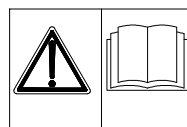
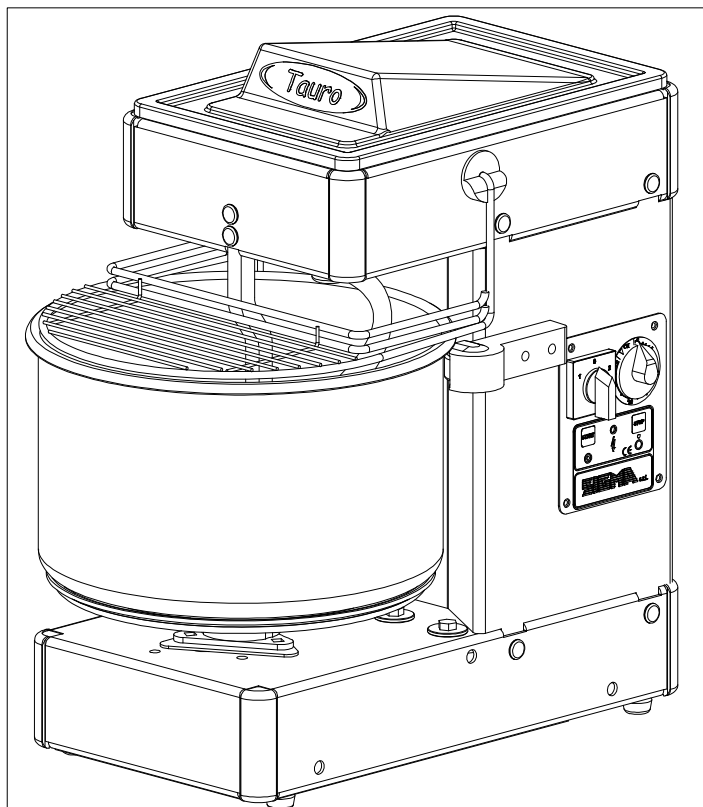


**INSTRUCTION MANUAL FOR USE AND MAINTENANCE
 SPIRAL MIXER TAURO 22/25/30**



This instruction manual for use and maintenance gives the necessary instructions for the transport, set up, use and maintenance of the machine and has to be consulted before each of these steps. The technicians in charge of maintenance as well as the machine operators should read the manual and follow the steps proposed correctly. The manual is an integral part of the machine and needs to be kept in a proper place so that an opportune consultation is always possible.

INDEX

SAFETY INSTRUCTIONS	3
RESIDUAL RISKS	3
RESIDUAL RISKS, PROHIBITIONS, OBLIGATIONS: summary table	4
SYMBOLS USED AND PERSONNEL STATUS	3
MACHINE USE AND DESCRIPTION	4
CONDITIONS FOR USE	4
IDENTIFICATION, POSITION OF THE OPERATOR AND DANGER AREAS	4
TECHNICAL DATA, PACKAGING, SIZE AND WEIGHT	5
TRANSPORTATION AND MOVEMENT	5
STORAGE	6
INSTALLATION	6
MACHINE CONSERVATION	6
GUARANTEE CONDITIONS	6
HOW TO USE THE MACHINE	7
HOW TO WORK WITH THE MACHINE	8
MAINTENANCE AND CLEANING OPERATIONS	8
SAFETY SYSTEM AND ELECTRICAL PLANT CONTROL	8
ORDINARY MAINTENANCE	9
EXTRAORDINARY MAINTENANCE	9
PERIODIC MAINTENANCE	10
SPARE PARTS	10
MAIN COMPONENTS	10
DISMANTLING AND DISPOSAL	10
SPARE PARTS	11-12
MACHINE FAILURE AND SUITABLE REMEDIES	13
WIRING DIAGRAM	14

SAFETY INSTRUCTIONS

The safe and systematic use of the machine is subject to the respect of the behaviour and of the norms listed below.

Safety rules

- The personnel have to be in good physical and psychological conditions, adequately instructed to the use of the kneading machine by means of reading the present publication.
- The person in charge for the company security, for the working area or for the department, when choosing the person to use the machine (employee suitable to the task according to the regulations) needs to consider the cultural level, the physical fitness and the psychological aspect (mental stability, sense of responsibility, etc...). In addition, according to the attitudes and abilities found, he will have to provide training by reading this publication so complete knowledge of the machine and the rules of behaviour may be applied.
- The space surrounding the machine needs to be well lit, clear and clean.
- The employees in charge to the cleaning and maintenance of the machine must wear the assigned (I.P.D) individual protection devices.
- Do not wear loose garments such as ties, torn cloth, open jackets etc. in order to avoid the risk of these items getting caught in the machine.
- It is necessary to switch off the main plug during the cleaning and maintenance operations, for security reasons.
- Do not leave the machine unattended while it is working. Notice any strange noise or behaviour and keep away from rotating parts. Do not ever open the grid before the tools have come to a complete stop.
- At the end of the work make sure to completely empty the machine, turn off the general switch, put the machine in a safe place, and clean it with a neutral degreaser detergent.

Security devices.

The machine is equipped with some devices that protect the operation and the safety of the operator. These must not be removed or modified, and the working conditions must be checked periodically.

- Main switch: it interrupts the electrical supply to the machine, for security maintenance.
- Thermo switch: it interrupts the electrical supply in case of overheating of the electric motor.
- Fixed Protection: all the chain guards and protections fixed with screws or mechanical blocks can be removed only for maintenance purposes by the qualified personnel according to the procedures prescribed. Once the work is done these must be mounted immediately.
- Movable Protections: The movement of the grid starts up a micro-switch which prevents the kneading machine from working if the grid remains open. Raising the grid while the machine is working interrupts the cycle unconditionally as in an emergency stop. To get the machine to start up again, it is necessary to press the start button.

Machine safety rules.

- EN 292 Machine safety.
- EN 294 Shortest distances for the prevention of accidental contact.
- CEI 17-13. Devices equipped with protection and manoeuvres for low tension.
- European Union Directives: 89/392/CEE, 89/336/CEE, 91/368/CEE, 93/44 CEE, 93/68 CEE.

RESIDUAL RISKS.



Danger of jamming: by exceeding the protection grid or dismantling the covers during maintenance, having access to the machine movers is possible. These are dangerous areas where severe physical harm can occur. Do not introduce upper/lower limbs or other objects without having put the machine in a secure place.

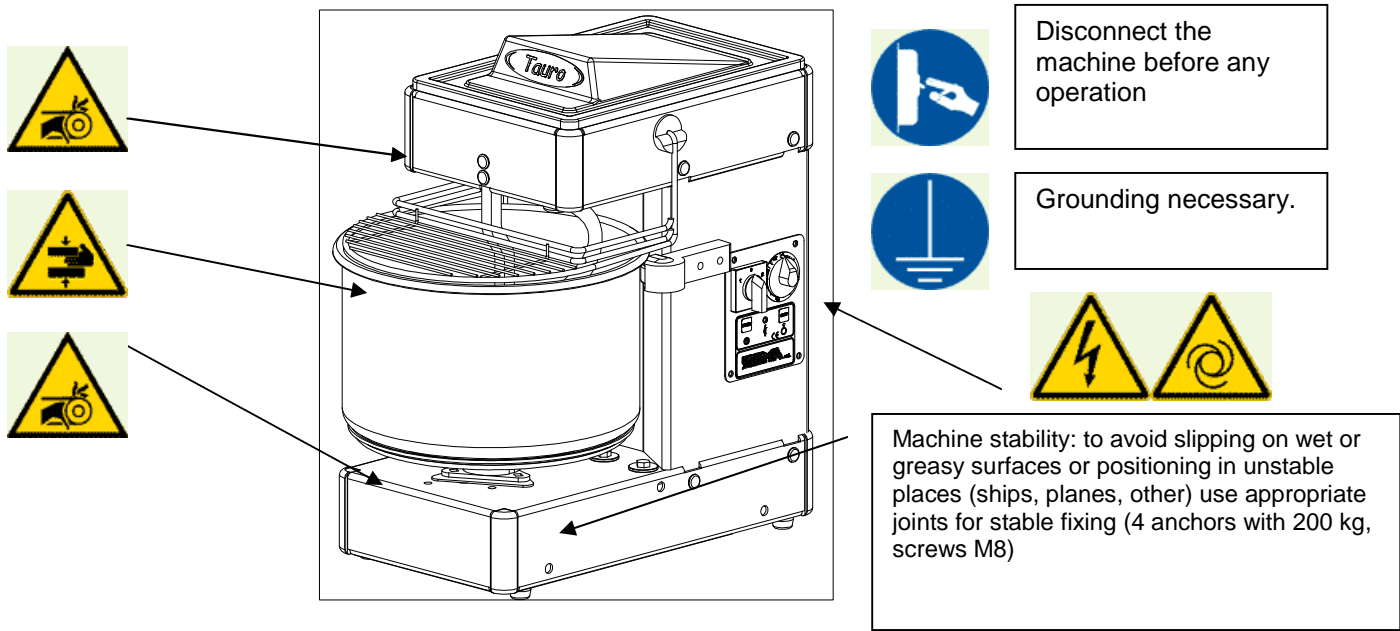


Danger of electrocution: do not operate the machine without adequate grounding. Make sure that it is connected to a plant built according to the norms and law in force of the country of installation.



Automatic cycle: after start up, the machine follows an automatic working cycle. Be sure not to exceed the safety barriers with limbs or other objects when functioning.

RISKS, RESIDUALS, PROHIBITIONS, OBLIGATIONS: Summary table.



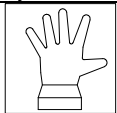
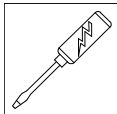
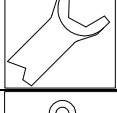
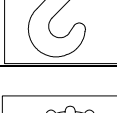
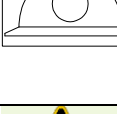

CAUTION!

- When machine is in function, wear the appropriate I.P.D...
- Clean the machine well after every use.
- Do not remove safety devices and protection covers
- Do not introduce any object through the protection grid when parts are moving. Wait until the machine comes to a complete stop before any manoeuvre.

SYMBOLS USED AND STAFF QUALIFICATIONS.

Below find the required personnel qualification to make the machine function.

The symbols corresponding to the chapter are to recall the specific competences needed for the described operation. No symbols are used when it applies to everyone.

Symbol	Description	Characteristics
	OPERATOR	A person acquainted with the machine functioning, adjustments, planning and security protection. He should know the working cycles and the ingredients to use with their relative maximum quantities allowed. He should know the instruction and maintenance manual well.
	ELECTRICIAN OPERATOR	Person in good healthy conditions, qualified electrician by trade who has read and understood the instructions and maintenance manual.
	MECHANICAL OPERATOR	Person in good healthy conditions, mechanic by trade, who has read and understood the instructions and maintenance manual.
	MAN IN CHARGE OF MOVEMENT OPERATIONS	Person in good healthy conditions, qualified load mover, who has read and understood the instruction manual.
	ASSISTANCE Tel. +39 030.265.04.88 Fax +39 030.265.10.82	<ul style="list-style-type: none"> ▪ Manual update requests. ▪ Telephone assistance available, on the functioning, set up, or machine breakdown. ▪ Spare parts request, repairs, servicing, house calls. ▪ Training courses
	CAUTION.	This type of signal prompts caution in the indicated operations. Lack of observation can cause damages to people in charge or even to the machine.

USE AND DESCRIPTION OF THE MACHINE:

The TAURO spiral mixers are designed to mix dough using flour and water as a base. A rotating spiral mixes, amalgamates, refines and oxygenates the mixture contained in a rotating bowl, and thanks to energetic mechanical action, the mixture is prepared fast and efficiently. Designed to prepare bread dough, the machine is suitable for yeast-based dough and generally all baking products using as ingredients: all different types of flours, water, yeast, fats-butter, sugar, flavourings and colourings permitted by the law, salt, liqueurs, and other components for the use of bread dough or pastry products.

Using the machine for other purposes means that the qualified personnel has to modify the machine as well as the present manual.

The high powered motor, the transmission system together with the steel structure, determine its robustness and reliability for professional use. The security devices and electronic equipment complying with the European norms complete the fine features of these machines.

The machine, once loaded with the ingredients, usually water, flour and additives according to the quantities prescribed below, is started up by means of a command and follows a manual or timed cycle for some minutes where a rotating spiral together with the bowl mixes the ingredients together. To take out the mixture, the main switch of the machine must be off, and then it is possible to raise the grid and extract the mixture from the bowl with both hands. A spatula made of plastic, aluminium or wood may be used.

CONDITIONS FOR USE:

Environmental conditions: the machine needs to be installed within a well-lit, well-aired building, on a solid, level support. Temperature between 5 to 40°C with humidity no higher than 90%.

Lighting: the light used by the operator should be suitable for the work in course in relationship to the general lighting, according to the norms and regulations, in any case suitable enough to read the commands, the caution signals and not so light as to bother the operator.

- Vibrations: by using the machine correctly, the vibrations do not cause the appearance of dangerous situations.
- Sonar emissions: 70 dbA normal use.
- Electromagnetic Environment: the machine in question was designed to work correctly in an electromagnetic environment of industrial type.



Explosion risk environment: An atmosphere susceptible to explosions due to local and/or working conditions is defined as being potentially explosive. The machine has not been made for potentially explosive environments.

IDENTIFICATION, OPERATOR POSITION AND DANGER AREAS.

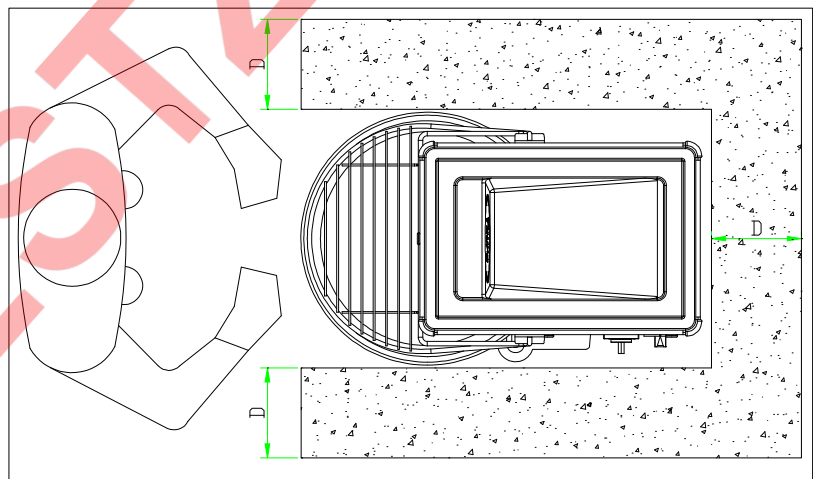
At the back side of the machine there is a plate like the one indicated below. It has the constructor's information, the machine type, the serial number, the electrical features, frequency and power absorption, phase number and year of construction.

The image on the side, illustrates the position of the plate, the operator with respect to the machine and the danger area AS which must be clear from people at a distance of $D = 250$ mm.

Mod.	<input type="text"/>	N.	<input type="text"/>
Hz	<input type="text"/>	Kw	<input type="text"/>
Volt	<input type="text"/>		
CE	<input type="text"/>		

Manufactured in ITALY

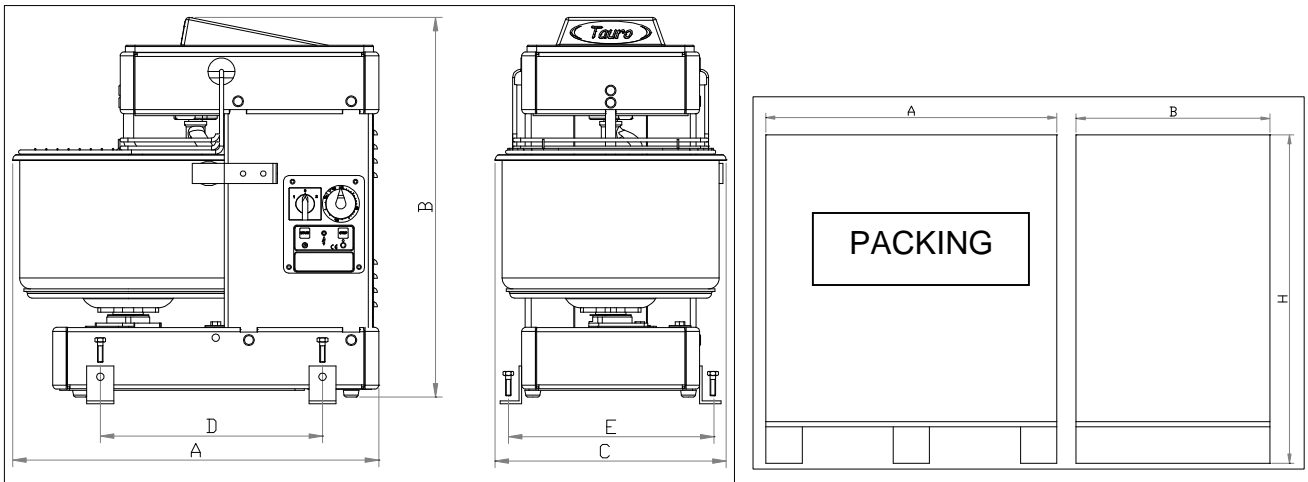
Via Artigianato 85 - 25030 Torbole Cassaglia (BRESCIA) ITALY -
Tel. +39 030 265 04 79 Fax +39 030 265 01 43





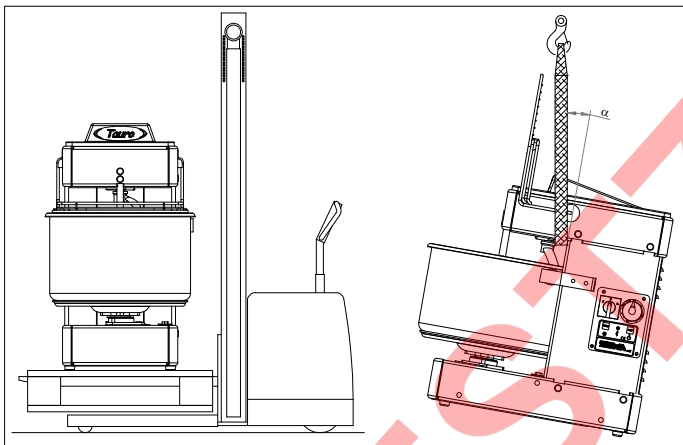
TECHNICAL DATA, PACKAGING, SIZE AND WEIGHT.

There are four packing versions available: machine on a pallet wrapped by cellophane, machine on a pallet in carton, machine on a pallet in a wooden cage, machine on pallet with crate.



Model	A mm	B mm	C mm	D mm	E mm	Weight [Kg]	Tank litres	Power [Kw] 220/50/1 - 1V	Power [Kw] 380/50/3 - 1V	Power (kw) 380/50/3- 2V
Tauro 22	700	700	440			67	29	0.75	0.75	0.8-1.1
Tauro 25	700	700	440			72	32	0.75	0.75	0.8-1.1
Tauro 30	750	700	490			75	41	0.75	0.75	0.8-1.1

PACKING Model	Cellophane + pallet		Carton + pallet		Wooden cage or crate		
	AxBxH cm	Weight [kg]	AxBxH cm	Peso [kg]	AxBxH cm	Weight [kg]	
Tauro 22	850x850x650	76	850x850x650	78	850x850x650	85	90
Tauro 25	850x850x650	94	850x850x650	83	850x850x650	94	100
Tauro 30	850x850x650	84	850x850x650	86	850x850x650	105	110



TRANSPORTATION AND MOVING. Machine with no pallet.



Due to its instability, the machine must be moved by means of an adequate robust band which passes under the head as in the illustration on the right.

Before lifting, raise the grid in a vertical position.

- Make sure that the lifting equipment is suitable for the load; it can operate on a cleared area, and during the moving, keep the load as close as possible to the ground.
- Make sure you have the necessary I. P. D.
- When lifting, the machine turns out to be slightly tilted at about 10-15 degrees.



Lifting norms with elevator trolley: to move the machine always uses a pallet.

Machine on pallet.

- Make sure that the equipment used to lift complies with the load norms.
- Make sure that lifting forks are widened at their maximum, and at the same time, that they stick out of the pallet.
- Operate on an area clear of persons, animals or objects.
- During movement keep the load as close as possible to the ground.
- Make sure you have the necessary I. P. D.

STORAGE:

Storage of the packaged machine:

The machine must be kept in an enclosed place on a smooth, solid surface free from dust and dirt, away from atmospheric agents and in a hygienically safe place.

The temperature must range from -20 and +50°C, the humidity no more than 90%.

Storage of the unpackaged machine.

If the machine has already been unpacked, more than described above, it must be raised from the floor with a pallet or other device and it needs to be covered for protection against humidity, dust and dirt. If you wrap it in cellophane or other plastic, avoid the hermetic closure under the machine to avoid corrosion due to condensate.



CAUTION! Storage outside is not allowed!!

INSTALLATION



The machine has to rest in a vertical position, on a smooth, robust surface suitable for the load (floor resistance over 20 kg/cm²). In case of danger of overturning, anchor the machine to the floor by using 4 plugs or bolts with a traction resistance over 300 kg (M8).



Electrical line connection

The electrical connection must be carried out by a specialized electrician according to the norms and regulations of the country of the installation. Make sure the voltage and the frequency are the same as the machine identification plate. There is a loss of warranty for the wrong electrical connection.



MACHINE CONSERVATION.

Conservation before a long period of non-use

Clean the machine accurately.

Unplug from the electrical plant.

Put it back into the original package if possible.

GUARANTEE CONDITIONS.

Validity: The guarantee begins on the date of shipment and lasts twelve months, if:

- The machine has not been subject to transportation damages, and has been installed, put into use, and undergone maintenance as prescribed by this manual.
- No unforeseen tools have tampered, modified or have been installed in the machine.
- It has not been altered or repaired by the purchaser or by a third party in accordance to the supplier or without prior consent.

The following conditions constitute an improper use of the machine:

- A higher load than the one allowed or use of unsuitable ingredients.
- Cleaning procedure with inadequate tools or things that can scratch the bowl or damage the machine or paint.
- Use of machine in inadequate environments.

The guarantee form

Immediate communication to the supplier must be given in case of machine defects. A quick analysis of the problem will be carried out and together with the purchaser a way of intervention will be taken.

The operator must give the needed time and opportunity, after agreement with the supplier, for the execution of modifications, improvements, repairs or replacements guaranteed, which the supplier deems necessary according to his discretions: on the contrary the supplier is exempt from the defect in question.

Worn out parts

Some components are designed to last much longer than the normal use of the machine or the time of guaranteed. The breaking or the malfunctioning of these pieces depends on the use, therefore they are considered worn out pieces and they are not part of the guarantee, unless there are evident defects on the part in question or on the machine itself.

Worn out parts are: transmission belts, motors, bearings and bowl.



HOW TO USE THE MACHINE.

The machine is commanded from the panel on the right side, reproduced below.

How to start up the machine manually.

- Electronic connection of the machine.
- Bring the TIMER to the ON position by rotating the needle over the 30 minute mark.
- Rotate the speed switch to the 1 or 2 positions.
- To start the machine press START.
- To stop the machine press STOP.



CAUTION: To make the machine function, the grid needs to be lowered otherwise the security systems do not allow it to run.

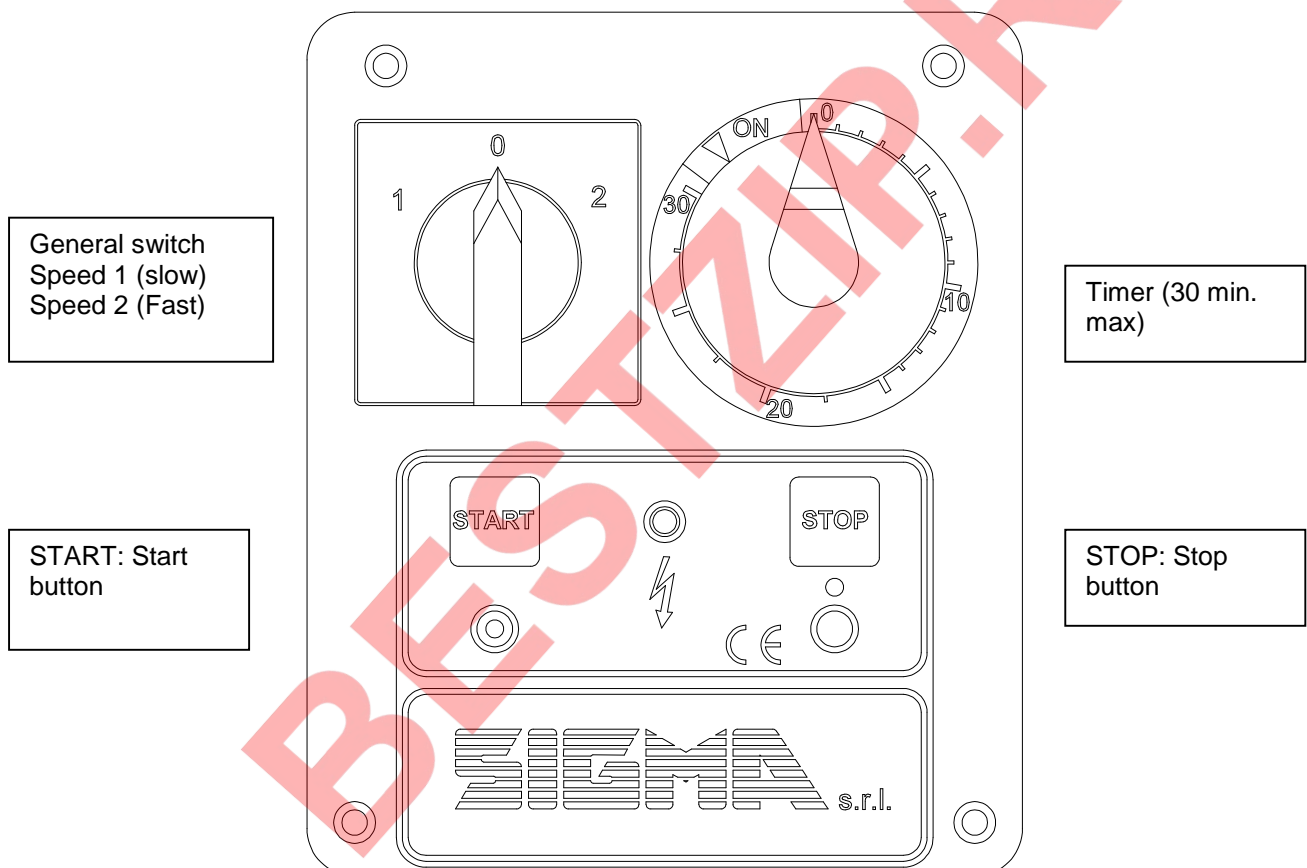


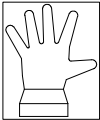
Check the correct rotation sense of the bowl (clockwise, according to the arrow), if it does not work, a qualified electrician is needed.

How to work with the spiral mixer

Rotate the general switch to the I position

- Lower the security grid and bring the timer to the ON position.
- Select the speed required, 1 (slow) or 2 (fast).
- Press the START button: the machine will begin kneading.
- By lifting the protection grid of the bowl the machine is interrupted. To restart kneading, lower the grid and press START.
- To stop the machine at any time press the button STOP.
- To stop the machine after the established time, rotate the TIMER selecting the number of minutes wanted and press START. The machine will start again and stop when the timer indicator goes back to the zero position. Within the selected time it is possible to change rotation speed going from slow to fast by means of rotating the appropriate switch.





HOW TO WORK WITH THE MACHINE.

Now the machine is ready to knead. Follow some simple rules:

- Pour the right amount of water in the bowl.
- Add the right amount of flour, so that the mixture will progressively reach the right consistency. Instead, by adding water to the flour, heaps of flour are created on the bottom and these have to be kneaded longer consequently with danger of damaging the dough.
- Ingredients to add as you please: salt, yeast, oil, etc.

The work-load of the spiral mixer is established by the client. In spite of all the information given on the use of the machine, many problems come about due to improper use. The usage limit is reached not by exceeding the quantity of dough, which is limited by the volume of the bowl, but by the too low percentage of water.

The following table provides a valid indication:

MODEL.	PASTA kg	FLOUR kg	WATER %	WATER litres
Tauro 22	21/22	13	55/60 %	7.2-8
Tauro 25	24/25	15	55/60 %	8.3-9
Tauro 30	29/30	18	55/60%	10-11

The use of gluten-rich flours makes very elastic dough which absorbs a lot of power. In this case, as well as in cases where the dough is with lower water percentage with respect to the table indicated, it is necessary to reduce the maximum kneading capacity of the machine.

CLEANING AND MAINTENANCE PROCEDURES.



SAFETY SYSTEM AND ELECTRICAL PLANT CONTROL

The security systems installed and the electrical plant are subject to periodic checks under the care of a qualified electrician.

Captions of intervals: (INTERVALS)	Captions of the inspection methods: (METHOD)
d= daily. w = weekly. m = monthly. a = annually.	O = observation: just a visual check up required (ex. alarm light) F = Function: physical check up required (ex. push machine emergency button to stop machine) M = Measures: a control with appropriate tool required (ex. Check grounding values).

General switch.

Aim: protection of the electrical supply line.

Function: this equipment separates the machinery from the rest of the network; it is upright below the differential protection board.

Control	
Interval	Method
A	F

Circuit Stop and grid safety micro-switch

Aim: stop the machine immediately and unconditionally. Function: by operating the STOP button or lifting the protection grid the motor supply is interrupted and the motor comes to a complete stop. To get the machine functioning again, the operator must press the START button for the cycle to start again.

Control	
Intervals	Method
m	F

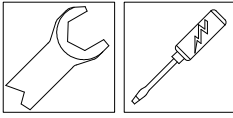
Plant check ups

It is necessary to periodically verify the machine automation and its grounding. How the machine works, the safety functions and the terminal contacts, the integrity of the cables, warning lights and grounding.

Control	
intervals	Method
a	F, M

ORDINARY MAINTENANCE.

DO NOT CARRY OUT ANY MAINTENANCE OR CLEANING WITH THE ELECTRICAL CURRENT ON.



There is no need of any particular maintenance operation. All the bearings and transmission organs are lubricated for the life of the machine. Keep the machine clean to avoid that any flour deposits on the moving parts creating troublesome creaking and irregular wear and tear.



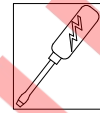
To stretch the belt strap the top covers are to be removed and the motor bolts unscrewed and stretch applying force. Tighten the motor bolts, put back the cover and try the machine out.



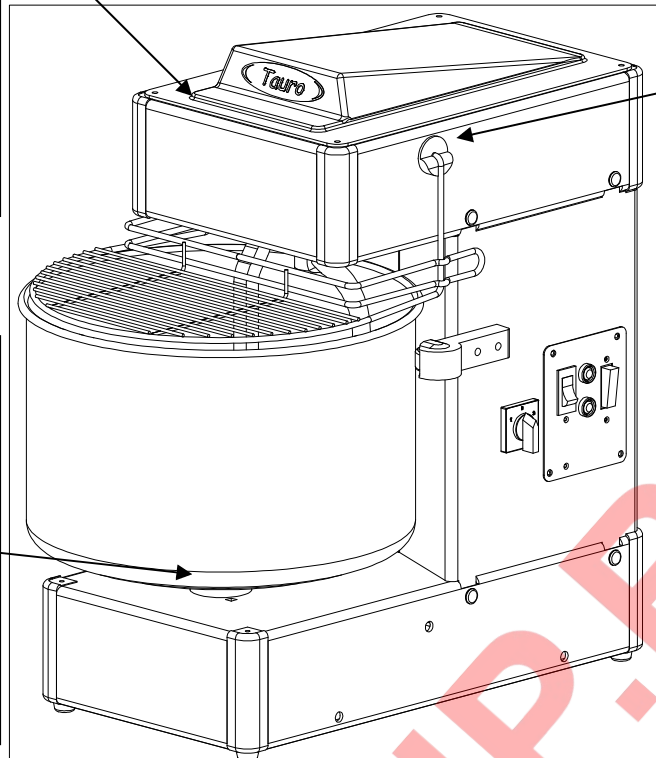
Irregularities of the micro grid: take out the upper protection cover, check the micro, close the cover again and try out the machine.



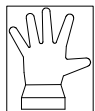
To stretch the lower chain, take out the lower cover (turn the machine upside down) and check the chain stretcher. Put the cover back and try the machine out



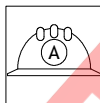
In case of damage of the current cable, replace it with a **H07RN/F** cable having section $3 \times 1,5 \text{ mm}^2$.



EXTRAORDINARY MAINTENANCE:

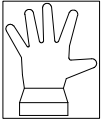


Cleaning: the machine is not spout-proof, cleaning cannot be carried out with running water. Clean with a wet rag and use neutral detergents or degreasers.



For interventions not specifically mentioned in the manual, refer to the authorized personnel from SIGMA SrL. To substitute the motor, electronic cards, or if the machine has fallen, contact our technical assistance department for a house call or factory servicing.

PERIODIC MAINTENANCE.



CLEANING OPERATIONS AND DAILY CONTROL:

- Clean the external surface of the bowl and the tools with a cloth or neutral degreaser.
- Check the operation and emergency commands.

MONTHLY AND ANNUAL MAINTENANCE OPERATION.



Monthly maintenance:

- Careful cleaning of the machine.
- Check up of the operation and emergency commands.
- Check the external components of the machine: tools, bowl, protection grid.
- Check the transmission noise level.

Annual maintenance:

- Careful cleaning and complete machine check up..
- Careful check up of the transmission organs.
- Complete machine check of well-tightened bolts.

Bolt tightening.

	M6	M8	M10	M12	M14	M16
machine screws (8.8) [Nm]	9.7	23	47	80	130	196
contrast pole screws (10.9) [Nn]	13.6	33	6	113	180	275



- Installed security system control.

SPARE PARTS

The SIGMA SrL Company reserves the right to follow all the modifications it deems opportune for its machine models. It is always necessary to specify the following:

- Machine type
- Registration number
- Construction year
- Position, description, item code and desired quantity of pieces requested

Write to: Sigma SrL via Artigianato 85, 25030 Torbole Casaglia (BS) Italy

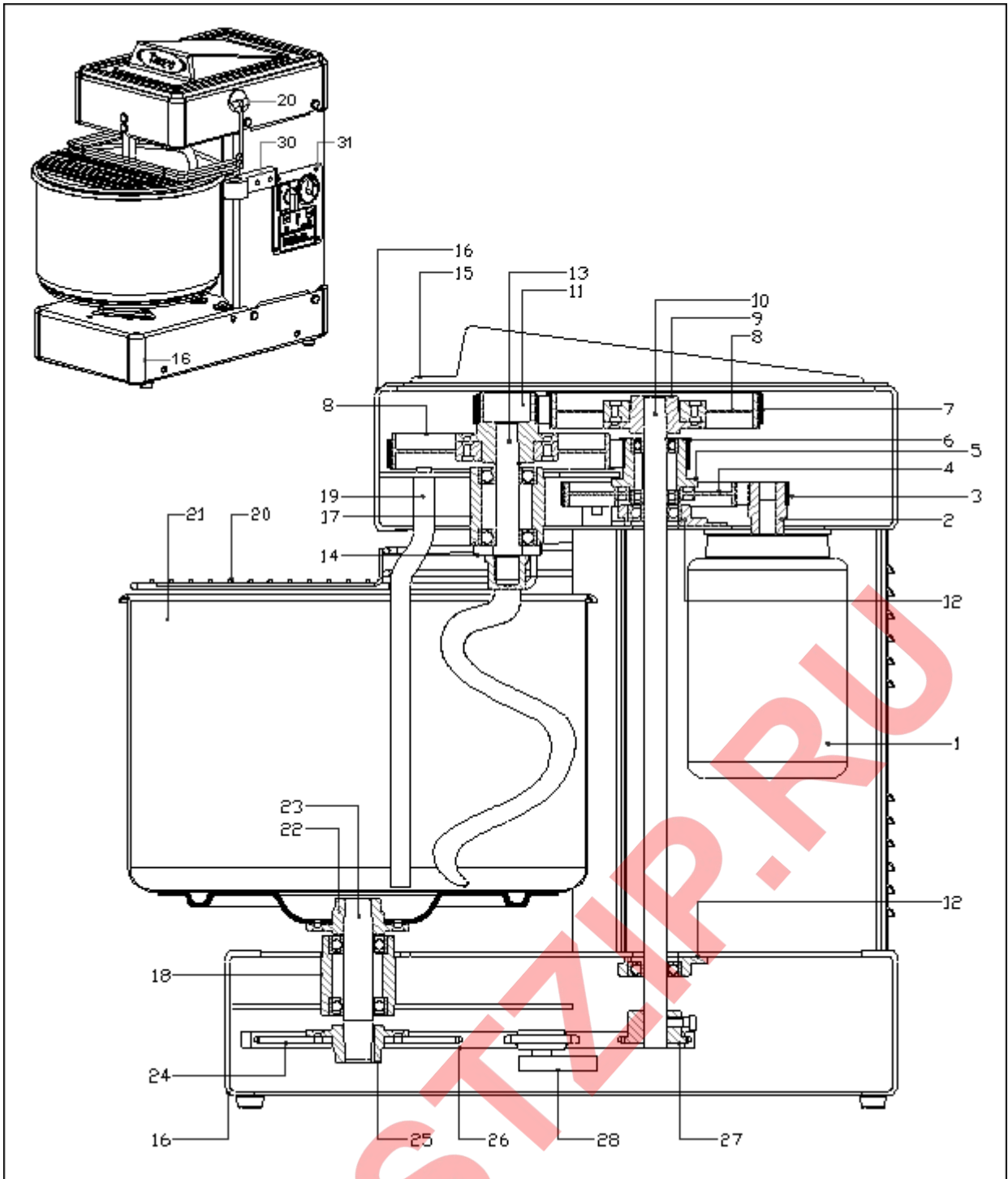
MAIN COMPONENTS:

- Raw materials used: the machine is practically made entirely of steel, cast iron, brass and plastic material. All these components are easily disposable and do not represent a danger for environmental pollutions and/or for personal safety. Separating the different material for recycling is advisable.
- The electrical plant can be dismantled and disposed through a specialized firm.
- Surface treatment: painting of the metal surfaces with compatible products for food use.
- The Sigma packaging comply fully to the Directives 94/62/EC and by the Legislative Decree 05/02/97 n. 22 (and successive modifications and integrations) and thus become waste that easily fits to any public recycling program.

DISMANTLING AND DISPOSAL:

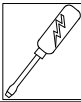

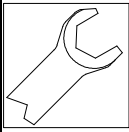
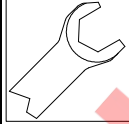
The purchaser is the sole responsible when the machine no longer works and has to follow the local norms and regulations. The dismantling of the mechanical and electrical pieces has to be entrusted to the competent personnel.

LIST OF SPARE PARTS

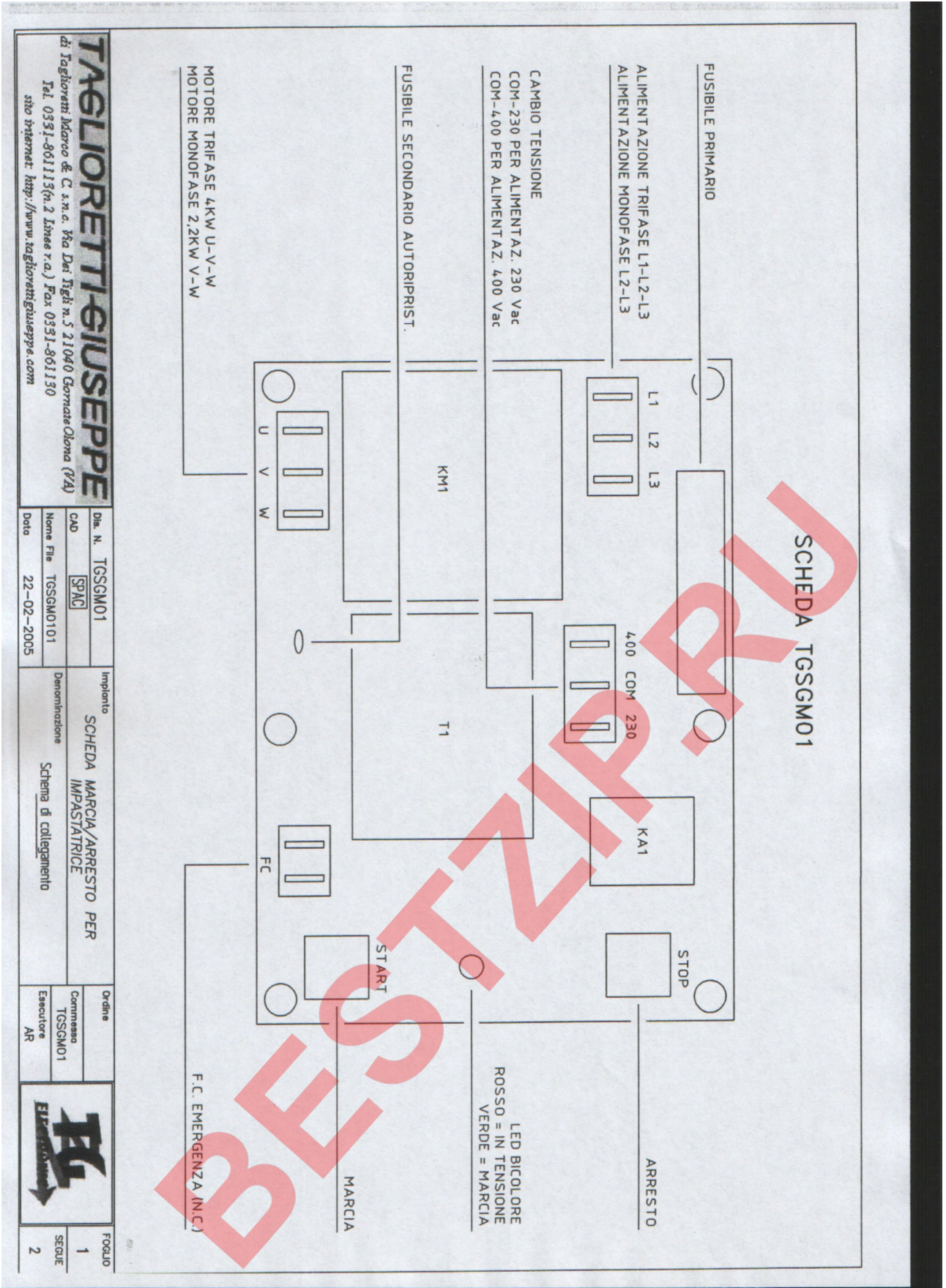


Nr	Code	Type	Qta	Description
1	11000512 11000415 11000801	Tauro 22/25/30	1 1 1	MOTOR 0,75 Kw 230-400V 50 Hz 2 POLES THREE PHASE MOTOR 0,75 Kw 230V 50 Hz 2 POLES SINGLE PHASE BROOK MOTOR 1.1/0.8 Kw 380V 50 Hz 2/4 POLES 2 speeds
2	01172003 01172005	Tauro 22/25/30	1	MOTOR PULLEY 1 SPEED MOTOR PULLEY 2 SPEEDS
3	12003952	Tauro 22/25/30	1	MULTIGRIP BELT "10 TB2 630"
4	01165017	Tauro 22/25/30	1	PULLEY 179 WITH GOLE TB2
5	01164011 13000304	Tauro 22/25/30	1 2	TOOTHED HUB Z22 8MM WITH BEARINGS SEAT BEARINGS 6004 2RS 20-42-12
6	12003908	Tauro 22/25/30	1	TOOTHED BELT 720 8M H=15
7	12003918	Tauro 22/25/30	1	TOOTHED BELT 720 8M H=24,5
8	01144063	Tauro 22/25/30	2	TOOTHED PULLEY Z=80
9	01147042	Tauro 22/25/30	1	HUB HOLE 20
10	01164016	Tauro 22/25/30	1	RETURN SHAFT
11	01164012	Tauro 22/25/30	1	TOOTHED HUB Z22 8M HOLE DIAM.20
12	13000315	Tauro 22/25/30	2 2	NYLON SUPPORT BEARINGS 6204 2RS 20-47-14
13	01181002	Tauro 22/25/30	1 1	SPIRAL SHAFT SPIRAL
14	01164025	Tauro 22/25/30	1 1	BEARINGS PROTECTION
15	03181003	Tauro 22/25/30	1	UPPER COVER
16	01078156	Tauro 22/25/30	8	CORNERS FOR SHOULDERS
17	13000325	Tauro 22/25/30	2	BEARINGS 6304 2RS 20-52-15
18	01165029 13000316	Tauro 22/25/30	1 2	BEARINGS HOLDER BEARINGS 6205 2RS 25-52-15
19	01172006	Tauro 22/25/30	1	CONTRAST POLE
20	05172007 05147011 05164020 01150019 01150018	Tauro 22 Tauro 25 Tauro 30 Tauro 22/25/30 Tauro 22/25/30	1 1 1 2 1	PROTECTION GRID PROTECTION GRID PROTECTION GRID PROTECTION SUPPORT CAM FOR MICRO
21	04152042 04047035 04164022	Tauro 22 Tauro 25 Tauro 30	1 1 1	BOWL BOWL BOWL
22	01144045	Tauro 22/25/30	1	HUB HOLE 25
23	01164017	Tauro 22/25/30		BOWL SHAFT
24	01047007	Tauro 22/25/30	1	TOOTHED WHEEL 3/8"X7/32" Z=59
25		Tauro 22/25/30		HUB
26	12000338 12000319	Tauro 22/25 Tauro 30	1 1	CHAIN 3/8"X7/32" PITCH 100 CHAIN 3/8"X7/32" PITCH 104
27		Tauro 22/25/30	1	PINION 3/8X7/32 Z=70
28	01180006 01180008 13000322	Tauro 22/25/30	1 1 1	CROWN STRETCHING BLOCK BEARING 6300 2RS 10-35-11
29	14002602	Tauro 22/25/30	4	BLACK RUBBER
30	01150023 01150071 17000011	Tauro 30 Tauro 22/25 Tauro 22/25/30	2 2 2	LATERAL WHEEL SUPPORT LATERAL WHEEL SUPPORT POLYAMID WHEEL 6 40X20
31	25001486	Tauro 22/25/30	1	ELECTRICAL PANEL

MACHINE BLOCK AND NECESSARY REMEDIES

FUNCTIONING IRREGULARITIES	POSSIBLE CAUSES	REPAIR
Rotating the main switch in position, the warning light does not go on.	1) The plug may not be inserted correctly or the wires are detached.	1) Check connection. 
By pressing the START button the machine does not start.	1) The protection grid is open 2) Irregularities in the safety micro-switch.	1) Rotate and re-position in the closest position. 2) Substitute the micro-switches. 
Continuous noise.	1) Verify the efficiency of the bearings.	 1) Substitute bearings.
The tool does not carry out its normal revolution around the tool shaft.	1) Loose belt. 2) Worn out belt.	 1) Stretch the belt. 2) Substitute the belt.

BESTZIP.RU



BESTZIP.RU