

multipro

Electro-pneumatic brushing robot

TEGRAS®



user manual

EN

original manual translation



introduction



Dear customer:

Thank you very much for placing your trust in a quality product from TEINNOVA.

This product is manufactured using modern production processes and extensive quality assurance measures.

We try to do everything possible to ensure that you are satisfied with this product and can work with it without any problems.

If you have any questions about this product, please contact your dealer or our company directly.

Before operating the machine, carefully read the operating instructions for your equipment.

Please consider this manual as part of the machine and keep it handy for future reference.



Training service

We offer the option of providing companies with specific training in the use of our equipment and training their operators to provide the best service and thus contribute to the success of their end customers.

Aspects such as knowing how to draw up a good estimate objectively, responding to specific problems that may arise, or offering a more professional and efficient service.



Technical service

Thanks to our own manufacturing of cleaning equipment we can control at all times the quality and performance of each machine we manufacture, and this has allowed us to have very low repair ratios which have always been solved with our own Technical Service led by the same team that manufactures it, and in very short periods of time.

We have all types of spare parts for your equipment, as well as related accessories.

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symbolology

All the existing graphic symbols in this manual as well as those indicated on the equipment itself are explained in this section, it is important to read with special attention the text related to this symbology since it is related to personal and equipment safety.



DANGER!

This symbol alerts you to a potentially hazardous situation which can result in death or serious injury if the instructions are not followed properly. Be sure to read all instructions described in the "Safety Information" section.



WARNING!

This symbol alerts you to a potentially hazardous situation which may result in minor or moderate injury, or property damage resulting in personal injury if you do not properly follow the instructions.



CAUTION!

This symbol alerts you to a situation that may result in property damage without personal injury if you do not properly follow the instructions.



IMPORTANT NOTE!

This symbol alerts you to information regarding the optimal use of the equipment to avoid possible misuse.





safety warnings

- The MULTIPRO equipment must NOT be used for purposes other than those described in this instruction manual.
- Before starting up the equipment, make sure that all electrical and fluid connections are correct.
- Before starting the equipment, make sure that the brush is inside the duct to be cleaned.
- Be careful to place your MULTIPRO on a smooth and stable surface. Lock the brakes on the front wheels so that the machine remains stable while working.
- Persons operating MULTIPRO equipment must be sufficiently trained.
- Hold the hose firmly before operating the air brush motor. Keep a firm grip on the hose at all times while operating the brush.
- Safety goggles must be worn to prevent chemical splashes or dust from reaching the operator's eyes.
- Properly secure your MULTIPRO and activate the wheel lock when transporting it in a vehicle.
- Do not open the control box of your MULTIPRO duct cleaning robot. In the event of a fault, please contact TEINNOVA's Technical Assistance Service on +34 941 44 50 56.





conditions of use

MULTIPRO is a machine for cleaning both circular ducts, with diameters of 100-1000 mm, and rectangular ducts. Ducts may be for smoke extraction, chimneys or even air-conditioning installations. Suitable fittings must be provided for each duct.

It includes a 30 metre hose so that 60 metres of pipe can be cleaned from a single point on the pipe. It can be used in flues and extraction hoods.

This equipment performs dry or wet cleaning, generating and applying active foam that is subsequently rinsed with water.

It can be used with the AR20 compressor as shown in the diagram.



Any other use is strictly prohibited without the written permission of the manufacturer.



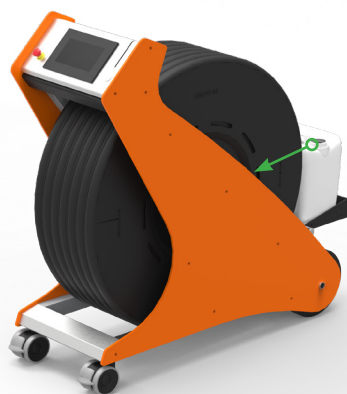
Do not place the equipment in a horizontal position as this will cause serious internal damage.



Unless otherwise indicated, the degreasing chemical should be the one recommended by the COMEGRAS manufacturer. The use of a different chemical will void the warranty and may cause irreparable damage to your TEGRAS equipment.

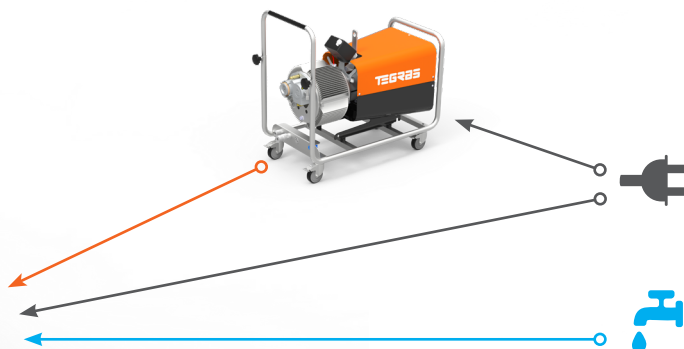
multipro

Electro-pneumatic brushing robot for duct cleaning



AR20

Compressed air generator



LEYENDA

- chemical and low pressure rinsing
- power supply
- compressed air
- mains water



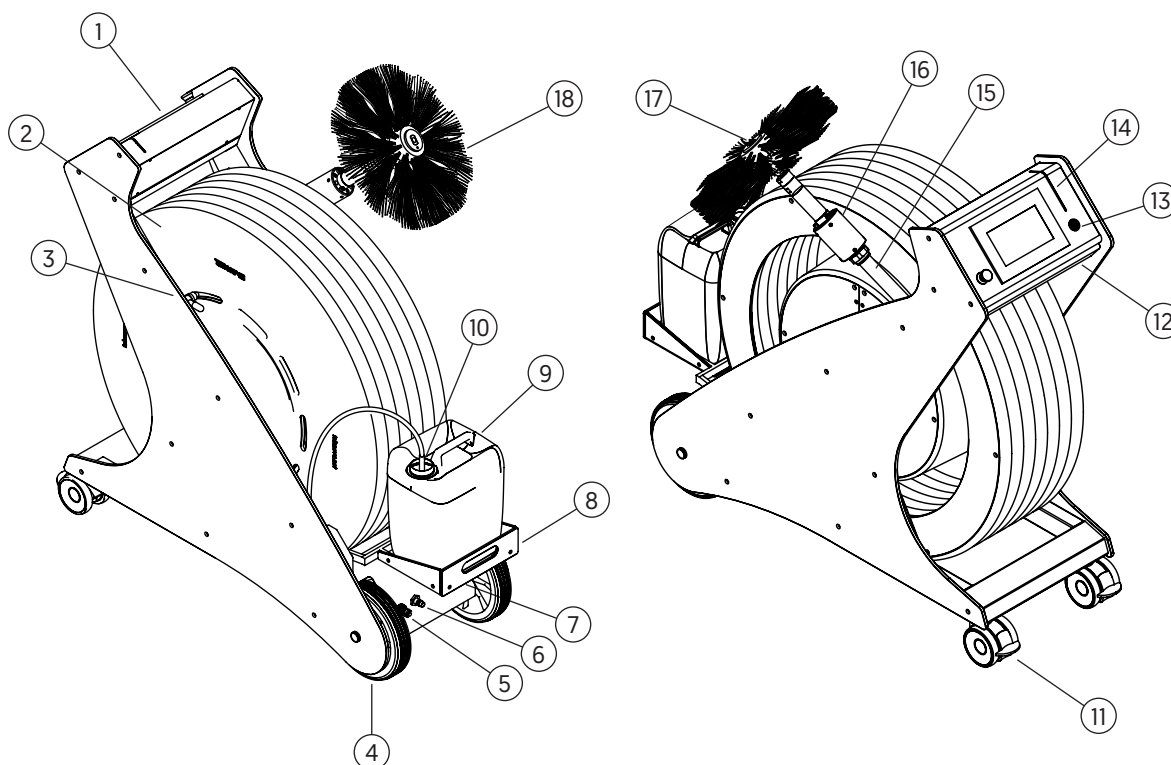


know your machine

Components:

- 1- Control panel
- 2- Reel
- 3- Reel rotation lock
- 4- Rear wheel
- 5- Liquid inlet
- 6- Compressed air inlet
- 7- Electrical connection cable
- 8- Chemical support tray
- 9- 10-litre chemical tank

- 10- Chemical suction rod
- 11- Front wheel with brake
- 12- Carrying handle
- 13- On/off button
- 14- LED indicator
- 15- Hose
- 16- Brush head
- 17- Brush coupling
- 18- Brush





control panel

Main control panel:

①



Touch screen

The equipment is controlled via the touch screen.

②



General Switch

Switching the equipment on and off

③



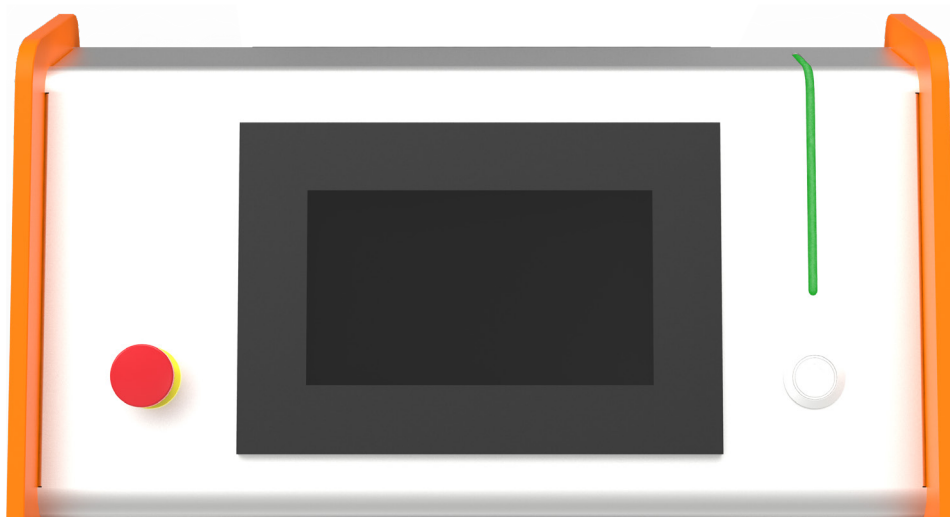
Emergency Mushroom Emergency stop

④



LED Strip

Indicates the status of the machine

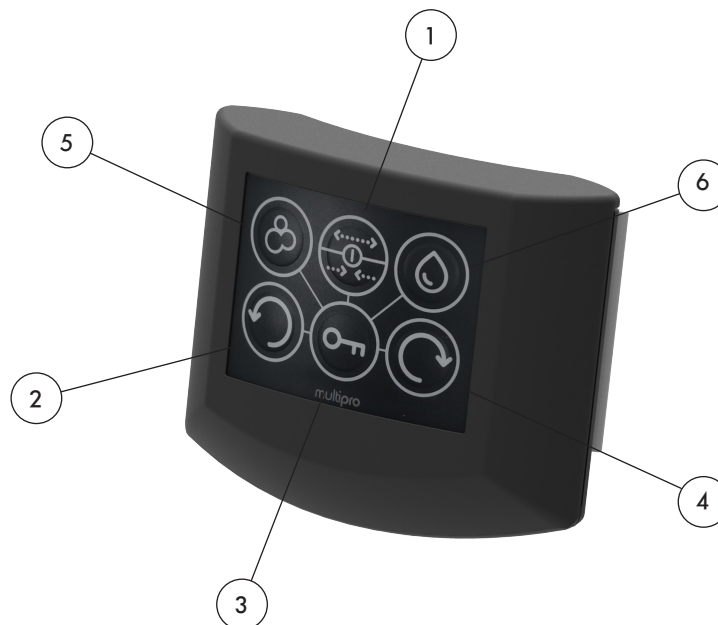




remote control

Remote control:

| | | | |
|---|--|-----------------|--|
| ① | | Centring button | Used to open/close/stop the centring device of the MULTIPRO planing machine. |
| ② | | Left Turn | Actuates the motor of the planing machine so that its rotational movement is counterclockwise. |
| ③ | | Unlock button | Button for activating the above functions. In order to start a function, both buttons must always be pressed at the same time. |
| ④ | | Right Turn | Actuates the motor of the planing machine so that its rotational movement is clockwise. |
| ⑤ | | Foaming | It drives and stops the foaming function of the machine. |
| ⑥ | | Rinsing | Activates and stops the rinsing function of the machine. |



1 Battery12V.
Alkaline 23A



multipro

Electro-pneumatic brushing robot

accessories and related equipment

Accessories included:



Compressed air supply hose

8 metre hose, with standardised connections, specifically for the compressed air supply of your MULTIPRO. The connections correspond to those of the equipment supplied by TEINNOVA.

Cod. AC3303101



Single brush adapter

Coupling in which a specific type of brush is mounted to the head of your MULTIPRO machine. The assembly of this coupling is very simple and consists of four individual parts.

Cod. AC6470020



Double brush adapter

Coupling in which two specific brushes are mounted to the head of your MULTIPRO machine. The assembly of this coupling is very simple and consists of four individual parts.

Cod. AC6470010



The use of two brushes in combination with the double brush adapter effectively cleans flat duct faces and corners.



Brush adapter spare parts kit

Spare parts kit for the different brush adapters of your MULTIPRO.

Cod. AC3303609

accessories and related equipment

Optional accessories:



Hose reel for mains water

Hose reel that makes it possible to supply your MULTIPRO with mains water from a mains socket far away from the cleaning area. The length of the hose is 10 metres.

Cod. HE7300200



Pneumatic centring device

Pneumatic system with which the machine head is centred in the duct. It has different sizes of legs (600mm, 800mm and 1000mm) with which ducts with a range of 500mm to 1000mm in diameter can be covered.

Cod. AC3303130



Anti-breakage protector

Anti-breakage protector for the shaft and hose of your MULTIPRO equipment.

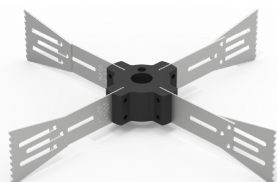
Cod. AC3303112



Protective weatherstripping

5 metre protective weatherstrip for registration.

Cod. AC6134102



Extreme brush

Metal strip brush for cleaning the hardest grease. Covers ducts from Ø300 - Ø400; Ø400 - Ø500; Ø500 - Ø600 and Ø600 - Ø700, thanks to the movement of its spatulas on the different blades.

Cod. CP2300515

accessories and related equipment



Remote control

Remote control unit with which you can operate your MULTIPRO equipment.

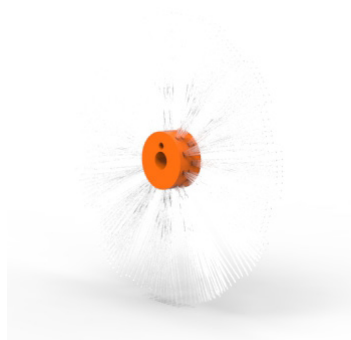
Cod. AC3303604



MULTIPRO visualisation system

System designed to be installed in your MULTIPRO in a simple way and without having to make any modifications to the equipment. Its installation improves the performance of the equipment when performing a better service.

Cod. AC33031031



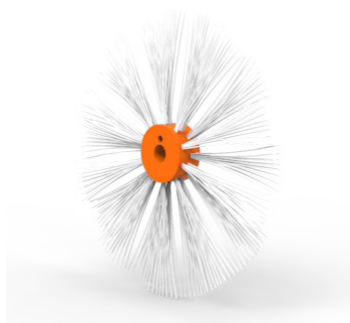
NYLON Brushes

Nylon brushes recommended for cleaning ducts with grade 1 grease [low soiling].

| Dimensions | | Cod. |
|------------|-------|-----------|
| mm | in | |
| 100 | 3,94 | CP2010510 |
| 200 | 7,87 | CP1011520 |
| 250 | 9,84 | CP1011525 |
| 300 | 11,81 | CP1011530 |
| 350 | 13,78 | CP1011535 |
| 400 | 15,75 | CP1011540 |
| 450 | 17,72 | CP1012045 |
| 500 | 19,69 | CP1012050 |
| 600 | 23,62 | CP1012060 |
| 700 | 27,56 | CP1012070 |
| 800 | 31,5 | CP1012080 |
| 1000 | 39,37 | CP1041000 |

accessories and related equipment

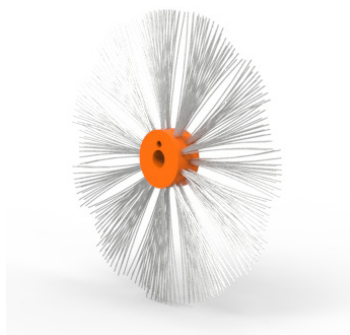
PBT brushes



PBT [butylene terephthalate] brushes recommended for cleaning ducts with grade 2 grease [medium dirt].

| Dimensions | | Cod. |
|------------|-------|-----------|
| mm | in | |
| 200 | 7,87 | CP1023020 |
| 250 | 9,84 | CP1023025 |
| 300 | 11,81 | CP1023030 |
| 350 | 13,78 | CP1023035 |
| 400 | 15,75 | CP1023040 |
| 450 | 17,72 | CP1023045 |
| 500 | 19,69 | CP1023050 |
| 600 | 23,62 | CP1023060 |
| 700 | 27,56 | CP1023070 |
| 800 | 31,5 | CP1023080 |
| 1000 | 39,37 | CP1051000 |

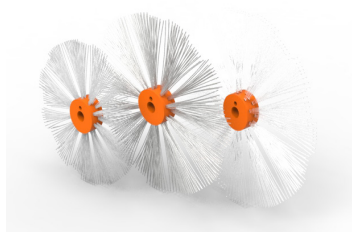
MIXED Brushes



Steel and nylon brushes recommended for cleaning ducts with grade 3 grease [high soiling].

| Dimensions | | Cod. |
|------------|-------|-----------|
| mm | in | |
| 200 | 7,87 | CP1032820 |
| 250 | 9,84 | CP1032825 |
| 300 | 11,81 | CP1032830 |
| 350 | 13,78 | CP1032835 |
| 400 | 15,75 | CP1032840 |
| 450 | 17,72 | CP1032845 |
| 500 | 19,69 | CP1032850 |
| 600 | 23,62 | CP1032860 |
| 700 | 27,56 | CP1032870 |
| 800 | 31,5 | CP1032880 |

accessories and related equipment

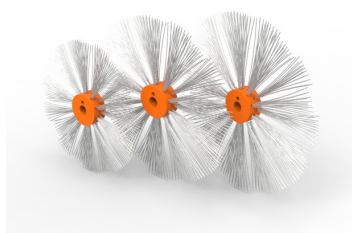


PACK X5 NYLON

Pack of 5 nylon brushes recommended for cleaning ducts with grade 1 grease [light dirt]. The brushes range in size from 300mm to 800mm diameter.

Cod. CP1101520

| Dimensions | | Cod. |
|------------|-------|-----------|
| mm | in | |
| 300 | 7,87 | CP1011530 |
| 400 | 11,81 | CP1011540 |
| 600 | 15,75 | CP1011560 |
| 700 | 19,69 | CP1012070 |
| 800 | 23,62 | CP1012080 |



PACK X5 PBT

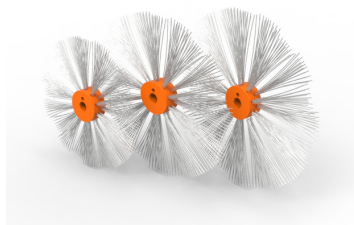
Pack of 5 PBT brushes recommended for cleaning ducts with grade 2 grease [medium dirt]. The brushes range in size from 200mm to 600mm diameter.

Cod. CP1203030

| Dimensions | | Cod. |
|------------|-------|-----------|
| mm | in | |
| 200 | 7,87 | CP1023020 |
| 300 | 11,81 | CP1023030 |
| 400 | 15,75 | CP1023040 |
| 500 | 19,69 | CP1023050 |
| 600 | 23,62 | CP1023060 |



accessories and related equipment



PACK X5 MIXTO

Pack of 5 mixed brushes recommended for cleaning ducts with grade 3 grease [high dirt]. The size range of the brushes is from 200mm to 600mm diameter.

Cod. CP1302828

| Dimensions | | Cod. |
|------------|-------|-----------|
| mm | in | |
| 200 | 7,87 | CP1032820 |
| 300 | 11,81 | CP1032830 |
| 400 | 15,75 | CP1032840 |
| 500 | 19,69 | CP1032850 |
| 600 | 23,62 | CP1032860 |



accessories and related equipment

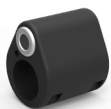
Accessories included in the MULTIPRO Visualisation System:



Visualisation system

Equipment specially designed to visualise the inside of ducts during cleaning work. It has an SD card recording system.

Cod. AC3303413



Camera for MULTIPRO

HD camera, with built-in self-levelling and illumination, designed for easy installation in the head.

Cod. AC3303414



Briefcase

Case designed to store the MULTIPRO Visualisation System, optimising its storage space to the maximum.

Cod. AC3303403



accessories and related equipment

Related equipment:



AR20

Vane compressor generating a compressed air flow of 240 litres at 10 bar.

220V 50Hz; Cod. TG3330201

110V 60Hz; Cod. TG3330500



AR18

Piston compressor that generates a compressed air flow of 260 liters at 9 bar.

110V 60Hz; Cod. CO3330205



AR16

Piston compressor that generates a compressed air flow of 280 liters at 10 bar.

220V 50Hz; Cod. CO3330206



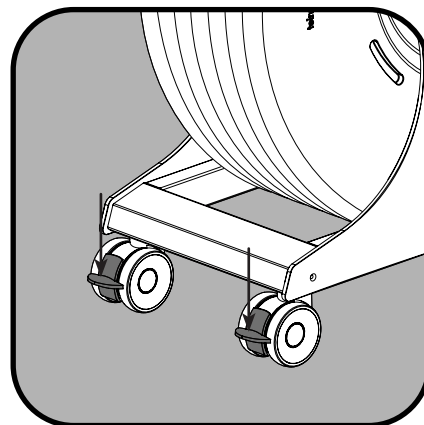


operating instructions

Steps for the correct installation of your MULTIPRO:

1 Placement of your MULTIPRO:

Place your MULTIPRO on a smooth and stable surface. Once the machine is in an optimal position for the work to be carried out, lock the brakes on the front wheels to keep the machine stable.

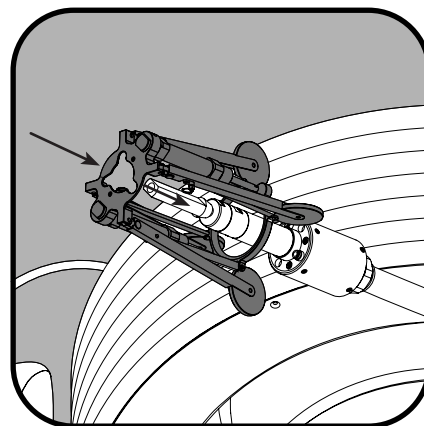


2 Fitting of accessories:

The head of your MULTIPRO is designed taking into account the possibility of incorporating various accessories supplied by TEINNOVA. With these, work can be carried out more efficiently and comfortably.

Assembly of the centring device:

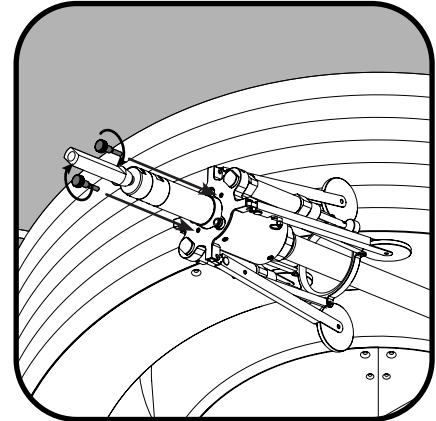
Place the centring pin on the head as shown in the figure.



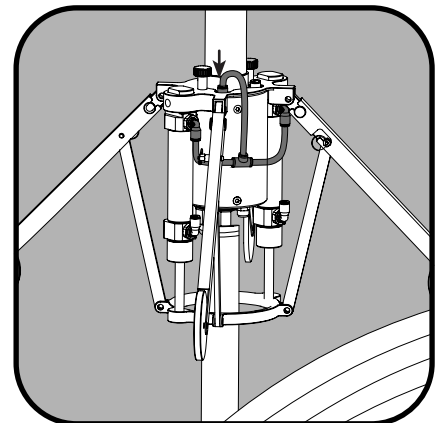


operating instructions

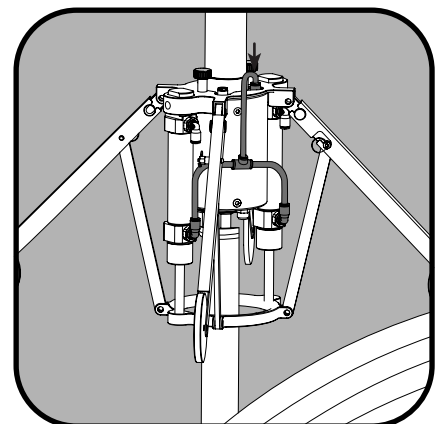
Fix the centring device to the head by means of two fixing screws. The fastening is done by turning the 2 screws simultaneously clockwise, as shown in the figure.



Connect the compressed air outlet port of the compressed air head to the pneumatic cylinder shut-off circuit line, as shown in the figure.



Connect the compressed air outlet port of the compressed air head to the opening circuit of the pneumatic cylinders, as shown in the figure.

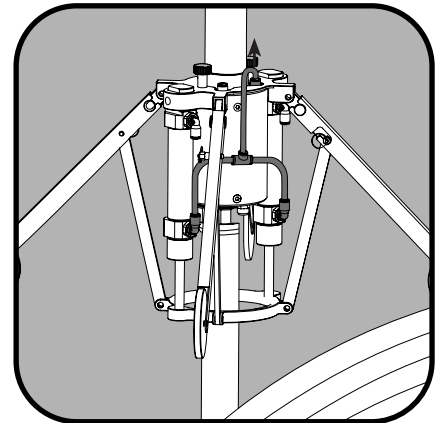




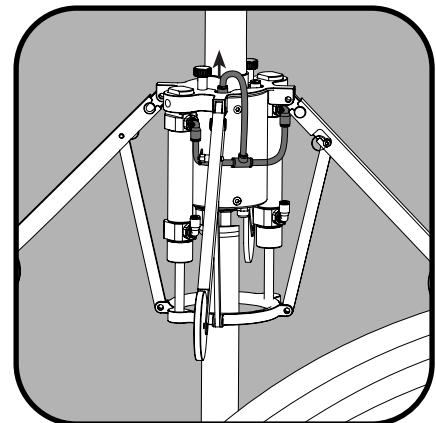
operating instructions

Disassembly of the centring device:

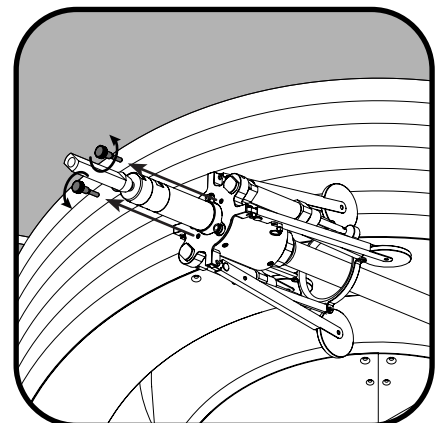
Disconnect the compressed air outlet port of the compressed air head with the pneumatic cylinder opening circuit line, as shown in the figure.



Disconnect the compressed air outlet port of the compressed air cylinder head with the pneumatic cylinder shut-off circuit line, as shown in the figure.



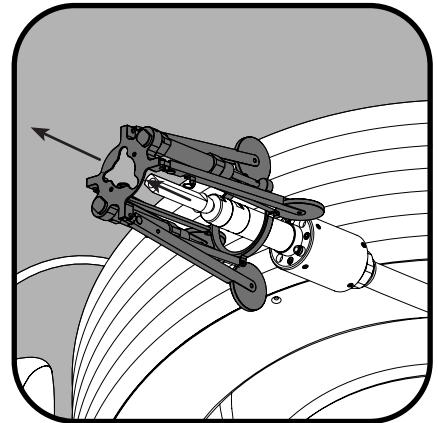
Loosen the head centring device by means of two fixing screws. This is done by turning the 2 screws simultaneously counterclockwise, as shown in the figure.





operating instructions

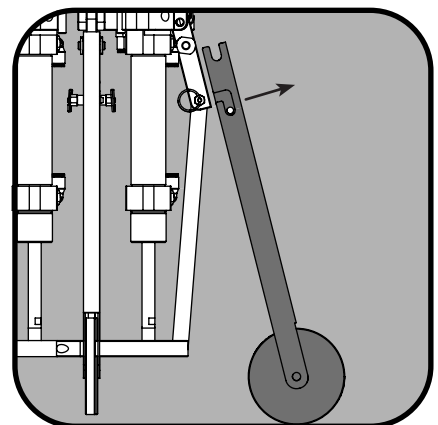
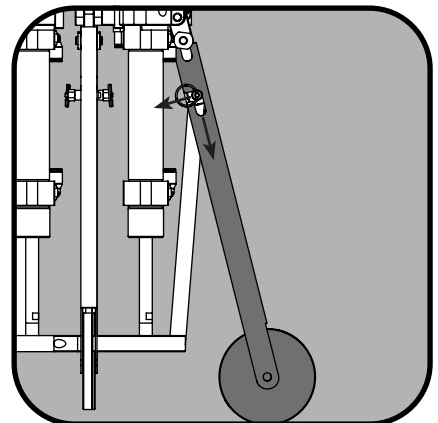
Separate the centring device from the head as shown in the figure.



Assembly / disassembly of the centring feet:

To remove the leg, pull the locking pin and slide the leg downwards. Once it is free, pull it out to the side. Do the same with the other legs.

To replace the legs, whether they are 600, 800 or 1000, repeat the same steps in the opposite direction.

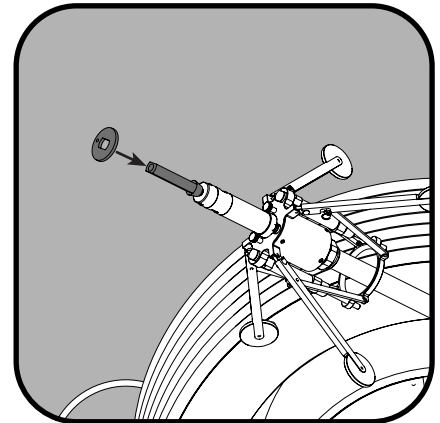




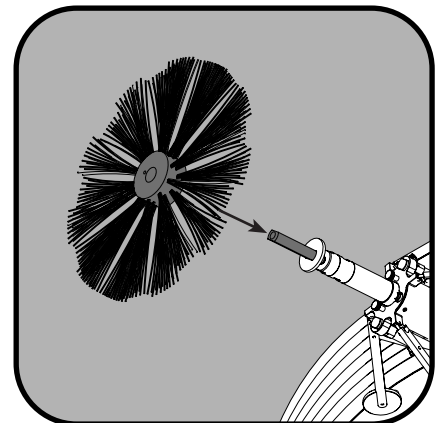
operating instructions

Brush assembly:

Fit the retaining disc as shown in the figure.

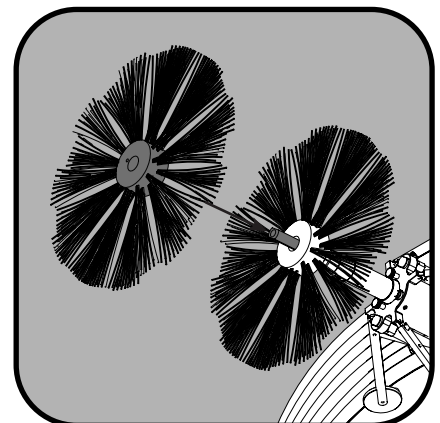


Position the brush as shown in the figure.



Align the brush retaining hole in the disc retaining bolt placed in the previous assembly step.

In case of double coupling, fit two brushes as shown in the figure.



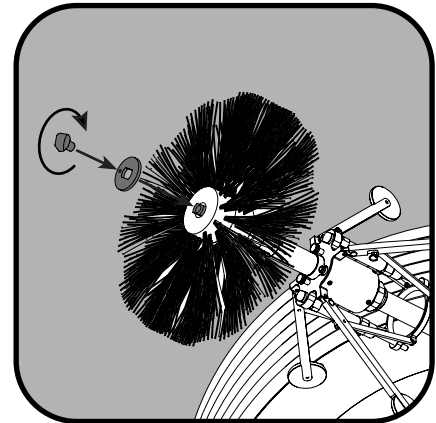


operating instructions

Fit the second retaining disc and tighten the locking knob as shown in the figure.

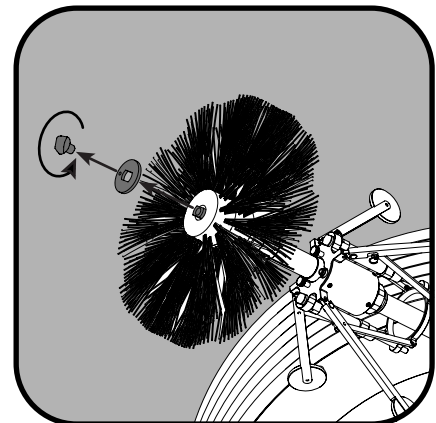


Align the brush retaining hole in the disc retaining pin.

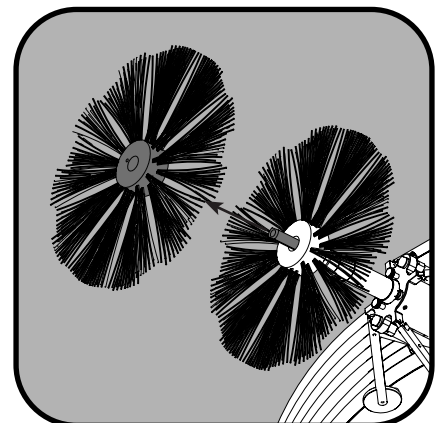


Disassembly of the brush:

Release the locking knob and remove the second retaining disc as shown in the figure.



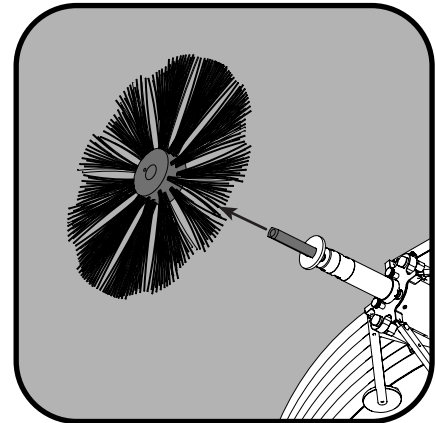
Remove the first brush as shown in the figure.



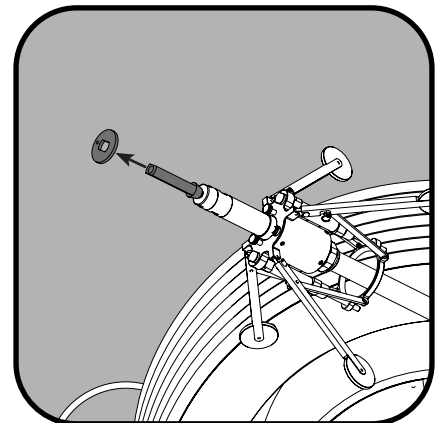


operating instructions

Remove the brush as shown in the figure.



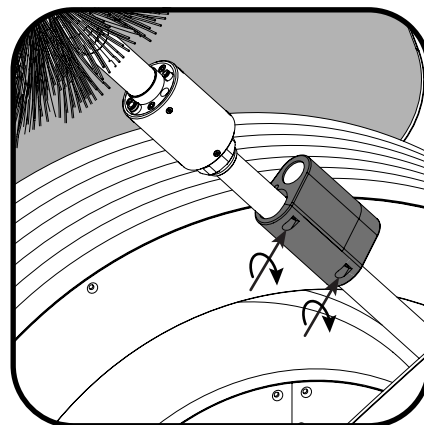
Remove the retaining disc as shown in the figure.



operating instructions

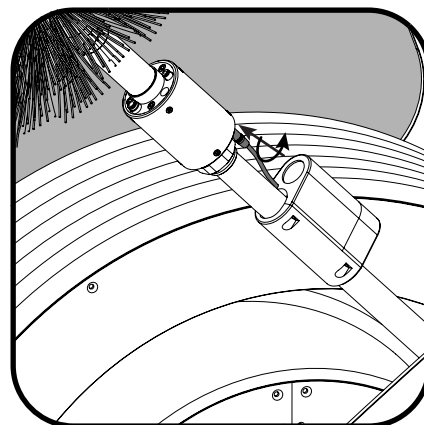
Camera assembly:

Connect the different parts of the chamber, placing the hose in between, with four fixing screws as shown in the figure.



Connect the camera to the head.

The connector has only one position. Fit it and then turn the nut until it is fixed.





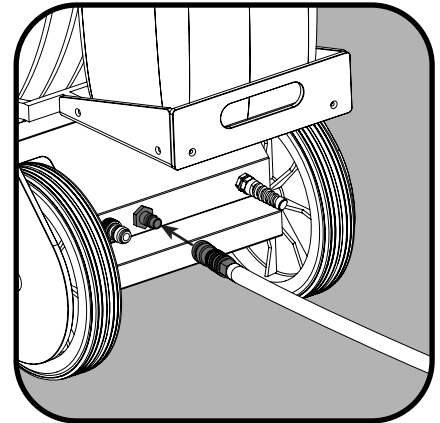
operating instructions

3 Connection of your MULTIPRO to the compressed air generator:

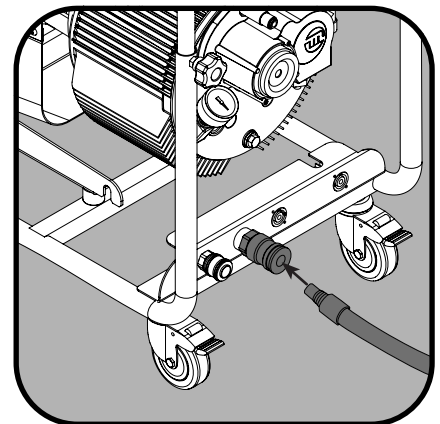
The MULTIPRO unit must be used in combination with a compressed air generator for operation. This compressed air generator must have a minimum performance of 200 l/m at 5 bar. The use of a compressed air generator marketed by Teinnova is recommended.

The connection is made via the compressed air supply hose. The connection must be made when your MULTIPRO is switched off.

Connect the compressed air hose to your MULTIPRO.



Connect the compressed air hose to the compressor to be used. In this picture, the connection is made with the compressed air generator AR20.

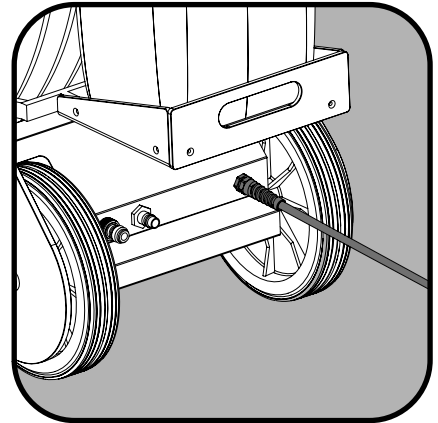




operating instructions

4 Mains connection:

Make the electrical connection of the supply hose to the mains, making sure that the connector is suitable for the type of plug.

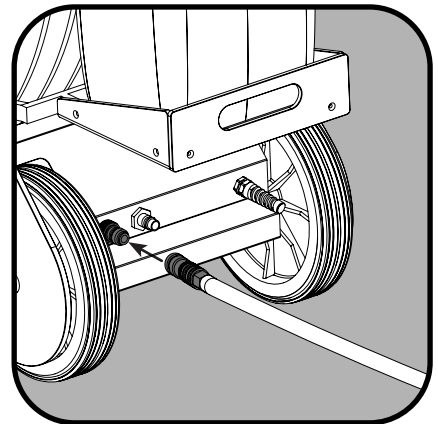


5 Connection to a mains water supply:

Connect the hose to the equipment and to a mains water supply with a minimum pressure of 2 bar.



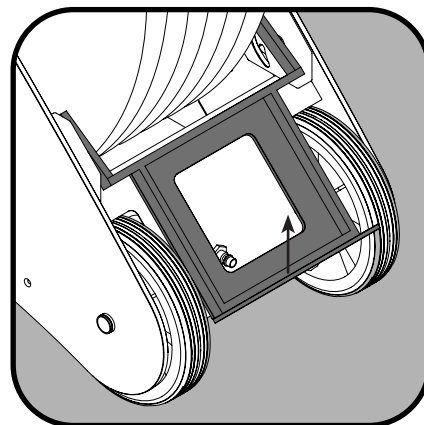
The inlet temperature of the mains water must not exceed 60°C as this may cause irreparable damage to the internal components of the equipment.



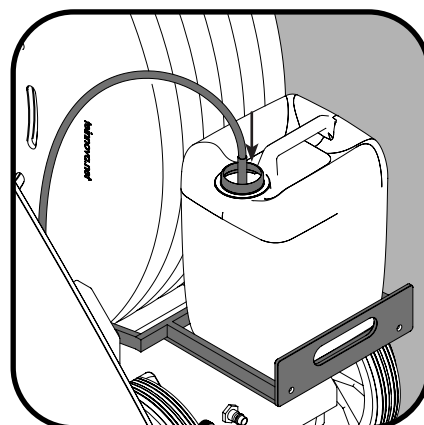
operating instructions

6 Connection of the chemist:

Raise the tray, on which the chemical is placed, until it stops and lower it until it locks.



Place the canister in the equipment tray. Once it is in place, open the cap and insert the chemical suction rod, which is located on the side of the equipment.





operating instructions

7 Unlock the hose reel brake:

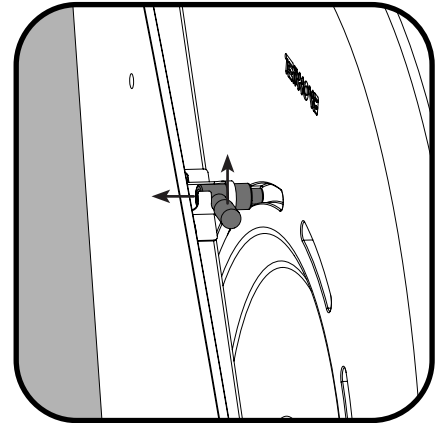
Unlock the brake on the reel of your MULTIPRO as shown in the figure. Once the reel is released, release the necessary number of metres to place the brush in the duct and start working.



Remember not to operate the brush when it is outside the duct as this may cause damage to persons or objects.



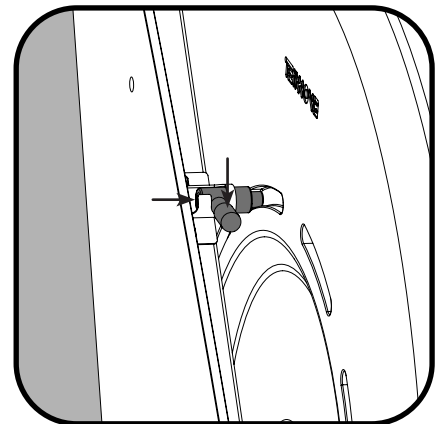
DO NOT subject the hose to very tight angle bends, as this may break the reinforcement guide inside the hose.



Once the work is completed, pick up the hose and lock the reel brake of your MULTIPRO as shown in the figure.



To retract the hose, push it horizontally into the unit, horizontal to the equipment, as if you try to push it in at an angle, it may get stuck.





operating instructions

Selection of the function to be performed:

By means of the control panel on the HMI screen, the function to be performed is selected. Depending on the function selected, the LED on the unit changes colour.

1 Switching on the equipment:

Switch on your MULTIPRO by pressing the on/off button. The LED strip will turn green, dimming up and down, and the main display will light up.

- Help
- Adjustments
- Go to



2 Working mode:

Pressing the forward icon will bring up a screen where you must choose whether to work with the remote control or with the panel. The LED strip will remain the same.

- Control panel
- Remote control





operating instructions

3 Foaming mode:

Pressing the control panel will display the following screen.
To activate the foaming mode, press the icon (🧼), which will light up orange.
The LED strip will change colour to white.



4 Rinsing mode:

To activate the rinse mode, press the icon (💧), which will light up blue.
The LED strip will change colour to blue.



5 Stop foaming and rinsing:

Press the stop button to finish foaming or rinsing.
The LED strip will turn green, with increasing and decreasing intensity, thus remaining in standby mode.





operating instructions

6 Open centring device:

To open the centring device, click on the icon , which will light up green.

La tira LED permanecerá con el color verde, con subidas y bajadas de intensidad.



7 Close centring device:

To close the centring device, press the icon , which will turn green.

The LED strip will remain the same.



8 Centrifuge air outlet stop:


Press the stop button on the centring device to shut off the air outlet and release it from the duct.

The LED strip will remain green, with increasing and decreasing intensity.



operating instructions

9 Turn the brush to the left:


To activate the left-hand brush rotation, press the icon , which will light up green.

The LED strip will light up progressively, in green, from bottom to top, remaining in continuous movement.

Se podrá seleccionar el modo de espumado o el de aclarado a la vez que el giro, prevaleciendo el color de la tira led de éstos.



10 Turn the brush to the right:

To activate the clockwise rotation of the brush, press the icon , which will light up green.

The LED strip will light up progressively, in green, from top to bottom, remaining in continuous movement.

The foaming or rinsing mode can be selected at the same time as the rotation, with the colour of the LED strip prevailing.



11 Stop the brush rotation:

Press the stop button to stop the brush from rotating.


The LED strip will turn green, with increasing and decreasing intensity, and will remain in standby mode.






operating instructions

12 Select automatic switchover:

Press the icon  to activate the automatic mode. You will be taken to another screen.

Here you select the time, from 10 to 60 seconds, in which the brush will change direction.

Once selected, press again the icon , which appears on the screen, and the brush will start to rotate to the right.

The LED strip will change movement according to the direction of rotation that is activated, except if the rinsing or foaming mode is activated, which will prevail the colour that marks each mode.



13 Stopping the automatic mode:

Press the stop button to stop the brush from rotating, deactivating the automatic mode.

The LED strip will go into sleep mode.



operating instructions

14 Activate remote control:


Press the remote control icon to activate the remote control.

The following screen will appear. The icons for the various functions are shown at the top of the screen, but cannot be clicked on. Use the knob to select the function, and then the icons will light up and the LED strip will change colour.

The icons at the bottom activate the automatic control and must be selected from the screen.



15 Foaming mode:

To activate the foaming mode, the button  must be pressed at the same time as the release button.


The foaming icon will light up on the display.

The LED strip will change colour to white.

To deactivate it, the foaming and release button must be pressed at the same time.



16 Rinsing mode:

To activate the rinsing mode, the button  must be pressed at the same time as the unlock button.

The rinse icon will light up on the display.

The LED strip will change colour to blue.

To deactivate it, the rinse and release button must be pressed at the same time.





operating instructions

17 Open centring device:


To open the centring device, press the button  at the same time as the unlocking button.

The open centring icon will light up on the display.

The LED strip will remain green in colour, with intensity fades up and down.



18 Close centring device:

To close the centring device, the button  must be pressed at the same time as the release button.


The icon for closing the centring device will light up on the display.

The LED strip will remain the same as above.

To stop the centring device, simply press the button again at the same time as the unlock button. All icons on the screen will turn off.



19 Turn the brush to the left:

To activate the left-hand brush rotation, the button  must be pressed at the same time as the unlocking button.

The left turn icon will light up on the display.

The LED strip will light up progressively, in green, from bottom to top, remaining in continuous movement.

The foaming or rinsing mode can be selected at the same time as the rotation, with the colour of the LED strip prevailing.


To deactivate it, the rotation button must be pressed again.





operating instructions

20 Turn the brush to the right:

To activate the clockwise rotation of the brush, the button  must be pressed at the same time as the unlocking button. The right turn icon will light up on the display. The LED strip will progressively illuminate green from top to bottom and remain in continuous movement.

The foaming or rinsing mode can be selected at the same time as the rotation, with the colour of the LED strip prevailing.

To deactivate it, the rotation button must be pressed again.



21 Select automatic mode:

Before activating the automatic mode, it is necessary to select the time, from 10 to 60 seconds, in which the brush will change direction.

To activate the automatic mode, press the icon , which appears on the display.

The brush will start to rotate to the right.

The LED strip will change its movement according to the rotation that is activated, except if the rinse or foam mode is activated, which will prevail the color that marks each mode.



22 Stopping the automatic mode:

Press the automatic mode icon to deactivate it and stop the brush from rotating.

The LED strip will remain green in colour, with increasing and decreasing intensity.






operating instructions

23 Equipment settings:

Pressing the settings icon will bring up a screen where you can change the language of the equipment, activate or deactivate the vision system and link a remote control.



To turn on the vision system, click on the icon  , which will light up to show that the camera is on.


To turn off the vision system, click on the same icon again.

The LED strip will remain the same.



To link a controller, press the icon  on the left of the screen. The LED strip will turn blue and flash for 20 seconds.

Then press the left turn button at the same time as the unlock button.

When the LED strip stops flashing, do the same process with the icon  on the right side of the screen and the right turn button at the same time as the unlock button.

The remote control will be linked.

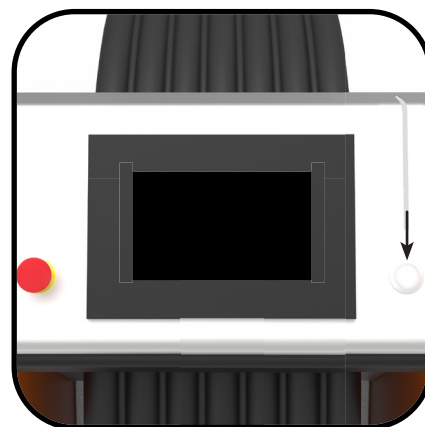
After 20 seconds, the LED strip will return to its normal state and work can continue.



operating instructions

24 Switching off the equipment:

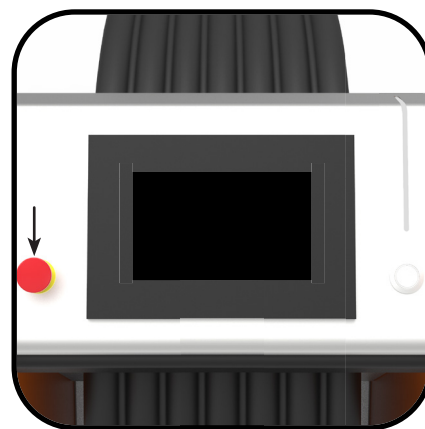
Switch off your MULTIPRO by pressing the on/off button.
The LED strip will turn off.



25 Emergency stop:

If a dangerous situation arises, the emergency stop button must be pressed and the device will stop immediately.

To reset the equipment, turn the knob to the right.





operating instructions

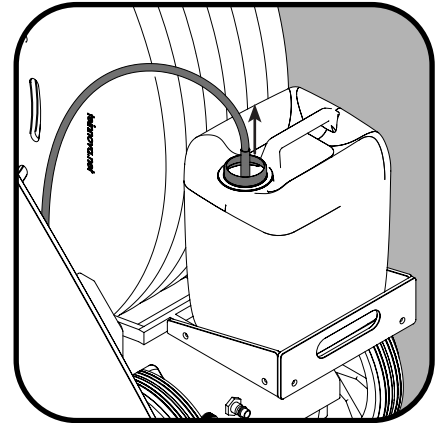
Steps for the correct disconnection of your MULTIPRO:

1 Disconnection of the chemist:

Remove the suction rod from the chemical and place it in the equipment supports.

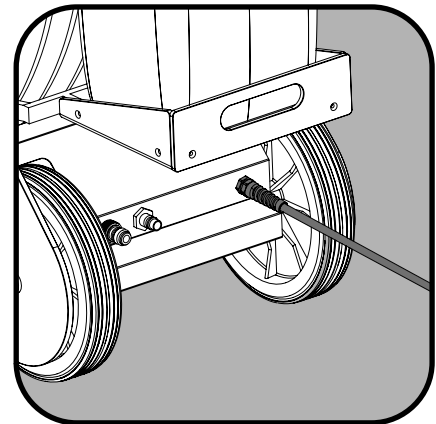
Close the chemical canister and store it in a safe place.

Lower the tray on which the chemical canister is placed.



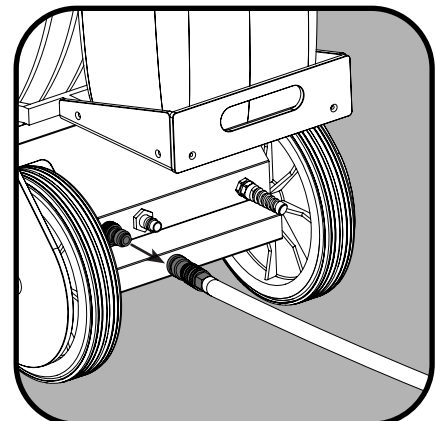
2 Disconnection from the mains:

Disconnect the mains cable.



3 Disconnection of the mains water supply:

Disconnect the hose from the mains water supply and your MULTIPRO.



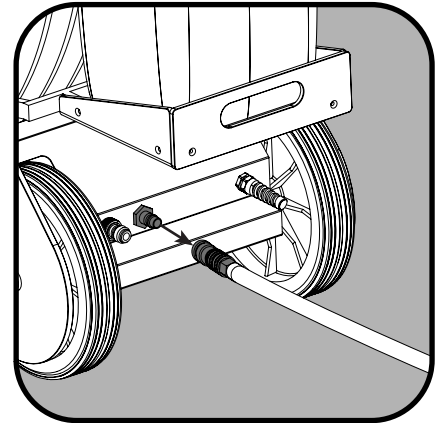


operating instructions

4 Disconnect the compressed air hose from your MULTIPRO:

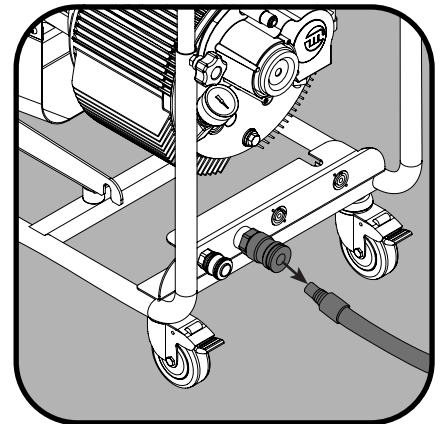
Remove the compressed air inlet connection from your MULTIPRO as shown in the illustration.

Turn the motor off, with the compressor switched off, before removing the connection in order to eliminate any pressure that may have remained in the compressed air circuit.



5 Disconnecting the compressed air generator from your MULTIPRO:

Remove the outlet connection of the compressed air generator as shown in the figure.





use of chemicals

COMEGRAS FOAM ACTIVE is the chemical used for the operation of your MULTIPRO.

It is a degreasing agent especially indicated for cleaning, sanitising and deodorising areas particularly dirty with grease and burnt residues from installations and materials in the food industry such as meat, slaughterhouses, restaurants, dairies, etc.

Particularly suitable for use on filters, extractor hoods, smoke extraction ducts, floors, walls, as well as on all heavily and persistently soiled surfaces.



Before starting cleaning, it is very important to read the product label to know the properties, applications, instructions for use and precautions to be taken into account when using COMEGRAS FOAM ACTIVE.



Wear PPE to prevent splashing or inhalation of vapours released by the chemical.



The use of PPE when working with the machine is compulsory by Law 31/1995, on the Prevention of Risks at Work.

PPE to be used when operating your MULTIPRO:



full face protection

Protects against particle projections and splashes. The standard governing this PPE is UNE EN 166:2002 "Eye protection. Specifications".



full body protection

Protects against projections to the body from accidental chemical splashes. The standard that regulates this PPE is UNE EN 13034:2005.



full hand protection

It protects the hands from accidental chemical splashes and from mechanical risks such as burns. The standard governing this PPE is UNE EN 420:2004 and UNE EN 374-1:2004.



full respiratory protection

Protects against inhalation of vapours produced by the chemical. The standard governing this PPE is UNE EN 136:1998.



transport

The machine has been designed to be transported in a small van.

During transport the machine must be securely tied down to prevent any damage. It should be placed in its normal working position (upright) and the brakes on the front wheels should be applied.

It is not advisable to place the machine on a transport pallet or similar. The machine must rest on a completely flat and horizontal surface.



The machine must never be placed in a horizontal position (lying down) for transport. This would result in serious damage to the machine and therefore in the machine malfunctioning.



Clean all parts of the machine thoroughly before loading it for transport.





maintenance and care

Keep the equipment as clean as possible, storing it in a place protected from the weather.



After you have finished using your MULTIPRO equipment, it is important to clean the fluid circuit of the equipment by rinsing it. Keeping the equipment stored with chemicals in the internal ducts of the machine can reduce the service life of the components.



When you have finished all work on the machine, the spindle motor must be lubricated as described in section 2. Failure to lubricate the spindle motor may result in damage to your MULTIPRO.

Keep the machine in good condition, avoid knocks or overloads.

Keep the connections clean to avoid obstructions in the pipes that could cause serious faults in the main elements of the machine. serious damage to the main parts of the machine.





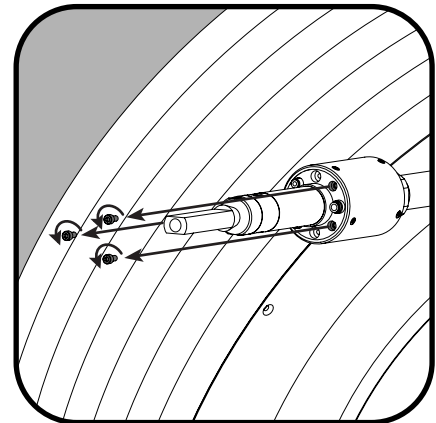
maintenance and care

Maintenance operations:

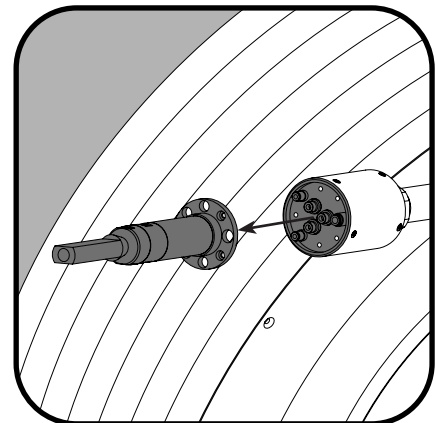
1 Lubrication of the head air motor:

In order to carry out maintenance work on the head, the head has to be disassembled. One of the maintenance tasks is to lubricate the inside of the air motor. The replacement of parts will be carried out at Teinnova's facilities by the company's technical staff.

To remove the head, the three fastening screws shown in the figure must be loosened. To loosen them, turn them counterclockwise.



Remove the head as shown in the figure.



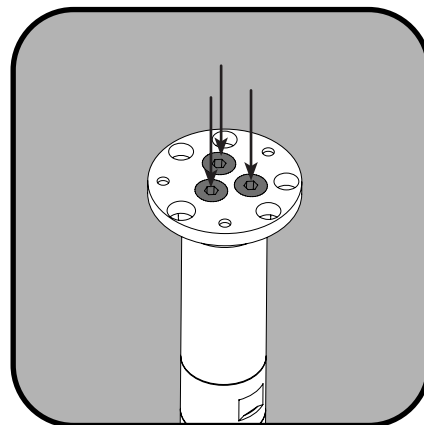


maintenance and care

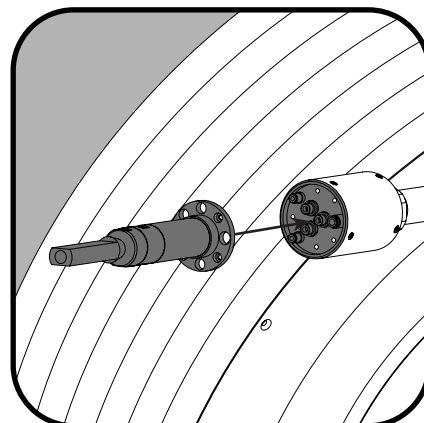
To lubricate the inside of the pneumatic motor of the head, pour two or three drops of oil into the holes as shown in the figure.



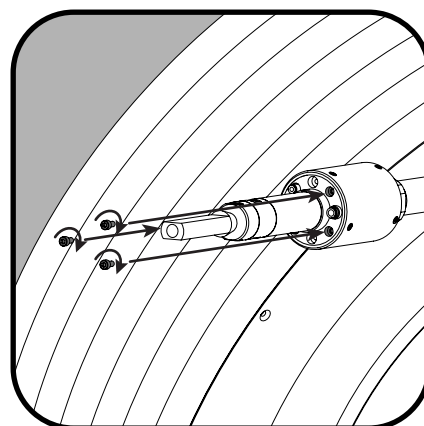
We recommend the use of oil with a SAE 20 classification for the correct maintenance of your MULTIPRO engine.



Position the head, as shown in the figure, making sure that it is centred.



To mount the head, the three fastening screws shown in the figure must be tightened. Tighten them by turning them clockwise.





maintenance and care

Spare parts:

TEINNOVA has spare parts for all parts of the machine as well as consumables for all the maintenance tasks indicated in this manual.

Should you require any parts or consumables, please contact TEINNOVA Customer Service on +34 941 44 50 56.





waste management



The materials used in the packaging are recyclable.
Do not dispose of the packaging in household waste, but hand it in at official collection points for recycling.



Do not throw electrical appliances in the trash!
We recommend that electrical tools and accessories are subjected to an environmentally friendly recycling process.
Please dispose of the materials in the appropriate container or go to your local collection points.

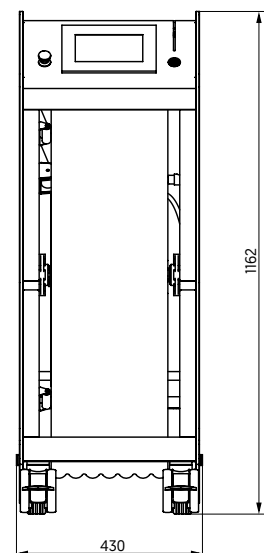
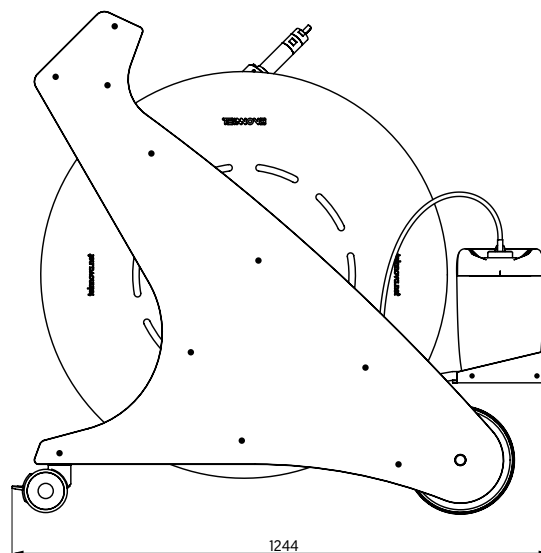
Directive 2012/19/EU of 4 July 2012 on waste electrical and electronic equipment [WEEE].





technical specifications

| multipro | Features |
|-------------------------------|--|
| Motor power supply | Compressed air |
| [Maximum power]: | 300 l/min – 6,3 bar // 10,6 cfm – 6,3 bar |
| No-load rotational speed: | 500 rpm |
| Rotation speed at full power: | 236,7 rpm |
| Torque at max output: | 6,5 Nm // 57,5 lbf.in |
| Minimum starting torque: | 8 Nm // 70,8 lbf.in |
| Stall torque: | 11,6 Nm // 102,7 lbf.in |
| Noise level: | Less than 70 dB |
| Direction of rotation: | Right / Left |
| Control system: | Electropneumatic |
| Control panel: | HMI screen |
| Dimensions: | 1162 x 1244 x 430 mm 45,75 x 48,98 x 16,93 inches |
| Weight: | 73 kg // 161lb |
| Hose length: | 30 m // 98 ft |
| Structural material: | Stainless steel and HDPE |





warranty conditions

1. "TEINNOVA" guarantees its products for a period of 15 days as regards aesthetic defects or faults which are noticeable with the naked eye. In terms of all other manufacturing defects and faults in the products, the guarantee is of 1 year.

The "Buyer" must notify "TEINNOVA" of the existence of any defects as soon as they are observed and in any case within a maximum deadline of 5 days from when they become apparent. Notification thereof outside of said deadline shall lead to the non-application of the guarantee.

"TEINNOVA" reserves the right to request that the products be sent to the factory or the closest official Technical Support Service for their due inspection and the delivery costs are payable by the "Buyer". Said costs shall be reimbursed if the product is proven to be effectively non-conforming.

"TEINNOVA" will pick up and send the products to the factory or to the nearest official Technical Assistance Service for proper inspection. At that time, it will be determined whether the warranty will apply or it is within the warranty exclusions. If the guarantee is applicable, the transport, both collection at the customer's facilities and return of the product, will be borne by TEINNOVA. If it is excluded from guarantee [point 2], the transport, both collection at the customer's facilities and return of the product, will be borne by the customer.

"TEINNOVA" reserves the right to overrule the application of the guarantee when there is no evidence of the product's non-conformity and it shall

not apply said guarantee until coverage has been expressly proven.

In the case that the product is covered, "TEINNOVA" can replace it or determine the necessary repair method.

All repair works that are carried out under the product guarantee must be carried out in "TEINNOVA" facilities or in those of the party it designates.

The guarantee covers the materials and labour required to repair or replace the parts or elements considered as defective from origin. The maximum guaranteed amount or value shall be the maximum price of the sale of the product to the "Buyer".

Any claims made under the coverage of the guarantee shall not grant the right to delay and/or withhold payment of the corresponding invoice and/or any other pending invoices.

2. Guarantee Exclusions: the following are excluded from the guarantee: actions, alterations or manipulations of the product that are carried out without the prior express authorisation of the "Seller"; indirect and/or consequential damage; damage caused by negligence, by improper use or by usage that does not conform to the instructions and intentional damage; faults due to adaptations made to the products or the use of parts that were not previously and expressly certified or authorised by the Seller; costs for detection of the fault; costs for collection or replacement [the latter two are unless the non-conformity is proven and within the limits established in section 1].

TECAI INNOVA S.L.
C/ Las Balsas 16-B, Pol. Ind. Cantabria.
26009 LOGROÑO [La Rioja], Spain.



TEINNOVA se reserva el derecho de introducir cambios en los equipos sin previo aviso.



CE declaration of conformity

MODEL: **multipro**

SERIAL Nº: TG33203420000 - TG33203429999

MANUFACTURER'S DATA:

Manufacturer's name: TECAI INNOVA S.L.

Telephone: +34 941 44 50 56

Fax: +34 941 25 24 71

Web: www.teinnova.net

TECAI INNOVA, S.L., with full responsibility, certifies that the machine model described above complies with all the essential requirements of the following directives:

- Machinery directive 2006/42/CE
- Directive 2014/30/EU on electromagnetic compatibility and its amendments.
- Directive 2014/35/EU on the sale of electrical equipment.

RESPONSIBLE FOR THE TECHNICAL DOSSIER:

Technical Director

ARMANDO SÁENZ ANGULO

Pol. Ind. Cantabria, C/Las Balsas 16

26009 Logroño [La Rioja]

TEINNOVA®



SIGNATURE: ARMANDO SÁENZ ANGULO
Technical Director

Done at Logroño, 21 January 2022