

Strip guiding on the recoiler without a mechanical link

Application:

Strip guiding on the recoiler ensures coils with straight lateral surfaces, which prevents damage to strip edges during further transport and handling. To achieve this aim, strip edge guiding systems are generally used. Strip centre guiding systems are recommended when the strip is coiled with natural edges and when the strip will be centrally fed to further processing stages.

Since the strip does not always leave the processing area at the same point, the recoiler follows lateral strip deviation in order to ensure straight-edge recoiling.

Functional principle:

Strip edge sensing systems for recoilers must always be installed in the immediate vicinity of the deflector roll and be connected to the movable part of the recoiler.

This connection may be mechanical or, as shown in this example, electronic synchronising of sensor and recoiler movement may be used.

In addition, it is of utmost importance that the strip does not slip or incline on the deflector roll. An adequate wrapping angle on the deflector roll and sufficient and stable strip tension must ensure that the strip closely follows the roll contour. Large roll diameters are recommended.

For the recoiling of strip with slightly thickened edges, which is likely to occur when applying a surface coating, the strip position controller is extended to generate a stagger winding pattern in the coil build up. A constant pattern of the coil edge is achieved when taking account of the recoiler revolutions and the strip thickness.

