

THERMOWRAP: REMOVABLE INSULATION COVERS



Firwin Corp is a leading manufacturer of custom insulation products for diesel and gas engines & exhaust systems, and industrial applications.

AT FIRWIN, WE DO ENGINES... AND A WHOLE LOT MORE.

Insulation blankets for Diesel and Gas Engines, Exhaust Components, Silencers, SCRs – these are some thoughts that come to mind when people think about Firwin. And with our vast engine library of insulation blanket patterns for hundreds of engine makes and models, Firwin certainly is a leader in providing custom fitted removable insulation blankets to the diesel and gas engine market.

Less known, however, but no less important, is Firwin's ThermoWrap division, dedicated to providing removable insulation covers to the petrochemical, chemical, and oil and gas markets.

"The diesel and gas engine side of our business does seem to get most of the publicity," notes Brett Herman, Firwin V.P. of Sales and Customer Service. "But there is a whole other side to our company, our ThermoWrap division, which manufactures blankets for more industrial, non-engine applications, like the oil and gas industry, of which our customers may not be aware," added Brett.

ThermoWrap insulation blankets, also known as insulation covers or jackets, are found on valves of every shape and stripe – gate valves, flow valves, butterfly valves, etc. – as well as flanges, instrumentation panels, actuators, and of course process piping.

ThermoWrap blankets are generally used in lower temperature applications (typically well below 500°F) than their diesel and gas engine counterparts, where temperatures run 600°F and upwards.



This results in ThermoWrap blankets having a somewhat different “look” -

- Both the inner and outer covers for ThermoWrap blankets are typically made from silicone / Teflon reinforced fiberglass (as opposed to engine blankets, where the inner surface is typically stainless steel mesh).
- Polyester Velcro fastening and draw strings are common sights on ThermoWrap blankets; engine blankets are often too hot for drawstrings or Velcro (even the higher temperature options like Nomex).



“The important point we want to emphasize to our customers is that Firwin’s ThermoWrap division is an important part of our business,” said Brett. “Whether the purpose is for energy conservation, heat retention, or personnel protection, we have the ability to design insulation covers for valves, flanges, etc. of all shapes and sizes. We service facility owners, engineering companies, module builders, and insulation companies, and have staff available to measure and even install blankets on site if necessary,” notes Brett. For more information, visit [Firwin ThermoWrap](#), our site devoted to ThermoWrap applications.



REMOVABLE INSULATION COVERS FOR INDUSTRIAL VALVES – WHAT TO LOOK FOR

One of the most common parts to cover in the petrochemical, chemical, and oil and gas industries are valves. Like process line piping, valves often need to be insulated to minimize heat loss for energy efficiency or to keep the contents of the materials flowing through the valve at a desired temperature. In addition, insulation



blankets help to keep the valve parts from freezing up in cold temperature operations.

Unlike process line piping, however, which is often insulated with permanent insulation or cladding, valves generally must be kept accessible to maintenance personnel should they need servicing, or need to be accessed during an emergency situation. This makes valves ideal candidates for removable / reusable insulation covers.



Removable Valve Covers – What to Look For?

It is important to remember that when dealing with removable insulation covers, one size does not fit all. Here are some variables that Firwin's design team takes into account when designing removable insulation covers:

Proper fit: Valves can come in a variety of configurations – gate valves, flow valves, butterfly valves, etc. – with a large variety of makes, models, and sizes within each category. Each of these have their own unique geometry, and a custom designed insulation cover should precisely match the part for which it is intended. Valve orientation or presence of adjacent valves or piping can also affect the final blanket design. In cold weather climates, valves are also subject to glycol, water, steam, or electric heat tracing. For an insulation cover to fit properly and function as intended, properly positioned cut-outs are essential.



Valve cover with multiple glycol line penetrations

Insulation thickness: While removable insulation covers typically contain a 1" thick insulation material, this thickness can vary depending on the needs of the particular application. For very small valves or where clearances are an issue, often a thinner 1/2" thick insulation is called for. On the other hand, there are instances where a thicker insulation is needed due to high heat or for sound attenuation. In addition to often requiring a thicker insulation, sound attenuation often requires a multi-layered construction, with an additional layer of sound dampening material. These multi-layered covers can get as thick as 4".



Firwin field personnel installing insulation cover over sound barrier (SCR application)



ThermoWrap Cover with Firwin HT high temperature inner liner

Materials: Standard construction for removable insulation covers for industrial applications is Silicone or Teflon coated fiberglass inner and outer liners, with a fiberglass insulation in between. But certain applications may call for alternative liners or insulation material. For instance, where higher than 500°F temperatures are present, Silicone / Teflon inner liners will not suffice, and a higher temperature alternative such as Firwin HT is necessary.

For more information on ThermoWrap™, visit our [website](#), or call us at 1 877 347 9467 (FIRWIN7).

About Us

Firwin Corporation is a leading manufacturer of custom insulation products for diesel and gas engines & exhaust systems, and industrial applications. Our two main product lines are removable and reusable insulation blankets (also known as removable insulation covers and removable insulation jackets) and permanent Hard Coat™ composite insulation. We also stock a wide range of off-the-shelf high temperature tapes and sleeves.

We service a diverse range of industries, providing insulation solutions for applications such as diesel and gas powered generating stations, gensets, on-road and off-road vehicles, as well as industrial applications such as process and steam line valves, flanges, and piping.



Request information about Firwin's
Insulation Solutions

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