F500 ELECTRIC FLANGE
For the operation of standard chucks on mill-turn centers

SENSITIVE ADJUSTMENT
of the clamping force and the position
with highest repeat accuracy

SAFETY SYSTEMS
electrical and mechanical

STANDARD MOUNTING
for power chucks
F500 Electric Flange

For the actuation of standard power chucks on mill-turn centers

Modular construction kit: customizable to customer requirements

Functional Overview

1. Gripping force accumulation with the spring packs. Power will be only used for the actuation of the clamping system.
2. Electric drive e-motion
3. Wireless power and signal transmission via inductive coupler
4. Standard Interface Z380 or Z520

Configuration Example:

**Integrated Solution**

- **Loading Station**
  - Wireless power and signal transmission via inductive coupler (loading operation)

- **Machine**
  - Wireless power and signal transmission via inductive coupler (processing)

**Mounted Solution**

- **Machine**
  - Wireless signal transmission via inductive coupler (processing)
Integration-Options:

A. Integrated Solution in Machine Pallet
- Weight without chuck: 94 kg*
- Installation height H from pallet top: 106 mm

B. Top Mounted Solution
- Weight without chuck: 220 kg
- Installation height H from pallet top: 160 mm

*without machine pallet

Options for the Control of the Electric Flange:

A. External Control Mono
- Machining Area for 1 Flange

B. External Control Duo
- Loading Station / Machining Area for 2 Flanges

C. By Machine of the Customer

Loading Station / Machining Area:
Transmission of Power and Signal via inductive coupler

Inductive Coupler Power and Signal
- Remote (Rotating)
- Base (Stationary)

Power and signal transmission via plug/ inductive coupler

Manual Plug Energie

Inductive Coupler Signal
- Remote (Rotating)
- Base (Stationary)
**F500**

**Electric Flange**

- For the actuation of standard power chucks on millturn centers
- Electric drive e-motion

**Application/customer benefits**

- For the actuation of standard power chucks on millturn centers
- Standard mounting for power chucks
- Sensitive adjustment of the clamping force and the position with highest repeat accuracy
- Compact design: Low installation height
- Safe palleting on FMS (Flexible Manufacturing System)
- Industry 4.0 compatible
- Modular construction kit: Customizable for customer requirements

**Technical features**

- Piston stroke 45 mm
- Axial actuating force up to 100 kN
- Installation height from pallet top 106 mm (integrated solution) or 160 mm (top mounted solution)
- Fully sealed (proofline)

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**SMW-AUTOBLOK Type**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>F500</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>mm</td>
</tr>
<tr>
<td>Mounting C</td>
<td>B</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>D</td>
<td>mm</td>
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<td>E</td>
<td>mm</td>
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<td>F</td>
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<td>H</td>
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<td>J</td>
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<td>K</td>
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<td>M</td>
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<td>N</td>
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<td>O</td>
<td>mm</td>
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<tr>
<td></td>
<td>P</td>
<td>mm</td>
</tr>
<tr>
<td>Piston stroke</td>
<td>Q</td>
<td>mm</td>
</tr>
<tr>
<td>Max. actuating force</td>
<td>R</td>
<td>mm</td>
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<tr>
<td>Min. actuating force</td>
<td>U</td>
<td>mm</td>
</tr>
<tr>
<td>Moment of inertia</td>
<td></td>
<td>kg·m²</td>
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</table>

|               |   |                   |
| Mounting C    | B | Ø 380 / Ø 520 (optional) |
|               |   | max. 48           |
|               | F | M30               |
|               | H | 168.3             |
|               | J | 160               |
|               | K | 24                |
|               | L | 136               |
|               | M | 8.5               |
|               | N | 60                |
|               | O | 70                |
|               | P | Ø 330.2 / Ø 463.6 (optional) |
|               | Q | 630               |
|               | R | 200               |
|               | U | 45                |
|               |   | 100               |
|               |   | 10                |
|               |   | 7.9               |
Electric Flange

Modular construction kit

Customizable for Customer Requirements:

1. Integration

<table>
<thead>
<tr>
<th>Type</th>
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<tbody>
<tr>
<td>Integrated Solution in Machine Pallet</td>
<td>460515</td>
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<tr>
<td>Top Mounted Solution</td>
<td>460516</td>
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</table>

2. Control Unit for the Electric Flange

<table>
<thead>
<tr>
<th>Type</th>
<th>Id. No.</th>
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<tbody>
<tr>
<td>External Control Unit (1 Flange) Mono</td>
<td>460600</td>
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<tr>
<td>External Control Unit (2 Flanges) Duo</td>
<td>460601</td>
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3.1 Power and Signal Transmission Wireless via Inductive Coupler

<table>
<thead>
<tr>
<th>Type</th>
<th>Id. No.</th>
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<tbody>
<tr>
<td>Inductive Coupler Base (Stationary)</td>
<td>206666</td>
</tr>
<tr>
<td>Inductive Coupler Remote (Rotating)</td>
<td>206665</td>
</tr>
<tr>
<td>Inductive Coupler Base + Remote Set</td>
<td>460621</td>
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3.1 Power and Signal Transmission via Plug; Signal Transmission Wireless via Inductive Coupler

<table>
<thead>
<tr>
<th>Type</th>
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<tr>
<td>Manual Plug</td>
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<table>
<thead>
<tr>
<th>Type</th>
<th>Id. No.</th>
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</thead>
<tbody>
<tr>
<td>Inductive Coupler Base (Stationary)</td>
<td>205789</td>
</tr>
<tr>
<td>Inductive Coupler Remote (Rotating)</td>
<td>205790</td>
</tr>
<tr>
<td>Inductive Coupler Base + Remote Set</td>
<td>460700</td>
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4. Recommended Sealed Power Chucks

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<td>APL-D</td>
<td>77995025</td>
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<tr>
<td>High Precision Power Chuck</td>
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</tr>
<tr>
<td>3 jaws</td>
<td></td>
</tr>
<tr>
<td>Sealed - low maintenance</td>
<td></td>
</tr>
<tr>
<td>Closed center</td>
<td></td>
</tr>
<tr>
<td>IEP-D</td>
<td>77995018</td>
</tr>
<tr>
<td>High Precision Power Chuck</td>
<td></td>
</tr>
<tr>
<td>6 jaws (2+2+2 equalising)</td>
<td></td>
</tr>
<tr>
<td>Sealed - low maintenance</td>
<td></td>
</tr>
<tr>
<td>Closed center</td>
<td></td>
</tr>
</tbody>
</table>

Further Standard Power Chucks: see the general catalog from SMW-AUTOBLOK (www.smw-autoblok.de)
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