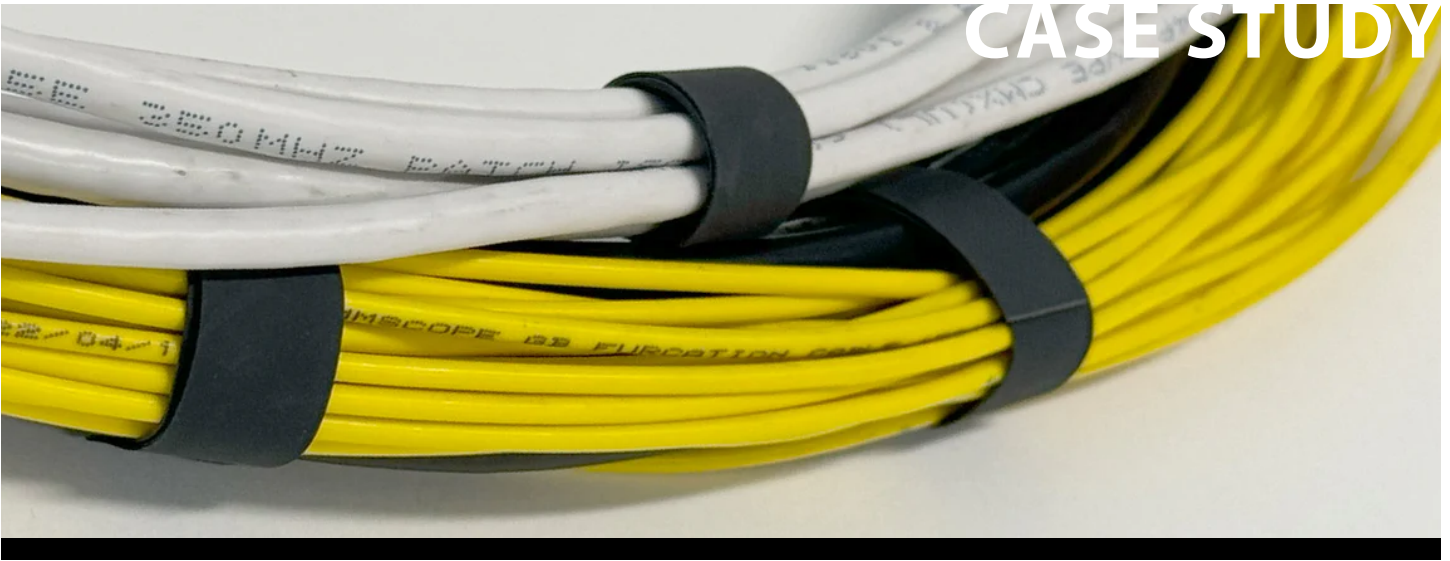




## Novel Cable Management Option

### PROBLEM:

A company that manufactures equipment that is used in a clean room environment was looking for a better way to bundle the cables on their machines. Previously, they had tried tape, zip-ties, lacing cord, and self-gripping hook & loop (one-wrap). Each of these options had a negative trait that made them undesirable.

- **Tape** left a sticky adhesive residue on the cables when they needed to be adjusted or serviced.
- **Zip-Ties** required an extra tool to apply, could introduce sharp edges that wore at the cables, and could introduce foreign object debris (FOD) when they were trimmed or removed.
- **Lacing cord** was time consuming to install and was inconsistent depending on the technician performing the installation.
- **Hook & Loop** would become dirty and introduced particulates into the clean room environment.



### REQUIREMENTS:

This company wanted to find a new solution to bundle and wrap their cables that would eliminate all the negatives of their existing options. This product would be:

- Suitable for use in a cleanroom.
- Leave no adhesive residue behind.
- Simple to install by any technician, without additional tools.
- Easy to remove when needed for servicing.
- Have no sharp edges or introduce wear points on the cables.

### SOLUTION:

#### Custom PFR-18 Cable Ties

Zippertubing provided a customized version of their Z-Wrap (PFR) product. By cutting this material into short pieces, it proved to be the perfect solution for this application.

- PFR polyurethane film is a low outgassing, flame-retardant, polymer suitable for clean room usage.
- The Z-Wrap product line has a simple to use adhesive closure that wraps onto itself and leaves no residue on the cables underneath.
- The pre-cut pieces are ready to install without tools and can be moved or easily cut off when needed.
- The tough but elastic material can be wrapped tightly on cables without introducing sharp wear points.

### CONCLUSION:

This company was very satisfied with the novel cable management solution provided by Zippertubing. They now order these elastic PFR cable ties in several sizes and are substituting them for cable ties in their clean room equipment as new systems are built and existing systems are refurbished.