

A construction site at dusk or dawn, with silhouettes of workers and a complex network of rebar and scaffolding against a bright, hazy sky. A crane is visible at the top of the frame.

FROM ESSENTIAL TO ERGONOMIC SAFETY

A SAFETY HARNESS E-GUIDE
TO IMPROVE WORKER EXPERIENCE
AND COMPLIANCE

Honeywell
MILLER[®]

KEEPING WORKERS AT HEIGHT SAFE, HEALTHY AND SUPPORTED

Proven with statistical research, safety harnesses save lives for workers-at-height. However, for a harness to work, it must be worn properly. A body harness that is not properly worn and adjusted is almost as dangerous as not wearing one at all.

It's not just the height that's dangerous

Few tasks are more dangerous than steel erection and scaffolding. Not only are construction workers at risk of fall, but long hours spent in a restrictive, non-ergonomic heavy harness can lead to muscular fatigue due to restricted freedom of movement, overexertion, repetitive tasks, load exposure, sweat and heat build-up. This can cause or contribute to critical errors, such as eyes and mind not on the task and bad posture, leading workers to be less compliant with their harness (incorrect fit and adjustment, no anchor point attachment, etc.) which may increase the risk of musculoskeletal disorders (MSDs) and falls.

Heat stress plays a role

Consider the climate in which construction work is performed. The U.S. National Institute of Health research indicated that "construction workers are at an elevated risk of heat stress due to strenuous nature of work, high temperature work conditions, and changing climate." This was echoed in a global study by Xiang, et al. (2014) "Construction workers in the southern United States, the Middle East, Asia, Latin America, and Africa are regularly exposed to extremely high temperatures with long working hours, and may have no or limited access to shade and water."

The National Institute for Occupational Safety and Health concurred with these

NORTH AMERICA



THE HONEYWE

Specially formulated webbing flexes to **accommodate movement and body contours** for optimum comfort around legs and shoulders.

"Best-in-class" anatomically and **ergonomically designed pressure-relief breathable shoulder/back padding** keeps workers drier and cooler

Lighter-than-ever harnesses.

CLIMATIC HEAT STRESS LEADS TO ACCIDENTS ON CONSTRUCTION SITES FROM FATIGUE THAT ATTRIBUTES TO IMPAIRED PHYSICAL AND MENTAL CAPABILITY.⁴

MUSCULOSKELETAL DISORDERS ANNUALLY COST **\$50B** TO CONSTRUCTION EMPLOYERS.²

31.4% OF NON-FATAL INJURIES IN CONSTRUCTION ARE DUE TO OVEREXERTION.¹

13X NA CONSTRUCTION WORKERS ARE 13 TIMES MORE LIKELY TO DIE FROM HEAT-RELATED ILLNESS (HRI) WHEN COMPARED TO OTHER INDUSTRIES.³

1. U.S. Bureau of Labor Statistics
2. U.S. Bureau of Labor Statistics
3. Bonauto D., Anderson R., Rauser E., Burke B. American Journal Independent Medicine
4. National Institute of Health

ELL ADVANTAGE

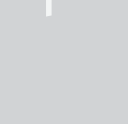
New patented shoulder/back padding design **minimises overhead muscular fatigue** (overexertion).



Three times more breathable compared to the next best alternative (less water vapour resistance – RET)



New side-adjustment straps for a **better, ergonomic fit.**



EUROPE

findings, "...work sites that increase worker's deep core temperature (often listed as higher than 100.4°F [38°C]) contribute to on-the-job heat stress."

Wearing a harness takes a toll on the worker's body

Then there are the strains the worker puts on his/her body when wearing a safety harness: work postures and movements, repetitiveness and pace of work, vibration, temperature and force of movements. These strains often result in MSDs and impact both the cost and health of the worker. The U.S. Bureau of Labor Statistics reported musculoskeletal disorders annually cost \$50 billion to construction employers. And it's not just in North America.

The European Agency for Safety and Health at Work (EU-OSHA) determined MSDs are most prevalent in construction, water supply (sewerage and waste supply), and agriculture, forestry and fishing, adding that 52% of all construction workers reported a backache and 41% reporting an MSD in the lower limbs over the past 12 months.

Developing the next-gen safety harness

It is clear that manufacturers must do better. And they can do better for their workers with next-generation safety harnesses. In developing the Honeywell Miller® H500 Series of safety harnesses, Honeywell recognized the need for change after considering the breadth of research surrounding overexertion, heat and musculoskeletal disorders. This extensive study revolutionized a new generation of safety harnesses, the Miller® H500 Series, around four key worker-centric value drivers: ergonomic safety, usability, style and performance.

#1

MUSCULOSKELETAL DISORDERS (MSDS) REMAIN THE MOST COMMON WORK-RELATED HEALTH PROBLEM IN THE EU.⁷

TOTAL COST OF LOST PRODUCTIVITY ATTRIBUTABLE TO MSDS AMONG PEOPLE OF WORKING AGE IN THE EU COULD BE AS HIGH AS

2% GDP⁸

#2

EU CONSTRUCTION WORKERS ARE EXTREMELY VULNERABLE TO HEAT STRESS WITH THE SECOND HIGHEST RISK RATE AMONG ALL INDUSTRIES.⁶

44 M

EU WORKERS SUFFER FROM MUSCULOSKELETAL DISORDERS (MSDs).⁵

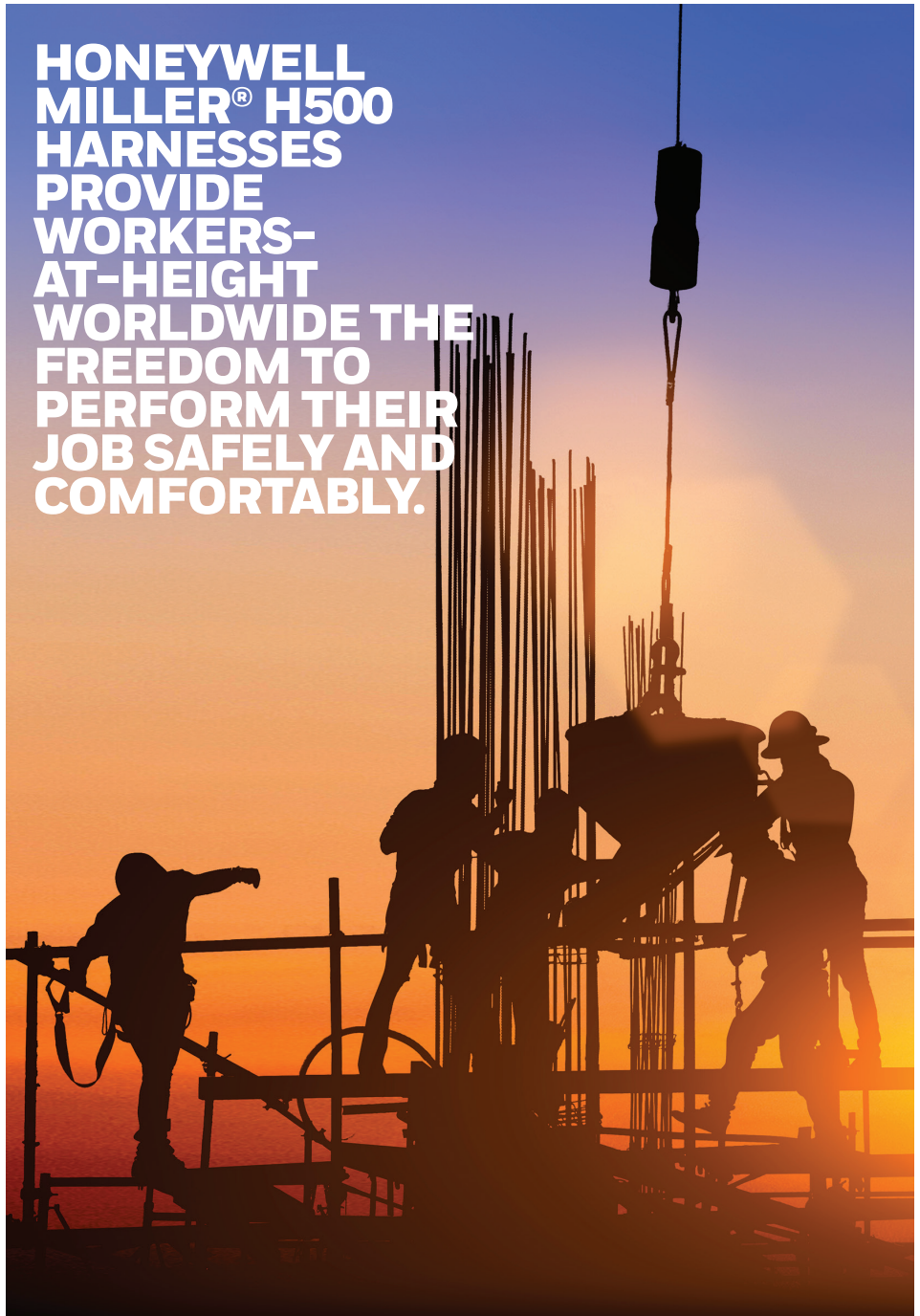
5. U.S. Bureau of Labor Statistics
6. National Institute of Health
7. OSHA.Europa.eu
8. <https://musculoskeletalkey.com>

HONEYWELL MILLER® H500 HARNESSES AIMING BEYOND COMPLIANCE

The Honeywell Miller® H500 Series integrates evidence-based “best-in-class” anatomically and ergonomically designed pressure-relief breathable padding for more comfort and freedom of movement, and introduces a variety of other new smart and intuitive safety features.

Four models are available for both North America and Europe – designed in conjunction with each area’s safety requirements. The harnesses synthesize safety, quality and comfort. Whereas some other harnesses may protect workers from serious injury at the expense of their long-term well-being, the Honeywell Miller® H500 aims beyond compliance – making their jobs easier and keeping workers safer and more comfortable. And even though safety requirements vary between North America and Europe, one thing that doesn’t vary is Honeywell’s commitment to provide both safe and ergonomically comfortable harnesses.

HONEYWELL MILLER® H500 HARNESSES PROVIDE WORKERS- AT-HEIGHT WORLDWIDE THE FREEDOM TO PERFORM THEIR JOB SAFELY AND COMFORTABLY.



For More Information

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**THE
FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell