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In the hands of the best

Industrial Grinders

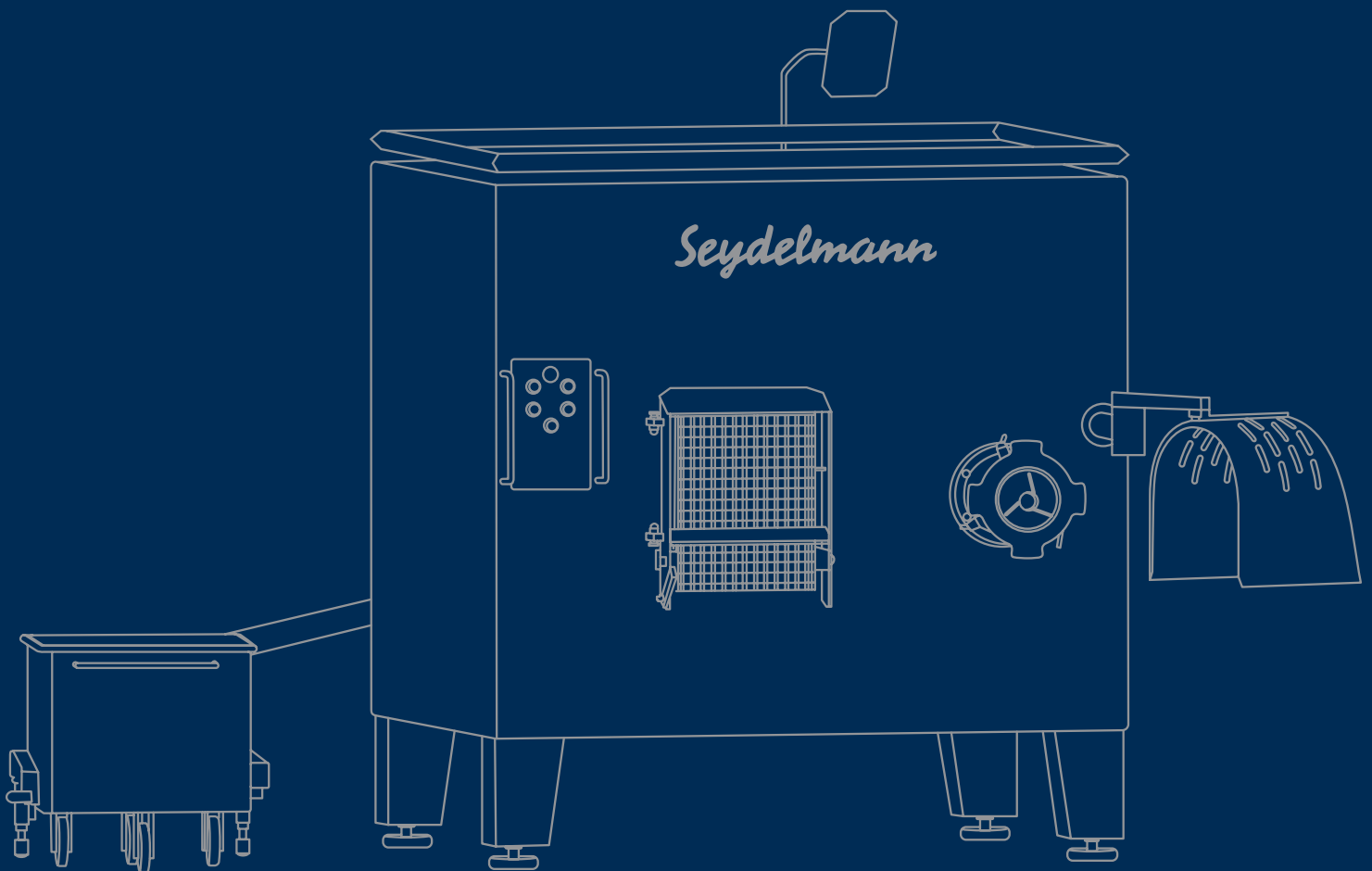


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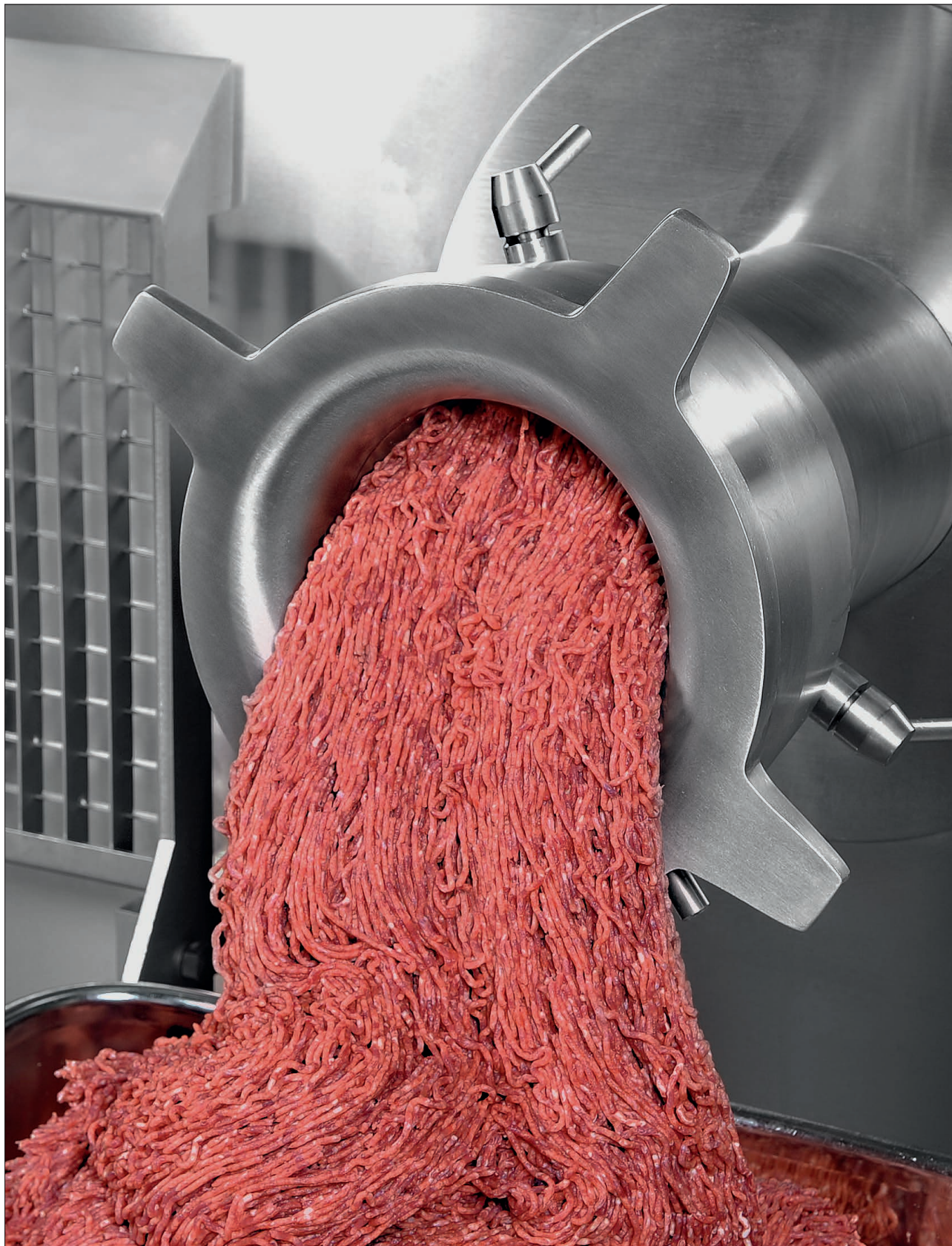
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Overview: Machine variants

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Automatic Grinders

- Working worm at 90° angle to feeding worm
- Wide and conical feeding worm

Universal Grinders

- Working worm at a 90° angle to feeding worm
- Feeding worm with breaking contour and cutting edge as well as very wide and deep windings

Automatic Grinders K (Cheese)

- Working worm at 90° angle to feeding worm
- Enlarged wide and conical feeding worm with crushing teeth
- Special hopper design

Automatic Mixing Grinders

- Working worm at a 90° angle to feeding worm
- Wide and conical feeding worm
- Mixing unit with ribbons or paddles above the feeding worm

Mixing Grinders

- In-line working worm through hopper
- Mixing unit with arms or paddles above the working worm
- Mixing unit for mixing or as automatic feeder

Frozen Meat Grinders

- In-line working worm through hopper
- Working worm with breaking contour and cutting edge as well as very wide and deep windings

Applications

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Minced meat



Minced meat products



Convenience and fast food products



Pasta fillings



Sliceable dry sausages



Coarse liver sausage



Cheese products



Vegetable and fruit products



Doner Kebab



Fish based products



Confectionery and nut based products



Dates and fig products

Seydelmann Industrial Grinders

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Automatic Grinder AE 130/3 with integrated, hydraulic loading device and separating set

Perfection down to detail

Seydelmann Industrial Grinders prove themselves by their very high output and the clear cut of the end product. Seamless welds and joins combined with the heavy duty stainless steel construction of the machine frame and hopper make these machines extremely robust, reliable and long-lasting.

All surfaces are polished by hand to a high quality finish and are designed with a slope. All edges are rounded. As a result of the high quality finish the Industrial Grinders are very easy to clean and comply with the highest hygiene standards.

The working worm is driven directly by v-belts and no gear box is needed. The direct v-belt drive is very strong and resistant.

The electronic controls of the machines are built into the machine frame and protected from humidity.

The machine frame is closed underneath and conforms to protection class IP 69 K. All Seydelmann Industrial Grinders are equipped with vibration resistant feet that are height adjustable and made of stainless steel.

The worm housing has a trapezoidal thread which will withstand the highest demands over a long period of time.

All Industrial Grinders are equipped with a worm ejector, which enables a quick and easy changeover of the working worm.

The outlet height of the Industrial Grinders is suited to the height of a standard 200 l trolley, although non-standard heights are also possible.

Well thought-through details like the mirror above the hopper, the interlocked safety step and the robust buttons, knobs and cross-switches of the control panel enable easy operation.

Automatic Grinder AE 130/3

The working worm and the feeding worm of the Automatic Grinder AE 130/3 each have a strong 2-speed drive.

The speeds of the working and feeding worm can be switched independently from each other.

As an option, the feeding worm can be switched to work in reverse.

Automatic Grinders

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Automatic Grinder AU 200 with integrated, hydraulic loading device

**AE 130/3, AG 160, AU 200,
AV 250**

Hole plate diameter

130 mm, 160 mm, 200 mm and 250 mm

Hopper content

400 l (AE 130/3 300 l)

On request 800 l or 1000 l (not available
for AE 130/3)

Drives

Two-speed working worm, three-speed
feeding worm (AE 130/3 two-speed). Upon
request, a frequency controlled six-speed
working worm and/or a frequency controlled
four-speed feeding worm are available.

Application

Fresh meat, pre-broken frozen meat, cooked
meat, fish, vegetables, fruit and other food
products from -18 to 85 °C (-0.4 to 185 °F)

Output per hour

Up to 14000 kg/h



Three-speed working worm

The wide conical feeding worm is equipped with a powerful, three-speed drive and has a diameter of up to 400 mm.

With its extremely wide windings it is able to grab large pieces of meat or fat e. g. whole pork bellies or beef primals and feed them straight into the working worm without bridging.

Depending on the material, its consistency and temperature, the appropriate speed can be selected.

Slow feeding speed

For processing firm, frozen, tough material or for using hole plates with very small holes.

Middle feeding speed

For fresh meat processing.

High feeding speed

For using hole plates with middle to large holes.

As an option, the feeding worm can be switched to run backwards. That way about 25 % of the hopper content can be mixed.

Two-speed working worm

The particularly powerful two-speed main drive of the working worm is almost wear and maintenance free.

Direct v-belt drive

The working worm is driven by v-belts and no gear box is needed. The v-belt drive is very strong and resistant.

First speed

The first speed is suitable for pre-cut frozen meat and fresh meat as well as for the production of coarse meat pieces, granulated meat and dry sausage for which the outside knife is added.

Second speed

The second speed reduces fresh meat, cooked meat, liver, vegetables and spinach evenly and reliably.

Six possible speed versions

The speeds of the feeding and the working worm can be adjusted separately.

The stepless, frequency controlled main drive AC-6 offers six freely selectable speeds. This allows the optimum cutting conditions for each product, with minimal power consumption. The Command 700 control unit selects the optimum speeds and machine settings based on recipes.

Ideal set up for temperature

The Automatic Grinder can be set up to both, high and low temperatures as well as to the dedicated hole plates.

Special transmissions are available for certain products such as vegetables.

Universal Grinders

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Universal Grinder AU 200 U with integrated hydraulic loading device

AU 200 U, AV 250 U

Hole plate diameter

200 mm, 250 mm

Hopper content

570 l
On request 1000 l

Drives

Two-speed working worm (ultra version) or six-speed frequency-controlled working worm (AC-6 version), four-speed frequency-controlled feeding worm

Application

Fresh meat, pre-broken frozen meat, frozen meat blocks, rind, cooked meat, fish, vegetables, fruit and other food products from -25 to 85 °C (-13 to 185 °F)

Output per hour

Up to 16000 kg/h for fresh meat
Up to 6000 kg/h for frozen meat blocks



Removable bearing of the feeding worm



Universal Grinder AW 300 U with loading device
for 800 l containers

AW 300 U

Hole plate diameter

300 mm

Hopper content

925 l

Drives

Two-speed working worm (ultra version) or six-speed frequency-controlled working worm (AC-6 version), four-speed frequency-controlled feeding worm

Application

Fresh meat, pre-broken frozen meat, frozen meat blocks, rind, cooked meat, fish, vegetables, fruit and other food products from -25 to 85 °C (-13 to 185 °F)

Output per hour

Up to 30000 kg/h for fresh meat
Up to 15000 kg/h for frozen meat blocks



Hopper AU 200 U, AV 250 U

The Universal Grinders reduce fresh meat as well as frozen meat blocks, rinds, blocks of fat and other food products regardless consistency and temperature. They are characterized by the clear cut of the end product and the high throughput.

As standard they are equipped with anti-block unit, hydraulic worm ejector, Command 700 W control system, a holding device (only AU 200 U and AV 200 U), a worm cradle and cutting sets for fresh and frozen meat.

The working worm is alternatively driven by a six-speed, frequency controlled motor (AC-6) or an Ultra-drive with two fixed speeds.

Six-speed, frequency controlled working worm (AC-6 version)

The drive of the specially equipped working worm is mostly wear and maintenance free. The six speeds can be pre-set steplessly via the Command 700 W control system. Thus for example faster speeds can be chosen for fresh meat and slower speeds for deep frozen blocks of meat. This guarantees the best possible cross-section cut and a very efficient throughput.

Two-speed working worm (ultra version)

First speed is suitable for deep frozen and very hard materials such as rind, beef block etc. Second speed reduces softer materials like fresh meat MDM blocks etc.



Hopper AW 300 U

Four-speed, frequency controlled feeding worm

The extremely strong drive of the feeding worm can be pre-set steplessly to four speeds via the Command 700 W control system. Therefore, the quantity of the product to be fed can be controlled as required.

According to its temperature, consistency, size or type the product can be fed continuously with the ideal speed.

The feeding worm is made with special cutting edges and breaking contour for frozen blocks of meat.

Wide windings guarantee that large pieces of fresh meat as well as whole blocks of frozen meat are grabbed by the worm.



Command 700 W: Automatic regulation of the feeding speed

Automatic Grinders K (Cheese)

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**AE 130/3 K, AG 160 K,
AU 200 K, AV 250 K**

Hole plate diameter

130 mm, 160 mm, 200 mm and 250 mm

Hopper content

400 l (AE 130/3 K 300 l)

On request 800 l or 1000 l (not available for AE 130/3 K)

Drives

Two-speed working worm, three-speed feeding worm (AE 130/3 K two-speed). Upon request, a frequency controlled six-speed working worm and/or a frequency controlled four-speed feeding worm are available.

Application

Cheese, butter, fat blocks and similar food products

Output per hour

Up to 8000 kg/h

Automatic Grinder K (Cheese) AU 200 K with vertical loading device with security fencing, 800 l hopper, raised outlet height for standard 300 l trolleys and hydraulic pressing device



The Automatic Grinder K is manufactured for the requirements of processing cheese, butter and blocks of fat. The feeding worm is equipped with crushing teeth.

The hopper and the locking nut are specially designed for this application. The Automatic Grinder K is equipped with a two speed working worm and a three speed feeding worm.

There are therefore six speed variants. The suitable speed can be set according to the temperature and consistency of the raw material.

The machine is equipped with an anti-block unit and a reverse gear for the feeding worm.

If the working worm is blocked, for example as a result of foreign bodies in the hopper, the anti-block unit prevents any mechanical and electrical damage via circuit breakers.

If irregular or especially large blocks lead to unsuitable positioning of the material in the hopper, the blocks can be moved into the best position for processing by means of the feeding worm running backwards.



Hydraulic pressing device*

The optionally offered hydraulic pressing device for all Automatic Grinders made of stainless steel is available in different designs, depending on the product. This guarantees that even the most difficult products can be fed reliably into the machine.

The action of pressing the product follows pre-set intervals.

The hydraulic pressing device can also be controlled manually.

Automatic Mixing Grinders

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Automatic Mixing Grinder AV 250 M

**AE 130/3 M, AG 160 M,
AU 200 M, AV 250 M**

Hole plate diameter

130 mm, 160 mm, 200 mm and 250 mm

Hopper content

620 l (AE 130/3 M 350 l)

On request 750 l (not available for AE 130/3 M)

Drives

Two-speed working worm, three-speed feeding worm (AE 130/3 M two-speed). Upon request, a frequency controlled six-speed working worm and/or a frequency controlled four-speed feeding worm are available. Two-speed mixing unit with each forward and reverse.

Application

Fresh meat, pre-broken frozen meat, cooked meat, fish, vegetables, fruit and other food products from -18 to 85 °C (-0.4 to 185 °F)

For material that needs to be mixed and standardised before grinding

Output per hour

Up to 14000 kg/h



Automatic Mixing Grinder with mixing spiral

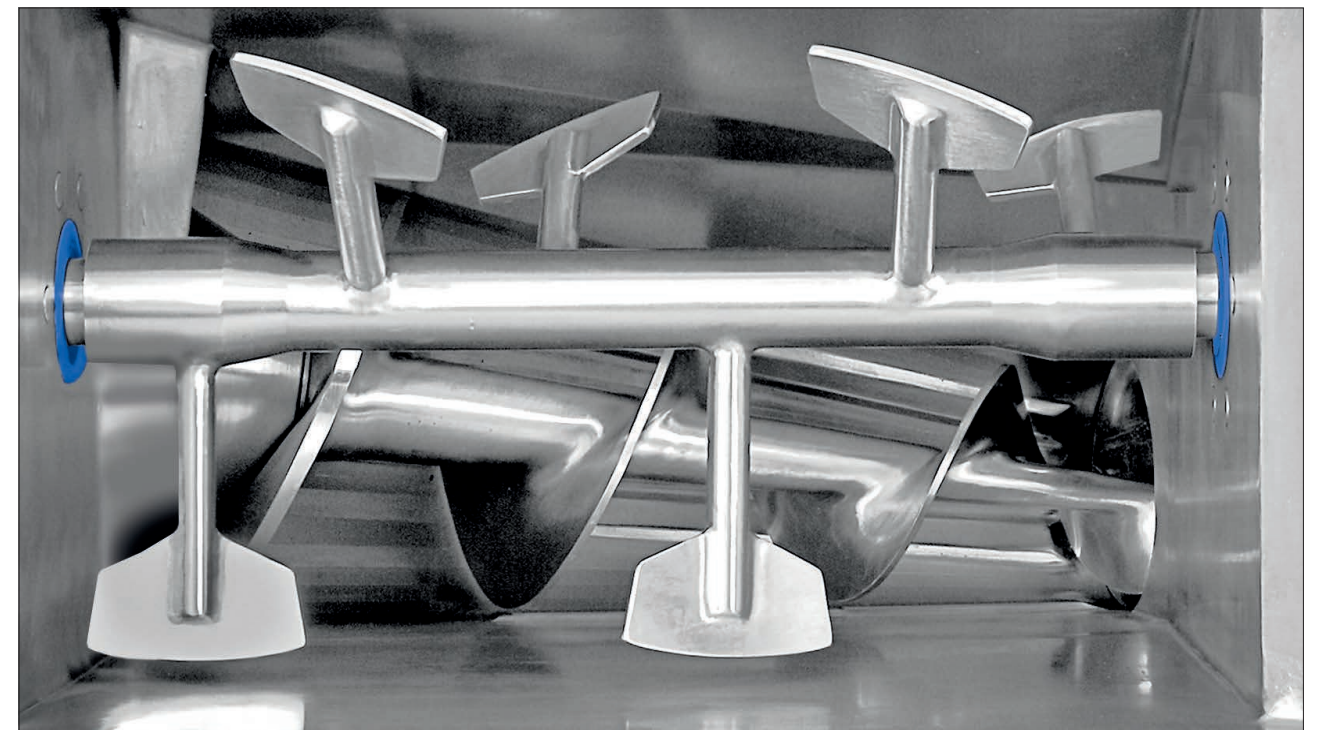
Two operations can be combined on Automatic Mixing Grinders.

If the feeding worm runs in reverse the raw material is mixed. If it runs forwards, the raw material is fed into the working worm.

The mixing unit is mounted above the feeding worm and as a result the raw material is mixed easily and evenly.

The mixing unit can be set to run forwards or backwards with two speeds in each direction.

Large pieces of fresh meat as well as pre-cut frozen meat can be fed by the wide three-speed conical feeding worm into the two-speed working worm and then be ground.



Automatic Mixing Grinder with mixing paddles

Mixing unit

Depending on the application, various types of mixing units are available. As a result of the special mixing geometry, the best and most thorough mixing is achieved in a very short time.

The mixing units can be equipped with spirals or paddles depending on the application.

Spirals are especially suitable for tough and sticky material.

Paddles are suitable for mixing pre-ground material. Resulting from the order and positioning of the paddles, the material is mixed optimally and with the least possible strain.

Mixing Grinders

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Mixing Grinder MG 160 with integrated, hydraulic loading device

ME 130/3, MG 160, MU 200

Hole plate diameter

130 mm, 160 mm and 200 mm

Hopper content

300 l

Drives

Two-speed working worm with short-time reverse. On request frequency-controlled six-speed working worm.

Mixing unit with automatic forward and reverse.

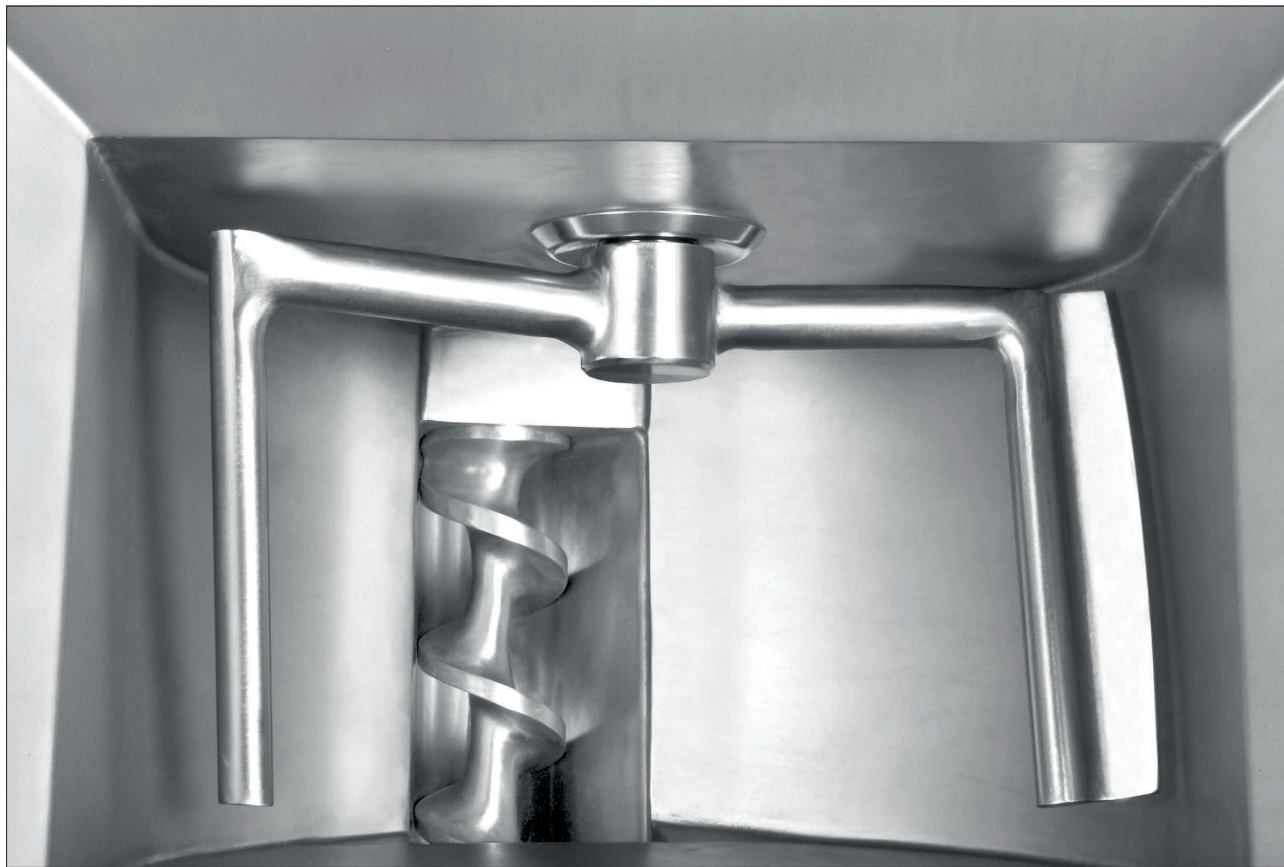
Application

Fresh meat, cooked meat, fish, vegetables, fruit and other food products from -4 to 85 °C (25 to 185 °F)

For material that needs to be mixed and standardized before grinding. As final grinder for pre-ground material.

Output per hour

Up to 6000 kg/h



Mixing Grinder with mixing arms

Two-speed working worm

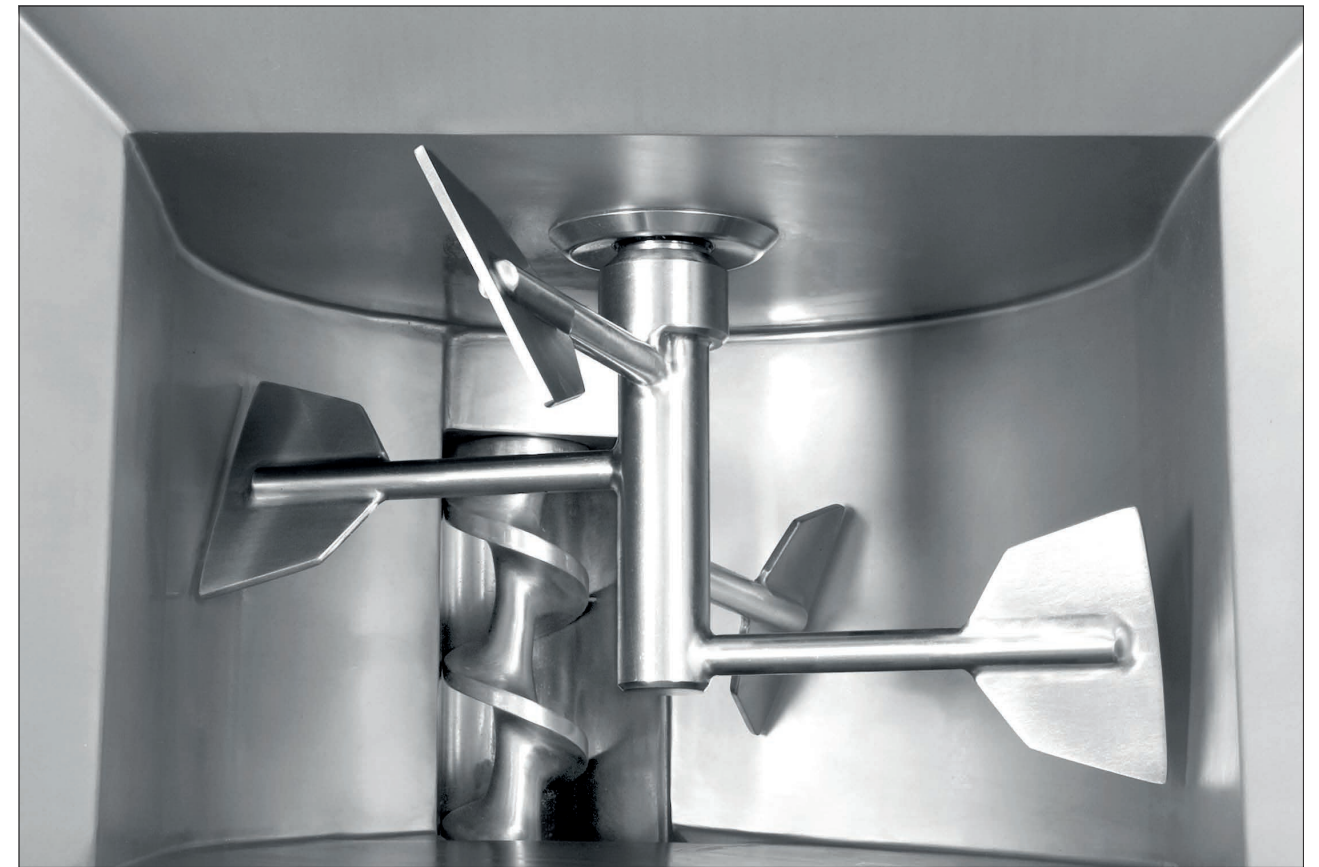
The working worm is equipped with a short time reverse gear which enables the smallest quantities of the mix to be fed through the mixing unit again and again as required.

First speed

For semi-frozen and fresh meat as well as the production of coarse inclusion meat, granulated meat and dry sausage using the outside knife.

Second speed

For fresh meat, cooked meat, liver, vegetables and spinach.



Mixing Grinder with mixing paddles

Mixing Grinder with mixing arms

Mixing Grinders have powerful mixing arms which can mix the raw material evenly before grinding.

For example, pre-cut meat can be mixed with salt, seasoning and additives for hamburger or "Bratwurst" production.

The mixed product is fed directly into the working worm by the mixing arms and then ground with a clear cut and even granulation.

Mixing Grinder with mixing paddles

The special positioning of the paddles ensures a smooth and optimal mixing of the product.

The mixing paddles are particularly suitable for mixing pre-ground material.

The strong paddles also feed the material into the working worm.

Grinders with cooling

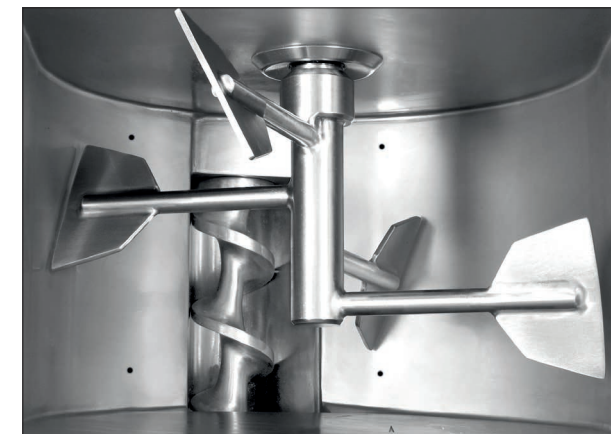
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Mixing Grinder MU 200 with a hydraulic lid, cooling function, and an integrated hydraulic loading device



Hydraulic lid with snow horns, expansion room and preparation for exhaust



Hopper with mixing paddles and cooling nozzles

Precise temperature control

The optional cooling system on an Industrial Grinder ensures ideal processing temperatures.

Via nozzles at the bottom of the hopper CO₂ or LN₂ (liquid nitrogen) is injected into the hopper. Alternatively, CO₂ can be injected via snow horns in the machine lid.

The temperature of the product is controlled by a temperature sensor or optionally by measuring the current energy demand of the mixing unit.

An expansion room is placed above the hopper. Gas can be exhausted over that expansion room.

The hopper lid is opened hydraulically. The Industrial Grinder with its own cooling system replaces cooling room capacity and thereby greatly increases production efficiency.

Frozen Meat Grinders

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Frozen Meat Grinder GW 300 with hydraulic pressing device and angled conveyor belt with integrated metal detector

GW 300

Hole plate diameter

300 mm

Hopper content

450 l/110 l with steel feeding sheet

Drives

Two-speed working worm. On request six-speed frequency-controlled working worm.

Hydraulic pressing device

For especially high and/or irregular frozen meat blocks

Application

Frozen meat blocks and other frozen food products like fish, vegetables, fruit and more

Output per hour

Up to 10000 kg/h for frozen meat blocks



Frozen Meat Grinder GX 400 with angled conveyor belt

GX 400

Hole plate diameter

400 mm

Hopper content

460 l

Drives

Two-speed working worm. On request six-speed frequency-controlled working worm.

Application

Frozen meat blocks and other frozen food products like fish, vegetables, fruit and more

Output per hour

Up to 12000 kg/h for frozen meat blocks



Hopper GW 300 with hydraulic pressing device and steel feeding sheet

The even reduction of whole deep-frozen blocks of meat guarantees an efficient further processing in Cutters, Mixers, and Grinders.

Through the grinding of frozen meat to a size ideal for the cutter, the cutter and its knives have less strain and wear.

Size reduction

The first stage of the size reduction process takes place in the worm of the Frozen Meat Grinder. With its extended profile and relief grinding windings the worm cuts off approximately 8 cm of the frozen meat block with every rotation, and carries the meat to the cutting set for grinding.



Hopper GX 400

Two-speed drive

The GW 300 and GX 400 are equipped with a two-speed drive as standard.

The first speed is for deep-frozen blocks of meat or when using hole plates with small holes.

The second speed is suitable for reduction with hole plates with bigger holes.

Motor variants

Six-speed, frequency controlled working worm (AC-6 version)

The working worm of all Industrial Grinders can be optionally equipped with a frequency controlled AC-6 drive.

The AC-6 drive makes it possible to pre-set steplessly six speeds via the digital display of the Command 700 W. This allows pre-setting the optimal speed for various types of raw material, e. g. frozen, fresh, or cooked meat, fish, vegetables, fruits, and others. This way, the hourly output is maximized while, at the same time, the best possible cut and a supremely uniform granulation are achieved, satisfying even the highest demands.

In comparison to other three-phase drives, the AC-6 drive does not cause peak loads when switched on or changing speeds. Only the actually needed power is consumed, enabling energy savings up to 25 %.

Two-speed working worm (ultra)

All Grinders can also be equipped an ultra drive. The robust ultra drive has two fixed speeds: The first speed is for frozen material. The second speed, which is double the number of revolutions, is for fresh meat, vegetables or cheese.

Four-speed, frequency controlled feeding worm

The feeding worm of Automatic Grinders and Automatic Mixing Grinders can also be equipped with a frequency controlled AC drive – which is standard in Universal Grinders. The four speeds can be pre-set steplessly via the digital display of the Command 700 W.

The stepless drive of the feeding worm allows to accurately control the amount of the product being fed. According to the temperature, consistency, size, or type each product can be fed continuously with the ideal speed.

Details

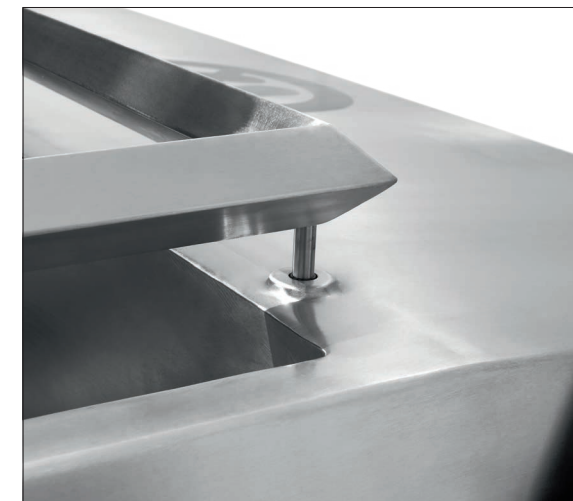
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Outlet protection device

The outlet protection device is required by law for Industrial Grinders. Its electrical interlocking prevents injury by the cutting set. In the standard version the outlet protection device swings open to one side. As an option, the outlet protection device can be opened upwards if for example the product is fed into a screw conveyor or onto a belt conveyor.

Standard equipment of all Industrial Grinders.



Hopper safety frame

All Industrial Grinders without a hydraulic lid are equipped with a hopper safety frame around the top of the hopper. If the safety frame is activated, all drives as well as the loading unit stop immediately. All electrical components relating to the safety frame are hygienically located inside the machine frame.

Standard equipment of all Industrial Grinders.



Removable bearing

The easily removable bearing of the feeding worm of Universal Grinders enables a better and more efficient cleaning. This feeding worm has bearings on both sides. The bearing that is placed in the direction the product flows through can be removed for cleaning. As the result the high hygiene standards continue to be maintained.

Standard equipment of all Universal Grinders.

Bayonet locking

The solid stainless bayonet locking ensures a fast and easy change of the hole plates and knives.

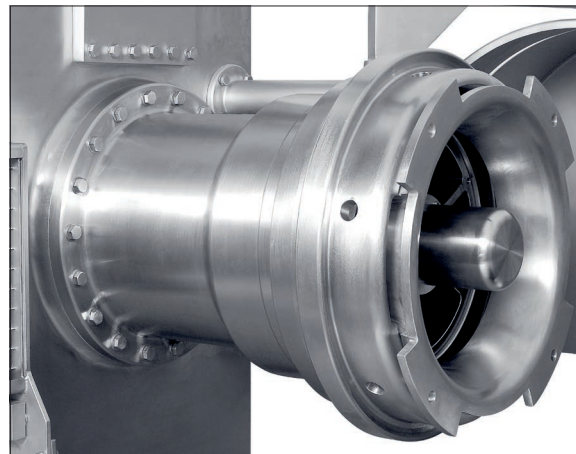
As the outer ring remains on the housing, the front part of the bayonet is considerably lighter than the whole screw nut.

The bayonet locking also protects the thread of the worm housing.

Standard equipment of all Industrial Grinders except for Cheese Grinders.



Bayonet locking for Automatic-, Automatic Mixing-, Mixing-, and Universal Grinders



Bayonet locking for Frozen Meat Grinders

Sensor for product level

As soon as the hopper runs empty, the machine either stops automatically or directs the loading systems to load the hopper. This prevents the cutting set from dry running. The measurement is made accurately via a laser. The sensor recognizes the material regardless of the nature of its surface. It is equipped with a closed housing, engineered according to protection class IP 69K.

On request for all Industrial Grinders, except for Mixing Grinders and Automatic Mixing Grinders.

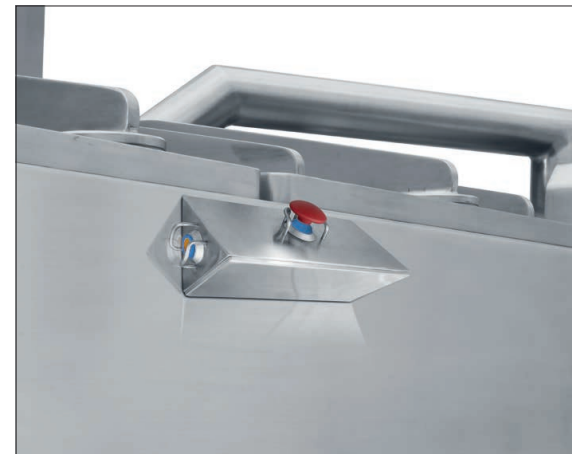


Holding device

The holding device for the pre-cutting plate guarantees a gentle and low-friction cut. The grinding set is not pressed together under the high pressure of the meat flow. The wear of hole plates and knives is reduced considerably.

Standard equipment of AU 200 U and AV 250 U.

Not available for AW 300 U, GW 300 and GX 400.



Two-hand operation

Industrial Grinders can also be equipped with a two-hand operation for short-term running of the feeding worm or the mixing arms when the step is in the down position. The two-hand operation makes the cleaning of the machine easier.

On request for all Industrial Grinders except for Frozen Meat Grinders.



Electropolished feeding/working worm

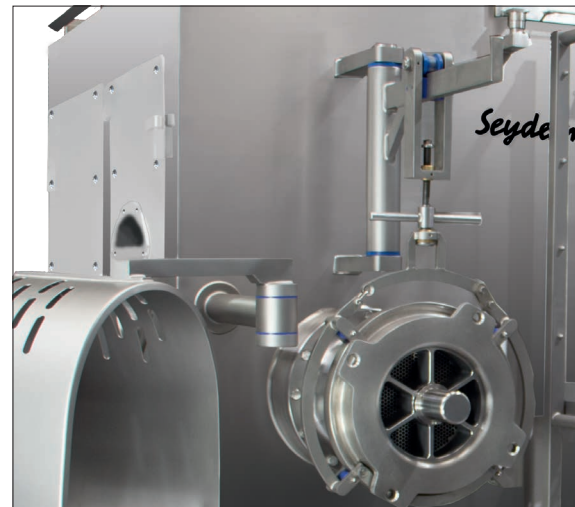
Optionally both the feeding and the working worm are available in an electropolished version. Thus the surface is very smooth and products like fat cannot stick or accumulate.

Standard equipment of Automatic Mixing Grinders AMR 1800-3500.

Holder for worm housing nut

As the worm housing nut on the Industrial Grinders is very robust and thus heavy, a holder can be used to hold it during assembling/disassembling. This improves the working ergonomics and relieves the employees.

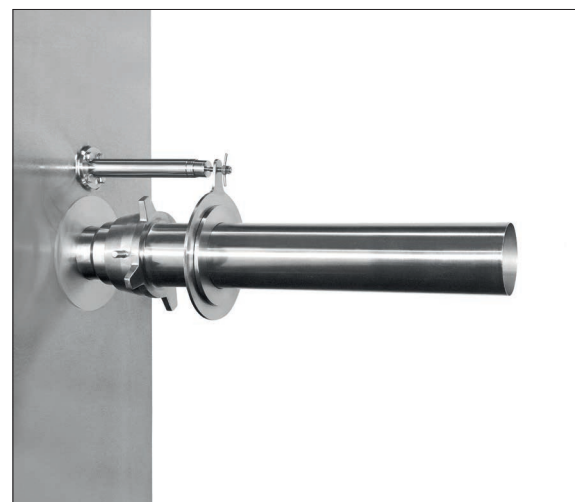
On request for all Industrial Grinders



Outlet tube

As an alternative to the outlet protection device an outlet tube can be fitted. Additionally a safety switch with control is mounted, which ensures the safe position of the outlet tube. As per safety guidelines the device is at least 850 mm long.

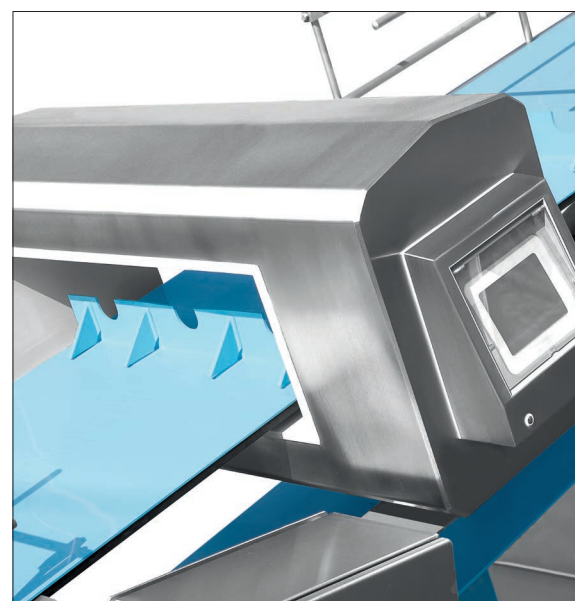
On request for all Industrial Grinders.



Conveyor belt with integrated metal detector

The loading of the Industrial Grinders can be achieved by moveable conveyor belts. Apart from a high control unit all angled conveyor belts with cross flights are equipped with a form-closed drive, a loading table, lateral guide rails and a back fall protection. On request the conveyor belts can be equipped with a metal detector. Metal particles in the raw material can therefore be identified and sorted out. Thus machine damages as well as metal particles in the end product can be avoided.

On request for all Industrial Grinders.



Swiveling crane

The GX 400 is additionally equipped with a swiveling crane. This improves ergonomics and makes it easier to install and remove the worm and worm housing nut.

Standard equipment of GX 400.



Worm cradle

The mobile worm cradle made of stainless steel serves as a means of storage or cleaning of the grinder worm and cutting sets.

Standard equipment for Universal Grinders and GW 300, on request for all Industrial Grinders from hole plate size G/160. Height can be adjusted individually by adjustment option.



Grip cradle for worm

The grip cradle locks onto the worm inside the worm housing and by adjusting the height of the trolley enables the worm to be removed without coming into contact with the housing.

On request for AW 300 U, GW 300 and GX 400.

Hydraulic worm ejector

When pressing the push button, the whole grinding set and the worm are pushed out of the worm housing. Due to that the grinding set and the worm are very easy to change.

Standard equipment for all Frozen Meat Grinders and Universal Grinders. On request for all Automatic Grinders, Automatic Mixing Grinders and Mixing Grinders from hole plate size G/160.



Raised hopper

All Automatic Grinders from hole plate size G/160 as well as the Universal Grinder AU 200 U can be equipped with 800 or 1000 liter hoppers. For Automatic Mixing Grinders starting with hole plate size G/160, the volume of the hopper can be increased to 750 liters.

On request for several Industrial Grinders, see technical data.



Raised outlet height

As an option all Industrial Grinders can be equipped with extended feet so that the outlet height is suitable for standard 300 l trolleys and large containers. With the raised outlet the safety step has to be modified or a separate platform supplied. The worm cradle is also modified for the raised outlet height.

On request for several Industrial Grinders, see technical data.

Anti-block unit

The anti-block unit with power switch prevents any mechanical and electrical damage that might be caused if the working worm is blocked due to foreign bodies in the hopper.

Standard equipment for AU 200 U, AW 300 U, GW 300 and GX 400, on request for all Industrial Grinders.

Working platform

As an alternative to the interlocked safety step, a working platform is also available. The working platform makes cleaning easier and enables the observation of the grinding process inside the hopper.

Standard for the AW 300 U and Industrial Grinders with a raised outlet or raised hoppers. Depending on the height of the machine, a movable guard cover may also be necessary.



Separate panel box

A separate panel box made of strong stainless steel is also available as an alternative to one built into the machine frame. The separate panel box can be equipped with cooling or heating. The separate panel box is engineered according to the protection class IP 66 standard.

Standard equipment for Universal Grinders and for frequency controlled AC-6 drives



Feeding worm forward and reverse

As an option, the feeding worm of the Automatic Grinders can be switched to run backwards so that about 25% of the hopper content can be mixed.

On request for all Automatic Grinders, Standard equipment for Automatic Mixing Grinders and Automatic Grinder K.

Thermal Overload Control

The thermal overload control will switch off the complete machine if for any reason it is overloaded. Industrial Grinders with a feeding drive automatically switch to the slowest speed when they are overloaded. If the drive remains overloaded, the thermal overload control switches off the machine completely.

Standard equipment for all Industrial Grinders.

Controls and control panels

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Command 700 W

The speed of the feeding worm is automatically adjusted to the current consumption of the working worm. The advantages of this automatic process are an even material flow, optimal pressure in the cutting set and lower energy consumption. The parameters for different raw material can be pre-programmed and retrieved via the Command 700 W.

Different recipe programs for different raw materials and cutting sets can be created and selected. The current speed is shown on the display as well as the amperage (electrical consumption) and any error messages. The waterproof stainless steel box, which is mounted on the machine, is engineered according to protection class IP 69K which is rated for easy cleaning.

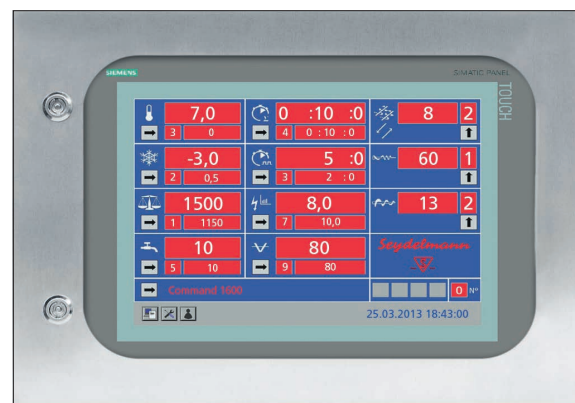


Command 700 W: standard for all Universal Grinders and Industrial Grinders with a frequency controlled AC-6 main drive
Size: 7-inch screen

Command 1600

All basic functions and working parameters can be pre-set. The gear and the speed of the working and feeding worm as well as of the mixing shafts rotation, the temperature, the total mixing time and interval mixing time are displayed. In addition the water injection / liquid injection (for water meter or liquid meter) and values of vacuum (for vacuum-mixers) are shown on the display at any time.

All parameter settings are retrievable. 20 programs for all functions of the machines can be pre-set within the program control. 6 languages are available for operation of the machine.



Command 1600: standard for all Automatic Mixer Grinders, on request for Mixing Grinders
Size: 15-inch screen



Control panel with buttons and switches



With frequency control motors the control panel also has cross switches.



Control panels

The controls are laid out on the control panel of the machine in such a way as to provide the operator with the best possible ergonomic means of operation. The symbols for the machine functions are self-explanatory and prevent operating errors. Industrial Grinders are operated via buttons, knobs, and/or cross-switches, depending on the machine type. The operating panel can be easily cleaned using a high pressure hose and other standard cleaning liquids.

Standard on all Industrial Grinders.

Swivel mounted control panel

The swivel arm for the control panel has two ball joints which allows the operator to find the best angle for operation.

On request for all Industrial Grinders.

RFID Cutting Sets



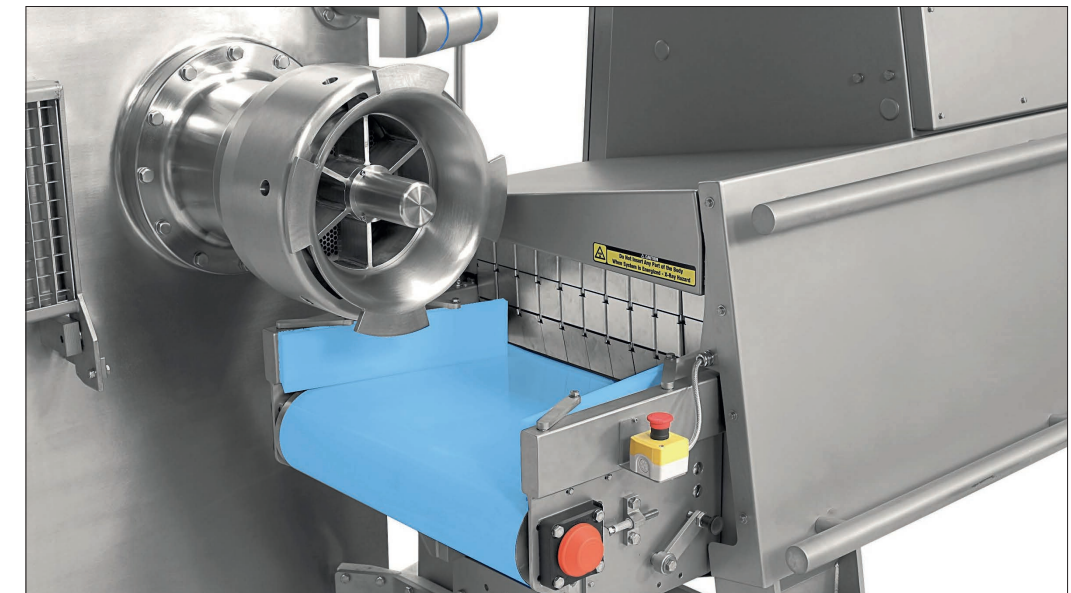
The RFID codes in individual cutting units allow the identification of hole plates and grinder knives while they are being installed in the machine. The control of the machine shows which cutting unit is needed according to the product. The operator scans each cutting unit with a machine-integrated antenna before installing it. The control then confirms if it is the right element for that specific recipe and if it has been installed correctly. Once all the cutting units for the recipe have been identified, the machine can start.

At the same time, it is not possible to select a product from the Recipe Menu in the control while an unsuitable cutting unit has been installed.

- Connection between the end product and the required cutting set
- Eases the work of the operator with a visual display of the required cutting units
- Less operator know-how needed
- Prevents production mistakes through inappropriate use of cutting units.
- Prevents damage to the cutting set or the machine
- Clear and safe identification of cutting units
- Hygienic and safe mounting of the RFID chips in the cutting units
- Food-safe material for the RFID chips

Fat-Analysis

Seydelmann



Measurement of the fat content can be conducted either on the initial raw material or within the production process. Continuous measurement along the production flow does away with the need for time-intensive sampling. Corrections can be carried out on a self-regulating basis without any time being lost, thus ruling out any stress for the product due to post-mixing. One possible way of measuring the fat content in the meat is fat analysis by **NIR (near-infrared analysis)**. For this, the surface of the minced material is scanned on a conveyor belt during transport to the next production step. As a result of the high density of the measuring points, the real-time results of the NIR method are just as precise as conventional laboratory analyses.

Analysis using X-ray technology is a further, more precise method of determining the fat content, both in the raw material and in the processed meat. As X-rays penetrate the product completely a holistic measurement is carried out here. The material is conveyed along an integrated conveyor belt into the closed analysis sector and measured continuously via X-ray sources. The fat content is checked precisely, down to below 1% deviation, and be allocated to the weight of the material covered. At the same time the product safety is increased by reliably identifying any foreign bodies.

In both cases the measuring results are transferred via an integrated interface to the recipe control. With the aid of this information the end product always displays the same fat content.

Loading devices

Seydelmann



Integrated hydraulic loading device

The hydraulic loading device is available for 200 l, on request also for 300 l trolleys (BW 200 or BW 300), according to DIN 9797.

The hydraulic system of the loading device and the loading device itself are almost maintenance free.

The hydraulic aggregate, the lifting cylinder, valves etc. are completely built into the machine. Therefore, the loading device is very quick and easy to clean.

When the Grinder is not used, the loading device can be “parked” in its highest position to save space.

In case the product is unloaded into 300 liter trolleys enlarged feet made of stainless steel are available.

The loading device is usually on the left hand side. On request it can be mounted on the right hand side.

On request for all Automatic Grinders, Automatic Mixing Grinders, Mixing Grinders and the Universal Grin-der AU 200 U. Not available for raised hoppers and raised outlet respectively.



Vertical loading device

Industrial Grinders can also be loaded via a vertical loading device which can either be floor-mounted or mounted on the machine. All mechanical parts such as chains are built-in and contained within the frame so that cleaning is easy. The vertical loading device is strong and conforms to the highest hygiene standards. A security fencing with security door or light grid is also possible.

On request for all Industrial Grinders



Loading device for large containers

The loading device for large containers enables quick and efficient loading and can be customized to suit to different container sizes. The device is equipped with maintenance-free heavy duty lifting straps. Lubrication is not required and product contamination by lubricants can be ruled out. Security fencing with interrogated security door or light curtain is standard. Optional with light barrier instead of interlocked safety doors. Optional for using 200/300 l-trolleys as well.

On request for AW 300 U and for all Automatic Grinders with enlarged hopper content and the AU 200 U with enlarged hopper content.



Separating set

Seydelmann

Separating set

The separating set serves the improvement of the meat quality. Gain of time during deboning. Gristle and sinew do not have to be cut out. The separating set sorts out a great portion of the hard components in the meat including foreign objects.

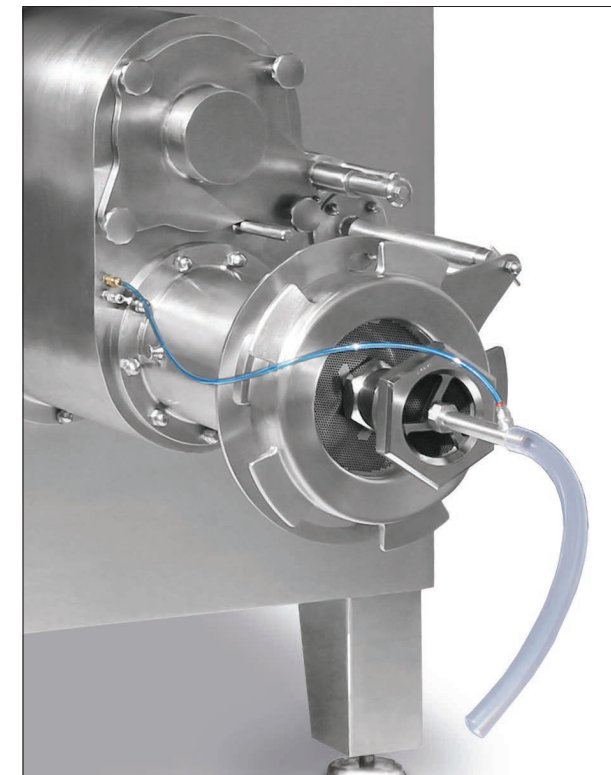
The pneumatic separating device ensures an even more exact and precise control of separation and sorting out of sinew and meat. The pneumatic separating device controls the desired flow by means of a ball valve. (separate compressed air connection required) The interval time between opening and closing of the valve can be set individually as required.



Pneumatic Separating set

The pneumatic separating set sorts out a great portion of the hard components in the meat. No blocking of the cutting set as the hard particles are automatically removed. Therefore improved throughput with clearest cut. The meat quality is upgraded by 1 to 2 quality levels (GEHA). Ideal for collagen reduction.

Available from D 114 to V 250.



Two-Stage Separating Set

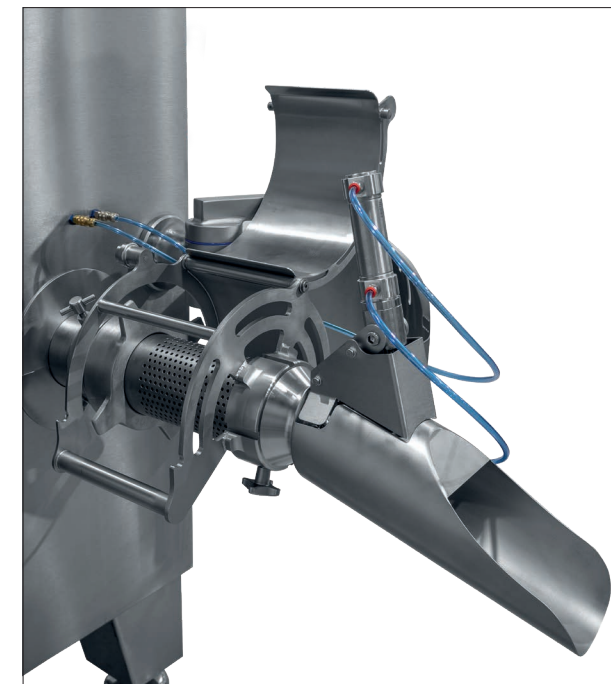
The material is separated in two stages. Similar to a conventional separating set the hard particles, sinew and cartilages are sorted through the proven system and transferred to the center of the cutting set. There it is not discharged through an outlet device but transferred into a second smaller grinding head. Inside this second separating set the material is sorted again thus less meat and fat is separated through the separating set still making sure all hard particles, sinew and cartilage have been removed.

Available in V 250 and W 300.

Cutting Drum for fresh meat

The cutting drum consists of an extended working worm and a cylindrical perforated drum with pneumatic diverting valve. This is used instead of the usual cutting set of knives and hole plates. It allows the simultaneous reduction of the raw material to the desired size and the sorting out of hard parts such as sinews, gristles, bone fragments and foreign objects (like plastic parts or foils). Due to the minimal distance between the worm extension and the perforated drum, the raw material is cut without contact.

Available in E 130 and G 160.



Cutting sets

Seydelmann



Separating set



Backside of separating hole plate



Standard cutting set 5-pieces



Standard cutting set 3-pieces



Cutting set for frozen material 3-pieces (with frozen meat knife for heavy-duty applications)



Cutting set for frozen material 5-pieces



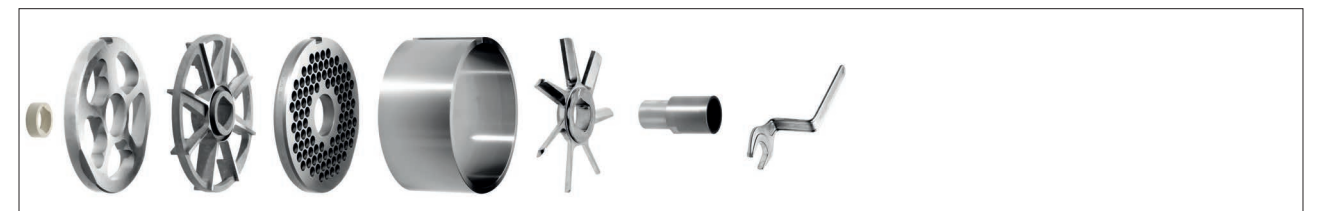
Cutting set for cooked material 4-pieces



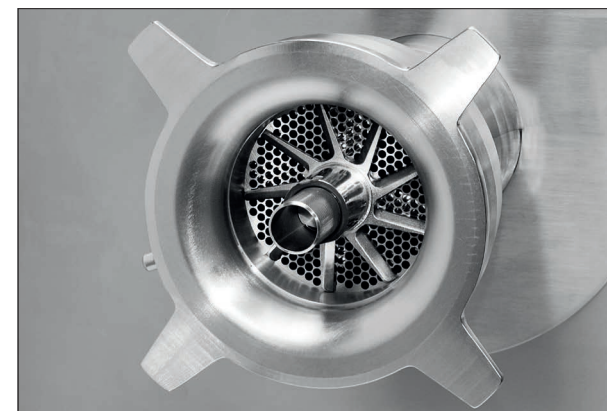
Cutting set for soft or pre-reduced material 2-pieces



Cutting set for cheese 2-pieces



Cutting set for dry sausage



Outside knife

The outside knife is running on the last hole plate. Meat coming out of the grinding set in the form of threads is cut once again getting a uniform size and blend. Ideal for coarse meat pieces, dry sausage, "Bratwurst" etc. Available on request for all Industrial Grinders except for GX 400.

Individual complete solutions

Automated production lines are planned, designed and manufactured as complete solutions for the most varied types of products in the food industry. The project planning is individually tailored to the demands and expectations of the customer.

The individual machines are controlled in an automatic series and are completely tuned to each other. The degree of automation and the interfaces can be individually determined.

The complete production can be fully automated and controlled by one single person from a central operating terminal. All steps of the process like pre-cutting, cutting, fine cutting, emulsifying and mixing under vacuum, standardizing, heating of the material, gas-flushing and cooling with CO₂/LN₂ and the analysis of the material by near infra-red or x-ray measurement – all these steps can be carried out to the highest quality and efficiency in the automated production.

All necessary means of conveying the product like belt conveyors, screw conveyors and pumps are tailored exactly to the individual machines and the steps in the production process. The means of conveying the product replace the labor and time consuming transport of the material via trolleys between the individual steps in the production process. Storage containers built into the production line offer a space-saving and efficient alternative to the temporary storage of the material in trolleys.

A fully automated production provides a significantly higher throughput and a constant quality of the end product while reducing labor costs.



Production line for minced meat, compact version with vertical screw conveyor

Mixer-Grinders and Automatic Mixer-Grinders

Seydelmann

Mixer-Grinder and Automatic Mixer-Grinder combine the functions of a mixer and a grinder. They offer application options that would otherwise require two separate machines. Mixer wolves can be discharged via

the discharge flap or the grinder housing and thus used as mixer or grinder. Automatic Mixer-Grinders mixer only be discharged via the grinder housing. The mixing shafts can be switched independently

of each other with one motor each, forward and backward, fast and slow running. They are equipped with paddles as standard and in the Mixer-Grinder with a partial spiral for even and fast unloading via the discharge

flap. Both machine types are available in different hopper sizes and hole plate diameters and with or without a lid. They can optionally be equipped with a cooling or heating function and automatic water supply.



Mixer-Grinder MRU1800 with vertical loading device and cooling function with hydraulic lid



Mixer-Grinder AMR 2500 with cooling function with hydraulic lid

Sustainability

Responsible behavior is a regular and permanent feature of Maschinenfabrik Seydelmann KG's corporate identity. Our production processes are constantly being evaluated to meet the most modern sustainability demands. When developing our machines, from the start, we take their entire life cycle into account including the recyclability of the single machine components. Accordingly, we equip our machines with energy-efficient drives and use harmless fats and oils authorized for consumption. That way, together with our customers, we never lose sight of the wellbeing of the environment.

Safety

All Industrial Grinders fulfil the current accident prevention regulations and are CE marked. They are constructed in accordance with the safety standard EN 12331.

Made in Germany

The headquarters and the factory of Maschinefabrik Seydelmann KG are located in Stuttgart and Aalen. Design and planning as well as the whole manufacturing process including stainless steel working, welding, turning and milling, finishing, electrical panel build, assembly and endbuild take place in Aalen.

Service

- Global service
- Qualified service technicians
- Extensive spare parts supply warranted for many years
- Emergency service 7 days/week
- Loan machine service

Advanced Quality

Think innovatively, work efficiently, produce quality. Seydelmann has implemented a quality management system covering the whole production and organisation. Certified by the much sought-after ISO 9001 the highest demands in the future can be reliably met.

Tradition and Know-How

Since the founding of the company in 1843 Maschinenfabrik Seydelmann KG has led the field in the development of machines for the food industry. In doing so the company uses the most up to date and innovative technologies. The company with the longest experience in manufacturing food processing machinery is currently led by the sixth generation of the same family, by which it was founded over 175 years ago. The large number of long-serving and highly qualified employees ensure the company's wide ranging know-how.



In the hands of the best

'In the hands of the best' is the principle behind Maschinenfabrik Seydelmann. Highest demands are made of materials and technology without compromise in

machine development, construction, build and hygienic design to be able to create a long lasting top quality product which exceeds even the highest expectations.



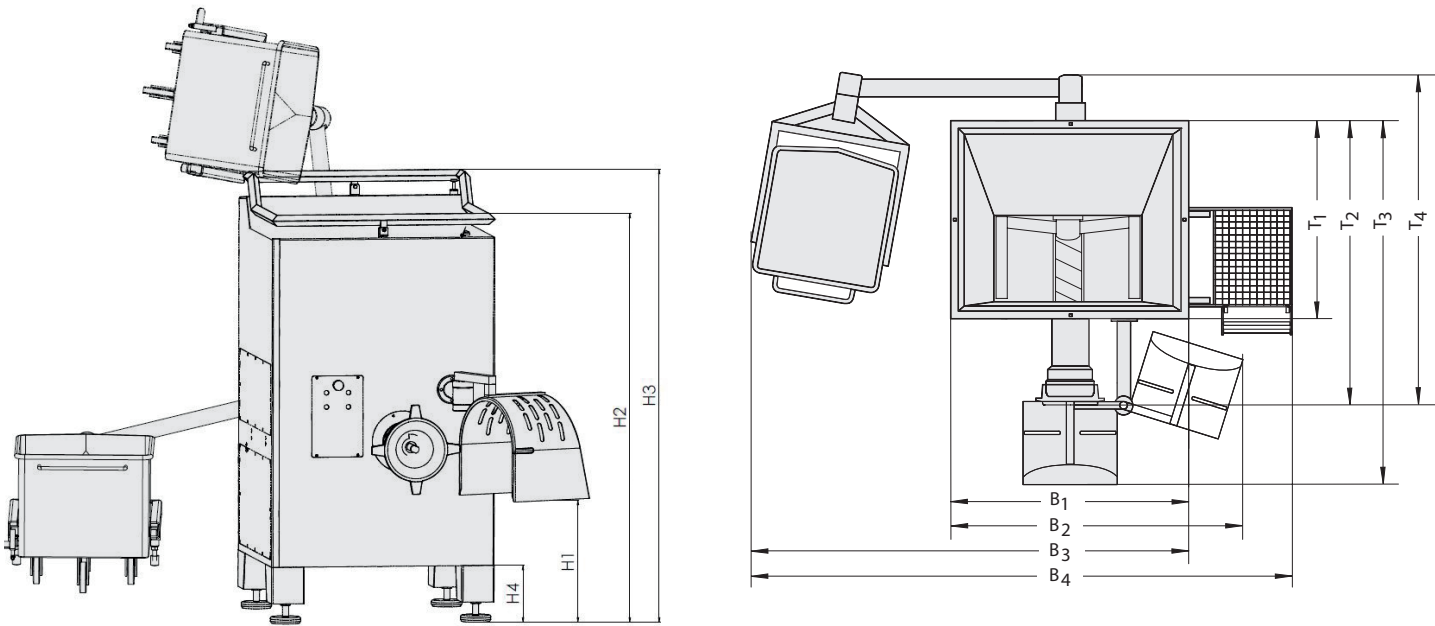
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Technical data



Mixing Grinders



Mixing Grinders

dimensions in mm

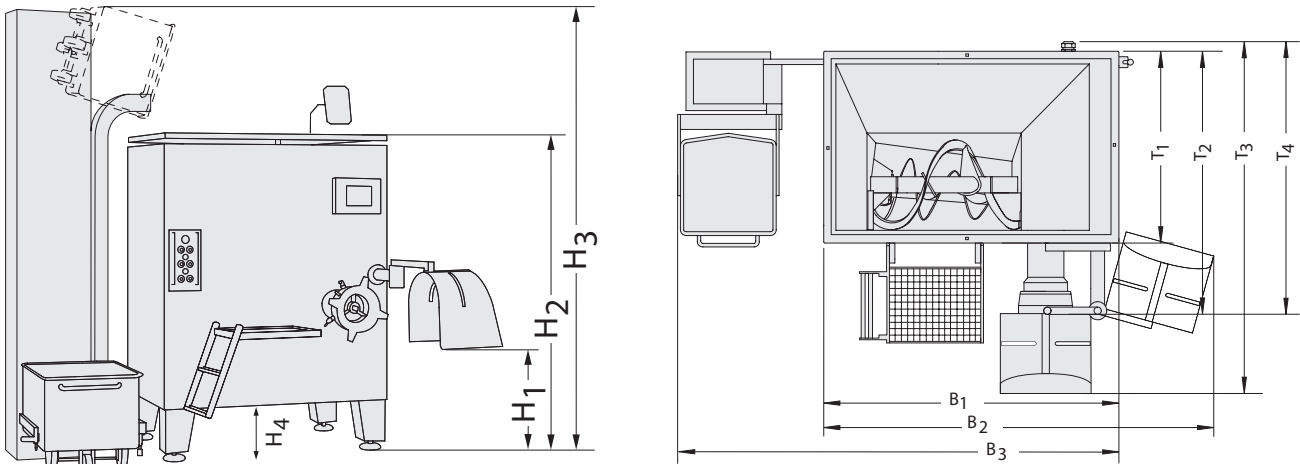
TYPE	power of motors in kW		power of frequency controlled motors	weight in kg	hopper content in liters	min. width of door without disassembling machine parts	width of machine body	outlet hand guard open	width of machine without step with loading device	width of machine with step	depth of machine body	depth of machine body with worm housing	depth of machine body with outlet hand guard	depth of machine body without outlet hand guard	trolley	outlet height	upper edge safety frame	height of machine	height of elongated feet	remarks
							B1	B2	B3	B4	T1	T2	T3	T4		H1	H2	H3	H4	
ME 130/3	14	18	30	950	300	1300	1120	1273		1685	1056	1419	1750		200 I 300 I	750 1000	1994 2244	2150 2400	350 600	
ME 130/3 with loading device	14	18	30	1100	300	1850	1120	1273	2186	2765	1056	1419	1750	1628	200 I 300 I	750 1000	1994 2244	3225 3475	350 600	*1 *1
MG 160	18	29	45	1000	300	1300	1120	1386		1685	1056	1501	1902		200 I 300 I	750 1000	1994 2224	2150 2400	350 600	
MG 160 with loading device	18	29	45	1200	300	1970	1120	1386	2186	2765	1056	1501	1902	1710	200 I 300 I	750 1000	1994 2224	3225 3475	350 600	*1 *1
MU 200	25	37	55	1000	300	1300	1120	1395		1685	1056	1523	1942		200 I 300 I	750 1000	1994 2224	2150 2400	350 600	
MU 200 with loading device	25	37	55	1200	300	2020	1120	1395	2186	2765	1056	1523	1942	1746	200 I 300 I	750 1000	1994 2224	3225 3475	350 600	*1 *1
with vertical loading device										2536					200 I 300 I			3100 3350		

*1 vertical loading device on request

Outlet heights
trolley 200 I: 750 mm
trolley 300 I: 1000 mm

Dimensions/data not binding
Alterations reserved

Automatic Mixing Grinders



Automatic Mixing Grinders

dimensions in mm

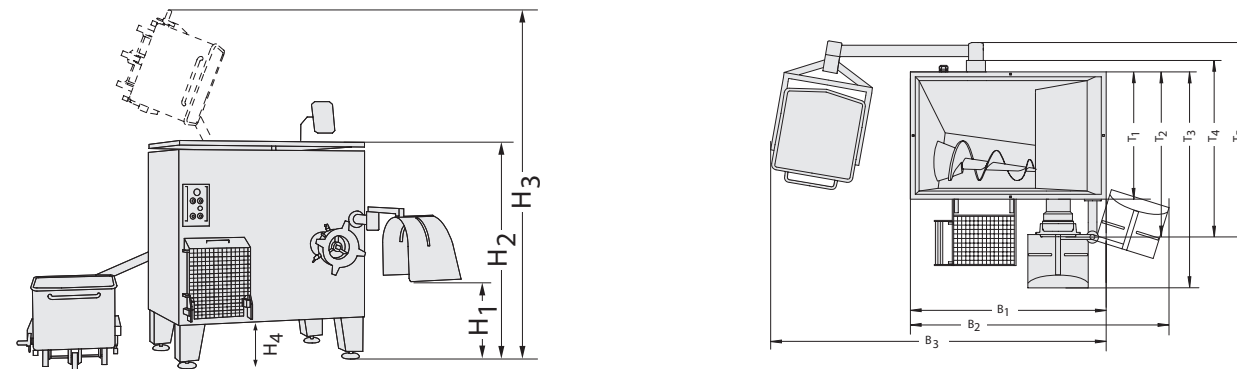
TYPE	power of motors in kW		power of frequency controlled motors	weight in kg	hopper content in liters	min. width of door without disassembling machine parts	width of machine body	outlet protection device open	total width incl. loading device	depth of machine body	depth of machine body without outlet protection device & loading device	depth of machine body with outlet protection device	depth of machine body without loading device	depth of machine body with-out outlet protection device	trolley	outlet height	upper edge safety frame	height of machine	height of elongated feet	remarks
							B1	B2	B3	T1	T2	T3	T4	T5		H1	H2	H3	H4	
AE 130/3 M	14	18	45	1200	350	1350	1204	1705		1091	1311	1623			200 I	750	2029		350	
															300 I	1000	2279		600	*2
AE 130/3 M with loading device	14	18	45	1400	350	1600	1204	1705	2417	1091	1311	1623	1355	1500	200 I	750	2029	3050	350	*4
															300 I	1000	2279	3300	600	*2, *4
AG 160 M	25	37	55	1880	620	1550	1626	2219		1056	1368	1794			200 I	750	2284		350	*2, *5
															300 I	1000	2534		600	*2, *5
AG 160 M with loading device	25	37	55	2180	620	1790	1626	2219	2849	1056	1368	1794	1462	1607	200 I	750	2284	3271	350	*2, *4
									2620						300 I	1000	2534	3521	600	*1, *2, *3
AU 200 M	34	52	75	1930	620	1650	1626	2219		1056	1460	1885			200 I	750	2284		350	*2, *5
															300 I	1000	2534		600	*2, *5
AU 200 M with loading device	34	52	75	2230	620	1950	1626	2219	2849	1056	1460	1885	1553	1699	200 I	750	2284	3271	350	*2, *4
									2620						300 I	1000	2534	3521	600	*1, *2, *3
AV 250 M	45	75	100	2080	620	1650	1626	2392		1156	1494	1948			200 I	750	2284		350	*2, *5
															300 I	1000	2534		600	*2, *5
AV 250 M with loading device	45	75	100	2380	620	1990	1626	2392	2849	1156	1494	1948	1588	1733	200 I	750	2284	3271	350	*2, *4
									2620						300 I	1000	2534	3521	600	*1, *2, *3

*1 no integrated loading device possible/vertical loading device is required instead
*2 working platform and swivel protection required
*3 ring fence of the vertical loading device required
*4 vertical loading device on request
*5 raised hopper (740 or 940 l hopper content) on request

Outlet heights
trolley 200 I: 750 mm
trolley 300 I: 1000 mm

Dimensions/data not binding
Alterations reserved

Automatic Grinders/Universal Grinders



Automatic Grinders

dimensions in mm

TYPE	power of motors in kW			power of frequency controlled motors		weight in kg	hopper content in liters		min. width of door without disassembling machine parts	width of machine body	outlet protection device open	total width incl. loading device	depth of machine body	depth of machine body without outlet protection device & loading device	depth of machine body with outlet protection device	depth of machine body without loading device	depth of machine body without outlet protection device	trolley	outlet height	upper edge safety frame	height of machine	height of elongated feet	remarks
										B1	B2	B3	T1	T2	T3	T4	T5		H1	H2	H3	H4	
AE130/3	14	18	45	900	300	1350	1204	1705		1091	1311	1623						200 l	750	1789		350	
																		300 l	1000	2039		600	
AE 130/3 with loading device	14	18	45	1100	300	1600	1204	1705	2417	1091	1311	1623	1355	1500				200 l	750	1789	3050	350	*4
																		300 l	1000	2039	3311	600	*4
AG 160	25	37	55	1550	400	1550	1626	2219		1056	1368	1794						200 l	750	1789		350	*5
																		300 l	1000	2039		600	*5
AG 160 with loading device	25	37	55	1850	400	1790	1626	2219	2849	1056	1368	1794	1462	1607				200 l	750	1789	2975	350	*4
																		300 l	1000	2039	3225	600	*4
AU 200	34	52	75	1600	400	1700	1626	2219		1056	1460	1885						200 l	750	1789		350	*5
																		300 l	1000	2039		600	*5
AU 200 with loading device	34	52	75	1900	400	1950	1626	2219	2849	1056	1460	1885	1553	1699				200 l	750	1789	2975	350	*4
																		300 l	1000	2039	3225	600	*4
AV 250	45	75	100	1750	400	1760	1626	2392		1156	1494	1948						200 l	750	1789		350	*5
																		300 l	1000	2039		600	*5
AV 250 with loading device	45	75	100	2050	400	1990	1626	2392	2849	1156	1494	1948	1588	1733				200 l	750	1789	2975	350	*4
																		300 l	1000	2039	3225	600	*4
with vertical loading device									2620									200 l			3100		
																		300 l			3350		

Universal Grinders

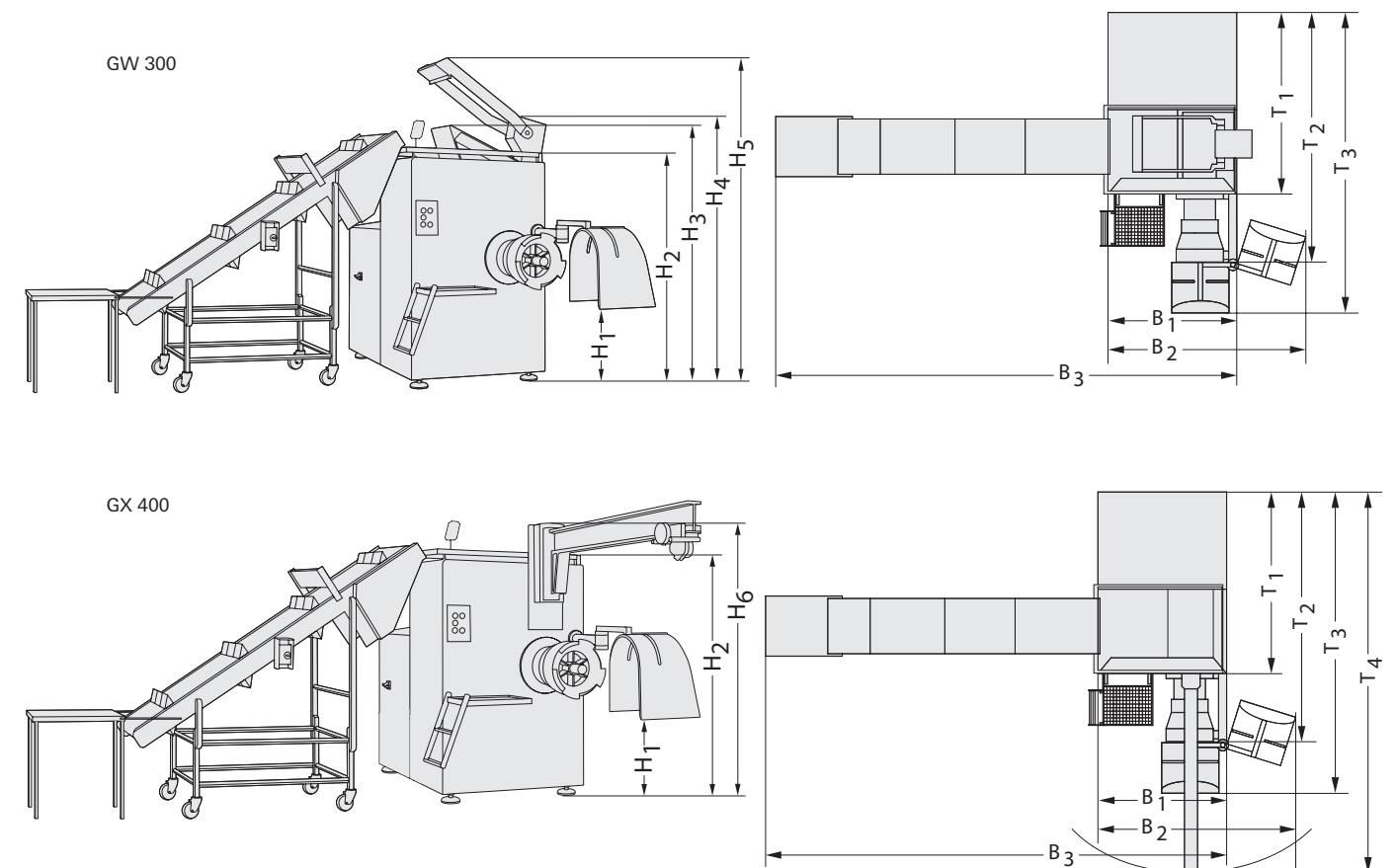
AU 200 U	45	90	100	4000	570	1990	2007	2592		1483	1885	2312						200 l	750	2029		250	*6
																		300 l	1000	2279		500	*2, *6
AU 200 U with loading device	45	90	100	4500	570	2250	2007	2592	3026	1483	1885	2312	1982	2131				200 l	750	2029	3258	250	*4
																		300 l	1000	2279	3508	500	*2, *4
AV 250 U	55	90	140				2007	2592	3026	1483	1911	2339	2008	2158					750	2061		281	*6
AV 250 U with loading device	55	90	140				2007	2592	3026	1483	1911	2339	2008	2158					750	2210		281	
AW 300 U	78	108	200	7000	925	2690	2272	2867		1823	2517	2929						200 l	750	2463	3582	140	*1, *2, *3
																		300 l	1000	2713	3832	390	*1, *2, *3

- *1 no integrated loading device possible/
vertical loading device is required instead
*2 working platform and swivel protection required
*3 ring fence of the vertical loading device required
*4 vertical loading device on request
*5 raised hopper (800 or 1000 l hopper content) on request
*6 raised hopper (1000 l hopper content) on request

Outlet heights
trolley 200 l: 750 mm
trolley 300 l: 1000 mm

Dimensions/data not binding
Alterations reserved

Frozen Meat Grinders



Frozen Meat Grinders

dimensions in mm

TYPE	power of motors in kW			power of frequency controlled motors		weight in kg	hopper content in liters		min. width of door without disassembling machine parts	width of machine body	outlet protection device open	width of machine	depth of machine body	depth without outlet protection device	depth with outlet protection device	depth of machine incl. crane	trolley	outlet height	upper edge safety frame	upper edge inlet steel plate	pressing device run in	pressing device moved out	upper edge of crane	remarks
										B1	B2	B3	T1	T2	T3	T4		H1	H2	H3	H4	H5	H6	
GW 300 with conveyor belt	78	105	140	3300	450	1500	1260	1975		ca. 4800		ca. 5000	1810	2463	2802		200 l	750	2124	2213	2466	3068		*1
																	300 l	1000	2374	2463	2716	3318		*1
GX 400 with conveyor belt	85	140	140	3520	460	1330	1260	2085		ca. 5000		ca. 5250	1810	2508	2910	4020	200 l	750	2111	2422	2459	3064	2337	*2
																	300 l	1000	2361	2672	2709	3314	2587	*2

- *1 110 l effectively usable due to inlet steel plate
*2 inlet steel plate and pressing device available on request

Outlet heights
trolley 200 l: 750 mm
trolley 300 l: 1000 mm

Dimensions/data not binding
Alterations reserved

Industrial Grinders



Maschinenfabrik Seydelmann KG

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