

EN

MATE-XT

Muscular Aiding Tech Exoskeleton

COMAU



WHAT IS MATE-XT?

MATE-XT is the new upper-limb exoskeleton totally passive (w/o motors).
It is designed to assist the user during flexo-extension movements of the shoulder.

MECHANICAL SHOULDER CHAIN

Structure that facilitates the free movement of the user, such as sliding and rotating joints

GARMENT INTERFACE

All parts in direct contact with the user's body



TORQUE GENERATOR BOX

Core mechanism that stores and transforms potential mechanical energy in order to create an adjustable assistive torque
(8 levels)

HOW DOES IT WORK?

MATE-XT GIVES YOU THE EXACT LEVEL OF SUPPORT WHEN AND WHERE YOU NEED IT

Zero torque at 0°
Max torque at 90°
109°
Flexo-extension angle



The assistance torque provided by the MATE-XT exoskeleton suit follows your individual shoulder flexion/extension angle (maximum torque is at 90° degree)

MATE-XT MOVES IN HARMONY WITH YOUR SHOULDERS



Thanks to a chain of passive degrees of freedom, the flexion-extension rotation axis of the human shoulder is aligned with that of MATE-XT.

JUST THE WAY YOU DO

MATE-XT FITS YOUR BODY, GIVING YOU THE FREEDOM TO MOVE

New shoulder length
regulation design

Ergonomically
designed cuffs

High-tech, lightweight
carbon-fiber structure

Breathable fabrics

Intuitive lock/unlock
mechanism for easy
donning/doffing

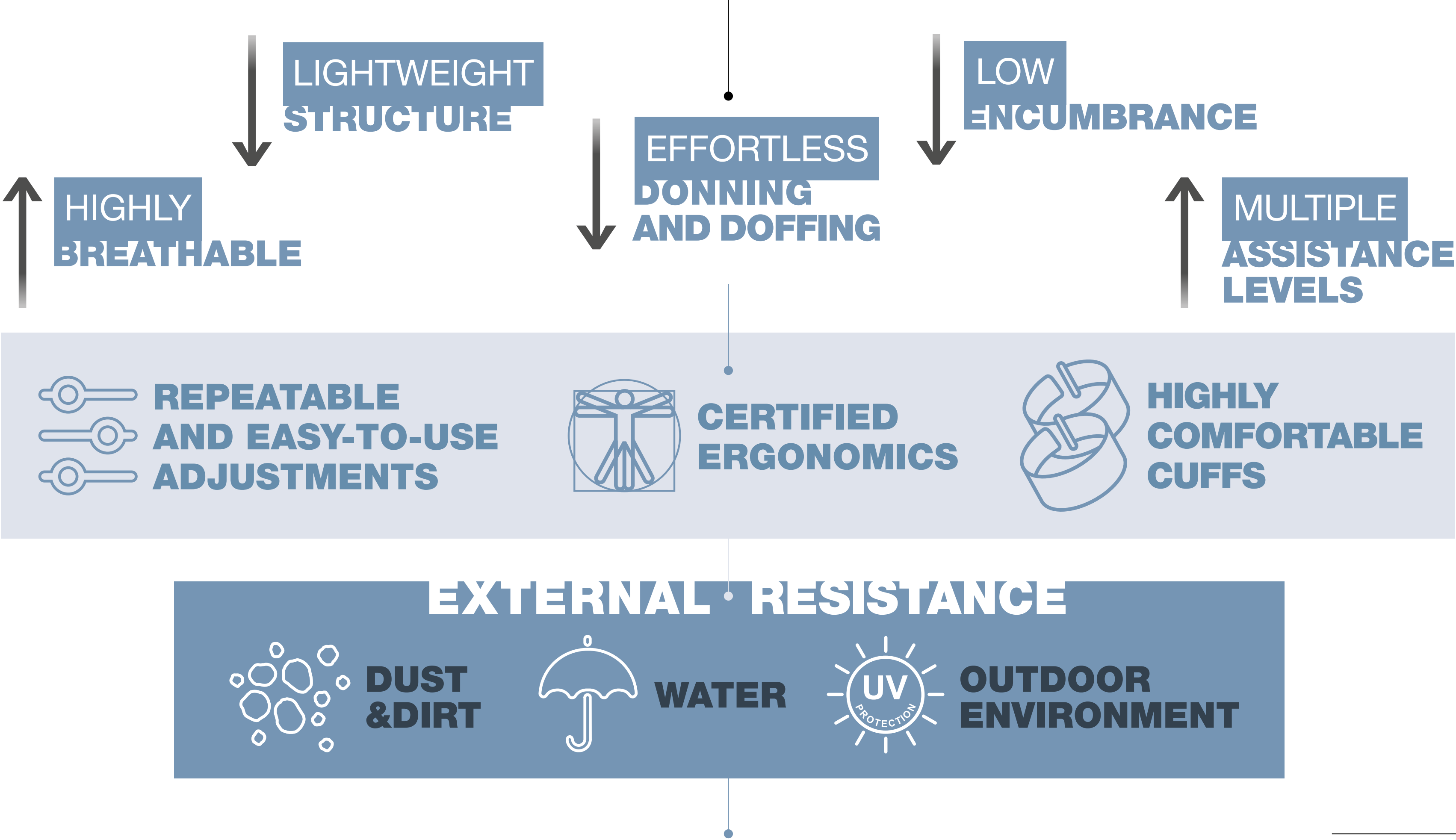
Intuitive labels
for regulations
and adjustments

Slim active box
design

Available sizes: L and S

MATE-XT WORKS WHEN, WHERE AND HOW YOU DO.

EXTREMELY ERGONOMIC, EVERYWHERE



WHY IS MATE UNIQUE?

FOR WORKERS

REDUCED
MUSCULAR
EFFORT

30%

AT
SHOULDER
LEVEL

SCIENTIFIC STUDY

PERCEIVED
EFFORT
REDUCTION

25%

LESS MUSCLE
STRAIN
PERCEIVED

PERFORMING ACTIVITIES

BACK
SUPPORT
RELIEF

50%

OF WORKERS
IMPROVED
THEIR POSTURE

PERFORMING ACTIVITIES

FOR COMPANIES

POSITIVELY
IMPACT YOUR
ERGONOMICS

LESS
EXECUTION
TIME

↓

AND
HIGHER
PRECISION

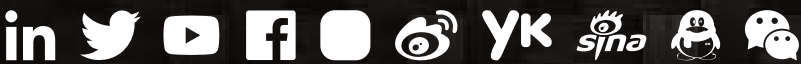
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