

Operating Manual



TakClean™ Ultra
Contact Web Cleaning System

Operating Manual Approval: TakClean™ Ultra

This section is to confirm that the following members have reviewed and approved this operating manual.

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Contents

Safety Instructions.....	4
Package Contents.....	7
Unpacking the TakClean Ultra.....	8
System Overview.....	12
Mechanical Installation.....	16
Electrical Installation.....	22
Setting Speed Control Valves.....	25
Quick Start Guide.....	27
Maintenance.....	30
Troubleshooting & LED Status.....	33
Health and Safety.....	34
Repairs and Warranty.....	34

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Document version: 1

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Safety Instructions

Before using equipment, read the following safety and operating instructions to ensure your own personal safety, and to protect your equipment. Failure to do so could result in injury.

Connected equipment may require additional safety instructions. Observe all safety instructions for additional equipment connected before operating.

General Safety

Before setting up the equipment,

- Read the operating instructions carefully and ensure that you understand how to use the equipment correctly.
- Ensure that installation and testing is only completed by those who are suitably qualified.
- Inspect the working environment and ensure it is clean and clear of hazards before removing equipment from packaging and positioning the system.
- Check all equipment for damage. If damaged, contact your local Meech representative before continuing.
- Ensure a full understanding of the symbols attached to the equipment before operating.
- Keep all cables secured until ready for use.
- Keep a copy of the Operating Manual close to the system at all times.

Electrical Safety

Before installation, or performing repairs or maintenance on equipment, ensure the system is electrically isolated. Failure of this could result in injury.

Before working on the equipment:

- Ensure the door is in fully open or fully closed position before you isolate the equipment. Ensure the equipment is electrically isolated.
- Check equipment and cables for damage. If damaged, contact your local Meech representative before continuing.
- Ensure all wiring is completed by competent persons.
- Check all connections in relation to the wiring diagram.

Safe Handling:

- Identify warning symbols placed on the equipment.
- Observe company lifting protocols and refer to equipment markings for weight.
- All mechanical lifts must comply with the Lifting Guide in this manual.
- Identify and control the hazards before energising or de-energising the system.

Warning and Information Labels

Crushing of Hands



Figure 1 - Roller Crush Warning Label

Roller Crush Warning Label indicates a potential hazard if not avoided, this will result in minor or moderate injury

TakClean Ultra Technical Label



Information Label detailing the Voltage and air supply required to power the TakClean Ultra.

Including the CE mark.

Figure 2 - TakClean Ultra Information Label

TakClean Ultra Product Label



Shows the name and manufacturer of the TakClean Ultra.

Figure 3 - TakClean Ultra Product Label

Pneumatic Pressure Label

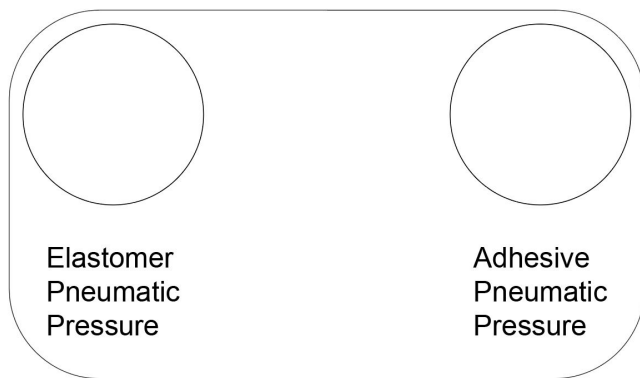


Figure 4 - Pneumatic Pressure Label

This label indicates which pressure gauge is for the elastomer roller and which is for the adhesive roller.

The input pressure can be up to 7bar but the TakClean Ultra regulates it to the required pressure to engage/disengage the rollers, this pressure is shown here.

Control Panel Label

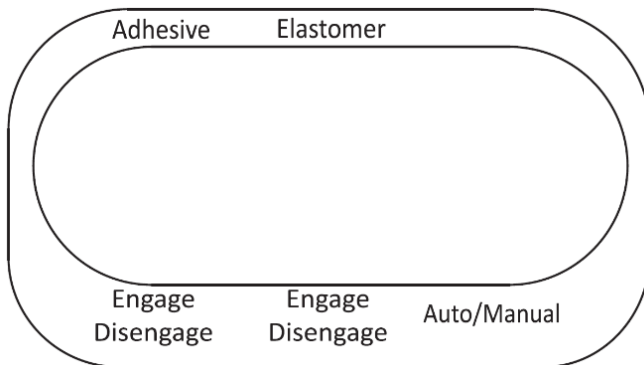


Figure 5 - Button Interface Label

On the TakClean Ultra there are 3 buttons, this label signifies what each button does and what it is used for.

This is explained in more detail inside the manual.

924IPsv2 Product Label



Figure 6 - 924IPsv2 Product Label

This label can be found on the ionising bars and gives information about the ionising bars.

Meech Serial Number/Bar Code



Figure 7 - Meech Serial Number/Bar Code

Serial numbers can be found on the 924IPS Bars and TakClean Ultra head.

Package Contents

TakClean Ultra

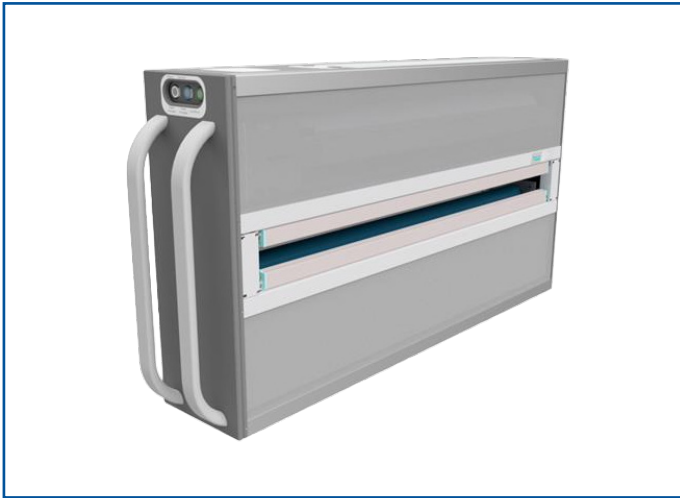


Figure 8 - TakClean Ultra

924IPsv2 Bars (mounted in TakClean Ultra)

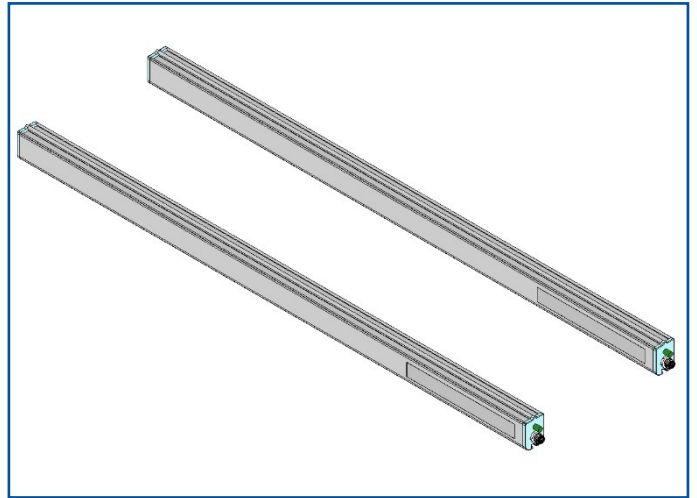


Figure 9 - 924IPsv2 Bars

Adhesive Paper Rollers

(mounted in TakClean Ultra)

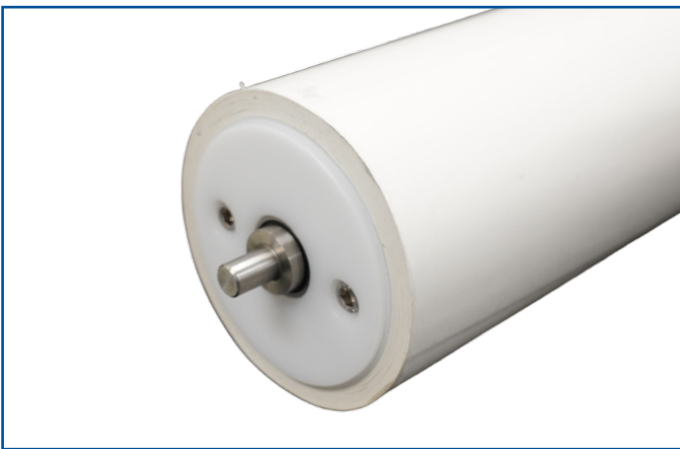


Figure 10 - Adhesive Paper Rollers

TransTak Elastomer Rollers

(mounted in TakClean Ultra)

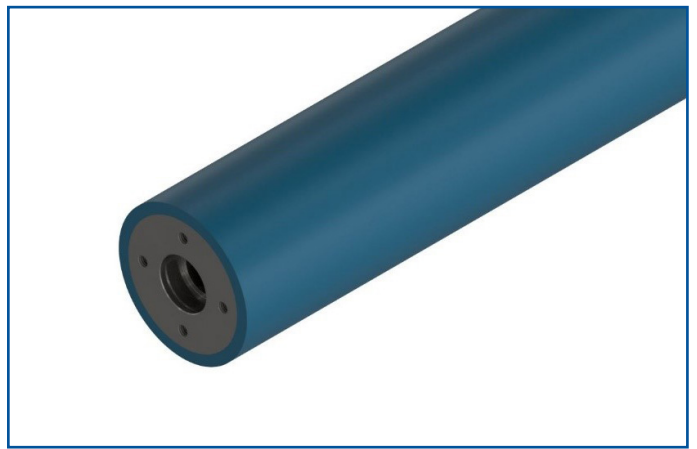


Figure 11 - TransTak Elastomer Rollers

Unpacking the TakClean Ultra

CAUTION

Observe correct manual handling procedures when removing the system from the packaging. The TakClean Ultra system can exceed the recommended manual handling limit. The TakClean Ultra System can weigh from 10-100kgs depending on length.

Depending on the quantity and size of units delivered, there are different packaging methods available. Systems will either arrive on a pallet base with a cardboard surround, or in a wooden packing crate. The removal of the system from both types of packaging is listed on the following pages.

Pallet Based Cardboard Container

This shipping method will be used for lower volume shipments. To open the box without causing damage to the unit, adhere to the following removal method:

1. Inspect the package for any damage, if there is any please photograph before removing any of the packaging.

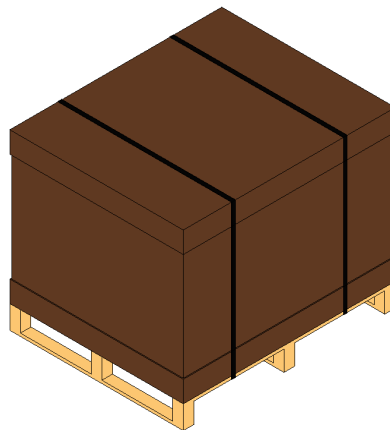


Figure 12 - Palletised Cardboard Containers

2. Remove the delivery note and any other required paper work from the sides and lid of the box.
3. Remove the banding and remove the lid from the box.

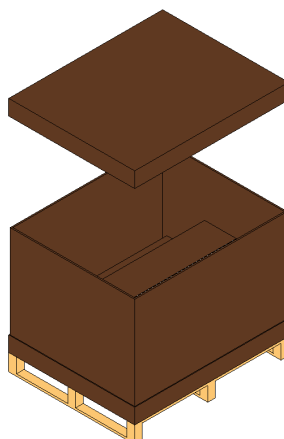


Figure 13 - Removing Lid of Palletised Container

4. Inside the container there will be a box containing the TakClean Ultra and any other separately ordered parts will be in separate boxes. These will need to be removed to be unpacked.

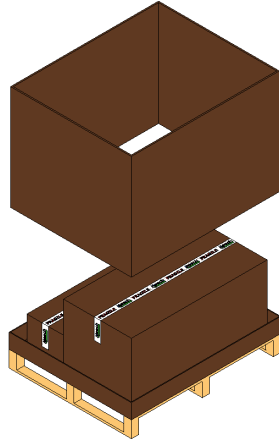


Figure 14 - Palletised Cardboard Containers

5. All of the boxes can then be un-packed and the goods removed. Refer to the What is Included section of this manual and ensure sure all of the parts are accounted for.

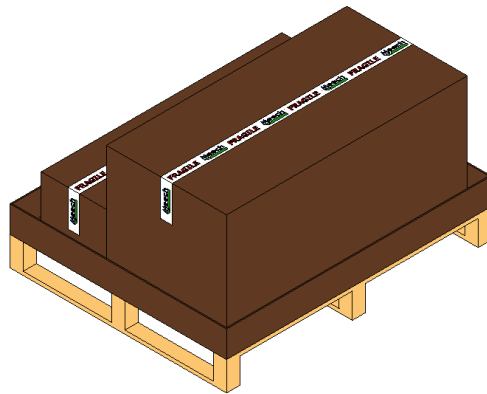


Figure 15 - Remaining Boxes on Palletised Container

Wooden Packing Crate

CAUTION

The metal clips are under tension. These are removed by levering from the tabs located on each end of the clip. It is important to steady the other side of the clip to ensure it does not spring off.

This shipping method is used when larger quantities are consolidated into one container. To open the crate without causing damage to the products or operator please follow the instructions below:

1. Inspect the crate for any damage, if there is any damage, please photograph before removing any of the sides or packaging.

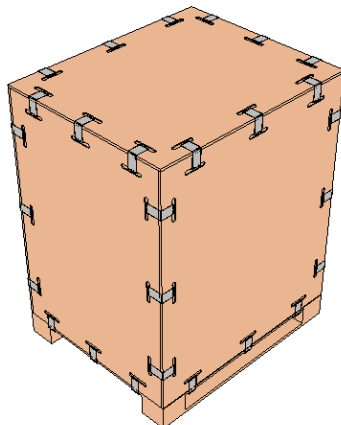


Figure 16 - Clip and Lid Removal

2. Remove the delivery note and any other required paper work from the sides of the crate.
3. Remove the Lid with a removal tool or a pair of flat headed screw drivers.

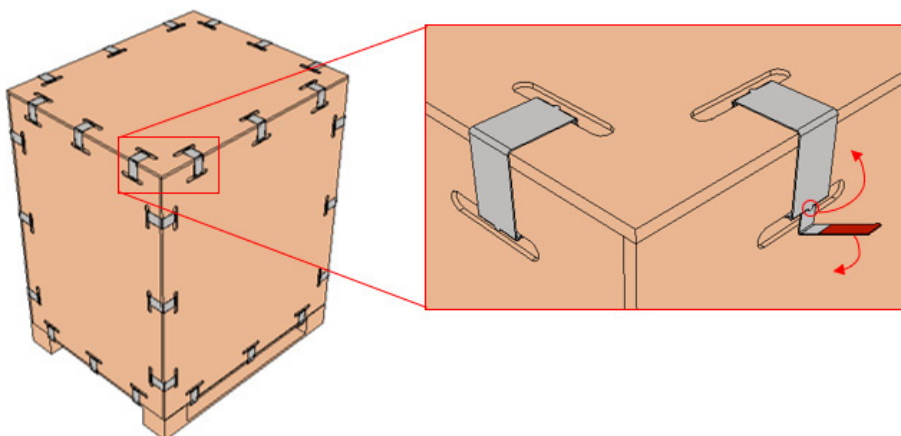


Figure 17 - Clip and Lid Removal

4. The side that needs to be opened first will be marked. It is usually the side marked with "open this side first", or has all of the paper work attached to it.

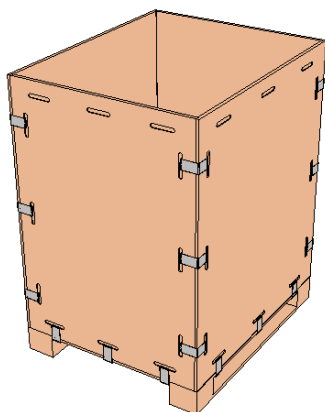


Figure 18 - Wooden Crate Lid Remover

5. To remove the side, unclip the metal clips from around the outside of this panel only. Observe caution as explained at the start of this guide.
6. Once the side has been removed the boxes containing the system can be removed and unpacked, checking for damage as they are removed.
7. To continue to flat pack the crate remove any shelves inside the crate, which will be screwed in place. Then continue to remove the rest of the clips.

Lifting Guide

Due to the weight of the TakClean Ultra it is important to follow all manual handling procedures. Systems 600mm and below weigh less than 50KG may be lifted into position as a two-person lift, depending on company policy. Systems 650mm and above and exceeding 50kg should only be lifted using slings.

How To Lift The TakClean Ultra Using Slings

If the TakClean Ultra is above 600mm cleaning width, then it will be delivered in a crate. Once the crate sides have been removed this will expose the TakClean Ultra which can be eased off the bottom of the crate to allow slings to be passed underneath.

Guide

Installation guides and lifting process should be followed where the TakClean Ultra is being installed, (customer guides). The following guide is shown to show the areas a strap can be mounted to and how it can be lifted.

1. Feed 2 (correctly rated) slings under the TakClean Ultra.
2. Position them one at each end, without obstructing the mounting plate the TakClean Ultra will be mounted to.
3. Connect them to the lifting equipment, ensuring the slings are even in length and are level with each other (this will stop the TakClean Ultra tipping as it is lifted)
4. Slowly take the tension up with the lifting equipment and then lift the TakClean Ultra into position.

System Overview

This TakClean Ultra system is designed to remove dry unbonded contamination and static charge from webs with a standard cleaning range from 0 – 1450mm in width.

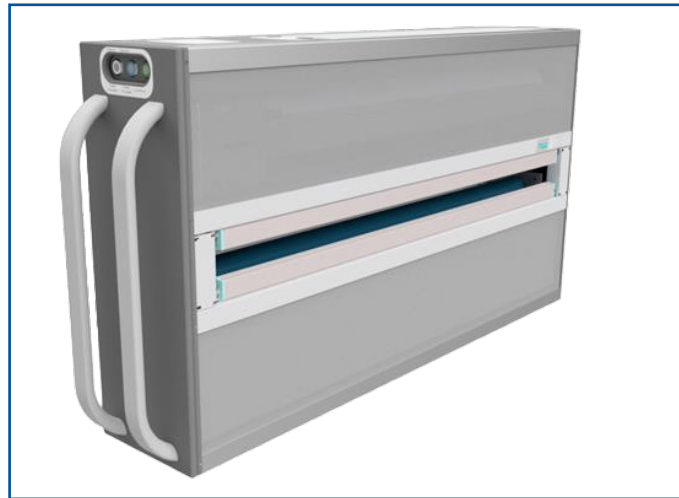


Figure 19 - System Overview

The main components of the TakClean Ultra are:

1. Button Controls
 - Engage/Disengage Adhesive rolls
 - Engage/Disengage Elastomer rolls
 - Auto/Manual Mode
 - Inspection Light on/off
2. 24V power input
3. Bulkhead fitting
4. 924IPsv2 Bars
5. Front Door and Draw opening face
6. Pneumatics compartment
7. Inspection LED's
8. TransTak Elastomer rollers
9. Adhesive paper rollers

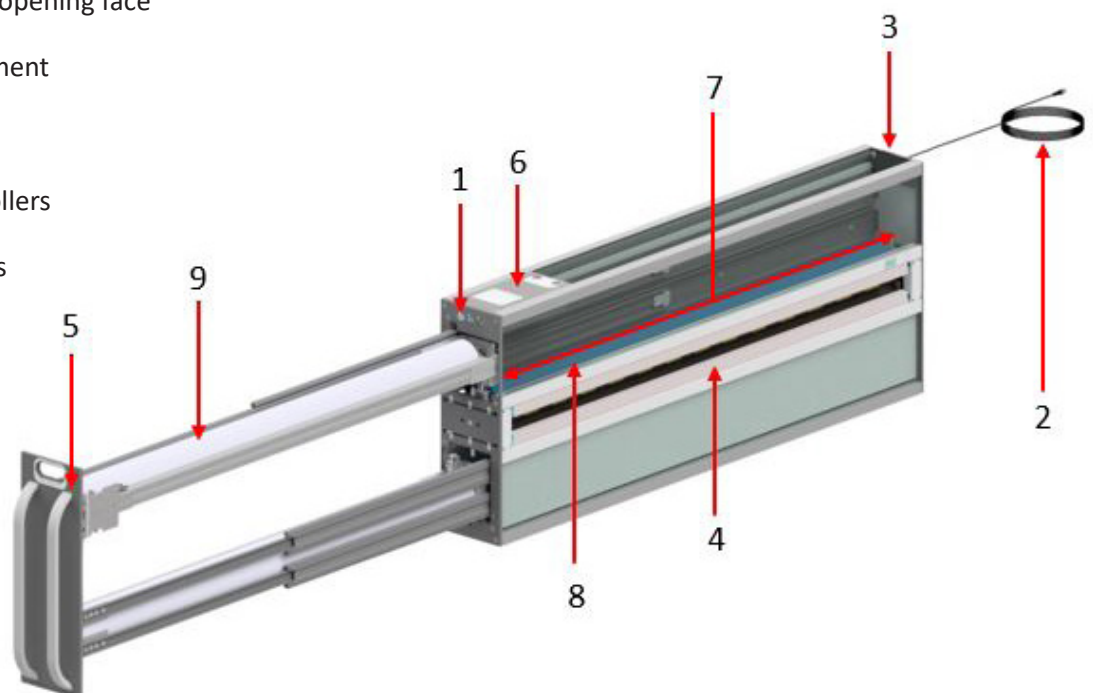


Figure 20 - TakClean Ultra, Main Components

Function

1. Integrated button controls allow full control of the mode and rollers in the system. In manual mode (green button is not illuminated), the TransTak elastomer rollers and adhesive rollers can be controlled with the blue and white buttons respectively. In Auto mode (green button is illuminated) the blue and white buttons will not operate. Pressing the green button toggles between manual mode and auto mode (green button illuminated).
2. The 24V connection is located at the rear of the TakClean Ultra via a 3m long 5-pole male M12 connector. The 24V connection powers the whole TakClean Ultra including the bars, inspection LED's and pneumatic control of the rollers.
3. The air supply bulkhead adapter is on top of the 24V connection at the rear of the TakClean Ultra. Air supply must be between 3 and 7 bar pressure, with larger systems requiring a higher pressure, and mounting angle also affecting this requirement.
4. Hyperion™ 924IPsv2 Pulsed DC Ionising Bars remove static charges from the web surface, minimising the risk of recontamination after the web has been cleaned.
5. With the Adhesive Rollers dis-engaged (white button not illuminated), opening the front draw enables the operator to access the Adhesive Rollers. The rollers can be refreshed by peeling off the adhesive sheets, and replaced entirely once all sheets of the adhesive roller are consumed. Both operations can be performed whilst the TransTak Elastomer roller is still engaged with the web (blue button illuminated), allowing continuous web cleaning throughout the process. Instructions on how to refresh and replace the Adhesive Rollers is explained in the maintenance section of this manual.
6. All of the Pneumatic solenoid connections and 24V connections are positioned inside the pneumatics compartment at the front and top of the TakClean Ultra. This compartment houses the 2 pressure regulators for the adhesive and elastomer rollers, and the solenoids that control the rollers.
7. The inspection LED's allow for the adhesive paper and elastomer roller to be inspected whilst in use, allowing operators to identify when the adhesive paper needs to be changed, ensuring optimal cleaning performance.
8. Meech TransTak Elastomer Rollers contact the full width of the web with even pressure, lifting dry, unbonded contamination from the web surface.
9. Adhesive Paper Rollers remove and capture the contamination lifted by the Meech TransTak Elastomer Rollers, for continuous web cleaning.

924IPsv2 Ionising Bars

The Meech 924IPsv2 ionising bars are designed to remove the static charge from the web surface. The 924IPsv2 bars are connected internally to the 24V power rail and turn on when the elastomer rollers engage.

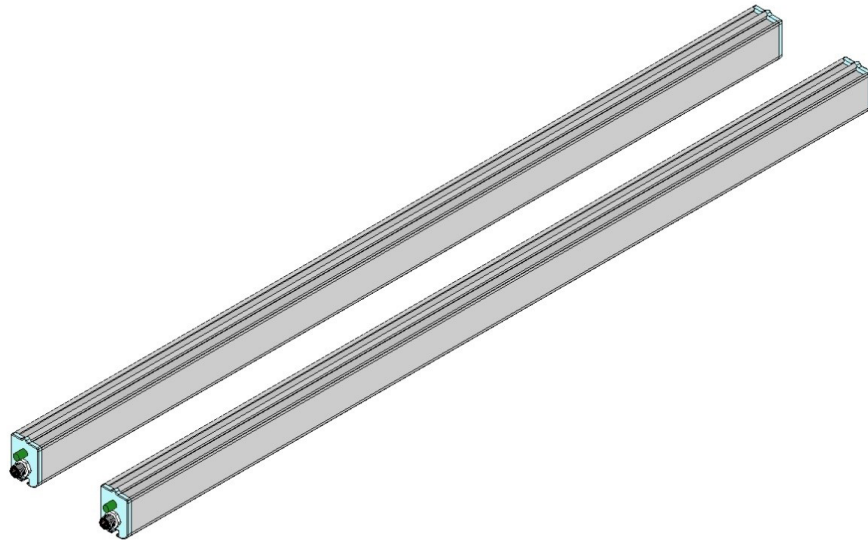


Figure 21 - 924IPsv2 Ionising Bars

Function

The 924IPsv2 bars are fitted to the exit of the TakClean Ultra system, ensuring that the web is neutralised as it leaves the system to prevent recontamination.

How The TakClean Ultra Works

The TakClean Ultra has 2 types of contact roller that work together to remove dry unbonded contamination from webs or board materials.

The (blue) TransTak elastomer rollers contact the web surface, picking up the contamination on the web and then depositing this contamination onto the (white) adhesive rollers before returning to the web for more cleaning. The adhesive rollers accumulate contaminants until it is refreshed by peeling off the adhesive paper layer to expose clean paper underneath. The TransTak rollers may operate for a time independently while the adhesive rollers are being refreshed, facilitating continuous, uninterrupted web cleaning.

This process is described in the maintenance section of this manual under 'Replacing Adhesive Paper'.

Button Controls

Each of the Rollers can be controlled at the control interface on the front of the TakClean Ultra.

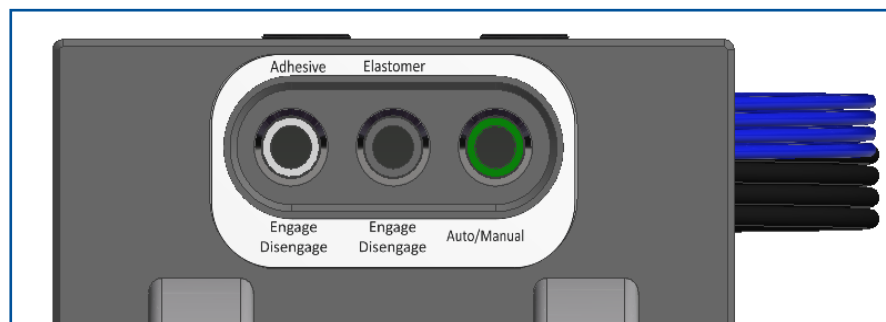


Figure 22 - Control Interface

There are 3 buttons:

- White - to engage and disengage the adhesive roller and to switch on and off the inspection LED.
- Blue - to engage and disengage the TransTak elastomer roller.
- Green - to toggle between automatic and manual control modes.

Press and hold Adhesive Roller button for 5 sec to switch on the LED, the LED will automatically switch off after approximately 10 minutes. Alternatively, press and hold Adhesive Roller button for 5 sec to switch off the LED.



Figure 23 - Internal LED off

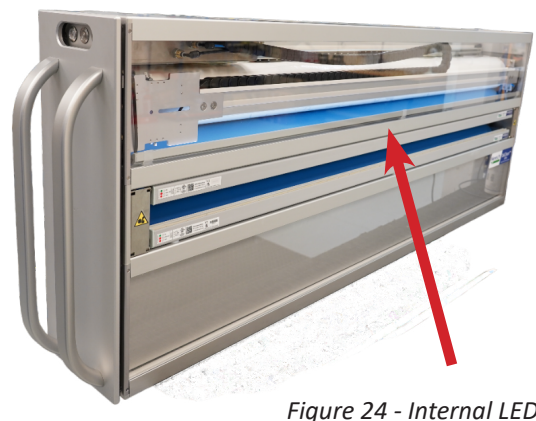


Figure 24 - Internal LED on

For the rollers to operate via manual button press, the system must be in manual mode as indicated by no illumination in the green button. Both the TransTak elastomer rollers and adhesive rollers can be engaged by pressing their corresponding buttons.

The adhesive roller will not engage without the elastomer roller being engaged first. This is a safety feature to protect the adhesive roller from damage.

Auto/Manual Operation

The TakClean Ultra has 2 modes; Automatic, which uses customer PLC control, and Manual, where rollers are operated by push buttons at the control interface on TakClean Ultra unit.

If Manual mode is active, the buttons on the TakClean Ultra will control the movement of the two rollers. These can be engaged and disengaged by pressing the buttons. An illuminated button indicates that the corresponding roller is engaged and a lack of illumination indicates disengagement.

In Automatic mode the TakClean Ultra will be controlled from a signal given by a PLC or separate control circuit. In Automatic mode, as with manual mode, the adhesive roller cannot be engaged without the elastomer roller being engaged. How to connect the TakClean Ultra to a PLC is documented in the electrical installation.

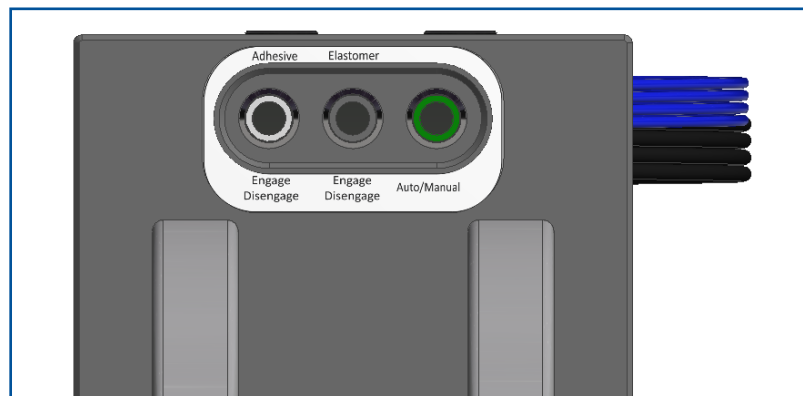


Figure 25 - Control Interface

Mechanical Installation

CAUTION

The TakClean Ultra system should only be installed in the manner which it is designed for. If the TakClean Ultra is used in any other way than instructed in this manual, it will be considered improper use.

The mounting choice of the TakClean Ultra system is length dependant due to the weight of the systems. Systems up to 600mm can be cantilever mounted or mounted on brackets or from underneath. Systems above 700mm must be mounted on brackets or a flat surface from underneath.

Orientation of TakClean Ultra

For effective sizes up to 600mm, the TakClean Ultra can be positioned up to 30 degrees at an angle around the centre point as shown.

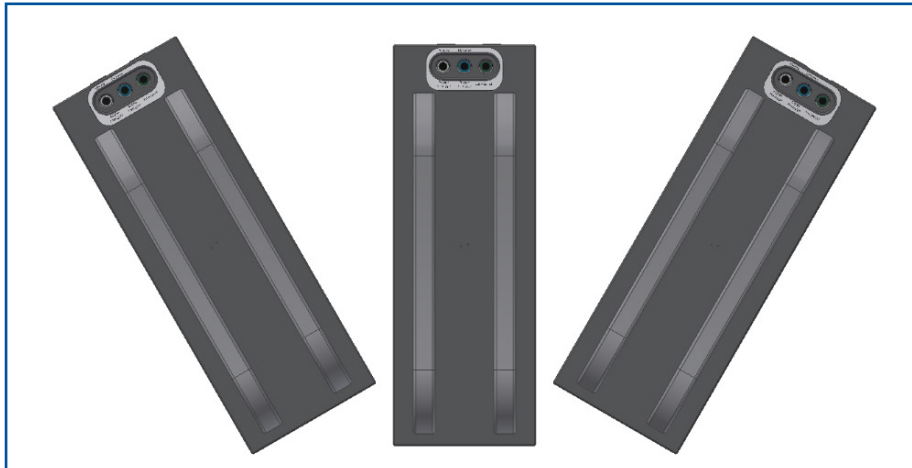


Figure 26

For sizes above 600mm the TakClean Ultra must be mounted vertically and supported under the TakClean Ultra, spanning 100mm under each end, an example of this is shown below.

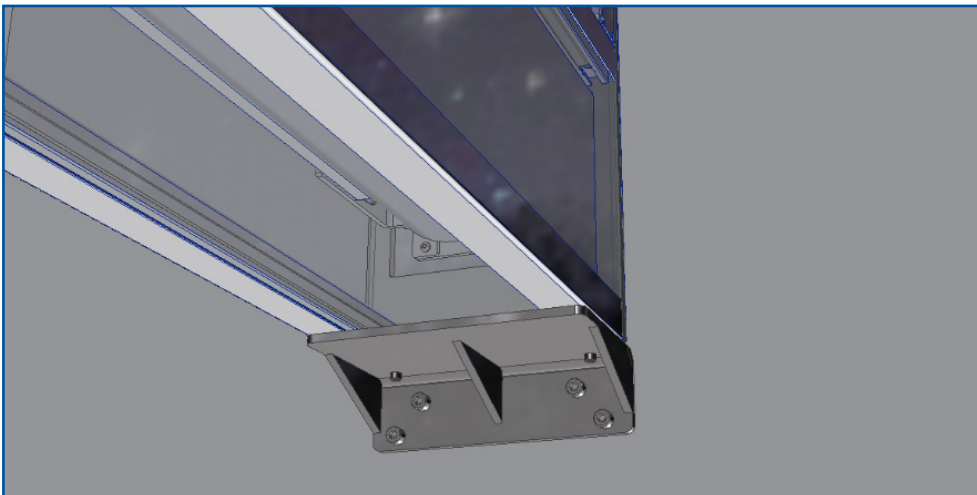


Figure 27

Suggested Order of Installation

For best results, install as follows:

1. Drill Mounting holes (either for cantilever mount or mounting brackets) in machine frame.
 - Mount the brackets if being used
2. Lift the TakClean Ultra into place using the correct lifting equipment.
3. Bolt the TakClean Ultra into place.
4. Connect the 24V supply.
5. Connect the Air supply.
6. Remove the plastic paper covering from the adhesive rolls

Installation Procedure 200-600mm Systems

1. Using the Mounting drawing (located in the rear of this Manual) mark the position of the holes in the machine frame for mounting. **IMPORTANT: The centre of the web path will need to be marked and the mounting holes positioned correctly as the TakClean Ultra must not deviate the web path as this could cause damage or excessive wear to the elastomer roller.**

- To aid in the mounting of the TakClean Ultra the rear plate is engraved with the hole positions and mounting information but for accurate positioning the mounting drawing should be used.
- If mounting to a flat back plate, holes should also be added for the Pneumatic and electrical connections

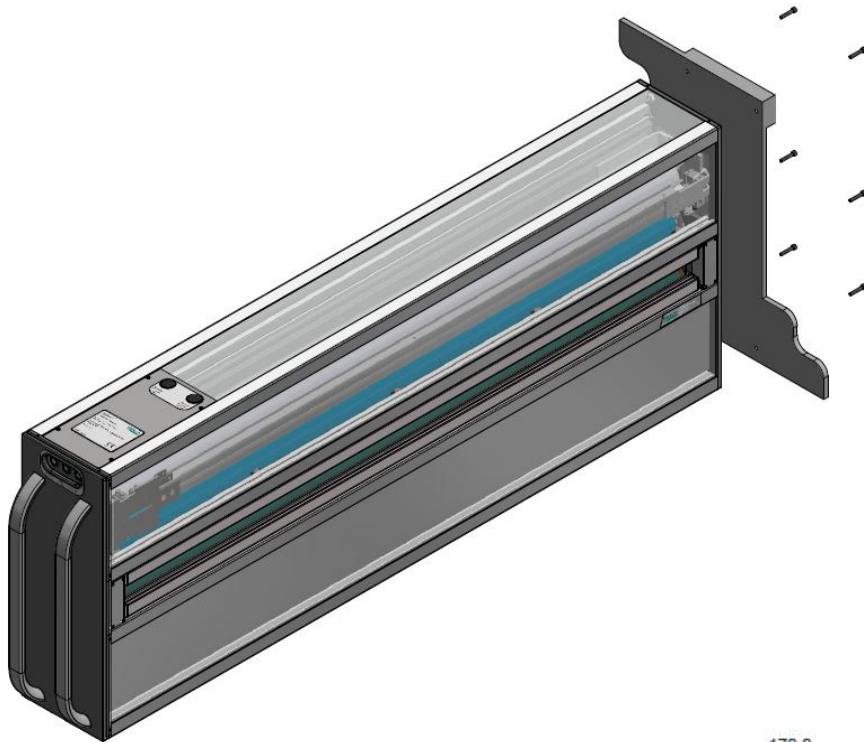


Figure 28

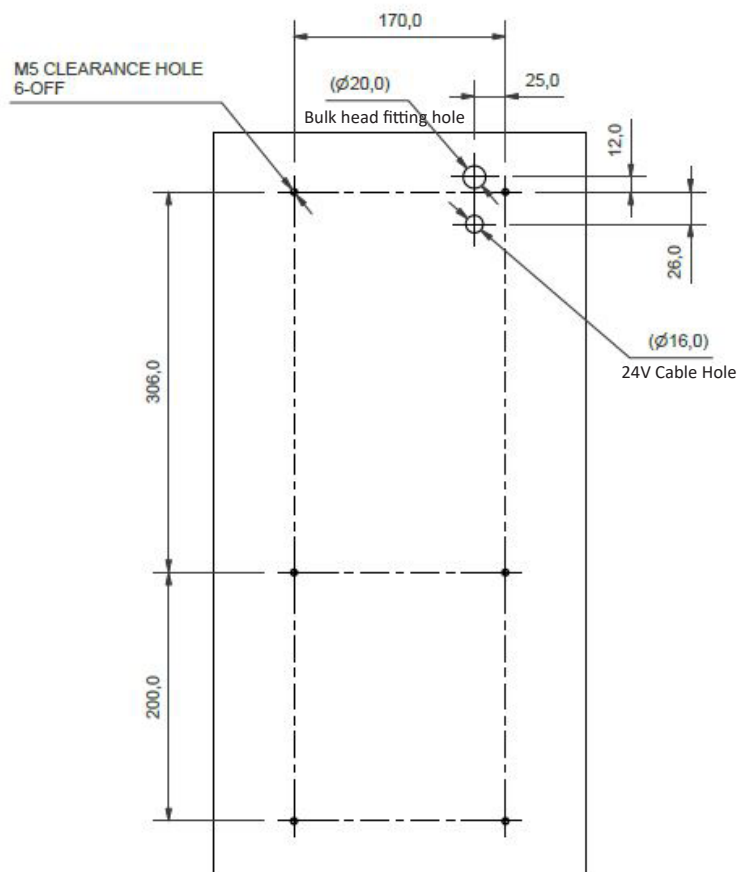


Figure 29 - Wall mount, Pneumatic and Wire dimension.

2. Remove the 6 screws from the rear of the TakClean Ultra exposing the mounting holes, the TakClean Ultra should then be lifted into position and aligned with the hole in the customer mounting plate.

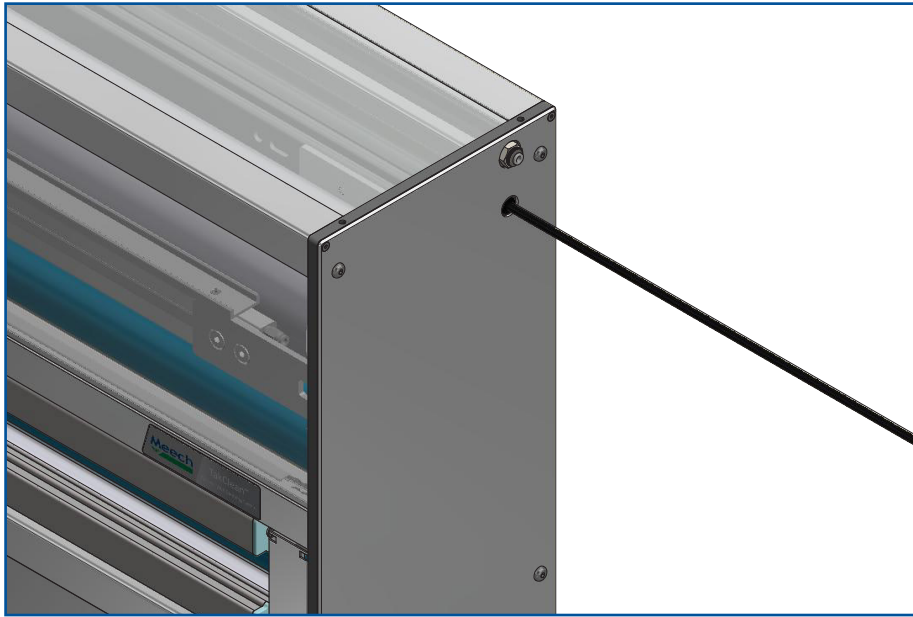


Figure 30

3. The TakClean Ultra can then be bolted into position, the holes for fixing are tapped M5x0.8 and the thread in the TakClean Ultra is 8mm deep. Longer screws can be used but care should be taken as the extrusion cover profile will need to be trimmed internally if the screws are much longer.

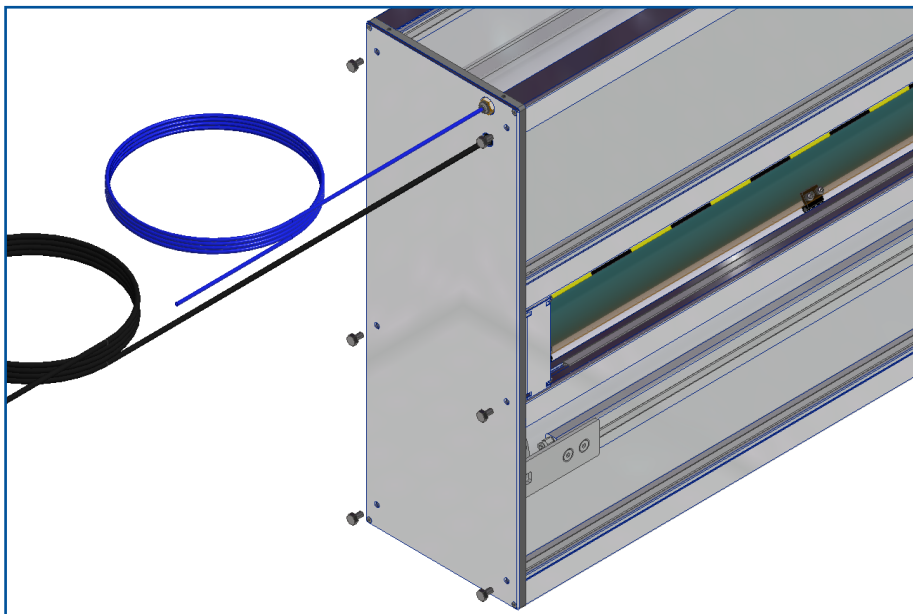


Figure 31

4. Once the TakClean Ultra has been mounted to the machine frame the electrical connection and pneumatic connection can be made. **IMPORTANT:** The electrical and pneumatic connection guide should be read before continuing with this installation guide

- The Electrical connection (which is covered later on in the manual) is through an M12 5 pole connection. The cable is Male so will need to be connected to a female connection.
- The pneumatic air line connection (covered in more detail further into this manual) is connected through the 4mm bulkhead connection.

5. If the connections are made and the TakClean Ultra is mounted correctly the movement of the rollers can be checked using the buttons on the front of the TakClean Ultra. The rollers should move evenly and the elastomer roller (blue button) will need to be engaged (illuminated) before the Adhesive roll (white button) will engage.

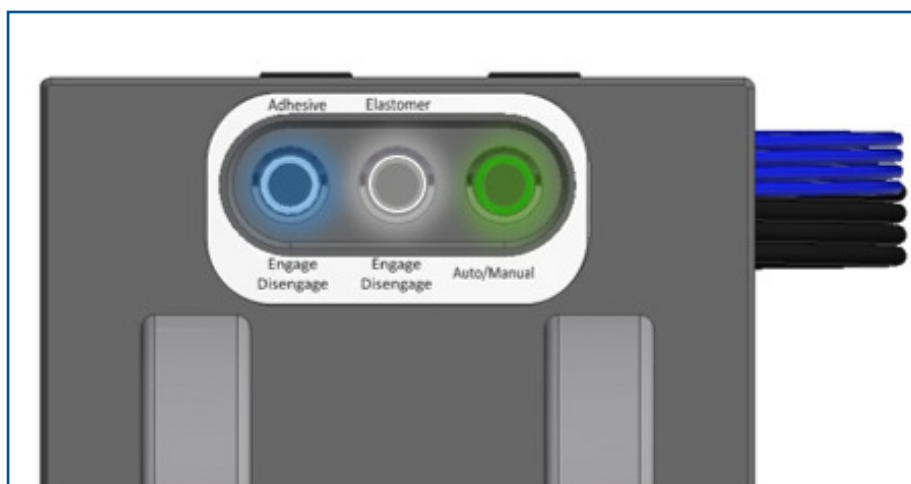


Figure 32

6. To complete the install the protective film should be removed from adhesive rolls and the commissioning guide can then be followed.



Figure 33

Installation Procedure 600-1450mm Systems

1. Using the Mounting drawing (located on page 20). **IMPORTANT: The centre of the web path will need to be marked and the mounting holes positioned correctly as the TakClean Ultra must not be used to deviate the web path as this can cause damage or excessive wear to the elastomer roller.**
 - To aid in the mounting of the TakClean Ultra the rear plate is engraved with the hole positions and mounting information but for accurate positioning the mounting drawing should be used.
 - If mounting to a flat back plate holes should also be added for the Pneumatic and electrical connections.
2. Position the Customer brackets to support the TakClean Ultra from underneath, fix the brackets into place with the correct fixings taking into account that the TakClean Ultra can weigh a maximum of 120KG so the fixing bracket should be specified to suit.
3. The TakClean Ultra can then be lifted into position using the lifting guide covered earlier in this manual)
4. The TakClean Ultra can then be bolted into position, the holes for fixing are tapped M5x0.8 15mm deep, all 4 should be used (2 at the front and 2 at the back)
5. Once the TakClean Ultra has been mounted to the machine frame the electrical connection and pneumatic connection can be made. **IMPORTANT: The electrical and pneumatic connection guide should be read before continuing with this installation guide.**
 - The Electrical connection (which is covered later on in the manual) is through an M12 5 pole connection. The cable is Male so will need to be connected to a female connection.
 - The pneumatic air line connection (covered in more detail further into this manual) is connected through the 4mm bulkhead connection.
6. If the connections are made and the TakClean Ultra is mounted correctly the movement of the rollers can be checked with using the buttons on the front of the TakClean Ultra. The rollers should move evenly and the elastomer roller (blue button) will need to be engaged (illuminated) before the adhesive roll (white button) will engage.
7. To complete the install the protective film should be removed from adhesive rolls and the commissioning guide can then be followed.

Electrical Installation

CAUTION

TakClean Ultra system must be installed correction. If the TakClean Ultra is used in any other way than instructed in this manual, it will be considered improper use.

On the TakClean Ultra there is only one electrical connection through a 5 pole M12 Male connection at the rear of the TakClean Ultra. The connector allows for 24V to be supplied to the TakClean Ultra but also has 3 connections for the auto control signals. These include the Elastomer, Adhesive roller engagement/disengagement and the Inspection LED On/Off control.

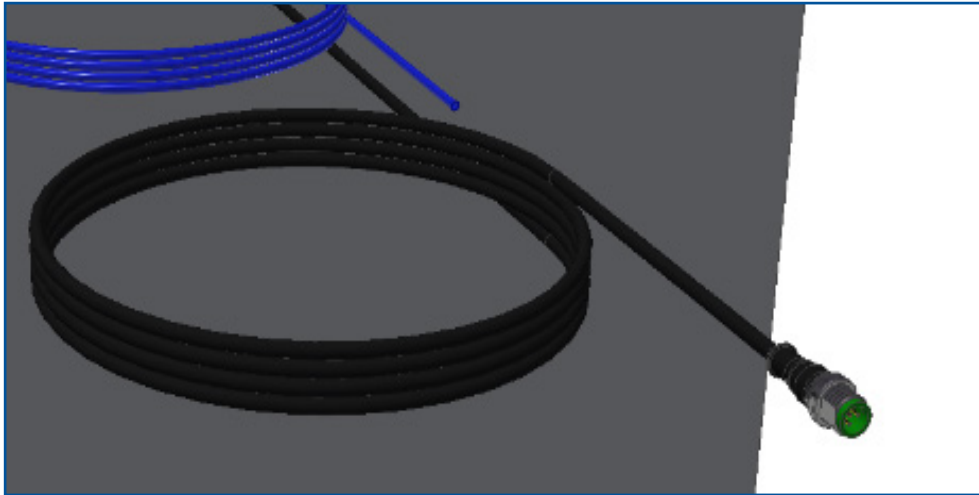


Figure 34

24V Supply Requirements

DC 24v up to 2A.

24V Supply Requirements

Pins 2, 4, 5 are internally pulled up to 5V (10K) and should only be switched to 0V (pulled down) in order to activate the corresponding signal. **These are only available if the Auto mode is enabled and the green button is illuminated.**

The M12 Connector pins are wired in the following way:

1. 24v + (Brown)
2. Adhesive Roller Engage/Disengage signal (white)
3. 0v (Blue)
4. Elastomer Roller Engage/Disengage signal (Black)
5. Inspection LED ON/OFF signal (Green/Yellow)

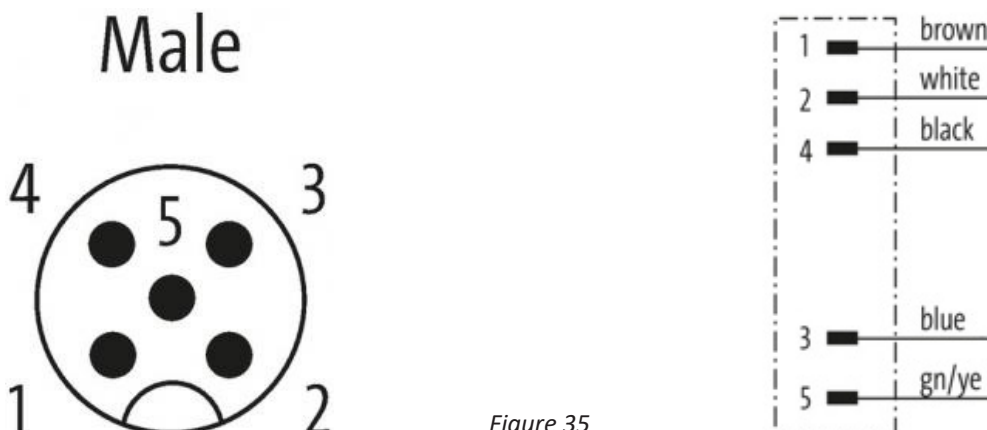


Figure 35

System Installation – Pneumatic Connection

CAUTION

TakClean Ultra system should only be Installed in the manner which it is designed for. If the TakClean Ultra is used in any other way than instructed in this manual, it will be considered improper use.

Prior to energising the system the connection Installation but be followed

The TakClean Ultra has a default state which prevents actuators energising in any direction without signal from the control board, and prevents sudden engagements if air supply is disrupted.

On the TakClean Ultra there is only one Pneumatic compressed air connection. The connection is a 4mm push fit connector on the rear of the TakClean Ultra.



Figure 36

The TakClean Ultra uses compressed air to engage and disengage its Elastomer Roller and Adhesive Rollers.

The compressed air supply must meet the following specification:

	Effective Width <1000mm	Effective Width >= 1000mm
Pressure	3-7 bar (43-100psi)	4-7 bar (58-100psi)
Quality	Clean and dry compressed air.	

Connection Installation

The TakClean Ultra has been tested prior to shipment. The pneumatic actuators have been zip tied into position so that they cannot move if energised.

To remove the zip ties:

1. Open the main door all the way giving access to the front and back of the adhesive roll actuators.
2. Cut all of the cable ties with the removal notices on them, there will be one cable tie per actuator (4 in total) that will stop the movement of the adhesive roller.
3. Once all the cable ties have been removed from the adhesive roller cylinders the adhesive rollers are ready for use.

Setting the Air Pressure

The pneumatic box at the top of the unit contains an air pressure valve. Adjusting this valve will change the force available for elastomer and adhesive roller actuation. This valve was set at Meech before the system was supplied. But if required, adjust as follows:

1. Use a size 2 metric hex key to remove the screws and cover plate covering the pneumatics box at the top of the TakClean Ultra unit.
 2. At the rear side of the pneumatics box is a side mounted air pressure valve with included pressure gauge. Use an 8mm wrench to release the lock nut and turn the end knob to change the pressure. Once the required pressure is reached, tighten the lock nut to secure.
- There is a valve for the elastomer roller and a valve for the adhesive roller so ensure the correct valve is adjusted.

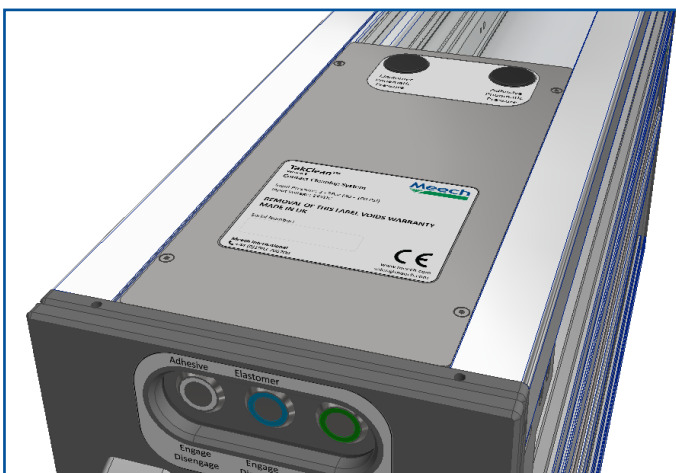


Figure 37

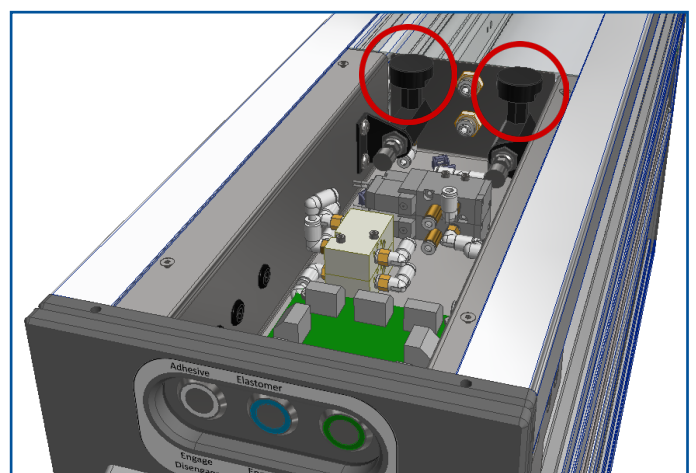


Figure 38

Setting Speed Control Valves

The pneumatic cylinders that control the movement of the adhesive and elastomer rollers are able to move up and down at the customer required speed, it is advised however this is not increased passed the setpoint Meech has set prior to shipping.

To adjust the elastomer roller Speed the following steps will need to be taken:

1. Set the TakClean Ultra into manual mode.
2. Make sure both rollers are disengaged, open the front door.
3. Remove the two screws holding the trim in place and remove the plastic until the speed control valves are exposed.
4. Turn the speed control valves in the side panel to increase/decrease the lifting speed. Be sure to adjust both speed control valves to allow both ends to move up and down together.
5. The Blue button can be pressed to test the speed during the adjustment process.
6. Once the desired speed has been set, tighten the speed control valve lock nut. Slide back the plastic window, put the trim back and secure it by tightening 2xM2.5 screws.



Figure 39

To adjust the Adhesive roller speed, the following steps will need to be taken:

1. Set the TakClean Ultra into manual mode.
2. Make sure both rollers are disengaged, open the front door.
3. Open the door fully so the adhesive roller is able to be removed and cylinders can move freely. This ensures there are no collisions when the adhesive roll is engaged and disengaged.
4. Adjust the speed control valves at the front of both doors for the top and bottom roller as required.
5. Press the engage/disengage button to ensure the rollers are moving evenly. Once the speed is set lock off the lock nut and disengage the rollers.
6. Close the door and use the system as required.

Quick Start Guide

Once the system has been correctly installed this quick start guide can be followed to allow an initial start up and running of the system can be initiated.

The following steps should be checked to ensure everything is ready before operation and commissioning.

1. System mounted correctly, on a stable bracket or cantilever for smaller sizes.
2. Web travels through the centre of the TakClean Ultra and the rollers will not move the web when engaged.
3. Cable ties have been removed from the Cylinders (as stated in the pneumatic installation guide)
4. Rollers move up and down evenly when engaged and disengaged.

Once the above points have been checked the commissioning guide can be followed and the system tested.

Commissioning / Testing effectiveness

Each System that leaves Meech is fully tested and the test check list can be requested if required.

To commission the system, follow the installation guide and get the system ready to run with the elastomer roller and adhesive roller able to engage on the web/material requiring cleaning.

Commissioning Test Requirements

To conduct the commissioning, you will need:

- Source of known contamination (web may be a contaminated web but a known source of contamination will be added to the web to test cleaning performance)
 - Preferably a different colour to the web.
 - Dry and loose contamination only.
- A method of marking out an area.
- Masking tape is the best option or marking directly on the web in a marker pen.
- Measuring device that can go as low as 10-12mg (10mg applicators can be requested from Meech)
 - When applying larger contamination like plastic particulates more contamination can be added but a realistic amount of contamination should be added.

Commissioning Test Procedure

1. Mark out A5 area on the web (roughly 140 x 210mm rectangle), Use tape or a Pen to mark the area.
 - Make sure this area is marked before the web passes through the web cleaner.
 - It is best practice to label the area with the test number to ensure this is picked up in any pictures or test reports.
2. Apply the known contamination (10-12mg) over the marked-out area ensuring there are no clumps of material. Contamination of larger particulates should be added in such a way that is representative of the contamination of the installation.
3. Photograph the contaminated area as best as possible and make notes as to the locations of the contamination.
4. Engage the rollers on to the web.
5. Run the web through the TakClean Ultra and inspect the area of web previously marked out. Making sure to photograph the area for comparison.
 - For the system to be functioning as expected it should have removed a minimum of 95% of the known contamination.
6. If there is still contamination left behind the test should be checked as there should be any “clumped” contamination as the TakClean Ultra will only remove the top layer due to the way it operates.

Further testing can then be done with more real-life contamination and webs.

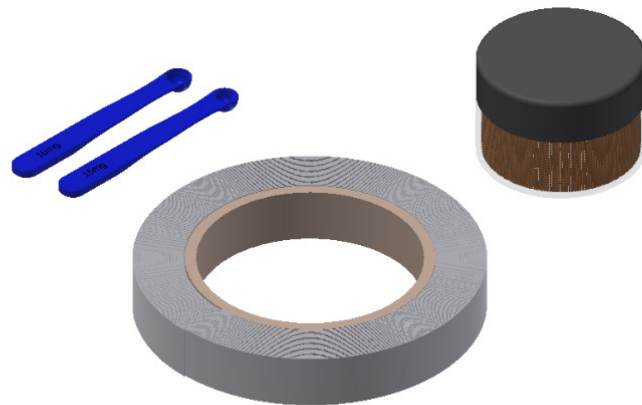


Figure 40

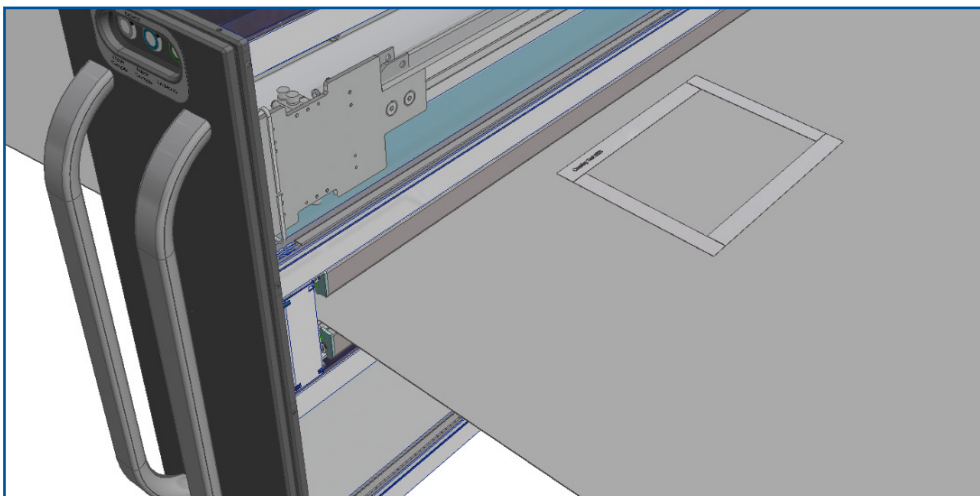


Figure 41

924IPsv2 Bars

The Hyperion 924IPsv2 is a compact pulsed DC ionising bar. It is used to control static electric charges in short range applications (20-150mm). An integral 7.5kV pulsed DC power supply allows for easy installation on printing, converting and packaging machinery. Requiring only a 24V DC supply, the 924IPsv2 removes the need to route high-voltage cabling through the machine.

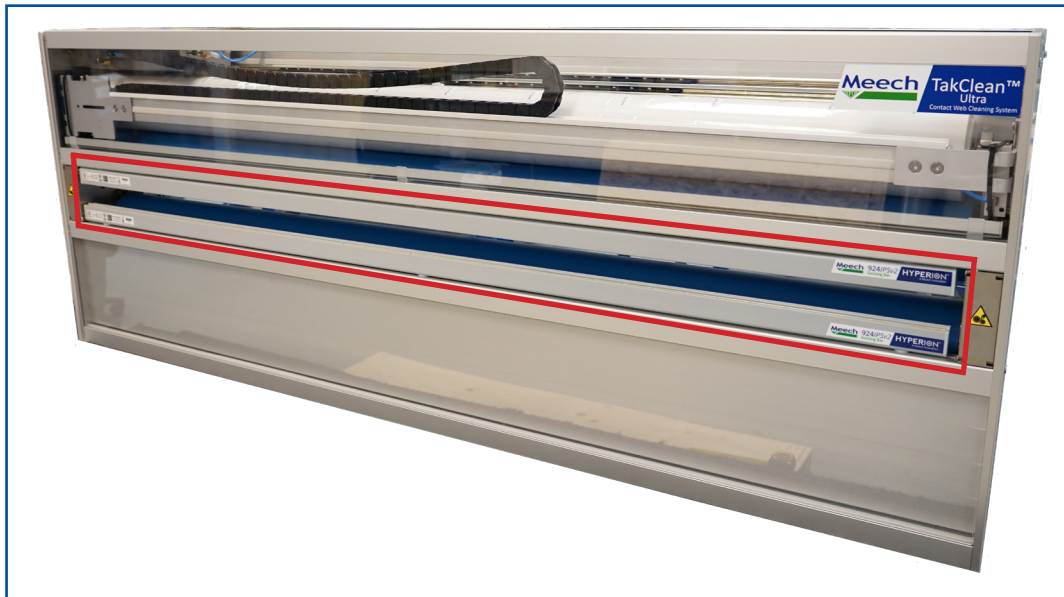


Figure 42 - 924IPsv2 Bars

All settings on the 924IPsv2 bar are pre-set at Meech and are specifically designed for the install of this system.

Clean Pin Alert LED

The local LED illuminates constant green to indicate that the bar is on and working correctly. Red flashing LED shows that bar is dirty and needs cleaning. Solid red illumination indicates a fault with the high voltage output.

- Green constant – OK
- Red flashing - Cleaning required
- Red constant – Fault

Set Parameters

- Output Voltage Default setting: 5kV
- Output Frequency Default setting: 20Hz
- Output Balance Default setting: 54:46 Pos:Neg (%)

Health and Safety

Emission of Ozone

Considerably below international standard of 0.1ppm.

Shockless Emitters

The Titanium emitter pins on the 924IPsv2 are resistively coupled to the high voltage supply. This avoids sparking and operator shocks.

Maintenance

Refreshing Adhesive Paper

1. Ensure the adhesive rolls are NOT engaged with the elastomer rollers.
2. Open the drawer.
3. Locate the leading edge of the adhesive material and peel off 1 layer of the roll to the next perforation line. If there are no more layers refer to *Replacing Adhesive Roll*.
4. Tear off the contaminated section of the adhesive roll at the perforation point.
5. Ensure the new leading edge is laid onto the roll and stuck in position.
6. Close the draw.
7. The adhesive roll is now refreshed and the TKXL system can be used.

Replacing Adhesive Paper

There a 70 layers of adhesive paper in a roll, before it must be replaced

1. Ensure the adhesive rolls are NOT engaged with the elastomer rollers.
2. Open the draw.
3. For each roller, release the quick release clamps on each end, swing open the clamps, and remove.
4. Use a 5mm hex key to release both bolts on each chuck assembly (located at each ends of the roller) to remove them from the adhesive roll. If there is any resistance when trying to remove the core chuck assembly, loosen the bolts further. **Caution: Do no try to force the core chuck assembly out from the roller.**
5. Fit the core chuck assemblies to a new roll of adhesive material. Be sure to fit the core chuck assembly flush into the new adhesive roll and to tighten the 2 bolts on each core chuck assembly. **Caution: Ensure all bolts are fully tightened. This will expand rubber ring and provide the grip force to allow the core chuck securely fit into the roller.**
6. Carefully return the new rollers into the original position and in the correct orientation. Clamp to secure.

Ensure the adhesive roll is installed to rotate in the direction that does not encourage peeling of the adhesive paper. Failure to do this may result in unwrapping.

IMPORTANT

When replacing the new adhesive roll, make sure that it is installed to rotate in the correct direction. Failure to do this may result in the adhesive material sticking to the TransTak elastomer roller and unwrapping.

Adhesive Roller Positioning

LEFT to RIGHT web direction

For a web direction of LEFT to RIGHT, the adhesive rollers should be installed into the TakClean Ultra system as per the pictures below.

The top adhesive roller should have the **Red** dot located at the front (door face) of the TakClean Ultra. The bottom adhesive roller should have the **Blue** dot located at the front (door face) of the TakClean.

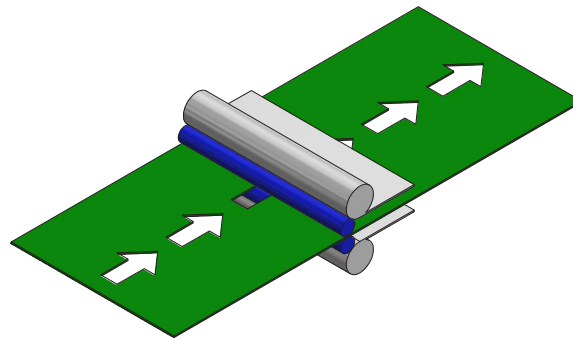


Figure 43

RIGHT to LEFT web direction

For a web direction of RIGHT to LEFT, the adhesive rollers should be installed into the TakClean Ultra system as per the pictures below.

The top adhesive roller should have the **Blue** dot located at the front (door face) of the TakClean Ultra. The bottom adhesive roller should have the **Red** dot located at the front (door face) of the TakClean.

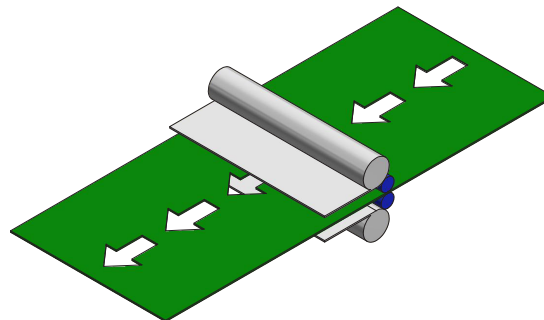


Figure 44

Adhesive Roll Material Specification

Please see the adhesive roll material specification sheet towards the end of this manual.

How To Clean The 924IPsv2 Ionising Bars

Ionising bars become contaminated with usage. Dirt build-up on the body of the ioniser and, particularly on the pins, will cause a drop in performance. To get the best from your bar, the emitter pins should be cleaned regularly.

The bars switch off when the Elastomer Roller is disengaged. This can also be done by switching off the power to the TakClean Ultra.

The emitter pins can be effectively cleaned with a brush, a dry tooth brush is ideal.



Figure 45 - Pin cleaning with toothbrush

Ensure the central divider is also cleaned and the pin surface of the bar.

Along with the cleaning of the pins the bar exterior should be wiped clean as dirt will build up on the sides. This can be done with a cloth and an IPA solution.

If periodic cleaning of the ionising pins is not carried out, the performance of the bar will decrease. When performance reaches a pre-set limit, it will trigger the Clean Pin alert. The LED will flash red and the output signal will be activated.

Troubleshooting & LED Status

Below is the table showing the operation for a 924IPsv2 bar and means of the LED and actions required:

LED Colour	Meaning	Corrective Actions
Solid Green LED	In normal operation the LED on the bar will illuminate Green. This indicates that the bar is operating correctly with good ionisation performance.	N/A
No LED	No power to bar. Note: <i>The Bars will only turn on if the elastomer/blue button is engaged.</i>	Check 24V Power Supply over pins 1 and 3. (Brown 24V and Blue 0V/GND wires)
	LED is faulty.	Contact Meech for Return of product.
Flashing Red LED	Contamination causing a drop in performance.	Switch off power supply and clean as described in Maintenance section. Turn the power on and check for green solid LED.
Solid Red LED	Abnormal output current detected.	Check installation for metallic objects on the emitter pins.
	Bar has internal electrical fault.	Contact Meech for Return of product.

Health and Safety

Emission of Ozone

Considerably below international standard of 0.1ppm.

Shockless Emitters

The Titanium emitter pins on the 924IPS are resistively coupled to the high voltage supply. This avoids sparking and operator shocks.

Repairs and Warranty

The TakClean Ultra is warranted by Meech Static Eliminators Ltd to the original purchaser against defects in material and workmanship for one year after purchase. Should any malfunction occur, please return the unit directly to Meech Static Eliminators or your local distributor. All products returned to the factory **MUST** be accompanied by a return authorisation number and must be shipped prepaid. For prompt service, ship the unit to the factory with the return authorisation number shown clearly on the label. Be sure it is well packed in a sturdy carton with shock absorbing material.

Include a note stating the nature of the problem as specifically as possible, and also include instructions for returning the unit to you. We will pay one-way return surface shipping costs on any repairs covered under the warranty.

Field repairs should never be undertaken. Attempts by unqualified personnel to repair the unit will invalidate the warranty.

924 Ionising Bars

If regular cleaning is not carried out, the bar will detect the drop in performance and trigger the Clean Pin alert. The LED will flash red and the output signal will be activated.

If the LED flashes red and the bar drops in performance, follow the cleaning procedure shown above.

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