

TABLE

ESSENTIAL CUTTING TABLE

SAFETY INSTRUCTIONS FOR USE AND MAINTENANCE

N° W000380502 - W000375248 - W000375249



EDITION : EN
REVISION : A
DATE : 09-2022

Instructions for use

REF : **8695 8008**

Original instructions

LINCOLN[®]
ELECTRIC

Thank for the trust you have expressed by purchasing this equipment, which will give you full satisfaction if you follow its instructions for use and maintenance.

Its design, component specifications and workmanship comply with applicable European directives.

Please refer to the enclosed CE declaration to identify the directives applicable to it.

The manufacturer will not be held responsible where items not recommended by themselves are associated with this product.

For your safety, there follows a non-restrictive list of recommendations or requirements, many of which appear in the employment code.

Finally we would ask you kindly to inform your supplier of any error which you may find in this instruction manual.

CONTENTS

A - INTRODUCTION	1
USING THE MANUAL	1
MACHINE GUARANTEE	1
ASSISTANCE	1
DESCRIPTION OF PICTOGRAMS.....	1
B - GENERAL SAFETY INSTRUCTIONS	2
ELECTRICAL SAFETY	2
PERSONAL PROTECTION	3
FILTRATION OF FUMES AND DUST	5
C - OVERALL DESCRIPTION	6
D - TECHNICAL DESCRIPTION	7
COMPOSITION OF THE ESSENTIAL CUTTING TABLE	7
OPERATING PRINCIPLE	7
DIMENSIONS OF THE ESSENTIAL GRINDING TABLE	8
E - INSTALLING THE ESSENTIAL CUTTING TABLE	9
ASSEMBLY	9
F - MAINTENANCE.....	10
MAINTENANCE OF MECHANICAL PARTS	10
PERSONAL NOTES	12

A - INTRODUCTION

USING THE MANUAL

Please read this manual before you start handling, installing or using the machine. Keep the manual safe in a place known to the user of the machine and maintenance personnel till the machine is finally destroyed.

This manual explains how to transport, install, use and maintain the filter. It cannot in any event replace the experience of the user for operations of varying difficulty.

Before the filter is used by a new user, make sure that they have read this manual and understood all the explanations provided.

For any further information, please feel free to contact the technical departments of **LINCOLN ELECTRIC**.

MACHINE GUARANTEE

This machine is guaranteed for 12 months from the date of purchase.

During the first 12 months of use, defective parts shall be replaced free of charge providing the damage is not the result of improper use of the machine.

The machine guarantee shall cease automatically when the machine is no longer the property of the original buyer.

The terms of validity of the guarantee shall be subject to verification and acceptance by our sales department.

Any nonconforming use that could damage the machine shall not be covered by the guarantee.

For the guarantee to operate, the equipment must be inspected by our technical department.

ASSISTANCE

LINCOLN ELECTRIC is at your disposal for any work on your equipment.

Please contact the technical department for any requests.

HOT LINE (+33) 825 132 132

DESCRIPTION OF PICTOGRAMS

To make this document easier to understand, it contains pictograms with the meanings given below:



DANGER: indication used when failure to follow the instructions could lead to a serious hazard for personnel.



WARNING: indication used when failure to follow the instructions could lead to damage to the machine, associated elements or the surroundings.



This symbol shows that the description is intended for specialised personnel.

B - GENERAL SAFETY INSTRUCTIONS

ELECTRICAL SAFETY



The **Essential** cutting table does not include any electrical component or fan. However, an external connection is required for the use of this down-draft table. The section below describes the safety rules to apply in such an installation.

Connection to the mains

Before you connect your machine, please make sure that:

- The meter, the overintensity protection system and the electrical installation are compatible with its maximum power rating and its supply voltage.
- It can be connected, in a single-phase or three-phase with earth system, to a socket compatible with the plug on its power cord (mobile equipment).
- If the cable is connected to a fixed point, the earth connection if there is one, may never be cut off by the system offering protection from electric shocks.
- The switch, if there is one, is set to OFF.

Operating position

Arc welding and cutting requires strict compliance with safety requirements in respect of electrical currents (Order of 14.12.88).

Servicing

Before any internal checking or repairs, make sure that the machine has been disconnected from the electrical installation by locking it out:

- Accidental connection of the cable of a fixed installation has been made impossible
- Cutting off by means of a fixed connection device relates to all poles (phase and neutral. It must be in the OFF position, with no possibility of being put into service by mistake.

Some machines have an HV.HF arc strike circuit (indicated by a plate). Never work inside such a box.

Any work on electrical installations must be carried out by persons qualified for that purpose (Decree 88-1056 of 14 November 1988, Section VI, Art 46).

Maintenance

From time to time, check that the machinery and its electrical accessories - connectors, flexible cables and extension cords - are correctly insulated and connected.

Work for maintaining and repairing insulating enclosures and ducts may not be carried out in a haphazard manner (Section VI, Art. 47 Decree 88-1056 of 14 November 1988).

- All repairs are to be carried out by specialists, or better yet, defective accessories should be replaced.
- Regularly check that the electrical connections are tight, with no heating.

Any fans placed in a circuit in which the air is laden with dust must be cleaned from time to time. That is because the turbine may be fouled and become unbalanced, leading to increased noise and premature wear and tear of bearings. Maintenance is required at least after every six months, depending on the type of dust treated.

The fan is an essential element of your extraction system.

Incorrect operating or inadequate maintenance could make the operating position less safe. The fan must therefore be maintained in perfect condition.

your machine has been selected for a specific application. The turbine is characterised by an extraction rate operating point (air speed in the pipes), load loss.

in accordance with the regulations of CARSAT and INRS, the installation must be inspected from time to time to make sure that it continues to comply with its reference values.

PERSONAL PROTECTION

Risks of external injury relating to welding operations

Whole body

- The operator must be clothed and protected to suit the requirements of the job.
- Make sure that no part of the bodies of operators and helpers can come in contact with metal pieces or parts that are live or are liable to become live accidentally.
- Do not wind electricity cables around the body.
- Keep safety guards and panels in place.
- The operator must always wear personal insulating protection (Order of 14 December 1988, Section III).
- The protection must be kept dry to prevent electric shocks if it is wet, or ignition in the presence of oil.

Personal protective equipment worn by operators and their helpers - gloves, aprons, safety shoes - offer the added benefit of protecting them from burns due to hot pieces, splattering and slag.

Make sure the PPE is in good condition and replace it before it ceases to offer protection.

Face and eyes

It is indispensable to protect the following:

- Eyes, from arc injury (dazzling due to visible light from the arc, and infrared and ultraviolet radiation).
- Hair, face and eyes from welding splatter and projection of slag during weld cooling

the welding mask, when used under or without a helmet, must always be equipped with a protective filter, the shade of which depends on the intensity of the welding arc current (Standards NF s77-104a 88-221 a88-222).

the coloured filter may be protected from impacts and splatter by a transparent glass located on the front of the mask.

if the filter is replaced, use another one with the same part number (shade number).

persons in the vicinity of the operator, especially any helpers, must be protected by means of suitable screens, anti-UV goggles or, if needed, masks with suitable protective filters (EN 139).

Specific case of chlorine solvents in welding: (used for cleaning or degreasing).

- The fumes from these solvents can be changed into toxic gases when subjected to arc radiation, including from a distance.
- Such solvents may therefore not be used in locations where electric arcs occur, if the solvents are not in a sealed enclosure.

Work in confined spaces

Examples :

- Mine roads
- Piping and pipelines
- Ship docks, pits, manholes, cellars
- Tanks
- Ballast tanks
- Silos
- Reactors

Special precautions must be taken before undertaking welding operations in such enclosures, where suffocating and poisoning and fire and explosion risks are very great.

A work permit procedure setting out all the safety measures must systematically be set up.

Make sure that ventilation is appropriate, paying special attention to:

- under-oxygenation
- over-oxygenation
- excess fuel gas

FILTRATION OF FUMES AND DUST

Important

Mechanical or electrostatic filtration systems are effective for the filtration of solid but not gaseous particles (exterior discharge).

If recycling is effective (not recommended), make sure the workplace where the machine or machines are placed is properly ventilated, so as to not reach the OELV (occupational exposure limit values) of gaseous pollutants relating to the specific pollution generated by the method (welding, cutting).

Field of use

Filtration of solid particles and dry dust, non-flammable gas, with no risk of explosion.

- Zinc, paper, flour, plant leaves, graphite, alumina and other such dust is to be excluded, because electrostatic discharge or welding splatter would present a risk for those using the filter.
- The air flow through the filter medium must not be at a temperature above 80 °C.
- This machine is not designed for extracting chemicals.
- The choice of machine is made to suit the pollutants to treat. Extraction at source of the pollutant is only effective if the machine is operating at its nominal power (air flow at the nozzle).

Take particular care to :

- Not obstruct the air outlet of the machine.
- Not introduce external elements into the filter (paper, cloths, cigarette butts etc.)
- Replace the filter medium with new original **LINCOLN ELECTRIC** medium, which alone can guarantee the filtration characteristics.
- Replace the hoses if they are pierced.
- Regularly clean the metal pre-filter on those machines that have one.



IMPORTANT:

Never introduce incandescent particles into the extraction duct.

Example:

- Cigarette butts
- Burning paper
- Incandescent grinding particles
- Air arc or plasma gouging particles
- Or any other incandescent material
- List not comprehensive

C - OVERALL DESCRIPTION



For your safety and optimum machine performance, please read this manual carefully before using the equipment.

Essential cutting tables are designed for extracting **cutting** fumes. At the bottom and on the inside, they have drawers with handles for recovering heavy particles.

The cutting surface has interchangeable 6x60mm metal plates to support workpieces. They are made in galvanised steel and assembled with bolts

Fumes and metal dust are extracted by the table surface. The table must be connected to a duct system connected to a fan, with or without filtration (filtration recommended).

Discharge is via an outlet adapted at the rear or on the sides.

Under applicable legislation, the extracted fumes should be discharged outside the building.

It is available in three sizes

- 1000 x 500 mm
- 1000 x 1000 mm
- 2000 x 1000 mm



Benefits:

- Monobloc table
- Rapid commissioning
- Multipurpose

Delivery:

The table is delivered ready to be connected to the duct system.

D - TECHNICAL DESCRIPTION

COMPOSITION OF THE ESSENTIAL CUTTING TABLE

The table is made up of :

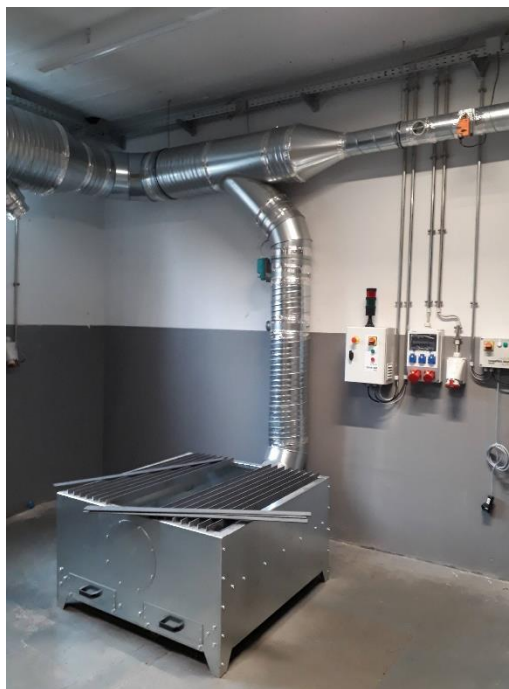
- Work surface 1000x500 / 1000x1000 or 2000x1000 mm.
- Working height 920 mm.
- Max. load capacity of table: 200 kg.
- Air outlet at the rear and on the sides of the table.
- Galvanised steel grating or metal plates for workpieces on the work surface.
- Overall dimensions (L x l x h) :
 - (1200 x 700 x 920) mm
 - (1200 x 1200 x 920) mm
 - (2200 x 1200 x 920) mm
- The recommended extraction rate is :
 - **1800 m³/h** for the table measuring 1000 x 500
 - **3600 m³/h** for the table measuring 1000 x 1000
 - **72000 m³/h** for the table measuring 2000 x 1000.
- Head loss allowance 550 Pa.

OPERATING PRINCIPLE

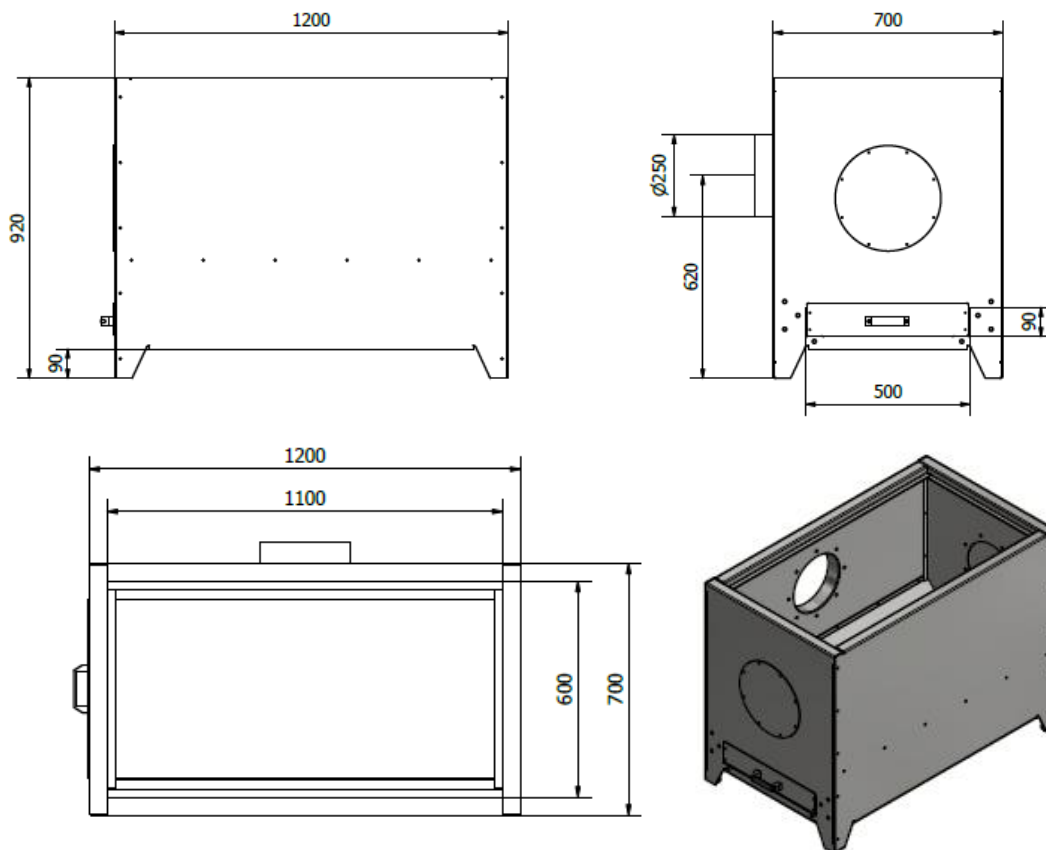
The table may be used alone or incorporated into a centralised extraction system with outdoor discharge or a filtration system; extraction will start as soon as the extraction system is started or via a manual or automated damper with the damper box unit and motorised damper (see the Connection options section).

The table is connected through the rear or sides.

Metal dust is extracted by the work surface, while heavy particles drop into the dust recovery containers



DIMENSIONS OF THE ESSENTIAL GRINDING TABLE



Dimensions of the ESSENTIAL 1000 x 500 cutting table

- Connection diameter : 250 mm
- Overall width : 1200 mm
- Overall depth : 700 mm
- Overall height : 920 mm

Dimensions of the ESSENTIAL 1000 x 1000 grinding table

- Connection diameter : 315 mm
- Overall width: 1200 mm
- Overall depth : 1200 mm
- Overall height: 920 mm

Dimensions of the ESSENTIAL 2000 x 1000 grinding table

- Connection diameter : 400 mm
- Overall width : 2200 mm
- Overall depth : 1200 mm
- Overall height : 920 mm

E - INSTALLING THE ESSENTIAL CUTTING TABLE

ASSEMBLY

Move the table with a lift truck to its location, then remove the packaging and transport protection material. Connect the table to the air extraction duct using Ø 250, 315 or 450 mm, towards the outdoor environment or a duct system possibly connected to a filtration system.

F - MAINTENANCE

Please read the manually carefully before you start any servicing work. Maintenance operations may only be carried out by specialised and qualified individuals. Behaviour that does not comply with the safety instructions provided could lead to major hazards for personnel and damage to property and/or the surroundings.



All routine and/or exceptional maintenance must be carried out with the machine disconnected from the supply system.

Advice for machine users: maintenance is to be carried out as described in the manual.

1. Electrical risks
2. Cutting and abrasion risks in filter area.

Mind the maintenance of the electrical frame. Hazards are indicated by a plate saying "HAZARDOUS VOLTAGE".

In order to ensure the proper working of the machine, defective spare parts must be replaced with original spare parts from **LINCOLN ELECTRIC**.



**Before starting up the machine, make sure that the replaced parts have been installed perfectly and that any tools have been removed from the machine.
Make sure that each safety device is in good condition and legible.**

MAINTENANCE OF MECHANICAL PARTS

The mechanical maintenance requirements of the machine are negligible if it is used correctly in accordance with its technical characteristics.

Before any type of maintenance that is not clearly defined in these instructions, please make inquiries with the technical department of **LINCOLN ELECTRIC**.

The performance of operations that may not be carried out or are contrary to the standards and procedures of the "General instructions" section would release **LINCOLN ELECTRIC** from liability for any damage caused and would void the guarantee if it is still valid.

CONNECTION OPTIONS

Description	Part number	Quantity
Box DAMPER BOX ESSENTIAL	W000370749	1
Motorised shutter, diam 250 mm	W000380489	1
Motorised shutter, diam 315 mm	W000370744	1
Motorised shutter, diam 400 mm	W000370743	1
DIGIFILTER 2 CD for 1000 x 500 table	EM61000005	1
DIGIFILTER 4 CD for 1000 x 1000 table	EM61000010	1
DIGIFILTER 8 CD for 2000 x 1000 table	EM61000012	1

[illegible]

-12