



# DRAGON JACKET

## FREQUENTLY ASKED QUESTIONS

### CUSTOMIZATION

**Q. What are the standard sizes for Dragon Jacket products?**

**A:** Dragon Jacket's product lines are available in standard sizes ranging from of 1"-12". Custom sizes up to 36" will be quoted upon request.

**Q. Although 2" is the standard thickness, are other ranges of wall thicknesses available?**

**A:** Dragon Jacket can be made in any thickness from 1.25" and thicker. Our product has a static R-Value of 6 per inch. We are currently testing 2" and 4" products in Alaska. 2" thick Dragon Jacket has been installed in North Dakota since 2012, and has continued to prove its re-usability and durability.

**Q: What size fittings can Dragon Jacket make?**

**A:** Dragon Jacket can make any size pipe or tank fitting.

**Q: Can Dragon Jacket make custom fittings to fit our specific needs?**

**A:** Yes, Dragon Jacket can make custom fittings.

**Q. What are Dragon Jacket's standard colors, and are other colors available?**

**A:** Dragon Jacket carries two standard colors, high pigment Black and Silver. Any color can be made upon request with a slight upcharge.

### INSTALLATION

**Q. What is the installation process, and is there an installation manual available?**

**A:** Installing Dragon Jacket is a very simple process; however, our website offers a video showing how Dragon Jacket is installed, and we would also be more than happy to offer further training.

**Q. Can Dragon Jacket be incorporated into existing insulation?**

**A:** Yes, a drip edge can be placed on one end of the Dragon Jacket over one end and either use a tape or piece of polyurea (a "butt strip" that we can supply) and clamp it over the butt joint on the other end.

**Q. Are special pieces required to accommodate instrumentation such as flow meters and site glasses?**

**A:** We can make fittings to accommodate these situations; the fittings would be installed first, and then the straight pieces would be fit from each end of the initial fittings. This is also how the rest of the Dragon Jacket insulation system would be installed- putting the fittings on first and working away from them and then fitting a shorter piece in when required. We can also customize the straight pieces or fitting with removable plugs so you're able to see inside the insulation. Dragon Jacket can also be customized in the field; holes can be drilled to allow the flow meters to be outside of the insulation.

## DURABILITY

### **Q. How durable is your product, and how easy is it to make modifications, such as cuts, in the field?**

**A:** Dragon Jacket is extremely durable, our website ([www.dragonjacket.com](http://www.dragonjacket.com)) features a short video that showcases our durability vs. the competition. It can be walked on, hit, withstand inclement weather conditions, and more without its shape or functionality being compromised. Dragon Jacket can be cut in the field with a hooked knife blade, however; determining proper fitting during the manufacturing process makes installation much easier than making extensive modifications in the field.

### **Q. Are there any limitations regarding using an additional cover on Dragon Jacket (i.e. a rigid cover for extra protection?)**

**A:** There is no need for additional covers because Dragon Jacket is both the insulation and cover in one. It goes on in one step and dramatically reduces the installation time. 3' of our product can be installed in less than two minutes, which is much faster than the competition's installation average of about ten minutes per foot. Even our tougher fittings only take about a couple minutes to install, whereas the competition can take thirty minutes to an hour to install fittings.

## RE-USABILITY

### **Q. What is Dragon Jacket's "Longer Service Life"?**

**A:** Dragon Jacket can be used many times over, and can last for 20 years. We can only say 20 years because that is how long polyurea has been around. All insulation and cladding that is out in the field has to be replaced over time. Most insulation that is along the ground gets stepped on and damaged as workers go about their daily activities and checks. Insulation that is higher, and has ladders laid against them get damaged as well. Most insulation in industrial settings have scheduled maintenance and when this occurs, the insulation has to be replaced. In all of these cases, Dragon Jacket will maintain its shape and performance, not have to be replaced in high traffic areas, and can continue to be re-used many times during scheduled maintenance.

### **Q. What can be done if we have valves that need to be checked regularly?**

**A:** Dragon Jacket fittings have drip edges on both ends, so you would simply use a clamp that could be loosened and easily removed to remove the Dragon Jacket fitting. After inspection, you'd replace the fitting, slide the clamps back over the drip edges and tighten. All of this can be accomplished within minutes, and prevents having to purchase a new fitting, or have a new fitting made.

## WATERPROOF

### **Q. Do we have to worry about corrosion with Dragon Jacket?**

**A:** Dragon Jacket is 100% waterproof. Our fittings have a joint on the bottom which allows for any leaks to be detected every 3', and allows the moisture to escape and drastically lessening the chance of pipe corrosion and rust. Traditional fiberglass and wool insulation without a cladding has the joint on the top, which is secured with screws. This keeps the moisture inside of the insulation and allows the moisture to run to the lowest point and causing the insulation to lose its R-value. This could all happen many feet away from the origin of the leak within the insulation, and a great deal of moisture can accumulate in the fiberglass or wool.

### **Q. How does Dragon Jacket's insulation system prevent moisture build up?**

**A:** Dragon Jacket's joints are on the bottom of each fitting. This allows any moisture that could enter the insulation to easily escape, thus drastically decreasing CUI.

**Q. Is the Dragon Jacket insulation system water-tight, and is water-tightness critical for design performance?**

**A:** Dragon Jacket products are waterproof and chemical resistant. The internal foam is a closed cell foam, and if exposed will not absorb water. Our product does not lose its R value like a typical fiberglass insulation does when it gets wet. Water can get out of our pipe insulation and tank panels, which means Dragon Jacket doesn't absorb moisture and pull the heat away from the pipe like the fiberglass. This also prevents corrosion.

**Q. How does the Dragon Jacket insulation system handle condensation build-up in a hot and cold cycle?**

**A:** For the majority of applications, moisture build up will escape Dragon Jacket; However, certain applications might require an air-tight solution, which we can provide.

**Q. How does Dragon Jacket help with “Early Leak Detection”?**

**A:** Dragon Jacket has a drip edge that doesn't wrap the entire way around the product. When assembled, there is a modest area where any moisture, such as oil, water, etc., can escape. This will show any leaks under the insulation almost instantaneously, unlike competition insulation. Traditional fiberglass, aluminum cladding, and wool insulation, any moisture that enters the insulation will travel to the lowest point and be absorbed like a sponge. Moisture can stay undetected within these types of insulation until the R-value is lost, and all of the insulation must be completely replaced.

## TECHNICAL SPECIFICATIONS

**Q. What is the maximum temperature and failure of Dragon Jacket?**

**A:** The manufacturer of the polyurea products have set the maximum temperature at 250°F, but it has been cured at 350°F. Our product has been on pipes where a mistake was made with the heat tape- It was put on at 180°C instead of 180°F. There was no damage to the Dragon Jacket insulation as a result of this, but the heat tape did melt into the high density poly pipe. The customer had to replace the damaged poly pipe, but were able to remove and re-use the Dragon Jacket. This saved the customer over \$20,000.00 and very valuable time.

**Q. Is Dragon Jacket flammable?**

**A:** Dragon Jacket belongs to Class A of the Smoke and Flame test. Further testing is being done to determine the smoke and flame rating for Dragon Jacket. Please send us an email to [info@dragonjacket.com](mailto:info@dragonjacket.com) if you'd like to be directly notified once the testing has been completed.

**Q. Are there any exposure limitations?**

**A:** Dragon Jacket S-1 has an operating temperature range of -60°F to 250°F (-50°C to +121°C). Dragon Jacket S-2 has an operating temperature range of -109°F to 200°F (-78°C to +93°C). Dragon Jacket S-3 has an operating temperature range of -40°F to 350°F (-45°C to +176°C). Dragon Jacket S-4 has an operating temperature range of -40°F to +200°F (-45°C to +93°C).

**Q. Is Dragon Jacket rated for UV exposure?**

**A:** The polyurea does not break down with UV exposure, but with time the color will fade slightly as superficial oxidation occurs.