

## Airdux™ Ducting Products

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### **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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