

Operating Manual

Air Handling Unit v3 & Air Handling Unit v3 Compact

For Web Cleaning, Air Knives and Air Rinsing Systems

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Safety Instructions

Electrical Safety

The Air Handling Unit is designed to meet the safety requirements of the Low Voltage Directive 2006/95/EC (previously numbered 73/23/EEC).

WARNING

1. The unit is designed for 3 Phase + neutral (see points 2 and 3 below) + ground. Variable voltage between 200V and 440V (440V = absolute maximum including voltage fluctuations).
2. **At voltages higher than 235V 3Phase (Phase – Phase) the unit MUST be internally wired using the star connection, and a Neutral supply MUST be connected to the AHUv3. Failure to do so will damage the pumps beyond repair and will invalidate warranty.**
3. **At voltages below 235V, neutral is optional provided the internal delta connection is used.**
4. The mains power must not be turned on more frequently than once a minute, as this will damage the internal blowers beyond repair. When interlocking with the line, the unit must not be interlocked by supplying power to the AHUv3. For interlocking the remote Start/Stop Interlock cable must be used.
5. See wiring diagrams on pages 20-27 for further details.

IMPORTANT

To reduce the risk of fire, electric shock or injury:

1. All electrical work should only be completed by qualified electricians.
2. Always isolate the system from the mains power supply before removing the pump/motor panel.
3. Use only as described in the manual.
4. Connect to a properly grounded outlet.

CAUTION

When working with the pump/motor housing open, live, 230/115 Volt components are accessible. Make sure that rules and regulations for work on live components are always observed.

Dangers to Eyes, Breathing and Skin

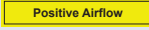
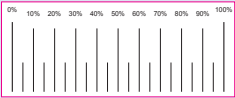
Once used, the filters in the Air Handling Unit contain a mixture of particulates, some of which may be sub micron size. When the used filters are moved it may agitate some of this particulate, which could get into the breathing zone and eyes of the operative.

Additionally, depending on the materials being extracted, the particulate may be an irritant to the skin.

CAUTION

When changing used filters always wear a mask, safety glasses and gloves.

Warning and Information Labels

Label/Symbol	Position
	Rear panel of unit, next to cables.
	Both sides of unit
	Rear of unit
	Top Front door top right corner
	Rear panel of unit
	Rear panel of unit
	Rear panel of unit, near Positive Pressure Bleed Valve

Introduction



Air Handling Unit Overview

The Air Handling Unit (AHUv3) is supplied with the following Meech systems:

- CyClean-R™ Non-Contact Web Cleaning System
- CyClean™ Non-Contact Web Cleaning System
- VacClean™ Contact Web Cleaning System
- RoClean-C™ Non-Contact Web Cleaning System
- JetStream™ - Ionising and Non-Ionising Air Knife Systems
- IonRinse™ Ionised Air Rinsing System

The AHUv3 provides the positive pressure and vacuum pressure airflows and houses the system filters. There are 4 models available, an 1 Pump-Mini(Manual is a separate document), a 2 pump - Compact unit, a 3 pump unit and a 6 pump unit. For applications where a higher volume capacity is required the 6 pump unit can be used.

AHUv3 Main Components

The AHUv3 is of robust design and requires minimal maintenance. The main components are shown below:

1. LCD Screen
2. IEC Socket Output
3. Auxiliary Cable Exit Point
4. Signal/Interface Cable
5. Mains Power In Cable
6. On/Off Isolator Switch
7. Cooling Vents
8. Positive Pressure Duct Connection Spigot
9. Exhausted Coolant Air Outlet Spigot/Baffle
10. Positive Pressure Bleed Valve
11. Vacuum Duct Connection Spigot

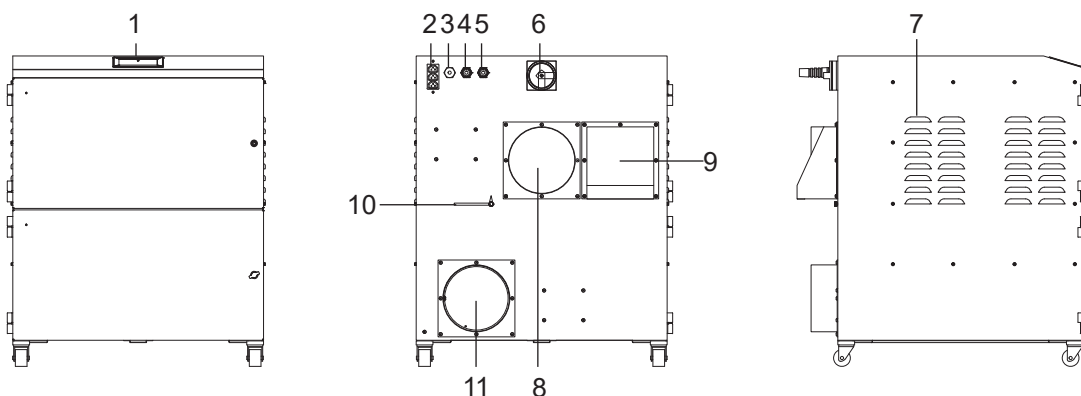


fig. 1

AHUv3 Installation Procedure

General Positioning

1. Move the AHUv3 to the location where it is going to be installed and remove it from its packaging. The AHUv3 should be installed in a well ventilated room.

CAUTION

Due to the weight involved the AHUv3 should only be lifted using suitable lifting equipment, and with regard to appropriate safety precautions. (See page 17 for product weight details).

2. Ensure that a 0.5 metre (1.64ft) space is available around any louvered areas of the AHUv3 to ensure adequate air flow. Lock the two braked castors.

CAUTION

Do not block or cover the cooling vents on the AHUv3, as this severely restricts airflow and may cause damage.

CAUTION

Under no circumstances should the exhaust outlet/s be covered, as this will restrict the airflow and cause overheating.

3. Check filters are located in their correct position and carefully close the AHUv3 door.
4. Depending on your system, make the required 150mm (6") or 200mm (8") ducting connections on the rear of the AHUv3.

Remote Start/Stop Interlock

1. The remote Start/Stop interlock function can be used when the AHUv3 is set to "Remote" mode on the touchscreen. It can then be automatically switched on/off by a signal from the line - closed contact will start system.



fig. 2

WARNING

The unit must not be interlocked by supplying power to the AHUv3. For interlocking the remote Start/Stop Interlock cable must be used.

Filter Condition Signal

1. A filter condition volt free contact is provided, i.e. an open circuit will exist between the green and white wires when the filter condition is blocked.



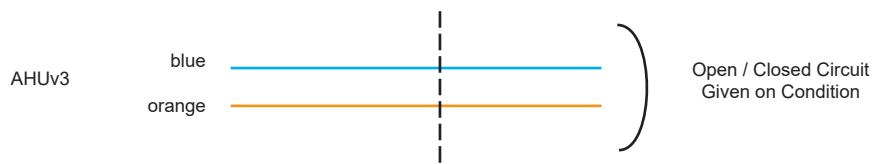
The signal can be connected to a control panel, beacon, siren or other warning device.

fig. 3

Note: Opened circuit condition of this circuit will not directly stop the AHUv3 fans.

System Running Signal

1. A system running volt free contact is provided, i.e. a closed circuit will exist between the blue and orange wires when the system is running.



The signal can be connected to a control panel, beacon, siren or other warning device.

fig. 4

CAUTION

This feature should only be used on control voltage circuits.

Electrical Supply Connection

1. Connect the power cable to an isolated electrical supply (see pages 19 and 24 for details). The mains socket outlet should be installed near the equipment and be easily accessible. The cable run to the AHUv3 should be arranged so as not to create a trip hazard.

CAUTION

Before plugging the AHUv3 in, check that the mains input at the isolated supply is the same as the voltage supply detail on the model details label that is located on the side of the AHUv3.

WARNING

1. The unit is designed for 3 Phase + neutral (see points 2 and 3 below) + ground. Variable voltage between 200V and 440V (440V = absolute maximum including voltage fluctuations).
2. **At voltages higher than 235V 3Phase (Phase – Phase) the unit MUST be internally wired using the star connection, and a Neutral supply MUST be connected to the AHUv3. Failure to do so will damage the pumps beyond repair and will invalidate warranty.**
3. **At voltages below 235V, neutral is optional provided the internal delta connection is used.**
4. The mains power must not be turned on more frequently than once a minute, as this will damage the internal blowers beyond repair. When interlocking with the line, the unit must not be interlocked by supplying power to the AHUv3. For interlocking the remote Start/Stop Interlock cable must be used.
5. See wiring diagrams on pages 20-27 for further details.

General Safety Requirements

1. The AHUv3 weighs 95kg or 105kg depending on the number of pumps, and should only be lifted with suitable lifting equipment. The Compact AHUv3 weighs 70kg and should only be lifted with suitable lifting equipment.
2. If the AHUv3 is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.

WARNING - Mains Voltage

Dangerous voltages exist in the AHUv3. Ensure mains supply is isolated before opening the unit and that all covers are refitted before operating.

The AHUv3 is now ready for use.

Operation

The Control Interface



fig. 6

Switching On

The AHUv3 is switched on by first rotating the isolator switch located on the back of the unit in a clockwise direction (fig. 6), and then pressing the “Start” button located on the front touchscreen.

Automatic Vacuum Pressure Control

The AHUv3 features automatic vacuum pressure control. This feature allows the systems to be set up with the required level of vacuum pressure for the application. As the filtration in the AHUv3 becomes progressively blocked, it will automatically increase the fan speed to maintain the preset vacuum pressure level.

Screen operation

The AHUv3 is operated by a touch screen interface. The touchscreen has one main home screen that can be used to set and control the system, and there is also access to further information screens that can be accessed without a password.

See figure 1 below for the Home screen.

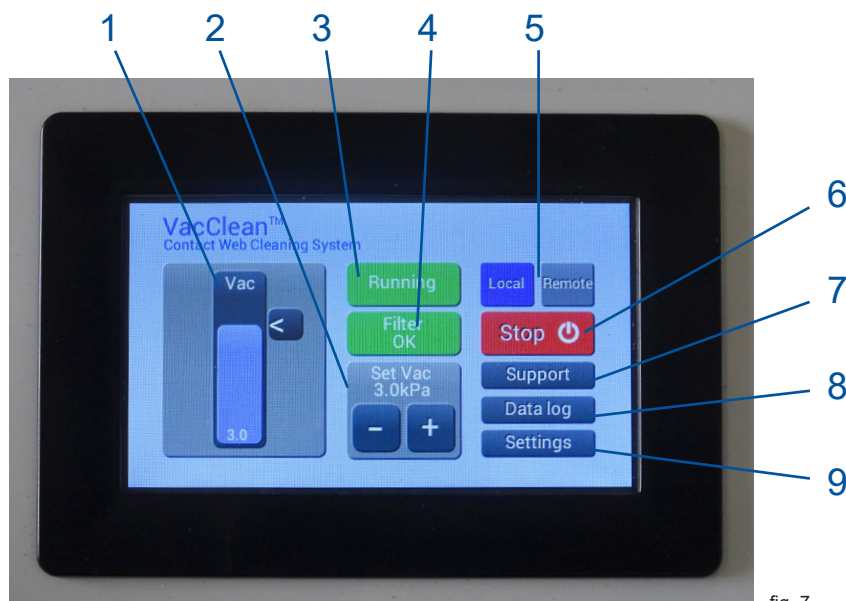


fig. 7

Shown on the screen are the following:

1. Vacuum/Pressure Level indicator

The Vacuum/Pressure Level indicator shows the value achieved by the AHUv3.

The arrow points to the ‘target’ pressure level and the figure and graph represent the actual Vacuum/Pressure achieved.

For systems where both Vacuum and Positive pressure are connected two graphs will be present, and the arrow indicates which one is being set and monitored by the Vacuum/Pressure 'Set' buttons (2)

2. Vacuum/Pressure target set pressure value and setting buttons

The '+' and '-' buttons are used to set the Vacuum/Pressure level. The target value is shown in kPa just above the buttons. This is also represented by the arrow shown in the Vacuum/Pressure level indicator (1).

3. System status indicator

The System status indicator displays if the system is running or stopped. This status can also be accessed via the signal cable – see page 9 for details.

4. Filter status indicator

The filter status indicator displays the filter status. When the filter is clean the filter status will be green and display 'Filter OK', when the filter is dirty (but not blocked) the status will turn orange and display 'Filter Dirty'; and when the filter is blocked and will need cleaning or replacing the filter status will turn red and display 'Filter Blocked'. When the filter is blocked this also triggers the filter blocked signal in the signal cable – see page 9 for details.

5. Local/Remote toggle buttons

The local/remote toggle buttons are used to determine if the system is to be turned on/off using the start/stop button on the screen or if it is to be controlled remotely with the line. When in remote mode the unit will start and stop automatically with the line and the start/stop button will become inactive.

6. Start/Stop button

The Start/Stop button is used to start and stop the AHUv3. When controlled remotely from the line these buttons become inactive and can only be used when 'Local' mode is selected.

7. Support button

Contact information can be accessed using the 'Support' button.

8. Data log button

Total hours run and Filter information can be accessed using the 'Data Log' button

9. Settings button

Additional settings can be accessed using the 'Settings' button. This is for use by a Meech Engineer only and is password protected.

IMPORTANT

For further information on the individual system setup, see CyClean, ShearClean, VacClean, JetStream and IonRinse specific settings on the following pages:

- CyClean™ - p.29
- CyClean-R™- p.33
- VacClean™ - p.34
- RoClean-C™ - p.35
- JetStream™ - p.37
- IonRinse™ -p.38

- The settings procedure should be completed with the system in its installed position. All ducting should be connected to the AHUv3 and to the web cleaning, or air rinsing head.

On delivery the AHUv3 will be set up to achieve a factory set vacuum or positive pressure. Refer to the web cleaning system manual for details of the factory setting tests.

Filtration

Filtration Levels

The AHUv3 is supplied as standard with the following filter:

- F8 Grade Bag Filter
Efficiency of 90-95% at 0.4µ or 100% at 1µ
Dual layer filter of approximately 2m² surface area

An upgraded filter of the following specification may also be installed:

- H14 Grade HEPA Filter
Efficiency of 99.997% of 0.3µ
110mm deep with approximately 7.5m² surface area

The Compact AHUv3 is supplied as standard with the following filter:

- F8 Grade Bag Filter
Efficiency of 90-95% at 0.4µ or 100% at 1µ
Dual layer filter of approximately 0.7m² surface area

An upgraded filter of the following specification may also be installed:

- H14 Grade HEPA Filter
Efficiency of 99.997% of 0.3µ
110mm deep with approximately 4.5m² surface area

Filter Capacity Increase

The AHUv3 can be supplied with an optional inline filter unit. The inline filter unit houses a larger F8 grade filter bag with a surface area of approximately 7.4m². The inline filter is installed as a pre filter to the AHUv3.

Replacing Filters

The filters need attention when the filter dirty status is displayed.

To prevent overheating the unit should not be run for a prolonged period with the filter dirty status displayed.

A log of filter changes should be maintained by the user.

It is recommended that a spare set of filters are kept on site to minimise downtime of the system. Part numbers for the filters can be found on page 16 of this manual.

CAUTION

When changing filters appropriate safety equipment should be used.

Bag Filter Replacement

To change the bag filter:

1. Isolate the electrical supply to the AHUv3.
2. Turn the catches on the front of the AHUv3 and open the door. The bag filter is located in the lower section of the AHUv3 (fig. 8).



fig.8

3. Slide the bag filter out of the AHUv3. Remove the bag from the retaining tray by unhooking the metal hooks and removing the 2 locating screws (fig. 9).



fig.9

4. Replace with a new bag ensuring the hooks and lugs are fitted. Slide the filter tray back into position.
5. Ensure the bag is pushed to the very back of the AHUv3 and has located correctly.
6. Close the door and fasten the latches.
7. Reconnect the electrical supply and start the system.

HEPA Filter Replacement

The HEPA filter is an optional upgrade filter. If fitted it can be changed by following these steps:

1. Isolate the electrical supply to the AHUv3.
2. Undo the catches on the front of the AHUv3 and open door (fig. 10).



fig.10

3. The HEPA filter is the higher of the two filters.
4. The HEPA filter will slide in/out manually (fig. 11).



fig.11

5. The filter can now be removed from the AHUv3.
6. Slide the replacement filter back into position on the filter guide runners.
7. Close the door and fasten the latches.
8. Reconnect the electrical supply and start the system.

Filter Disposal

All filters are manufactured from non-toxic materials.

Whilst the bag filter is washable, cleaning used filters is not recommended.

Disposal of the used filters depends on the material deposited on them, and appropriate waste disposal guidelines should be followed.

Maintenance

Maintenance UK

It is a legal requirement, under regulation 9 of the COSHH regulations, that all local exhaust ventilation systems are visually inspected on a weekly basis where possible, and undergo a thorough inspection and test on an annual basis.

COSHH requires the annual inspection and testing to be carried out by a competent person with a specific documentation of the results held in a log book.

Maintenance General

User maintenance is limited to cleaning the AHUv3 and replacing the filters with new. Only trained maintenance technicians are authorised to carry out component testing and replacement. Unauthorised work or the use of unauthorised replacement filters may result in a potentially dangerous situation and/or damage to the AHUv3, and will invalidate the manufacturers warranty.

Cleaning the AHUv3

Do not use abrasive cleaning product as this will damage the finish. The AHUv3 should be cleaned with a proprietary stainless steel cleaner, following the manufacturer's instructions.

The cooling inlets and outlet should be cleaned at least quarterly to prevent build up of dust and overheating of unit.

Consumable and Spare Parts

AHUv3 Filters

Description	Mini AHUv3 (1 Pump)	Compact AHUv3 (2 Pumps)	3 & 6 Pump AHUv3
F8 Grade Bag Filter	ASYS-MBM-01	ASYS-CBM-01	ASYS-SBM-01
H14 Grade HEPA Filter	-	ASYS-CHW-01	ASYS-SHW-01

AHUv3 Side Filters

Description	Mini AHUv3 (1 Pump)	Compact AHUv3 (2 Pumps)	3 & 6 Pump AHUv3
Kit comprising stainless steel housings and panel filters for Compact AHUv3	-	A-AHUv3-SFKCOMP-01	-
Kit comprising two 5-micron panel filters for Compact AHUv3	-	A-AHUv3-SIDEFILTCOMP	-
Kit comprising stainless steel housing and panel filters for 3 and 6 pump AHUv3	-	-	A-AHUv3-SFK-01
Kit comprising two 5-micron panel filters for 3 and 6 pump AHUv3	-	-	A-AHUv3-SIDEFILTERS

AHUV3 - Loom Replacement

Description	Product Code
Loom Assembly - 1 Pump AHUV3	A-AHUV3-LOOM-1PUMP
Loom Assembly - 2 Pump AHUV3	A-AHUV3-LOOM-2PUMP
Loom Assembly - 3 Pump AHUV3	A-AHUV3-LOOM-3PUMP
Loom Assembly - 6 Pump AHUV3	A-AHUV3-LOOM-6PUMP
AHUV3 Additional Protection PCB	A-AHUV3-PROTECT-PCB

AHUV3 - Screen Replacement

Description	Product Code
Programed Control System inc. Touchscreen	A-AHUV3CONTROLSYS

AHUV3 Compact, AHUV3 and Secondary AHUV3 System Specification

Compact -2 Pumps			AHUv3 -3 Pumps		AHUv3 -6 Pumps	
Output:	2.2kW		3.3kW		6.6kW	
Capacity:	733 m³/hr		1100 m³/hr		2200 m³/hr	
Weight:	70kg		95kg		105kg	
Noise level:	69dBa		72dBa		78dBa	
Full Load Current:	Neutral	Line	Neutral	Line	Neutral	Line
FLC @ 400V:	11.3A	8.1A	11.5A	6.9A	23A	13.8A
FLC @ 200V:	N/A	17A	N/A	12.5A	N/A	25A
Electrical supply:	200- 440V 3ph 50/60Hz					
Size (mm):	H925 x D450 x W450		H925 x D750 x W750			
Exhauster:	Turbine Fan					
Filters:	Bag HEPA		Efficiency F8 Efficiency H14		90-95% @ 0.4μ 99.997% @ 0.3μ	
Stainless steel:	Grade 430					
Environmental Operating Range:						
Temperature:	+5°C to +40°C					
Humidity:	Max 80 % RH up to 31°C To Max 50% RH at 40°C					
Altitude:	Below 2000m					
Pollution Degree:	2					

WARNING

1. The unit is designed for 3 Phase + neutral (see points 2 and 3 below) + ground. Variable voltage between 200V and 440V (440V = absolute maximum including voltage fluctuations).
2. **At voltages higher than 235V 3Phase (Phase – Phase) the unit MUST be internally wired using the star connection, and a Neutral supply MUST be connected to the AHUV3. Failure to do so will damage the pumps beyond repair and will invalidate warranty.**
3. **At voltages below 235V, neutral is optional provided the internal delta connection is used.**
4. The mains power must not be turned on more frequently than once a minute, as this will damage the internal blowers beyond repair. When interlocking with the line, the unit must not be interlocked by supplying power to the AHUV3. For interlocking the remote Start/Stop Interlock cable must be used.
5. See wiring diagrams on pages 20-27 for further details.

AHUV3 Voltage Range

The AHUV3 is designed for use with a range of supply voltages.

Voltages higher than 235V 3-Phase (Phase-Phase)

For installations where the 3-Phase supply voltage is higher than 235V (phase to phase) the AHUV3 must be run with a neutral supply to ensure that the blowers do not fail beyond repair. If a neutral supply is not available an additional transformer will be required – see pages 19-21 for details.

For this voltage the wiring inside the AHUV3 will be pre-set by Meech in 'Star' configuration which ensures that the neutral connection is connected to the pumps internally. See pages 19-21 for diagram showing the 'Star' configuration AHUV3 internal wiring.

Voltages lower than 235V 3-Phase (Phase-Phase)

For installations where the 3-Phase supply voltage is below 235V (phase to phase) a neutral supply is optional providing that the AHUV3 has been pre-set by Meech in 'Delta' configuration.

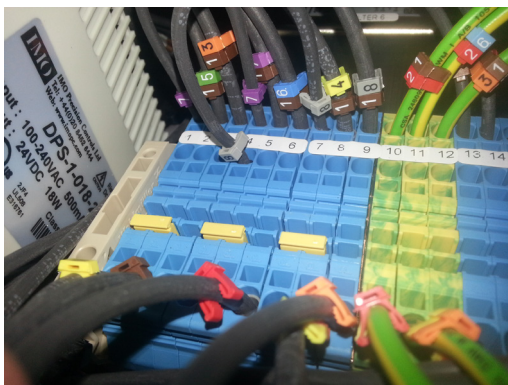
For this voltage the wiring inside the AHUV3 will be pre-set by Meech in 'Delta' configuration which enables the AHUV3 to run without a neutral. See pages 22-24 for diagram showing the 'Delta' configuration AHUV3 internal wiring.

It is critical that the AHUV3 is run with the correct wiring configuration to match the supply voltage – if not this will result in the pumps failing beyond repair.

AHUV3 Voltage Setup Checks

To check the wiring configuration prior to turning on the AHUV3, the following 2 checks can be made to ensure the AHUV3 supplied matches the supply voltage.

1. The correct corresponding wiring diagram is included inside the electrical door of the AHUV3 and states which wiring it is configured to.
2. Physically check the position of the yellow, 2-way jumpers located in the terminal blocks match that in the corresponding wiring diagram. See figure 12 below showing the location of the terminals.



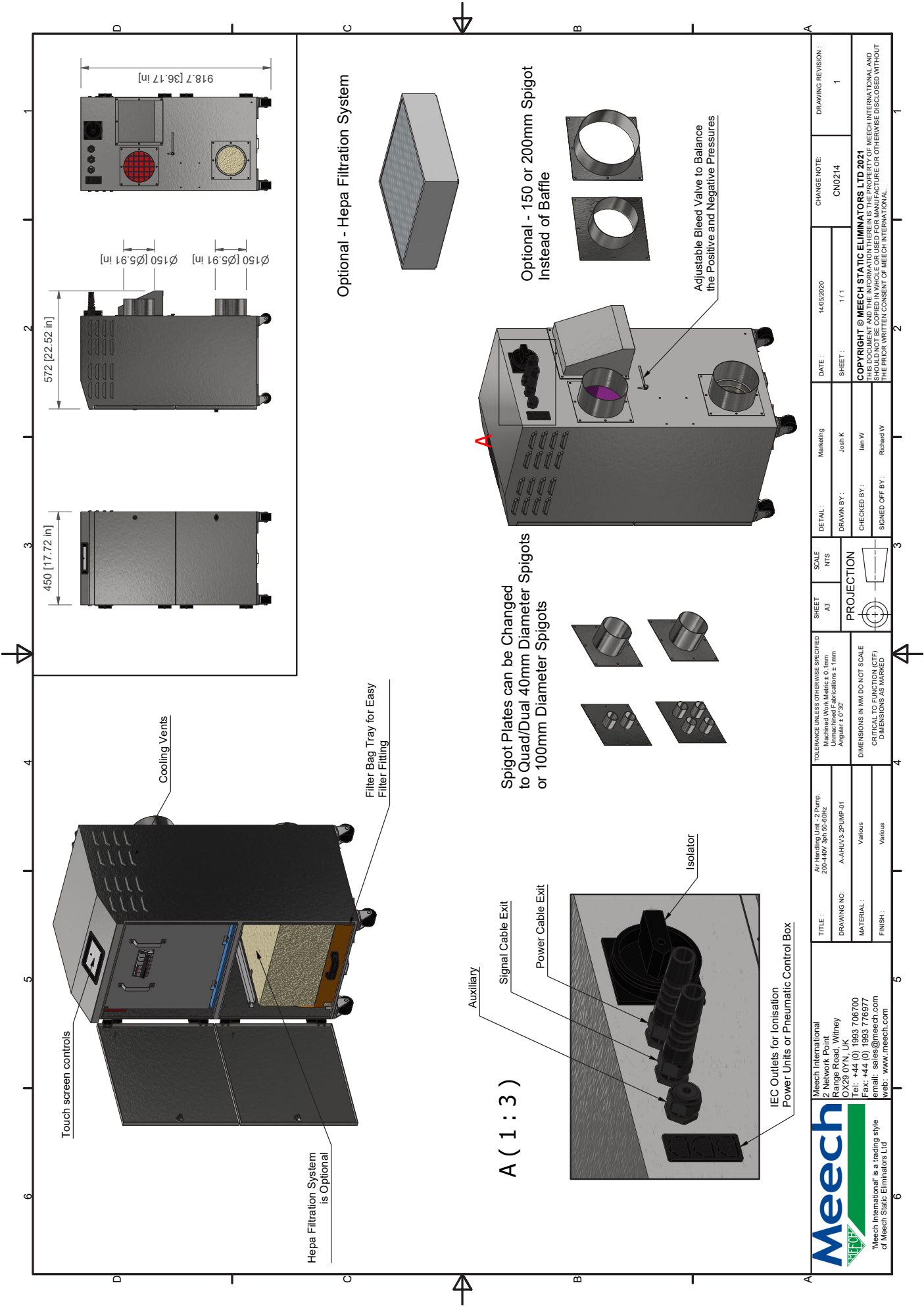
Star Configuration: Jumpers across 1-2; 4-5; 7-8



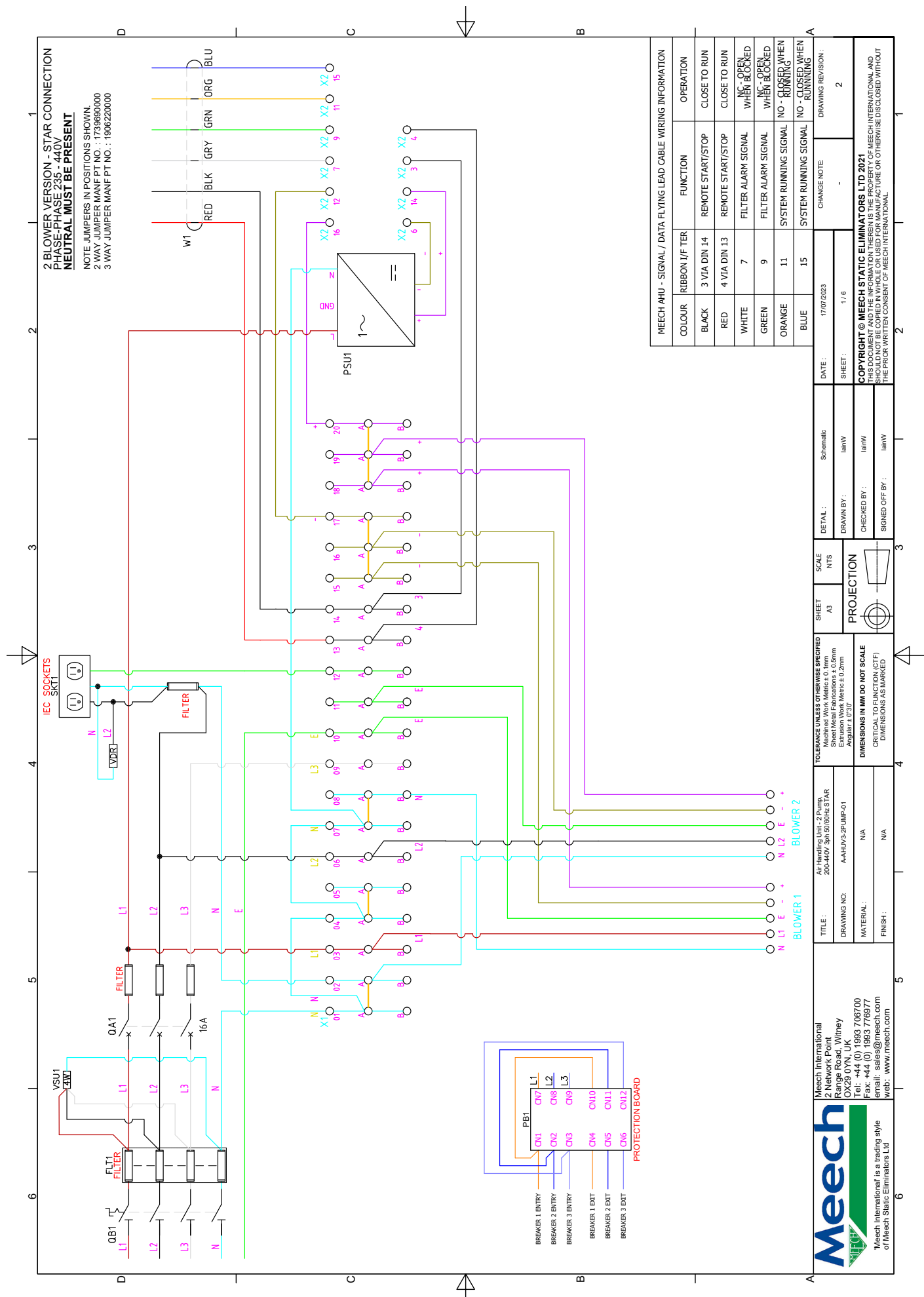
Delta Configuration: Jumpers across 2-3; 5-6; 8-9

fig. 12

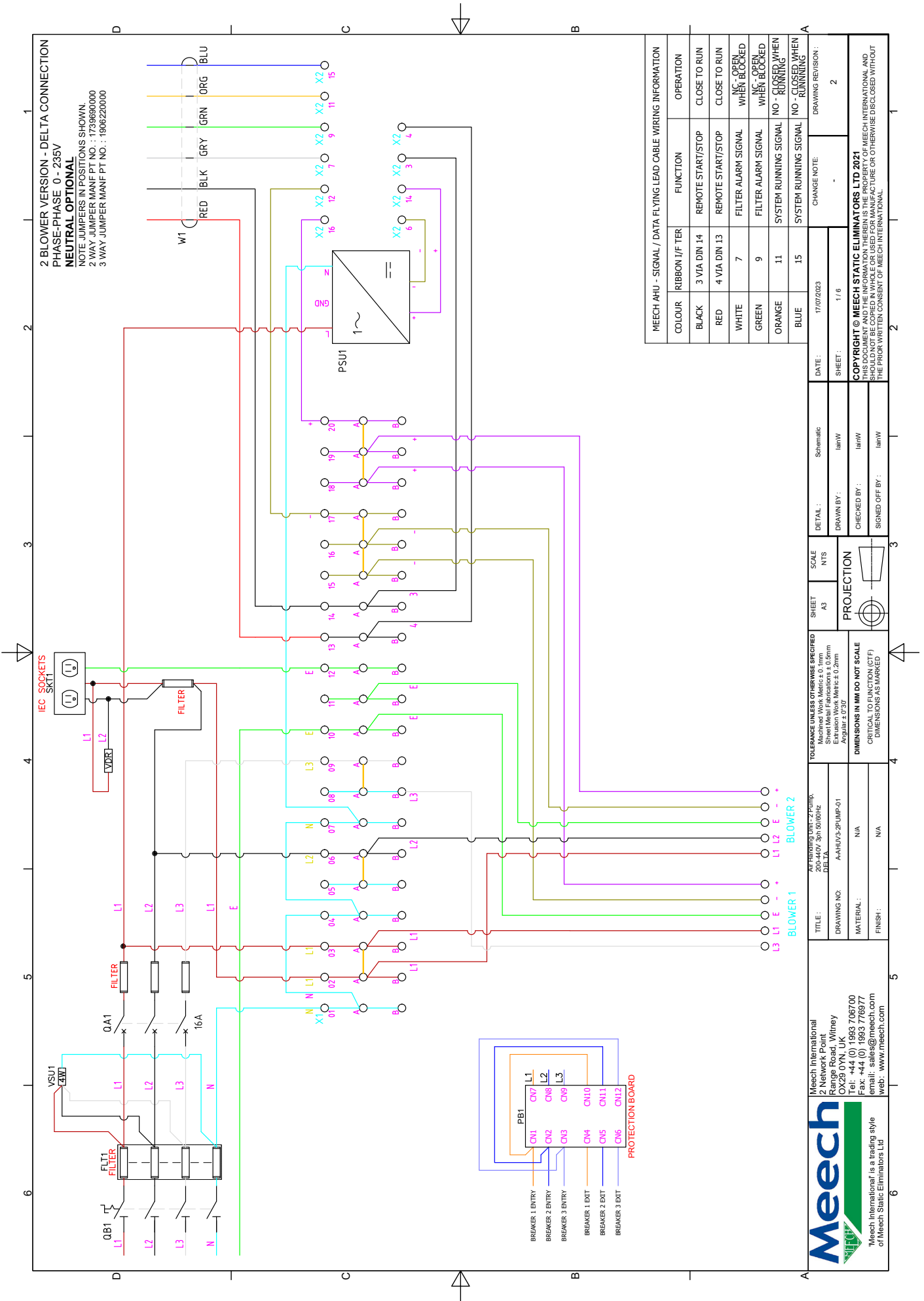
A-AHUV3-2PUMP-01 - General Arrangement Drawing



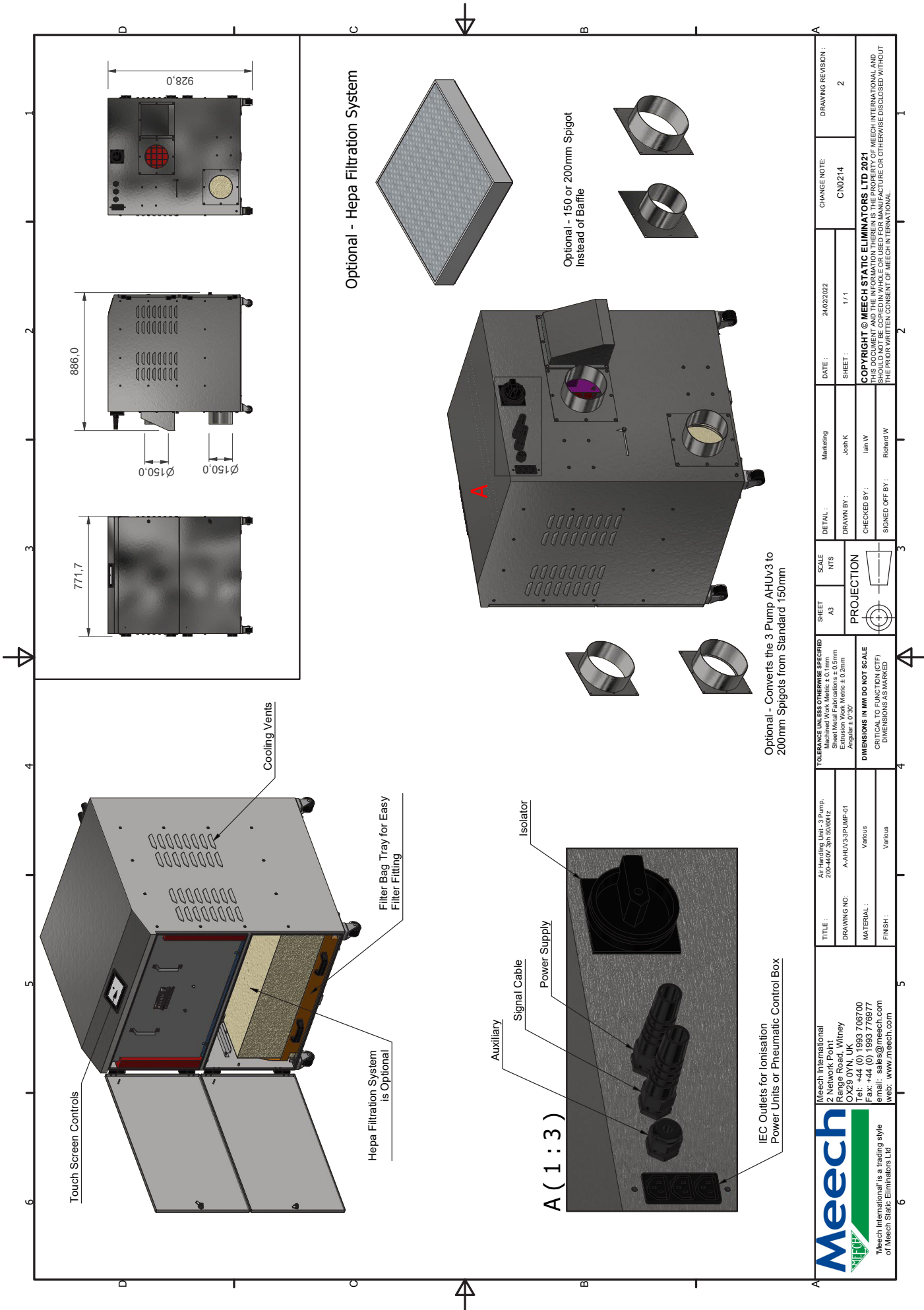
A-AHUV3-2PUMP-01 - STAR - Wiring Diagram



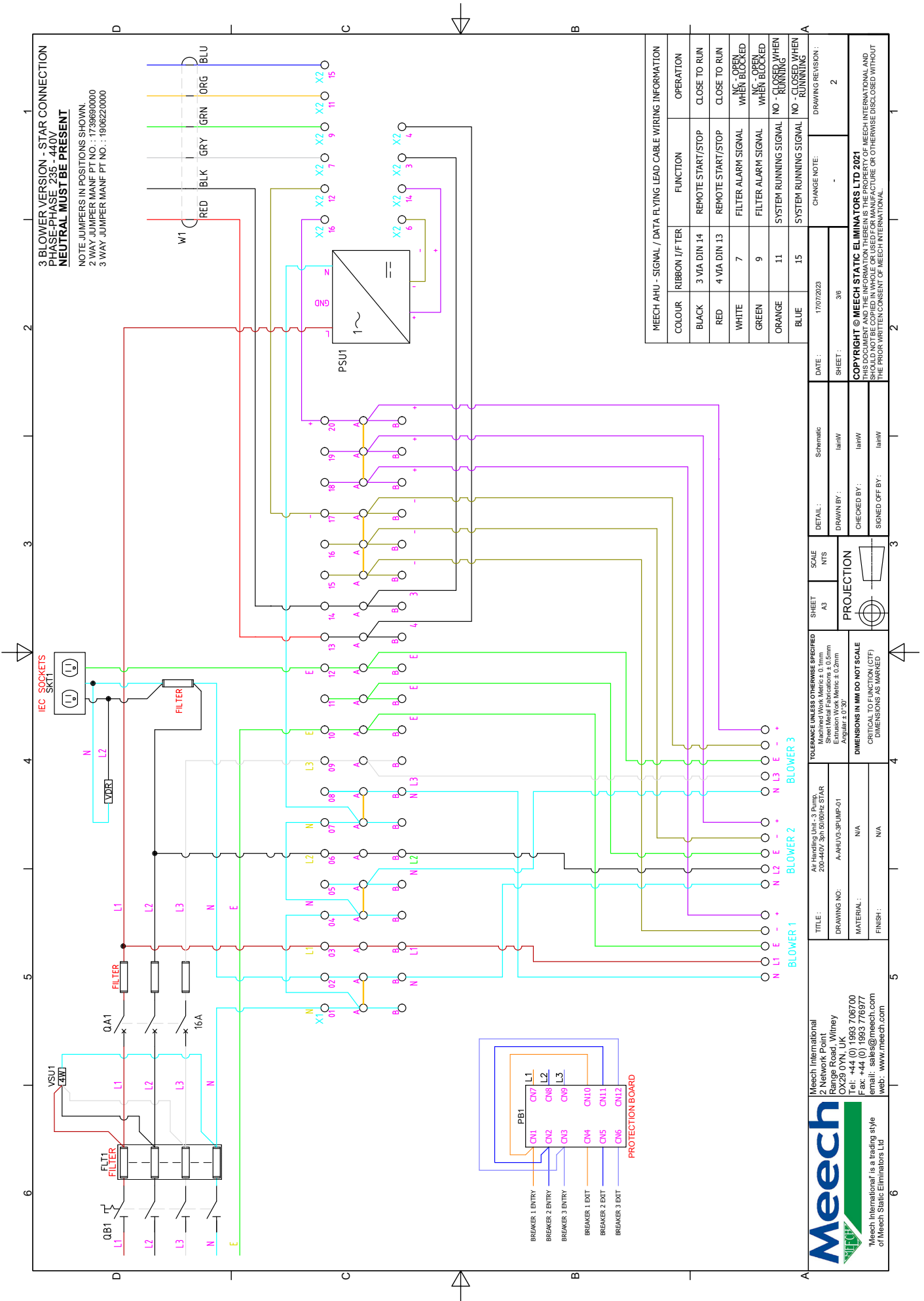
A-AHUV3-2PUMP-01 - DELTA - Wiring Diagram



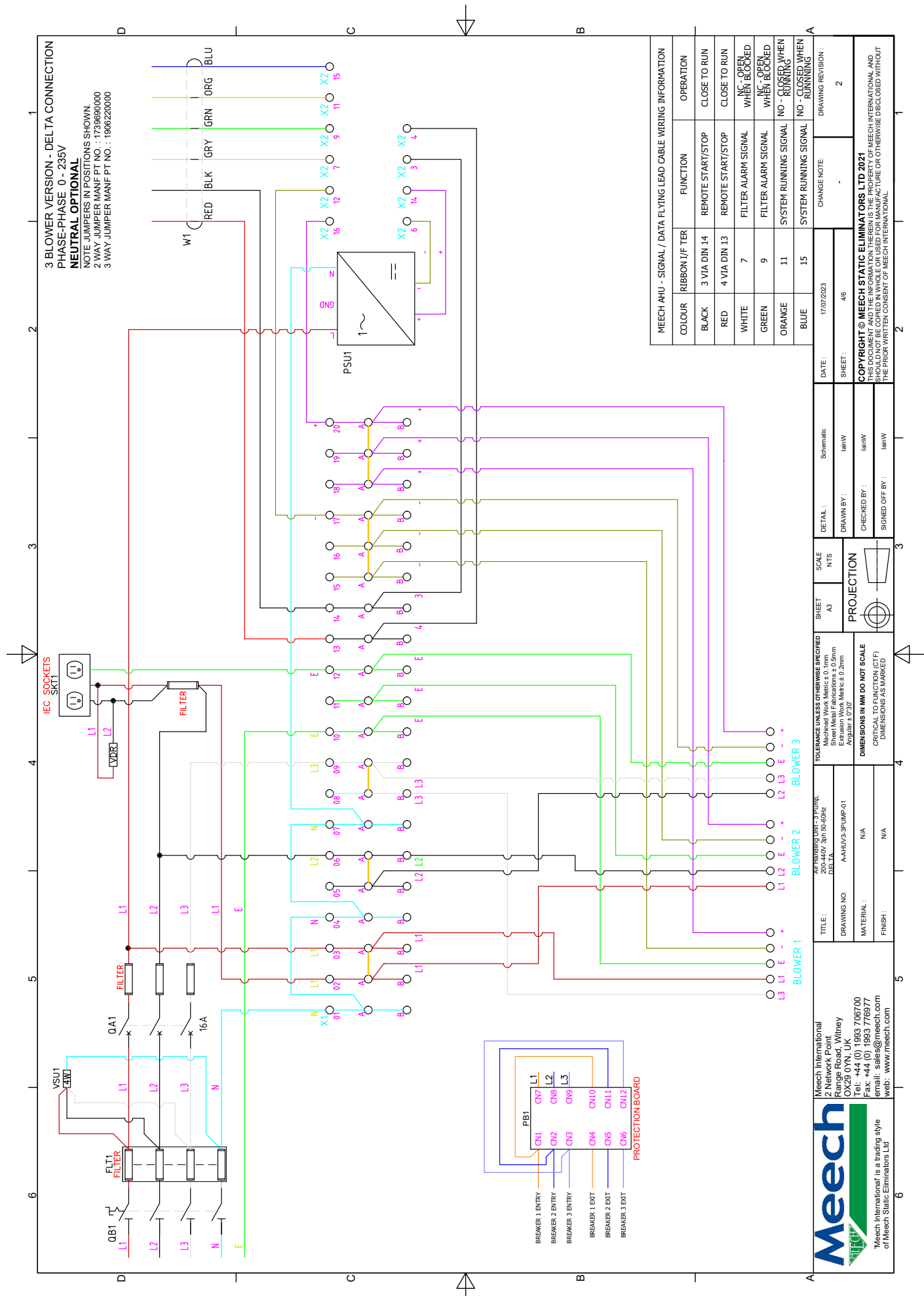
A-AHUV3-3PUMP-01 - General Arrangement Drawing



A-AHUV3-3PUMP-01 - STAR - Wiring Diagram



A-AHUV3-3PUMP-01 - DELTA - Wiring Diagram



Technical Drawing: Meech AHUV3 Air Handling Unit

Front View (A): Shows the unit's dimensions: 750 [29.53 in] high, 872 [34.33 in] wide, and 928 [36.54 in] deep. It features 'Touch Screen Controls' and 'Cooling Vents'.

Side View (B): Shows the internal components, including the 'Hepa Filtration System' and 'Filter Bag Tray for Easy Filter Fitting'.

Detail View (A 1:3): Shows the internal components, including the 'Auxiliary', 'Signal Cable Exit', 'Power Cable Exit', 'Isolator Switch', and 'IEC Outlets for Ionisation Power Units or Pneumatic Control Box'.

Optional Features:

- Optional - Hepa Filtration System
- Adjustable Bleed Valve to Balance the Positive and Negative Pressures

Scale: 1:1

Sheet: 1 of 1

Date: 03/11/2022

Change Note: CN02 14

Marking: Josh K

Drawn By: Ian W

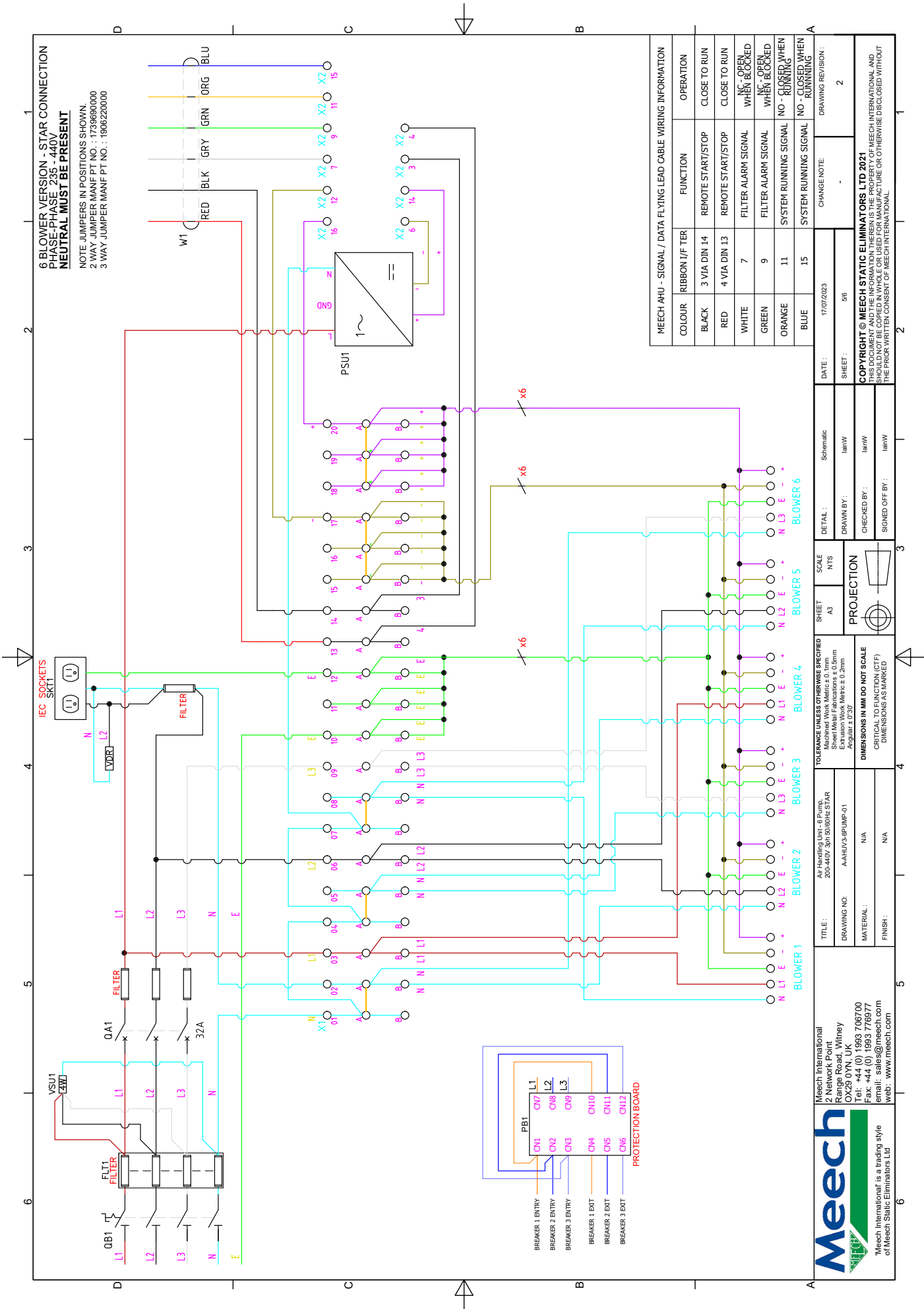
Checked By: Richard W

Signed Off By: Richard W

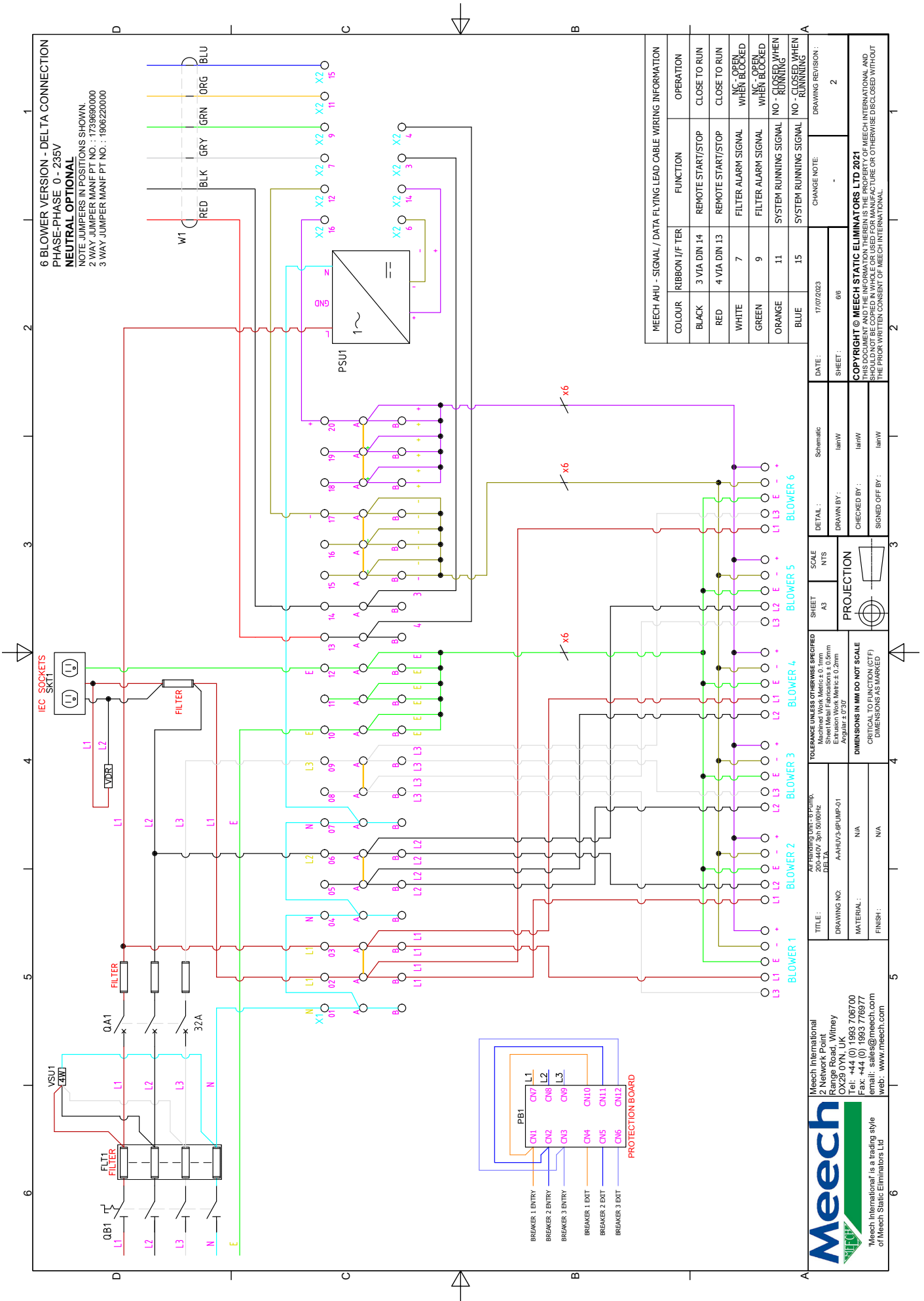
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A-AHUV3-6PUMP-01 - STAR - Wiring Diagram



A-AHUV3-6PUMP-01 - DELTA - Wiring Diagram



AHUv3 - Systems Specific Settings

CyClean™ - Non-Contact Web Cleaning System	29-32
CyClean-R™ - Non-Contact Web Cleaning System	33
VacClean™ - Contact Web Cleaning System	34
RoClean™-C - Non-Contact Web Cleaning System	35-36
JetStream™ - Ionising and Non-Ionising Air Knife System	37
IonRinse™ - Ionised Air Rinsing System	38

CyClean™ System Specific Settings



fig 13

When running with the CyClean system, the AHUv3 monitors the vacuum and positive pressure and controls the vacuum pressure.

CyClean™ Setting the pressure

The required pressure is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target pressure value shown above the buttons will alter as the buttons are pressed, and the unit will self adjust to meet this requirement.

If the pressure control buttons are greyed out and the pressure needs to be adjusted, please contact Meech HQ for details on how to unlock the buttons.

The default vacuum pressure setting for CyClean is 1.0kPa and 1.1kPa positive.

Remote Mode

The AHUv3 can be controlled to start/stop remotely to allow the system to be integrated with the line.

To enable remote mode the wiring must first be connected (see page 8) to the line correctly. Once this is in place the 'Remote' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in remote mode the unit will start and stop automatically with the line, and the start/stop button on the unit will become inactive.

Local Mode

If running independently to the line the system can be controlled to start/stop manually using the start/stop button.

To enable Local mode the 'Local' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in Local mode the system will not start/stop automatically with the line.

Support

Contact information can be accessed using the 'Support' button

Data Log

Total hours run and Filter information can be accessed using the 'Data Log' button

Settings

Additional settings can be accessed using the 'Settings' button. This is for Meech Engineering use only and is password protected.

CyClean™ Setup Procedure

The airflows of the CyClean non-contact web cleaning system should be adjusted to achieve optimum cleaning results. The best cleaning results will be achieved, when the system is set to have equal positive and negative airflows, on both the web entry and exit sides (minimising the risk of any recontamination).

The positive airflow into either side of the CyClean head is adjusted by bleeding off a volume of the blowing (positive) airflow to create an airflow bias in favour of vacuum. The volume of air that is bled from the blowing (positive) airflow will vary with each installation, and is adjusted by using the valve slider located at the back of the unit.

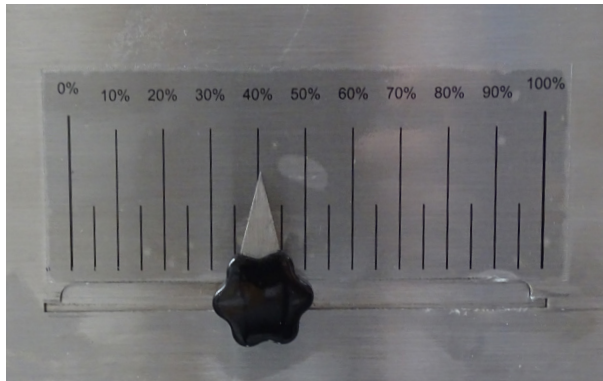


fig.14

Refer to the CyClean operating manual provided with the system (pages 7-15) for CyClean installation instructions.

CAUTION

Only when the CyClean head and AHUV3 are installed correctly with all electrical connections and ductwork in place, and the web is running centrally through the CyClean, can the setup of the CyClean system commence.

The system can now be set up (see Setting the Vacuum Pressure Level on page 28) and tested. The standard system setup is to have 1kPa on both the vacuum and positive pressure readings. To achieve this follow the steps below:

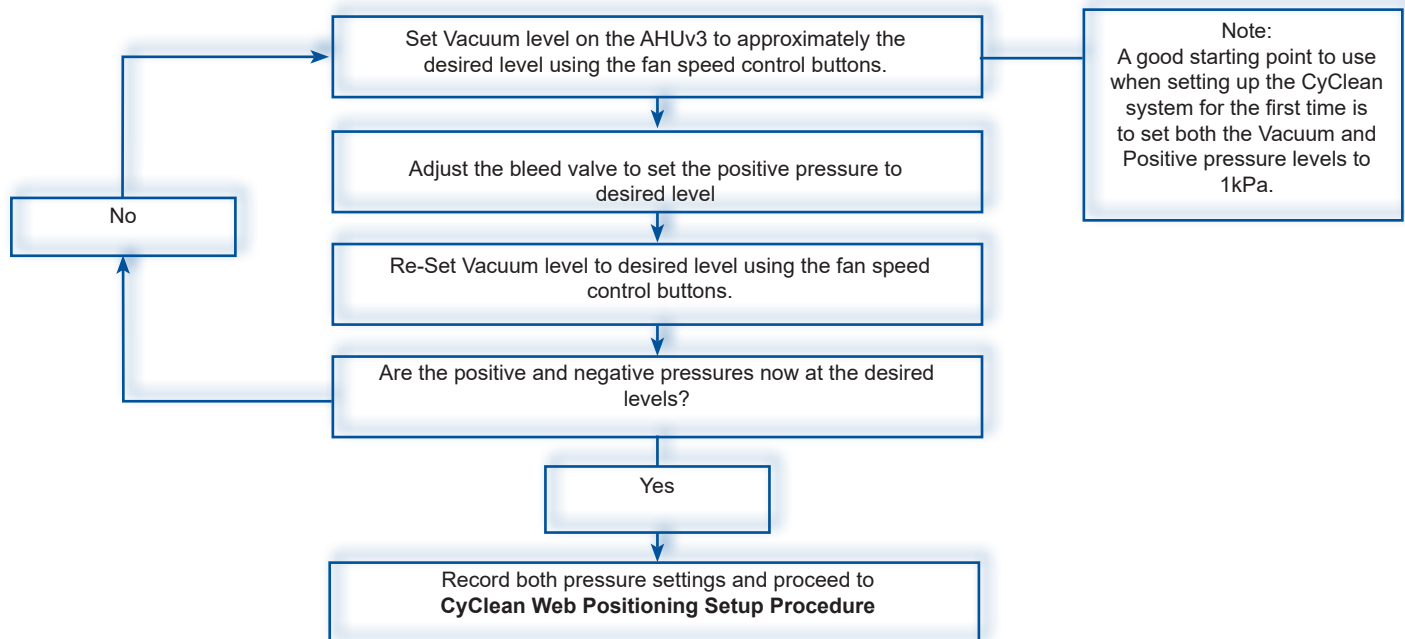
1. Increase the vacuum pressure to a value of approximately 1.0kPa.
2. At this point, if the vacuum and positive pressure readings are different then the bleed valve can be adjusted at the back of the unit to make the two readings equal. Only very slight adjustments are required.
3. After any adjustment to the bleed valve, the vacuum pressure setting (use the push buttons) will need to be re-set to ensure that the unit does not 'hunt' to keep the previous vacuum setting the same.
4. Check the pressure readings again and re-adjust (by holding down both buttons simultaneously and then repeatedly pressing up or down) to get the values to equal 1kPa on both the vacuum and positive pressure gauges.
5. At this point there should be good cleaning and no air blowing out of the 'web entry' side of the CyClean.
6. If air is still being blown out of the 'web entry' side then the bleed valve can be opened further to decrease the air being blown out against the air being sucked in. A good test for this is sprinkling dust on the web or holding a piece of cotton up against the 'web entry' side if it is not possible to test with a moving web.
7. Now check that the web is not sticking to one side or the other – if it is then ideally the tension needs to be increased in the web. If it is not possible to increase the tension then the bleed valve will need to be closed slightly to increase the blow pressure enough to stop the web from sticking to either side.
8. It is more important that the web does not stick to the CyClean manifold than having an intake of air on the 'web entry' side, so ensure that the bleed valve is adjusted finally to ensure this is the case keeping the CyClean non-contact.

Note: It is very important that the ducting connections from the AHUV3 to the CyClean head are equal in length for both the blowing and vacuum airflows.

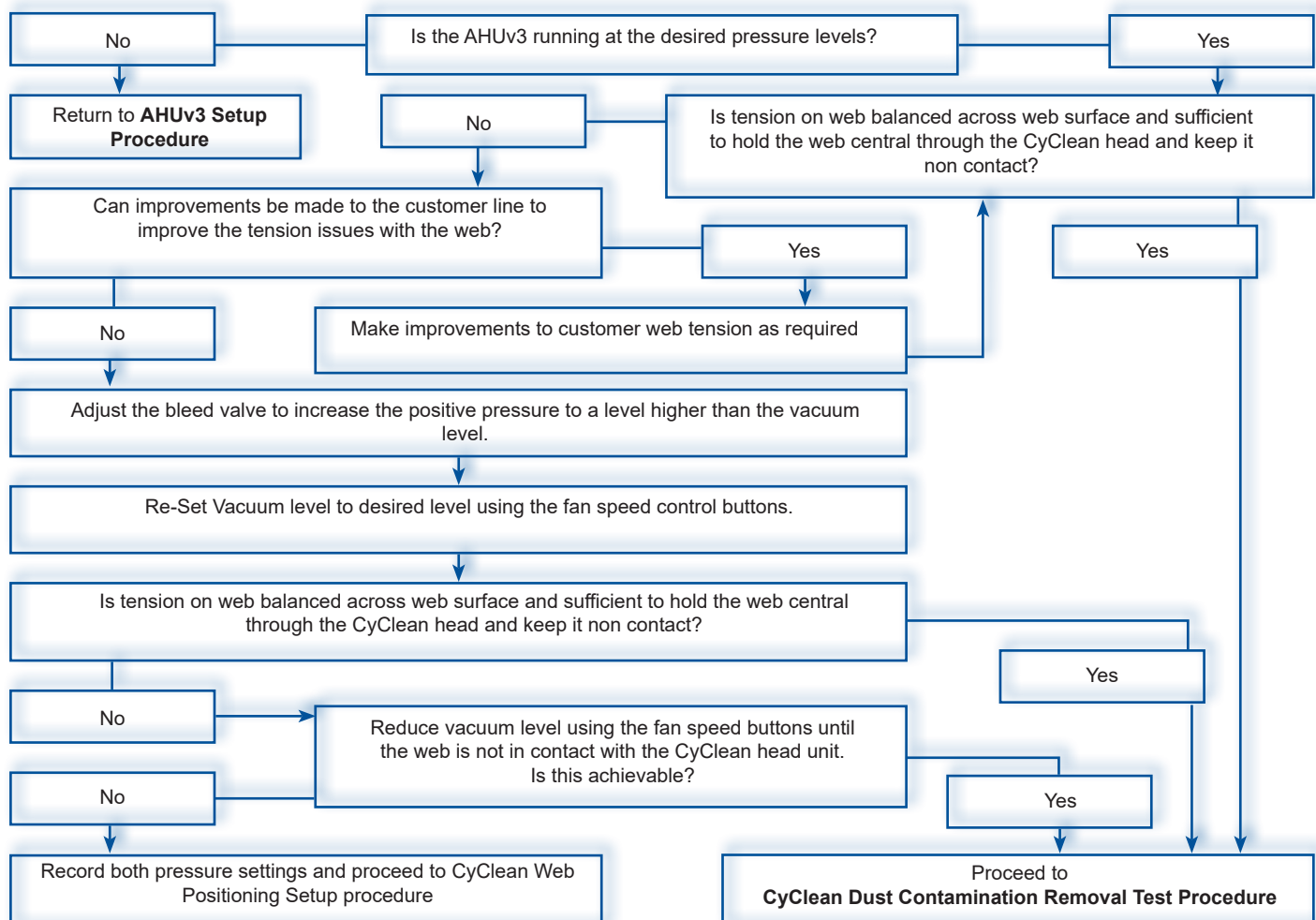
AHUV3 Setup Procedure for CyClean™

CAUTION

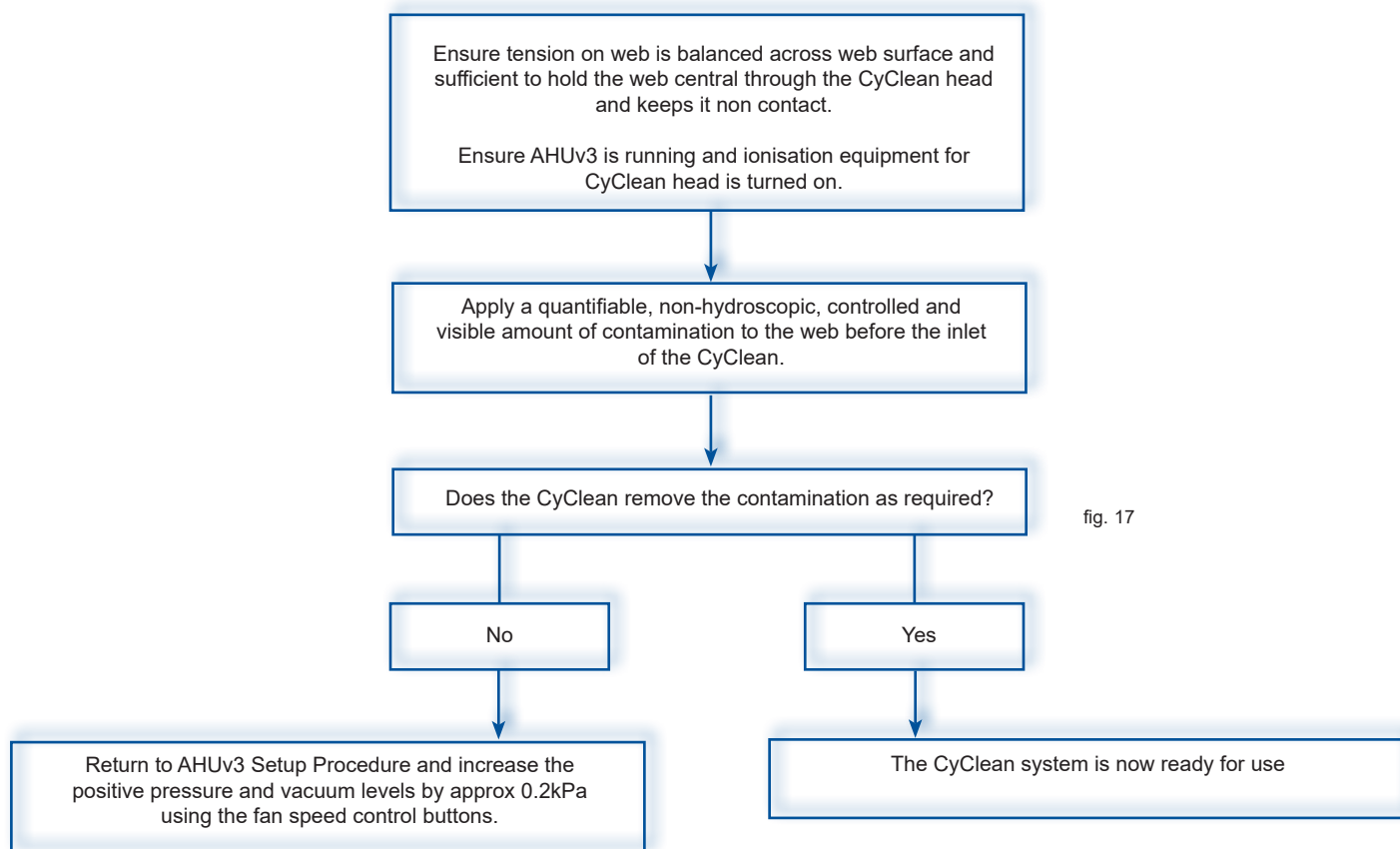
Ensure web is running centrally and there is good tension present on the web prior to and throughout setup procedure.



CyClean™ Web Positioning Setup Procedure



CyClean™ Contamination Removal Test Setup



CyClean-R™ System Specific Settings



fig 15

When running with the CyClean-R system, the AHUV3 monitors the vacuum and positive pressure and controls the vacuum pressure.

CyClean-R™ Setting the pressure

The required pressure is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target pressure value shown above the buttons will alter as the buttons are pressed, and the unit will self adjust to meet this requirement.

If the pressure control buttons are greyed out and the pressure needs to be adjusted, please contact Meech HQ for details on how to unlock the buttons.

CyClean-R will be sent out set to a net inflow which may have different positive pressure to what is shown in image.

Remote Mode

The AHUV3 can be controlled to start/stop remotely to allow the system to be integrated with the line.

To enable remote mode the wiring must first be connected (see page 8) to the line correctly. Once this is in place the 'Remote' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in remote mode the unit will start and stop automatically with the line, and the start/stop button on the unit will become inactive.

Local Mode

If running independently to the line the system can be controlled to start/stop manually using the start/stop button.

To enable Local mode the 'Local' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in Local mode the system will not start/stop automatically with the line.

Support

Contact information can be accessed using the 'Support' button

Data Log

Total hours run and Filter information can be accessed using the 'Data Log' button

Settings

Additional settings can be accessed using the 'Settings' button. This is for Meech Engineering use only and is password protected.

VacClean™ System Specific Settings



fig. 16

When running with the VacClean system, the AHUv3 monitors and controls the vacuum pressure.

Setting the pressure

The required pressure is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target pressure value shown above the buttons will alter as the buttons are pressed, and the unit will self adjust to meet this requirement.

If the pressure control buttons are greyed out and the pressure needs to be adjusted, please contact Meech HQ for details on how to unlock the buttons.

The default vacuum pressure setting for VacClean system is 3.0kPa.

Remote Mode

The AHUv3 can be controlled to start/stop remotely to allow the system to be integrated with the line.

To enable remote mode the wiring must first be connected (see page 8) to the line correctly. Once this is in place the 'Remote' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in remote mode the unit will start and stop automatically with the line, and the start/stop button on the unit will become inactive.

Local Mode

If running independently to the line the system can be controlled to start/stop manually using the start/stop button.

To enable Local mode the 'Local' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in Local mode the system will not start/stop automatically with the line.

Support

Contact information can be accessed using the 'Support' button

Data Log

Total hours run and Filter information can be accessed using the 'Data Log' button

Settings

Additional settings can be accessed using the 'Settings' button. This is for Meech Engineering use only and is password protected.

RoClean-C™ System Specific Settings



When running with the RoClean system, the AHUv3 monitors and controls the vacuum pressure.

Setting the pressure

The required pressure is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target pressure value shown above the buttons will alter as the buttons are pressed, and the unit will self-adjust to meet this requirement.

If the pressure control buttons are greyed out and the pressure needs to be adjusted, please contact Meech HQ for details on how to unlock the buttons.

The default vacuum pressure setting for the RoClean is 2kPa.

Setting the Speed

The required RPM (Rotations Per Minute) is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target RPM value shown next to the buttons will alter as the buttons are pressed, and the unit will self-adjust to meet this requirement.

The default RPM setting for the RoClean is 400RPM.

Reverse Mode

The reverse button on the screen allows for an immediate reversal of RoClean brush. This should only be used in short term maintenance situations.

Warning Lights

The RoClean system has 3 warning lights for continuous feedback to the AHU. All lights will remain grey when no fault is found, and the unit is not running. Once the unit is running the following applies;

The Filter light will remain Green whilst the filter is in good condition. It will turn Yellow upon 'filter dirty' status and Red upon 'filter blocked' status.

The Roller light will remain green whilst no fault is found. It will turn 'Red' when there is a fault with the roller.

The Estop light will remain green whilst the Estop has not been activated. It will turn 'Red' when the Estop has been activated.

Remote Mode

The AHUv3 can be controlled to start/stop remotely to allow the system to be integrated with the line. To enable remote mode the wiring must first be connected (see page 8) to the line correctly. Once this is in place the 'Remote' button will need to be pressed which is located on the main screen – the button will turn blue when active. When in remote mode the unit will start and stop automatically with the line, and the start/stop button on the unit will become inactive.

Local Mode

If running independently to the line the system can be controlled to start/stop manually using the start/stop button.

To enable Local mode the 'Local' button will need to be pressed which is located on the main screen – the button will turn blue when active..

Support

Contact information can be accessed using the 'Support' button

Data Log

Total hours run and Filter information can be accessed using the 'Data Log' button

Settings

Additional settings can be accessed using the 'Settings' button. This is for Meech Engineering use only and is password protected.

JetStream™ System Specific Settings



fig. 18

When running with the JetStream system, the AHUV3 monitors and controls the positive pressure.

Setting the pressure

The required pressure is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target pressure value shown above the buttons will alter as the buttons are pressed, and the unit will self adjust to meet this requirement.

If the pressure control buttons are greyed out and the pressure needs to be adjusted, please contact Meech HQ for details on how to unlock the buttons.

The default positive pressure setting for JetStream system is 3.0kPa.

Remote Mode

The AHUV3 can be controlled to start/stop remotely to allow the system to be integrated with the line.

To enable remote mode the wiring must first be connected (see page 8) to the line correctly. Once this is in place the 'Remote' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in remote mode the unit will start and stop automatically with the line, and the start/stop button on the unit will become inactive.

Local Mode

If running independently to the line the system can be controlled to start/stop manually using the start/stop button.

To enable Local mode the 'Local' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in Local mode the system will not start/stop automatically with the line.

Support

Contact information can be accessed using the 'Support' button

Data Log

Total hours run and Filter information can be accessed using the 'Data Log' button

Settings

Additional settings can be accessed using the 'Settings' button. This is for Meech Engineering use only and is password protected.

IonRinse™ System Specific Settings



fig. 20

When running with the IonRinse system, the AHUv3 monitors the vacuum and positive pressure and controls the positive pressure.

Setting the pressure

The required pressure is adjusted using the '+' and '-' buttons on the main screen. The 'Set' target pressure value shown above the buttons will alter as the buttons are pressed, and the unit will self adjust to meet this requirement.

If the pressure control buttons are greyed out and the pressure needs to be adjusted, please contact Meech HQ for details on how to unlock the buttons.

The default positive pressure setting for IonRinse system is 2.0kPa.

Remote Mode

The AHUv3 can be controlled to start/stop remotely to allow the system to be integrated with the line.

To enable remote mode the wiring must first be connected (see page 8) to the line correctly. Once this is in place the 'Remote' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in remote mode the unit will start and stop automatically with the line, and the start/stop button on the unit will become inactive.

Local Mode

If running independently to the line the system can be controlled to start/stop manually using the start/stop button.

To enable Local mode the 'Local' button will need to be pressed which is located on the main screen – the button will turn blue when active.

When in Local mode the system will not start/stop automatically with the line.

Support

Contact information can be accessed using the 'Support' button

Data Log

Total hours run and Filter information can be accessed using the 'Data Log' button

Settings

Additional settings can be accessed using the 'Settings' button. This is for Meech Engineering use only and is password protected.

Trouble Shooting

In the unlikely event of a problem with your AHUv3 please contact your local representative, or Meech directly.

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CE Approval

An EC declaration of conformity for this product exists in respect of the Low Voltage Directive: 2014/35/EU ("LVD") & Electromagnetic Compatibility Directive: 2014/30/EC ("EMCD").



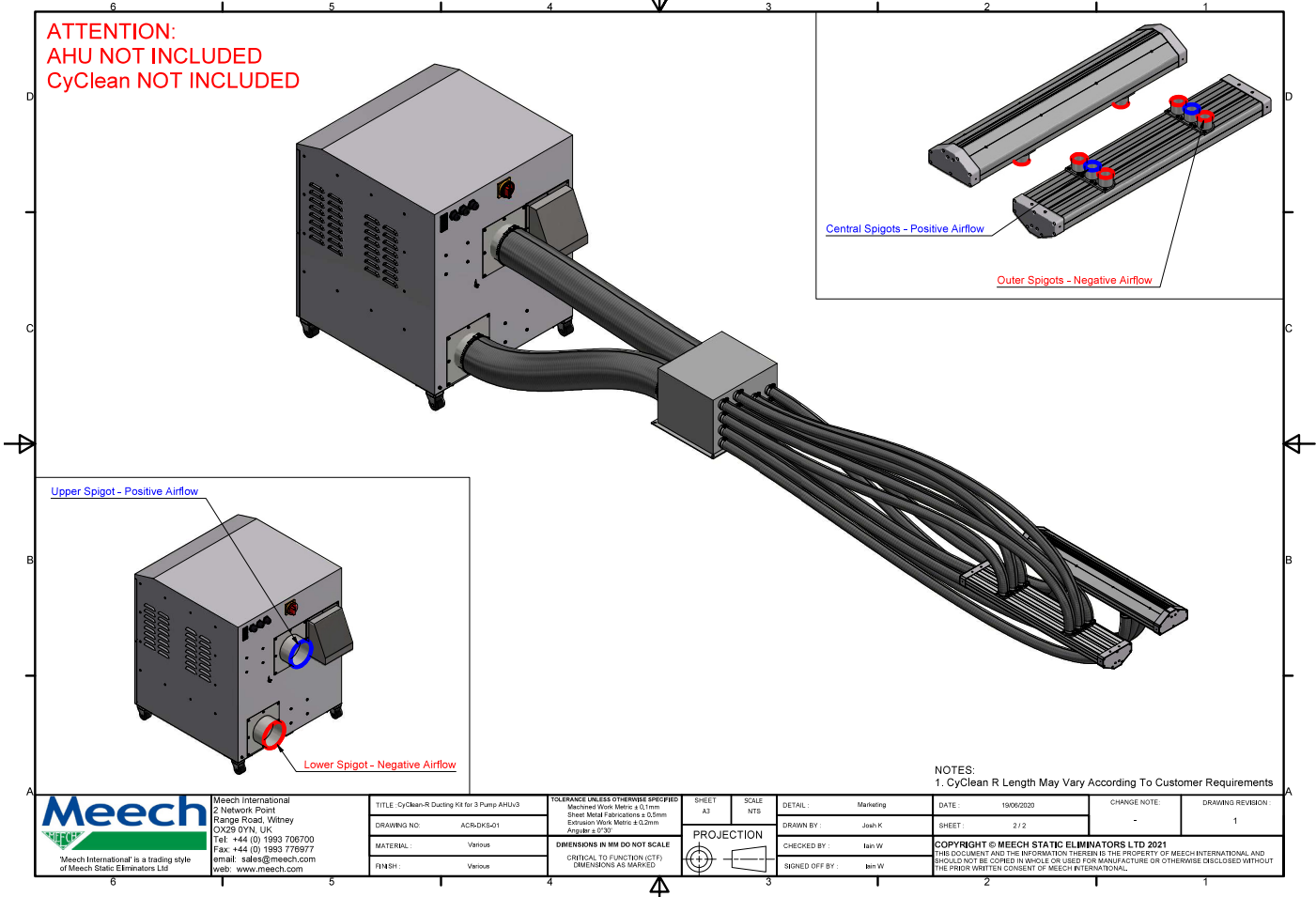
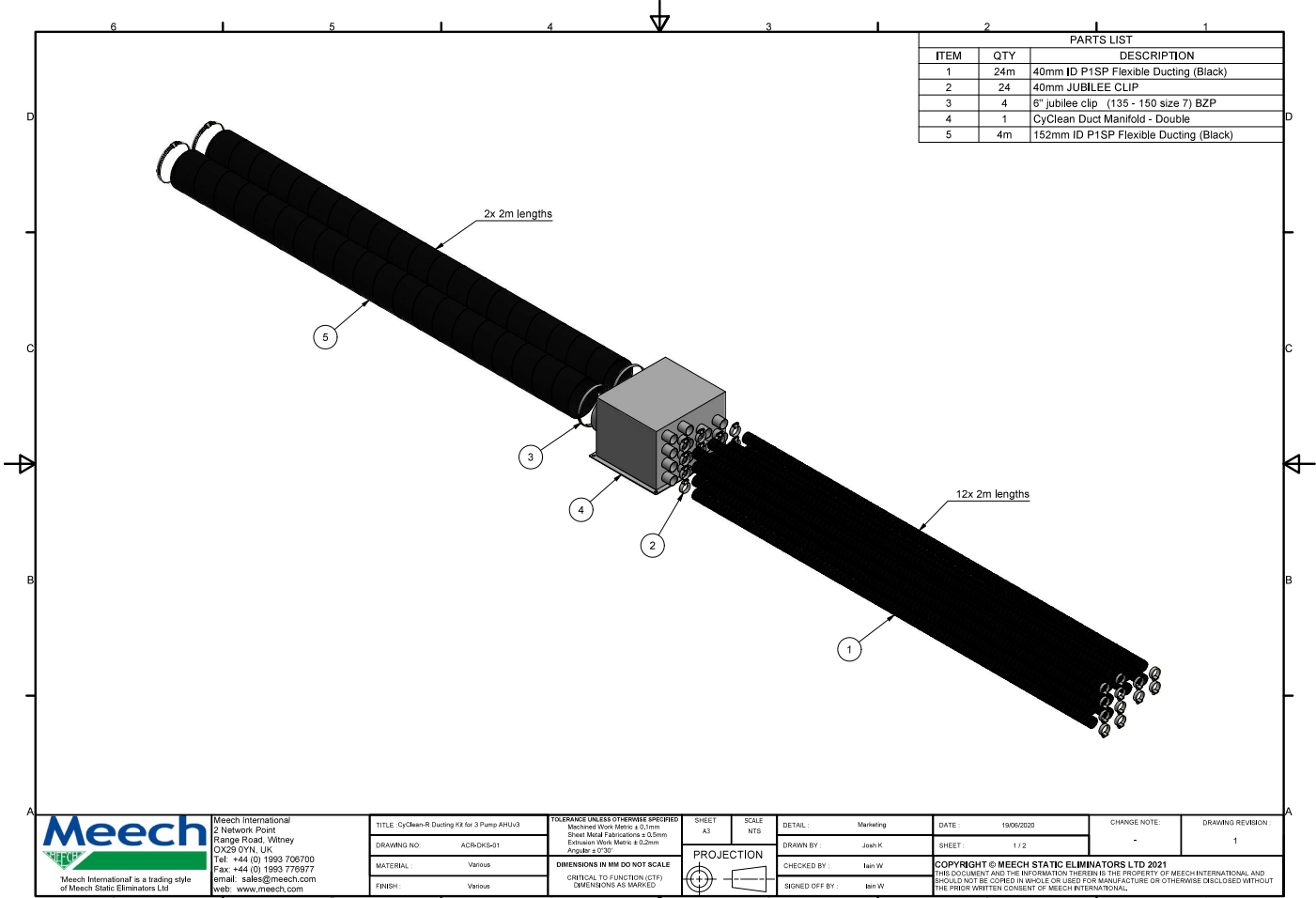
Repairs & Warranty

The AHUv3 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.

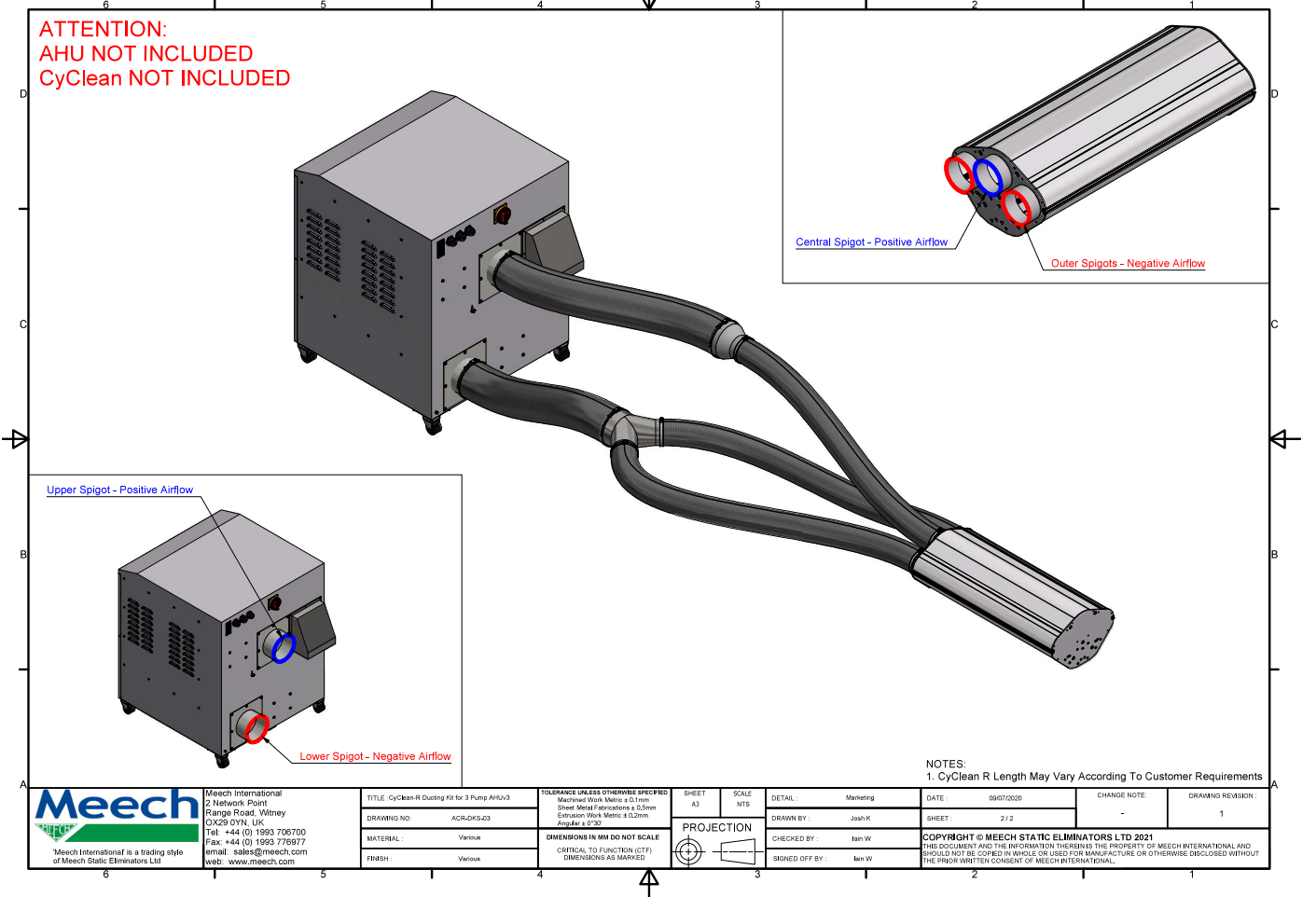
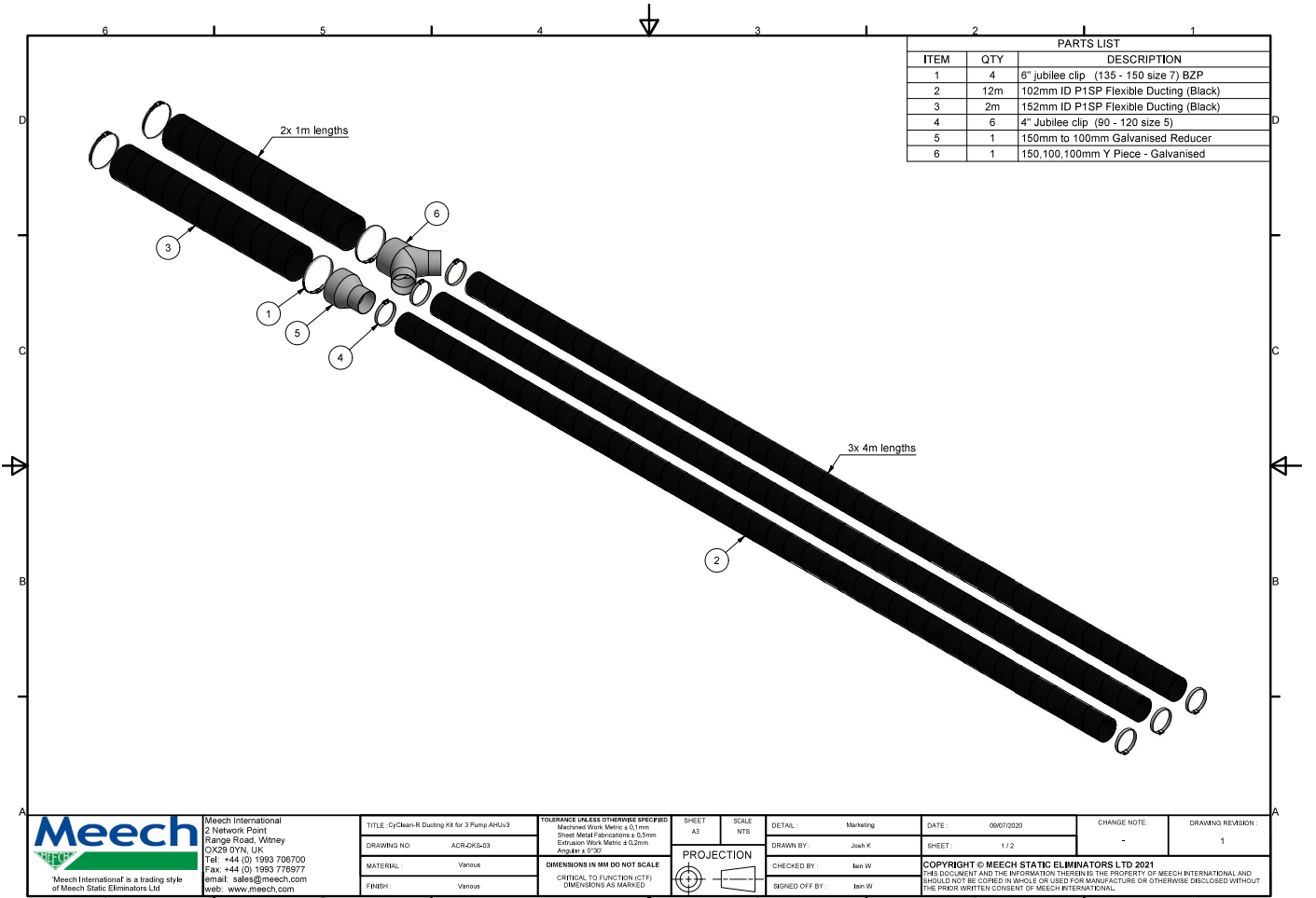
Include a note stating the nature of the problem as specifically as possible, and also include instructions for returning the unit to you. We will pay one-way return surface shipping costs on any repairs covered under the warranty.

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

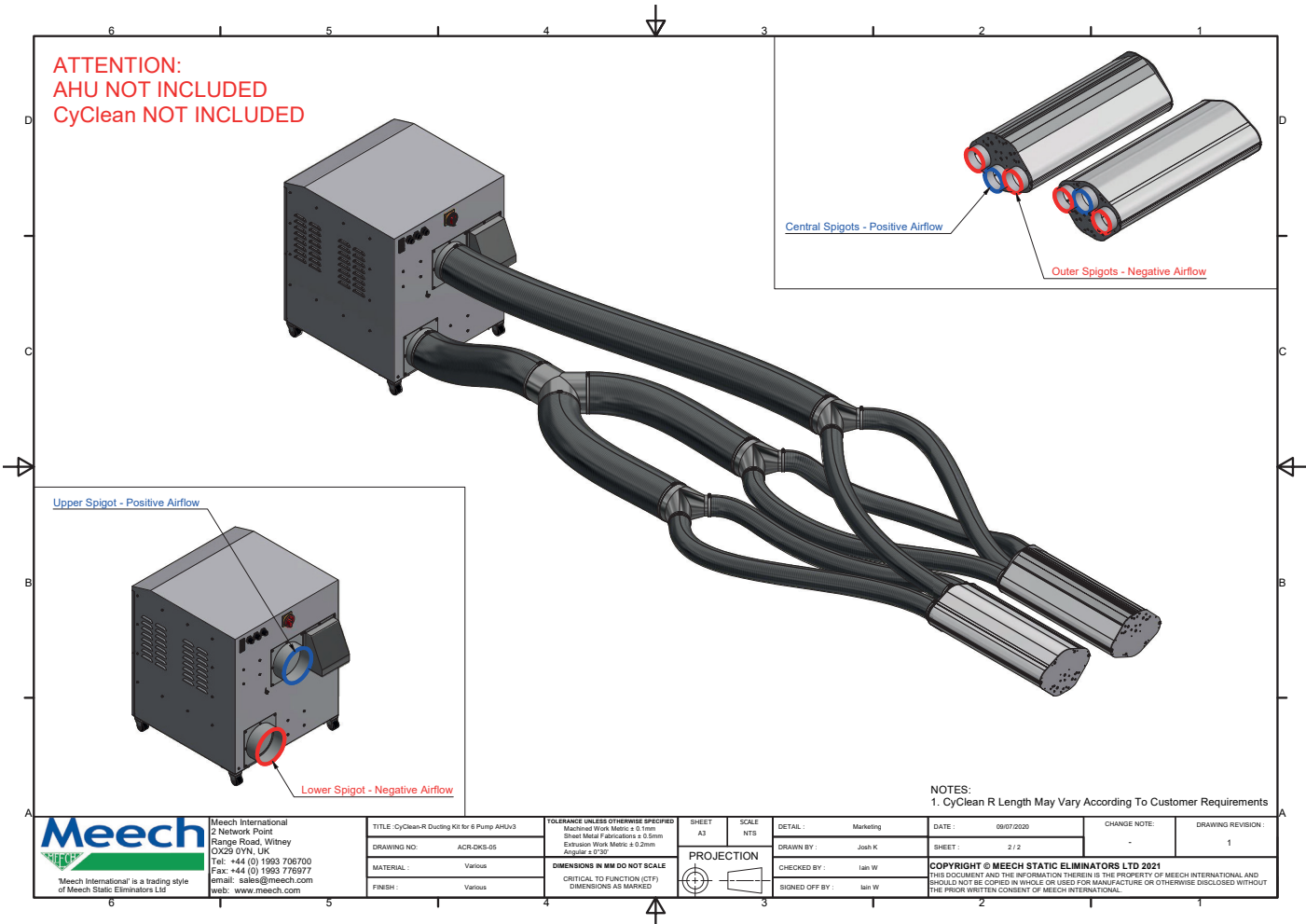
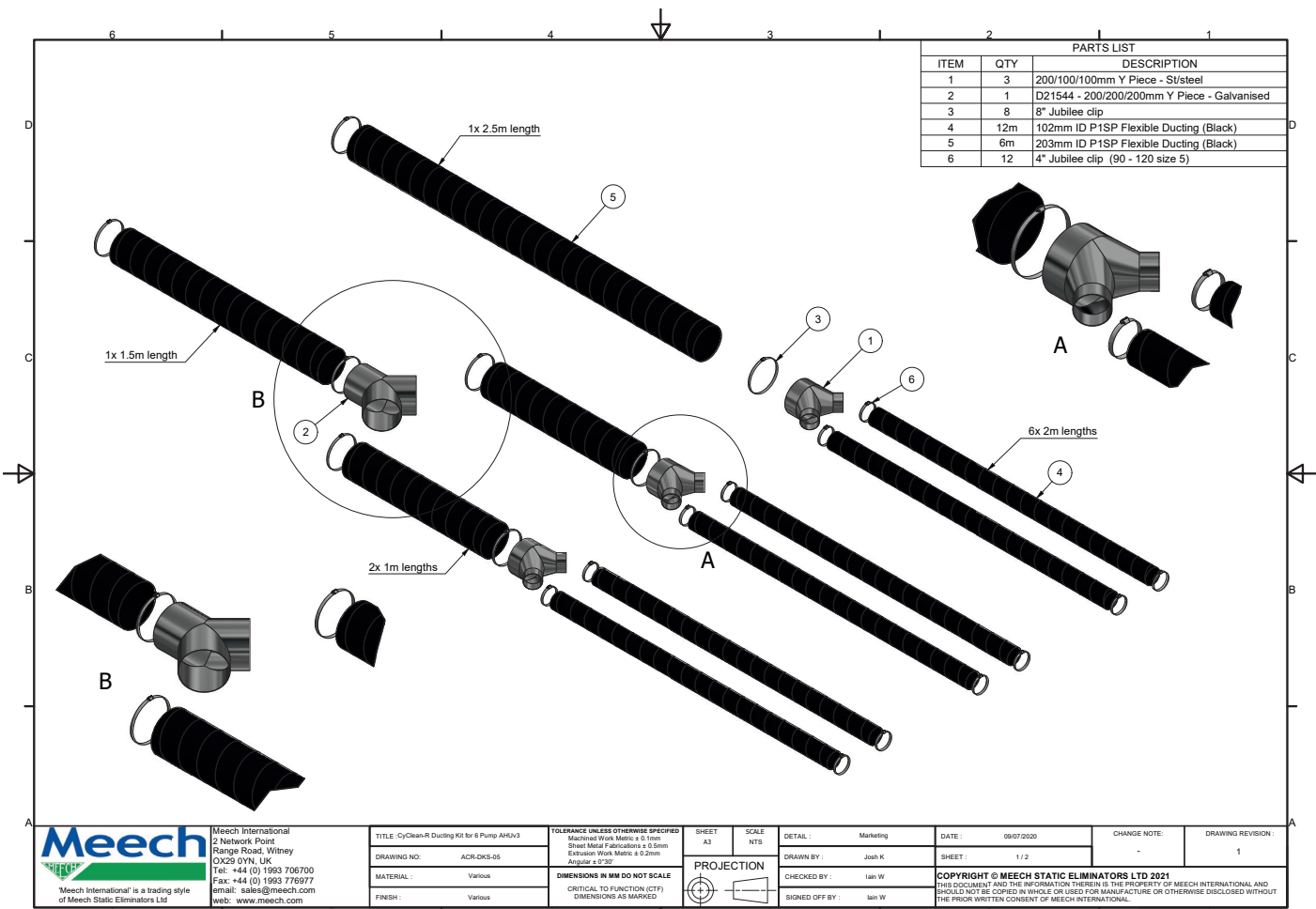
ACR-DKS-01 - CyClean-R Ducting Kit for 3 Pump AHUv3



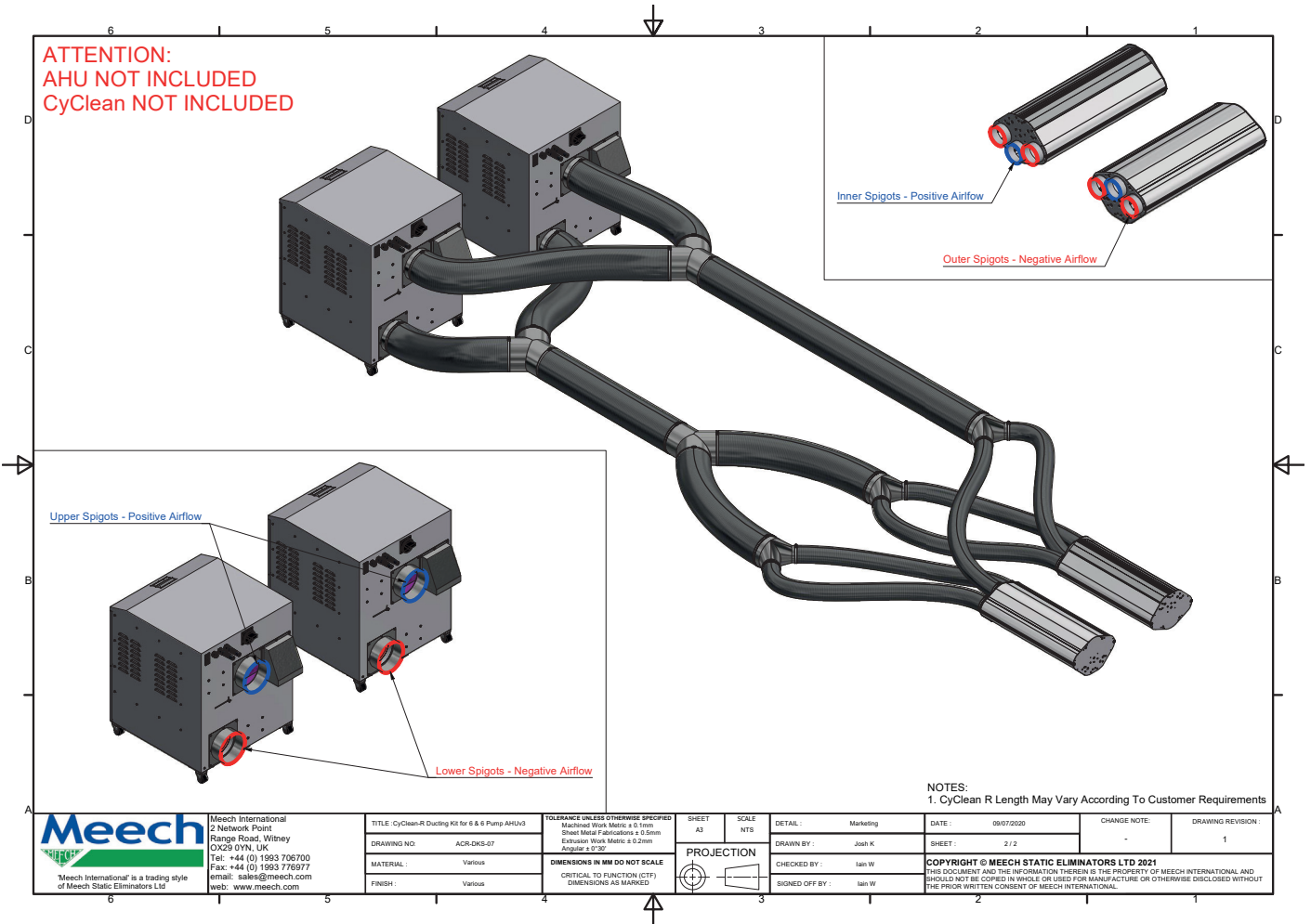
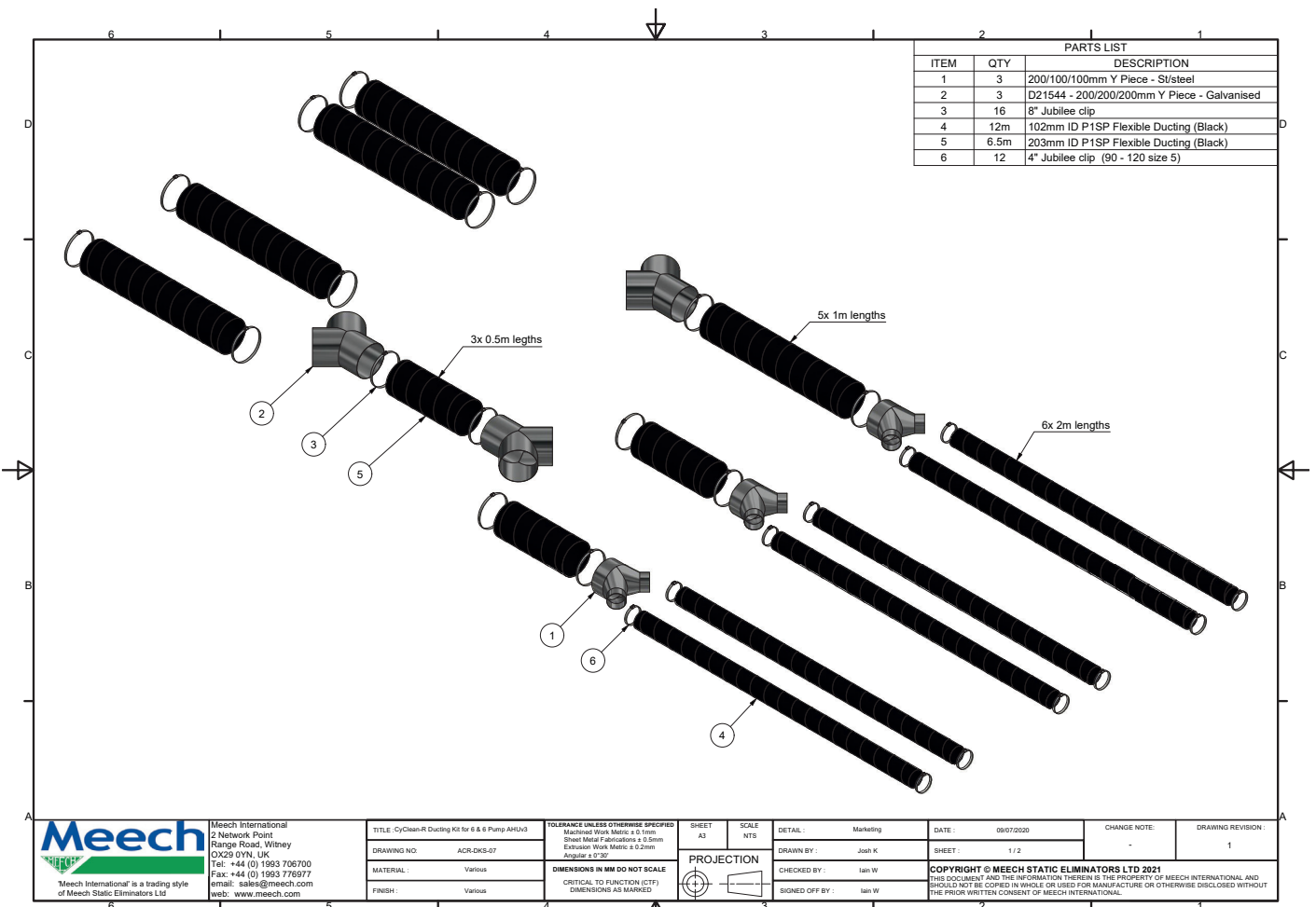
ACR-DKS-03 - CyClean-R Ducting Kit for 3 Pump AHUv3



ACR-DKS-05 - CyClean-R Ducting Kit for 6 Pump AHUv3



ACR-DKS-07 - CyClean-R Ducting Kit for 6 & 6 Pump AHUv3



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