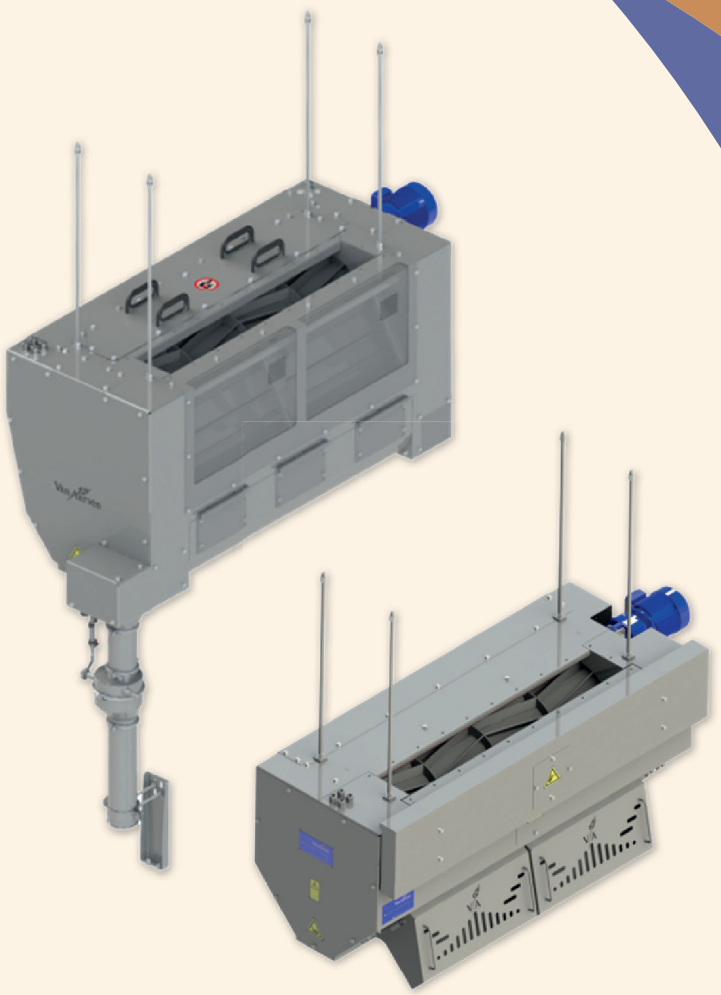
Feeding device
GD Hammer Mill



Process
The feeding device above the hammer mill provides a dosed supply of raw materials to the grinding chamber of the hammer mill. At the same time, possible solid foreign objects are separated from these raw materials. By removing metal, stones and other heavy parts from the raw materials, the chances of explosions (caused by sparks) in the hammer mills grinding chamber is minimized.

The lifetime of the screens is extended extensively since the chances of screen damages are reduced by removing these foreign part from the raw materials.

Two types of feeding devices can be applied to the GD hammer mills:
- Type HM GD: standard feeding device with automatic ferro parts separation
- Type HM GD HPS: feeding device with automatic ferro parts separation and heavy parts separator

Depending on the system configuration of the hammer mill (HM), both types of feeding devices can be applied to the HM 700 GD and the HM 1400 GD. The feeding devices can be used in combination with the optional automatic screen exchange.

Benefits and Features

High capacity
- ► Feeding devices with frequency controlled dosing roller, for optimized feeding speed of the various raw materials, up to 100 ton/hour

Energy efficiency
- ► Energy efficient motors, which comply with the latest European regulations

Low maintenance costs
- ► Automatic cleaning of the integrated magnet and automatic removal of collected heavy parts
- ► A longer life time of screens, due to capturing and removal of metal, stones and heavy parts

Easy and safe operation
- ► Easy accessible for maintenance
- ► Provision for mechanical blockage of the magnet during maintenance activities
- ► In conformity with CE and ATEX directives

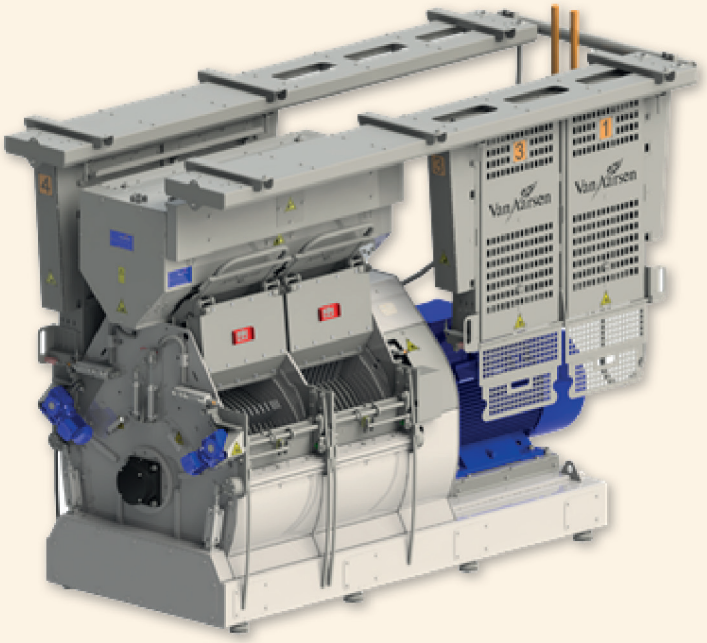
High automation level
- ► Automatic load-dependent control of the dosing roller, contributes to optimal hammer mill operations
- ► Completely automatic cleaning of the magnet and removal of collected heavy parts

Design
- ► Durable and robust design due to use of high-quality materials
- ► The hammer mill including the feeding device machine lay-out is flexible to meet the customers requirements and thus configurable to a left or right hand version.

Feeding device
GD Hammer Mill

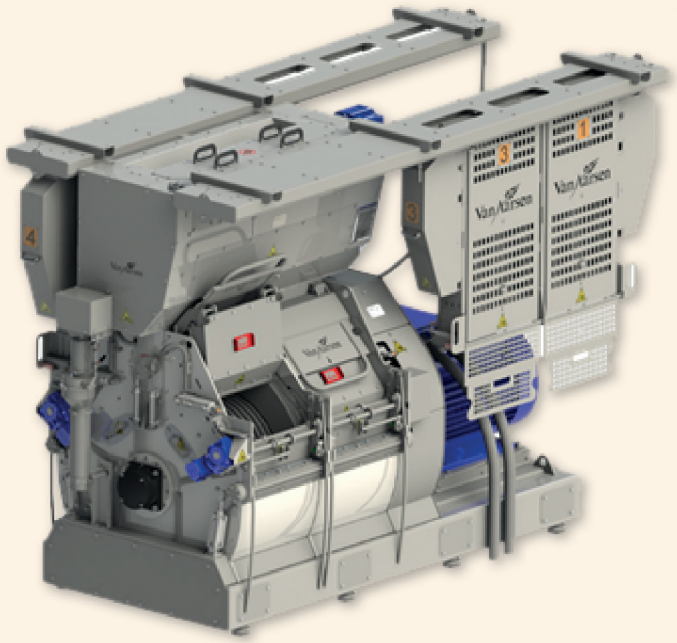
Benefits feeding device type HM GD HPS compared to the feeding device type HM GD

- The feeding device type HM GD HPS removes both ferro and heavy non-ferro parts from the raw materials (stainless steel, stones)
- By removing heavy parts from the raw material:
  - The risk of screen breakage and damage is significantly smaller. This will extend the operating life of the screens.
  - The risk of a dust explosion in the grinding chamber of the hammer mill is reduced, since stones and metal parts that can cause sparks have been removed from the grinding material.
- it is equiped with automatic disposal of ferro parts, non-ferro parts and heavy parts by means of an integrated transport screw with discharge pipe.



HM 1400 GD + automatic screen exchange

Feeding Device type HM 1400 GD (standard)

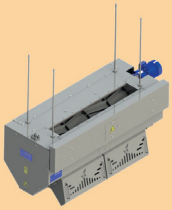


HHM 1400 GD + automatic screen exchange

Feeding device type HM 1400 GD HPS (including heavy parts separator)

Datasheet

Comparison feeding devices for hammer mill 700/1400 GD
A Van Aarsen GD hammer mill is standard fitted with a feeding device type HM GD. Optional, the GD hammer mill can be equiped with the feeding device type HM GD HPS (including heavy parts separator).

	Feeding device HM GD (standard)	Feeding device HM GD HPS (including heavy parts separator)
		
System set-up HM	• possibility of multiple hammer mills per grinding silo • possibility of one combined air exhaust for multiple hammer mills	• One HM per grinding silo • Each HM with feeding device is configered with a dedicated air exhaust, to ensure proper operation
Automatic screen exchange HM	Possible	Possible
Position moveable access doors HM	Possible on left and right hand side, dependent on the installation situation	Possible on left and right hand side, dependent on the installation situation
Control feeding roller	Automatic - load-dependent	Automatic - load-dependent
Drive feeding roller	Electro motor + frequency converter	Electro motor + frequency converter
Cleaning raw material of	Ferro-parts (steel)	Ferro- and non-ferro parts (steel, stainless steel, stones and other heavy parts)
Principle cleaning ferro-parts	Permanent magnet	Permanent magnet
Cycle magnet cleaning	Automatic cleaning after x cycles (adjustable in the control system)	Automatic cleaning after x cycles (adjustable in the control system)
Drive cleaning magnet	Pneumatic	Pneumatic
Principle cleaning non-ferro parts	-	Air flow by way of manual adjustable air regulation valves.
Collection of ferro parts, non-ferro parts, heavy parts	Collector bin for ferro parts	feeding device with trough-shaped frame, for collection of ferro- and non-ferro parts
Disposal of ferro parts, non-ferro parts, heavy parts	Manually by operator: periodically emptying of the collecting bin(s)	Automatic by means of a transport screw in feeding device after x cycles (adjustable in the control system) and synchronized with the magnet cleaning
Drive disposal ferro parts, non-ferro parts, heavy parts	-	Electro motor for screw, provided with stand-still detection and pneumatic operated valve in diposal piping
Position collection / disposal ferro parts, non-ferro parts, heavy parts	Collection dependent upon configuration hammer mill (left or right hand version); possible at both sides.	Always positioned at the non-drive side of the hammer mill; configuration left or right dependent upon the position of the moveable access doors.
Product detector above feeding roller	Yes	Yes
Full detector supply to HM	Yes	Yes

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