

# User manual













# **TERA 60 SERIES (2023)**







#### **PREFACE**

Thank you for purchasing a DEHACO TERA dust control unit. You now own a machine produced using the latest technology, when used correctly and given the proper maintenance the machine will have a long, fault free lifespan.

The purpose of this manual is to familiarize yourself with the operation, to instruct you on safe working practices, and to provide periodic maintenance guidelines. The user manual has been compiled for everyone involved in the machine's commissioning, operation and maintenance.

These people must:

- Possess the knowledge and qualifications needed to perform their tasks.
- Have read and understood this user manual.
- Comply with all stipulated safety instructions.
- If necessary, must possess sufficient, appropriate and good quality tools.

This user manual, the type plate and the safety stickers placed on the machine feature important safety-related information and are thus an integral part of the delivery. Store this user manual carefully and also supply it if the machine is sold to someone else. If damaged or lost, they must be re-applied or supplied once again. These items are available from Dehaco or your dealer.

> Make sure that you are familiar with the contents of this user manual before you operate the machine, so you can fully and safely use all of the machine's features!

The delivered Dehaco TERA 60 dust control unit has already been assembled and tested, and once commissioned is ready to use. Delivery includes the machine, the quick start manual, this user manual, electrical diagrams and the where applicable the generator manual. Upon delivery, immediately check whether the machine is complete and undamaged. Immediately contact your supplier if components are missing or if damage has occurred during transport.

DEHACO

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Dealer			

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# Translation of original user manual according to annex 1, section 1.7.4. of Machinery Directive 2006/42/EC.

We, Dehaco B.V., hereby declare that the products listed below comply with the essential requirements of the above-mentioned European Directive and the following harmonised standards:

**Product: TERA Dust Control Unit** 

**Brand:** Dehaco

Typeaanduiding: TERA 60

Manufacturer: Dehaco B.V.

Kruisbaak 25

NL-2165 AJ Lisserbroek

**Directives:** Machinery Directive, 2006/42/EG

Low Voltage Directive 2014/35/EU EMC Directive 2014/30/EU

NEN-EN-ISO 12100 Standard(s) Risk Reduction

Place and date: Lisserbroek, December 1, 2023

**Commercial director:** M. Berbée, Commercial Director



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## 1. GENERAL DESCRIPTION

# 1.1 Safety instructions

Read these safety and operating instructions and specifically all safety instructions before using the TERA dust control unit.

Follow all instructions in this operation and maintenance manual.

Anyone responsible for transporting, installing or removing, operating, maintaining, repairing, storing or disposing of the TERA dust control unit must have read and understood these safety and operating instructions.

This operation and maintenance manual belongs to the TERA dust control unit. Keep it for the life of the product. Ensure, if applicable, that any received amendment is incorporated in the instructions. Hand over the safety and operating instructions if ever you lend, rent out or sell the TERA dust control unit.

# 1.1 Signal words

The signal words danger, warning, caution, and notice are used as follows in this operation and maintenance manual:

#### A DANGER!

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

#### **▲** WARNING!

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

#### **▲** CAUTION!

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

#### NOTE

The signal word NOTE is used to address practices related to possible property damage but not related to personal injury.

# 1.2 General description

This dust control unit has been developed using the name TERA, and has very similar components to the previous developed TERA range 45, 60, 75 and 90. The number represents the maximum spraying distance in meters

The unique feature of the Tera series is that the droplet size can be configured irrespective of water quantity!

The 400V Dehaco TERA dust control units have been primarily developed for outdoor use. This units have been

produced to spray very fine water for dust control during demolition and renovation applications, but can also be used for a variety of other industrial purposes where dust control or cooling is required.

The Demto Rotor Technology (DRT) transforms the water into a fine spray, which is then dispersed by the ventilator. Because the ventilator speed, water supply and DRT-unit can be adjusted, it is possible to adjust droplet size, water quantity and distribution to suit any situation!

The Tera dust control units are available in a number of configurations. These include:

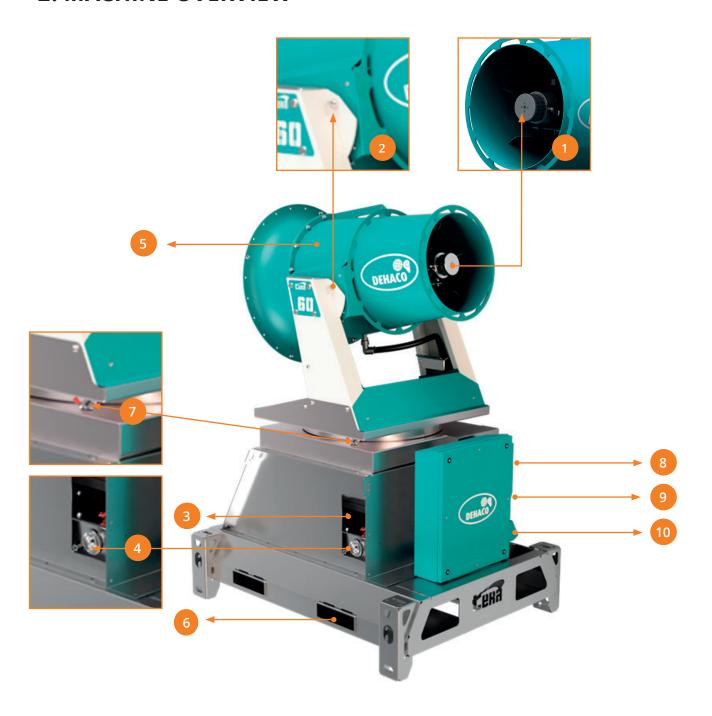
- ♦ Mounting base,
- ♦ Skid with insert for forklift truck.
- ♦ Compact skid with insert for forklift truck
- ♦ Wall Mount
- ♦ Combi Skid with generator
- TX with water tank
- ♦ GTX with generator and water tank
- ♦ GTM with generator, water tank and off road undercarriage

# 1.3 Guarantee terms and conditions

- The machine is subject to a guarantee period of 12 months after delivery, in accordance with the DEHACO General Terms and Conditions of Delivery. <a href="https://www.dehaco.nl/en/terms-and-conditions">https://www.dehaco.nl/en/terms-and-conditions</a>
- These conditions stipulate that, within this period, only equipment and manufacturing errors will be repaired free of charge, AFTER BEING EVALUATED BY DEHACO. Transport and or travel costs must be paid by the customer.
- > GUARANTEE CANNOT be provided for wear parts.



# 2. MACHINE OVERVIEW



- Demto-Rotor-Technology® (DRT)
- 2 Tilt transport lock
- Water filter
- Water coupling
- 5 Fan

- 6 Fork inserts
- 7 Rotation transport lock
- 8 Tera control panel
- 9 Emergency stop
- Power socket mains/generator



## 3. INTENDED USE

The Dehaco Tera 60 Dust control units have been developed for:

- Dust management during demolition, recycling, renovation and raw material handling and recycling operations
- Odour control
- Cooling
- Use with potable water

The Tera dust control units can be used in temperatures ranging from 5 degrees Celsius to 40 degrees Celsius.

The Tera dust control units can be stored, as long as all water is drained from the machine, in a frost free environment and in temperatures up to 55 degrees Celsius.

#### **▲** WARNING!

Any use other than that mentioned above will relieve Dehaco of all its responsibilities including guarantee!

Use for other purposes, or with other water qualities (incl. mineral water, surface water, etc.) has not yet been tested by Dehaco.

When considering other applications, please contact Dehaco IN ADVANCE to discuss whether the machine is actually suitable.



#### **▲** WARNING!

The Tera 60 Dust Control Unit does NOT comply with the ATEX guidelines!



# 4. TECHNICAL SPECIFICATIONS

# 4.1 Sizes and weights

4.1 Sizes and weights		TERA 60
Maximum throw at position 3 "Power Boost"	mtr	60
Maximum throw at position 2 "Eco-Boost" / 1 "Eco"		55 /45
Water consumption		0 - 4500
Optimal water supply pressure (min-max)		3,0 (0,1 - 6,0)
Water connection		Storz C52
Power consumption at position 3 "Power Boost"		12,0 (500 ltr/h) 16,0 (4500 ltr/h)
Power consumption at position 2 "Eco Boost"		8,0 (500 ltr/h 12,0 (4500 ltr/h)
Power consumption at position 1 "Eco"		6,0 (500 ltr/h) 10,0 (4500 ltr/h)
Dimensions (I*w*h)		1800x1400x2397
Weight		707
Required voltage		400
Required amperage		32
Rotation adjustment		0 - 335°
Height adjustment angle (+50°/-25°)		75°
Demto-Rotor® Technology		•
Electrical rotation adjustment (swivel adjustment included)		•
Electrical height adjustment		•
Control panel made with switches		•
Water consumption gauge (throttling valve included)		•
Remote control		0
UVC water disinfection system	0	
Cable 25 metres 32A	0	



Wear parts are components found inside the machine, which do not fall under the guarantee due to increased contact with the product.

The wear parts in this machine include:

- Water filter
- Where applicable parts mentioned by the generator manufacture

## 4.3 Noise emissions

- Noise levels in the immediate surroundings (1m distance, 1,65m height) of the dust control unit during operation have been measured.
- The maximum noise level measured at maximum power is 98 dB.
- Due to this noise level Dehaco strongly recommends using hearing protection.

#### **▲** WARNING!

Use hearing protection if you work in the immediate surroundings of the machine!



# **4.4 EMC**

Electromagnetic compatibility (EMC) relates to electronic devices interfering with other devices or are interfered with by other devices and residual current.

All of the Tera's components comply with the standards for use in an industrial environment (NEN-EN 61800-3).

If higher EMC requirements are required for specific applications of the TERA, then an optional choke coil or line filter is available.

Please contact your dealer or Dehaco for a bespoke solution.



# 5. SAFETY

#### **▲** WARNING!

Almost all accidents can be attributed to: loss of concentration, carelessness, negligence or errors in judgment! Work calmly and in a concentrated manner.

Make sure that the workplace is always well illuminated; possibly install extra temporary (construction) lighting to retain a clear overview.

Everyone involved with the installation, commissioning, operation, maintenance and repairs must:

- have the level of knowledge and qualifications required for their task.
- have read and understood this user manual.
- comply with all indicated safety instructions.
- If necessary, must possess sufficient, appropriate and good quality tools.

#### **▲** WARNING!

There is immediate risk of physical injury and/or damage to machines and the environment if the machine is used by inexperienced and/or unqualified persons. Keep observers at a safe distance when the TERA is operational!

#### **▲** WARNING!

You must also follow the local safety regulations under all circumstances.

#### **▲** WARNING!

Use personal protection equipment according to national, local and/or at the site requirements, this should at least include:

- > safety helmet
- hearing protection
- safety goggles
- > gloves
- safety footwear

#### **▲** CAUTION!

Regular lubrication and structural preventive maintenance reduces the risk of malfunctions during operation.



Please read the user manual carefully before starting the machine.





## 6. STORAGE

The following actions are recommended if the machine will not be used for an extended period of time:

#### NOTE

Always be careful with bearings when using a sprayer/blower to clean the machine!

- Carefully rinse the machine using clean tap water.

#### DO NOT USE A HIGH PRESSURE CLEANER!

- Perform maintenance.
- Possibly apply a preservative.
- Store the machine in a dry and frost-free location.

# 7. TRANSPORT

#### A CAUTION!

Ensure all the locking pins are engaged so the dust control unit cannot rotate or tilt unexpectedly!

Each of the locking pins are indicated in the image below.

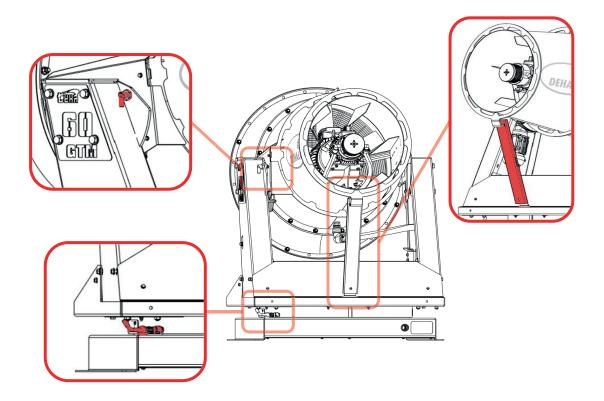
Depending on the selected version and/or options, the dust control unit can be moved using a wheel loader, truck, shovel, car or tractor.

#### NOTE

When transporting on a trailer or truck, always secure the machine by attaching lashing straps to the lifting eyes!

#### NOTE

- Use only certified and suitable lifting equipment when lifting the TERA
- Consult the specifications for the exact weight and dimensions of your dust control unit.





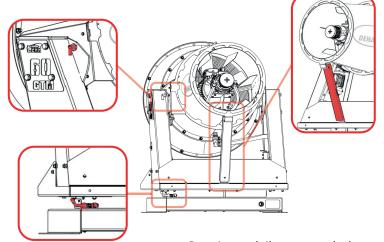
# 8. USE

#### 8.1 Installation

#### NOTE

When using a water supply for the first time: first run the water hose before it is connected! This helps to prevent dirt from the water supply from entering or blocking the filter or DRT!

- Determine the most suitable location for setting up the TERA: As close as possible to the object that must be sprayed, but far enough to operate without being hindered! When doing so, consider:
  - the water supply,
  - wind direction,
  - maximum distance and
  - swivel range.
- 2) Place the TERA dust control unit on a smooth, hardened and reasonably horizontal surface.
- 3) Where applicable check the oil, coolant and diesel levels in the generator, and the water level in the tank.
- 4) Inspect the water filter
- 5) Release both rotation and tilt transport locks to use the rotation and tilt functions.



Rotation and tilt transport lock

# 8.2 Grounding the Tera

Electrical current flow, similar to water flow, takes the path of least resistance to the ground. For safety reasons and equipment protection, it is important to ensure that path is not through personnel when they come in contact with electrical equipment. Effective grounding of all circuits and bonding looks to provide an easy path to ground when objectionable current flow or fault occurs. A grounding rod is standard delivered with the TERA 60 GTM / GTX.

- 1. Fasten the wire on the TERA 60 with the wingnut.
- 2. Drive the rod in the ground.



Grounding pen and wire

Follow the generator manual instructions!



# 8.3 Control panel

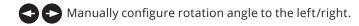
## Control panel

From left to right:

**FREQ. ERROR** will be illuminated if an error has been detected by one of the frequency inverters.

**POWER ERROR** will be illuminated when an error has been detected in the power supply.

**FAN 1/2/3** Configure Eco/ Eco-Boost / Power-Boost. **ROTOR 1/2/3** Configure droplet size: Coarse/Medium/Fine. **MANUAL/AUTO** makes it possible to choose between a fixed position and the automated shuttle function. The button will illuminate in green when in AUTO setting.







# 8.4 Operation

- 1. Open the TERA Control panel cover
- 2. Push the RESET button for at least 3 seconds.
- 3. Direct the Tera to the correct position
- 4. Select an initial fan speed.
- 5. Select an initial droplet size.
- 6. Push the start button and wait: The TERA starts up within 10 seconds.
- 7. Configure the automated shuttle function.
- 8. Adjust the fan speed and droplet size accordingly.

# 8.5.1 Operating the rotation function

The 400V Tera series features a rotation function with an automated shuttle system.

# **Setup Instructions**

- 1) Position the Tera in a safe location where it is stable and will not affect the safety of others within the working area.
- 2) Connect the power and water supplies.
- Release the locking pins for the rotation and tilt function.
- 4) Reset the controls by pressing the off button on the control panel.
- 5) If required disengage the emergency stop button.

The dust control unit is now prepared for operation.



Control panel



# **8.5.2** Operating the rotation function manually

- Press the left button to rotate the Tera anti clockwise.
   a. When you release the button the movement will stop.
- Press the right button to rotate the Tera clockwise.a. When you release the button the movement will stop.

It is possible to use the rotation function when the fan is on and off.

# **8.5.3** Operating the rotation functions automated shuttle system

- 1. Use the manual controls to position the Tera, aim the Tera at the middle of the working area. Marked with the dotted line in diagram 1 below.
- 2. Press the green "auto" button on the control panel to start the automated shuttle function.
  - a. The operating area of the Tera in now 5° anticlockwise of the centre line and 5° clockwise of the centre line, see diagram 1.
- 3. Press the right button, also marked with a plus symbol to increase the operating range.
  - Each time the button is pressed, the angle will increase both clockwise and clockwise from the centre line.
- 4. Press the left button, also marked with a minus symbol to reduce the operating range.
  - Each time the button is pressed, the angle will decrease both clockwise and clockwise from the centre line.

The operating range can be adjusted between 0 - 335°. If the Tera reaches the end point of the Tera, the operating range will only increase in the opposite direction.

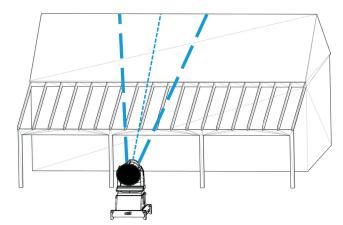
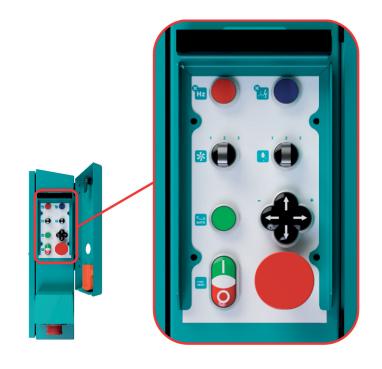


Diagram 1 – Automated shuttle system setup



Control panel

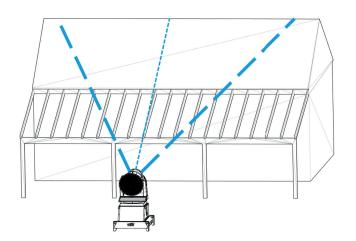


Diagram 2 – Automated shuttle system adjustment



# 8.6 Switching off

#### NOTE

Always switch off using the OFF button on the control panel. Do NOT use the emergency stop button for a default switch off, only during an emergency!

- Press the OFF button for 1 second: The on/off switch light will blink once activated. After the fan and rotor have finished the turn off sequence they will stop.
- f necessary to turn the auto rotation mode off manually
- If the Tera will be transported position the turbine allowing the locking pins to be engaged.
- Where applicable, switch off the generator according to the generator manufacturers user manual.

#### **▲** IMPORTANT!

#### In case of frost:

- 1) Open the drain valve positioned next to the main water connection.
- 2) Where applicable open the UVC set drain valves. The Tera will drain correctly when placed on a horizontal surface.

# 8.7 Option: radio remote control

The Tera dust control units can be equipped with radio remote control on the 433 Mhz frequency.

The maximum range is approximately 100 meters depending on the surroundings.

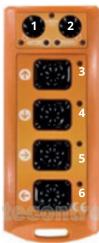
This is an Icarus RX/TX MINI system; the original user manual will be supplied if installed.

PLEASE READ THE MANUAL CAREFULLY BEFORE USE!

The displayed hand-held transmitter is part of the delivery.







#### **Buttons - Functions:**

- 0 Stand-by ON / OFF (slide switch)
- 1 ON fan/rotor
- 2 OFF fan/rotor
- 3 Tilt turbine UPWARDS
- 4. Tilt turbine DOWNWARDS
- 5 Rotate turbine CLOCKWISE
- 6 Rotate turbine COUNTER-CLOCKWISE
- 5+6 Shortly after each other: Automated shuttle function ON
- 5+6 Once again: Automated shuttle function OFF

#### In Automatic operation:

5 INCREASE rotation angle left and right 6 REDUCE rotation angle left and right

Configure end point for automatic rotation:

- Put the TERA in MANUAL operation.
- Set the central point of the rotation range using buttons 5 and 6.
- Select AUTO mode by pressing buttons 5 and then button 6 within 1 second of each other. When in AUTO mode button 5 and 6 are used to increase and decrease the range of movement. Positioning the Tera and adjusting the rotation can be performed using the same method as the control panel.

← Keep the remote control in its holster!

Set the standby OFF (slide switch on the back-side of the transmitter) to extend the battery life.



# 8.8 OPTION: UVC 6000 Legionella prevention system

#### 8.8.1 Description

The UVC6000 uses ultraviolet light to kill any bacteria present in the water. This significantly reduces the chance of legionella and other airborne bacteria's from being spread.

The UV unit is installed on the TERA dust control unit.

## 8.8.2 Specifications

Type: UVC 6000

Application: TERA dust control units

Capacity: Up to 6000 l/h

Two drains have been placed under the UV unit so the unit can be emptied in case of frost. Leave the taps open until the TERA is restarted.

#### A CAUTION!

If there is a chance of frost or ice forming, the UVC6000 must be drained to prevent frost-related damaged!

#### 8.8.3 Use instruction

The UVC6000 system does not start automatically with the Tera dust control unit. It should be operated using the dedicated control panel.

#### 8.8.3.1 **Turning on**

- 1) Connect the Tera dust control unit to the mains power and reset.
- 2) Turn the UVC 6000 system on using the blue button.
- 3) The UVC lamps in the system will proceed to start up, 2-3 minutes are required to reach the operating window.

The control box indicates whether the UVC lamps are working and whether water is flowing through the system. If either of these conditions are icon including the red cross with be illuminated.

The coloured LED column on the left of the control box indicates the UV intensity, which can interpreted as how effectively the system is working.

Green: Correct working
 Yellow: Reduced working.
 Red: Insufficient working:
 Inspect the intensity level on a regular basis.

#### 8.8.3.2 Turning off

When the Tera dust control unit is turned off the UVC6000 system will turn off automatically.

The UVC6000 system can also be manually turned off by pressing the blue button.

If there is a chance of frost or ice forming, the UVC6000 must be drained to prevent frost-related damaged!

Two drain points are incorporated into the system. These should be opened when the Tera dust control unit is not is use. It is advisable to leave these open until the dust control unit is used again.

#### 8.8.4 Maintenance

To ensure a good working and long lifespan the UVC6000 system requires maintenance.

The UV intensity lights will indicate if the system requires cleaning or if the UV lamps require replacing.

#### 8.8.4.1 Replacing the UV lamps.

Should the UV lamps require replacing the following steps should be taken.

- 1. Turn the Tera dust control unit off and disconnect the power supply.
- 2. Remove the surrounding cover from the UVC system.
- 3. Unscrew the nut and remove the lamp from the quartz glass. These parts are very fragile, caution is essential.
- 4. Carefully remove the quartz glass. Never use force!
- Clean the quartz glass using a suitable agent and a soft cloth.
- 6. Ensure that all of the seals are in the correct position when reassembling the glass. Never use force!
- 7. Carefully install the new lamp and hand tighten the nut onto the housing. The lamp can only fit in one position into the housing.
- 8. Reconnect the cable to the top of the lamp.
- 9. Connect the power supply and test the working of the lamp and ensure that the system does not leak.





## 9. MAINTENANCE

#### **▲** WARNING!

Always disconnect the power supply before inspection, maintenance or repairs are carried out!

#### NOTE

Where applicable, maintenance of the generator should be done according to the manufacturers user manual!

#### Daily:

- ØVisually check the machine for damage. Repair or have any minor damage repaired. This will not only benefit your safety but also increase the life span of the machine
- Keep the machine clean! This reduces the risk of accidents, and will help ensure its correct working!

#### NOTE

Clean carefully. Do not use a high pressure cleaner!

#### Every two months:

- Clean the machine.
- Lubricate moving parts.

#### **Tightening torques**

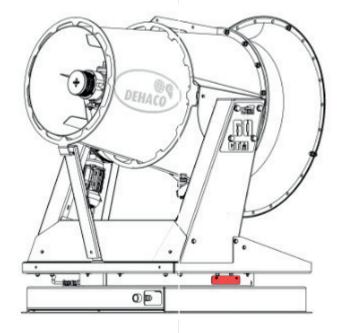
The following tightening torques can be used for 8.8 hexagonal bolts (Wurth):

M8x 1.25-8.8	25 Nm
M10x 1.5-8.8	50 Nm
M12x 1.75-8.8	90 Nm
M16x 2.0-8.8	220 Nm
M20x 2.5-8.8	450 Nm

#### **▲** CAUTION!

The fan and Rotor can NEVER be connected directly to the mains power supply! This will cause irreparable damage to the motors! ALWAYS connect both motors via the frequency inverter!

The slewing ring greasing point can be reached by removing the cover coloured in red below.





## 10. MALFUNCTIONS

#### **▲** WARNING!

Only qualified and experienced persons should perform maintenance on the Tera dust control units. To be qualified, you must understand the instructions in this manual, have training, and know the safety rules and regulations of the job site.

Do not alter the physical, mechanical or electrical operation of the dust control unit. Doing so may cause a dangerous situation for yourself and those around you and will void the warranty.

Do not attempt repairs you do not understand. If any questions arise regarding a safety or maintenance procedure, contact Dehaco or your Dehaco dealer. Never operate poorly maintained equipment. When maintenance is required, repair or replace parts immediately.

Read this entire manual. All personnel must understand the maintenance and safety procedures.

# Troubleshooting guide – Tera 400V series The Tera doesn't work at all:

- Reset the Tera on the control panel
  - Press the reset button on the control panel
- Ensure the emergency stop button is not depressed
- > Check the power supply is suitable for the Tera
- Turn off any machines that may be operating on the same power supply group
- > Check the power cable for damage
  - Replace damaged cables and cables with an insufficient rating
- Check the power supply's fuses and circuit breakers
  - Replace or reset and tripped fuses
  - Ensure the fuses and circuit breakers are suitable
- > Test the Tera on a different power supply and power group
- Check for any signs of damage on the electrical components and wiring
  - Replace or repair any damaged components

# The power supply fault cannot be reset or repeatedly returns:

- The power supply is not suitable
  - Check the power supply's capacity
- > The power cables are damaged
  - Replace any damaged cables

# The internal frequency fault cannot be reset or repeatedly returns:

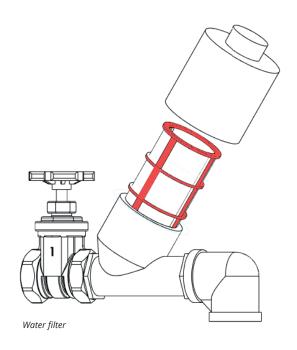
- Read the error message displayed on the frequency invertor
  - Consult the frequency invertor user manual for the correct solution
- Check for any signs of damage on the electrical components and wiring
  - Replace or repair any damaged components

#### The rotor doesn't work:

- Ensure no warning lights are showing on the control panel
  - Press the reset button on the control panel
- Check the rotor for damage, when the power is disconnected it should rotate easily by hand
  - If it is difficult to turn the rotor it must be returned to Dehaco
- Check for any signs of damage on the electrical components and wiring
  - Replace or repair any damaged components

#### The fan doesn't work

- Reset the Tera on the control panel
  - -Press the reset button on the control panel
- > Check for debris blocking the fan blades
  - Ensuring the power supply is disconnected, remove the debris
- Listen to the fan for a possible indication of internal damage
  - Repair or replace the damaged motor
- Ensuring the power supply is disconnected, ensure is it possible to turn the fan blades freely
- Check for any signs of damage on the electrical components and wiring
  - Replace or repair any damaged components





#### Very little or no water is delivered from the rotor

- > Check that the water supply is turned on and working
- > Check that the Tera's water valve is open
- > Check the filter for blockages
  - Remove the filter, clean or replace it
- Remove the hoses from the rotor to see if water is reaching the rotor
- > Inspect the internal water valve for damage
  - If damaged repair or replace the required components
- Ensure that the rotor frequency invertor is operating correctly
  - Consult the user manual is an error code is displayed

#### The Tera doesn't rotate

- > Reset the Tera on the control panel
  - Press the reset button on the control panel
- > Ensure the retainer pin has been removed
- Check for any signs of damage on the rotation components and wiring
  - Replace or repair any damaged components
- Ensure that the rotation frequency invertor is operating correctly
  - Consult the user manual is an error code is displayed
- Lubricate the slewing ring

#### The Tera doesn't tilt

- > Reset the Tera on the control panel (only for electrical tilt
  - Press the reset button on the control panel
- Ensure the retainer pin has been removed
- Check for any signs of damage on the tilt components and wiring
  - Replace or repair any damaged components
- > Check for debris blocking the tilt mechanism
  - Remove any debris

#### The Tera doesn't react to the remote control

- > Ensure the remote control is turned on
- > Ensure the remote control is in range of the Tera
- Replace the batteries of the remote control
- Ensure the remote control has been programmed for that particular Tera
  - Consult the remote controls user manual to reprogram the remote control
- > Check the receiver and wiring for damage
  - Replace or repair any damaged components
- Remove any objects, especially metallic between the transmitter and receiver
- Check the transmitter for damage
  - Replace or repair any damaged components
- High voltage cable and metallic structures can affect the signal

During troubleshooting at electrical fault it is possible to test the Tera without water.

When testing with water ensure that the electrical boxes are closed and locked.



# 11.LIFTING INSTRUCTIONS

#### 11.11.1 400V Tera dust control unit

Correct lifting methods ensure the safety of users and those in the surrounding areas. Using the correct lifting points will prevent damage to the Tera dust suppression units.

The lifting points are indicated using this symbol.



## 11.11.2 Lifting point position

The correct lifting positions of each model are indicated in red. The power and water supplies should be disconnected prior to lifting. Ensure all of the lifting equipment is undamaged, is in good working order and has the capacity to lift the Tera.

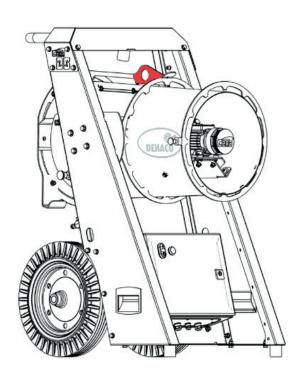
#### Tera 15

The Tera 15 features two handles positioned on the upper cover, these are only suitable for lifting by hand.



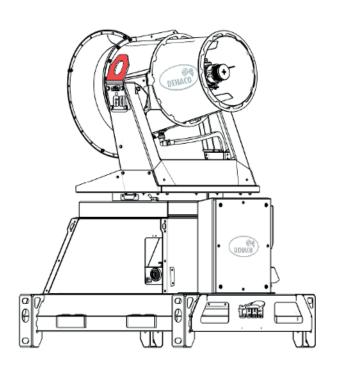
#### Tera 25

The Tera 25 features a single lifting point integrated into the fan casing. The tilt retainer pin should be engaged prior to lifting.



#### Tera 400V series

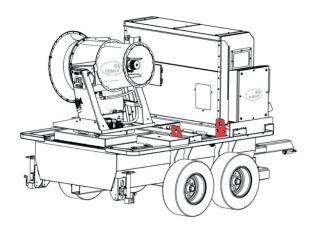
The 400V Tera series feature a lifting eye on each side of the fan casing. The rotation and tilt retainer pins should be engaged prior to lifting.

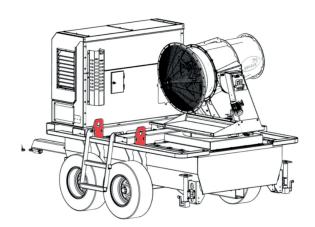




#### Tera 60 GT series

The Tera 60 GT series feature four lifting points positioned in the center of the water tank. The rotation and tilt retainer pins should be engaged prior to lifting. The ladder should be stowed away and the generator canopy closed.





#### 11.11.3 Fork inserts

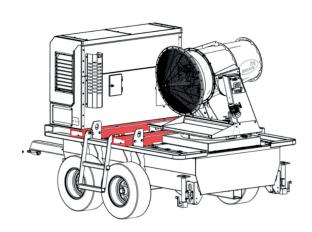
The GT series and units with a skid feature fork inserts. The fork inserts are suitable for all machines with sufficient capacity to lift the Tera.

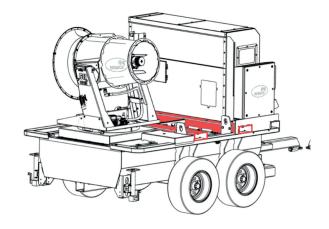
The lifting points are indicated using this symbol.



#### Tera 60 GT series

The fort inserts are positioned in the middle of the machine, on top of the water tank. The rotation and tilt retainer pins should be engaged prior to lifting. The ladder should be stowed away and the generator canopy closed.





#### Tera 400V series featuring skid

The fork inserts are integrated into the skid and can be

# 11.Lifting instructions | 12. Legionella prevention |



accessed from both sides. The position of the Tera should be considered to avoid making contact when inserting the forks. The rotation and tilt retainer pins should be engaged prior to lifting.



# Prior to any movement of the dust control unit please review the following steps

- Keep all personnel clear of the lifting area.
- Always adhere to local and site safety protocols.
- Ensure the water tank is empty prior to lifting to ensure stable lifting.
- Ensure the lifting equipment and machinery is in a safe condition, in good working order and has the capacity to lift the Tera.
- Do not attempt to lift in high winds.
- The lifting points are only for temporary lifting and not for long term suspension.
- If connected remove the grounding pin prior to lifting.
- > Fasten the tilt and rotation retainer pins.

# 12. LEGIONELLA PREVENTION

Legionella is a group of bacteria that can cause legionnaires' disease. Infection occurs when bacteria are inhaled in very small droplets of water, which disperse in the air (showers, whirlpool, water nebulizers). Bacteria can grow at 20-50 °C in static water.

Simple basic prevention measures:

- > Always use tap water.
- Rinse the water hose before connecting.
- Carefully empty the Dehaco TERA after use.

#### NOTE

Users are personally responsible for legionella prevention; for further information, please visit https://www.cdc.gov/legionella/about/prevention.html

The Dehaco TERA dust control units are compatible with an optional UV system, which can kill any legionella bacteria by exposing water to UV light. Contact Dehaco or your Dehaco dealer for more information.



## 13. REPAIR

Dehaco explicitly recommends that repairs are only carried out by qualified and experienced personnel using original parts.

Comprehensive repair instructions have not been included in this user manual, contact Dehaco or your Dehaco dealer should you have any questions.

Never operate poorly maintained equipment. When maintenance is required, repair or replace parts immediately.

## 14. END OF LIFE-SPAN

You must always comply with the current and local requirements in force and the guidelines of safe work and responsible disposal!

If the machine has reached the end of its technical life-span after long-term use, then follow the procedure below so it can be processed in a responsible manner:

- > Clean the machine.
- Disassemble electrical components. They can be disposed of separately.
- Disassemble plastic components; they can be disposed of separately.
- > The remaining components are made of steel and can be scrapped.

# **15. PARTS**

The parts list has been supplied as a separate document.

This machine has been developed and constructed using bespoke parts as well as standard components.

Please contact your dealer to place orders and to check delivery times!



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