

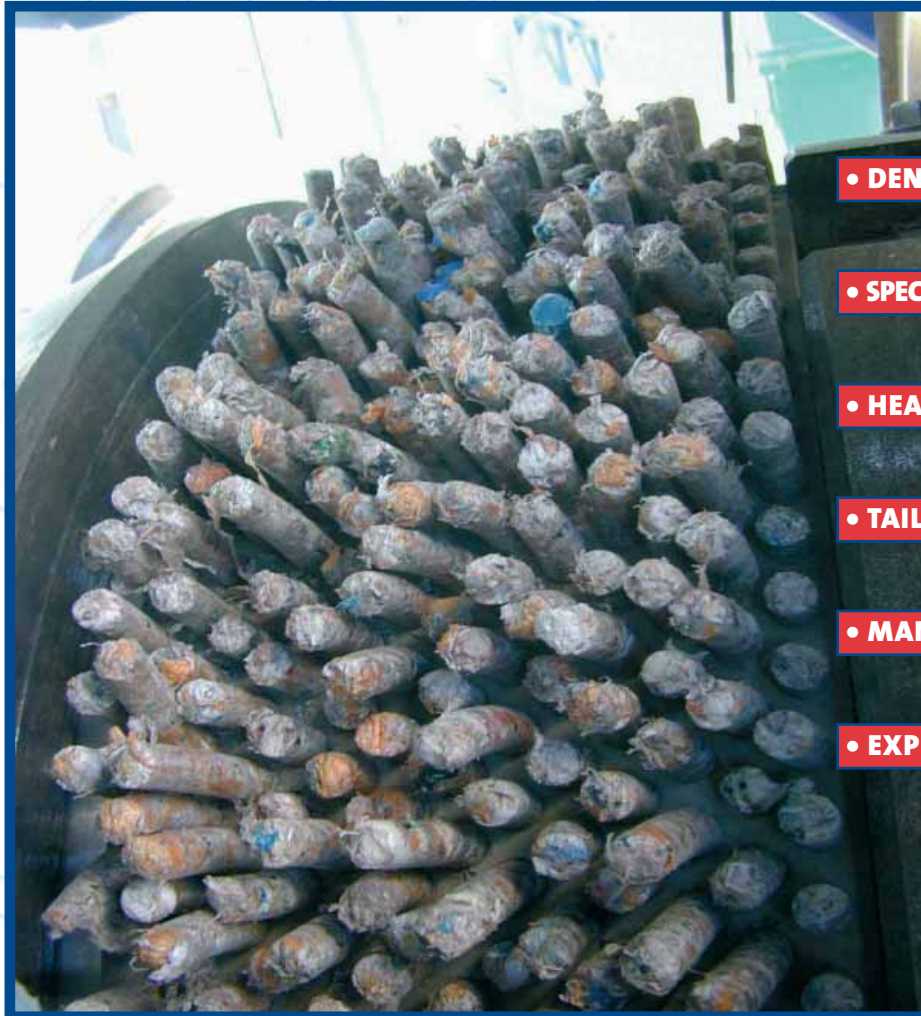


Since 1883

# Waste Pelleting



RECYCLING



• DENSIFICATION •

• SPECIALIZED EQUIPMENT •

• HEAVY DUTY •

• TAILOR MADE DESIGN •

• MANY APPLICATIONS •

• EXPERIENCE •

*Profit*

## THE CPM ADVANTAGE

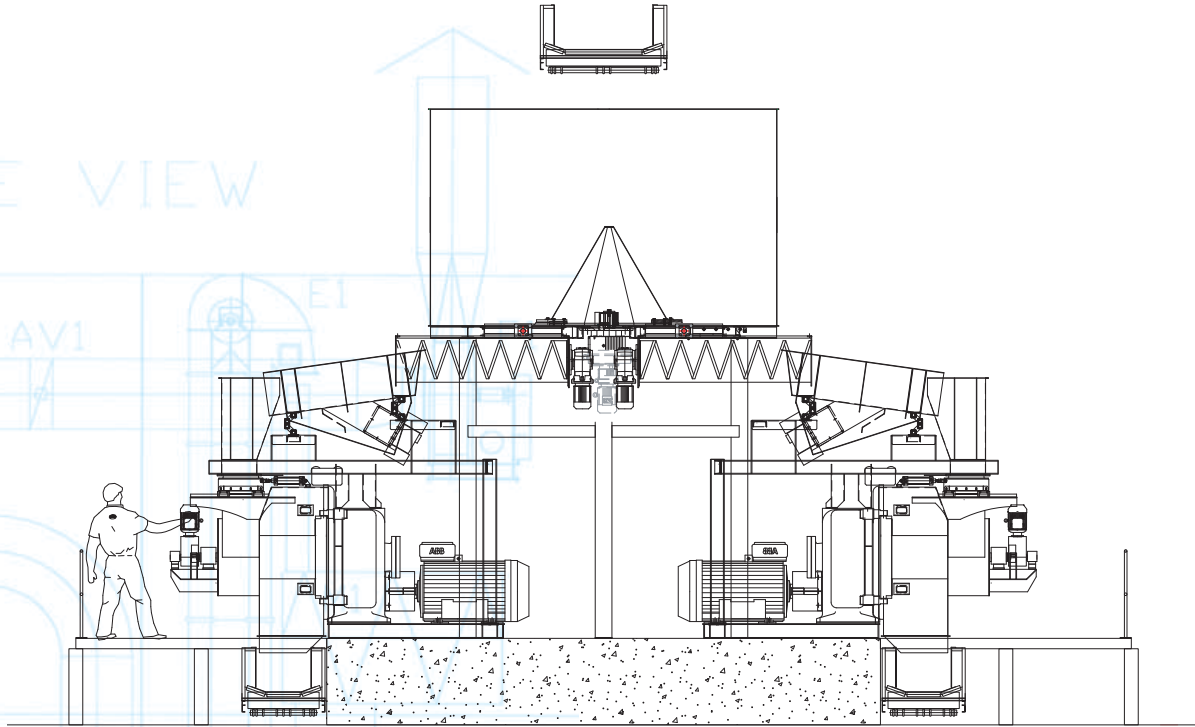
For many years CPM has the knowledge to handle residue materials coming from various industries and especially human house hold waste. Your advantage is to make use of the CPM experience with **specialized equipment** for profitable waste handling.

■ HIGH PERFORMANCES ■ LOW COST MAINTENANCE ■ MAXIMUM SAFETY



Since 1883

# Your partner



## DENSIFICATION OF WASTE MATERIALS

### *RDF (Recycled Densified Fuel)*

Densification of waste materials is an important step in many recycling processes. Waste products often come as a mix of various materials with a low bulk density. The handling of the waste product therefore provides in many cases the necessary challenges. CPM manufactures pelleting equipment which is most suitable to transform the difficult to handle waste materials, into very easy to handle pellets. The pelleted waste material is uniform in shape and has a much higher bulk density than the incoming material. The pelleting process has therefore been an important step in a number of waste recycling installations for many years.

## RDF PELLETING PROCESS

First we buffer the waste material flow into a specially designed Life bin. The advantage of buffering the waste material is that the pellet mills connected to the buffer bin can run continuously and independently from the often intermittent material input feed. Subject product flow comes for example from bale shredders. Our specially designed Life bin provides the means to feed up to 4 pelleting lines from a single waste material flow. Our waste material extraction screw is specially designed to convey even the most difficult materials, this makes it possible to control the pelleting capacity accurately even if there is a large variation in particle size within the waste material. The vibratory feeder is an essential element in the waste material pelleting line. It transports the waste material from the dosing screw into the pellet mill. During this transportation



Raw Material

Pellets

# in productivity

time, the waste material is shaken apart which results in a very regular product flow to the pellet mill. This regular product flow results into a very stable pelleting process.

The flow characteristic of waste materials often requires positive transportation up to the pellet mill. The CPM forced feeding screw ensures an optimum feeding of the ring type die. Long waste material particles are unforgiving and wrap easily around any obstructing part, so inside the ring die, normal deflectors and directing parts can not be used. To help feed distribution the feeding screw has the same diameter as the ring type die. A pellet mill main motor overload can be corrected quickly by operating the by-pass function of the feeding screw. The by-pass function is achieved by sliding the complete feeding screw away, this provides excellent means to clear the die area rapidly.

The automated press roller adjustment type CPM Lineator remote roller adjustment is the most desirable tool in the waste pelleting process. The lineator makes it possible to retract the press rollers automatically from the die surface without having to open the pellet mill door.



CPM developed a number of die specifications to provide exactly the output quality criteria of the waste material you require, whether this needs to be a fluffy output material with a consistent particle size or a highly densified waste material pellets, CPM shows you the way.

**Polypropylene foil**, a residue coming from the plastic bag manufacturers, can be densified through CPM pellet mills, and fed into the extrusion process again. The important detail here is that the bag blowing process does not allow any grease lubricant contamination of the polypropylene. CPM developed special press roller assemblies which are life lubricated for this purpose. To prevent overheating and therefore liquefying of the polypropylene, additional air aspiration can be applied to evacuate excessive heat around the pelleting equipment.

**Polyester fibres** and flakes coming as a residue from a number of processes can be pelleted with CPM equipment and fed into the extrusion process again. Special care to the pelleting process is required to maintain a stable process.

**Sewage Sludge** is an example waste material that can be pelleted and further processed in an environmental friendly fertiliser. The dried sewage sludge has very difficult flow characteristics which makes it hard to pelletise. Because of subject flow characteristics a dedicated conveying system needs to be applied before the CPM pellet mill.

**Mixed paper, plastic and textile residues**, so called RDF products, coming from the selected human household waste require again specially designed conveying systems to prevent build ups or even blocking. CPM has the experience to build human household waste pelleting equipment in such a way that a reliable production process can be achieved.

Many other residues from process industries become valuable after densification for example:

Dried chicken-, pig- and cow **manure** coming from the intensive animal production.

**Saw dust and bark** waste, from the wood processing industries.

**Bagasse** from the sugarcane industries and many other materials such as **Carbon, Bentonite, Fly-ash, Graphite, Gypsum** etc.. etc .....



Extraction Screw



Vibratory Feeder



Forced Feeding Screw



Remote Roller Adjustment



Pelleting Process



Since 1883

# Worldwide



Engineering



Production



Customer Service



Application technology



Service Teams Worldwide



Sales



Support



Die plant

CPM offers service through a worldwide network of local agents in nearly every country. They get supported directly from the regional headquarters by teams of pelleting technology specialists.

## SALES DEPARTMENTS

Our establishments are staffed with qualified sales, engineering and service personnel and are well stocked with dies, parts and accessories. This ensures prompt efficient processing of all customer service requirements.

## CONTACT

Please feel free to contact your local agent, our offices or our Internet sites [www.cpm europe.nl](http://www.cpm europe.nl) or [www.cpmroskamp.com](http://www.cpmroskamp.com)



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