

# Unique Gripping Kinematics, Natural Design

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## The Michelangelo Hand forms the core of the new Axon-Bus System



Quality for life

With the Axon-Bus System and the Michelangelo Hand, Ottobock has developed an entirely new technology for prosthetic fittings that sets the standard with extraordinary functionality and a highly natural design.

The future-oriented technology, the anatomical design and the extraordinary functionality form the basis for a completely new product generation of myoelectrically controlled gripping prostheses.

Thanks to four movable fingers and a thumb that can be separately positioned, the Michelangelo Hand offers innovative, never-before-seen gripping kinematics. In order to achieve a natural movement pattern, the hand is equipped with two drive units. The main drive is responsible for the gripping movement and strength, while the thumb drive offers a total of seven different hand positions thanks to opposition mode and lateral mode. Actively driven components are the thumb, index finger and middle finger. The ring finger and little finger passively follow the movements. The AxonWrist mechanical wrist joint permits pronation and supination as well as flexion and extension. The latter in a freely movable mode for the first time.

The natural design constitutes another product highlight. The fingers are made of both soft and hard materials. With details based on nature as a model, they play a key role in the acceptance of the Michelangelo Hand as does the flat, oval hand adapter. Prosthetic gloves for daily use are available to the user in six different tones as well as a translucent and a black version.

The Michelangelo Hand settings can be adjusted by means of Bluetooth data transfer and the AxonSoft software. The AxonEnergy Integral, a powerful energy management system, provides power to the entire system. For upper arm fittings, the two elbow components AxonArm Ergo and AxonArm Hybrid are available.

Axon stands for **A**daptive **eX**change **O**f **N**europlacement data. The Axon-Bus itself is a new development by Ottobock for the field of exoprosthetics. It was derived from safety-related bus systems in the aviation and automobile industries and is a true innovation by the research and development department of the medical technology company.

It constitutes an optimised, self-contained data transmission system. The individual components communicate with each other perfectly, preventing losses in terms of data transmission, speed and functionality. This results in a clear plus in safety and reliability for the user. Compared to conventional systems, sensitivity to outside interference is significantly reduced.

In combination with the Michelangelo Hand, the Axon-Bus System offers more degrees of freedom than ever before. Users benefit from the significantly enhanced functionality of the hand.

**For further information:**

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