

Strip upcoiler

To make processing more economical, cast and milled strips in the casting line are rolled to coils, in order to save storage space.

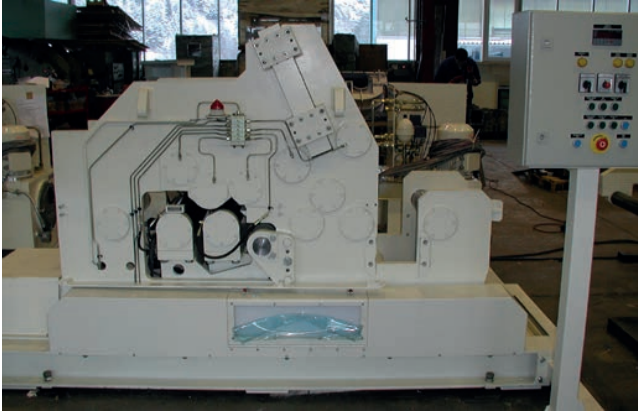
The upcoiler is a heavy steel plate construction and consists of a base frame to be anchored in the foundation, plus the machine body itself, which is mounted on the base frame so as to slide in the casting direction. A hydraulic cylinder provides a travelling distance of 400 mm. The core of the machine is a feeder unit with an adjustable bending roller system.

The feeder unit consists of a stationary roller mounted in the machine body and a pressing roller that can be

adjusted to suit the strip thickness. Both rollers are driven by a 3-phase motor via a special reduction gearbox with two outputs. The bending roller system is supplied with two screw jacks which are driven by a stepper motor via a reduction gearbox.

The machine also has a series of support rollers driven by the feeder unit and two vertically adjustable guide rollers. These guarantee a plane coil regardless of the strip width.

Upcoilers are designed to work in such a way that the strip arriving from the withdrawal machine is detected by a light barrier after entering the upcoiler. The barrier triggers a pulse to catch the strip in the pressing and bending roller.



However, coiling only starts if the machine is in the end position.

After the strip has been fed into the pressing and bending roller, the upcoiler is pushed back and the upcoiling process starts. The coiling speed is always set slightly higher than the average casting speed so that the machine moves towards the withdrawal machine while coiling.

Once the maximum distance has been reached, the drive is switched off and the machine is pushed back to the end position in order to restart coiling. The coiling process continues until the straight tail length required for further processing has been reached.

The pressurised oil supply is provided by a hydraulic unit that should preferably be mounted to the base frame of the machine. The upcoiler has a centralised lubrication system.

The electrical equipment is housed in a control cabinet and a control panel.

MACHINE CHARACTERISTICS

Cast material	Cu alloys
Strip thickness	max. 20 mm
Machine clearance	max. 1,100 mm
Strip width, 1-strand	up to 1,070 x 12-20mm
Strip width, 2-strand	up to 500 x 12-20 mm
Coil ID	min. 700 - 1,200 mm depending on alloy and strip thickness
Coil OD	max. 1,900 mm
Coil weight	max. 20,000 kg
Travel distance	400 mm
Feeder unit drive	3-phase motor
Bending roller drive	3-phase stepper motor

