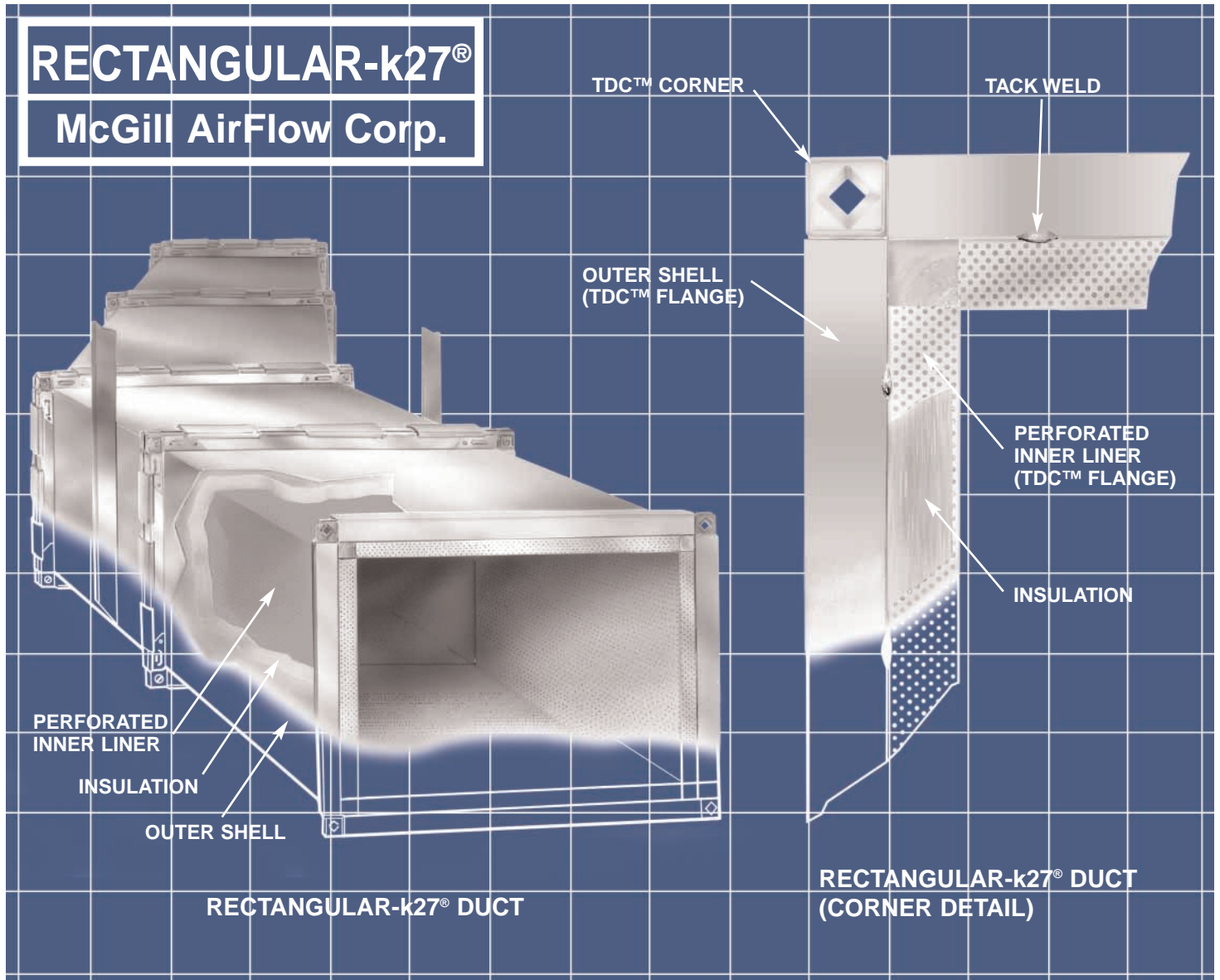


# Rectangular-k27® Duct and Fittings

DOUBLE-WALL, INSULATED,  
RECTANGULAR DUCT and FITTINGS

a McGill AirFlow™ product



# Double-Wall Duct and Fittings

McGill AirFlow's Rectangular-k27 duct and fittings provide exceptional noise and thermal control in air handling systems. This double-wall, insulated ductwork is constructed of a solid metal outer pressure shell and a metal inner liner with a layer of insulation sandwiched between. The acoustical/thermal insulation can be used with air velocities up to 10,000 fpm and temperatures up to 250°F. It is available in thicknesses of 1, 2, and 3 inches and has a maximum thermal conductivity (k) factor of 0.27 Btu/hour/square foot/°F/inch thickness. Our standard construction is galvanized steel with a perforated metal liner and 1-inch-thick uncoated fiberglass insulation. Other insulation materials and metals are available, as are solid metal inner liners. Rectangular-k27 duct and fittings are shipped fully assembled with TDC™ transverse duct connector flanged ends.

## Erosion Resistance

Rectangular-k27 duct is a dependable, erosion-resistant alternative to lined rectangular duct, providing improved protection for insulation exposed to the airstream. In Rectangular-k27 duct, a metal inner liner ensures that high airflow velocities cannot separate insulation fibers from the lining. The metal liner holds the insulation in place without the need for pins or other mechanical fasteners typical of lined ductwork. Because there are no fasteners that can loosen during continued operation, there is no possibility of the insulation pulling away from the duct's outer wall and creating erosion or airflow problems. For applications where fiber erosion is of special concern, we can supply ACOUSTI-LINE insulation with an erosion-resistant acrylic coating. Our double-wall duct and fittings are rated for airflow velocities up to 4,000 feet per minute and have been tested according to UL-181 standards at airflow velocities of 10,000 feet per minute with no evidence of insulation erosion.

## Special Air Quality Options

ACOUSTI-LINE insulation is available with an acrylic coating formulated with an anti-microbial agent that is EPA registered. The coating resists the growth of fungus and bacteria, as determined by tests in accordance with ASTM C 1071 and ASTM G21 and G22. For added protection against microbial growth, the coated surface can be cleaned according to the procedures detailed in the North American Insulation Manufacturers Association (NAIMA) Duct Cleaning Guide. When a vapor barrier is needed to prevent moisture from condensing in the ductwork's insulation, we can supply Mylar®, Tedlar®, polyethylene, or other vapor barriers to meet your specifications.

United McGill® and k27® are registered trademarks, and McGill AirFlow™, ACOUSTI-LINE™, and Duct Express™ are trademarks of United McGill Corporation.

TDC™ is a trademark of Lockformer Company.

Mylar® and Tedlar® are registered trademarks of DuPont.

The products depicted in this brochure were current at the time of publication. As a quality-conscious manufacturer, McGill AirFlow Corporation continually seeks ways to improve its products to better serve its customers. Therefore, all designs, specifications, and product features are subject to change without notice.

## Double-Wall, Rectangular Duct and Fittings — Available Materials and Thicknesses

Construction <sup>1</sup>	Materials <sup>2</sup>	Thicknesses
Rectangular-k27 (outer shell)	Galvanized Steel	28-18 gauge <sup>4</sup>
	Stainless Steel	26-22 gauge <sup>5</sup>
	Aluminum	0.032-0.050 inch
Rectangular-k27 <sup>3</sup> (metal inner liner)	Galvanized Steel	24-20 gauge
	Stainless Steel	24-20 gauge
	Aluminum	0.040-0.050 inch

<sup>1</sup> Both outer pressure shell and metal inner liner incorporate Pittsburgh lockseam construction and TDC end connectors. Ductwork is fully assembled with a finished length of 56<sup>1</sup>/<sub>4</sub> inches or 68<sup>1</sup>/<sub>4</sub> inches.

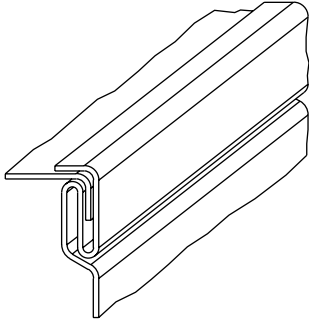
<sup>2</sup> When steel is used, the outer pressure shell and metal inner liner can be made of different types of steel. When aluminum is used, both the outer pressure shell and metal inner liner must be aluminum.

<sup>3</sup> Standard duct and fittings metal inner liner is perforated galvanized steel.

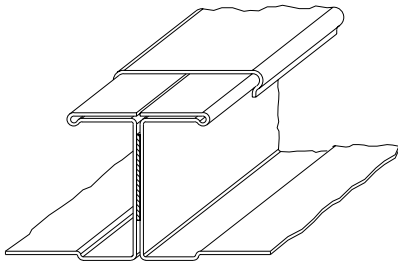
<sup>4</sup> Galvanized steel fittings with Pittsburgh lockseam construction are also available in 14 gauge.

<sup>5</sup> Stainless steel fittings with Pittsburgh lockseam construction are also available in 20 gauge.

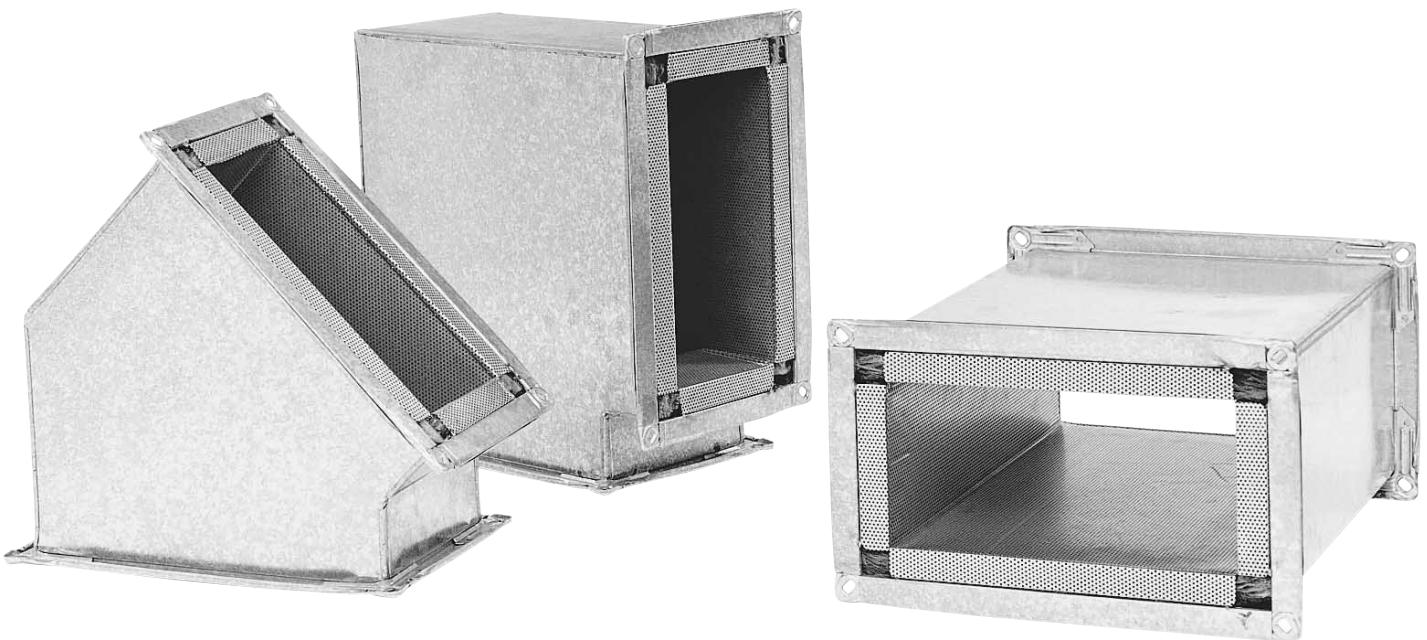
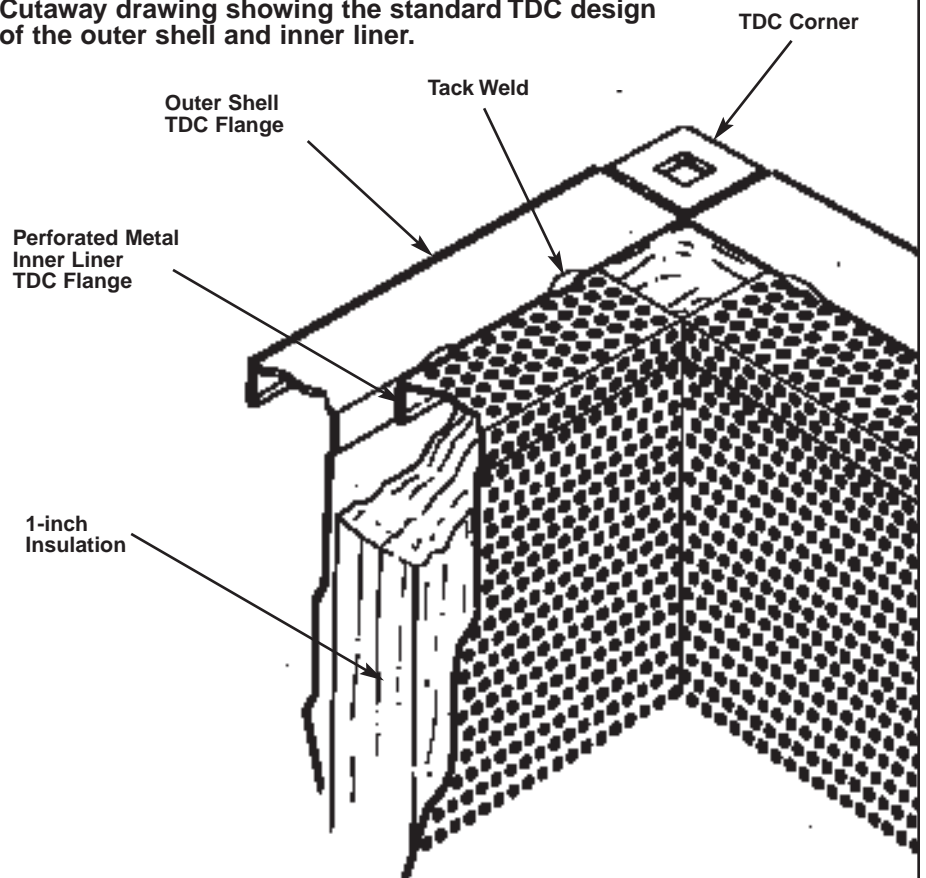
**Pittsburgh Lockseam**



**Lockformer TDC  
Duct Connector/Cleat**



**Cutaway drawing showing the standard TDC design  
of the outer shell and inner liner.**



McGill AirFlow's Rectangular-k27 duct and fittings provide excellent erosion protection for internal insulation.

**McGill** AirFlow  
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Founded in 1951

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