

WORLD'S LEADING TECHNOLOGY COMPANY FOR

PERSONAL COOLING APPAREL





# ABOUT **INUTEQ**

INUTEQ is world's leading company in developing & manufacturing innovative personal cooling technologies and products.

Creating the best possible solutions to keep people and animals comfortably cool and to avoid heat stress symptoms, is at the core of our DNA.

# PERSONAL COOLING

Whether it be at work, during sports or your daily routines, you can trust to have INUTEQ at your side to keep you comfortably cool!

## MAIN MARKETS



ON THE JOB



**SPORTS** 



ANIMALS



HEALTHCARE



MOTORCYCLING



OUTDOOR



**MILITARY** 



WELLNESS





## SCIENTIFIC ADVISORY BOARD

The Scientific Advisory Board consists of two independent, recognized medical scientists, which together shape a highly important advisory body for INUTEQ.

Its primary tasks are:

To evaluate, guide and advise on new cooling technologies, strategies & applications

The Scientific Advisory Board is officially installed by INUTEQ and consists of members that come from diverse fields of research of various medical scientific institutions.



# PARTNERSHIP WITH HEAT-SHIELD

INUTEQ has partnered with HEAT-SHIELD, a European Union funded consortium which consists of twelve globally renowned research facilities, dedicated to address negative impact of increased workplace heat stress.

INUTEQ will be offering free consultation worldwide for organizations with heat stress concerns, conducting heat stress trials, and reporting on findings and product suggestions with scientifically endorsed advise from HEAT-SHIELD.

#### Scientific research:

High temperatures also affect the workplace. This applies not only to countries already plagued by extreme heat, such as Spain and Greece, or the American southern states, but also to countries in northern Europe.

According to head of research from HEAT-SHIELD, Professor Lars Nybo, the hardest hit will be industries involving outdoor manual work or indoor work with only limited ability to provide sufficient air conditioning. The studies have shown that more work-related accidents occur when temperatures increase. The research initial results show that climate change and hot work environments could cost up to 25% of some company's productivity.

"Modern management at many companies luckily focuses on employee health as a value in itself, but the economic aspect will continue to weigh heavily," says Nybo.

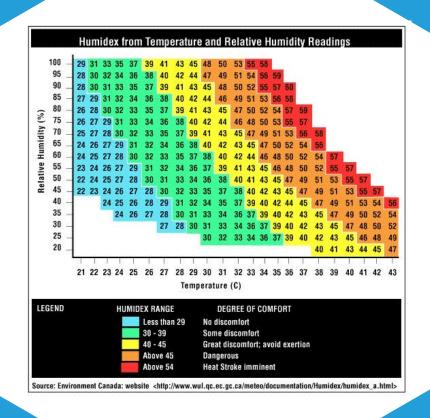












# **HEAT** INDEX

The Heat Index is a tool to help workers / athletes know & understand when there is a likelihood of Heat Stress occurring when the temperature along with relative humidity meet certain levels.

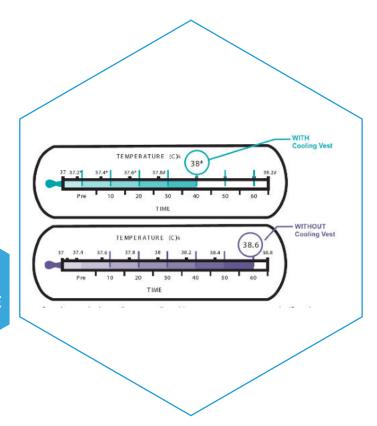
This index is also used to help H&S supervisors and managers to plan work and extra break schedules for the workers.

This can also help notify the people when the use of cooling apparel (cooling vests, neck shades, wrist bands etc.) are mandated through a Heat Stress program.

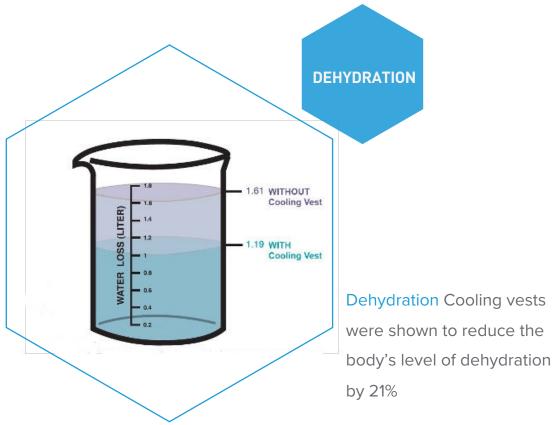
# FACTS & FIGURES

Core temperature was stabilized when wearing a cooling vest versus no vest.

CORE TEMPERATURE

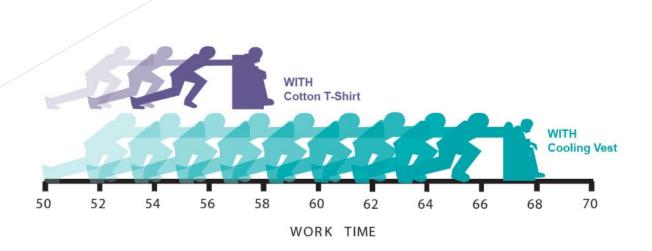


Results: In the cooling vest trails, subjects core temperature was significantly reduced compared to the participants not wearing a vest.



Results: Significant difference in the weight loss (sweat loss) between the cooling vest trial (1.26 " 0.8 kg) and the no vest trials (1.63 " 0.4 kg)





# FACTS & FIGURES

Wearing the cooling vest prolonged work time by an average of 16,4%, workers can do the job safer and can work longer.

Results: Wearing the vest prolonged work time by an average of 16.4%



# HEAT AND PERFORMANCE

The performance data from the Weissenet performance study, states various temperatures and the related performance decrease;

#### **Ambient temperature:**

25°C: performance decrease of 3%

30°C: performance decrease of 10%

35°C: performance decrease of 18%

40°C: performance decrease of 28%

The combination of precooling and percooling technologies could be the most effective strategy to improve exercise performance in the heat', according to Dr. Thijs Eijsvogels, one of the top authorities on thermoregulation.



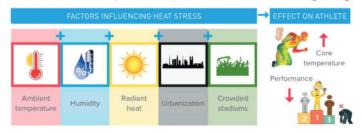
precool can increase
performance with 5,7%
(± 1%) and with per-cooling
(cooling during exercise) with
9,9% (± 1.9%).'

<sup>\*</sup> published 2015, British Journal of Sports Medicine

<sup>\*\*</sup> Dr. Thijs M.H. Eijsvogels, Department of Physiology Radboud University Medical center - The Netherlands

#### KEEP IT COOL AND BEAT THE HEAT COOLING STRATEGIES FOR EXERCISE IN HOT CONDITIONS

The ambient conditions of the Tokyo Olympics (32th Olympiad) are expected to be the most challenging ever. Increments in core temperature and associated performance loss are anticipated. Hence, athletes should consider cooling strategies.



Cooling interventions prior to (pre-cooling) and during exercise (per-cooling) significantly improve exercise performance in the heat.





Per-cooling (26 studies, 270 athletes)

Practicing the application of cooling strategies during training and competition is highly recommended for athletes to maximally benefit from cooling interventions during the Tokyo Olympics.









**HEAT** AND **PERFORMANCE** 



# **KEY** BENEFITS OF WEARING **COOLING** APPAREL

#### **HEAT STRESS PREVENTION TIPS**





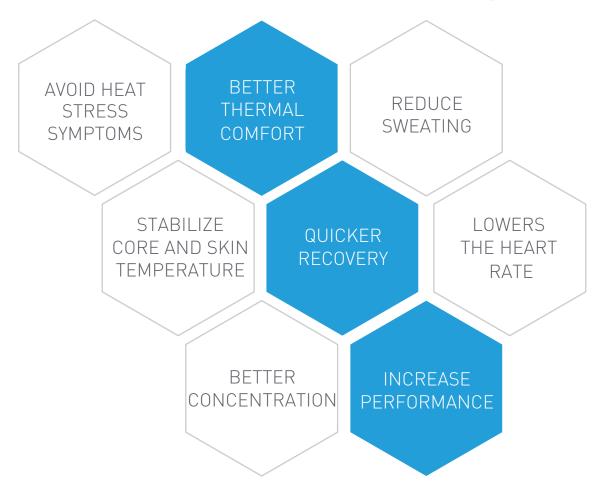




Avoid alcohol, coffee and soda Drink water every hour

Wear personal

Take a 15 minute cooling apparel break every 2 hours







## WORLDWIDE

PARTNERS & CUSTOMERS















USA FIELD HOCKEY



IRELLI





Landal



**w** bam)



ArcelorMittal



Ministerie van Defensie



























## PERSONAL COOLING TECHNOLOGIES

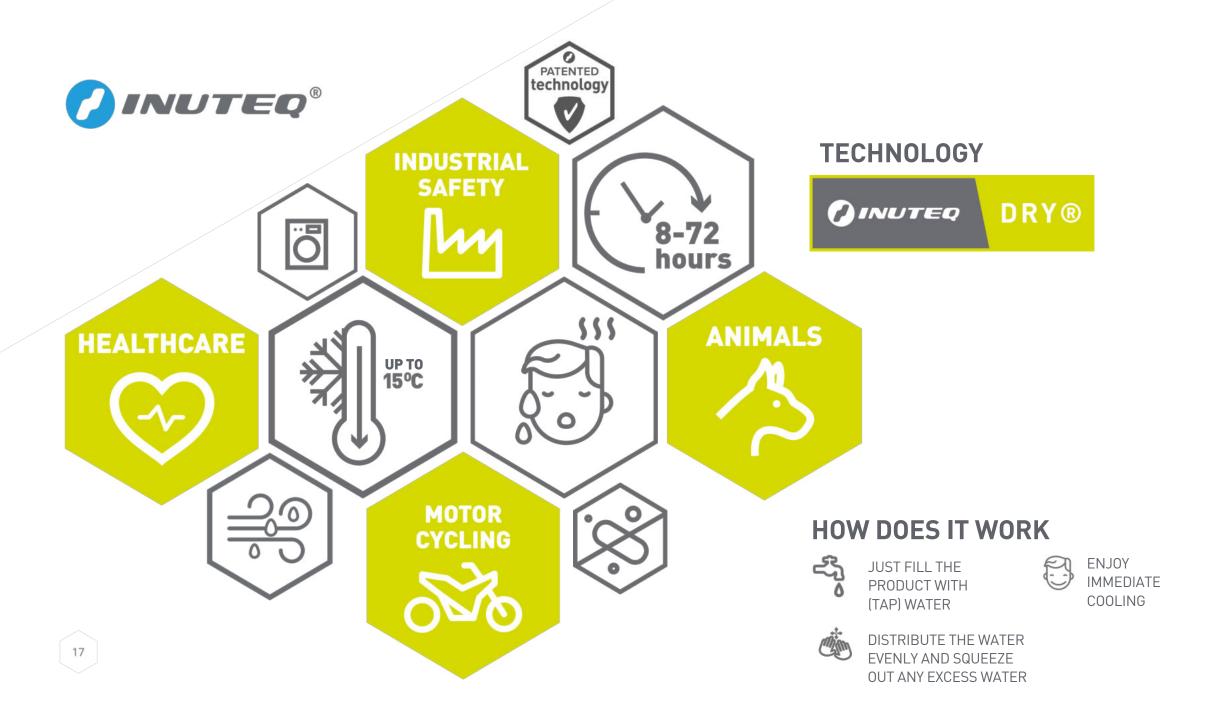




### HELP ME CHOOSE WHICH COOLING SOLUTION IS THE BEST FOR ME

Check here which technology and related product work best for your personal application and in which environmental condition.

	Effective cooling time during average use	in warm conditions under 40°C / 104°F	in hot conditions above 40°C / 104°F	in low-mid humid conditions	in high humid conditions	underneath breathable garments	underneath hazmat / airtight suits	without airflow	Suitable for <b>high</b> activity	Requirements to activate
DRY®	Up to 72 hours	<b>✓</b>	Low	<b>✓</b>	Low	<b>✓</b>	X	X	X	Tap Water
H20®	Up to 8 hours	<b>✓</b>	Low	<b>✓</b>	Low	<b>✓</b>	×	×	<b>✓</b>	Tap Water
PVA®	Up to 4 hours	<b>✓</b>	✓	✓	<b>✓</b>	<b>✓</b>	X	Low	<b>✓</b>	Tap Water
QCK®	Up to 1 hour	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	X	Low	<b>✓</b>	Tap Water
PAC®   6,5°C / 44°F	Up to 2 hours	<b>✓</b>	<b>~</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Freezer
PAC®   15°C/ 59°F	Up to 2,5 hours	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Freezer/Fridge/Ice Water or in temp<10°C / 50°F
PAC®   21°C / 70°F	Up to 3 hours	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Freezer/Fridge/Ice Water or in temp<19°C / 66°F
PAC®   24°C / 75°F	Up to 3,5 hours	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Freezer/Fridge/Ice Water or in temp<21°C / 70°F
PAC®   29°C/84°F	Up to 4,5 hours	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	Freezer/Fridge/Ice Water or in temp<26°C / 79°F











### **PRODUCTS**



**DRY**®













### **HOW DOES IT WORK**



JUST FILL THE PRODUCT WITH (TAP) WATER



ENJOY IMMEDIATE COOLING

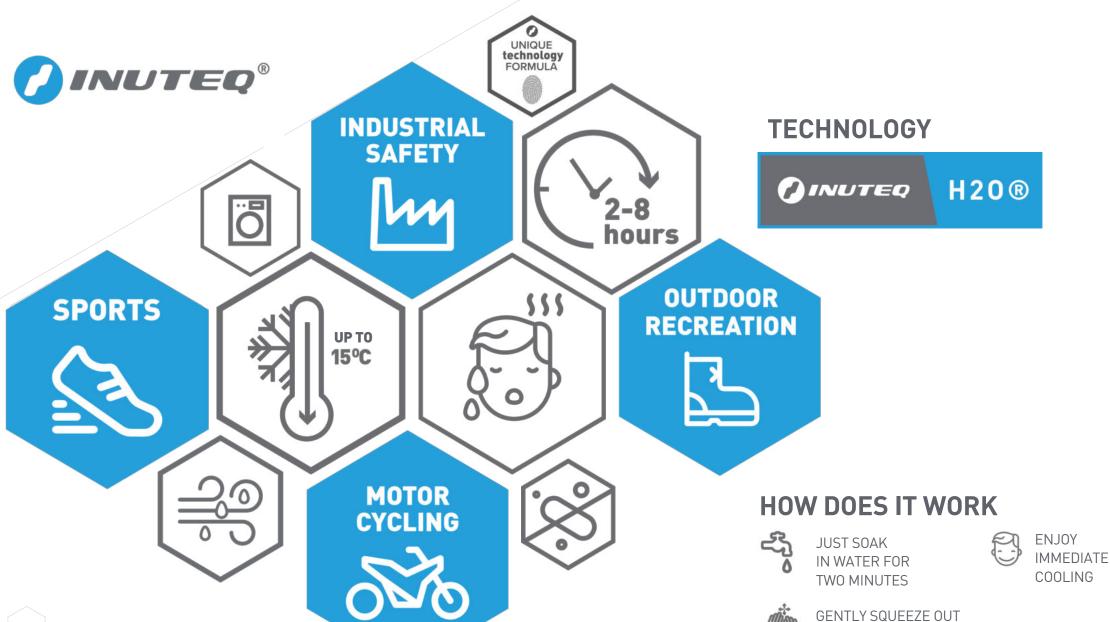


DISTRIBUTE THE WATER EVENLY AND SQUEEZE OUT ANY EXCESS WATER

## PERSONAL COOLING TECHNOLOGIES







ANY EXCESS WATER



## PERSONAL COOLING TECHNOLOGIES





### **TECHNOLOGY**



### **HOW DOES IT WORK**



JUST SOAK
IN WATER FOR
ONE MINUTE



ENJOY IMMEDIATE COOLING



GENTLY SQUEEZE
OUT EXCESS WATER



### **PRODUCTS**



### **HOW DOES IT WORK**



JUST SOAK
IN WATER FOR
ONE MINUTE



ENJOY IMMEDIATE COOLING



GENTLY SQUEEZE
OUT EXCESS WATER

# PERSONAL COOLING TECHNOLOGIES







### **PRODUCTS**



QCK®

## **HOW DOES IT WORK**



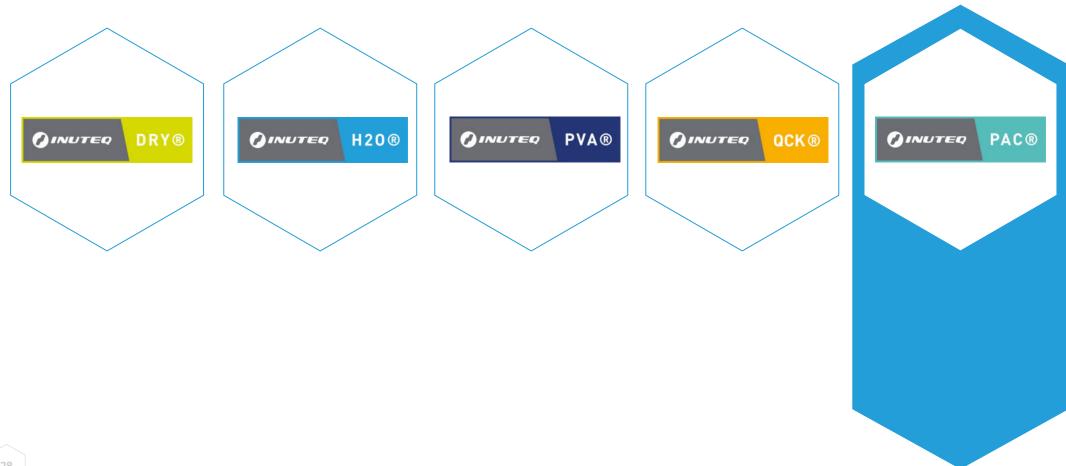
JUST SOAK IN WATER FOR 30 SECONDS



SNAP IT



## PERSONAL COOLING TECHNOLOGIES













### **TECHNOLOGY**



**PAC®** 

SPORTS





**HEALTHCARE** 















INDUSTRIAL SAFETY



AVAILABLE
IN 5 DIFFERENT
TEMPERATURES:

- 6,5°C / 44°F
- 15°C / 59°F
- 21°C / 70°F
- 24°C / 75°F
- 29°C / 84°F

### **HOW DOES IT WORK**



COOL THE PACK



ENJOY CONSTANT COOLING



INSERTS INTO GARMENTS POCKET







### **PRODUCTS**



**PAC**®













### **HOW DOES IT WORK**



COOL THE PACK



ENJOY CONSTANT COOLING



INSERTS INTO GARMENTS POCKET

#### **COOLING STRATEGIES TO ATTENUATE PPE-INDUCED** HEAT STRAIN DURING THE COVID-19 PANDEMIC

#### Thermoregulatory challenges

Personal Protective Equipment (PPE) creates a microclimate around the skin that reduces the heat loss capacity

Healthcare personnel work longer shifts and care for more patients than usual, resulting in an elevated heat productio

#### Cooling strategies & Effects

#### Pre-cooling Before work



Prehydration





Attenuate increases in core temperature

Accelerate recovery

# Rehydration

#### Consequences

Core temperature

Thermal discomfort

Sweat rate

Dehydration





#### Consequences

Thermal strain

Thermal discomfort

Cardiovascular strain

Dehydration

#### Cooling strategies must be



Safe and hygienic



Rapidly scalable and accessible for every hospital



Easy to implement in clinical settings

#### Benificial effects of cooling



Extends work tolerance time



Improves physical and cognitive performance



Improves recovery and reduces fatigue

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# THE NEW PRODUCT LINE FROM INUTEQ® FOCUSING ON BURNING FAT AND INCREASING METABOLISM BY COOLING



The science: Cooling Vests stimulate Brown Adipose Tissue (brown fat) causing the consumption of calories.

The science is backed by numerous international studies, scientific research and tests. Several studies mention the importance of brown fat and the potential of cold exposure to prevent increase in body weight.





() INUTEQ

100% biobased PCM technology  $15^{\circ}$ C /  $59^{\circ}$ F

**PAC®** 



# THE NEW PRODUCT LINE FROM INUTEQ® FOCUSING ON BURNING FAT AND INCREASING METABOLISM BY COOLING



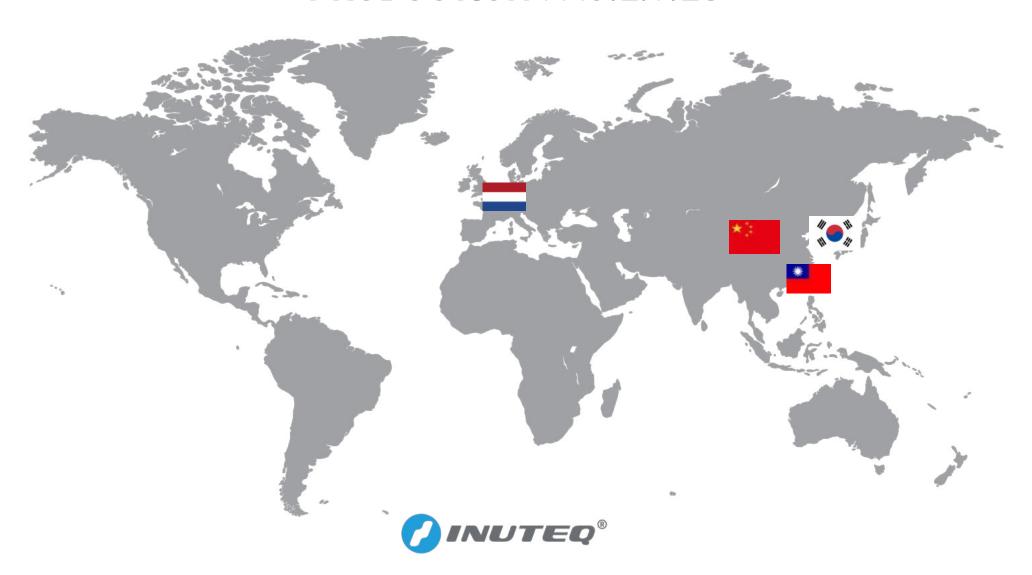






# BRANDING PRODUCTS

# PRODUCTION FACILITIES







ARE YOU GONNA
BE OUR NEW
COOL PARTNER?

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