

Protector Roll







The Protector Roll was developed in response to the question how coarse pollution can be removed more efficiently from grains before these enter the production process. The Protector Roll controls an even spread flow of raw materials over a screen of parallel strips into the Roller Mill. Possible debris in the flow of raw materials is removed, collected and transported to a debris bin. By cleaning the product flow from undesired particles the Protector Roll protects the Roller Mill from uncontrolled wear or possible crucial damage which could lead to downtime of the Roller Mill.

Features

The Protector Roll is based on a rigid steel frame structure which holds several main components:

- » A feeder roll to ensure a constant and even spread flow of raw materials over the screen.
- » Drum magnet to capture and release magnetic particles.
- » A stationary screen and a second screen which vibrates (amplitude adjustable). The combination of alternately a stationary and vibrating strip provides a high self-cleaning level. The screen is available with varying gap widths.
- » A by-pass valve to enable redirection of all big particles back into the process flow instead of the debris bin.
- » Large light weight hatches to provide easy access to the interior.
- » A shaftless screw conveyor to remove collected steel and other debris like stones.

Optional there is a possibility for an additional external debris removal bin. A bypass for particles that can't pass the screen is available, while the steel debris collecting will stay functional.

Function

The product falls into the Protector Roll and the product flow rotates clockwise along the roll. The reel revolves around a magnet. Metal particles 'hang' on the magnet for longer and then let go and can be collected on a vibrating plate and discharged towards a screw. Other large parts fall down through a valve. The large and small parts fall onto a 'sieve'. The desired particle size falls through the sieve to the outlet and into the Roller Mill. The larger parts are discharged towards the screw that ensures that product is fed to the side of Protector Roll.

If the by-pass function is used (the particle size matters here), the valve is opened. All particles then run towards the outlet. The valve is adjustable in 3 positions depending on the desired capacity and gives way to larger chunks and clods (flexible).

Advantages

- » Protection of the Roller Mill against uncontrolled wear or possible crucial damage.
- » Even flow of raw materials distributed over the screen.
- » Screen has a high self-cleaning capacity due to a stationary and vibrating strip.

Types

- » Protector PR307 suitable for Roller Mill types PRM307-S/D/T
- » Protector PR313 suitable for Roller Mill types PRM313-S/D/T and PRM318-S/D/T









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