

# ELDAN Foreign Object Detection System

## Breakdown prevention



### EFFECTIVE BREAKDOWN PREVENTION SYSTEM

For many years, foreign objects in waste tyres have caused problems for tyre recyclers all over the world. Large stones and metal objects may break knives in the following machine, resulting in both time, money, and valuable production wasted. For this purpose, the ELDAN Foreign Object Detection has been developed to detect foreign objects wreaking havoc on your plant.

The system consists of an adjustable sensor system monitoring the vibrating discharge conveyor following the ELDAN Super Chopper. Changes in acceleration from dense objects hitting the surface are picked up by the system, which will stop the material flow of the plant and give off a warning signal. It is then easy for the operator to search through the material on the vibrating discharge conveyor, find and remove the foreign object, and continue production without further problems.

The Foreign Object Detection System is equipped with a back-up safety system in case one of the sensors fail. The system can run with just one functioning sensor but will give off a warning signal. If both sensors fail, the plant will stop to prevent a false sense of security.

There are many benefits with the ELDAN Foreign Object Detection System:

- Greatly reduce the risk of breakdowns and yearly down time
- Reduced wear costs due to fewer broken knives
- Smooth running of the tyre plant and increased production time
- Patent pending

The ELDAN Foreign Object Detection System is easy to integrate into an existing tyre recycling plant with an ELDAN vibrating discharge conveyor, giving you the possibility of tailoring your Tyre Recycling System to your demand.

# ELDAN Foreign Object Detection System



Knife piece, 1 kg



Piece from rim, 650 g

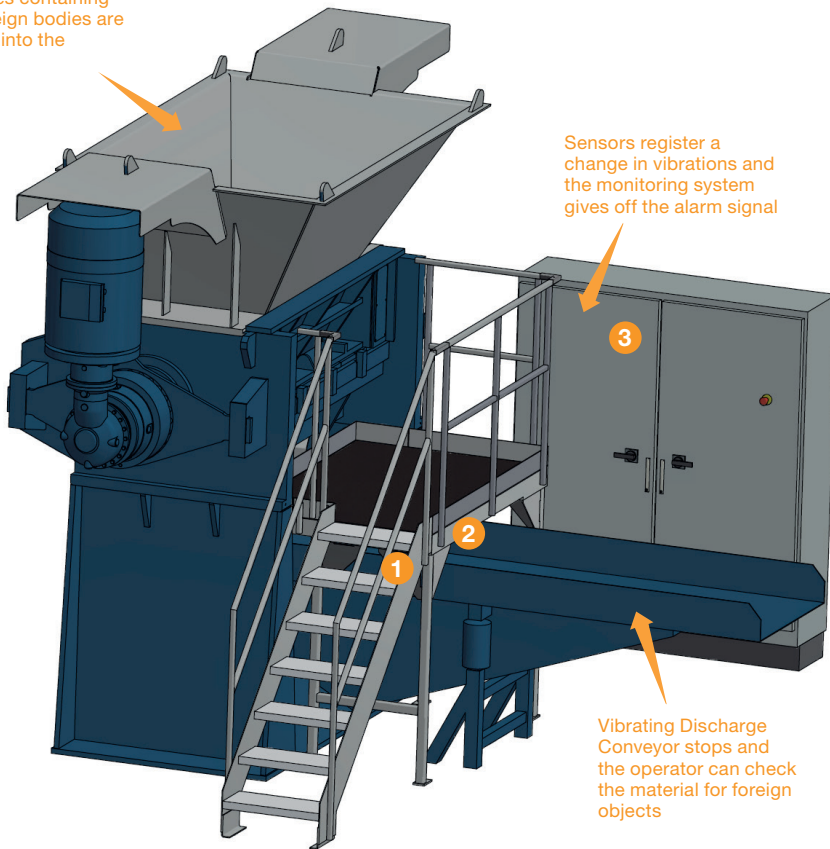


Misc. stones



Bracket piece, 180 g

Tyres containing foreign bodies are fed into the



## FOD System

- 1 Sensor 1
- 2 Sensor 2
- 3 Monitoring System

## CASE: NINE MONTHS WITHOUT A SINGLE BREAK DOWN

Anton, one of our Danish customers, is a very happy tyre recycler, and we can't blame him. After installing the ELDAN Foreign Object Detection System, he has been running his ELDAN Tyre Plant from 2004 for nine months without a single break-down due to foreign objects continuing downstream from the Super Chopper. Everything from a broken-off knife tip from the Super Chopper to brackets, rim pieces, and large stones have been detected and sorted out before they could damage the knives in the following machines.

Not only has this saved him more than 2 weeks of potential downtime needed for finding the foreign objects, cleaning out knife debris, and changing the broken knives and knife holders. It has also saved him up to EUR 150.000,- in costs for new knives and knife holders to replace the broken ones.

The system is still running, and only time will show just how valuable Anton's investment is going to be.

