Neoditech®

Cobotic *manipulators*

MAP

Picking ***cobot***

Product range 50 & 100 kg

European conformity CE

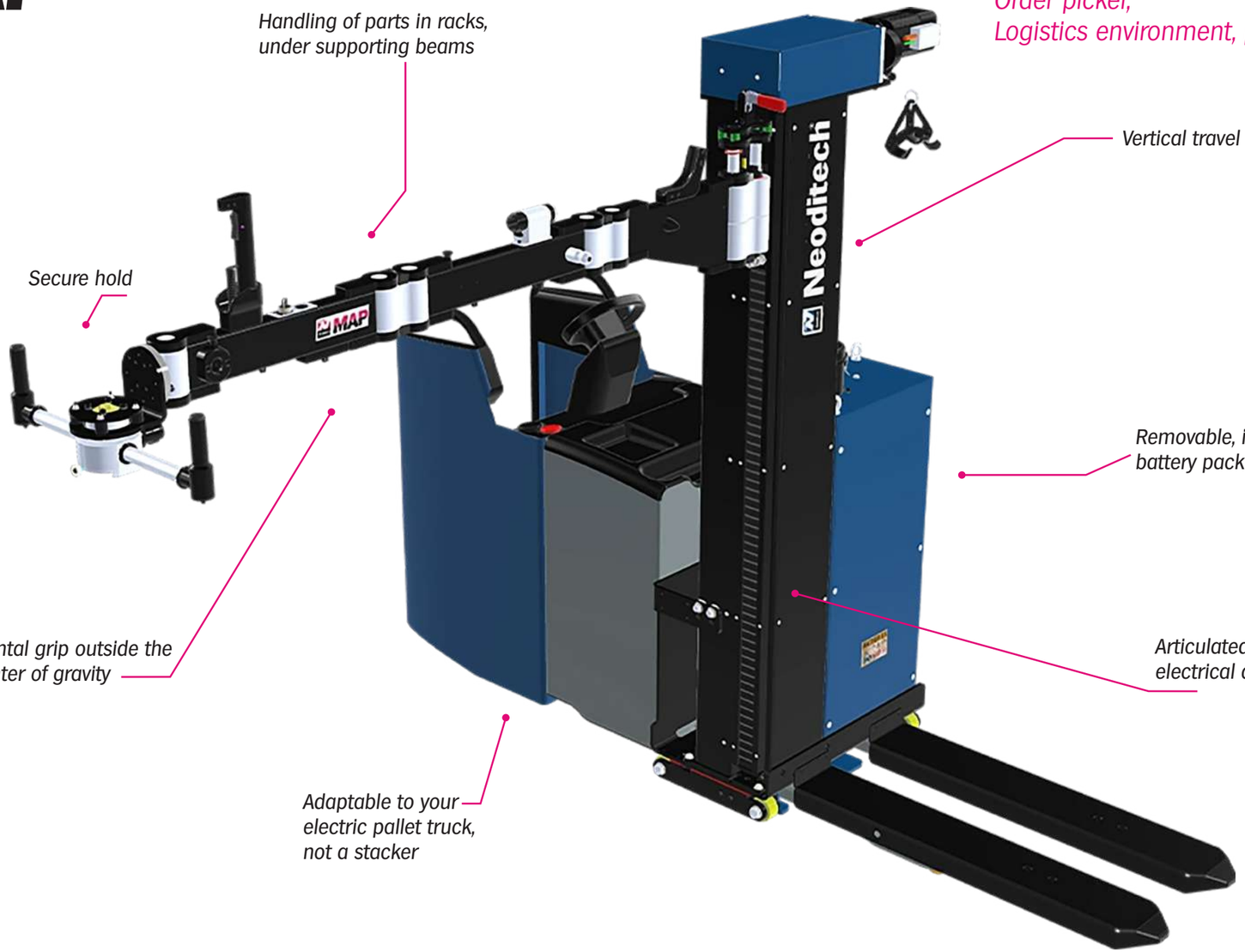
MAP

Picking **cobot**

Order picker,
Logistics environment, picking

Loading capacity :

50 kg or 100 kg at 2 m
including gripper



The advantages

- **smooth**
- **portable**
- **swift**
- **self-sufficient battery powered**
- **ergonomic**
- **security**
- **reduction of drudgery**
- **taken out of the center of gravity**
- **effortless for the user**
- **ease of use**
- **installation on your pallet truck**

MAP

Picking ***cobot***

The MAP is an autonomous articulated arm embedded in an electric pallet truck. This innovative equipment offers an ergonomic solution to order picking in the area of logistics and picking.

It allows the handling of parts stored in racks, ***under supporting beams***, without the constraints of gripping outside the centre of gravity. Its ***very fluid*** design on 2 dual-pivot joints frees the operator from the sensation of having to carry a load, so that the user can stay focus on his work.

Self-sufficient in electrical and suction energy, it has a load capacity of 50kg or 100kg for a 2m radius. Several grippers are adaptable at the end of the arm and are interchangeable depending on the parts to be handled. Fast and easy to handle, the MAP facilitates and secures handling operations. It contributes to reducing MSDs, while preserving productivity.

Products

50 kg

MAP001

- Radius 2m - Vertical travel 1430mm
- Capacity **50kg** at 2m including gripper
- Detachable control handle
- Depth : 464mm approx
- Recommended fork length : 1600mm
- Embedded in an electric pallet truck
- Self-sufficient in electrical and suction energy

ENERGY

- Battery lifetime : 3600 charge cycles
- Lead batteries : 4x12V (48V)
- Deep discharge safety device
- 6h to 24h autonomy (depending on application)
- Recharging time : 2h on 230V socket

100 kg

MAP002

- Radius 2m - Vertical travel 1400mm
- Capacity 100kg at 2m including gripper
- Detachable control handle
- Depth : 464mm approx
- Recommanded fork length : 1600mm
- Embedded in an electric pallet truck
- Self-sufficient in electrical and suction energy

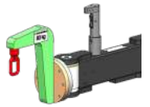
ENERGY

- Battery lifetime : 3600 charge cycles
- Lead batteries : 4x12V (48V)
- Deep discharge safety device
- 6h to 24h autonomy (depending on application)
- Recharging time : 2h on 230V socket

Tools

OUT049 / 022 / 050
Small / Medium / Large suction cup tool for 50 and 100 kg bags.

OUT086
Jib crane tool



OUT092
Box fork tool

OUT004
Hook 50 kg

OUT053
Hook 100 kg

OUT098
Manual tool for drills

OUT099
Round suction cup tool for boxes 50kg

Functions

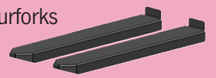
FC0522
Suction head

FC0523
Suction coupler

FC0524
Frame for interchangeable battery pack

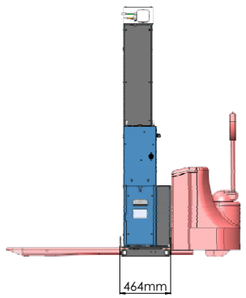
FC0525
Interchangeable battery pack

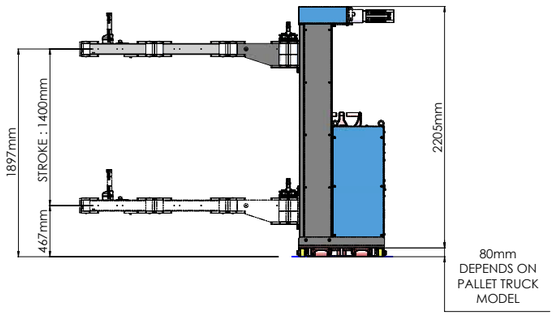
FC0543
Surforks

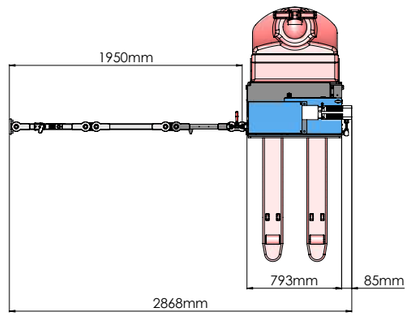


MAP001

Technical data *MAP 50 kg*

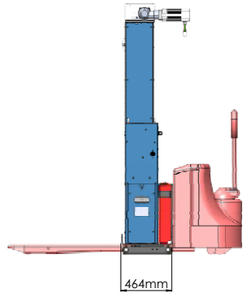


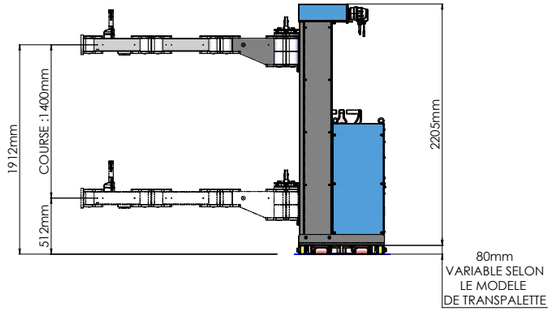


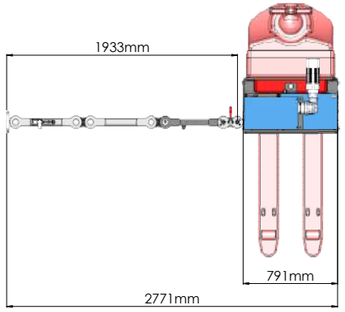


MAP002

Technical data *MAP 100 kg*



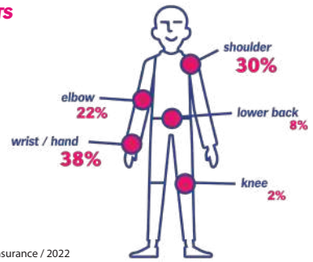




MSDs :
Musculoskeletal disorder

Musculoskeletal Disorders or MSD, are injuries and disorders that affect the human body's movement or musculoskeletal system, muscles, tendons, ligaments, nerves, discs, or blood vessels. The professional activity can be at their origin, their maintenance or their aggravation.

SORE POINTS



Source : French Health Insurance / 2022

DIRECT COSTS

Professional diseases

Carpal tunnel syndrome ..... 11 000 €
Lumbago ..... 52 000 €
Stiffened shoulder ..... 80 000 €

Work-related accidents

Average cost of an occupational injury with time off work ..... 3 000 €
Average cost of a handling accident with time off ..... 4 500 €

INDIRECT COSTS (= 3 to 5 times of the direct cost)

For the company

- Responsibility of the general manager
- Civil responsibility
- Loss of production
- Substitution
- Training

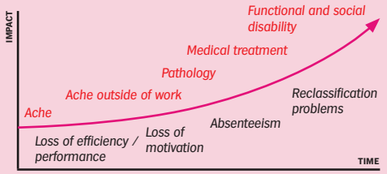
For the employee

- Work stoppage
- Medical costs (care, hospitalization, rehabilitation…)
- Loss of wages
- Work incapacity
- Return to employment

› ***AVERAGE COSTS : 21 000 €***

CONSEQUENCES FOR EMPLOYEES/COMPANIES

The impacts are exponential. .

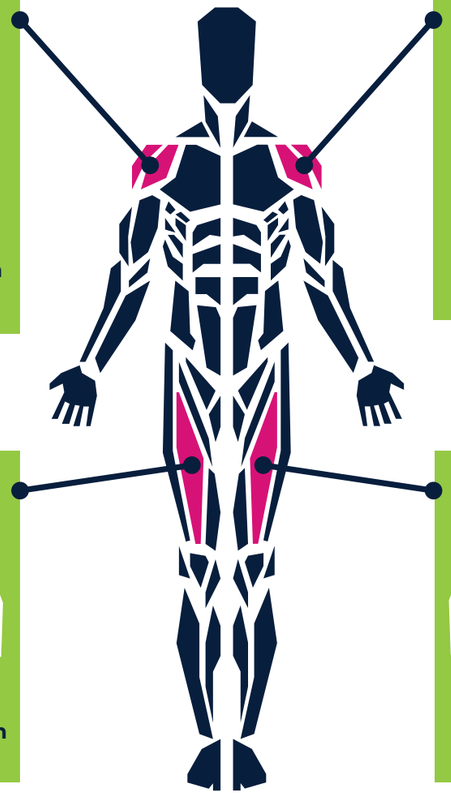


Source : CARSAT

Diagram & MSDs

Our impact
on the muscular activity

The MOTEN sensors measure the movements and muscular activity of operators in a work situation. For this simulation, an operator handled 25kg bags of concrete, over 3 cycles of 25 repetitions, manually and then with the help of the **MAP**.



RIGHT DELTOID
Muscular activity :
MAP : 31,75 mg
Manually : 83,62 mg
62% reduction
Source : MOTEN muscle sensors

LEFT DELTOID
Muscular activity :
MAP : 43,57 mg
Manually : 84,48 mg
48% reduction
Source : MOTEN muscle sensors

RIGHT QUADRICEPS
Muscular activity :
MAP : 49,36 mg
Manually : 79,38 mg
38% reduction
Source : MOTEN muscle sensors

LEFT QUADRICEPS
Muscular activity :
MAP : 55,09 mg
Manually : 89,56 mg
38% reduction
Source : MOTEN muscle sensors

LEFT LUMBAR
Muscular activity :
MAP : 37,62 mg
Manually : 42,89 mg
12% reduction
Source : MOTEN muscle sensors

RIGHT LUMBAR
Muscular activity :
MAP : 33,78 mg
Manually : 40,46 mg
17% reduction
Source : MOTEN muscle sensors

The postural risk is the measurement of the dynamic, uncomfortable or unnatural postures required by the manipulations.

They require more and more effort from muscles, tendons, nerves and bones, as the movements reach the limits of the range of motion and can therefore lead to MSDs over time.

RIGHT ARM
MAP : 3,87/10
Manually : 6,95/10
44% reduction in postural risk
Source : MOTEN muscle sensors

LEFT HARM
MAP : 3,59/10
Manually : 6,76/10
47% reduction in postural risk
Source : MOTEN muscle sensors

TRUNK
MAP : 5,22/10
Manually : 9,64/10
46% reduction in postural risk
Source : MOTEN muscle sensors

OVERALL
47% reduction in postural risk

Neoditech®
***Cobotic** manipulators*

Manufacturer of cobotic** manipulators over the past **15 years

- *Ergonomic and mobile equipment*
- *Prevention of MSDs & WRI*
- *An After Sales Service at your disposal*
- *A wide range adapted to all your applications*
- *Study, design, assembly and installation by our own staff*
- *Products made in France (44)*

SCARA
Product range 50 & 100 kg

ERGO360°
Product range 200 kg

PM
Product range 70 & 100 kg

MAP
Product range 50 & 100 kg

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