FIBERNET

GENIALE

USER MANUAL

Ver. 1.0 - June 2026

FIBERNET

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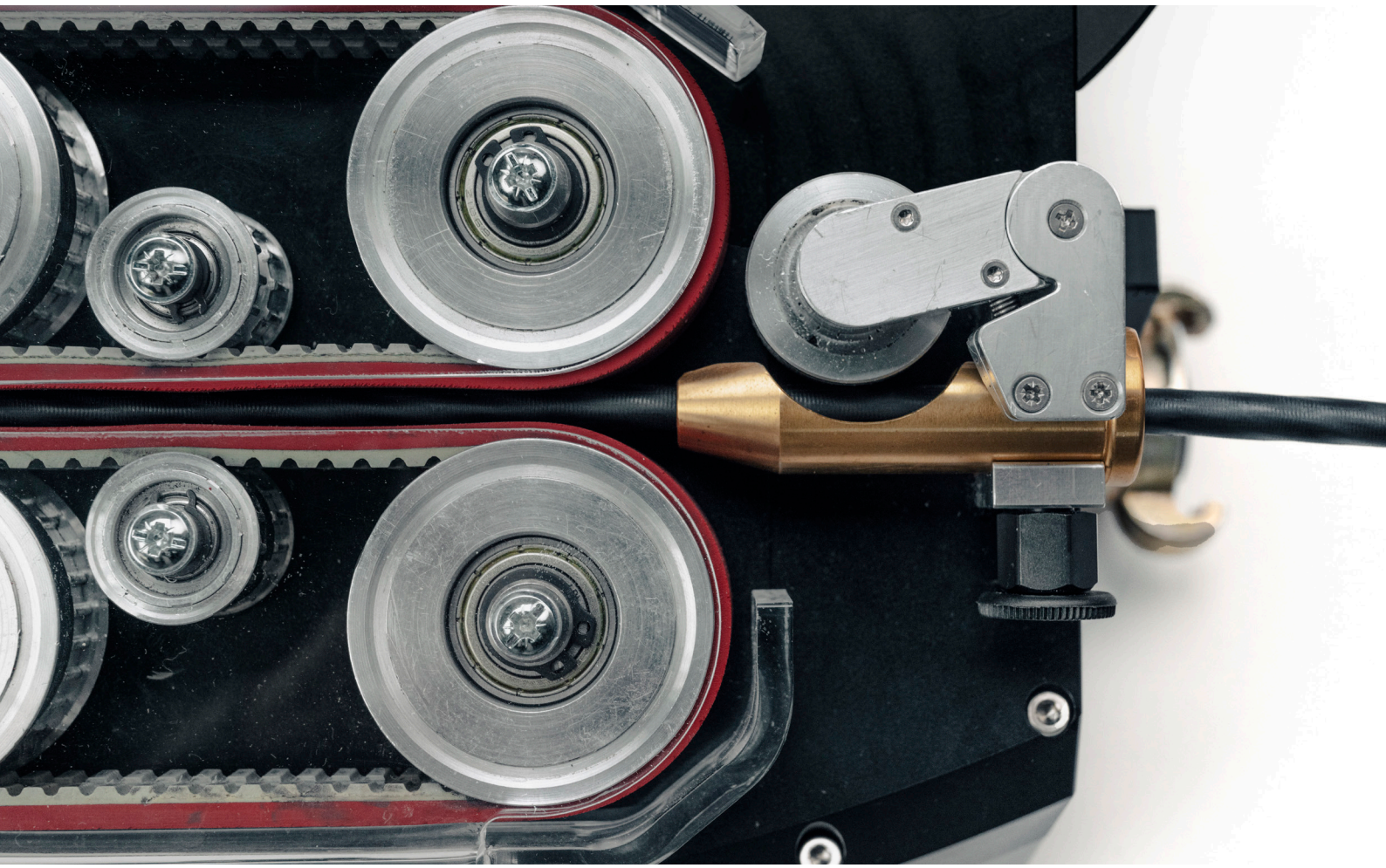


GENIALE

Geniale is a **technologically advanced cable blowing machine designed by Fibernet**. Thanks to its **patent-pending magnetic gearbox** and **fully electric drive system**, it works as two machines in one: in first gear it delivers up to 400 N of continuous pushing force at 60 m/min, providing the power required for larger mini cables (from 4 to 8.5 mm), while in second gear it operates with 100 N at up to 120 m/min, offering the sensitivity needed to safely install smaller micro cables (from 1.2 to 3 mm) without risk of damage.

The machine is equipped with a **5-inch display that gives the operator full control over the installation process**, showing the pushing force in real time, detecting belt slippage on the cable, and allowing a maximum torque limit to be set. Geniale also features an **advanced cable protection** system: the pushing force can be set independently from the speed, so that when resistance increases the machine automatically reduces speed while maintaining the set pushing force, protecting the cable and helping it pass difficult sections.

Thanks to the dedicated Fibernet App, Geniale generates comprehensive operation reports, providing detailed records for documentation and verification purposes.

Geniale is entirely conceived, developed, and manufactured in Italy, featuring a **distinctive Italian design** inspired by the country's rich motorsport heritage.

Both Geniale and the Fibernet App are certified by Deutsche Telekom.

APPROVED BY: Deutsche Telekom
FOR DTAG ZTV 40-II

SAFETY REGULATIONS

The air pressure shall not exceed the limit of 16 bar under any circumstances.

The adapter clamps shall not be opened during normal operation unless the emergency stop has been engaged.

Before use, ensure that the device is positioned and securely fastened on a stable surface or on its dedicated case. Verify that the cable blower is properly coupled to the duct and that the cable is correctly aligned between the two drive belts.

Before starting operation, ensure that no one is standing in the vicinity of the cable reels.

Do not touch the cable while it is being fed into the machine, as this may cause hand injuries. Avoid any cable entanglement, as this could create a hazardous situation.

Before closing the drive belts, ensure that the area between them is clear and that no one is standing near the machine. Keep hands and clothing away from the belts while the machine is operating and the emergency stop is disengaged.

Do not remove the plexiglass guards while the machine is operating, as this may cause hand injuries.

SEE PAGE 28 FOR THE FULL LIST OF SAFETY PRECAUTIONS

TECHNICAL SPECIFICATIONS

Drive: electric

Maximum laying speed: 60 m/min (Gear 1)
120 m/min (Gear 2)

Pushing force: 400 N (Gear 1)
100 N (Gear 2)

Cable diameter*: ø 1.2 to 8.5 mm

Duct diameter:** ø 5 to 16 mm

Maximum air pressure: 16 bar

Maximum clamping force on the cable: 2500 N

Weight: approximately 17 kg

Dimensions: 360 x 310 x 300 mm

- **5'' TFT touch screen display** with operational information (speed, distance, belt clamping force, actual cable pushing force, maximum pushing force, cable slippage, maximum cable slippage, compressed air pressure).
- **Automatic installation stop upon reaching maximum pushing or slippage levels**.
- **Wi-Fi connection for remote management and data acquisition (requires Tablet with Fibernet App)**

* Cable adapters size available: 1.2, 2.4, 3, 4, 5, 6, 7, 8 mm

**Duct adapters size available: 5, 7, 8, 10, 12, 14, 16 mm

EXCLUSIVE FEATURE

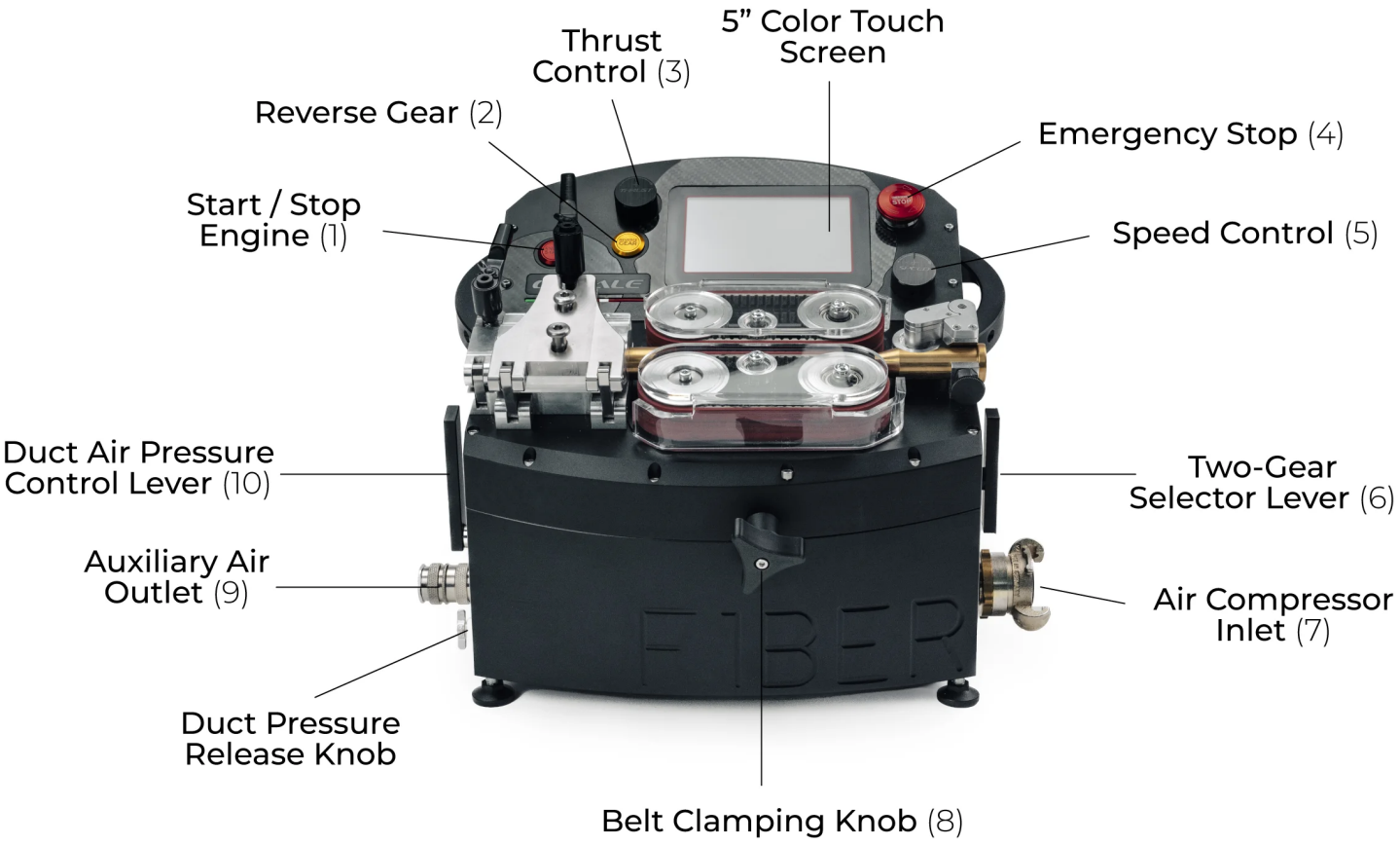
Thanks to its **PATENT PENDING MAGNETIC GEAR SYSTEM** and fully electric drive system, Geniale combines maximum pushing force for mini cables with exceptional sensitivity and safety for micro ones.

GEAR 1
POWER AND DISTANCE
- **400** N
- **60** M/MIN

GEAR 2
PRECISION AND SAFETY
- **100** N
- **120** M/MIN

GENIALE

QUICK GUIDE



MAIN COMPONENTS:

1. Engine Start/Stop
2. Reverse Gear
3. Thrust Control
4. Emergency Stop
5. Speed Control
6. Gear Selector
7. Air Compressor Inlet
8. Belt Clamping Knob
9. Secondary Air Outlet
10. Duct Air Pressure Control Lever

1. ON / OFF / RESET

ON/OFF POWER BUTTON

1. Insert **3 Milwaukee batteries 18V – 5Ah.**

2. Press **ON / OFF / RESET** to power the machine.

3. The display shows **the lowest battery level installed**.

4. If the battery level is too low the machine **shuts down automatically**.

5. Before shutdown the display shows **LOW BATTERY**.

POWER OFF

6. Hold **ON / OFF / RESET button for 3 seconds**.

RESET DISTANCE COUNTER

7. Hold **ON / OFF / RESET button for 1 second**.

2. GEAR SELECTION

GEAR	PUSHING FORCE	SPEED	RECOMMENDATION
1	400 N	60 m/min	mini cables (4 - 8.5 mm)
2	100 N	120 m/min	micro cables (1.2 - 3 mm)

The **yellow box on the display** shows the active gear.

1 ⟶ first gear

2 ⟶ second gear

FIRST GEAR

SECOND GEAR

3. REVERSE FUNCTION

Hold **REVERSE GEAR for 2 seconds.**

The display shows:

R1 or **R2**

This means the machine **is reversing the cable.**

Hold **REVERSE GEAR again for 2 seconds** to return to normal operation.

4. GASKET INSTALLATION

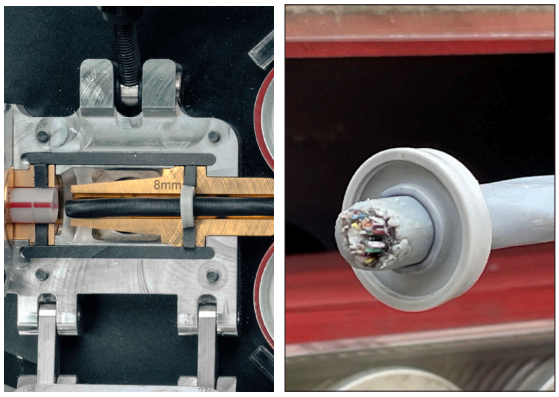
Select the correct gasket for the cable diameter.

Insert the gasket into the sealing chamber.

⚠ Important

The gasket must be installed with **the hollow side facing the duct.**

This guarantees **maximum air sealing.**



GASKET MOUNTED INTO THE SEALING CHAMBER

It is also very important that the **duct is perfectly aligned with the duct adapter**.

If the duct is misaligned, it may restrict the airflow and lead to reduced installation performance.

For cables from 1.2 to 3 mm, use the Vulcolan gasket.

VULCOLAN GASKET

5. BELT CLOSING FORCE

Adjust using the **belt clamping knob**. The value in Newton is displayed on the screen as **Closing Force**.

BELT CLAMPING KNOB

RECOMMENDATION FOR MINI CABLES (4 to 8.5 mm, first gear) :

Closing Force = **2–3 × Maximum Pushing Force**

EXAMPLE OF BELT CLOSING FORCE SETTING:

Maximum Pushing Force = **100 N**
Closing Force recommended = **200–300 N**

RECOMMENDATION FOR MICRO CABLES (1.2 to 3 mm, second gear):

For smaller cables, a **10–20 N closing force** is recommended.

6. SLIP CONTROL

SLIP indicates **belt slippage on the cable**. It is calculated by comparing:

- belt speed
- cable speed from the counter meter

The display shows the **SLIP percentage.**

7. SLIP PROTECTION LEVELS

Press **SET MAX SLIP**

SET MAX SLIP SCREEN

MODE	FUNCTION
NONE	No protection
MEDIUM	Machine stops if belts move but cable does not
HIGH	Machine stops if belt/cable speed difference is too high. Belt speed exceeds twice the cable speed.

⚠ After selecting the level press **SET VALUE.** The setting **remains stored in the machine memory** even after restart.

⚠ ERROR MESSAGES

MESSAGE	MEANING	RESET
STOP	Emergency stop activated	1. Release Emergency Stop 2. Turn speed knob to zero until click 3. Press **CLOSE** on the display
MAX PUSHING FORCE REACHED	Maximum pushing force reached	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display
MAX SLIP REACHED	Slip exceeded set limit	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display
SPEED KNOB	Speed knob not at zero on startup.	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display
NO GEAR SELECTED	The gear is not detected when the velocity of the belts is not zero	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display

COMPONENTS

1 START/STOP MACHINE
2 REVERSE GEAR
3 THRUST CONTROL
4 5” COLOR TOUCH SCREEN
5 EMERGENCY STOP
6 SPEED CONTROL
7 METER COUNTER
8 CABLE ENTRY GUIDE
9 CABLE ENTRY GUIDE RELEASE KNOB
10 TWO GEAR SELECTOR LEVER
11 AIR COMPRESSOR INLET
12 BELTS
13 BELT CLAMPING KNOB
14 DUCT PRESSURE RELEASE KNOB
15 AUXILIARY AIR OUTLET
16 DUCT AIR PRESSURE CONTROL LEVER
17 CABLE ADAPTER
18 PRESSURE CHAMBER
19 DUCT ADAPTER

20 BATTERY SLOTS
21 GROUNDING CONNECTION

INCLUDED ACCESSORIES

1 pc Rugged Case

1 pc Air Hose (10 m)

1 pc Milwaukee Battery Charger

3 pcs Milwaukee Battery

1 pc Air Valve

1 pc Duct Cutter

1 pc Fibernet Lubricant

10 pcs Sponges for Duct Cleaning

1 pc Hex Wrench Set

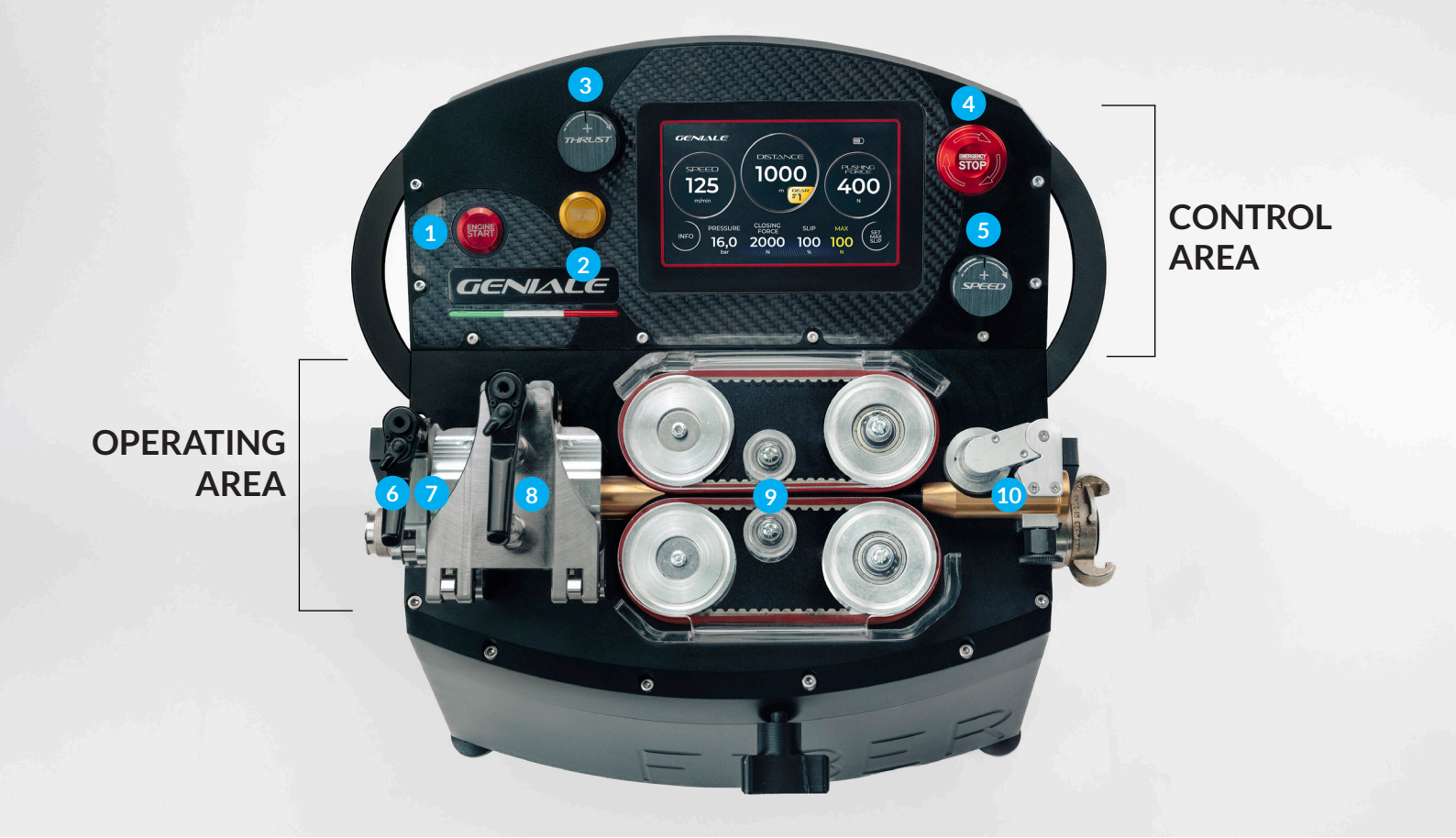
1 pc Tube Protection

1 pc Grounding Cable

2 pcs Gasket for Cable Adapter

2 pcs Gasket for Duct Adapter

CONTROL AND OPERATING AREA



CONTROL AREA

1 START / RESET METER COUNTER / OFF
2 REVERSE GEAR
3 THRUST CONTROL
4 EMERGENCY STOP
5 SPEED CONTROL

START / RESET / OFF - Press the button once to power on the machine.

When the machine is powered on, or during a blowing operation, pressing and holding the power button for 1 second will reset the distance value displayed on the monitor to zero. This operation does not affect the machine's total processed distance counter.

To power off the machine, press and hold the Start button for 3 seconds. After this time, a shutdown confirmation message will appear on the display.

REVERSE GEAR - The direction of travel can only be reversed when the speed is zero. Verify the actual speed value before performing this operation. To activate the reverse function, press and hold the button for 2 seconds.

THRUST CONTROL - Use this knob to adjust the pushing force set point. Rotating the knob clockwise increases the set point value, while rotating it counterclockwise decreases it. A “click” enables or disables the function. If the set point value is reached and the machine remains stopped for more than one second, an error message will be displayed on the screen.

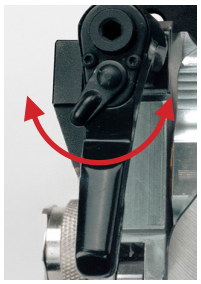
EMERGENCY STOP - Use this control to stop the machine immediately in case of an emergency. Once pressed, the emergency stop button must be rotated clockwise to reset it and release the stop condition. When the button is activated, an error message will be displayed on the screen.

SPEED CONTROL - Use this knob to adjust the operating speed. Rotating the knob clockwise increases the value displayed on the screen, while rotating it counterclockwise decreases it. A “click” activates the function.

OPERATING AREA

6 RATCHET KNOB
7 DUCT CLAMP
8 AIR CHAMBER
9 DRIVE CARRIAGE
10 CABLE INLET

RATCHET KNOB - To access the tube connection area and the cable/tube adapter area, the ratchet levers must first be disengaged.



Rotate the selector lever clockwise or counterclockwise to tighten or loosen the corresponding clamp. Press the top of the knob while rotating it.

Note: If the selector lever is in the center position, the knob will rotate freely and will not engage any tightening or loosening action.

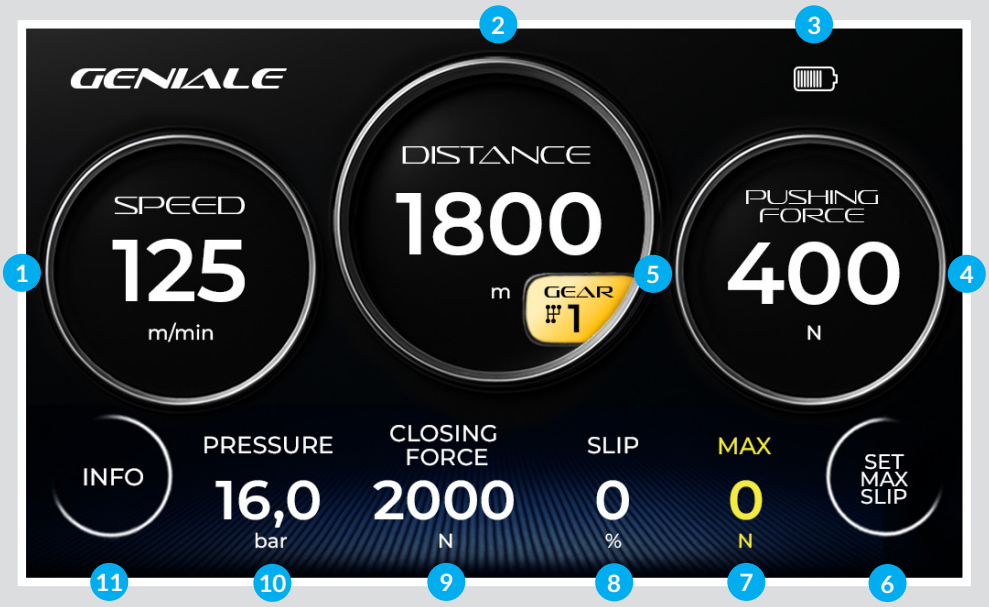
DUCT CLAMP - Area where the selected duct is secured to the machine, ensuring a stable connection before operation.

AIR CHAMBER - Pressurized area where compressed air is directed into the tube to enable cable installation. The presence of compressed air depends on the machine being connected to an air compressor.

DRIVE CARRIAGE - Area where the cable is propelled by the dual-belt drive system.

CABLE INLET - Area containing both the cable entry adapter and the distance measuring wheel, which allows any cable slippage during installation to be detected and evaluated.

DISPLAY - DESCRIPTIONS AND FUNCTIONS



1 SPEED (m/min)
2 DISTANCE (m)
3 BATTERY LEVEL DISPLAY
4 THRUST (N)
5 CURRENT GEAR (#F1, #F2, #R1, #R2)
6 SET MAX SLIPPAGE SCREEN
7 MAX PUSHING FORCE (N)
8 SLIPPAGE (%)
9 BELTS CLOSING FORCE (N)
10 PRESSURE (bar)
11 INFORMATION SCREEN

MAXIMUM SLIPPAGE SETTINGS SCREEN

SPEED - Represents the cable laying speed.

DISTANCE - Shows the meters of cable laid; this value can be positive or negative, in case of cable rewinding.

BATTERY LEVEL - Displays the charge level of the battery of the electronic components (screen).

THRUST - Represents the force the machine is applying to push the cable into the duct. The “Max” value can be set and indicates the limit beyond which the machine is automatically stopped.

GEAR - The operating mode selected via the external selector and the forward/reverse direction switch is displayed.

MAX PUSHING FORCE - Represents the maximum force applied by the machine to the cable, expressed in Newtons. It is set through the Thrust control knob (see detail no. 3 page 14).

SLIPPAGE - Indicates the speed difference, expressed as a percentage between the belts and the cable. A slippage of 100% means the belts are moving but the cable is not. The “Max” value can be set on the dedicated screen and indicates the limit beyond which the machine is automatically stopped.*

BELT CLOSING FORCE - Displays the amount of force, expressed in Newtons, that the belts apply to the cable once clamped.

PRESSURE - Displays the pressure measured in bars inside the duct.

INFORMATION SCREEN - This screen shows the machine name and SSID used for app connection, the total installation distance recorded by the machine, the currently installed firmware version, and the selected language. A QR code is also provided, allowing the user to view and download the Geniale user manual.

*NOTE: To set the maximum values of slippage, tap the corresponding icon on the touch screen, select the values using the buttons, and confirm with the “SET VALUE“ button.

NONE - No protection

MEDIUM - Machine stops if belts move but cable does not

HIGH - Machine stops if belt/cable speed difference is too high. Belt speed exceeds twice the cable speed.

If you navigate away without confirming, the values will not be saved. The setting remains stored in machine memory even after restart.

MACHINE OPERATION

PRELIMINARY OPERATIONS

To prepare Geniale for its first use, follow these steps:

BATTERY CHARGING:

- Check the battery charge level by pressing the charge indicator button provided on each battery (Fig. 1). The charge level can also be viewed on the Geniale screen once it is powered on (Fig. 2).

The machine's operating time depends on the battery with the lowest charge level among the three batteries installed. The battery level displayed on the Geniale display corresponds to the lowest charge level among the three batteries.

Fig. 1

Fig. 2

TUBE AND CABLE ADAPTER:

If you plan to use a tube or cable of a different size than the one currently mounted on the machine, follow these steps:

- Choose the appropriate adapters and seals for the new size. These can be purchased from your trusted distributor.

- Remove the current cable or duct adapter (Fig. 1). The magnetic sealing system allows for quick and frequent adapter changes.

- Place the new adapter into its designated slot.

- Ensure that the air chamber linear seals are correctly installed in their respective slots (Fig. 2).

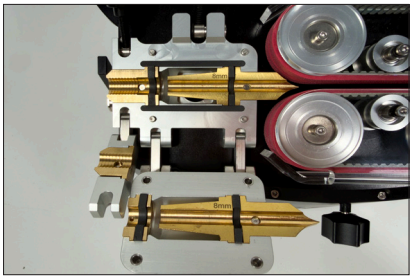


Fig. 1

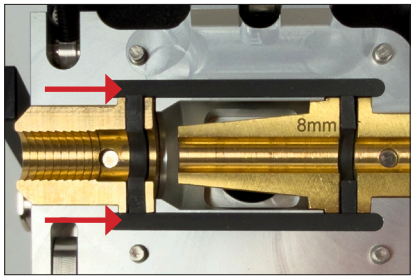
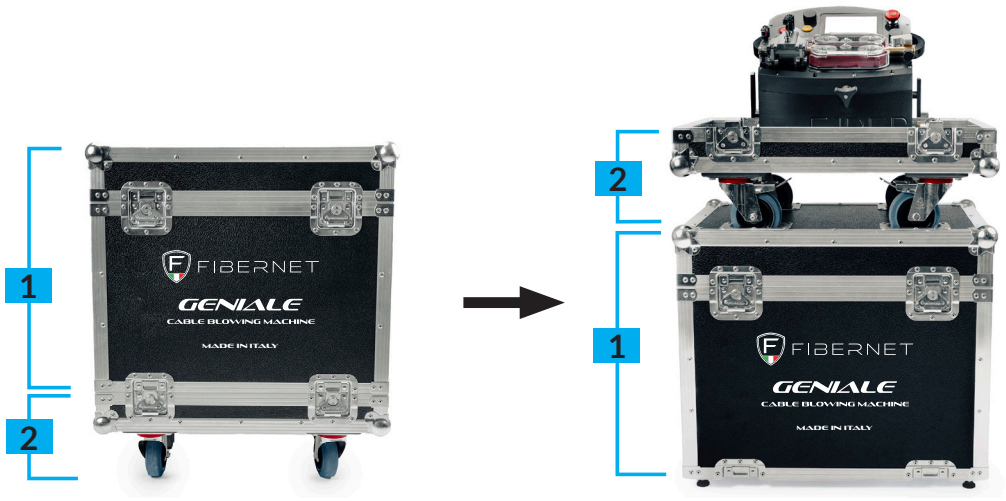
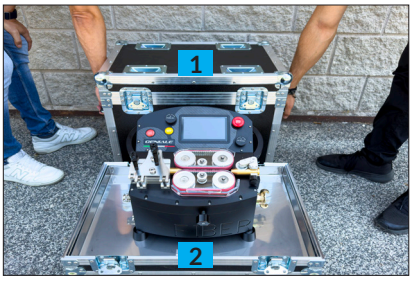


Fig. 2

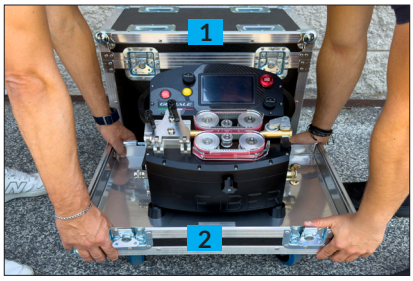
GENIALE CASE

The Geniale case has been designed to be the ideal support for the machine during installation work.

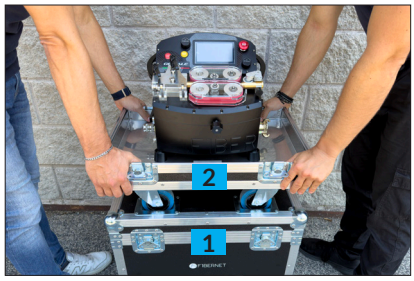




Open and remove the upper part (1)



Lift the lower base (2)



Place the base (2) on the upper part (1)

PRE-OPERATION CHECKS

- Ensure that the emergency stop button is not engaged. If it is engaged, release it by turning the button clockwise. (Fig. 1).

- Ensure that the compressed air control lever is not activated. (Fig. 2).

- Ensure that there is no pressure inside the chamber by opening and then closing the discharge valve. (Fig. 3).

- Check the battery status and ensure that the charge level is at least 20% (Fig. 4).

- Ensure that the speed and thrust control knobs are set to zero (Fig. 5).

- Ensure that the machine is connected to ground using the supplied grounding cable and clamp kit (Fig. 6).

- Turn on the display by pressing the ON / OFF / RESET button. (Fig. 7).

Fig. 1

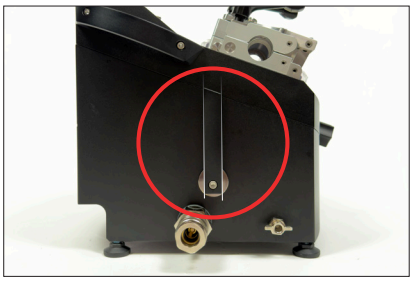


Fig. 2

Fig. 3

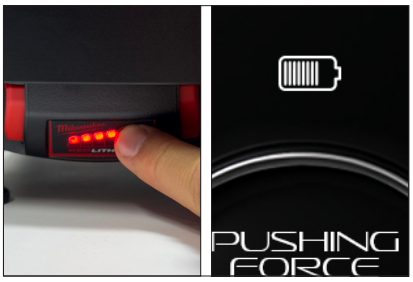


Fig. 4

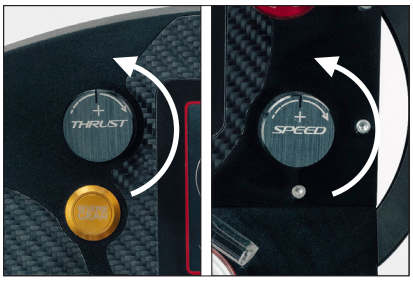


Fig. 5

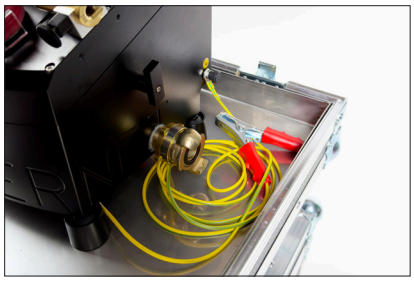


Fig. 6

Fig. 7

INSERTING THE DUCT

- Ensure that the duct is prepared so that it does not have an excessive bend once inserted into the machine. If necessary, cut it to the appropriate length.

- Open the clamps of the duct adapter and the cable adapter, and insert the tube into the duct adapter (Fig. 1).

- Secure the tube between the first gasket and the cable adapter, ensuring there is enough space to allow air to enter the duct (Fig. 2). This chamber directs the pressurized air into the duct together with the cable.

- Tighten the duct adapter clamp until the movable part is aligned with the fixed part (Fig. 3).

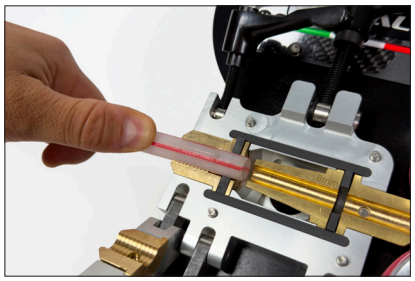


Fig. 1

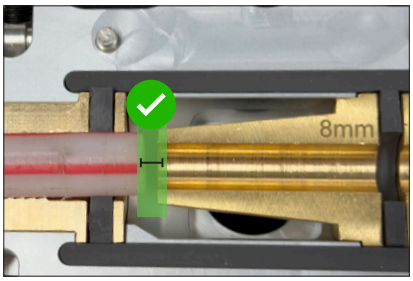


Fig. 2

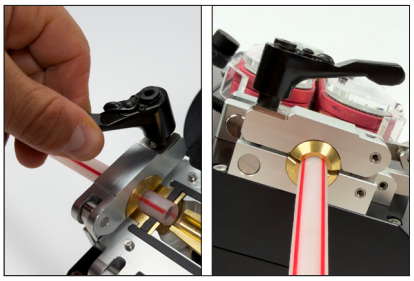


Fig. 3

INSERTING THE CABLE

- Insert the cable into the cable entry guide (Fig. 1).

- Place the cable into the cable gasket. Ensure that the “lip” of the gasket is facing towards the duct (Fig. 2). This orientation allows the air passing through the chamber to enter the gasket cavity, expanding the lip and providing a tighter seal.

For cables from 1.2 to 3 mm, use the Vulcolan gasket.  VULCOLAN GASKET

- Fit the gasket into the adapter and slide the cable a few centimeters into the tube, then close the adapter clamp by tightening it securely (Fig. 3).

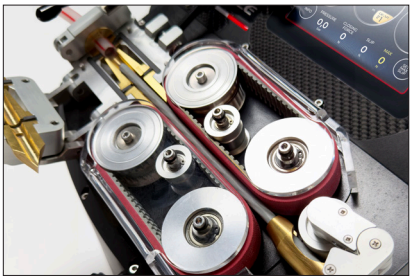


Fig. 1

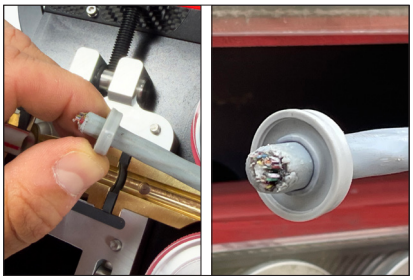


Fig. 2

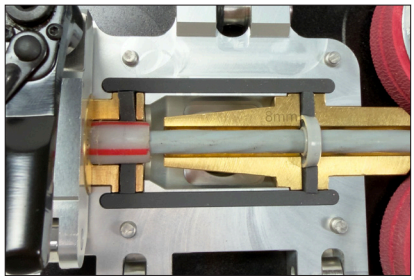


Fig. 3

CONNECTING THE COMPRESSOR

- Ensure that the compressed air lever on the machine is in the closed vertical position.

- Attach the compressed air hose to the machine by inserting the hose fitting into the corresponding connection on Geniale, rotating it, and securely tightening the locking collar. The use of the safety retention cable between the compressed air hose and the machine is **mandatory** (Fig. 1) (tool provided with Geniale).

- Repeat the process with the compressor fitting (Fig. 2).

- Turn on the compressor and fully open the compressed air supply (Fig. 3).

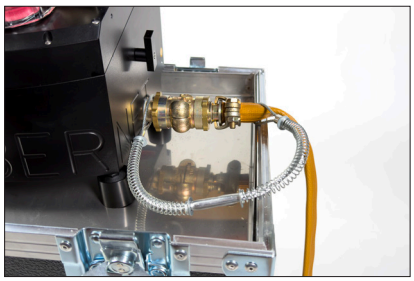


Fig. 1

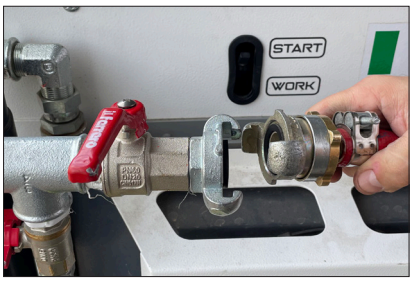


Fig. 2

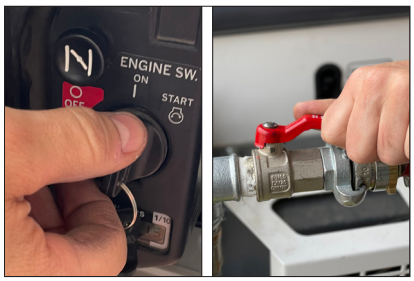


Fig. 3

CLOSING THE BELTS

- Turn on the display if it is not already on (Fig. 1).

- Move the belt carriages together using the dedicated lever. (Fig. 2).

- Adjust the clamping force of the belts to approximately 2–3 times the pushing force to be transmitted to the cable.

Example:
Maximum pushing force = 100 N
Recommended belt clamping force = 200–300 N

The force should be as low as possible while still preventing cable slippage. This value may vary based on factors such as the type of cable used, the wear level of the belts, whether the cable is wet or lubricated, etc.

For smaller cables (1.2 to 3 mm, second gear), a 10–20 N closing force is recommended.

The closing force value is displayed on the screen. (Fig. 3)

Fig. 1

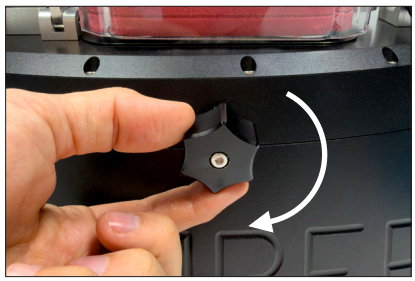


Fig. 2

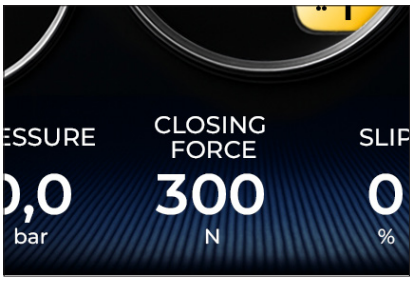


Fig. 3

GEAR SELECTION

The gear selector lever allows the machine's operating characteristics to be adjusted to suit the installation of cables of different sizes.

As a general guideline:

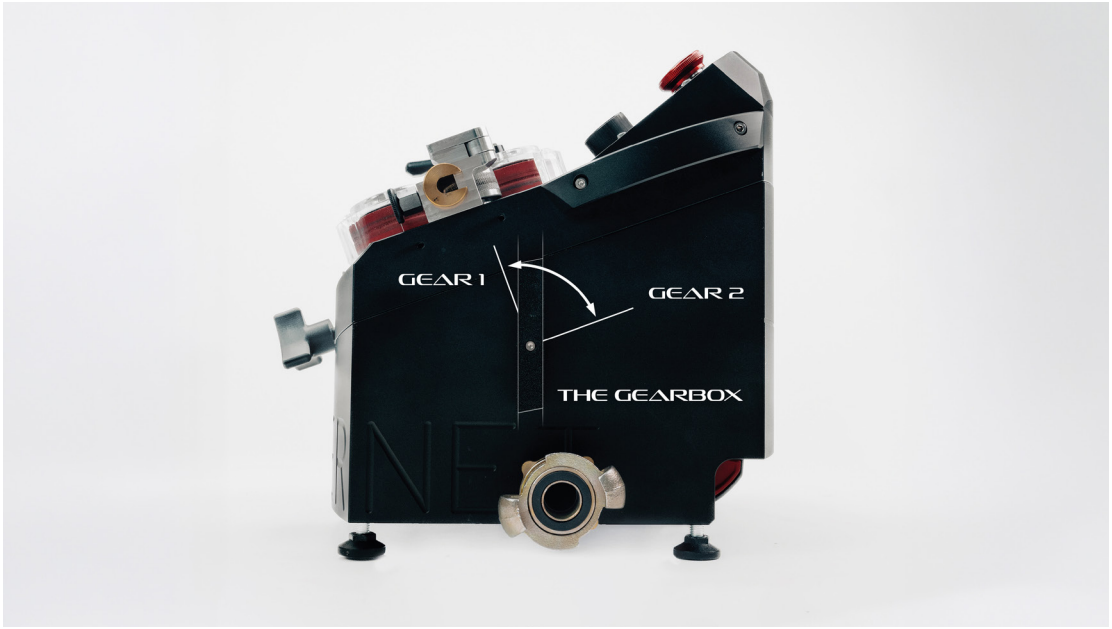
- **Gear 1** is suitable for cables with diameters **between 4 and 8.5 mm**
- **Gear 2** is suitable for cables with diameters **between 1.2 and 3 mm**

These values are provided for reference only. The required pushing force and installation speed must always be verified against the cable manufacturer's specifications.

When Gear 1 is selected, the machine can deliver a pushing force of up to 400 N at a maximum speed of 60 m/min, making it suitable for heavier cables.

When Gear 2 is selected, the machine can deliver a pushing force of up to 100 N at a maximum speed of 120 m/min, providing greater sensitivity and higher speed for the installation of lighter cables.

If the gear is changed while the machine is moving (i.e. when the speed is not zero), the machine will stop and an error message will be displayed on the screen.



To properly select or change the gear:

- Ensure that the speed is set to zero by turning the speed knob counterclockwise until it clicks. (Fig. 1).

- Use the gearbox lever on the right-hand side of the machine to select the gear (Fig. 2 and 3).

- Check the gear icon on the control panel (Fig. 4). The icon will show one of the following:

#F1 - First gear selected - Forward movement

#F2 - Second gear selected - Forward movement

#R1 - First gear selected - Reverse movement

#R2 - Second gear selected - Reverse movement

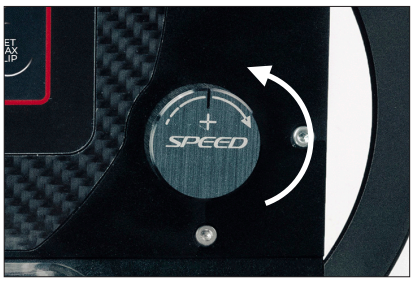


Fig. 1

Fig. 2

Fig. 3

Fig. 4

SETTING THE MAXIMUM PUSHING FORCE

The maximum pushing force setting acts as a control for the force applied to the cable. It prevents the application of a force greater than what the cable can withstand without breaking and automatically stops the machine if this force is exceeded.

To determine the appropriate value, perform a CRASH TEST (see page 35), as this method takes into account environmental conditions and the characteristics of the machine itself, providing a more accurate reference than the manufacturer's specifications alone.

- Set the maximum pushing force parameter using the Thrust Control knob, based on the results of the previously performed crash test or on the manufacturer's specifications. (Fig. 1).

Fig. 1

SETTING THE MAXIMUM SLIPPAGE

Slip indicates the percentage difference between the belt rotation speed and the actual cable installation speed, measured by the cable speed encoder wheel located at the cable entry.

Improper contact between the measuring wheel and the cable may result in inaccurate slip readings.

Setting an appropriate slip threshold helps prevent cable damage in the event that the cable becomes obstructed or blocked for any reason, by automatically stopping the machine when excessive slip is detected.

To set Maximum Slippage Parameters:

- Access the settings on the display by tapping the icon (Fig. 1).

- Select through the touch control the desired level of installation protection (Fig. 2):

NONE - No protection

MEDIUM - Machine stops if belts move but cable does not

HIGH - Machine stops if belt/cable speed difference is too high. Belt speed exceeds twice the cable speed.

- Press SET VALUE to confirm the choice (Fig. 3). If you return to the main menu without confirming, the value will not be saved.

NOTE: The setting remains stored in the machine memory even after restart.

Fig. 1

Fig. 2

Fig. 3

STARTING THE INSTALLATION

- Ensure that the emergency stop is not engaged. (Fig. 1).

- Ensure that the batteries are sufficiently charged. (Fig. 2).

- Ensure that the machine is properly grounded using the supplied grounding cable and clamp kit (Fig. 3).

- Turn on the machine. (Fig. 4).

- Select the appropriate gear using the dedicated lever located on the side of the machine. (Fig. 5).

- Check the display to ensure that reverse drive mode is not enabled. (Fig. 6).

- Activate the Thrust Control knob (you will hear a “click”) and gradually increase the pushing force to an appropriate value. (Fig. 7).

- Activate the Speed Control knob (you will hear a “click”) and gradually increase the speed to the desired value. (Fig. 8).

- Support the cable installation process by using compressed air, opening Geniale’s air flow control valve as required to continue the installation. (Fig. 9).

Fig. 1


Fig. 2

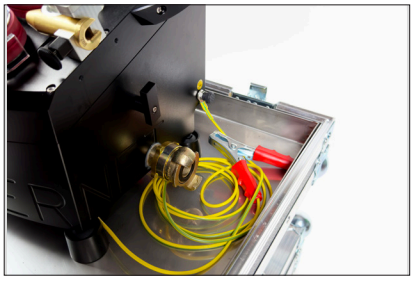


Fig. 3

Fig. 4

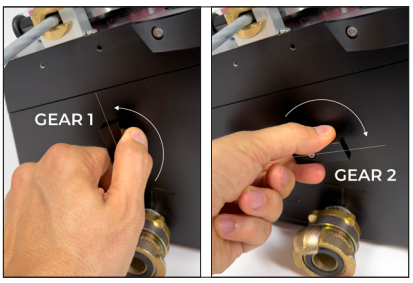


Fig. 5

Fig. 6

Fig. 7

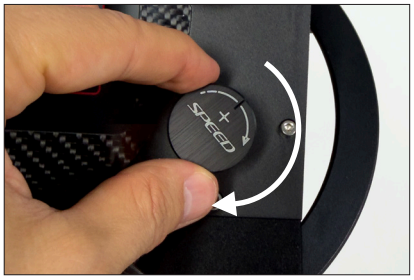


Fig. 8

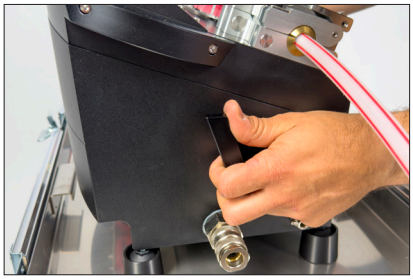


Fig. 9

IN CASE OF PROBLEMS, USE THE EMERGENCY STOP BUTTON.

ENDING THE INSTALLATION

- To end the installation, gradually reduce the speed using the Speed Control Knob (Fig. 1) until it is fully turned off (you will hear a “click”).

- To release the air from the tube without turning off the compressor, use the air release valve located behind the adapter block, or wait for the pressure to naturally discharge (Fig. 2).

- Remove the tube from the machine and withdraw the cable.

After completing all installation operations, turn off the compressor and release any residual air pressure in the machine using the designated lever (Fig. 3).

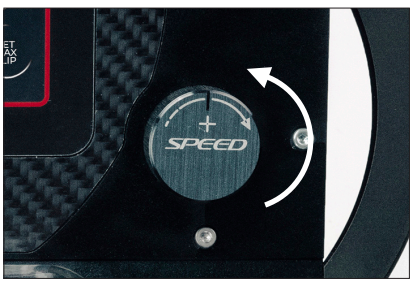


Fig. 1


Fig. 2

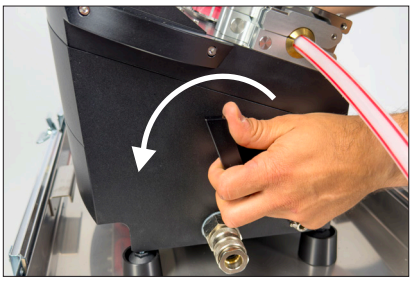


Fig. 3

REPLACEMENT OF DUCT AND CABLE ADAPTERS

- Remove the current cable adapter, thanks to the magnetic coupling in the adapter itself, no tools are required (Fig. 1)

- Check that the seal for the new adapter is intact, then install it in the correct adapter housing. (Fig. 2)

- Place the new adapter in the correct position using the magnetic quick-coupling system.

- Ensure that the air chamber linear seals are correctly positioned in their slots (Fig. 3).

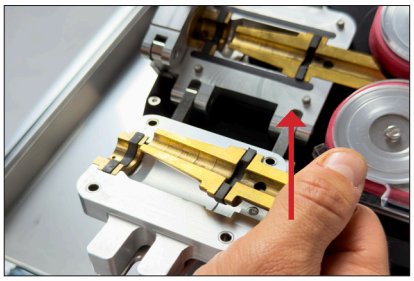


Fig. 1

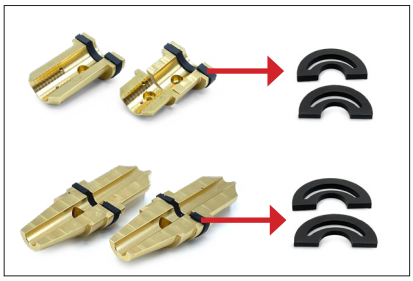


Fig. 2

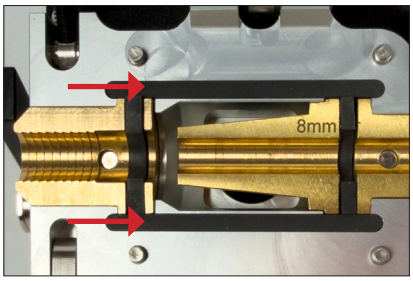


Fig. 3

REPLACING THE CABLE ENTRY GUIDE

- Pull down the knob to release the cable entry guide and remove it. (Fig. 1)

- Insert the desired size adapter (Fig. 2) into the machine while pulling down the knob to secure it.

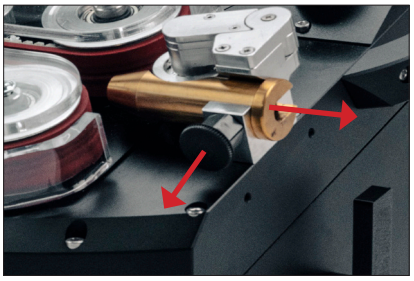


Fig. 1

Fig. 2

SAFETY PRECAUTIONS

PLEASE READ CAREFULLY FOR YOUR OWN SAFETY

1. **Prior to supplying compressed air**, the operator shall verify that all clamps securing the pressurized chamber and the duct are fully tightened and correctly positioned.

2. The air hose fitting shall be secured using the designated fastening system, ensuring that the safety screw is completely tightened. The use of the safety retention cable between the compressed air hose and the machine is **mandatory** (Fig.1).

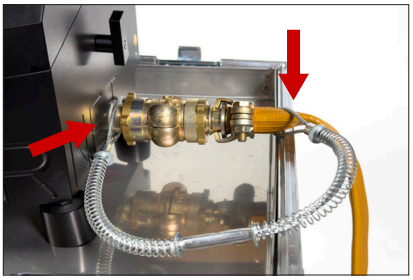


Fig. 1

3. **Before opening the adapter clamps or disconnecting the air hose**, the compressor must be switched off, the air supply and vent valves shall be completely opened, and the pressure indicator on the display must read zero.

4. The drive belts should preferably be replaced with the machine switched off, before starting a cable installation. If replacement is required during an installation, the speed control shall be set to zero and the emergency stop button shall be pressed before replacing the belts to prevent accidental machine movement. It is not necessary to switch off the compressor.

5. **In the event of damage** to the plexiglass protective panels, all operations shall be stopped immediately. The machine shall be depressurized and electrically disconnected. Recommissioning is strictly forbidden until all damaged components have been replaced with original parts.

6. The machine shall not be operated without the plexiglass protective panels installed, as these devices are required to prevent hand injuries and to avoid entanglement of clothing, accessories, or foreign objects in the belt system.

7. If abnormal noise, vibration, or potential internal air leakage is detected, the operator shall immediately halt operation, depressurize the machine, disconnect the power supply, and contact authorized technical support.

8. **Only original Fibernet components and accessories** shall be used. All assembly and installation procedures must conform to the official instructions.

9. During operation, no personnel shall stand along the spool–machine–duct axis.

10. The operator shall remain positioned in front of the machine at a minimum distance of **30 cm**, and must not wear garments or accessories protruding more than **10 cm** from the body.

11. Loose items such as bracelets, necklaces, ID lanyards, or similar accessories shall be removed or secured prior to operation.

12. No additional operators or bystanders shall be permitted within the defined operating area while the machine is in use.

13. The duct shall be cut to a length that mitigates any potential impact hazard to the operator in case of accidental breakage or malfunction.

14. The operator shall wear certified protective workwear and safety footwear in accordance with applicable standards.

15. The steel tray shall not be removed from the case while the machine remains housed inside it. Handling of the tray shall only be performed using appropriate protective gloves.

16. Prior to operation, the machine shall be positioned on a stable surface or on its dedicated case, properly locked in place. The operator must verify correct coupling between the cable blower and the duct, and ensure that the cable is accurately aligned between the two drive belts.

17. The adapter clamps shall not be opened under normal operating conditions when the emergency stop system is disengaged.

MAINTENANCE AND CLEANING

- Ensure that the machine is dried off after use by removing any water residues.

- Clean the machine with a damp cloth (not soaking wet) using water only. Do not use other chemicals.

- Avoid using alcohol to clean the plexiglass surfaces.

- Do not use water jets to clean Geniale.

- Compressed air can be used to remove any dust.

REPLACING THE BELTS

Geniale's drive belts are subject to wear and should be inspected and replaced whenever they show evident signs of wear and have lost their grip on the cable. **We recommend replacing the machine belts every 100-200 km**, depending on the cable diameter used and the overall laying conditions.

To replace the belts, follow these steps:

1. Open the dual carriage to facilitate the replacement procedure (Fig. 1).
2. Starting with the upper belt, remove the plexiglass guard by unscrewing the two retaining screws (Fig. 2 and 3).
3. Insert an Allen key into the first roller on the right and turn it counterclockwise to release the belt tension (Fig. 4 and 5).
4. Remove the belt from its housing (Fig. 6).
5. Install the new belt, ensuring that its teeth are correctly engaged with the drive pulley, the only toothed pulley on the carriage (Fig. 7).
6. Tension the belt by inserting an Allen key into the first roller on the right and turning it clockwise (Fig. 8).
7. Ensure that the belt is correctly installed by checking that its inner groove is properly seated on the guide of the toothed pulley and on the guides of the smooth pulleys.
8. Reinstall the plexiglass guard removed previously (Fig. 9).
9. Repeat the same procedure for the lower carriage.

Fig. 1

Fig. 2

Fig. 3

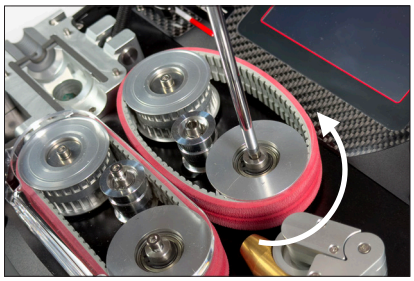


Fig. 4

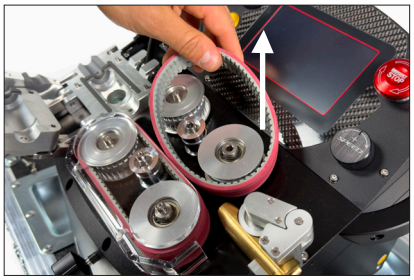


Fig. 5

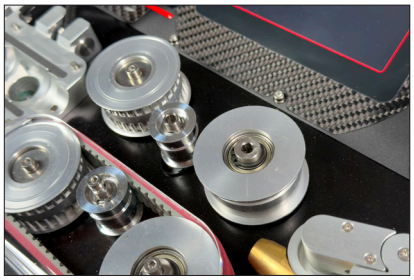


Fig. 6

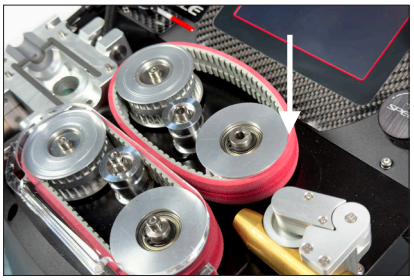


Fig. 7

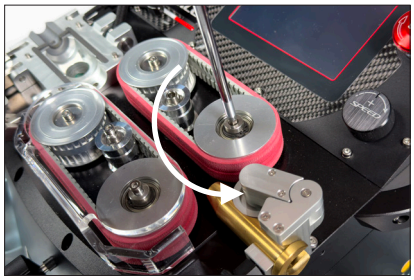


Fig. 8

Fig. 9

TROUBLESHOOTING

The machine can display five types of error messages:

- Stop
- Max pushing force reached
- Max slip reached
- Speed Knob
- No Gear Selected

In any case, the machine will stop.

SOLUTION

In the first case, release the emergency stop button as described previously.

The procedure for clearing the error message is then the same in all five cases.

- Turn the speed control to zero until it fully disengages, as indicated by the click.
- Close the pop-up by pressing the “Close” button.
- Investigate the cause of the problem.
- Once the issue is solved, resume the operation.

For any other issue, please contact Fibernet Technical Support at:

Phone: +39 06 90.40.50.39 - Email: info@fibernet.it

⚠ ERROR MESSAGES

MESSAGE	MEANING	RESET
STOP	Emergency stop activated	1. Release Emergency Stop 2. Turn speed knob to zero until click 3. Press **CLOSE** on the display
MAX PUSHING FORCE REACHED	Maximum pushing force reached	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display
MAX SLIP REACHED	Slip exceeded set limit	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display
SPEED KNOB	Speed knob not at zero on startup.	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display
NO GEAR SELECTED	The gear is not detected when the velocity of the belts is not zero	1. Turn speed knob to zero until click 2. Press **CLOSE** on the display

FAQ - FREQUENTLY ASKED QUESTIONS

1. **What makes Geniale different from other cable blowing machines?**
   Geniale combines two operating modes in a single machine. **Gear 1** provides high pushing force for larger cables, while **Gear 2** offers higher installation speed for micro cables. Its electronic control system maintains a constant pushing force independently of the installation speed and automatically reduces the speed when resistance increases, helping to protect the cable throughout the installation.

2. **What cable and duct sizes are supported?**
   Geniale supports cables with diameters from 1.2 mm to 8.5 mm.
   Using the standard duct adapters supplied by Fibernet, it supports ducts with outside diameters from 5 mm to 16 mm.

3. **Which gear should I use?**
   - **Gear 1** is recommended for cables from 4 mm to 8.5 mm, where higher pushing force is required.
   - **Gear 2** is recommended for cables from 1.2 mm to 3 mm, where higher installation speed is preferred.

4. **What is the maximum installation distance Geniale can achieve?**
   The achievable installation distance depends primarily on the cable, duct, lubrication, compressor performance and route conditions, such as bends and elevation changes.

   There is no fixed maximum distance imposed by the machine itself. Under suitable installation conditions, distances exceeding **1 km** are achievable.

5. **What compressor specifications are recommended?**
   Geniale can also operate **without compressed air** for short installations. Depending on the cable, duct condition and installation route, distances of approximately **200–300 meters** can be achieved using the electric drive alone.

   For longer installations, compressed air is recommended to maximize performance.

   Because Geniale is fully electric, **100% of the compressed air is directed into the duct**, rather than being used to operate pneumatic components inside the machine. As a result, excellent installation performance can be achieved with a compressor delivering approximately **500 l/min at 12 bar**. Compressors with higher air flow, such as **1000 l/min**, may further improve performance under demanding installation conditions.

6. **What closing force should I set?**
   The recommended closing force depends on the cable diameter.

   For **cables from 4 mm to 8.5 mm**, the belt closing force should generally be set to **approximately 2–3 times the maximum pushing force** selected for the installation. This provides sufficient grip while minimizing unnecessary stress on the cable.

   For **micro cables from 1.2 mm to 3 mm**, a belt closing force of approximately **10–20 N** is generally recommended.

   These values are intended as general guidelines. The optimum setting may vary depending on the cable construction, jacket material and installation conditions. Always use the lowest closing force that provides adequate grip without excessive belt slippage.

7. **Why does the machine automatically reduce the installation speed?**
   Geniale continuously monitors the pushing force during installation.

   When resistance increases, the machine automatically reduces the installation speed while maintaining the selected pushing force. This electronic control helps maximize installation performance while reducing the risk of cable damage.

8. **What happens if the selected pushing force is reached?**
   The electronic control system limits the force applied to the cable to the value set by the operator. This helps protect the cable from excessive mechanical stress during installation.

9. **Can the cable be withdrawn if necessary?**
   Yes. Geniale includes a reverse function that allows the cable to be safely withdrawn whenever required.

10. **How long do the batteries last?**
    Geniale is powered by **three 18V 5 Ah Milwaukee® M18™ lithium-ion batteries**, providing outstanding autonomy throughout the working day.

    Under continuous operation at **maximum pushing force**, a full battery charge allows approximately:

    - **Up to 4 km** of cable installation in **Gear 1**.
    - **Up to 6 km** of cable installation in **Gear 2**.

    Actual battery life depends on the cable size, duct condition, installation route and operating settings. Under normal working conditions, one fully charged set of batteries is typically sufficient for a full working day without interruption.

11. **Can the same Fibernet App be used with all Fibernet cable blowing machines?**
    Yes. A single Fibernet App can be used with all compatible Fibernet cable blowing machines. Operators can monitor installation parameters, record installation data and generate reports using the same familiar interface across the entire Fibernet product range.

12. **Can Geniale be used to install ducts?**
    No. Geniale is specifically designed for blowing optical cables into pre-installed ducts and is not intended for duct installation.

13. **How long do the belts last?**
    Under normal operating conditions, a set of Geniale belts is expected to last approximately 100 to 200 km of cable installation. Actual belt life depends on several factors, including cable type, duct condition, belt clamping force, operating settings and general installation conditions.

    The belts should be replaced when signs of wear become evident. Typical indicators include:

    - Increasing belt slippage on the cable during installation.
    - A noticeable colour change, with the belts gradually changing from bright red to dark red as the rubber wears.

    Replacing worn belts at the appropriate time ensures optimum installation performance, maintains accurate pushing force and helps protect the cable from unnecessary slippage.

TIPS AND TRICKS

CRASH TEST

The Crash Test is performed on the fiber optic cable before starting the installation activity. Its purpose is to determine the maximum pushing force to set on Geniale to prevent cable breakages.

The test consists of pushing the cable inside a sealed duct and by gradually increasing the pushing force until the cable breaks. By determining the force that broke the cable, you can set the parameter to a level slightly below, ensuring that installation proceeds without damaging the cable.

It is advisable to perform a crash test before every installation, as different types of cables and varying ambient temperatures can affect the maximum forces applicable to the cable.

Note: Cables with an outer diameter of 6 mm or greater may require breakage forces that Geniale cannot provide.

PROCEDURE

1. Take a segment of duct approximately 3 meters long and seal one end with a plug.
2. Secure the duct to Geniale as described on page 20.
3. Extend the duct as much as possible to avoid any obstacle that might hinder the cable's movement.
4. Insert the cable into Geniale as per instructions on page 21.
5. Select the desired initial maximum pushing force using the Thrust control knob (see page 24) and start the cable installation in the tube at a determined speed.
6. Check if the cable breaks or gets damaged after hitting the plug at the end of the duct.
7. If the cable does not break or get damaged, rewind the cable and repeat the test with a higher push force (e.g., if you started with a push force of 70 N, try increasing to 80 N).
8. Continue increasing the push force until the cable breaks or gets damaged.
9. Use a pushing force for installation that is lower than the force that caused the cable to break or get damaged.

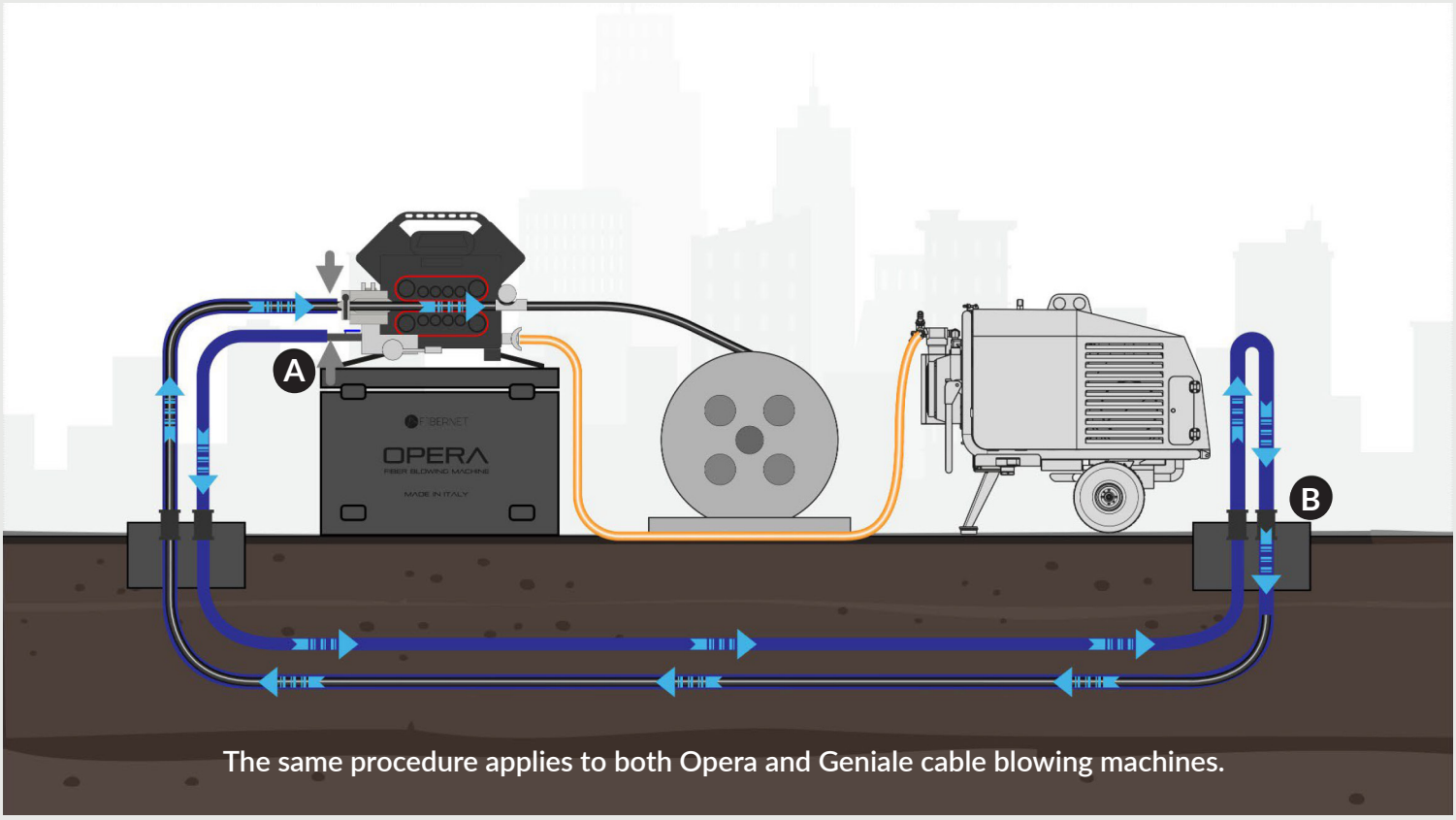
TIPS AND TRICKS

USING THE SECONDARY AIR OUTLET / REVERSE

The potential uses of this additional outlet (Fig. 1) include:

1. **Cleaning the duct before** starting the installation. You can directly connect the tube to this outlet without having to clamp the tube in the tube adapter. This reduces setup time and makes it easier to insert cleaning sponges into the tube.

2. **Facilitating the "reverse" function.** The secondary air outlet allows the machine to pull back a cable that is stuck inside the duct by using Geniale's "reverse" function together with the compressor air. This procedure is only possible if there is an available duct that can be connected to the one where the cable is blocked, creating a loop. By connecting this second duct to the machine's secondary air outlet, the compressor air will be directed in the opposite direction, helping the cable retract and free itself.



The same procedure applies to both Opera and Geniale cable blowing machines.

To use this outlet, insert the appropriate adapter (Fig. 2).

To facilitate reverse operations of Geniale and expulsion of a potentially blocked cable, follow these steps:

- Using a duct different from the one being operated on (but belonging to the same underground duct group), connect one end to the secondary air outlet adapter (step A).

- Connect the other end of this duct to the duct containing the blocked cable. This will allow the compressed air to assist the reverse blowing operation (step B).

- Keep the adapter clamp closed and ensure that the air chamber is open to allow the air to escape (Fig. 3).

- Start the reverse movement of the belts by adjusting the air flow with the designated lever.

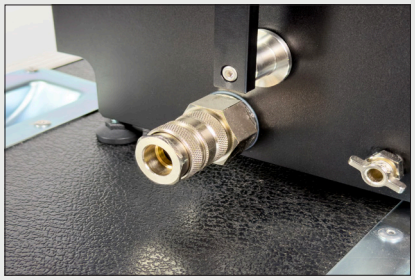


Fig. 1

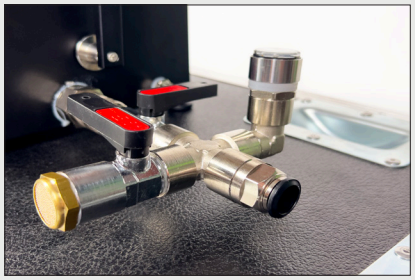


Fig. 2

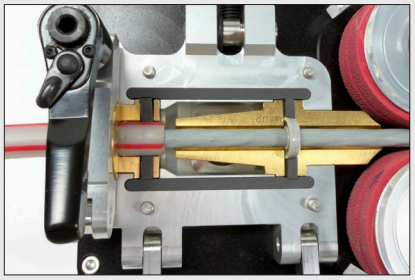


Fig. 3

USING GENIALE WITH THE FIBERNET APP

Geniale is equipped with a Wi-Fi connection that allows communication with the Fibernet App installed on the dedicated tablet (sold separately).

The Fibernet App allows the user to **record all cable-blowing operations performed with Geniale**. The same tablet can also be connected to other Fibernet machines equipped with Wi-Fi, making the management and recording of multiple installations easier and more efficient.

The App is pre-installed on the Fibernet tablet and cannot be installed on any other device, as its interface and layout have been specifically designed for the technical specifications of the supplied tablet.

The Fibernet App and the generated reports.

RECORDING OF THE INSTALLATION AND CRASH TEST

The App enables real-time recording of the blowing operation and can also capture data related to the preliminary crash test.

The crash test helps determine with greater accuracy:

- the maximum pushing force,
- the appropriate blowing speed,
- the clamping force of the belts,

so as to prevent damage to the cable during installation.

The recorded data therefore provide clear and objective reference values for setting the correct operational parameters.

STARTING A NEW RECORDING AND REPORTS

Before starting the installation, the machine must be connected to the App via Wi-Fi.
After selecting "*New Installation*", the user can:

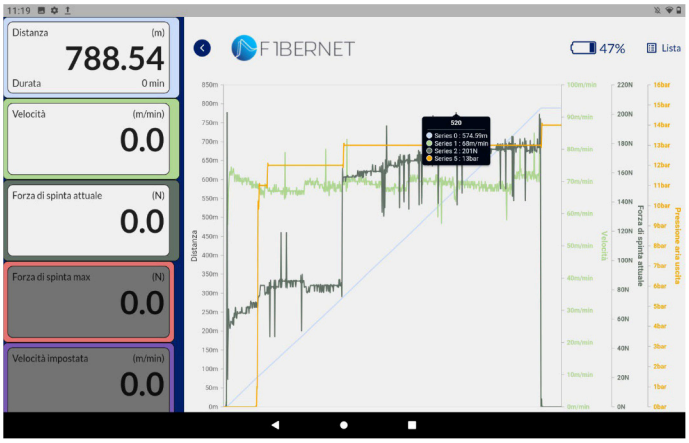
- manually enter all the data related to the upcoming installation, or
- load a previously saved installation and adjust selected parameters.

The fields to be filled in may include, for example:

- Project name
- Operator
- Installation address
- GPS position (acquired automatically)
- Type of compressor used
- Type of cable (diameter, manufacturer, colour, etc.)
- Type of duct (diameter, manufacturer, colour, etc.)
- Additional technical information

Once all the required information has been entered, the recording of the installation can begin.

The App displays, in real time, all parameters transmitted by the machine and stores them meter by meter, presenting them in a summary table within the final report.



A particularly useful section of the report is the customisable graph, where the operator can select which parameters to highlight for detailed analysis.
At the end of the installation, comments regarding operating conditions or any difficulties encountered can be added.

The generated report can then be sent by e-mail using the tablet's Wi-Fi connection or exported via the USB port.

ADVANTAGES OF THE FIBERNET APP

Fibernet strongly recommends using the App because it records each installation in detail, providing the installer with objective data to demonstrate the successful outcome of the operation or any issues encountered during the process. **The resulting report can be shared immediately** with the customer or with the internal technical team responsible for the installation.

Analysing the report is highly recommended, as the graph clearly shows how the installation is influenced by many operational variables and how each of them can affect the final result.
For example, the amount of air injected into the duct and the moment it is introduced are crucial factors; studying the report enables the operator to refine and continuously improve their working technique and allows the installer to demonstrate to the customer the quality of the installation performed.