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New Technopolymer Elements

Our Lightweight Robot Grip is made up of some technopolymer structural elements. Lightweight and high resistant, our mountings and brackets contribute to reduce the weight of the robot grip and make it more productive.

Lightweight robot grip = Higher productivity



The lighter weight of Misati's robot grip contributes to increase production and reduce the investment of the robot installation, because, as the grip weighs less, it is possible to use smaller, low payload and cheaper robots.

Lightweight robot grip = Less vibrations

If the grip is assembled with very heavy elements, such as steel or aluminium brackets, vibrations may occur.

Automating the grip with **lightweight elements** is the most efficient solution to minimize vibrations.

This is why the new Misati brackets and mountings are manufactured in **technopolymer**.



Technopolymer brackets and mountings



Technopolymer offers the following advantages:

- **Significant reduction in weight:** compared to steel or aluminium brackets, technopolymer brackets reduce the weight up to 83.58% or 52.59% respectively.
- **Increase in resistance:** the material of this new range of brackets is more rigid, compact and tougher than aluminium. Being slightly flexible, it is capable of receiving impacts without suffering permanent distortion.

Properties of Technopolymer

Mechanical, physical and environmental properties of the new technopolymer make it perfect to be used in robot grips.

Mechanical Properties

- High stiffness, toughness and compactness
- Excellent performance: static & dynamic loads and vibrations
- High dimensional elasticity
- Good elasticity under fatigue and creep
- Impact resistance
- High tensile strength. Lower wear
- Repeated production

Physical Properties

- Density = 1.28 g/cm³
- Chemical resistance to oils
- Electrical insulator
- Flame-retardant. Heat resistance (above 130° for 20 consecutive hours)
- Maintenance-free

Environmental Friendly

- Recyclable material
- It consumes less energy during production than steel or aluminium