AR

Operating instructions

AR100 MK-IV

Varimixer

GB

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Contents:

General:

In case of complaints, please contact your supplier.

The guarantee does not cover faults resulting from faulty operation, overloading and lacking observance of directions of maintenance.

It should be checked that all loose parts are delivered with the mixer such as bowl, tools, grease gun and rubber feet.

Safety:

The constant noise level of the workplace of the operator is lower then 70 dB (A).

The mixer is designed for manufacture of products which do not during processing cause reactions or emit substances which may be detrimental to the user.

Putting your fingers in the bowl while the mixer is running may cause injuries.

Installation of new mixer:

Installation and securing:

The mixer must be mounted with rubber feet, which neutralize both shaking and rusting. Spacers can be inserted under the mixer's feet, if the floor is not completely even.

The mixer is placed directly on the floor. Foundation bolts in the floor are only necessary under special conditions, e.g. on ships.

Connection to power:

The mixer must be protected by a residual current device.

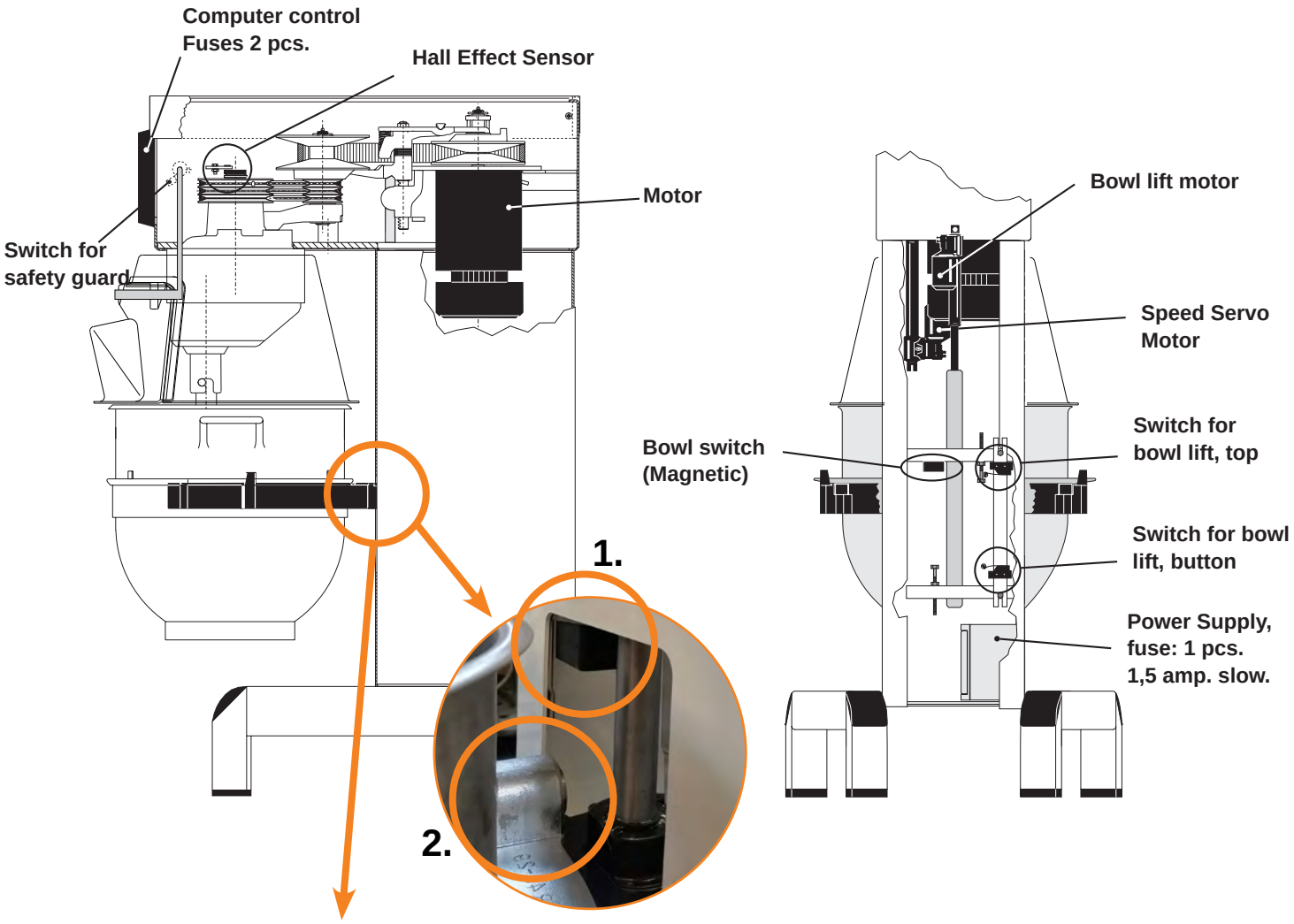
The mixer must be earthed.

Before the mixer is connected to power, it should be checked that the voltage and frequency printed on the machine label is correct in relation to the place of installation.The machine label is placed at the top right side of the mixer.

Checking of the direction of rotation of the planetary head:

Lift up the bowl arms to normal working position and start the mixer without bowl and tools. Check the direction of rotation of the planetary head: the planetary head must rotate in the direction as stated by the arrow above the planetary head. If the direction of rotation is wrong, 2 of the phase wires of the connecting cable must be inverted.

CONSTRUCTION OF THE MIXER:



Warning for users with implants (e.g. pacemakers, defibrillators)
Mixer (1) and bowl (2) equipped with strong magnets

Capacities per mix	Tool	AR100
Egg white	Whip	15 L
Whipped cream	Whip	45 L
Mayonnaise *	Whip	80 L
Herb butter	Beater	75 kg
Mashed potatoes *	Beater /Whip	65 kg
Bread dough (50%AR) **	Hook	58 kg
Bread dough (60%AR)	Hook	70 kg
Ciabatta dough * (70%AR)	Hook	75 kg
Muffins *	Beater	60 kg
Layer cake base	Whip	25 kg
Meatball mix *	Beater	75 kg
Icing	Beater	70 kg
Doughnut (50%AR)	Hook	60 kg

AR = Absorption Ratio (%AR)
(Liquid in % of solids)

Example: A basic recipe contains 1 kg of solids and 0,6 kg of liquid:

This gives AR $= \frac{0{,}6 \text{ kgs} \times 100}{1 \text{ kgs}} = 40\%$

If for instance it is required to use the maximum capacity of the mixer, the calculated AR = 60% is used for determining the amount of solids and liquid in the dough:

If a 100 L mixer is used, and a dough with AR = 60% is to be kneaded, the maximum capacity is = 70 kg. Now the weight of solids in this dough is calculated:

Solids $= \frac{\text{Max. capacity} \times 100}{\text{AR} + 100} = \frac{70 \text{ kg} \times 100}{60 + 100} = 43{,}75 \text{ kg}$

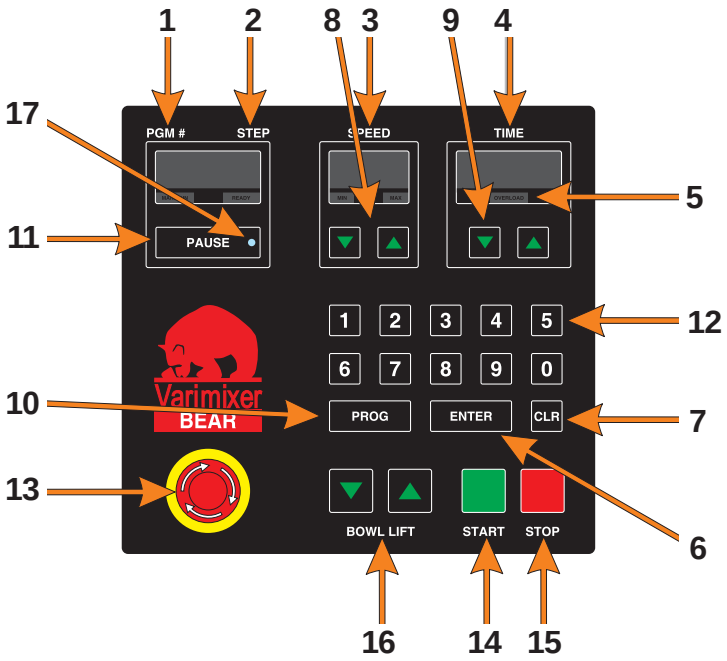
Weight of liquid = 70 kg - 43,75 kg = 26,25 kg

* Scraper recommended
** Low speed operation is recommended

Local variations in the characteristics of the ingredients can influence water absorption, volume and baking characteristics, etc.

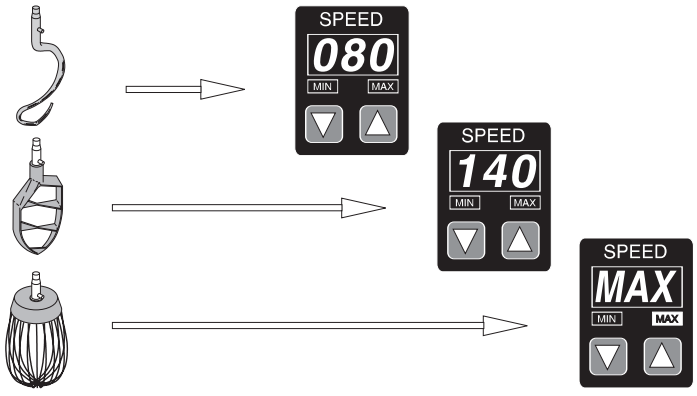
CONTROL PANEL:

The control panel is used for entering data to the system and for general operation of the mixer.

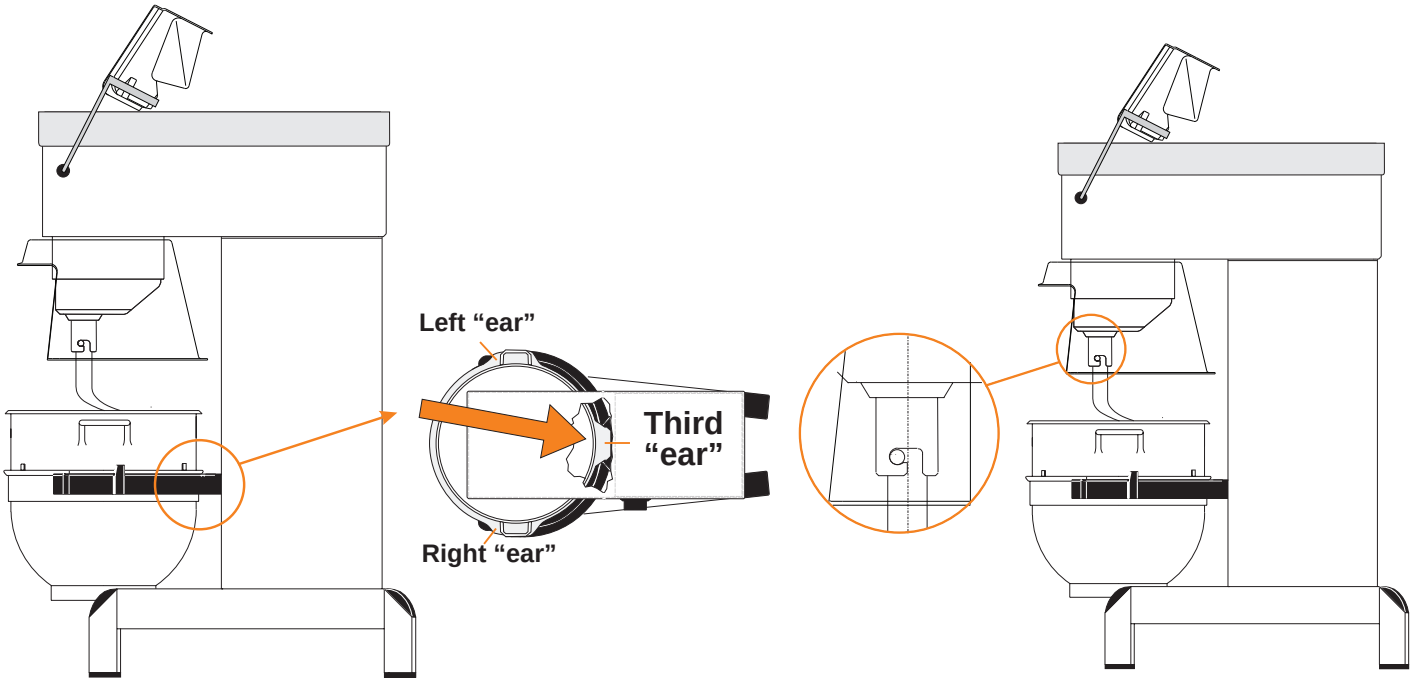


ITEM	FUNCTION	EXPLANATION
1.	Program no.	Displays the program number being executed
2.	STEP	Displays the step number being executed
3.	SPEED	Displays the set-speed
4.	TIME	Displays the elapsed time since start *or* displays the remaining time to shut down
5.	Text area	**OVERLOAD:** The mixer can not reach the chosen speed. The speed will be reduced in steps of 20% **MIN SPEED:** The mixer is running at absolute minimum speed. **MAX SPEED:** The mixer is running at absolute maximum speed. **READY:** The mixer is ready to start.
6.	ENTER	Used for stepping through a program.
7.	CLR	Clears a flashing display.
8.	Speed up/down arrows	Used for adjusting the speed while the mixer is running.
9.	Time up/down arrows	Used for adjusting the time.
10.	Program (PROG)	Used to enter/exit program-programming mode.
11.	PAUSE	Pauses the mixer without losing recipe.
12.	Numeric keys	Used for setting time and speed
13.	Emergency Stop	Stops the mixer instantly.
14.	START	Starts the mixer.
15.	STOP	Stop and reset key - reduces the speed to minimum and stops the mixer.
16.	BOWL LIFT	Used for raising and lowering the mixing bowl.
17.	Green L.E.D.	Lights up when the mixer is paused.

RECOMMENDED MAXIMUM SPEEDS.

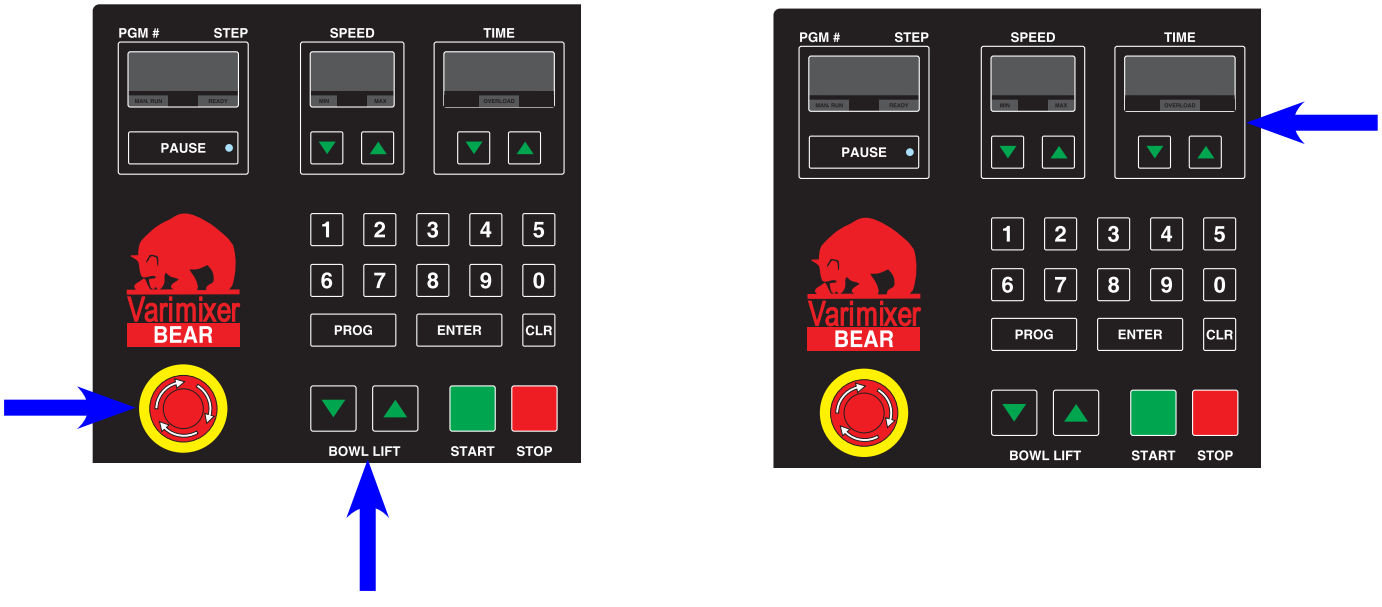


OPERATION OF THE MIXER:



Open the safety guard and place the bowl in the bowl arms. Check that the bowl is placed correctly - the third “ear” of the bowl shall point towards the mixer and the bowl shall be pushed all the way into the bowl arms.

Place the mixing tool in the bayonet shaft. The pin on the mixing tool must be turned into the bayonet hole.



Check that the emergency stop switch is **not** pushed in, as none of the functions of the mixer can be used if the emergency stop button is activated. Release the emergency stop by turning the button a little to the right.

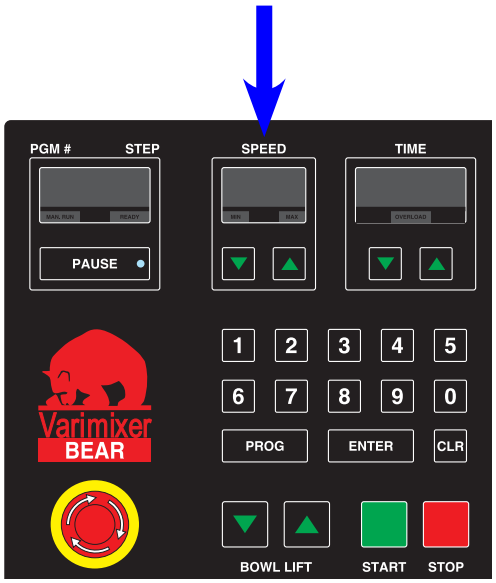
The bowl is raised and lowered by pushing slightly the **“BOWL LIFT”** up or down keys. The key must be kept pushed until the bowl is either entirely up or entirely down, and the mixer will make an acoustic signal. Check that the bowl is placed correctly when the bowl is raised.

The mixing time is set in **min.** and **sec.** by pushing slightly the adjusting fields, up or down.

The time can be changed after the mixer has been started.

If the timer is not used, the mixing time will be shown.

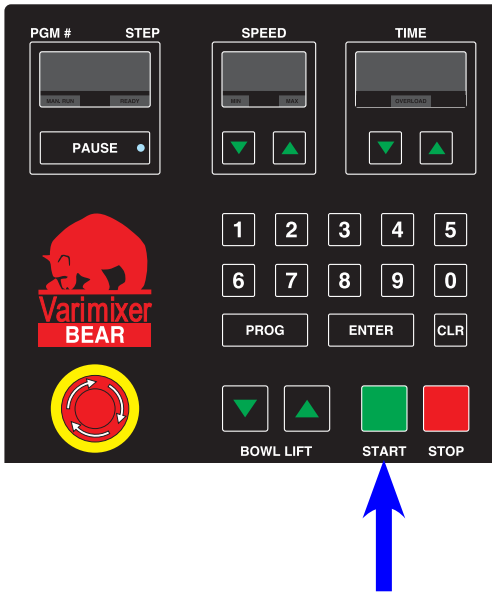
The timer is put to zero position by pushing **“STOP”.**



The mixing speed is set by pushing slightly the up or down keys.

The speed can be changed after the mixer has been started.

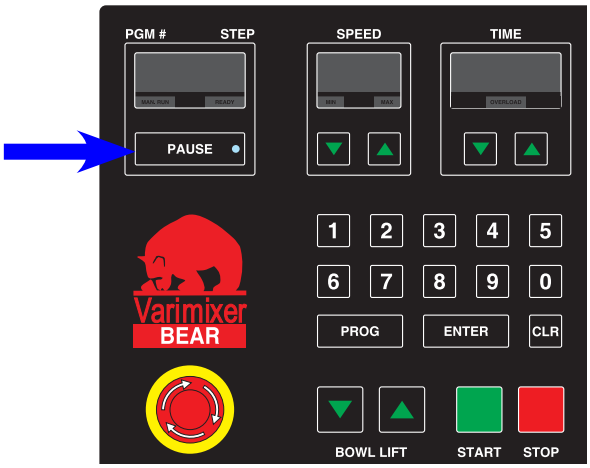
After pushing **"STOP"** the mixing speed must be set again.



When the bowl is raised into its working position, the mixer can be started by pushing slightly the green start key **"START"**.

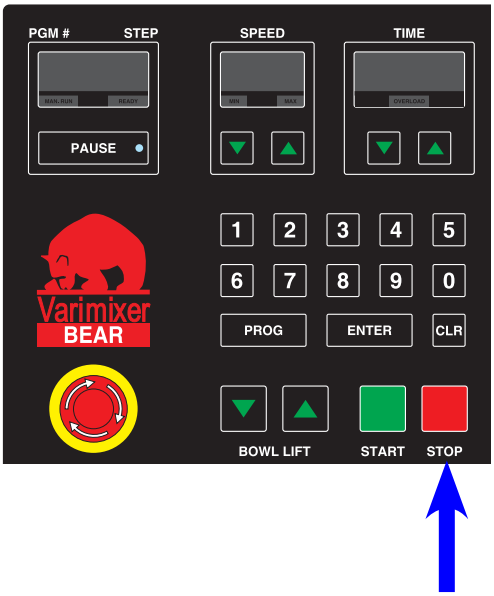
If the **stop field** has been pushed immediately before **"START"** is pushed, **1-2 seconds** will pass before the mixer can start.

The mixer can only be started when the bowl is in working position and the safety guard is closed.



The mixer can be stopped temporarily by pushing slightly the pause key **"PAUSE"**. The timer will stop the count-down.

By pushing **"START"** the timer will continue, and the mixing speed will return to the preset speed.



Stop the mixer by pushing slightly the red stop key **"STOP"**.

The mixer will automatically return to low speed and stop.

If the mixer is stopped when loaded in high speed, e.g. by pushing the emergency stop switch or by opening a possible safety guard, the bowl must be removed from the mixer, and the speed reduced to low speed before restarting the mixer. **If this is omitted, the mixer can be destroyed.**

Emergency stop must only be used in case of emergency.

SPECIAL STARTING PROCEDURE TO BE USED AFTER:

1. **STOP WHEN USING THE EMERGENCY STOP SWITCH.**
2. **STOP DUE TO OVERLOADING.**
3. **STOP DUE TO OPENING OF SAFETY GUARD WHEN THE MIXER IS RUNNING..**

The bowl must be removed from the mixer before starting the mixer again. The mixing speed must be reduced to low speed before the bowl is placed in the mixer.

If the mixer is started without removing the bowl, it must be possible for the mixer to obtain approx. 75% of the minimum speed. If this is possible, the mixer will automatically return to lowest speed and stop. After pressing **"START"** the operation can be continued in the normal way. If the mixer cannot achieve approx. 75% of the minimum speed due to continued overloading, the error code **E501** will appear. The bowl is now to be removed from the mixer. After a pause of **2 minutes**, **"START"** can be pushed again, and the process can be continued.

THE SPEED SYSTEM:

THE SPEED REGULATION OF THE CONTROL PANEL IS A FEEDBACK-SERVO-SYSTEM. This means that a pick-up (magnetic sensor) is constantly supervising the speed of the main shaft, and reports back to the control panel.

The actual speed of the tool is constantly compared with the required speed, and the computer of the control panel will send a signal to the servo motor in order to adjust the speed if the comparison is showing a greater difference than **+/- 10 RPM.**

GENERAL DESCRIPTION OF MODES:

The system contains six different modes:

1. **MANUEL MODE:** The mode when the mixer is operated like a manual controlled mixer. Instead of executing a programmed recipe, the mixer is started and operated until it is manually shut off.
2. **PROGRAMMING MODE:** The mode where all programming and editing takes place.
3. **PROGRAM MODE:** The mode where all programmed recipes are executed.
4. **FIXED MODE:** A pure executional mode, mixer will only run the programmed recipes. Neither editing or speed/time overwriting can take place. Manual mode is void.
5. **RPM MODE:** Computer displays the speed in actual R.P.M.
6. **SPEED MODE:** Computer dispalys the speed. (Speed 1,2,3 and 4).

OVERLOADING:

Sticky and heavy doughs may reduce the performance of the mixer. The performance is further reduced if the speed of the mixing tool is increased beyond the recommended values or if a wrong mixing tool is used. Large lumps of fat or cooled ingredients must be cut into small parts before they are placed in the bowl.

THE SPEED SYSTEM CONTAINS AN AUTOMATIC PROTECTION SYSTEM AGAINST OVERLOADING OF THE MIXER. The computer of the control panel will always try to keep the mixing speed at the same level as the keyed in speed. If the mixer cannot run with the required speed due to overloading, the computer will reduce the mixing speed to a value corresponding the loading capacity of the mixer.

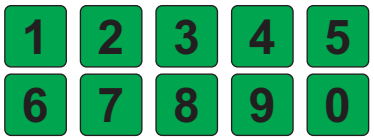
IN CASE OF OVERLOADING THE FOLLOWING WILL HAPPEN: The speed keyed in by the operator on the control panel will, depending on the loading, be reduced by up to **20%**. This speed reduction can occur several times after each other until the speed corresponds the loading capacity of the mixer. If this happens, the operator must reduce the speed on the control panel or reduce the amount of dough.

Prolonged overload will make the mixer's motor protection disconnect the mixer. Leave the mixer for approx. **3 minutes** whereafter the mixer can be restarted.

HOW TO RUN THE MIXER MANUALLY:

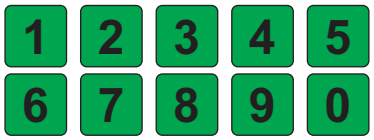
R.P.M. mode

Enter the speed desired →



Push →

Enter the time desired →



Push →

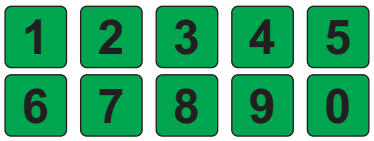
Push →

SPEED mode

Enter the speed desired →

Push →

Enter the time desired →



Push →

Push →

How to input a program:

A flashing display indicates that it is expecting the operator to key in a value.

A step is always a combination of speed and time.

An examlpe is 100 R.P.M for 5:00 minutes or 0 R.P.M for 15 seconds (which is a 15 second pause). Please note that the mixer will not start automatically after a pause, the start button must be pushed to proceed to the next step.

Up to 25 programs, each consisting of 9 step, can be stored in memory.

A sample program:

Program number	Step	Speed	Time
1	1	60	1:00
	2	200	5:00
	3	0	0:20
	4	110	4:00
	5	180	2:00
	6	0	0:00

"0" Speed and "0:00" Time in the last step is mandatory. The control system will read it as a "end of program" mark.

How to program a recipe:

Push → PROG

"HOLD FOR 3 SECONDS"

Push → ENTER

Push → ENTER

Enter the speed desired → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

Enter the time desired → 1 2 3 4 5 / 6 7 8 9 0

Repeat this process for as many as 9 steps per program, after the 9th step, the next program number will display, ready to enter a new recipe. This will continue up to 25 programs.

Example:

To edit a recipe or to correct mistakes, press **"PROG"** and hold it for 3 seconds to enter the programming mode, then push **"ENTER"** to reach the program/step that you wish to edit.

To delete a recipe, use the same step above to enter the programming mode, then push **"ENTER"** to reach the program/step that you wish to erase. Enter **"0"** in speed and **"0"** in time in all steps.

How to run a programmed recipe:

Push → PROG

Enter the program number → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

Push → START

After the **"ENTER"** key has been pushed, the data in step 1 will be displayed along with the program number.

After the last program step has been executed, the mixer will slow to minimum speed and shut off.

The mixer can be stopped at any time during a recipe by using the **"PAUSE"** button, the mixer will slow to stop and the recipe will not be lost. To continue on with the same recipe, push **"START"**.

Fixed Mode:

Fixed mode is basically designed for users who operate the same recipes over and over again without frequent updating.

The maximum numbers of programs available in fixed mode is reduced from 25 to 10.

Fixed mode is a purely executional mode, its not possible to adjust the speed or time while in this mode.

The mixer will only run recipes that are programmed.

The advantage to this mode is that no one can "cheat" the programmed recipe.

The only applicable keys are **"START", "STOP", "PAUSE", "BOWL LIFT"**, Emergency stop and numeric keys.

How to enter "FIXED MODE":

Push → PROG

"HOLD FOR 3 SECONDS"

Push "9 9" → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

Push "1 2 3 4" → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

How to run a program in "FIXED MODE":

Push the program number → 1 2 3 4 5 / 6 7 8 9 0

Push → START

How to exit "FIXED MODE":

Push → PROG

" *HOLD FOR 3 SECONDS"*

Push "1 2 3 4" → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

CONTROL DATA FOR PROGRAM 26:

Push → PROG

"HOLD FOR 3 SECONDS"

Push "2 6" → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

Push "1 2 3 4" → 1 2 3 4 5 / 6 7 8 9 0

Push → ENTER

Push → ENTER until you reach step 7

In the following chart you find the value that matches the mixer model and enter it in step 7. Repeat for step 8 and 9:

Step 7	
Mixer model	Values
AR30	30
AR40	40
AR60	60
AR80	80
AR100	100
AR140	140
AR200	200

Step 8	
Mode	Value
"RPM" MODE" (Speeds RPM)	:00
OR	
"SPEED MODE" (Speeds 1-4)	:02

Step 9		
Mixer model	Value 50 Hz	Value 60 Hz
AR30	323	369
AR40	390	375
AR60	350	390
AR80	400	422
AR100	400	422
AR140	400	422
AR200	400	422

Push → ENTER

Push → PROG

Now run program 30, see page 13

OVERLOAD light: When activated, mixer will lower speed 20% until it can maintain a steady speed.

1. Too much dough in the bowl (overloading) or speed set too high. Lower dough amount and speed.
2. V-belt is slipping: tighten belt or replace as needed.
3. Drive pin in motor pulley sheared, replace.
4. Hall effect sensor out of adjustment or magnet disc loose. **(See E:301)**

INSTRUCTIONS FOR RUNNING-IN OF MK-III PANEL (PROGRAM 30):

Start with running program 26, see page 12.

Push → PROG

"HOLD FOR 3 SECONDS"

Push "3 0" →

Push → ENTER

Push "1 2 3 4" →

Push → ENTER

Push → START

The actual RPM of the mixer is shown in the **"SPEED"** display.

The required minimum RPM of the mixer is shown in the **"TIME"** display.

Push ▲ or ▼ below the **"SPEED"** display until the RPM in the **"SPEED"** display is equal to the RPM in the **"TIME"** display.

Turn the cam disk **(see page 20 and 21)** for activation of micro switch for minimum speed (closest to V-belt) so that the **"MIN"** display only just lights up.

The cam disk has been adjusted to minimum speed when the **"MIN"** display only just lights up at minimum RPM.

Push **"CLR"**.

The required maximum speed of the mixer is shown in the **"TIME"** display.

Push ▲ or ▼ below the **"SPEED"** display until the RPM in the **"SPEED"** display is equal to the RPM in the **"TIME"** display.

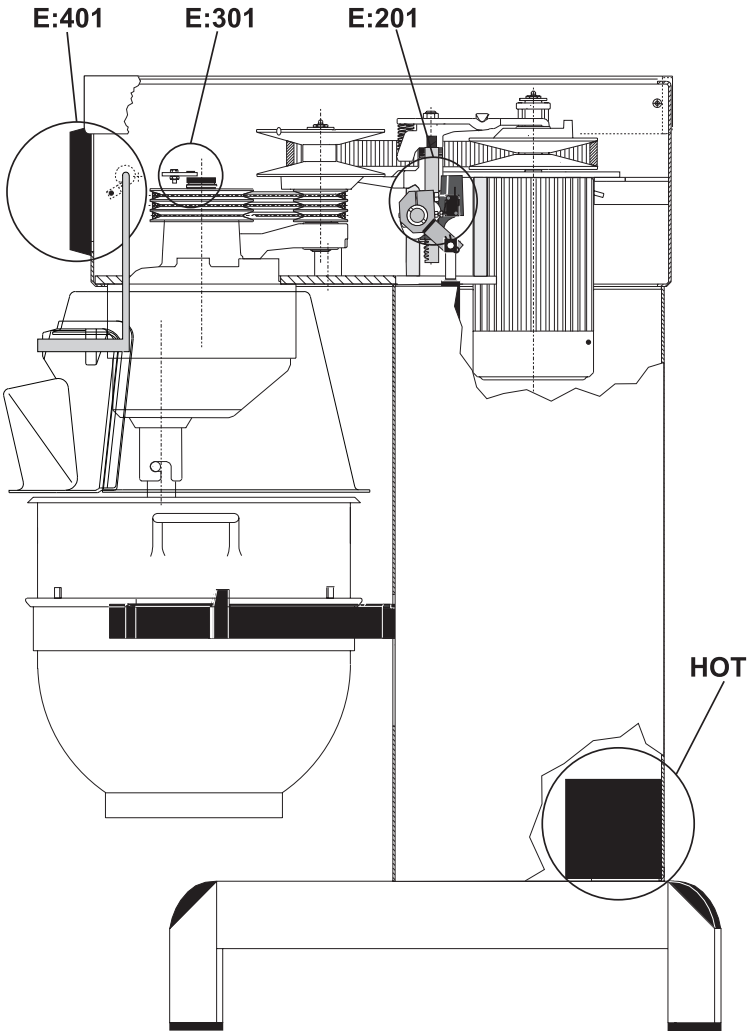
Turn the cam disk for activation of micro switch for maximum speed (remotest from V-belt) so that the **"MAX"** display only just lights up.

The cam disk has been adjusted to maximum speed when the **"MAX"** display only just lights up at maximum RPM.

Push **"STOP"**

The mixer is ready for use.

ERROR CODES:



An error in the mixer will trigger an **ERROR** code in the time display. See the below mentioned explanation of error codes and the procedure for correcting them.

E:201 The servo motor block actuator **(B)** did not contact the minimum speed micro switch **(A)** after the stop button was pushed or the programmed recipe completed.

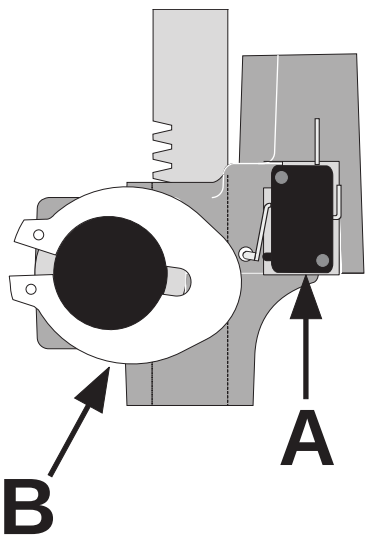
The computer is programmed to slow the mixer down to low speed before shutting off. It will not do this unless the micro switch is contacted by the block mounted on the speed adjustment shaft.

To correct this error:

1) Check the micro switch **(A)** to see if it is working by manually pushing it, when pushed, the **"MIN"** light should light up on the control panel. If it does not, the micro switch is faulty.

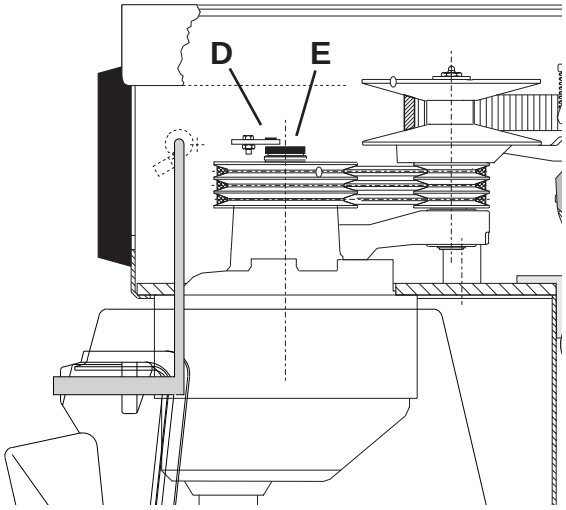
2) The cam disk **(B)** is not contacting the switch, adjust the switch up.

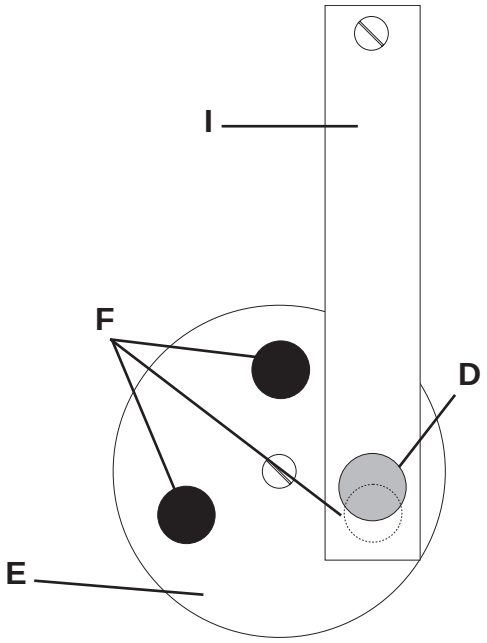
3) The servo motor is not moving at all. Check the fuses in the rear of the control, if blown, replace, if not blown, check the voltage (31 VDC) at the servo motor while the mixer is running. If voltage is present, the servo is faulty.



E:301 There is no signal from the speed pickup (hall effect sensor).

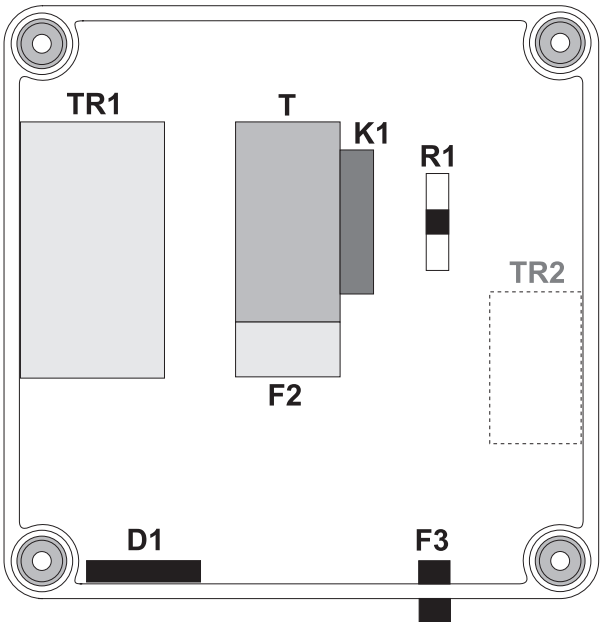
To correct this error:
1) Check that the sensor **(D)** is centered directly above the track of the 3 magnets **(F)** on the pulley and the gap between the sensor and magnets is 1/16". If not, bend and / or move the bracket (I) holding the sensor.
2) Inspect the three wires between the sensor and the plug. Replace the sensor if wires are broken.
3) Insure the aluminium disc **(E)** is tight on the pulley.





HOT The thermal overload **F2** has tripped because of excessive amp draw or heat.
The overload will automatically reset after it has cooled. This function is to protect the mixer.

To correct this error:
1) Have a service technician inspect all wiring, contactor and overload for faults.
2) Monitor the amp draw while the unit is operating. If excessive, the drive motor may be failing.



TR1.....Transformator
TR2....."Step down" Transformator
T .....Relay for motor
F2 .....Thermal cut-out
K1.....Locking contact
R1.....Coil for starting relay
D1.....Rectifier
F3 .....Fuse 1,5 A, slow

E:401 The values in program 26 steps 7,8 and 9 are missing or incorrect.

To correct this error, run program 26, see page 12

Correct use of tools:

Recommended applications for tools:

Whip	Beater	Hook
Cream	Cake dough	Bread dough
Egg whites	Butter cream	Dark bread
Mayonnaise	Waffle dough	and the like
and the like	Minced meat	
	and the like	

For production of mashed potatoes the special wing whip or the whip with thicker wires should be used, alternatively use the beater and the whip.

Whips should not be struck against hard objects as e.g. the edge of the bowl. This will make the life of the tool shorter due to increasing deformity.

Cleaning:

The mixer should be cleaned daily or after use. The mixer should be cleaned with a soft cloth and clean water. Sulphonated soaps should be used with caution as they destroy the mixer's lubricants.

Never use high pressure cleaning for the mixer.

Parts made of aluminum should not be used to strongly acidic, highly alkaline or highly salty foodstuffs, which may attack aluminum without coating.

Tools of aluminium must not be washed with strong alkaline detergents ***(pH must be between 5 and 8).***

The soap suppliers can recommend the correct type of soap.

Please note that the plastic safety guard can be damaged if exposed to high temperatures for a considerable period. ***(Max. temperature 65°C)***

Cleaning of attachment drive: after use of the attachment drive this should be wiped inside with a soft cloth.

Maintenance and lubrication:

The infinitely variable gear must be lubricated regularly, i.e. a lubrication interval of approx. 60 hours of operation.

Lubrication of infinitely variable gear:

OBS. Special grease !!(Use the grease gun delivered together with the mixer). Start the mixer and increase the speed to approx. 50%. Stop the mixer (use the emergency stop) and open the lid on the top of the mixer. On the top of each of the two pulley set shafts is a grease nipple **(fig. 1 point 1)**. Press grease through the grease nipples until the grease gun feels hard to press or until grease comes out between the shaft and the pulleys.

The mixer must not be started until the screws which hold the lid are inserted.

Start the mixer, and set the speed back to low speed. Stop the mixer and fill the grease gun with new grease so that it is ready for next time.

Lubrication of other movable parts:

The movable parts of the bowl arms, the shaft and the lifting rod must also be lubricated with oil. Remove the rear covering and lubricate the marked points with an oil can. **(fig.1 pkt.2)**

Grease types:

Grease for the pulley set shafts: **TOTAL-MULTIS XHV2.**

On repair of the planetary head: Grease the toothed wheel and the toothed rim with **Molub Alloy 936SF Heavy** or **Castrol Grippa 355,** the needle bearings in the planetary head must not be lubricated with this type of grease. Do not use any another type of grease than the one stated here.

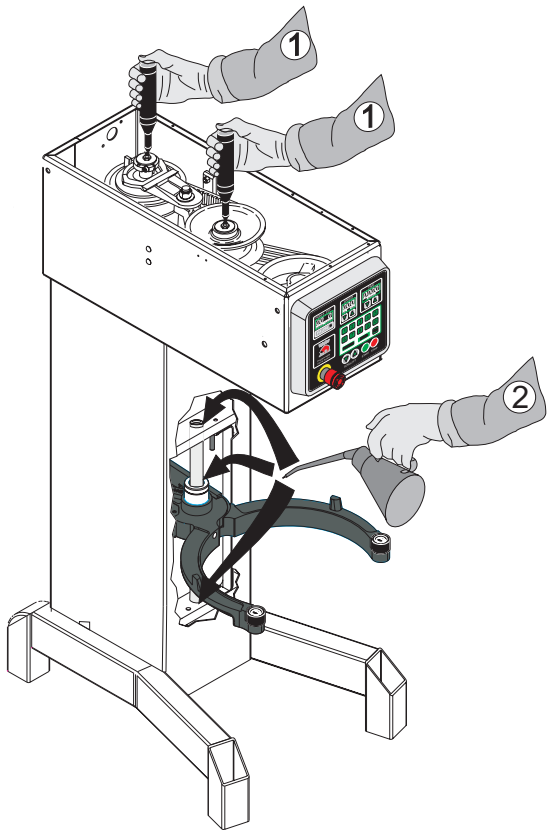


fig.1 Greasing of infinitely variable gear and other movable parts

ADJUSTMENT OF BOWL CENTERING:

First find the present bowl centering: mount the beater and the bowl, then raise the bowl arms up to normal working position. With your hand turn the beater, and then measure the distance between beater and bowl edge. By removing the rear covering, the bowl arm guide plate is now accessible **(E)**. Loosen the screws **(D)** and move the bowl arm guide plate in the required direction. Again turn the beater and measure the distance between beater and bowl. When the bowl has been centred, fasten the bowl arm guide plate in the new position and screw on the rear covering.

ADJUSTMENT OF BOWL FIXING:

The bowl arms must be raised to normal working position. The adjusting diameter **(Y)** shall be measured inside between the bowl arms **(fig.2a)**:

Adjusting diameter (Y) : AR100 = 554 mm.

In case the bowl fastening is too loose, remove the lock ring **(B)** and draw the bearing **(A)** from the shaft **(C)**. The bearing should be turned 180º and be mounted on the shaft again. It might be necessary to turn both bearings. At last check the bowl centering and if necessary, adjust.

ADJUSTMENT OF BOWL HEIGHT:

The distance **(X)** is measured from the bottom side of the bayonet hole to the surface on the bowl arms on which the bowl rests **(fig.3a).** The bowl arms must be lifted to normal working position.

Bowl height (X): AR100 = 297 mm.

The upper and lower position of the bowl is determined by micro switch **(1)** and **(2)**, **(fig. 3b)**. The two mechanical stops consisting of the bolts **(3)** and **(4)** are adjusted so that they will be hit approx. 1 mm after the micro switch, in case the micro switch should fail. The upper position of the bowl arms is adjusted by bending the spring arm of the micro switch **(2)** either forwards or backwards; it is of utmost importance that the stop screw **(3)** is re-adjusted afterwards. In the same way the lower position is adjusted by bending the spring arm of the micro switch **(2). NB:** The spring arm must not be bent so far backwards that the bowl arms do not hit it. Thereafter the mechanical stop **(4)** is adjusted.

fig.3a Measuring of bowl height:

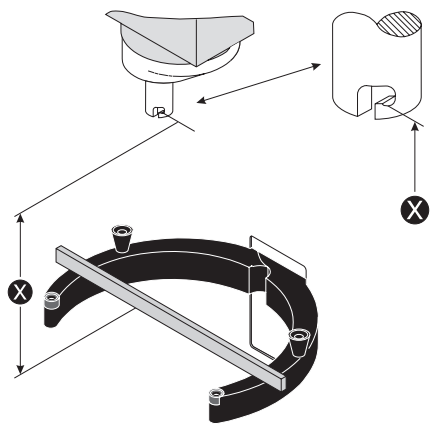


fig.2 Adjustment of bowl fixing and bowl centering

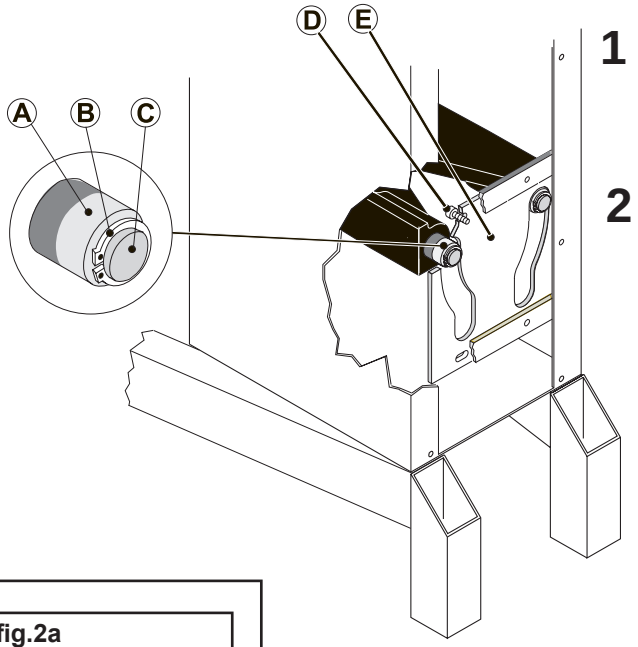
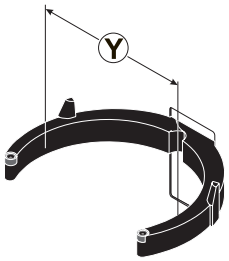
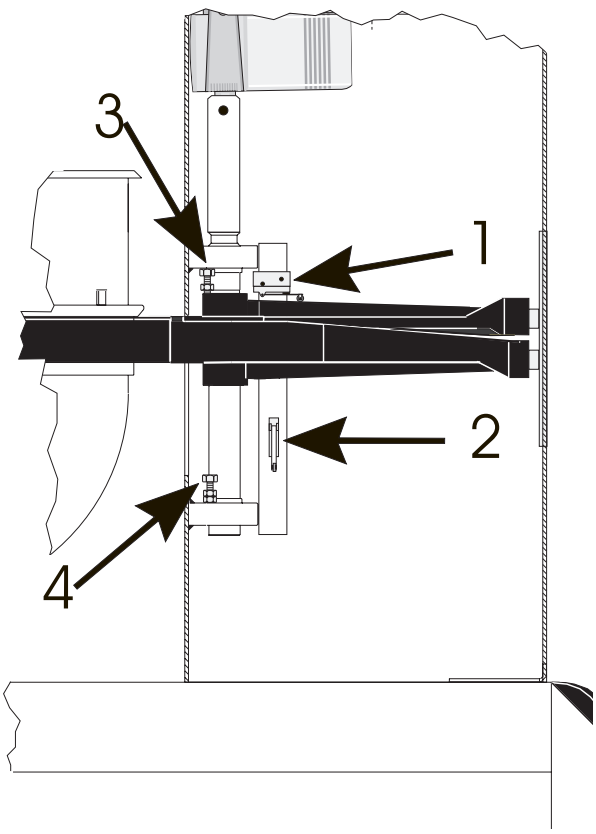


fig.2a



The bearing (A) has two diameters. As standard the mixer is delivered with the bearings mounted so that the smallest diameter points away from the bowl arms, which means the loosest bowl clamping.

fig.3b Adjustment of bowl height:



ADJUSTMENTS OF SPEED (LOW AND HIGH SPEED CAM DISKS):

1. Prior to any adjustment the mixer must be at minimum speed, the bowl must be in **"UP"** position and the safety guard, if equipped, must be closed.
2. Press the emergency stop switch.
3. The cable to the servo motor must be disconnected at the rear of the control box. The socket is marked ***"SPEED REG"***.
4. The slide switch on the rear of the control box must be in the ***"MAN"*** position.
5. The arm **(U)** is released from the servo motor shaft by removing the cotter pin **(E)** and the pin **(T)**. The arm (U) must not be loosened from the shaft **(V)**.
6. The manual speed selector lever **(R)** included with the mixer is placed in the shaft **(A)** so that it points upwards and forwards. (Remove the cover from the side of the mixer).
7. Release the emergency stop switch and start the mixer, increase the speed with the selector lever until the distance **(H)** on the rear pulley is 0-3 mm: ***"HIGH SPEED"***.
8. Stop the mixer by pressing the emergency stop switch on the control box.
9. Adjust the high speed cam disk **(V2)** so that it is activating the micro switch. ***"MAX light should be on".***
10. Release the emergency stop switch and restart the mixer, with the manual speed selector lever, lower the speed until the distance **(H)** is 0-3 mm on the front pulley set: ***"LOW SPEED"***.
11. Stop the mixer by pressing the emergency stop switch on the control box.
12. Adjust the low speed cam disk **(V1)** so that it is activating the micro switch: ***"MIN light should be on"***.
13. Reconnect the cable from the servo motor to the control box. The socket is marked ***"SPEED REG"***.
14. Move the switch on the rear of the control box to ***"AUTO"***.
15. Remove the speed selector **(R)** and replace the cover on the side of the mixer.
16. Mount the pin **(T)** and the cotter pin **(E)** which connects the arm **(U)** to the servo motor shaft.

BE AWARE THAT THE SERVO MOTOR SHAFT MUST NOT TOUCH THE SHAFT (A) IN MAXIMUM SPEED.

17. Release the emergency stop switch.
18. Install the top lid.

MANUAL SPEED OPERATION:

IF THE ELECTRONICS IN THE CONTROL BOX FAILS, THE MIXER CAN BE OPERATED MANUALLY.

1. Turn off the main switch at the point of connection.

2. Open the mixer's lid and toggle the switch which is placed on the rear of the control box to **"MAN"** position.

3. Dismount the servo motor from the arm by removing the pin **(T)**. Tie the servo motor shaft firmly so that it cannot touch the special V-belt when the mixer is started.

4. Remove the cover on the right side of the mixer and place the speed selector lever **(R)** in the slotted shaft. The speed selector lever was included with the mixer either separately or in the mixer.

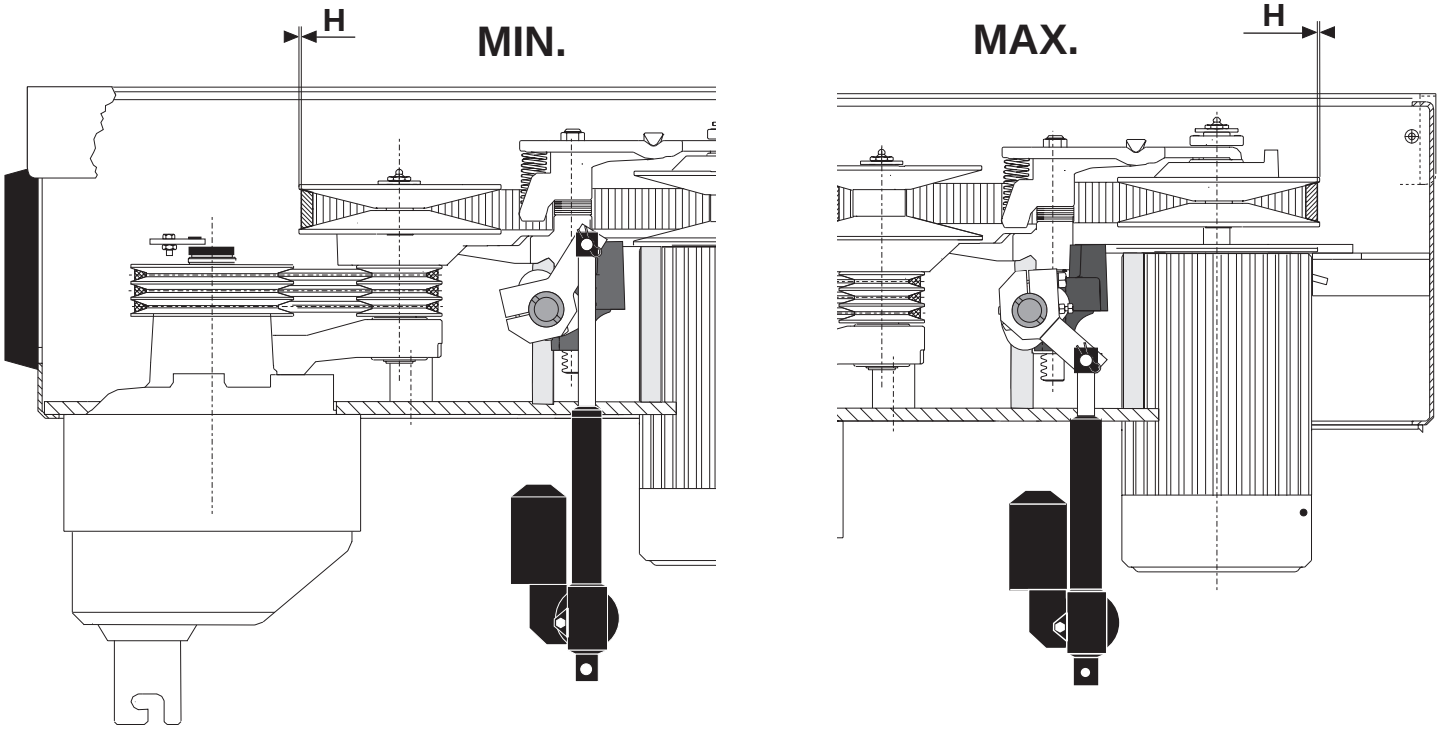
5. Close the mixer's lid and turn on the main switch.

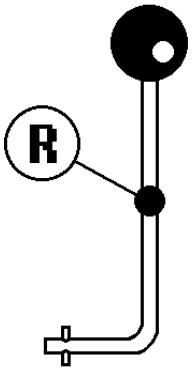
6. Start the mixer by pressing **START**

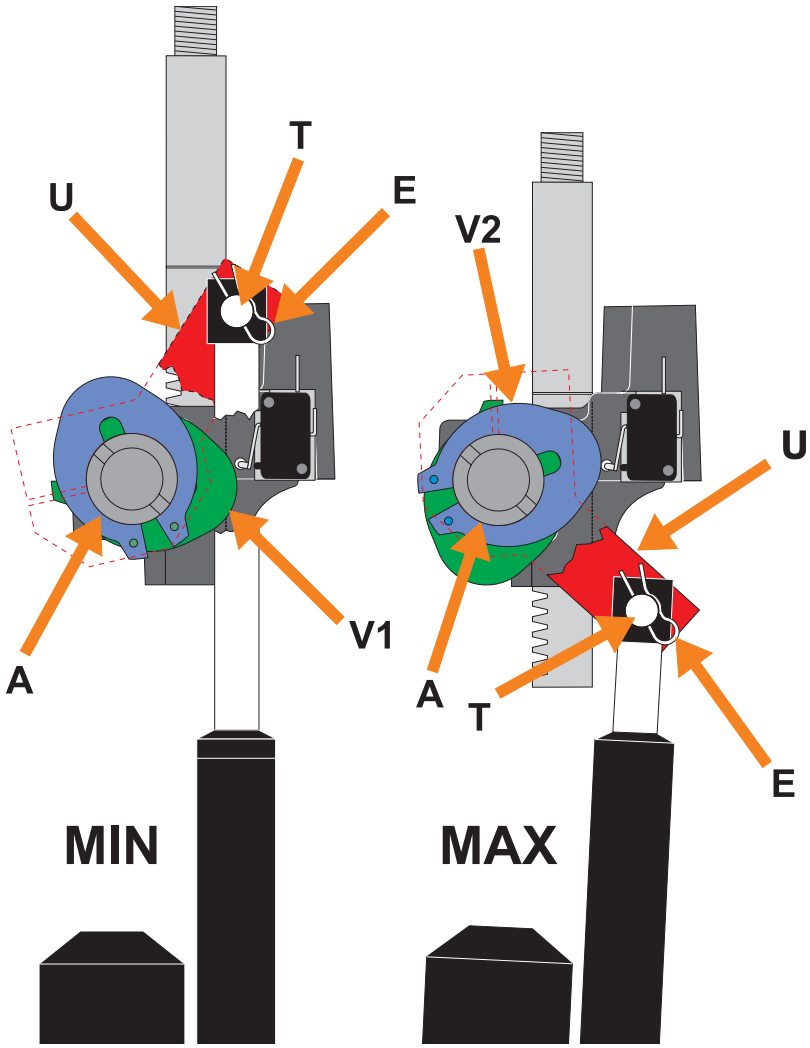
7. The speed can be changed on the speed selector lever **(R).**

8. Stop the mixer by using the **EMERGENCY STOP SWITCH** instead of the normal stop key.

WARNING: In this working position the security systems of the mixer are out of function. This means that the mixer can be running with the bowl lowered and the safety guard and the cover open.


H
MIN.
MAX.
H


R

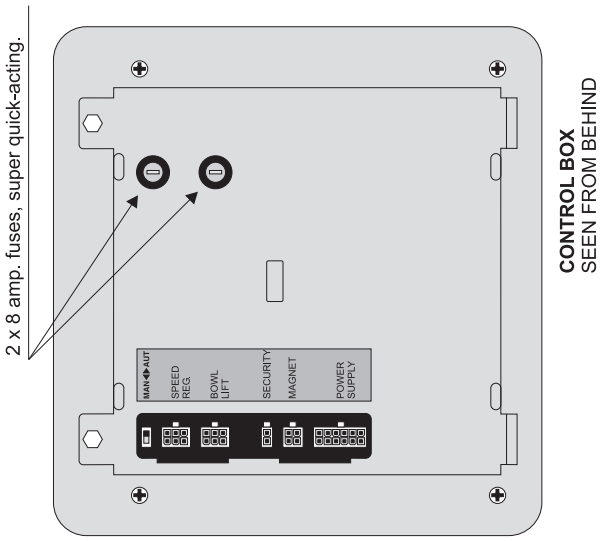

U
T
E
A
V1
MIN
V2
U
A
T
E
MAX

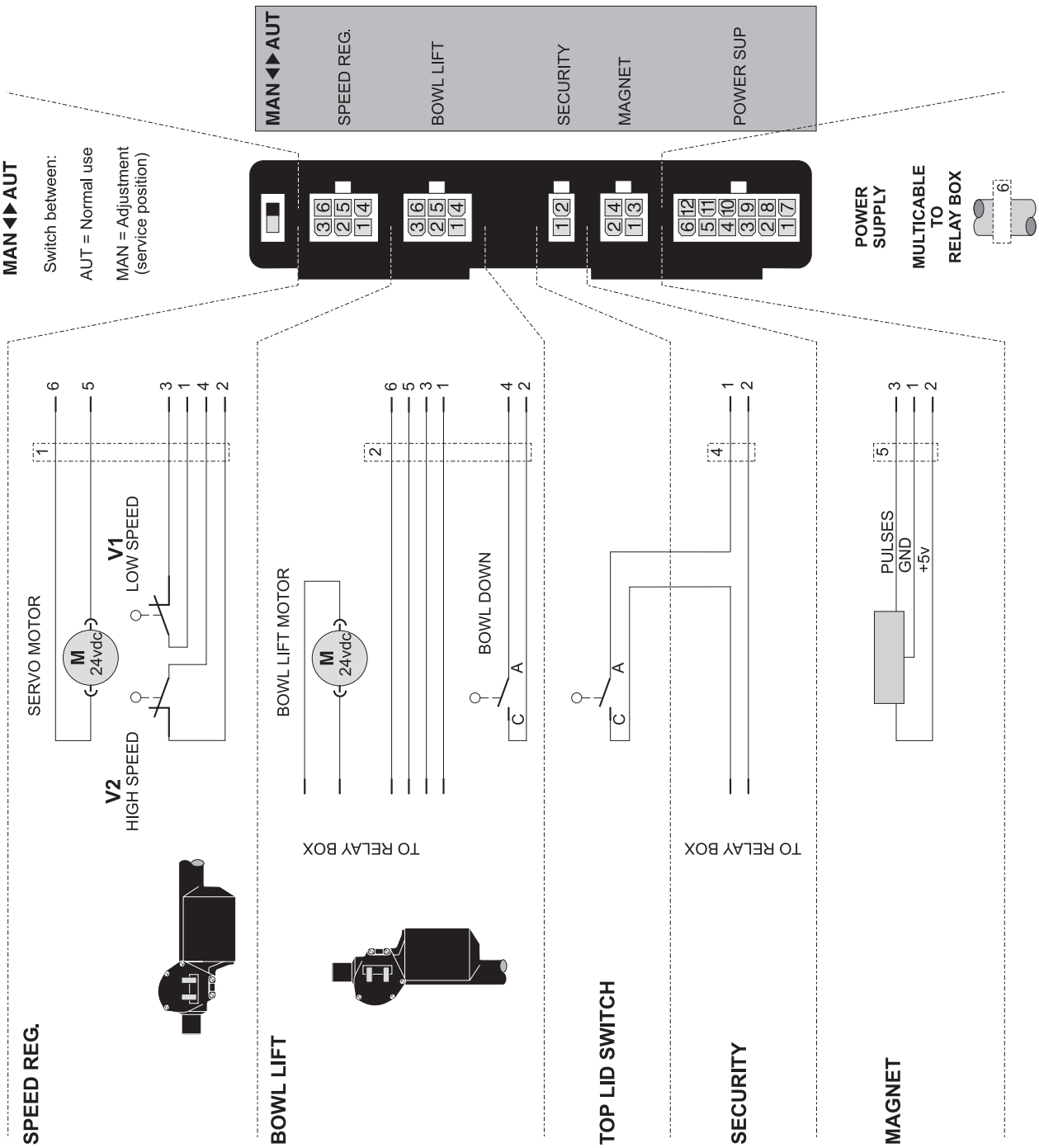
ELECTRICAL DIAGRAMMES:

OBS:
The mixer is to be connected to power via a plug. The plug must be dimensioned for min. 16 A, 230/400V~, IP44

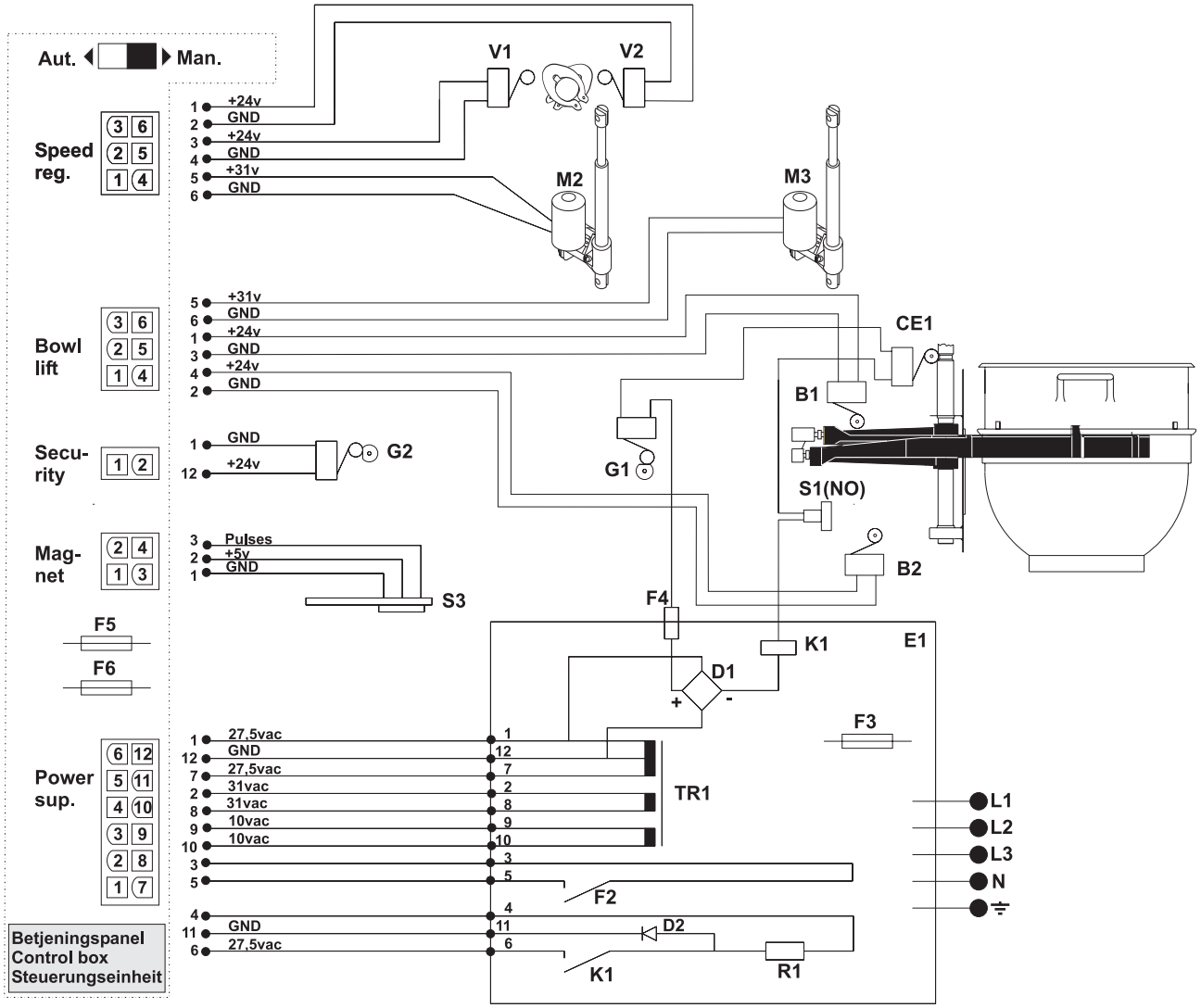
When connecting;

1 phase with 0 + earth, use 3 pole plug
2 phases + earth, use 3 pole plug
3 phases + earth, use 4 pole plug
3 phases with 0 + earth, use 5 pole plug





ELECTRICAL DIAGRAMMES:



V1.....Micro switch - low speed
V2.....Micro switch - high speed
M2 .....Servo motor
M3 .....Motor for bowl lift
B1.....Micro switch for bowl lift, top
B2.....Micro switch for bowl lift, botton
G1.....Micro switch for safety guard. Control panel
G2.....Micro switch for safety guard. Safety circuit
S3.....Hall Effect Sensor
CE1 .....CE-safety switch
S1.....Start switch (NO)
K1.....Locking contact
F3 .....Fuse 1,5 A
F4 .....Fuse 1.5 A
F5 .....Fuse 8 A
F6 .....Fuse 8 A
E1.....Power supply
D1.....Rectifier
TR1.....Trafo
F2 .....Thermal cut-out
D2.....Diode
R1.....Coil for starting relay

Indhold af Overensstemmelseserklæring, (Maskindirektivet, 2006/42/EC, Bilag II, del A) **DK**
Contents of the Declaration of conformity for machinery, (Machinery Directive 2006/42/EC, Annex II., sub. A) **EN**
Inhalt der Konformitätserklärung für Maschinen, (Richtlinie 2006/42/EG, Anhang II, sub A) **DE**
Contenu de la Déclaration de conformité d'une machine, (Directive Machine 2006/42/CE, Annexe II.A) **FR**
Inhoud van de verklaring van overeenstemming voor machines, (Richtlijn 2006/42/EC, Bijlage II, onder A) **NL**
Contenido de la declaración de conformidad sobre máquinas, (Directiva 2006/42/EC, Anexo II, sub A) **ES**

Fabrikant; Manufacturer; Hersteller; Fabricant; Fabrikant; Fabricante: Varimixer A/S
Adresse; Address; Adresse; Adresse; Adres; Dirección: Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark

Navn og adresse på den person, som er bemyndiget til at udarbejde teknisk dossier
Name and address of the person authorised to compile the technical file
Name und Anschrift der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen
Nom et adresse de la personne autorisée à constituer le dossier technique
naam en adres van degene die gemachtigd is het technisch dossier samen te stellen
nombre y dirección de la persona facultada para elaborar el expediente técnico

Navn; Name; Name; Nom; Naam; Nombre: Kim Jensen
Adresse; Address; Adresse; Adresse; Adres; Dirección: Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark
Sted, dato; Place, date; Ort, Datum; Lieu, date ; Plaats, datum ; Place, Fecha: Brøndby, 14-03-2018

Erklærer hermed at denne røremaskine
Herewith we declare that this planetary mixer
Erklärt hiermit, dass diese Rührmaschine
Déclare que le batteur-mélangeur ci-dessous
Verklaart hiermede dat Menger
Declaramos que el producto batidora

- er i overensstemmelse med relevante bestemmelser i Maskindirektivet (Direktiv 2006/42/EC)
  is in conformity with the relevant provisions of the Machinery Directive (2006/42/EC)
  konform ist mit den Bestimmungen der EG-Maschinenrichtlinie (Direktiv 2006/42/EG)
  Satisfait à l'ensemble des dispositions pertinentes de la Directive Machines (2006/42/CE)
  voldoet aan de bepalingen van de Machinerichtlijn (Richtlijn 2006/42/EC)
  corresponde a las exigencias básicas de la Directiva sobre Máquinas (Directiva 2006/42/EC)

- er i overensstemmelse med følgende andre CE-direktiver
  is in conformity with the provisions of the following other EC-Directives
  konform ist mit den Bestimmungen folgender weiterer EG-Richtlinien
  Est conforme aux dispositions des Directives Européennes suivantes
  voldoet aan de bepalingen van de volgende andere EG-richtlijnen
  está en conformidad con las exigencias de las siguientes directivas de la CE

  2014/30/EU ; 1935/2004 ; 10/2011 ; 2023/2006 ; RoHS 2011/65/EU , 822/2013 (DK only)

Endvidere erklæres det
And furthermore, we declare that
Und dass
Et déclare par ailleurs que
En dat
Además declaramos que

- at de følgende (dele af) harmoniserede standarder, er blevet anvendt
  the following (parts/clauses of) European harmonised standards have been used
  folgende harmonisierte Normen (oder Teile/Klauseln hieraus) zur Anwendung gelangten
  Les (parties/articles des) normes européennes harmonisées suivantes ont été utilisées
  de volgende (onderdelen/bepalingen van) geharmoniseerde normen/nationale normen zijn toegepast
  las siguientes normas armonizadas y normas nacionales (o partes de ellas) fueron aplicadas

  EN454:2014 ; EN60204-1:2006; EN12100-2011
  EN61000-6-1:2007; EN61000-6-3:2007
  DS/EN 1672-2 + A1:2009

DoC for Food Contact Materials, please go to www.varimixer.com/Special downloads (dealers only) or contact your supplier

Innehåll i örsäkran om maskinens överensstämmelse, (Maskindirektivet 2006/42/EG, bilaga 2, A) **SV**
Contenuto della dichiarazione di conformità per macchine, (Direttiva 2006/42/CE, Allegato II, parte A) **IT**
Sisukord masina vastavusdeklaratsioon , (Masinadirektiiv 2006/42/EÜ, lisa II, punkt A) **ET**
Treść Deklaracja zgodności dla maszyn (Dyrektywa maszynowa 2006/42/WE, Załącznik II, pkt A) **PL**
Sisältö vaatimustenmukaisuusvakuutus koneesta (Konedirektiivi 2006/42/EY, Liite II A) **FI**
Vsebina izjave o skladnosti strojev, (Direktiva 2006/42/ES, priloga II, razdelek A) **SLO**

Tillverkare; Fabbricante; Tootja; Producent; Valmistaja: Proizvajalec: Varimixer A/S

Adress; Indirizzo; Aadress; Adres; Osoite: Naslov: Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark

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Namn; Nome e cognome; Nimi; Imię i nazwisko; Nimi; Ime : Kim Jensen

Adress; Indirizzo; Aadress; Adres; Osoite; Naslov: Kirkebjerg Søpark 6, DK-2605 Brøndby, Denmark

Ort och datum; Luogo e data; Koht, kuupäev; Miejscowość, data; Paikka, aika; Kraj, datum : Brøndby, 14-03-2018

Försäkrar härmed att denna blandningsmaskin
Con la presente si dichiara che questo mixer planetaria
Deklareerime käesolevaga, et Planetaarmikseri
Niniejszym oświadczamy, że mikser planetarny
vakuuttaa, että tämä mikseri tyyppi
S tem dokumentom izjavljamo, da je ta mešalnik

- överensstämmer med tillämpliga bestämmelser i maskindirektivet (2006/42/EG)
  is è conforme alle disposizioni della Direttiva Macchine (Direttiva 2006/42/CE)
  vastab kehtivatele masinadirektiivi (2006/42/EÜ) nõuetele
  spełnia wymagania odpowiednich przepisów dyrektywy maszynowej (2006/42/WE)
  on konedirektiivin (2006/42/EY) asiaankuuluvien säännösten mukainen
  v skladu z določbami Direktive o strojih ES (Direktiva 2006/42/ES)

- överensstämmer med bestämmelser i följande andra EG-direktiv
  è conforme alle disposizioni delle seguenti altre direttive CE
  vastab järgmiste EÜ direktiivide nõuetele
  spełnia wymagania przepisów innych dyrektyw WE
  on seuraavien muiden EY-direktiivien säännösten mukainen
  in v skladu z določili naslednjih dodatnih direktiv ES

  2014/30/EU; 1935/2004 ; 10/2011 ; 2023/2006 ; RoHS 2011/65/EU ; 822/2013 (DK only)

Vi försäkrar dessutom att
e che
Lisaks ülaltoodule deklareerime, et
Ponadto oświadczamy, że
ja lisäksi vakuuttaa, että
in da

- följande (delar/paragrafer av) europeiska harmoniserade standarder har använts
  sono state applicate le seguenti (parti/clausole di) norme armonizzate
  kasutatud on järgmisi Euroopa harmoniseeritud standardeid (või nende osi/nõudeid)
  zastosowano następujące części/klauzule zharmonizowanych norm europejskich
  seuraavia eurooppalaisia yhdenmukaistettuja standardeja (tai niiden osia/kohtia) on sovellettu
  veljajo naslednji usklajeni standardi (ali deli/klavzule teh standardov)

  EN454:2014 ; EN60204-1:2006; EN12100-2011

  EN61000-6-1:2007; EN61000-6-3:2007

  DS/EN 1672-2 + A1:2009

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