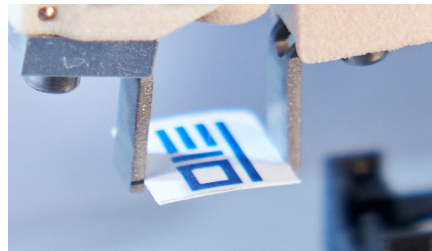


What characterizes our Magnetic Shape Memory (MSM) miniature gripper

- **Incomparably low minimum force down to almost 0 Newton** - This means for you: non-destructive handling of soft, fragile and particularly sensitive objects or components
- **High-precision force control (tolerance $\leq \pm 0.05$ Newton) and various adjustment options** - this means for you: exact adjustment of the gripping force and other parameters to your requirements
- **Integrated fail-safe mode (holding currentless)** - This means for you: no malfunctions of production systems due to blocking components or damage to gripped objects, even in the event of a power failure or cable break
- **Extremely fast closing and opening times of less than 0.003 seconds** - This means for you: maximum performance for particularly efficient and productive work
- **Innovative sensor technology for force, stroke and temperature measurement** - This means for you: precise and fully automatic adaptation to a wide range of object sizes and shapes

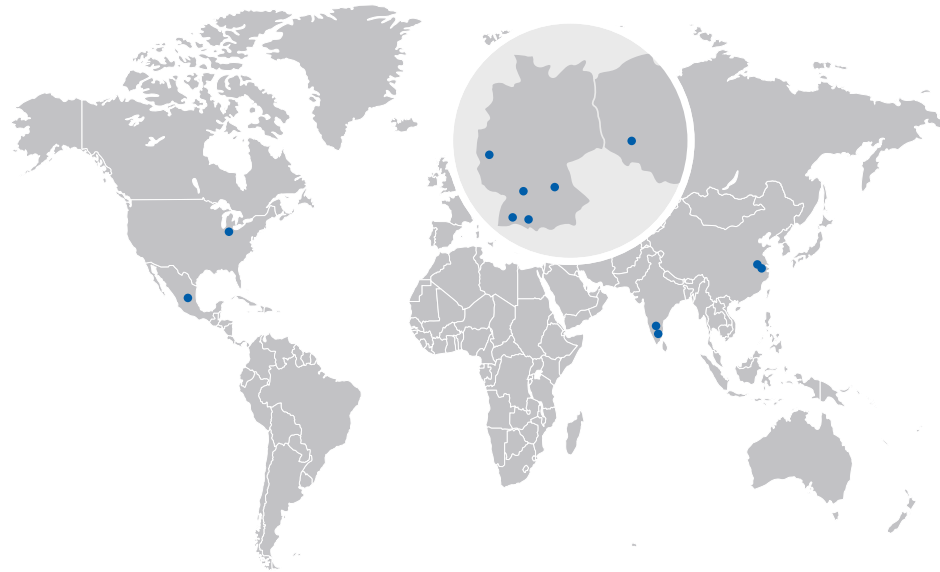


Unregulated gripping force



Regulated gripping force

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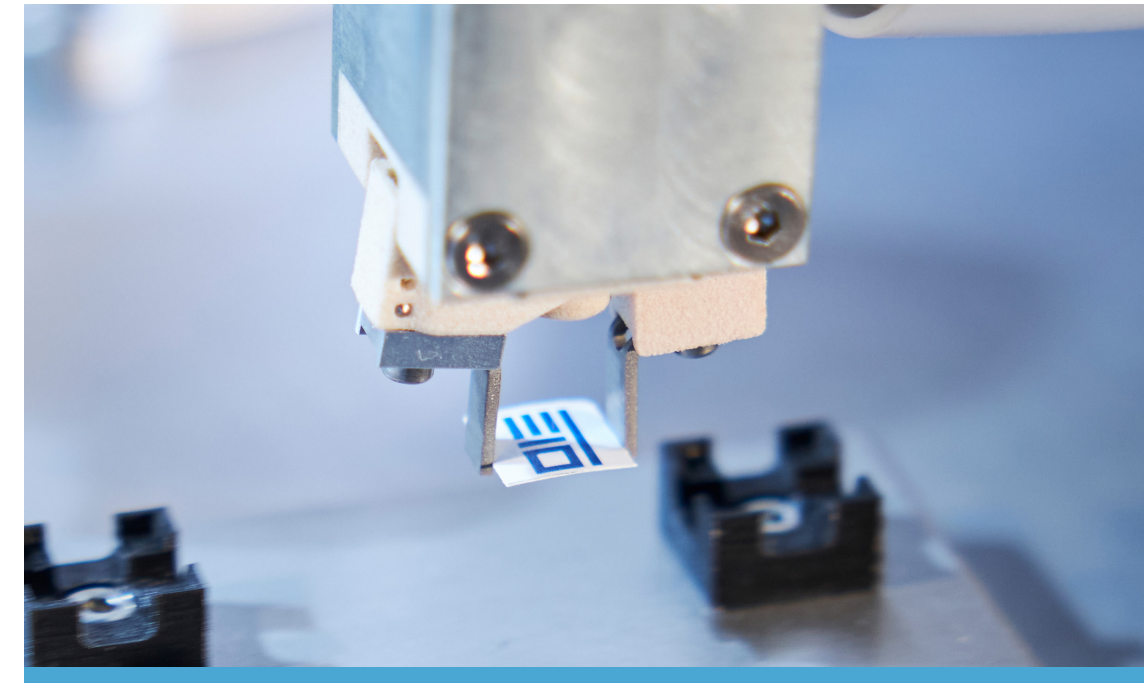


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Watch the application video!



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MAGNETOSHAPE®
Miniature Gripper

The new sensitivity - down to almost 0 Newton gripping force



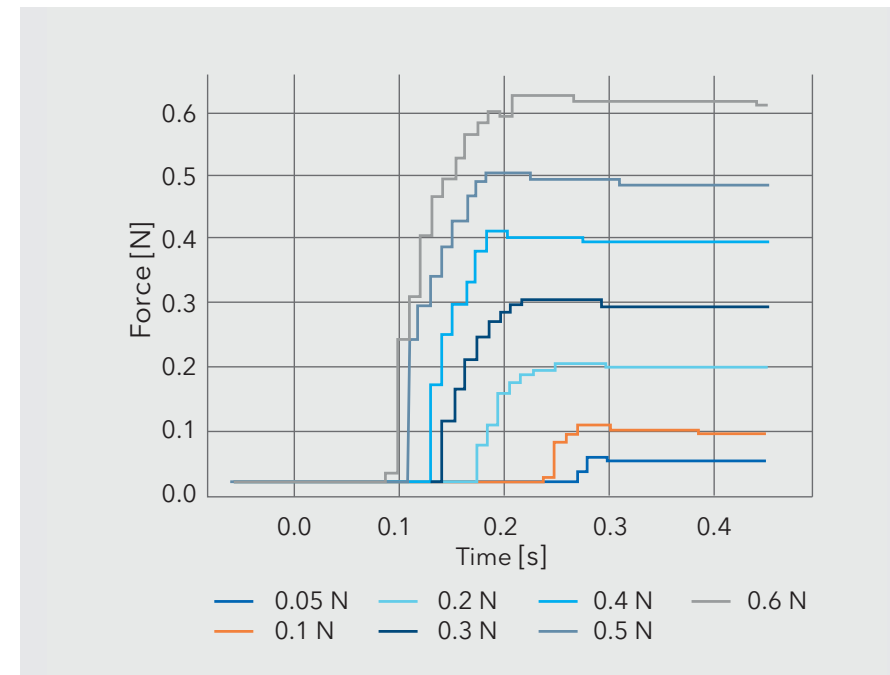
Miniature grippers are indispensable in many industries. Today, these small special tools often play a key role. For example, the electronics assembly, microtechnology, medical and laboratory technology, watchmaking and automation technology are increasingly handling small components, many of which are highly sensitive and expensive. The ETO GRUPPE has therefore developed a gripper whose gripping force can be continuously adjusted to almost zero Newton thanks to innovative magnetic shape memory technology - ideal for handling soft or particularly fragile components.

The two working modes of our MSM miniature gripper

Precision control - for handling with down to almost 0 Newton gripping force

Control time: < 300 ms
Precision: < ± 0.05 N

Longer control time, but very precise gripping force adjustment up to ± 0.05 Newton - this is the working mode "Precision control". This mode with extremely finely adjustable minimum gripping force is ideal for the non-destructive handling of highly sensitive objects.



Dynamic control - for fast, highly productive handling

Control time: < 3 ms
Precision: < ± 0.15 N

The "Dynamic control" mode is characterized by a low gripping force tolerance of typically up to ± 0.15 Newton with extremely short opening and closing times of less than 0.003 seconds. It is perfect for highly productive processes with minimum cycle time requirements.

