

HM-Lab/HM-160 Hammer Mill

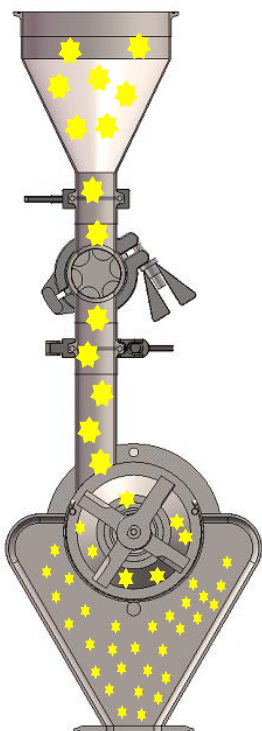
Excellent in laboratory applications



The hammer mill is suitable for milling and sizing products.

HM-Lab has new design and techniques which improves the efficiency and easy to clean and maintenance. Also support the inline/offline sterilization.

HM-Lab/HM-160 milling process



Advantages

- Highest speed can reach 18000 rpm;
- Minimum particle size can be 30um;
- Suitable for batch 5g-50kg;
- Support CIP/SIP

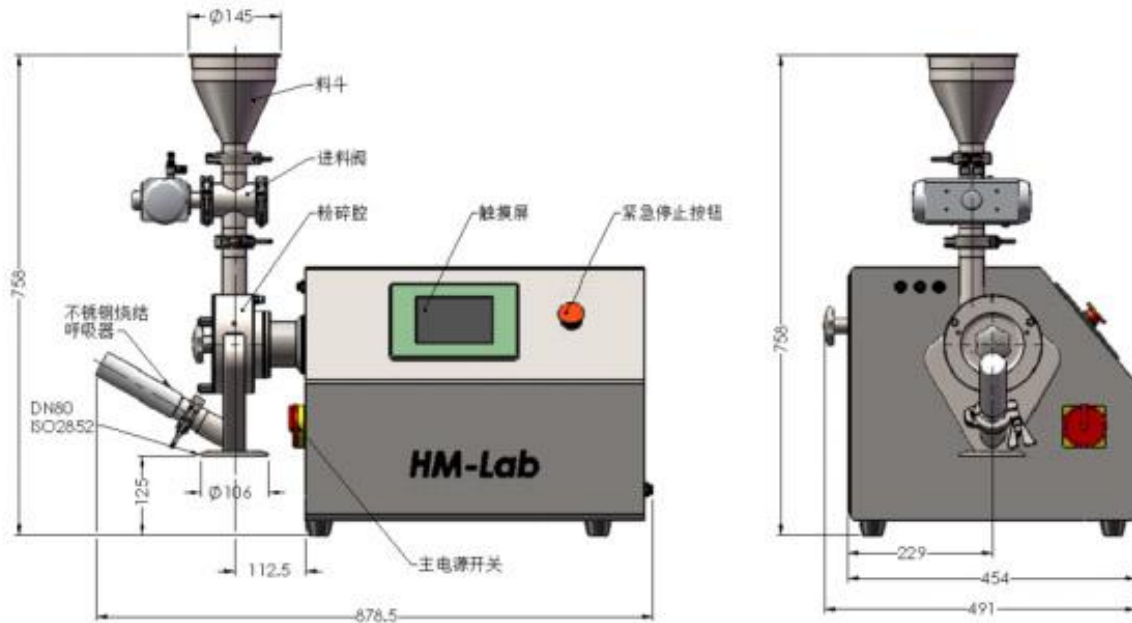


- A. All tri-clamp assembled feeding device;
- B. AT rotating cylinder;
- C. The high speed rotor with both knife and hammer side;
- D. The rotor and the sieve do not have mechanical contact;
- E. High active opening sieve;
- F. The milling head can be easily dismantled.

Function:

The product goes through the feeding valve which ensures a consistent product flow to the milling chamber. Then the product is impacted by the high speed rotor and then becomes smaller particles which goes down through a screen mounting below the rotor. Customer can adjust the rotor speed and screen size to achieve required particle size distribution.

HM-Lab/HM-160 Hammer Mill Summary



Type	Throughput	Voltage	Speed	Power	Weight
HM-Lab	50g~120 kg/h	220V-50Hz	Max. 18000rpm	0.75 kw	~60kg
HM-160	5~240kg/h	380V-50Hz	Max. 12000rpm	2.2 kw	~100kg

The throughput depends on the required particle size and product characteristics.

HM-Lab/HM-160 Summary

Ergonomic and easy to use

- Modular, compact design
- Easily change rotor and screen
- Mobile support stand
- Lightweight, detachable milling head
- The “Error Proof System” guarantees correct installation and removal of the rotor and screen.

Cleaning according to the strictest health standards

- Milling head can resist steam sterilization under pressure 2.2 bar;
- The milling head is made from stainless steel 316L. The polished, even surfaces allow the product to flow through without friction and without leaving residues;
- supports WIP and CIP;

HM-300/HM-400 Hammer Mill

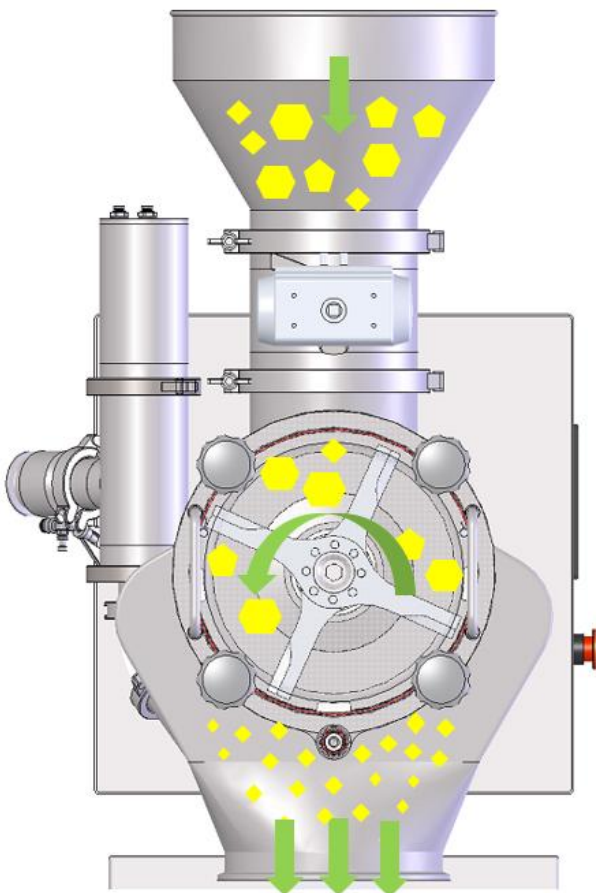
Excellent in industrial and laboratory applications



The hammer mill is suitable for milling and sizing products.

HM-300 has new design and technics which improve the efficiency and easy to clean and maintenance. Also support the inline/offline sterilization.

HM Series milling process



Advantages:

- Bigger active sieve surface lead to higher throughput and low temperature rise.
- The good design reduce the number of the moving parts. The connection of the tri-clamps assure an easy way to assemble and dismantle the milling chamber which assure the offline sterilization;
- This means: Quick and easy cleaning and maintenance and high operational availability at lower operating costs.

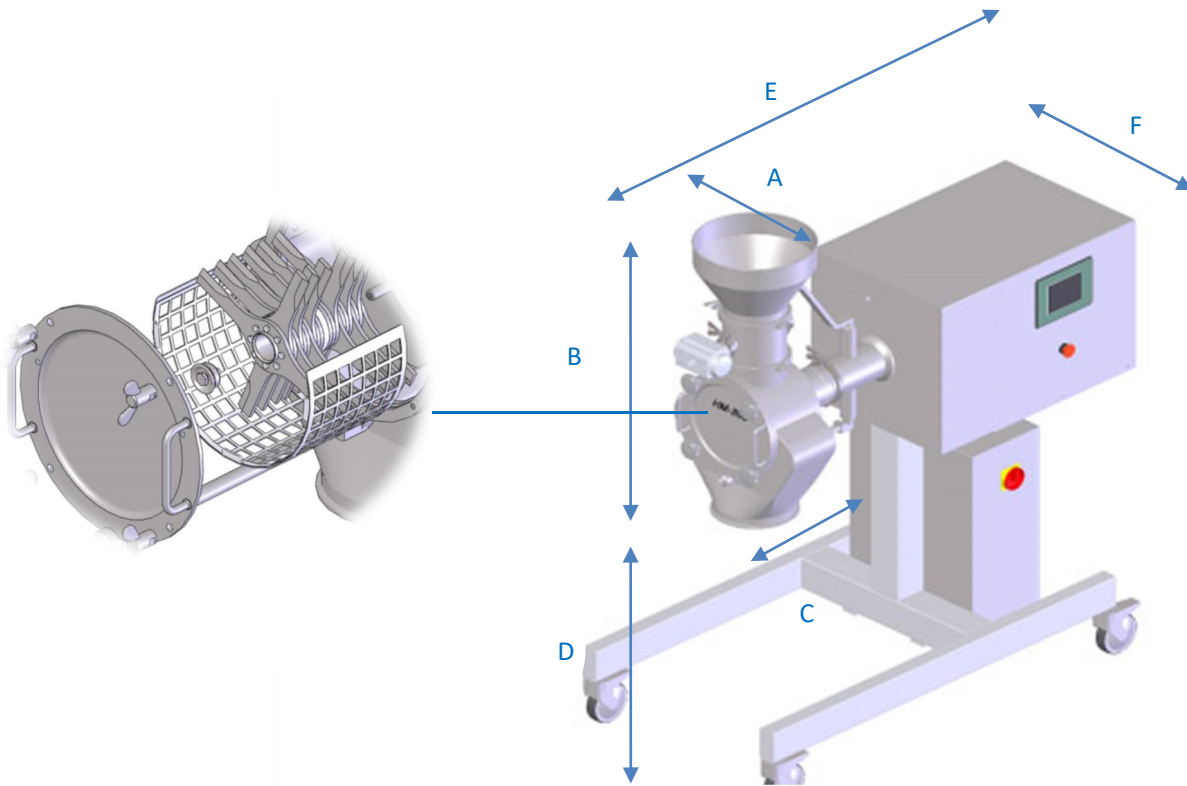


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Function:

The product goes through the feeding valve which ensures a consistent product flow to the milling chamber. Then the product is impacted by the high speed rotor and then becomes smaller particles which goes down through a screen mounting below the rotor. Customer can adjust the rotor speed and screen size to achieve required particle size distribution.

HM-300/HM-400 Hammer Mill Summary



HM Series hammer mill summary

- The milling chamber can be dismantled via a tri-clamp;
- The safety switch does not have cable outside;
- The half round screen has as high as 40% active opening;
- Easy to clean, no outside cable;
- Easy assembly;
- Easy access of operation;
- The smallest milling size is 30um.

Dimensions	A	B	C	D	E	F
HM-300	320	865	445	740	1440	750
HM-400	320	1035	473	660	1488	750

Advantages

Ergonomic and easy to use

- Modular, compact design
- Easily change rotor and screen
- Mobile support stand
- Lightweight, detachable milling head
- The "Error Proof System" guarantees correct installation and removal of the rotor and screen.

Cleaning according to the strictest health standards

- Milling head can resist steam sterilization under pressure 2.2 bar;
- The milling head is made from stainless steel 316L. The polished, even surfaces allow the product to flow through without friction and without leaving residues;
- HM-300 supports WIP and CIP;
- No outside cable make cleaning easier and quicker.

HM-300/HM-400 Hammer Mill Details



AT pneumatic cylinder
Made in Italy



Saint Gobain FDA
bearing



NSK high speed bearing
made in Japan



ABB Motor



Garlock FDA lip seal
Made in the USA



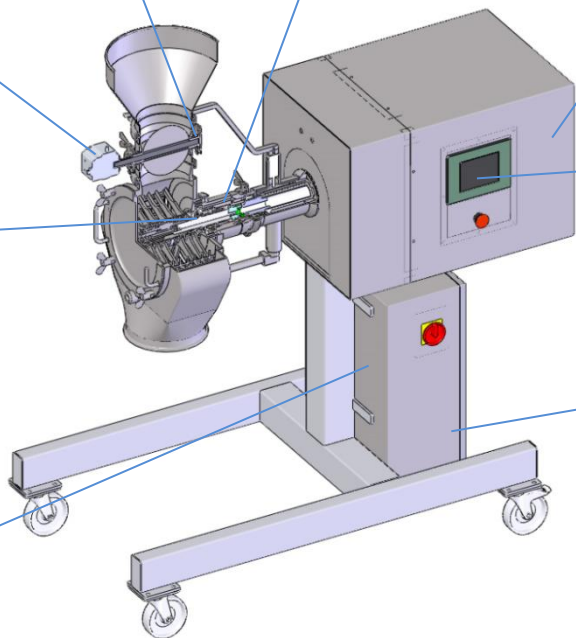
Proface or Siemens HMI



Siemens PLC



Frequency convertor by
Danfoss



Execution	Parts in contact with products	Parts not in contact with products
Metal	Stainless steel 316/316L	Stainless steel 304
Seals	FDA compliant plastic(EPDM/PTFE)	Various plastics
Surfaces	Ra<0.4, polished	Ra<0.8, polished
Weld seams	Ground and polished	Brushed and treated
Rotor	Depending on products, rotor side and hammer side can be chosen	
Screen	Square opening, size from 0.1mm to 10mm	
Distance of screen and rotor	No mechanical contact	

HM-300/HM-400 Hammer Mill Performance

Better performance

- HM-300 has bigger active screen opening, about 30% larger than the competitors;
- Higher throughput;
- The height of the machine is adjustable;
- The dead surface of the sieve is very small and there is therefore no danger of the product overheating

Type	Throughput	Voltage	Speed	power	weight
HM-300	50~1200kg/h	380V-50Hz	Max 6000rpm	4.0kw	~250kg
HM-400	50~2400kg/h	380V-50Hz	Max 4500rpm	7.5kw	~300kg

*The throughput and final PSD is decided by material characteristics. The following is performance of the machine regarding to some products for reference:

Product name	Particle size	Throughput (kg/h)
Vitamin C	100 mesh/150 um	500
Sugar	100 mesh/150 um	500
Salt	100 mesh/150 um	400
Ketoprofen	100 mesh/150 um	300
Carbamazepine	100 mesh/150 um	300
Metformin hydrochloride	200 mesh/75 um	240
Anhydrous sodium carbonate	200 mesh75 um	400
Cefmenoxime hydrochloride	300 mesh/50 um	200
Amino acid mixture	150 mesh/100 um	350
Cefminox sodium	200 mesh75um	300
Levofloxacin	300 mesh/50 um	250
Sorbitol	80 mesh/200 um	180
Hydrochloric acid to whalen	200 mesh75 um	100
Clozapine	100 mesh/150 um	400
Sorbitol	100 mesh/150 um	300
Cefuroxime sodium	80 mesh/150 um	250