PhenoliDuct from Spiral Pipe of Texas  Patent Pending
Your Round Solution for Rooftop HVAC Duct Systems

Finally, there is a solution to your rooftop duct system needs that is the right shape, the right material and the right price. We have combined our almost 40 years of quality metal duct fabrication with a willingness to innovate and explore new technologies. The result is PhenoliDuct. We combine the proven technology of our double-wall duct manufacturing with the properties of Kingspan KoolDuct® to give you the perfect rooftop ducting solution.

It’s Round! Rooftop duct should always be round when possible. The round shape sheds rainwater and prevents excessive snow and ice loads. But for most of the country the main reason is wind. A round duct experiences only about 40% of the wind force a comparable rectangular duct would see. Hanger and support spacings are greater for round ducts. And this is truly a round duct, not an 8 or 12-sided adaptation from rectangular duct. Our standard construction uses our spiral duct as the outer shell and a round metal longitudinal-seam duct for the inner shell. Your performance is the same as for our other round duct products.

It’s Closed-Cell! Owners and designers want a product that will not wick or retain moisture. The Kingspan KoolDuct® insulation is closed cell.
Exceptional Thermal Performance!  Our standard product uses the KoolDuct 45mm board. This product has an R-value of 12.0. It is machined to fill a 2” annular space in our double-wall construction, and our process eliminates all potential thermal gaps. This is 50% more thermal performance in a 2” insulation product than you would get with fiberglass or elastomeric insulations.

Exceptional Surface Burning Characteristics!
The KoolDuct® board used as our insulation has flame spread and smoke developed indices of 10 when tested per ASTM E84. This greatly out-performs other insulations that struggle --- and often fail --- to reach the minimum 25/50 indices required by most codes. We can provide desirable characteristics such as fully-welded fittings without worrying about setting the insulation on fire. Our customers can also perform field-modifications to the duct without creating a fire hazard.

It’s Durable!  Sheet metal ducts, and particularly spiral ducts, are proven to be durable in outdoor applications. Other rooftop products have been introduced, including some made with phenolic board. Most are simply one or two layers of insulating board with an external lagging applied. These have neither the strength nor durability of double-wall metal construction.

It Is Easy to Install!  If you have installed double-wall spiral duct, you already know how to install this product. Actually, it’s even easier to install than our fiberglass insulated products. The rigidity of the phenolic board and the close tolerances of our annular construction eliminate the need for an inner coupling. Most installations will only need external bolted companion angle rings or our economical SPOT-Flanges.
Lots of material and fabrication options! We can provide the inner and outer metal shells as galvanized steel (standard), paint-grip galvanized steel, epoxy powder-coated steel, PVC-coated steel, black iron, aluminized type 1 steel, 3003-H13 aluminum, 304 stainless steel or 316 stainless steel. We can provide the metal shells as spiral duct or longitudinal seam welded duct, and in thicknesses from 10 gauge through 26 gauge. We offer spiral lockseam construction, tack-welded and sealed construction, MIG and TIG welding. We can even offer the product as flat oval or rectangular construction. We can factory-assemble manifolds of duct and fittings to minimize field work. Essentially, we can offer just about all products from our SPOT catalog in PhenoliDuct construction.

Phenomenal Price! This is the good part. We are a lot less expensive than the other closed-cell insulated duct products --- elastomeric, foam-filled and even other phenolic products. We aren’t spending time and money trying to overcome properties that don’t lend themselves to the application. We simply developed a way to use the best rooftop metal duct fabrication --- SPOT’s double-wall round spiral duct --- with the best rooftop insulation material --- Kingspan’s KoolDuct® phenolic system. The result is 50% more R-value at 20-50% less cost.
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<tr>
<td>Insulation Thickness</td>
<td>1-3/4”</td>
<td>1”</td>
<td>2”</td>
<td>2”</td>
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<td>2”</td>
<td>1”</td>
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<td>1”</td>
<td>1”</td>
<td>1-3/16” X 2</td>
<td>1-3/16”</td>
<td>1-3/4”</td>
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<tr>
<td>R-Value</td>
<td>12.0</td>
<td>4.2</td>
<td>8.0</td>
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<td>6.7</td>
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<td>No</td>
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<td>No</td>
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<td>1.0</td>
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<td>Water Absorption, % by volume</td>
<td>1.15%</td>
<td>&lt; 3%</td>
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<td>0.20%</td>
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<td>Can you weld metal on it without it smoldering, smoking or catching on fire?</td>
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**Contact your SPOT representative**

For more details

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