AIR BLOWN SOLUTION
INTRODUCTION

The History

Blown fiber Systems as we know them were originally developed by Pirelli in partnership with British Telecom.
Originally designed for the carrier network, the system is now breaking into the enterprise market and is particularly useful in campus installations, including both industrial and office campuses. Recently, with the growth in data centers, the benefits of quick repair, expansion and upgrades are being realized.

Real Benefits

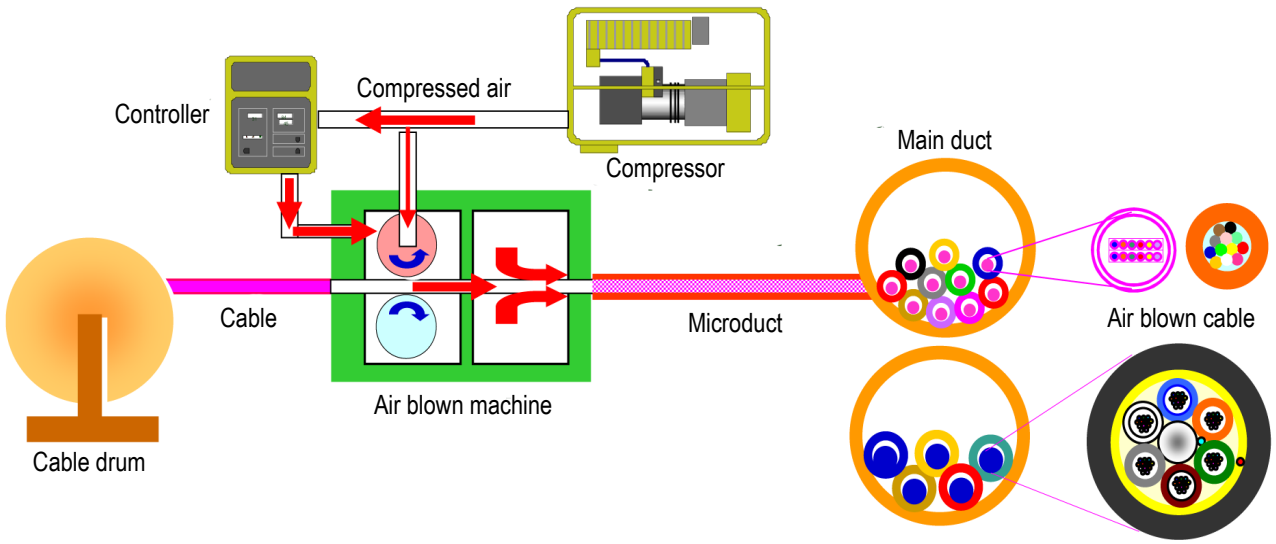
At its simplest, blown fiber uses a series of fitted ducts issued to install fiber between locations. The foundation is the installation of a duct network (the ducts are available in various tube counts and construction meaning internal, direct bury and direct install grades between required locations). The aim is to install the duct cable so that every location is linked, either point to point or, more efficiently, in a loop. Provision should be included for redundant ducting to allow for future expansion. The duct can easily be re-configured if the design evolves or changes.
The key to a good installation in the enterprise market is to work from the destinations back to the source(s), rather than the traditional method of starting with a large multi-core and breaking it down. This will assure that the minimum number and category of fiber is accounted for with sufficient future tube capacities. Blown fiber is very easy to install and modify, and there are huge time savings.
The major benefits to blown fiber are very easy to pinpoint and the comparison to more conventional installation methods is vast.

Investment

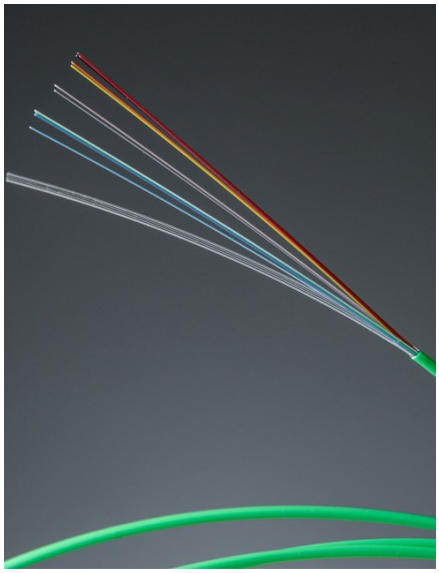
One of the key benefits is by initially investing in a well designed future proofed duct network; the fiber core costs and termination can be deferred until actually needed. Then, when a network requires expanding, the new fiber units are blown in quickly and without physical disruption to the fabric of the building or campus. Money is not tied up in having the fiber cores installed, and terminated, for a number of years when they are not being used (and may never be used) and redundant fiber units can be very quickly removed using the same blowing equipment, making the ducts available for the future. As and when new grades of fiber are developed this can be quickly and easily deployed as necessary.
This approach to staged deployment assists both initial budgeting and future investments. Network Managers can invest on day one in a duct network which is populated with fibers as required. As business needs change, either in terms of capacity or performance required, more fiber, or a different class of fiber, can be installed quickly and easily, often when the rest of the network continues to operate.

Repair and Upgrade

Whether there is a need to replace a damaged cable or upgrade a larger section of the infrastructure, blown fiber makes it very simple. Blown fiber can be described as a 'plug and play' solution as that is exactly how the duct cable is joined with push fit connectors. The ducts are installed and the fiber is blown in, it only then needs to be spliced and then the job is complete and ready for use. If damage occurs to the duct cable and fiber the 'Mean Time to Repair' is very fast. Simply locate the damage, open up the outer sheath of the duct cable using standard cable tools, locate the damaged duct(s), cut the duct, blow the fiber unit out, join the duct with push fit connectors (the section of duct cable can be cut out and replaced if needs be), blow in the replacement fiber unit, terminate & test and then the fiber is ready for reconnection. What used to take days, now can be reduced to hours to repair. And if some of the ducts have intact fiber units they do not need to be disconnected or compromised. This is hugely advantageous for data centers where time is critical.
How long does it actually take? It can take just a few minutes to remove old fiber and new fiber is blown in at 30 meters per minute, meaning that the whole process, including termination and testing, can be completed within the hour.



AIR BLOWN SOLUTION
AIR BLOWN FIBER UNIT EPFU (HDPE SHEATH)



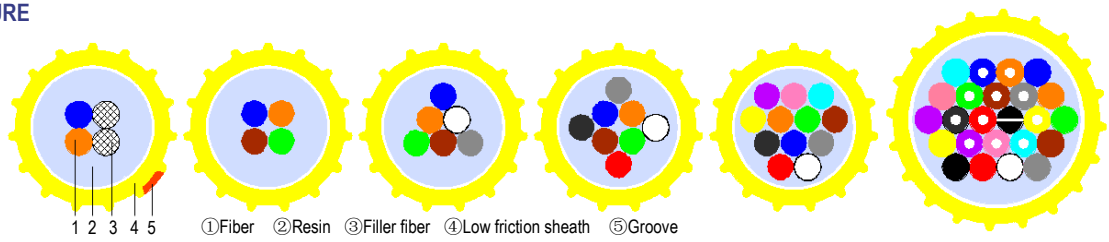
INTRODUCTION

The Air Blown Fiber Unit (also known as Enhanced Performance Fiber Unit, EPFU) is small size, light weight, enhanced surface outer sheath fiber unit designed for blowing into micro tube bundles by air flow. The outer thermoplastic layer provides a high level of protection and excellent installation properties.

KEY FEATURES

- Smaller diameter
- Frees up capital to expand network and client base
- Network design flexibility
- 5/3.5mm microduct suitable
- Easy to upgrade
- Greater blowing distance
- Fiber: G.G652D, G.657A1, G.657A2 & multimode fiber

STRUCTURE



SPECIFICATIONS

P/N	Fiber count (F)	Fiber type (mm)	Nominal diameter (mm)	Nominal weight (kg/km)	Temperature (℃)
EPFU-2G657A1	2	250μm G657A1	1.15±0.05	1	-30 to +50
EPFU-4G657A1	4	250μm G657A1	1.15±0.05	1	
EPFU-6G657A1	6	250μm G657A1	1.35±0.05	1.2	
EPFU-8G657A1	8	250μm G657A1	1.50±0.05	1.5	
EPFU-12G657A1	12	250μm G657A1	1.65±0.05	1.8	
EPFU-24G657A1	24	250μm G657A1	2.15±0.10	2.8	
EPFU-24 200μmG657A1	24	200μm G657A1	1.90±0.10	2.8	

BLOWING PERFORMANCE

	Blowing machine	Suitable microduct (mm)	Blowing pressure (bar)	Blowing distance (m)	Blowing time (min)
EPFU-2G657A1	PLUMETTAZ UM25 ERICSSON F FREMCO	5/3.5	13	1000	20
EPFU-4G657A1		5/3.5		1000	20
EPFU-6G657A1		5/3.5		1000	20
EPFU-8G657A1		5/3.5		1000	20
EPFU-12G657A1		5/3.5		800	18
EPFU-24G657A1		7/4		500	15
EPFU-24 200μmG657A1		7/4		500	15

ABOUT P/N: EPFU

EPFU: cable type | 2: fiber count | G657A1: G652D, G657A1, G657A2 & multimode fiber available | PE: sheath material