Insulation



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### The Kingspan Kool Duct<sup>®</sup> System

PREMIUM PERFORMANCE PRE-INSULATED DUCTWORK





# The Kingspan KoolDuct®







- Cutting energy use
- Cutting operational CO.
- Cutting costs
- Cutting edge



Durability When Exposed to the Elements

## System













Pre-Fabricated.... Easier to Fit Into Tight Spaces

#### What is KoolDuct<sup>®</sup>?

Kingspan KoolDuct<sup>®</sup> panels are available in R-Values of 6.0 (<sup>7</sup>/8") or 8.1 (1 <sup>3</sup>/16"). The Kingspan KoolDuct<sup>®</sup> system comprises premium performance KoolDuct panels, fabrication methods, coupling systems and a complete line of accessories to produce pre-insulated rectangular ductwork in sections up to 13 ft (3.93 m) long.

This systematic approach, permits several advantages for installation and operating performance. The significant promise of this product is **Whole Life Cost Saving** when compared to insulation-wrapped galvanized sheet metal.



The first premium performance pre-insulated ductwork in the world to be UL Listed as a Class 1 Air Duct, to Standard for Safety UL 181 (Underwriters Laboratories: Factory Made Air Ducts & Air Connectors), when fabricated to a specification clearly defined by UL

The Kingspan KoolDuct System can easily achieve SMACNA air-leakage Class 3 and is in compliance with the SMACNA Phenolic Duct Construction Standards.

#### **Efficient Installation**

LOW WEIGHT – weighs up to 72% less than ductwork constructed from galvanized sheet steel and insulated with mineral fiber – this makes it ideal for refurbishment projects, where existing building structures have insufficient load capacities for new service loads

FASTER INSTALLATION SPEEDS – low weight ductwork fabricated in sections up to 13 ft (3.93 m) long, single–fix installation and no need to install insulation as a second operation, reduces project scheduling periods for insulated ductwork.

INSTALLED COST SAVINGS – reduced labor and materials, including fixings and first level support members, can provide an ideal value engineered ductwork solution without compromising performance.

SPACE SAVING – typically saves up to 6-8" (150–200 mm) in a single dimension, since the space required to manually install a separate layer of insulation around the ductwork is eliminated – this allows ductwork to be installed flush to ceilings, walls and floors, as well as to surfaces within confined enclosures.

#### Lowest Long-Term Cost

WHOLE LIFE COST SAVING – up to 20% over 30 years, compared with ductwork constructed from galvanized sheet steel and insulated with mineral fiber.

REDUCED ENERGY USAGE AND RUNNING COSTS – low ductwork air–leakage can yield significant electrical consumption savings because of reduced heating and cooling loads, and fan energy usage.

LOW AIR–LEAKAGE – rates can be reduced to a fraction of those typical of rectangular sheet metal ductwork, easily achieves SMACNA Class 3.

#### **Reduced Environmental Impact**

REDUCED OPERATIONAL CARBON DIOXIDE (CO2) EMIS-SIONS – as a result of low ductwork air–leakage, and the subsequent reduction in operational energy use.

LOW EMBODIED ENVIRONMENTAL IMPACT – up to 65% less than that of rock mineral fiber insulated galvanized sheet steel ductwork.

LOWER EMBODIED ENERGY – up to 27% less than that of fiber glass insulated galvanized sheet steel ductwork.

REDUCED WORKSHOP–GENERATED WASTE – computer aided fabrication can greatly reduce the volume of waste, compared with manual fabrication.

A NON–FIBROUS RIGID INSULATION CORE – minimizes the risk of loose fibers entering the air stream through the ductwork, since distributed air does not come into contact with an insulation material that produces loose fibers.





Kingspan Insulation LLC 2100 RiverEdge Parkway, Suite 175, Atlanta, Georgia 30328 info@kingspaninsulation.us

> 1-800-241-4402 www.kingspaninsulation.us www.kingspaninsulation.ca

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