

Airdux™ Ducting Products



Kirkhill-TA's Airdux™ Products: Custom Design and Manufacture of High Performance Gas and Fluid Ducting

When it comes to high performance, custom designed and manufactured ducting to handle air, water, or other gases and fluids no other capability compares with Kirkhill-TA's. Each Airdux™ product is the result of a partnering of Kirkhill-TA's highly experienced materials formulation and design engineering team. Kirkhill-TA's design experts bring a wealth of experience in diverse ducting applications to the partnership resulting in Airdux™ products that meet or exceed performance specifications, delivery deadlines and cost targets. Airdux™ products are then hand fabricated over custom tooling by manufacturing personnel who have turned duct layout techniques into a fine art.

Airdux™ products are available in a large variety of sizes, shapes and materials including:

Reinforced Flexibles

- ▶ CRES® wire rings
- ▶ Wire and plastic helix, reinforced plastics
- ▶ Metal sections
- ▶ Thermosetting resins and stiffeners

Semi-Flexibles

- ▶ Soft/convoluted
- ▶ Special components
- ▶ Insulation
- ▶ Curved tubing
- ▶ Threaded fittings

Special Shapes

- ▶ Custom made to specific customer requirements.
- ▶ Silicone, Neoprene, nitrile, conductive materials, Viton® and fluorosilicone
- ▶ Polyester, phenolic and polyamide

A Description of Airdux™ Products

Airdux™ are hand fabricated connectors which fill a gap in a ducting system conveying fluids or gases. Available in a wide variety of custom sizes, shapes and materials they can be fabricated to be rigid, flexible or any combination of both. Airdux™ products perform in environments of vibration, shock, differential movement and can be made resistant to fuels, oils, chemicals, lubricants, solvents, environmental and biological exposure.

Airdux™ Design and Development Options/Material Selection

Based upon application needs Airdux™ can be provided as reinforced flexibles, semi-flexibles, composites and reinforced plastics. They can be manufactured in a wide range of materials. The following are some of the options available to the designer.

- ▶ Base Fabrics: Plain weave, open weave, knit, fiberglass, Dacron®, Nylon, cotton, Nomex®, Kevlar®, ceramic and blends.
- ▶ Elastomers: Silicone, fluorosilicone, Viton®, butyl, Neoprene, nitrile and special compounds.
- ▶ Reinforced Plastics: Polyester, phenolic, and polyamide, epoxy.
- ▶ Reinforcements: CRES wire rings, wire or plastic helix, reinforced plastics, metal sections, thermosetting resins and stiffeners.
- ▶ Airdux™ Assemblies: Airdux™ can be supplied as complete assemblies consisting of:

Flexible sections (soft / convoluted)

Slide plates

Curved tubing

Insulation

Metal flanges

Threaded fittings

End fittings

Rigid sections

Zippers / Velcro

Inner / outer rings

Special compounds

The Kirkhill-TA Engineering Department is available for engineering assistance design recommendations and material selection. Product development engineers should contact Kirkhill-TA while in early design stages. Kirkhill-TA will assist in development while saving time and money.

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