## CONTENTS

### SHIPPING PACKAGE AND HANDLING

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACKING</td>
<td>5</td>
</tr>
<tr>
<td>TRANSPORT</td>
<td>5</td>
</tr>
<tr>
<td>HANDLING</td>
<td>5</td>
</tr>
<tr>
<td>STOCKING</td>
<td>6</td>
</tr>
</tbody>
</table>

### OPERATING ENVIRONMENT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
</tr>
</tbody>
</table>

### UNPACKAGING AND SETTING IN PLACE

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8</td>
</tr>
</tbody>
</table>

### CHARACTERISTICS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9</td>
</tr>
</tbody>
</table>

### CONNECTIONS ON THE WASHER

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER CONNECTIONS</td>
<td>10</td>
</tr>
<tr>
<td>DRAIN</td>
<td>10</td>
</tr>
<tr>
<td>HEATING</td>
<td>11</td>
</tr>
</tbody>
</table>

### HYDRAULIC CONNECTIONS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>WATER INTAKES LOCATION</td>
<td>12</td>
</tr>
<tr>
<td>ELECTRICAL CONNECTION</td>
<td>15</td>
</tr>
</tbody>
</table>

### DISCHARGE OF WASTE WATERS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCHARGE OF EXHAUST VAPOR</td>
<td>16</td>
</tr>
<tr>
<td>EXTRATION DIRECTLY INTO THE ROOM</td>
<td>19</td>
</tr>
<tr>
<td>EXTRATION WITH AN EXHAUST HOOD</td>
<td>20</td>
</tr>
</tbody>
</table>

### WASHING PRODUCTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LANCER LCD DETERGENT</td>
<td>20</td>
</tr>
<tr>
<td>LANCER LCA NEUTRALISANT</td>
<td>21</td>
</tr>
<tr>
<td>INSTALLATION OF THE WASHING PRODUCTS</td>
<td>22</td>
</tr>
</tbody>
</table>
SHIPPING PACKAGE AND HANDLING

PACKING

Applicable only to washers delivered in LANCER supplied packaging.

Packing of a washer-dryer consists of a cardboard box and a wooden pallet.
The washer is wrapped with a plastic film, bolted to the pallet, and covered with a cardboard box.

TRANSPORT

Transport indicators :
- Label « FRAGILE »
- Label « HAUT AND BAS » - « HIGH AND LOW »

For machines transported by air or by sea, packaging has a tilt indicator (« TIP AND TELL ») that provides visual indication the machine has not remained upright in transit.

HANDLING

BEFORE MOVING THE WASHER-DRYER, CHECK THAT THE FORKLIFT OR HAND TRUCK IS CAPABLE OF RAISING THE LOAD (THE WEIGHT IS WRITTEN ON THE PACKAGE OR THE SHIPPING DOCUMENTATION).

NEVER PUSH THE BOX WITH THE HELP OF THE FORKLIFT OR HAND TRUCK.
STOCKING

The washer-dryer must be stocked in a dry, sheltered area whose room temperature will not be lower than 0°C (32°F) and not exceed 50°C (122°F).

IF THE WASHER/DYER IS NOT USED FOR A PERIOD EXCEEDING 3 WEEKS IT IS RECOMMENDED TO DISCONNECT THE CHEMICAL LINES AND FLUSH WITH WATER. CONTACT LANCER FOR ASSISTANCE.
OPERATING ENVIRONMENT

The washer is designed for use in the following operating environment:

- AN INDOOR ENVIRONMENT.

- ALTITUDE UP TO 2000 METERS (6,562 FEET).

- TEMPERATURE BETWEEN 5°C AND 40°C (41°F AND 104°F).

- MAXIMUM RELATIVE HUMIDITY OF 80% UP TO 31°C (88°F) DECREASING LINEARLY TO 50% RELATIVE HUMIDITY AT 40°C (104°F).

- THE MACHINE IS RATED FOR TRANSIENT OVERVOLTAGE ACCORDING TO INSTALLATION CATEGORY III OF UL 3101-1. TRANSIENT OVERVOLTAGE CONDITIONS SHOULD NOT EXCEED 2500 VOLTS.

- THE MACHINE IS RATED FOR POLLUTION DEGREE 2 OF IEC 664. NORMALLY ONLY NON-CONDUCTIVE POLLUTION OCCURS. OCCASIONALLY, A TEMPORARY CONDUCTIVITY CAUSED BY CONDENSATION CAN BE EXPECTED.
UNPACKAGING AND SETTING IN PLACE

- Remove the box and the plastic film from around the washer.
- Open the door of the washer by pulling the handle towards you and then lower the door to the horizontal position. Remove and inspect the contents of the washer and then close the door by raising it and pressing on the handle.
- Remove the bolts that attach the washer to the pallet and then take the machine off of the pallet.

- Place the washer/dryer in designated location.
- Level the washer by adjusting the height adjustable feet. The leveling feet are shipped either in the wash chamber or in the chemical drawer.

- Move the washer to where it will be used.
- The washer can be moved with a hand truck. It also can be pushed into position by sliding it on the feet.

---

THIS MACHINE MUST BE INSTALLED AND USED ACCORDING TO THE INSTRUCTIONS CONTAINED WITHIN THIS DOCUMENT. INCORRECT INSTALLATION OR USAGE MAY CAUSE THE PROTECTION PROVIDED BY THIS EQUIPMENT TO BE IMPAIRED.

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A TRAINED LANCER SERVICE TECHNICIAN SHOULD PERFORM THE FIRST TIME START-UP.
CHARACTERISTICS

Heat loss : 1395 Kcal/h (4760 BTU/h)

Noise level : 63 dBA in accordance with the European Council directive of June 14, 1989, concerning the harmonization of the legislation of European Union member states regarding machines, 89/392/CEE.

DIMENSIONS HORS TOUT / OVERALL DIMENSIONS
Hauteur / Height : 1728mm / 68.02"
Largeur / Width : 790mm / 31.1"
Profondeur / Depth : 831mm / 32.71"

DIMENSIONS DE LA CUVE / CHAMBER DIMENSIONS
Hauteur / Height : 770mm / 30.3"
Largeur / Width : 620mm / 24.4"
Profondeur / Depth : 620mm / 24.4"

TOLERANCES DIMENSIONS / DIMENSION TOLERANCES
+/- 5mm (+/- 0.2")

POIDS NET / NET WEIGHT : 213kg (470lbs)
CONNECTIONS ON THE WASHER

WATERS

STANDARD / PRESSURIZED DEMI. WATER

-1- COLD WATER
-2- HOT WATER
-3- DEMINERALIZED WATER

DRAIN

STANDARD / DRAIN LIFTING PUMP

-1- WASTE WATER FLEXIBLE EMPTYING HOSE
-2- FLEXIBLE OVERFLOW HOSE
HEATING

-1- ELECTRICAL CABLE
HYDRAULIC CONNECTIONS

WATER CONNECTIONS

Flush water supply lines prior to connecting to the washer. Turn off water supply valves and drain the water supply hoses.

The water supply hoses required to connect the washer to the various water inlets are provided with the machine. The maximum length of all connecting lines is 1,400mm (59") and a colour-code identification label is attached to each water supply hose.

Example:

The cold and hot water inlets are equipped with thread size adapters which must be connected to the water supply.

Make the connections by fitting the strainer filters between the thread size adapter and the threaded connection at the water supply hose.

-1- STRAINER FILTER
-2- THREAD SIZE ADAPTER (IF NECESSARY)
All connection are made on the back of the washer and are marked with identification labels.

Example:

Identification labels are attached to each water supply hose and rear the bodywork of the washer to help you to make the water supply connections properly.
The water supply valves must be located within the area shown on the drawing on page 15.

**HOT WATER:**

On the washer: ☑️ On the water supply hose: ☑️

The hot water must not exceed the 50°C maximum temperature.
A valve with a male threaded nozzle, 20/27 diameter, (3/4” hose thread) is required.
If there is no hot water supply, provide an additional cold water valve.
Flow rate: 20 l/min (5.3 GPM) with a minimum pressure of 200 kPa (2 bar or 29 PSI) and maximum 600 kPa (6 bar or 87 PSI).

**COLD WATER:**

On the washer: ☑️ On the water supply hose:

A valve with a male threaded nozzle, 20/27 diameter, (3/4” hose thread) is required.
Flow rate: 20 l/min (5.3 GPM) with a minimum pressure of 200 kPa (2 bar or 29 PSI) and maximum 600 kPa (6 bar or 87 PSI).
DEMINERALIZED, DISTILLED OR REVERSE OSMOSIS WATER:

On the washer: DEMIN. WATER
On the water supply hose: DEMIN. WATER

A valve with a threaded male nozzle, 20/27 diameter (3/4" hose thread) is required.

Flow rate: 20 l/min (5.3 GPM) under minimum pressure of 200 kPa (2 bar or 29 PSI) and maximum 600 kPa (6 bar or 87 PSI).
WATER INTAKES LOCATION

WATER INTAKES MUST BE LOCATED IN THIS AREA
ELECTRICAL CONNECTION

BEFORE CARRYING OUT ANY WORK ON THE WASHER, MAKE SURE IT IS SWITCHED OFF AT THE ELECTRICAL DISCONNECT SWITCH.

ELECTRICAL SUPPLY:

CHECK FOR CORRECT VOLTAGE SUPPLY AT THE ELECTRICAL PANEL BEFORE MAKING ANY ELECTRICAL CONNECTIONS.

<table>
<thead>
<tr>
<th>TOTAL POWER TO BE SUPPLIED</th>
<th>13.5 kW</th>
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</thead>
<tbody>
<tr>
<td>Recycling pump</td>
<td>1.5 kW</td>
</tr>
<tr>
<td>Heating</td>
<td>12 kW</td>
</tr>
<tr>
<td>Drying</td>
<td>4 kW</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumption</th>
<th>Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>208V THREE PHASE+GROUND / 60 HZ</td>
<td>37 A/Phase</td>
</tr>
<tr>
<td>OVERCURRENT PROTECTIVE DEVICE SIZE</td>
<td>40 A</td>
</tr>
</tbody>
</table>
ELECTRICAL SUPPLY CABLE CONNECTION AND ROUTING:


ELECTRICAL PROTECTION DEVICE:

A CIRCUIT BREAKER OR FUSES MUST PROVIDE PROTECTION FROM OVERCURRENT ELECTRICAL CONDITIONS. THE CIRCUIT BREAKER OR FUSES MUST BE LABELLED AS THE PROTECTION DEVICE FOR THE LANCER WASHER. THE OVERCURRENT PROTECTIVE DEVICE SIZE REQUIRED FOR THIS MACHINE IS SPECIFIED BELOW OR MUST MEET LOCAL ELECTRICAL CODES.
ELECTRICAL DISCONNECT SWITCH:
A DISCONNECT SWITCH THAT CAN BE LOCKED IN THE OPEN (OFF) POSITION MUST BE LOCATED ADJACENT TO THE MACHINE IN AN EASILY ACCESSIBLE LOCATION AND WITHIN LINE OF SIGHT OF THE MACHINE. THE DISCONNECT SWITCH SHOULD BE CLEARLY LABELLED AS THE SUPPLY TO THE ASSOCIATED LANCER WASHER.

1- ELECTRICAL DISCONNECT SWITCH (PROVIDED BY OTHERS)
2- CIRCUIT BREAKER OR FUSES (PROVIDED BY OTHERS)
3- ELECTRICAL CABLE LENGTH 2 METERS (6 FEET) (PROVIDED BY OTHERS)
4- TERMINAL BLOCK
5- LOWER FRONT PANEL
DISCHARGE OF WASTE WATERS

Identification labels are adhered to the rear bodywork of the washer to help you to make the drain & overflow connections properly:

**DRAINING**

Provide a rigid standpipe and plumbing trap with a minimum inside diameter of 40 mm (1 ½ inches), capable of accepting a flow rate of 40l/min and 95°C maximum temperature.

Height above floor level: 800 mm (31 inches) minimum and 900 mm (35 inches) maximum.

**OVERFLOW**

Provide a rigid standpipe and plumbing trap with a minimum inside diameter of 32 mm (1 ¼ inches), capable of accepting a flow rate of 20l/min and 95°C maximum temperature.

Height above floor level: 500 mm (20 inches) maximum.

This connection is indispensable for the good working of the washer-disinfector.

The discharge tubes can be installed to the left, to the right, or behind the washer.

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-1- WASTE WATER STANDPIPE Ø40MM (1 ½ INCHES) (PROVIDED BY OTHERS)
-2- WASTE WATER FLEXIBLE EMPTYING HOSE
-3- OVERFLOW STANDPIPE Ø32MM (1 ¼ INCHES) (PROVIDED BY OTHERS)
-4- FLEXIBLE OVERFLOW HOSE
DISCHARGE OF EXHAUST VAPOR

The machine discharges hot moist air, causing condensation in the exhaust. Horizontal sections of exhaust ducting will require drains at the lowest points.

The machine is equipped with an exhaust fan.

Characteristics:
Air flow : 68 m³/H (40 CFM)
Maximum temperature : 95°C
Maximum relative humidity : 95%

TO AVOID PRESSURE PROBLEMS IN THE CHAMBER, DO NOT BLOCK THE HOT MOIST AIR EXHAUST TUBE.

Two solutions are available to extract hot moist air:

EXTRACTION DIRECTLY INTO THE ROOM

The room must be well-ventilated, ideally next to a windows.
EXTRACTION WITH AN EXHAUST HOOD

Provide, by others, an exhaust hood placed between 300mm (12 inches) minimum and 1000mm (40 inches) maximum above the washer exhaust tube.

-1- HOT MOIST AIR EXHAUST TUBE
-2- EXHAUST HOOD
WASHING PRODUCTS

The washing and operational performance of the 910 LX washer has been validated with the LANCER line of cleaning chemicals. The use of LANCER cleaning chemicals guarantees good results and long life of your machine.

LANCER LCD DETERGENT

LANCERCLEAN Detergents are available in three solutions:

LCD-P:
LCD-P is a potassium hydroxide based solution with a special blend of surfactants. LCD-P provides excellent cleaning results for all types of contaminants and standard laboratory soils and is recommended for use in all glassware washers.

LCD-S:
A sodium hydroxide based solution; LCD-S is specifically formulated with a special blend of surfactants to provide exceptional cleaning for the most difficult types of contaminants. LCD-S is used for petroleum applications, "baked-on" organic residues and other hard to clean soils that require a more powerful cleaning agent. LCD-S is recommended for use in all glassware washers.
LCD-H:
A pH neutral detergent; LCD-H is comprised of a sodium silicate solution and a specifically formulated blend of surfactants. LCD-H is best used for surgical instruments, metals and soils that require a pH neutral cleaning agent. LCD-H is recommended for use in all glassware washers.

LANCER LCA NEUTRALISANT
LANCERACID Rinses are available in three solutions:

LCA-A:
LCA-A is used in the rinse cycle subsequent to our LANCERCLEAN Detergents. This acetic acid based neutralizer provides an excellent rinse on all standard laboratory soils and contaminants. LCA-A is recommended for use in all glassware washers.

LCA-C:
LCA-C is used in the rinse cycle subsequently to our LANCERCLEAN Detergents. This citric acid based neutralizer provides an excellent rinse for organics and pharmaceutical based contaminants. LCA-C is recommended for use in all glassware washers.
LCA-P:
LCA-P is used in the rinse cycle subsequently to our LANCERCLEAN Detergents. This phosphoric acid based solution works excellently for dealing with petroleum and other difficult soils. LCA-P is recommended for use in all glassware washers.

Please do not hesitate to consult LANCER for application specific solutions.
INSTALLATION OF THE WASHING PRODUCTS

The chemical suction diptubes are identified by the following labels:

**DETERTENT**  **ACID**

**NON-FOAMING DETERGENT**
Place a container of **NON-FOAMING LIQUID DETERGENT** inside the drawer. Remove the cap from the detergent container and insert the detergent suction tube into the detergent container. Tighten the cap. IT IS STRICTLY PROHIBITED TO USE SOLVENTS AS DETERGENT.
PLEASE REFER TO SUPPLIERS MATERIAL SAFETY DATA SHEET FOR SPECIFIC INFORMATION REGARDING THE DETERGENT TO BE USED IN THIS MACHINE.

**NEUTRALIZING ACID**
Place a container of **NEUTRALIZING ACID** inside the drawer. Remove the cap from the acid container and insert the acid suction tube into the acid container. Tighten the cap. THE USE OF NITRIC AND CHLORHYDRIC ACID IS PROHIBITED. ONLY DILUTE PHOSPHORIC, ACETIC AND CITRIC ACIDS CAN BE USED.
PLEASE REFER TO SUPPLIERS MATERIAL SAFETY DATA SHEET FOR SPECIFIC INFORMATION REGARDING THE ACID TO BE USED IN THIS MACHINE.

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**BEFORE CARRYING OUT ANY WORK ON THE WASHER, MAKE SURE IT IS SWITCHED OFF AT THE DISCONNECTING SWITCH.**