#4

The Knet Microduct Series

Combined Duct

Combined Duct: One Pathway, Many Possibilities

Smarter, faster, and future-ready solutions for feeder and last-mile fiber networks.

knet

Why Choose KNET Combined Ducts?

In today’s fast-paced fiber rollout environment, flexibility and speed are more critical than ever. That’s why Combined Ducts—our Series #4 highlight—are becoming the go-to solution for service providers looking to simplify deployment across feeder and last-mile networks.

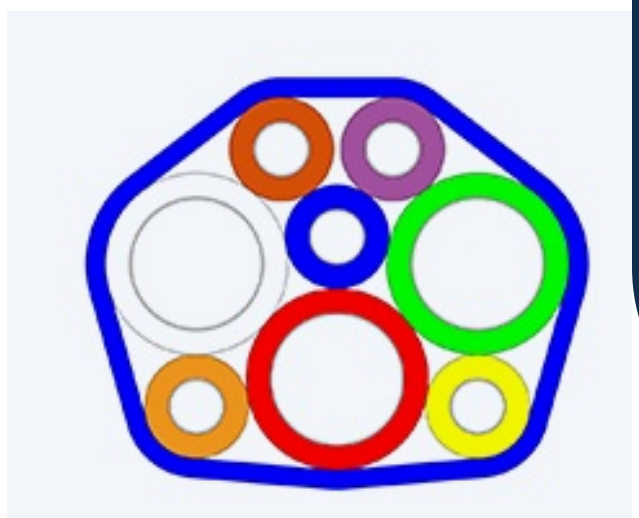
By bundling multiple microducts of different sizes into a single duct pathway, providers can:

- Maximize use of existing infrastructure
- Reduce installation time and civil work
- Plan for both current needs and future expansion

14/10mm 3way + 8/4mm 5way

Different sizes of microducts can be combined into a single bundled microduct.
Using one bundle for both feeder and last-mile applications—with mixed duct sizes—is a cost-efficient approach. It helps avoid the unnecessary use of oversized ducts, especially in last-mile deployments.

For example, if you need 3 tubes for a 144-core ABC/Microcable and 5 tubes for subscriber drops using 8-core cables, you can include a total of 8 tubes in one bundle—with different sizes tailored to each purpose.

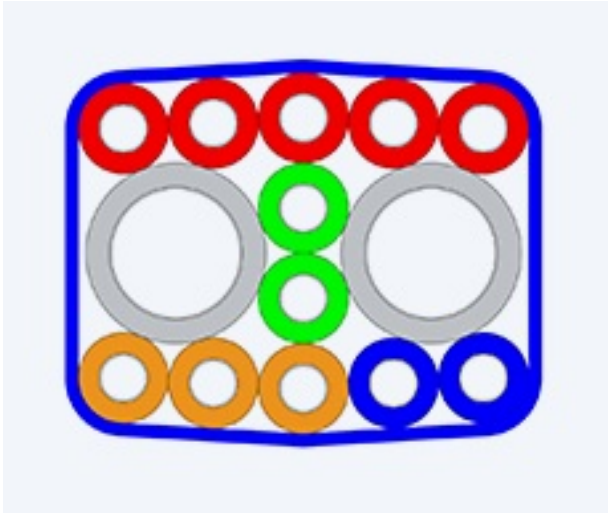


12/10mm 3way + 10/8mm 4way + 14/10mm 1way

Common ducting concept:
Service providers share a single pathway to build a backbone network, helping reduce civil work costs. Each provider is assigned individual ducts based on their needs, with inner duct sizes tailored to their specific requirements.

For example, three different duct sizes—14/10mm, 12/10mm, and 10/8mm—can be used to accommodate various cable capacities such as 144-core and 288-core fiber.

14/10mm 2way + 7/3.5mm 12way



Network owners can build networks more easily and efficiently, while also saving costs by using a combined duct in a single pathway.

Distribution and drop networks can be constructed at the same time using a mix of 14/10mm and 7/3.5mm ducts.

Combined ducts are ideal for both PIA-style deployments and common ducting models adopted by smart cities and infrastructure providers across Asia

A Smarter Backbone for Shared Infrastructure

Many regions—including Physical Infrastructure Access (PIA) model—are embracing shared duct strategies. Multiple providers can co-exist in one trench, with duct dimensions tailored to each provider's needs.
This reduces not only the cost of civil works, but also speeds up network availability—without building from scratch.

Common ducting
refers to a shared physical pathway—usually an underground duct bank—used by multiple service providers (ISPs, utilities, telecoms) to lay their fiber or utility cables side by side in a structured and space-efficient manner.

NEED MORE TIPS?

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