UNITED MILLING SYSTEMS

Discmill® MHA 600

Satake Corporation UK Division are the authorised distributor for the UMS Discmill® and Discmill® spares in the UK.

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UNITED MILLING SYSTEMS

Discmill® MHA 600

The patented **UMS DISCMILL® TYPE MHA 600** is designed for a range of size-reduction applications, particularly in the cereal grain milling industry.

The main characteristic of this unique grinding technology is very high productivity in relation to the machine's physical size and energy consumption.

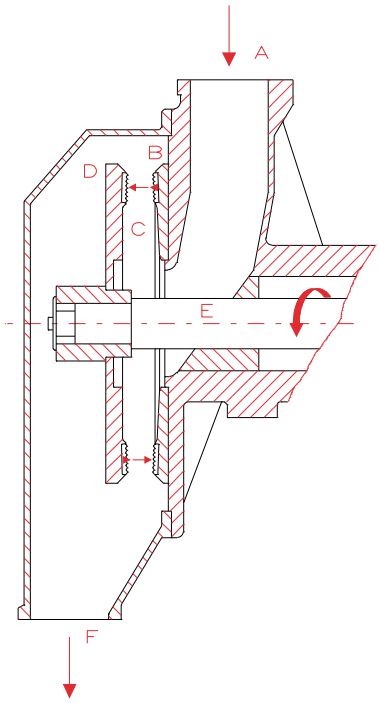
Finished product granulation can be controlled over a wide range by the choice of corrugations on the grinding elements, selection of the peripheral speed of the rotating disc and, whilst in operation, by adjusting the gap between the discs.

Depending upon the product and the desired granulation, the type MHA600 Discmill has a capacity of up to 3000 kg per hour.

The type MHA600S is equipped with a single row of grinding elements, whereas the type MHA600D has a double row giving 80% more grinding surface.

BENEFITS

Compact, self-contained design	minimizes space requirement and installation cost
Easily accessible and durable wearing parts	keep maintenance costs low
Rapid disc and element replacement	minimizes down-time and operating costs
Exchangeable grinding elements in various corrugation patterns	cover a wide range of applications
Simple, accurate handwheel adjustment of the grinding gap	leads to consistent and uniform finished product characteristics
Large grinding surface and no integral screen	gives high capacity and low power consumption



Operation

A regular and constant flow of product enters the inlet (A), located at the top of the Discmill, and travels through the center of the stationary disc (B) into the milling chamber (C).

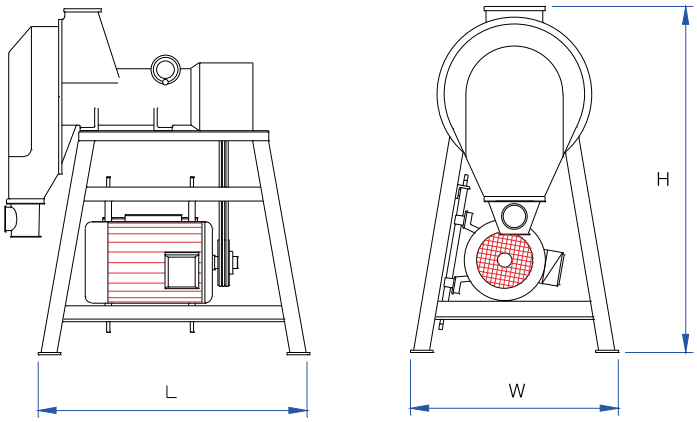
The rotating disc (D), mounted on the center shaft (E), is equipped with vanes that accelerate and evenly distribute the product over the grinding surface of the two discs.

The distance between the discs can be accurately adjusted, during operation, by means of a handwheel, allowing the desired finished product granulation to be achieved. No integral screen is employed and in many applications subsequent sifting is also unnecessary.

The peripheral speed of the rotating disc is selected to suit the application, as is the corrugation pattern on the exchangeable grinding elements. The grinding elements are made from a special wolfram carbide alloy which gives exceptional wear resistance.

The ground product is discharged via the outlet (F).

It is recommended that the milling chamber be kept under slight negative pressure, either from a suction pneumatic conveying line connected to the outlet or from an exhaust system.



Dimension table

Type	L mm	W mm	H mm	Weight net kg	Weight gross kg	Volume m3	Motor (kW)	Cap. (kg/h)
MHA 600S	1200	900	1450	1045	1210	2	37	1000 - 1500
MHA 600D	1200	900	1450	1055	1220	2	37	1500 - 3000

Made by

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UNITED MILLING SYSTEMS

BOOST YOUR MILL CAPACITY, EASILY AND CHEAPLY

At Robert Hutchison Ltd., Flour Millers of Kirkcaldy, Scotland, two **UMS Discmills®** have helped to increase mill production by 25%.

The Kirkcaldy mill, which is equipped with a mix of Buhler, Simon and Satake equipment, produces a full range of white and wholemeal flours for bread and biscuit production.

"In 1997 the mill produced at the limit of its capacity and the management began looking for an expansion of the capacity in order to cope with increasing market demand", mill manager Grant Blair explains.

The UMS Discmill proved to be the ideal solution. One Discmill was installed immediately and in 1998 a second line was added. The investment was recovered in just six months, and from the beginning the installation has provided the ongoing benefit of low operating costs.

By installing the UMS Discmill to supplement the break system in your mill you can enjoy the following benefits:

Up to 25% more capacity with no detrimental effect on mill performance or product quality

Minimal disruption to the existing plant and the possibility that no additional sifter capacity will be required

The Discmill occupies about half the space of a rollermill and can be located at ground floor level

Easily accessible and durable wear parts, ensuring low maintenance costs

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UNITED MILLING SYSTEMS

Simplify production with the patented UMS Short Milling System

By choosing the UMS Short Milling System for wheat you get a simplified industrial plant that requires only half the space needed for a conventional mill. Initial investment will be significantly lower, as will ongoing energy and maintenance costs.

At the heart of the **UMS Short Milling System** is the patented MHA600 **Discmill®** which employs special corrugated grinding elements to achieve a fine grind with low energy consumption.

UMS Discmills have been in operation for over ten years now, their simple design and rugged construction providing to users worldwide these important benefits:

Compact, self-contained design	minimizes space requirement and installation cost
Easily accessible and durable wearing parts	keep maintenance costs low
Rapid disc and element replacement	minimizes down-time and operating costs
Exchangeable grinding elements in various corrugation patterns	cover a wide range of applications
Simple, accurate hand-wheel adjustment of the grinding gap	leads to consistent and uniform finished product characteristics
Large grinding surface and no integral screen	gives high capacity and low power consumption

El Tppin, Cairo *2 x 225 tons/day*

UMS in Egypt

The UMS Short Milling System is used successfully in several large wheat mills in Egypt for the production of flour for balady bread. This flour is produced at 82% extraction rate, passes through a 355 micron screen and has an ash content no higher than 1%.

In Alexandria, one mill processes 150 tons of wheat per day and in Cairo there are two units processing a total of 650 tons of wheat per day.

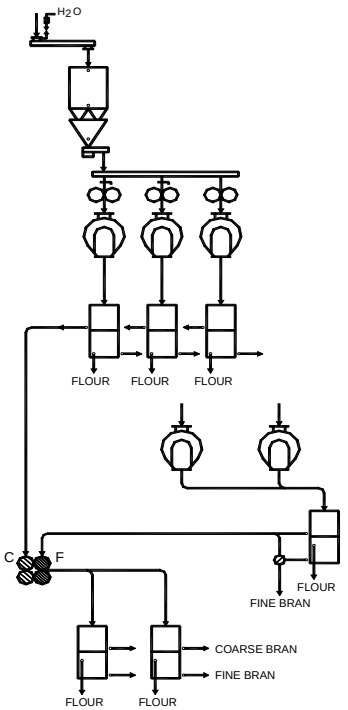
"In 1996 we were looking for new facilities for the production of flour for balady bread, and we considered the possibilities of lowering the investment, operational costs and maintenance costs" states the Technical Director at Ibrahim Awad, Alexandria.

The UMS Short Milling System proved to be the ideal solution. Since starting up in 1999 the mill has been producing on-grade flour at full capacity.

The UMS Short Milling System

After cleaning and tempering, the wheat is led through grain crushers to the UMS Discmills. The grain crushers are simple rollermills using pairs of smooth rolls operating with no speed differential.

The primary Discmills, treating the cracked grain from the crushers, provide a controllable fine grind giving a flour release of around 55%. The coarse bran from the primary Discmill sifters is sent to a rollermill where any adhering endosperm is released. Middlings produced by the primary set of Discmills is sent to a second set of Discmills for reduction to finished flour. Fine bran scalped off the secondary Discmill sifters is treated on a rollermill to release any remaining endosperm.



Data for Milling Section

	Space requirement $m^2/t/24h$	Price/t index	Energy kWh/t
UMS short mill	1.88	33	33
Traditional roller mill	3.66	100	38

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