USER GUIDE



Manufacturer: Jetting AB

Product Name:

Jetting V3 Fiber Blowing Machine, JetLogger Prepared

Manufacturer Part Number:

V3-JLP-CAN

Click here for more details on the Jetting V3 Fiber Blowing Machine, JetLogger Prepared



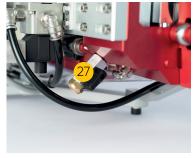
Click here for more details on the Jetting V3 Fiber Blowing Machine, JetLogger Prepared

Copyright © 2024 by Jetting AB

All rights reserved. No part of this publication may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of the publisher. For permission requests, write to the publisher, addressed "Attention: Permissions Coordinator," at the address below.

Jetting AB, Murgatan 1, 522 30 Tidaholm, Sweden jetting.se





- 1. Claw Connector
- 2. Air Valve
- 3. Duct Holder
- 4. Clamp bracket
- 5. Duct Clamp
- 6. Belt Clamping Lever
- 7. Handle
- 8. Drive Belts
- 9. Drive Belt Protection
- 10. Counting wheel
- 11. Cable inlet
- 12. Cable guide
- 13. Belt tensioner
- 14. Easy Joystick Controller
- 15. Jetlogger socket
- 16. Battery Socket
- 17. Regulator

18. Security Stop

- 19. Safety Valve (V3 JLP)
- 20. Pneumatic Motor
- 21. Power Button
- 22. Reset Button
- 23. Display
- 24. Oil Adjustment Screw
- 25. Oil Container Screw
- 26. Manometer for Motors
- 27. Duct Release Air Valve

Important Safety Notice

Read and understand all procedures and safety instructions before using the V3 fiber blowing machine. Please note all safety information on this page and take note of specific safety requirements outlined in the procedures of this manual. Failure to follow these instructions may result in serious personal injury or death.















Warning: The noise level will exceed 70 dB.

1. General Information

V3 is a unique device designed for installing fiber optic cable directly into ducts. The V3 consists of a duct clamp and a belt drive system that, when combined, installs a cable into an airtight duct at speeds ranging from 0 to 50 m/min.

The V3 comes equipped with an LCD display as standard. The machine should be complemented with specified duct clamps, cable seals, and cable guides depending on the dimensions of the duct and cable for installation.

This user manual provides a comprehensive description of the V3, designed for feeding fiber cable through ducts. The duct must have been previously installed underground or aboveground to receive the fiber optic cable and must be of sufficient length at the exit to be received by the machine. The duct must be made of material with adequate pressure resistance to seal tightly in the machine's duct clamps. The duct must be airtight up to a pressure of 16 bar. Duct sizes range from 10 mm to 63 mm, while fiber optic cables range from 4 mm to 40 mm.

The V3 consists of a duct clamp made in two halves that clamp around the duct. The duct clamp holds a seal through which the fiber optic cable is fed before entering the duct. The duct clamp and cable seals can be replaced to accommodate different duct and cable sizes. The duct is mechanically clamped between the clamps, preventing movement in all directions. Seals fit around the duct when securely clamped.

The fiber optic cable is fed through the duct using a combined pulling and pushing force. The pulling force is achieved when pressurized air is fed into the duct clamp and forced into the duct, generating resistance on the fiber cable from the airflow passing over it. The pushing force is created by engaging the belt drive system. When the belt drive system feeds the fiber cable into the duct, the pulling force is created by the airflow. The fiber optic cable flows within the duct, minimizing resistance to being pushed in by the belt drive system.

The use of the V3 for operations other than those described in this manual is considered hazardous and is discouraged. Using this machine for work other than its intended purpose releases the manufacturer from all liability, civil or criminal. The manufacturer's responsibility ceases, and the warranty becomes void when any of the following occurs:

- A. When the V3 is used for purposes other than those described in this manual.
- B. Modifications and/or alterations are made without written approval from the manufacturer.
- C. Non-use of original manufacturer's spare parts.
- D. Poor maintenance.
- E. Failure to use included safety devices or equipment.
- F. Connection of this unit to machines and/or parts not manufactured or approved in writing by the
- G. The V3 should not be used to install any cable other than fiber optic cable specified within the range outlined in this user manual.
- H. The V3 must not be operated without oil in the oil container; doing so immediately voids the warranty.
- I. Check the oil level in the container daily.

Jetting AB is not responsible for damages arising from improper use of the V3.

2. Technical Information

A. Terms of Use

- 1. Temperature from -15°C to +40°C
- 2. Humidity from 20% to 90%
- 3. Weather conditions relevant to working conditions
- 4. Natural and/or artificial lighting of the workplace, >200 lux

B. Air Compressor Requirements

Air Pressure: 16 bar max
 Air Flow: 0.14-11 m3/min
 Connections: 1" Claw Connector

4. Max Pressure to Motors: 6 bar

5. Air Conditions: Dry, clean, and oil-free

C. Operating Capacity

Pushing Force:
 Installation Speed:
 Cable Sizes:
 Duct Sizes:
 1800 N max
 m/min max
 4 mm to 40 mm
 Duct Sizes:
 10 mm to 63 mm

D. Electrical Requirements

1. Power Supply Counter: 9 V Alkaline battery

2. Power Consumption: Approximately 15 hours of operatio

3. Power Connection: Battery holder

E. Physical Specifications

 1. Height:
 400 mm

 2. Width:
 700 mm

 3. Depth:
 590 mm

 4. Weight:
 25 kg

F. Drive Belts

1. Max Clamping Force: 2000 N

- 2. Constant cable center design
- 3. Forward and reverse drive
- 4. One motor per drive belt
- 5. Clamp protection in transparent plastic

G. Duct Clamps

- 1. Maximum 16 bar
- 2. Must withstand vibrations and shocks
- 3. Must have an exact fit
- 4. Duct should be cut at a 90-degree angle and the edge ground smooth
- 5. Duct must be positioned inside the O-ring but outside the air channel

3. Safety Regulations

Read and understand all procedures and safety instructions before using the V3. Please note all safety information on this page and take note of specific safety requirements explained by procedures outlined in this manual. Failure to follow these instructions may result in serious personal injury, property damage, or death. The equipment must only be handled by trained and authorized personnel who have read and understood all documentation. **In the event of mishaps or breakdown, see section 3.1.**

The machine is delivered in a custom hard case. When transported, the machine shall be placed in the hard case. The hard case must be locked, and when transported by car, the locked case should be strapped in a safe way, preventing it from overturning if the car brakes hard.

3.1. Machine Safety Shutdown

- 1. Activate the Emergency Stop by turning the red knob clockwise.
- 2. Close the air valve.
- 3. Turn off the compressor.
- 4. Open the duct air release valve.
- 5. Disassemble the unpressurized air hose from the Machine.

Turn the red knob counterclockwise to deactivate the emergency stop.



3.2. Workplace Safety

- Wear personal protective equipment: ear protection, hard hat, safety glasses, steel reinforced safety shoes, and light leather work gloves (OSHA-approved or Personal Protective Equipment Directive 89/686/EEC-compliant).
- 2. The operator is responsible that no children or unauthorized persons are close to the machine while in operation.
- 3. Do not operate this equipment with guards removed or damaged.
- 4. It's strictly forbidden to wear loose fitted clothing and jewelry when operating the machine.
- 5. Check machine before starting for worn or damaged parts, loose nuts and bolts etc.
- 6. If machine is left unattended, ensure that unauthorized use is prevented.
- 7. Keep long hair securely tied back.
- 8. The safe use of this equipment requires operators to stand on stable ground.
- 9. Be careful when handling cables and live wires
- 10. Be careful when handling pressurized lines and hoses.
- 11. Stay clear of cables or lines under tension.
- 12. Use the machine only for its intended purpose.
- 13. Do not place cable drums too close to the unit. Position the drum minimum 2 meters from machine.
- 14. Keep hands away from drive wheels and moving parts during operation.
- 15. Beware of hot and cold surfaces, machine uses compressed air.
- 16. The machine is equipped with a handle; use this when lifting or handling the machine. The machine weighs more than 24 kg (53 lb). When lifting, be careful and avoid personal injury and machine damage.
- 17. Beware of exposed electrical contacts. Do not touch, or allow metal objects to come into contact.
- 18. Machine may cause additional fire hazard if involved in an existing fire due to compressed air.
- 19. No personnel are to be in manholes or ducts when the Fiber Blowing Machine is being operated
- 20. Ensure no personnel are in the manhole at the far end of the cable run. Severe personal injury may result.
- 21. The machine must be operated on firm ground.
- 22. Only use the machine for its intended purpose, do not use the belt drive without the air chamber to push or to retrieve cable, blow air in the far end to help cable recovery.

- 23. Do not tamper with pressure relief valves or pressure reducing valves.
- 24. The compressed air supply must not be allowed to enter the air chamber or duct before the belts have been closed on to the cable. Do not turn the air on until a reasonable length of cable 100 m (300 ft) has been installed into the duct.

FAILURE TO DO SO MAY RESULT IN PERSONAL INJURY, AS THE CABLE COULD BE EJECTED FROM THE FIBER BLOWING MACHINE WITH HIGH FORCE AND VELOCITY.

- 25. Ensure the cable drum rotates freely on its stand; the cable should leave from the top of the drum.
- 26. The cable should enter the machine in a clean and dry condition. In damp, dusty atmospheres, the cable should be cleaned continuously as it enters the machine.
- 27. Do not open the air chamber until all the air has been exhausted and the air pressure gauge reads
- 28. The machine must not be operated without belt protection covers.

3.3. Pneumatic Devices

The V3 is a pneumatic device that utilizes compressed air to install cables at high speeds. Please observe the following precautions when using the machine:

- 1. Compressed air generates flying debris. Always wear personal protective equipment.
- 2. Serious personal injuries can occur. Always wear personal protective equipment.
- 3. Never open the air chamber when pressurised. 🗘 Do not open until the air pressure gauge read zero.
- 4. Only AUTHORIZED, fully trained personnel should operate the air compressor.

3.4. Electrical Devices

The control unit and the digital display are electrical devices. There are risks of electrical shocks that can lead to serious personal injury or death. Please note the following precautions to avoid electrical hazards:

- 1. Do not place the unit on a wet surface.
- 2. Do not use when there is thunder, lightning, or extreme weather conditions. A grounding rod driven into the ground as an additional protection is recommended if there is any risk of extreme weather conditions.
- 3. Do not remove the cover of the digital display. There are no user-serviceable parts inside. Leave servicing to qualified service personnel.
- 4. The machine has electrical monitoring and safety circuits. Observe the following precautions to avoid electrical hazards:
 - Do not operate in or near water.
 - Do not expose the machine to rain.

3.5. Working in Darkness

1. The operator must provide portable lighting that achieves a light intensity of at least 200 lux (lumen/m^2).



Improper use voids the warranty

CRITICAL POINTS THAT DRAMATICALLY AFFECT THE OPERATION OF THE FIBER BLOWING MACHINE

- Pressure on the cable should be set as per the instructions.
- Belts to be closed at all times when cable is installed into the machine.
- · Cord seals in the air chamber in good condition and correctly fitted to provide good sealing.
- Correct cable seal fitted.
- Duct/inner-duct fully connected and pressure tested.
- Duct and connecting fittings are suitable for operating at 232 psi (16 bar) air pressure.
- Duct clamp securely tightened.
- Compressor capacity suitable for the diameter of inner-duct being used up to 232 psi (16 bar) (higher pressure gives better performance).
- Cable drum must be located in line and minimum 2 meters from the blowing machine.
- Air chamber, drive belts and pulleys, cable guides must be clean and free from debris, sludge, dirt, water, and lubricant.
- The cable must be hand-guided into the blowing machine through a dry, clean cloth by the operator wearing work gloves.
- Ensure the compressed air supply is not applied to the cable until approximately 300" (100 meters) of cable have been installed.
- · Check the duct, duct clamp, cable and cable seals before starting the installation.

DISCLAIMER

Jetting takes care in the design of its products to help ensure that the cable is protected during installation. Due to the variety and different methods of cable manufacture, the responsibility of checking the cable compatibility with the equipment lies with the operator. Therefore, Jetting cannot accept liability for any damage to the cable.

4. Unpacking the Box / Case

Components

Each V3 STD Kit includes the following items:

- V3 main unit
- Machine mounts x2 (1 piece excluded for deliveries in crates other than wooden boxes)
- Jetting Lubrication, Duct Lube, Micro Duct Lube
- Duct clamps (vary depending on the order)
- Cable seal kit (vary depending on the order)

- Hex key
- 12 mm cable guide
- Assortment box
- Clamp bracket
- O-ring cord
- Manual
- Ground cable
- O-ring

5. Set Up the Machine

This user manual provides installation and operating instructions for the V3.



Do not connect the air supply until the installation is complete. The machine should be anchored in the machine fixture. The fixture should be mounted on a stable, flat surface.

5.1 Determine Fiber Cable Size

1. Determine the size of the cable to be installed.

5.2 Select Cable Sealing, Cable Guide and Duct

1. Choose the appropriate cable sealing, cable guide and duct clamp for the specific application based on the duct and cable size.

5.3 Install Cable Sealing & Fiber Cable in the Duct Clamp

- 1. Loosen the clamp bracket on the duct clamp. Open the duct clamp.
- 2. Install the appropriate cable sealing on the fiber. Ensure that the direction of the seal on the fiber is correct so that it fits securely in the duct clamp. The sealing lip of the cable sealing should face toward the end of the duct.
- 3. Once the cable sealing is correctly positioned on the cable, install the cable sealing into the lower half of the appropriate duct clamp.

5.4 Install Duct

- 1. Place the duct securely in the lower duct clamp.
- 2. Ensure there is sufficient length available on the duct to avoid unnecessary strain on the duct.
- 3. Once the duct is in place, close the duct clamp and tighten by screwing the clamp bracket. It should be airtight.

5.5. Install Fiber in Belt Drive and Tighten

1. Adjust the rear guidance and measuring wheel to fit the cable, ensuring that the measuring wheel does not slip.





2. Thread the cable through the rear cable guide and between the belt drives to check mobility.







- 3. Tighten the upper and lower drive units with the Belt Clamping Lever to ensure even pressure on the cable.
- 4. Tighten so that the belt drives do not slip at the pressure setting determined in the cable crash test procedure. Do not overtighten.



Always use clean, oil-free, and dry air. Route all hoses in a safety way to prevent tripping hazards.

To avoid creating tripping hazards, Place the air hose away from the work area and secure it to a stable object.

5.6. Connect to the Air Compressor

Note: Ensure that the regulator is set to 0/off and that the Easy Joystick Control is in the STOP position before connecting the air hose.

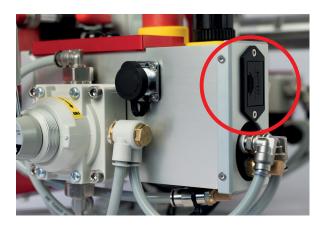
- 1. Connect the air hose to the air compressor.
- 2. Connect the air hose to the machine. The unit uses a Claw Connector.

5.7. Placement of Cable Drum

The cable drum should be positioned in line and at least 2 meters away from V3. The fiber should not enter the V3 at an angle greater than 10 degrees from the intended direction of travel.

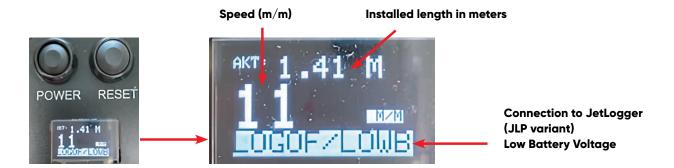
5.8. Connect battery to the Unit

Insert battery in the battery socket. Use a high-quality 9V battery.



5.9. Display

- 1. Start the display by pressing the POWER button. Reset the values by pressing RESET.
- 2. The V3 display shows the number of meters of blown fiber cable in the duct (m) and the current speed (m/m meters/minute).
- 3. For the V3-JLP version, the connection to the JetLogger documentation system is displayed as follows: Connected(LOGON)/Disconnected(LOGOF) & Low Battery(LOWB).
- 4. When the machine is not in operation, the display should be turned off to save battery power.
- 5. Change from meters to feet/feet to meters. The machine must be turned off. Hold down 'reset' and then press 'power.' When the display starts, release 'reset'.



5.10 Connect Grounding Cable

Connect the machine to the grounding spike or directly to the drum holder.

6. Cable Crash Test

Cable crash test is a very quick and straightforward step that should be completed before attempting to install fiber cable with V3. This test is necessary to set the regulator's position for the motors below the breaking point (tension force) where V3 could cause fiber cable damage due to over-tension or encountering an obstacle in the duct system. Each fiber cable has different tension values based on size and design.



Always wear protective equipment: a safety helmet, safety glasses, steel-reinforced safety shoes, and work gloves.









IMPORTANT

For the crash test to work correctly, use the same size of cable and duct that will be used for the job. Jetting cannot be held responsible for any cable damage.

Crash Test: For all cable types > 4 mm diameter

Set the pressure between the drive belts and fiber cable at the lowest possible setting that allows for a desirable installation speed.

- 1. Insert the fiber cable and seal inside the duct as it would be for the actual installation.
- 2. Install a 2-3 m test length of duct into the V3 clamp and secure the clamp.
- 3. Block the end of the test length of duct.
- 4. Tighten the drive belts against the fiber cable with the drive belt drive engaged in the forward direction until the fiber begins to be installed.
- 5. Insert the fiber cable into the blocked end of the duct.
- 6. The drive belt slip should occur on the fiber before the fiber bends over.
- 7. Tighten the drive belts against the fiber cable half a turn.
- 8. Repeat steps 6-7 until the fiber cable bends. This is your tension slip limit.
- 9. Loosen the drive belts on the fiber cable a quarter turn and perform the test again to confirm that no bending has occurred. KEEP THIS SETTING FOR THE FIBER CABLE FOR ACTUAL INSTALLATION!
- 10. Replace the test length of duct with the actual installation duct and proceed to section 7. Operation of V3.

7. Machine Operation

7.1. Verify Adjustable Tension Force

Verify that the adjustable tension force is set to the established crash test value, and the speed is at a minimum. Turn the regulator to 0 bar by lifting and turning the ring and turning it fully counterclockwise. Ensure that the Easy Joystick Controller is in the STOP position.

7.2. Engage Drive Belts

The drive belt drive can be operated forward and backward with the Easy Joystick Controller. For installation, engage the drive belts by first increasing the regulator to the desired air pressure for the motors, e.g., 1-6 bars. For forward motion, move the Easy Joystick Controller to the forward position. This operates smoothly and also regulates speed. Install the cable in the duct with motor power alone until the speed begins to slow down (approximately 30-100 m). Then, compressed air is added.

7.3. Activate Air Pressure

Slowly open the ball valve to allow airflow to the duct clamp. Do not apply maximum air pressure and flow at the first air engagement. Do not open the air supply until the desired speed slows down (approximately 30-100 m). Then gradually increase the air pressure in increments of about 10-20% at a time. Follow the speed of the cable installation and balance air pressure carefully against drive belt speed. Too much air can slow down or stop the installation.



Do not exceed 16 bars when using the device. Compressed air generates flying debris. Always wear personal protective equipment.

7.4. Adjust Speed

Use the regulator to adjust the belt drive speed in combination with the Easy Joystick Controller to ensure smooth installation and match the amount of air pressure used so that the forces cooperate.

7.5. Install Cable

The cable must be dry and clean of dirt.

7.6. Stop Belt Drive

To stop the belt drive, reduce the air pressure on the regulator or move the Easy Joystick Controller to the STOP position. The emergency stop is activated by turning it clockwise.



Do not run motors with an empty or malfunctioning oil container!

7.7. Check Oil Level

Check the pneumatic oil container to ensure continuous oil mist lubrication to the motors. The oil level must always be above the hose in the oil container.



7.8. Refill Oil

Oil can be filled into the container in two different ways. Use only Jetting Pneumatic oil 32.



Alternative 1. Loosen the oil container screw and fill.



Alternative 2. Unscrew the entire container by hand counterclockwise and pour the oil directly into the container.

IMPORTANT! Make sure the O-ring on top of the container is properly positioned when tightening, otherwise mist lubrication will not work correctly.

7.9. Calibration of mist lubrication

- 1. Start the process by activate Machine Safety Shutdown (see 3.1).
- 2. Turn the adjustment screw clockwise to the bottom.
- 3. Rotate the adjustment screw counterclockwise to '3'.
- 4. Place the Easy Joystick Controller controller in stop position.
- 5. Deactivate the emergency stop by turning it counterclockwise.
- 6. Turn the regulator to 0.2 MPa.
- 7. Position the Easy Joystick Controller controller to 'Forward'.
- 8. Count the number of drops from the tap inside the adjustment screw. The correct amount should be 1 drop every 30 seconds.
- 9. If necessary, turn the adjustment screw counterclockwise to increase or clockwise to decrease the amount of oil.







2.







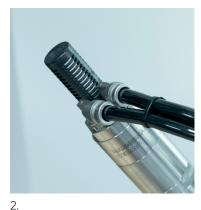


7.10. Motor Lubrication for machines not in use

<u> Must be done if the machine is not in use for 2/3 days or longer.</u>

- 1. Start the process by activate Machine Safety Shutdown (see 3.1).
- 2. Place V3 upside down and let it rest on the black handle. The quick connectors on the motor are now easily accessible.
- 3. Disconnect the hose from the quick coupling and pour 10 ml of oil into the coupling, Reattach.
- 4. Perform the same procedure with hose number two.
- 5. Turn the machine back and rotate the upper and lower drive belts by hand. Rotate a full turn to ensure full lubrication of the motor.











_

7.11. Additional

Do not exceed air pressure more than 6 bars to the motors. Micro cables up to 5 mm should never exceed 3 bars of air pressure to the motors.

8. Maintenance



Disconnect the air supply and vent any air pressure before servicing any component on the V3. Avoid handling leaking connections, valve seals, or inadequately sealed duct clamps. DANGER! Risk of compressed air penetrating the skin causing air embolism. In case of suspicion, immediately contact emergency medical care.

Procedure	Daily	Weekly	Monthly	60 days	90 days
Clean all units and components thoroughly with a dry cloth.	V				
Inspect hoses, cables, connections, fastening elements, couplings and screws for any signs of damage or looseness.	√				
Inspect the belt drives. Replace them if excessive wear has occurred. Excessive wear is evident when the belt drives can no longer grip the fiber optic cable effectively.	√				
Check the oil level. The oil level should never be completely empty. (See section 7.7-7.8)	√				
Verify the operation of the mist lubricator (See section 7.9)	V				
Inspect the duct seals (O-rings).					V
Motor Lubrication for machines not in use. (See section 7.10)	Must be done if the machine is not in use for 2/3 days or longer.				
Belt Replacement	Every 50 kilometers unless excessive wear occurs.				
Replacement of Cable Seals	Every 10 kilometers unless excessive wear occurs.				
Always use clean, dry, and oil-free air.	Use a compressor with a water separator/dryer.				



Disconnect the air supply and release any air pressure before inspecting or servicing the V3.

8.1. Drive Belts - Tension Control.

Check the wear of the drive belts. Verify the tension of the drive belts. Properly tensioned drive belts can be checked by folding the drive belt approximately 45 degrees. Ensure that the slide rails are clean and lubricated. WD40 or 5-56 lubricant can be used.



8.2. Adjustment of Drive Belt Tension (Version from 09.2023)





To adjust the drive belt tension: turn the adjustment screw (hex screw M6) counterclockwise to tighten the drive belts or clockwise to reduce tension. The expansion arm increases tension when placed in position. Check the tension of the drive belts until the correct tension is achieved.





Adjustment of Allen Key Screw.

8.3. Belt Replacement





Release the tension arms for belt replacement.

10. Troubleshooting

Cable stuck in the conduit

- 1. Inform the people at the other end of the conduit that an issue has occurred, and the operator will be shutting down the system.
- 2. Turn off the pneumatic air supply using the air control valve to reduce air pressure from the conduit and duct clamp.
- 3. Use the counter or measure on the cable to determine where the blockage may be.
- 4. Notify the supervisor of the issue and work together to determine a solution accordingly.

The drive belts are not feeding the fiber cable.

1. Assist the cable reel by pulling the cable to the machine.

Difficulty restarting cable installation after air to the system has been stopped.

1. The operation can be restarted after the air pressure has increased and stabilized.

Drive belt feed not starting

- Emergency stop may still be engaged. Reset the emergency stop by turning it counterclockwise after turning the regulator counterclockwise to zero and ensuring the Easy Joystick Controller is in the STOP position.
- 2. Check the oil reservoir.

11. Documentation and Recycling

Order Documentation

For documentation, user manuals, and technical information, contact your local distributor for assistance.

Disposal

Follow your country's regulations regarding recycling and disposal of the product.

12. EC Declaration of Conformity

EC DECLARATION OF CONFORMITY OF THE MACHINERY

Original

Directive 2006/42/EC, Annex II 1A

Manufacturer (and wh	ere appropriate his authorised representative):				
Company:	Jetting AB				
Address:	Murgatan 1 522 35 TIDAHOLM SWEDEN				
Hereby declares that:					
Type of machinery:	Fibre blowing machine				
No. of machinery:	V3				
Complies with the requirements of Machinery Directive 2006/42/EC.					
Complies also with applicable requirements of the following EC directives:					
2014/30/EU, EMC					
The following harmonized standards have been applied:					
	ety of machinery - General principles for design - Risk assessment and risk reduction y of machinery - Electrical equipment of machines - Part 1: General requirements				
The following other standards and specifications have been applied:					
Authorized to compile the technical file:					
Name:	Håkan Johansson				
Address:	Murgatan 1, 522 35 TIDAHOLM				
Signature:					
Place and date:	Tidaholm 2024-02-05				
Signature:	ted josefsson				
Name:	Ted Josefsson				
Position:	CFO				

13. Warranty

Warranty Period

This product is covered by a warranty for 12 months from the date of purchase. A valid receipt must be presented to claim the warranty.

Warranty Conditions

Damage and defects, which have occurred by improper use, unauthorized modifications or unauthorized repairs, are not covered by the warranty.

Items Not Included in the Warranty

The warranty does not cover normal wear and tear, including but not limited to:

- · Drive belts
- Cable guides
- · Drive wheels
- Duct clamps
- Sealings
- Accessories

Motor Maintenance Requirements

Regular lubrication of motors is required to maintain warranty coverage.

See 7.10. Motor Lubrication for machines not in use.

Signature:

Place and date: Tidaholm 2024-02-05

Signature: ted josefsson

Name: Ted Josefsson

Position: CEO