FORTIS® EXOSKELETON
RELIEF FOR THE DAILY GRIND
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Whether grinding barnacles off a ship’s hull, welding a long section of beam or drilling hundreds of holes in preparation for riveting, repetitive work using heavy hand tools can be physically exhausting. With only a limited time to work on the task before requiring a rest, tool operators run the risk of extreme muscle fatigue. Lockheed Martin’s FORTIS® exoskeleton allows operators to effortlessly support heavy tools, enhancing their strength and endurance.

The FORTIS exoskeleton is an unpowered, lightweight exoskeleton that increases an operator’s strength and endurance by transferring the weight of heavy loads from the operator’s body directly to the ground through a series of joints at the hips, knees and ankles. Originating from Lockheed Martin’s exoskeleton research to assist soldiers in carrying heavy equipment over long distances, the same principles of how the body works and expends energy were applied to exoskeleton development for use in industrial settings.

Allowing heavy tool operators to hold their tools for an extended period of time, the FORTIS exoskeleton is useful for a variety of commercial and industrial maintenance, manufacturing and support operations in civilian and military environments. Lockheed Martin’s Exoskeleton Technologies team will tailor the capabilities of the system to specific needs of customers in any setting.

THE FORTIS EXOSKELETON IS:

Lightweight: Weighing less than 27 pounds – without the weight of the tool arm and tool – the FORTIS exoskeleton is easy to wear and transport. Because the weight is distributed, the wearer barely notices the system weight.

Adjustable: The FORTIS exoskeleton is adjustable to accommodate a range of body types including operators between 5’4” and 6’4”.

Adaptable: The FORTIS exoskeleton is easily modified to suit the needs of the customer. For example, the tool arm mounting bracket can be modified to fit various types and sizes of tool arms.

Human-Powered: As an unpowered exoskeleton, the FORTIS exoskeleton does not require a battery or power supply.

Flexible: The FORTIS exoskeleton can be used in a typical factory setting and also in complex environments, such as maintenance and repair, where work areas are confined and not always conducive to efficiently completing the task with a bench-mounted tool.

Agile: The FORTIS exoskeleton moves along with an operator’s natural movement while standing, bending, leaning or kneeling. Using ergonomic principles, the agility of the system makes it comfortable to wear.

Productivity Booster: Because the FORTIS exoskeleton reduces muscle fatigue, work rates have been shown to increase by 2 to 27 times based on third-party testing.

Strength Enhancer: A single tool arm attached to the FORTIS exoskeleton allows an operator to effortlessly use tools up to 36 pounds.

Easy to Learn: Once fitted to an operator, the FORTIS exoskeleton takes less than two minutes to put on and requires minimal training to wear it expertly.

For Price and Availability, Contact:
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