

TENAQUIP

OCCUPATIONAL HEALTH AND SAFETY

PRESENTS...

HEAT STRESS PREVENTION



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TENAQUIP
OCCUPATIONAL HEALTH AND SAFETY



HEAT STRESS

// OVERVIEW AND SOLUTIONS

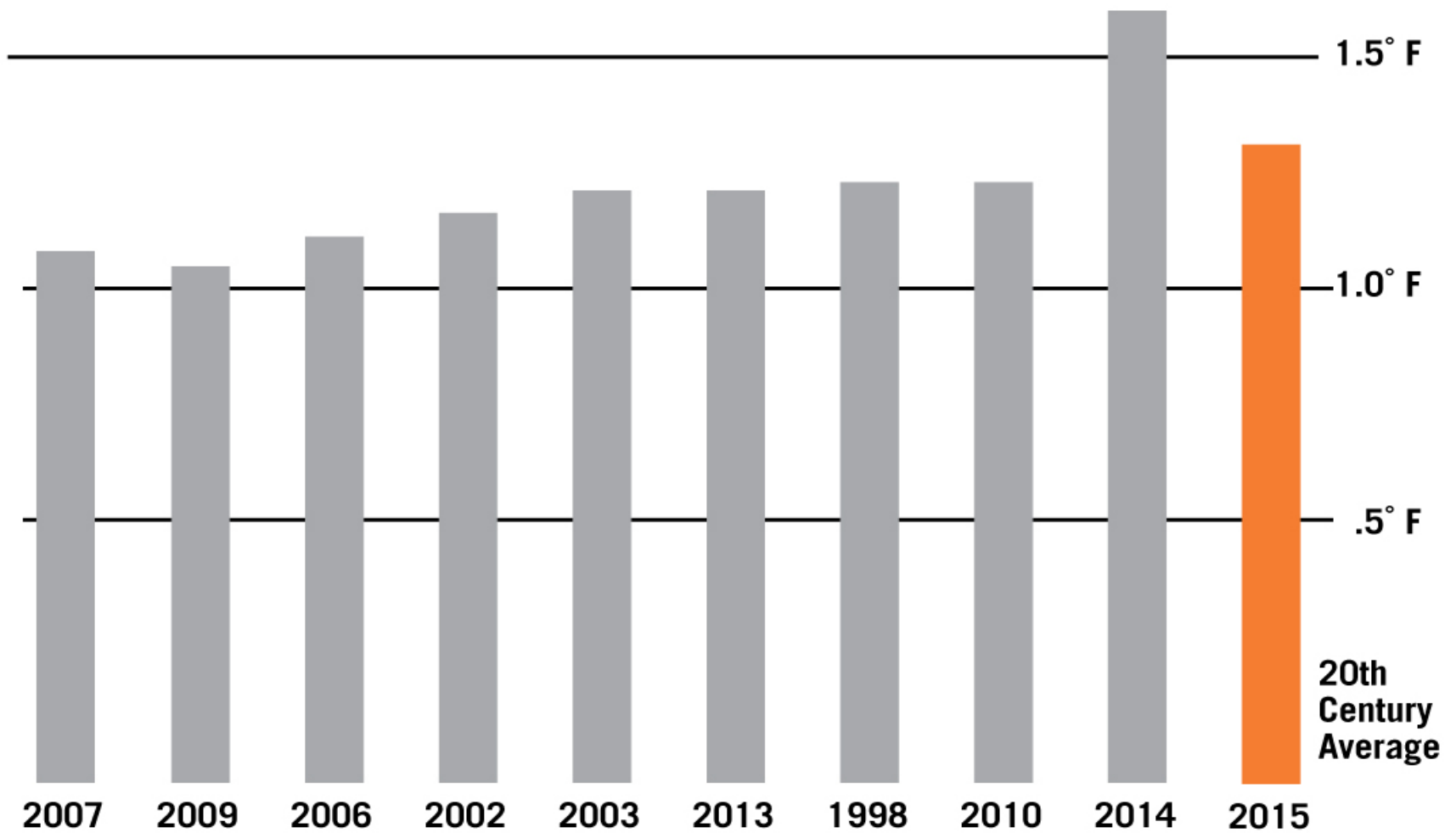
HEAT STRESS AGENDA

- »» OVERVIEW
- »» RISK AWARENESS
- »» COSTS OF NOT TAKING ACTION
- »» BEST PRACTICES
- »» SOLUTIONS



10 HOTTEST YEARS GLOBALLY

ALL SINCE 1998



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HEAT STRESS OVERVIEW

OVERVIEW

HEAT STRESS

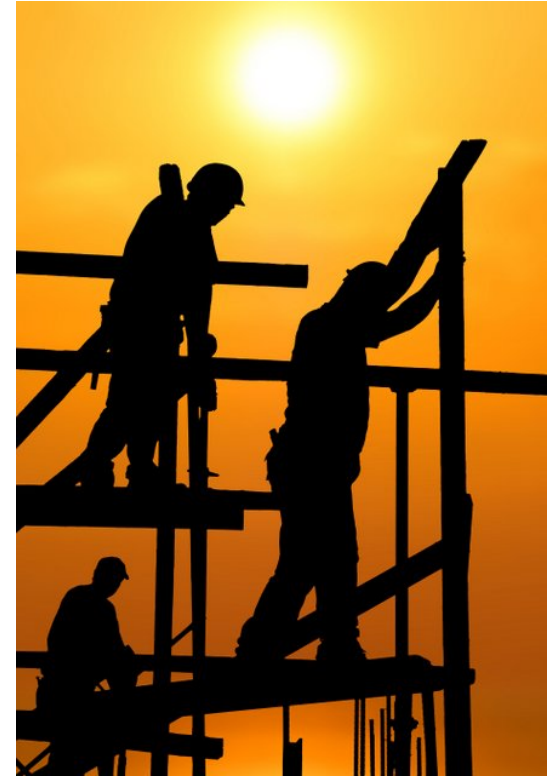
- » Defining Heat Stress
 - » Heat stress occurs when the body's means of controlling its internal temperature starts to fail.
 - » Heat stress begins as body temps rise above 99.7°Fahrenheit.
 - » Severe illness and injury occur when the body reaches temperatures of 104° Fahrenheit. Cellular (brain) damage can occur after only 30 minutes of elevated temperatures.



HEAT STRESS

WHAT IS A HEAT-RELATED ILLNESS?

- » Heat-Related Illness (HRI) is an umbrella term for a variety of physical ailments resulting from work or exercise in hot or humid environments.
 - » Heat rash
 - » Heat cramps
 - » Heat exhaustion
 - » Heat stroke



SEVERITY



HEAT RASH

SIGNS: Red blister-like eruptions/bumps. Itching sensation.

TREATMENT: Rest in cool place. Allow skin to dry.

PREVENTION: Shower after working in hot environment. Keep skin dry. Training and education.

SEVERITY



HEAT CRAMPS

SIGNS: Painful spasms usually in legs or abdomen. Possibly heavy sweating.

TREATMENT: Apply firm pressure and massage cramped area. Rest in cool place and drink water. Seek medical attention if cramping is severe.

PREVENTION: Adequate water and salt intake. Training and education.



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SEVERITY



HEAT EXHAUSTION

SIGNS: Headaches, weakness, mood change, feeling sick. Extreme sweating, pale clammy skin.

TREATMENT: Move to cool, shaded area and loosen heavy clothing. Drink cool water/electrolytes.

PREVENTION: Acclimatization. Drink plenty of water/electrolytes. Training and education.



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SEVERITY



HEAT STROKE

SIGNS: Pale skin, nausea, vomiting, confusion. Fever 104° or higher.

TREATMENT: Medical emergency. Call 911. Remove heavy clothing. Drink small amounts of water/electrolytes.

PREVENTION: Acclimatization. Drink plenty of water/electrolytes. Medical screening, training, and edu.



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RISK AWARENESS

RISK AWARENESS

CONTRIBUTING FACTORS

PERSONAL

- » Age, weight, and personal fitness
- » Dehydration and loss of electrolytes
- » Illness // fever
- » Medical conditions
- » Certain medicines
- » Diet // Alcohol
- » Inadequate tolerance or adaptation to heat



RISK AWARENESS

CONTRIBUTING FACTORS

ENVIRONMENTAL

- » High temps
- » Humidity
- » Direct sun or heat
- » Limited air movement
- » Hot equipment
- » Heat reflected from ground or objects
- » Physical exertion (i.e. work)
- » Clothing and PPE





COSTS OF NOT TAKING ACTION

COSTS OF INACTION

1. Worker Injury or Fatality
2. Property Loss or Damage
3. Productivity Loss



= ALL resulting in potential monetary loss



BEST PRACTICES

BEST PRACTICE

- » WATER. REST. SHADE.
 - » 1. WATER: Permit workers to drink water at liberty. Drink water every 15 minutes, even if you are not thirsty.
 - » 2. REST: Rest as often as needed. Establish provisions for a work/rest regimen in order to limit exposure time to high temperatures.
 - » 3. SHADE: The purpose of shade is to provide employees with a recovery period, which is detrimental to the prevention of heat illness. Access to shade should be allowed at all times.





SOLUTIONS

SHAX® 6000

POP-UP SERIES // HEAVY-DUTY COMMERCIAL

- » 10' x 10' foot-print, peak height of 14'
- » 300D Polyester shell with PU & UV coatings
- » Silver coated canopy
- » Double-vented top for maximum air flow
- » Powder coated steel frame construction
- » ABS plastic sliders for convenient height adjustment – no rust!
- » Reinforced corners & Reflective accents
- » Convenient oversized wheel bag for easy storage and transport
- » Heavy-duty ground stakes and ropes
- » Hi-Vis Lime Only
- » 46 lbs. (21 kg)
- » CPAI-84 Compliant



SHAX® 6100

UMBRELLA SERIES – UMBRELLA WITH SPIKE

- » Size: 84" or 7' (2.1 m) diameter
- » 300D Polyester top with PU & UV coatings
- » Meets CPAI-84 Flame Resistant Standard
- » Powder coated tenacious steel pole & ribs
- » Tilt mechanism for full sun protection
- » Vented top for maximum airflow
- » Four height options with peak height of 92 inches // 8 feet // 2.4 meters
- » Color: Hi-Vis Lime
- » Includes over-the-shoulder, oversized storage bag with convenient pocket & ground spike

AVAILABLE NOW



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CHILL-ITS® HYDRATION

2L HYDRATION PACKS

- » Durable 600D water-resistant rip stop polyester shell
- » 2L Bladder w/bite valve cover and neoprene sleeve
- » Zip-up cap cover keeps debris and contaminants at bay
- » Closed cell insulation keeps water cool for hours
- » TPE polymer bladder for water that tastes like water, not plastic
- » Breakaway straps, bite valve cover, screen printed cleaning instructions
- » H2O Capacity: 70 oz. (2 liters), approximately 2.2 hrs.

5155 // 5155HV LOW PROFILE HYDRATION PACKS



5156 LOW PREMIUM PROFILE HYDRATION PACKS



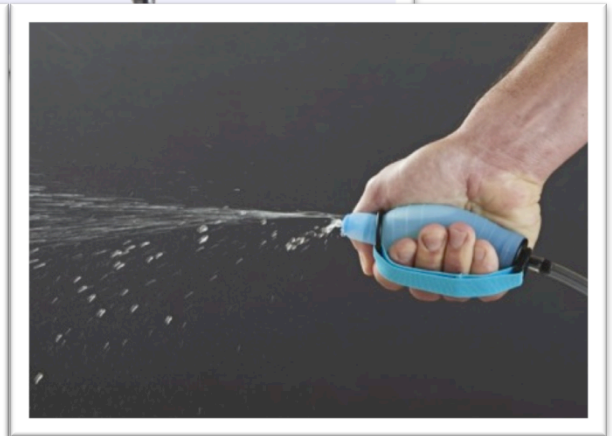
5156 PREMIUM CARGO HYDRATION PACKS



NEW! CHILL-ITS® HYDRATION

HYDRATION PRESSURE PUMP

- » FDA food grade silicone body
- » Elastic strap for secure grip
- » Valve cover keeps debris off bulb tip
- » Fits with all Ergodyne Hydration Packs
- » Sold separately



CHILL-ITS® 6700/6705/6710

EVAPORATIVE/ACRYLIC POLYMER – BANDANAS/
DEW RAGS

- » Acrylic polymers bring cooling power where you need it most.
- » Provides cooling comfort for extended periods
- » Activates in 2-5 minutes
- » Reusable
- » Hand wash
- » Blue, Stars & Stripes, Camouflage, Lime, Navy Western, Red Western and Flames



CHILL-ITS® FR

EVAPORATIVE SERIES/ACRYLIC POLYMER -
6700FR/6705FR/6710FR

#6700FR

- » Activated polymers bring cooling relief along with FR protection.
 - » 6700FR: Bandana w/tie
 - » 6705FR: Bandana w/breakaway hook & loop
 - » 6710FR: Triangle hat
- » 6.7 oz. modacrylic cotton blend fabric
- » Meets requirements of Performance Specification ASTM F2302 for flame resistance
- » Arc-rated; ASTM F1506 compliant (ATPV rating 7.1 cal/cm²); classified PPE category 1 (formerly HRC) according to NFPA 70E
- » Meta-Aramid FR thread
- » Soak in water for 2-5 minutes to activate
- » Remaining hydrated for up to 4 hours
- » Reusable, just re-soak



#6705FR



#6710FR



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CHILL-ITS® 6602

EVAPORATIVE/PVA – 6602 COOLING TOWEL (NEW COLORS)

- » Advanced PVA material holds water without feeling heavy
- » Super-evaporative, feels significantly cooler than ambient air
- » Wear for hours, or wipe off for quick relief
- » Simply re-wet the towel to reactivate
- » Machine washable
- » COLORS: Blue, Hi-Vis Lime, Orange, Pink and Gray



CHILL-ITS® 6603

EVAPORATIVE/PVA – 6603 COOLING TOWEL BAND

- » Advanced PVA material holds water without feeling heavy
- » Super-evaporative, feels significantly cooler than ambient air
- » 1/3 the size of the Chill-Its® 6602 with the same cooling power
- » Wear for hours, or wipe off for quick relief
- » Simply re-wet the towel to reactivate
- » Machine washable
- » COLORS: Blue



**SLIT OPENING FOR
EASY WEAR!**



6700CT/6705CT/6710CT

EVAPORATIVE/PVA – BANDANAS WITH COOLING TOWEL

- » Advanced PVA material keeps you cool without the bulk of standard polymers.
- » Advanced PVA material activates easily when soaked in water for under a minute
- » Remains hydrated for hours of cooling relief
- » Reusable, just re-soak
- » Lightweight and low profile (fits perfect under hard hats or other helmets)
- » Machine Washable
- » One Size
- » Colors: Solid Blue, Hi-Vis Lime, Red Western, Blue Western, Stars/Stripes, Camo, Flames



CHILL-ITS® 6670CT

EVAPORATIVE/PVA - HH NECK SHADE W/

COOLING TOWEL

- » Keeps the sun off your neck while delivering cool comfort
- » Advanced PVA material activates easily and quickly when run under water for a minute
- » Reusable, just re-soak
- » Remains hydrated for hours of cooling relief
- » Hook and loop suspensions allow for easy attachment to hard hat



Patented, exclusively by
Ergodyne

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» Colors: Hi Vis Lime, One

CHILL-ITS® 6602MF

EVAPORATIVE/MICROFIBER– 6602MF COOLING TOWEL

- » Microfiber material soft and absorbent
- » Super-evaporative, feels significantly colder than ambient air when wet
- » Chemical free
- » UPF 50+
- » Wear for hours, or wipe off brow for quick relief
- » Simply re-wet the towel to reactivate



Machine washable

» COLORS: Blue, Hi-Vis Lime,

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NEW CHILL-ITS®

EVAPORATIVE/MICROFIBER- LINE EXTENSIONS

- » Microfiber material is soft and absorbent when dry
- » Super-evaporative, when activated feels significantly cooler than ambient air
- » Lightweight and low profile, perfect for under hard hats
- » Chemical free and non-toxic
- » UPF 50+ for protection against UV rays
- » Machine washable
- » Logo options available



6700MF
Tie Bandana



6705MF
H&L Bandana



6710MF
Triangle Hat



8935MF
Ranger Hat



CHILL-ITS® 6665

EVAPORATIVE/ACYLIC POLYMER - COOLING VEST

- » Soak in cold water for 2-5 minutes and enjoy cooling relief and comfort.
- » V-neck with zipper closure
- » Quilted nylon outer layer
- » Activated, polymer-embedded fabric inside
- » Water-repellent liner and black cotton-poly elastic trim
- » Lightweight, durable, and washable



100% nylon



Gray, Lime

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- » M, L, XL, 2XL, 3XL

NEW CHILL-ITS® 6685

DRY EVAPORATIVE VEST

- » Fill vest with 13-20oz (400-600ml) water, distribute
- » Up to 3 days of cooling ability
- » V-neck with zip closure
- » Easy to use watertight cap
- » Lightweight, durable and washable
- » Patented
- » M, L, XL, 2XL, 3XL, NEW 4XL



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CHILL-ITS® ABSORPTIVE

HIGH-PERFORMANCE BAND/DEW RAG/CAP –
6605/6615/6630

- » Hi Cool® moisture management performance fabric (wicking + breathability)
- » Comfortable to wear under hats, helmets or alone
- » Absorbent terry headband
- » Elastic band for secure fit
- » Reusable
- » Blue, Stars & Stripes, Camouflage, Navy Western, Red Western, Lime and Flames

#6630



#6615



#6605



CHILL-ITS® 6660

ABSORPTIVE – HARD HAT BRIM W/SHADE

- » 100% Polyester fabric
- » Universal design – elastic inner rim to fit most hard hat style, design or size
- » Blocks the sun's rays keeping workers comfortable in environment absent from other forms of shade
- » Colors: Hi-Vis Lime & Hi-Vis Orange

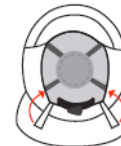


INSTRUCTIONS FOR USE:

STEP ONE: Insert front brim of the hard hat into the 6660 front flap (the 6660 neck shade will be on the back side of the hard hat).



STEP TWO: Loop the 6660 black elastic straps through and around the hard hat interior suspension system and adjust using the straps hook & loop.



STEP THREE: Tighten the black elastic straps as needed to ensure the 6660 is secure.



NEW PATENTED DESIGN

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NEW! CHILL-ITS® PHASE CHANGE

PHASE CHANGE VESTS – NEW DESIGN
6215/6215HV (NEW MODEL #s)

- » Maintains constant temperature of 64°F / 18°C
- » Cooling lifecycle lasts up to four hours
- » Comfortable cotton construction with adjustable hook & loop closure at shoulders and waist for great fit
- » Fabric meets ATPV of 7.1 cal/cm²
- » Non-toxic, non carcinogenic substance
- » Fabric carrier is washable in mild soap; line dry
- » New design features include: a shorter, wider vest for better mobility that still addresses the core body zones, pen loop, and overall updated appearance



One set of cool packs included with each vest; additional packs sold separately



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PLAN AHEAD

KNOWLEDGE IS POWER

Heat-related illness and death
are 100% preventable.

EDUCATION IS KEY!



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ERGO RESOURCES

OVERVIEW

- » Heat Stress is recognized by major OH&S organizations as a real occupational hazard, so take action & be prepared!
- » Ergodyne can provide an abundance of heat stress resources and product solutions to help you stay safe this summer.
 - » In-house training
 - » Webinars
 - » Informational card
 - » Technical white paper
 - » Heat Stress Poster
 - » Hazard Site Survey
 - » Sample Prevention Plan
 - » Hydration Sticker
 - » Website Collection
 - » Ergodytes
 - » Unique, patented PPE solutions
 - » ...and more to come!



THANK YOU!



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