

Usage of turbo couplings with monitoring devices and drum brakes.

The use of Watt drive packages for conveyor technique has already been described in previous editions of WATT e-news. One possible customer specific amendment, the use of drum brakes and fluid couplings with protectoral devices, ensures a temperature-dependent operating monitoring and thus helps to increase the operating safety, avoiding possible costs caused by repair.

Field of application:

The described drives are used in conveying systems. The mounting of the individual components is carried out onto base frames, differently than described before, whereas the drives are equipped with output shafts and couplings. A quick and easy dismounting of the drive section are here standing in the foreground.

Mechanical - thermal protection (ET):

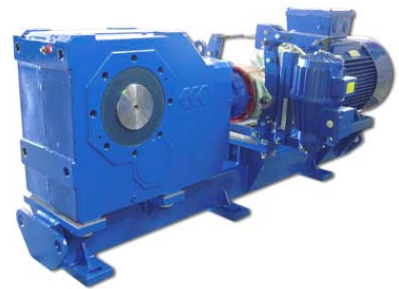
To protect the fluid couplings from thermal overheating, safety fuse screws are fitted in the standard. On reaching a certain activating temperature, the operating liquid is oozing out. The protectoral device ET (see picture 1) releases a pin to avoid the leakage whereby a switch is activated.

According to the switching mode, the triggering of the switch can be used as an alarm signal or as a switch-off for the motor. The drive is thus effectively protected against overheating. The switching element has to be changed after this operation.



Picture 1: Monitoring device ET

On the drive part, the monitoring device is mounted on the swing base, respectively the base frame (picture 1).



Drum brakes according to DIN 15435:

The drum brake will be implemented between motor and drive, whereas the mounting will be on a base plate. The setting of the braking torques will be according to the customer's data; or rather will be set by Watt Drive when all the relevant data is issued.

The brake has the task to securely decelerate at all operation statuses. At that, the brake has to manage next to the static torque, additional torques out of translatory inertia and rotatory inertia.

The optimal interaction of the single components, concerning thermal and mechanical strain, is the task to master thereby.

Drive data:

Motor power:	45 kW
Output speed:	44 U/min
Output torque:	9767 Nm
Brake:	A250-M60/50RG
Lifting device:	M60/50



Picture 2: Helical bevel geared motor with drum brake, fluid coupling and base frame
Type: KU 136A WN RSG FK 226M4

Further information concerning the Watt product programme can be obtained on our website www.wattdrive.com