



# hapo ms

New exoskeleton for **less Injuries at work**: Reduces pain, fatigue, absenteeism, demotivation...

Contributes to **keep the right person in the right job**.

## What is the HAPO-MS exoskeleton ?

Hapo MS is a very **light and easy-to-use exoskeleton**, specifically designed to prevent and **reduce pain in the shoulders and elbows**.

This is the right exoskeleton to improve the conditions for all works requiring arm assistance with **angles from 0° to 135° and a great horizontal amplitude of 180 degrees**.

The user keeps a **great freedom of movement and agility**.



## For whom ?

All workstations require repetitive manipulation of objects of any weight, or necessitating **prolonged arms-in-front postures**, impacting the shoulders and elbows.

These high-risk postures lead to joint damages to the elbows and shoulders in several fields and jobs.

(Non exhaustive list) :

**Manufacturing / Distribution and retail/  
Health/Agro food/Dispatching/Picking**

Cabling specialists, Electricians, Sorting operator, laboratory workers, dressmakers, welders, health care professions, milking...

## How?

HAPO-MS is a **reasoned solution** combining maintained efficiency and freedom of movement. The balance of these two features allows the user to perform better, while reducing pain and efforts in his demanding tasks.

## Laboratory study

- Reduced muscle activity in the biceps and deltoids respectively of 33% and 16 % on a dynamic spot, arm at mid-height.
- The testers found the HAPO-MS comfortable. ((Difference of only - 12% with the exoskeleton compared to without)).
- Doesn't disturb the user's balance.
- No negative effect on the main postural muscles (upper body)

These results are promising for a positive user acceptance rate.



Evaluation Laboratory study May 2021

**This is an  
Hapo!**

**Easy-to use**  
(facilitate acceptance and roll out)

**Light**

**Freedom of movement**

**Excellent Efficiency Price Ratio**

**Effective**

### TECHNICAL SPECIFICATIONS

<b>Assistance of the upper limbs</b>	Relieving of shoulders and elbows with the dual interface
<b>Range of movement with assistance</b>	Up to 135° in height Up to 180 ° Horizontally
<b>Assistance</b>	Up to 6 Kg
<b>Size</b>	One size fits all
<b>Weight</b>	1.3 Kg
<b>Donning in</b>	50 seconds
<b>Doffing in</b>	20 seconds

**ergo  
Santé**

25 ZA Labahou  
30140 Anduze - France  
0 805 690 691  
contact@ergosante.fr  
[www.ergosante.fr](http://www.ergosante.fr)