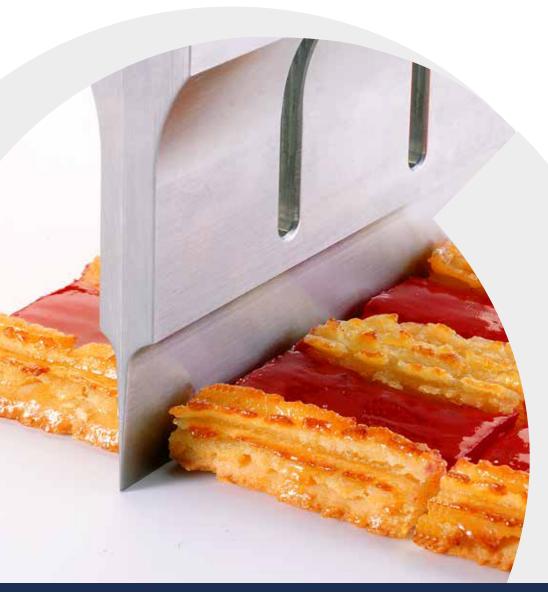


ULTRASONIC CUTTING SOLUTIONS & MORE





CUTTING AND MORE

Your specialist for customised ultrasonic cutting solutions

Being experienced engineers, we have founded our company Döinghaus cutting and more in 2009. With a small team, we have started to design individual machine and plant solutions for ultrasonic cutting for our customers in the food industry, confectioneries and bakeries. With success! Today, we have employed more than 50 employees, who are experts in their job and amaze our customers.

If customers encounter problems in cutting their products, we will resolve the problems for them! Being a high-performance partner for ultrasonic cutting solutions, we respond to the complex customized requirements with innovative system techniques. Since we know, how optimum automatic cutting processes are being proceeded and the extent to which we succeed in guaranteeing safety and cutting accuracy.













1. Planning

2. Manufacturing

3. Quality control

4. Commissioning

5. Documentation

Quality Made in Germany

Being an expert for ultrasonic cutting solutions, we are the guarantor for perfect cuts in food. Do not hesitate to contact us: we individually, innovatively and efficiently develop your machine and plant solution. Our customers include almost all well-known food manufacturers in Germany and Europe. Furthermore, we are internationally known and active. In this way, today we have fixed trade partners in Austria, Poland, Great Britain, Israel, South Korea, Sweden, Finland, Estonia, Romania, Russia, Australia, Croatia, Italy, India and China.

Quality is crucial for us. This would ensure us to embody MADE IN GERMANY.







ULTRASONIC

Perfect cut

Ultrasound designates sound waves, which are moving with a frequency of 16,000 Hz or more. At this, the unit Hz describes the number of vibrations in one second. During the production process, the ultrasonic knife will be run through by a sound wave and translated into a mechanic vibration — a noticeable vibration. It vibrates depending on the frequency 20,000, 30,000 or 35,000 times per second (20, 30 or more kHz), which results in a minimised surface friction between the product and the ultrasonic knife. In this way, pressure-free cutting of products is possible and the deformation is minimised.

The use of the ultrasonic technology is suitable to cut soft, creamy, sticky and multi-layer products as well as fresh and frozen products. The employees of Döinghaus cutting and more will check in detail, how the products behave in the corresponding individual composition, during ultrasonic cutting and will then optimally adjust the cutting units.

Products cut with ultrasound will convince by a smooth and neat cut as well as by a perfect product surface.

The advantages of the ultrasonic technique at a glance:

- The necessary force for cutting will be reduced by up to 90 %.
- The shape of the cut product will only be modified a little.
- Ingredients, e.g. fruits, chocolate, raisins, nuts will keep their shape and position in the product.
- The long durability of the knife reduces production downtimes.
- Due to the high self-purifying capacity of the cutters, almost no residual products adhere to the blade surface.
- Minimum edge off-cuts and at the same time rapid, variable, accurate and neat cuts with smooth cutting edges.



The award for special innovations

At the trade fair Anuga FoodTec in Cologne, special innovation projects of the international food and supply industry will be awarded with the acknowledged award of the International FoodTec Award. The jury decided that it is worth to award the Silver International FoodTec Award to this innovative cutting solution.

The USS 1000 Helios provides for the first time an automatic cutting solution for soft cheese.





MACHINE OVERVIEW

Our machines in the overview

Being an efficient partner for cutting solutions with ultrasound, the company Döinghaus cutting and more produces tailored machines and plants for the bakery and confectionery trade as well as for the food industry.

Whether you have rectangle or round products, creamy soft, crumbly or layered food, cold or warm material to be cut, products with nuts or other food such as sausages and cheese ...

The multi-layered customised requirements are realised with innovative and efficient system techniques. Qualified choice of the correct plant components as well as the planning of the individual modules such as an optimised inflow technique.

- Tray bake
- Tarts
- Cream rolls
- Pizza
- Sandwiches
- Round cakes
- Cheese
- Pet food

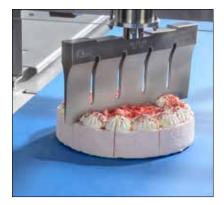




















ULTRASONIC CUTTING SOLUTIONS

Ultracut Filou



Ultracut Filou XL



Ultracut Eos



Page 08

Ultracut Nado



Ultracut UST



Ultracut Terbia Duo



Ultracut Kondus



Sandwichboy



USQ Micra



IQ-MOVE Spider







ULTRACUT FILOU

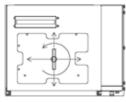
Compact universal cutter

The Ultracut Filou provides the full functionality of an ultrasonic cutter and convinces by the sophisticated ultrasonic cutting technology built in a compact machine. Round and square products in the baking tray or on a support will be cut in perfect quality by the plant. The individual piece sizes, segments and cutting speeds are freely adjustable via an intuitively operable touch panel.

The products can be easily inserted into the cutting area. Light grids secure the machine during the cutting process. The whole machine structure provides a maximum of hygiene and can be cleaned within a few minutes.

- Multi-functional ultrasonic cutter
- Compact machine design
- Cutting on the cutting support or in the baking tray
- Easy operation via touchscreen
- Easy and rapid cleaning of the machine
- Program-controlled knife cleaning with fresh water
- Integrated KnifeGuard
- Comprehensive cutting functions
- Light curtain as contact protection
- Comprehensive recipe management









TECHNICAL DATA

Length	850 mm
Width	1100 mm
Height	1700 mm
Weight	about 350 kg
Item No.	75000032

CUTTING FORMS



ADDITIONAL MODULES

Remote maintenance module

Baking tray sizes: Usual baking trays such as 200×600 mm and 400×600 mm. Round products: diameter of up to 300 mm. Other sizes upon request.





ULTRACUT FILOU XL

Compact universal cutter

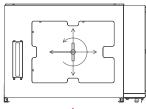
Due to the multi-sheet function, the Ultracut Filou XL works very effectively. It offers the full functionality of an ultrasonic cutter and convinces by the sophisticated ultrasonic cutting technology built in a compact machine. Round and square products in the baking tray or on a support will be cut in perfect quality. The individual piece sizes, segments and cutting speeds are freely adjustable via an intuitively operable touch panel.

The products can be easily inserted into the cutting area. Light grids secure the machine during the cutting process. The whole machine structure provides a maximum of hygiene and can be cleaned within a few minutes.

Depending on the size, up to 4 trays can be inserted.

- Multi-functional ultrasonic cutter
- Compact machine design
- Cutting on the cutting support or in the baking tray
- Easy operation via touchscreen
- Easy and rapid cleaning of the machine
- Program-controlled knife cleaning with fresh water
- Integrated KnifeGuard blade guard
- Comprehensive cutting functions
- Light curtain as contact protection
- Comprehensive recipe management
- Working area 600 x 800 mm
- Multi-tray function









TECHNICAL DATA

Length	1055 mm
Width	1538 mm
Height	1768 mm
Weight	about 400 kg
Item No.	75000064

CUTTING FORMS



ADDITIONAL MODULES

Remote maintenance module

Baking tray sizes: Usual baking tray such as 200 x 600, 400 x 600 and 600×800 mm. Round products: diameter of up to 300 mm. Other sizes upon request.





ULTRACUT EOS

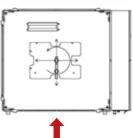
Compact universal cutter with multiple cutter head

The compact Ultracut Eos stands out with its versatility. Using this ultrasonic cutting machine, it is possible to perfectly cut all baking tray sizes of up to 600×800 mm and round pies. The products to be cut will be manually inserted into the machine. An encoded carrier plate system ensures a simple and exact centring of the products below the cutting head. A safety light grid at the front protects the operator and immediately switches off when activating the machine.

The machine is equipped with two or more ultrasonic cutters moving towards one another. They will be automatically be positioned depending on the loaded recipe. The desired cutting pattern (recipe) will be entered via an easy-to-operate touchpanel, without the need for an additional programming.

- Multi-functional ultrasonic cutter
- Equipped with a multiple cutting head
- Compact machine design
- Cutting on the cutting support or in the baking tray
- Easy operation via touchscreen
- Easy and rapid cleaning of the machine
- Program-controlled knife cleaning with fresh water
- Integrated KnifeGuard
- Versatile cutting functions



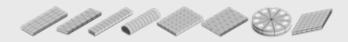




TECHNICAL DATA

Length	1890 mm
Width	1402 mm
Height	2100 mm
Weight	about 900 kg
Item No.	75000059

CUTTING FORMS



ADDITIONAL MODULES

- Sterilisation with UV light
- Remote maintenance module

Baking tray sizes: Usual baking trays up to $600 \times 800 \text{ mm}$





ULTRACUT NADO

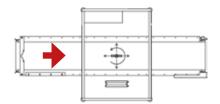
Universal cutter with conveyor belt

The Ultracut Nado provides the full functionality of an ultrasonic cutter and impresses with its sophisticated ultrasonic cutting technology built in a hygienic machine. Round and square products in the baking tray or on a support will be cut in perfect quality by the plant. The individual piece sizes, segments and cutting speeds are freely adjustable via an intuitively operable touch panel.

A conveyor belt will help the operator to convey heavy and large products in the machine. During the cutting process, other products can be placed and baked goods that have been cut can be removed. The whole machine structure provides a maximum of hygiene and can be cleaned within a few minutes.

- Multi-functional ultrasonic cutter
- Compact machine design
- Man-sized doors, full accessibility
- Cutting freely on the belt and in the baking tray
- Cutting in the baking tray with tray detection
- Intuitively operable touch panel
- Easy and rapid cleaning of the machine
- Hygienic knife cleaning system
- Integrated KnifeGuard
- Comprehensive recipe management
- Line-suitable
- Position detection via vision system







TECHNICAL DATA

Length	3460 mm
Width	1690 mm
Height	2200 mm
Weight	about 700 kg
Item No.	75000037

CUTTING FORMS



ADDITIONAL MODULES

- Triangle cutting function
- Disinfection station Sterilisation with UV light
- Laser projection system
- Remote maintenance module
- Centring device for "round products"
- Fixable rollers

Baking tray size: up to 600 x 800 mm Placement and removal of the products during the cutting process.





ULTRACUT UST

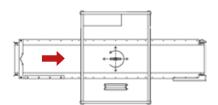
Ultrasonic cutting machine with double-head

The Ultracut UST is predestined for cutting round products. By the use of two synchronously operating ultrasonic knives a high output is generated.

The desired cutting patterns are stored as a recipe in the control system via an easy-to-use touch screen.

- Compact machine design
- Stainless steel frame with height-adjustable feet
- Cutting head with two synchronously working ultrasonic knives
- High productivity in a small space
- Easy operation and intuitive control via touch screen
- Easy and rapid cleaning of the machine
- Hygienic knife cleaning system
- Automatic product centring
- Line-capable







TECHNICAL DATA

Length	3504 mm
Width	1686 mm
Height	1938 mm
Weight	750 kg
Item No.	75000050

CUTTING FORMS



ADDITIONAL MODULES

- Remote maintenance module
- Centring device for "round products"
- Laser projection system
- Fixable rolls
- Hygienic knife cleaning system





ULTRACUT TERBIA DUO

Multi-functional ultrasonic cutter with multiple cutter head

The Ultracut Terbia Duo is a multi-functional ultrasonic cutter. The machine is equipped with two or more ultrasonic cutters adjustable in different heights. The machine will automatically select the optimum combination of the ultrasonic cutters. This would enable to omit an elaborate changeover procedure. The individual piece sizes, segments and cutting speeds are freely adjustable via an intuitively operable touch panel. A conveyor belt will help the operator to convey heavy and large products in the machine. During the cutting process, other products can be placed and baked goods that have been cut can be removed.

- Manifold cutting head, adjustable (standard 90/190)
- Intuitively operable touch panel
- Man-sized doors, full accessibility
- Easy and rapid cleaning of the machine
- Multi-functional ultrasonic cutter
- Compact machine design
- Cutting freely on the belt
- Cutting in the baking tray with tray detection
- Line-suitable
- Easy and rapid cleaning of the machine
- Hygienic knife cleaning system
- Integrated KnifeGuard
- Comprehensive recipe management





Optional: with other conveyor belts

TECHNICAL DATA

Length	3929 mm
Width	2000 mm
Height	2244 mm
Weight	about 1100 kg
Item No.	75000032

CUTTING FORMS



ADDITIONAL MODULES

- Fixable rollers
- Recirculation system for baking trays
- Disinfection station Sterilisation with UV light
- Laser projection system
- Remote maintenance module
- Centring device for "round products"
- Carrier plates

Baking tray sizes: Usual baking tray sizes of up to 600 x 800 mm Round products: diameter of up to 350 mm. Other sizes upon request.





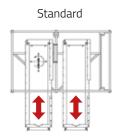
ULTRACUT KONDUS

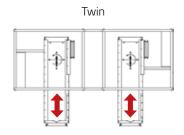
Return system, ideal for one-man operation also as double-head solution

The Ultracut Kondus such as the Ultracut Terbia Duo is equipped with two or more hight-adjustable cutters. This machine is designed as a return system. After having completed the cutting system, the product will be returned to the operator. At the same time, a new product will be inserted on the other side. Therefore, it is perfectly suitable for the one-man operation.

- One-man operation
- High productivity in a small space
- Intuitive control on the touch-screen
- Cutting head with ultrasonic knives adjustable relative to one another
- The "Twin" type is equipped with 2 cutting heads
- Stainless steel frame with height-adjustable feet
- Viewing window made of transparent food neutral plastic material
- Cutting in the baking tray or on the carrier plate
- Cleaning station with fresh water
- Integrated KnifeGuard
- Rapid and easy cleaning
- Easy accessibility
- Comprehensive recipe management









TECHNICAL DATA

	Standard	Twin
Length	2685 mm	4485 mm
Width	2685 mm	2756 mm
Height	2200 mm	2242 mm
Weight	about 1200 kg	about 1950 kg
Item No.	75000001	75000007

CUTTING FORMS



ADDITIONAL MODULES

- Triangle special function
- Sterilisation with UV light
- Remote maintenance via LAN

Baking tray size: up to 600 x 800 mm Alternating placement and removal during the cutting process





SANDWICHBOY

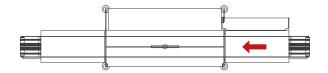
The compact sandwich cutter

The Sandwichboy cuts sandwiches and stuffed wraps of perfect quality. The products placed on the conveyor belt of the machine will be automatically aligned and conveyed through the cutting area. Then they can be removed from the conveyor belt.

The whole machine structure provides a maximum of hygiene and can be cleaned within a few minutes.

- To cut sandwiches or wraps
- Hygienic design according to the EHEDG directives
- Easy and rapid cleaning
- Usable as single or line machine
- Compact machine
- Fixable rollers
- Depending on the product up to 70 cycles / min.







TECHNICAL DATA

Length	3318 mm
Width	898 mm
Height	1644 mm
Weight	about 600 kg
Item No.	75000028

CUTTING FORMS





ADDITIONAL MODULES

Remote maintenance module

Continuous cutting of up to 70 sandwiches per minute.





USQ MICRA

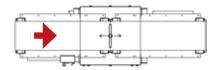
The compact cross cutter

The cross cutter USQ Micra is designed to cut product strands and product carpets. The piece lengths and cutting speeds are freely adjustable via an intuitively operable touch panel.

The whole machine structure provides a maximum of hygiene and can be cleaned within a few minutes.

- Cutting widths
- Compact machine
- Cutting in clock cycles or synchronous cutting
- Up to 110 cycles / min.
- Easy and rapid cleaning of the machine
- Line-capable







TECHNICAL DATA

Length	2617 mm
Width	834 mm
Height	1644 mm
Weight	about 320 kg
Item No.	75000051

CUTTING FORMS



ADDITIONAL MODULES

20 kHz or 30 kHz technique

Products: Strand width of up to 300 mm, depending on the Sonotrode with a height of up to about 70 mm for single cuts, batches, cutting in clock cycles or synchronous cutting



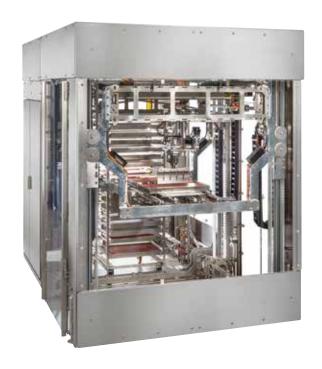


IQ-MOVE SPIDER

Automation through baking tray handling

Ultrasonic cutting machine with docking station for existing rack trolley, with vertically movable work unit for handling cake trays, program-controlled removal, cutting directly on the lifting gantry, program-controlled automatic removal of the cake trays, then returning the baking trays to the rack trolley.

- Relief of the operating staff
- Less personnel
- Fully automatic process
- Reduction of service time





TECHNICAL DATA

Length	3146 mm
Width	2150 mm
Height	2628 mm
Weight	ca.1500 kg
Item No.	7500063

CUTTING FORMS



ADDITIONAL MODULES

Remote maintenance module

Baking tray sizes: Usual baking tray sizes up to 600 x 800 mm Round products: diameter of up to 350 mm. Other sizes upon request.





MACHINE OVERVIEW

Our other machines and modules

Döinghaus cutting and more is not only a specialist in ultrasonic cutting technology, but also a competent partner from trade to industry in the pastry and food sectors. We offer economically and technologically sophisticated solutions for all aspects of process engineering and process automation.















OTHER MACHINES AND MODULES

CUT 600





Page 19

Basket Tray Depositor





Row Collector





17





CUT 600

Dough cutter machine with sheet conveyor belt

The CUT 600 is perfect for cutting biscuit rolls or other strand products. With up to 70 cycles / min and adjustable piece sizes, high productivity as well as flexibility is guaranteed. After the cutting process, the products are automatically deposited on a sheet or optionally conveyor belt, so that a time-consuming manual depositing process is no longer necessary.

The desired cutting thickness is entered via an easy-to-use touch panel and stored as a recipe.

- Compact machine design
- Easy operation via touch screen
- Easy and rapid cleaning of the machine
- Multi-row covering
- Automatic depositing on sheet support







TECHNICAL DATA

Length	1898 mm
Width	970 mm
Height	1323 mm
Weight	240 kg
Item No.	75000036

CUTTING FORMS



ADDITIONAL MODULES

- Remote maintenance module
- Product conveyer belt line-capable





KA 2000

Dough band former

The KA 2000 is designed for discharging dough masses. A stable structure of the machine enables in particular the processing of tough and heavy masses.

Equipped with a conveyor belt, dough bases can be discharged and placed precisely in trays.

- Compact machine design
- Uniform compression and shaping of the product mass
- Hopper attachment
- Freely adjustable discharge speed
- Intuitive operation
- Easy and quick cleaning of the machine
- Adjustable product thickness
- Inline-ready





TECHNICAL DATA

Length	1520 mm
Width	680 mm
Height	1430 mm
Weight	ca. 350 kg
Item No.	75000039

ADDITIONAL MODULES

- Remote maintenance module
- Sheet filling function





BASKET TRAY DEPOSITOR

For products that need to be placed within a basket or tray, this can be done automatically by the basket depositor. The machine automatically recognises a basket and positions it lengthways in an inclined position. This is set by the machines preprogrammed setting for the depositing process.'

All of the machine settings can be changed via an operator friendly touchscreen and then saved in the form of recipes for later use. The entire machine is optimised according to the HACCP guidelines.

- Compact machine design
- Easy operation via touch screen
- Quick and Easy cleaning of the machine
- Programmable process





TECHNICAL DATA

Length	3873 mm
Width	3980 mm
Height	1456 mm
Weight	ca.1060 kg
Item No.	75000062

ADDITIONAL MODULES

Remote maintenance module





PRODUCT LAYING MACHINE A 200-800

The products are continuously taken over and placed on baking trays or shelves provided at the factory.

The number of rows and the spacing can be freely adjusted.

The machine automatically recognizes a placed sheet and positions it for the laying process according to the machine's parameter settings.

All machine settings can be changed via a touchscreen input area and saved in the form of recipes for later use.

- Reduction of operating times
- Relief for specialist staff
- Fully automated process





TECHNICAL DATA

Length	3050 mm
Width	880 mm
Height	1270 mm
Weight	ca. 500 kg
Item No.	75000038

ADDITIONAL MODULES

Remote maintenance module





ROW COLLECTOR

Products arriving in one or more rows are collected via individually controlled conveyor belts and transferred as a batch to the next machine.

- Minimization of production times
- Suitable for a wide range of products
- Fully automated process





TECHNICAL DATA

Length*	1318 mm
Width*	1980 mm
Height*	2000 mm
Weight	ca. 800 kg
Item No.	75000065

^{*}Dimensions may vary depending on requirements and final design.





IQ-MOVE

Automation through baking tray handling

The rack trolleys provided by the customer are positioned in the docking station. The cake trays are fed fully automatically to the following machine via a lifting portal with an integrated removal tongue. Thanks to the modular design, existing conveyor belt systems can also be automated using the IQ-Move.

After processing, the trays can also be automatically fed back to the rack trolley.

- Reduction of operating times
- Relief for specialist staff
- Fully automated process
- Removal of various sheets



TECHNICAL DATA

Length	3370 mm
Width	1850 mm
Height	2620 mm
Weight	ca. 1500 kg
Item No.	75000061

ADDITIONAL MODULES

Remote maintenance module



US CUTTING LINES

Individual and customised

The ultrasonic cutting lines will be individually developed for you according to your customer-specific process parameters.

At this, the objective is to design an integrated and also a flexible automation solution, if requested. The cutting is performed synchronously for the conveying speed.

Technical support by remote maintenance





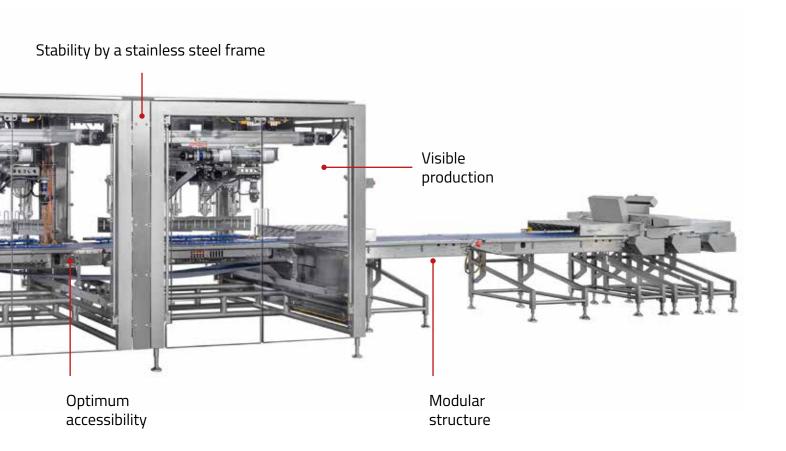




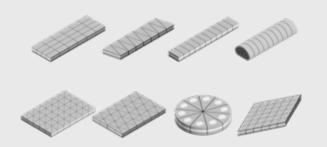


- Synchronously working cutting line for endless products
- Product separation
- Automatic outward transfer to the cake edge
- Combination with pick & place robots

- Different types after technical clarification
- Optimised production processes
- Equipped with high-tech components



CUTTING FORMS



ADDITIONAL MODULES

- Centring device for individual products (according to the product specification)
- Outward transfer of the edge off-cuts
- Disinfection station: Sterilisation with UV light
- Laser projection system
- Camera with positioning system
- Decapper
- Cutter cleaning station with fresh water
- Remote maintenance via modem / LAN





Individual and customised

Example of an ultrasonic cutting line to cut soft and hard cheese equipped with round and spade blades.









Ultrasonic pie cutter with conveyor belt

- Multiple cutting heads are possible
- Compact machine design
- Industrial version
- Tart centring
- Cutting freely on the belt
- Line suitability
- Easy and rapid cleaning of the machine
- High cutting performance
- Hygienic knife cleaning system





SERVICE ONE STOP

Quality is important to us

In this way, we ensure that our competent team will produce your ultrasonic cutter accurately with high-quality components according to the technical specifications. Only when the machine has passed the test runs before our mutual eyes at our premises, it will be prepared for transportation, safely packed and sent.

As soon as you have received the machine, our installation team will be on its way to you. They will set up and install, test and commission the plant – in close cooperation with your employees. Only if the commissioning was successful and your employees have the knowledge how to operate it, our work will be completed – provided that you are satisfied.

If you have any questions regarding the operation later on, if you would like to order spare parts or if any problems or malfunctions occur - Our service team will be at your disposal!

- On-site presentation
- Advice & Offer
- Test run
- Commissioning
- Maintenance
- Service Hotline
- Spare parts



Advice & Offer: Customized solutions

Our consultants will be glad to clarify these questions in a personal conversation with you. They will visit you, inspect your production, record the framework data and discuss the optimum cutting solutions with you.

Service Hotline

Our team and an experienced international network of service partners will support you. In case of need, our experts will respond promptly providing remote maintenance.

Maintenance: Guarantor for a long service life

The availability of the plant technique is of utmost importance in the multi-layered production environment. With the conclusion of a maintenance contract, we assume to be responsible of regular maintenance. We will coordinate the dates, perform the maintenance and document the machine life — in order to relieve you.

With continuous maintenance and repair, your may rely on a reliable machine run time and a prolonged service life of your cutting plant. Please do not hesitate to contact us, if you would like to conclude a maintenance contract.





ON-SITE PRESENTATION

Ultrasonic cutting – LIVE at your premises!

Are you particularly interested in Ultracut Filou – the sophisticated cutting technology in a very confined space? Then, we will be glad to present you the machine and your options.

The team of Döinghaus cutting and more will come to your premises with the Ultracut Filou!

Our expert will perform individual cutting tests on your products with you LIVE on site. This would provide a real impression of the cutting quality, of the technical opportunities, of the machine and of your personal advantages when using a cutting and more ultrasonic cutter.

Please do not hesitate to contact us. We are looking forward to meet you!



Test run: Mutual quality test

As being a high-end manufacturer of individualized ultrasonic cutting solutions, we are aware that: The precision is decisive! Thus, we put our ultrasonic cutters to the acid test before delivery.

With customised and multi-layered requirements, the innovative technique will be tested step by step – or well said cut by cut. This will be performed with different product samples. Depending on the product structure and the physical state, the corresponding optimum machine setting will be determined. We will mutually check the cutting quality! Only after your quality release, the machine will leave our factory.



NOTES



NOTES		



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