditions

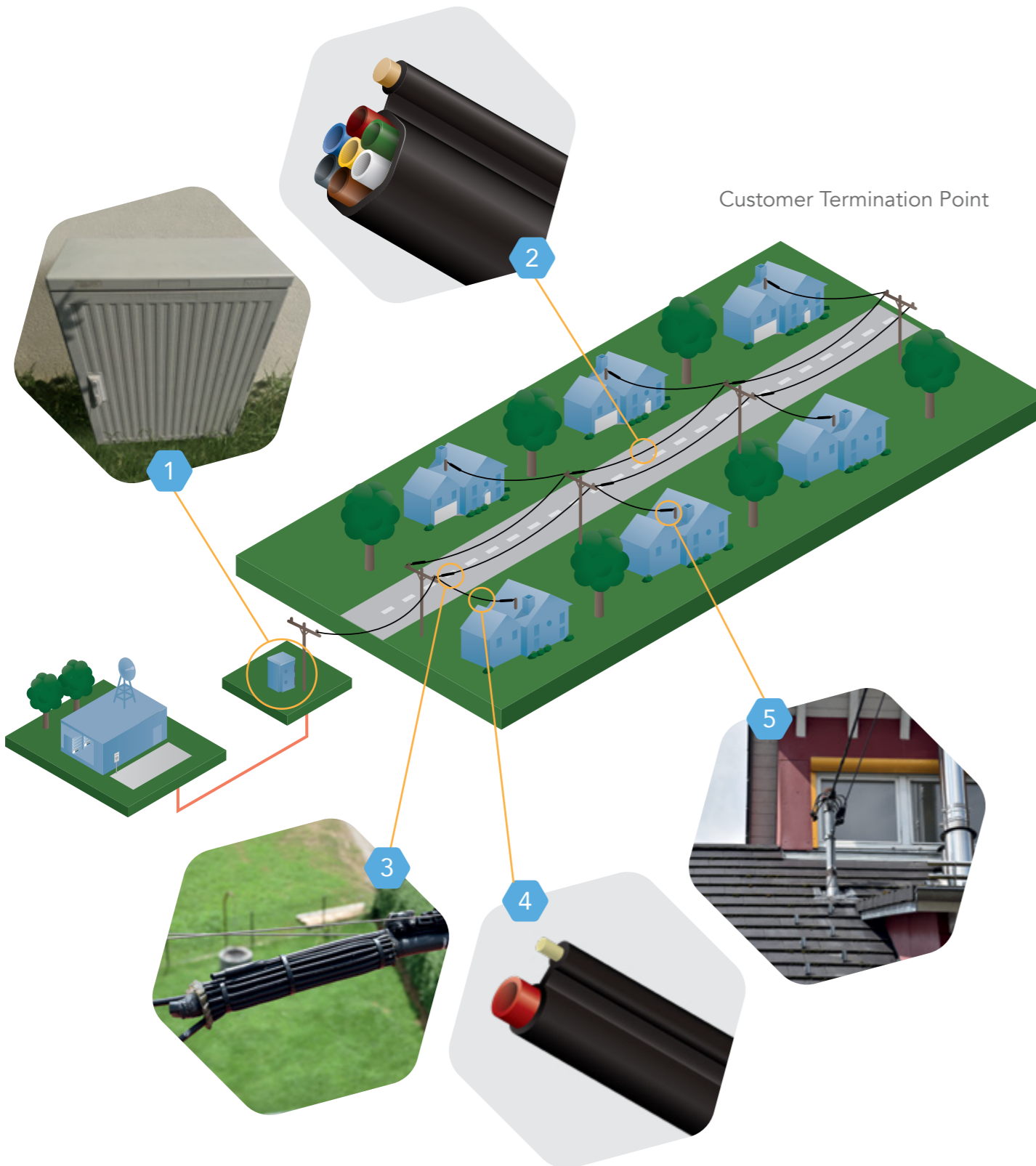


- **Installer-friendly:** utilise same the network architectures, components, fibre-optic cables, installation crews, and tools as for underground deployments



An Orbia Connectivity Solutions business.

Example Architecture



Key components of the solution:

- FuturePath Figure-8 Aerial: MicroDuct bundles for fibre distribution
- MicroDucts Figure-8 Aerial: MicroDucts for the final connection to a premise
- Accessories: Including pole-fixing accessories and a branch-off duct closure for proper installation and routing of Figure-8 Aerial

1 Distribution Point

The transition point between the underground feeder and the aerial distribution networks. The street cabinet/handhole should be placed as close to the first aerial pole as possible so that Figure-8 Aerial MicroDucts can be led directly from the cabinet/handhole to the pole. FuturePath Aerial allows the bundle's full fiber capacity and pole loading potential to be calculated once, at the start of the deployment process.

2 FuturePath Figure-8 Aerial

Using our standard FuturePath Figure-8 Aerial 7x12/10 design, the central part of the bundle can be used for trunk cables (up to 144 fibers), while the remaining MicroDucts can be used for subscriber connections or can be used to extend the rest of the trunk line.

3 Branch-Off Point

The transition point between a bundled 5/3.5 mm MicroDuct and a single Figure-8 Aerial Drop MicroDuct, for the final connection to a premise. A Branch-Off Duct Closure ensures a secure connection.

4 MicroDuct Figure-8 Aerial

A single 5/3.5 mm MicroDuct which accommodates a drop cable (typically 2-4 fibres) to connect individual subscriber premises. Operators may choose to leave MicroDuct Figure-8 Aerial empty until subscribers take service, to facilitate quick, cost-effective final connections at a later date.

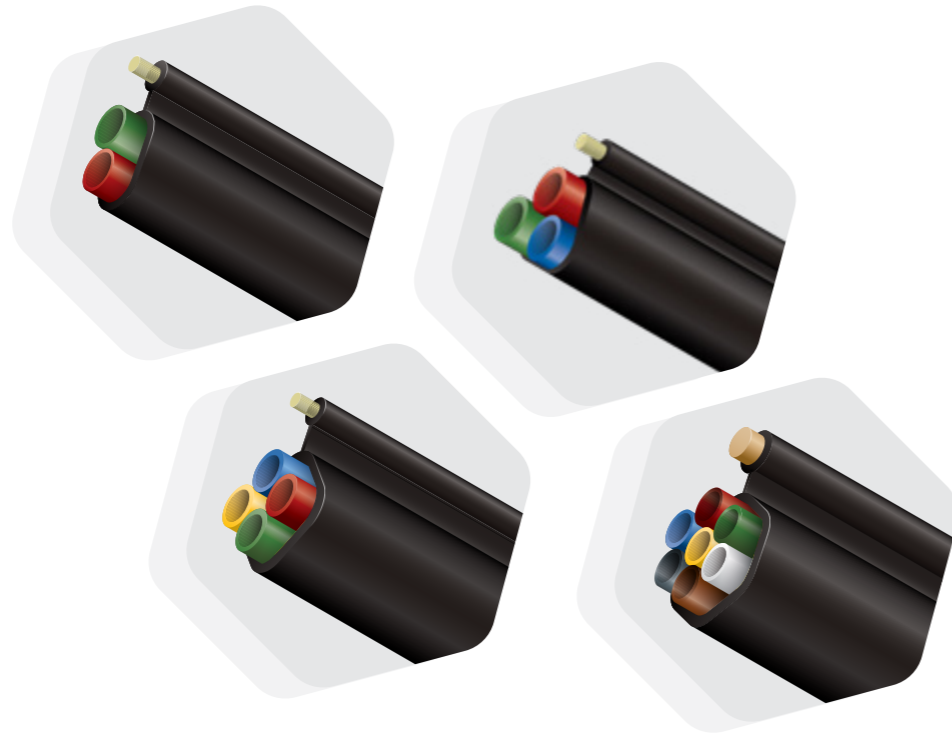
5 Roof Entry Point

The transition point between the drop section of the network and the subscriber premise, via the property's roof. A House Roof Entry Kit uses a heat shrink to seal the entry point of the duct into the property.

Core Range

FuturePath Figure-8 Aerial

used for backbone or distribution networks



Config x Outer Diameter / Inner Diameter (OD/ID mm)	Recommended cable sizes
4 x 5/3.5	1 - 2.3 mm
2 x 12/10	4.5 - 7 mm
3 x 12/10	4.5 - 7 mm
4 x 12/10	4.5 - 7 mm
7 x 12/10	4.5 - 7 mm

Standard features:

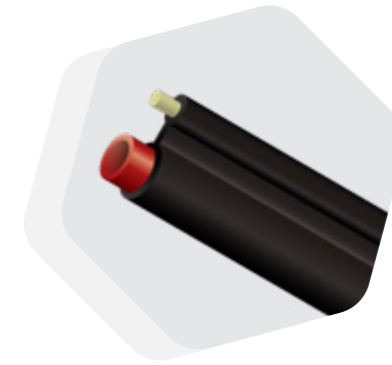
- Meter markings
- SILICORE® low-friction lining

Optional features:

- Smooth wall or internal ribs
- Additional tests can be performed upon customer request, such as vibration or tension tests

MicroDucts Figure-8 Aerial

used for "last mile" connection from the distribution bundle



Outer Diameter / Inner Diameter (OD/ID mm)	Recommended cable sizes
5/3.5	1 - 2.3 mm
10/8	2.5 - 6.2 mm
12/10	4.5 - 7 mm

Key Benefits Overview

- Quick and simple to deploy
- No expensive digging
- Easy future capacity expansion
- Standard aerial components and installation methods
- Completely metal-free – no grounding necessary
- Can be installed alongside power lines
- Minimal/no aerial splicing required
- Protects cables against extreme weather (snow, wind, and ice) and UV light



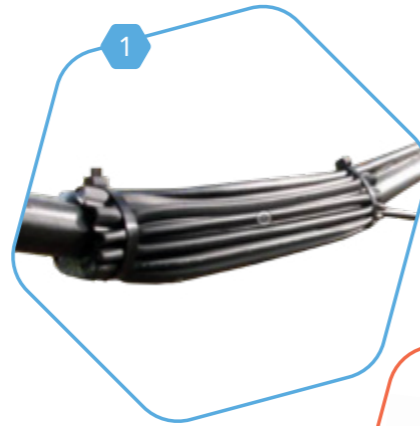
Accessories Core Range

Closures and Clamps

1 Branch-Off Duct Closure

Ensures a secure connection at the transition point between FuturePath Figure-8 Aerial and MicroDucts Figure-8 Aerial.

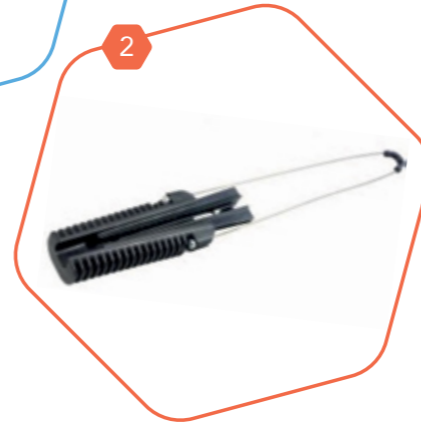
- Accommodates up to 3 branch-off connections
- Key parameters:
 - Operating temperature: -40 °C to 95 °C
 - Water-tight



2 Anchoring Clamp

Fixes MicroDucts to a pole at an end termination point (e.g. transition to underground network), or where a change in direction is required in the distribution network. Variations:

- FuturePath Figure-8 Aerial Anchoring Clamp
- MicroDucts Figure-8 Aerial Anchoring Clamp



Connectors and End Stops

1 DuraFit Connectors and Reducers

Make connections between MicroDucts quickly and easily without the need for tools. Transparent design affords greater control when connecting MicroDucts and enables visual confirmation of the presence of a cable. An optional cover provides increased impact resistance.

- Burst pressure: 25 bar
- Impact Resistance: 1 joule (5 joules with cover)
- Working pressure: 15 bar
- Meet or exceed requirements of EN 50411-2-8:2009 standard



2 DuraEnd Stop

Provides a gas and water-tight seal of a MicroDuct pathway to prevent moisture or debris from entering the duct. An optional cover provides increased impact resistance.

- Burst pressure: 25 bar
- Impact resistance: 1 joule (5 joules with cover)
- Meet or exceed requirements of EN 50411-2-8:2009 standard



Tools

1 FuturePath Jacket Cutter

The cutter is perfect for slitting the jacket a FuturePath bundle to provide access the MicroDucts inside.



2 Ratchet Tool

Facilitates a longitudinal "window" cut to enable branching-off of individual MicroDucts from FuturePath Figure-8 Aerial.



3 MicroDuct Cutter

Provides sharp and precise cutting of MicroDucts to facilitate optimal MicroDuct connections.





An Orbia Connectivity Solutions business.

Dura-Line is the leading global manufacturer of communication infrastructure products including conduit, MicroDucts and accessories. We have been making connections possible across telecom, CATV, wireless, and enterprise networks for more than 50 years. With our innovative product solutions, unparalleled customer insight, strong production capabilities and high-quality standards, Dura-Line is perfectly poised to support aerial MicroDuct solutions for efficient FTTH deployments.

Contact us:

+420 577 199 111 or

+49 (0)5931 9963 620

Europe.sales@duraline.com

© 2025 Dura-Line

All rights reserved. Reproduction in whole or in part is prohibited without the prior written consent of the copyright owner. No liability will be accepted by the publisher for any consequence of its use. Publication thereof does not convey nor imply any license under trademark- or other industrial or intellectual property rights.

www.duraline-europe.com

Fig-8 Aerial_FEB2025