

WP RIEHLE Presentation of the product portfolio

SPECIALISED AREAS

of WP Lebensmitteltechnik RIEHLE GmbH





of the presentation

DEEP FRYING (PASTRY)

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& COOKING

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ACCESSORIES

THE SMALL DEEP FRYER FOR THE BIG BAKING DEMONSTRATION Deep fryer Fettboy







The mobile deep fryer Fettboy for manual deep-frying is particularly suitable for smaller quantities of approx. 20 to 24 dough pieces per baking process. The Fettboy features digital heating control for minimal temperature fluctuations as well as a set/actual temperature display, thus ensuring reduced fat absorption and consistent quality.







ADVANTAGES Deep fryer Fettboy

- Handling: quick and easy cleaning without tools
- Energy saving
- Heating coils directly in the fat for faster heat exchange
- Design: solid and durable stainless steel construction
- Safety: equipped with a safety thermostat, prevents grease fires in case of malfunction
- Quality: Made in Germany







EQUIPMENTDeep fryer Fettboy



MANUAL STEAM LID:

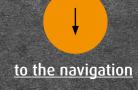
for larger donut/pastry volumes



CONTROL SYSTEM:

Digital heating control for less fat absorption. Target/actual temperature Display for increased control.





EQUIPMENT Deep fryer Fettboy



STANDARD WITH TWO FLAT BAKING BASKETS:

For floating deep-frying



ODER WITH A TURNING BASKET:

With a turning basket for simultaneous turning of approx. 20 berliners during a frying cycle.

FACTS & OPTIONS Deep fryer Fettboy

Per baking process: 20-24 pieces

Filling quantity: approx. 17 litres

OPTIONS:

- Mobile lower frame
- Turning basket
- Flat baking basket
- Perforated stainless steel basket with high rim
- Dipping lid







THE SMALLEST, FULLY EQUIPPED DEEP FRY DEVICE Deep fryer Mini 20



Ideal for the production of smaller quantities. With the integrated, closed proofing chamber and the 2-litre water tank, the Mini 20 is ready-to-go and can be used practically anywhere. All important features of larger units are available in a small space and make work extremely easy, even in small productions.







ADVANTAGES Deep fryer Mini 20

- Handling: Flexible in use due to stable castors and integrated proofing chamber not fixed in place
- Hygiene: fast and tool-free cleaningn
- Energy saving: Heating coils directly in the fat for faster heat exchange
- Design: solid and durable stainless steel construction
- Safty: equipped with a safety thermostat, prevents grease fires in case of malfunction
- Quality: Made in Germany



EQUIPMENTDeep fryer Mini 20



DIGITAL HEATING CONTROL:

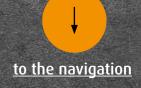
for exact temperature control



TIGHTLY CLOSING STEAM BLANKET:

Mounted on the unit for larger donut/pastry volumes





EQUIPMENTDeep fryer Mini 20



INTEGRATED PROOFING CHAMBER:

Is closed at the bottom and has 8 shelves



COMPACT DESIGN:

full performance with full equipment on approx. 1 m²

ACCESSORIES

Deep fryer Mini 20



ACCESSORIES: TURNING BASKET

Turning basket for turning in grease and 8 proofing trays



FACTS & OPTIONS

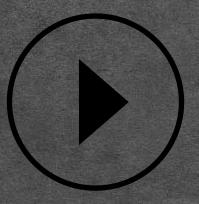
Deep fryer Mini 20

- Per baking process: 20 pieces
- Time saving and low personnel deployment

OPTIONS:

- Flat frying basket
- Perforated frying basket with high rims
- Frying basket with high rims with a lid for submerged frying
- Manual or automatic depositor
- Exhaust hood





Watch video via browser

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MORE FLEXIBILITY TO MEET YOUR REQUIREMENTS Deep fryer L2000 D







With its many possible variations, the L2000 D automatic deep fryer offers a wide range of customisation options. Depending on the desired number of products per hour, a corresponding unit width (36, 48, 60) can be selected. Upon request, the 2000 D line is also available without proofing chamber.





ADVANTAGES Deep fryer L2000 D

- tightly closing manual WP RIEHLE volume cover for bigger volume on the same given weight
- longer fat life by pulsed heating during heating up the fryer
- minimum energy consumption and constant temperature due to direct heating in the oil
- lowest fat absorbtion due to constant temperature
- Gas-strut assists lifting of the turning basket



FEATURES

Deep fryer L2000 D

- Configurable: Can be adapted to your needs in terms of variant and equipment
- Easy to use: Gas pressure supported lifting unit for easier lifting and lowering of the baking basket
- Clean: The baking basket remains above the grease tray, so that excess fat drips back into the pan

Possible quantity

Per baking process: 30 - 60 pcs.





EQUIPMENTDeep fryer L2000 D



DIGITAL HEATING CONTROL:

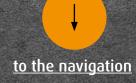
for exact temperature control





Tight-closing manual steam lid for larger pastry volumes





EQUIPMENTDeep fryer L2000 D



LESS GREASE CARRY-OVER:

W-sheet can be rolled under the baking basket with the lateral run-off trolley.

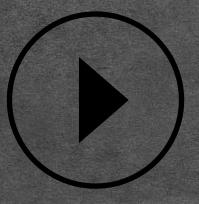
OPTIONS

Deep fryer L2000 D

- optional fermentation chamber with integrated water tank
- optional oil drain tank with backwash pump
- turning basket and dumping trays (each 4-and 6-row)
- high trolleys (16, 18 and 20 shelves)
- Flat frying basket with down holder lid for submerged frying
- lots of accessories available



Video of the Linie 2000 D



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DEEP FRYING WITH AUTOMATIC TURNING

Deep fryer Linie 2000 A







With line 2000A and Vario, fully automatic baking is possible thanks to programmable baking processes and automatic turning. The volume steam lid remains closed until the first turn, thus ensuring larger volume of baked goods with the same raw weight.







ADVANTAGES Deep fryer L2000 A

- tightly closing WP RIEHLE volume cover for bigger volume on the same given weight
- longer oil life thanks to pulsed heating during heating up of the fryer
- minimum energy consumption and constant temperature due to direct heating in the oil
- lowest fat absorption due to constant temperature
- computer control with 10 baking programmes for consistent quality
- automatic mode enables free working time during the baking process





OPTIONS

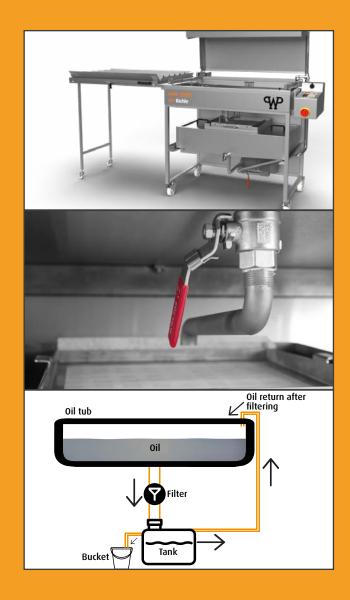
Deep fryer L2000 A

- optional fermentation chamber with integrated 2-liter water tank
- optional oil drain tank with filter and backwash pump
- available as a Vario Station with 2 fryers and a table in the middle
- turning basket and dumping trays (each 4-and 6-row)
- high trolleys (16, 18 and 20 shelves)
- various accessories available



ADVANTAGES OF VARIANT Deep fryer L2000 A TANK & PUMP

- drain tank with filter and backwash pump for longer oil life
- used oil is collected in the tank after filtering at the end of work
- the backwash pump provides oil pumping back into the oil tub after filtering
- if the oil is no longer required, it can be drained from the tank



OPTIONS OF VARIANT Deep fryer L2000 A TANK & PUMP

 same options as for the L2000A, but instead of the integrated fermentation chamber only a separately standing mobile fermentation chamber with integrated 2-litre water tank can be provided





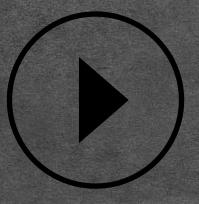
VARIO STATION of the Linie 2000 A



BENEFITS VARIO

- Doubling of the production volume
- Connection table in the middle

Video of the Linie 2000 A



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SUSTAINABILITY OF RESOURCES IN PERFECTION

Deep fryer Linie 2000 Energy







With the Linie 2000 E (single units, VARIO or TRIO), fully automatic baking is possible thanks to the programmable baking processes and the automatic turns. The volume steam lid remains closed until each turn, thus ensuring a larger volume of baked goods at the same weight.







ADVANTAGES of the Linie 2000 Energy

- Tightly closing WP RIEHLE steam lid for larger baking volume on the same given weight
- Longer fat life due to constant temperature
- Lowest energy consumption and constant temperature due to direct heating in oil
- Low energy consumption due to oil tub insulation
- Various system configurations available, such as:
 Single unit, Vario station, Trio station, etc.
- Computer control with individually programmable baking programmes for consistent quality





ADVANTAGES of the Linie 2000 Energy

- All connected system parts are controlled via the baking programme. When the baking programme is changed, for example, the filling is also changed automatically
- Flexibility to optimise production processes
- Mobile with castors with brakes
- High energy saving
- Resource efficient production (electricity, fat, personnel, space)



ADVANTAGES of direct heating

- Low energy consumption: Direct heating means there are fewer transition losses, 100% of the generated energy transfers into heating of the oil or fat
- Constant temperature: Direct heating reacts more quickly to temperature measurements and, therefore, has significantly fewer temperature fluctuations. Advantages of the constant temperature:
 - Longer fat service life
 - Significantly lower fat absorption of products
 - Consistent frying quality throughout the entire frying process
- No burning of fallen product parts on the base of the oil tub due to the cold zone below the heating elements



SUSTAINABILITY FACTSof the Linie 2000 Energy

ENERGY:

approx. 50% energy saving while heating, approx. 25% energy saving while baking, approx. 25% energy saving while idling

MATERIAL:

Reduction of the fat volume from 49 litres to 40 litres, Reduction of fat absorption through digital heating control, Pulsed heating against fat burning ensures longer fat life

PERSONNEL:

Halving of the waiting time during heating, thus higher machine availability,
Ergonomic working height: 91.5 cm,
The use of Vario and Trio stations ensures a significant shortening of work routes and waiting times

(PASTRY) Energy saving Heating up **Energy consumption** 3.8 kW to 7.2 kW/h 34 min to 66 min **Energy saving Baking with Energy consumption** opened lid 91% 3.7 kW to 4.1 kW/h Energy saving 25% Waiting times Energy consumption at the idle run 75% 1.2 kW/h to 1.6 kW/h **Energy saving Baking with Energy consumption** closed lid 3.1 kW to 4.1 kW/h

DEEP FRYING

L2000E compared to L2000A

www.wp-riehle.de



ENERGY SAVING MEASURES

Deep fryer Linie 2000 Energy



INSULATED OIL TUB FLOOR:

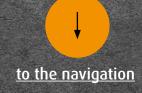
Insulated oil tub floor decreases the heat radiation loss in the downward direction, minimizes heat loss and contributes to the efficiency increase.



INSULATED OIL TUB WALLS:

Insulated oil tub walls prevent heat radiation loss sidewards, what leads to keeping of heat inside of the tub and, therefore, reduces energy loss.





ENERGY SAVING MEASURES

Deep fryer Linie 2000 Energy



TIGHTLY CLOSING VOLUME LID:

Tightly closing volume lid can be closed after every turn what allows to reduce heat radiation loss in the upward direction and ensures keeping of heat inside of the oil tub.



REDUCED OIL TUB VOLUME:

The reduction of the oil tub volume from 49 to 40 liters results in lower energy consumption for heating up, and thus, in more effective energy use.

TECHNICAL DETAILS of the Linie 2000 Energy

	Size 60
Width	2,450 mm
Depth	983 mm
Height (with opened lid)	1,433 mm
Working height	915 mm
Filling quantity	approx. 40 litres
Heating power	9 kW at 400 V / 50 Hz
Connection	Cekon plug 16A (5-pin)

These parameters are decisive for the performance and suitability of the machines in different operating environments.



QUALITY

Deep fryer Linie 2000 Energy



LARGER VOLUME

The tightly closing WP RIEHLE steam lid enables a higher vapour pressure until the first turn on the baked goods, thus ensuring a larger volume of baked goods at the same weight.

LIGHTER AND DIGESTIBLE

Less fat absorption due to precise temperature control.



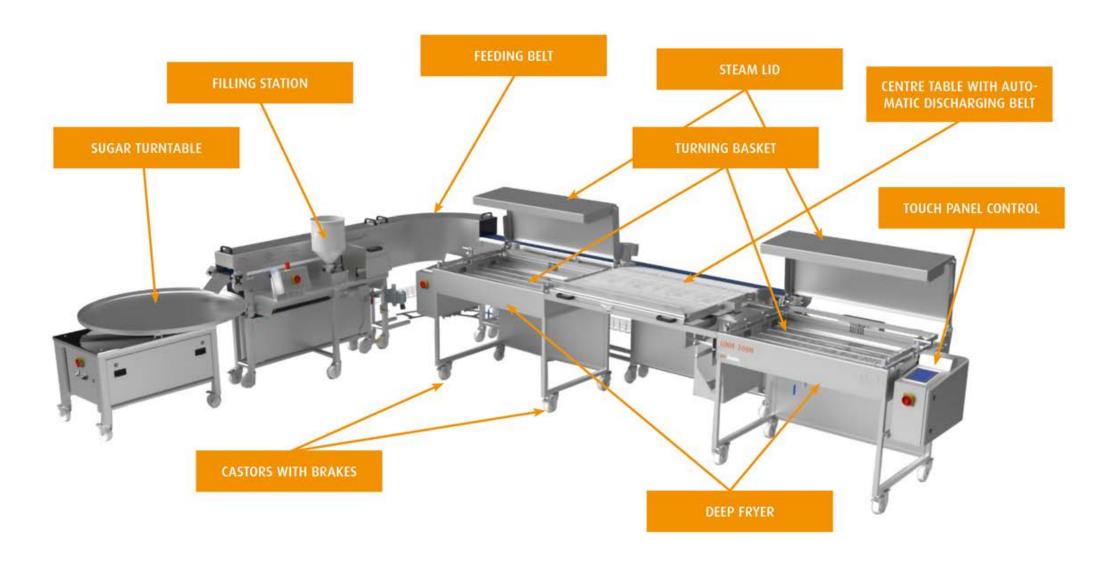
PROGRAMMABLE BAKING PROGRAMMES

- → Reduced fat absorption thanks to precise temperature control.
- →all baking parameters and the settings of all connected additional devices, such as filling, sugaring, powdering, sugar turntable, are controlled via the baking programmes. This ensures your product quality and prevents rejects or returns.



LINIE 2000 ENERGY

Vario station





OPTIONS &

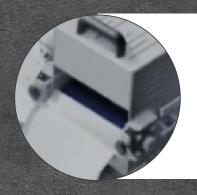
Accessories

Various system configurations available, such as: Single unit, Vario station, Trio station, etc.

Optional Accessories:



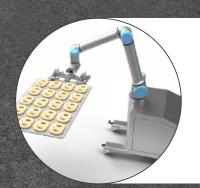
FILLING



POWDERING / SUGARING



SUGAR TURNTABLE



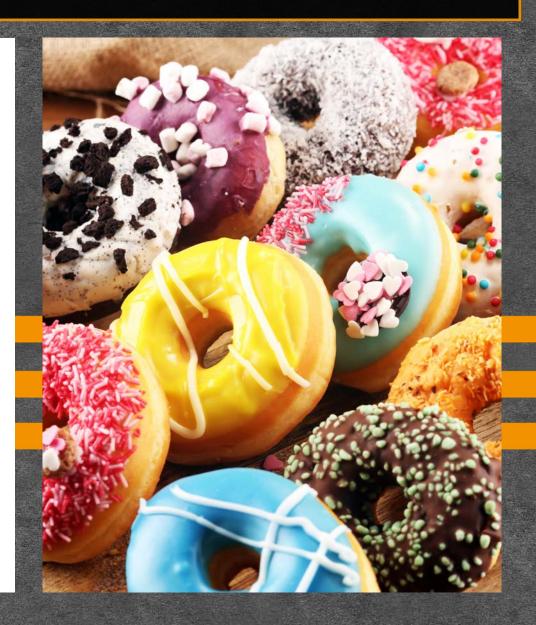
WP ROBOTICS

OPTIONAL

Accessories

ACCESSORIES FOR OPTIMISED PROCESSES:

- Mobile trolley with oil drain filter tank, fat melting unit, heater and backwash pump
- Turning baskets and dumping trays (eachwith 4 or 6 rows)
- Trolleys for proofing chamber
 (8, 9, 10, 16, 18 and 20 shelves)
- Wide range of accessories, such as: automatic filling, sugaring, powdering, sugar turntable, dosing devices for French crullers, donuts and cottage cheese bally



CONTINUOUS SUBMERGE FRYERS WITH DIRECT INPUT DLA



Automatic continuous fryers for submerged and floating frying of products. → Consistently top quality: evenly fried products → More wholesome products thanks to reduced fat absorption → Increased efficiency thanks to 40% shorter frying time → Reduced energy consumption thanks to shorter frying time, direct heating and efficient design







ADVANTAGES Continuous submerge fryers

- Different widths: 150, 300, 600, 660
- Glass display control with 7 programmes
- Digital heating control leads to a constant temperature and thus reduces fat absorption
- Reduction of the working and frying time of up to 40% by submerged frying
- Constant frying results
- Easy cleaning by removing the transport unit and heating unit without tools
- With dosing device ideal for products such as quarkballs, french crullers, cake donuts and much more





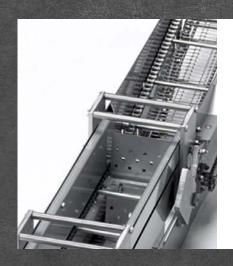
Continuous submerge fryers

- Continuous oil filter
- Automatic dosing devices
- Various transport belts available
- Increased heat output for extreme applications
- Also available as a fast runner (for pre-frying)
- Customised feeding and discharging solutions
- Customised special equipment
- In different frying lengths and widths available
- From 600 hydraulic lifting unit for transport insert and heating, for easy cleaning of the fat tray
- Extensive accessories for various product shapes and sizes





Continuous submerge fryers



OPTIONAL: TURNING INSERT

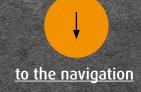
With one or two turns for the production of cake-donuts, crullers and other floating fried products



OPTIONAL: AUTOMATIC DOSING

fixed or moving, for use of the full fryer width, for the production of curd cheese dumplings, crullers, cake-donuts and many more.





Continuous submerge fryers



OPTIONAL: CROSS DISTRIBUTION BELT

For single-row transfer from automatic forming machines and multi-row transfer to the entire width of the deep fryer. Excellent for filled curd cheese dumplings.



OPTIONAL: SUGAR TURNTABLE

After the continuous deep fryer

VARIANT DLA 150

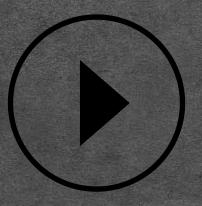


• Usable width: 140 mm

Heating power can be increased



DLA 150-2: Production of curd cheese dumplings

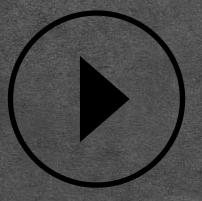


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DLA 150-2: Production of French crullers and Berliners



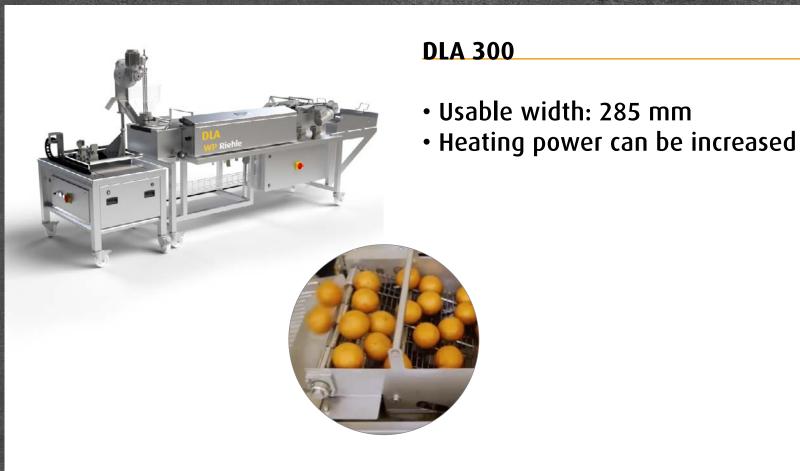
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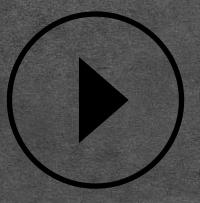
VARIANT

DLA 300





DLA 300-2: Production of filled curd cheese dumplings



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VARIANT DLA 600



DLA 600

- Usable width: 585 mm
- Heating power can be increased

ADDITIONAL OPTIONS 600

- Integrated drain filter tank under the fat tray, with automatic level control and washable stainless steel permanent filter and flap for splash-free feeding of fat blocks
- Hydraulic lifting unit for transport insert and heating, for easy cleaning of the fat tray. This is required from DLA 600 SC-3 upwards.



AUTOMATED

deep frying



The DLA 660 Donutmaster is the economical version of the continuous fryers and can be described as the preliminary stage to the industrial continuous fryers.







ADVANTAGES

of the DLA 660 Donutmaster

The DLA 660 is characterised by state-of-the-art technology that offers simple operation, versatile frying options and consistent results – an advanced solution for the efficient and high-quality production of donuts and Berliners.









FEATURES of the DLA 660 Donutmaster

- TURNING: with turning insert with one turn (alternatively also with two turns)
- GLASS DISPLAY CONTROL: Enables easy operation and monitoring of the baking process
- WITH 7 STORABLE BAKING PROGRAMMES: for adapt the baking process to different recipes and requirements
- DIGITAL HEATING CONTROL: Ensures a constant temperature during baking for optimum results
- PULSED HEATING: To prevent fat burning on the heating coils





of the DLA 660 Donutmaster

- THROUGHPUT SPEED: infinitely variable
- PRODUCT TRAY
- UNDERFRAME: mobile
- TRANSPORT UNIT AND HEATING: with tool-free removal

With the DLA 660, we are setting new standards in the industry and offering our customers a reliable and innovative solution for their baking requirements.



INCLUDED IN DELIVERY

DLA 660 Donutmaster





- with 7 storable baking programmes
- Separate heating zones, individually adjustable
- Each heating zone with its own safety thermostat



TURNING

- Available with one or two turns as required
- Standard bar spacing :
 119 mm

OPTIONAL ACCESSORIES

DLA 660 Donutmaster



DRAIN FILTER

 for comprehensive fat care and longer fat service life



HYDRAULIC LIFTING SYSTEM FOR TRANSPORT UNIT

- for easy cleaning
- electrical or mechanical

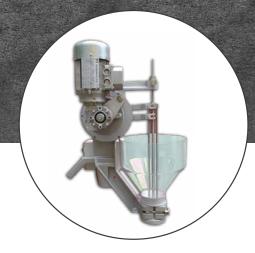
OPTIONAL ACCESSORIES

DLA 660 Donutmaster



CLOTH FEEDING TABLE

- for manual loading with polyester cloths
- Automatic transfer of the dough pieces to the deep fryer
- Collecting container for cloths and bars underneath the table

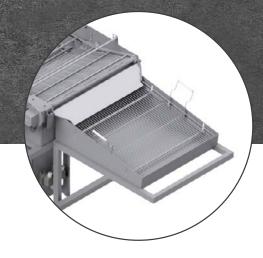


AUTOMATIC DOSING DEVICE (INSTEAD OF CLOTH FEEDING TABLE)

 for the automatic dosing of cake donuts, crullers, curd cheese dumplings

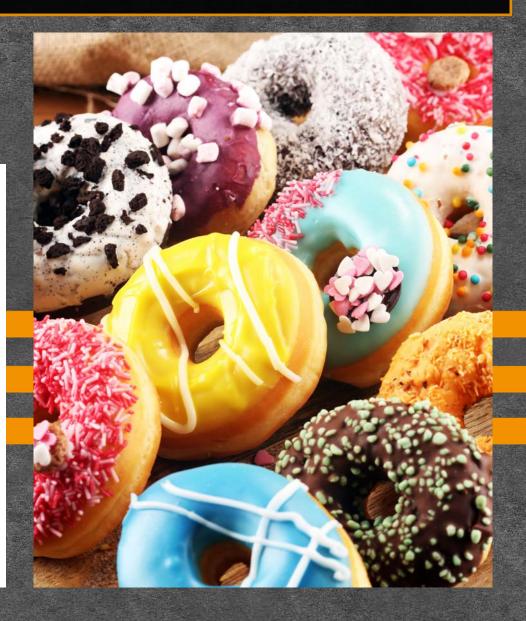
OPTIONAL ACCESSORIES

DLA 660 Donutmaster



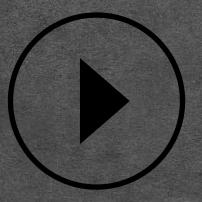
PRODUCT TRAY

- with collecting grid
- can also be used as a sugar tray





DLA 660 Donutmaster: Production of vegan donuts



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DLA INDUSTRY TOUCH &

DLA SC Industry Touch







Continuous Frying in Perfection: With our machines you reduce cooking time by up to 40% and obtain even frying results.

They come in different configurations and are ideal for a variety of products.

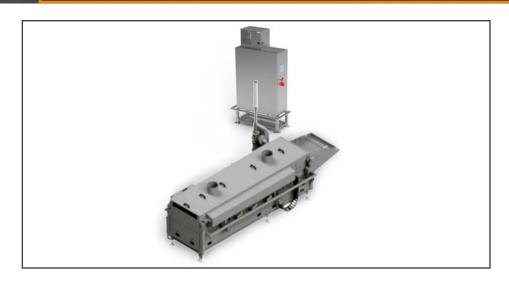






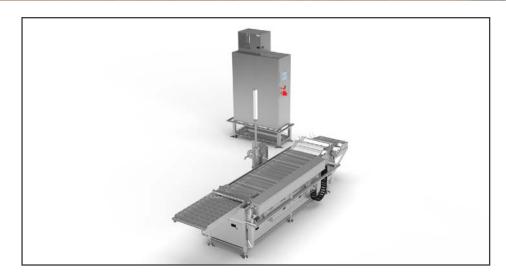
INDUSTRY TOUCH

Versions



DLA 600 Industry Touch

- For direct falling entry of products into the oil
- Ideal for frying of cottage cheese balls, falafels, and other products which are dispensed directly into frying oil
- Depending on customer requirements, DLA Industry Touch can be adapted to their specifications. It is compatible with various upstream machines such as lane multiplier, dosing units, breading and battering appliances



DLA 600 SC Industry Touch

- For smooth entry of products by an entrance belt
- Ideal for frying of meat, French fries, vegetables and fish, for cooking dumplings etc. For all products which should enter the oil/liquid without falling
- Two methods of product supply to the fryer: automatic or manual



USABILITY of the Industry Touch

- Touch panel control with different programmes for convenient operation
- Easy cleaning due to integrated hydraulic lifting unit for transport system and heating elements
- Separate electrical control cabinet







CLEANING

of the Industry Touch

Hydraulic lifting of the complete transport unit and heating elements for easy cleaning.

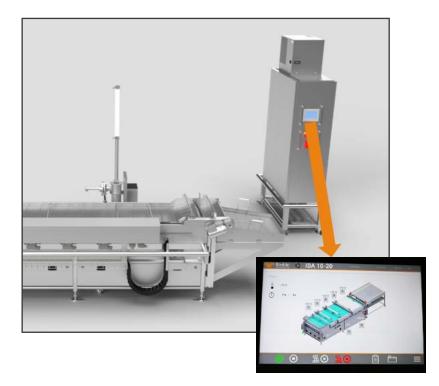




CONTROL CABINET of the Industry Touch

Separate control cabinet with touch panel control:

- Operation via intuitive Beckhoff touch control panel, providing complete system control and visualization
- Different user levels: Operator, Master, Service
- Remote maintenance via the internet connection



Resistent to fat, water, dust and dirt

POSSIBLE FILLINGS

of the Industry Touch









Depending on your products, choose the right base as a filling for your continuous deep fryer, such as:

Fat / oil: To deep-fry products, our continuous deep fryers (DLAs) can be filled with liquid fat or oil. Ideal for deep-frying desserts, such as cottage cheese balls, or for deep-frying savoury products, such as schnitzel or falafel.

Water / broth:

To cook products such as bagels or dumplings, you can also fill the units with water or a flavoured liquid.

Please discuss this with our sales team in advance so that we can provide you with the best possible advice.













of the Industry Touch

- Available in different versions of frying length and width:
 - customized length: 2,500 mm or more
 - customized width: 600 mm (standard),
 1,000 mm or more
- Transport units with tailored conveyor belts
- Increased heating power for frying under specific customer requirements
- Ancillary equipment like continuous fat filter, tank with drain filter and automatic oil level control, and refill tank









OPTIONS FOR FILTER & TANK of the Industry Touch

- → Tank with drain filter and automatic oil level control
- Provided with a heating system for melting and preheating up to 100°C
- Washable permanent stainless steel filter
- Oil level control in the deep fryer by means of refill pump and overflow tube
- Splash-free input of fat blocks through input flap

- → Continuous fat filtration
- Enables continuous filtering of oil/fat throughout the entire production process
- With self-cleaning stainless steel permanent filter element
- Constantly ensures a low number of suspended particles in oil/fat
- Extends oil/fat service lifetime

- → Refill tank
- Stainless steel tank with a capacity of 200 liter
- Equipped with a pump for refilling the fryer
- Includes a filling level sensor for the fryer to enable automatic level regulation
- Provided with a heating system for melting and preheating up to 100°C
- Stainless steel piping to connect the refill tank with the fryer, without insulation
- Positioned directly next to the fryer







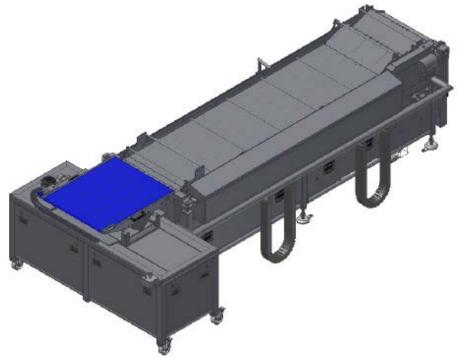




COMPATIBILITYof the Industry Touch

Compatibility with various infeed systems, for example:

→ Integration of DLA / DLA SC Industry Touch with upstream machines requires a lane multiplier for product distribution to the full width of the fryer

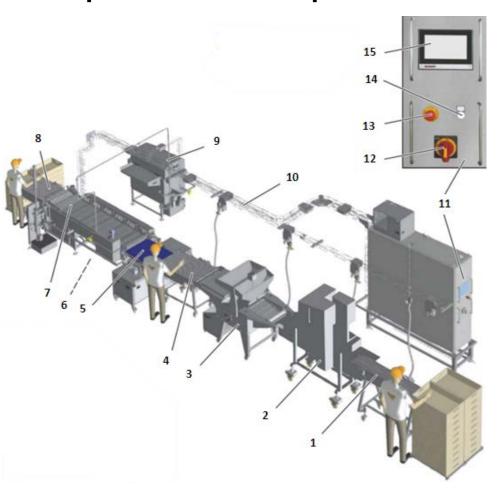


 Implementation of the lane multiplier enables to increase the amount of product rows inside of the tub, thus, leading to maximizing of the output of the production line



COMPATIBILITY of the Industry Touch

→ Example of an automated production line



- 1. Feed-in belt
- 2. Flouring unit
- 3. Breading unit
- 4. Intermediate belt
- 5. Lane multiplier
- 6. Drain tank (without illustration)
- 7. Continuous deep fryer Industry Touch
- 8. Cooling belt
- 9. Refill tank
- 10.Cable rail
- 11. Control cabinet with touch control
- 12. Main switch
- 13.Emergency STOP button
- 14. Release button
- 15. Touch panel



COMPATIBILITYof the Industry Touch

Compatibility with various infeed systems, for example:

→ Automatic battering and breading machine – perfect complement to DLA (SC) / DLA (SC) Industry Touch



- Products are automatically coated with battering liquid and breaded, and are sequentially transferred to the deep fryer
- Combination of both machines enables efficient and smooth operation
- Easy handling and cleaning



of the Industry Touch

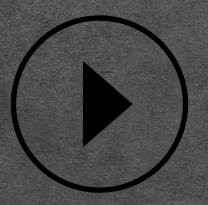
- Digital heating control leads to keeping constant temperature and, therefore, enables reduced fat absorption of fried products
- Stainless steel heating elements
- Compatibility with customised feeding solutions and outfeed systems for efficient and smooth production process
- Constant frying results













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DEEP FRYING WITH ARTISAN QUALITY & IN LARGE QUANTITIES Industrial throughput system IDA 1100-20 and IDA 1100-40



The proven Riehle steam lid also ensures excellent volume output of donuts/pastries in the large IDA systems. The intelligent temperature control reduces fat absorption to a minimum.







BENEFITS

Industrial throughput system IDA

- Production of large quantities
- Maximum labour savings
- Continuous production using a throughput system
- Operation of all connected system parts via intuitive touch panel control, which can be maintained remotely
- Filling is also controlled via the baking programme, the filling quantities are changed automatically





BENEFITS

Industrial throughput system IDA

- Several heating zones that can be controlled independently of each other for a constant temperature and reduced fat absorption
- Steam lid for larger baking volume
- Integrated fat filter for longer fat utilisation time





CENTRAL CONTROL

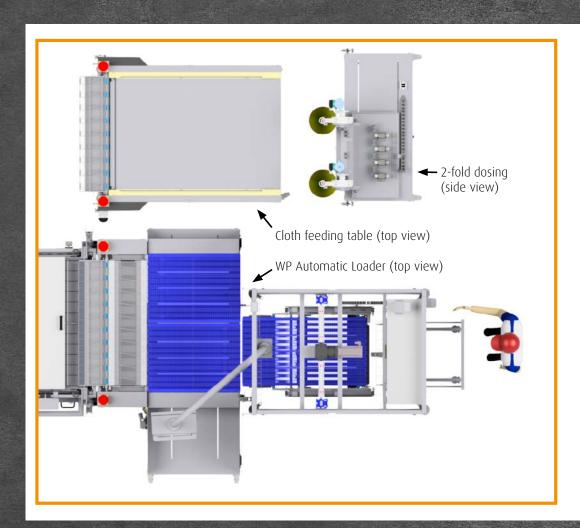
Industrial throughput system IDA



INTUITIVE TOUCH CONTROL

All IDA components are operated centrally via a control system, which is internet-ready and remote maintenancecapable. Different user levels with corresponding access rights can be stored in the software. The IDA can also be controlled via a tablet.

Industrial throughput system IDA

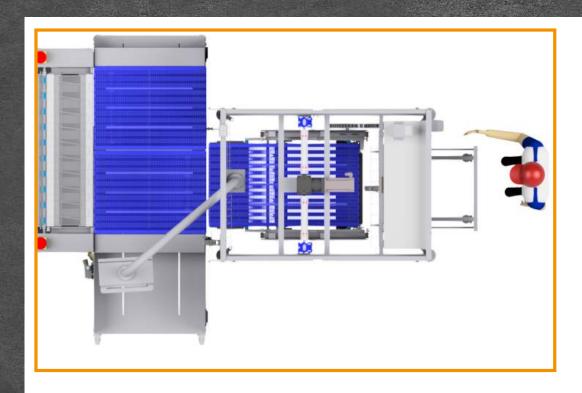


INPUT SYSTEMS

Depending on the products, modular input systems for IDA are available: Cloth feeding table, automatic loader for system trolleys with transfer/distribution unit, automatic 2-fold dosing for curd cheese dumplings, crullers, cake-donuts, and much more.



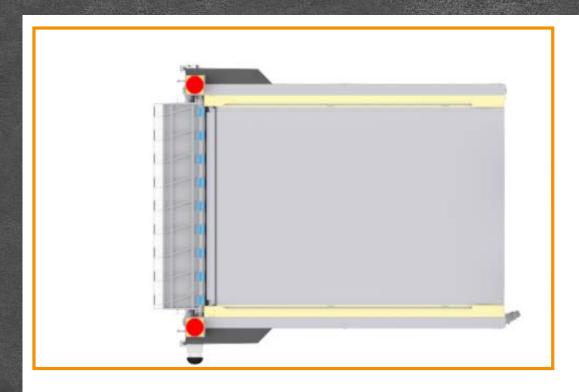
Industrial throughput system IDA



AUTOMATIC LOADER

- Automatic feeding via WP RIEHLE system rack and rack feeding robot
- The trolley is fixed automatically and discharged at the end of the baking process
- Maximum reduction of personnel workload through automatic transfer of 18 proving setters

Industrial throughput system IDA

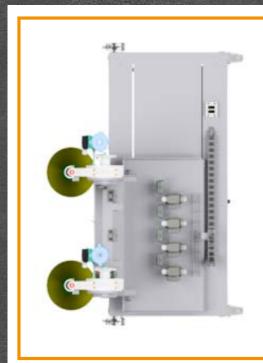


TUCHEINGABETISCH

- Feeding width 2x 580/1x 980 or 1x 1100 as required
- Manual feeding via polyester cloths with hollow seam and transport bars
- Integrated collecting drawer for used cloths/bars
- Moveable on castors
- Maximum reduction of personnel workload by feeding 2 sheets simultaneously



Industrial throughput system IDA



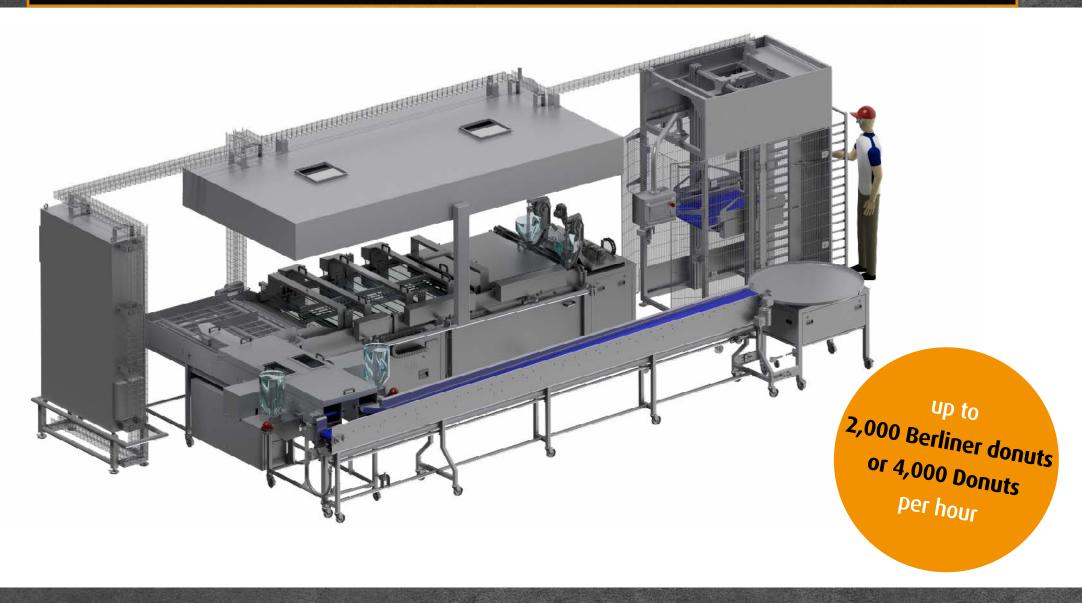
2-FOLD DOSING UNIT

- Automatic dosing of cottage cheese balls, crullers, cake donuts, etc.
- Optional: automatic refilling of the baking mixture



STRUCTURE

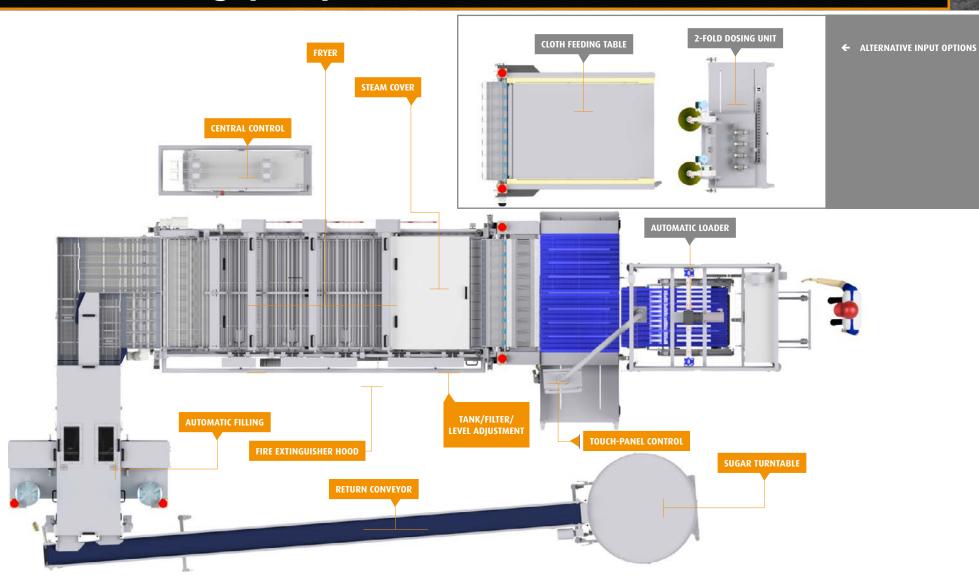
Industrial throughput system IDA 1100-20





STRUCTURE

Industrial throughput system IDA 1100-20





Industrial throughput system IDA 1100-20

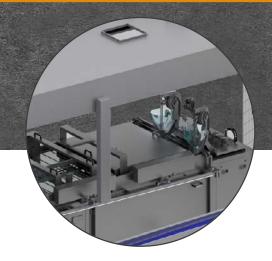


FRYER

- 3 turns, operated by servomotor, can be individually submerged into the oil tub
- Hydraulic lifting unit for transport unit and heating elements, hence the oil tub accessible from all sides
- 4 heating zones, individually controlled for constant temperature and lower fat absorption

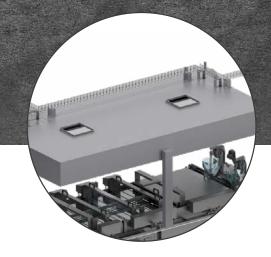


Industrial throughput system IDA 1100-20



STEAM COVER

 Before the first turn in order to attain a larger volume at the same weight



FIRE EXTINGUISHER HOOD

- Dimensions: LxWxH:
 4,000 x 1,900 x 450 mm
- Ceiling mounted, alternatively on a lower frame



Industrial throughput system IDA 1100-20



TANK/FILTER/LEVEL ADJUSTMENT

- For melting and preheating of the fat
- With feeding flap for safe, splash-free refilling of fat blocks
- Integrated drain filtration with stainless steel permanent filter for longer fat usage periods

Industrial throughput system IDA 1100-20



TANK/FILTER/LEVEL ADJUSTMENT

- 200°C permanent temperature stable pump for automatic level adjustment of the oil level in the fryer
- Can be moved out for hygienic cleaning
- With removable lid for hygienic cleaning



Industrial throughput system IDA 1100-20



AUTOMATIC FILLING

- 2-row filling
- Filling quantities can be saved in the central control
- Precise filling via time-controlled gear pumps
- Maximum reduction of personnel workload through automatic change of the filling quantities by changing the baking programme



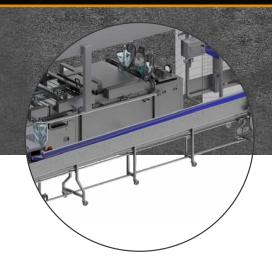
Industrial throughput system IDA 1100-20



AUTOMATIC FILLING

 Maximum reduction of personnel workload through inter- changeable container system for different fillings

Industrial throughput system IDA 1100-20

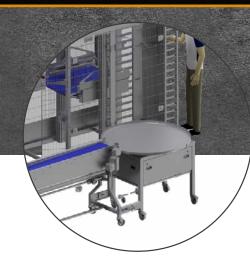


RETURN CONVEYOR

- Useful length 4,770 mm (distance from the second chute until the edge of the chute to the sugar turntable)
- After filling the products are returned to the start of the frying line
- Maximum personnel saving by shortening of the working paths

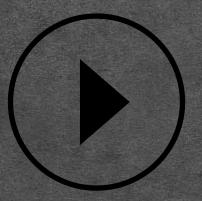


Industrial throughput system IDA 1100-20



SUGAR TURNTABLE

- Diameter 115 cm
- Maximum personnel saving by positioning directly beside the feeding table and hence shortening the working paths



Watch video via browser

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STRUCTURE

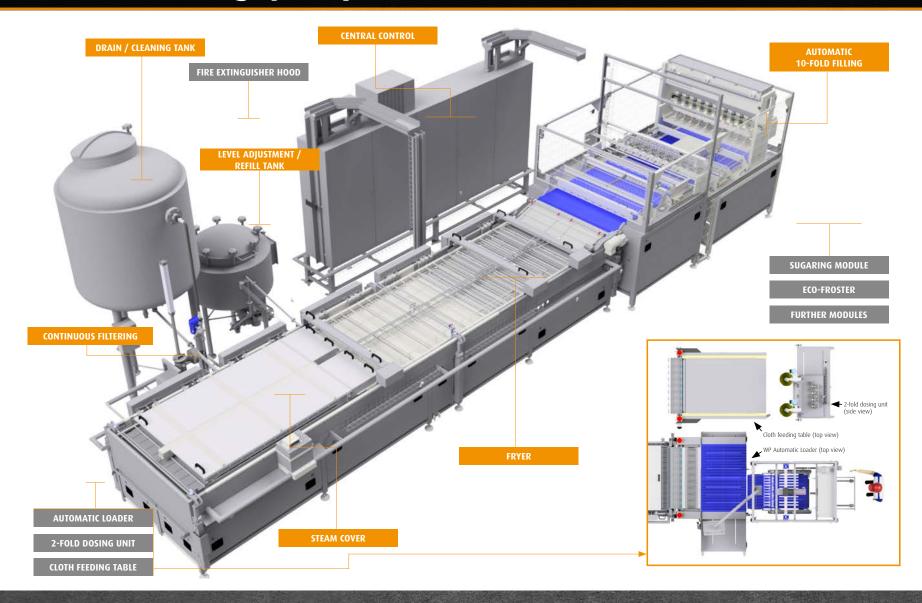
Industrial throughput system IDA 1100-40





STRUCTURE

Industrial throughput system IDA 1100-40





Industrial throughput system IDA 1100-40



FRYER

- 3 servomotor controlled twists, can be individually switched off and recessed in the tray
- Hydraulic lifting unit for transport use and heating, hence tray accessible from all sides
- Separate heating zones, controlled independently of one another for constant temperature and lower grease absorption

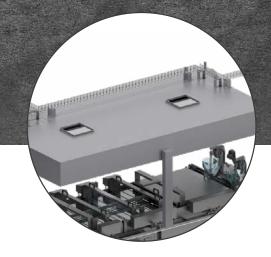


Industrial throughput system IDA 1100-40



STEAM COVER

 Before the first turn in order to attain a larger volume at the same weight



FIRE EXTINGUISHER HOOD

- Dimensions: LxWxH:
 8,000 x 1,900 x 450 mm
- Ceiling mounted, alternatively on a lower frame

Industrial throughput system IDA 1100-40



LEVEL ADJUSTMENT / REFILL TANK

- For melting and preheating of the fat
- With feeding flap for safe, splash-free refilling of fat blocks
- 200°C permanent temperature stable pump for automatic level adjustment of the oil level in the fryer

Industrial throughput system IDA 1100-40



CONTINUOUS FILTERING

- stainless steel permanent filter
- Self-cleaning during operation
- Residues are discharged from the oil flow via a valve

DRAIN / CLEANING TANK

- Separate 1,000 litre tank
- With level indicator and heating

Industrial throughput system IDA 1100-40



AUTOMATIC 10-FOLD FILLING

- 10-row filling
- Filling quantities can be saved in the central control
- Precise filling via time-controlled servo gear pumps

Industrial throughput system IDA 1100-40



AUTOMATIC 10-FOLD FILLING

- Maximum reduction of personnel workload through automatic change of the filling quantities by changing the baking programme
- Optional: filling from above for ring donuts
- Optional: automatic refilling from a storage container



POSSIBLE UPGRADE

Industrial throughput system IDA 1100-40

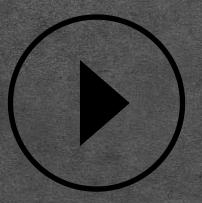
SUGARING MODULE



ECO-FROSTER

- Large freezing area in a small space
- Available from 21 m² freezer area up to your desired size
- Variable length and width possible
- Touch panel control for entering and saving parameters for different freezing programmes and remote maintenance option
- Automatic discharge after freezing





Watch video via browser

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CONTINUOUS SUBMERGE FRYERS (DLA SC)



Continuous Frying in Perfection: With our machines you reduce cooking time by up to 40% and obtain even frying results.

They come in different configurations and are ideal for a variety of products.







CONTINUOUS SUBMERGE FRYERS (DLA SC)



Our DLA SC continuous submerge fryers enable sustainable food production:

- Up to 40% reduction of frying time due to implementation of submerged frying technology
- Energy saving of up to 40% thanks to innovative design

DLA SC

Versions



DLA 150 SC

(DLA 150 SC-1, DLA 150 SC-2, DLA 150 SC-3)

width: 530 mm

• length: 2,264 mm - 3,950 mm

• height: 809 mm

• useful width: 140 mm

frying length: 650 mm - 2,460 mm



DLA 300 SC

(DLA 300 SC-1, DLA 300 SC-2, DLA 300 SC-3)

• width: 670 mm

• length: 2,264 mm - 3,940 mm

• height: 877 mm

• useful width: 284 mm

frying length: 650 mm - 2,460 mm

DLA SC

Versions



DLA 600 SC

(DLA 600 SC-2, DLA 600 SC-3)

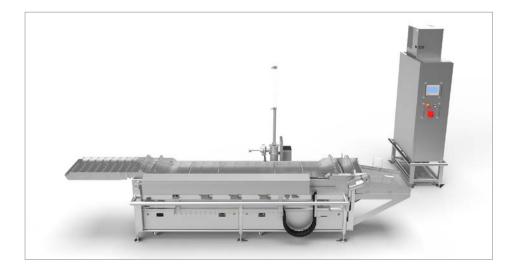
• width: 1,100 mm

• length: 3,200 mm - 4,000 mm

height: 870 mm

useful width: 585 mm

• frying length: 1,600 mm - 2,350 mm



DLA 600 SC Industry Touch

(DLA 600 SC-3 IT)

• width: 1,100 mm*

length: 4,000 mm*

• height: 870 mm*

• useful width: 585 mm

frying length: 2,350 mm

* without control cabinet



ADVANTAGES of the DLA SC

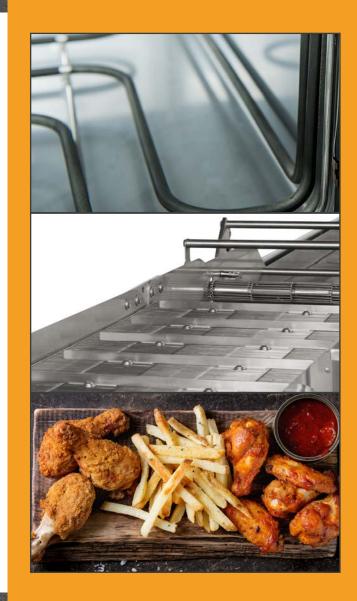
- Ideal for frying of meat, French fries, vegetables, fish and more
- Infeed belt with length of 40 or 80 cm for safe supply of products to the frying tub
- Glass display control with 7 programs for convenient operation (Industry Touch: seperate control cabinet with touch panel control)
- Easy cleaning due to tool-free removal of transport unit and heater (600 & Industry Touch: hydraulic lifting unit)





of the DLA SC

- Digital heating control leads to keeping constant temperature and, therefore, enables reduced fat absorption of fried products
- DLA SC fryers meet goals of sustainability
- Compatibility with customised feeding solutions and outfeed systems for efficient and smooth production process
- Constant frying results



CLEANINGof the DLA SC

DLA 600 SC and DLA 600 SC Industry Touch: Hydraulic lifting of the complete transport unit and heating elements for easy cleaning.

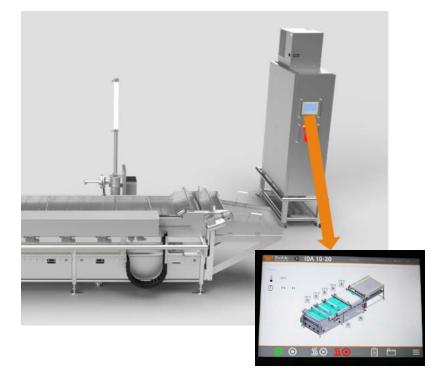
DLA 150 SC + DLA 300 SC: Easy cleaning due to tool-free removal of transport unit and heater



CONTROL CABINET of the Industry Touch

Separate control cabinet with touch panel control:

- Operation via intuitive Beckhoff touch control panel, providing complete system control and visualization
- Different user levels: Operator, Master, Service
- Remote maintenance via the internet connection



Resistent to fat, water, dust and dirt



OUTPUT

of the DLA SC

Calculated hourly output* for our bestseller DLA 300SC-2

Langos



French Fries**



Deep fried pork chop



Vegetables



Nuggets



Fish Filet



Size	<u> </u>	Weight	Frying time	Output per hour
L	300 mm	0.135 kg	3 min	2.7kg
W	300 mm			
Н	20 mm			
L	40 mm	0.010 kg	3 min	230 kg
W	10 mm			
Н	10 mm			
L	100 mm	0.013 kg	4 min	67 kg
W	100 mm			
Н	20 mm			
L	25 mm	0.025 kg	1.5 min	400 kg
W	9 mm			
Н	9 mm			
L	45 mm	0.020 kg	3 min	70 kg
W	35 mm			
Н	20 mm			
L	100 mm	0.150 kg	3 min	180 kg
W	50 mm			
Н	20 mm			





^{*} Approximate data. Can vary according to the local recipe, operator speed, etc.

^{**} Increased heating power required for frozen products and special product groups

OPTIONSof the DLA SC

- Available in different versions of frying length and width
- Transport units with customised conveyor belts
- Increased heating power/frying time for frying under specific customer requirements
- Sizes 300+600: Continuous fat filter
- Industry Touch: Ancillary equipment like continuous fat filter, refill tank with oil level control





INDUSTRY TOUCH-OPTIONS

Filter & Tank

- → Tank with drain filter and automatic oil level control
- Provided with a heating system for melting and preheating up to 100°C
- Washable permanent stainless steel filter
- Oil level control in the deep fryer by means of refill pump and overflow tube
- Splash-free input of fat blocks through input flap

- → Continuous fat filtration
- Enables continuous filtering of oil/fat throughout the entire production process
- With self-cleaning stainless steel permanent filter element
- Constantly ensures a low number of suspended particles in oil/fat
- Extends oil/fat service lifetime

- → Refill tank
- Stainless steel tank with a capacity of 200 liter
- Equipped with a pump for refilling the fryer
- Includes a filling level sensor for the fryer to enable automatic level regulation
- Provided with a heating system for melting and preheating up to 100°C
- Stainless steel piping to connect the refill tank with the fryer, without insulation
- Positioned directly next to the fryer











COMPATIBILITY of the DLA SC

Compatibility with various infeed systems, for example:

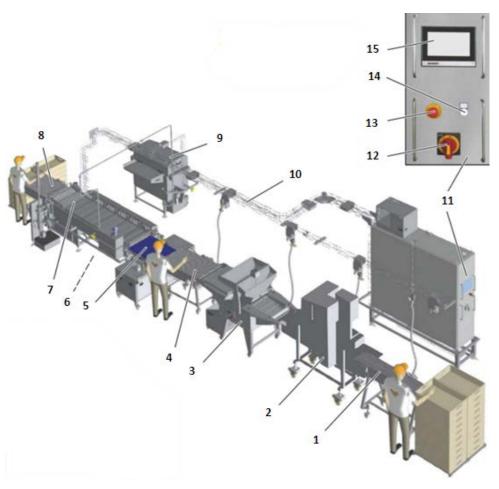
→ Automatic battering and breading machine – perfect complement to DLA 300 SC



- Products are automatically coated with battering liquid and breaded, and are sequentially transferred to the deep fryer
- Combination of both machines enables efficient and smooth operation
- Easy handling and cleaning

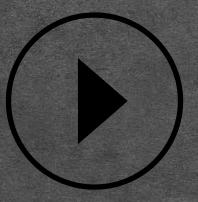
COMPATIBILITY of the DLA / DLA SC

→ Example of an automated production line with DLA Industry Touch



- 1. Feed-in belt
- 2. Flouring unit
- 3. Breading unit
- 4. Intermediate belt
- 5. Lane multiplier
- 6. Drain tank (without illustration)
- 7. Continuous deep fryer Industry Touch
- 8. Cooling belt
- 9. Refill tank
- 10.Cable rail
- 11. Control cabinet with touch control
- 12.Main switch
- 13.Emergency STOP button
- 14. Release button
- 15. Touch panel







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INFRARED BAKING: MORE FLEXIBILITY & TIME SAVINGS ITES infrared oven







ITES by WP Riehle is an oven developed and manufactured in Germany that combines the advantages of a conventional oven with the latest infrared technology. With these and other well thought-out details, the ITES oven can accelerate production processes by up to 70%.







INFRARED BAKING: MORE FLEXIBILITY & TIME SAVINGS ITES infrared oven

The award-winning oven is specifically designed to bake pre-baked, frozen baked goods. Ideal for pretzels, baguettes, pizza slices and many other small snacks.









BENEFITS ITES infrared oven

- Speeds up your workflow up to 70% by using infrared technology
- Additional to the conventional heat from outside to inside the infrared-waves are baking form inside out
- Reduced baking loss of humidity = higher sales weight of product and longer freshness
- Thawing/defrosting in the oven possible
- enormous reduction of reaction time to the customer



EQUIPMENTITES infrared oven

- Conventional oven and newest infrared technology in one
- Touch screen control
- 50 individual programmes
- Stainless steel construction
- German designed and built
- NST certified for hygienic design







PATENTED INFRARED TECHNOLOGY

Depending on the product, the baking time can be reduced by up to 70% by infrared baking. The products are baked from the inside out; the end product contains more moisture and accordingly stays fresh longer.



OPERATION

Operation is intuitive via a touch panel. The control system offers the option to store 50 individual baking programmes.





PTIONAL: SALTER

Lye products can be thawed and automatically sprinkled with salt before baking. To do this, the products are taken out of the oven and put back in after salting. This process is stored in the baking programme and runs fully automatically.

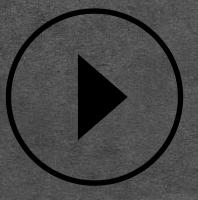
The salter integrates perfectly into the automated production process – from the freezer to the saleable product.



OPTIONAL: SHOP SOLUTION

The ITES oven can be connected to a self-service system. It is used as a tunnel oven, and after baking the products are transferred to an output rack.

Information video ITES infrared oven



Watch video via browser

to the navigation

up to 700 donuts Per hour



FROM ZERO TO GLAZED DONUT IN LESS THAN 1 MINUTE

With the infrared oven you are able to fully benefit from infrared baking. Frozen donuts are thawed in 20-30 seconds and passed straight from the oven to the glazer.

You get thawed and glazed donuts in one step. After glazing the donuts can be decorated individually.



BENEFIT FULLY FROM INFRARED BAKING

- save up to 70% of process time with the ITES
- less moisture loss during baking
- higher baked product weight and longer freshness
- easy operation via touch control with storable programmes
- fulfils the NSF hygienic standard



FEATURES ITES DONUT

- size of holding surface: 30 x 30 cm
- wire mesh belt with non-stick coating
- maximum product height: 80 mm



FEATURES SHOP GLAZER

- small and efficient table solution
- no splattering, keeps the environment clean
- flexible thanks to small glaze container
- easy to clean
- donuts can be variously decorated
- filling capacity of approx. 21 litres of glazing material



ITES INFRARED OVEN EXTENSIONS

Shop Glazer System REVOLUTION



FLEXIBILITY:

- rapid response time to customer requirements
- also other products can be thawed and baked in the oven like pizza and snacks
- flexible thanks to small glaze container
- exchange container for quick change of color available

ITES INFRARED OVEN EXTENSIONS

Shop Glazer System REVOLUTION



HYGIENE:

- hygienic thawing in the oven
- easy and tool free to clean
- hygienic storage of the frozen donuts in the freezer
- all parts with contact to the products are easy to clean in the dish washer

ITES INFRARED OVEN EXTENSIONS

Shop Glazer System REVOLUTION



SPEED:

- unthawing of donuts in 20-30 seconds
- fresh glazed donuts in less than 1 minute
- reduzing of labour time by automatization



FOR SMALL QUANTITIES:

The compact manual lye application unit Tauchboy



The manual lye application unit Tauchboy offers an easy and manual way of lying small quantities. Due to the compact design it can be used in small production or directly in the store. It enables to apply lye on up to 800 dough pieces daily.







BENEFITS

Manual lye application unit Tauchboy

- Easy handling
- Minimal footprint
- Fast and easy to clean
- Mobile unit for production or shop
- Cost-efficient entry to lye application
- Integrated salt container (removable)







Manual lye application unit Tauchboy



SPACE SAVING/FUNCTIONAL

The Tauchboy is functional and space-saving at the same time.

Lateral storage for proofing trays serves as a lid for the lye tray after the end of production for protected storage of the lye.

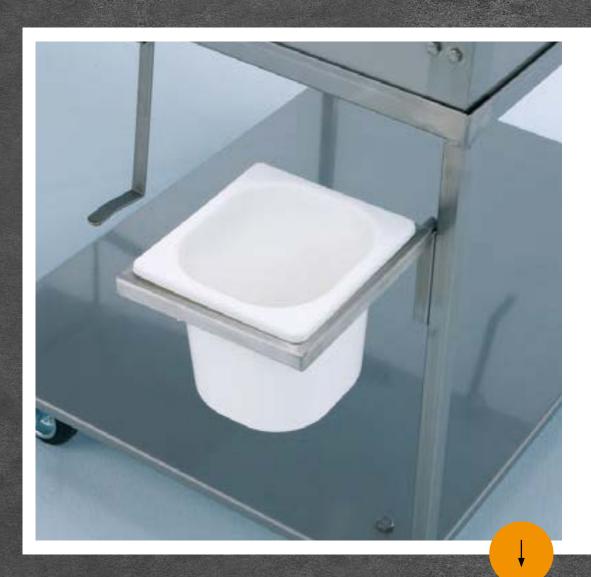
Manual lye application unit Tauchboy



SPACE SAVING/FUNCTIONAL

The lye application unit has a stable stainless steel construction and a stable castor base, which enables mobile use. With the mobile underframe it is possible to load directly at the shop oven.

Manual lye application unit Tauchboy



SPACE SAVING/FUNCTIONAL

The integrated, removable salt container is attached directly to the appliance via a practical holder, ensuring a smooth production process.

Manual lye application unit Tauchboy



SPACE SAVING/FUNCTIONAL

The dipping rack of the Tauchboy ensures that the dough pieces are completely submerged, thus ensuring a uniform lye application result.

OPTIONS

Manual lye application unit Tauchboy



We offer three different tray sizes.

Optionally the Tauchboy is available without or with 3, 4 or 5-row participations.



HIGHEST QUALITY FOR ARTISAN BAKERIES

Lye application machine RMBB







The RMBB is the fastest of its size and is suitable for a daily production quantity of 800 to 1,000 pieces. With an hourly output of up to 200 trays offers the RMBB an artisan production in highest quality.



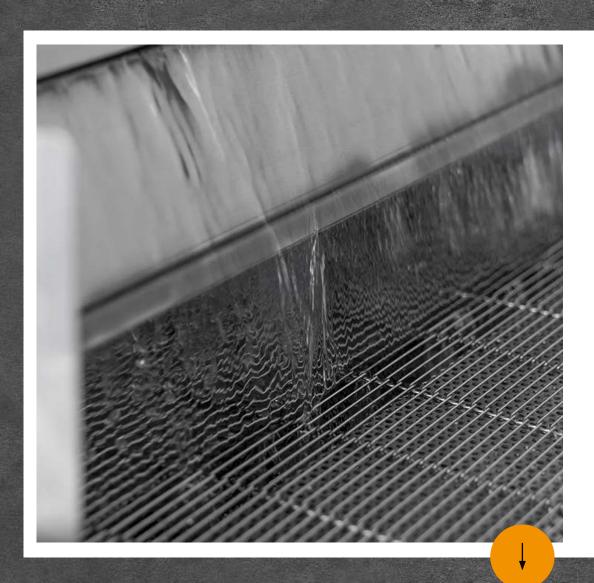


Lye application machine RMBB

- Intensive and constant showering result due to two lye waterfall curtains PLUS patented WP Riehle lye shower
- The adjustable heating prevents the lye temperature from dropping and ensures continuous shine and colour through the entire production time
- Computer control for adjustable production speed
- Easy to clean, motor and pump are maintenance-free
- Removable tables at the entrance and exit of the machine



Lye application machine RMBB



LYE APPLICATION

The application has a patented lye shower and two lye waterfall curtains for an intensive and even lye pattern with a continuous shine and a beautiful tan.

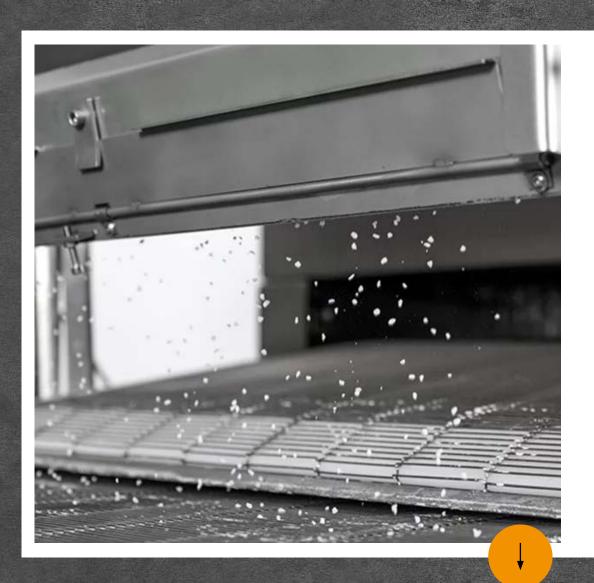
Lye application machine RMBB



LYE APPLICATION

The adjustable lye tank heating prevents the lye temperature from dropping and ensures that the dough piece absorbs the lye evenly.

Lye application machine RMBB



SALTER

The integrated brush salter is infinitely variable and also ensures even salting of the products.

An optional sprinkling device with brush roller is also available, which is infinitely variable and therefore suitable for different spreading materials.

Lye application machine RMBB

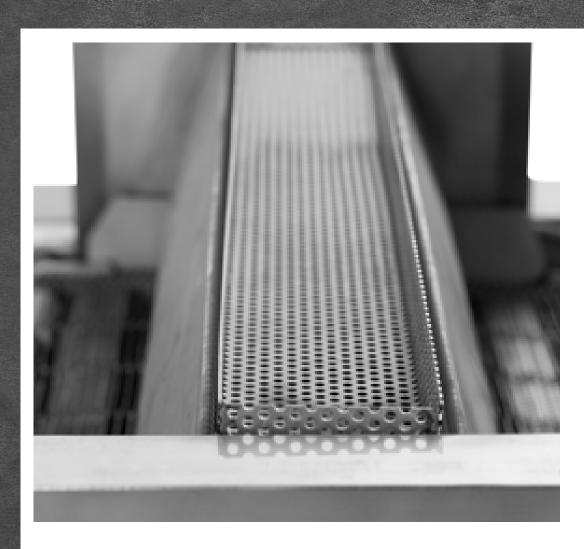


SPACE SAVING/FUNCTIONAL

The RMBB is ideal where space is limited. The infeed table can be removed and the outfeed table can be folded down.

The compact and robust construction is designed for easy cleaning and a high degree of mobility.

Lye application machine RMBB



CLEANING AND MAINTENANCE

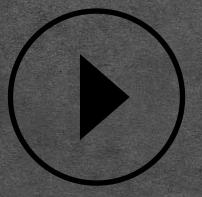
The unit is easy to clean; the motor and pump are maintenance-free

OPTIONS & ACCESSORIES Lye application machine RMBB

- Scattering unit with brush roller, adjustable for different types of toppings
- Fermentation cloth, V-shape
- Fermentation cloth (with division)
- Hydrometer (areometer) for measurement of lye concentration



Product video of lye application machine RMBB





THE LYE APPLICATION ALLROUND TALENT

Lye application machine ALLROUND







The ALLROUND is the fastest lye application machine in its class and achieves daily output of 1,500 to 4,000 pieces. Efficient lye application processes can be realised with up to 400 trays per hour.







Lye application machine ALLROUND

- even showering results also on high speed because of 2
 lye waterfall curtains plus patented WP Riehle lye shower
- the adjustable tank heating avoids the drop down of the lye temperature and guarantees consistant shine and colour throughout the entire production time
- computer control for adjustable speed
- long shower belt enables showering of large products
- all process-relevant parts are made of blue plastic



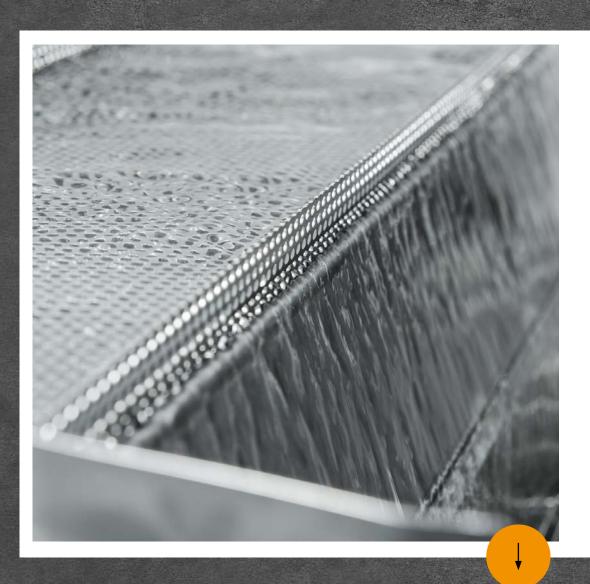


Lye application machine ALLROUND

- rollable 180 litre lye tank, easily accessible via side flap
- tank lye level sensor prevents pump from running dry
- gas springs on the discharge table for easier folding
- the pump switches off automatically when the valve is opened



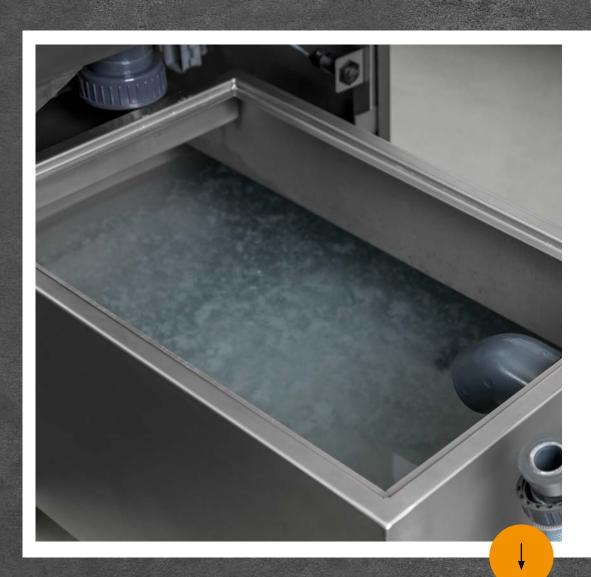
Lye application machine ALLROUND



LYE APPLICATION

The machine has a patented lye shower and two lye waterfall curtains for optimum lye application results, even at high production speeds. The throughput speed can be regulated via a computer control system. The longer lye belt makes it ideal for lyeing larger baked goods.

Lye application machine ALLROUND



LYE TANK

The extendable lye tank has a capacity of 180 litres. The adjustable heating prevents the lye temperature from dropping and ensures a beautiful, even lye pattern after baking – continuous shine and browning throughout the entire production time. The lye level sensor warns when the lye level is too low.

Lye application machine ALLROUND



SPACE SAVING/SECURITY

After use, both the infeed and outfeed tables can be folded down.

Gas struts on the discharge table make it easier to fold down.

With safety shut-off of the pump when the flap is open.

All process-relevant parts are made of blue plastic.

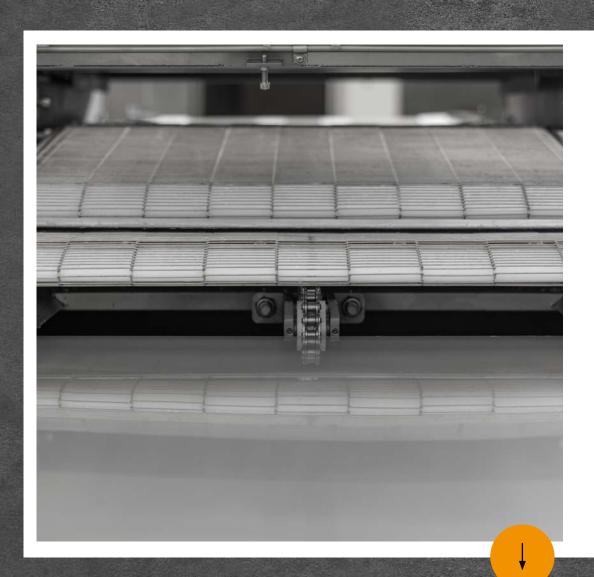
Lye application machine ALLROUND



OPTIONAL SPREADING DEVICE

The spreading device with brush roller is infinitely variable for different spreading materials. An interchangeable container for the spreading device enables the use of several containers for different spreading materials. With interchangeable containers, it is quick and easy to switch between different spreading materials.

Lye application machine ALLROUND



OPTIONAL: UNLOADING BELT

The flat tray deposit belt prevents prezels from distortion when deposited and keeps baking trays clear from excess toppings.

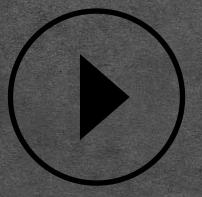
Lye application machine ALLROUND



OPTIONAL: SPEEDY OPTION

The Speedy function allows the infeed conveyor to be controlled separately to maximise time savings and increase throughput. It enables reloading before the current cycle is completed.

Product video of lye application machine Allround



Watch video via browser

to the navigation



THE LYE APPLICATION PRODUCT ALLROUND TALENT

with automatic lye dosage: ALLROUND PRO







The ALLROUND Pro offers more convenience as well as an increased level of work safety. The automatic mixing of lye not only saves you time, it also prevents the risk of chemical burns when mixing the lye.







Lye application machine ALLROUND PRO

- You benefit from all the advantages of ALLROUND
- Automatic refilling of the lye tank after reaching the minimum level
 - Proportional pump with pre-filter for 1 to 4.3% lye mixture
 - Fill level sensor
 - Holder for a 20 kg canister of 36% lye solution on the ALLROUND
- Fixed water connection with power isolator
- Avoiding chemical burns when mixing the lye and increasing work safety





Lye application machine ALLROUND PRO

- Consistent product quality thanks to constant lye concentration
- Reduced working time, as there is no need to refill the tank and mix the lye
- Speedy control (enables reloading before the current cycle is completed)
- Flat tray deflector belt, prevents the dough pieces from warping when deposited and keeps trays free of excess spreading material



FEATURES ALLROUND PRO (WITH AUTOMATIC LYE DOSAGE)



AUTOMATED TANK REFILLING:

When the minimum level of filling is reached, the lye tank is automatically refilled via a fixed water connection.



AUTOMATED LYE DOSAGE:

Like tank refilling, caustic dosing is automatic. The concentration is between 1-4.3% and all can be adjusted via the proportional pump.



FEATURES ALLROUND PRO (WITH AUTOMATIC LYE DOSAGE)



PERMANENT WATER CONNECTION WITH ISOLATOR:

To prevent lye backflow into the potable water line.

Lye application machine ALLROUND PRO



OPTIONAL SPREADING DEVICE

- Spreading device with brush roller, infinitely variable for different spreading materials
- Spreading device with brush roller, infinitely variable for different spreading materials

THE LYE APPLICATION ALLROUND TALENT with peelboard feed: ALLROUND PEELBOARD







Proven lye application technology with innovative peelboard loading. With the Alleround peelboard, rational lye application processes for up to 400 trays per hour can be realised hygienically.





Lye application ALLROUND PEELBOARD

- equal showering results also on high speed because of 2
 lye waterfall curtains plus patented WP Riehle lye shower
- the adjustable tankheater avoids the drop down of the lye temperature and guarantees consistant shine and colour throughout the entire production time
- computer control for adjustable speed
- speedy control enables new feeding while the previous feed is still on the way







Lye application ALLROUND PEELBOARD

- long shower belt enables showering of large products
- tray deposit belt keeps baking trays clear from excess toppings
- rollable 180 litres lye tank
- tank lyelevel sensor prevents pump of running dry





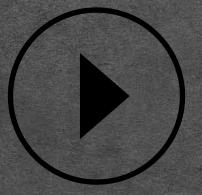
Lye application machine ALLROUND PEELBOARD



OPTIONAL SPREADING DEVICE

- automatic scattering unit with brush roller, speed adjustable for different scattering toppings
- exchange toppings container for scattering unit

Lye application machine ALLROUND Peelboard (Industry)



Watch video via browser

to the navigation



FULLY AUTOMATIC LYE APPLICATION FOR MAXIMUM EFFICIENCY Lye application machine COMJET







The automatic loader (WP Automatic Loader) opens up a new dimension in lye application. An hourly throughput of approx. 240 trays per hour can be achieved with less labour. This means you can achieve far greater efficiency.





SHORTFACTS

Lye application machine COMJET



PRODUCTION PROCESS:

Fully automatic lye application process for approx. 240 trays per hour with only one worker.

INDIVIDUAL WORKLOAD CAPACITY:

Adjustable belt speed for individual production adjustment.

EVALUATION:

Extensive evaluation possibilities of the electronic control system.



Lye application machine COMJET

- Fully automatic lye application process for up to. 240 trays/hour with only 1 worker
- Now available with peel boards or setters
- Consistent lye application results even at high speed due to two lye curtains PLUS patented WP Riehle lye shower
- The discharge conveyor keeps the baking trays free of surplus seed toppings
- Removable roll away 180-litre lye tank for faster hygienic cleaning
- Lye level sensor to prevent dry running if the lye level is too low







Lye application machine COMJET

- Adjustable heating prevents the lye temperature from dropping and ensures continuous gloss and browning across the entire production time
- Longer lye application conveyor makes it ideal for applying lye to longer pretzel breads
- Glass touch panel control 3-level operating menu
 - Internet- and remote-maintenance-enabled
 - Storable programmes





FEEDING

Lye application machine COMJET



FEEDING VIA WP AUTOMATIC LOADER

The Comjet takes the dough pieces fully automated from the proofing/feeding system trolley via the dough dispensers or peelboards. This helps you achieve maximum efficiency with low personnel costs.

FEEDING OPTIONS

Lye application machine COMJET



SETTERS:

The setters are covered with a lye application cloth which is set in motion by the loader. The products are transferred to the loader in this way.

PEELBOARDS:

With appropriate gripper arms, the loader removes the peel-boards one by one from the rack trolley, grabs the products and puts the empty peelboards back into the trolley.

CONTROL

Lye application machine COMJET

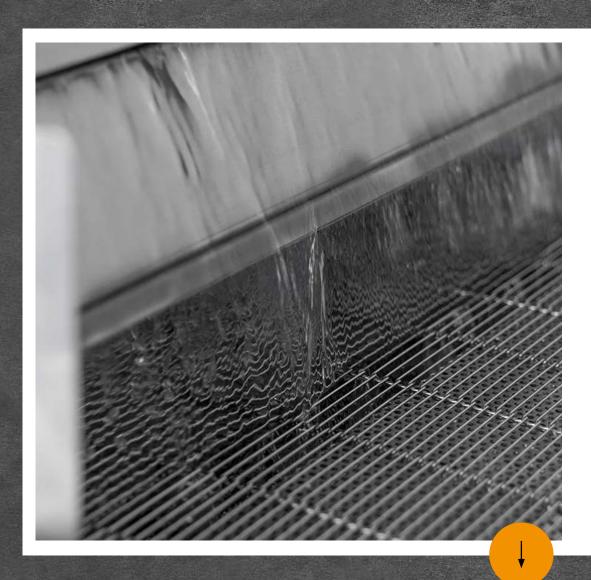


TOUCH PANEL CONTROL

All functions and components of the Comjet are centrally controlled via the robust glass touch panel.

LYE APPLICATION

Lye application machine COMJET



PERFECT TAN AND SHINE

The COMJET has a patented lye shower and two lye waterfall curtains for optimum lye application results, even at high production speeds.

LYE APPLICATION

Lye application machine COMJET



LYE TANK

The rollable lye tank is equipped with a fill level sensor and a lye heating system for a constant lye temperature and optimum application results.

OPTIONS

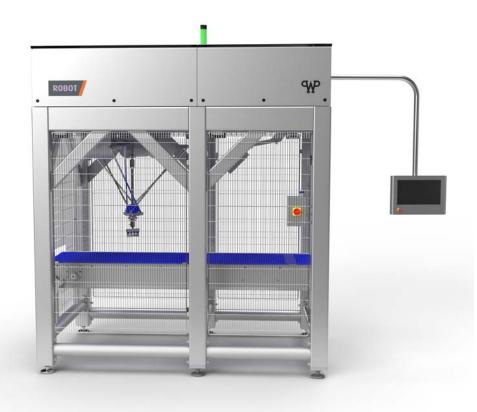
Lye application machine COMJET

- Infinitely adjustable seeding device for various seeding materials
- Interchangeable container for seeding device
- Lye management solutions
- Robotic scoring systems
- Panning conveyor
- Special systems & special sizes
- Connection to tunnel ovens





Lye application machine COMJET



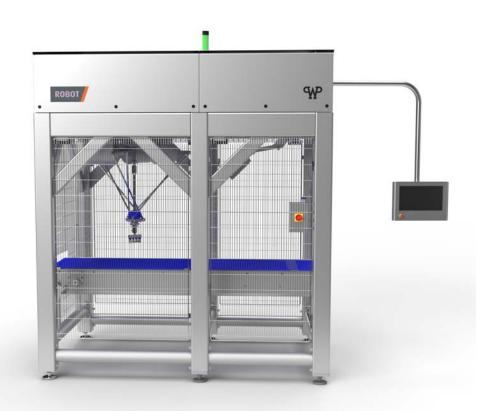
FOR EVEN MORE AUTOMATION

Optional the Comjet can be supplemented with a subsequent robot scoring system, like the WP Scoring Robot:

- Different versions of the trimming technique: ultrasonic, rotating blades, water jet
- The number of knives can be configured according to requirements



Lye application machine COMJET



- Integrated 3D camera system recognises the position of the dough pieces
- Various cutting patterns possible (pretzels, bread rolls, pretzel sticks, etc.)

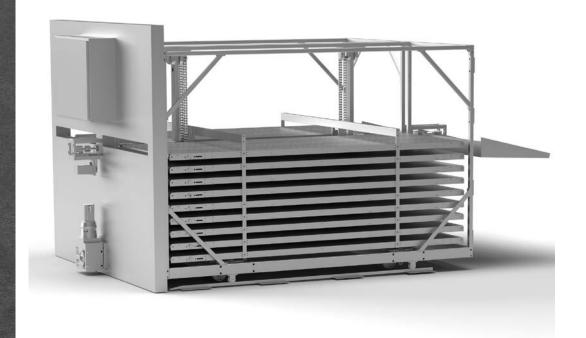
Lye application machine COMJET



PANNING UNIT

- After scoring, the dough pieces can be deposited onto baking trays with retracting conveyor
- With plastic modular belting for hygiene and easier sanitation

Lye application machine COMJET



ECO-FROSTER

- The dough pieces can optionally be frozen directly after cutting
- Special feature of the Eco-Froster:
 - Large freezer surface in a small space
 - The entire mechanism is permanently in the freezer, making it very energy-saving



Lye application machine COMJET

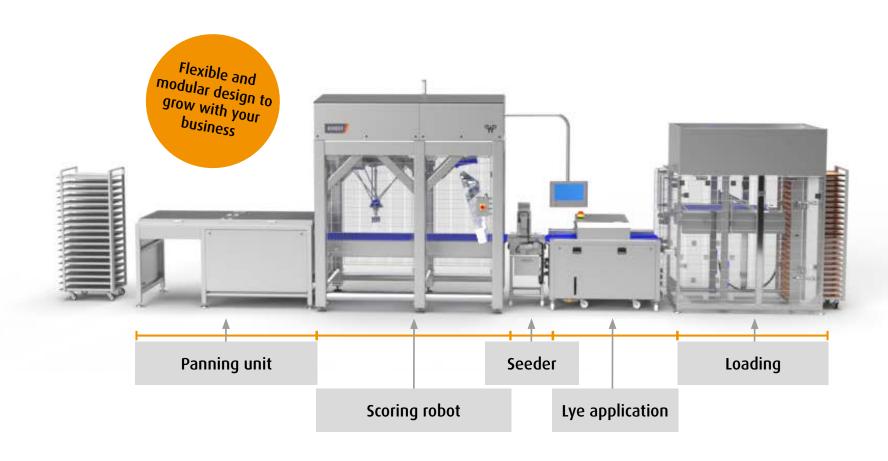


SEEDER

- For various seeding materials
- Interchangeable containers for quick and easy changeover between sprinkling material
- Infinitely adjustable

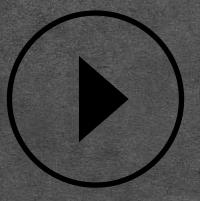
EXAMPLE OF A PRODUCTION CHAIN WITH INTEGRATED

lye application machine COMJET





Video of a COMJET PEELBOARD





Tray Cleaning System



The BRM Deluxe is an advanced tray cleaning system specially developed for the hygienic cleaning and greasing of baking and perforated trays.







supports IFS/ HACCP

BRM DELUXE Advantages

- Labour savings: Cleaning of approx.
 700 trays / hour with just one person
- Clean holes thanks to hole cleaning station: Two cleaning stations for optimum cleaning results
- Prevention of sheets being rolled out thanks to spring-loaded and height-adjustable rollers
- Easy maintenance and cleaning:
 - · Convenient opening of the lid
 - Easy removal of the brushes without having to adjust the spacing when reinserting
- Low service costs thanks to maintenance-free toothed belt drive
- Low spare parts costs due to adjustable brushes

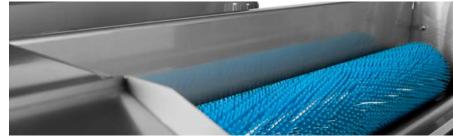














Equipment & Features

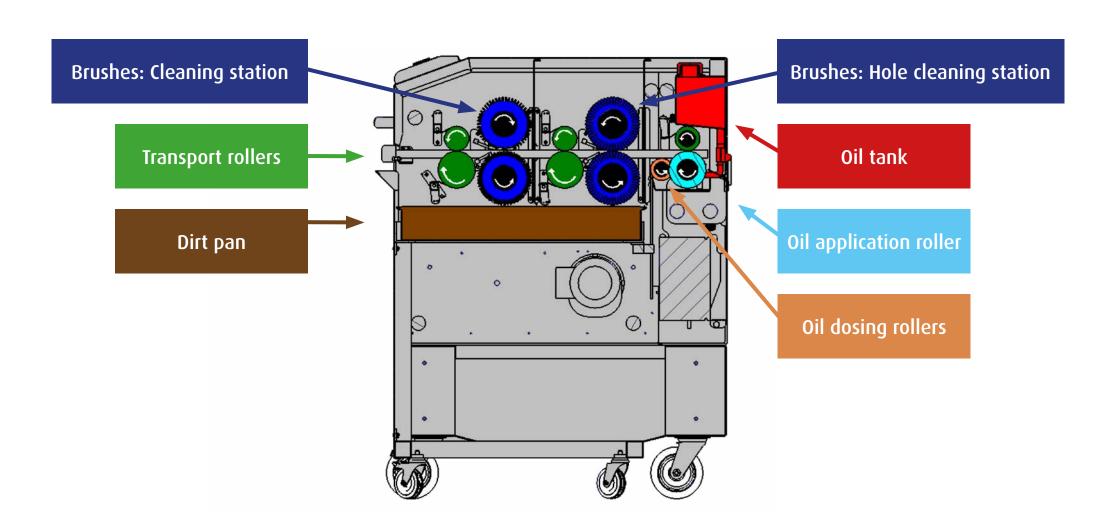


The BRM DELUXE from WP Riehle cleans all standard double-sided baking and perforated trays quickly, efficiently, and hygienically.

- Computer control with various cleaning programmes
- Two cleaning stations for the best cleaning results
- Robust stainless steel construction with solid and quiet design: solid cross struts (full metal),
 5mm thick side panels, 3mm thick side housing
- Maintenance-free and extremely quiet toothed belt drive
- Economical rubber roller greasing
- Brushes can be easily and precisely readjusted
- Quick-release coupling of all brushes for easy removal of the brushes without readjusting the spacing
- Extendable dirt drawer



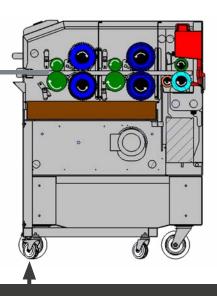
Machine Construction





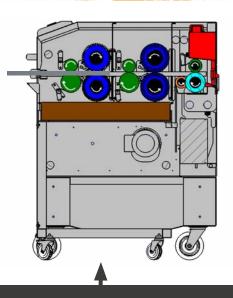
Description of the process

All brushes and transport rollers are height-adjustable, what ensures exact levelling. This reduces the rolling out of the trays and extends the service life of the brushes.



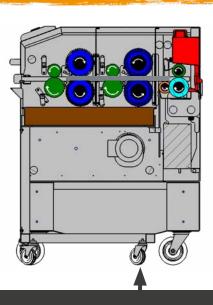
INPUT:

The tray is fed into the infeed with the baking side facing down...



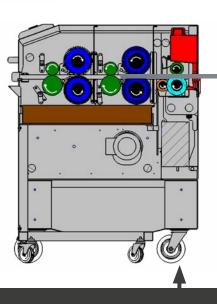
1. CLEANING:

Spring steel brushes at the bottom and plastic brushes at the top



2. CLEANING:

Plastic brushes at the top and at the bottom. Hole cleaning by brushing into the holes



OILING:

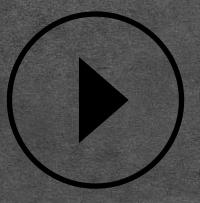
Rubber roller at the bottom, transport roller with oil tank at the top

Accessories



- Trolley for collection of cleaned trays
- Maintenance contract (only for the D-A-CH region)

Video of the BRM DELUXE



Watch video via browser

to the navigation



Tray Washing System







With our wet cleaning system for optimum operating hygiene with minimum time and effort







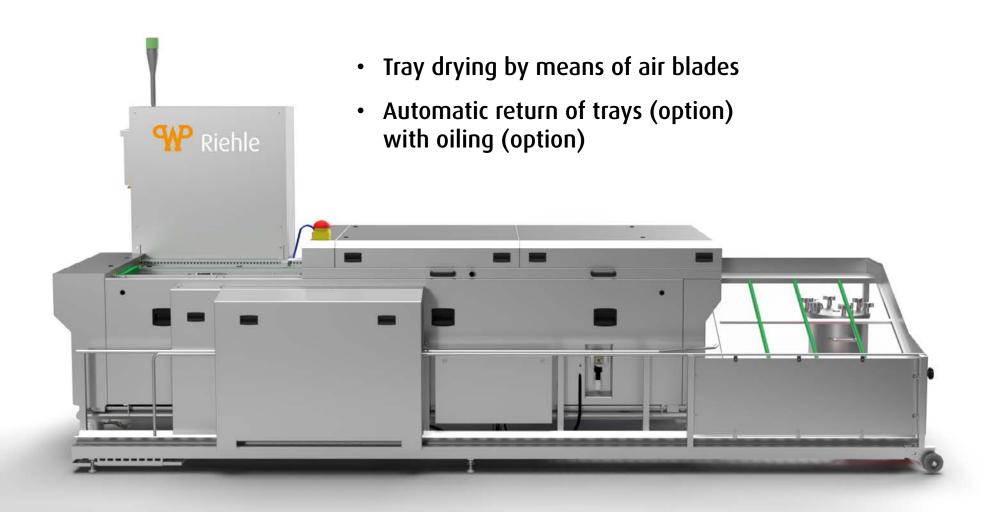
Overview

- Up to 600 cleaned trays per hour with one operator
- Safe wet cleaning process, which incorporates defined washing programmes to comply with the IFS and HACCP standards
- Suitable for washing standard-sized trays: From borderless to 4 edged trays with up to 25 mm rim height
- Touch panel control
- Tray positioning with tray identification sensor
 - With conveyor belt and carriers for the trays
 - Tray sensor detects when a tray has been positioned and automatically starts the conveyor
- Several brush cleaning zones





Overview





BWM MULTI-CLEAN Advantages

Adjustable from light and fast to heavy duty cleaning

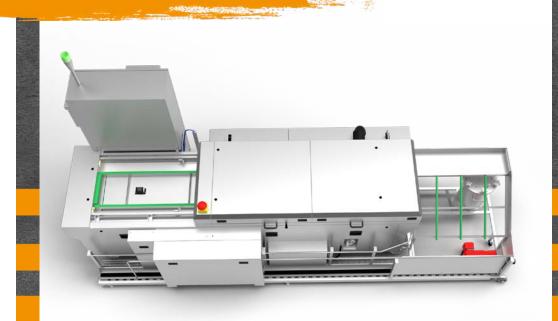
- Versatile use through different washing programmes, temperature settings, tray feeding, and speed modes of brushes
- Defined washing programmes enable process safety to comply with the standards of IFS and HACCP
- Careful handling of baking trays by using plastic brushes, dishwashing detergent and hot water

- Reduced staff input thanks to the use of the baking tray return system
- Efficient operation with short work paths & reduced amount of work steps
- Ergonomic operation

BWM MULTI-CLEAN Advantages

Adjustable from light and fast to heavy duty cleaning

- Saving of resources by means of automatic dispensing of water and dishwashing detergent
 - Less water consumption
 & less sewage water
 - Less cleaning agent consumption
- No direct contact with cleaning agents
- Sustainable protection of the environment



Several Brush Cleaning Zones

1

Zone 1: Pre-washing of baking surface:

A rotating surface brush cleans the tray baking surface with hot water and dishwashing detergent which is dispensed automatically

The initial brush is structured into three parts. The edges of the brush undergo increased wear during operation. To maintain performance, it is recommended to replace the edge brush segments selectively.

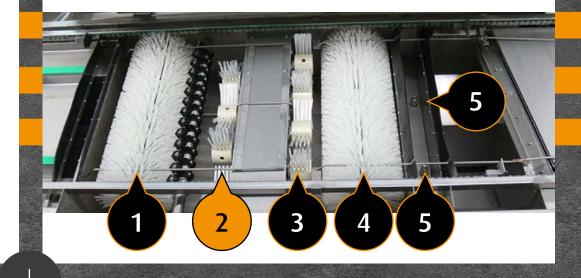


Several Brush Cleaning Zones

2

Zone 2: Pre-washing of edges:

Several rotating wheel brushes clean the tray edges with hot water and automatically dispensed dishwashing detergent

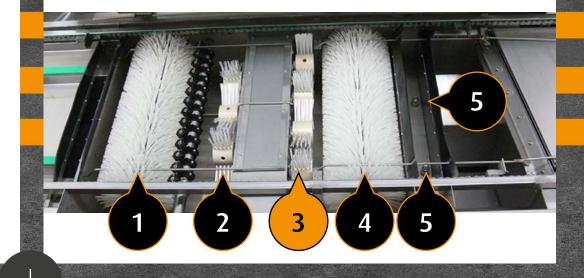


BWM MULTI-CLEANSeveral Brush Cleaning Zones



Zone 3: Final cleaning of edges:

Several rotating wheel brushes clean the tray edges with hot water and automatically dispensed dishwashing detergent





Several Brush Cleaning Zones

4

Zone 4: Final cleaning of tray baking surface

with hot water and automatically dispensed dishwashing detergent

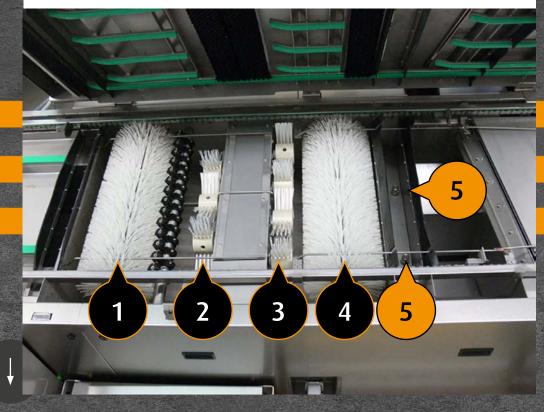


Several Brush Cleaning Zones



Zone 5: Clear rinsing:

Remaining dirty water is rinsed in the clear rinsing zone



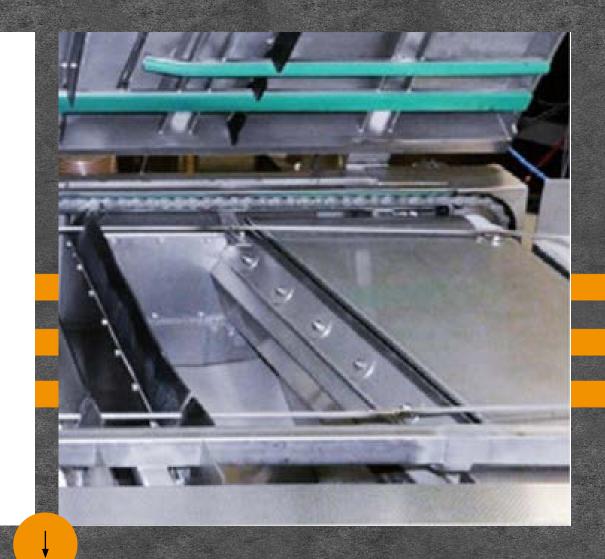
Cleaning

- Direct connection of the machine to the cold or hot watersupply (temp. up to 80°C) and/or water heat up by the machine
- Automatic sensor controlled dosing of water and detergent
- Continuous flow heater for clear rinse water



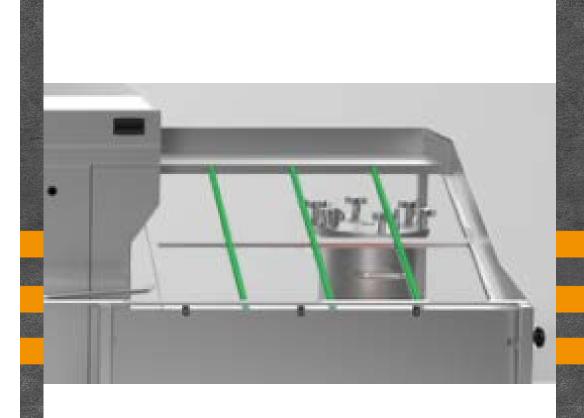
Drying

- Tray drying by means of professional air knife system
- Fan-free motors and pumps



Returning

- Washed trays are automatically returned to the operator atthe infeed
- Loading and removal of trays is done at the same place



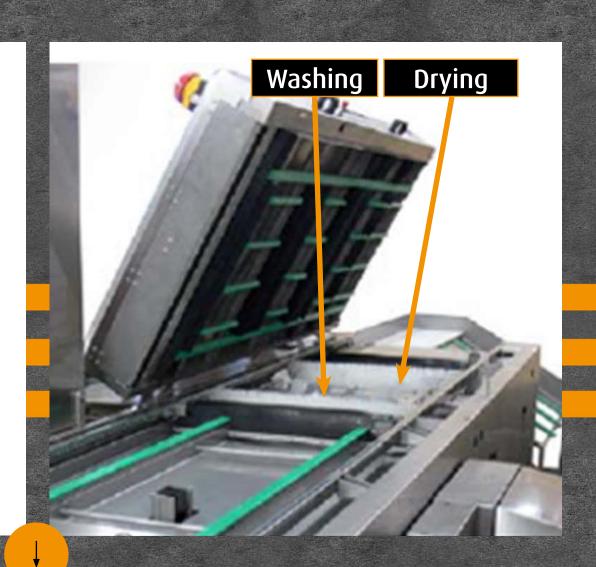
Oiling

- The module is available as an option
- Oil spraying: oil is automatically applied on the baking side of the baking trays
- Excess oil is succeeded by a filter
- Switched on/off automatically (sensor controlled) while trays go through
- Stainless steel pressure tank for the oil
- Oiling parameters are stored to the washing programme



BWM MULTI-CLEAN Cleaning Procedure Requirements

- Electricity
- Fresh water supply
 - → cold or hot up to 80°C
- Waste water supply
- Pressured air
- Washing
 - Detergent: Liquid dishwashing detergent that doesn't produce foam is required
 - detergent is dispensed automatically





BWM MULTI-CLEAN Cleaning Procedure Requirements

Oiling

- Oil: Fluid oil, forming no residue is required, as any residue can lead to nozzle clogging
- → Applied oil amount and pressure parameters can be set in a washing programme



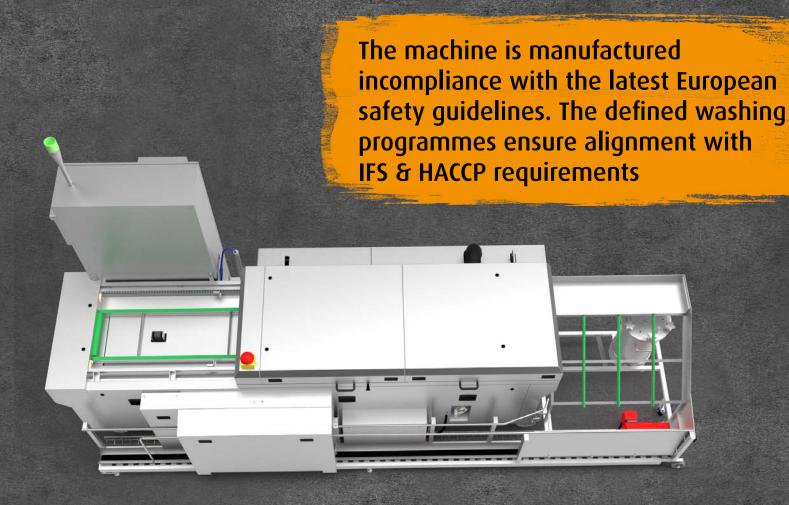


BWM MULTI-CLEAN Touch Control Panel

- Intuitive user guidance
- Resistant to water, dirt and oil
- Several user levels: Operator, Master and Service
- Several washing programmes, including oiling parameters
- Setting and monitoring of temperatures, tray feed rate and brush speed
- Logging and error monitoring
- Internet and remote maintenance capable
- Optional: the instructions of the touch control panel can be translated into the local user language upon the order placement



BWM MULTI-CLEAN Safety



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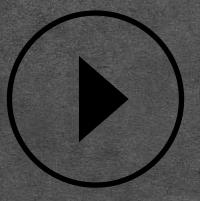
BWM MULTI-CLEAN Lead time

Standard tray size:
 6 month
 All these tray sizes can be cleaned with this one machine:

- 400 x 600 mm
- 580 x 780 mm
- 600 x 800 mm
- 580 x 980 mm
- 600 x 1,000 mm
- Customized tray size:12 month



Video of the BWM Multi-Clean





WP ROBOT

Automated helpers for production







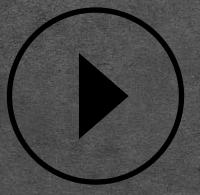
New technologies create new opportunities. The segment of automations and robots, the technology and the spread of possible applications are growing.







WP Robot solution with various components



Watch video via browser



WP AUTOMATIC LOADER

Automated product transport

A rack trolley with the dough pieces is docked onto the WP Automatic Loader. The WP Automatic Loader then begins to systematically scrape the dough pieces from the rack trolley. As soon as a unit has been picked up, it is transferred to a system, for example a lye application unit. In this way, the docked rack trolley is systematically emptied from top to bottom. The WP Automatic Loader feeds the dough pieces into the system at predefined intervals.







BENEFITSof the WP Automatic Loaders

- TAKING ON SIMPLE TASKS: The tedious and ergonomically unfavourable manual feeding of products is taken over, relieving the strain on employees
- REGULAR FEEDING: The products are fed into the system at regular intervals
- COMPENSATION FOR STAFF SHORTAGES



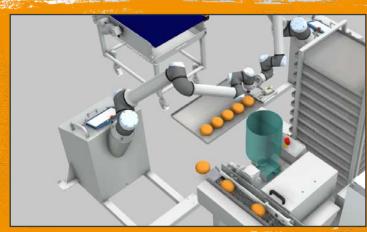
WP ROBOT

For gripping or suction and conveying during baking processes

Simple, tedious tasks that are also not very ergonomic, such as loading machines with dough pieces, can be taken over. This work step, which in many places is still carried out manually, can be easily performed by our WP Robots.

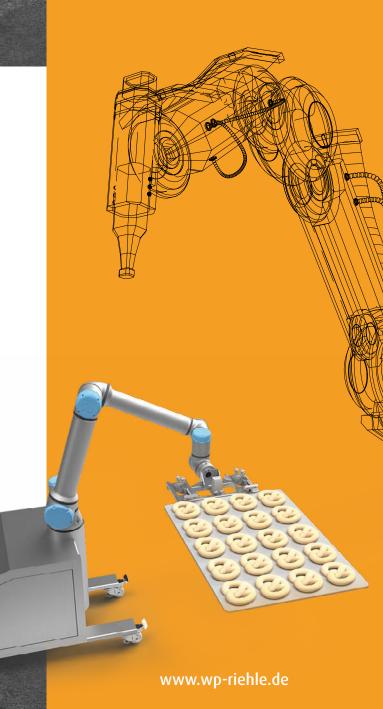




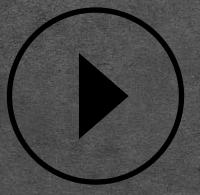


BENEFITSof WP Robots

- FLEXIBLE APPLICATION OPTIONS: Tray handling, product handling and much more
- SPACE-SAVING: Collaborative robots can often be used in a space-saving manner and without a large safety zone
- **DIFFERENT VERSIONS**: Different sizes / capacities are available depending on requirements
- VARIOUS APPLICATION POSSIBILITIES: Depending on the application, grippers / suction attachments can be changed without tools. Various programmes can be stored



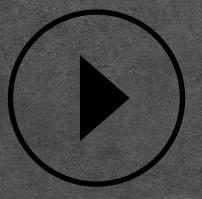
Lye application machine ALLROUND with two WP ROBOTs



Watch video via browser



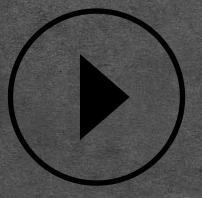
Tray removal and cleaning by WP ROBOTs



Watch video via browser



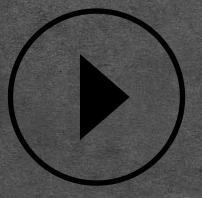
Production chain with two WP ROBOTs



Watch video via browser



Tray removal from a system by a WP ROBOT



Watch video via browser

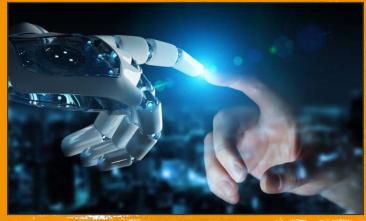


WP SCORING ROBOT

Automated scoring of dough pieces

This delta robot can be integrated into various systems to automatically cut in bread rolls, pretzels, pretzel sticks, loaves, etc. An automated process relieves your bakery staff of this tedious work - and you always get precise and consistent results thanks to the programmed automation.



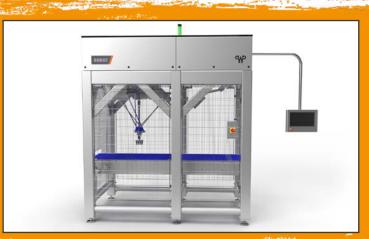




WP SCORING ROBOT

Automated scoring of dough pieces

The integrated 3D camera system not only recognises the dough pieces, but also their position, so the WP Scoring Robot can be controlled accordingly via the system to achieve optimum results. Various cutting patterns can be stored, which are used depending on the product. The WP Scoring Robot is installed as standard in our Comjet lye application system and delivers reliable results.







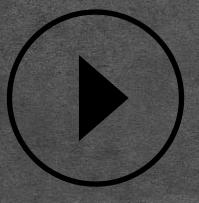
BENEFITSWP SCORING ROBOT

- TAKING ON TEDIOUS WORK: Cuts in products can be automated
- DIFFERENT VERSIONS OF THE TRIMMING TECHNIQUE: ultrasonic, rotating blades, water jet
- VARIOUS PATTERNS PROGRAMMABLE: consistent pattern quality, different patterns possible





Stacking and scoring robots



Watch video via browser

ENERGY AND SPACE SAVING

Eco-Froster



The WP Riehle Eco-Froster combines a large freezing surface with a small footprint. The dough pieces are transferred to the freezer. The entire mechanism is in the Eco-Froster during each work step, so that only the dough pieces, but not the mechanism, need to be cooled.





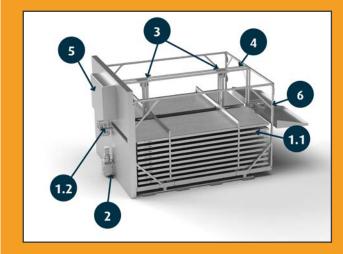
of the Eco-Froster

- Large freezing area in a small space
- Low energy requirement (significant energy savings compared to rack freezers): Entire mechanism inside the freezer, no additional cooling of the mechanism necessary
- Remote maintenance possible thanks to touch panel control
- Storage of different freezing parameters
- Modular design with the option of variable width and length adjustment
- Automatic discharge of the dough pieces after freezing is completed

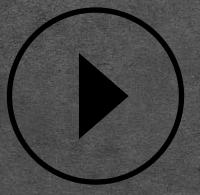


CONSTRUCTION of the Eco-Froster

- 1.1 Conveyor belts
- 1.2 Motor with coupling for belt drive
- 2 Motor lifting unit
- 3 Lifting unit for two lifting trucks
- 4 Self-supporting frame
- 5 Control cabinet with Beckhoff touch panel control
 - with multi-level operator menu Operator-Master-Service
 - internet-capable for remote maintenance
 - can also be controlled via upstream WP Riehle Comjet with central control system
 - Supply and discharge systems can be integrated
- 6 Fixing frame for mounting of the insulation



Eco-Froster: U-shaped feeding of the Eco-Froster



Watch video via browser



GOOD, BETTER, WP INDIVIDUAL Customised solutions for highest quality







We know this personal and professional experience: off-the-shelf products may fit, but not necessarily.

Therefore, we have established the WP Individual division, which includes special systems design. It offers customised solutions from our product assortment, which we adapt perfectly to your requirements and circumstances. Like the missing piece of the jigsaw puzzle, our machine should fit perfectly into your facility in order to provide you with optimum support in your production.



WP RIEHLE

Accessories







Of course, we also offer a wide range of accessories for our systems. Like accessory trolleys, baking baskets, dosing devices, punches, hydrometres, sprinkling devices, lye application cloths and much more. Just ask!

CONTACTand ordering

WP Lebensmitteltechnik RIEHLE GmbH Dr.-Rudolf-Schieber-Str. 15 D-73463 Westhausen (Germany)

phone: +49 (0)7363 95390-0

info@riehle.de www.wp-riehle.de

Do you have any questions?

Our sales team looks forward to hear from you!

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