

ENCLOSURE A

LCV 733 M
BASE / SE / SU / SE-SU
+ NS (NARROW STRIPS)
PLC-TOUCH
V/SU
V/O

**SPECIFICATIONS
AND
INSTALLATION**

*REGISTRO DELLE MODIFICHE*

I.M.	DATA	R.M	FIRMA

SYMBOLS



This symbol stands for a danger and it will show whenever the operator's safety is implicated.



This symbol stands for caution and it underlines fundamental operations for a correct and lasting working of the machine.



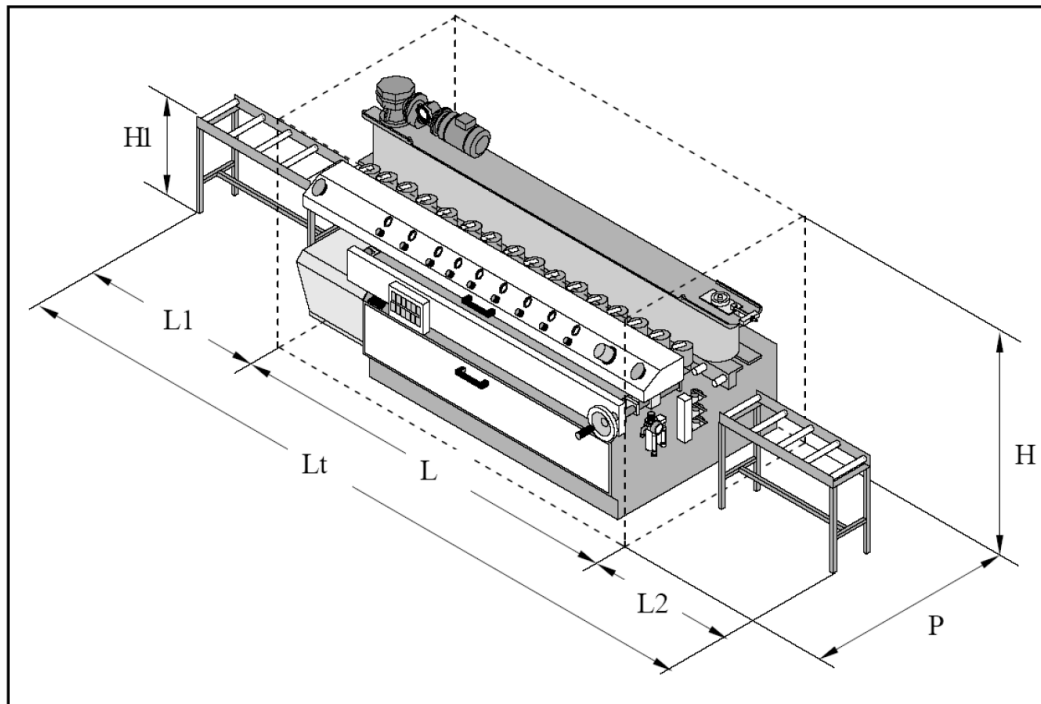
This symbol stands for an environmental note (waste water, working waste, oils...).

CONTENTS

1. SPECIFICATIONS	4
1.1 OVERALL DIMENSIONS.....	4
1.2 WEIGHT.....	6
1.3 SPECIFICATIONS	6
1.3.1 MODEL LCV 733 M.....	6
1.3.2 MODEL LCV 733 M SE	7
1.3.3 MODEL LCV 733 M SU.....	7
1.3.4 MODEL LCV 733 M SE/SU.....	8
1.3.5 MODEL LCV 733 M V/SU.....	8
1.3.6 MODEL LCV 733 M V/O.....	9
1.4 CONSUMPTIONS.....	10
1.5 SLAB PROCESSING.....	11
2. INSTALLATION	12
2.1 TRANSPORT.....	12
2.2 LIFTING AND MOVING	12
2.3 ATTACHMENTS	13
2.4 INSTALLATION	13
2.5 MAINTENANCE AREAS.....	14
2.6 ENVIRONMENTAL SPECIFICATIONS	14
2.7 CONNECTION.....	15
2.7.1 ELECTRICAL CONNECTION	15
2.7.2 WATER CONNECTION.....	17
2.7.3 AIR CONNECTION	17
2.8 FIXING AND LEVELLING OF THE BENCH EXTENSIONS	18
2.9 WASTE WATER	18

1. SPECIFICATIONS

1.1 OVERALL DIMENSIONS



	LCV 733 M			
	(base)	SE	SU	SE-SU
Lt(mm)*	5550	6040	5910	6341
L1(mm)*	1085			
L(mm)	3615	3915	3785	4216
L2(mm)*	850	1040		
P(mm)	1250			
H(mm)	1350			
H1(mm)	750			

	LCV 733 M NS (NARROW STRIPS)			
	(base)	SE	SU	SE-SU
Lt(mm)*	5550	6140	6010	6541
L1(mm)*	1085			
L(mm)	3615	4015	3885	4416
L2(mm)*	850	1040		
P(mm)	1250			
H(mm)	1350			
H1(mm)	750			

	LCV 733 M PLC-TOUCH			
	(base)	SE	SU	SE-SU
Lt(mm)*	5550	6040	6010	6341
L1(mm)*	1085			
L(mm)	3615	3915	3885	4216
L2(mm)*	800	1040		
P(mm)	1250			
H(mm)	1500			
H1(mm)	750			

	LCV 733 M PLC-TOUCH NS (NARROW STRIPS)			
	(base)	SE	SU	SE-SU V/SU V/O
Lt(mm)*	5600	6140	6010	6541
L1(mm)*	1085			
L(mm)	3665	4015	3885	4416
L2(mm)*	800	1040		
P(mm)	1250			
H(mm)	1500			
H1(mm)	750			

The measurements Lt, L1, L2 refer to the 1.2 m long extensions.
1.5 m or 2.0 m long extensions are available on request.

1.2 WEIGHT

LCV 733 M				
	BASE	SE	SU	SE-SU
WEIGHT (kg)	1650			
WEIGHT NS MACHINE (kg)				

NOTE: if the dripstone mandrel is on the bench, about 50 kg should be added to the total weight of the machine.

LCV 733 M				
	BASE + dripstone	SE + dripstone	SU + dripstone	SE-SU + dripstone
WEIGHT (kg)			1800	

1.3 SPECIFICATIONS

1.3.1 MODEL LCV 733 M

	POLISHING MANDRELS	POLISHING MANDRELS	INFERIOR CHAMFERING MANDRELS (bench side)	SUPERIOR CHAMFERING MANDRELS (pressure bar side)
PROCESS	POLISHING	POLISHING	- EDGE MILLING - CHAMFERING	- EDGE MILLING - CHAMFERING
NUMBER OF MANDRELS	5	2	3	3
MOTOR POWER	1,5 kW (TOTAL 7,5 kW)	1,1 kW (TOTAL 2,2 kW)	1,1 kW (total 3,3 kW)	1,1 kW (total 3,3 kW)
ROTATION SPEED (400V-50Hz)	1400 rpm	900 rpm	1400 rpm	1400 rpm
ROTATION SPEED (230V – 60Hz)	1710 rpm	1080 rpm	1700 rpm	1700 rpm
TOOL Ø	120 ÷ 150 mm	120 ÷ 150 mm	120 ÷ 130 mm	120 ÷ 130 mm
DISC HOLE				
CONNECTION	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW

1.3.2 MODEL LCV 733 M SE

	CALIBRATING/ DRIPSTONE MANDREL	POLISHING MANDRELS	POLISHING MANDRELS	INFERIOR CHAMFERING MANDRELS (bench side)	SUPERIOR CHAMFERING MANDRELS (pressure bar side)
PROCESS	---	POLISHING	POLISHING	- EDGE MILLING - CHAMFERING	- EDGE MILLING - CHAMFERING
NUMBER OF MANDRELS	1	5	2	3	3
MOTOR POWER	3,6 kW	1,5 kW (TOTAL 7,5 kW)	1,1 kW (TOTAL 2,2 kW)	1,1 kW (total 3,3 kW)	1,1 kW (total 3,3 kW)
ROTATION SPEED (400V-50Hz)	1400 rpm	1400 rpm	900 rpm	1400 rpm	1400 rpm
ROTATION SPEED (230V – 60Hz)	1700 rpm	1710 rpm	1080 rpm	1700 rpm	1700 rpm
TOOL Ø	250 mm	120 ÷ 150 mm	120 ÷ 150 mm	120 ÷ 130 mm	120 ÷ 130 mm
DISC HOLE	50 mm				
CONNECTION	FLANGE	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW

1.3.3 MODEL LCV 733 M SU

	POLISHING MANDRELS	POLISHING MANDRELS	INFERIOR CHAMFERING MANDRELS (bench side)	SUPERIOR CHAMFERING MANDRELS (pressure bar side)	SHAPING/ DRIPSTONE MANDREL
PROCESS	POLISHING	POLISHING	- EDGE MILLING - CHAMFERING	- EDGE MILLING - CHAMFERING	---
NUMBER OF MANDRELS	5	2	3	3	1
MOTOR POWER	1,5 kW (TOTAL 7,5 kW)	1,1 kW (TOTAL 2,2 kW)	1,1 kW (total 3,3 kW)	1,1 kW (total 3,3 kW)	5,5 kW
ROTATION SPEED (400V-50Hz)	1400 rpm	900 rpm	1400 rpm	1400 rpm	2800 rpm
ROTATION SPEED (230V – 60Hz)	1710 rpm	1080 rpm	1700 rpm	1700 rpm	3400 rpm
TOOL Ø	120 ÷ 150 mm	120 ÷ 150 mm	120 ÷ 130 mm	120 ÷ 130 mm	250 mm
DISC HOLE					50 mm
CONNECTION	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	FLANGE



1.3.4 MODEL LCV 733 M SE/SU

	CALIBRATING/ DRIPSTONE MANDREL	POLISHING MANDRELS	POLISHING MANDRELS	INFERIOR CHAMFERING MANDRELS (bench side)	SUPERIOR CHAMFERING MANDRELS (pressure bar side)	SHAPING/ DRIPSTONE MANDREL
PROCESS	---	POLISHING	POLISHING	- EDGE MILLING - CHAMFERING	- EDGE MILLING - CHAMFERING	---
NUMBER OF MANDRELS	1	5	2	3	3	1
MOTOR POWER	3,6 kW	1,5 kW (TOTAL 7,5 kW)	1,1 kW (TOTAL 2,2 kW)	1,1 kW (total 3,3 kW)	1,1 kW (total 3,3 kW)	5,5 kW
ROTATION SPEED (400V-50Hz)	1400 rpm	1400 rpm	900 rpm	1400 rpm	1400 rpm	2800 rpm
ROTATION SPEED (230V – 60Hz)	1700 rpm	1710 rpm	1080 rpm	1700 rpm	1700 rpm	3400 rpm
TOOL Ø	250 mm	120 ÷ 150 mm	120 ÷ 150 mm	120 ÷ 130 mm	120 ÷ 130 mm	250 mm
DISC HOLE	50 mm					50 mm
CONNECTION	FLANGE	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	FLANGE

1.3.5 MODEL LCV 733 M V/SU

	CALIBRATINGM ANDREL	POLISHING MANDRELS	POLISHING MANDRELS	INFERIOR CHAMFERING MANDRELS (bench side)	SUPERIOR CHAMFERING MANDRELS (pressure bar side)	SHAPING/ DRIPSTONE MANDREL
PROCESS	---	POLISHING	POLISHING	- EDGE MILLING - CHAMFERING	- EDGE MILLING - CHAMFERING	---
NUMBER OF MANDRELS	1	5	2	3	3	1
MOTOR POWER	3,6 kW	1,5 kW (TOTAL 7,5 kW)	1,1 kW (TOTAL 2,2 kW)	1,1 kW (total 3,3 kW)	1,1 kW (total 3,3 kW)	5,5 kW
ROTATION SPEED (400V-50Hz)	1400 rpm	1400 rpm	900 rpm	1400 rpm	1400 rpm	2800 rpm
ROTATION SPEED (230V – 60Hz)	1700 rpm	1710 rpm	1080 rpm	1700 rpm	1700 rpm	3400 rpm
TOOL Ø	250 mm	120 ÷ 150 mm	120 ÷ 150 mm	120 ÷ 130 mm	120 ÷ 130 mm	250 mm
DISC HOLE	50 mm					50 mm
CONNECTION	FLANGE	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	FLANGE



1.3.6 MODEL LCV 733 M V/O

	CALIBRATING/ MANDREL	POLISHING MANDRELS	POLISHING MANDRELS	INFERIOR CHAMFERING MANDRELS (bench side)	SUPERIOR CHAMFERING MANDRELS (pressure bar side)	DRIPSTONE MANDREL
PROCESS	---	POLISHING	POLISHING	- EDGE MILLING - CHAMFERING	- EDGE MILLING - CHAMFERING	---
NUMBER OF MANDRELS	1	5	2	3	3	1
MOTOR POWER	3,6 kW	1,5 kW (TOTAL 7,5 kW)	1,1 kW (TOTAL 2,2 kW)	1,1 kW (total 3,3 kW)	1,1 kW (total 3,3 kW)	3,6 kW
ROTATION SPEED (400V-50Hz)	1400 rpm	1400 rpm	900 rpm	1400 rpm	1400 rpm	1400 rpm
ROTATION SPEED (230V – 60Hz)	1700 rpm	1710 rpm	1080 rpm	1700 rpm	1700 rpm	1700 rpm
TOOL Ø	250 mm	120 ÷ 150 mm	120 ÷ 150 mm	120 ÷ 130 mm	120 ÷ 130 mm	250 mm
DISC HOLE	50 mm					50 mm
CONNECTION	FLANGE	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	M 24x3 RIGHT THREAD STANDARD RIGHT FEMALE SCREW	FLANGE

- NOTE: if the dripstone tool is on the bench, the power absorbed by the tool should be added to the motors total power:

* DRIPSTONE MANDREL	MOTOR POWER	DISC DIAMETRE	DISC HOLE
	2,1 KW	150 mm	25 mm

NOTE: *optional for all versions.

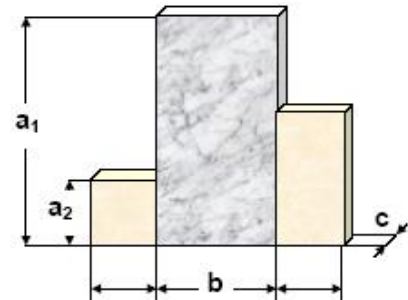
1.4 CONSUMPTIONS

DATA	LCV 733 M	LCV 733 M SE	LCV 733 M SU	LCV 733 M SE/SU V/SU	LCV 733 M V/O
POWER SUPPLY	VOLTAGE ON THE CUSTOMER'S REQUEST				
ELECTRICAL FREQUENCY	50/60 Hz				
MOTORS TOTAL POWER	16,9 kW	20,5 kW	22,4 kW	26 kW	24,1 kW
MOTORS TOTAL POWER + MICRO OSCILLATION	17,5 kW	21,1 kW	23,0 kW	26,6 kW	24,7 kW
ELECTRICAL ABSORPTION (230V - 60Hz)					
WATER CONSUMPTION	48 l/min	52 l/min		56 l/min	
COMPRESSED AIR ENTRY	6 bar				
COMPRESSED AIR CONSUMPTION	32 l/min				

NOTE: the powers indicated refer to the models without the addition of SA, PA or other automatisms.

1.5 SLAB PROCESSING

WORKING LENGTH (B)	CONTINUOUS CYCLE
SLAB LENGTH (b)	MINIMUM 300 mm
SLAB LENGTH (b) with "c min"	400 + (180 mm for each additional superior chamfer)
SLAB MINIMUM THICKNESS (c)	10 mm
SLAB MAXIMUM THICKNESS (c)	60 mm
SLAB MINIMUM WIDTH (a ₂)	80 mm
SLAB MINIMUM WIDTH NS (a ₂)	45 mm
SLAB MAXIMUM WIDTH (a ₁)	1800 mm
WORKING SPEED	MINIMUM 18 m/h MAXIMUM 130 m/h



MIN – MAX WIDTH

	a min. (mm)	a max. (mm)
c ≤ 30	a _{min}	5*b
30 < c ≤ 60	a _{min} 2*c	4*b

		a	
		min. (mm)	max. (mm) con b _{min}
LCV standard	10	80	1350
	20	80	1350
	30	80	1350
	40	80	1080
	50	80 100	1080
	60	80 120	1080

		a	
		min. (mm)	max. (mm) con b _{min}
LCV NS	10	45	1350
	20	45	1350
	30	45	1350
	40	45 80	1080
	50	45 100	1080
	60	45 120	1080

ATTENTION!



To polish the bevel on the presser bar side with a machine without PLC-touch, the minimum workable strip is:

- 100 mm for the standard machine
- 70 mm for the narrow strip machine.

2. INSTALLATION

2.1 TRANSPORT

The machine can be carried on trucks, boats, trains and airplanes.
It has not a particular packing and the attachments are sent separately.

2.2 LIFTING AND MOVING

The machine can be lifted by a crane or a bridge crane through two hook-up ropes of a length of 2,5 m at minimum. The ropes are connected above to the lifting hook, and below to the two eyelets on the bench of the conveyor belt (Fig. 7).



ATTENTION!
For the weight of each version refer to the table in paragraph 1.2.



ATTENTION!
The lifting of the machine by ropes shorter than the above-mentioned ones is not recommended, because the structure of the bench can buckle.

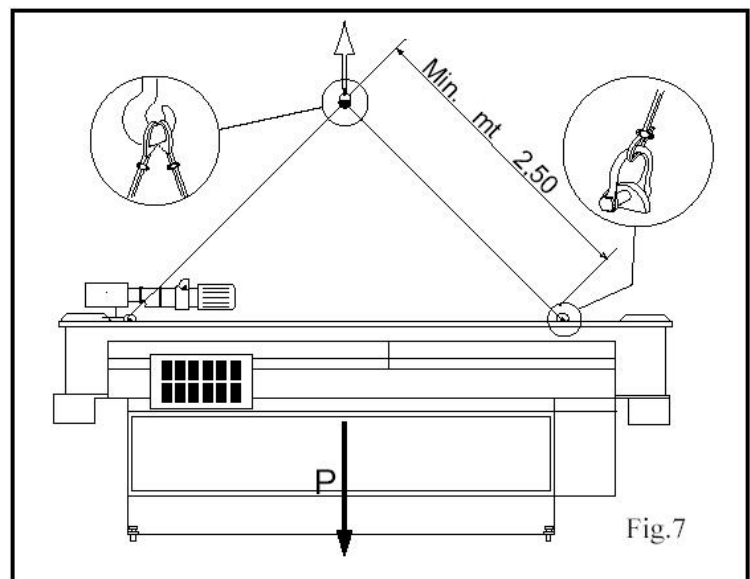


Fig.7

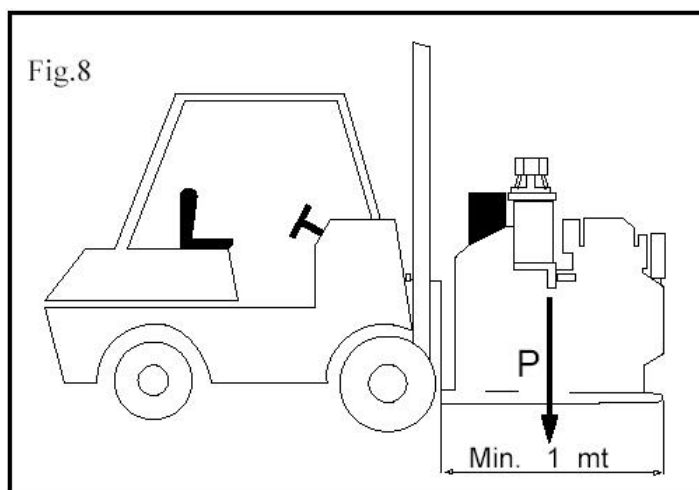


Fig.8

The lifting is also possible through a lift truck supplied with 1 m long forks. That is because the barycentre of the machine is at about 600 mm from the edge (Fig. 8).

2.3 ATTACHMENTS

Two roller extensions are the only attachments of the machine.

2.4 INSTALLATION

LCV requires neither foundations, nor slopes for water disposal. It is simply necessary to lean it on a hard ground and level it by adjusting the proper screws. The base of the machine should stay 2-4 cm lifted from the ground, as to allow air recycling for the cooling of the motors.

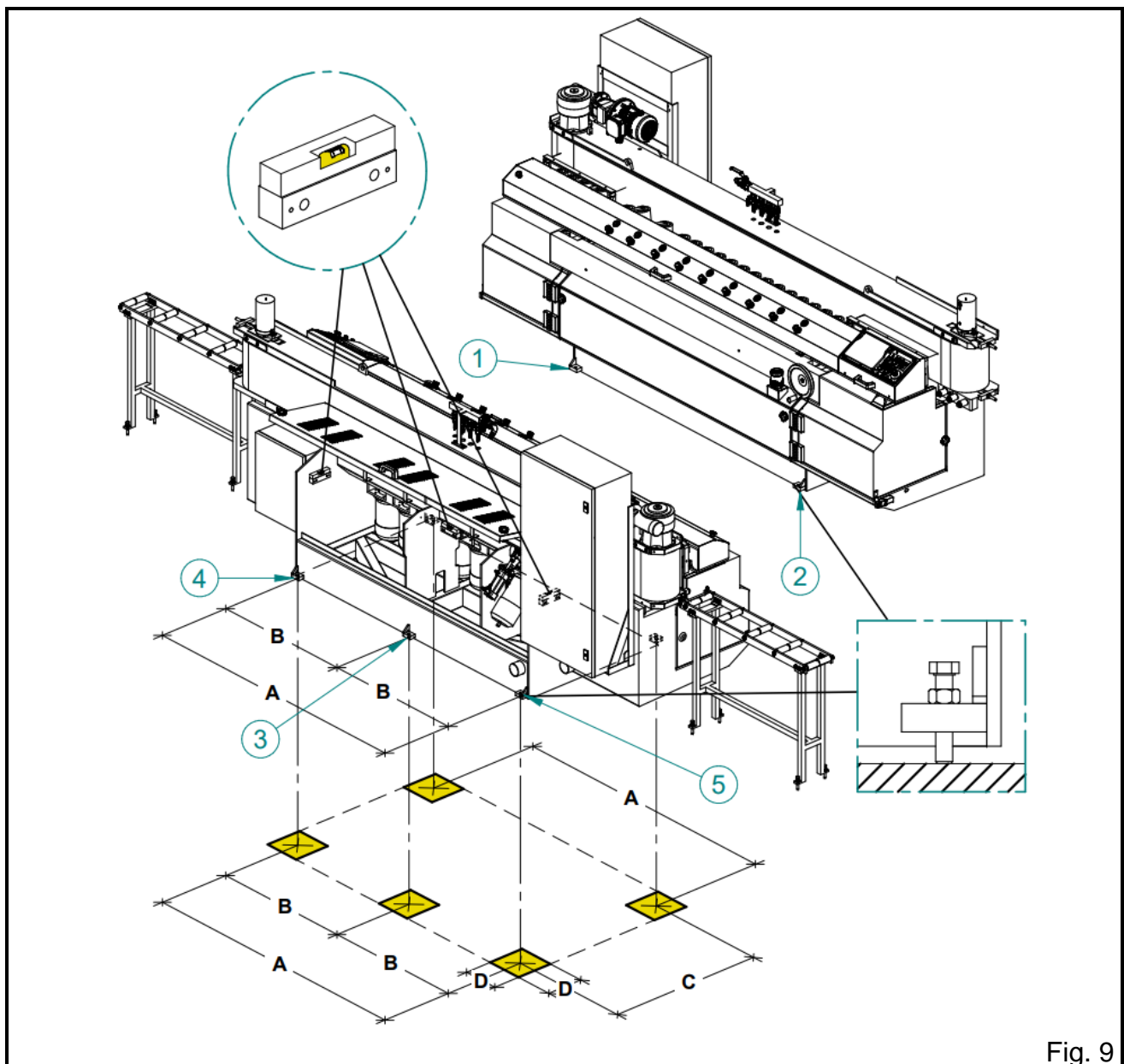


Fig. 9

A	2602 mm	C	1025 mm
B	1301 mm	D	120 mm

If the ground is not sufficiently plane, hard fulcrums should be arranged in accordance with the enclosed diagram.

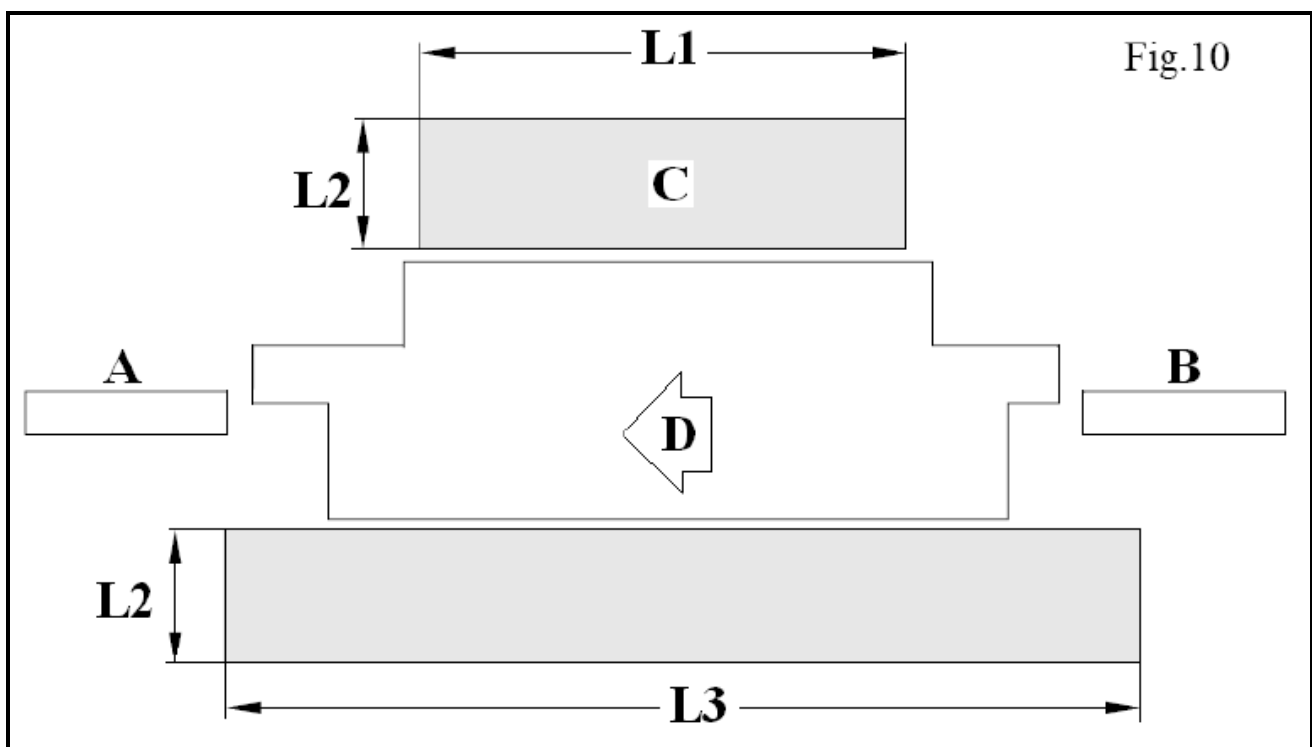
LCV is completely faired and draining occurs through a unique collecting hose which, if necessary, can be prolonged of some metres as to reach the collecting point.



ATTENTION!
Level the machine in the most accurate way by adjusting the proper screws (Fig. 9/1-2-3-4-5).

2.5 MAINTENANCE AREAS

An area for maintenance operations should be arranged:



A	EXIT ROLLER CONVEYOR
B	ENTRY ROLLER CONVEYOR
C	SPARE AREA
D	WORKING DIRECTION

L1	2692 mm
L2	Minimum 500 mm
L3	The minimum is the same as the length of the machine.

2.6 ENVIRONMENTAL SPECIFICATIONS

When positioning the machine it should be considered that its working is guaranteed in the following environmental conditions:

- Temperature: +5°C / +40°C
- Relative humidity: 35% - 75%

2.7 CONNECTION

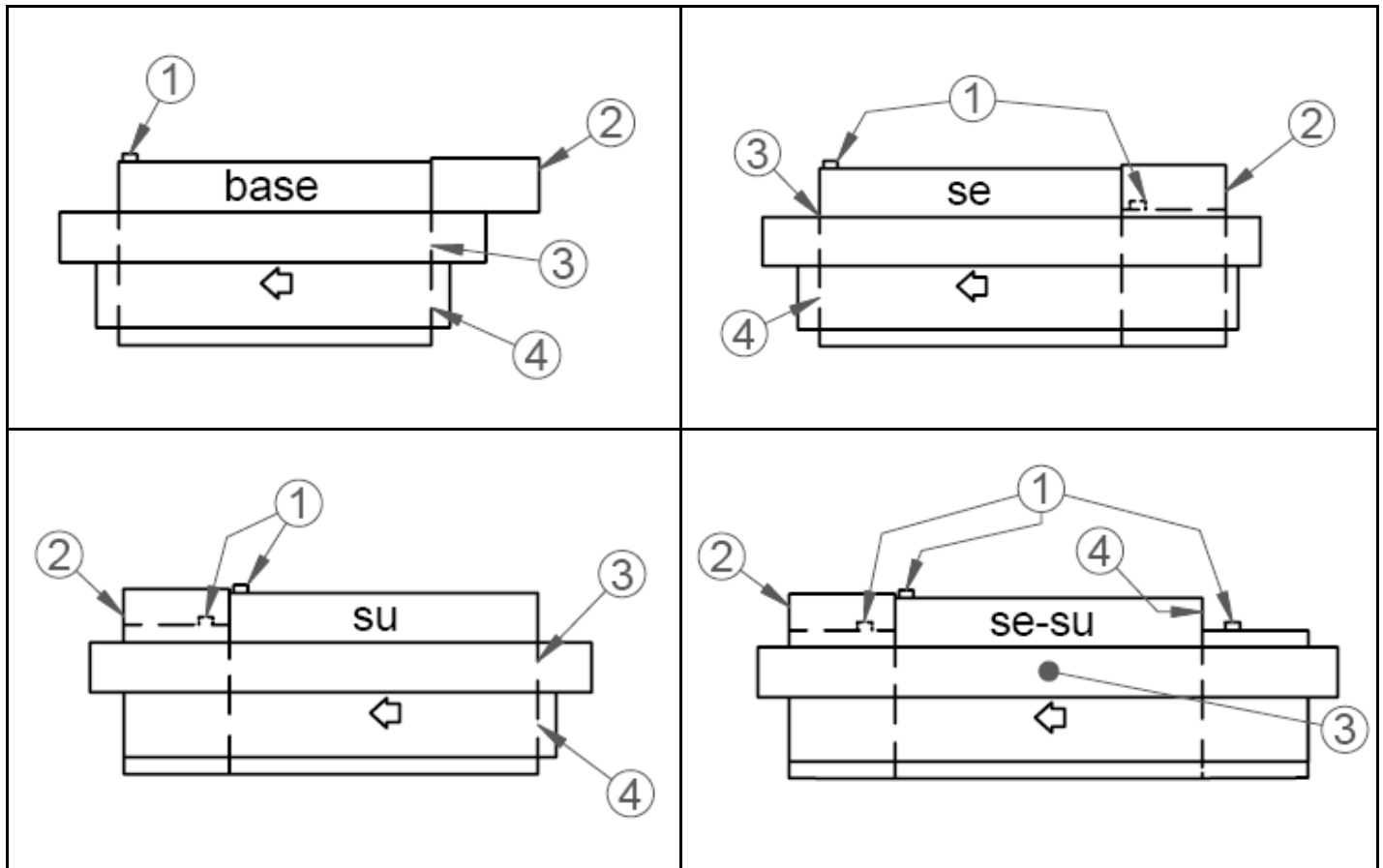


Fig 10 b

1	Waste water draining
2	Electrical connection

3	Water connection
4	Air Connection

2.7.1 ELECTRICAL CONNECTION

ATTENTION!

Before the electrical connection:



- verify the existence of a proper grounding system in accordance with the European Norms (EN).
- check that the tension is compatible with the characteristics of the tag on the machine. Fluctuations of tension bigger than 5% of the nominal tension indicated on the tag can provoke permanent damages to the machine that are not covered by the guarantee.
- Turn OFF the system general switch.

ONLY FOR EUROPEAN VERSIONS (CE):

Verify that the cable feeding the machine has proper dimensions (R-S-T, earth wire, neutral), section $\geq 16 \text{ mm}^2$ each, for a 380 V tension, and $\geq 25 \text{ mm}^2$ for a 220 V tension.



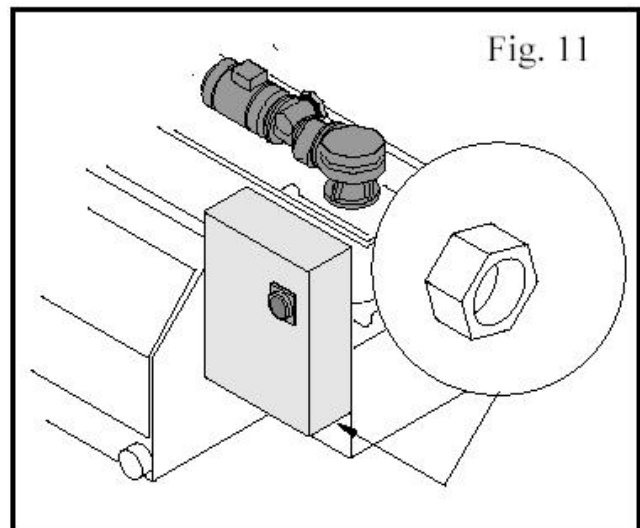
Verify that at the source of the cable connecting the machine there is a magnetothermal cut-out box with a stop power suited to the system.

ONLY FOR AMERICAN VERSIONS (UL):

Verify that at the source of the system to which the machine is connected there is a 100 A magnetothermal switch (or a switch with 100 A fuses).



The cable going from the general switch to the electrical board of the machine must be protected by a sheathing and inserted in the box through the proper cable press (Fig. 11).



Connect the wires of the cable to the terminal board according to the enclosed wiring diagram.

Make sure that wires R-S-T have been connected in phase by starting for a moment the switch of the conveyor belt. If the belt runs contrariwise, exchange two of the three R-S-T wires you had previously connected.

2.7.2 WATER CONNECTION

The water hose connected to the machine must be flexible, with a 25 mm internal diameter. It should guarantee the flow indicated in par. 1.4, and have a structure able to sustain the net pressure (an excess of flow can be eliminated by partially closing the machine ball shutoff valve).



The water hose must have a 1" cock at the source of the power plant connection.

Connect the water hose to the rubber holder of the distributor on the right side of the machine.

ATTENTION! The distributor of LCV SE versions (with entry calibrating-dripstone mandrel) is on the left side of the machine.

Clamp the hose to the rubber holder (Fig. 12).

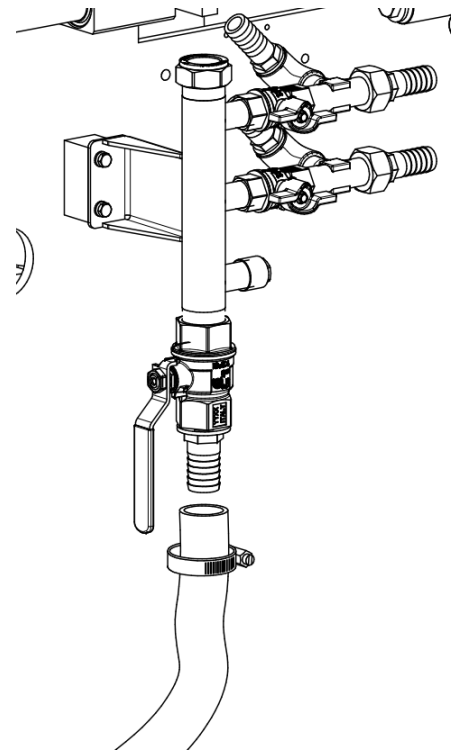


Fig.12

2.7.3 AIR CONNECTION

The air connection occurs in a unique filter-reducer lubricator connection on the right side of the machine.

ATTENTION! The connection of LCV SE versions (with entry calibrating-dripstone mandrel) is on the left side of the machine.

The suitable connecting hose for compressed air must have a 1/4" bayonet male connection (Fig.13).



ATTENTION!

**The net pressure must be about 6-9 bars.
After inserting air in the unit adjust the reducer at 6 bars.**

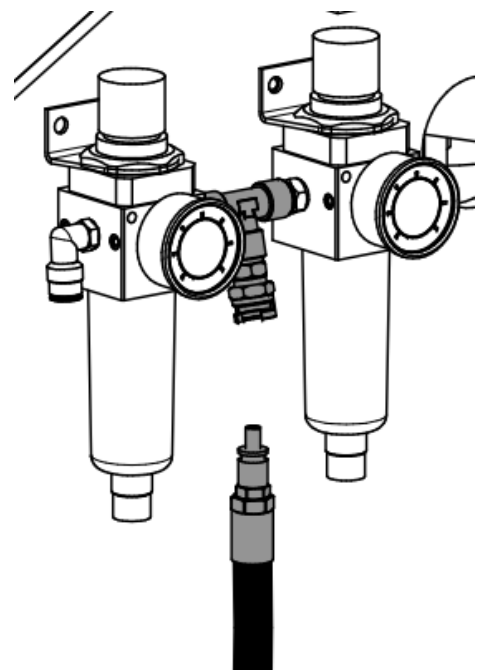


Fig. 13

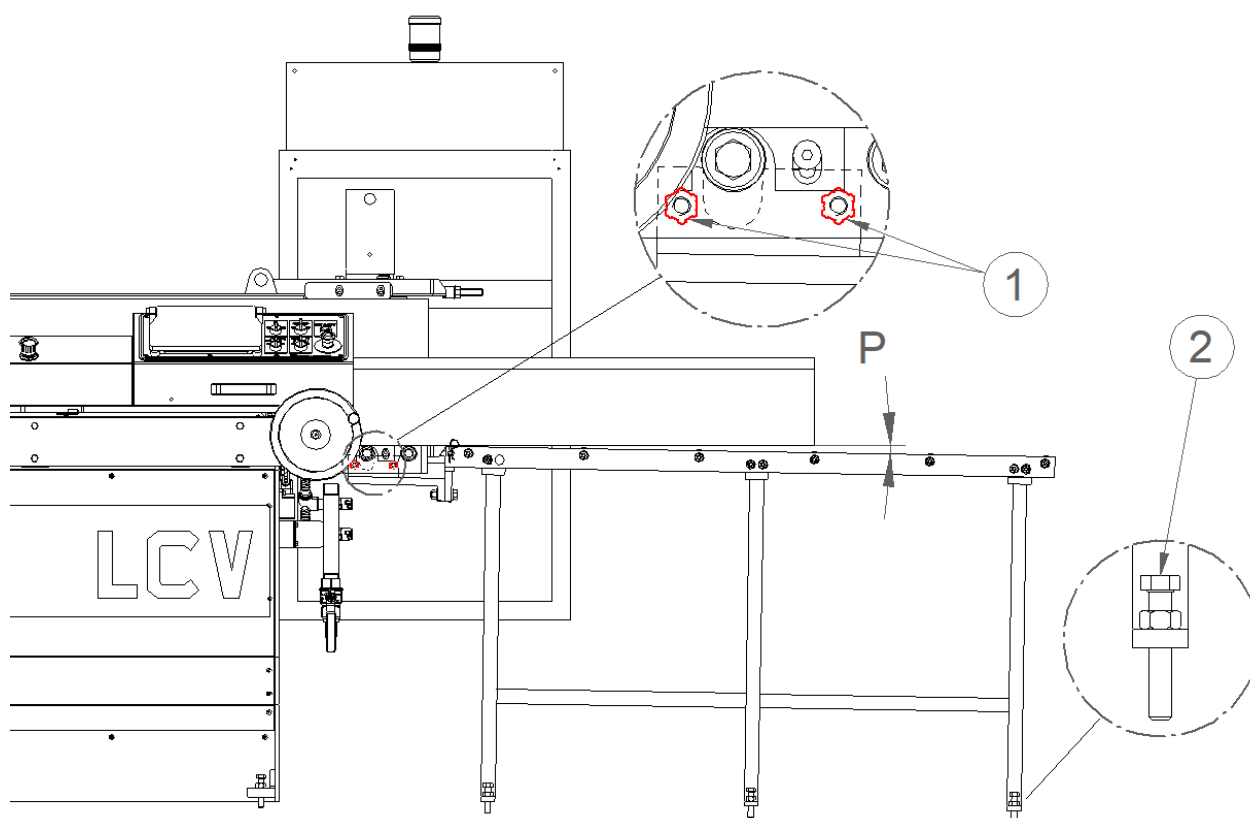


The air consumption of the machine is minimum, that is why you just need a small compressor (about 30 l/min.).

2.8 FIXING AND LEVELLING OF THE BENCH EXTENSIONS

The machine is supplied with interface plates bench-extensions.

1. Clamp the interface plates to the bench through the two proper bolts for each plate (Fig.14/1).
2. Lean half of a 2,5 m long bar on the bench and half on the extension. A processed slab with the same dimensions can be used, too.
3. Referring to light P of Fig.14 adjust the height of the extension by operating on the screws of the legs (Fig.14/2).
4. Repeat the operation for the other extension.



2.9 WASTE WATER



Waste water must be collected and treated in accordance with the norms in force in Europe or in the country where one operates.
Waste water is composed of:

- water;
- working scraps (marble, granites, stone);
- tools scraps (magnesite, catalysed synthetic resins, diamond, metal alloys).