



Drying and cleaning plant for reprocessing of plastics

innovative | washing without water
sustainable | enormous cost savings
reliable | constant high quality

Plastics recycling

with the DRD system

innovative | the technology

MAS drying and cleaning machines are the modern alternative to wet cleaning within the recycling process. Cleaning of plastic parts is effected with tried and trusted **DRD technology** (Double Rotor Disk), developed by Ekuma (Pucking, Austria). It combines a **cleaning centrifuge and thermal drying in a single machine** to guarantee a clean, dry process that is easy on the material and produces consistently high end product quality.

versatile | the processing spectrum

MAS drying and cleaning systems support versatile use. They are **ideal for any kind of soiling that is removable by friction** such as sand, soil, paper or fibres:

- › Stretch films
- › Agricultural films
- › Industrial waste
- › Plastic fibres
- › Hollow bodies
- › Cups

sustainable | cost benefits

DRD is the **only technology that washes without using water!** This means **far lower costs** per kilogram of cleaned material in comparison to wet washing plants. DRD systems do not need water treatment or special authorization and do not cause additional waste water disposal costs.

Input material examples:
agricultural films, industrial waste, fibres, and plant pots



Small footprint
DRD-18 dry cleaning system

complete | the plant

MAS drying and cleaning plant consists of a single shaft shredder, material storage, dry cleaning unit and conveying units including installation and connection plans. **All components are well synchronised** and have **adequate reserve capacity**. They will even work with difficult plastics such as stretch films, thus extending the recycling plant's processing spectrum.

efficient and safe | the operations

MAS drying and cleaning systems are **fully automated** and controlled by an easy to use PLC system. Power demand and retention time can be adjusted according to moisture content and degree of contamination. **Sensors stabilise the process** in the event of fluctuating moisture content of the contaminated plastic.

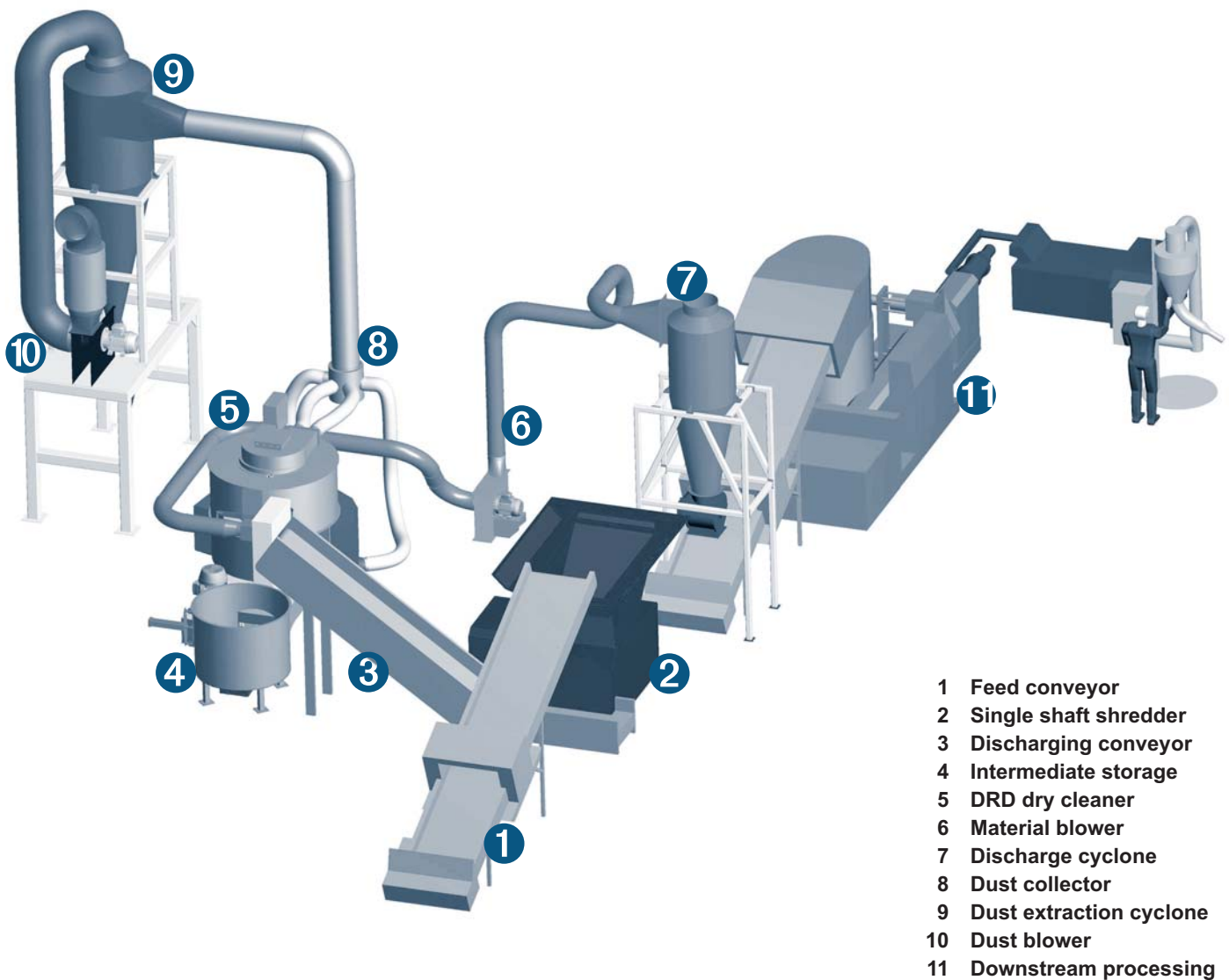


inline processing plant

The processing line integrated with further processing produces major benefits:

- › higher extruder throughput thanks to preheated material
- › stable process because of low and constant residual moisture
- › improved pellet quality due to constant flake properties
- › extended screen life in melt filter
- › longer lifetime of screw and barrel of the extruder

optimized | typical plant for 500 kg/h



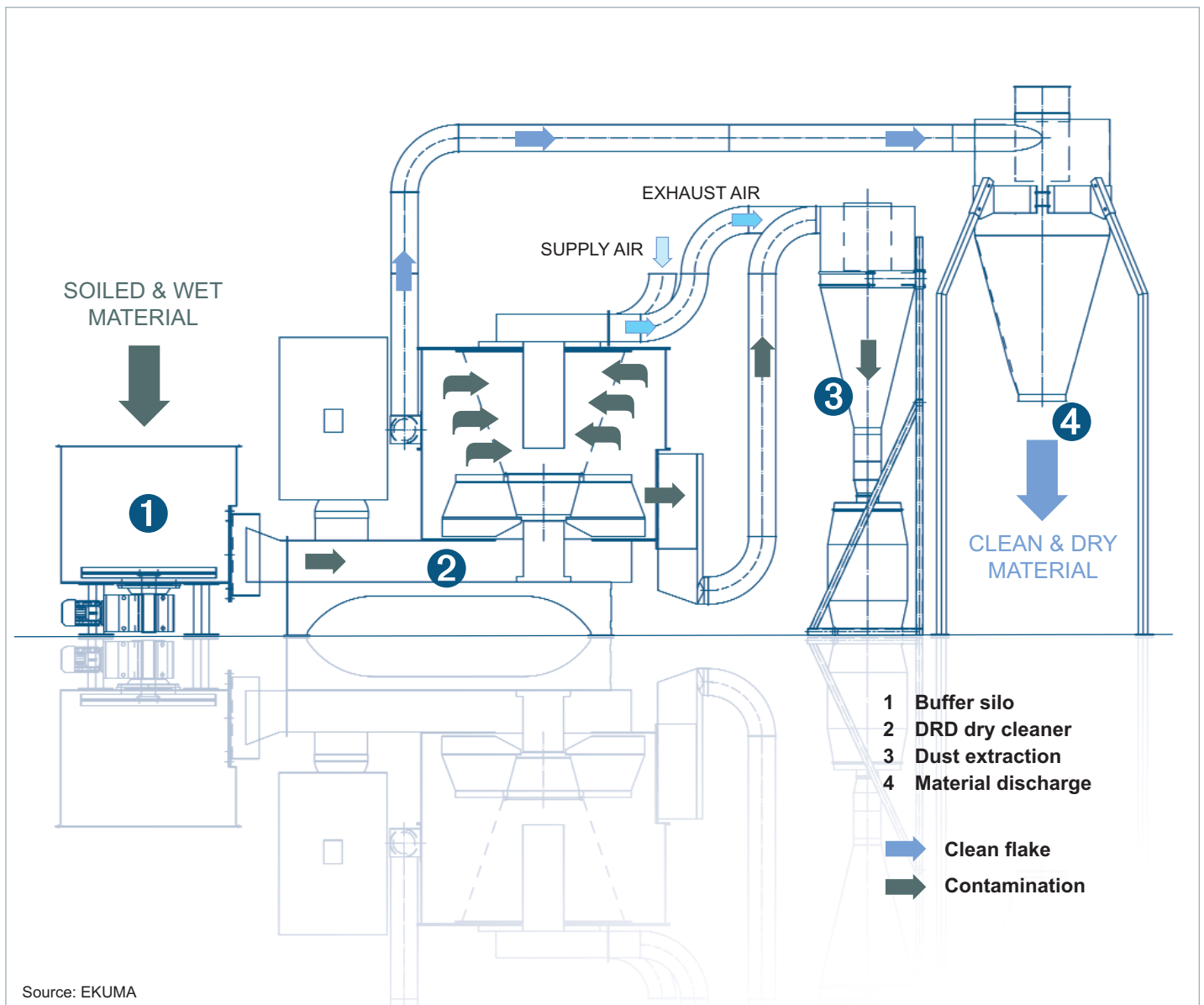
clean and reliable | the process

After shredding of the plastic waste, the dry cleaning unit is continually fed from the buffer silo with batches of up to 60 kg. The cleaning process is completely dry based on the tried and trusted DRD system: The plastic material rotates in a cylindrical chamber, is engulfed in **hot air** and kept in suspension. Turbulence ensures an **excellent drying effect** (constant average moisture content of 2 %). At the same time, impurities such as sand, soil, paper or fibres are separated off by screens. The gentle process and the short dwell time contribute to preserving material quality.



Heater coils

dynamic | the functional schematic



Your expert for plastics recycling



DRD-24 dry cleaning system with WLK 1500

Sensor controlled
discharge gate



Rotor on
DRD-24 dry
cleaning system



substantiated | our expertise

More than **40 years of experience in plastics machinery construction** (especially in the field of extruders) and a **30 year history in recycling** are reflected in the development of MAS drying and cleaning systems. We construct **entire systems** for dry processing of old plastics over the entire recycling process – from bales to granulate. Our **experienced team** takes care to match the components to perfectly reflect your processing requirements, and local conditions.

professional | our service

Comprehensive advisory, planning and project management services are key components of the MAS service portfolio, and lead to **fast deployment of your production system**. In addition, the process is backed up by test runs at the **MAS Technology Centre**. Following line assembly on site, our service engineers commission the system and train your operating personnel. After commissioning, MAS customer service is on call for **prompt, all-round service**.

robust | the design

Premium quality steel, robust design, and solid workmanship guarantee **high availability and a long lifetime**. Low-cost infrastructure increases the return on investment. **Low maintenance costs** increase the productivity of your system.

advantageous | our Technology Centre

Material flows often vary. To ensure reliability with regard to the desired degree of purity and humidity, we run tests on your input material.

Our Technology Centre is equipped with:

- > Grinder
- > Single-shaft shredder
- > DRD 18 dry cleaner
- > NCT 55 extruder

powerful | our range

Throughput*	Single-shaft shredder*	Dry cleaner
500 kg/h	WLK 1200	DRD-18
1200 kg/h	WLK 1500	DRD-24

* Soiled industrial waste with a moisture content of approx. 15 %

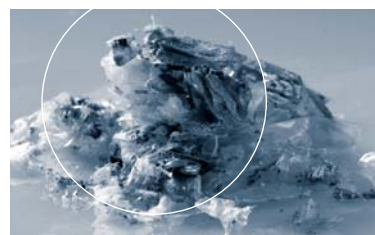


exclusive | your benefits

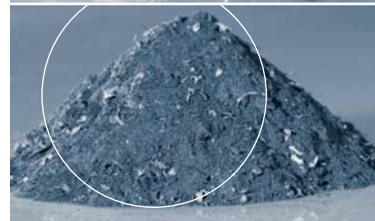
The DRD dry cleaning system is a sustainable solution for plastic recycling.

- › high material throughput
- › dry, premium quality product
- › process is easy on material
- › in comparison with legacy washing systems, less than 50 % cost per kg of cleaned material
- › water treatment system not required
- › simple operations, low maintenance effort
- › fully automated machine control

Contaminated film

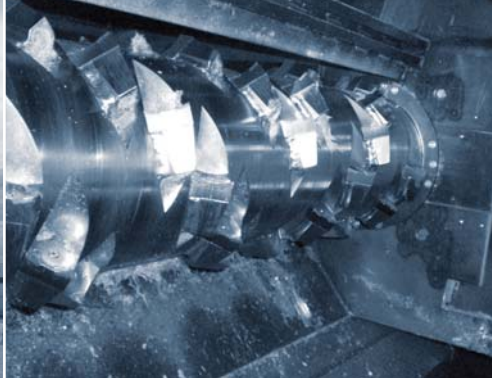


Contamination



Clean flake





MAS head offices in Pucking/Upper Austria with adjoining assembly shop and Technology Centre.
MAS was founded by Helmuth Schulz.

M-A-S Maschinen- und Anlagenbau Schulz GmbH
A-4055 Pucking, Hobelweg 1
Tel: 0043/7229/78 999-11
Fax: 0043/7229/78 999-10
info@mas-austria.com
www.mas-austria.com

MAS 
Maschinen und Anlagenbau Schulz GmbH