



# QDUCT<sup>®</sup>

## Product Brochure

## Engineered Duct for **Outdoors**

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Engineered for exterior applications, QDuct<sup>®</sup> Outdoor Preinsulated Duct System is constructed to withstand harsh weather conditions in all climates. QDuct<sup>®</sup> is custom fabricated using two layers of rigid UL 181 Pal phenolic core material, faced on both sides with coated aluminum and an exterior multi-layered laminate jacketing material.

Requiring no additional insulation or weatherproofing, QDuct<sup>®</sup> sections are delivered preassembled to the job site ready for installation by a trained contractor. The product easily installs in a fraction of the time required for traditional duct, saving money and labor.

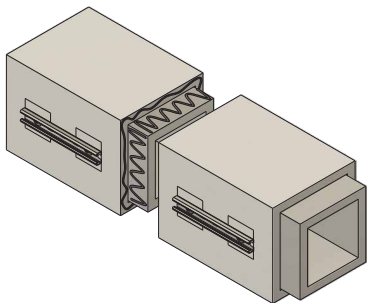
# What is QDuct®?

Engineered for exterior applications, QDuct® Outdoor Pre-Insulated Duct System is constructed to withstand harsh weather conditions in all climates. QDuct® is fabricated from multiple layers of ridged thermoset phenolic insulation panels that are laminated together to form a composite interlocking duct system with redundant seals for maximum energy efficiency. Each phenolic panel is both internally & externally lined with a thermally bonded embossed aluminum cladding providing sequential layers of fiber-free high-performance insulation and corrosion resistant ingress protection. QDuct®'s exterior can be topped with an optional sloped roof fabricated from impact resistant closed cell tapered insulation panels for prevention of water accumulation & increased thermal energy performance. Finally, QDuct® receives an external layer of an all-weather, low permeability, multi-layered aluminum laminate cladding for enhanced ingress protection from the elements.



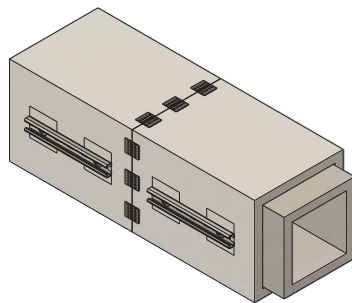
## The QDuct® Advantage

### SEAL



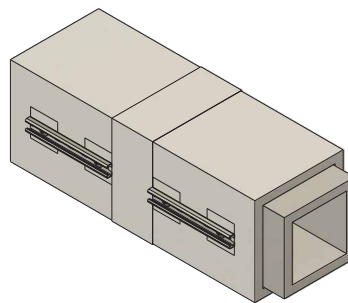
Apply sealant to the interlocking connection

### JOIN



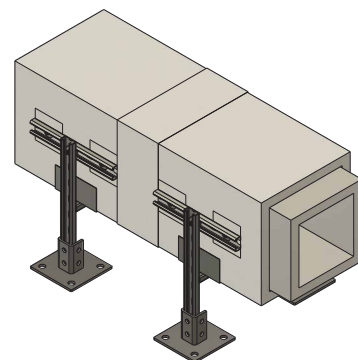
Join the interlocking connection and secure with fasteners

### CLAD



Clad interlocking connection

### SUPPORT



Secure support stand to integrated support mount



## Benefits of QDuct®

- Saves energy, space and labor
- Significantly lower air and water leakage compared to exterior insulated sheet metal systems
- Improved indoor air quality (IAQ)
- Durable, yet lightweight for fast and easy installation
- Significant installation cost-savings over traditional exterior duct systems
- Virtually maintenance free
- Can contribute toward LEED® points



## Distinctive System Features

- Interlocking connection with a quadruple seal joint
- Integrated duct support mounting system
- Factory applied sloped roof insulation
- Fabricated from UL 181 listed duct & materials
- Fabrication materials meet ASTM E84 flame and smoke requirements, 25/50
- Factory Fabricated & Insulated—no need for insulation subcontractors
- Aluminum Interior and exterior cladding layers resist mold, mildew, UV and extreme weather conditions
- Closed cell insulation prevents water absorption & contains no microfibers, CFC or HCFC
- Flange-Less metal free connection prevents thermal bridging at joint
- 10 Year Limited Warranty

## Application Suitability

The AQC QDuct® System is designed for use with outdoor high efficiency HVAC systems. It is suitable for both new construction and refurbishment projects in the commercial, public, light industrial and residential sectors.

Rain, snow, ice and extreme temperatures, QDuct® is designed to stand up to harsh outdoor conditions. The system's innovative materials and construction, along with expert installation by certified contractors, allow QDuct® to endure in any climate.

# QDuct® Specifications

## R-Value

- R-10: Double Panel: 2" Wall thickness
- R-12: Double Panel: 2.5" Wall thickness
- R-16: Triple Panel: 3.5" Wall thickness
- R-18: Triple Panel: 4" Wall thickness
- R-22: Quad Panel: 4.5" Wall thickness
- R-24: Quad Panel: 5" Wall thickness



## Pressure Classification & Leakage Class

- Pressure Classification  $\leq \pm 4"$  WG (1000 Pa) @ SMACNA Leakage Class 1
- Pressure Classification  $\leq \pm 7"$  WG (1750 Pa) @ SMACNA Leakage Class 1

## Accessories

- Non-Ferrous Construction
- Unistrut Support Mounts
- Union Fabrication
- Sloped Roof (Additional R-8.6 Roof Insulation)

## Operating Limitations

It is recommended that the AQC QDuct® System is used only as supply, return, fresh and exhaust air ductwork for HVAC systems within the limits shown in the table below. QDuct® is not to be used as grease duct, in duct systems exposed to flame, or systems which would expose the ductwork to conditions outside of the operating limitations below.

Mean Air Velocity (Max)	6890 fpm (35 $\frac{m}{s}$ )
Design Pressure (Max)	$\pm 7$ in wg (1750 Pa)
Mamimum Temperature (Internal)	176°F (80°C) During Continuous Operation
Maximum Temperature (External)	176°F (80°C) During Continuous Operation
Size Limitations	6"x6" to 120"x120" (Consult AQC for custom size options)

## Ordering Information

For more information on ordering samples, requesting a quote or product information please visit [www.AQCIND.com](http://www.AQCIND.com). You can place a request for quote (RFQ) directly from our website at [www.AQCIND.com/RFQ](http://www.AQCIND.com/RFQ)



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