MM e-motion
Electric Power Chuck
Universal Clamping

SENSITIVE CLAMPING
Modification of the gripping force without unclamping the part

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

ENERGY EFFICIENT
Energy supply only while clamping and unclamping necessary
**MM e-motion**

Schematic of chuck and coupler system

Application on vertical millturn center:

- Chuck is rotating
- Machine table
- Machine bed and mounting bracket is static
- Inductive remote coupler (rotating)
- Inductive coupler (static)
- Cables

Application on horizontal lathe:

- Headstock of lathe
- MM chuck
- Inductive remote coupler (rotating)
- Cables

Function of the inductive coupler

Inductive transmission of energy and data

- Power transmission
- Transmission of data
- Airgap ≤ 2.5mm

Plug & Play

- MM e-motion chuck
- Inductive coupler system (Base/remote)
- AC-MM control (2 pcs.)
- Cables
Benefits for the user

**Sensitive clamping**
- Modification of the gripping force without unclamping the part
- Each jaw driven and controllable via e-motor

**Automatic Adjustment**
- MM800 could center the part automatically by using measurement sensor

**Clamping profiles**
- Different wall thickness
- Special geometrical forms
- I.D. and O.D. clamping

**Loading**
- The jaw stroke can be programmed individually per jaw

**Motion profiles: Clamping of different work piece geometries**

- **Round**
- **Square**
- **Rectangular**

**Irregular geometry**

**Easy deformed work pieces**

**Work pieces with different wall thicknesses**
**MM e-motion**

**Electromechanical Power Chuck**
- Each jaw can operate independently
- OD. and ID. clamping

**Application/customer benefits**
- Alteration of the clamping force without unchucking the work piece
- Inductive wireless transmission of power and sensor system
- Lightweight versions available
- Auto correction of the work piece center
- Plug & Play
- AC-MM control module for regulation and control of all movement profiles of the chuck

**Technical features**
- Each jaw can be operated individually and thus stroke, force and position can be alternated individually
- OD. and ID. clamping
- Preprogrammed motion profiles of the jaws
- Sensitive or powerful clamping
- Redundant safety signals (STO and mechanical)
- Fully sealed, low maintenance

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**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 usable Z stroke
- Monoblock chuck body for highest rigidity

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**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
**DIMENSIONS AND TECHNICAL DATA**

**MM e-motion**
Electromechanical power chuck
Universal use
INCH SERRATION

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

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<table>
<thead>
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<th>SMW-AUTOBLOK Type</th>
<th>MM 500 e-motion</th>
<th>MM 630 e-motion LW</th>
<th>MM 800 e-motion</th>
<th>MM 800 e-motion LW</th>
<th>MM 1000 e-motion LW</th>
<th>MM 1250 e-motion LW</th>
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<td>MM 500 e-motion</td>
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<td>Chuck size A</td>
<td>500 mm</td>
<td>630 mm</td>
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<td>Speed max.</td>
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<td>Grip force max.</td>
<td>120 kN</td>
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<td>Jaw stroke per jaw</td>
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<td>Moment of inertia</td>
<td>9,2 kg·m²</td>
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<td>Weight (without top jaws)</td>
<td>260 kg</td>
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<td>360 kg</td>
<td>770 kg</td>
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