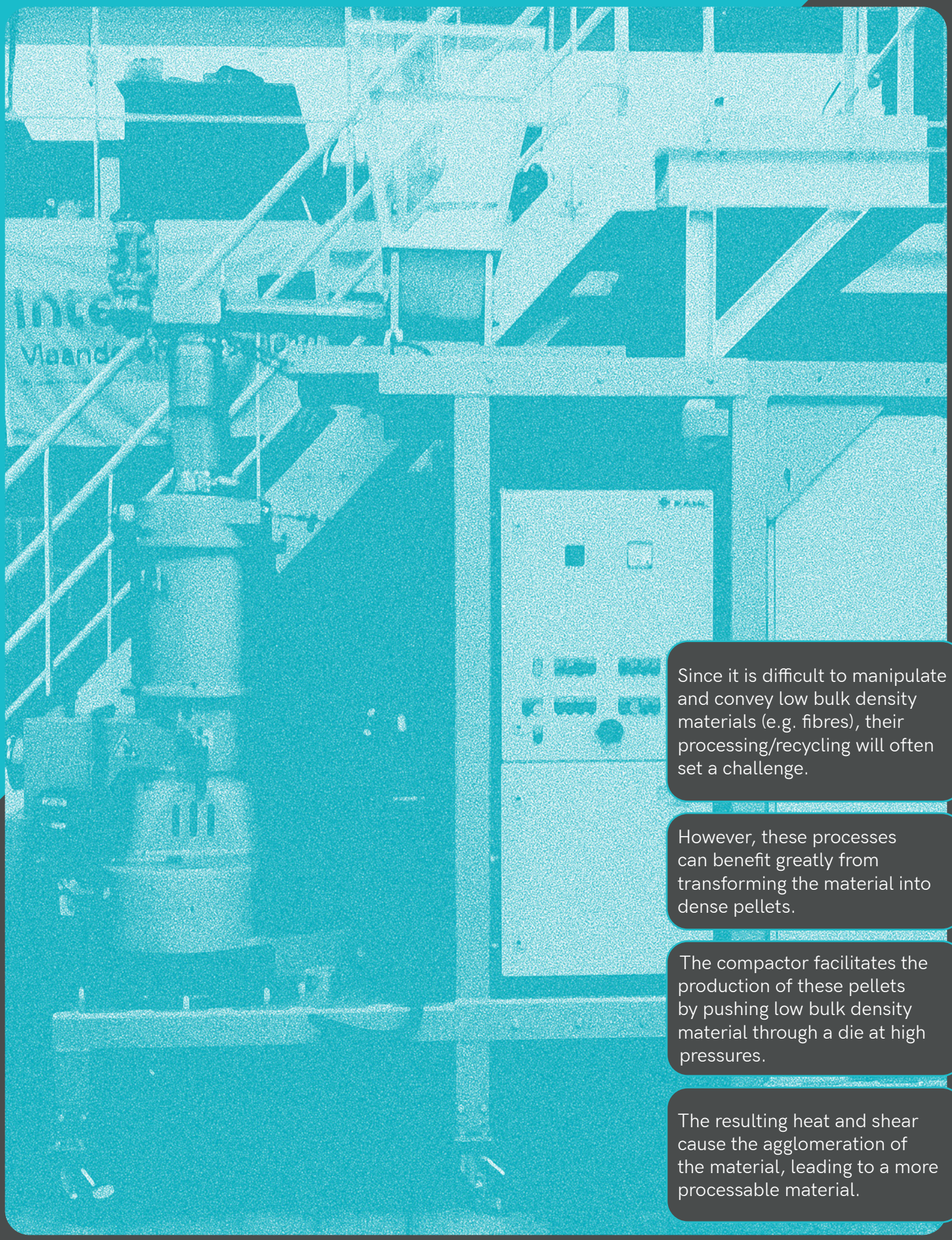
Flat Die Pelleting Press - Compactor



Since it is difficult to manipulate and convey low bulk density materials (e.g. fibres), their processing/recycling will often set a challenge.

However, these processes can benefit greatly from transforming the material into dense pellets.

The compactor facilitates the production of these pellets by pushing low bulk density material through a die at high pressures.

The resulting heat and shear cause the agglomeration of the material, leading to a more processable material.

Functioning

The Kahl 33-390 compactor is fed at the top with low bulk density material.

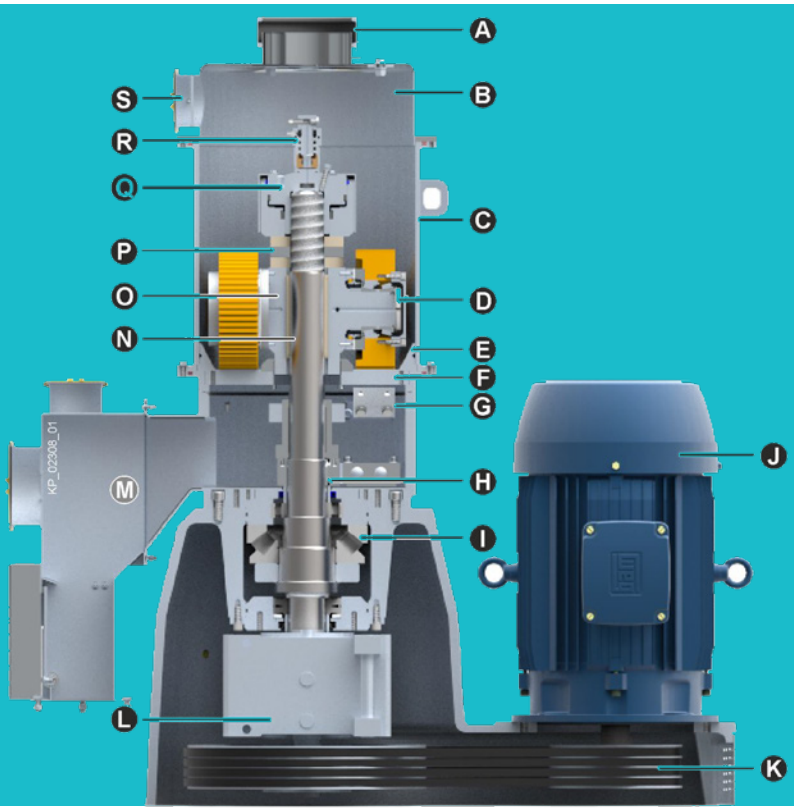
This material is then compressed by the rollers. When a sufficient amount of material has been collected, the pressure build-up will cause the material to be pushed through the die.

The compactor is equipped with 2 dies with different length/diameter ratios. This ratio has a major influence on the processing pressure and temperature of the material.

A cutter, underneath the die, cuts the compressed strands, and pushes them out.

Depending on the material, the rolls can exert more or less pressure, in order to better control the process.

The main parameters that control the process are the L/D of the die, the feed rate and the set pressure.



Cross-section of the compactor

A	material inlet
B	dust cap
C	upper part
D	roller
E	die outside ring
F	die
G	cutter
H	scraper pushing out material
I	main roller element of main shaft
J	drive motor
K	V-belt
L	reduction gearbox
M	exhaust
N	main shaft
O	roller head
P	spacer rings
Q	hydraulic nut

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