

TESTED AND TRUE

what is blowing cable into microduct?



Blowing cable into microduct is a fiber optic cable installation technique where compressed air is used to push and propel the cable through a microduct. This method is commonly used in FTTH (Fiber-to-the-Home), backbone, and metro networks as it minimizes cable stress and allows for longer, more efficient installations compared to traditional pulling methods.

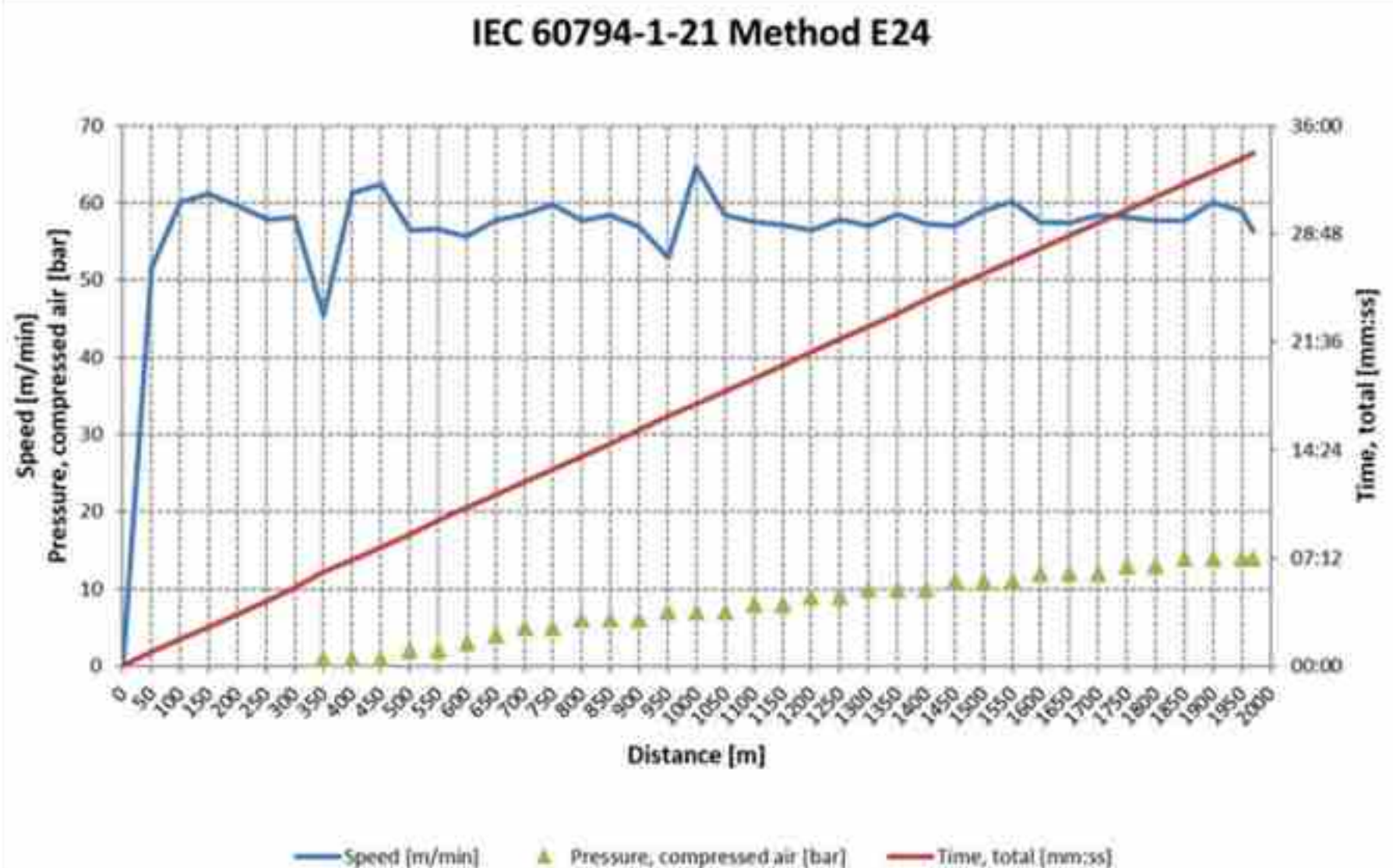
Advantages of Blowing Cable:


- **Less stress on fiber** – Unlike pulling, which can strain the cable, blowing distributes force evenly.
- **Longer installation distances** – Cables can be installed in runs of several kilometers in one go.
- **Faster deployment** – Saves labor and time compared to traditional methods.
- **Scalability** – Allows for future upgrades by blowing additional cables into pre-installed ducts.
- **Cost-effective** – Reduces the need for splicing and excessive digging.

The time and labor savings compared to traditional pulling methods are undeniable.

Test and True:

- Project - Cable Installation into Knet's 14/10mm Microduct
- Micro cable: 144 core(6.7mm)
- Average speed: 57.8meters (190ft)/min
- Total installed distance at once : 2,000meters /1.2miles
- Total Time : 30min





I We installed fiber cable into a 10mm ID microduct, covering 790 meters (from end to end) in under 6 minutes! Using a blowing machine, the entire process was quick, quiet, and seamless—no traffic disruptions, no noise, and no inconvenience to residents.

Test and True:

- Project- Cable Installation into Knet's 10mm Microduct
- Micro cable: 72core, 6mm OD
- Average speed: 57.8meters (190ft)/min
- Total installed distance at once : 790 meters / 2600ft
- Total Time : 5min 45sec

Choosing the Correct Microduct Size

When selecting the right tube diameter, the optimal fill ratio is 65%, with a maximum of 85% (outer diameter of the optical cable to the inner diameter of the microduct).

Fiber Type	250um, OM3/OM4			250um, OM3/OM4			200um, OM3/OM4			
Core	2 & 4F	8F	12F	Up to 72F	96~216F	288F	Up to 144F	288F	432F	864F
Cable OD (mm)	1.2	1.4	1.6	5.8	6.5~8.0	10.2	5.1~6.4	7.9	8.7	11.7
Microduct (ID/mm)	2.1, 3.5, 4.0			8	10	12/14	8	10	12/14	14/16

Blowing Distance for Microduct Installation

Blowing distance depends on microduct size, cable diameter, and airflow optimization. The table below shows the maximum distances for efficient, seamless fiber deployment.

Duct ID (mm)	Cable D (mm)	Blowing Distance (KM)	Blowing Distance (mile)
8-10	≤ 6.7	2	1.2
12	≤ 8.0	2	1.2
15-16	<11.0	2	1.2
	11-12	1.5	0.9



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