

# Air Blown Fiber Workshop

## Detailed Course Outline



This intermediate two-day course focuses on installation, maintenance, and machine operation for those interested in learning the basics of air blown fiber (ABF) technology or that have recently purchased blowing equipment and want to learn how and why to use it. The primary focus of the content is aimed at OSP/FTTx installations; however, the basic principles can be applied equally to indoor applications and campus installations.

The course is a mix of classroom theory and hands-on skills exercises that relate to the learned theory. Subjects covered include an overview of air blown fiber technology consisting of terminology, components and equipment, best practices, setup, teardown, safety, communication, and various blowing techniques. In the hands-on skills exercises, attendees will gain practical experience with calculating fill ratios, duct and microduct joining, proper lubrication methods, duct cleaning and preparation tests, as well as machine setup and blowing microcables and fiber units.

This course will be taught by a field application engineer and is best suited to be delivered at a Light Brigade Academy or your facility.

**Prerequisites:** Any Light Brigade foundational level course such as Fiber Optics 1-2-3, Broadband Fiber Optic Technician Level 1, Fiber Optics for Utilities Level 1, or equivalent field experience.

**Certifications and Credits:** Light Brigade Certificate of Completion

- Air blown fiber introduction
- Value and benefits
- Terminology
- Where used
- Elements of an ABF network
- Fiber infrastructure and management
- Traditional installation
- OSP fiber and cable management
- FTTx cable management products
- Cable handling
- General guidelines
- Underground installation techniques
- Environmental awareness
- Fiber safety
- Duct and microduct
- Cable blowing
- Microducts and microduct assemblies
- Duct fill
- Connectors and joints
- Conduit and duct installation
- ABF aerial placement
- Advantages over traditional designs
- Blown fiber cable types
- Tooling, materials, and consumables
- Microduct preparation
- Organizing equipment on site
- Material flow optimization
- Process optimization
- Communication and safety awareness
- Blowing quality
- Blowing through mixed microduct diameters
- Maintenance loops
- Sub-ducting/relining
- Overblowing
- Tandem blowing
- Onward blowing
- Center blowing
- Blowing safety and shutdown
- Shutdown/breakdown
- Sealing ducts
- Hands-on exercises



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