

## WATT drive solutions for bulk material handling

Belt conveyors are continuous conveyors which, in addition to standard conveying tasks, are frequently used as link elements in various sectors of industry. The need for reliability in linked processes is corresponding high. The failure of a drive element means that all systems come to a standstill, and this incurs considerable costs for the plant operator. WATT drive units, from the tried and trusted MAS geared motor range, are always a reliable partner for sectors of industry with these requirements.



The main component in a belt conveyor is a continuous belt supported on rollers used as a load bearing and feed device. The belt strap is driven by at least one drive drum here using a frictional lock.

The drive and guide rollers are supported via a plummer block or flange bearing housing fitted onto the steel structure.

WATT helical bevel gear units are fitted onto the drive drum in many cases. The drive unit package consists of an asynchronous motor, a fluid coupling and a helical bevel gear unit. The entire drive unit is mounted on a swing base. The reaction forces resulting from the torque are conducted away via an elastic rubber-metal bushing on the support construction.

### KSS ... gear units for belt conveyors in the cement industry:

The shrink disc-execution simplifies the mounting/dismounting of the drive unit. The gear units must be set up according to the mechanical and thermal aspects of the generally high ambient temperatures.

### Overview of models:

Gear units KSS 80... – KSS 136... can be used as belt conveyor gear units from Watt Drive. These provide torques of **2,700 Nm to 14,000 Nm**.

Asynchronous motors with ratings up to **55 kW** can be attached to the gear units using fluid couplings or flexible couplings.

### Gear unit options offered by WATT:

- Back stop:

Depending on the drive unit design, a back stops can be fitted directly onto the gear unit inlet when using fluid couplings, and onto the motor when using elastic connector couplings.

- Fluid couplings:

With direct activation of the drive unit, a fluid coupling is installed between the motor and gear unit for torque limitation on starting and for gentle acceleration of heavy loads.

In addition, the coupling protects the motor and the working machinery against knocks and vibration.

- Elastic couplings:

Different elastic coupling designs can also be used between the gears and the motor.

- Swing base:

The robust swing bases are used as torque supports onto which the entire drive unit is fastened. The torque support is provided by elastic rubber-metal bushings; the swing base can be of any design desired by the customer.

### Benefits:

The components used are part of the MAS range which includes various models for customised project solutions.

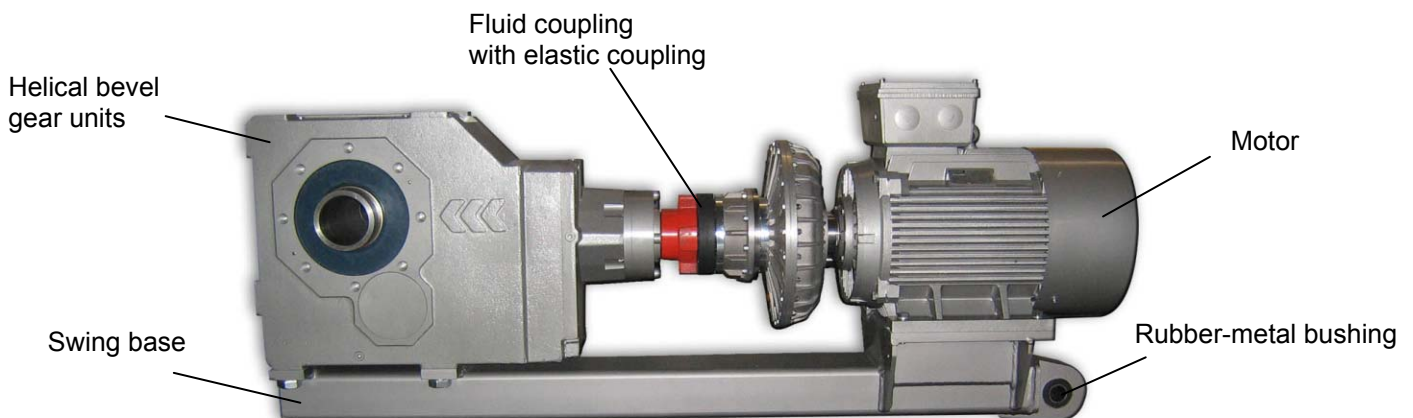


Fig. 1:

Helical bevel gear units ( $M_{nom} = 14,000 \text{ Nm}$ ) with fluid, elastic coupling and torque beam  
 Type: KSS 136A WN FK 201L4

For more information on the WATT product range, please visit our website at [www.wattdrive.com](http://www.wattdrive.com).