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Materials **Recycling** for a  
*Sustainable Future*



**X200**

**MICRO**

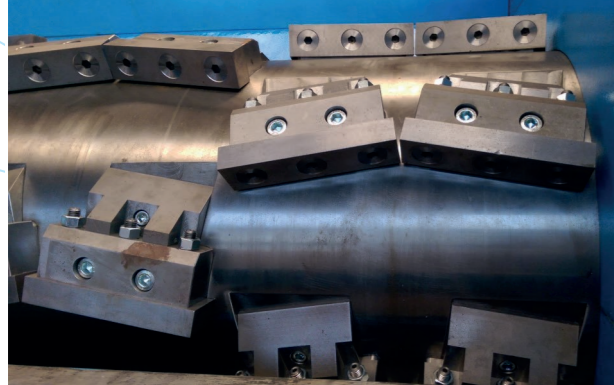
**GRANULATOR**

WASTE MATERIALS RECYCLING MACHINE TECHNOLOGY & BIO ENERGY

## Function Overview

The **Micro** is a **single shaft granulating machine**, utilized for the secondary processing of a range of waste materials. The high speed cutting shaft fitted with an array of angled blades and blade holders constructed from wear resistant steel, shreds the input material against the stator blade. The media is cut multiple times until the material is reduced to the size of the inbuilt screen at which point the it is ejected from the machine. The screen is manufactured from an extremely hard wearing material to increase the life and can be changed onsite quickly and easily, with little downtime.

The granulator can be fitted with a **range of drive systems** including electro motor and high torque motors and this is specified based on the input material.



## Application

- Tyres (Cars, Trucks, Construction Machinery)
- Oil filters
- Cables
- WEEE (Waste Electrical and Electronic Equipment)
- Reject Materials, Textiles, Carpets and Floor Coverings
- Domestic, Commercial and Bulky Refuse
- Paper, data, files, cardboard etc.
- Plastics (e.g. PVC, PET, PP, PE, HDPE, LDPE, ABS)
- RDF, SRF & TDF

## Maintenance

### Daily

- General cleaning of the machine and cutting space
- Hydraulic Components - Check level and oil temperature
- Lubrication - Check lubrication, fill and bleed as required
- Blade Clearance - Check cutting slit and adjust if necessary
- Cutting space - Check, clean and empty the cutting area, screen and rotor/stator blades

### Weekly

- Drive System - Clean and remove dust deposits
- Lubrication - Inspect lubrication of equipment
- Cutting Space - Check rotor and stator blade condition
- Steel Structure - Inspect, clean and remove dust

### Monthly

- Pipelines/hoses - Inspect, clean and remove dust
- Control Cabinet - Clean the cabinet and surroundings
- Belt Tensioning - Check V-belt tensioning

Maintenance is simplified by with the inclusion of the working platform and maintenance door from which the cutting space and screen can be cleared and the blades, blade holders and stator blades can all be changed. The blades are designed to be used **four times per piece**, greatly reducing wear parts costs.

The cutting shaft has also been engineered into three modules resulting in a shaft that is interchangeable and different rotor blade configurations can be installed, increasing the flexibility of the machine for a greater variety of input materials.



**The Micro X200 can be utilised for various granulating purposes with the output in pieces equal to the diameter of the in built screen, in the range of 5mm - 100mm.**

### Annually

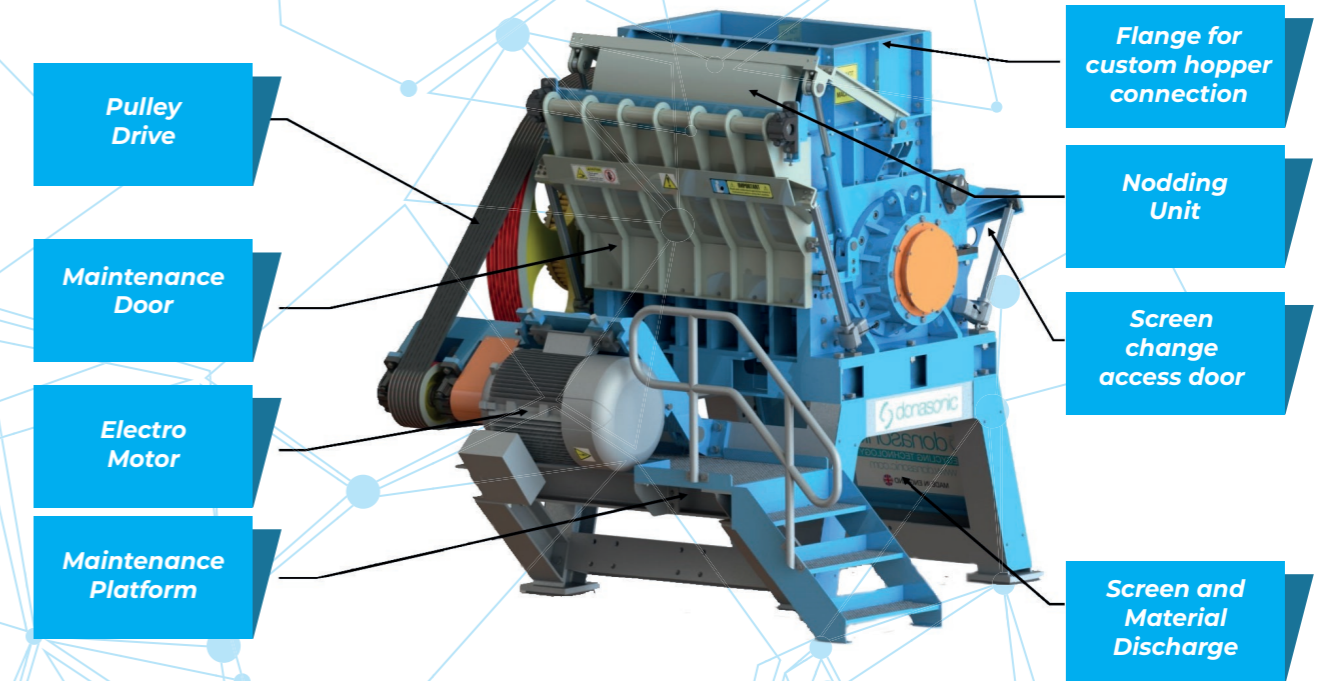
- Lubrication - Inspect lubrication of equipment
- Shaft - Check rotor shaft seal
- Electrical - Inspect/monitor electrical equipment and connections, record and replace any damaged cables
- Tighten screws

## Wear Parts List

- Rotor Blades (Inc. Support Elements)
- Stator Blades (Inc. Support Elements)
- Screen

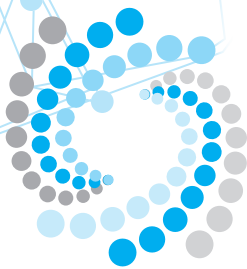
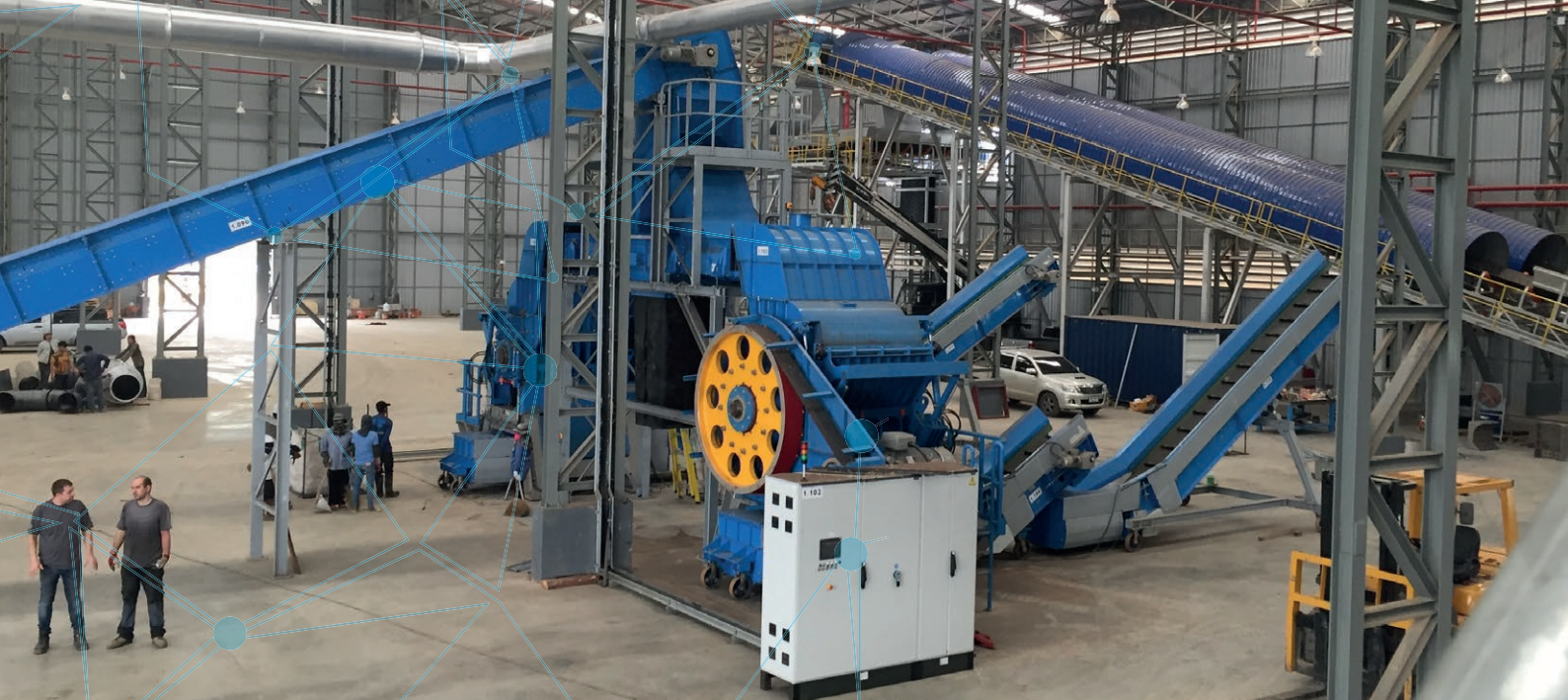
## Advantages

- High throughput
- Homogeneous output material size
- Relatively small footprint
- Wide range of applications
- Flexible drive system



## Technical Data

Item	Unit	Description
Machine Dimensions (L x W x H)	mm	4,130 x 3,390 x 3,900
Total Weight	kg	Approx. 28,000 (depending on drive system, blades, and holders)
Machine Type		Single Shaft - Granulator
Cutting Space (L x W)	mm	2,000 x 600
Drive Power	kW	1 x 250, 1 x 315
Power Supply		400V, 50Hz, 3 phase
Input Capacity	t/hr	Up to 26 (Depending on input material and screen size)
Output Fraction Size	mm	Dependent on material/requirements (5 Min.-100 Max. pieces)
Material infeed		Conveyor Belt / Chain Conveyor / Direct from Pre-Shredder
Noise Level	db(A)	Idle < 85, Full Load > 85
Structure Finish		RAL 5015, RAL 7030 & galvanised
Chassis Type		Steel I-beam welded construction, IPB200 (DIN 1025-2 / BS EN 1025-2)
No. of knives		Rotor Blades - 56, Stator blades - 10
Rotor Dia.	mm	Ø 600
Central Lubrication		Yes (SKF Lincoln)
Control System		PLC control with touch screen HMI
IP Protection		IP 54
Optional Extras		Remote Control Remote Maintenance Assistance IIOT (Industrial Internet of Things)



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