

# MM *e-motion*

Mechatronic Power Chuck  
Universal Clamping

## SENSITIVE CLAMPING

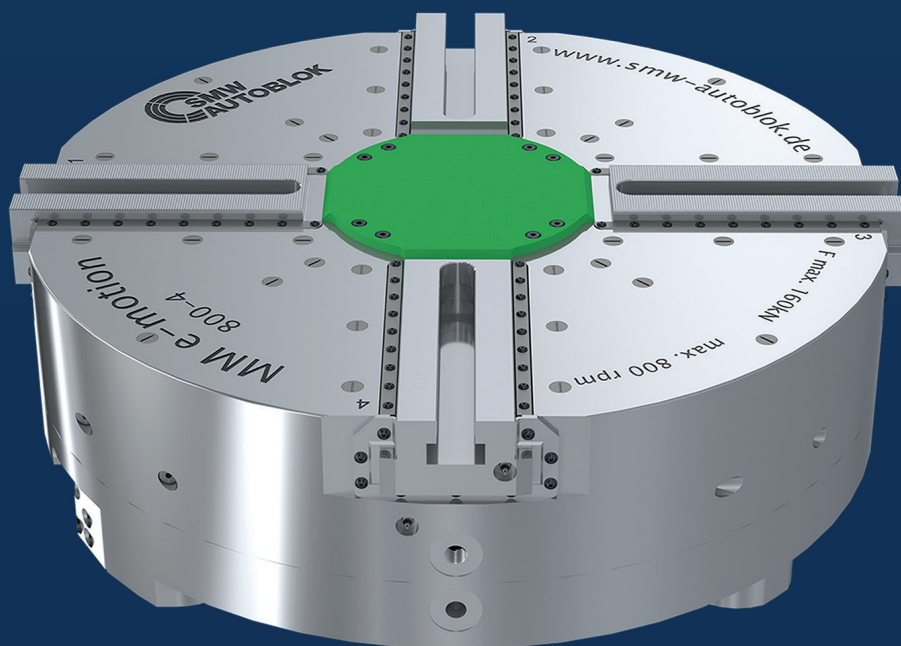
Modification of the gripping force  
without unclamping the workpiece

## MOTION PROFILES

Clamping of every workpiece geometry  
I.D. and O.D. clamping

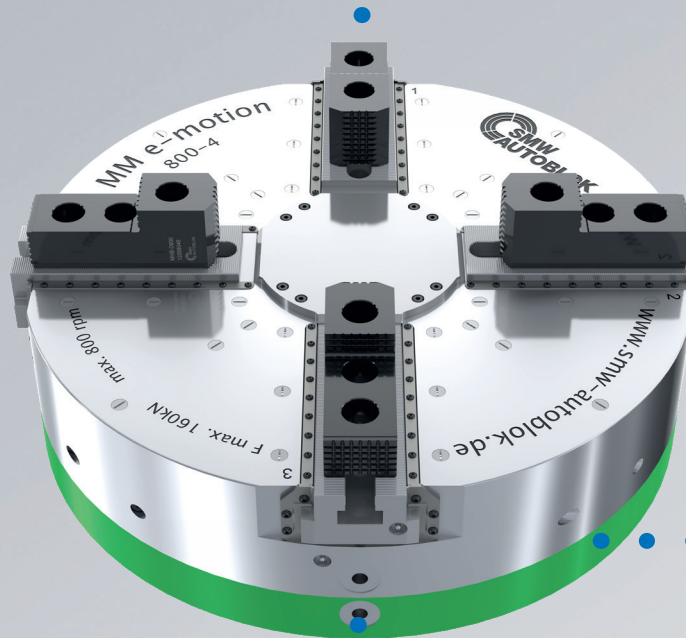
## ENERGY EFFICIENT

Energy supply only  
necessary while clamping  
and unclamping



# MM e-motion

## 4 Hochpräzise Backenanzelantriebe



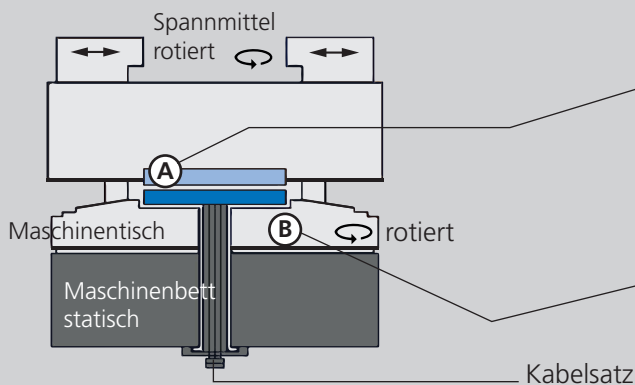
Standard **Backen-**  
**schnittstelle**

Kabelverbindung  
zu Remotekoppler

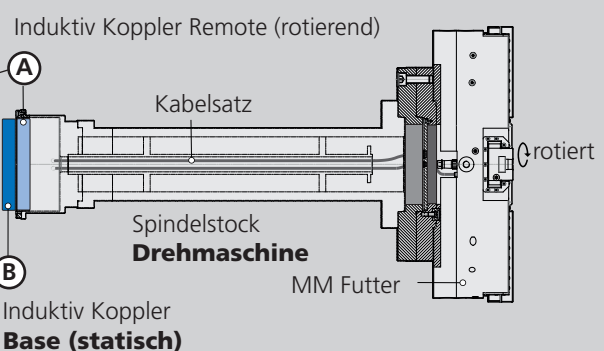
**Abgedichtet und**  
**wartungsarm**

## Funktionsschema Spannfutter + Kopplersystem

### Anwendung Dreh-Fräszentrum (BAZ):

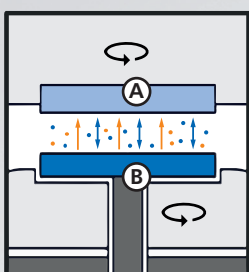


### Anwendung Drehmaschine:

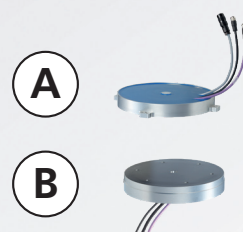


## Funktion Induktivkoppler

Induktive Übertragung von Energie und Sensorik



- Energieübertragung
- ↔ Übertragung Sensorik
- Luftspalt  $\leq 2,5$  mm

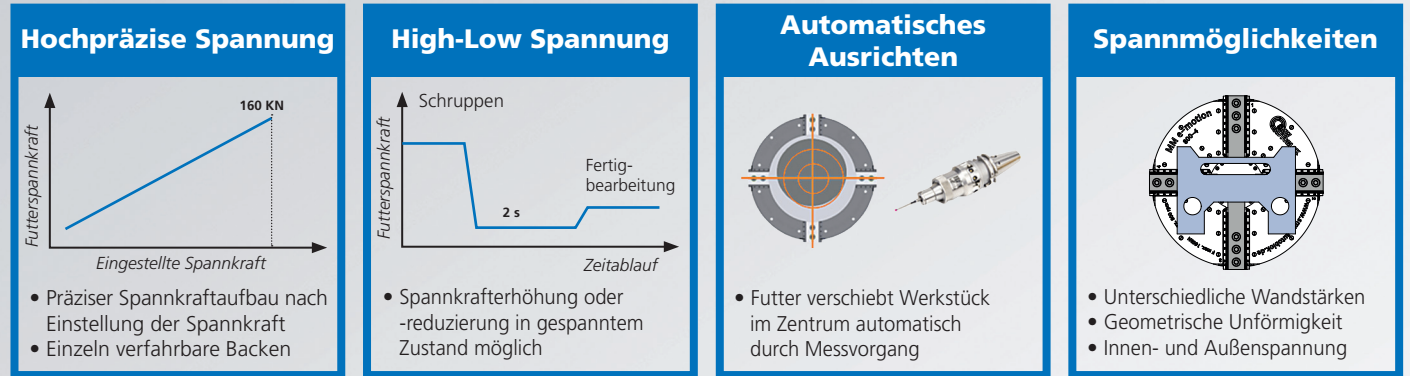


**Remote**  
(rotierend)  
Id.-Nr. 208005

**Base**  
(statisch)  
Id.-Nr. 208004

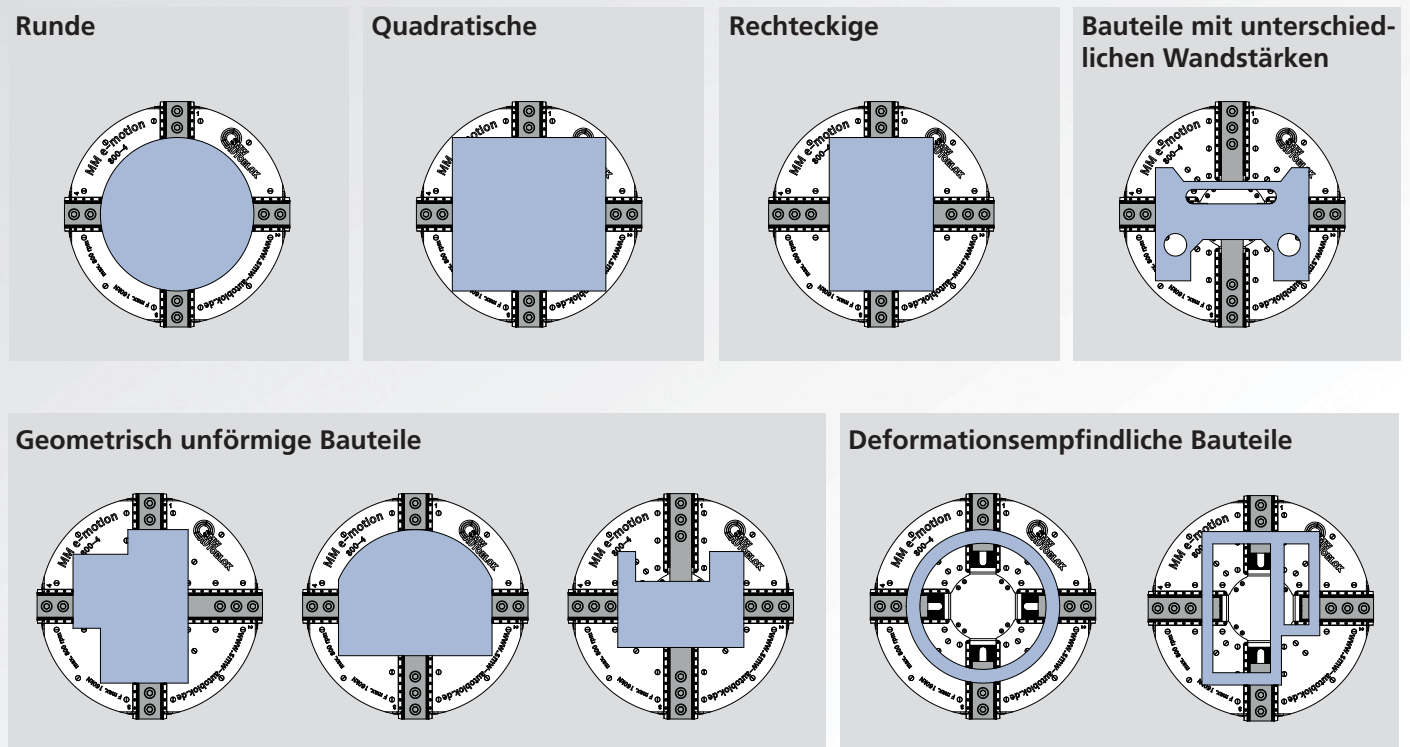
# Anwendungsvorteile

- Für deformationsempfindliche und hochgenaue Werkstücke
- Für unterschiedlichste Werkstückgeometrien
- Spann-Wiederholgenauigkeit < 5 µm



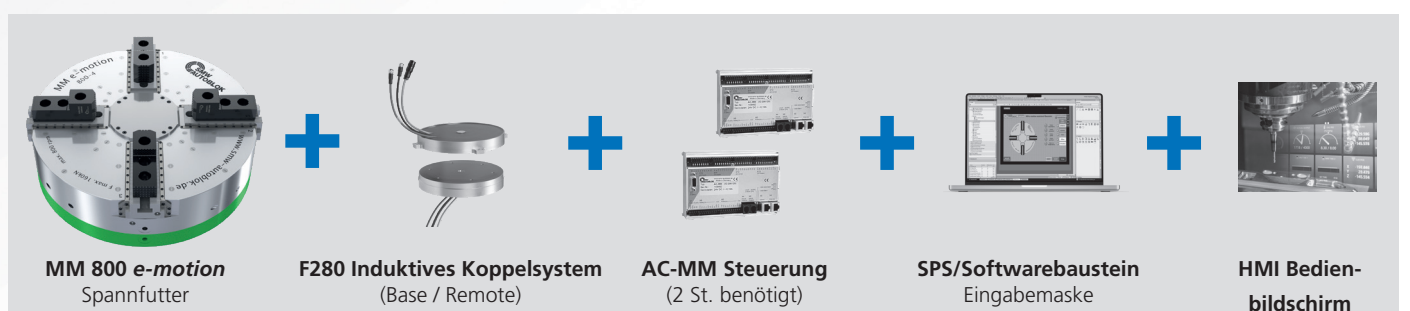
## Bewegungsprofile:

Spannen unterschiedlicher Werkstückgeometrien



## Plug & Play

Komplettlösung MM e-motion



# MM e-motion

INCH SERRATION

## Mechatronic power chuck

- Mechatronic single jaw drive
- Automatic correction function

### Application/customer benefits

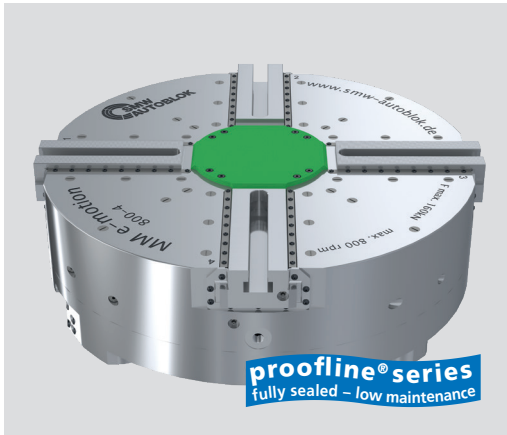
- Mechatronic single jaw drive
- Precise clamping force adjustment
- High-Low clamping possible
- Auto correction of the workpiece center
- Contact free transmission of power and signals via inductive coupler system
- *e-sensing*: inductive component detection / distance measurement (optional)
- *Plug & Play*

### Technical features

- O.D. and I.D. clamping
- Programmable movement profiles of the jaws
- 2-fold safety system (STO and mechanical)
- Clamping repeatability < 5 µm
- **proofline®** = fully sealed - low maintenance

### Standard equipment

4-jaw chuck



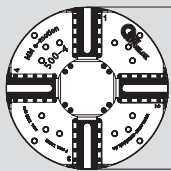
## MM e-motion

- Each jaw is operated and controlled via an individual electro motor
- Inductive wireless transmission of power and sensor system
- Auto correction of the work piece center
- Permanent monitoring of grip force and clamping position also under rotation
- Fully sealed, low maintenance

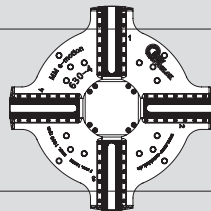
## MM e-motion LightWeight

- MM e-motion LightWeight (LW): weight optimized version
- Same functionality as MM e-motion
- Less chuck weight allows higher work piece weight
- Lower chuck profile allows more useable Z stroke
- Monoblock chuck body for highest rigidity

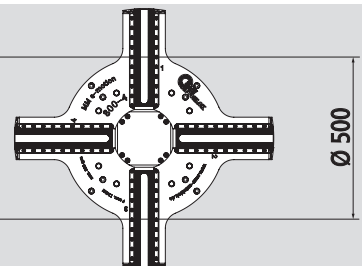
## Overview of sizes



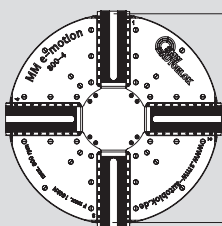
MM 500 e-motion



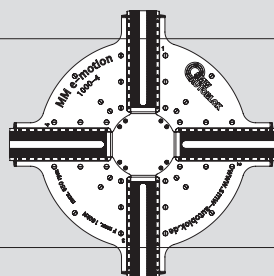
MM 630 e-motion LW



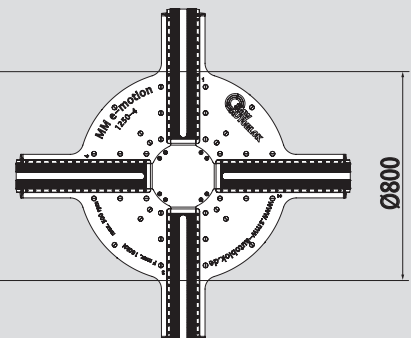
MM 800 e-motion LW



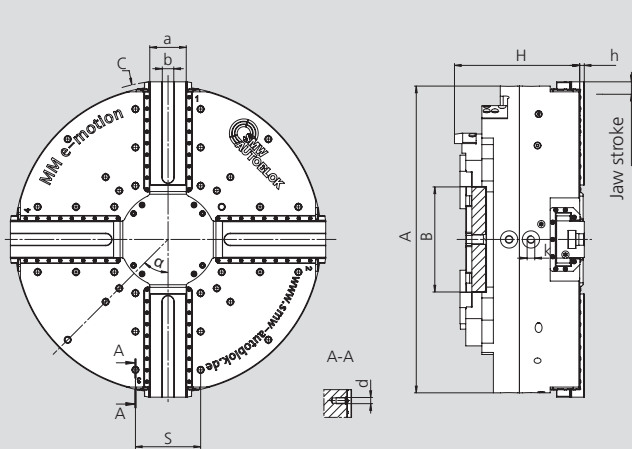
MM 800 e-motion



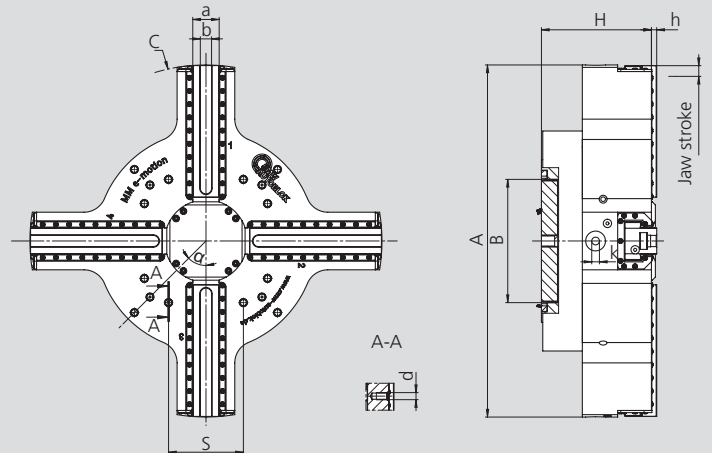
MM 1000 e-motion LW



MM 1250 e-motion LW



**MM e-motion**



**MM e-motion  
LightWeight (LW)**

Subject to technical changes.  
For more detailed information please ask our customer service.

| SMW-AUTOBLOK Type          |                   | MM 500<br>e-motion | MM 630<br>e-motion LW | MM 800<br>e-motion LW | MM 800<br>e-motion | MM 1000<br>e-motion LW | MM 1250<br>e-motion LW |
|----------------------------|-------------------|--------------------|-----------------------|-----------------------|--------------------|------------------------|------------------------|
| Id. No.                    |                   | 055739             |                       |                       | 055270             |                        |                        |
| Chuck size                 | A mm              | 500                | 630                   | 800                   | 800                | 1000                   | 1250                   |
| Inductive coupler diameter | B mm              | 280                | 280                   | 280                   | 280                | 280                    | 280                    |
| Interference Ø             | C mm              | 500                | 630                   | 800                   | 828                | 1028                   | 1278                   |
| Chuck height               | H mm              | 250                | 250                   | 250                   | 326,5              | 326,5                  | 326,5                  |
|                            | S mm              | 180                | 180                   | 170                   | 170                | 170                    | 170                    |
|                            | a mm              | 55                 | 55                    | 55                    | 95                 | 95                     | 95                     |
|                            | b mm              | 21 H7              | 21 H7                 | 21 H7                 | 30 H7              | 30 H7                  | 30 H7                  |
|                            | d mm              | M16 (24x)          | M16 (24x)             | M16 (24x)             | M16 (36x)          | M16 (36x)              | M16 (36x)              |
|                            | h mm              | 12                 | 12                    | 12                    | 12                 | 12                     | 12                     |
|                            | α deg.            | 45                 | 45                    | 45                    | 45                 | 45                     | 45                     |
| Speed max.                 | min <sup>-1</sup> | 1200               | 1000                  | 800                   | 800                | 650                    | 500                    |
| Grip force max.            | kN                | 100                | 100                   | 100                   | 160                | 160                    | 160                    |
| Jaw stroke per jaw         | mm                | 10                 | 10                    | 10                    | 15                 | 15                     | 15                     |
| Moment of inertia          | kg·m <sup>2</sup> | 10.7               | 12.5                  | 19.1                  | 62.5               | 79.8                   | 110.6                  |
| Weight (without top jaws)  | kg                | 282                | 310                   | 360                   | 770                | 850                    | 950                    |

## Notes

## Notes

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