Operating Manual

CyClean-R™

Non-Contact Web Cleaning

CONTACTS

HEAD OFFICE

Meech International
2 Network Point
Range Road
Witney
Oxfordshire
OX29 0YN

+44 (0)1993706700
sales@meech.com
www.meech.com

NOTE: **Installation/testing of the system should only be completed by those suitably qualified.**

Issue 1 - 26/07/2021

CONTENTS

Safety Instructions

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

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 you understand how to use the equipment correctly.
- Installation and testing must only be completed by those suitably qualified.
- Inspect the working environment and ensure it is clean and clear of hazards before removing equipment from packaging and positioning the system.
- Visually check all equipment for damage. If damaged, contact your local Meech representative before continuing.
- Observe warning symbols placed on the equipment, see page 5.
- Ensure a minimum distance of at 0.5m is kept around the Air Handling Unit (AHU) to permit adequate airflow required for ventilation. Restricting airflow may damage the equipment.
- 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 installing, performing repairs or maintenance on equipment, ensure the system is electrically isolated. Failure of this could result in injury or death.

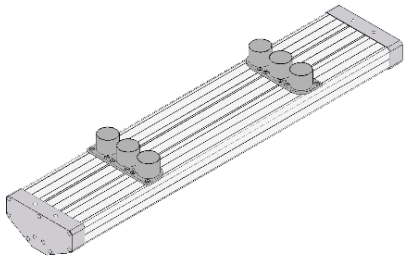
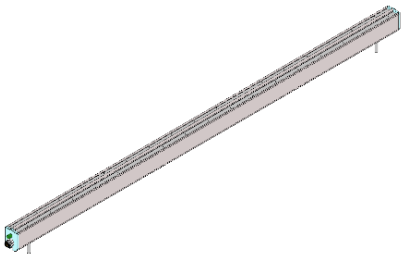
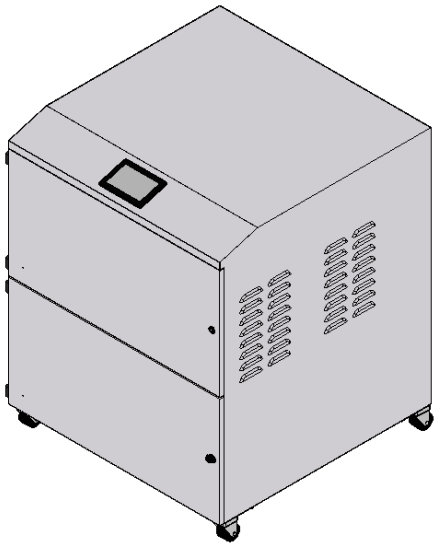
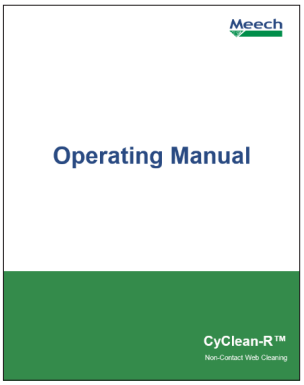
Before working on the equipment:

- Check the equipment is electrically isolated correctly.
- Check equipment and cables for damage. If damaged, contact your local Meech representative before continuing.
- Ensure all wiring is completed by competent personnel.
- Check all connections in relation to the wiring diagram.

Warning and Information Labels

Product Code	Manual Opening
	**Danger Mains Voltage** sign indicates an immediate hazard. If not avoided, this will result in death or serious injury. This label is located on the top door on the Air Handling Unit.
	**Caution - Hot** sign indicates a potential hazard if not avoided, this will result in minor or moderate injury. This label is located on either side of the Air Handling Unit.
	**Warning – Do not cover** sign indicates a potential hazard if not avoided, which will result in damage of equipment. This label is located on either side of the Air Handling Unit.
	**Caution – Crush Hazard** sign indicates a potential hazard if not avoided, this will result in minor or moderate injury. This label is located on CyClean-R manifold and either side.
	**Information – Web Entry** sign indicates the direction of which the web material needs to enter the system.
	**Information – Web Exit** sign indicates the direction of which the web material needs to exit the system.
	**Information – Vacuum Airflow** sign indicates the direction of airflow through the system.
	**Information – Positive Airflow** sign indicates the direction of airflow through the system.

What is Included:

Image	Description
	CyClean-R Manifold
	924IPS Pulsed DC Bar (x2 per Manifold)* **924IPS Cables <u>not</u> included.* *These can be purchased separately.*
	Air Handling Unit (AHU)
	Operating Manual

Unpacking the CyClean-R

CAUTION

Observe correct manual handling procedures when removing the system from the packaging. It is likely that the system will exceed the recommended manual handling limit.

The CyClean-R will be delivered in a heavy-duty wooden packing crate(s).

On receipt of the system, check the packaging for signs of shipping damage. If found, any damage should immediately be reported to the shipping company, the supplier of the system and Meech directly.

Inside the packing crate check the system for signs of damage. If found, any damage should immediately be reported to the supplier of the system and Meech directly.

Before installation of the system, it is recommended that you clean it to remove any potential packing contamination.

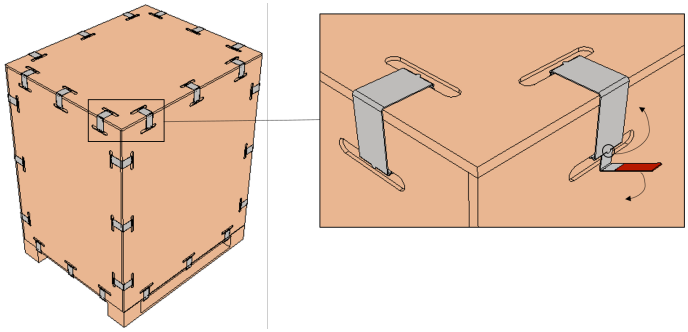
Please follow the steps below to unpack your system:

Removing Air Handling Unit

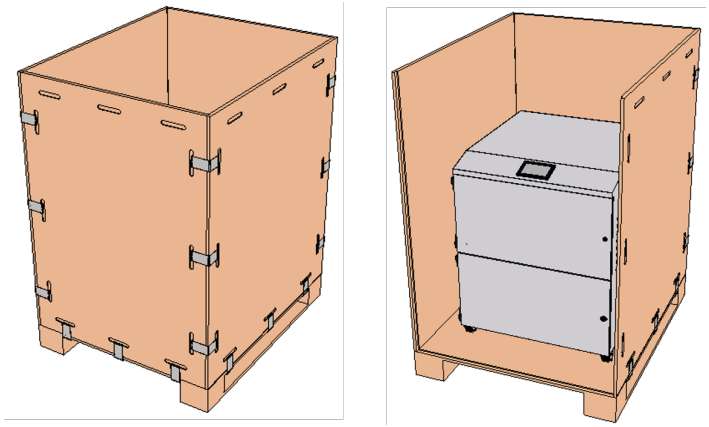
1. Remove the lid of the crate. The metal clips fitted need to be removed in order to do this.

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.



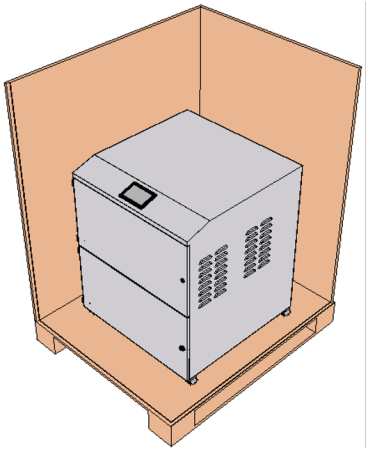
2. Remove front panel of the crate by removing x9 metal clips (This will be marked “Open This Side”). This will allow access to the inside of the crate.

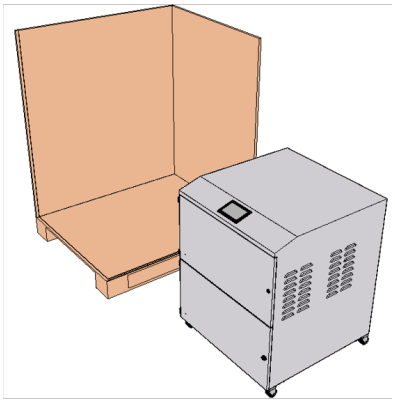


3. Remove side panel by removing a further x6 metal clips. This will allow access to remove the Air Handling Unit safely from the packing crate. The Air Handling Unit will have banding straps to secure it to the pallet base which need to be removed and also a protective layer of 'black wrap', which needs to be carefully removed also.

WARNING

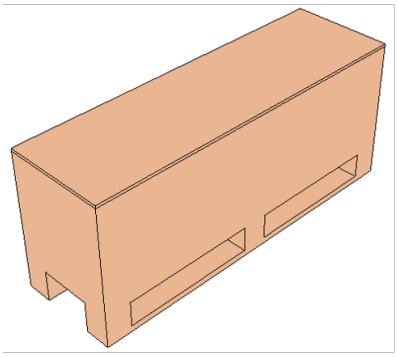
When removing the Air Handling Unit from the crate, ensure appropriate lifting equipment is used. Once removed from the crate, the Air Handling Unit can be wheels on the casters.

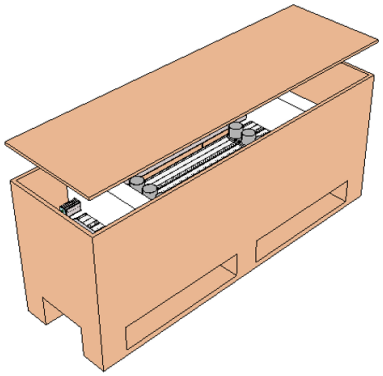




Removing CyClean-R

1. Remove lid from manifold crate

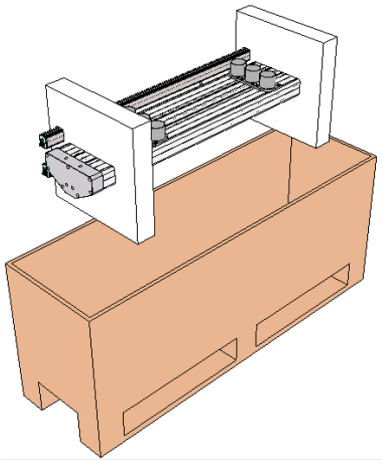


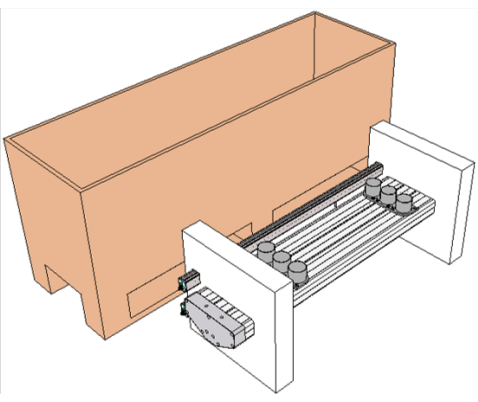


2. Carefully remove the CyClean-R from the manifold crate

CAUTION

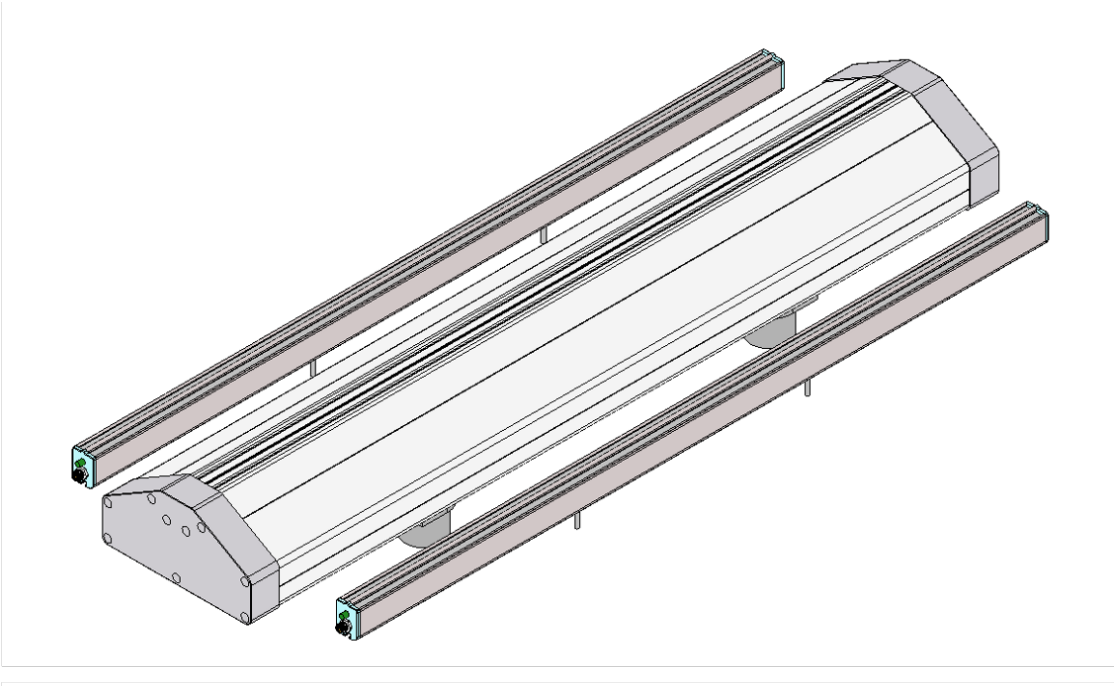
Remove the CyClean-R by the foam packing blocks, containing the CyClean-R manifold and 2x 924IPS Bars. This will help to protect the equipment. Do not remove from foam protection until ready to install.





CyClean-R System Overview

Function



CyClean-R is an extension to our extremely popular CyClean range. The CyClean-R is a web cleaning system that can be used on web that sits around a roller. This makes it ideal for use in many applications.

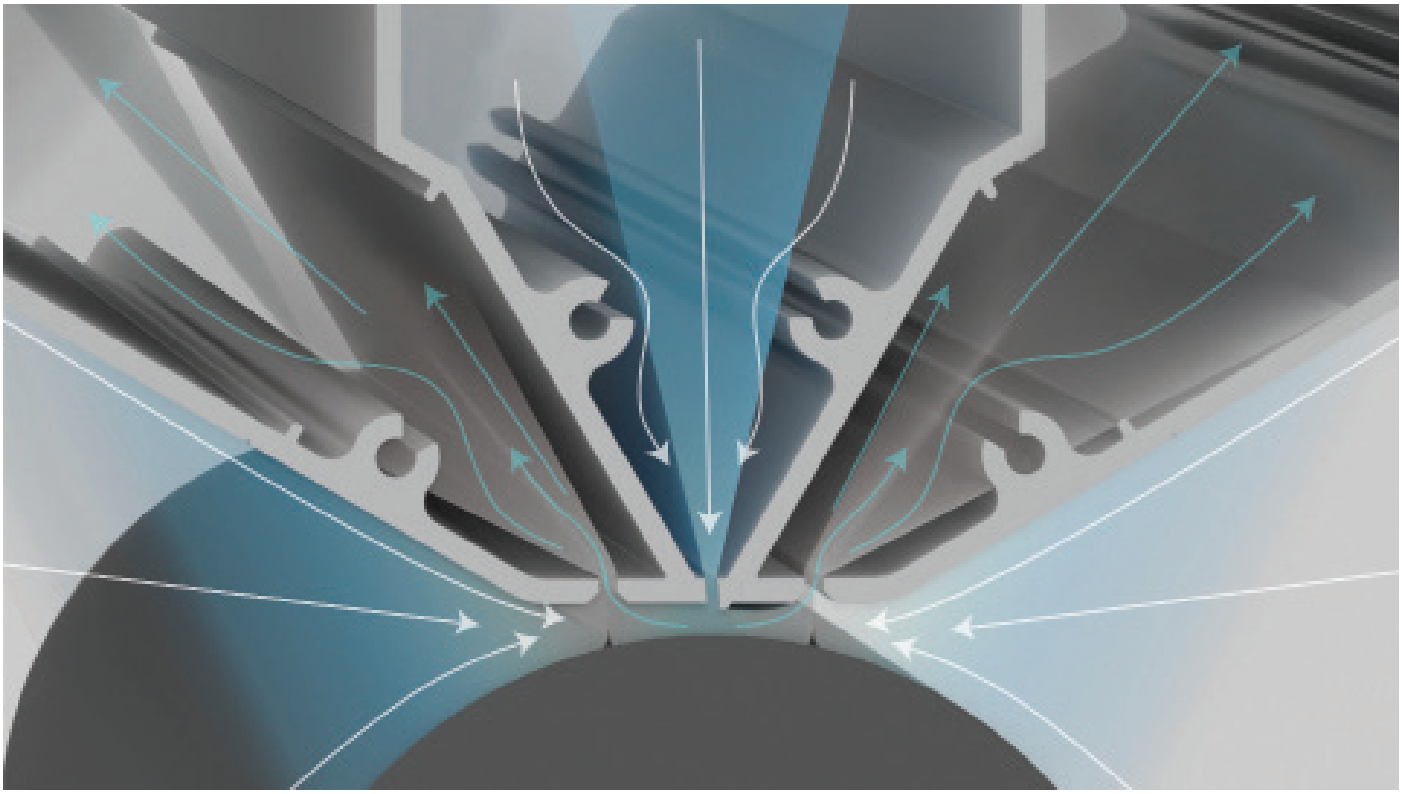
CyClean-R is a non-contact web cleaning system, designed for webs running low tension and can be used with wide variety of web materials.

CyClean-R is available as both a single-sided and double-sided cleaning configuration. To use the system in a double-sided configuration, it must be positioned over two separate rollers.

A CyClean-R system includes the Meech Air Handling Unit (AHU) which incorporates the filtration for the system and provides the vacuum pressure and blowing pressure airflows.

CyClean-R delivers consistent removal of dry, unbonded contamination from the web surface (particle removal to 0.5 micron is achievable), with assistance from the included 924IPS Bars.

How CyClean-R Works



CyClean-R delivers consistent removal of dry, unbonded contamination from the web surface (particle removal to 0.5 micron is achievable). The process is achieved from a combination of steps:

1. The web passes through a cloud of ionisation on web entry of CyClean-R. The cloud of ionisation is created by the 924IPS bars included, which neutralises any static charges.
2. The web is subject to a force of turbulent air created by the blowing and vacuum slots on the CyClean-R manifold, which breaks the boundary layer on the web, loosening contamination on the surface.
3. A negative airflow then draws all the contamination away from the web, which is then filtered through the Air Handling Unit. This results in a clean, contamination-free web surface.
4. As the web exits the CyClean-R manifold, it passes through a second cloud of ionisation, provided by the 924IPS bar on web exit, to prevent re-contamination of the web.

Installation Procedure

CAUTION

Meech CyClean-R web cleaning systems should only be used in installations for which they are designed. If the CyClean-R is used in any other way than instructed in this manual, it will be considered improper use.

CyClean-R Configurations

IMPORTANT

Carefully read the installation instruction relevant to the CyClean-R system before installation. Ensure you have a full understanding of the procedure before beginning work.

The table below outlines the configurations available, including the opening types, ducting, static control and the AHU required for each. The opening configurations can be seen on page 12 - 13, for reference.

Product Code	Width	Web Width (mm)	Opening			Ducting	Qty of 924IPS Bars	Air Handling Units (AHU)
			Fixed	Manual	Pneumatic			
				Option	Option			
ACR-0200-ACR-0600	**Narrow**	200mm -699mm	✓	✓	✓	End or Top feed	2	AHUv3 1.1
ACR-0700-ACR-1200	**Mid**	700mm - 1299mm	✓		✓	2x End feed or 2x Top feed	2	AHUv3 2.2
ACR-1300-ACR-2300	**Wide**	1300mm-2399mm	✓		✓	End feed-added carapace	2	AHUv3 3.3
ACR-2400-ACR-3900		2400mm-3999mm	✓		✓	End feed-added carapace	2	AHUv3 6.6
ACR-4000		4000+mm	✓		Special design	End feed-added carapace	4	AHUv3 6.6&3.3

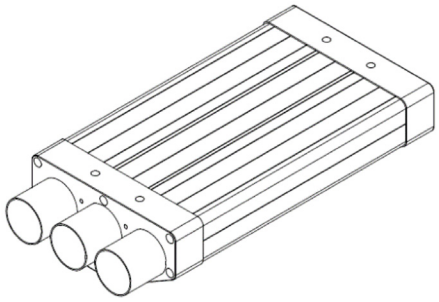
*For web widths up to 600mm, a ducting kit up to 3m can be supplied. It is not recommended this length is exceeded when using Ø40mm ducting due to airflow restrictions.

For lengths up to 600mm, CyClean-R can be either manual or pneumatic to facilitate fast and accurate webbing-up.

On web-widths over 1300mm, CyClean-R is supplied with a carapace. The carapace provides the necessary rigidity for wide web applications, while also offering an ergonomic design.

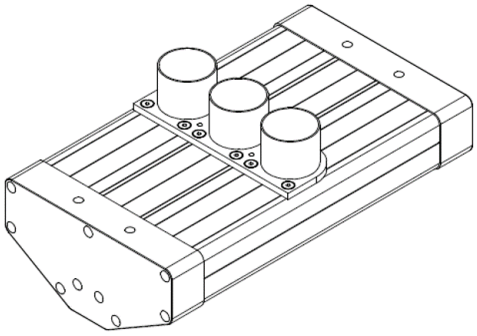
Systems greater than 4001mm are installed rigidly on the machine. On these systems, a custom design will be used on the mechanism to web-up.

Narrow Web : Fixed End-Feed



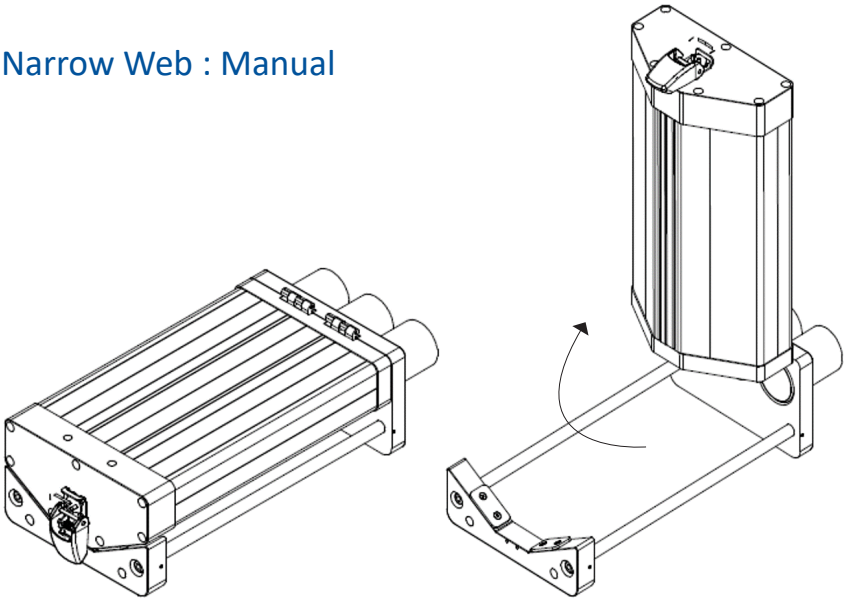
System Design	Fixed
Ducting Feed	End-Feed
Width Range	200mm - 699mm
Opening range	N/A

Narrow Web : Fixed Tab-Feed



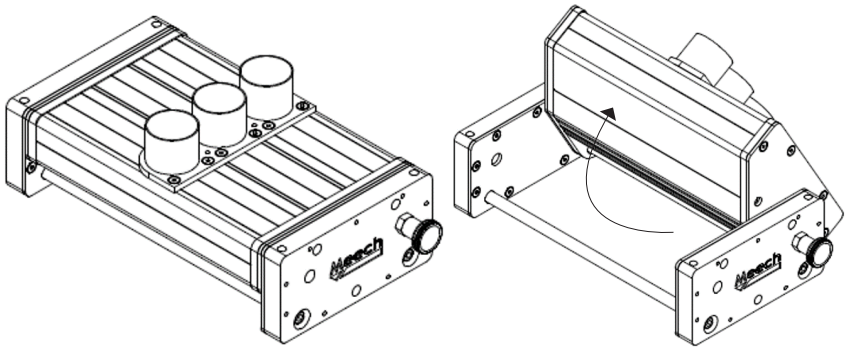
System Design	Fixed
Ducting Feed	TAB-Feed
Width Range	200mm – 699mm
Opening Range	N/A

Narrow Web : Manual



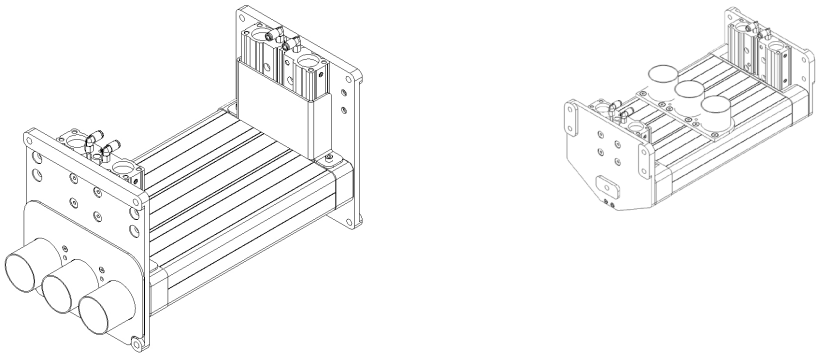
System Design	Manual Lift Opening
Ducting Feed	End-Feed
Width Range	200mm – 699mm
Opening Range	Maximum 90° from closed position

Narrow Web : Manual



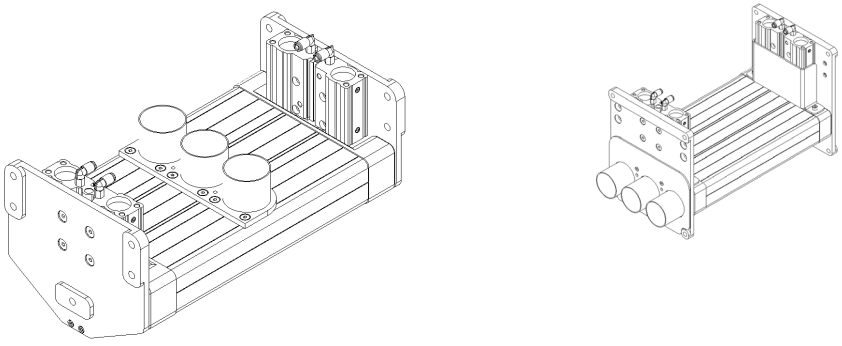
System Design	Manual Tilt Opening
Ducting Feed	Top-Feed
Width Range	200mm – 699mm
Opening Range	Maximum 40mm from closed position

Narrow Web : Pneumatic End-Feed



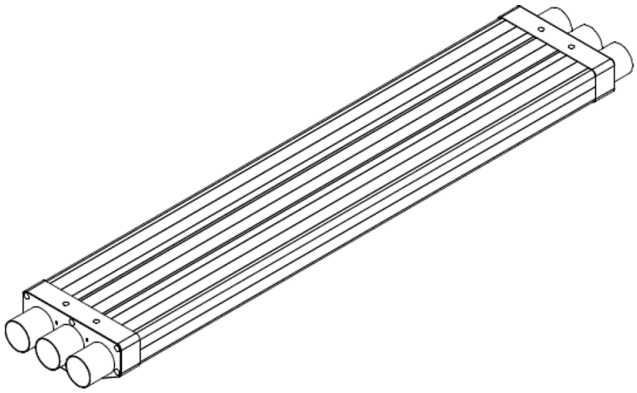
System Design	Pneumatic
Ducting Feed	1 x End Feed
Width Range	200mm-699mm
Opening Range	0mm-30mm

Narrow Web : Pneumatic Tab-Feed



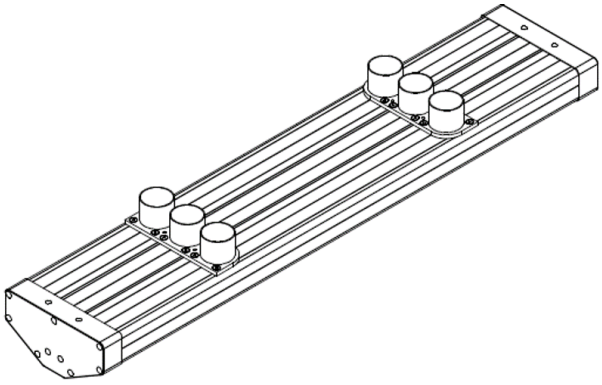
System Design	Pneumatic
Ducting Feed	1 x Top Feed
Width Range	200mm-699mm
Opening Range	0mm-30mm

Mid Web : Fixed End-Feed



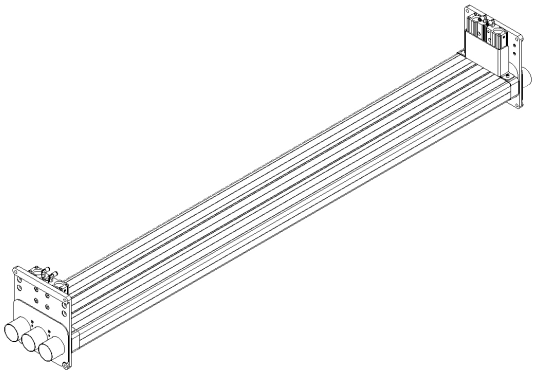
System Design	Fixed
Ducting Feed	2x End-Feed
Width Range	700mm-1299mm
Opening Range	N/A

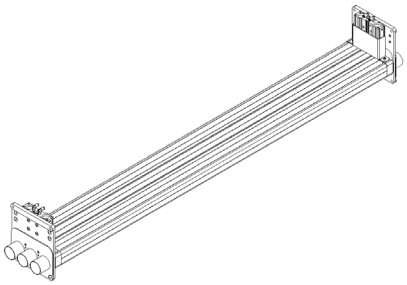
Mid Web : Fixed Tab-Feed



System Design	Fixed
Ducting Feed	2x Top-Feed
Width Range	700mm-1299mm
Opening Range	N/A

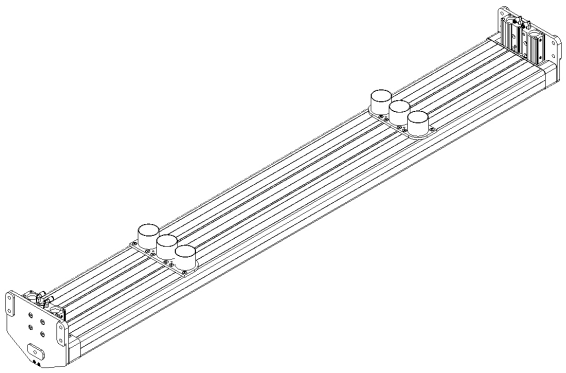
Mid Web : Pneumatic End-Feed

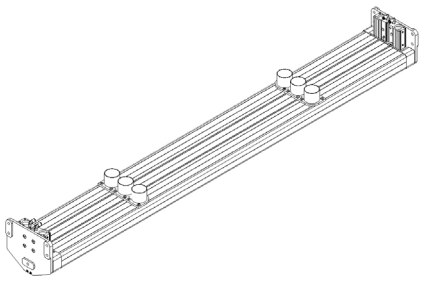




System Design	Pneumatic
Ducting Feed	2 x End Feed
Width Range	700mm-1299mm
Opening Range	0mm-30mm

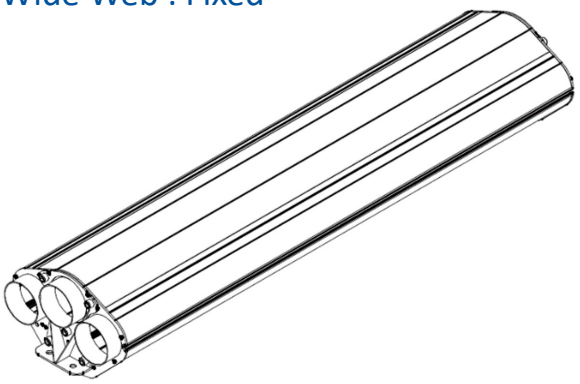
Mid Web : Pneumatic Tab-Feed





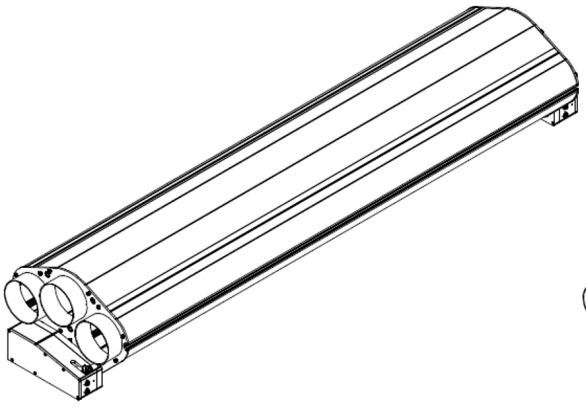
System Design	Pneumatic
Ducting Feed	2 x Top Feed
Width Range	700mm-1299mm
Opening Range	0mm-30mm

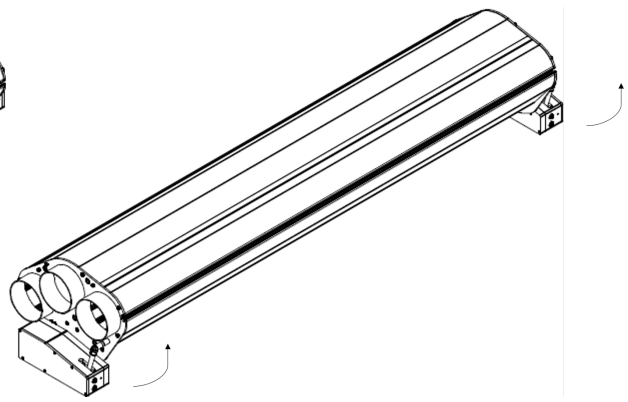
Wide Web : Fixed



System Design	Fixed with carapace, for enhanced rigidity at larger widths
Ducting Feed	Ducting Feed End-Feed
Width Range	Width Range 1300mm- 4000mm
Opening Range	N/A

Wide Web : Pneumatic





System Design	Pneumatic tilt opening with carapace, for enhanced rigidity at larger widths
Ducting Feed	End-Feed
Width Range	1300mm-4000mm
Opening Range	18mm

Suggested Order of Installation

For ease of installation, it is recommended that the system components be installed in the following order:

1. Position and mount the head unit (the manifold should be positioned between 1-3mm above the web).
2. Position and mount the Air Handling Unit (in free air to avoid overheating and considering the available ducting lengths).
3. Make all the electrical connections.
4. Make all compressed air connections (if required).
5. Connect all ducting and secure using clips.

Mounting the CyClean-R

Positioning of the System

The CyClean-R head unit is installed over the apex of a guide roller and can be positioned at any angle without jeopardising cleaning performance .

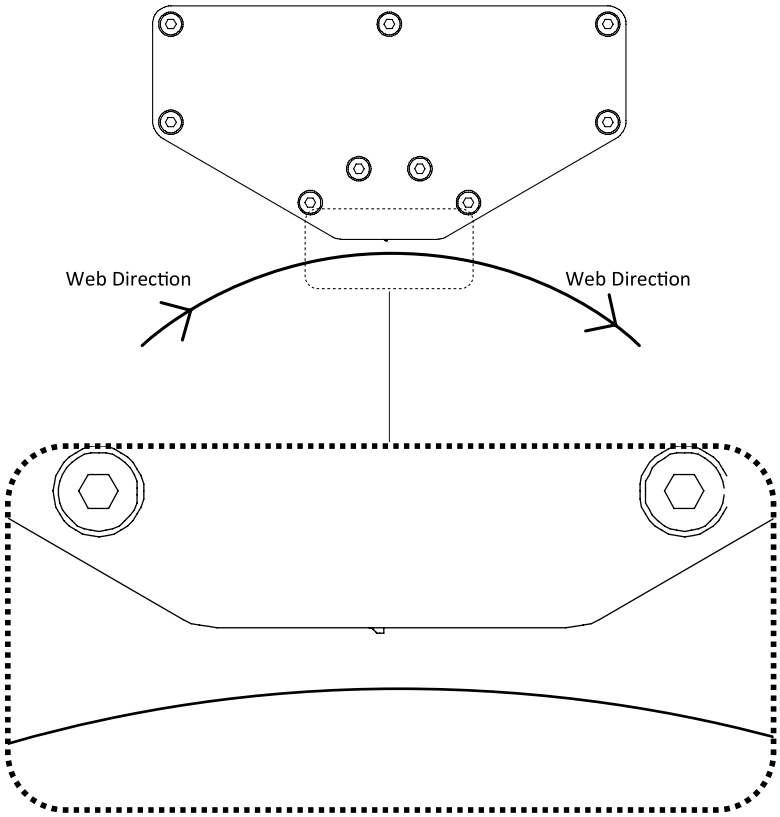
In general, the CyClean-R system should be installed as close to the critical process as possible to minimise the potential of re-contaminating the web via airborne contamination. Meech would recommend between 1-3mm over the web; however, this may differ depending on the application.

Where a double-sided configuration is required the CyClean-R heads will be installed at different stages of the web.

Web Direction and Tension

Due to the way the CyClean-R has been designed; web tension is not relevant due to the positioning over the roller.

The CyClean-R should only be mounted in the orientation it was designed. See figure 5 below showing the pip on the CyClean-R extrusion.



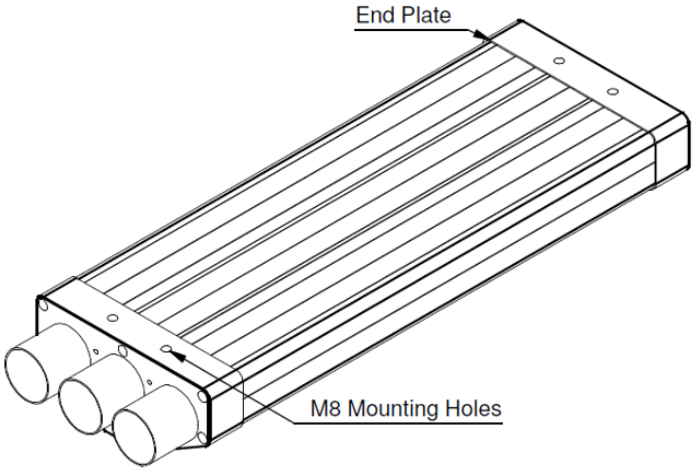
General Mounting Instruction

INFORMATION

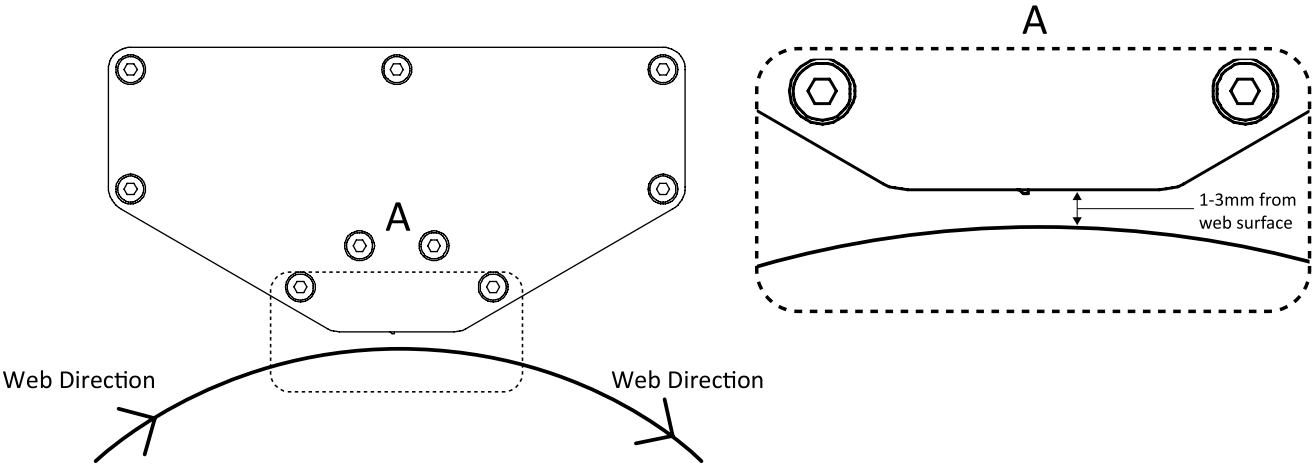
The images below are for illustration purposes only and the style of your system may differ. Please refer to the Appendices for technical drawings, showing the mounting positions for each style of CyClean-R

Please follow the steps below for instruction on how to mount the CyClean-R manifold:

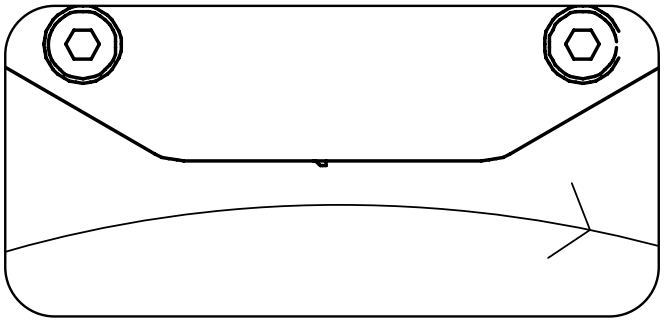
1. Locate the 4x M8 mounting holes in CyClean-R end plates



2. Fix the CyClean-R manifold with suitable M8 screws, so that it is positioned between 1-3mm from the surface of the web



3. When installing CyClean-R manifold over web, ensure the direction of the web corresponds to the orientation of the pip on the CyClean-R extrusion



Fixed CyClean-R

Mounting Fixed CyClean-R up to 1300mm

Web widths up to 1300mm will be similar to the CyClean-R below. Web widths over 1300mm use a carapace and will be mounted differently.

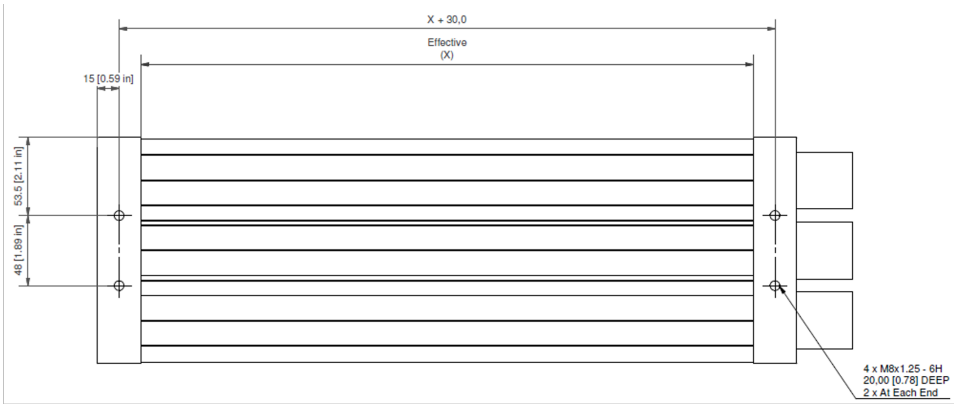
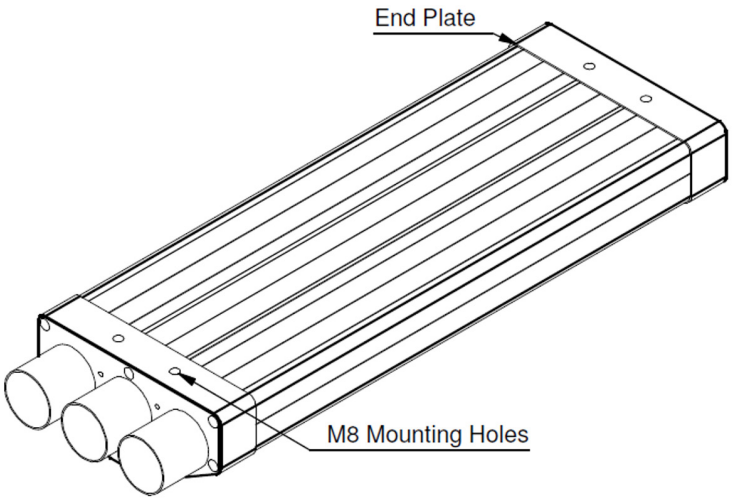


Figure 6 - Fixed CyClean-R Mounting Positions



Fixed Carapace CyClean-R

Mounting Fixed CyClean-R Carapace

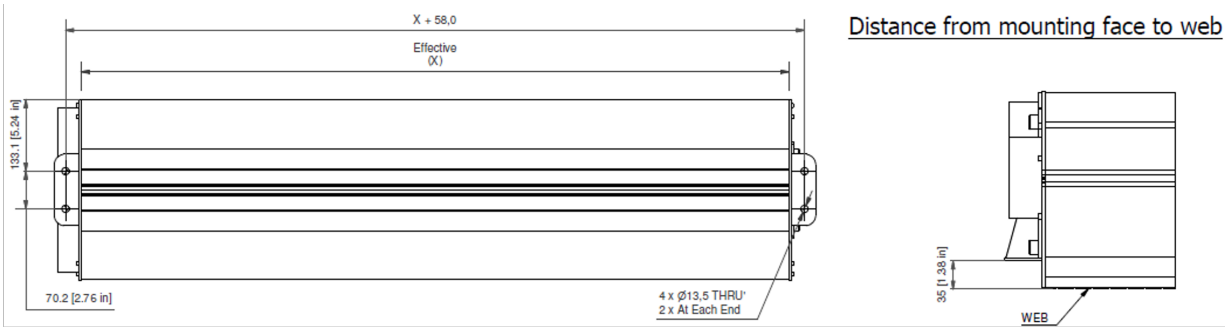
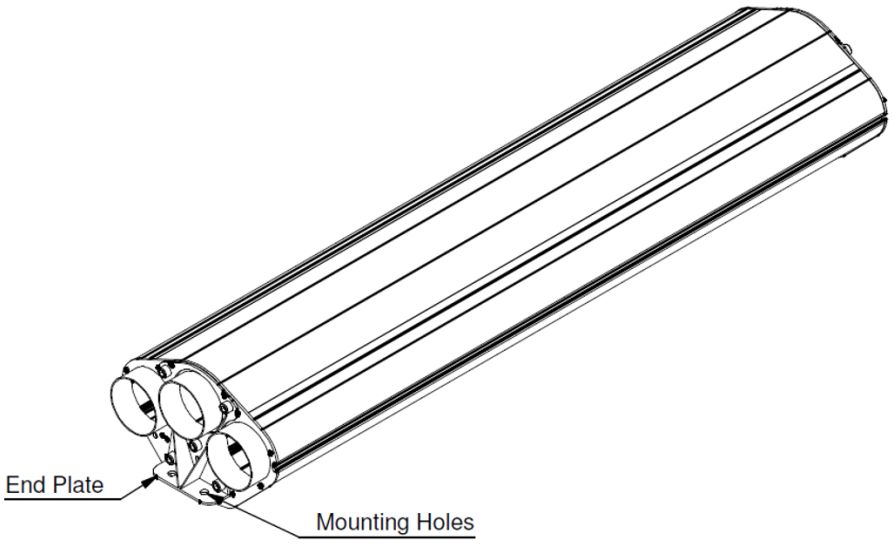


Figure 9 - Fixed CyClean-R Carapace Mounting Positions



Manual CyClean-R

This opening method is standard for systems that feed the ducting into the end of the CyClean-R head for a maximum web width of up to 600mm.

This option is not available for web widths over 600mm.

CAUTION

Care needs to be taken when placing this style of head upside down due to the way it hinges and it causing a potential pinch point.

[Mounting Point Manual End Feed CyClean-R]

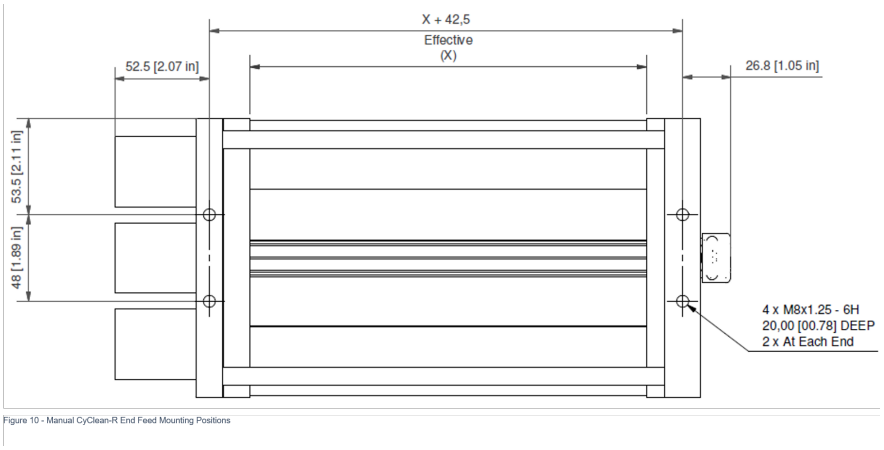
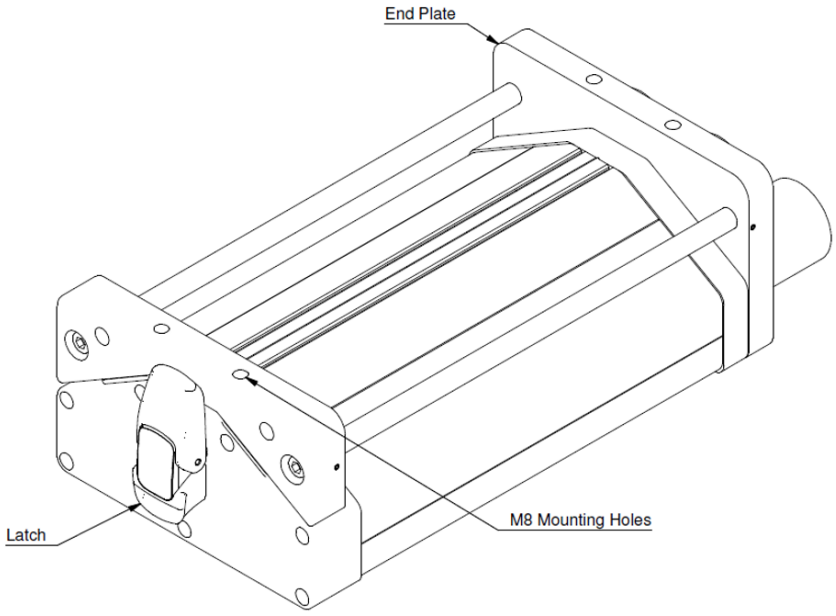


Figure 10 - Manual CyClean-R End Feed Mounting Positions



CAUTION

Ensure the latch is secure before installation to reduce the risk of injury.

Mounting Manual TAB Feed CyClean-R

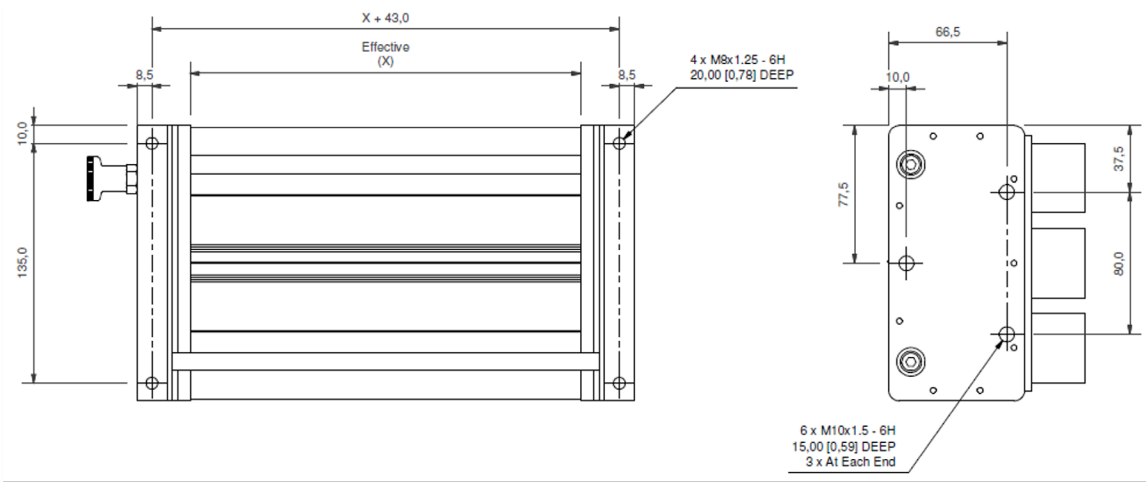
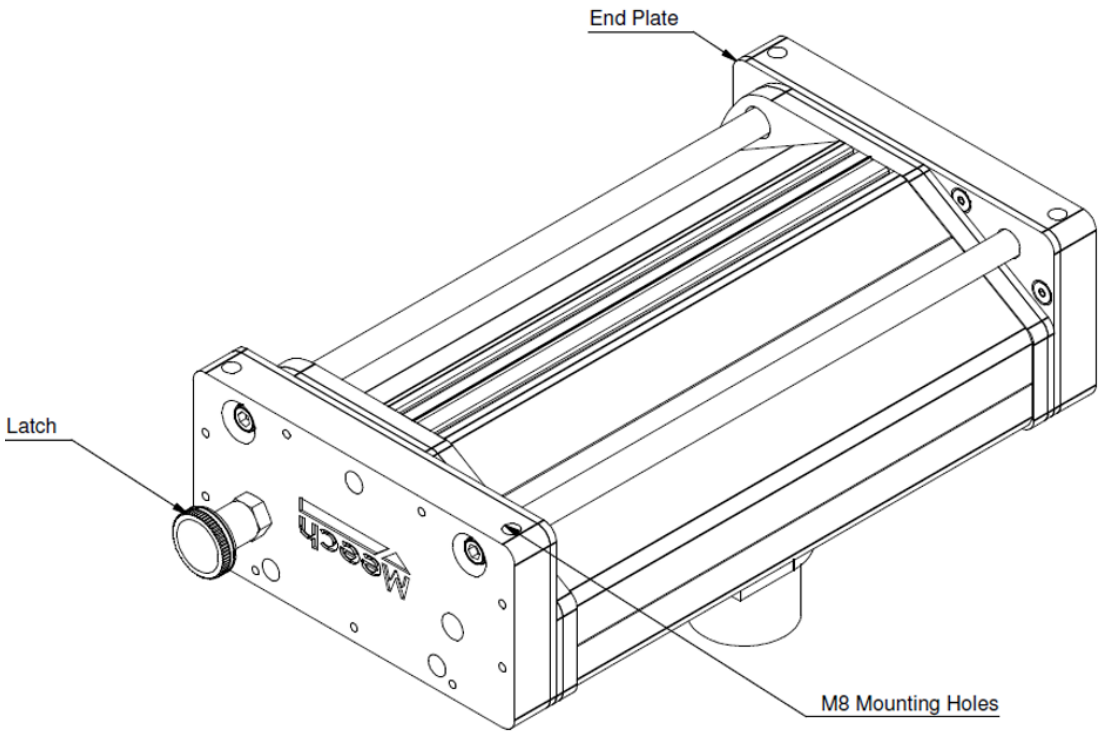


Figure 11 - Manual CyClean-R TAB Feed Mounting Positions

CAUTION

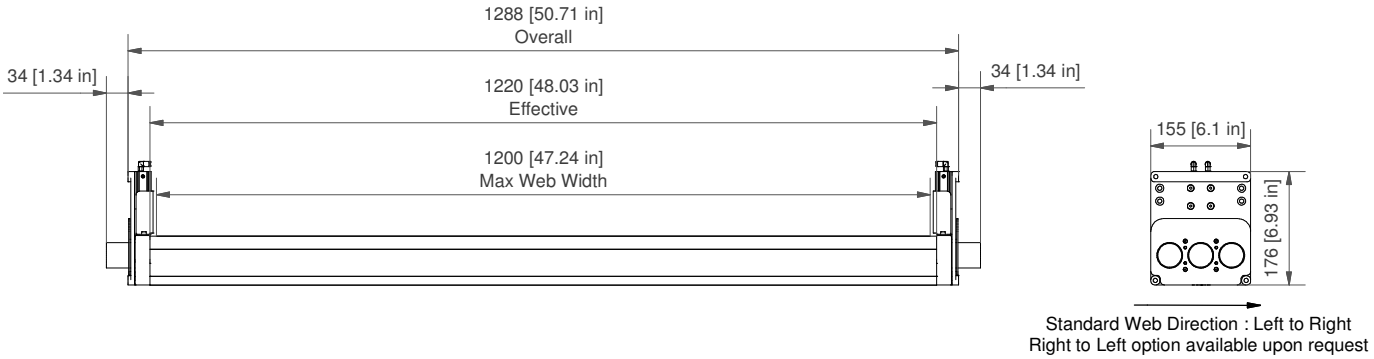
Ensure the latch is secure before installation to reduce the risk of injury.



Pneumatic CyClean-R

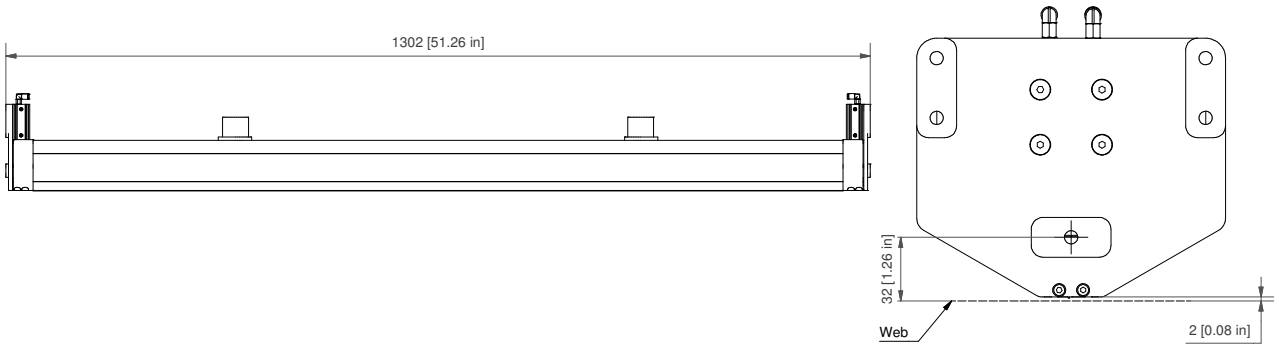
This opening method is standard for systems suitable for a web width range of 200mm to 1200mm. This option can be installed so that the system opens up at any angle around a roller. The moving half of the head can be controlled locally or remotely to allow full line integration.

Mounting Point Pneumatic End-Feed CyClean-R



Mounting Point Pneumatic TAB-Feed CyClean-R

Distance from mounting face to web



Pneumatic CyClean-R Carapace

This opening method is standard for systems suitable for a web width range of 1300mm to 4000mm. This option can be installed so that the system opens up at any angle around a roller. The moving part of the head can be controlled locally or remotely to allow full line integration.

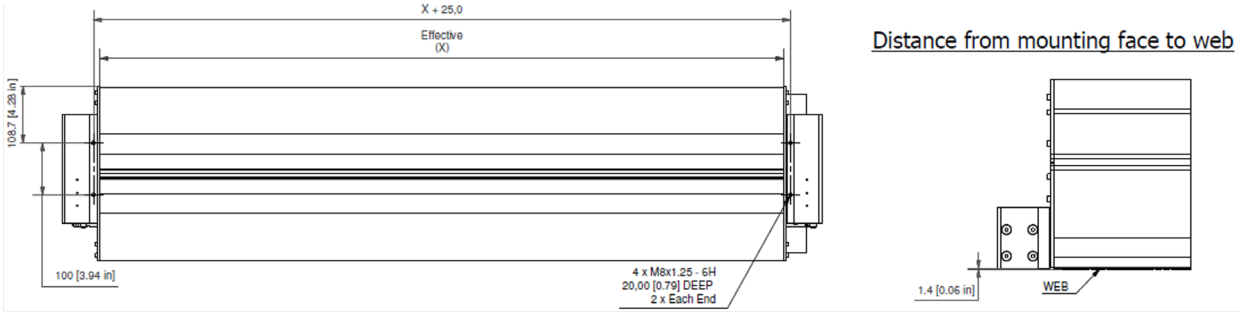
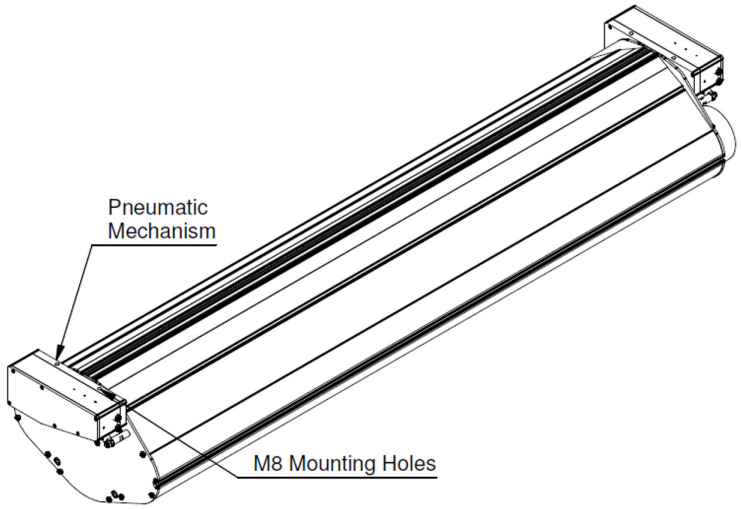


Figure 14 - Pneumatic CyClean-R Carapace Mounting Positions



Pneumatic Connection

IMPORTANT

Installation of the CyClean-R system should only be completed by those with suitable qualifications.

Pneumatic CyClean-R systems are supplied with a pneumatic control box and a 5m length of 6mm blue/black dual core airline to connect the manifold to the pneumatic box. Meech does not supply airline to connect the pneumatic box to the main air supply.

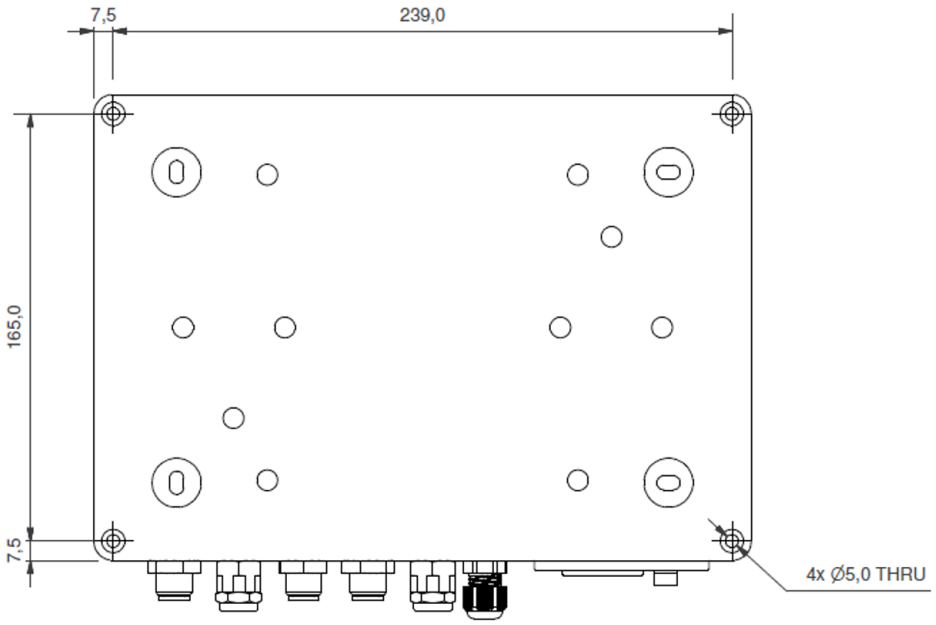
Compressed Air Requirement

The CyClean-R system requires a compressed air supply to open and close the head unit.

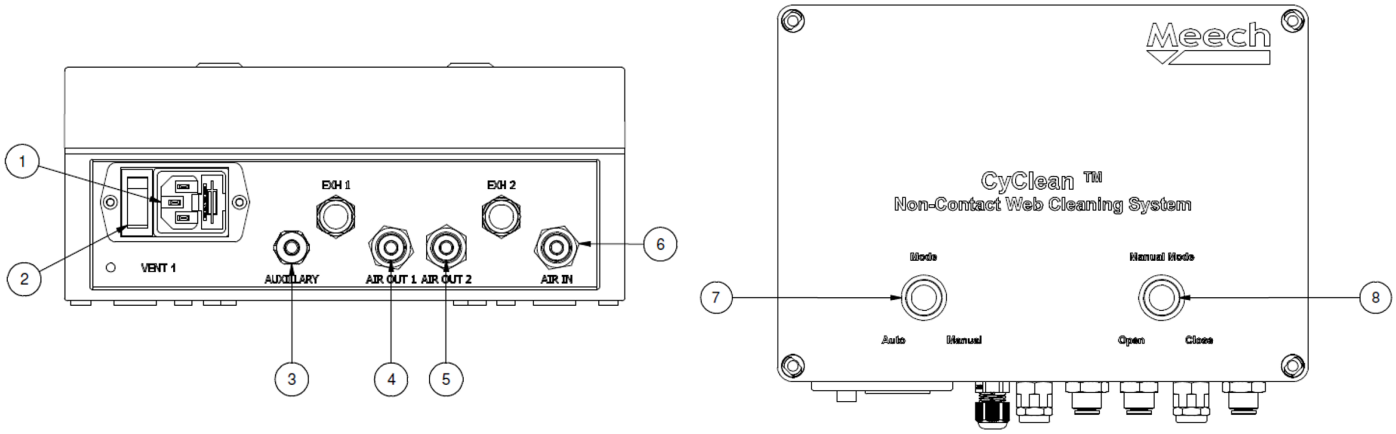
The compressed air supply should meet the following specification:

- 3 -7 bar (43-100psi)
- Clean and dry compressed air

Mounting Pneumatic Control Box



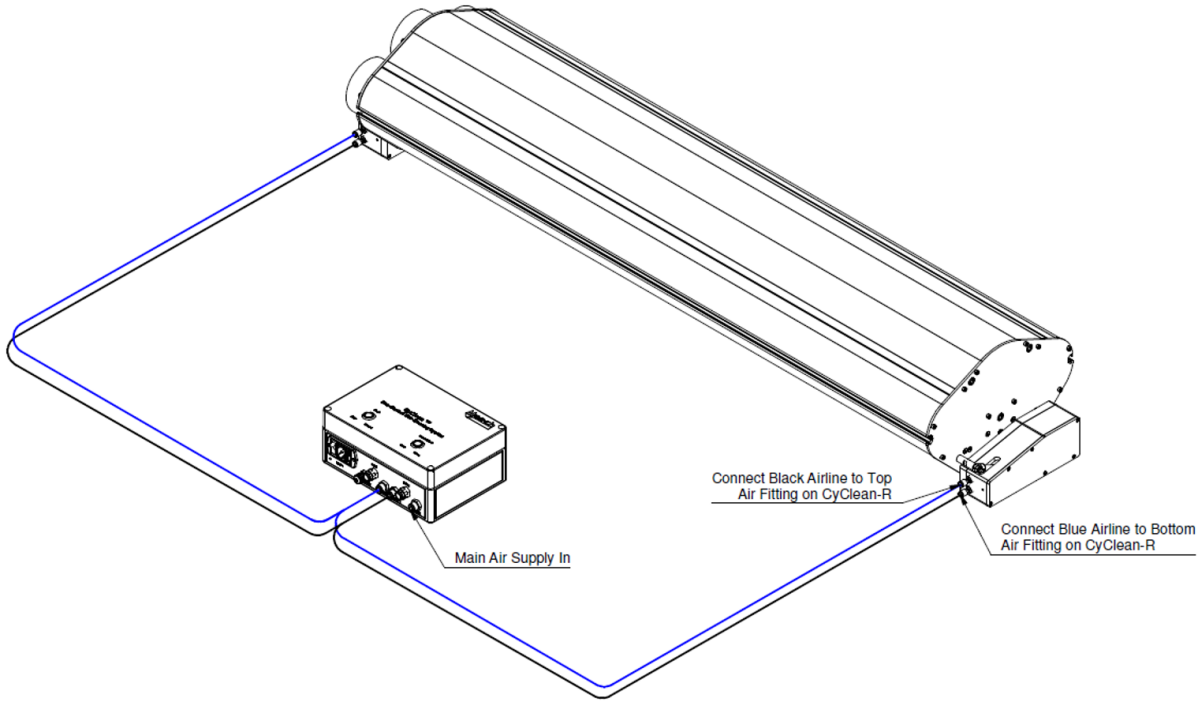
Connecting to Pneumatic Control Box



Number	Description
1	IEC Power Connection Socket, IEC Cable Supplied with Flying Lead
2	On/Off Switch
3	Auxiliary Gland
4	Air Out 1 (Blue Airline), Connection from CyClean-R 6mm Push-In Air Fitting
5	Air Out 2 (Black Airline), Connection from CyClean-R 6mm Push-In Air Fitting
6	Air In, Connection from Main Air Supply 6mm Push-In Air Fitting
7	Auto/Manual Button
8	Engage/Disengage Button

WARNING

Compressed air can cause serious injury. It is important the air supply is not on or pressurised before connecting the main air supply. Ensure all air line between the manifold and pneumatic box is connected correctly before turning on air supply .



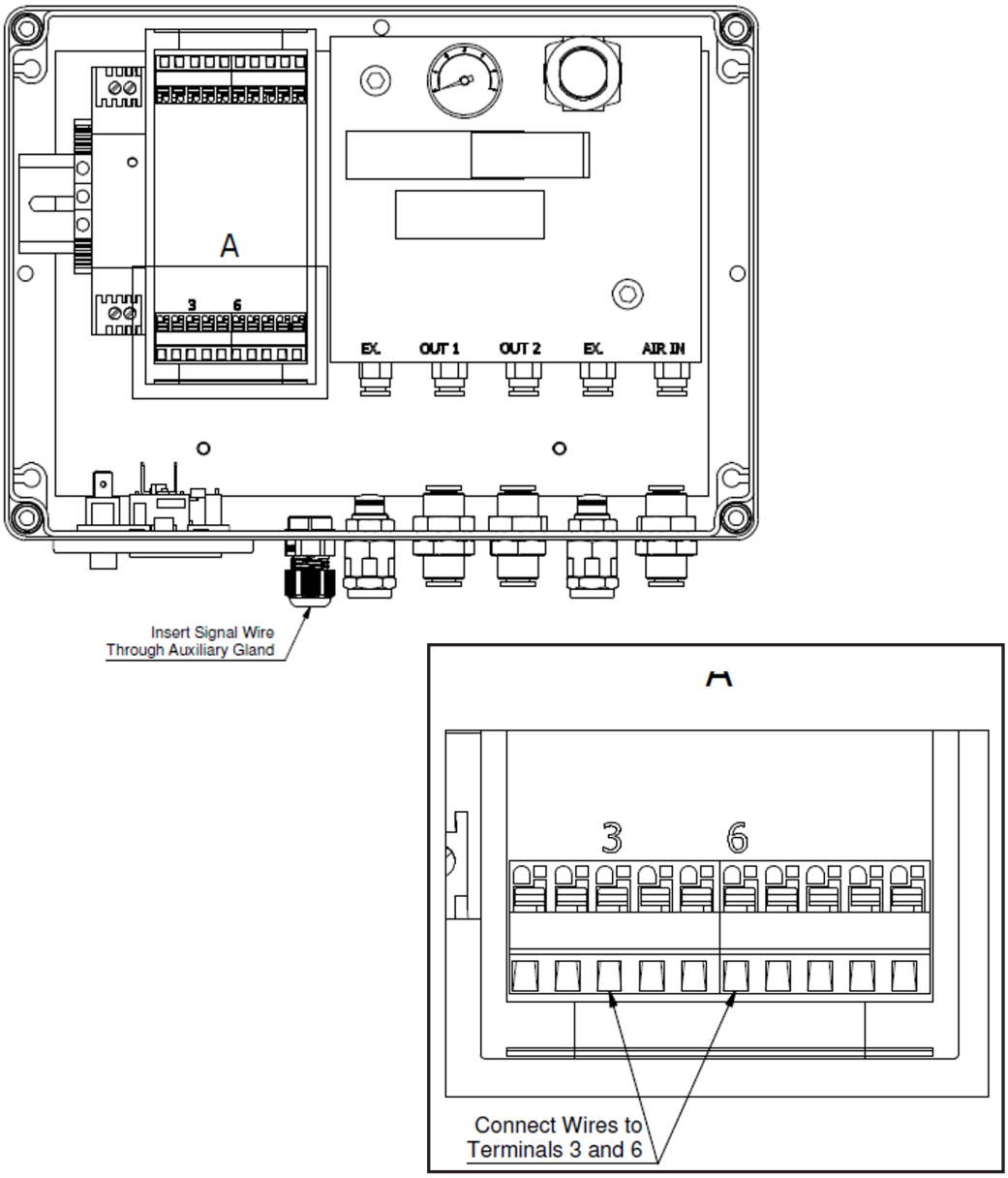
The blue/black airline provided connected to the pneumatic cylinders on the CyClean-R manifold to the pneumatic control box.

The main incoming compressed air supply should be connected to the 6mm compressed air push fit fitting on the CyClean control box labelled Air In 1.

The compressed air lines (blue and black) should be connected from the CyClean-R unit to the 6mm compressed air push fittings labelled Port 2 and Port 3. The blue hose connects to port 2, the black hose connects to Port 3.

Connecting Remote On/Off Signal from the Line

Connect a normally open (NO) signal from the line in the CyClean control box as shown in the image below and consult the wiring diagram at the end of this document.

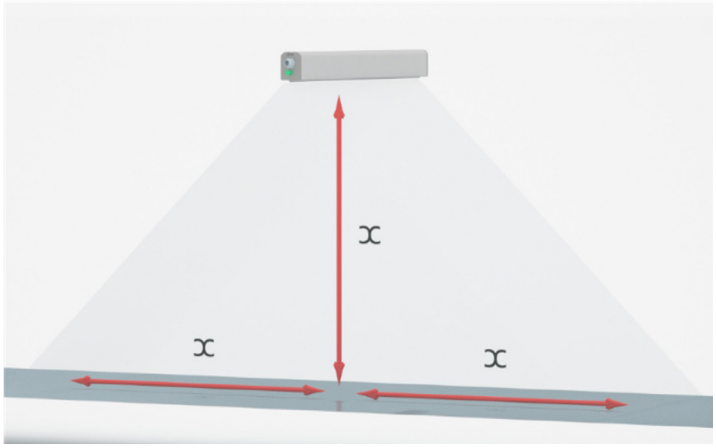


Positioning of 924IPS Bars

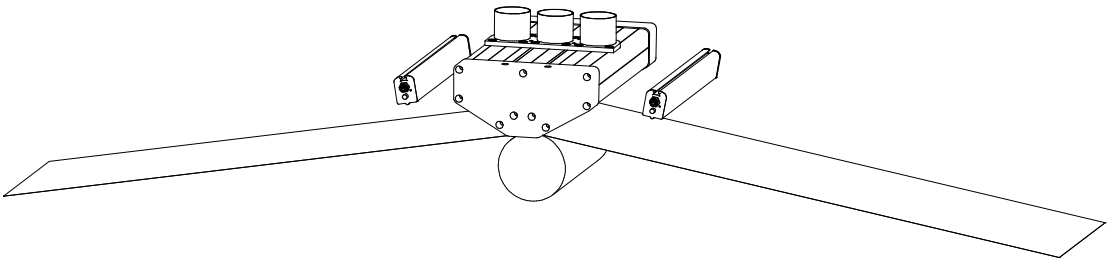
The 924 is a short to mid-range bar. Dependent on the application, the bar will be mounted between 20mm and 150mm from the target surface.

The bar should be mounted securely, using all the M4 T-bolts provided with the bar.

Correct positioning of the bar is vital for effective static control. There must be no metallic objects or obstruction between the bar and the material. The diagram shows the area that should be kept clear.



When installed at short range over a web or sheet, the bars must be positioned away from surfaces and rollers, as shown in the following diagram.

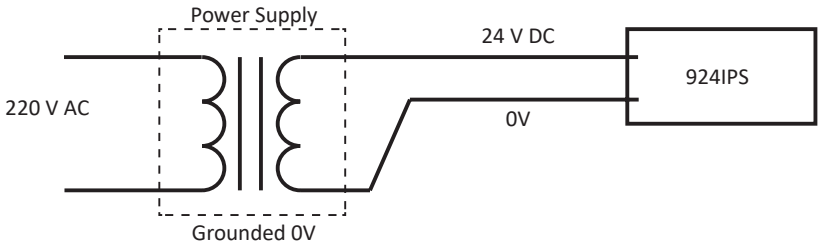


Your Meech distributor will be able to assist with questions regarding positioning of your equipment.

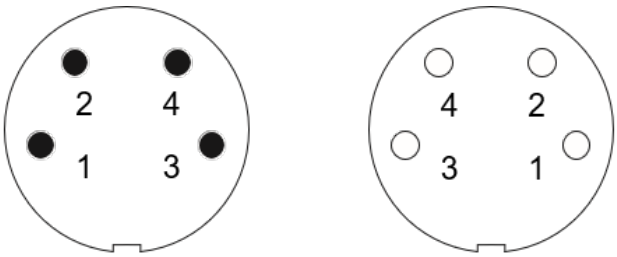
Electrical Installation

WARNING

The 924IPS requires a grounded 24V DC supply. The 0V line must be connected to ground. Failure to do so, will result in damage to the bar or the 24V supply and will void the warranty .



Connection to the 924IPS is via an industrial M8 4 Pin connector. With the following pin-outs:



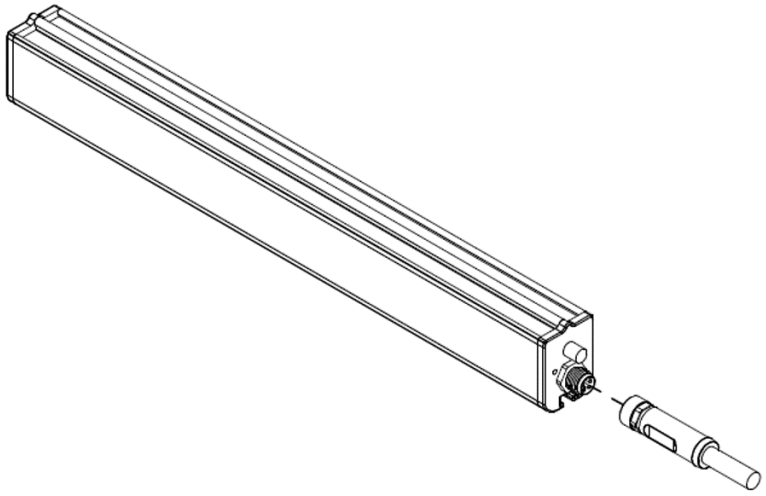
Male connector on Bar | Female connector on Bar

Pin	Colour	Function Specification
1	Brown	24V (21-27V)
2	White	Clean Pin Output 0V/24V
3	Blue	0V/Ground
4	Black	No connection

Connecting to Power Supply

Connecting to Meech Power Supply

Meech 24V DC supplies are grounded internally. It is important that the mains connection offers a ground connection. Two-pin outlets without a ground connection must not be used.



Connecting to Customer's Power Supply

It is the customer's responsibility to check that the 24V power supply they will be using is grounded.

The 24V supply should be protected with a 1 Amp fuse.

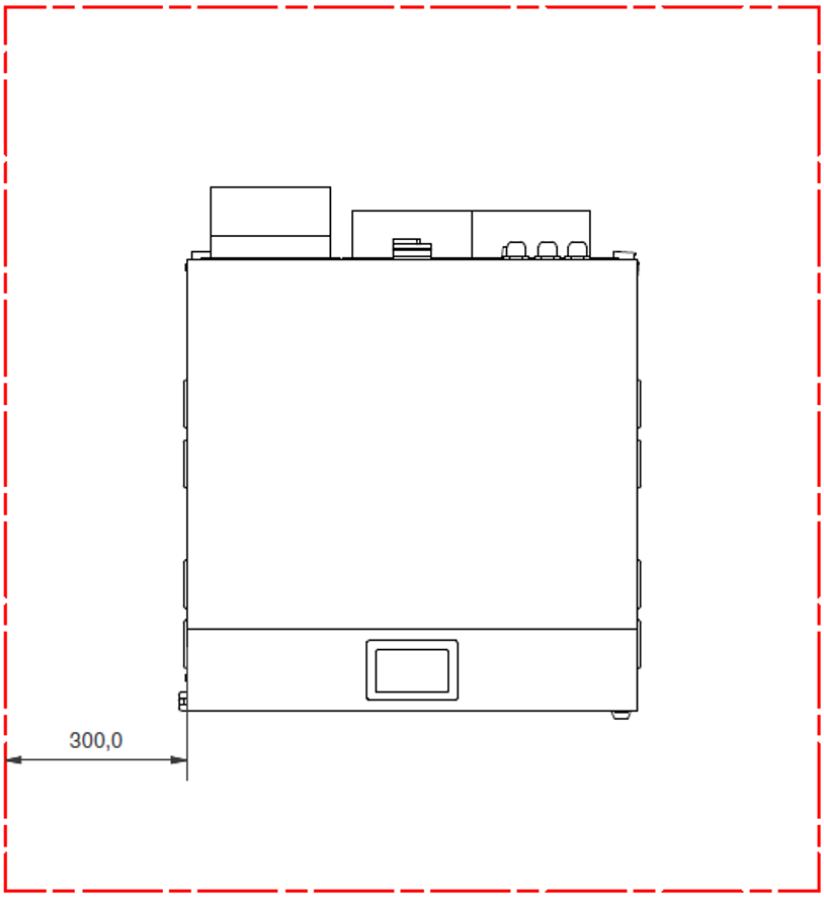
IMPORTANT

Ensure you have read and fully understand how to operate the Ionising Bars before use.

Positioning of Air Handling Unit

WARNING

Keep a minimum distance of at 0.5m is kept around the Air Handling Unit (AHU) to permit proper airflow required for ventilation. Restricting airflow can damage the equipment.



When positioning the Air Handling Unit, it is important to ensure the ducts being used reach the CyClean-R manifold.

Ducting Kits

IMPORTANT

Meech does not supply ducting with CyClean-R systems. This can be purchased separately.

Meech offers a standard ducting kit suitable for the system ordered. The kit comes in various lengths dependant on the CyClean-R web width. The kits offered as standard are specified below.

Product Code	Description	Single Sided	Double Sided	Web Width
ACR-DKM-01	1m Flexible Ducting Kit	✓		0-600mm
ACR-DKM-02	1.5m Flexible Ducting Kit	✓		0-600mm
ACR-DKC-01	2.5m Flexible Ducting Kit	✓		601-1200mm
ACR-DKS-01	5m Flexible Ducting Kit	✓	✓	*
ACR-DKS-02	8m Flexible Ducting Kit	✓	✓	*
ACR-DKS-03	8m Flexible Ducting Kit		✓	2301-4000mm

*ACR-DKS-01

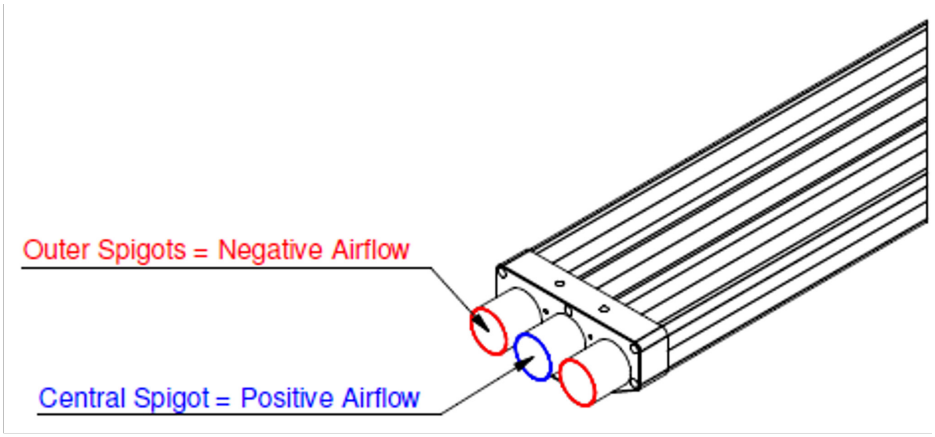
- Single-Sided Manifolds, this option is suitable for Web Widths between 1201-2300mm.
- Double-Sided Manifolds, this option is suitable for Web Widths between 601-1100mm.

*ACR-DKS-02

- Single-Sided Manifolds, this option is suitable for Web Widths between 2301-4000mm.
- Double-Sided Manifolds, this option is suitable for Web Widths between 1101-2300mm.

Connecting the Ducting

The CyClean-R manifold is designed with three pressure chambers, the two outer chambers are vacuum pressure and the central chamber is positive pressure.



It is vital all ducting is connected to the correct chamber from the Air Handling Unit to the CyClean-R manifold.

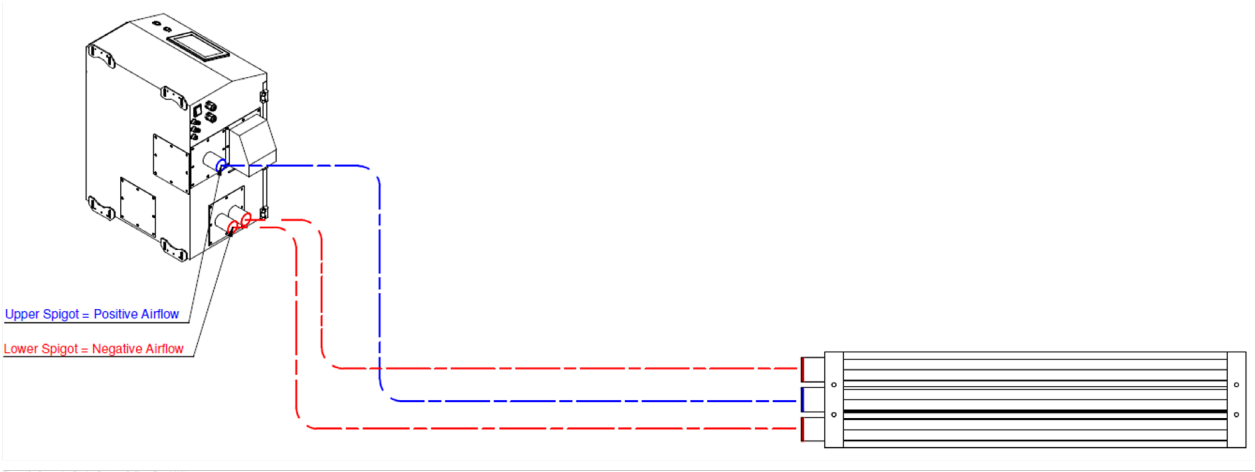


Figure 18 - Connecting Ducting Between CyClean-R and AHU

CAUTION

Ducting configurations will differ depending on CyClean-R system purchased. See appendices for detailed technical ducting layout drawings.

Securing the Ducting

CAUTION

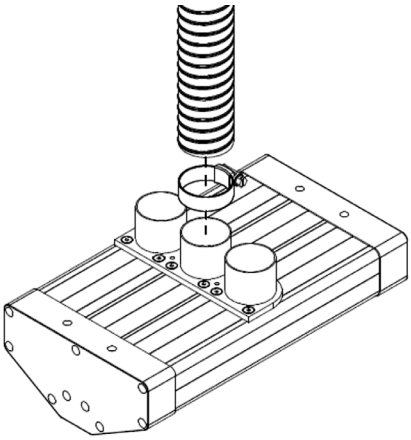
Keep the smallest diameter ducting lengths as short as possible. It is important there is as few bends in the ducting as possible to avoid restrictions to the airflow.

All ducting kits supplied by Meech will include hose clamps, to secure the flexible ducting to the equipment.

1. Place the hose clamp over the flexible ducting and then slide the ducting over the spigot on the CyClean-R manifold.

WARNING

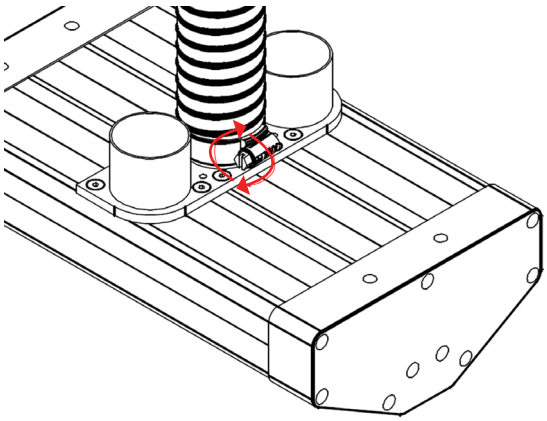
Ensure ducting is fully located over the spigot in which the ducting is being fitted. This will ensure no leaks.



2. Secure hose clamp.

WARNING

It is important the hose clamp is torqued enough so that the ducting does not blow off under pressure.



Operating the CyClean-R

Before Use

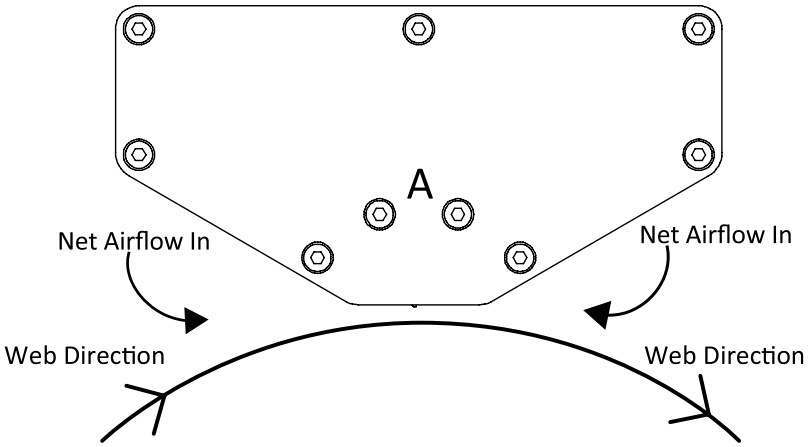
Before using the CyClean-R system it is important that you have read and fully understand this manual.

IMPORTANT

Testing of the system is recommended before it is used for full production

System Setup

The net airflow into either side of the CyClean-R head is adjusted by bleeding off a volume of the blowing (positive) airflow to create an airflow bias in favour of vacuum. Consult the AHU manual for full instructions of how to balance the airflows.

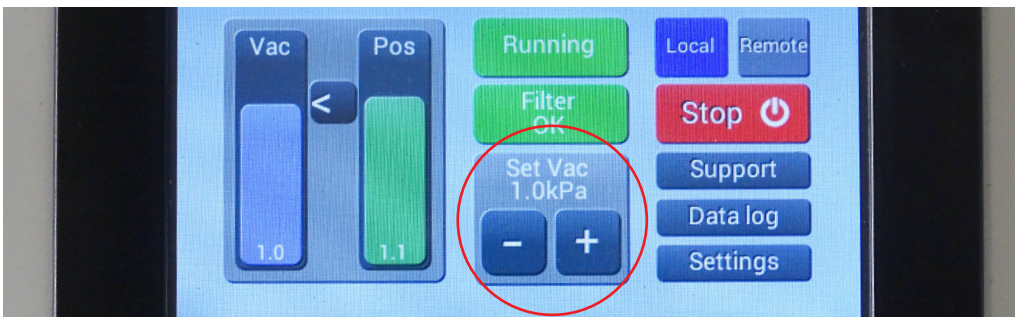


All CyClean-R systems are tested before leaving the factory. The CyClean-R is set up so that the vacuum airflow is 0.1kPa greater than the positive; however, this can be adjusted to achieve optimum cleaning results for the CyClean-R web cleaner.

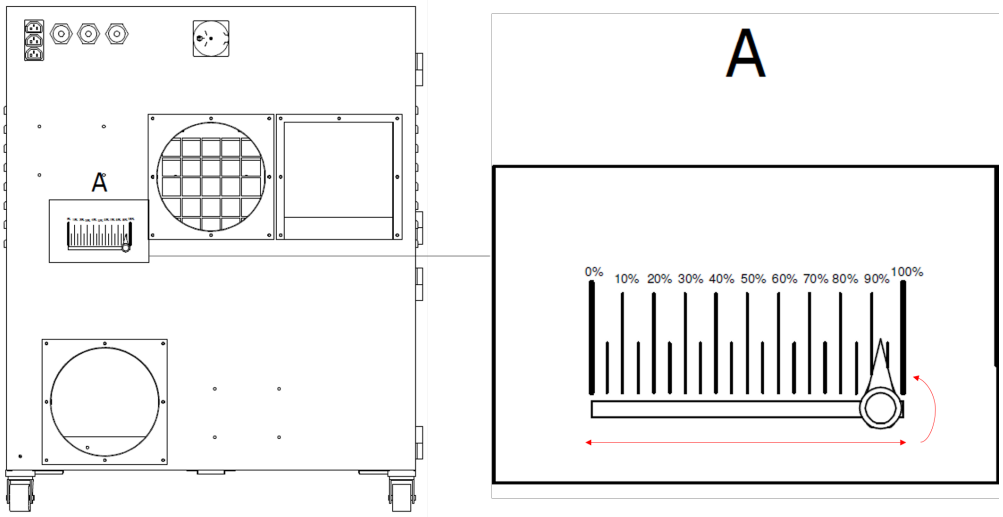
The best cleaning results will be achieved when the system is set to have a positive airflow into the CyClean-R head, on both the web entry and exit sides (minimising the risk of any recontamination).

To adjust the pressure, follow the steps below:

1. Adjust the vacuum pressure using the the '+' or '-' symbols on the user interface.



2. Once the desired vacuum pressure has been set, the positive airflow may need to be bled off. This is done by adjusting the bleed valve on the rear of the Air Handling Unit. To adjust, loosen the knurled screw and slide the valve. Once the bleed valve has been set, ensure the knurled screw is tightened.



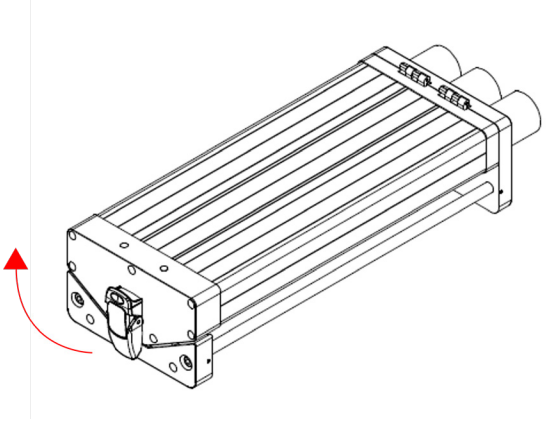
CAUTION

It is recommended that you monitor the system when it is first installed. If any problems are found, please stop using the CyClean-R system and contact Meech International or your local distributor.

Manual CyClean-R

Opening the Manual End-Feed CyClean-R

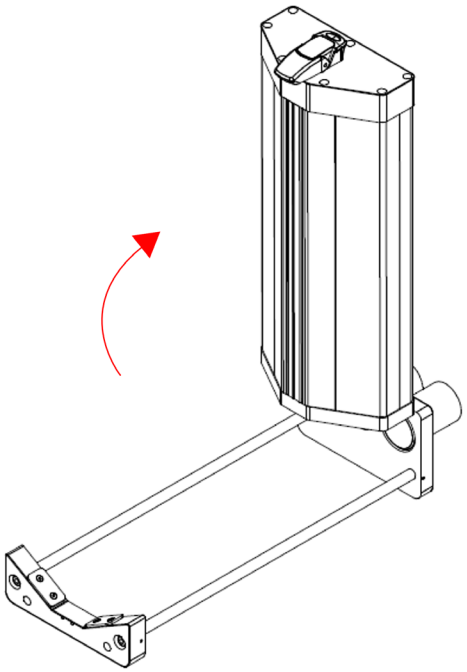
To open the CyClean-R manifold, pull up on the latch until it releases from the latch keep.



Once the latch is released, open the CyClean-R.

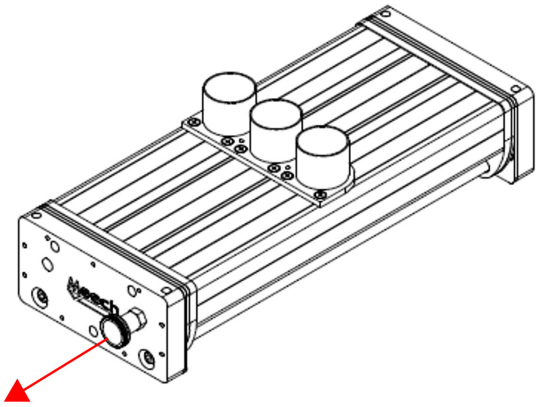
CAUTION

Ensure the CyClean-R manifold is always suppoted. Failure to do so can result in serious injury.



Opening the Manual TAB-Feed CyClean-R

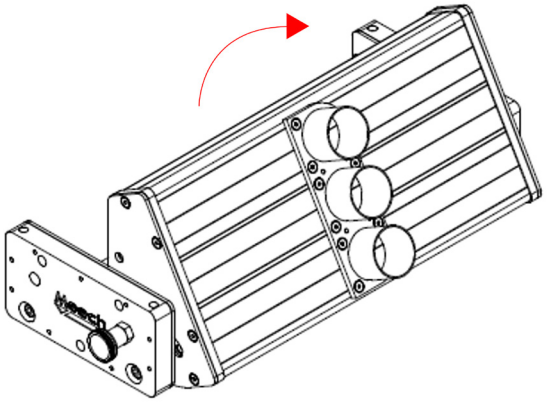
To open the CyClean-R manifold, pull out the latch handle.



Once the latch is released, rotate the CyClean-R towards the latch.

CAUTION

Ensure the CyClean-R manifold is always suppoted. Failure to do so can result in serious injury.



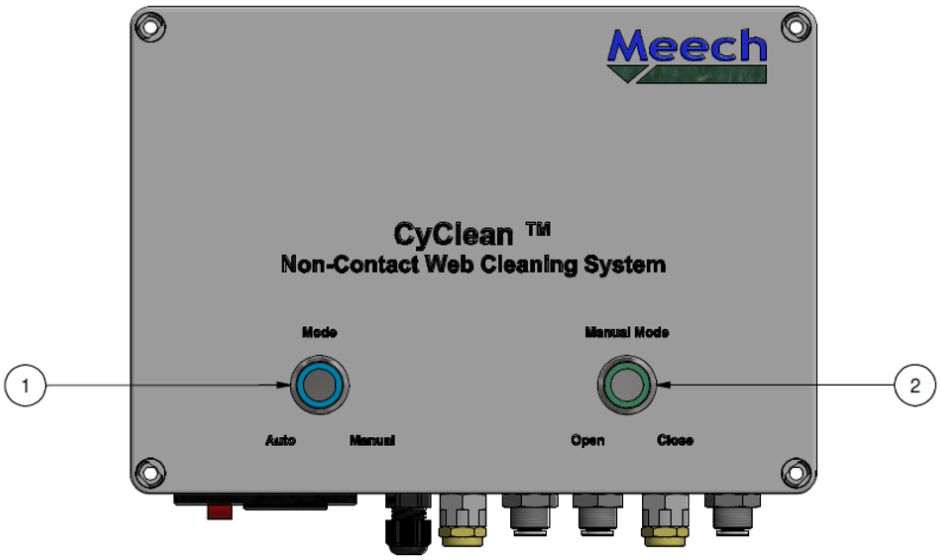
Operating Pneumatic Control Box

The pneumatic control box has two push buttons which are used to control the movement of the pneumatic cylinders on the CyClean-R manifold. Each button has a different function:

1. Auto Mode –When Auto Mode is activated, the button will be illuminated blue. The pneumatic control box can be connected to the users PLC, which can be used remotely to activate the pneumatic cylinders on the CyClean-R manifold. When in 'auto mode', the 'manual mode' button will be deactivated.
2. Manual Mode – When in Manual Mode, the CyClean-R pneumatics can be controlled by the use of the button. When the CyClean-R pneumatics are open the button will be illuminated green. In order to close the pneumatic cylinders, press the button again.

CAUTION

'Manual mode' button will not be effective when the control box is set to Auto Mode.

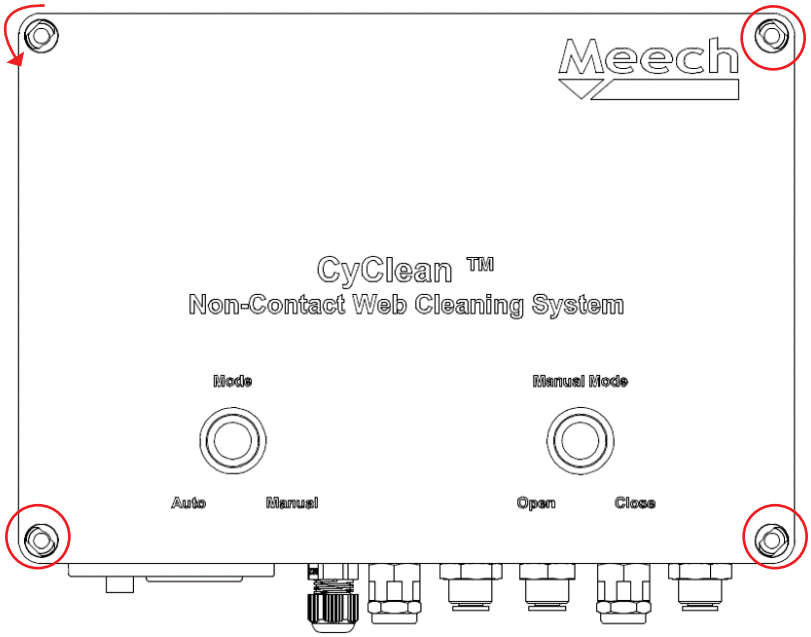


Adjusting Air Pressure

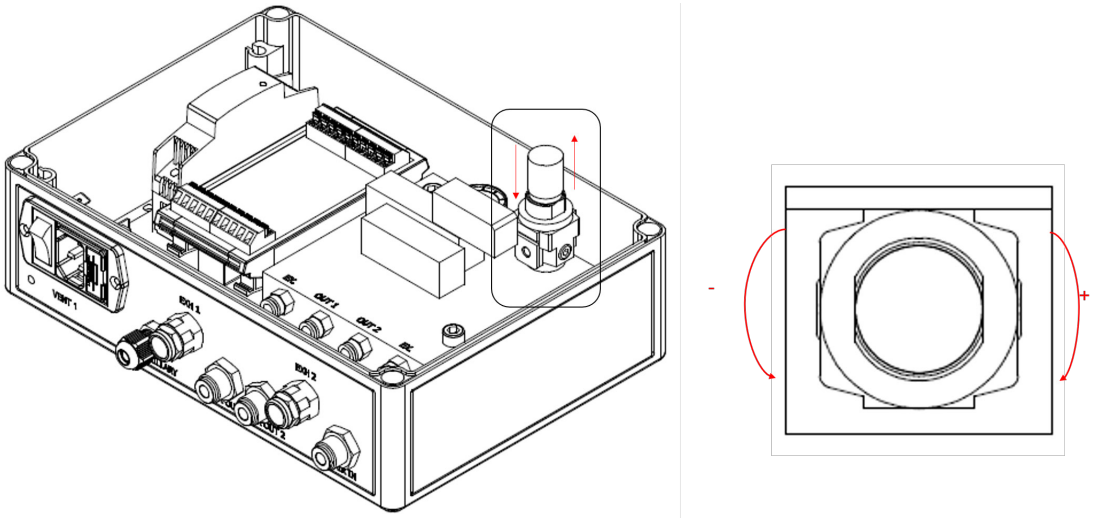
There is a pressure relief regulator valve inside the CyClean pneumatic control box. Adjusting this valve will retrict the air pressure that will be fed to the cylinders of the opening mechanism.

To adjust, see the following steps:

1. Remove the lid of pneumatic control box. A flat bladed screwdriver will be required to loosen the four screws.



2. Locate the pressure regulator. To adjust, pull the valve up and rotate clockwise to increase pressure and anti-clockwise to release pressure. Once pressure is set, push the valve down until it clicks. The pressure is now set.

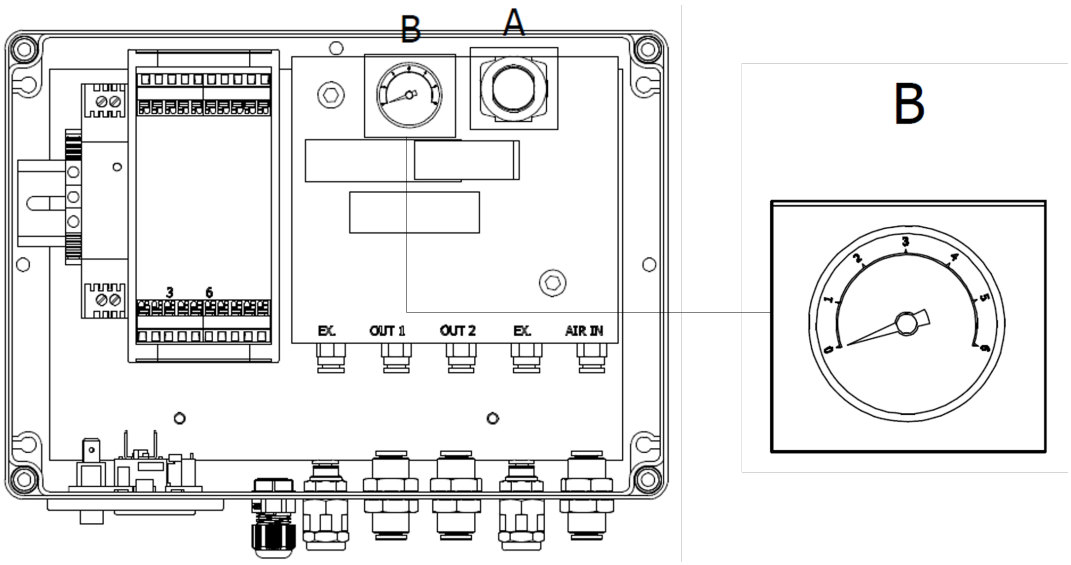


3. There is a pressure gauge next to the pressure regulator valve which displays the pressure set in Bar.

- Detail A is the pressure regulator
- Detail B is the pressure gauge

CAUTION

If you need to adjust the pressure relief valve, make sure that it is not adjusted to an excessive level. Excessive pressure may result in damage to your system.



INFORMATION

This valve will have been set at Meech before your system was supplied.

Adjustment of Head Opening / Closing Speed

The speed/force at which the CyClean-R head opens and closes can be independently adjusted. This will be adjusted by Meech before your system is supplied so that:

- Open = medium to fast operation
- Close = slow speed

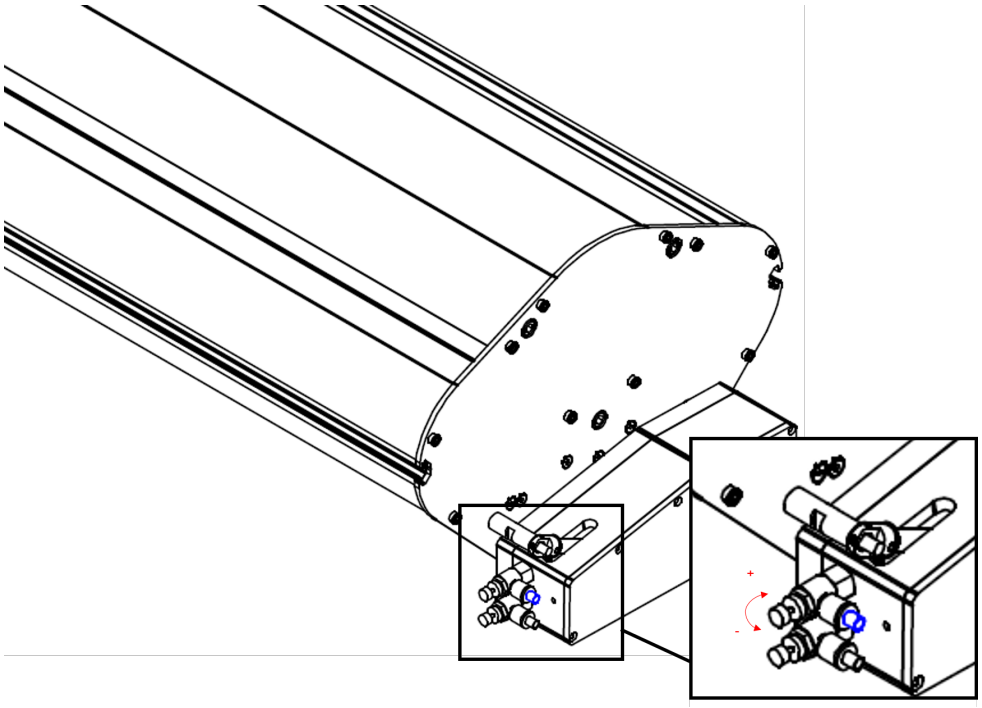
The speed can be adjusted using the 4 valves on the tubing to each of the cylinders.

IMPORTANT

When making any adjustment, it is very important that cylinders are adjusted at the same time to the same setting. Failure to do this may result in damage to your system and voiding the warranty.

CAUTION

It is recommended that the closing speed/force of the head is minimal, as this is a pinch point that could cause injury



Commissioning

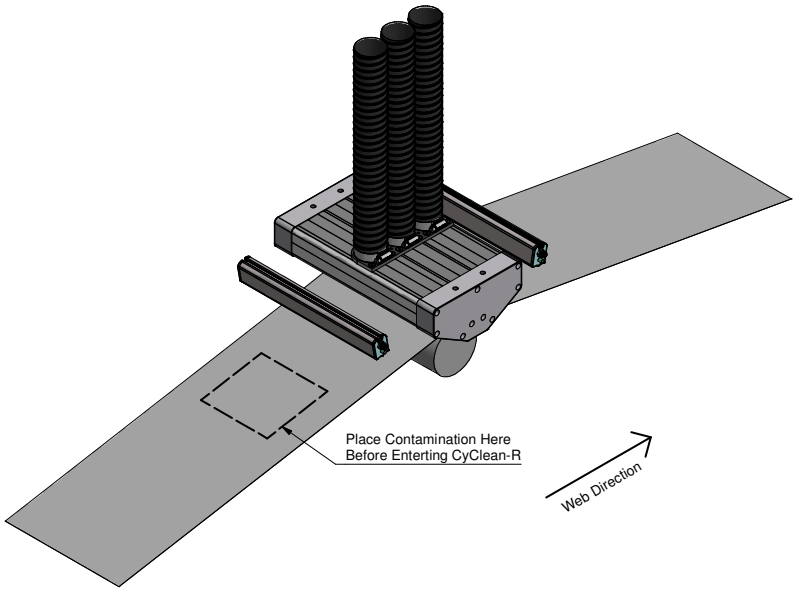
Initial Setup

The CyClean-R system is pre-set at Meech. This is a default setting that may need to be adjusted to achieve more efficient and effective cleaning results.

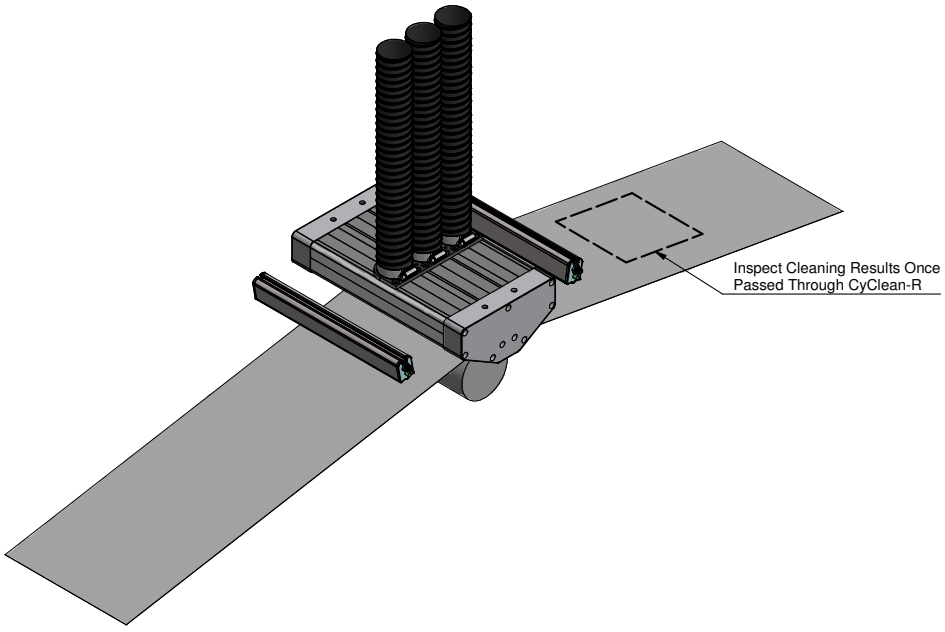
INFORMATION

Before using the CyClean-R for production, it is recommended an initial setup and test is carried out to achieve the optimum cleaning performance of the system.

When the CyClean-R has been set up, an initial test is recommended. This should be done by marking out a small section on the web and adding a small amount (approximately 10mg) of contamination, before passing the web through the CyClean-R manifold and 924IPS Bars.



Once the web has been passed through the CyClean-R and 924IPS Bars, check the marked area for remaining contamination. If contamination is still present, adjustments may need to be made to enhance the cleaning performance.



Troubleshooting

Problem	Cause	Solution
No blowing or vacuum pressure.	Loose duct connection.	Check all ducting connections are secure and that there is no damage.
	Duct layout.	Check the ducting layout to ensure there are no tight bends.
	AHU fault	Check power is connected to AHU and that all isolators to the line are active (if used). Consult AHU manual for full operating instructions.
	Ducting manifold panel is not properly connected	Visually check the duct manifold and feel for air flow. Re-fit removable panel.
No Ionisation	Various	See the Meech fault finding guide for the Meech Model A924 DC ionising bars, which can be downloaded directly from the Meech website at www.meech.com

If the problem being experienced is not listed above, or the remedy is unclear, please contact Meech International directly or your local Meech distributor.

Maintenance and Inspection

IMPORTANT

Always make safe the electrical and compressed air supplies before undertaking any maintenance work on the CyClean-R system.

Inspection

The system will perform without serious deterioration, giving many years of service, providing the following visual inspections are made weekly:

Head Unit

Check for any external damage and the alignment of the head unit. Wipe over all surfaces to remove any contamination. Inspect the cables from the ionising bars to the ionising power supplies are secure, free from damage and that they do not have any tight bends in them.

AHU Vacuum System

Listen for any sounds that are not ‘normal’ i.e., grinding or scraping.

Regularly check the filter bag is in good condition and not full.

Filtration

Check that the filter warning lights on the AHU are not lit when running. Check for any external damage to the filter media, i.e. rips. Check to make sure the filter bag is not blocked.

Ducting

Visually inspect the ductwork, look for any lose sections or holes. Check to make sure the ducting is not blocked.

Maintenance

IMPORTANT

Maintenance should only be completed on the CyClean-R system by those with suitable qualifications.

Ionisation Equipment

INFORMATION

For detailed instruction, please consult the equipment's operating manual.

Ionisers require periodic cleaning. During normal operation, dirt will build-up on the emitter pins and upon the body of the ioniser. This will cause a reduction in performance.

Typically, weekly cleaning is sufficient. However, equipment used in some heavy contamination areas, such as gravure printing or where plastic fumes are present, may require daily cleaning. Equally, in a Class 100 area, cleaning may only be required on a monthly basis.

Advanced systems with performance monitoring, e.g. 977CM and 904CM, will alert the operator to the need to clean the equipment before performance drops to an unacceptable level.

Before cleaning, ensure that the equipment is switched off.

Emitter pins can be cleaned very effectively with a brush. A dry toothbrush is ideal.

Ionising bars will need periodic wiping to clean grey deposits from the surface of the bar. A cloth moistened with a small amount of IPA or methylated spirits is recommended.

Should you have any additional questions regarding the maintenance of Meech equipment please contact Meech International directly or your local Meech distributor.

Fault Finding

Fault finding guides for the Meech Model A924 DC ionising bars can be downloaded directly from the Meech website at www.meech.com

For further fault-finding guidance please contact Meech International directly or your local Meech distributor.

AHU

Consult the AHU manual for full installation and operation instructions.

Spare Parts

It is recommended that only Meech spare parts are used in your CyClean-R system. The use of non-Meech parts may invalidate your warranty.

For details of spare parts, please contact Meech or your nearest Meech distributor.

Please quote the serial number of your CyClean-R system when ordering spare parts.

Technical Specification

Maximum Web Speed (Web Driven)	600mtrs/min, 1968ft/min
Maximum Web Width	Up to 9000mm, 354.33”
Duct Connections *	Fixed position 40mm & 100mm Ø OD
Static Control	2 x 924IPS DC Bars
Mounting	4x M8 x 16mm holes

Repairs & Warranty

The CyClean-R 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 system 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.

Meech International
2 Network Point
Range Road, Witney
OX29 0YN, UK

Tel: +44 (0)1993 706700
Fax: +44 (0)1993 776977
email: sales@meech.com

Meech Static Eliminators USA Inc
1298 Centerview Circle
Akron, OH 44321
USA

Tel: +1 330 564 2000 / 1 800 232 4210
Fax: +1 330 564 2005
email: info@meech.com

Meech Elektrostatik SA
Kaiserbaracke 166
B-4780 St.Vith
Belgium

Tel: +49 (0) 651 468637 97
+32 (0) 80 670 204
Fax: +32 (0) 80 862 821
email: mesa@meech.com

Meech CE
Gábor László utca 2
Budapest 1041
Hungary

Tel: +36 1 7977039
+36 30 2803334
email: ce@meech.com

Meech Static Eliminators (Shanghai) Co. Ltd
7G, 7F, LP Tower
#25 Xiangfeng Road
201103 Shanghai
China

Tel: +86 400 820 0102
Fax: +86 21 6405 7736
email: china@meech.com

Meech Shavotech
29/2, Kharadi
Off Pune-Nagar Road
On Old Kharadi Mundhwa Road
Pune : 411014 , Maharashtra
India

Tel: +91 (0)703 093 8211 / +91 (0)741 000 4817
Fax: +91 (080) 28395963
email: india@meech.com

Meech International (Singapore) Pte. Ltd.
7 Temasek Boulevard
12 - 07 Suntec Tower One
Singapore
038987

Tel: +65 65918859
email: singapore@meech.com