



Kellfri®

13-VM360E WOOD PROCESOR



PLEASE READ ALL INSTRUCTIONS BEFORE USING THE PRODUCT!!

TRANSLATED FROM THE ORIGINAL

INTRODUCTION

Thank you for choosing a product from Kellfri AB. By following the general safety information, instruction manual and common sense you will get many years of enjoyable use of the product. Kellfri's tools and machines are aimed for farmers with high demands on functionality.

PRODUCT INFORMATION

Cutting and splitting of the firewood is hydraulic driven as well as the adjustment of splitting wedge. Simple and quick height adjustment of the splitting wedge. Both the 4- and 6- splitting wedge are included as standard when buying Kellfri's VM360E.

VM360E is electricaly powered, equipped with a single splitting cylinder and a folding conveyor adjustable in 3 positions. The machine produces between 4 and 5 m³ of wood per hour and can handle logs up to Ø 36 cm, automatic lubrication of the chainsaw and separate tank for hydraulic and chain oil.

NOTE! The machine is checked tested upon delivery.

TECHNICAL DATA	13-VM360E
Conveyors length	4000 mm
Conveyor width	240 mm
Firewoods max. diameter	360 mm Ø
Splitting length	150 - 550 mm
Power requirement	7,5 kW
Guide bar length	15"
Cylinder force	6 ton
Hydraulic pressure	180 bar
Hydraulic flow	40 l/min
Weight	888 kg
Electric drive	Standard
Hydraulic folding of the chainsaw	Standard
Infeed conveyor belt	Standard
Hydraulic operating levers	Standard
4 and 6 splitting wedge	Standard
Hydraulic height adjustment of the splitting wedge	Standard

USE OF PRODUCT

Only for cutting and splitting logs. The machine is for outdoor use only.

SAFETY INFORMATION

Before using the product, please read the safety information and instruction manual and understand its contents for your own and others' safety. Always keep the safety information and instruction manual easily accessible to the user of the product. Remember that it may be good for your own and others' safety to read the safety information every now and then. If the instructions manual is damaged or otherwise unusable, please contact and order a new one from: Your retailer

The general safety instruction is also available from Kellfri's website: www.kellfri.co.uk

Do not use this equipment if you are feeling sick, tired or in influence of alcohol. Nor if you are under the influence of strong medications or drugs, suffering from strong depression or severe mental illness. Always follow the general traffic rules and regulations and the rules of the Animal Welfare Act. Persons under 15 years old and people with mental illness may not use these products.



The machine must not in any circumstances be modified without permission from the manufacturer. Unauthorized modification of the machine and/or accessories can cause fatal injuries or death to operator or others.

Warning!



This symbol indicates that a serious accident will occur if the instructions in the manual are not followed. The accident leads to serious injury, possibly death or serious property damage.



This symbol indicates that an accident will occur if the instructions in the manual are not followed. The accident leading to serious injury or property damage.



This symbol indicates that an accident may occur if the regulations are not followed. The accident results in personal injury or property damage.



Note! indicates the potential of failure if the regulation is not followed.

PRODUKTSÄKERHETSINFORMATION

- Read the manual carefully before using the machine.
- The machine should only connect on 3-phase 400V grounded outlet. The outlet shall be installed by a qualified electrician.
- For your own and others safety, make sure that circuit breaker is installed.
- Keep working area free from other people. Moving parts increases the risk of accidents.
- Do not use or store the machine on a place exposed to rain or moisture.
- Make sure the working area is well lit.
- Do not use electrical equipment near inflammable gases or liquids.
- Children must never be present within the work area, never let children handle machines, tools or extension cords.
- Use the machine only within the capacity it is meant for. Do not increase the capacity of the machine!
- Stand firmly, never bend over the machine when it is running.
- Check the cords and extension cords periodically, to ensure that no damage has occurred.
- Unplug the power cord when the machine is not in use and during maintenance/service.
- Make sure the power switch is turned off (OFF) before power is connected.
- Never overload the machine.
- Do not move the machine while it is running.
- Never leave the machine unattended when it is running. Walking or staying under the conveyor is strictly forbidden.
- Do not allow any person to be near the chainsaw when starting and stopping.
- Keep bystanders and animals out of the workplace.
- Keep away all body parts from the chainsaw when it is running. Always be cautious when using the machine.
- Never use the chainsaw if it is damaged, improperly installed or not correctly set. Make sure that the chain stops moving when you release the button.
- It is strictly forbidden to use the machine for other purposes other than cutting delimed firewood. Firewood may not be longer than the maximum allowed length
- Keep the work area clean and free of obstacles in order to minimize the risk of accidents. Debris or other obstacles lying around the working area can lead to accidents. If splitted firewood gathered on a high pile (without collection container), ensure that the heap does not become too high so that it falls on you.



For safety, this product should only be used in the manner described in this manual. The user is responsible for the instruction to be read through and followed.

Warning!

INCASE OF EMERGENCIES

In case of an emergency please dial 112.

Keep cell phone or emergency phone available specially when working alone. First aid kit and fire extinguishers must be kept easily accesable during all work, maintenance and service.

PERSONAL PROTECTION

Always wear suitable clothing and footwear. Do not wear loose clothing or jewelry when using the machine. Remember to put up long hair when operating rotating machines. Wear protective gloves, to prevent risking burns on contact with hot surfaces such as exhaust system, and to avoid oil and gasoline on the skin. Hearing protection should be used when the engine is running.



SURROUNDINGS

Make sure your working area is clear from people, children and objects before installing and using the machine. Risk of serious injuries can occur during operation.

Take an extra caution when children are in the area where the equipment/ product is being use or stored. Check the area for low hanging electrical wires. Be careful when working on slopes and near ditches.

Always work alone with single - purpose tools/products. Never have junk lying in your area. Keep working areas clean. Always respect the risk zone.



WARNING SIGNS AND LABELS

Ensure that warning labels are always visible and clean. Clean the warning labels as required. Do not rinse using pressure washer directly on the warning labels. Any damage/ broken stickers should be replaced. Order new stickers from your supplier.

SYMBOL	SPECIFICATION
	Read the instructions manual before using the machine.
	Warning! High voltage!
	Beware of thrown objects! Be aware of the equipment's danger zone!
	Warning! Risk for injuries!
	Warning! Prohibition to sojourn on the machine!
	Warning! Risk for accident! Children must not be in any circumstances be near the machine.
	The machine is CE-labeled
	WARNING! In case of electrical fault, contact certified electricians!

SAFETY MEASURES BEFORE OPERATING

Read the safety information and instruction manual carefully. Be sure you understand the safety measures, instruction manual and warning labels. Use common sense when operating the machine and use appropriate personal protective equipment.

Always check the performance and the machine combination that are used. It's highly important these matches in a satisfactory manner. This is to ensure the product or the function and most important yours and others safety.

Do visual inspection of equipment or product before use. Fix or replace damaged or worn parts immediately to reduce the risk of injury. Lubricate moving parts and check that all screw-nuts and bolts are tightened.

Learn and remember the correct working methods. Beginners should keep a low speed until the person has learn the proper use of the machine/product. The user/customer is responsible to handle the situation correctly. Do not use the machine if it is experienced to be dangerous for the user.

- Check the working area, the object to be cut and the cutting direction.
- Before you begin cutting, make sure that the working area is cleared.
- Take care and keep bystanders and animals away from the area within 5m in diameter.
- Make sure the machine is not worn out, have loose or damaged parts. Do not use if damaged, incorrectly, or if not installed correctly. Make sure the sawchain stops moving when the throttle is released.
- The machine is supplied with three-pole plug CEE 32A. The plug according to the law must be connected to a corresponding outlet, which should be installed by a qualified electrician.
- The machine is tested before shipping and delivered filled with hydraulic oil SHS 32, motor protection and mounted terminal glove.
- Place the machine on a flat, stable surface. Make sure it cannot roll or overturn.
- Familiarize and study how the machine works without starting it.
- Always test the emergency stop before each use. Start the machine and press the emergency stop, the machine should be shut off at once, do not use the machine if this does not occur. The machine must not be used until the fault is rectified.
- Test safety switch: Start the machine, pull the load device and remove the protective cap over the splitting part of the machine, the machine will then shut off automatically. Do not use the machine if this does not occur, the machine must not be used until the fault is rectified.

OPERATING THE MACHINE

Only people who understand the safety information and instructions in this manual may operate the equipment. Be alert and careful when working with the machine and only use the tool or product in the manner described in this manual. When working with equipment that has moving parts, there is always the risk of injury. Be careful when working with equipment equipped with hydraulic hoses ,oil under pressure can penetrate the skin. Seek medical attention immediately if this occurs. Always work alone with the tools that are defined as single purpose tools. Respect the equipment's danger zone.

- Place the machine on stable flat surface.
- Plug the power cord into a grounded 400V. Always check that the power cables and electrical connectors are not damaged before use.
- Check that the engine / hydraulic pump is running in the right direction. Rotation is changed easily with phase inverter that is mounted on the machine.
- Press the engine start button, then the machine is ready to use.
- After finishing the work, switch OFF the power and unplug.
- Switch OFF the power and unplug the machines when you leave even if only for a brief moment. This ensures that no one in particular children can access and maneuver the machine accidentally while playing.



CUTTING AND SPLITTING OF WOOD

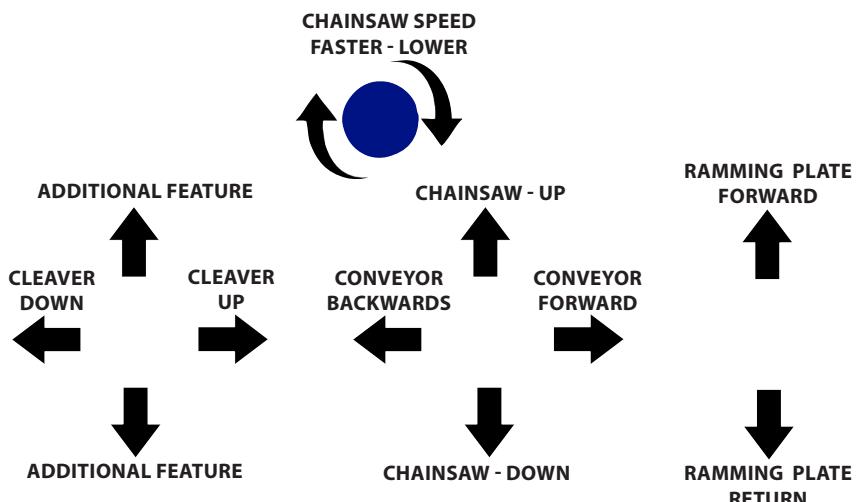
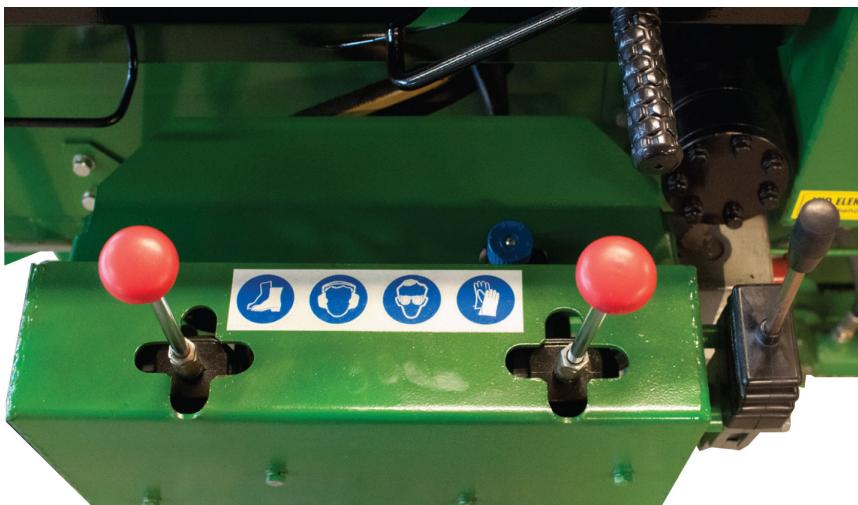
- Walk around and study the machine to familiarize yourself with its features before you start.
- Press the engine start button. Wait a few minutes until the oil has gone up to working temperature. Run the machine several times without placing any wood and check all the features (feeding, cutting, splitting logs) before the actual work begins to get used to the controls. Set the right speed on the chainsaw. Make sure no one has hands or arms inside the machine.
- Place a straight, delimed log on the conveyor and point it at the chainsaw .
- Set the length to the desired length.
- Check the chain oil during operation and at regular intervals and refill if necessary.
- Start the splitting by bringing it forward. The pressure plate pushes the firewood against the splitting wedge. CAUTION! Be careful when splitting of hardwood, knotty and / or crusty wood. Some types of wood can crack or fly off, which may result in injury.
- If the wood gets stuck in the cleaver: Retract pressure plate to the starting position, open the protective cover, ensure that the machine is turned off. Warning of crushing! Make sure the pressure plate is in its original position and has stopped moving before doing anything to the machine. Never put your hand or other body part between the ramming plate and the knife, instead use suitable tools such as shives or pry bar to remove the jammed wood. If you need to turn off the wood use appropriate tools such as a club, never use your hands

ALWAYS REMEMBER!

- Work alone, concentrate and always use common sense.
- Use working gloves, safety glasses and shoes with steel cap.
- Do not wear loose or hanging clothing that can be drawn into the machine.
- Always connect the hydraulic pressure hoses correctly.
- If the machine has been stored at temperatures below 10 degrees, all its movements will be slower than usual. Wait until the oil has come up to right temperature, test drive a few times to warm the oil before operation!

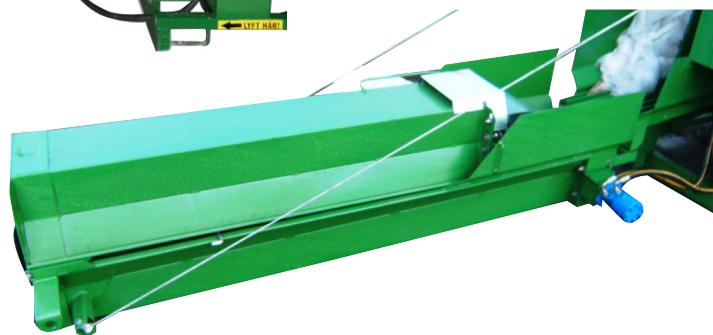
Operation

1. Keep away body parts inside the machine.
2. Put a log in the conveyor
3. hold the lever firmly and start cutting the log by sending in forward.
(See picture of lever sfeatured below)



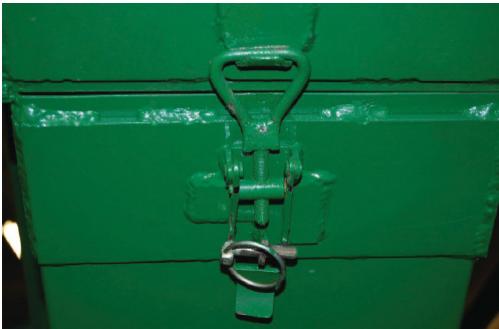
PREPARE THE DISCHARGE CONVEYOR

Crank the conveyor using the winch



Lift the upper part of the conveyor and gently lay it down on the ground. When raising the carrier to the full-length crank up to the desired height and angle. It is important that the angle of the conveyor belt is set so that the wood goes up and does not fall back into the machine.





After cranking the carrier lock the two sections with the lock on the underside of the conveyor.



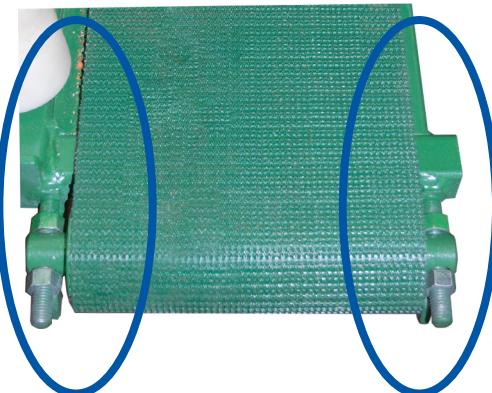
Preparing the support legs: Remove the pin that holds the support leg



Lower the support leg.
Attach the support leg in the tracks of the machine's frame. Marked on the image.



Ensure that the leg is firmly fixed to support the feed belt. Loosen the bolt and open the door to access the terminal box.



Setting Conveyor

The selected bolts are tightened to tension the belt. To adjust the tension of the conveyor belt tighten and/or release bolts. If the belt tends to pull to the left, the left bolt should be tightened.

REPLACING CHAINSAW/CHAINSAW BAR



1. Losen the bolts



2. Unhook the chainsaw bar and remove the chainsaw



3. Install a new chainsaw bar / chain, then fit the bolts. Do not tighten the bolts completely until the chain is properly tensioned



Tensioning the chain

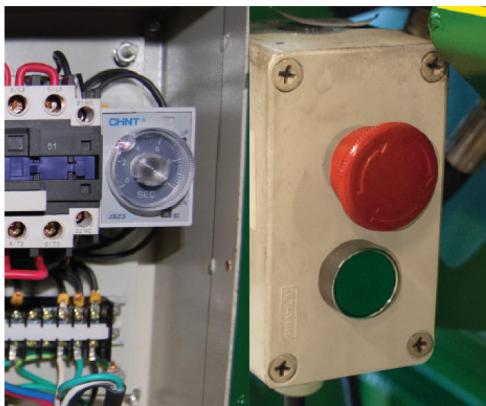
Release the two bolts holding the protective guard and the chainsaw bar. Tension the chain by tightening the index bolt, then tighten the two bolts holding the protective guard and the chainsaw bar.

The chain is tensioned correctly when it can be pulled upwards a few millimeters.



Chain oil

Open the tap of the chain oil tank before starting. Turn off the tap when not in use to prevent chain oil leakage.

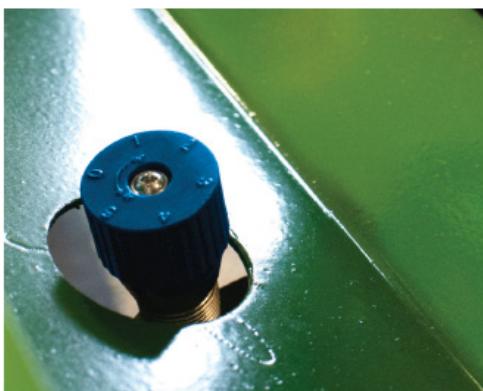


Change the start time

To change the start time (current limiter) turn the knob to the desired number of seconds. Suggestion about two to five seconds.

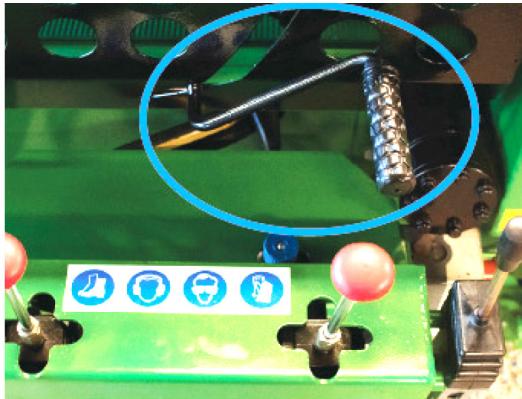
Start and Stop:

To start the machine, press the green button. To stop the machine push the red button, this is also the emergency stop.



Setting

It is important to set the lifting and lowering speed of the chainsaw before you start cutting firewood. Run the machine a number of times without placing any wood to get the right speed of the bar. Start with a low speed and increase a bit afterwards, check that the chainsaw cut easily through the wood. If the speed is too high, when the chainsaw cuts the wood it can get jammed which can lead to unnecessary wear and damage to the machine!



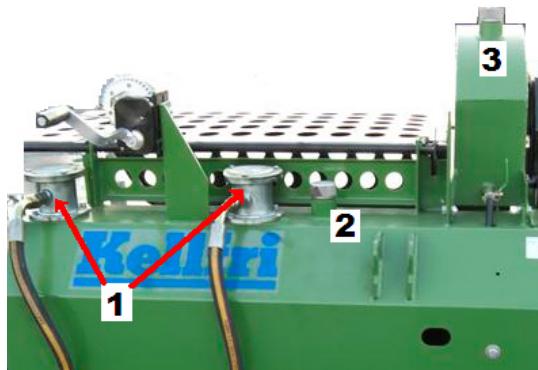
Cutting the last piece:

When cutting the last bit of the log, push the handle down to hold the log in place. Cut the log by pressing down the chainsaw carefully onto the log.

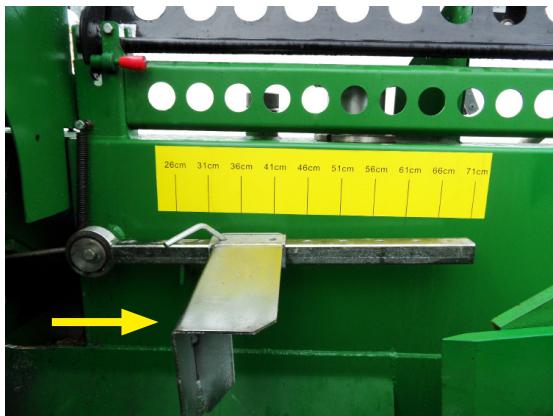


Hydraulic filter

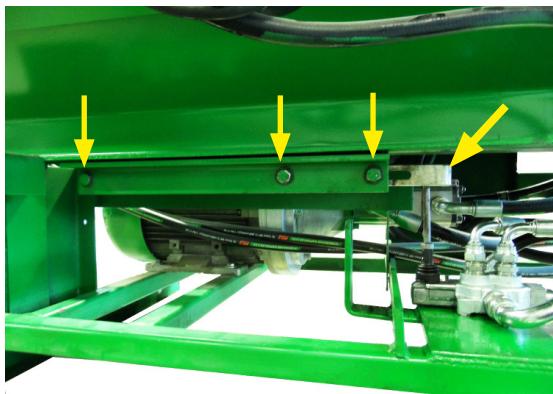
Unscrew the cap of the oil filter container and remove the filter. Replace if necessary



- 1: Oil filters for hydraulic oil - 2pcs
- 2: Filling of the hydraulic oil
- 3: Filling of the chain oil



Firewood length is adjusted by moving the measurement flag in the desired length.

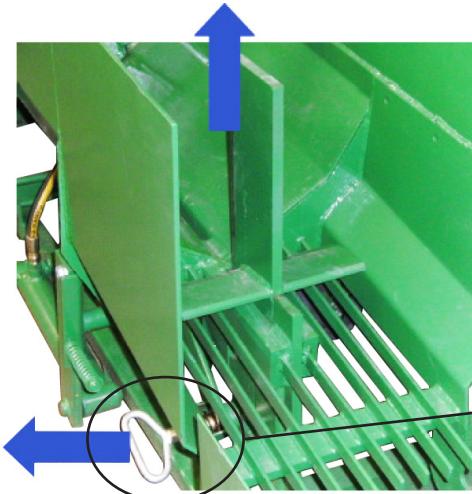


Adjust splitting length by loosening the bolts and move the plate forward or backward.

Note! Don't move the plate too far in or too far out, make sure it does not touch the ramming plate under the machine. The plate is pre-adjusted upon delivery.



Adjust the angle of the conveyor belt by pressing the adjustment bracket and moving it in the desired position.

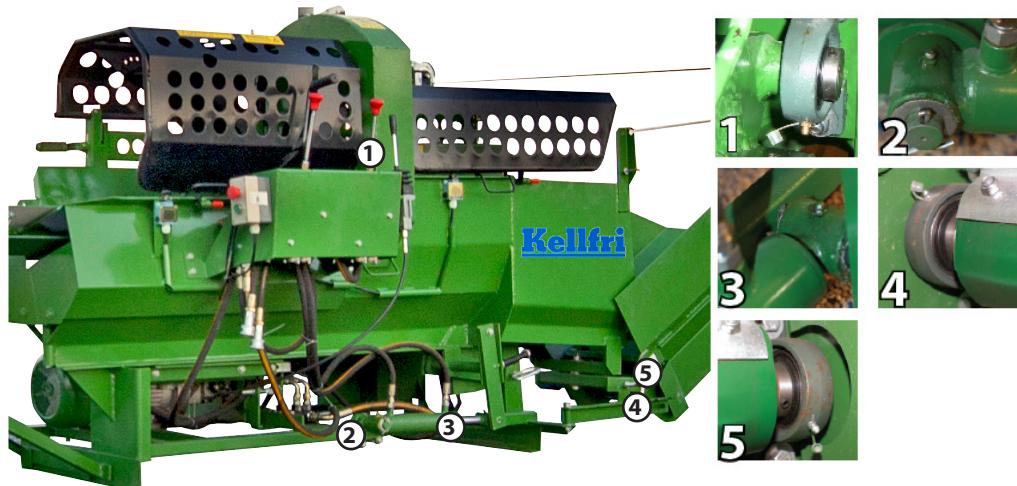


Replacement of blades:

Pull the handle out of the machine while lifting up the knife. To put in another knife pull the handle and replace the knife in designated slot.



LUBRICATION CHART



Lubricate moving parts regularly.

IMPORTANT! Avoid applying too much. Dirt gathers easily in exposed grease that leads to increased wearing of the machine. After greasing, wipe off excess grease from fittings.

TRANSPORT AND STORING

Make sure there are no people, children and foreign objects around the area before transporting the machine. Always take an extra caution during the transport. Ensure that the product is well secured and that transport brackets are mounted. Always place the load as low as possible. Respect the danger zone even during transport. When lifting the equipment, never go underneath suspended loads. Trailer used for transport should have working brakes.

Always store the machine in a dry place preferably underneath a cover when not in use. Ensure that the product is stable and not likely to tip over. Never let children play where the machine is being stored. Always keep in mind the risk of tipping!

MAINTENANCE AND SERVICE

Ensure that the unit is stable and cannot tip over during maintenance and service. Replace damaged or worn parts immediately to reduce the risk of abrasion. Always perform maintenance, service and inspection, as recommended. Use only original replacement parts or spare parts with equivalent performance to reduce the risk of damage. All repairs and connections with electricity must be performed by a qualified person.

Check all nuts and bolts are tightened after performing maintenance and service.
Always test the machine before using it.

It is the operator's responsibility to ensure that all the bolts are tightened regularly. Checked and tightened if necessary.



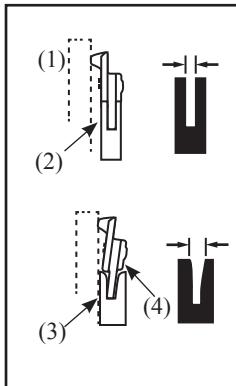
Maintain safety during product life.
Dangerous accidents may occur when:
Improper maintenance or removal of
safety devices. Follow the instructions carefully!

Warning!

SERVICE	INTERVAL	ACTION
Oil	Exchange after 10 h Thereafter every 50 h or once a year	Oil Change <ul style="list-style-type: none"> • Use hydraulic oil ISO 32 or 46 • Draining the tank is done by removing the drain-plug under the tank. • Fill through the filler plug on top.
Bolts and nuts	Check regularly, preferably before each use	Check and retighten all bolts and nuts
Moving parts	Regularly	Lubricate moving parts on a regular basis
Chainsaw	Regularly	Check the condition of the following parts: Gear: check for abrasion and/or cracks Guide bar: Check for abrasion. Chain: The cutting links must be kept sharp for the machine to cut efficiently. Sharpens if requires.

TROUBLESHOOTING

ERROR	PROBABLE CAUSE	ACTION
The piston is not moving forward	Low or no pressure in the system The engine rotates the wrong way	Check oil pressure and level. check if there's a leak age in the system. Check the engine rotation and reverse if requires
The machine doesn't start	Fault with the power source The machine is not correctly plugged	Check the power source Check and plug the machine correctly.
The machine don't have the power	Low or no pressure in the system	Check if there's leakage in the system. Check all couplings and hydralic hoses.
Chainsaw is not working	The machine is not plug	Check and connect.
The infeed conveyor doesn't move forward	The belt is not correctly tightened or broken	Check the conveyor belt. Replace or tighten if necessary



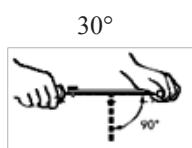
Chainsaw bar

Turn the bar periodically to prevent wear.

The bars edge should always be square. Check that the bar edge is not worn. Place a ruler on the chain outside a link. If there is a gap between them, the edge is normal. Otherwise, the bar edge is worn. A worn guide bar may need to be adjusted or replaced.

- (1) Ruler
- (2) Gap
- (3) No glitches
- (4) Chain tilts

FIGURE 1



Chainsaw

Cutting links must be kept sharp, not only for the machine to cut efficiently, but also for safety reasons.

Your cutting links must be sharpened when:

- The sawdust becomes powder like
- When additional force needed to saw.
- When the cutting the track is not straight.
- When the vibrations increase.

Cutting links:

Wear protection gloves!

Before grinding:

- Make sure the chainsaw bar is held securely
- Make sure that the machine is turned off, unplug!
- Use a round file of proper size for your chain
- Place your file on the cutter link and push the file straight forward. Keep the file in position as illustrated in Figure 1
- After each cutting link has been grinded, check the groove depth and grind it to a good level, as shown in the Figure 2.

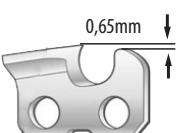
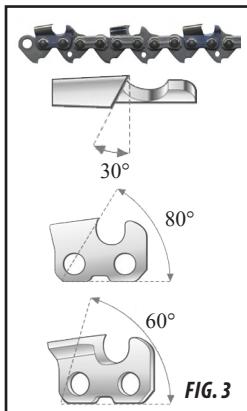


FIGURE 2



Make sure to round off the front edge to reduce the risk of kick-back or the chain breaking off

(1) Suitable control of the groove depth.

(2) Round of the lug

(3) Normal groove depth

Make sure that each link has the same length and edge angles as shown (Figure 3)

(4) Cutting length

(5) Filling Angle

(6) The side angle of the plate

(7) Top plate cutting angle

Never grind the chain if the teeths thickness is only 3 mm left

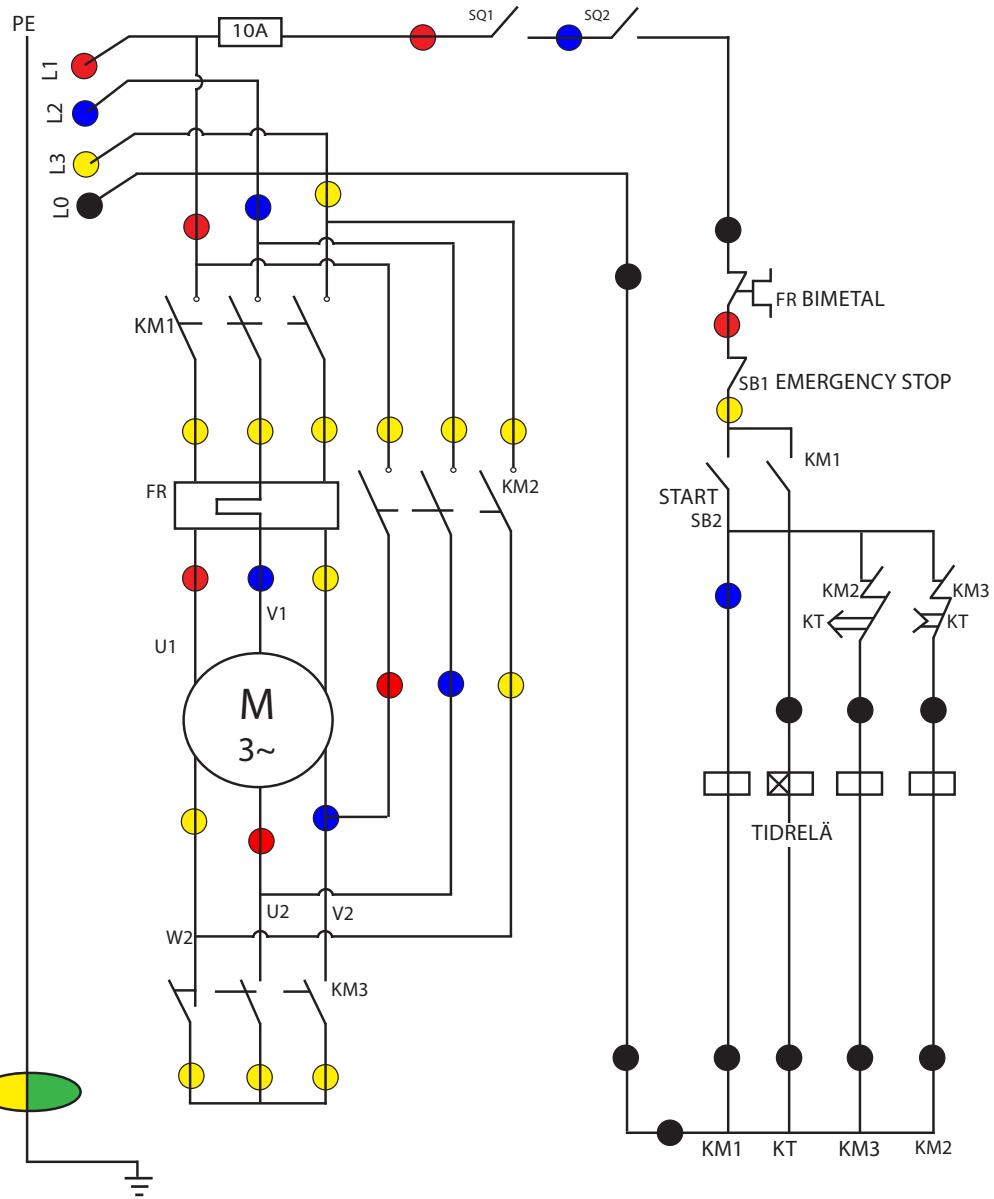


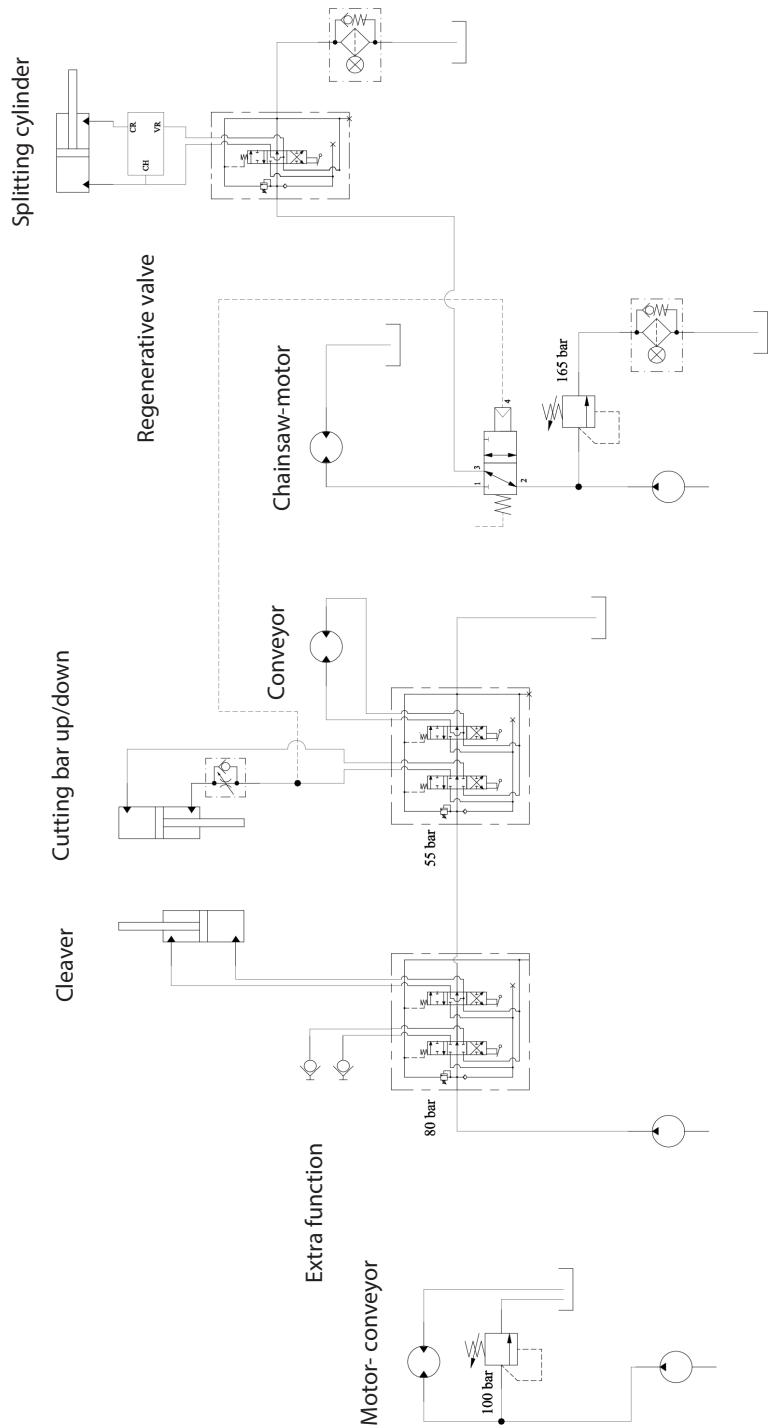
ART. NR	DESCRIPTION
R13-VM400.001	Chain VM400/VM360E 16"
R13-VM400.002	chainsaw bar VM400/VM360E 16"
R13-VM400.003	4 edges - splitting knife VM400/VM360E
R13-VM400.004	6- edges splitting knife VM400/VM360E
R13-VM400.014	Oil filter hydraulic oil
R13-VM360E.001	Hydraulic pump (big) VM360
R13-VM360E.002	Hydraulic pump (small) VM360
R13-VM360E.003	Electric motor 7,5kW VM360
R13-VM360E.004	Hydraulic motor for the chainsaw VM360
R13-VM360E.005	Connector glove 32A
R13-VM360E.006	Jaw clutch VM360
R13-VM360E.007	Sprocket chain VM360

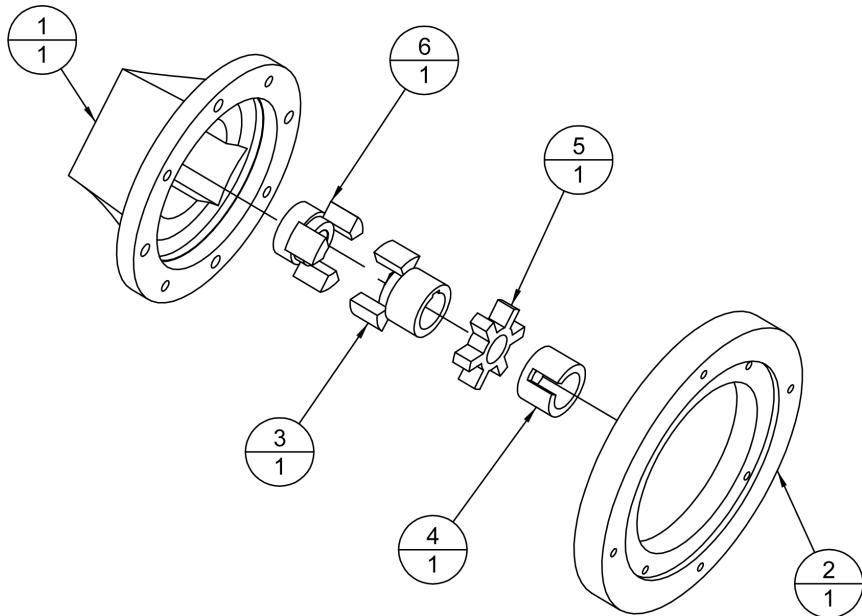
ELECTRIC DIAGRAM

VM360E

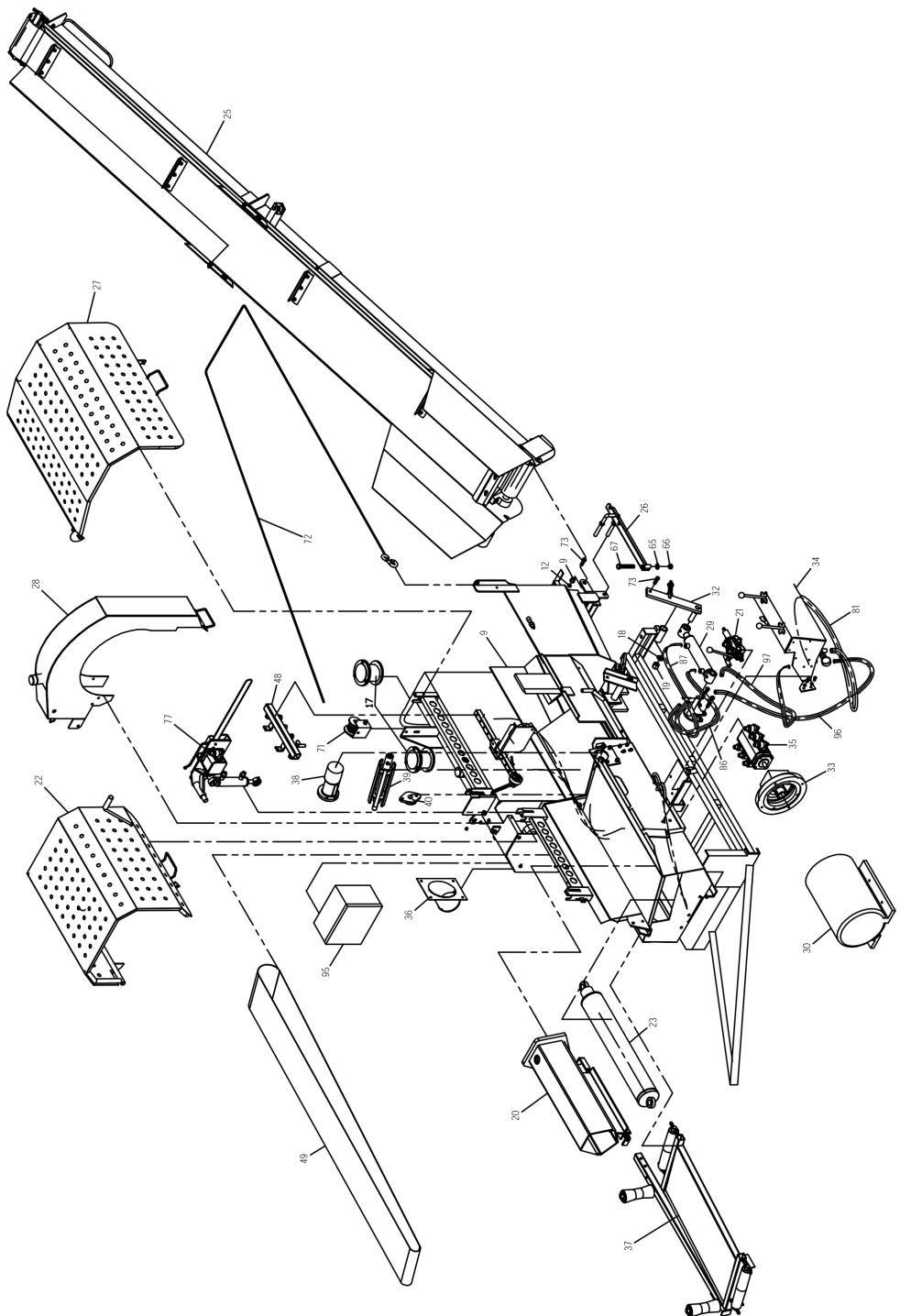
SAFETY BREAKERS





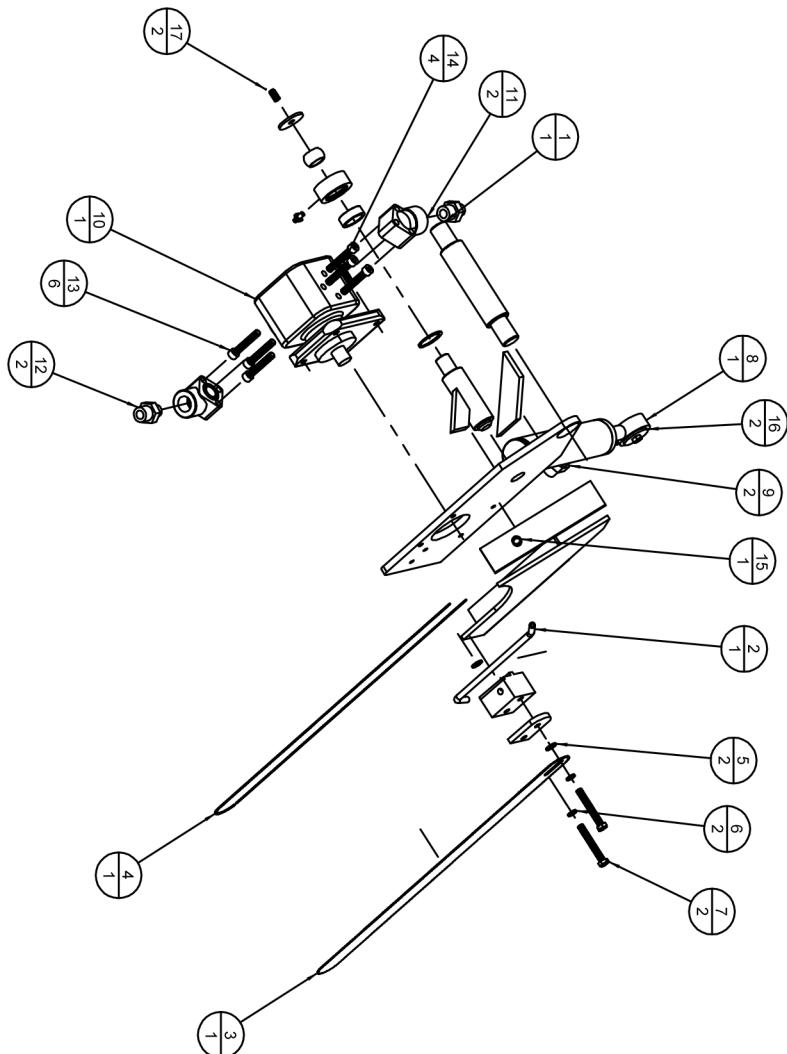


Nr	Description	Qty
1	Pump housing	1
2	Connecting ring - pump bracket	1
3	Jaw clutch	1
4	Distance - clutch	1
5	Gear	1
6	Jaw clutch	1



Nr	DESCRIPTION
9	Bushing
12	Nut
17	Support roller
18	Sealing washer TREDO
19	Hydraulic coupling
20	Ramming device - pressure plate
21	Hydraulic valve - chainsaw
22	Cover plate - Input
23	Hydraulic cylinder pressure plate
25	Conveyors
26	Adjustable - conveyor belts
27	Cover plate
28	Tank - Chain Oil
29	Cylinder - Input
30	Electric motor
32	Rod with spring
33	Claw coupling
34	Shield over lever valve
35	Valve block

Nr	DESCRIPTION
36	Ventilation plate
37	Input Format
38	Chainswa motor
39	Infeed Roller
40	Lid
48	Bracket for the chain
49	Infeed conveyor belt
65	Nut
66	Washer
67	Bolt
71	Wire reel
72	wire
73	Bolt
77	Chain saw
81	Hydraulic Hose
86	Hydraulic Hose
87	Hydraulic Hose
95	Electric box
96	Hydraulic Hose
97	Hydraulic Hose



Nr	Description	Qty
1	Chainsaw bracket	1
2	Spring	1
3	Sågsvärd	1
4	Chain	1
5	Washer	2
6	Spring washer	2
7	Bolt M8X60	2
8	Cylinder	1
9	2-3 / 8 Hydraul coupling	2
10	Chainsaw motor 306	1
11	Electric valve - pump G12	2
12	2-G1 / 2 " Hydraulic coupling	2
13	Socket screws M8X50	6
14	Socket screws M8x30	4
15	Hose clamps - stainless	1
16	Gasket	2
17	Bolt M8x16	2

WARRANTY TERMS AND CONDITIONS

Validity of the warranty Kellfri's Warranty is valid 12 months from the date of purchase.

This warranty replaces - Compensation for spare parts after acknowledgment that the fault lies on the material or manufacturing defects.

This guarantee does not cover - Labour costs
- Travel expenses
- Any modification that the buyer himself has/had made
- Any consequential damages that occurred out of damage to the machine.
- Damage due to normal deterioration of the machine, inadequate service, user inexperience or use of spare parts which are not original.
- Wear parts such as hoses, seals, oils, and mechanical belts.



EC-DECLARATION OF CONFORMITY

According to 2006/42/EC, Annex 2A

Kellfri AB

Munkatorpsgatan 6
532 37 Skara, Sweden

Declares that the machine

Name: 13-VKM360E

Type: Wood processor

Complies with all applicable provisions of the Machinery Directive 2006/42/EC

Low Voltage Directive (2006/95/EC)

Other equipment must meet the hardware requirements of the Directive.

A handwritten signature in blue ink, appearing to read 'Tina Baudtler'.

Tina Baudtler, VD 2015-08-28

Kellfri AB is constantly working on further developing their products and therefore reserves the right to modify, among other things the design and appearance without notice.

CUSTOMER SERVICE

Latest version: 2015-09-28

You are always welcome to give your feedbacks, reviews or ask us about our tools and products.

Kellfri AB
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The Kellfri logo is a large, bold, blue word 'Kellfri' with a registered trademark symbol (®) at the top right. The letters are outlined in white.