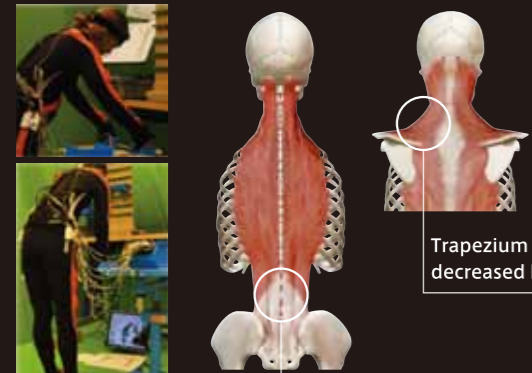


Evidence

Scientific evidence to proof its effectiveness

Clinical evaluation on reduction of muscle activity

Research from TNO (Dutch organization for applied-scientific research) and VU University Amsterdam.



Trapezius muscle:
decreased by 44~50%

Erector Spinae

○Longissimus muscle : decreased by 35~37%

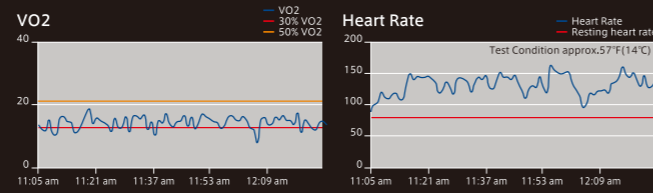
○Lumbar iliac/Iliocostalis thoracis/
Iliocostalis cervicis muscle : decreased by 38~44%

Data by : Applied Ergonomics
Volume 54, May 2016, Pages 218-24

Significant difference between With and Without Laevo

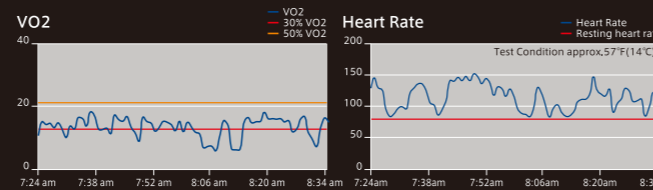
Without Laevo

Avg. VO2	Peak VO2	Max VO2	Avg. Heart Rate	Peak Heart Rate
14.26	23.98	45.50	131	178



With Laevo

Avg. VO2	Peak VO2	Max VO2	Avg. Heart Rate	Peak Heart Rate
13.27	23.19	45.50	114	161



7% Drop in VO2 ≈ 21% work reserve for productivity.

Data by : affiliated farm of G's Global, UK.

Option

Various optional items to expand usage scenarios



Waterproof Chest Pad Covers
Product Code: LEV02-CR1-M-C
Washable waterproof covers for the EXGEL pads to protect against the odor of perspiration, etc. (Pair)



Structure Covers
Product Code: LEV22-BK
Structure covers to prevent structure interfering with wearer or products. (Pair)



Crotch Belt
Product Code: LEV21-BK
Crotch belt to prevent the smart joint unit from sliding upwards during dynamic movement.



Leg Structure Covers
Product Code: LEV23-BK
Leg structure covers to prevent structure interfering with wearer or products. (Pair)



EXGEL Pads for Leg Pads
Product Code: LEV03-BK
EXGEL leg pads. Alleviates contact pressure on thighs. (Pair)



Leg Pad Fastener Belt
Product Code: LEV20-BK
Belt to keep the leg pad from shifting away. (Pair)

laevo
exoskeletons

The LAEVO Exoskeleton

Physically demanding work. made easy.
LAEVO. Supports You.



Agriculture4.0



Industry4.0



■ **Manufacturer** LAEVO B.V.(the Netherlands)

■ **Distributor for the Asian market**

KAJI CORPORATION Laevo Asia Group

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Kanagawa 222-0033 JAPAN

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Kyoto, 619-0237 JAPAN

■ **Inquiries :** laevo@exgel.jp



Physically demanding work. Made easy. Laevo. Supports you.

Evolution of robotics and automation is changing the working environment. However, the “power” of people continues to be indispensable in maintaining production and service quality.

The concept behind LAEVO is to reuse your own energy instead of generating it in every movement.

The LAEVO reduces the strain on the shoulders, lower back, and other parts of the body when engaged in work that requires leaning forward.

Coexisting with robotics and automation is sure to result in a new type of synergy as we move toward the next generation of working environments.

Mechanism

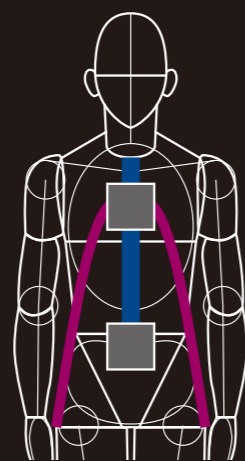
Supporting work without waste or excessive effort.

Energy recovery system

The LAEVO’s source of power is the wearer’s kinetic energy. It uses an energy recovery system. Energy is stored while bending forward which then recovers when coming up again.

The three “bones” that support the trunk

The human body relies only on the spine for supporting the trunk, but the LAEVO provides extra support from both left and right side of the body. The LAEVO supports the upper body and distributes the load around the spine, which leads to stable movement.



Function

Easy to wear and allows natural movement

Chest pads EXGEL®

The chest pads support the chest when leaning forward. The EXGEL redistributes the pressure, and the structures continues to provide support without hindering movement, even when rotating the body.



Structures

The LAEVO is structured to fit the body around the chest and pelvis. Fine-tuning allows width and length fine adjustment. Structures come in 4 different length to cover users between 150cm and 180cm in height.



Smart joints

The LAEVO main unit reduces strain on the lower back by up to 40%. Angle adjustment allows support angles and on/off switch enables freedom in movement.



Value

Value-added advantages of the LAEVO

Lightweight

Weights only about 2.8kg. It feels like wearing a jacket.

Easy to wear

Can be easily worn by simply fastening the chest pads and pelvis belt.

Natural movement

Can be used in body rotating, kneeling-down or squatting position.

Batteries not required

Requires no batteries or any other source of power. Useful even during natural disaster.

Reduces strain on the lower back

Reduces strain between the shoulders and lower back by between 40% and 50% when leaning forward.