#### LIQUID COOLING GARMENT

COMPCOOLER's tubing-lined vest is a highly engineered breathable mesh garment that weighs a mere 0.5KG (1.1 lbs.), dry weight. It consists of a soft mesh outer fabric and inner liner which is easy to don and comfortable to wear against the body. All garments have quick-disconnect fittings that are compatible with all self-contained and stationary cooling systems.









#### **COMPANY INTRODUCTION**

COMPCOOLER has established a pedigree for developing MIL spec products including Personal Thermal Systems and Micro Chiller Units for over 15 years. The same cooling and heating benefits developed for military applications has been adapted for a myriad of civilian applications. Our goal is to provide innovative systems made to the highest quality standards at affordable prices and with exceptional customer service. COMPCOOLER is a ISO9001 registered facility with certifications including CE, FCC, UL, PSE, RoHS, FDA for both components and systems.

> **COMPCOOLER** COOLING SYSTEMS KEEP YOU COOL **AND COMFORTABLE!**

#### Accessories



Extension Hose









#### **TECHNICAL INFORMATION**

For more information on how Compcooler personal cooling systems affect a person's body and performance, visit our shopping website here at www.compcooler.shop or scan the QR code below

#### **COMPANY INFORMATION**

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www.compcooler.shop

# PERSONAL COOLING SYSTEMS FOR INDUSTRIAL

## **APPLICATIONS**

Stay Cool Regardless of Your Ambient or Work Conditions





DISTRIBUTOR



### PRODUCT **INTRODUCTION**

Worker productivity suffers when exposed to conditions of excessive air temperature, humidity, and work rates. More alarming, however, is that workers may succumb to illnesses and injuries related to heat stress.

Heat stress starts when a body's means of controlling its internal temperature starts to fail. Heat stress has begun when body temperature reaches 37.6 ° C (99.7 ° F) and severe illness occurs when body temperature reaches 40° C (104° F). Heat stress can result in heat exhaustion, heat cramps, heat rashes or even life-threatening situations like heat stroke.

According to the U.S. Bureau of Labor Statistics over 900 U.S. workers were killed and almost 80,000 seriously injured by heat stress between 1992 and 2020. Thankfully there are several ways to help avoid heat stress. One of those is the use of Personal Protective Equipment (PPE) like Compcooler's Personal Liquid Circulation Cooling Systems.

Personal Liquid Circulation Cooling Systems were first developed more than 60 years ago to regulate the body temperature of astronauts and military pilots during their intense and heat stressing duties. In operation, a pump circulates cooled liquid in a continuous loop between a tubing-lined garment and a cold sink with a set of tubes having guick-disconnected fitting.

## PERSONAL **COOLING SYSTEM** FOR INDUSTRIAL **WORKERS**

Consisting of a lightweight and comfortable tubing-lined garment connected to a cooled liquid circulation unit, COMPCOOLER's personal cooling systems help keep workers safe, comfortable, and more productive in hot conditions.

#### **APPLICATIONS**

Industrial workers Construction workers Road Crews Miners Welders HAZMAT Responders Roofers Delivery Personnel Landscapers Aircraft Maintenance Workers Equipment Operators Gardeners Mascots Film Actors First Responders Security Personnel

With Compcooler's Line Of Personal **Cooling Devices, You Can Reduce Your Body's Core Temperature And Decrease The Incidence Of Thermal Stress While Increasing Safety, Comfort, Focus And Endurance** 



COMPCOOLER's personal cooling systems are grouped into two main categories: self-contained or stationary. Cold sinks for both self-contained and stationary systems are offered in either ice-based or chiller-based options as below

#### **ICE-BASED COOLING SYSTEMS**

ICE-based systems include a bladder or hard container that gets filled with water and then frozen. The ice serves to cool the liquid that is pumped to the tubing-lined garment or cushions. Cooling time is predicated on the time it takes for the ice to melt.

The time it takes for the ice to melt depends on the bladder/container size, the ambient conditions and the workload of the user. Having additional frozen bladders or ice cubes on hand can prolong the cooling time.



#### **Estimated Cooling Time**

- 1.5L Frozen Bladder: 0.5-1.5 hours
- 3.0L Frozen Bladder/Container: 2-4 hours
- 5.0L Frozen Bladder: 4-6 hours



#### **CHILLER-BASED COOLING SYSTEMS**

Chillers are a type of mechanical refrigeration system that use a compressor, evaporator, and condenser to lower the coolant temperature. The coolant is pumped to the tubing-lined garment or cushions where it absorbs heat from the User's body and returned to the chiller to be cooled again. Cooling time is predicated on the power source, typically in the form of a vehicle DC battery, AC outlet or rechargeable batteries.

#### **Pump Control Mode**

• On/Off Operation (standard)

• Flow Control Operation; allows User to select cooling rate (optional)

• Intrinsically Safe Flow Control Operation; for use in hazardous locations (optional) • Temp Control Operation; Medical Grade (optional)

### **SELF-CONTAINED COOLING SYSTEM OPTIONS**

Self-contained systems are designed for applications where the User requires freedom of movement, like a HAZMAT first responder for example. As such, these lightweight systems are battery powered and carried on the person. Most self-contained systems use ice as the cold sink, although one system is offered with a battery-operated chiller.









#### STATIONARY COOLING SYSTEM OPTIONS

Stationary systems are designed for static applications, like a welder or equipment operator performing his/her duties in the same location. The cooling system is separated from the User's cooling garment and connected with longer coolant hoses. Stationary systems are typically powered by unlimited energy sources such as an AC outlet or a Vehicle's DC battery, although rechargeable batteries can also be used.





