SMW AUTOBLOK

NEW

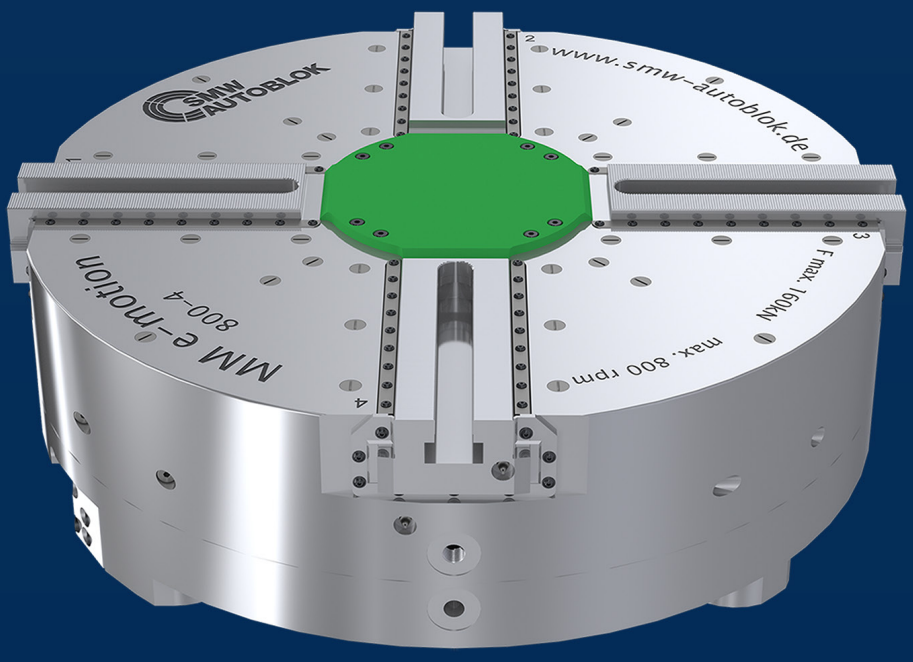
# MM e-motion

## Electric 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

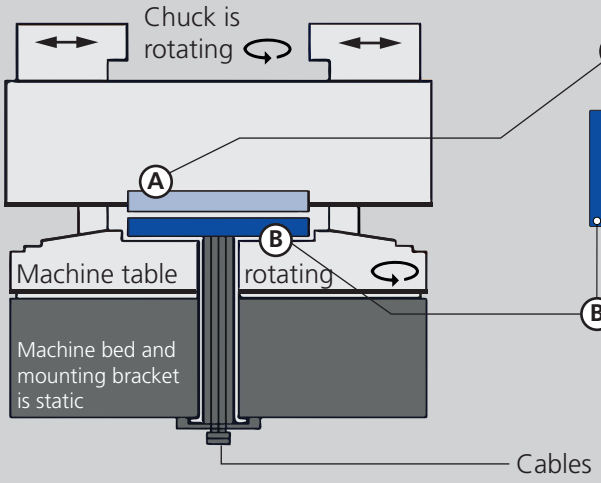
### ENERGY EFFICIENT
Energy supply only
necessary while clamping
and unclamping



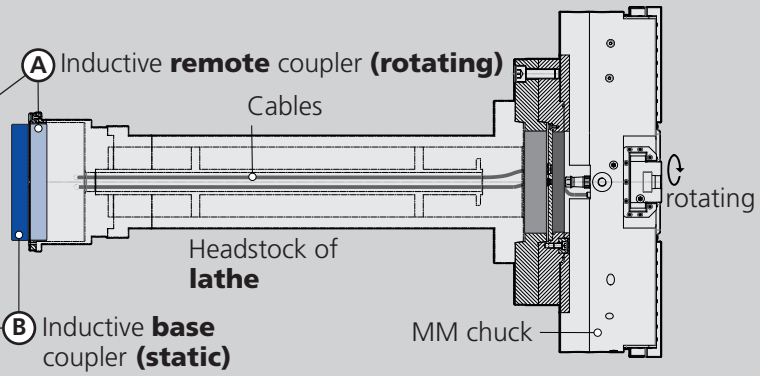
# MM e-motion

## Schematic of chuck and coupler system

**Application on vertical millturn center:**

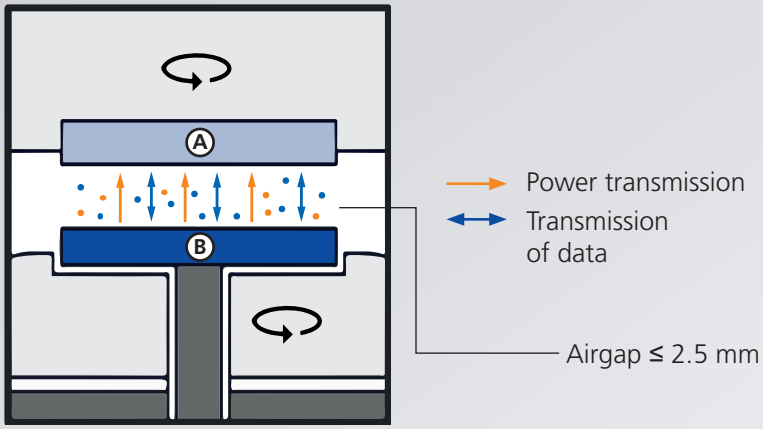


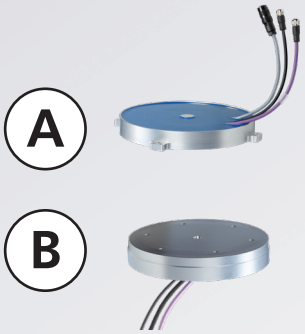

**Application on horizontal lathe:**




## Function of the inductive coupler

**Inductive transmission of energy and data**

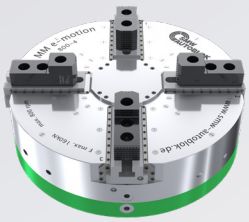



**Remote**
(rotating)
Id. No. 208005

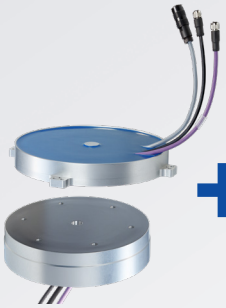
**Base**
(static)
Id. No. 208004

## Plug & Play



MM *e-motion* chuck

+



Inductive coupler system (Base / remote)

+



AC-MM control (2 pcs.)

+



Cables

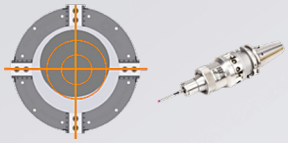
# Benefits for the user

### Sensitive clamping



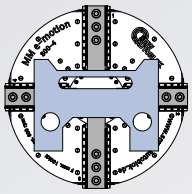

- Modification of the gripping force without unclamping the part
- Each jaw driven and controllable via e-motor

### Automatic Adjustment



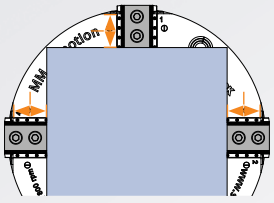
- MM800 could center the part automatically by using measurement sensor

### Clamping profiles



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

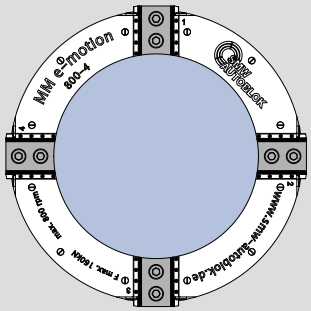
### Loading



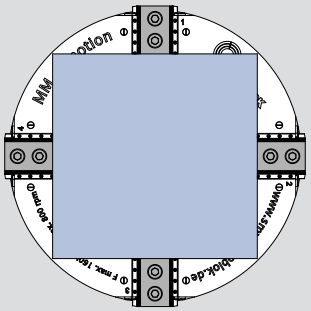
- The jaw stroke can be programmed individually per jaw

# Motion profiles: Clamping of different work piece geometries

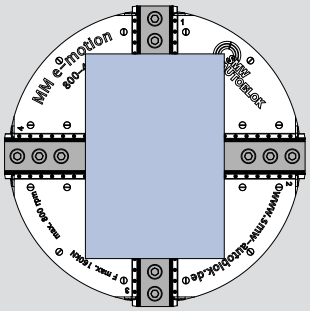
### Round



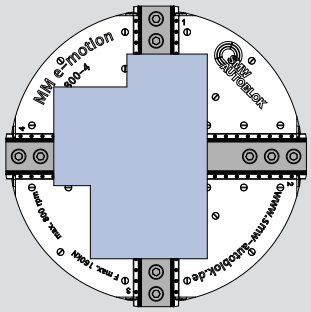
### Square

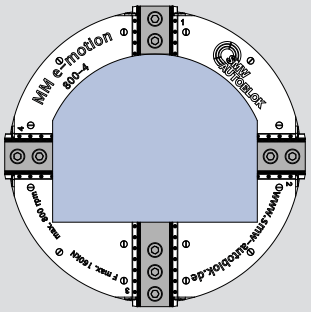


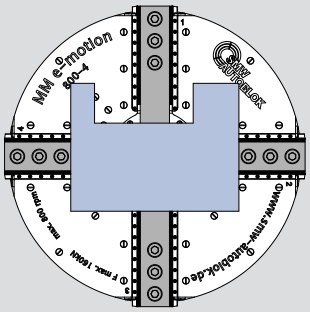
### Rectangular



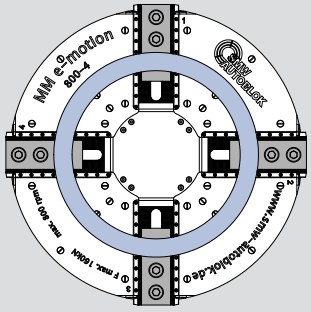
### Irregular geometry

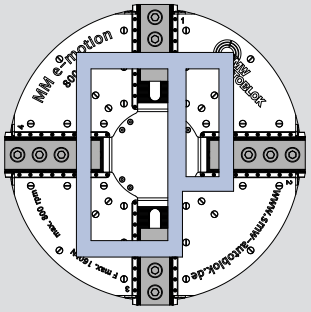




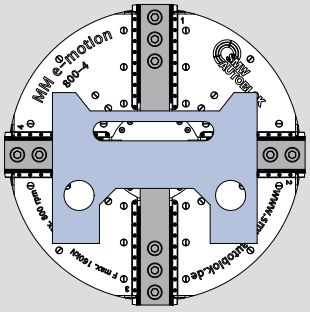


### Easy deformed work pieces





### Work pieces with different wall thicknesses

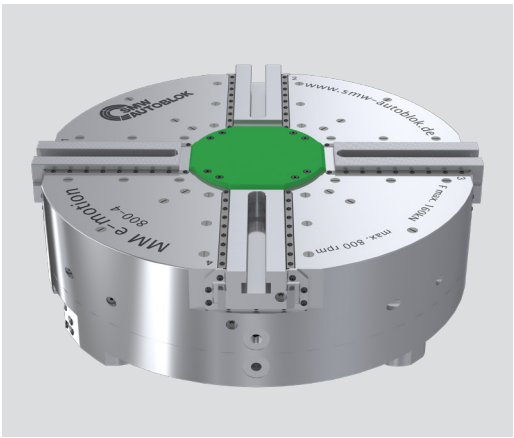


# MM *e-motion*

INCH SERRATATION

## Electromechanical Power Chuck

- Each jaw can operate independently
- OD. and ID. clamping



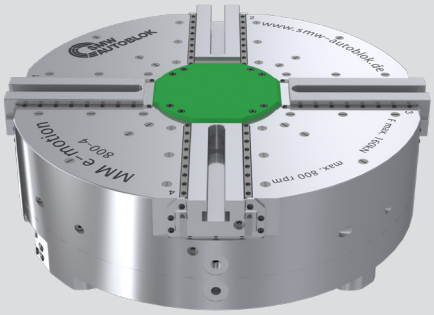
## Application/customer benefits

- 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

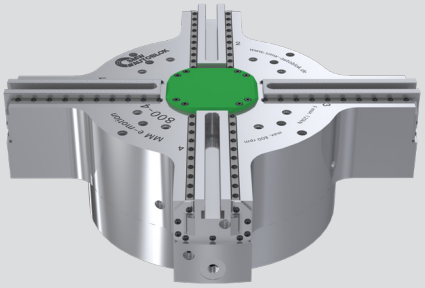
- Each jaw can be operated individually and thus stroke, force and position can be alternated individually
- O.D. and I.D. clamping
- Preprogrammed motion profiles of the jaws
- Sensitive or powerful clamping
- Redundant safety signals (STO and mechanical)
- Fully sealed, low maintenance

## MM *e-motion*



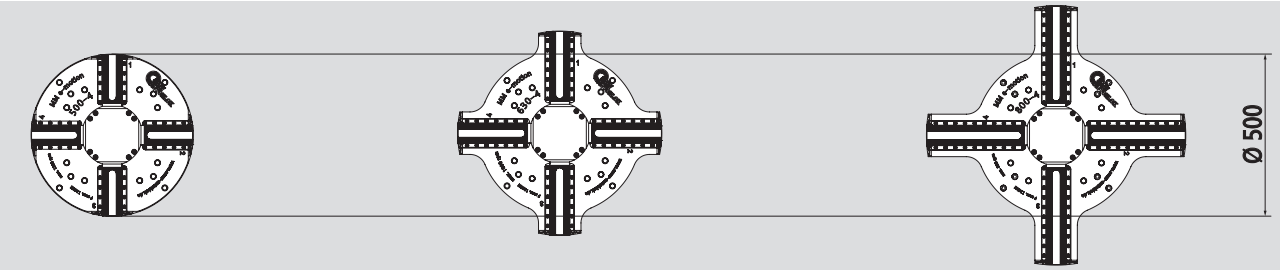
- Each jaw is operated and controlled via an individual electro motor
- Inductive wireless transmission of power and sensor system
- Auto correction of the work piece center
- Permanent monitoring of grip force and clamping position also under rotation
- Fully sealed, low maintenance

## MM *e-motion* LightWeight

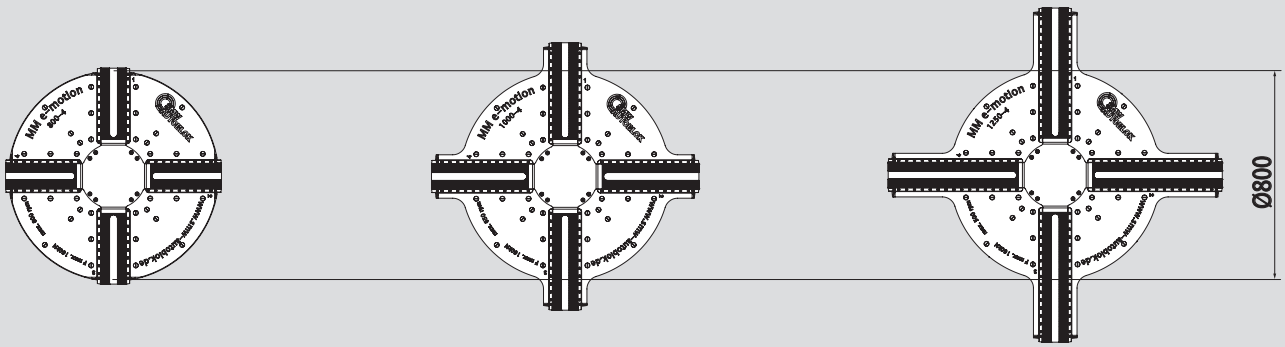


- MM *e-motion* LigthWeight (LW): weight optimized version
- Same functionality as MM *e-motion*
- Less chuck weight allows higher work piece weight
- Lower chuck profile allows more useable Z stroke
- Monoblock chuck body for highest rigidity

## Overview of sizes




MM 500 *e-motion* | MM 630 *e-motion* LW | MM 800 *e-motion* LW

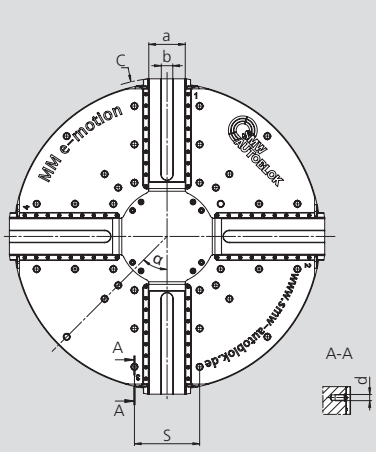



MM 800 *e-motion* | MM 1000 *e-motion* LW | MM 1250 *e-motion* LW

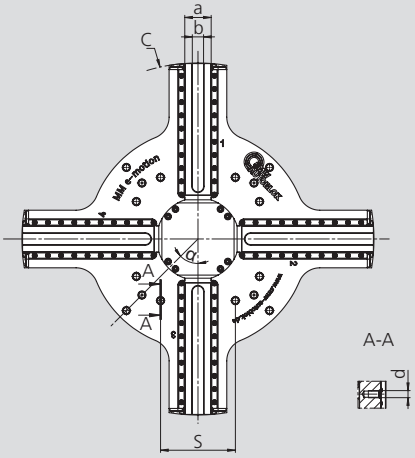
# MM *e-motion*

## Dimensions and technical data

**INCH SERRATION**




**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 *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 |
|---|---|---|---|---|---|---|---|---|
| **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 | 95 | 95 | 95 | 95 |
| | **b** | mm | 21 H7 | 21 H7 | 30 H7 | 30 H7 | 30 H7 | 30 H7 |
| | **d** | mm | M16 (24x) | M16 (24x) | M16 (36x) | M16 (36x) | M16 (36x) | M16 (36x) |
| | **h** | mm | 12 | 12 | 12 | 12 | 12 | 12 |
| | **α** | deg. | 45 | 45 | 45 | 45 | 45 | 45 |
| **Speed max.** | | $min^{-1}$ | 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** | | $kg \cdot m^2$ | 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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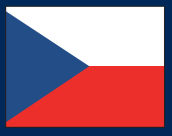
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