Datasheet

Automatic screen exchange for GD Hammer Mill

Van Aarsen designs, produces and supplies hammer mills for the toughest applications in the animal feed, pet food, aqua feed and wood processing industry, based on more then 60 years experience. As a specialist in grinding processes Van Aarsen has the know-how and experience to develop the best possible solution for every problem.

The latest innovation is the automatic screen exchange on the GD hammer mill for 3 different screen types. This is unique in the market. The system consists of a cassette unit with 3 slots to hold the screens, a motorised insertion system and control system.
GD hammermills equipped with automatic screen exchange are already operational in several feed mills and because of the user friendlyness and the many benefits, the demand is constantly increasing.

With the automatic screen exchange, a wide range of feed structures can be produced and in combination with frequency control the advantages are numerous:
- Flexible production
- Few production stops
- Excellent feed structure for individual recipes

The screens are stored in a cassette system that is suspended above the hammer mill. This construction provides:
- The surface area required for the hammer mill remains the same
- Easy access, ergonomic working conditions
- Use of simple straight screen plates
- No extra tools
- CE protected cassettes
- Screen exchange during operation
- Cassettes to be moved aside when opening the hammer mill doors for changing hammers or inspection

Design

The screen is suspended in a cassette slot by means of a lever with pneumatic cylinder. The insertion mechanism consists of motor driven wheels that place the screen into the hammer mill. During insertion the lever pushes the screen down into the mechanism. Once in place, a clamp locks the screen into place and seals the hammer mill.
Although this system minimizes dust release from the hammer mill during screen exchange, it can still handle severely damaged sieves.

The control system is executed with a Siemens S7-300 PLC incl. multi-panel 277-10” touch-screen. During operation the screen exchange control system is obsequious to the feed mill control system and automatically selects the screen required for the recipe in question.
When inspecting or replacing the screens the required actions are indicated step by step on the touch- screen.

The automatic screen exchange on the GD Hammer Mill is unique in the market due to its compact design and the possibility to automatically change three screens. It provides unprecedented possibilities for recipy specific grinding in the right particle size, without losing production time.

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innovative process technologies

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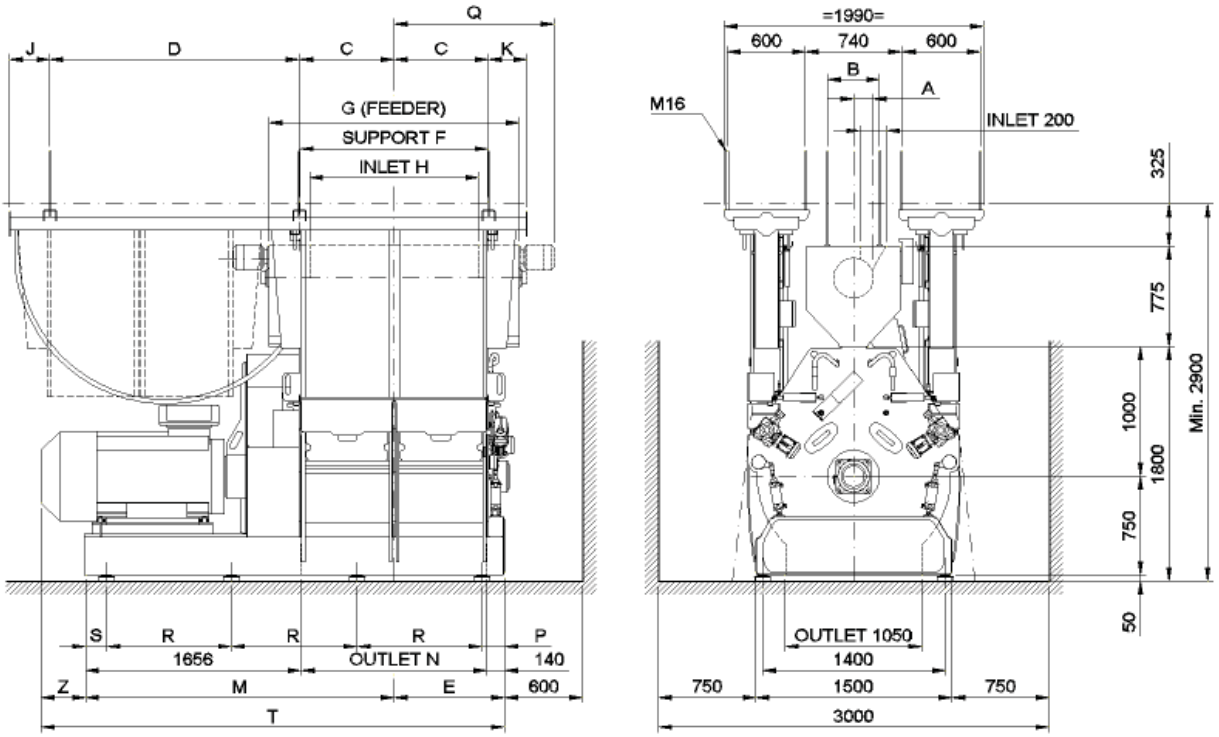

Type	Dimensions for sketch in mm																
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	Tmax
700 GD	150	400	365	1135	490	730	1155	580	505	440	2020	700	180	925	2x1075	180	2595
1400 GD	150	400	725	1915	850	1450	1900	1300	310	295	2380	1420	175	1230	3x960	160	3570

	HM 700 GD	HM 1400 GD
Max. dimensions of input material	Ø 20 x 20 mm	Ø 20 x 20 mm
Installed power at 50Hz / 60Hz (depending on voltage)	132 - 200 kW	200 - 405 kW
Weight (hammer mill only) (static / dynamic)	± 5.200 / ± 8.000 kg	± 7.500 / ± 11.500 kg
Hammer dimensions	220*/240** x 60 x 8 mm	220*/240** x 60 x 8 mm
Rows of hammers on circumference	8	8
Number of hammers	120	240
Number of screens	2	4
Screen diameter	1250 mm	1250 mm
Grinding surface	2.57 m²	5.14 m²
Nett screen surface	1.37 m²	2.74 m²
Breaker plate surface	1.2 m²	2.4 m²
Fan air flow	60 - 90 m³/min	90 - 180 m³/min
Fan power	7.5 - 11 kW	11 - 22 kW

* Normal grinding, ≥ Ø 2 mm
** Fine grinding, < Ø 2 mm

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