

EN

COMAU

MATE-XT

Muscular Aiding Tech Exoskeleton



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?

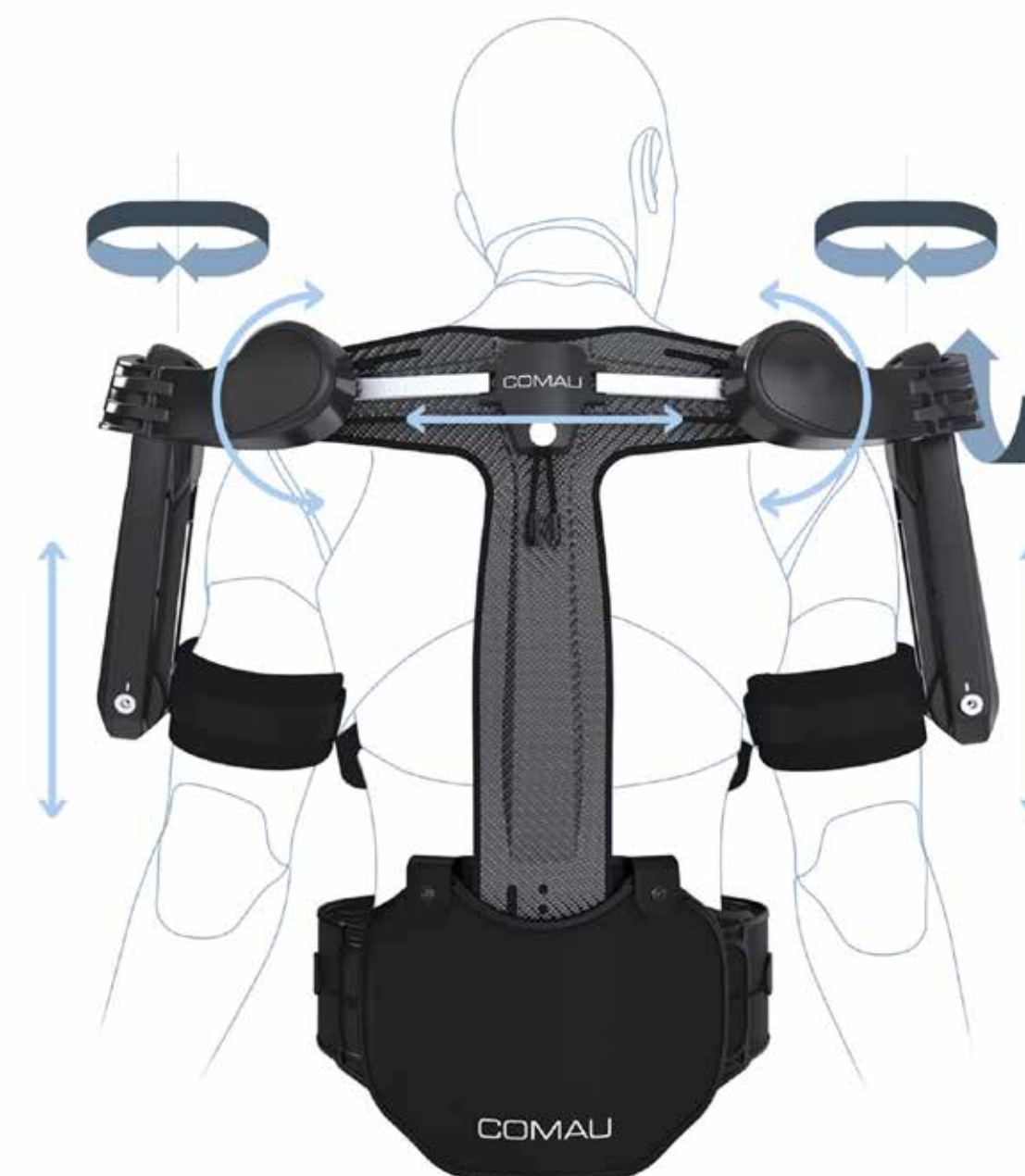
MATE-XT GIVES YOU THE EXACT LEVEL OF SUPPORT WHEN AND WHERE YOU NEED IT

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

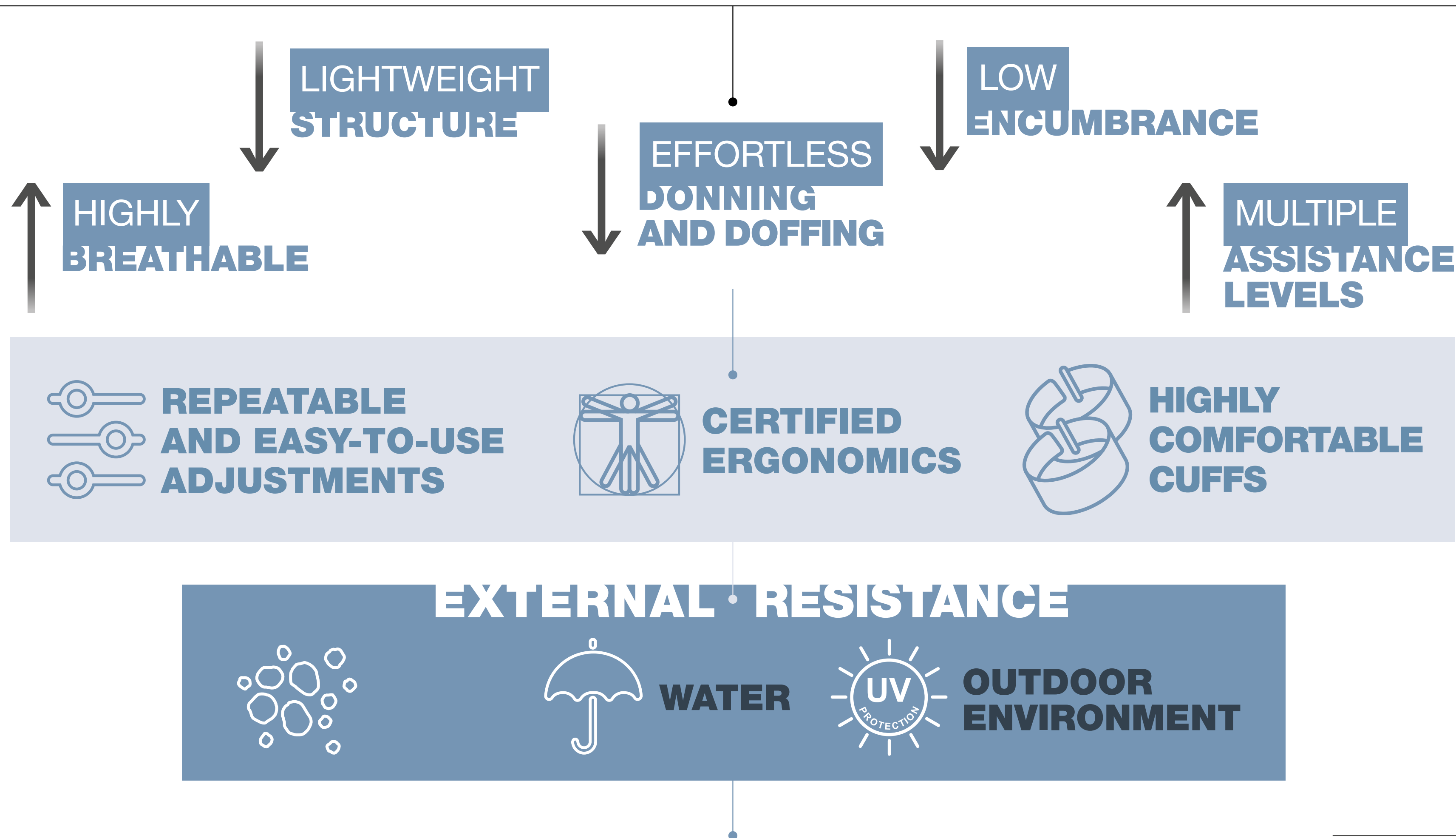
Intuitive lock/unlock mechanism for easy donning/doffing

Intuitive labels for regulations and adjustments

Slim active box design

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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