

MetroJET

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FIBRAIN MetroJET MICRODUCT SYSTEM

The telecommunication
infrastructure
of the 21-st century

Part 2

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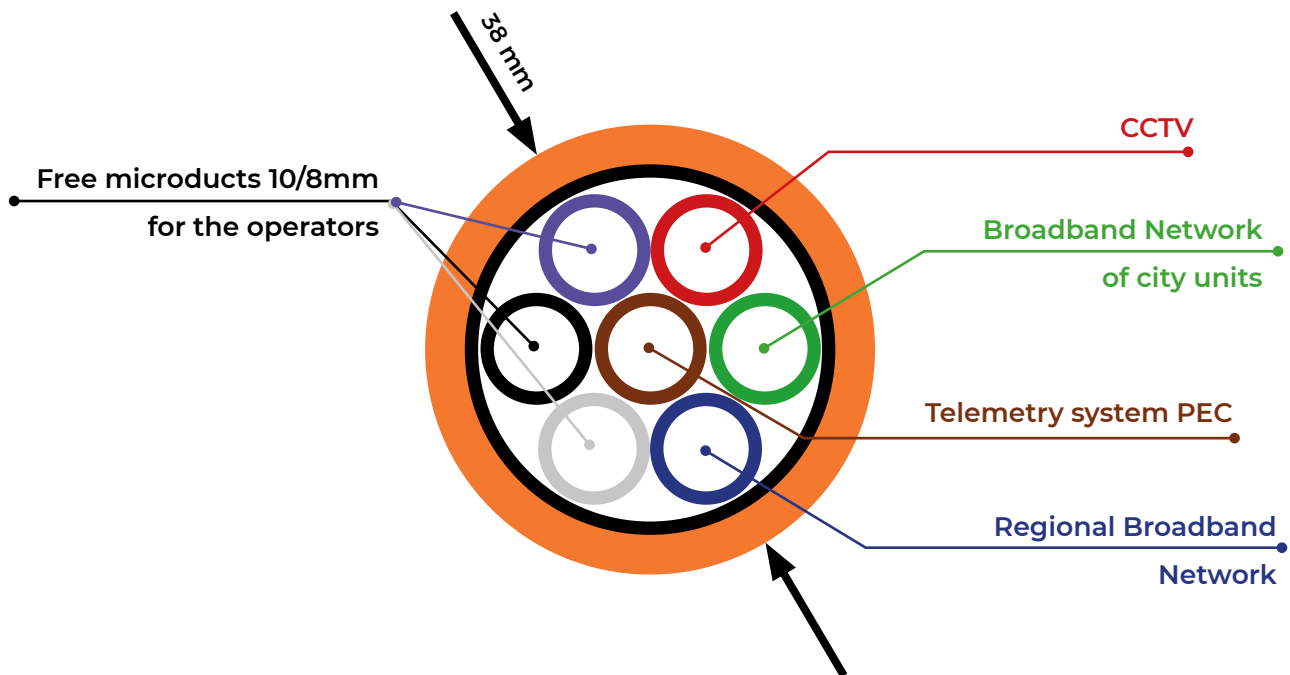
The telecommunication infrastructure of the 21-st century

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Principal benefits:

- ✓ **possibility to match** to the needs of any investment
- ✓ **reduces the initial investment cost** (about 20-25% on average) and the cost of expansion (around 40-80% over 3-5 years)
- ✓ **the possibility of sharing the investment** by different operators
- ✓ **facilitated expansion of the system** (reduced amount of ground works)
- ✓ possibility of usage an existing standard duct system

An example of using prefabricated pipe **7 x 10/8mm** with microducts:

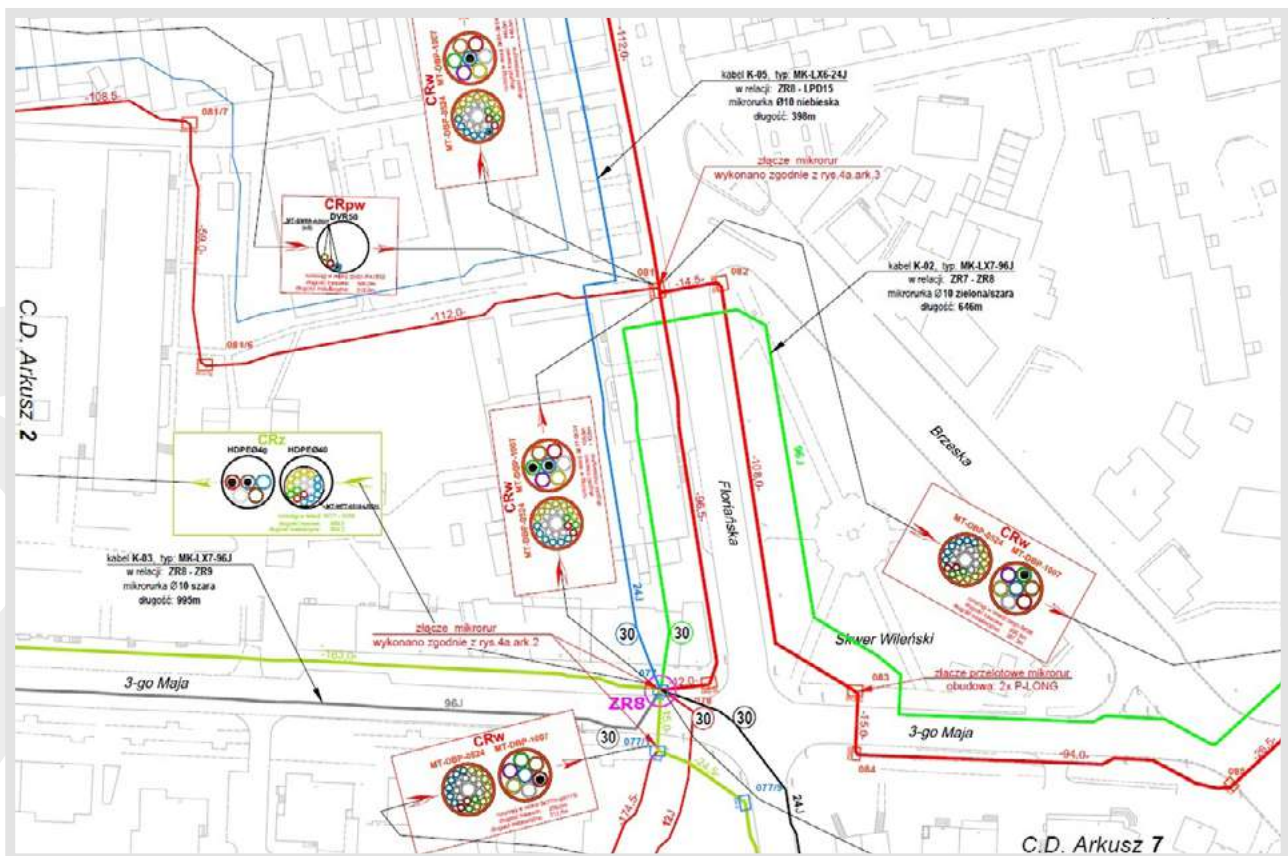


Microduct system is implemented as a part of:

- ➔ **Constructing a new underground duct system with reduced outer diameter, using standard method or with the help of specially designed machines to do that**
- ➔ **Multiplication of the existing teletechnical ducts:**
 - Empty primary ducts, using blowing installation
 - Ducts with already installed microducts/cables, by overblowing new microducts
- ➔ **Constructing multiduct system in a primary duct, using MT-DI prefabricated bundles of microducts**
- ➔ **Constructing microducts in rental ducts system** in order to reduce diameter of ducts and rental costs
- ➔ **New applications of microduct systems:** installation in a sewage system, a stormwater system, placing into an asphalt road

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Project of a microduct system in a city network

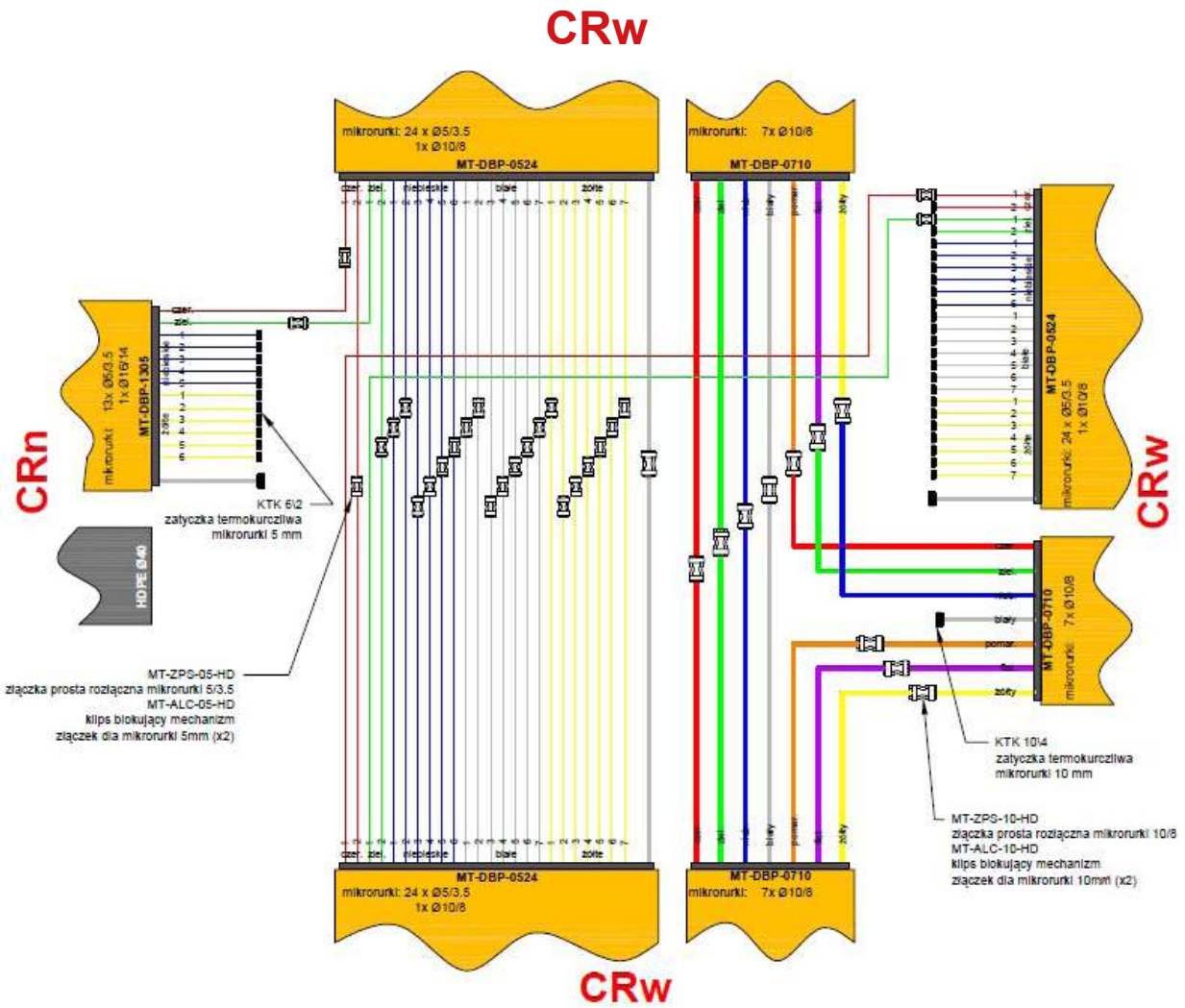


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Microduct connection plan in a city network

Applied enclosures of different types:
H, H-LONG, T, P-LONG, Y

Map of microduct connections in manholes



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An example of a cable manhole with installed microducts

Before connection



After connection



Connection



Placing microcables
on a cable reserve frame

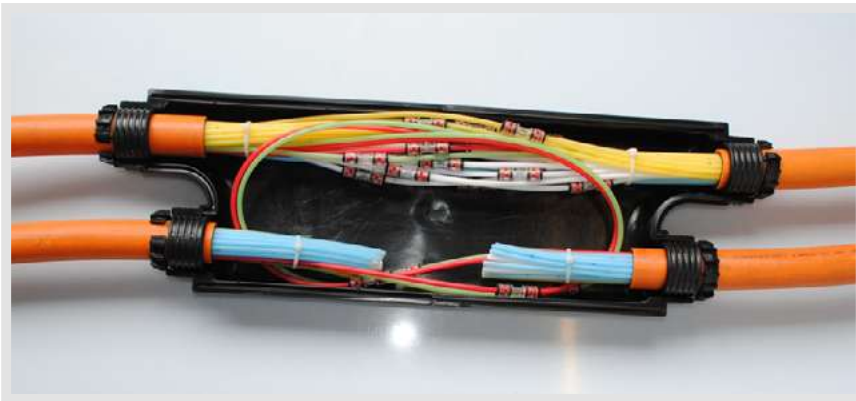


← **An example of sealing the walls of a concrete cable manhole after placing a pre-fabricated microduct pipe and secondary HDPE-40 pipes**

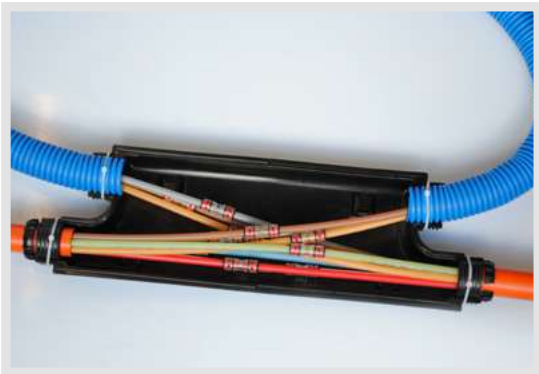
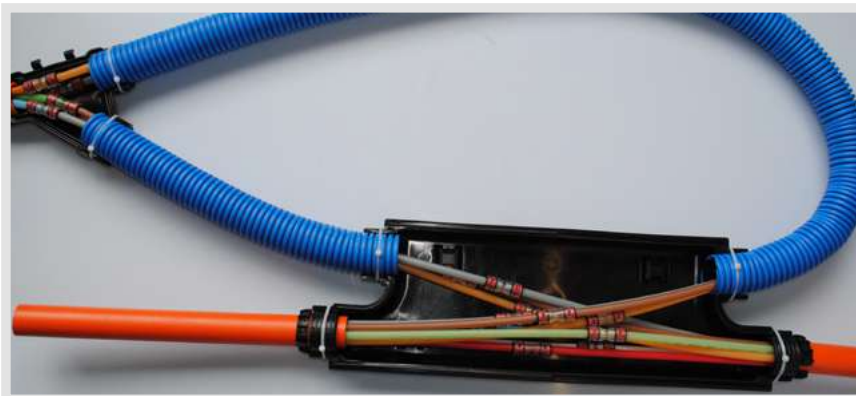
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An example of a microduct connection

Prefabricated pipes + external cover of **type H**



Prefabricated pipes + external cover of **type H** + external cover of **type Y**



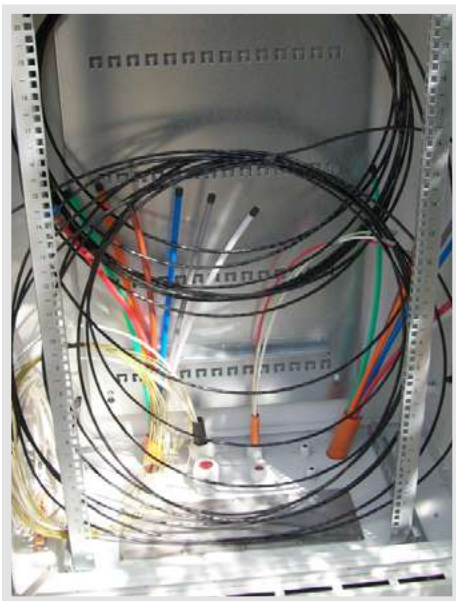
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Microduct system



Placing microcables
in a fiber optic closure

**An example of placing
a microduct system**
to a cabinet



**An example of placing
a microduct system** with
the use of micro couplers



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Cable cabinet

A cable cabinet with connection sets and **open hinged plate**



A cable cabinet with connection sets and **closed hinged plate**



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