



HEALTH & SAFETY CATALOG

FREEZE



FIT



FUNCTION



**PROTECTION IN HIGH
HEAT ENVIRONMENTS**

ICEVESTSTORE.COM



Beat the Heat.

Working in high heat environments can severely impact people’s lives, on and off the job. Rising body core temperature, if not managed, can lead to fatigue, impaired decision-making and heat related illnesses, up to and including heat stroke. **FlexiFreeze® Ice Vest®** are the *only* cooling vest to use the most efficient coolant (frozen water), then insulate it from the surrounding heat with soft, flexible, neoprene. This focuses the heat absorbing power of thawing ice on drawing heat from the wearer’s body core, preserving energy, protecting vital organs and enhancing productivity.

A

SUPER THIN &
LIGHT WEIGHT

CONVENIENT
STORAGE

Two deep front pockets are perfect for a cell phone and keys. *(Professional Series)*

C

QUALITY
COUNTS

B

ONE SIZE
FITS MOST
(XS - 6XL)

How it Works.

Ice absorbs heat in order to thaw. The **Ice Vest®**, positions a layer of ice, encapsulated in flexible plastic, between the body of the wearer and the insulating outer shell of the vest. The insulated outer shell helps make sure that the heat that is thawing the ice is drawn from the wearer of the vest instead of the surrounding air. Water is used because it absorbs more heat, pound for pound, during phase change than any other material. This approach keeps the **Ice Vest®** thinner and more flexible than other vests while providing more cooling power. Visit **ICEVESTSTORE.COM** for more detailed features, information, and benefits.

D

CONTINUOUS
COOLING
POWERED BY
FLEXIFREEZE®



NO LOOSE
ENDS

Our Safestore cord management system stows any loose cords to help prevent them from being able to catch on anything.



B

ONE SIZE
FITS MOST
(XS - 6XL)

A

At *less than 1” thick*, and just **3.9 lbs.**, **Ice Vests®** are the lightest, thinnest, best performing and most *cost-effective*, phase-change vests on the market.

B

Adjustable shoulder straps and crisscross bungee lacing expand the **Ice Vest®** providing a snug fit for sizes **XS** to **6XL**, while allowing *maximum mobility and flexibility*. If you are outfitting a crew, there is no longer a need to inventory multiple sizes.

C

The beauty is in the details. With best-in-class components like dependable **YKK** zippers, ripstop nylon, and certified **3M** reflective ribbon, the ice vest will be durable and effective for a long time to come. *(Professional Series)*

D

Ice Vest® includes 3-piece panel set containing **FlexiFreeze® Ice**. Having additional frozen panel sets on hand provides continuous cooling and extends the time one can safely work in the heat.

PROFESSIONAL SERIES PRODUCTS



Professional Series Ice Vest®

Designed to meet the most demanding applications. Fit and function that helps keep employees safe and comfortable.

- Durable ripstop nylon shell with neoprene interior insulation
- 2 large and deep storage pockets
- Safestore zippered pockets safely stows excess cord
- Dependable YKK zippers
- 3M reflective for Hi-Vis versions
- Multi-point adjustment for proper fit
- Fully washable for easy care
- Available in 3 colors

All vests Include
1-Ice Vest® Panel Set



ITEM #FFVZCH-01
Charcoal Ice Vest



ITEM #FFHVOR-01
Hi-Vis Orange Ice Vest
Class 1, Type O



ITEM #FFHVVW-01
Hi-Vis Yellow Ice Vest
Class 1, Type O

Professional Series Ice Vest Panel Set

Affordable and simple solution to ensure continuous cooling. Multiple panel sets allow for all day cooling. Velcro attachment makes swapping out panels fast and easy. Refreeze and use hundreds of times.

Universal fit for all **Professional Series Ice Vests®**.

- 3 removable (Velcro®), washable FlexiFreeze® Vest Panels (2 front/1 back).
- Mesh bag for freezer or laundry.



ITEM #FFVRPS-18
Charcoal Ice Vest Panel
Set - UNIVERSAL

PROFESSIONAL SERIES PRODUCTS

Full Velcro Professional Series Ice Vest®

An alternative closure design for applications where there can be no metal hardware or small parts. The vest and panel set have Velcro closures that eliminate zippers and zipper pulls.

- Durable ripstop nylon shell with neoprene interior insulation
- 2 large and deep storage pockets
- Safestore Velcro pockets safely stows excess cord
- Multi-point adjustment for proper fit
- Fully washable for easy care



All vests Include
1-Ice Vest® Panel Set



ITEM #FFPFVV-20
Navy Full Velcro

Full Velcro Professional Series Ice Vest Panel Set

Affordable and simple solution to ensure continuous cooling. Multiple panel sets allow for all day cooling. Velcro attachment makes swapping out panels fast and easy. Refreeze and use hundreds of times.

Universal fit for all **Professional Series Ice Vests®**.

- 3 removable (Velcro®), washable FlexiFreeze® Vest Panels (2 front/1 back).
- Mesh bag for freezer or laundry.



ITEM #FFFVPS-20
Full Velcro Ice Vest Panel Set

PROFESSIONAL SERIES PRODUCTS



Professional Cooling Kit

Everything you need to take to the job site and keep cool for hours.

- Professional Series Ice Vest (with **Ice Vest®** Panel Set)
- Additional **Ice Vest®** Panel Set
- **Professional Series Tote**
- 88 cube **FlexiFreeze® Ice Sheet®** to help keep tote contents frozen all day
- Available in 3 colors

ITEM #FFCKZ-PSCH

Professional Cooling Kit
Charcoal Vest



ITEM #FFCKZ-HVOR

Professional Cooling Kit
Hi-Vis Orange Vest
Class 1, Type O



ITEM #FFCKZ-HVYW

Professional Cooling Kit
Hi-Vis Yellow Vest
Class 1, Type O



ITEM #FFCKZ-AVBL

Professional Cooling Kit
Navy Full Velcro Vest

Professional Series Tote

High performance insulated carry bag that will keep ice panels frozen all day. Rugged exterior and interior materials for on the job durability.

Ice Vest not included.

ITEM #FFTOTE-18

Insulated Tote
Charcoal



PERSONAL SERIES PRODUCTS



All vests Include
1-Ice Vest® Panel Set

FlexiFreeze® Ice Vest®

The original **FlexiFreeze® Ice Vest®** draws excess heat from the body core to keep employees safer, more comfortable and more productive in the heat.

- Soft, flexible, insulating neoprene shell
- Includes 3-pc **Ice Vest®** Panel Set
- Expands from XS to 6X
- Machine washable, mesh laundry bag included
- Great to wear under splatter gear, costumes, etc.



VELCRO CLOSURE

ITEM #FFV3-NV



ZIPPER CLOSURE

ITEM #FFVZ3-NV

Ice Vest® Panel Set

Affordable and simple solution to ensure continuous cooling. Multiple panel sets allow for all day cooling. Velcro attachment makes swapping out panels fast and easy. Refreeze and use hundreds of times.

Universal fit for both **Personal Series Ice Vests**.

ITEM #FFVRP-BK

Black



Personal Cooling Kit

Great for off-site projects and jobs. Freeze it and take it with you to stay cool for hours.

- Personal Series **Ice Vest®** (w/ Ice Vest Panel Set)
- Additional **Ice Vest Panel Set**
- Personal Series Tote
- 88 cube **FlexiFreeze® Ice Sheet®** to help keep tote contents frozen for hours

ITEM #FFCKV-NV
Velcro Closure

ITEM #FFCKZ-NV
Zipper Closure

ACCESSORIES



Cooling Collar

The **FlexiFreeze®** Cooling Collar helps keep you cool and comfortable in hot environments.

- Includes two 8 cube **FlexiFreeze®** Ice Strips
- Soft inner lining for comfort
- Breakaway Velcro fastener
- Machine Washable
- Available in 3 fun colors

Each item includes one Cooling Collar and two FlexiFreeze® 8 cube ice strips



ITEM #FFCC2-09
Charcoal



ITEM #FFCC2-01
Navy Blue



ITEM #FFCC2-02
Red

ADDITIONAL FLEXIFREEZE® ICE FOR COOLING COLLARS

6
PACK

ITEM #FF8ST-06
1 x 8 Cube Strip

12
PACK

ITEM #FF8ST-12
1 x 8 Cube Strip

100
PACK

ITEM #FF8ST-100
1 x 8 Cube Strip

Personal Insulated Tote

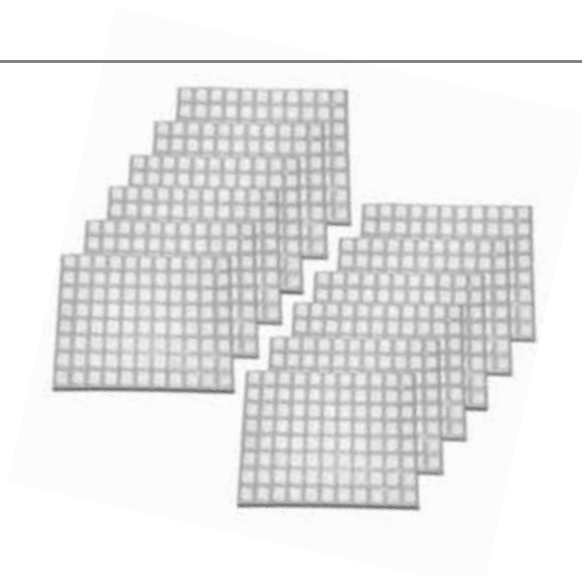
Insulated carry bag for transporting and keeping your **Ice Vest®** and extra panel set frozen for hours.

ITEM #FFOIVCB-OCBNV
Navy



88
CUBES IN
EACH SHEET

12
SHEET CASE



FlexiFreeze® Ice Sheets®

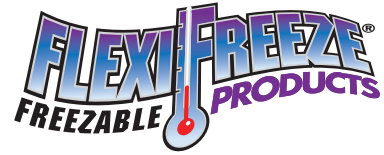
ITEM #FFFSC-88
88 Cube Ice Sheet
12 Sheet Case

Case Study.

REDUCE OR ELIMINATE HEAT RELATED INCIDENTS IN A HIGH HEAT WORK ENVIRONMENT

Program Implementation.

Occupational Health Nurse, ISSA Certified Personal Trainer CPT,
RN COHC at an **Aluminum Foundry** near **Saint Louis, MO**



The Context.

Like other foundries, the ambient air temperature can range between **120°** and **130°** throughout the summer months. It is challenging to maintain a healthy environment for employees, even with training/education about hydrating, freezer snacks and regular break periods. It is neither practical nor possible to significantly lower the ambient air temperature or humidity in the facility. The potential danger of permanent disability or even death due to heat stroke leaves an organization both vulnerable and liable. Heat related issues can have a significant effect on employee morale and employee retention, costing both productivity and profitability. Even less severe heat related incidents can effect an individual's work and home life profoundly. **In 2016, this facility treated 38 cases of heat illness across 3 shifts** (Incidents required first aide and did not required ER visits). In order to support several specific employees who were now more susceptible and vulnerable to repeated or more severe heat related incidents, the Occupational Health Nurse explored the possibility of using direct cooling to the individual worker's body core. If heat is able to be directly removed from the body core to counteract the rising metabolism and high ambient air temperatures, the risk of heat stroke is mitigated, and the employee is able to work safely and more comfortably in the heat. **FlexiFreeze® Ice Vest®** were researched, chosen and prepared for testing in each of several departments with specific individuals in mind beginning mid-June of 2017.

The Process.

Participating employees were fitted with a **FlexiFreeze® Ice Vest®**. Vests were numbered and stored on hangers in the medical office of the Occupational Health Nurse for check out. Each vest contains 3 removable panels filled with 96 cubes of water which needed to be frozen solid before use. Approximately 300 **FlexiFreeze® Ice Panel Sets®** were frozen in 4 residential chest freezers ranging in size from 10.2 cubic ft to 24.8 cf. in an air conditioned room. The ice panels were spread out in the freezers to allow for better air flow to freeze the cubes solid more quickly. At the beginning of each shift, one freezer was emptied into the other 3 to make room for "thawed" panels to begin refreezing upon their return. Two Summer Interns were hired, one each for 1st and 2nd shift. Their tasks included: Assisting the OHN with checking out/in the vests, running frozen panel sets to workers on the line, trading out the "thawed" panel sets per the schedule and managing the freezer space. A cart containing a large cooler (to keep frozen panels from thawing during transport in the facility), and a bin (for returning thawed panels) was used to deliver the panels. The employee's name, date, time out, time in, department, vest number and observations were logged. Workers stepped away from the line for a moment to trade out the thawed panels for fresh frozen panels with the assistance of the Intern. The Intern filled out the log sheet and moved to the next location. Panel sets were traded out at just under 2 hours per panel set. A managed vest program could not be implemented on the 3rd shift as there was no one to oversee or implement, so a list of vest/panel check-out instructions were posted with photos for those interested on the 3rd shift.

The Results.

During the 14 months since the managed implementation of the FlexiFreeze® Ice Vest® program, **heat illness cases during both 1st and 2nd shifts were reduced to zero (0)**. On the 3rd shift for the same time period there remained 12 reported heat illness cases (*Note: the program was not actively managed on 3rd shift*). The program has had significant results, as historically, there are 30-35 cases of heat illness cases logged every year. Managers now ask that all of their TM's wear their vests during extreme heat. Making the **FlexiFreeze® Ice Vest®** mandatory PPE during high temperatures and humidity is in consideration.



Saint Louis,
MO

SUMMER HIGH AMBIENT TEMP	2016 HEAT ILLNESS CASES	TRIAL DURATION	# OF NEW HEAT ILLNESS CASES*
120°-130°	38	14mo.	0 * During actively managed programs

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