

hapo[®] Up&front

DEDICATED TO THE UPPER LIMBS

LIGHTWEIGHT
EASY-TO-USE
FREEDOM OF MOVEMENT
EFFECTIVE



ergo
Santé
ERGONOMICS FOR ALL



Supports
over head
work

Continuous
force
assistance

Lightweight
&
Efficient

The **HAPO UP** is designed for **overhead arm movements**. Do you have shoulder or arm pain? If yes, this exoskeleton is your **anti-fatigue solution** to prevent MSDs and their harmful effects.

For whom?

These risky postures lead to joint degradation of the **arms** and **shoulders** in many sectors and professions. (non-exhaustive list)

**construction | public works | maintenance
manufacturing | agriculture | crafts**

hapo[®]
Up

The exoskeleton for work at height

Imagine a technology that takes inspiration from nature to create sustainable innovation. Using the structure of bee cells, the HAPO UP exoskeleton is designed to offer maximum strength with minimal material.

Lightweight, powerful, and intuitive in nature, the HAPO UP is designed to provide relief to the upper limbs of workers who wish to limit muscle strain and the onset of repetitive strain injuries.

The HAPO UP offers protection to the shoulders and arms when working in awkward and prolonged postures with arms raised or when handling loads vertically.

How it works?

As a natural evolution of the SHIVA, the HAPO UP gets its power from a composite blade design patented by ErgoSanté. At rest, the arms of the exoskeleton are attached at the belt level, which guarantees an ergonomic installation for people suffering from shoulder pain.

The Hapo Up is an example of excellence in terms of assistance: -40% and -28% of shoulder strain, respectively for maintaining the arms above the head and for movements of light loads.

Features

Assists the upper limbs

Range of motion with assistance

Passive and adjustable assistance

Size

Mass

Set up time

Time to remove it

Work with arms up, moving light loads in the vertical plane

Up to 60° to 180° vertically
Up to 180° horizontally

Up to 8.37 lbs (3,8 Kg) per arm
Carbon arm, composite blade

Unique

3.68 lbs (1.67 Kg)

50 seconds

20 seconds



Interchangeable with the HAPO
FRONT module in less than 2 minutes.

hapo[®] front

The exoskeleton for work at mid-height

The HAPO FRONT is a **light exoskeleton**, intuitive to use and designed to relieve the upper limbs : **shoulders and elbows**.

It is a solution particularly adapted for all work requiring **assistance of the arms at a height of 0° to 135°** and in a **horizontal amplitude of 180°**, aiming at **reducing pain and improving working conditions**.

The user retains **freedom of movement** without annoying hindrances while performing tasks that do not require mechanical assistance.



Arms
in front
of the
body

Lightweight
&
Efficient

Workstations requiring repetitive handling of objects, **prolonged holding of the arms in front of the body**, or any **"arms forward"** postures that impact the upper body.

For whom?

These risky postures lead to pain or joint degradation of the **elbows** and **shoulders** in many sectors and professions. (Non-exhaustive list)

**manufacturing | distribution and trade | healthcare
food processing | sorting | picking**

Features

Assists the upper limbs

Relief of shoulders and elbows by the double interface

Range of motion with assistance

Up to 135° vertically
Up to 180° horizontally

2 levels of assistance

Up to 8.8 (4) or 13.2 lbs (6 Kg)
Composite spring

Size

Unique

Mass

2.86 lbs (1.3 Kg)

Set up time

50 seconds

Time to remove it

20 seconds

How it works?

The HAPO FRONT is a clever solution combining continuous support and freedom of movement.

The HAPO FRONT allows the user to do his tasks with ease while benefiting from a reduction in the drudgery inherent in his workstation.



Interchangeable with the HAPO UP module in less than 2 minutes.

HAPO LAB

To know is to progress

ErgoSanté uses the latest scientific publications in ergonomics, biomechanics, and artificial intelligence to improve health at work and fight against the appearance of MSDs. These rich resources allow us to advance our scientific knowledge and further innovate by relying on real-time observations of the human body at work. Their postural analysis tool "LEA", based on artificial intelligence, is available for free on Google Play and the Apple Store.



"ErgoSanté's strength lies in its in-house design office and laboratory, which give it a unique capacity to develop, test, and optimize each of its projects with agility."

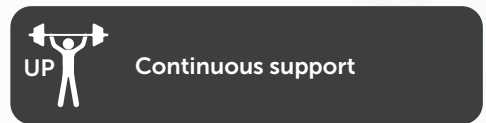
Bérenger LE TELLIER

Doctor in Biomechanics
Scientific director

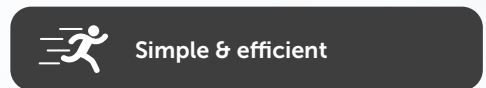
You can order the complete **HAPO UP & FRONT**, or buy the **HAPO FRONT** or **HAPO UP** and complete later with the remaining module if desired.



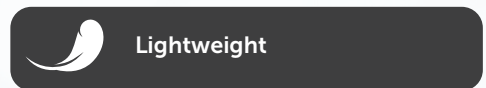
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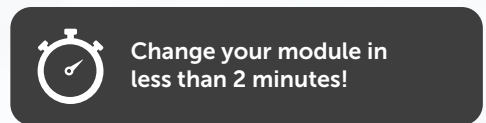
Continuous support



Simple & efficient



Lightweight



Change your module in less than 2 minutes!

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28 ZA Labahou
30140 Anduze - France
+33 (0) 805 690 691
contact@ergosante.fr
www.ergosante.fr/en/

