



## D-95 VACUUM PUMPS

Code 1.9511.00



## MANUAL

June 2024

Marked



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## 1- GENERAL INTRODUCTION

The following considerations are intended to ensure correct reception and use of the device, as well as the safety of the user. For this purpose, we recommend reading this manual in detail before proceeding to unpack the device and subsequent use.

-This manual must be kept permanently within reach of the user of the equipment.

-Carefully unpack the device and check the contents. Notify any eventuality immediately.

-To preserve the device, avoid installing it in areas with corrosive atmospheres or exposed to liquid splashes.

-Avoid using the device when there is the possibility of generating explosive gas mixtures and flammable.

-In accordance with European usage regulations 89/655/EEC, the lack of adequate maintenance and the alteration or change of any component, exempts the manufacturer from any responsibility for the damage that could occur.

-The devices sent to *DINKO technical service* must be perfectly **clean and disinfected**.

Otherwise they will be rejected and returned with shipping at the expense of the owner.

## 2- PACKING LIST

Description	Code	Quantity
-------------	------	----------

Vacuum Pump D-95	1. 9511.XX	1
Silicone vacuum tube 5x10mm	1.8738.00, 1meter	1
Power cable		1
Guarantee		1
Instruction Manual		1

## 3- DESCRIPTION



D-95 vacuum pump. Code 1.9511.00: Maximum vacuum  $-0.860 \pm 2\%$ . Flow rate: 6l/min. Pressure: 2bar

*DINKO* vacuum pumps are diaphragm pumps. They consist of the main ON/OFF switch and the vacuum and pressure nozzles on their front panel.

The membranes are made of FPM ® material and the pump head is made of PPS / PRIMEF ® (polyphenylene sulfide) containing fiberglass, which makes them resistant to acids and solvents.

## 4- START UP

Connect the power cable to the 230V 50Hz network. Install the silicone tube in the front suction nozzle and press the main ON/OFF switch.

The free end of the tube will begin to suck in air. If the system to be vacuumed is prepared, connect the tube to this system.

Vacuum correction table by altitude (meters). Equivalent to 760mm Hg at sea level.

Altitude	Hg mm	Altitude	Hg mm	Altitude	Hg mm	Altitude	Hg mm	Altitude	Hg mm	Altitude	Hg mm	Altitude	Hg mm
300	733	700	699	1100	665	1500	634	1900	603	2300	574	2700	546
400	724	800	690	1200	657	1600	626	2000	596	2400	567	2800	539
500	716	900	682	1300	649	1700	618	2100	588	2500	560	2900	532
600	707	1000	674	1400	642	1800	611	2200	581	2600	553	3000	525

-1,000bar = 760mmHg

## 5- ACCESSORIES

Code Description

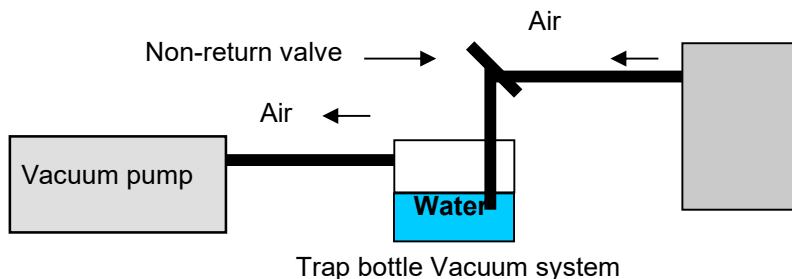
1.9518.01 Analog pressure regulator. 0-2 bar pressure gauge.

1.9518.00 Analog vacuum regulator. Intervals of 20mm Hg. Vacuum gauge 0-760mm Hg.

1.9520.00 Vacuum trap with 1L bottle and non-return valve.

## 6- VACUUM TRAP INSTALLATION DIAGRAM

In those cases in which there is production of annoying vapors that are harmful to people, or harmful to the integrity and duration of the pump membranes and valves, it is advisable to install a retention trap. The generation of sticky substances or the possible presence of solid particles are also reasons for this installation. The trap is supplied with the **code 1.9520.00**



## 7- SPECIFICATIONS

Code	Vacuum bar	Pressure bar	Flow L/min	Size cm	Kg	Power supply
1.9511.00	-0.840 ± 2%	2	6	16x22x9	2	230V50Hz
1.9511.10	-	-	1			
1.9511.11	-	-	2			
1.9511.12	-0.840 ± 2%	2	6			12V DC

## 8- ELECTRICAL DATA

- 1- Power: 230V 50Hz. Option 110V 60Hz
- 2- 1.9511.12. Rechargeable battery
- 3- Fuse 0.5Amp

## 9- FUSE CHANGE

The fuse holder box is part of the power supply base located at the back of the pump. See Figure. Pry with a screwdriver between the central part of the fuse holder box and the top part of the power supply base to remove the fuse holder box. The box remains attached without being completely removed. There are two fuses.

Press the box inwards to restore its original position.

Remember to replace the fuse used.



← Fuse holder box Version 12V DC

● ●  
+ - Rear connectors feeding

← Power base



## 10- MAINTENANCE-SPARE PARTS

Before proceeding with any examination or repair of the device, it is necessary to disconnect the mains socket. All initiatives must be carried out by qualified personnel to avoid greater harm.

Entrust your device to a technical service authorized by *DINKO Instruments*.

*DINKO* vacuum pumps do not require maintenance, as they have self-ventilated magnetic induction motors that work dry. They are not affected by liquid reabsorption, but if this occurs, it is advisable to let the pump run for a few minutes to expel the liquid. Avoid the entry of air containing sticky substances since these will remain inside the pump, shortening the life of the membrane and internal valves. In these cases, protection filters or a vacuum trap with a bottle can be inserted.

### Code Description

1.0070.26 Membrane, washers (4), seals (2).

1.0070.10 Engine 1.9511.00

1.8738.01 Silicone vacuum tube 5x10mm., 1 meter



### Note of interest:

Disposal of waste electrical and electronic equipment by users within the European Union.

This symbol on the product or packaging indicates that it cannot be disposed of as household waste. You must dispose of your residual equipment by handing it over to the collection agency for the recycling of electrical and electronic equipment. For more information about recycling this equipment, contact your local office, the store where you purchased the equipment, or your household waste disposal service. Recycling materials helps conserve natural resources and ensure that they are recycled in a way that protects human health and the environment.

## 11- WARRANTY

### DURATION:

The warranty is established for a period of 1 year from the date of commissioning of the device as long as the warranty card is returned to us within 8 days following said commissioning. Without this condition the guarantee will not be valid.

### SCOPE OF WARRANTY:

The guarantee is given against manufacturing and material defects for an average of 40 hours of work per week. The guarantee is reduced proportionally to the increase in working hours.

Repairs will be carried out in our factory. Otherwise the warranty will only include the replacement of defective elements.

*DINKO* will not be responsible for transportation costs, nor will it assume responsibility for the consequences caused by the immobilization of the device.

The free replaced parts remain our property, reserving the right to request their return, free of shipping to our home.

Repairs or replacement of parts during the warranty period do not extend the initial warranty.

Our liability is limited to the attached warranty and not to possible accidents to people or other things.

Any alteration of the device by the user voids the warranty.

## 12- "CE" DECLARATION OF CONFORMITY

DINTER SA

*DINKO* Instruments c/ Encarnació, 123-125 / 08024 – Barcelona

Declares that the articles mentioned in the attached list, to which this declaration refers, comply with the essential safety requirements of the applicable European Directive:

- Low Voltage Directive Directive D2006/95/EEC of December 12, 2006

- Essential requirements of Annex I of the Machinery Directive 2006/42/EEC

- Electromagnetic Compatibility EC relating to the Electromagnetic Compatibility Directive 2004/108/EEC

- Safety for electrical measurement, control and laboratory devices. Requirements relating to EMF. EN 61326

- Safety rules for electrical measurement, control and laboratory devices. Part I.  
General prescriptions  
EN 61010-1

However, the user must observe the assembly and connection instructions indicated in the technical instruction catalogues.

Name:

Joan A. Bravo

Josep X. Sensada

Post:

Technical director

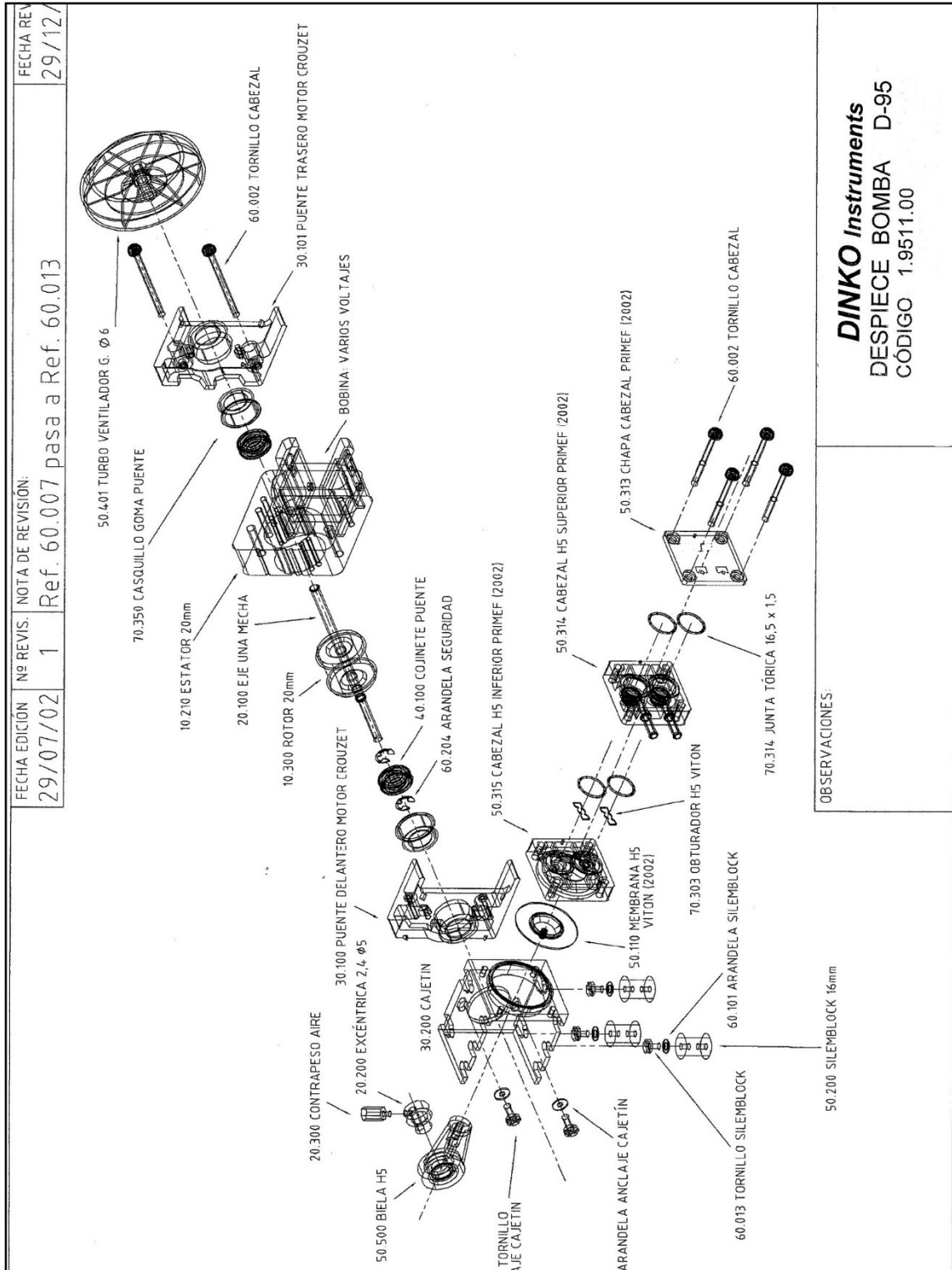
Quality manager

Signature



Model: D-95 Vacuum Pumps

# 13-DIAGRAMM



**DINKO Instruments**  
 DESPIECE BOMBA D-95  
 CÓDIGO 1.9511.00

OBSERVACIONES:

Currently applicable to Pumps 1.9511.00, 1.9511.10, 1.9511.11 and 1.9511.12

## 14- ANOMALIES

The pump does not seem to give the expected vacuum:

- a) There may be an entry of air into the vacuum chamber.  
With the pump running, disconnect the pump from the enclosure and plug the suction nozzle with your finger.  
If it does not exert suction or is weak, the membrane or internal valves have deteriorated and need to be changed or require cleaning.  
Suck in water and then leave the pump running for a few minutes to expel the water. If it is not solved, go to technical service or request a replacement. See spare parts and diagrams section.
- b) In the case of liquid filtration and with the pump connected to the vacuum device, the pump must generate the usual maximum vacuum of the pump, with the liquid above the filter.  
  
If not, there is no airtightness and air enters the system. Check connections, etc. Otherwise, go to technical service or request spare parts. See spare parts and diagrams section.
- c) See Altitude Vacuum Equivalence Chart, page 3.  
The higher the altitude, the lower the air pressure that must be extracted, so 626mm Hg at 2000 meters of altitude is equivalent to 760mm Hg at sea level.
- d) The previous recommendations have been taken into account but the filtering is not carried out or takes too long.
  - d-1) Not done: you need a Pump that obtains more vacuum.
  - d-2) Not performed: the pump creates sufficient vacuum but does not filter. The pore size may of the filter is too small and clogs. Do 2 or 3 filters instead of just one or use larger diameter filters.
  - d-3) It takes too long. The vacuum system is very large and requires a pump to evacuate air faster.
  - d-4) It takes too long. The vacuum system is not very large. Use larger diameter filters, for example, 90mm.



## ***OTHER DINKO APPARATUS***

- Blenders-Homogenizers
  - Colorimeters
  - Conductivity meters
- Extractor for meat analysis
  - Heating Plates
  - Infrared ovens
- Kits for water analysis
  - Magnetic Stirrers.
- Metallic Block Heaters
  - Microscopes
  - Nephelometers
  - Orbital Shakers
- Oxygen Meters
- Peristaltic pumps
  - pH-meters
  - Photometers
- Respirometers
  - Rod Stirrers
  - Rotary Stirrers
  - Sand Baths
- Spectrophotometers
- Temperature Controllers
  - Timers
- TriquiVisor - Trichinoscope
  - Turbidimeters
  - Turn Dishes
- Vacuum Pumps

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