



The best of refrigerator recycling



Eldan refrigerator recycling plants and machines

The complete Eldan refrigerator recycling plant includes everything from pre-chopping to separation.

The refrigerator recycling system is designed for processing refrigerators operating with CFC/pentane gases to prevent harmful substances to evaporate into the atmosphere, and to achieve the most efficient recycling of the solid materials.

The plant is constructed for crushing of refrigerators up to a max. size of 2000 x 1200 x 1000 mm (height x width x depth). Bigger appliances can be processed, but must be size reduced prior to processing.

Proven technology

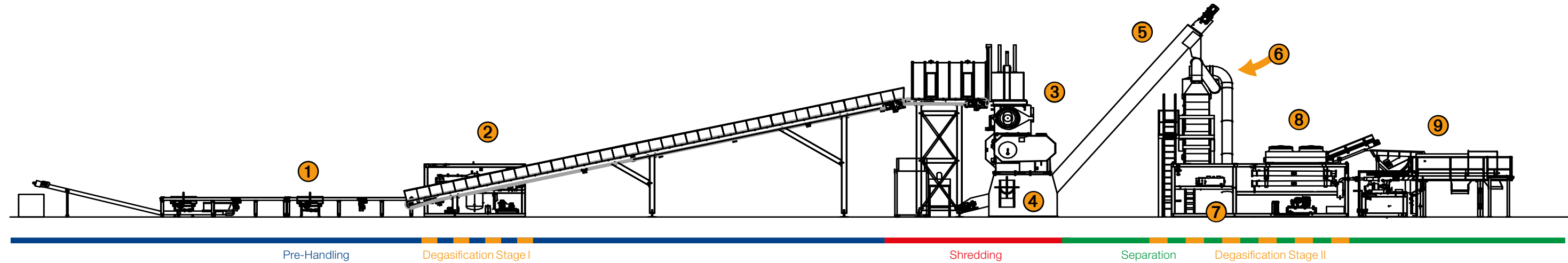
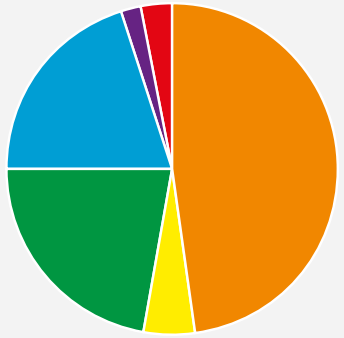
Eldan equipment is designed to meet market requirements, thus the individual machines can easily be adjusted to other fraction sizes, merely by changing the screen size in the machines.

Features

- High performance
- Low processing costs
- Low power consumption
- Low maintenance costs
- Minimum loss of metals
- Ambient mechanical technique for size reduction and separation
- Eldan plants are tailored to suit your requirements and facilities

A refrigerator contains

| | |
|---------------------------------------|-----|
| ▶ Ferrous | 48% |
| ▶ Aluminium | 5% |
| ▶ Plastic | 22% |
| ▶ Foam | 20% |
| ▶ Copper | 2% |
| ▶ Rest is glass shelves, CFC gas etc. | 3% |



1. Pre-handling

The refrigerators are unloaded and pre-classified. The cords are cut off and the glass inserts are delivered to special containers. All CFC-gases, pentane gas and isobutan gas are extracted, and the compressors are dismantled.

2. CFC/Oil Suction Unit (Degasification stage I)

Stage one of the degasification. Oil and CFC/pentane/butane gases are sucked to the CFC/Oil Suction Unit. The gases are separated from the oil and the gases are collected in closed gas vessels. The oil is pumped out into an open vessel.

3. Super Chopper and 4. Heavy Pre-Granulator

The fridges are transported to the Fridge Tower through a sluice. The Fridge Tower is a unique, integrated unit, which combines the Super Chopper and the Heavy Pre-Granulator. This makes possible ONE inert cutting chamber eliminating the risk of fire and explosion. The output size from the Fridge Tower is approx. 30 mm.

5. Zig-Zag Wind Separator

The PUR foam is separated out and transported to the Pelletizer/Pellet Press (PUR).

6. Pelletizer and Pellet Press (PUR)

The PUR foam is pressed into pellets. At the same time the remaining CFC gas is sucked out into the CFC/Pentane Liquefaction System.

7. Overband magnet.

The Fe-particles are separated out by the Overband Magnet.

8. Eddy Current Separator

The remaining fraction is passed over the Eddy Current Separator, where it is separated into plastic and aluminium/Cu fractions.

9. CFC/Pentane Liquefaction System (Degasification stage II)

The nitrogen used to reduce the oxygen level in the cutting chamber of the Fridge Tower is recovered and recycled in a closed circuit system to minimize the consumption. The gasses are collected in closed gas vessels.



Input



PUR Pellets



Fe fraction



Aluminium and copper



Plastic

After sales service ensure reduced downtime:

The Eldan After Sales Division is your reliable partner!

- The After Sales Division offer ad hoc service on existing as well as new equipment through our trained and experienced service engineers and supervisors
- Eldan constantly holds an extensive stock of spare and wear parts
- The flexible service contracts ensure planned, preventive maintenance of your production line
- Tailored contracts ensure that parts are available for immediate call off
- Contact one of our spare and wear part coordinators, and we will supply the best possible solution for your company



Optional modules for specific customer requirements:

Micro Module

Separating the Cu from the Al or cleaning the plastic fraction

Combi plant refrigerator and WEEE

In the plant, it is possible to add on an upgrading system for the metal fraction.

Super Chopper

If it is necessary to process refrigerators larger than 2000 x 1200 x 1000, it is possible to add a dual-shaft Super Chopper II (see right) for further size reduction.



First choice in recycling equipment