

Mühlomat SERIES



WHOLE GRAIN FLOUR ACCORDING TO **DIN 10355**
WHOLE GRAIN • GRINDING SPICES • GRINDING HERBS
GLUTEN-FREE GRINDING

MULTI-AWARD-WINNING
QUALITY STARTS WITH MILLING!



Treffler Maschinenbau GmbH & Co. KG



Effective and clean production

In order to protect your investment following new acquisition or replacement of a grain mill, you must be sure to place a machine in the production facilities that is able to fulfil the requirements of the national food hygiene act on a long-term basis.

The Muhlomat guarantees easy cleaning without problems. Cleaning the inside of the machine is not necessary as no flour residue remains in the mill. It is absolutely necessary however, to avoid noise and dust emission within the working environment. The federal emission control act sets limits on exposure values. With the Muhlomat, the normal exposure to dust can be excluded

due largely to the Muhlomat's pneumatic mode of operation. Furthermore, with Muhlomat there is only very slight noise pollution during machine operation due to the protected grinding gear.

Very easy handling

In order to achieve good results with a conventional mill, certain basic milling knowledge is a prerequisite. Therefore, staff should be trained in order to obtain the desired results. As a result of the very simple

mode of operation, staff can learn to produce a good and high-quality product using the Muhlomat in just a short amount of time.

1: The Mill

To ensure quiet operation the mill and the E-motor stand on rubber bearings. Through this well-balanced technology, it is possible to mill quietly and with little vibration. The core of the **Mühlomat** is the **patented grinding system**. The mill case is made of high-grade steel. The special milling discs are also made of high-grade steel and are equipped with high performance blades.

The mill has an electronic lock and can only be opened when the mill has been stopped. The sieves which define the different finesses of the products can be exchanged for different sizes, ranging from 0,5 mm to 5 mm.



2: The feed mechanism

Beneath the funnel lies the volume metering that feeds the product to be ground in the mill. An intelligent frequency control regulates the food-safe feeding device made of chrome steel. To avoid bridging, one should ensure a continuous material flow to the mill's feed mechanism when milling unsteady flowing materials.

3: Pneumatic transport

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The ground product is pneumatically sucked out of the mill. A very powerful side channel compressor supplies the conveying air.

4: Filtration technology

The jet filter with its flange-mounted blow-off valve captures the flour dust and brings it directly back to the ground product. Pressed air cleans the jet filters. A bag filter is also possible for the Mühlomat 100.

5: Control

The display on the electric cabinet shows temperature, operating hours counter, or errors. Both the Mühlomat and the Multi Cutter are equipped with thermal monitoring. In case the allowed operating temperature is exceeded, the mill stops automatically.



6: The dispenser station

The pneumatic cyclone made of high-grade steel guarantees clean separation of the material and the conveying air. The ground product is removed from the mill by a precise working rotary valve.

MÜHLOMAT ADDITIONAL EQUIPMENT



Signal lamp (LED)

Default setting: the signal lamp is mounted onto the MühloMAT. If desired, a different place of installation can be realised via extension cable (e.g. in the bakery). Different signal colors show the operating condition of the MühloMAT:

red = fault
yellow = ready
green = in operation



Pneumatic cleaning mechanism at the output lock

An additionally attached air nozzle enables the operator to clean the output lock after the grinding process. By shortly opening a stopcock, air will be blown into the output lock and loosens remaining flour deposits.

Remote Maintenance

Remote maintenance is an effective way of improving essentially the availability and productivity of machinery and constructions. In case of disturbances or standstill our service technicians will be consulted in no time.



Internet connection or network socket is needed, respectively. Please ensure to connect the MühloMAT to the Internet via network cable. Only a connection to the Internet is needed.

Advantage:

- Reducing down time and therefore default costs.
- Certain parameters can be change if desired.gen.



Magnetic separator

Magnetic separator installed.

- Metal parts will be separated in case of damage caused by foreign objects to the sieve or milling discs
- Installed between rotary valve and Jet-filter



SIEMENS 9 inch touch color display basic

Functions:

- 3D colored image
- Fault memory
- Plain text display (e.g. temperature)
- Real-time display
- Automated messages for maintenance intervals (e.g. filters exchange)
- Multilingual

MÜHLOMAT ADD-ON EQUIPMENT



Multi Cutter

The Multi Cutter is designed to grind caking products such as leaves, herbs, roots and others and is installed additionally as special attachment to the serial dosage at the Mühlomat.



Multi Crusher

The Multi Crusher is designed to pre-crush pellets, press cake or substandard pasta etc. and is installed additionally as special attachment below the serial dosage at the Mühlomat.



Bulk bag filling station with bagging bench

Available in different designs.



Granulation

- Stepless speed control at mill drive motor
- Stepless speed control at Multi Cutter motor

UNIVERSALLY APPLICABLE

IF YOU ARE LOOKING FOR AN EXCEPTIONAL SOLUTION FOR YOUR GRINDING PLANT PLEASE CONTACT US.

All Mühloamat models can easily be integrated next to existing standard mills or into new or existing plants thanks to the extraordinary technology of the Mühloamat series: This includes plants with bagging stations, bulk bag filling or unloading stations, even day silos and complete milling plants with plansifter. It is our top priority to always guarantee silent and dust-free production that meets all hygiene requirements.

SEVERAL ASSEMBLY POSSIBILITIES

Scheme 1

Mühloamat 300 Tornado Jet with filling station, 2 bagging benches and a bulk bag filling station. The Mühloamat's pneumatic transport moves the ground product to the dispenser station without further conveyor systems. The bagging benches can be substituted or supplemented by valve packers.

Scheme 2

Mühloamat 300 Tornado Jet with direct transport to three day silos. The day silos are triggered by diverter valves. On top of

the day silos the dispenser stations are located, each consisting of rotary valve, passing valve and high grade cyclone. All silos are equipped with rotating paddle sensors. In this case Mühloamat's pneumatic system is also used to transport the ground product to the silos.

Scheme 3

Mühloamat 500 Tornado Jet in a complete three-storey milling plant consisting of: Mühloamat 500 Tornado Jet, Multi Cutter, all-metal separator (S+S), plansifter, bagging bench with 8 bag spouts, bulk bag filling station, bag dump station and separate conveyor system with jet filter. The plant runs automatically and is electronically controlled.

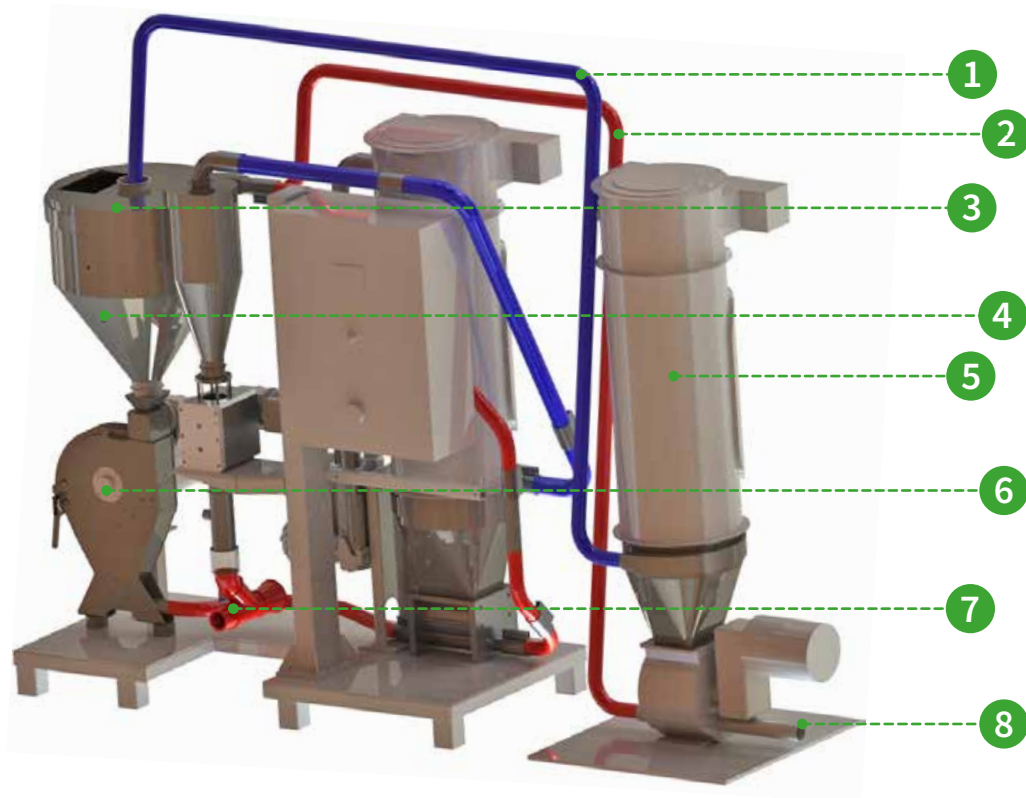
Scheme 4

Mühloamat 100 Tornado Jet equipped with pressure/suction tank that is connected to a separate grain feed mechanism. The grain feed mechanism has its own jet filter thereby enabling either blowing or sucking of the product to the Mühloamat.



SCHEME 4

FULLY AUTOMATIC MATERIAL SUPPLY AND REMOVAL VIA PNEUMATIC SYSTEM



1. CONVEYING AIR

2. PRODUCT

3. PRODUCT SUPPLY

The product is either blown or sucked into the mill

4. PRODUCT FUNNEL

5. ADDITIONAL JET FILTER

6. MILL

7. PRODUCT REMOVAL

The product is sucked out from the mill

8. PRODUCT SUPPLY



SPECIFICATIONS

ALSO AVAILABLE IN A MULTI CUTTER EDITION AND FOR SALT AND SUGAR PRODUCTS (SZ)

Width of mill housing:	100 mm	300 mm
Dimensions (width x depth x height):	1967 mm x 1001 mm x 1930 mm	2291 mm x 1220 mm x 2550 mm
Weight:	ca. 600 kg	ca. 1000 kg
Power consumption:	8 kW	16 kW
Supply voltage:	400 V / 32 A	400 V / 32 A
Pneumatic system:	Side channel compressor with jet filter	Side channel compressor with jet filter



NEW! AVAILABLE IN 2018



500 mm

800 mm

2200 mm x 1800 mm x 2550 mm

-

ca. 1900 kg

-

42,5 kW

-

400 V / 80 A

400 V / 80 A

Side channel compressor with jet filter

Side channel compressor with jet filter

MILLING SPELT WITH THE MÜHLOMAT

All screens from 0.4 mm to 5.0 mm were used for the tests. The result of the sieving analysis can be found in figure 1.

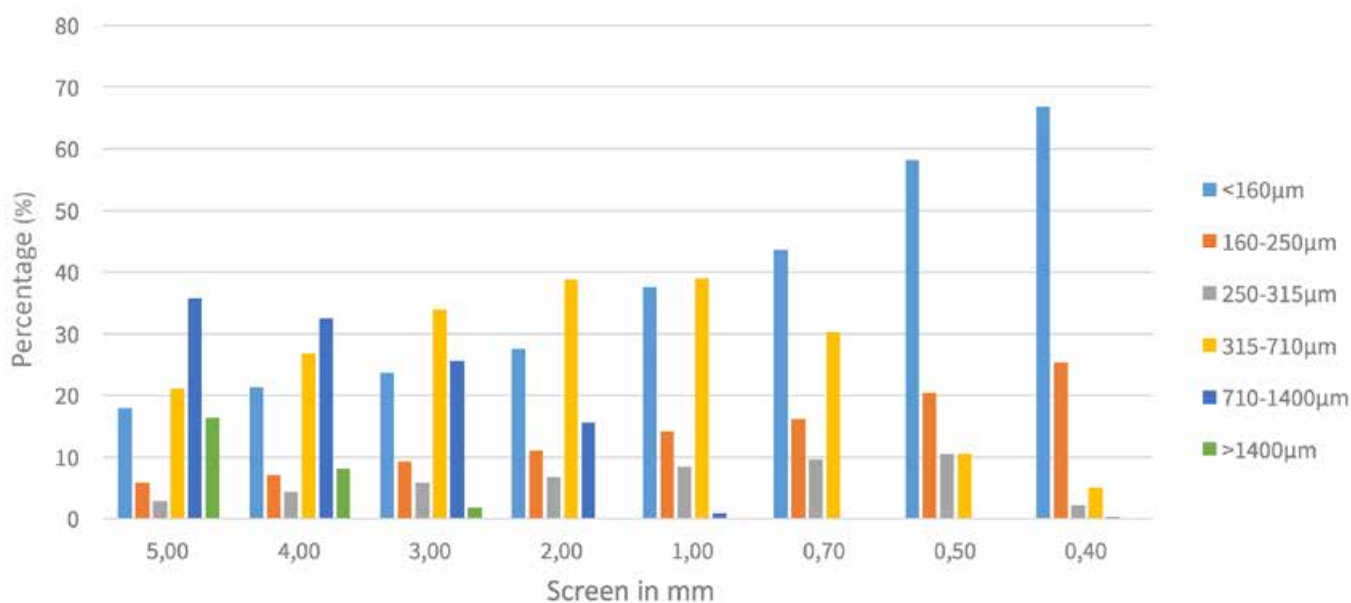


Figure 1 Overview results from the sieving analysis

The milling performance depends on the grinding fineness. The higher the percentage of fine flour (< 160µm) gets, the faster the throughput capacity will decline. This is explained giving the example of spelt grinding as follows:

Percentage of flour < 160µm	Relative throughput	Screen in mm
20 %	110 %	4; 5
40 %	100 %	1-2
> 60 %	95 %	0,4; 0,5

ABOUT US

Our philosophy

Your satisfaction and success with our machines and services is our priority. Our experienced team provides you with products that have been designed by experts, and manufactured to the highest quality standards. Our innovative assembly technology enables us to serve customers all over the world. The Treffler product range has been developed over many decades, covering all metal machining technologies.

High quality, unrivalled precision and reliable customer service are our hallmarks. Thanks to our apprenticeship and training schemes, we have been able to bring together a perfect team of specialists who are willing to go the extra mile to make the impossible possible. Meeting the requirements and demands of our customers is our mission.

History

The history of Treffler Maschinenbau goes back to the 17th century when a forge was built in Echsheim. Rooted in tradition and our lovely region, Treffler has remained a family-owned company and has never left Echsheim. Over time, the forge developed into a modern enterprise specialising in mechanical engineering, steel construction and mechanical machining (CNC milling / CNC lathing / CNC measuring / 3D milling) as well as coating technology (painting / sand-blasting / degreasing). We are particularly proud of our premium farm machinery, mill machines and biogas equipment produced at our factory. The current director Paul Treffler senior took over the company from his father in 1981. His two sons are also working in the business: Paul Treffler junior is acting as an equal partner while Dominikus works in sales.

Sustainability

For many years, Treffler Maschinenbau GmbH & Co. KG has been investing in renewable energies. Our production halls are equipped with photovoltaic modules, covering nearly our entire electricity needs. The electric power that we cannot produce ourselves is brought from our regional electricity company and is generated exclusively from renewable sources.


With the installation of a biogas district heating plant at our headquarters in Echsheim, we have further reduced our dependency on conventional energy sources and can heat our premises in a sustainable and environmentally friendly manner.

Company site 35000 m² | Production area 6500 m² | Number of factory halls 8



Tested by experts

The Department of Safety and Quality of Cereals  within the Federal Research Institute of Nutrition and Food

, based in Detmold, and the Institute for cereal processing IGV chose the Mühlo-
mat over several competitors.. Its easy han-
dling, best results, and clean and hygienic
working convinced the executives of the

Credentials

The **Gotthard Hotel** and its Bakery Lech, located in Lech am Arlberg, is a leading company in the hotel and bakery sector. The owner and his master baker are delighted by our Mühlo-
mat 100 Tornado, the Flockomat, and the Schrotomat. Bakery Lech made a name for itself because of its out-
standing achievements. „We are proud that our machines made by Treffler Maschinenbau contribute to their success.“

Institute to buy the Mühlo-
mat. This is prob-
ably the highest honour for Mühlo-
mat. Bak-
ers who use the Mühlo-
mat know why their
pastries turn out so well – because quality
starts with milling!

Customer satisfaction is the best credential

In order to really prove product quality, one

Wolfgang and Karin Bauer at Mühlbach am Hochkönig, Austria, run an outstanding bakery. From raw materials to the interior design of the bakery, only the best is good enough. When it comes to baking, the very famous Bakery Bauer is certainly credited to the extensive baking knowledge of Wolfgang Bauer. Treffler Maschinenbau is delighted that Mr Bauer is also a Mühlo-
mat customer.

needs to look at customer satisfaction. We are proud to see our customers' success in using the Mühlo-
mat Series. Mühlo-
mat satisfies our clients' needs allowing them to pro-
duce high quality pastries. Come and see for yourself the various advantages of the Mühlo-
mat series and contact us to arrange a no-obligation consultation.

Further credentials upon request.



TREFFLER MASCHINENBAU GMBH & CO. KG

Reichersteiner Straße 24 E-Mail: info@treffler.net
86554 Pöttmes-Echsheim Web: www.treffler.net

Phone: +49 (0) 82 53-99 58-0
Telefax: +49 (0) 82 53-99 58-70

