

## MAFU - Twister Basic unit with centrifugal disentanglement



The MAFU Twister, a machine based on the MAFU Drum, is a disentanglement system specially developed for a 100% disentanglement and separation of bulk parts, such as e.g. springs or bent wire parts.

The technical principle allows the MAFU Twister to be combined with a variety of feed devices as well as separating and readying systems in order to fulfill the many different requirements of customers. Different multi-track feed systems, depending on the requested feed capacity as well as part size and geometry, can be implemented and the separating and readying units adapted to the desired level of automation.

### The MAFU Twister offers the following advantages:

#### **Economy:**

High feed capacity, 100% disentanglement and separation of problematic springs and bent wire parts as well as low energy consumption and wear make the MAFU Twister a highly cost-effective solution.

#### **Flexibility:**

The technical principle and the available equipment add-ons, such as e.g. diverse testing, provisioning and separating systems, make it easy to adapt the MAFU Twister to a wide variety of requirements and parts.

#### **Quality:**

The use of sensors ensures that double or multiply tangled springs are recognized and sorted out in the centrifuge. A 100% disentanglement of the springs is thus completely practicable - without tangled remnants.

#### **Handling / Ergonomics:**

The MAFU Twister is very quiet even without a sound absorbing cover and can be used almost anywhere thanks to its compact design. Moreover, due to the maintenance-friendly construction of the unit, both the drum and the centrifuge can be dismantled quickly and easily for emptying or converting, without the use of any tools.

### **Fields of Application:**

#### **Disentanglement technology:**

Disentanglement and positioning of bulk parts, such as e.g. springs, bent wire and similar.

#### **Feed technology:**

Feeding, separating and readying bulk parts with appropriate accessories that are adapted to the part geometry.

#### **Sectors:**

##### **Machine construction, automotive industry and their suppliers**

Disentanglement, separation and feeding of valve springs, brake fasteners and many other parts for assembly.

##### **Electrical, electronics and plastic industry**

Disentanglement, separation and feeding of springs, plastic parts and many other parts for assembly.

##### **Spring manufacturers**

Disentanglement, separation and feeding of springs,

The MAFU Twister can be used in a variety of other industries and production concepts, taking over a multitude of different tasks through integration with the clever system solutions from MAFU. There are practically no limits to the possibilities.

# MAFU - Twister

## Basic unit with centrifugal disentanglement

### Principle of operation:

The parts are poured in manually through the hopper into the removable drum of the MAFU Twister. On the sorting and feeding track, the parts are poitioned according to shape via baffles and further transported in multiple rows. Sensors on the feeding track recognize double and multiply tangled springs. These are removed from the track by means of an air blast and ejected into a separate disentanglement device. The springs are separated from each other via centrifugal force in the - ZWT centrifugal disentanglement drum - and channeled back into the drum. At the end of the track, the parts are channeled into a tube via an injector block at each outlet and positioned in front of the separation tool. An additional min/max switch controls the drum. This saves energy and avoids unnecessary movement of the springs.

### Centrifuge:

The parts are channeled into the MAFU Twister. The entangled springs are separated by the centrifugal force in the MAFU Twister. After that, the separated springs are again channeled into the drum. The lid is provided with a safety switch so that improper or inadvertent operation cannot occur. The centrifuge is available in several different sizes, the MAFU Twister BIG or the MAFU Twister can be selected depending on the size of the springs.

### Separation:

At the end of the track, the parts are transferred into a tube through an injector block at each outlet and positioned in front of the separation tool. After the separation signal is given, the springs are separated and transferred by means of a transfer head.



# MAFU

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