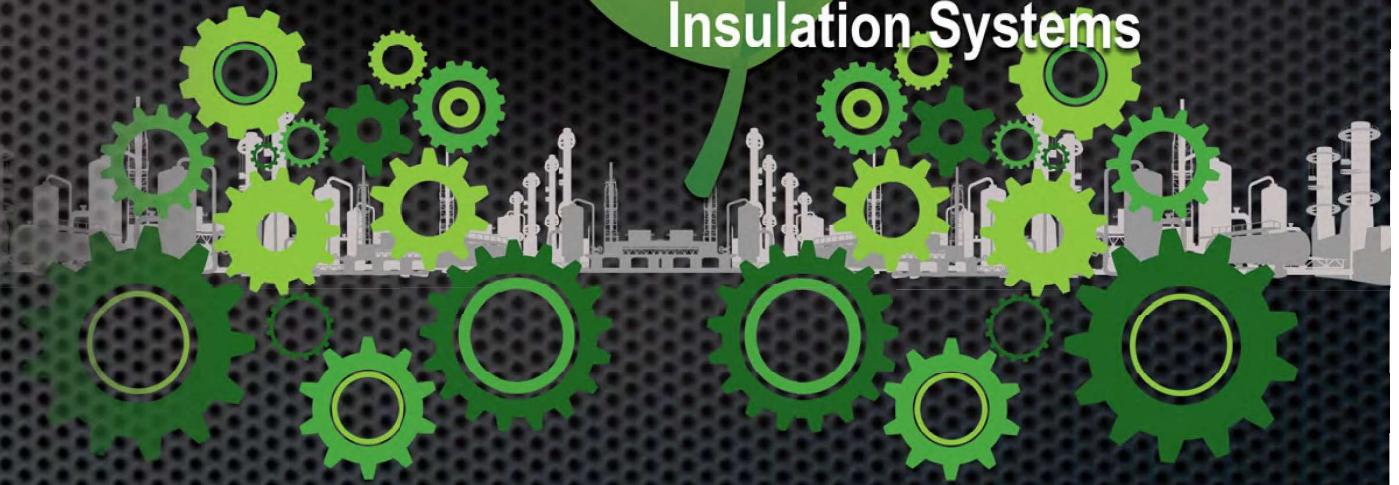




# UNIVEST<sup>®</sup>

Insulation Systems







UNITED STATES

## ENERGY IN BRIEF:

### What are the major sources and users of energy in the United States?

Process heating is vital to nearly all manufacturing processes. Process heating is the No. 1 energy drain for many United States manufacturing industries. In the U.S. industry, process heating accounts for more than any other processes in manufacturing. Industry accounts for nearly 36% of the total energy used in manufacturing within the U.S.

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- 14

PROCESS	APPLICATION	EQUIPMENT
Agglomeration-Sintering	Metals Production	Various Furnace Types, Kilns, Microwaves
Calcining	Lime Calcining	Various Furnace Types
Curing and Forming	Coating, Polymer Production, Enameling	Various Furnace Types, Ovens, Kilns, Lehrs, Infrared, UV, Electron Beam, Induction
Drying	Water and Organic Compound Removal	Fuel-Based Dryers, Infrared Resistance
Forming	Extrusion, Molding	Various Ovens and Furnaces
Fluid Heating	Food Preparation, Chemical Production, Reforming, Distillation, Cracking, Hydrotreating, Visbreaking	Various Furnace Types, Reactors, Resistance Heaters, Microwave, Infrared, Fuel-Based Fluid Heaters, Immersion Heaters
Heating and Melting-High-Temperature	Casting, Steelmaking, Glass Production	Fuel-Based Furnaces, Kilns, Reactors, Direct Arc, Induction, Plasma, Resistance
Heating and Melting-Low-Temperature	Softening, Liquifying, Warming	Ovens, Infrared, Microwave, Resistance
Heat Treating	Hardening, Annealing, Tempering	Various Fuel-Based Furnaces, Ovens, Kilns, Lehrs, Laser, Resistance, Induction, Electron Beam
Incineration/Thermal Oxidation	Waste Handling/Disposal	Incinerators, Thermal Oxidizers, Resistance, Plasmas
Metals Reheating	Forging, Rolling, Extruding, Annealing, Galvanizing, Coating, Joining	Various Types of Furnace Ovens, Kilns, Heaters, Reactors, Induction, Infrared
Separating	Air Separation, Refining, Chemical Cracking	Distillation, Membrane Filter Presses
Smelting	Steelmaking and Other Metals (e.g., Silver)	Various Types of Furnace
Other Heating Processes	Food Production (including Baking, Roasting, and Frying), Chemical Production, Sterilization	Various Types of Furnace Oven, Reactors and Resistance Heaters, Microwave, Steam, Induction, Infrared

Courtesy the United States Department of Energy Office of Energy Efficiency Technologies Program, in cooperation with the Industrial Heating Equipment

are the energy and its reater than

100% Energy Input

50% Energy Output

## The Predicament:

In most manufacturing facilities today, more than half of the heat generated goes to waste. During these manufacturing processes, as much as 20% to 50% of the energy consumed is lost via waste heat. These discharges are the result of process inefficiencies and the inability of the existing process to recover and use the excess energy streams.

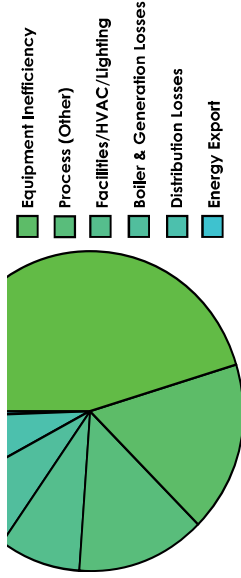
ICI FD Spot 251.5 F  
LS Frozen  
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ICI FD Spot 93.7 F  
LS Frozen  
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0 times more energy each year than all of the  
its (CFLs), ENERGY STAR Appliances and ENERGY  
d (U.S. Environmental Protection Agency ENERGY



expertise, our insulation systems can be controlled with the UniVest system for your facility to capture wasted heat and reduce waste and energy costs.



**UniVest® Insulation Systems** offer a broad base of superior, energy-conserving insulation systems that preserve process temperatures and improve worker safety. UniVest Insulation Systems are used on various applications within the process industry to conserve energy and reduce process temperature concerns. Virtually any application that operates at high temperatures is a potential UniVest® custom

Unlike most removable insulation systems, UniVest® Insulation Systems are outfitted with standard, readily available off-the-shelf components to meet any custom fabricated requirement. Virtually any component in the product line can be modified for a pick-and-place application of componentized assemblies — similar to building blocks. Whether your needs are simple or highly complex, UniVest® Insulation Systems can help.



**DID YOU KNOW ...**  
 There are more than two million possible applications for the UniVest® Insulation Jacket that can be used on any of the products in the UniVest® Insulation Systems line.

UniVest® Insulation Systems will generally pay for themselves in an energy project will pay for itself as quickly — and with as little up-front investment as possible.



**In our energy studies, we have found that efficiency can increase up to 59% by adding insulation to a process heating line. This translates to a seven-month return on investment (ROI) with more than \$500 in savings per square foot.**

**FACILITATE TEMPERATURE CONTROL OF A PROCESS**

**CONSERVE ENERGY BY REDUCING HEAT LOSS OR GAIN**

**CONTROL SURFACE TEMPERATURES FOR PERSONNEL SAFETY AND COMFORT**

**UNIVERSAL SYSTEMS IN ...**

- Manufacturing
- Chemical refineries
- Food processing
- Pharmaceutical manufacturing

**UNIVERSAL SYSTEMS ON ...**

of waste heat include:

- Heat losses from hot equipment surfaces
- Heat losses from heated product streams

improve facilities in a variety of establishments greater insulation jackets are installation, easy removal access to equipment and effective advantages allow you reducing your organization's

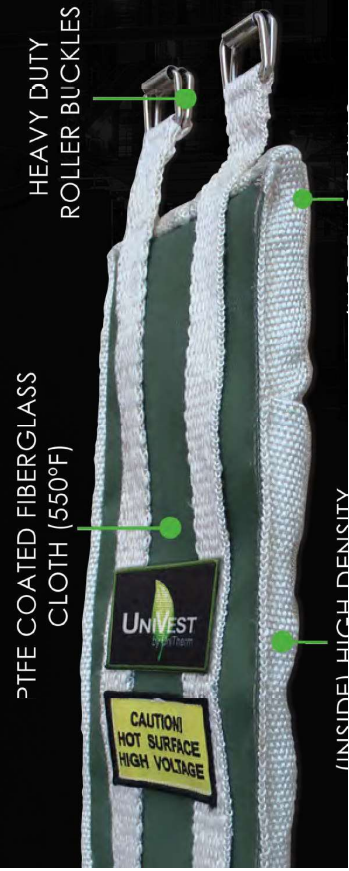


create a **SAFER WORKING ENVIRONMENT** for your employees and protecting key components from high temperatures. made with **STANDARD, READILY AVAILABLE, OFF-THE-SHELF** components that can be easily configured for any custom configuration requirement. **COMPLIANT WITH OSHA SAFE-TOUCH STANDARDS** for electrical work where there is a potential for injury).

**DELIVER AN INCREASED CONTROL OF PROCESS**

increase production capacity by reducing the amount of energy needed to maintain high temperatures.

UniVest jackets are constructed in three layers: the innermost layer (hot face) is made of Silica cloth (1800°F). The middle layer is made of high-density ceramic fiber (2000°F). The outermost layer (cold face) is made of PTFE coated fiberglass cloth (550°F).



most basic and simplified version of an insulation system in the UniVest® Insulation Systems line. Throw Blankets are removable/reusable insulation covers that provide temperature protection up to 1500°F. Throw Blankets are ideal for applications that need to be easily accessed.



With the added advantage of being modular, easy to maneuver and simple to install/reinstall, Throw Blankets offer 98% of all the insulation benefits of a UniVest® Insulation Jacket. The ability to drape and/or magnetize Throw Blankets to a desired object makes its application virtually limitless.



Simply measure the area of the desired application and choose from one of our standard sizes.

As per specification, Throw Blankets are manufactured with or without magnets for placement, protection and energy efficiency.

**WARNING: MAGNETS ARE NOT TO BE USED AROUND ELECTRICITY**



For every Btu consumed in the production of insulation, 100 Btu are consumed each year by the use of insulation. (Green and Co.)

measure, and you are ready to go:

Original: [How to Measure UniVest®](#)

## the (1) CIRCUMFERENCE OR (2) DIAMETER.

CIRCUMFERENCE DIAMETER



DIAMETER

This method of measurement you only need to find your ways mentioned above.

## MEASURED WIDTH.



This method of measurement you only need to find your ways mentioned above.

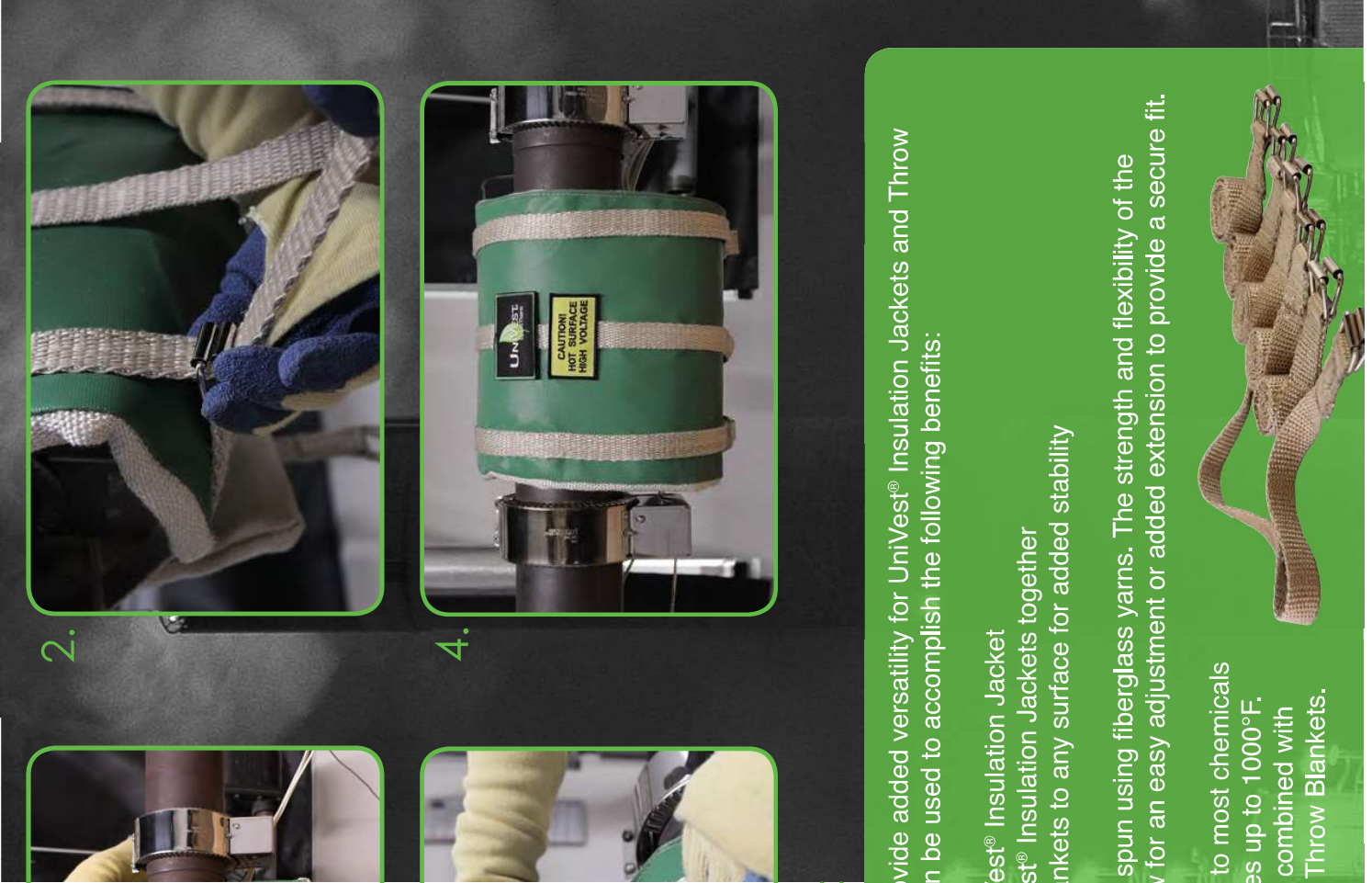
rows and width measurements are listed in the horizontal column rows.

# WIDTH

	2in (51mm)	4in (102mm)	5in (127mm)	6in (152mm)	8in (203mm)	10in (254mm)
0in-6in (0mm-152mm)	UVST 1302	UVST 1304	UVST 1305	UVST 1306	UVST 1308	UVST 1310
6in-13in (152mm-330mm)	UVST 1902	UVST 1904	UVST 1905	UVST 1906	UVST 1908	UVST 1910
13in-19in (330mm-483mm)	UVST 2502	UVST 2504	UVST 2505	UVST 2506	UVST 2508	UVST 2510
19in-25in (483mm-635mm)	UVST 3102	UVST 3104	UVST 3105	UVST 3106	UVST 3108	UVST 3110
25in-31in (635mm-787mm)	UVST 3802	UVST 3804	UVST 3805	UVST 3806	UVST 3808	UVST 3810
31in-38in (787mm-965mm)	UVST 4302	UVST 4304	UVST 4305	UVST 4306	UVST 4308	UVST 4310
38in-44in (965mm-1118mm)	UVST 5002	UVST 5004	UVST 5005	UVST 5006	UVST 5008	UVST 5010
44in-50in (1118mm-1270mm)	UVST 5602	UVST 5604	UVST 5605	UVST 5606	UVST 5608	UVST 5610
50in-57in (1270mm-1448mm)	UVST 6302	UVST 6304	UVST 6305	UVST 6306	UVST 6308	UVST 6310
57in-63in (1448mm-1600mm)	UVST 6802	UVST 6804	UVST 6805	UVST 6806	UVST 6808	UVST 6810

The CIRCUMFERENCE (length) is 25in, and the de





2.

4.

vide added versatility for UniVest® Insulation Jackets and Throw  
n be used to accomplish the following benefits:

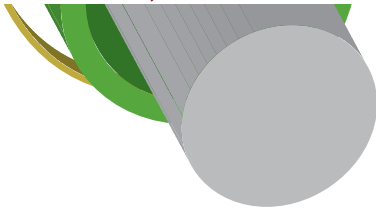
est® Insulation Jacket  
st® Insulation Jackets together  
nkets to any surface for added stability

spun using fiberglass yarns. The strength and flexibility of the  
y for an easy adjustment or added extension to provide a secure fit.

to most chemicals  
es up to 1000°F.  
combined with  
Throw Blankets.

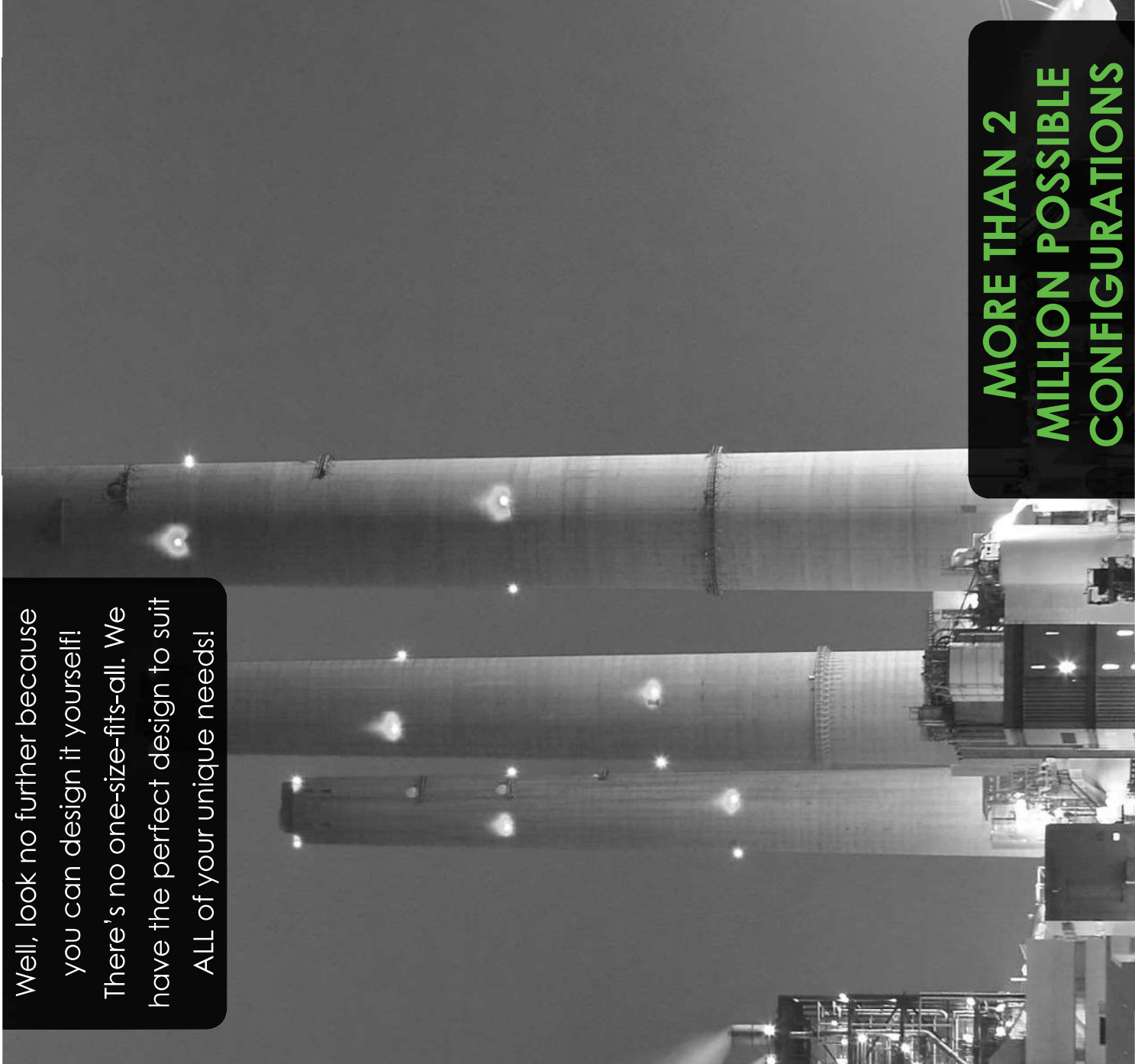
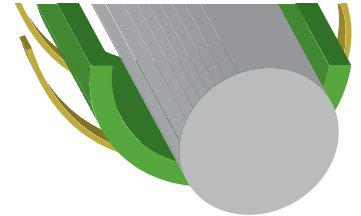
SIMPLICITY  
BREEDS  
USABILITY





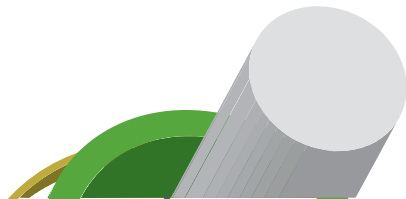
3. Daisy ct  
Jackets

ALL UP  
SYSTEM



Well, look no further because  
you can design it yourself!  
There's no one-size-fits-all. We  
have the perfect design to suit  
ALL of your unique needs!

**MORE THAN 2  
MILLION POSSIBLE  
CONFIGURATIONS**



iVest®

ETS  
JACKET





**ISOCOVERS Insulation Systems:**

Specifically designed to meet heat and process requirements for high-pressure steam applications.



**FirePro® Fire Protection Systems:**

Specifically designed for passive fire protection and fireproof applications compliant with the UL 1709 testing standard.



**FreezePro® Frost Protection Systems:**

Specifically designed to safeguard applications that are vulnerable to freezing or subjected to harsh environmental conditions.