

**Masonry Saw
CN600**

Impact Test Equipment Ltd
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User Guide
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1. INTRODUCTION

1. These operating instructions are intended for the user of the machine and the person responsible for safety procedures. Keep a copy near the machine.
2. Only skilled operators should use the machine, after studying this manual.
3. The operator who will use the machine must be trained in the correct operation of the unit, above all about the safety device that must be always assembled and checked daily; the operator can choose where the machine will be sited, taking care to put it on a solid and smooth base protected from the weather (cover the machine with a nylon sheet when not in use).
4. The cutting machine is manufactured according to the following standards:

DPR 27.04.55 N.547
D L 12.08.91 N.277
EN 60204/1 (10/93) CEI 44.1 IIE
EN 2921 (91) UNI EN 292-1°
EN 2922 (91) UNI EN 292-2°
EN 294
EN 349

2. LIFTING

1. For lifting the machine: two people are necessary for a small move, using the base under the tank or inserting the forks of a lift truck under the tank (17) (the machine will keep perfectly balanced). If it is lifted by a hook, use two belts and wrap them around the machine.

3. INSTALLATION

1. The cutting machine has the cutter block arbor (28) that has been lubricated is packed with protective soft materials (carton or sponge rubber) and band-wrapped with cellophane and adhesive tape. The machine does not usually suffer damage in transit because of its strong frame. However, after unpacking, please check that the machine is upright and undamaged.
2. The machine has a welded frame (17), fitted with the tank, four legs, the support on which the plan rotates and where the engine (1) and the cutter arbor, that are connected together by the trapezoidal belts (25), must be placed. The sliding table (19) is put into the tank during the transport. A sliding arm (6) with a keeper by two bolts (8) is situated on the machine; this arm allows positioning the disk at the required height.
3. The cutting machine is completely assembled, except for the sliding table. This must be positioned with the four wheels on the two bars. The keys (for the disk (32)) and the square 90° or 45° (21) are supplied with the machine. The machine has been tested before the dispatch.
4. The cutting machine must be earthed and all safety devices that automatically stop the current must be set up on the machine. If these procedures are not properly followed, the manufacturer cannot be held responsible for any malfunction or misuse.

5.

If the disk (34) chatters after starting, check that the diameter of the central hole is exactly 25 mm, that the disk is not defective and that there are not any impurities in the flange. Disks that have been damaged or that are without the plates (one is enough) must be replaced immediately.

It is possible to use carborundum or any diamond disks, provided that they are water-cooled disks.

6. The sound pressure level at the driver seat dB (A) is 93,2.
The sound pressure level in dB (A) atmosphere is 91.8.
The sound power level dB (A) is 105,4.
The averages have been calculated using different types of materials cut by a diamond disk.
The operator must use proper ear plugs, or ear defenders in order to decrease noise of operation.

4. WORKING MATERIALS

1. The cutting machine is suitable to cut cement, marble, granite, bricks, tiles, tufa, refractory materials in general, with water cooling. It is very easy to use; the machine is operated by using the handles on the carriage to advance the sample onto the cutting blade (19).
The machine must be set up for cutting with the motor switched off; after placing and fixing the sample, switch on the main switch (39) and push the handles slowly with both hands, without straining the engine, otherwise revolution speed will slow down, reducing the cutting effectiveness ; the push is characterized by a varying strength depending on the thickness of the material.
2. Do not under any circumstances try to use this machine to cut wood, polystyrene, glass wool etc.
3. Technical features:

	CN600	
BLADES UP	Dia. 450	
HEIGHT	1390 mm	
LENGTH	1200 mm	
BREADTH	700 mm	
CARRIAGE DIMENSIONS		
BREADTH	550 mm	
LENGTH	500 mm	
CARRIAGE TRANSLATION	500 mm	
DISK	450 mm	
DISK DIA.	25 mm	
MAX ROTATION SPEED OF THE DISK	2200 revolutions	
MAX CUTTING THICKNESS	150 mm	
MAX CUTTING LENGTH	450 mm	
TOTAL WEIGHT	130 Kg	
MOTOR POWER SINGLE-PHASE	2,5 Hp	
VOLTAGE		

N.2 phase 50 Hz 220 Volts + (10%)

ELECTRIC MOTOR

Single-phase 220 Volts 1,8 KW (2.5 Hp) ass. A 14,5

1. Suggested operating temperature is between 4° and 41°C with a maximum humidity of 90%.

5. USE

1. Before operation check that the carriage moves freely and that the tank is clean so that the pump is able to supply the right quantity of water to the disk for cooling.
2. The operator must wear proper protective equipment, such as gloves, protective shoes, safety glasses, ear defenders etc.
3. Ensure that no one stands next to the machine during operation; keep a distance of 1.5 metres free around the machine. Before starting, check that the electric cable is not damaged, rolled up or left on the ground near water.
4. Do not connect the machine to the electricity supply until all preparations and precautions have been made. Check that there is an earth system with a proper safety device. On the front leg of the machine, there is a copper-plated bolt to which the additional ground clamp must be connected, using a 16mm copper cable. The automatic stop safety devices for electric current must be in conformity with the standards CEI 64.8. The cable must be a suitable one (check the length and the section); do not use over long cables.
5. DO NOT UNDER ANY CIRCUMSTANCES work with the machine if the safety guard is open or lifted. This is to protect the operator. It is not possible to cut pieces with bigger dimensions than the ones indicated. The machine is water-cooled and shouldn't give out any sparks; however it is better not to use it near inflammable or gaseous substances. The working place must be sufficiently well lit and the operator must pay attention where he is leaning his hands, at all times keeping them away from the disk when it is rotating or during the cutting phase. When the machine is not working, the tap must be taken off.

6. MAINTENANCE

1. The assembly and maintenance, use and the repairs must be carried out according to the instructions in this manual, otherwise the manufacturer won't be responsible for any faults or problems with the cutting machine.
2. All repairs must be carried out by skilled staff or by an authorised reseller; if these conditions are not followed, the operator will be held responsible for all consequences. The same applies if original spare parts are not used. Pay particular attention during maintenance of the electrical system; only qualified staff should carry this out, using original parts.
3. For mounting or replacement of the disk, it is necessary to:
 - unscrew the nut (57) and rotate the disk cover device upward;
 - unscrew the nut that tightens the disk (36);
 - take the flange off (35) and insert the disk (always with 25mm diameter central hole);
 - check that the rotation direction of the disk is the right one (see the arrow);
 - mount the flange again(35);
 - tighten the nut;
 - rotate the disk cover device downwards and tighten the nut using the proper key;
 - finally, check that the disk safety guard moves up and down in the right way, totally protecting the disk.
4. The cutting machine is fitted with a magnetothermic switch with a release coil at the minimum tension (39). In case there is a tension break, the switch cuts out automatically and the engine will start working pushing the switch again. Also if the tension is irregular (higher or lower) the switch will cut out as the engine is protected by the heat overloads. In this case, wait for it to cool before switching on the machine. For the calibration of the magnetothermic device, switch the machine off, adjust the trimmer by using a small screwdriver, after taking the switch cover off.

The electric pump (44) is positioned on the tank, and it has a shaft of 120mm. Its extremity must always be in the water, and its level will always be same as the tank level.

5. At the end of every working day:
 - clean the water tank and the pump;
 - clean the sliding table (19);
 - check the belts (25): they must be always tight;
 - the electric cables must not be damaged or cut;
 - check the main switch (39);
 - check the disk (34);
 - every ten days verify that the cutter arbor is always well lubricated (check that there is not any oil dripping);
 - check the state of the overall finish: do not let any parts become rusty;
 - if it happens, repaint totally or partially the machine with a proper enamel.

ATTENTION

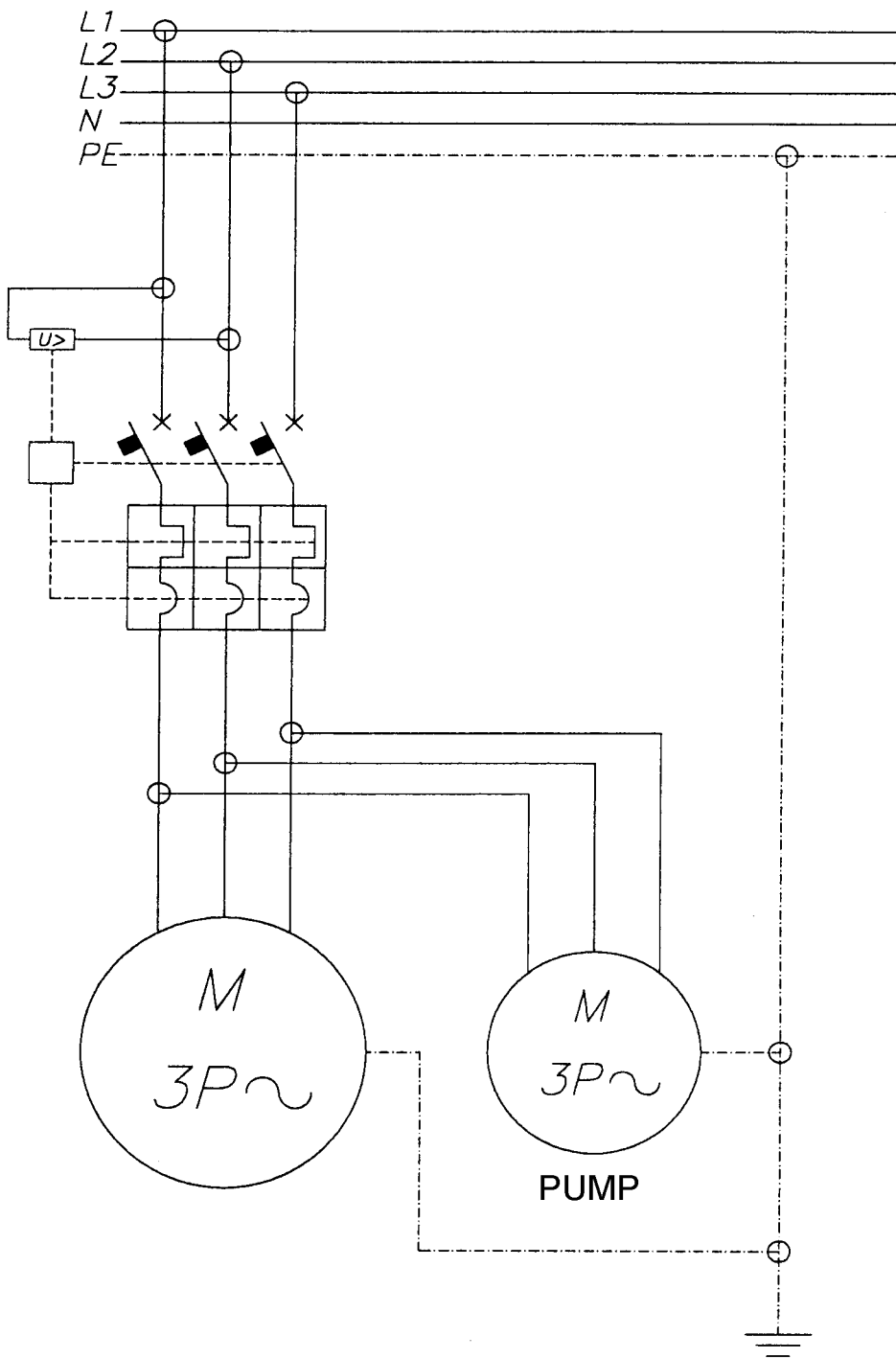
ANY DAMAGE CAUSED BY IGNORING THE ABOVE INSTRUCTIONS IS NOT THE RESPONSIBILITY OF THE MANUFACTURER.

7. STORAGE

1. In case the machine is stored for a long time, disconnect it, empty the tank and cover all parts that could be damaged by dust (engine, pump, wheels, carriage).
Lubricate all parts that could be damaged by drying out.

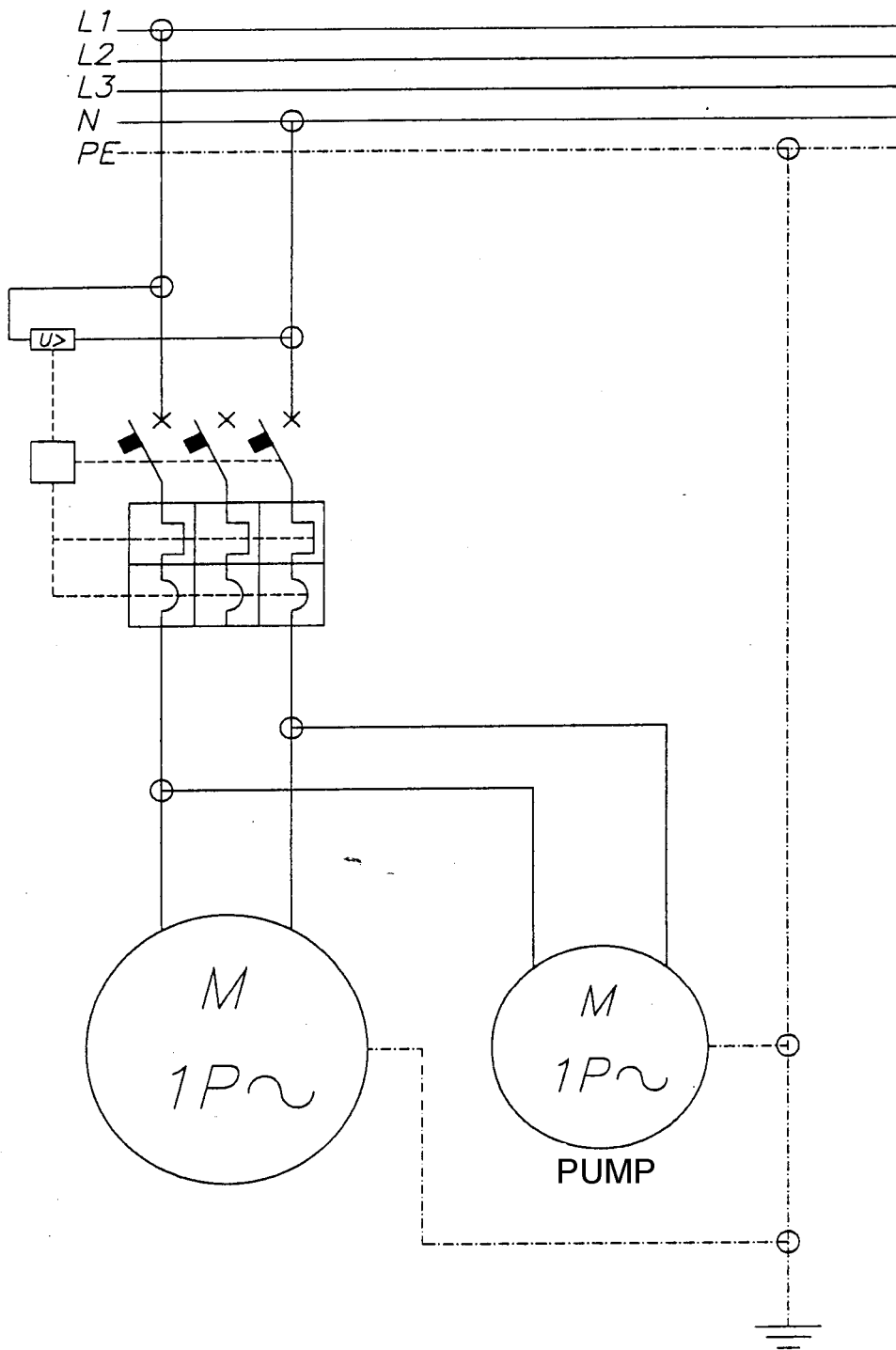
8. DISPOSAL

1. If the machine is no longer in use, make it inoperative, taking all the electric parts and the ones that could be dangerous off. We suggest to removing the motor, pump and the disk, even if it is worn. Dispose of the machine as iron scrap in the appropriate manner.



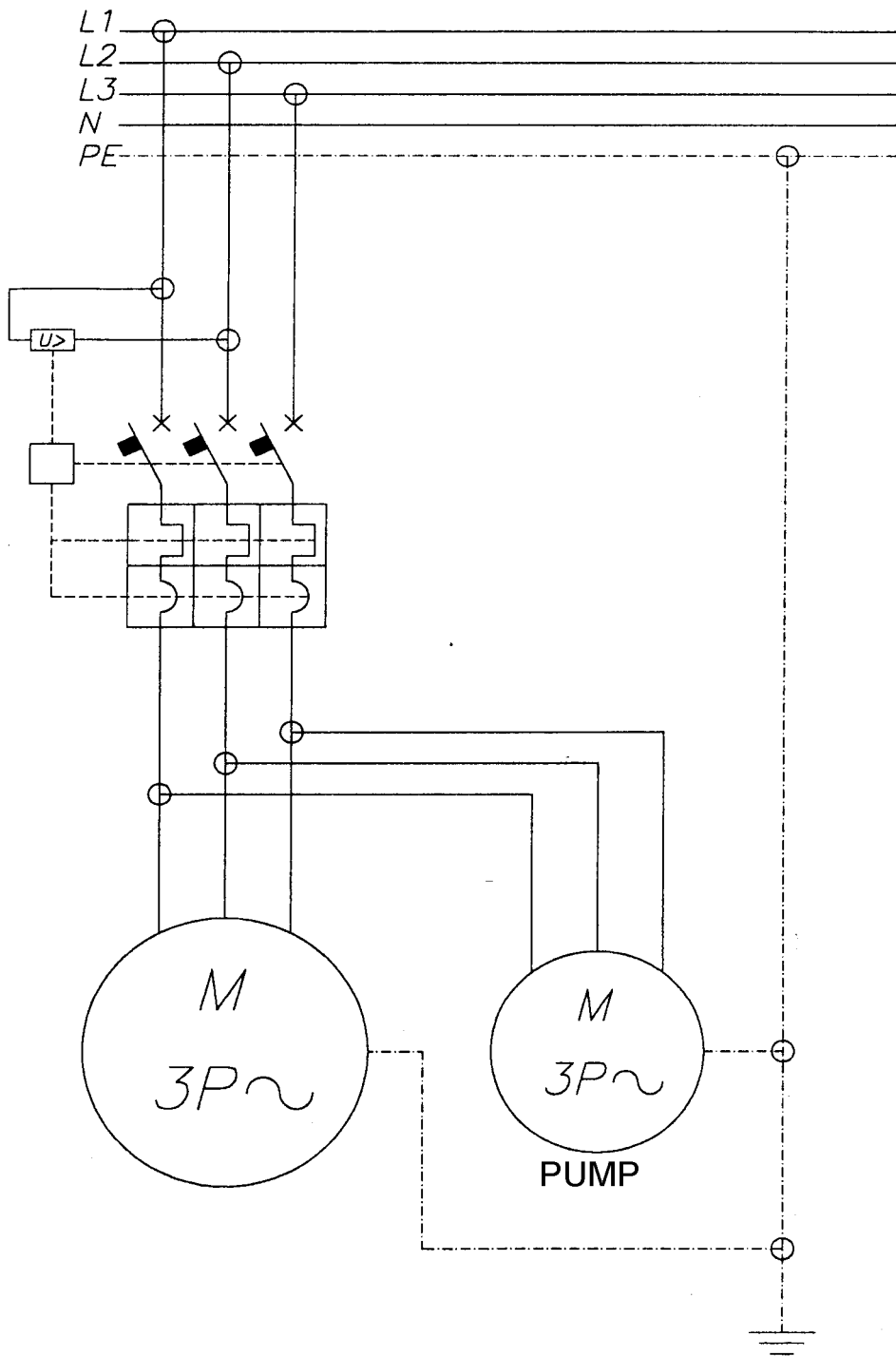
WITH MAGNETOTHERMIC PROTECTION
AND MINIMUM TENSION COIL

($P = 2,2 \text{ kW} \quad 3 \text{ HP}$)



WITH MAGNETOTHERMIC PROTECTION
AND MINIMUM TENSION COIL

($P = 1,8 \text{ kW}$ $2,5 \text{ HP}$)



WITH MAGNETOTHERMIC PROTECTION
AND MINIMUM TENSION COIL

($P = 3 \text{ kW}$ 4 HP) ($P = 4 \text{ kW}$ 5,5 HP)

