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GENERAL NORMS	ENGLISH
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Thank You for purchasing our Dishwashing Machine.

Perfect washing-up results as far as hygiene concerns and a correct operation of the dishwashing machine can be assured only in case the instructions reported in the present manual are carefully followed.

We hope the information reported in the present manual will be helpful to You.

They are based on data and on our best updated knowledge.

Carefully read the Instructions reported in the manual, recommendations and suggestions included.

Carefully read the terms of sale too, even the ones limiting warranty.

REMARQUES GENERALES	FRANÇAIS
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Nous Vous remercions de Votre choix lors de l'achat de votre LAVE-VAISSELLE.

Le fonctionnement parfait de l'appareil et les résultats de lavage optimaux sous le profil hygiénique sanitaire, peuvent seulement être garantis si tous les avertissements dans ce manuel-ci sont respectés.

Nous souhaitons que les renseignements contenus dans ce manuel vous soient utiles. Ils sont basés sur les données et sur notre meilleure connaissance actuelle.

Lisez attentivement ce qui est énoncé dans le manuel, y compris les recommandations et les suggestions.

Lisez aussi les conditions de vente, y compris celles qui limitent la garantie.

INTRODUCTION AND SAFETY NOTES

ENGLISH

INTRODUCTION

- **The machine L25 is an Industrial dish-washing machine .**
- The machine is in conformity to the **European Norms 89/336/CEE** for the radio noises.
- According to EEC directive no.23 of 19/02/1973 and the law of actuation no.791 of 18/10/1987, our appliances are built-up according to the good technique notes in force in Italy and abroad.
- Noise level of the machine, less than 70 dB(A).

PRELIMINARY OBSERVATION

Carefully read the instructions reported in the present user manual, as it gives important indications about safety of installation, operation and maintenance:

- **carefully keep the present manual for further consultations;**
- the illustrations and drawings showing the machine are intended for general reference only and are not necessarily accurate in every instance;
- the dimensions and characteristics of the machine, given in this Manual, are not to be considered binding and may be changed without prior notice;
- once removed the packing material, check that all the equipment is present. If there is any doubt, do not use it and contact qualified personnel. The packing elements (plastic bags, nails, etc.) should be kept away from children, because they are dangerous.

GENERAL SAFETY REGULATIONS

THIS SAFETY CODE HAS BEEN COMPILED IN YOUR INTEREST. Strict adherence to these rules will reduce the risks of injury both to yourself and to others;

Personnel working with this machine must adhere strictly to all statutory safety regulations as well as the specific rules listed below. Failure to do so may result in personal injury and damage to the machine;

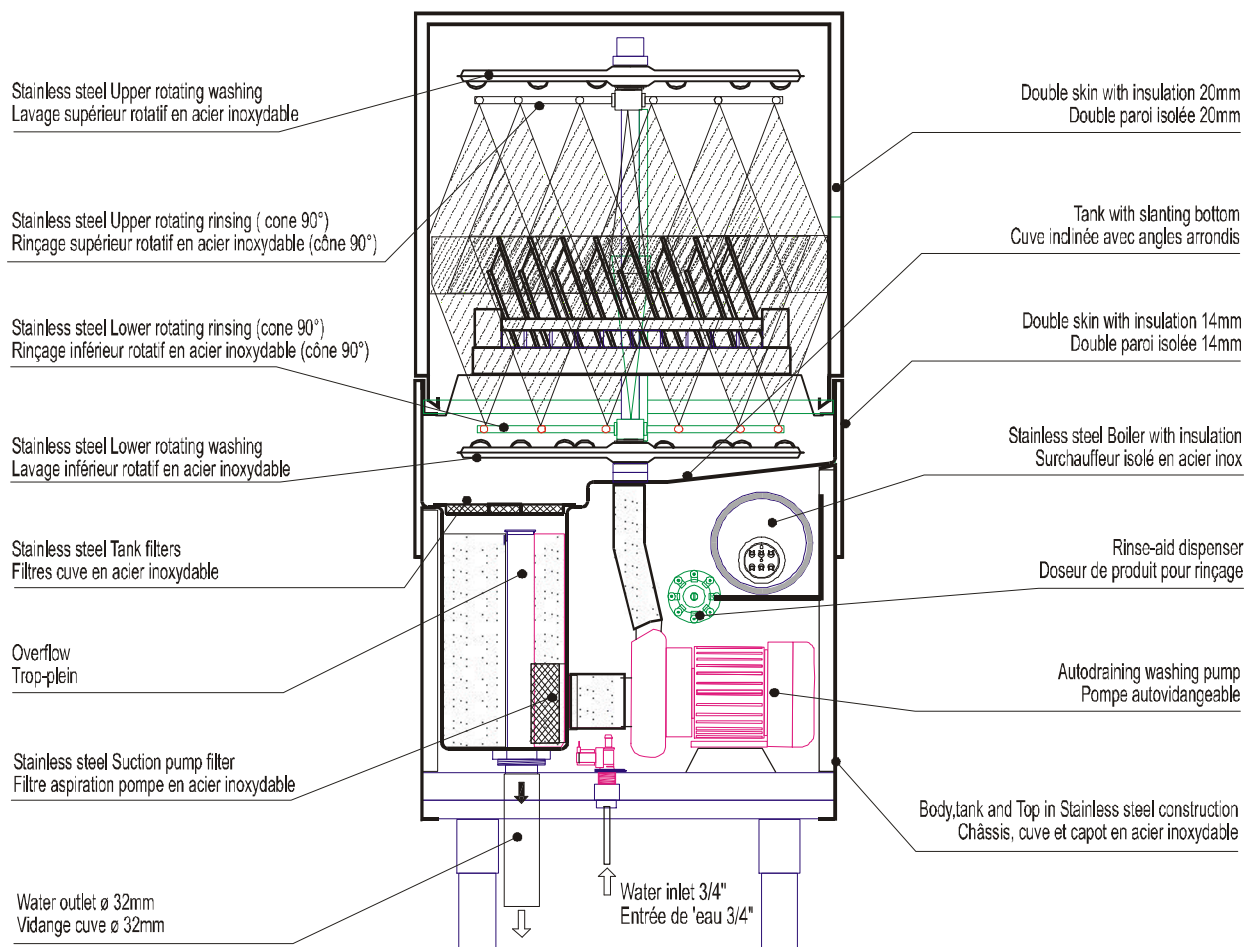
- DO NOT attempt to move, install, set up or operate this machine until you have read and fully understood this Manual. If doubt persists, ask your supervisor;
- never leave tools, parts or other loose material on or in the machine;
- Before switching the equipment on, make sure that the model plate data conform to those of the electrical and water distribution network;
- remember that even with the mains indicator in the "OFF" position, the incoming cables are still live;
- BEFORE starting the machine or the cycle, after any maintenance or repair work, make sure all protective are correctly installed;
- be vigilant at all times, remember that your safety and that of your fellow workers depends on you;
- when moving or lifting the machine, care must be taken to comply with all the relevant regulations governing such operations;
- installation should be carried out by qualified personnel according to the manufacturer's instructions.
- this equipment should be destined to the use which it has been conceived for. Any other application should be considered improper and consequently dangerous;
- the equipment should only be used by personnel trained for its use;

SPECIAL SAFETY REGULATIONS

- adjustement and repairs must be carried out only by qualified personnel. Repair carried out by unskilled personnel may be dangerous;
- perfect washing-up results as regards hygiene and a correct operation of the washing machine can be assured only in case the instructions reported in the present handbook are carefully followed;
- the machine must be used only by authorized personnel who must comply with sanitary measures;
- do not leave the machine in an environment with temperatures lower than 0°C;
- the machine protection degree is IP21, therefore it should not be washed with direct high pressure jets of water;

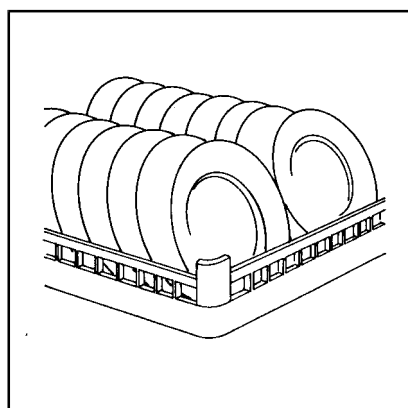
Learn to use the appliance Faites connaissance avec l'appareil

L25



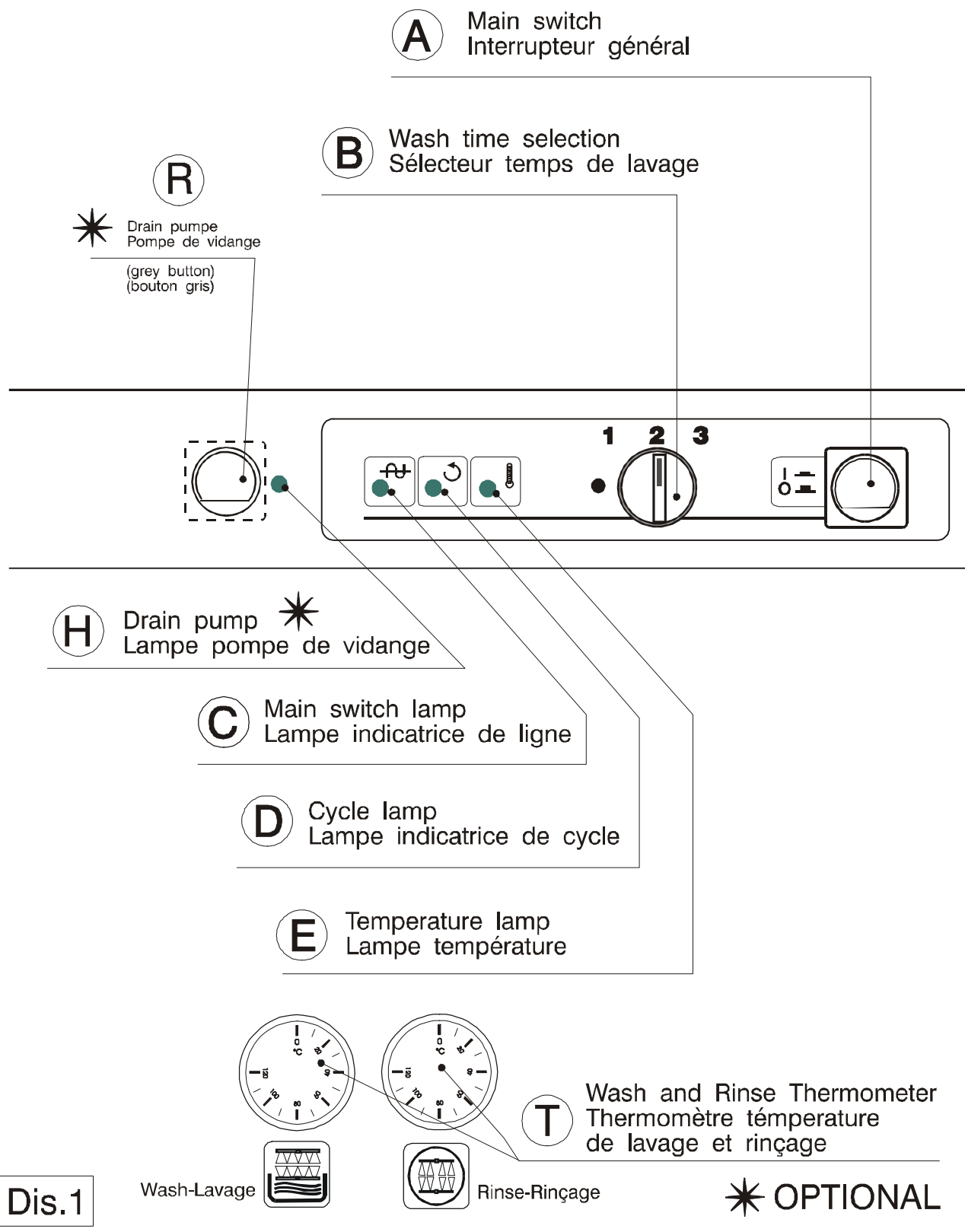
INSTRUCTIONS FOR THE USER

INSTRUCTIONS POUR L'UTILISATEUR



1

CONTROL PANEL PANNEAU DE CONTRÔLE



First Section - FOR THE USER

WORKING AND USE

The dishwashing machine L25 can wash up to 540/1080 dishes per hour.

The machine protection degree is IP21, therefore it should not be washed with direct high pressure jet water;

The objects to be washed should be correctly arranged for a good washing-up result;

We suggest to descale dishes, from time to time, in order to remove calcareous and/or starchy sediments by soaking it in suitable solutions suggested by your cleansing agent supplier.

If you need to buy new dishes remember the following: Dishes and cups: preference must be given to china or non-porous pottery articles, with smooth surface. Glasses: choose a glass suitable to be washed in dish-washing machines. Surfaces must be smooth and bottoms as flat as possible.

OPERATION BEFORE WORKING

BEFORE STARTING THE WORKING OPERATION MAKE SURE THAT:

- the cock is open;
- the filters and the overflow are in their housings;
- the wash arm and the rinse arm are free to pivot;
- Rinse aid and washing powder dispenser containers are loaded.

THEN PROCEED:

A - Open the door and put into the tank, possibly over the pump-filter, about **110** gr. of detergent in powder. If the machine is provided with an automatic dosing device, make sure that the detergent is in its container.

B - Place the dishes in the basket minding to previously remove all solid waste and fat. Do not overload baskets, dishes must not be placed one upon the other, water must have the way to run on each part of it.

C - Turn the machine on by wall switch and push the switch "A" to the ON position. The green lamp "C" becomes lighted and the machine loads automatically (with closed Top).

D - Put the basket into the machine and close the Top .

E - Choose the washing period cycle between 1 and 2 minutes turning the selector "B" (1:60 seconds - 2:90 seconds - 3:120 seconds). Usually 90 seconds.

F - Close the dishwasher Top.

The green lamp "D" will light up and the cycle will start. Besides the washing, the cycle includes a five-second-stop and a fifteen-second-rinsing with clean water at 82°-90°C. At the end of the cycle the lamp "D" will go out.

Note: Bear in mind that the opening of the top interrupts the cycle and therefore the machine at any moment. Practically, the opening of the tank works as an emergency device.

G - Take away the basket and repeat the operation "F".

Every 10 cycles add about **75** gr. detergent.

In order to make washing keep on, load another basket and close the Top. The cycle will automatically start again.

ACHIEVEMENTS

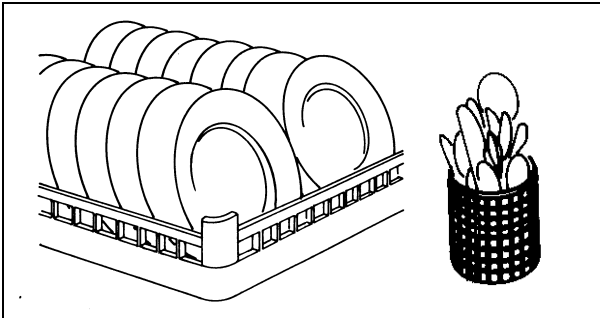
Any deficiency in the washing process is obvious when dirty residuals are visible. Any halos might be caused by an insufficient rinsing: in this case, check that the rinsing jets are clean and that there is a sufficient pressure in the water distribution network.

In case you find residuals, check that:

- the washing jets are clean
- there is some detergent
- the pump suction filter is clean
- objects in the rack are placed in a correct position.

DISHES POSITIONING

It is suitable to place dishes inside the plastic basket with the concave side facing upwards. Place mixed cutlery in a vertical position into the suitable container minding not to cram them and whit handgrips towards the bottom (see draw).



CLEANSING AGENTS

Choice of the suitable cleansing agent is an essential condition if you want to obtain extremely good washing results as regards hygienic results. That's why it's important to consider some points. First of all only highly alkaline and chlorine-active antifoam products, especially made for industrial dish-washing machines, must be used and they must be produced by well-known reliable Firms. Mean concentration of the cleansing agents in powder must be 1,5÷2,5 g/lit. Mean concentration of liquid cleansing agents must be 2÷4 g/lit.

In order to avoid scales and corrosions, put cleansing agent above water level on the nearest area of the sucking pump filter, in this way it will immediately dilute and will not deposit on the tank bottom.

RINSING ADDITIVES

To grant a perfect rinsing, a quick drying and to avoid calcareous sediments on glasses and cups you must add a surfactant on water (Brightener).

Your cleansing agent supplier's will be able to suggest the most suitable product. Your machine is equipped with a rinse aid dispenser. Mean concentration used is 0,15 g/lit.

DRAIN PUMP INSTRUCTION

(only for machines with drain pump)

The drain pump automatically starts up at each cycle to discharge the exceeding water coming from the rinsing cycle.

In order to completely discharge the tank it is necessary to perform the following operations:

1. Switch the machine main switch "A" off;
2. Remove the overflow from the tank;
3. Soon afterwards press the drain pump pushbutton "R" (the lamp "H" is lighted).

After the water has completely flowed down, press the drain pump pushbutton "R" to switch the pump off.

WARNING!

DO NOT FORGET THE PUSHBUTTON "R" ON "ON" POSITION; THIS CAN CAUSE DAMAGES TO THE PUMP.

CLEANING AND PREVENTIVE MAINTENANCE

PRECAUTION AND CLEANING INSTRUCTIONS

- **IMPORTANT** : Before carrying out the cleaning and maintenance operations, disconnect the equipment from the mains power supply;
- high temperatures can be reached inside the machine (90°C). After power supply has been removed, wait until the machine has reached room temperature, before working on it.
- the machine protection degree is IP21, therefore it should not be washed with direct high pressure jets of water;
- never leave tools, parts or other loose material in or on the machine;
- BEFORE starting machine or cycle, after any maintenance or repair work, make sure all protectives are correctly installed;

DAILY MAINTENANCE

- Disconnect the machine with pushbutton "A";
- Lift the overflow pipe and let the water drain out of the tank;
- Wash thoroughly the tank and the filter housing to remove all impurities;
- Take the filters out and clean them under running water;
- Re-assemble the overflow pipe and the filters in their housings;
- Check and clean the washing and the rinsing jets;

- Clean the outer surface of the machine by using a wet sponge; do not use water jets because, besides being dangerous, they could damage the electrical parts; do not use abrasive detergents;
- When the machine is to remain idle for a long time, drain all the water from the boiler (the drain plug is located on the lower side of the boiler) and from the electropump. Also leave the wash tank open.

NEVER WASH THE EXTERNAL PART OF THE MACHINE WITH A WATER JET

POSSIBLE TROUBLES - CAUSES - SOLUTIONS

PROBLEMS	CAUSES	SOLUTIONS
The machine doesn't catch	Main switch is switched off;	Turn ON the main switch;
The water doesn't go in	Water cock closed;	Open water cock;
	The Overflow is not in place;	Reassemble the Overflow in place;
Insufficient Washing	Wrong detergent or dosage insufficient;	Use anti-foam detergent in the right dosage and never with cold water;
	Low temperature in the tank;	Wait until the water gets hot;
	Dirty wash filter;	Clean filter;
Insufficient Rinsing	Rinsing nozzles blocked;	Unscrew and clean nozzles under running water;
	Hydraulic pressure lower than 1 bar - 100 kPa;	Wait until the pressure is on or buy a booster pump;

CAUTION! FOR ANY OTHER TROUBLE, CALL SERVICE

DESCALING

When hard water is used you can find, inside the machine and also on dishes, calcareous sediments which must be removed both for hygienic and operating reasons by a descaling operation.

Operating process and frequency of this intervention are suggested by your cleansing agent supplier who has suitable products, generally containing phosphoric acid.

In order to avoid damage to the machine do not increase the quantities and once operations end rinse abundantly.

SANIFICATION

At least each 30 days it would be useful to do this operation which guarantees the complete hygienic conditions of the machine. We suggest to contact your cleansing agent supplier who will give you quantity and name of the most suitable product you can use and that, generally, is an active chloride powder (100-200 ppm).

In order to avoid damage to the machine do not increase the quantities and once operations end, rinse abundantly.

USEFUL HINTS FOR STAINLESS STEEL MAINTENANCE

Stainless steel is so called because it is not affected by oxidation, this is due to a thin molecular layer of oxide on the surface which protects against further oxidation. There are, however, substances which can modify or destroy this layer, giving rise to corrosion: besides preventing the protective film of oxide from reforming, these substances corrode the stainless steel itself and can cause irreparable damage. It is therefore necessary to prevent this by choosing correct cleaning products and by complying with the following simple recommendations: **never forget that when using these appliances, the first and fundamental rule is to guarantee that the cleaning products are both non-toxic and hygienic.**

Before using any detergent to clean either the stainless steel or the immediate and surrounding floor area, always ask your supplier for the most suitable product which does not cause corrosion on the steel itself; the onset of rust is most commonly caused by the use of unsuitable cleaning materials (strongly acid chlorate based detergents) or on inadequate maintenance.

Our appliances are made of stainless steel AISI 304 (18-10 type) for exterior panelling, upper tops, tanks etc. Comply with the following instructions when cleaning and servicing parts in stainless steel.

Ordinary daily maintenance

Carefully and frequently clean the surfaces using a damp cloth; use soap and water or normal detergents, **so long as these do not contain abrasives or chlorine based substances** such as sodium hypochlorite (bleach), hydrochloric acid or other such solutions: These products quickly and irreparably corrode stainless steel. When cleaning floors underneath or near the appliances, never use the above mentioned products as vapours or splashes could subject the steel to similar destructive effects.

Only ever rub in the direction of the satining, then thoroughly rinse with clean water and carefully dry.

Rust : water supply pipes, inevitably convey particles of rust dissolved in the water especially in new installation plants or when taps are opened after a period of inactivity. These iron deposits must not be allowed to remain on the stainless steel since they produce rust by contamination.

Use suitable products to remove any rust marks, from companies which produce detergents for industrial use. After application, thoroughly rinse with clean water, neutralizing the action of the product with an alkaline detergent normally used to clean such appliances or with another specific product.

DO NOT USE METAL MATS TO CLEAN THE STAINLESS STEEL

INSTRUCTIONS FOR THE INSTALLER

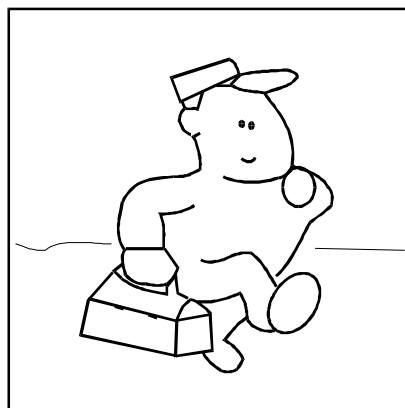
The following instructions are addressed to a qualified personnel, the only one authorised to carry out checks and repair, if any.

The Manufacturer declines any responsibility in the case of interventions made by a non qualified personnel.

INSTRUCTIONS POUR L'INSTALLATEUR

Les instructions suivantes sont adressées à un personnel qualifié, qui est le seul autorisé à effectuer les vérifications et les réparations éventuelles.

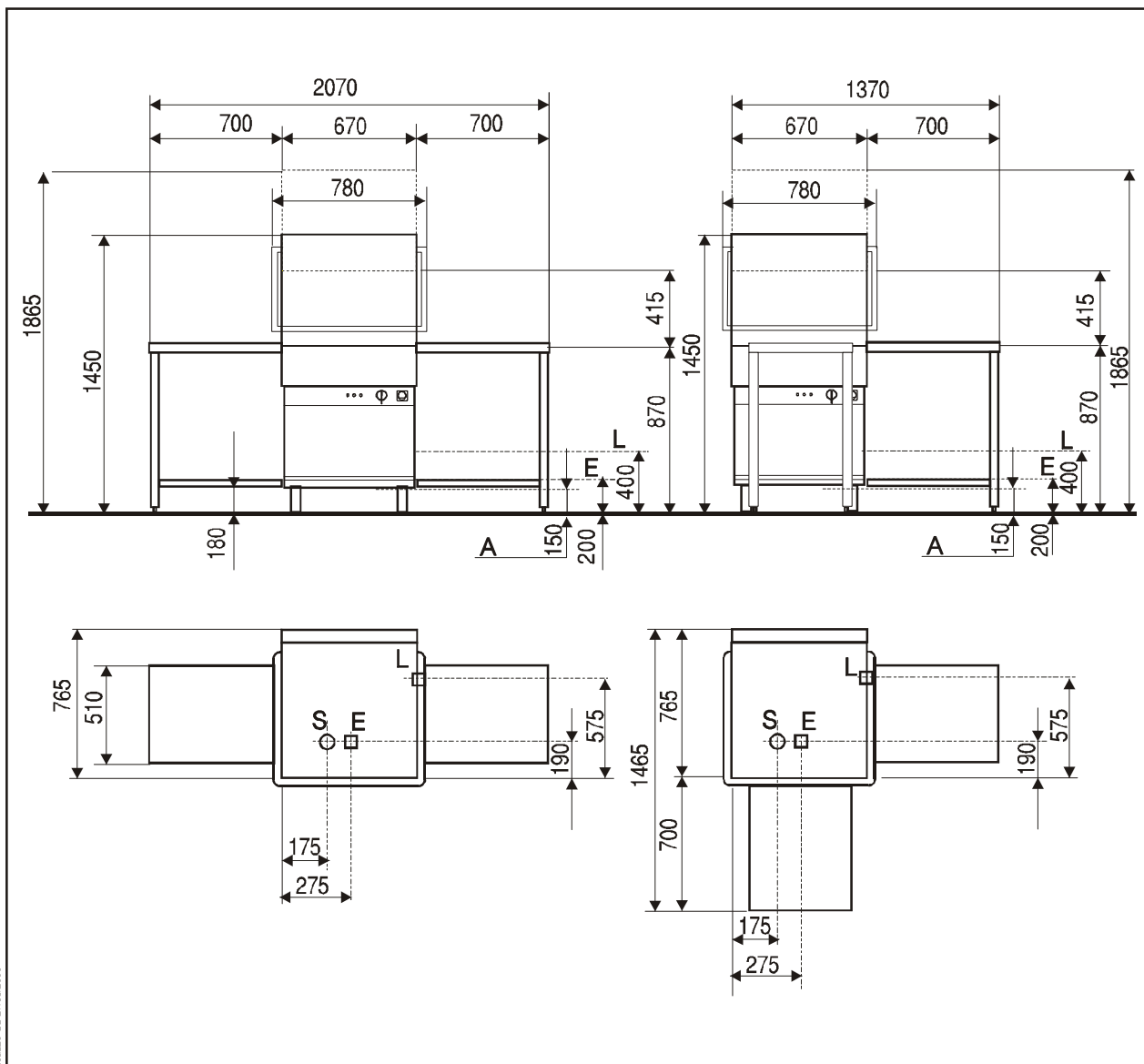
Le constructeur décline toute responsabilité en cas d'interventions effectuées par du personnel non qualifié.



2

INSTALLATION INSTALLATION

L25



A	Maximum height for drain to wall Hauteur maximale pour vidange à mur	
E	Water inlet Electrovanne chargement	3/4" G
L	Electric input Branchement électrique	208 V3N~60Hz
S	Water drain Evacuation Eau	32 mm - 1"1/4 G

Dis.2

Second Section - FOR THE INSTALLER

During the installation, carry out a good machine levelling, which is a prerequisite for a correct operation.

The Manufacturer cannot assume any responsibility for any damage to persons or property deriving from the non-observance of the above-specified norms.

For a correct installation see draw page 18.

ELECTRICAL CONNECTION

Before connecting the machine, make sure that the voltage outlet of the mains is the same as the voltage specified on the data label of the machine.

A main switch must be installed between the mains and the machine. This safety measure also requires that the minimum distance between the switch contacts is at least 3 mm and the disconnection on all poles according to **EN 60204 (VDE 113)**.

Fuses on the main switch must be **16 A**.

The mains must be wired to be able to handle the current drawn by the machine. The system must also be provided with a proper ground lead in accordance with the existings norms. The electric cable must be of the following type **H07RN-F**.

Supply circuit information : Minimum supply circuit ampacity, rating of overcurrent protective device :


Supply Circuit Conductor Ampacity, A	Rating of Overcurrent Device, A
27	40

The electrical safety of this equipment is only assured if it is connected as follows.

It is necessary to connect the equipment to an effective ground installation, as specified by the electrical safety rules in force.

Check that this basic requirement is complied with and, in case of doubt, ask for a careful check of the installation by a qualified personal.

In addition, the equipment shall be part of an equipotential system, the effectiveness of which should be checked according to the regulations in force.

The connection should be made at the screw marked by the respective label placed on the equipment back side ().

THE MACHINE SHALL BE CONNECTED WITH AN EFFECTIVE GROUND CLAMP.

The manufacturer declines any responsibility for any damages caused by lack of an effective ground installation.

WATER CONNECTIONS

Carefully comply with any national or regional regulations in force.

Water installation must have the following characteristics:

Temperature: 55°C

Dynamic Pressure : 20 ± 5 psi

If the dynamic pressure is lower than specified on the data label of the machine, it is advisable to install a Pump for pressure increase.

If the dynamic pressure is higher than 4 bar, it is advisable to install a pressure reduction.

Hardness: between 7,2 and 12,5 °French.

If the hardness values are higher than those mentioned above, it is advisable to install a water-softener.

WORK TEMPERATURES

Water temperature >74°C

Rinse temperature 82° ÷ 90°C

DO NOT TAMPER WITH THE THERMOSTAT CALIBRATION

WATER DRAIN

According to the dimensions of the drawing; water drain and feeding pipe should have the same diameter as the water inlet of the machine.

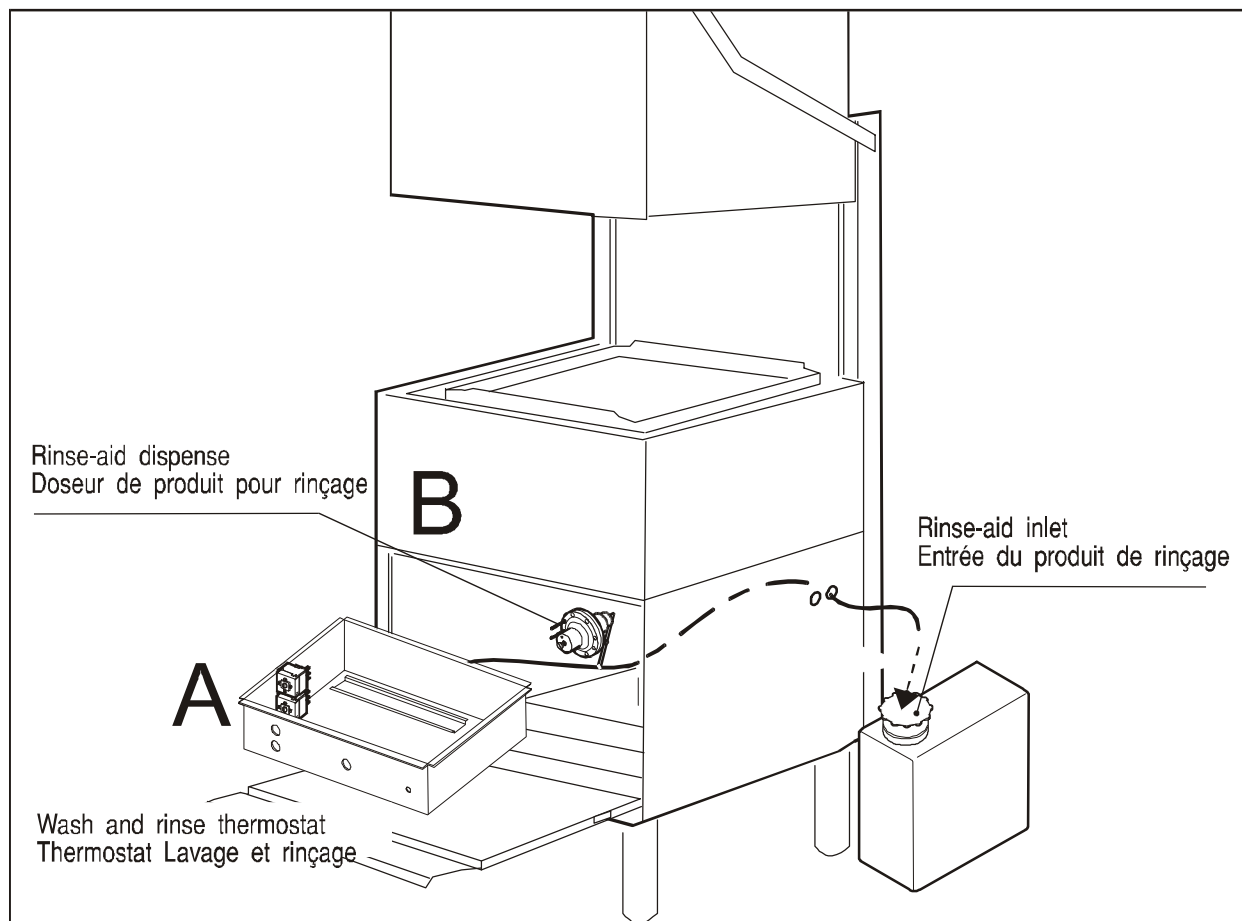
It must be furnished with a siphon and have a right slope.

The machine is provided with a flexible pipe for the connection with the water-work.

Make sure there are no throttlings along the pipe.

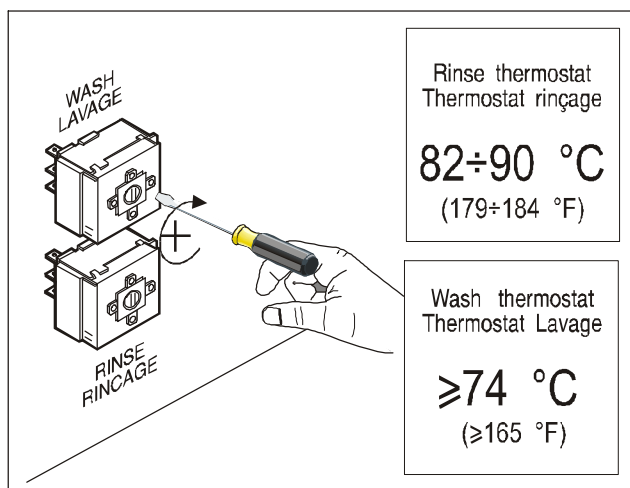
Carefully comply with any national or regional regulations in force.

REGULATION SCHEME SCHEMA REGULATION



A- Wash and rinse thermostat
Thermostat Lavage et rinçage

B- Rinse-aid dispenser
Doseur de produit pour rinçage



- To increase the detergent turn Anti-CW the regulation screw
- Tourner la vis de regulation en sens Anti-horaire pour augmenter la dose du produit

