

Operating Manual



ASETSM-E

Machine for peeling, coring, splitting and slicing of apples

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INTRODUCTION

Dear customer,

The available operating manual contains all the information, which should be followed for proper installation, operation and maintenance of the delivered machine.

In case of damage due to improper installation, start-up or operation we will be exempt from our warranty liabilities.

This documentation is solely intended for our customers and is, therefore, not allowed to be, in whole or in part, copied, distributed or used for advertising purposes without special permission, or made accessible to any third persons.

ASETSM-E, a machine for peeling, coring, splitting and slicing of apples, is a high-quality product by FEUMA Gastromaschinen GmbH Gößnitz.

With the purchase of this FEUMA machine we guarantee a high performance and a long machine life.

All products of our company are subject to technical modification. Therefore, these operating instructions are only valid as far as the machine complies with the described version.

The machine has been tested in accordance with the relevant safety instructions. CE conformity declaration is available.

SAFETY INSTRUCTIONS AND INDUSTRIAL SAFETY

- **CAREFULLY read** the following safety instructions. Instruct the operating staff and emphasise the residual risks that still remain with regard to the operation of the machine.
- General regulations on industrial safety and health care protection as well as existing in-house instructions must be definitively complied with.
- FEUMA Gastromaschinen GmbH Gößnitz will not be liable for damage due to improper usage.
- Only qualified personnel or specially authorised service centres must carry out repairs.
- Only original FEUMA spare parts ensure an accurate functioning of the machine.
- Disconnect mains plug prior to any work in the machine.
- Relevant accident prevention and safety regulations must be adhered to.

DESCRIPTION

ASETSM-E (542720) will be delivered with the coring device \varnothing 20 mm (542715) and the scraping fork (300469). On account of the different types of usage, the required tools must be ordered as special accessories. We will assist you during selection. The following tools are available:

- Fan knife head 3.5 mm	542721
- Fan knife head 4.5 mm	542722
- Fan knife head 5.5 mm	542723
- further dimensions upon request	
- Splitting device, 2 pieces	542701
- Splitting device, 3 pieces	542711
- Splitting device, 4 pieces	542702
- Splitting device, 6 pieces	542710
- Splitting device, 8 pieces	542703
- Splitting device, 10 pieces	542712
- Splitting device, 12 pieces	542704
- Splitting device, 16 pieces	542705
- Splitting device, 24 pieces	542706
- Coring device \varnothing 23, large	542714

The following processes can be performed on this machine:

1. Removing the core

Without peeling knife rod, with coring device and scraping fork, with partitioning cylinder 300755.

2. Removing the core – Splitting into segments

Without peeling knife rod, without scraping fork, with splitting device, with partitioning cylinder 300453 or 300768.

3. Slicing – Removing the core

Without peeling knife rod, with fan knife set, with coring device, with scraping fork, with partitioning cylinder 300755.

4. Peeling – Removing the core

With peeling knife rod, with scraping fork, with coring device, with partitioning cylinder 300755.

5. Peeling – Removing the core – Splitting into segments

With peeling knife rod, with splitting device, without scraping fork, with partitioning cylinder 300453 or 300768.

6. Peeling – Slicing – Removing the core

With peeling knife rod, with fan knife set, with coring device, with scraping fork, with partitioning cylinder 300768.

7. Peeling – Slicing – Removing the core – Splitting into segments

With peeling knife rod, with fan knife set, with splitting device, without scraping fork, with partitioning cylinder 300768.

CAUTION!
as follows:

The usage of the partitioning cylinders for the removal of the processed fruit is undertaken

- partitioning cylinder (compl. PVC) item No. 300453 **without** scraping fork only
- partitioning cylinder (CNS-PVC) item No. 300755 **with** scraping fork
- partitioning cylinder (CNS-PVC) item No. 300768 **without** scraping fork only.

DESCRIPTION

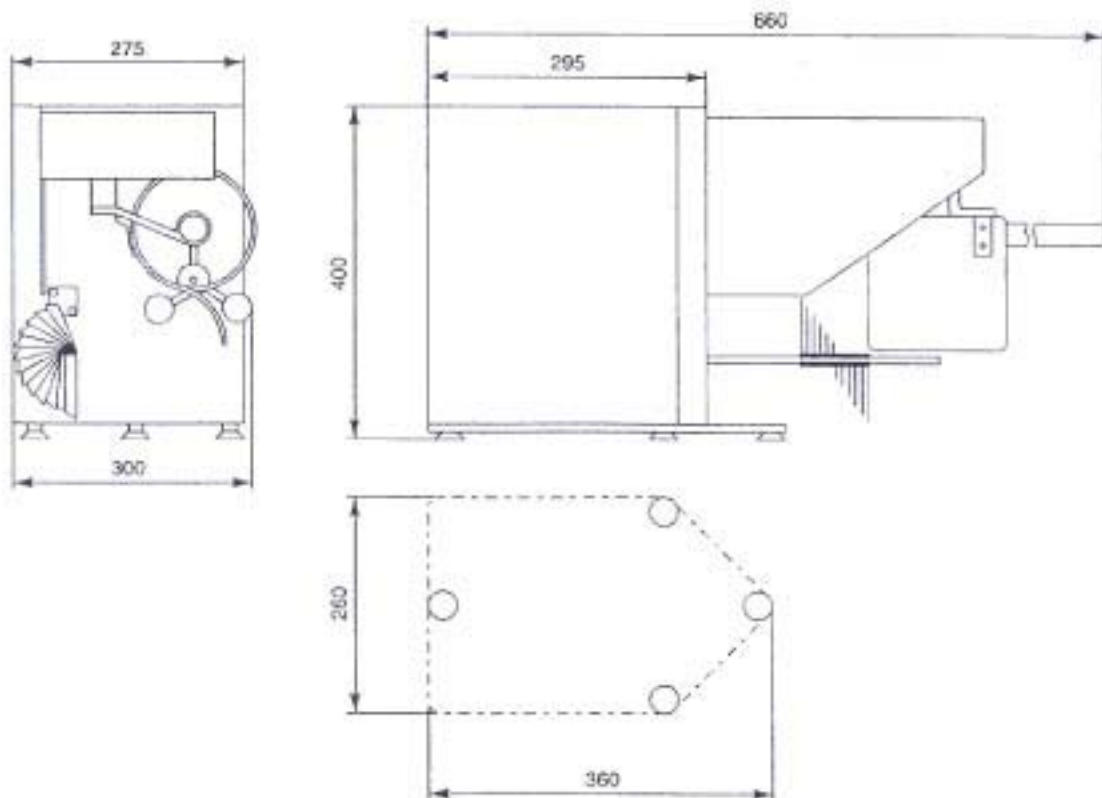
Technical Data

Dimensions (W x H x D)	300 x 400 x 780 mm
Mass	30 kg
Capacity	70...100 kg/h
Apple size	30 - 90 mm
Three-phase motor	yes
Supply voltage	400 V
Driving power	0.18 KW
Speed	1440 min ⁻¹
Magnetic safety device	yes
Motor protection switch	yes
GS sign	yes
CE sign	yes
Type of protection	IP 54
Automatic rotating field detection	yes

The sound pressure level is less than 70 dB (A). Measurement was carried out in accordance with DIN 45735 part I.

Dimension Drawing

All dimensions in mm



DESCRIPTION

Usage

The apple peeling, coring, splitting and slicing machine ASETSM-E is a high performance appliance for peeling, coring, slicing and splitting of larger quantities of apples or pears. Its scope of application includes bakeries and cake shops up to fruit processing plants.

General Description

The apple peeling, coring, splitting and slicing machine ASETSM-E processes fresh apples with diameters between 30 and 90 mm. It is equally suited for pears with the same diameters and a length with a maximum of 80 mm.

Closed apple rings with a width of 3.5 mm, 4.5 mm or 5.5 mm can be produced with the fan knife sets provided. Further dimensions are available upon request. It is also possible to split the apple rings subsequently into segments using various types of splitting devices. Naturally, you can therefore only peel the apples and split them into segments, which you already know from our ASETM-E/2 type.

After the fruits have been pinned on the machine, the process carries on fully mechanically without operator intervention. Irrespective of the fruit size, the thickness of the peel will be the same unless it has already been adjusted otherwise according to the apple quality.

Safety

A clear glass cover shields the whole working mechanism.

If this cover is removed, the safety switch will stop the operation immediately and switch off the machine. The machine has to be started again after the cover has been replaced.

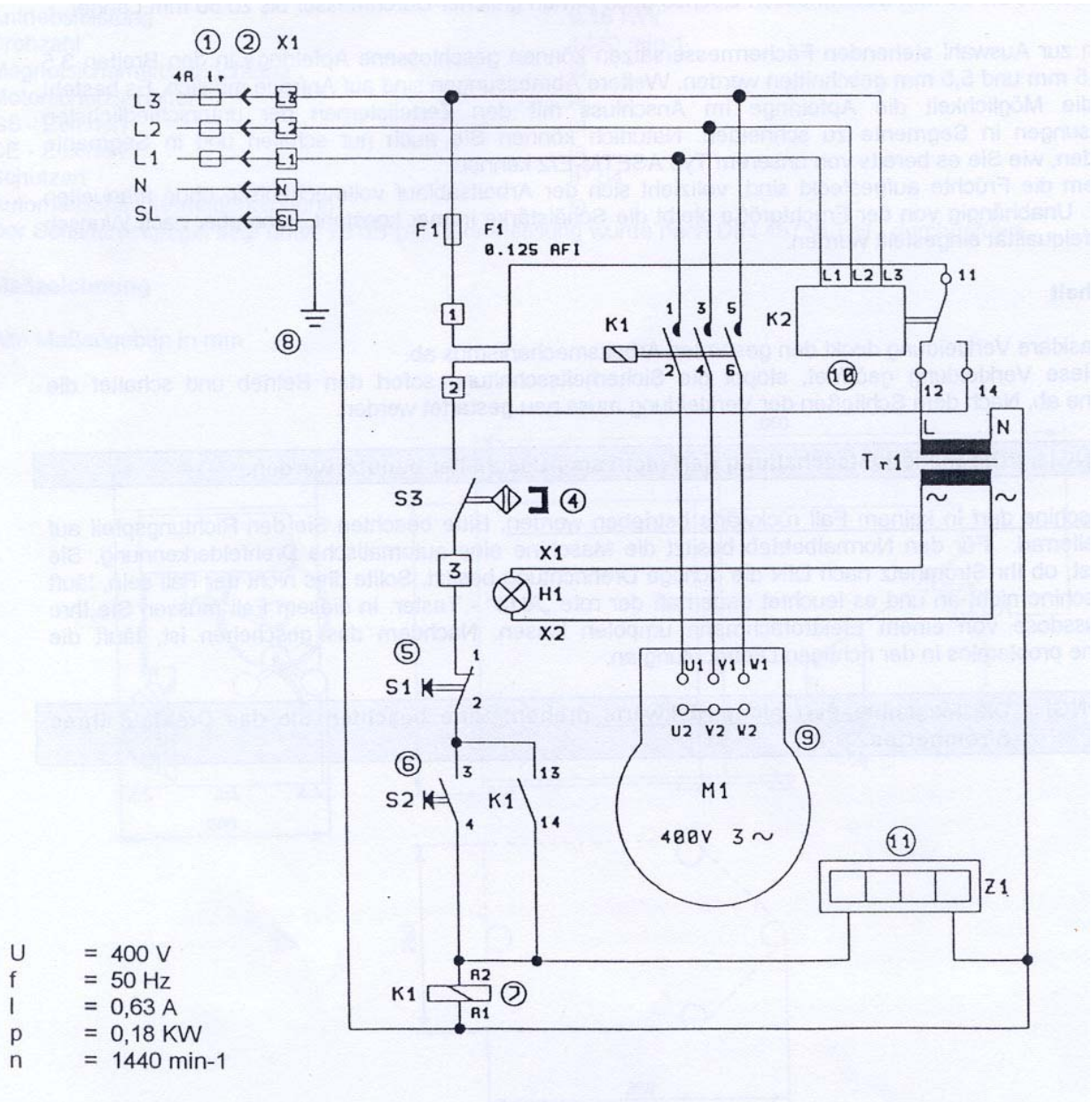
CAUTION! The safety switch must not be used as ON/OFF switch.

The machine must not, under no circumstances, be operated in reverse direction. Please, pay attention to the arrow on the crown wheel. The machine is equipped with an automatic rotating field detection for normal operation mode. It ascertains whether your power supply network provides the correct direction of rotation in accordance with DIN. If this is not the case, the machine won't start and the red button "AUS" (Off button) will permanently light up. Then you would need an electrician to reverse the polarity of your socket. If this work has been done, your machine will start without any problems in the correct direction of rotation.

CAUTION! The machine must not rotate in reverse direction. Please pay attention to the rotating field of your power supply network.

CIRCUIT DIAGRAM

- | | |
|----------------------|--------------------------------------|
| 1) External fuse | 7) Air circuit breaker |
| 2) Mains plug | 8) Protective earth terminal, casing |
| 3) Magnetic switch | 9) Motor |
| 4) Off button (red) | 10) Phase monitoring |
| 5) Off button (red) | 11) Operating-hours meter |
| 6) On button (green) | |



ASSEMBLY

Assembly Instructions

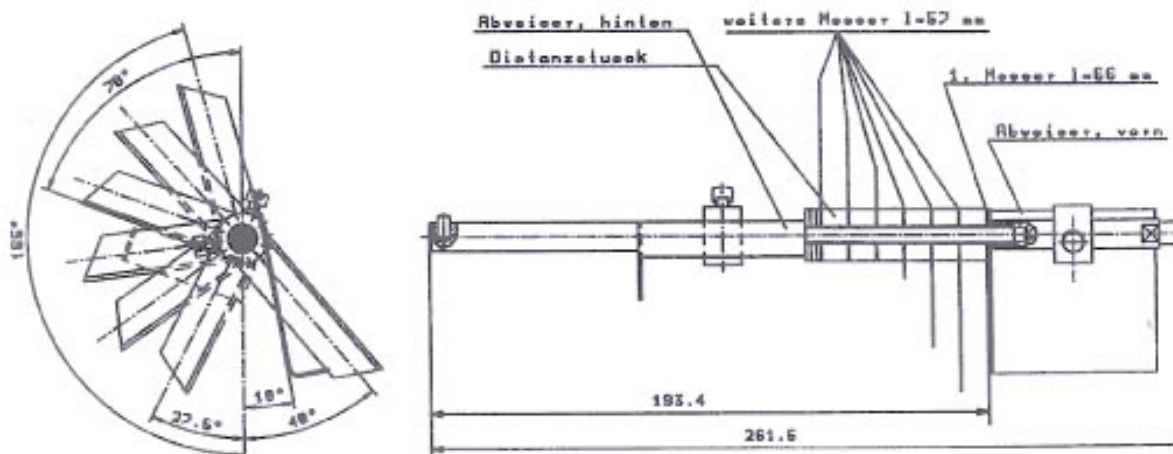
ASETSM-E is a table instrument and requires a bearing surface of 370 x 280 mm

It is easy to install on a mobile substation with a shutdown device (542016), available from our company, using a support plate (542708). The working height will be optimal with this solution.

- Please ensure that the coring device and the splitting devices that may possibly be used are always inserted up to the stop in the drilled hole of the splitting device intake unit (300387) and secured with a star handle screw (300479). The coring device \varnothing 20 mm (542715) and the scraping fork (300469) are standard equipment and factory-mounted.
- The fan knife head will be inserted with the front shaft extension into the hollow shaft below the secondary drive shaft (300419). The tappet on the shaft extension supports the insertion process and presets the angular position. Subsequently, the safety cover is placed on the rear shaft extension with the fixing bracket clicking into both adjusting pins. Now, the safety cover is secured with the star handle screw. The angular position of the fan knives and of both outlet plates is essential for the working quality and should not be changed. Improper re-adjustment may lead to collisions.

CAUTION! Do not change the angular position of the fan knives and of the output plates of the fan knife set. This may lead to machine breakdown.

CAUTION! There is the risk of cutting during installation and cleaning of the fan knife sets.



OPERATION

Start-up

Please carefully read the information provided in the operational manual before you start working on the machine.

CAUTION! Industrial safety and health protection regulations must be complied with during operation.

Residual Risks

Despite the integrated safety equipment, there still remains a certain residual risk when operating the machine. Therefore, pay special attention to our instructions.

CAUTION!

- Instruct the operating staff accordingly.
- Wear metal reinforced gloves during operation.
- Do not get your hands into the running machine during operation.
- Switch off the machine before removing peel from the knives.
- There is a risk of cutting during assembly, disassembly or cleaning.
- Repairs must be carried out by authorised qualified service centres only.
- Disconnect the mains plug before you begin any repair.

Always check the following points before you switch on the machine:

- The “AUS” button (Off button) must not flash permanently after the CEE mains plug has been inserted. If this is the case, your power supply network is incorrectly polarized. This should be eradicated by an electrician. The machine must not, under any circumstances – not even during (manual) repairs -, be run in the wrong direction of rotation. For this purpose, it is equipped with an automatic rotating field detection and indicates the defect by the flashing of the “AUS” button (Off button).
- The coring device (542715) or the splitting device (542701 - 542706 or 542710 - 542712) must be flushed with the splitting device insertion unit (300387).
- The star handle screws (300479) for securing the splitting device and the partitioning cylinder (300453) must be tightened firmly.
- The fan knife set is correctly inserted and the guard (300709) affixed.
- Close cover unit (300431) to start the machine.

If the cover unit is opened during the machine operation the safety switch will immediately trigger, interrupt the circuit and stop the machine.

However do not use this switch function as ON/OFF switch for machine operation.

CAUTION! The machine is designed for supervised operation only. Operating staff must be instructed. There is the risk of cutting.

Operation

Ensure that the fruit is well pre-sorted. Do not pin deformed or rotting fruit on the machine, because these pieces of fruit would not be peeled but torn off from the spindle by the knife. Neither are too old or very ripe apples suited for machine peeling.

After having checked the points in the section “Start-up”, you can begin your work. Proceed as follows:

- Pin the apples with the stalk side on the fruit fixture (300732) until they reach the stop plate (300455). Pay attention to the machine cycle. Your time for pinning the apples is 6 seconds at the most.
- If you use pears, break the stalk and pin them on the fixture with the bloom.
- Pin the fruit immediately after the rotation of the base (300460) centrally on the fruit fixture.
- The next steps are performed automatically. For slicing you have to remove the sliced apple from the fixture before you can pin the next apple on the machine. If the machine cycle initially proves too fast for you, simply omit one cycle. This won't damage the machine and you will receive more safety during operation.
- Avoid blockages in the partitioning cylinder.
- If the fan knife head is blocked by peels that became stuck, stop the machine and carefully remove the residues.
- Do not switch off the machine during the splitting and coring processes. The restart will be complicated. The most appropriate position for switching off the machine is with the returned splitting or coring device immediately after swinging the apple intake (300454).
- If there is a failure, always switch off the machine first and disconnect the mains plug. Start failure elimination only after you have done this.

You have 6 seconds to pin on the fruit. If this is too little time, allow the spindle to run empty. Do not try to pin the fruit on the machine in this case as it may lead to failure, damage or injuries.

CAUTION! There is the risk of injury through stabbing at the fruit fixture when you pin the fruit on the machine.

Adjusting the peel thickness:

- Loosen cylinder bolt at the knife head (300448).
- Set the knife (300446) for the required peel thickness.
- Tighten nut firmly.
- The cutting edge must be 1 to 1.5 mm below the stop edge of the knife head.

Changing the knife head:

- Loosen M8 nut above the knife head (300448).
- Remove cheese-head screw below the knife head.
- Take off knife head in downward direction.
- Insert new knife head. Re-fix cheese-head screw and adjust knife head height. Tighten M8 nut.

Blockage of the fan knife set by peelings:

- If the fan knife set is blocked during the peeling operation, switch off the machine and carefully remove the peelings that became stuck between the fan knives. Despite the positioning of the outtake plates, this occurrence cannot be completely avoided. It depends on too many factors like apple size, peel thickness, degree of ripeness, etc.

TROUBLE SHOOTING

CAUTION! Repairs must only be carried out by authorised service centres or by qualified personnel. Disconnect the mains plug before your start with any maintenance work.

The machine does not start

- The “AUS” button (Off button) is flashing red – the power supply socket is incorrectly polarized.
- The mains plug has been disconnected.
- There is now power supply at the socket.
- The cover (300431) is open and the safety switch turned the machine off. Close cover.
- The machine has been stopped during splitting and coring processes and will not start anew. The motor is droning.
- A further reason for failure may be a defect in the electric installation of the machine. In any case call in an electrician for trouble shooting.

The fan knife head is not rotating

- The tappet did not click into the hollow shaft.

The apple is not peeled correctly

- The apple does not have the appropriate quality.
- The apple was not pinned up centrally.
- The knives are not correctly adjusted.
- The knife is blocked.
- The draw spring (310685) between the guiding segment (300451) and the sliding element (300444) had broken.
- The hinge spring (310688) at the knife arm had broken or is fatigued.
- The hinge spring (310684) at the lifting handle had broken or is fatigued.
- The adjusting screw at the knife fixture (300445) is not correctly adjusted or worn.

The apple is not peeled deeply enough at the front sides.

- The peeling diameter can be adjusted with the adjusting screw at the knife fixture (300445). Always ensure that the counter-nut has been firmly tightened. The knife must have no contact with the fruit intake during idle run. The required gap at the narrowest point between the knife and the fruit intake is 3 mm at the beginning of the peeling operation.

The knife does not take off from the apple during return movement or peels the apple during return movement.

- The lifting angle (300452) became incorrectly adjusted or has consequently worn. Loosen the clamping screw slightly at the lifting angle (300452) and adjust it by rotating, so that the lifting angle will pass the lifting handle (300463) during conveyance in the forward direction (towards the gear box). During return movement the lifting angle will slide across the lifting handle and take the knife off the apple. The set height position of the lifting angle must not be changed. It should only be readjusted by rotating.

Subsequently, firmly tighten the clamping screw. If this adjustment proves to be insufficient, the position of the lifting handle can be changed with the set screw at the holding arm (300462). If necessary, repeat the adjustment of the lifting angle.

The safety clutch triggers (loud crack in the machine). **Switch off the machine immediately.**

- An apple became stuck and the load in the peeling area is subsequently too high. Remove the apple.
- The machine is not lubricated and the sliding forces are too high. Carry out lubrication in accordance with section "Maintenance". Mend possible damage to the sliding surface beforehand. (fine emery cloth or emery fleece)
- The safety clutch can be adjusted by tensioning or loosening the compression spring (310683) on the secondary drive shaft (300421) using both hexagon nuts.
- Check that the settings on the peeling mechanism have not changed when the safety clutch had triggered. If this is the case, readjust them.

MAINTENANCE

After 8 – 10 hours of operation and/or every day

Carry out the following maintenance procedures after each day's cleaning:

- Grease sliding pole (300436).
- Grease lifting handle (300463).
- Grease sliding surface of the guiding plate (300435).
- Grease tooth spaces of the three peeling spindle wheels (300458) at the rear side of the basis (300460).
- Grease tooth spaces and lubricating nipples of the crown wheel (300439).
- Lubricate the bearing pin (300440) of the connecting rod (300441).
- Grease guide rail within the sliding area of the fixing plate (300442) at the low end of the guiding element (300438).
- Fruit spindle (300456) in the basis; lubricate 3 lubricating nipples with grease gun.
- Knife fixture (300445) in the sliding element (300444) below the guiding segment (300451); lubricate 1 lubricating nipple with grease gun.

Use the piston grease gun provided for lubricating the lubricating nipples.

After 300 hours of operation

- Disconnect mains plug and remove hood (300594). (For this purpose remove 6 cheese-head screws from the hood fixture).
- Check gearbox for wear.
- Slightly grease the grooves of the Maltese cross (300420), the sliding surfaces and all gear wheels and worm gears.
- Slightly grease the hinge spring (310684) at the lifting handle (300463), the hinge spring (310688) and the draw spring (310685).

After 1000 hours of operation

A thorough inspection of the machine is necessary after approx. 1000 hours of operation. Wearing parts must be replaced and all parameters for the machine reset. After this, the maintenance cycle described above starts again.

For this measure, please contact your authorised dealer.

Lubricants:

The following physiologically harmless lubricants are recommended:

- Multipurpose oil TUNFLUID DAB
- Multipurpose grease TUNGREASE USDA

Only physiologically harmless lubricants are allowed to be used for lubrication.

CLEANING

The machine requires thorough cleaning after each usage. It is important to remove the sugar and fruit acid containing substances from the functional parts of the machine. Otherwise they may lead to bonding or corrosion during standstill.

CAUTION! The machine is not hose-proof. Do not wash the machine with a water jet and do not clean it with high pressure cleaning devices. Use only commercially available hand detergents.

Clean the machine manually with warm water using a commercially available hand detergent.

Rub off all bare, browned or sliding parts with non-sludging oil after cleaning. (For lubricants see section Maintenance)

CAUTION! Do not scour with sand or scratch with hard materials.

CAUTION! When cleaning the cutting tools there is the risk of injury through cutting.

WEARING PARTS

Important wear parts are:

<u>Name</u>	<u>Item No.</u>	
• Partitioning cylinder, complete	300768	for operation without scraping fork
• Partitioning cylinder, complete	300755	for operation with scraping fork
• Cover, complete	300431	
• Knife head, complete	300448	
• Knife	300446	
• Splitting device, 2 pieces	542701	
• Splitting device, 3 pieces	542711	
• Splitting device, 4 pieces	542702	
• Splitting device, 6 pieces	542710	
• Splitting device, 8 pieces	542703	
• Splitting device, 10 pieces	542712	
• Splitting device, 12 pieces	542704	
• Splitting device, 16 pieces	542705	
• Splitting device, 24 pieces	542706	
• Coring device Ø 23 mm	542714	
• Coring device Ø 20 mm	542715	
• Fan knife head 3.5 mm	542721	
• Fan knife head 4.5 mm	542722	
• Fan knife head 5.5 mm	542723	
• Fruit intake, long	300732	
• Draw spring for guiding segment	310685	
• Hinge spring for knife arm	310688	
• Hinge spring for lifting handle	310684	
• Miniature fuse 0.125 A, quick-acting	310378	

Legend

Recommended cleaner:

Or similar sanitizer

COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient Name Cas No. Contents Health Risk

(Class) (R No.)

Chlorinated Trisodium Phosphate 11084-85-8 100% Xi 36/38, 31

HAZARDS IDENTIFICATION

Irritating to eyes and skin.

Contact with acid liberates toxic gas.

FIRST AID MEASURES

Eyes Wash immediately with plenty of water. Get medical attention.

Skin Wash thoroughly with water. Get medical attention if effects persist.

Inhalation Remove to fresh air.

Ingestion Remove product from mouth. Give water to drink if subject is conscious. Obtain medical attention.

FIRE FIGHTING MEASURES

Extinguishing Media No specific method or media given.

Special Fire Fighting Procedures No specific fire fighting procedure given.

ACCIDENTAL RELEASE MEASURES

Spill Clean Up Methods Collect with absorbent, non combustible material into suitable containers. Do not let washing down water contaminate ponds or water ways. Flush to sewer and inform treatment plant operator.

HANDLING AND STORAGE

Usage Precautions Avoid spilling, skin and eye contact.

Storage Precautions Keep containers closed.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient Name CAS No. STD LT EXP ST EXP

(8hrs) (15mins)

Chlorinated Trisodium Phosphate 11084-85-8 No std No std

Protective Equipment:

Protective Gloves Use protective gloves of neoprene, nitrile, polyethylene or PVC, butyl rubber, rubber (natural, latex), P.T.F.E (Teflon).

Eye Protection Wear splash proof eye goggles to prevent any possibility of eye contact.

PHYSICAL AND CHEMICAL PROPERTIES

Colour Pink

Appearance Powder, dust

Bulk Density 0.84 kg/m³

pH Value (diluted) 12.4

Dilution (%) 1

STABILITY AND REACTIVITY

Materials to Avoid Acids

Conditions to Avoid N/R

TOXICOLOGICAL INFORMATION

Health Warnings This chemical may cause skin/eye irritation.

Acute and Chronic Health Hazards Repeated exposure may cause chronic eye irritation. Mild dermatitis, allergic skin rash.

Swallowing concentrated chemical may cause severe internal injury.

ECOLOGICAL INFORMATION

Degradability No information available.

Acute fish Toxicity No information available.

Water Hazards No information available.

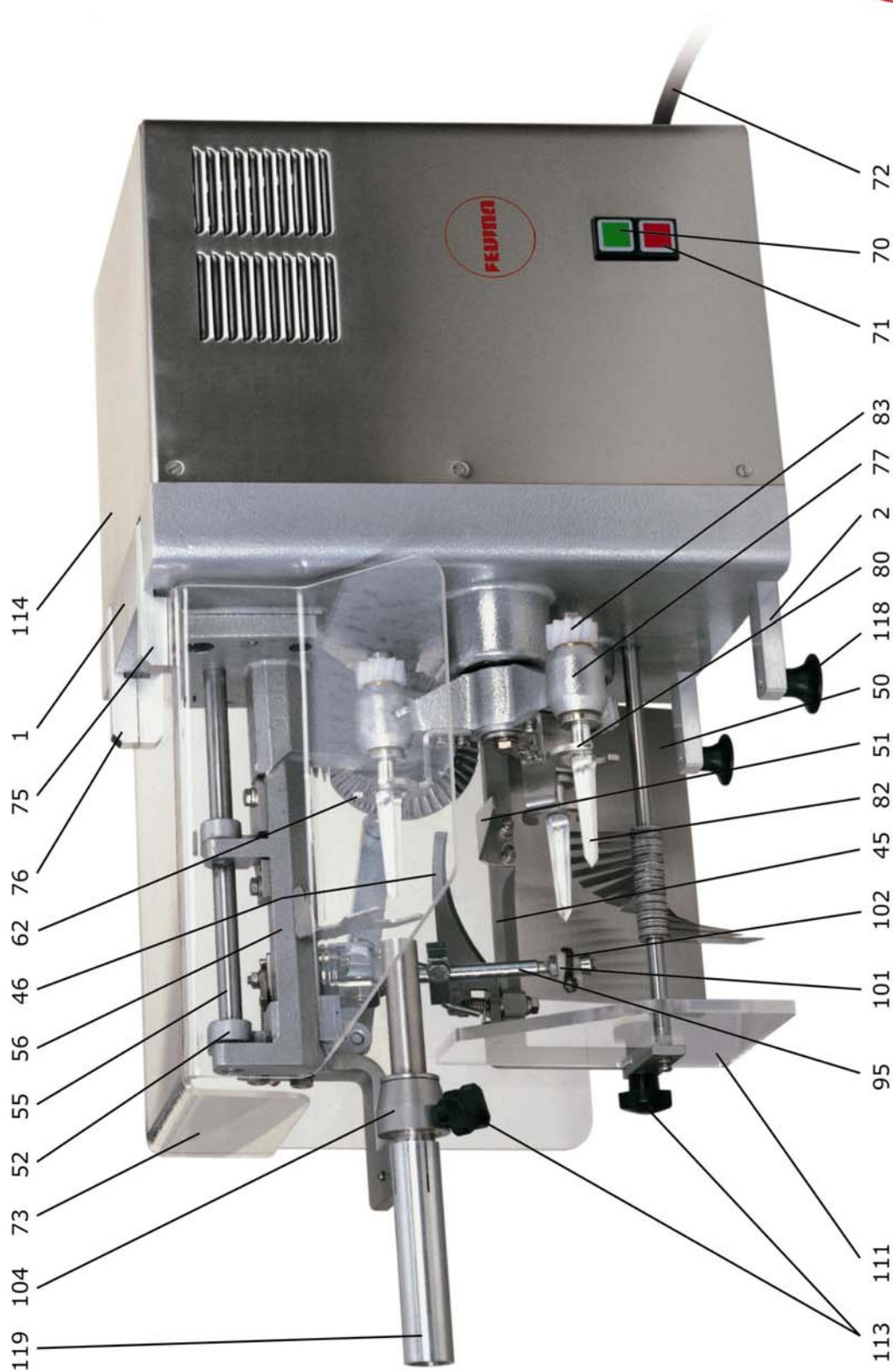
DISPOSAL CONSIDERATIONS

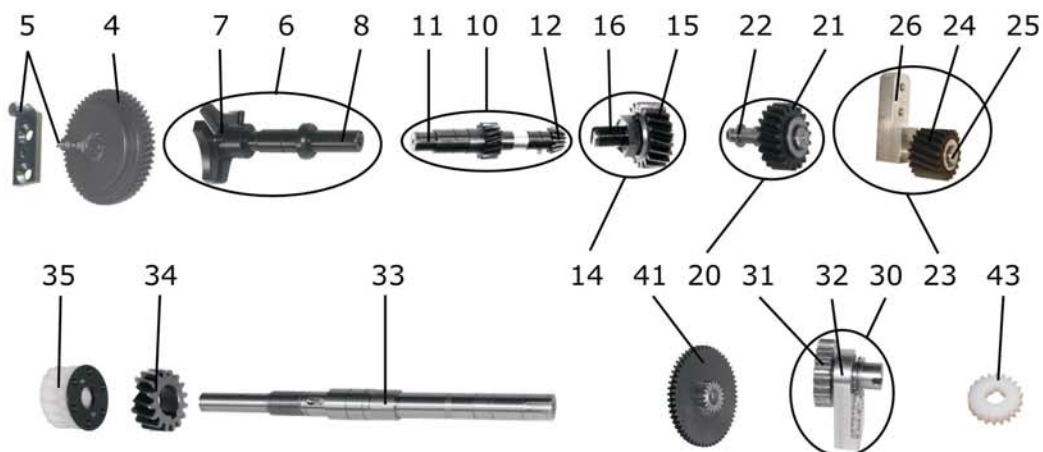
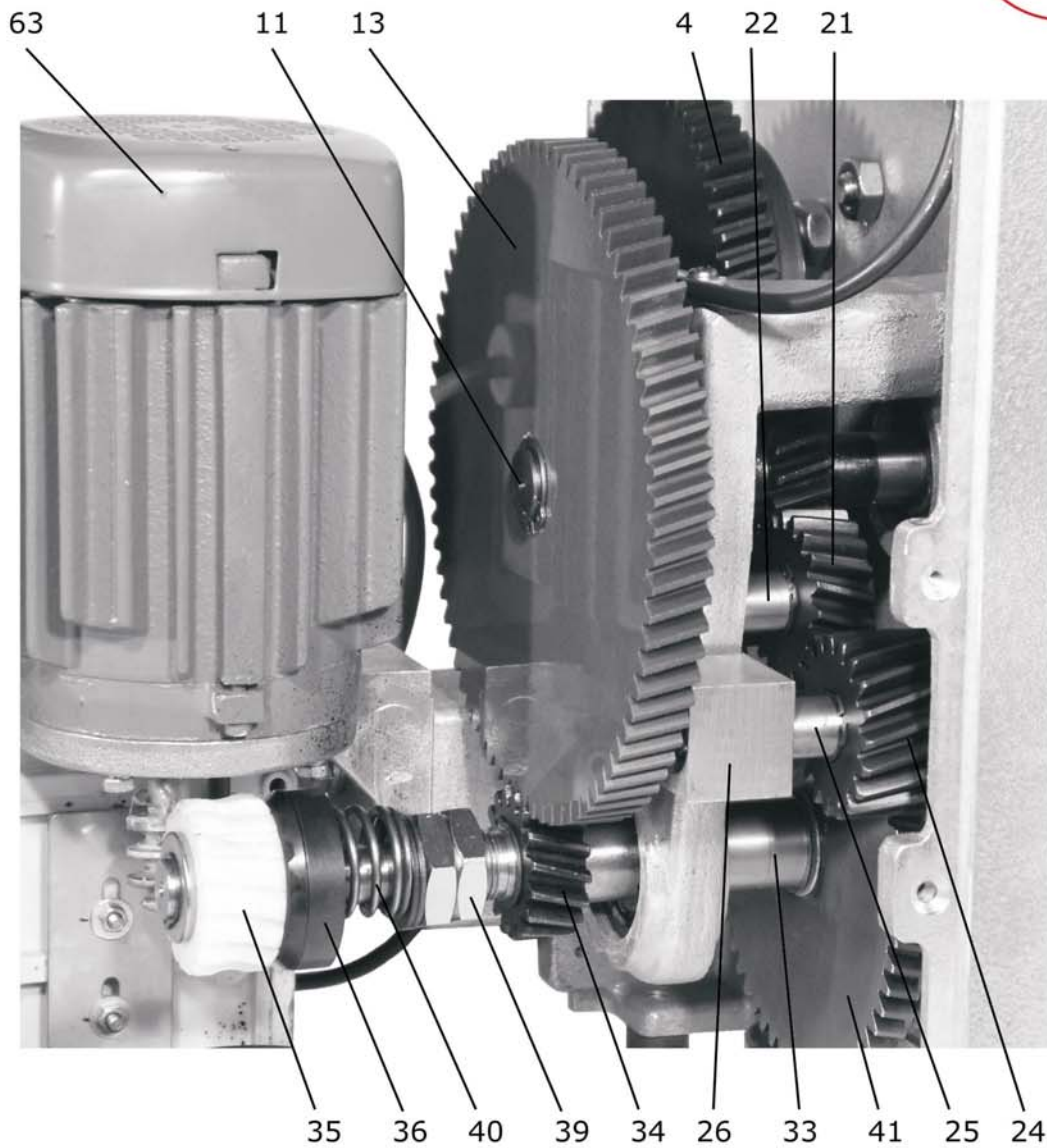
Disposal Methods Dispose of in accordance with Local Authority requirements.

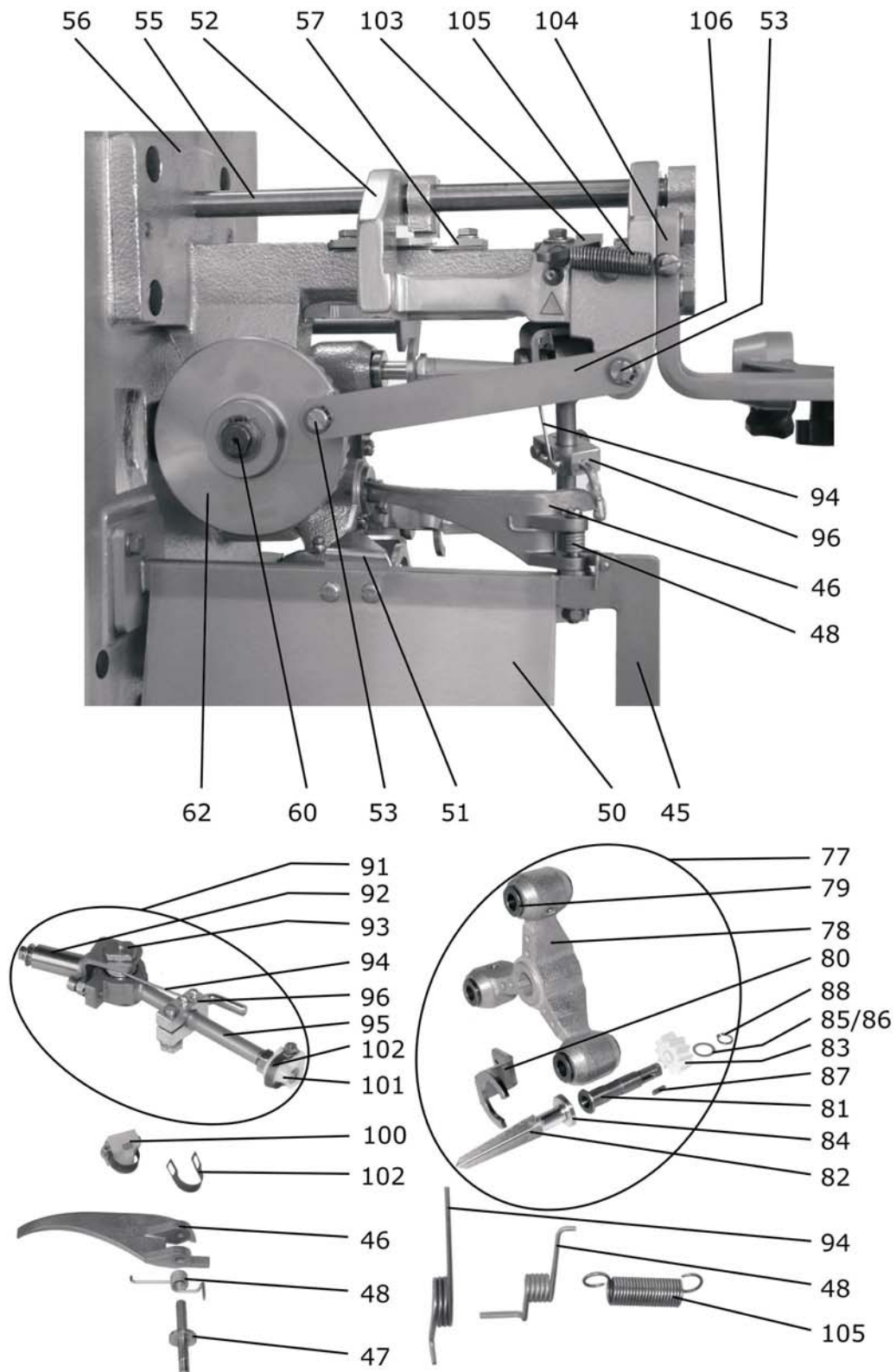
TRANSPORT INFORMATION

Road

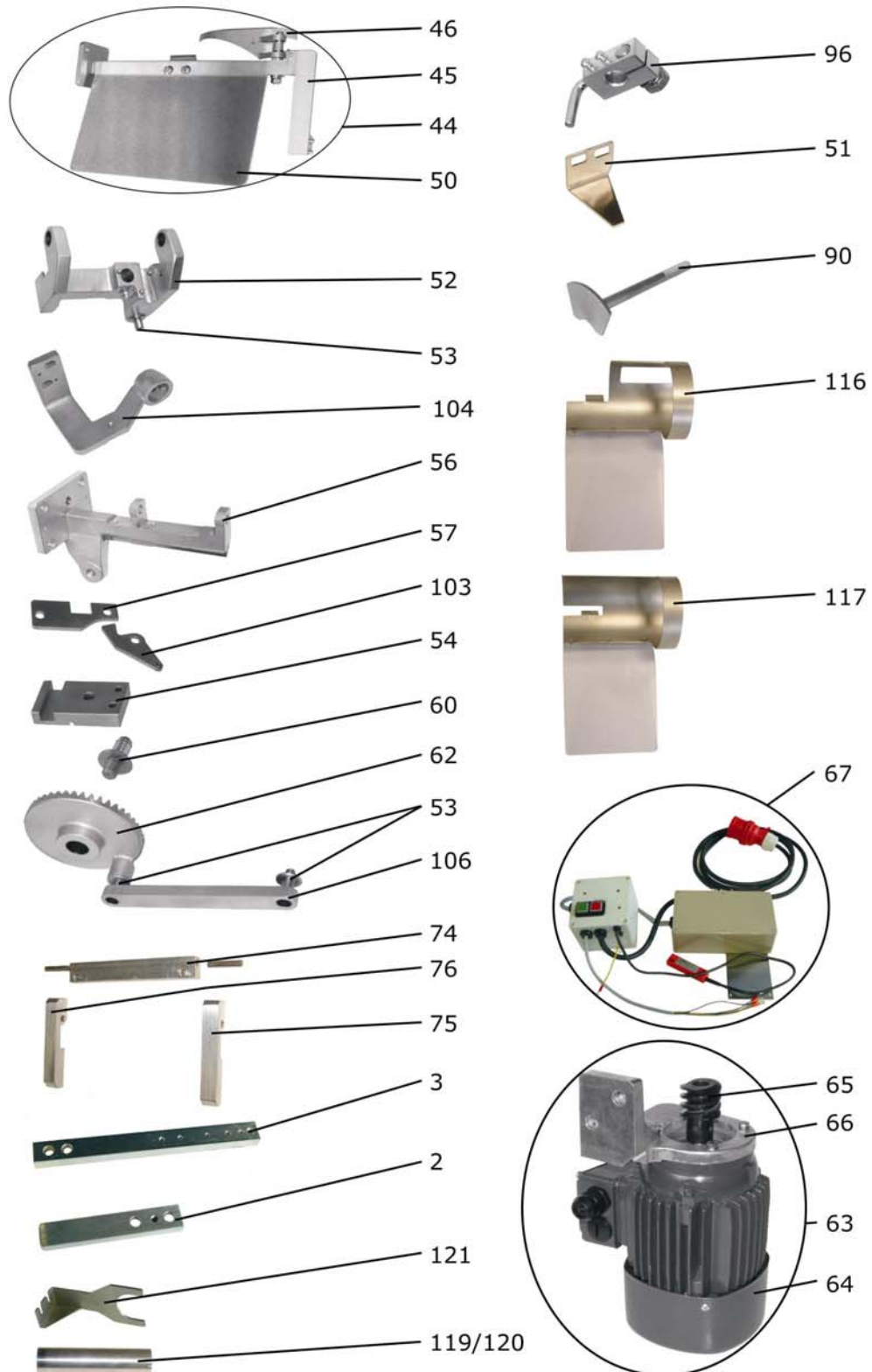
Label for Conveyance No transport warning required







FEUMA Gastromaschinen GmbH





Spare parts list

Apple, peeling, coring, dividing and slicing machine

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Pos.	Art.-No	Description	Piece per Machine	Price group
1	300404	Support	1	48
2	300374	Foot rest short	2	14
3	300375	Foot rest long	1	18
-	310573	Hexagon socket head cap screw M10x22 A2 DIN 912	5	00
-	311810	Hexagon socket head cap screw M10x22 A2 DIN 912	1	00
	300534	Cycle wheel. cpl.	1	32
4	300407	Cycle wheel	1	27
-	300408	Axle bolt for cycle wheel	1	21
-	310088	Radial deep groove ball bearing 6004 DIN 625	2	05
-	310622	Retaining ring for bores 42 DIN 472	1	00
-	310633	Retaining ring for shafts 20x1,2 DIN 471	1	00
5	300409	Drive plate	1	17
-	310805	Slotted countersunk head screw M5x25 DIN 963 M5x25 gal Zn DIN 963	2	00
-	310658	Single coil spring lock washer B5 gal Ni DIN 127	2	00
-	310679	Hexagon nut M5 gal Ni DIN 934	2	00
-	310312	Grooved pin, parallel grooved full length 4x20 gal Zn DIN 1473	1	00
-	310664	Hexagon thin nut M 16x1,5 vzk DIN936	1	00
6	300410	Geneva cross cpl.	1	36
7	300420	Geneva cross	1	27
8	300470	Geneva cross shaft	1	22
-	310430	Radial deep groove ball bearing 6204 DIN 625 2Z	1	09
-	310093	Radial deep groove bearing 6003 DIN 625	1	09
-	310633	Retaining ring für shafts 20x1,2 DIN 471	1	00
-	310632	Retaining ring for shafts 17 DIN 471	1	00
-	310623	Retaining ring for bores 47 DIN 472	1	00
-	310672	Parallel key A5x5x28 DIN 6885	1	00
-	311385	rotary shaft seal 30x47x7 WDR NB	1	05
10	300535	Primary drive shaft cpl. without drive gear, large	1	40
11	300411	Primary drive shaft	1	29
-	310357	Sealing ring 30x19x6	1	01
12	300412	Bevel gear pinion	1	24
-	300599	Spacer ring for V-seal	1	02
-	310094	Radial deep groove ball bearing 6004 DIN 625 2Z	1	09
-	310086	Radial deep groove ball bearing 6005 DIN 625	1	09
-	310633	Retaining ring for shafts 20x1,2 DIN 471	2	00
-	310634	Retaining ring for shafts 25 DIN 471	2	00
-	311383	Disc spring K 6004	1	02
-	311413	Sealing disk 41/24/0,5	1	00
-	311421	V-seal WVA-0025 NB 60	1	02



Spare parts list

Apple, peeling, coring, dividing and slicing machine

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Pos.	Art.-No	Description	Piece per Machine	Price group
-	310623	Retaining ring for bores 47 St DIN 472	1	00
13	300413	Drive gear, large	1	31
-	310673	Parallel key A6x6x14 DIN 6885	1	00
-	310633	Retaining ring for shafts 20x1,2 DIN 471	2	00
14	300536	intermediate wheel complete	1	31
15	300414	Intermediate gear	1	22
21	300415	Axle bolt for intermediate gear 2	1	23
-	310095	Radial deep groove vall bearing 6001 DIN 625	2	09
-	310620	Retaining ring for bores 28 DIN 472	1	00
-	310628	Retaining ring for shafts 12 DIN 471	1	00
-	310665	Hexagon nut M16x1,5 vzk DIN 934	1	00
20	300771	Intermediate gear 2, cpl.	1	26
21	300766	Intermediate gear 2	1	21
22	300764	Axle bolt for intermediate gear 2	1	18
-	311032	Disk 17 A2 DIN 125	1	00
-	310630	Retaining ring for shafts 16 St DIN 471	2	00
-	310510	Hexagon head screw M6x12 A2 DIN 933	1	00
-	300717	Disk 2 mm	1	00
-	311654	headed liner BB 1617 DU	1	02
23	300773	Intermediate gear 3, cpl.	1	31
24	300774	Intermediate gear	1	22
25	300775	Axle bolt for intermediate gear 3	1	18
26	300776	adjusting jib for intermediate wheel	1	18
-	311032	Disk 17 A2 DIN 125	1	00
-	310630	Retaining ring for shafts 16 St DIN 471	2	00
-	310510	Hexagon head screw M6x12 A2 DIN 933	1	00
-	300717	Disk 2 mm	1	00
-	311809	headed liner BB 1612 DU-B	1	03
-	311704	liner, cylindrical 1615 DU-B	1	02
-	310517	Hexagon head screw M8x30 A2 DIN 933	2	00
-	310534	Disk 8,4 A2 DIN 125	2	00
-	310652	Single coil spring lock washer B8 A2 DIN 127	2	00
30	300779	driven gear complete	1	29
31	300760	driven gear Z=18 G	1	20
32	300763	block for bearing	1	19
-	311807	plain bearing box GFM-1618-12	1	02
-	311811	adjusting washer 16x0,2 St DIN 988	2	00
-	310630	Retainig ring for shafts 16 St DIN 471	1	00
-	310508	Hexagon head screw M6x30 A2 DIN 933	2	00
-	025903	Disk 6,4 A2 DIN 125	2	00
-	311807	plain bearing box GFM-1618-12	1	02



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Apple, peeling, coring, dividing and slicing machine

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Pos.	Art.-No	Description	Piece per Machine	Price group
34	300472	driven gear small	1	20
-	310673	Parallel key A6x6x14 St DIN 6885	1	00
25	300473	Pressure disk oxbr	1	08
26	300418	Pressure disk oxbr	1	08
-	300778	Secondary drive shaft II, cpl.	1	44
33	300421	Secondary drive shaft	1	25
-	300483	Adjusting disk 0,5	2	01
-	300477	Adjusting disk 1,0	1	01
35	300422	Worm gear cpl. with stop disk	1	21
-	310094	Radial deep groove ball bearing 6004 DIN 625 2Z	1	09
-	310086	Radial deep groove ball bearing 6005 DIN 625	1	09
36	300417	Ball cage oxbr	1	21
-	310623	Retaining ring for shafts 47 DIN 472	1	00
-	310634	Retaining ring for shafts 25 DIN 471	2	00
39	310855	Hexagon thin nut M20x1,5 DIN 936 gal Ni	2	00
-	310633	Retaining ring for shafts 20x1,2 DIN 471	4	00
-	310537	Disk 17 oxbr DIN 125	1	00
-	310630	Retaining ring for shafts 16 DIN 471	1	00
40	310683	Spring D 13260	1	02
-	310097	Ball 6,5 II	6	00
77	300467	Discharge tube	1	09
-	300762	Cycle wheel-2 cpl. Radblock	1	33
-	311808	headed liner	2	04
-	300777	Spacer ring for secondary drive shaft	1	07
-	310772	shim ring 20x28x0,2 DIN 988	2	00
-	310889	shim ring 20x28x0,8 DIN 988	1	01
43	300419	Drive gear peeling spindle	1	20
-	311386	radial packing ring WDR 20x42x7 NB	1	05
-	310633	Retaining ring for shafts 20x1,2 DIN 471	1	00
-	310673	Parallel key A6x6x14 St DIN 6885	1	00
44	300702	support arm lengthered cpl.	1	43
45	300757	support arm lengthered	1	30
46	300746	Abhebeklinke verlängert	1	20
47	300464	Joint bolt	1	15
48	310684	Elbow spring Rd 1,8x205	1	01
-	310448	Slotted cheese head screw M4x6 A2 DIN 84	1	00
-	310655	Single coil spring lock washer B4 A2 DIN 127	1	00
-	114423	Hexagon nut M6 A2 DIN 934	1	00
-	310657	Single coil spring lock washer B6 A2 DIN 127	1	00
50	300466	Hand protection , left	1	07
51	300465	Back Stopp	1	03



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Pos.	Art.-No	Description	Piece per Machine	Price group
-	310412	Slotted pan head screw M5x20 A2 DIN 85	2	00
-	102150	Disk 5,3 A2 DIN 125	2	00
-	105000	Hexagon nut M5 A2 DIN 934	2	00
-	310710	Slotted set screw M4x16 A2 DIN 551	1	00
-	008662	Hexagon nut M4 A2 DIN 934	1	00
-	310704	Grooved pin, reserve grooved half length 4x18 A2 DIN 1474	2	00
-	310508	Hexagon nut M6x30 A2 DIN 933	2	00
-	310657	Single coil spring lock washer B6 A2 DIN 127	2	00
-	310804	Disk 6,4 A2 DIN 9021	2	00
-	114423	Hexagon nut M6 A2 DIN 934	2	00
52	300444	Sliding bock	1	37
-	310618	Grease nipple AH 2 M6x1 DIN 71412	1	01
-	310314	Grooved pin, parallel grooved full length 4x14 A2 DIN 1473	2	00
53	300440	Bearing bolt	1	18
-	310313	Grooved pin, parallel grooved full length 3x10 A2 DIN 1473	1	00
54	300442	Arresting plate	1	13
-	102155	Hexagon nut M6x20 A2 DIN 933	1	00
-	310657	Single coil spring lock washer B6 A2 DIN 127	1	00
-	310804	Disk 6,4 DIN 9021 A2	1	00
-	310704	Grooved pin, reserve grooved half length 4x18 A2 DIN 1474	2	00
55	300436	Sliding rod	1	06
-	310755	Retaining ring for shafts 14 A2 DIN 471	1	00
56	300741	Guide piece II (300438 Bed.)	1	41
57	300435	Guide sheet	1	06
-	300492	Spacer plate	1	04
-	311217	Hexagon nut M6x16 A2 DIN 933	2	00
-	025903	Disk 6,4 A2 DIN 125	2	00
60	300437	Axle bolt	1	20
-	300493	Adjusting disk 0,2mm	1	00
43	300494	Adjusting disk 0,5mm	1	00
-	310417	Slotted pan head screw M4x12 A2 DIN 85	2	00
-	310532	Disk 4,3 A2 DIN 125	2	00
-	310655	Single coil spring lock washer B4 A2 DIN 127	2	00
-	310576	Slotted cheese head screw M10x25 A2 DIN 912	4	00
-	310830	Hexagon nut M10 vzt DIN 439	4	00
-	310700	Grooved pin, reserve grooved half length 6x24 A2 DIN 1474	2	00



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Pos.	Art.-No	Description	Piece per Machine	Price group
-	310334	Ribe-Käppi –black	4	00
-	300556	Crown wheel cpl.	1	31
62	300439	Crown wheel	1	26
-	311682	plain bearing box XSM 1820-20	1	02
-	300440	Bearing bolt	1	18
-	310313	Grooved pin, parallel grooved full length 3x10 A2 DIN 1473	2	00
-	310756	Retaining ring for shafts 18 A2 DIN 471	1	00
63	300739	motor cpl. 380V with worm and support angle	1	41
64	311733	Threephase motor K 21R 63 G4	1	30
65	300424	Worm	1	18
-	310312	Grooved pin, parallel grooved full length 4x20 DIN 1473	1	00
66	300423	Support angle for motor	1	20
-	310854	Hexagon nut M5x20 A2 DIN 933	4	00
-	310551	Disk 5,3 A2 DIN 9021	4	00
-	310656	Single coil spring lockk washer B5 A2 DIN 127	4	00
-	300496	Adjusting sheet 0,5	1	02
-	310807	Hexagon nut M10x30 galZn DIN 933	2	00
-	310653	Single coil spring lockk washer B10 galZn DIN 127	2	00
-	310536	Disk10,5 gal Ni DIN 125	2	00
67	300720	Componentry cpl.	1	49
-	300743	terminal o. conduit box	1	20
-	300740	Arresting plate	1	12
-	310453	Slotted cheese head screw M4x8 A2 DIN 84	4	00
-	310532	Disk 4,3 A2 DIN 125	4	00
-	300742	calibers box	1	20
-	300389	Arresting plate	1	11
-	310429	raised countersunk headscrew with cross recession M4x20H A2 DIN 966	2	00
-	310555	Disk 4,3 A2 DIN 9021	2	00
-	008662	Hexagon nut M4 A2 DIN 934	2	00
-	311530	Counter for working hours	1	20
-	310462	Slotted cheese head screw M4x10 A2 DIN 84	1	00
-	311591	holding clip for relay	1	00
-	310474	pan head tapping srew C 3,5x9,5 galZn DIN 7971	2	00
-	310555	Disk 4,3 A2 DIN 9021	2	00
-	311752	end-binding post WAGO Typ 249 6mm	1	00
-	311727	phasesequenece relais EMR 4-F500-2	1	28
-	300721	printed board	1	20
-	311011	printed board holder	4	00



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Pos.	Art.-No	Description	Piece per Machine	Price group
-	543145	leadthrough SR Typ 1247	1	00
-	311074	contactor DIL EEM-10	1	20
-	310441	Slotted cheese head screw M4x16 A2 DIN 84	2	00
-	008662	Hexagon nut M4 A2 DIN 934	2	00
-	310378	G-fuse 0,125 Afl	1	01
-	311509	fuse carrier „Standard“ 5x20 mm	1	06
-	310487	Slotted countersunk flat head screw M3x10 A2 DIN 963	1	00
-	310540	Disk 3,2 A2 DIN 125	1	00
-	311241	Hexagon nut M 3 A2 DIN 934	1	00
-	3107204	conductor-binding post „gn-gb“	1	00
-	3107182	conductor-binding post „blue“	1	00
-	3106824	conductor-binding post „grey“	1	00
-	3106052	conductor- binding post „grey“	5	00
-	310571	closing plate with fixing flange	1	00
-	310487	Slotted countersunk flat head screw M3x10 A2 DIN 963	2	00
-	311241	Hexagon nut M 3 A2 DIN 934	2	00
70	310990	push-button key Q25D-GN	1	06
71	310991	push-button key Q25LT-RT/ WB	1	08
-	310992	contact E 10	1	03
-	310993	contact E 01	1	03
-	311511	transaction SR Typ 1250	3	00
-	311510	transaction SR Typ 1154	2	01
-	310754	magnetic limit switch	1	16
-	311780	link circuit	1	06
-	311781	motorline	1	04
72	311782	supply line	1	16
-	310521	Hexagon nut M5x16 DIN 933 galZn	2	00
-	310552	Disk 5,3 vzkz DIN 9021	2	00
-	310658	Single coil spring lock washer B5 galNi DIN 127	2	00
-	311495	Slotted countersunk flat head screw M5x16 A2 DIN 963	2	00
-	310373	OBO-Iso nail clip	2	00
-	310489	Slotted countersunk flat head screw M4x16 galNi DIN 963	1	00
-	310645	Hexagon nut M4 galNi DIN 439	1	00
-	311538	Hexagon screw M4x16 A2 DIN 933	1	00
-	310531	Disk 4,3 galNi DIN 125	1	00
-	310654	Single coil spring lock washer B4 galZn DIN 127	1	00
-	300554	Panelling cpl.	1	40



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Pos.	Art.-No	Description	Piece per Machine	Price group
73	300431	Penelling	1	31
74	300432	Spacer bar	1	14
75	300433	Swivel arm, right	1	16
76	300434	Swivel arm. left	1	17
-	300491	Support	1	04
-	310417	Slotted pan head screw M4x12 A2 DIN 85	4	00
-	310703	grooved pin, reserve grooved half length 6x32 A2 DIN 1474	2	00
-	310509	Hexagon head screw M5x25 vzt DIN 933	2	00
-	310533	Disk 5,3 galNi DIN 125	2	00
-	311569	Taper stopper GPN 500	2	01
-	310335	cap for screws DIN 912 M8	1	00
-	300570	striking plate	1	04
-	310486	Slotted countersunk flat head screw M4x10 A2 DIN 963	2	00
-	310532	Disk 4,3 A2 DIN 125	2	00
-	310655	Single coil spring lock washer B4 A2 DIN 127	2	00
-	008662	Hexagon nut M4 A2 DIN 934	2	00
-	310452	Slotted cheese head screw M3x20 A2 DIN 84	2	00
-	310540	Disk 3,2 A2 DIN 125	2	00
-	311241	Hexagon head screw M 3 A2 DIN 934	2	00
77	300706	Apple support II cpl.	1	48
78	300460	Base block cpl. with Coins	1	29
-	310618	grease nipple AH 2 M6x1 DIN 71412	1	01
79	311686	headed liner 12/18x20	6	01
80	300398	Peeling blade rod	3	09
81	300456	Fruit spindle	3	21
82	300732	fruit receptacle long	3	15
83	300458	Peeling spindle	3	14
84	300459	Cover	3	01
85	300486	Adjusting disk 0,2 for fruit spindle	1	00
86	300487	Adjusting disk 0,5 for fruit spindle	1	00
87	310674	Parallel key A3x3x12 DIN 6885	3	00
88	310761	Retaining ring for shafts 10 A2 DIN 471	3	00
-	310411	Slotted pan head screw M5x12 A2 DIN 85	6	00
-	310656	Single coil spring lock washer B5 A2 DIN 127	6	00
-	310512	Hexagon head screw M8x20 A2 DIN 933	1	00
-	300461	Disk for base block	1	01
-	310652	Single coil spring lock washer B8 A2 DIN 127	1	00
-	311385	rotary shaft seal WDR 30x47x7 NB	1	05
-	310672	Parallel key A5x5x28 DIN 6885	1	00



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Pos.	Art.-No	Description	Piece per Machine	Price group
90	300770	locating plate cpl.	1	18
-	166068	Hexagon nut M10 A2 DIN 934	2	00
-	310535	Disk 10,5 A2 DIN 125	2	00
91	300772	Blade reception cpl.	1	41
92	300449	Support cpl.	1	24
-	310528	Hexagon head screw M5x12 A2 DIN 93	1	00
-	102150	Disk 5,3 A2 DIN 125	1	00
-	310656	Single coil spring lock washer B5 A2 DIN 12	1	00
93	300447	Bearing bolt	1	20
94	310688	Elbow spring for bearing bolt	1	04
-	311218	Hexagon nut M8 A2 DIN 439	2	00
95	300450	Peeling plate rod	1	29
-	310104	Radial deep groove ball bearing 608 DIN 625	2	05
96	300452	Lift angle, cpl. With screw	1	14
100	300448	Blade head, cpl.	1	14
101	310295	Blade head	1	07
102	300446	Blade	1	03
-	311565	screw for M4x10 A	1	00
-	311218	Hexagon nut M8 A2 DIN 439	1	00
-	311099	Slotted cheese head screw M6x20 A2 DIN 84	1	00
-	310758	Lock washer A6 A2 DIN 6797	1	00
-	114423	Hexagon nut M6 A2 DIN 934	1	00
103	300451	Guide segment	1	13
104	300387	Cuttet star support	1	30
-	310512	Hexagon head screw M8x20 A2 DIN933	2	00
-	310534	Disk 8,4 A2 DIN 125	2	00
-	310652	Single coil spring lock washer B8 A2 DIN 127	2	00
-	310704	Grooved pin, reserve grooved half length 4x18 DIN 1472 A2	2	00
105	310685	Tension spring B 1,2x11x25 Aa1	1	01
-	310580	Slotted cheese head screw M5x20 A2 DIN 912	1	00
-	310806	Hexagon nut M5 A2 DIN 439	2	00
106	300441	Crank rod	1	14
-	310761	Retaining ring for shafts 10 A2 DIN 471	2	00
-	300709	protection complete	1	23
111	300708	protection	1	18
-	300705	holding sheet steel f. protection	1	13
-	310490	Slotted countersunk flat head screw M4x16 A2 DIN 963	4	00
-	310441	Slotted cheese head screw M4x16 A2 DIN 84	1	00
-	008662	Hexagon nut M4 A2 DIN 934	1	00



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Pos.	Art.-No	Description	Piece per Machine	Price group
113	300479	Tensioning screw M6x10	1	02
114	300594	Hood, cpl.	1	36
	543144	bow-type handle	1	03
-	310510	Hexagon head screw M6x12 A2 DIN 933	2	00
-	310657	Single coil spring lock washer B6 A2 DIN 127	2	00
-	310543	oval head screw M4x10 A2 DIN 964	6	00
-	300406	Panel	1	06
-	310443	Slotted cheese head screw M5x14 A2 DIN 84	1	00
-	102150	Disk 5,3 A2 DIN 125	1	00
-	311340	screw thread stopper	1	00
116	300755	separate cylinder cpl. E-1	1	25
117	300768	separate cylinder cpl. E-2	1	25
118	543019	Suction foot	4	01
119	300467	Discharge tube small	1	09
120	300399	Discharge tube big	1	09
121	300469	stripper fork	1	09

GENERAL TERMS AND CONDITIONS OF SALE

This agreement sets forth general terms and conditions of sale. The quotation and sales contract may incorporate additional and more specific commercial and technical requirements of sale. The following general terms and conditions are mutually agreed between BUYER and GLASSLINE to be a part of the sales and purchase order documents.

1. DEFINITIONS AND GENERAL TERMS AND CONDITIONS

- A. The term GLASSLINE shall refer to Glassline Corporation and all of its affiliated divisions.
- B. The term EQUIPMENT shall refer to any machine, part, product or service sold by GLASSLINE, including subcontracted/purchased items/options.
- C. The term BUYER shall refer to the buying company and, where applicable, its subcontractors.
- D. The terms and conditions set forth in this agreement are effective at the receipt of order by BUYER and are subject to change by GLASSLINE without notice before receipt of order by Buyer.
- E. Quotations are valid for 30 days, unless noted otherwise.
- F. No terms, conditions, understandings, usage of trade, dealings or agreements, purporting to vary, modify, explain or supplement this agreement shall be binding, unless and until hereinafter made in writing and signed by BUYER and GLASSLINE.
- G. This agreement, and its interpretation, shall be governed by the laws of the State of Ohio. If any provision or term of this agreement is held to be invalid, void or unenforceable, the remaining provisions and terms of the agreement shall remain in force and effect, and shall in no way be affected, impaired or invalidated thereby. In all cases, the rights and duties of the parties in a dispute arising out of this transaction shall be governed by the laws of the State of Ohio.
- H. The delegation or assignment by BUYER of any or all of its duties or rights under this agreement without the prior written consent of GLASSLINE shall be void.
- I. Any information, suggestions or ideas transmitted by BUYER or GLASSLINE, or any of their respective representatives, in connection with the performance under this agreement are not to be regarded as secret or submitted in confidence, except as may be otherwise provided specifically in a document signed by a duly authorized representative of GLASSLINE.
- J. This agreement supersedes all previous agreements, written or verbal, and contains the entire agreement between the parties.

2. TERMS AND CONDITIONS OF BUYER

Should BUYER have standard terms of acceptance that it wishes to make a part of this agreement, such terms must be provided at the time a quotation is requested and agreed to in writing by GLASSLINE, so that the costs of compliance to such terms as GLASSLINE may agree, if any, may be added to the bid. GLASSLINE reserves the right to quote these compliance features separately and above their standard quotation.

3. DELIVERY AND CLAIMS

- A. The quoted shipment schedule is non-binding. The shipment schedule will be set at time of order, and is contingent upon BUYER supplying a clear scope of supply, all technical information, and any required downpayment. A new delivery date may be required, depending on any technical or scope changes requested after the order date, or delays in receiving payments according to agreed dates.
- B. GLASSLINE shall not be liable for delays in delivery caused by any reason beyond GLASSLINE's control, including, but not limited to, force majeure, supplier failure, any interruption of GLASSLINE facilities, or any act of any government, or licensing authority.
- C. Unless otherwise noted in the quotation, all shipments are ex-works GLASSLINE Perrysburg, Ohio plant. BUYER bears all risks of loss or damage to the EQUIPMENT from the time the EQUIPMENT has been placed at the disposal of Buyer at GLASSLINE, whether shipping is arranged by BUYER or on behalf of BUYER by GLASSLINE. In any case, shipments shall be made strictly according to Incoterms 2000.
- D. After the EQUIPMENT is placed at the required transfer point for BUYER, GLASSLINE neither assumes responsibility for nor authorizes any expenses, including electrical work, plumbing, compressed air supply, millwright work, extensions/additions, or materials necessary for the set up and operation of the EQUIPMENT in BUYER's plant or elsewhere. It remains the BUYER's responsibility to meet all federal, state and local codes and regulations.
- E. Claims for shipping damage, concealed or otherwise, are the responsibility of BUYER and should be taken up with the delivering carrier within the stated time allowed for claims. Claims for shipping shortages will not be allowed, unless reported to GLASSLINE within 10 days of shipment.

4. TITLE

- A. Title to the EQUIPMENT, thus delivered, shall remain with GLASSLINE; until the full purchase price has been received.
- B. BUYER shall keep the EQUIPMENT fully insured, with GLASSLINE named as loss payee until the purchase price is paid. Neither BUYER nor GLASSLINE shall assign the applicable insurance contact without prior written consent of the other.
- C. Monthly interest, at the rate of 1-1/2% per month on the total unpaid value of the EQUIPMENT will be charged if delivery is delayed at BUYER's request for more than thirty (30) days after buy-off, or if final payment is delayed beyond thirty days (30) after shipment. BUYER shall execute and deliver to GLASSLINE such documents and financial statements as may be necessary to perfect the lien or security interest of GLASSLINE to protect the unpaid balance of the purchase price.

- D. All tools, materials, software, programs, designs, or any technology created for the purpose of producing the EQUIPMENT are the sole property of GLASSLINE, unless furnished by BUYER with the order. All intellectual property created by GLASSLINE shall remain property of GLASSLINE.

5. WARRANTY

- A. GLASSLINE warrants against defects in material and workmanship. Items manufactured by others but installed in or affixed to GLASSLINE EQUIPMENT are not warranted by GLASSLINE, but bear only such express warranties, if any, of the manufacturer thereof. GLASSLINE shall replace or repair at its choosing, (ex-works GLASSLINE Perrysburg, Ohio plant) any defective manufactured parts without charge to BUYER. The warranty does not apply to any labor charges for removal and/or replacement, or to any part thereof which has a life, under normal usage, inherently shorter than the warranty period. The warranty will be active for a period of:
 - 1) Machinery: 12 months from date of shipping.
 - 2) Replacement/Repaired parts: 6 months from date of shipping.
- B. Warranty shall be deemed waived by BUYER if:
 - 1) The EQUIPMENT is not properly installed by BUYER, according to GLASSLINE installation instructions.
 - 2) The EQUIPMENT has been subjected to misapplication or misuse, neglect, damaging conditions, or is modified in any way without written approval by GLASSLINE.
 - 3) The production or use of the EQUIPMENT for which it was not intended, or on products out of specification.
- C. The warranty set forth herein is in lieu of all other warranties, whether express, implied or statutory, including those of merchantability and fitness of any product for a particular purpose, and of any other obligation or liability on GLASSLINE's part of any kind or nature whatsoever.
- D. The warranty granted herein is non-transferable, and is granted only to the original BUYER.
- E. No employee, agent or other representative has any authority to waive, alter, vary or add to the terms hereof without prior approval in writing, signed by an officer of GLASSLINE.

6. LIMITATION OF LIABILITY

- A. It is expressly understood that GLASSLINE's liability for any damages arising out of or related to this transaction, or for its EQUIPMENT, whether in contract or in tort, is limited to the repair or replacement of the parts thereof as stipulated in the warranty, and is not to exceed the contract price in respect to which the claim is made.
- B. BUYER is solely responsible for ensuring the safety of all personnel who may be in close proximity to the EQUIPMENT.
- C. GLASSLINE will not be liable for any other injury, loss, damage or expense, whether direct, incidental or consequential, including but not limited to labor, loss of use, downtime, loss of material, products income, profit or production, or increased cost of operation, or spoilage of damage to material, arising in connection with the sale, installation, use of, or inability to use, or the repair or replacement of, or late delivery of, GLASSLINE EQUIPMENT.
- D. BUYER shall indemnify, defend and hold harmless GLASSLINE and its directors, officers, agents and employees, against any and all demands, claims, actions, damages, liabilities, costs, expenses (including reasonable attorney fees and expenses) and other losses of any kind whatsoever, whether based upon theories of contract, tort, negligence, strict liability, warranty, indemnification, contribution, statute or otherwise, for personal injury or property damage caused by BUYER or by any of its directors, officers, agents, employees or subcontractors, arising out of or relating to the Equipment Buyer shall give GLASSLINE prompt written notice of any such matters and the full opportunity to defend itself against them. This indemnity of BUYER shall survive the termination of this agreement.
- E. The remedies and limitations set forth in this agreement are the exclusive remedies for claims based upon any defect in or failure of EQUIPMENT, whether products or services, whether such claims are presented in contract or in tort (including negligence) and however and wherever instituted. Upon the expiration of the warranty period, all such liability shall terminate.

7. ORDER ACCEPTANCE

GLASSLINE reserves the right to refuse any order. An order shall be deemed accepted and a binding contract formed when the initial payment has been received and the order is acknowledged in writing by GLASSLINE.

8. CANCELLATION BY BUYER

BUYER may cancel the order for all or any EQUIPMENT by written notice prior to shipment. GLASSLINE will stop work on the order as soon as possible after receipt of written cancellation. BUYER agrees to pay GLASSLINE for all costs incurred by GLASSLINE and/or other suppliers attributed to the order, including but not limited to components, work-in-process, labor, burden and overhead. Such payment will not transfer title to BUYER.

9. ARBITRATION AGREEMENT

Any controversy or claim arising out of or relating to this agreement, or the breach thereof, shall be settled by arbitration in accordance with the rules of the American Arbitration Association and the statutes of the State of Ohio. All hearings held in connection with any such arbitration shall be held in Toledo, Ohio (unless the parties agree otherwise in writing), the award of the arbitrator(s) shall be final and binding upon the parties, and the judgment upon and the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.