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# Maximum **POWER** for your pool cover



**MecaTec –** Powerful drive systems for pool covers

## The Experts in powerful and durable **DRIVESYSTEMS**

BINDER GmbH & Co. KG has made a name for itself with its powerful tubular drive systems for pool covers, which are marketed under the MecaTec brand. Since 2003 we have been designing and manufacturing drive systems for operation both

above and below the waterline, as well as the appropriate control systems. The drive systems' high efficiency and graded power levels mean that energy-efficient operation is guaranteed.

MTX - ABOVE WATERLINE DRIVE SYSTEMS



## The IDEAL MOTOR for Your pool cover

We have specialised in the production of drive systems We also offer individually produced drives that fit your for pool covers for many years. As a manufacturer of cover exactly. You can choose from a wide range of pool covers, you benefit from our extensive know-how torques between 120 and 1000 Nm. and flexibility.

MTI - UNDERWATER DRIVE SYSTEMS



We will be happy to provide you with a free quotation.

#### Underwater drive systems

## Compact, watertight and **ADAPTABLE**



Our systems are nitrogen-filled and thus absolutely watertight. Together with the winding shaft, the motor forms a unit that, together with the slats, can be inconspicuously installed in a roller shutter shaft below the waterline. BINDER underwater drive systems are made of highquality stainless steel and meet the criteria of IP Code IP68, relevant to the swimming pool sector.

#### MTI-Drive system features:

- Highly efficient
- Variable flange diameter
- 24 V DC motor
- Magnetic encoder on motor shaft
- Very quiet operation
- Simple to stop at precisely the right point
- No unwanted movement once motor has stoppe
- Underwater drive system can be installed at depths of up to 3 metres
- Two sealing rings on the drive shaft
- Simple operation with the MecaTec control system
- Stainless steel housing
- (1.4571 or 1.4404 in accordance with DIN EN10088-2)
- Stainless steel drive shaft (1.4571 or 1.4404 in accordance with DIN EN10088-2 group 2)

Since each pool cover is different, we produce six versions of our MTI tubular motor for underwater drive systems with outputs of 133 to 260 W and rated torques of 150 to 1000 Nm.

| Туре                  | MTI* 150    | MTI* 250    | MTI* 450    | MTI* 600    | MTI* 750    | MTI* 1000   |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Diameter [mm]         | 76,1        | 90          | 130         | 130         | 204         | 204         |
| Power supply [V]      | 24          | 24          | 24          | 24          | 24          | 24          |
| Load torque [Nm]      | 150         | 250         | 450         | 600         | 750         | 1000        |
| Load speed [min-1]    |             |             | 2,2         |             |             | 1           |
| Load current [A]      | 5,54        | 6,9         | 8,8         | 13,5        | 8,2         | 10,8        |
| Load power rating [W] | 135         | 170         | 210         | 325         | 200         | 260         |
| Operating mode        | S2 (10 min) |
| IP code               | IP68        | IP68        | IP68        | IP68        | IP68        | IP68        |

\* The drive systems listed are standard models. Solutions may be tailored to individual customer needs. Technical illustrations available on request.



The drives have a gearbox produced in-house and can be used permanently under water. They are characterised by narrow housings and are suitable for all types of pools.

#### Above-waterline drive systems

### ROBUST and powerful



Are you looking for a powerful, high-quality drive system for your above-waterline pool cover? Then our above-waterline drive systems are the right choice. These motors are available in two versions with outputs of 87 or 108 watts and rated torques of 120 and 150 Nm respectively. A magnetic encoder on the motor shaft allows the mechanism to be stopped at precisely the right point, with absolutely no unwanted movement.

#### MTX-Drive system features:

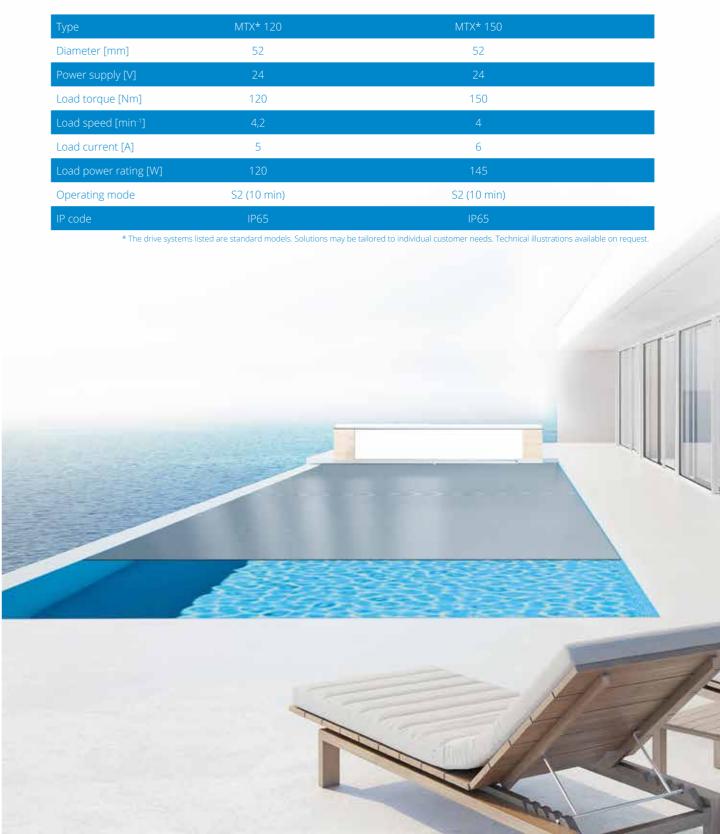
- Highly efficient
- Variable flange diameter
- Magnetic encoder on motor shaft

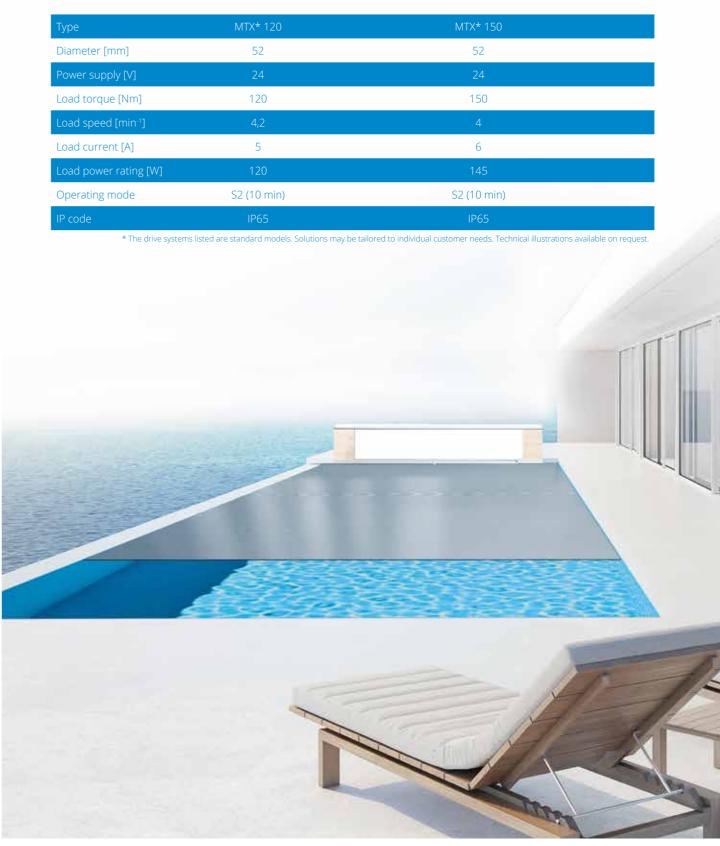
- Precise control of stopping point

- IP Code IP65

#### Our drive systems for mounting above the waterline are manufactured in two versions with maximum torques of 120 and 150 Nm respectively.

| Туре                            | MTX* 120                          |  |
|---------------------------------|-----------------------------------|--|
| Diameter [mm]                   | 52                                |  |
| Power supply [V]                | 24                                |  |
| Load torque [Nm]                | 120                               |  |
| Load speed [min <sup>-1</sup> ] | 4,2                               |  |
| Load current [A]                | 5                                 |  |
| Load power rating [W]           | 120                               |  |
| Operating mode                  | S2 (10 min)                       |  |
| IP code                         | IP65                              |  |
| * The drive externel            | isted are standard models. Coluti |  |





They have a galvanised steel construction and meet the criteria of IP Code IP65.

#### Shaft motors

## Completely watertight even when **SUMBERGED**



MTSI

Normal block motors cannot be used in occasionally water filled shafts. Our shaft motors can: Like our underwater drive systems, they are nitrogen-filled and are thus completely watertight. Hence, they stay operational during a temporary flooding.

Our shaft motors run under water for 35 minutes at most (pressure of 0.5 bar). The compact cast-iron gearbox is coated with a protective layer of waterproof paint. Our shaft motors meet the criteria of IP Code IP67.

#### MTSI-Drive system features:

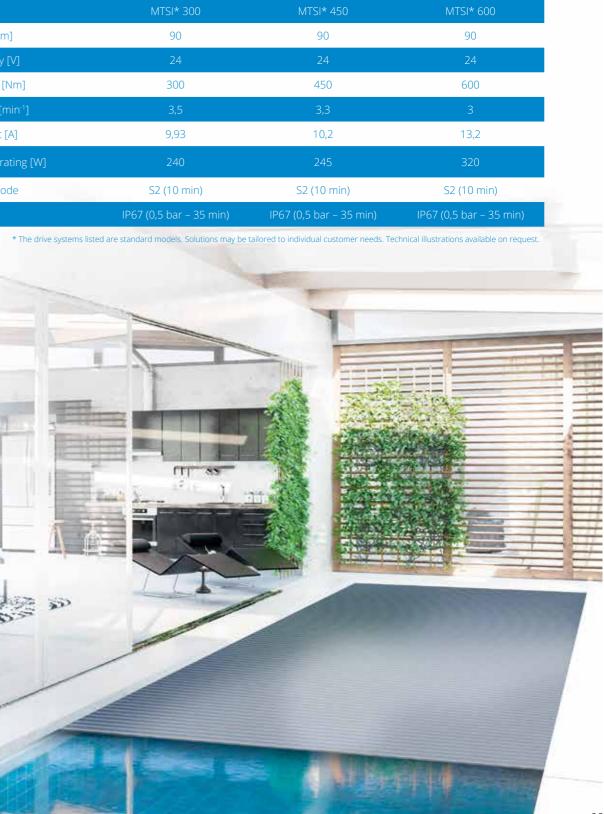
- Highly efficient
- Precise control of stopping point
- Hollow shaft with a diameter of 30 mm
- For above-waterline and underwater covers
- 24 V DC motor with permanent magnet
- Industrial-grade gearbox housing
- (with 3 layers of protective coating)

- Stainess steel housing

- (1.4301 in accordance with DIN EN10088-2 group 2)
- IP Code IP67

Our shaft drives are powerful and durable because they feature a patented water stop. We supply the MTSI motors in three versions with rated outputs of

| Туре                            | MTSI* 300               |
|---------------------------------|-------------------------|
| Diameter [mm]                   | 90                      |
| Power supply [V]                | 24                      |
| Load torque [Nm]                | 300                     |
| Load speed [min <sup>-1</sup> ] | 3,5                     |
| Load current [A]                | 9,93                    |
| Load power rating [W]           | 240                     |
| Operating mode                  | S2 (10 min)             |
| IP code                         | IP67 (0,5 bar – 35 min) |
|                                 |                         |





239, 245 and 317 watts as well as torques of 300, 450 and 600 Nm.

### Our convenient above-ground drive The **PLUG-AND-PLAY** motor

Elegant, efficient and powerful:

Our MecaTec above-ground drive of the latest generation is unique in every respect. Pool builders save precious time thanks to the extremely simple installation. Pool owners are delighted with the convenient control and the energy savings enabled by the PV function.





When developing the above-ground drive, we also thought about the environment and your wallet: the above-ground drive can be operated using electricity from a photovoltaic panel.

| Туре                            | MTXi* 120   |  |
|---------------------------------|-------------|--|
| Diameter [mm]                   | 52          |  |
| Power supply [V]                | 24          |  |
| Load torque [Nm]                | 120         |  |
| Load speed [min <sup>-1</sup> ] | 4,2         |  |
| Load current [A]                | 5           |  |
| Load power rating [W]           | 120         |  |
| Operating mode                  | S2 (10 min) |  |
| IP code                         | IP65        |  |

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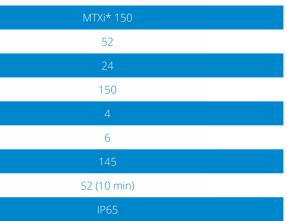
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\* The drive systems listed are standard models. Solutions may be tailored to individual cust needs.



**24V** 

This is particularly interesting for manufacturers of pool covers who have integrated this function into their products.







## THE PERFECT ADDITION TO A **SMART HOME**





With the MTC control system, all our pool cover drive systems can be operated. The control system allows the exact positioning of the cover and can be very easily adapted by the dealer to fit the respective surrounding conditions. It is available in six different versions with outputs between 144 and 432 W and with two different control housings. The MTC 250 has a transparent cover, while the MTC450 has a housing with a viewing window. All versions are compatible with smart home systems.

#### MTC-control system feartures:

- Highly effi cient
- Pool cover can be positioned precisely
- No unwanted movement once motor has stopped
- Smart home compatible

- Very reliable
- Simple to operate
- Custom modes
- Idle output only 2 W

Our MTC controller for pool cover drives is highly efficient, easy to operate and can be individually adapted.

| Туре                  | MTC* 150    | MTC* 250    | MTC* 450    | MTC* 600    | MTC* 750    | MTC* 1000   |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Power supply [V]      | 230         | 230         | 230         | 230         | 230         | 230         |
| Output voltage [V]    | 24          | 24          | 24          | 24          | 24          | 24          |
| Load current [A]      | 6           | 9           | 10          | 14          | 16          | 18          |
| Load power rating [W] | 145         | 220         | 240         | 360         | 385         | 435         |
| Operating mode        | S2 (12 min) |
| IP code               | IP54        | IP54        | IP54        | IP54        | IP54        | IP54        |

\* The drive systems listed are standard models. Solutions may be tailored to individual customer needs. Technical illustrations available on request.







## **BINDER**

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