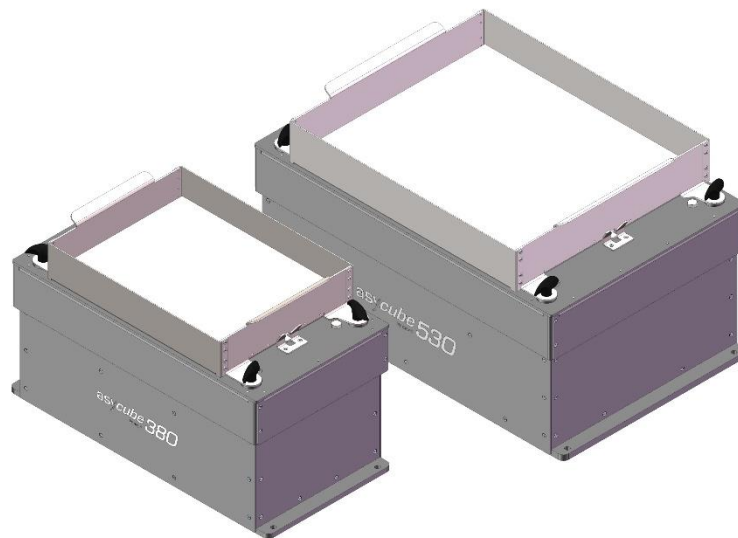


Asycube 380 & 530

Operating manual



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Table of contents

1. INTRODUCTION	4
1.1. GENERAL INFORMATION.....	4
1.2. SAFETY PRECAUTIONS.....	5
1.2.1. <i>General safety precaution</i>	5
1.2.2. <i>Danger</i>	6
1.3. WARRANTY INFORMATION.....	7
2. DESCRIPTION.....	8
2.1. OVERVIEW OF THE PRODUCT.....	8
2.2. GENERAL CHARACTERISTICS.....	9
2.2.1. <i>Technical features</i>	9
2.2.2. <i>Overall dimensions</i>	10
2.2.3. <i>Visual signals</i>	11
2.2.4. <i>Maximum permissible external force on the platform (Asycube 380 and 530)</i>	12
2.2.5. <i>Permissible platform weight</i>	12
2.2.6. <i>Maximum plate displacement</i>	12
2.2.7. <i>Plate Z repeatability</i>	13
2.2.8. <i>Work surface</i>	13
2.3. ELECTRICAL INTERFACES.....	14
2.3.1. <i>Overview</i>	14
2.3.2. <i>Power connection</i>	15
2.3.3. <i>Fuse</i>	17
2.3.4. <i>Communication</i>	18
2.3.5. <i>Backlight synchronisation</i>	18
2.3.6. <i>Digital inputs 1 and 2</i>	19
2.3.7. <i>Digital output for hoppers 1 and 2</i>	19
2.3.8. <i>Purge connector</i>	20
2.4. MECHANICAL INTERFACES.....	21
2.4.1. <i>Attachment of the Asycube</i>	21
2.5. ACCESSORIES AND OPTIONAL MODULES.....	22
2.5.1. <i>Additional platform</i>	22
2.5.2. <i>Backlight</i>	26
2.5.3. <i>Cables</i>	26
2.5.4. <i>Hopper</i>	27
3. TRANSPORTATION, HANDLING AND INSTALLATION.....	31
3.1. PACKAGING OF THE PRODUCT, TRANSPORTATION AND HANDLING.....	31
3.2. UNPACKING INSTRUCTIONS.....	31

3.3.	INSTALLATION AND STORAGE ENVIRONMENT	32
3.3.1.	<i>Installation environment</i>	32
3.3.2.	<i>Storage environment</i>	32
4.	MAINTENANCE AND REPAIR.....	33
4.1.	SAFETY INSTRUCTIONS	33
4.2.	MAINTENANCE	33
4.2.1.	<i>Periodic maintenance schedule</i>	33
4.2.2.	<i>Removing/replacing the platform</i>	34
4.2.3.	<i>Platform in purge configuration</i>	36
4.2.4.	<i>Checking and cleaning the platform</i>	37
4.2.5.	<i>Replacing ball joints</i>	37
4.3.	REPAIRS	40
4.3.1.	<i>Replacing/installing the backlight</i>	41
4.3.2.	<i>Recover IP address using default IP address</i>	46
4.4.	TECHNICAL SUPPORT	47
4.4.1.	<i>For better service</i>	47
4.4.2.	<i>Contact</i>	47
5.	ANNEXES.....	48
5.1.	CE CERTIFICATE	48

1. Introduction

1.1. General information

The following document is the property of Asyrl S.A. and may not be copied or circulated without permission. The information contained in this document is subject to change without notice for the purpose of product improvement. Please read this document carefully before operating your product, to ensure it is used correctly. Nevertheless, should you encounter difficulties during operation or maintenance, please contact Asyrl customer service.

The illustrations in this document may vary depending on the model purchased.

In this manual, the safety precautions that you must respect are classified as: "Danger", "Warning" and "Note". The following symbols are used:

**DANGER!**

Failure to observe the instruction may result in serious injury.

**DANGER!**

Failure to observe this instruction may result in electrocution or serious injury due to electric shock.

**IMPORTANT!**

Failure to observe this instruction may result in serious injury or damage to property.

**NOTE:**

The reader's attention is drawn to this point in order to ensure that the product is used correctly. However, failure to respect this instruction does not pose a danger.

**REFER TO...**

For more information on a specific subject, the reader is invited to refer to another manual or another paragraph.

**IMPORTANT!**

Under no circumstances may Asyrl be held liable for any loss or damage arising from a failure to observe the instructions contained in the "Safety precautions". The customer is solely responsible for ensuring the necessary instructions are passed on to all persons concerned.

**NOTE:**

All dimensions in this document are expressed in millimetres

1.2. Safety precautions

1.2.1. General safety precaution

1.2.1.1. Transportation



DANGER!

Be aware of the weight and take care when transporting the machine. For more information, please refer to chapter 3 “Transportation, handling and installation”

1.2.1.2. General information



DANGER!

Make sure that all power sources and other cables are disconnected from the machine before working on the product.



DANGER!

Only qualified personnel (trained by Asyri and with the relevant professional experience) are authorised to work on this device.



DANGER!

Never unscrew the system's electrical boxes or protective covers. Serious physical injury could result from electric shock. Only authorised Asyri SA personnel are allowed to access these parts of the system for maintenance or for repair.



DANGER!

Do not plug or unplug cables of the system unless it is switched off.



DANGER!

Never modify the product. Unauthorised modification may cause the product to malfunction, resulting in injury, electric shock, fire, etc.



DANGER!

Turn the machine off in the event of power failure. Failure to do so may cause the product to suddenly start moving when the power is restored.



DANGER!

Do not use the product in a place where it may come in contact with water or oil droplets.

1.2.1.3. Disposal

When the product reaches the end of its service life, it must be disposed of in accordance with regulations concerning industrial waste.



IMPORTANT!

All applicable laws, regulations, and standards must be observed when disposing of the product

1.2.2. Danger

1.2.2.1. Safety equipment for operators

- For safety reasons, operators must wear protective eyewear when using the backlight



NOTE:

It is the customer's responsibility to install warning signs to inform anyone working around the Asycube that they must wear the appropriate safety equipment.

1.2.2.2. Specific danger



Backlight

The Asycube has an integrated backlight that consists of LEDs (Light Emitting Diodes).



These LEDs emit visible or invisible radiation depending on the colour of the backlighting. LED lighting can create discomfort, cornea, retinal and lens damage.

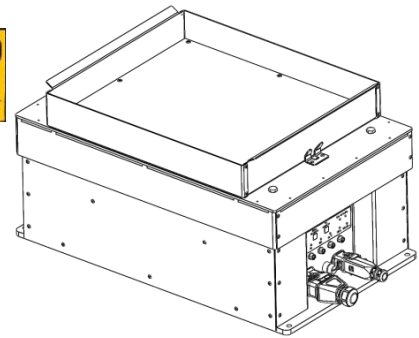


Figure 1-1: Specific warnings

The LEDs used are class 0 according to norm EN 62471. It is the sole responsibility of customers to document their specific application and instruct employees on procedures to limit exposure to LED radiation. The following prevention measures can be recommended:

- Interpose, insofar as the job allows, a high pass filter at x nm depending on the colour (see 0) under a fixed or adjustable connection between the source and the employee
- When the implementation of the foregoing is not possible, provide workers with goggles or a face shield suitable for blocking radiation beyond 700 nm;
- Prohibit or limit as much as possible direct access to the light source (exposure in the axis of radiation).
- Establish a security perimeter to prevent operators from approaching the light source at distances beyond the nominal ocular hazard recommended by the manufacturer.
- In all cases, ensure that the means used properly mitigate exposure variables (characteristics of safety screens or goggles to choose based on the wavelength operators are exposed to).



Sound level

The sound level of the Asycube during intensive use without components in the platform is less than 72 dB(A). Depending on the components distributed in the platform, the sound level may be higher. In this case, it is the customer's or integrator's responsibility to implement the necessary measures to meet the safety requirements for operators.

1.3. Warranty information

You will find all the Asyрил warranty information (duration, scope of warranty) in the general conditions of sale.

2. Description

2.1. Overview of the product

The Asycube is composed of a platform capable of vibrating in 3 orthogonal directions in order to optimally distribute the components in the platform.

The vibrations of the Asycube will be configured according to the type of components in order to guarantee an ideal process. The typical size of components that can be distributed in the platform ranges from 15 mm to 60 mm for Asycube 380 and from 30 mm to 150 mm for Asycube 530.

It consists of:

- (A) A 3D vibrating platform
- (B) Electrical interfaces (communication, power supply, I/O ...)



(C) For more information on electrical interfaces of the Asycube, please refer to section "2.3.

Electrical interfaces" on page 14

- (D) An integrated backlight (optional) that allows easy recognition of the parts by a camera placed above

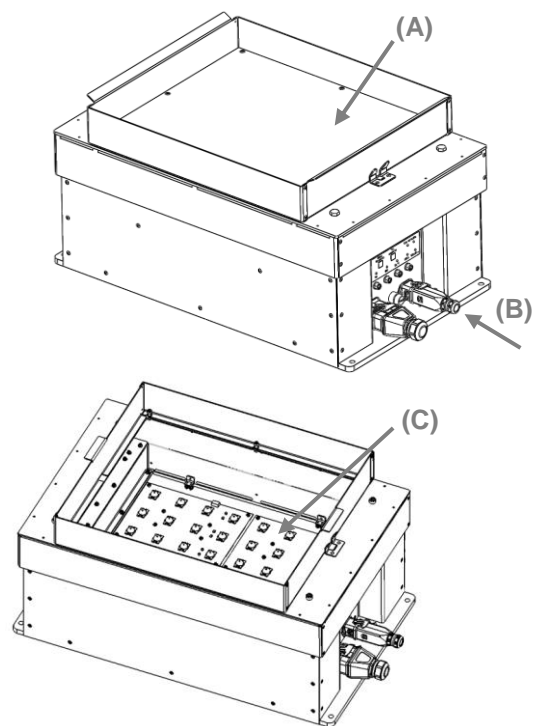


Figure 2-1: Asycube feeder system overview



For more information on how to remove or change the platform, please refer to section "4.2.2. Removing/replacing the platform" on page 34



For more information on the procedure to control the platform vibrations, please refer to the Asycube user guide



For more information about the backlighting colour, see section "2.5.2. Backlight" on page 26

2.2. General characteristics



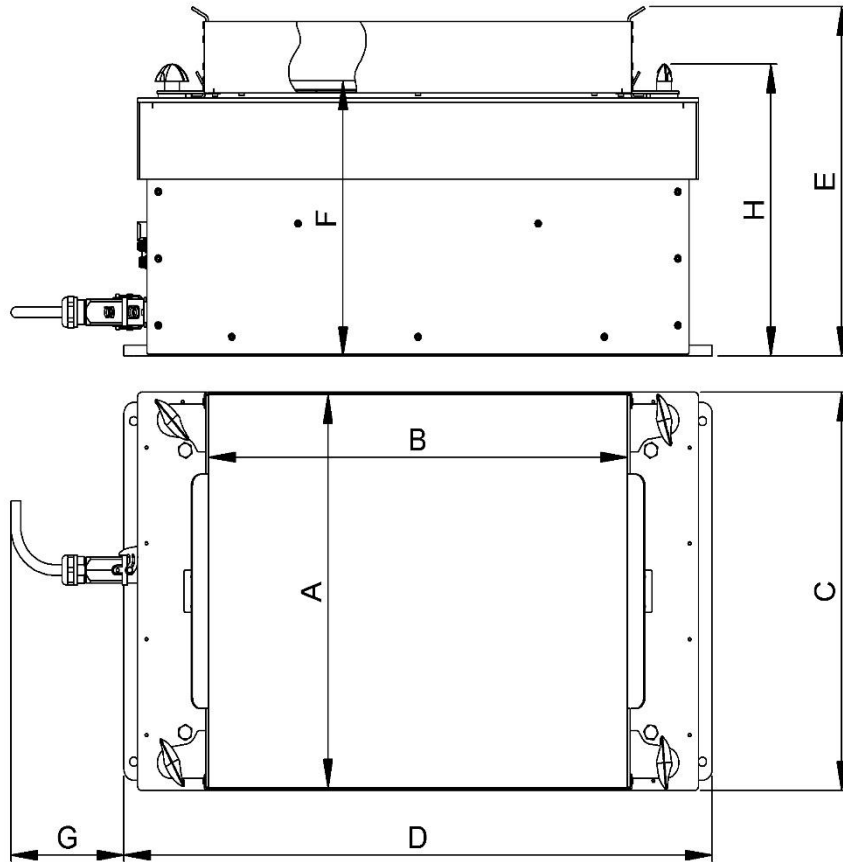
IMPORTANT!

Do not use the device outside the specifications. Failure to follow this instruction will invalidate the warranty.

2.2.1. Technical features

	Asycube 380	Asycube 530
Typical part size	length of side: 15 mm to 60 mm	length of side: 30 mm to 150 mm
Integrated high power LED backlight	Optional	Optional
Interchangeable backlight colour	<i>(green, red, blue, white, infra-red), see additional information in section 0</i>	<i>(green, red, blue, white, infra-red), see additional information in section 0</i>
Independent vibrations in three orthogonal directions		
Interchangeable vibration surface	<i>For more information, please refer to section 2.5.1. Additional platform</i>	<i>For more information, please refer to section 2.5.1. Additional platform</i>
Configurable vibration frequency	20 to 30 Hz	20 to 28 Hz
Maximum weight on the platform (components)	1.5 kg	2 kg
Digital output for hoppers	2	2
Digital input	2	2
Analogue output	2	2
RoHS		

2.2.2. Overall dimensions



Characteristic		Asycube 380	Asycube 530
Footprint	C	257 mm	374 mm
	D	498.5 mm	600 mm
	G	115 mm	115 mm
Size of vibration platform	A	254 mm	370 mm
	B	325 mm	427 mm
	E ± low frame travel	308 ± 6 mm	328 ± 8 mm
	E ± high frame travel	333 ± 6 mm	360 ± 8 mm
	F (rest position)	245 mm	258.5 mm
	H	261 mm	274 mm
Weight with platform and backlight		20 kg	31 kg

2.2.3. Visual signals

The LEDs provide important information about the status of the Asycube:

LED	State	Color	Meaning
1	Blinking Time on: 100 ms	green	System in standby
	Blinking Time on: 900 ms	green	System in service
2	On	green	24 V on backlight synchronisation input
3	On	green	24 V on input 1
4	On	green	24 V on input 2
5	On	yellow	24 V on output 1
6	On	yellow	24 V on output 2
7	On	green	Platform vibrating
8	On	green	24 V on power input
9	On	green	24 V on S-power input (see 2.3.2 for more information)
10	On	green	Connection detected
11	Blinking	yellow	Communication in progress
12	On	green	24 V on purge input
13	On	yellow	24 V on purge output

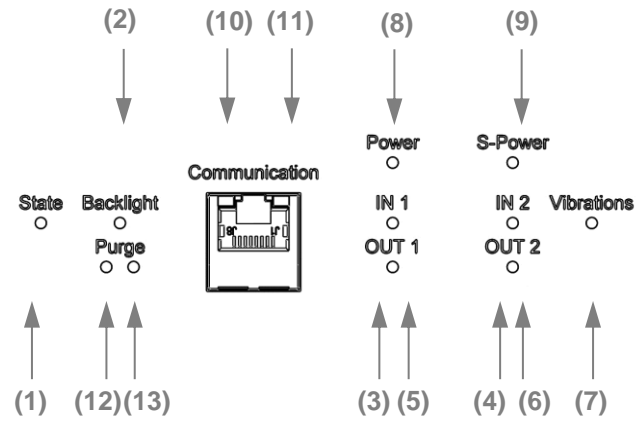


Figure 2-2: Operating indicator LEDs

2.2.4. Maximum permissible external force on the platform (Asycube 380 and 530)

The maximum permissible external force on a point of the platform (for example, with the gripper) is:

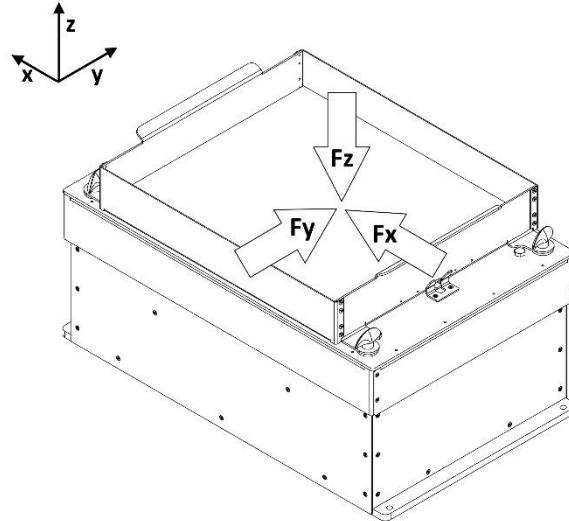
$$F_x = 10 \text{ N}$$

$$F_y = 10 \text{ N}$$

$$F_z = 30 \text{ N}$$



Note that the shock/impact of the gripper may damage the surface of the platform.



2.2.5. Permissible platform weight

	Asycube 380	Asycube 530
Maximum weight of the frame + platform assembly (without components)	4 kg	5 kg
Maximum weight of components (in addition to the maximum weight of the frame + platform assembly)	1.5 kg	2 kg

2.2.6. Maximum plate displacement

	Asycube 380	Asycube 530
Maximum displacement x	±8 mm	±8 mm
Maximum displacement y	±10 mm	±10 mm
Maximum displacement z	±6 mm	±8 mm

2.2.7. Plate Z repetability

	Asycube 380	Asycube 530
Platte Z repetability	$\leq \pm 0.4\text{mm}$	$\leq \pm 0.3\text{mm}$

2.2.8. Work surface

The maximum dimensions of the work surface correspond to the size of the illuminated Asycube platform:

	Asycube 380	Asycube 530
A	304 mm	403 mm
B	233 mm	347 mm
C	380 mm	530 mm

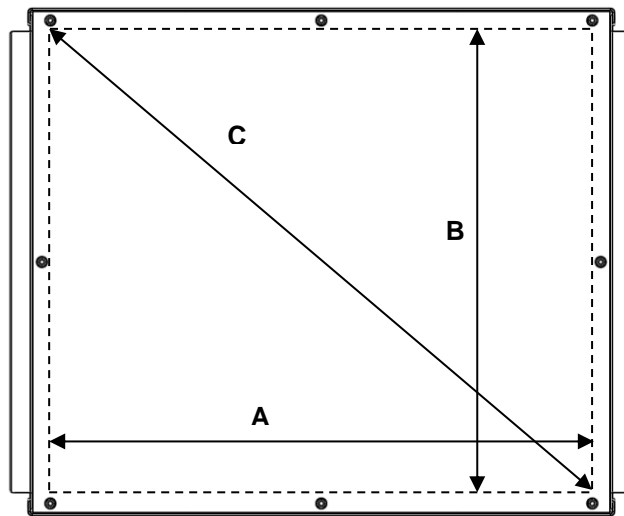


Figure 2-3: Work surface

2.3. Electrical interfaces

2.3.1. Overview

Asycube is a standalone module with its own controller. The electrical interfaces of the Asycube are situated at the back of the device:

- (A) Backlight synchronisation
- (B) Digital input 1
- (C) Digital input 2
- (D) Digital and analogue output 1 for hopper
- (E) Digital and analogue output 2 for hopper
- (F) Power connection
- (G) Fuse
- (H) Ethernet connection (RJ45)
- (I) Purge connector
- (J) Programming connection (RJ12)
- (K) Reset IP address

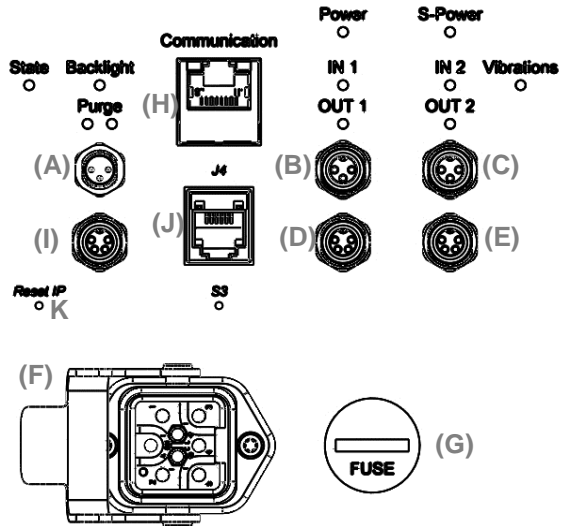


Figure 2-4: Electrical interfaces



NOTE:

The cables are not part of the Asycube, but can be ordered separately.

(Please refer to chapter 2.5.3 "Cables")

S

2.3.2. Power connection

IMPORTANT!



- Before supplying power to the Asycube, check that your distribution voltage is the same as the nominal voltage.
- Use PELV (protected extra-low voltage) nominal voltage.
- Always connect the GROUND pin to the supply via the power cable.

Pin	Signal description	Cable (option)
(1)	24 V S-power	1
(2)	0 V GND-S	2
(3)	24 V Power	3
(4)	0 V GND	4
(5)	Ground	PE

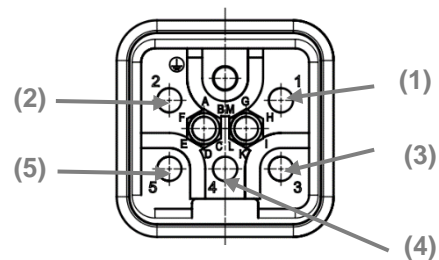


Figure 2-5: Power connection

Connector type (on Asycube side):

- Harting 09 12 005 3004

Characteristic	Asycube 380	Asycube 530
Voltage	+24 V DC \pm 5%	+24 V DC \pm 5%
Consumption	4 A	6 A
S-power consumption	16 A	14 A

NOTE:



Use a 20 A supply with a current reserve of 150% for 3 seconds
The following two power supplies have been approved by Asyri:

- PULS QS20.241
- SIEMENS 6EP1336-3BA10

NOTE:



S-power is the safety power for the backlight and actuators. Switching off this safety power ensures that the backlight stays OFF (e.g. to prevent against the risk of exposure to IR). Switching off this safety power deactivates the digital hopper outputs and the digital purge output.

In any case, both "Power" and "S-power" have to be supplied for using the backlight.

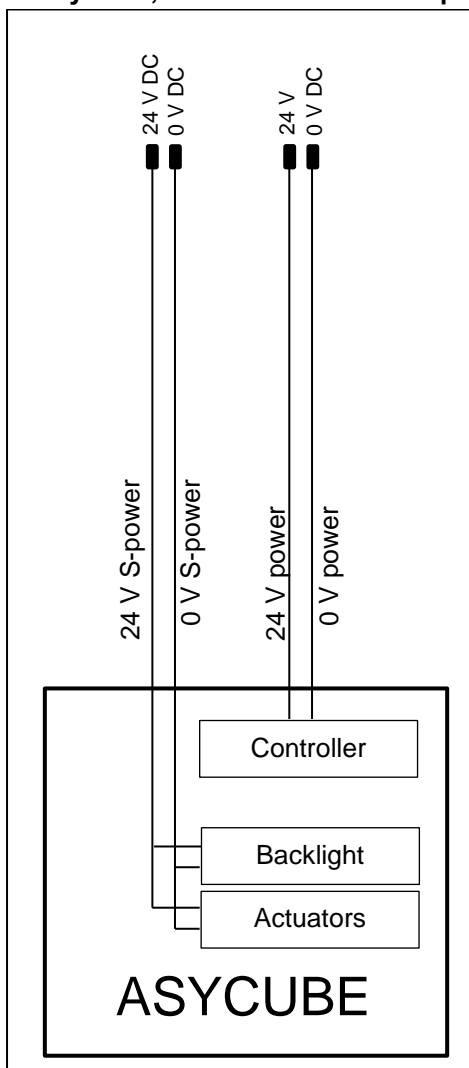


Figure 2-6
Power connection without safety relay

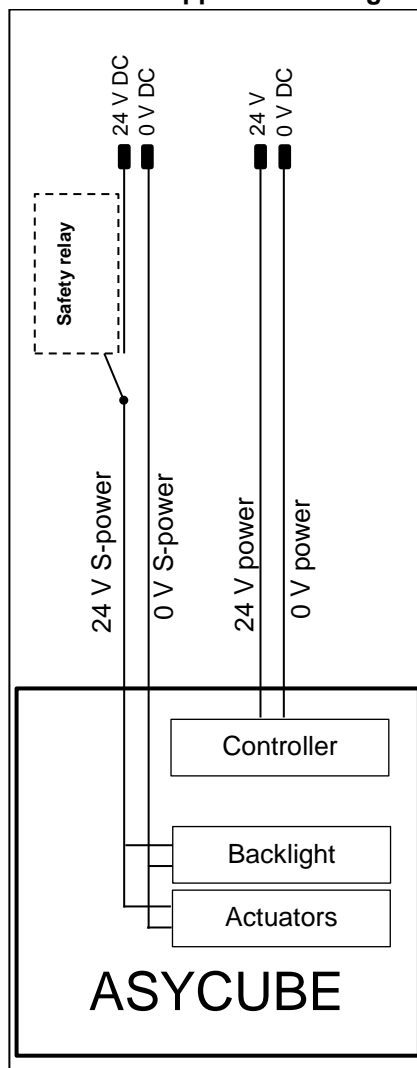


Figure 2-7
Power connection with safety relay

NOTE:



Both "Power" and "S-power" can be connected to a single power supply or to two different power supplies. The 0 V-GND and Earth signals of the two supplies are connected inside the Asycube.

2.3.3. Fuse



DANGER!

- Switch off the system and disconnect the power supply before opening the fuse holder.

Type of fuse:

Time-delay fuse – 16 A

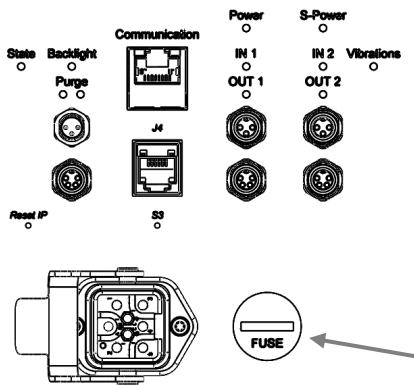
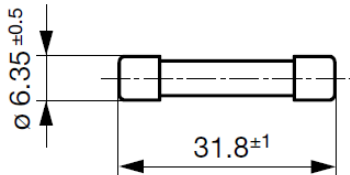


Figure 2-8: Fuse

2.3.4. Communication

The communication with the Asycube is established by a standard Ethernet communication via the RJ45 port.

Characteristic	Value
Default IP address	192.168.127.254
Default subnet mask	255.255.255.0
Port	4001
MAC address	Can be read by ARP request



For more information on the procedure to restore the default IP address, please see chapter 0.

2.3.5. Backlight synchronisation

A standard M8 3-pin cable is used to synchronise the camera's image acquisition with the Asycube backlight. This cable must be connected as follows:

Pin	Waveform	Cable (option)
(1)	Not wired	brown
(3)	0 V GND	blue
(4)	+24 V pulse (illumination synch.)	black

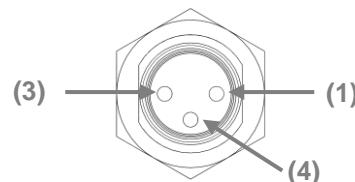


Figure 2-9: Backlight synchronisation

Connector type (on Asycube side):

M8, 3P, male



NOTE:

The Asycube backlight illumination time corresponds to the signal impulse length.

2.3.6. Digital inputs 1 and 2

A standard M8 three-pin male cable is used to run a vibration sequence defined in the HMI. This cable must be connected as follows:

Pin	Waveform
(1)	+24 V DC OUT (sensor power supply)
(3)	0 V GND
(4)	Input (+24 V DC)

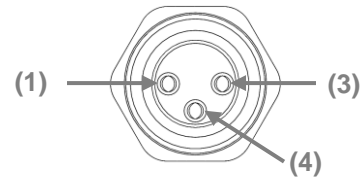


Figure 2-10: Digital input

Connector type (on Asycube side):
M8, 3P, female

2.3.7. Digital output for hoppers 1 and 2

A standard M8 four-pin male cable is used to transmit the digital output signal and analogue output signal to the hopper. It must be connected as follows:

Pin	Waveform	Hopper
(1)	0 V GND	Analogue output 1
(2)	0...10 V DC	
(3)	0 V GND	Digital output 1
(4)	+24 V DC 500 mA	

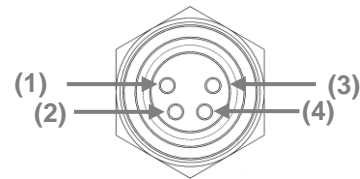


Figure 2-11: Digital output for hoppers

Connector type (on Asycube side):
M8, 4P, female

2.3.8. Purge connector

A standard M8 four-pin male cable is used to transmit the signals with the purge system.

Pin	Waveform
(1)	24 VDC
(2)	Digital input 24 VDC
(3)	0 V GND
(4)	Digital output 24 V DC 500 mA

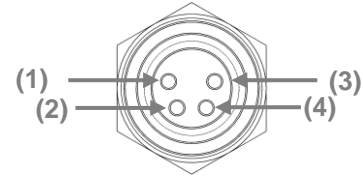


Figure 2-12: Purge connector

Connector type (on Asycube side):

M8, 4P, female

2.4. Mechanical interfaces

2.4.1. Attachment of the Asycube

To guarantee correct operation, the Asycube must be securely attached (with four M8 screws) to a solid support, ideally a steel plate secured to a frame. The total weight of the plate and frame, if they are not attached to the floor, should be at least 200 kg (Asycube 380) and 250 kg (Asycube 530) in order to dampen some of the vibrations.

Notice

Depending on the weight of the system to which the Asycube is secured, the vibrations of the Asycube can interfere with the sensitive surrounding processes. These interferences can be reduced using a solid support or by securing it to the floor.

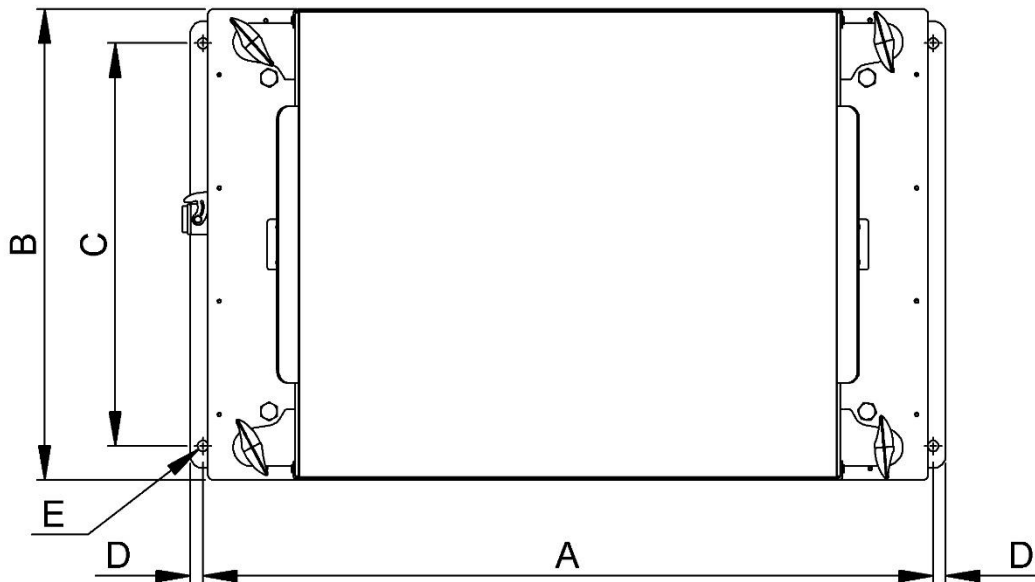


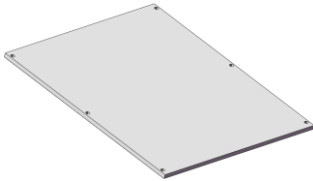

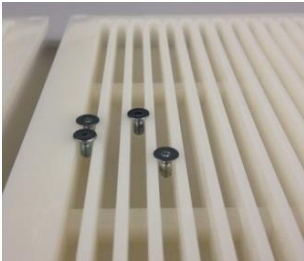
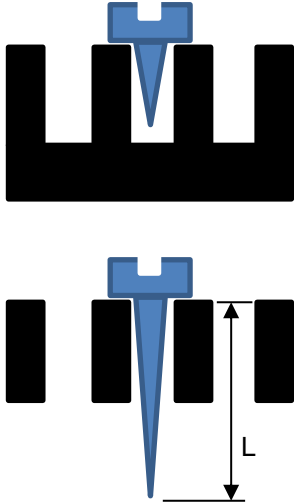

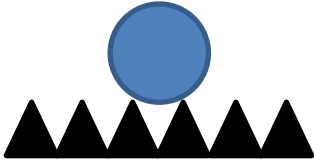
Figure 2-13: Attachment of the Asycube

	Asycube 380	Asycube 530
(A)	480 mm	580 mm
(B)	257 mm	374 mm
(C)	200 mm	320 mm
(D)	9.25 mm	10 mm
(E)	Ø 8.5 mm	Ø 8.5 mm

2.5. Accessories and optional modules

2.5.1. Additional platform

In order to improve the availability of certain components on the surface of the feeder, it is possible to structure the platform surface. Asyril can provide various types of platform on request. Frequently used structures on Asycube 380 & 530 are as follows:

Platform type	Example – picture	Example – drawing	Advantage
Flat			This type of plate can be used for a large variety of components, but mainly components with a flat surface allowing a stable resting position.
Grooves (deep)			A structured platform with deep grooves is used to supply screw-type components to be fitted vertically. A platform with transverse grooves is used to supply components with a maximum length of: - 120 mm for Asycube 530 - 110 mm for Asycube 380 Note: in case of grooves going through the plate, it is necessary to use the "INTERNAL DIFFUSING PLATE KIT" according product list
Grooves (wide)			Wide grooves are useful when cylindrical components are fed. They reduce the stabilising time significantly after component displacement on the plate surface (stop the components from rolling on the surface).

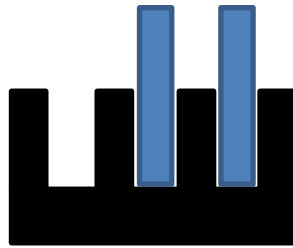
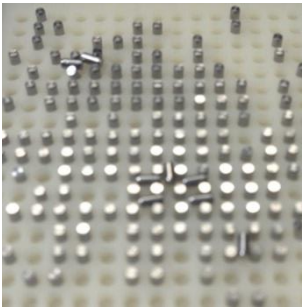
**Grooves
(narrow)**



E.g: Thin washers

Narrow grooves are necessary to reduce surface contact especially for flat and light components. These grooves reduce adhesion forces and improve component displacements on the surface. They also improve the pick-performance of the robot.

Holes



E.g.: Pin, axis

Holes are useful when cylindrical components are to be fed and presented upright.

NOTE:

For more information on these bespoke platforms, please contact Asyril customer service.



The customer can also make their own platforms, respecting the following dimensions:

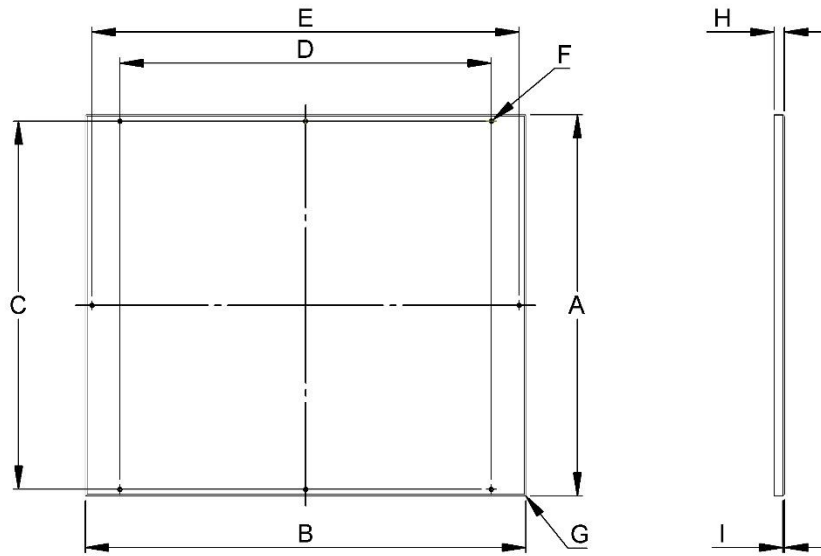


Figure 2-14: Dimension of platform

	Asycube 380	Asycube 530
A	252.8 ± 0.5 mm	369.8 ± 0.5 mm
B	323.8 ± 0.5 mm	426.8 ± 0.5 mm
C	240 ± 0.15 mm	357 ± 0.15 mm
D	260 ± 0.15 mm	360 ± 0.15 mm
E	311 ± 0.15 mm	412 ± 0.2 mm
F	M3x6 mm Threaded inserts Ensaf® BN902	
G	0.5x45° (4x)	0.5x45° (4x)
H	10 mm	10 mm
I	1.5x45° (4x)	1.5x45° (4x)

2.5.2. Backlight

The following backlights are available:

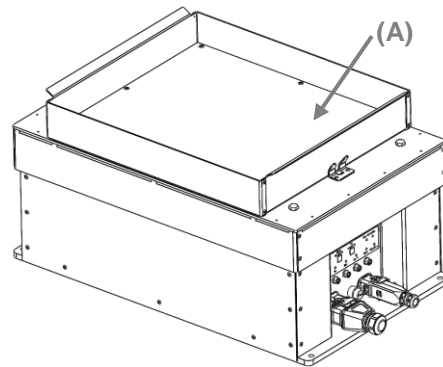
Asycube 380 & 530 backlight	
Colour	Wavelength
Blue	465 nm
Green	550 nm
Infrared	850 nm
Red	645 nm
White	6500 K

The backlight is supplied fitted when it is ordered at the same time as the Asycube.



DANGER:

Infrared light (IR) is invisible to human eyes. NEVER use the infrared light without the platform (A). When the platform (A) is fitted on the Asycube, the system does not pose a risk for the operator.



2.5.3. Cables

The following cables are available:

Product
Power cable
RJ45 Ethernet cable
Synchro backlight cable
Input cable
Output cable



NOTE:

For more information on these cables, please contact Asyri customer service.



IMPORTANT:

There is **NO suitable** cable for the cable chains.

2.5.4. Hopper

An optional hopper is available in the 10 or 15 litres versions.

The stainless-steel type 1.4301 hoppers withstand a maximum filling load of 20kg.

The following items are available:

Product	Compatible	Reference
10 litres HOPPER	Asycube 380	Depending on list of products
15 litres HOPPER	Asycube 530	

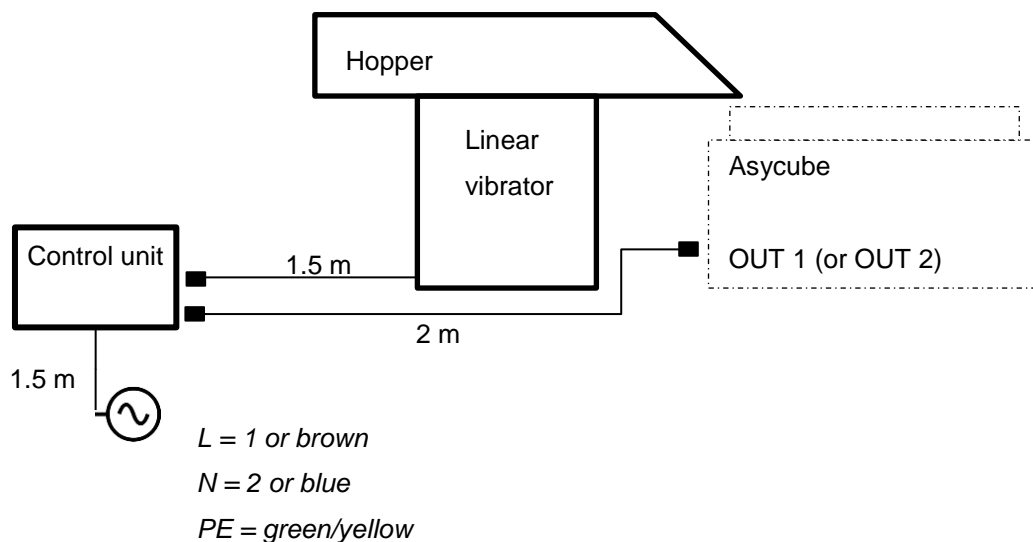
These items comprise:

- The hopper
- The linear vibrator
- Control unit
- The set of cables

2.5.4.1. Wiring diagram:

The hopper is supplied with the controller and cables ready to be installed. Depending on the model chosen, the hopper should be supplied with

- 115V (+10%/-15%), 50Hz, 6A
- 115V (+10%/-15%), 60Hz, 6A
- 230V (+10%/-15%), 50Hz, 6A
- 230V (+10%/-15%), 60Hz, 6A

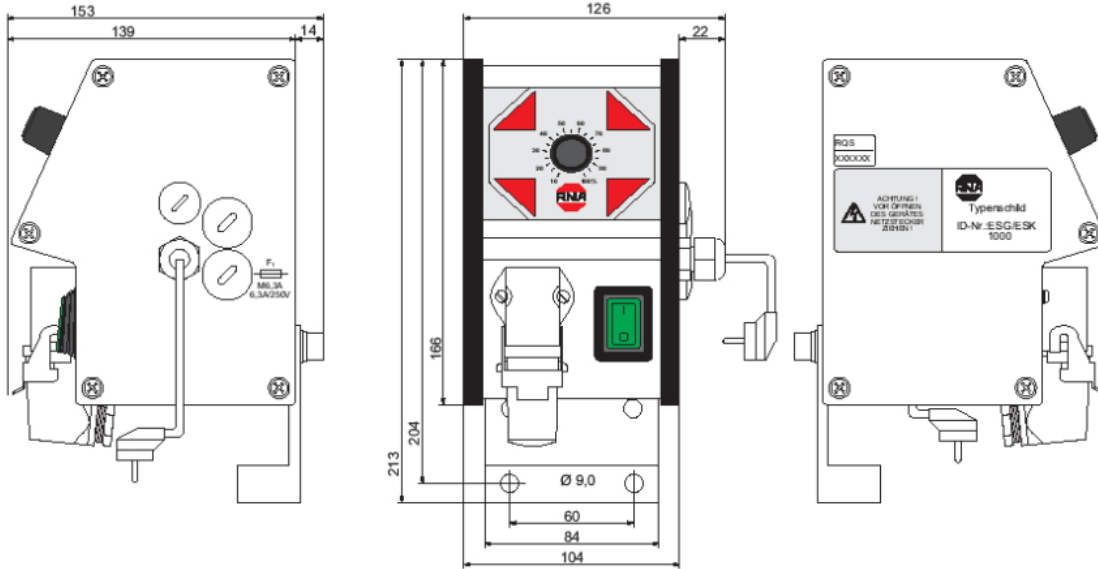


2.5.4.2. Controller mechanical interface

The intensity of the hopper's vibrations can be adjusted using the potentiometer.

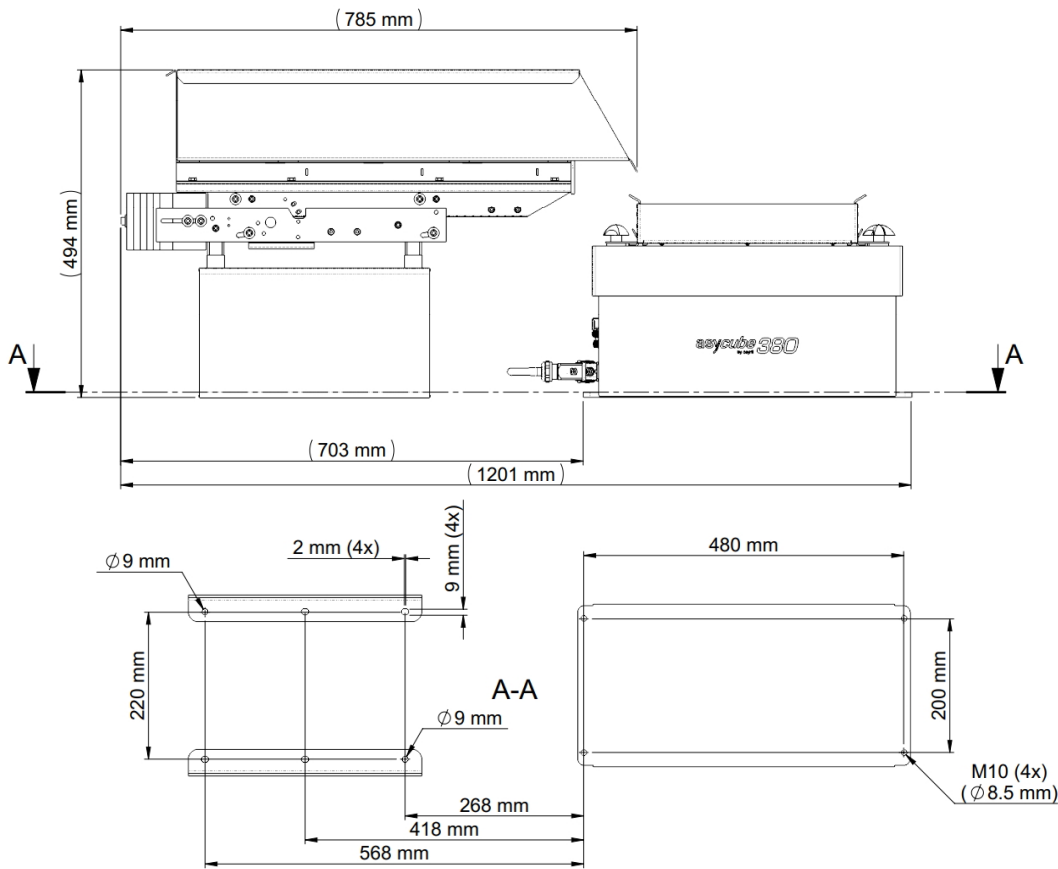


NOTE: Position the controller in a location providing access to the potentiometer

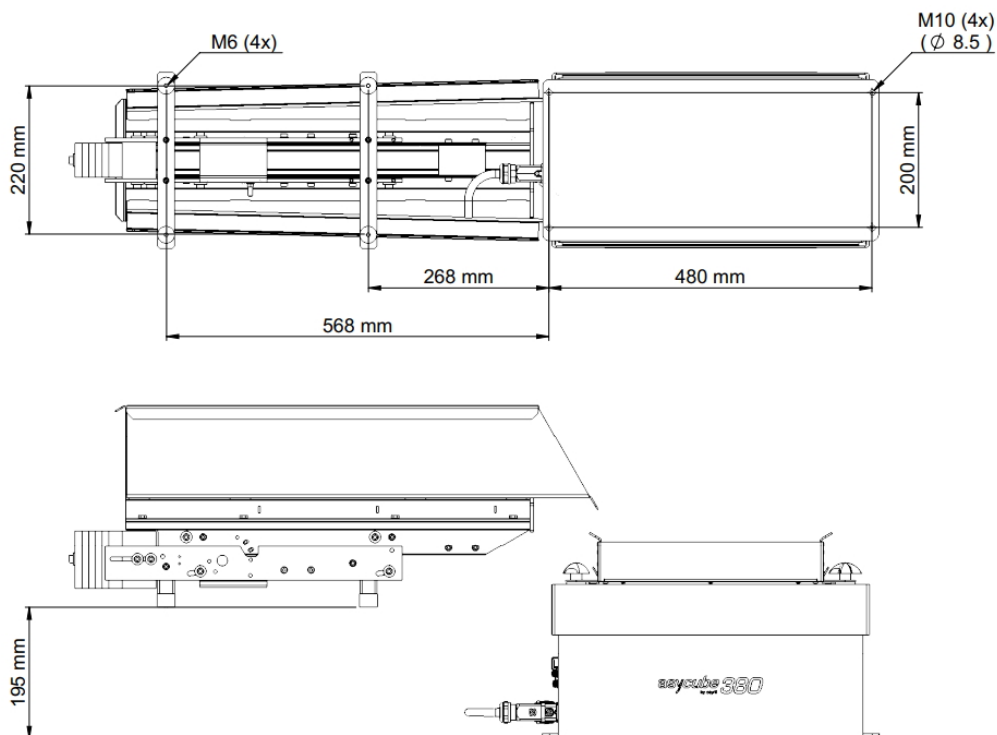


2.5.4.3. 10L hopper mechanical interface for Asycube 380

With hopper mounting kit (as an option depending on product list):

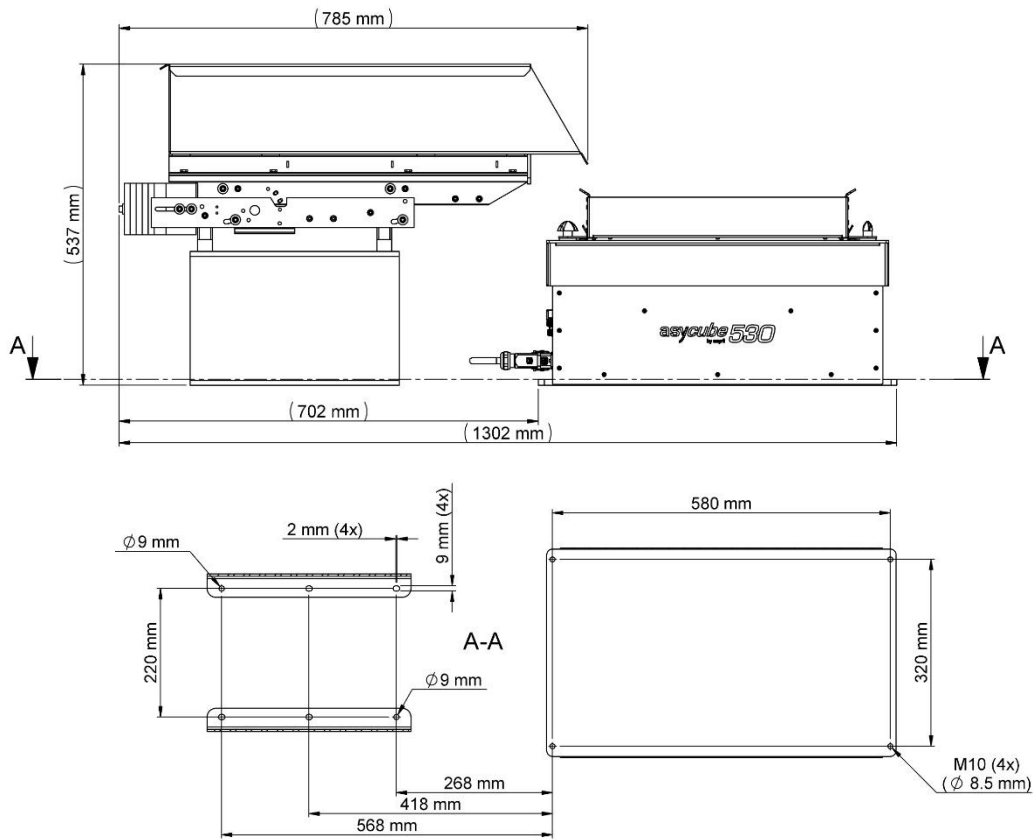


Without hopper mounting kit:

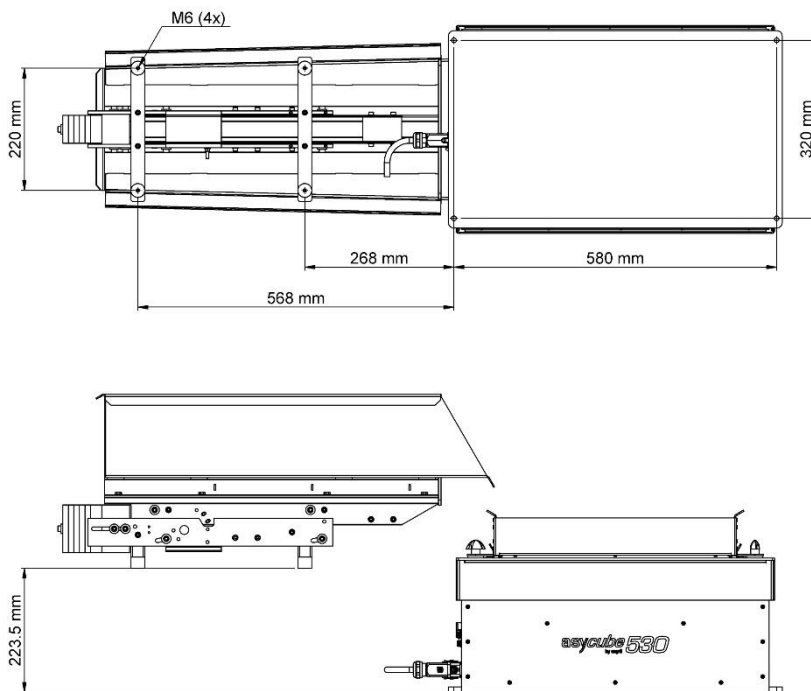


2.5.4.4. 15 L hopper mechanical interface for Asycube 530

With hopper mounting kit (as an option depending on product list):



Without hopper mounting kit:



3. Transportation, handling and installation

3.1. Packaging of the product, transportation and handling

The product must be transported in accordance with the specific terms indicated on the package (top, bottom and fragile ...). In addition, pay particular attention to the following points:

IMPORTANT!



- Be aware of the weight and take care when transporting the machine.
- The heavy shipping boxes must not be carried by just one operator.
- If the shipping box is to be left standing, it should be in a horizontal position.
- Do not climb on or place heavy objects on top of the shipping box.

The Asycube 380 is shipped in a cardboard box. The Asycube 530 is shipped on a pallet. The dimensions are as follows:

	Asycube 380	Asycube 530
Dimensions	680x400xh450 mm	800x500xh550 mm
Gross weight	≈ 28 kg	≈ 50 kg

Table 3-1: Gross weight and dimensions of the product when packaged

NOTE:



If the items received do not match your order, or are damaged, do not sign the delivery note, and contact Asyriil as soon as possible.

3.2. Unpacking instructions

NOTE



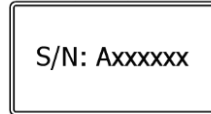
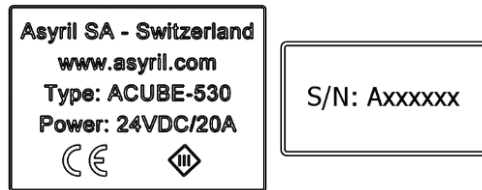
Do not remove the Asycube from its packaging until you are ready to install it.

IMPORTANT!



Keep the packaging material and the shipment box in case of return

Locate the identification label at the back of the product and check that the serial number corresponds to the delivery note



You need this serial number for any correspondence with Asyrl.

**Figure 3-1: Product label
(example for Asycube 530)**

3.3. Installation and storage environment



IMPORTANT!

The Asycube must be mounted on a smooth, flat and strong surface.

3.3.1. Installation environment

The Asycube can be used under following conditions:

- Protection rating: IP50
- Working temperature: +5 °C to +40 °C
- Humidity: 30% to 80% max. non-condensing



WARNING!

Variations in humidity or temperature may affect the global performance of the Asycube.

- Do not expose the Asycube to water or other liquids



IMPORTANT!

Do not use the product in an atmosphere of corrosive gases. Rust may form and reduce the structural strength of the device.

3.3.2. Storage environment

The storage environment should be similar to the operating environment. In addition, it is important to protect the Asycube against dust.

4. Maintenance and repair

4.1. Safety instructions

IMPORTANT!



The product does not contain any parts which can be repaired by the user. Contact Asyriil or your local supplier to carry out maintenance. Failure to follow this instruction will invalidate the warranty.

DANGER!



Do not operate the system when it is damaged. Ensure that no visual defects are detected before use.

DANGER!



Turn the system off and unplug it from the mains before any kind of maintenance.

DANGER!



Do not pour water or liquid over the Asycube

4.2. Maintenance

IMPORTANT!



For any kind of maintenance, always use Asyriil products.

4.2.1. Periodic maintenance schedule

Our products are largely maintenance-free. However, simple inspections should be performed at regular intervals to ensure optimal performance and safety levels of our equipment.

Element	Period	Reference
Cleaning the machine	Weekly	
Visual inspection and cleaning the platform	Weekly	Section 4.2.4
Replacing the ball joints	2 years or 4000 h of vibrations	Section 4.2.5

Table 4-1: Periodic maintenance schedule

NOTE:



The information given in the “Table 4-1: Periodic maintenance schedule” is only informative, maintenance and times must be modified by the operator in accordance with their particular system, its operating environment and the amount of usage.

4.2.2. Removing/replacing the platform

DANGER!

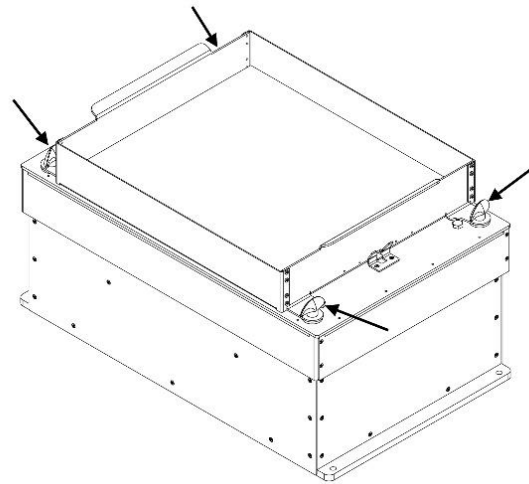


Make sure that the backlight is off before removing the platform module.

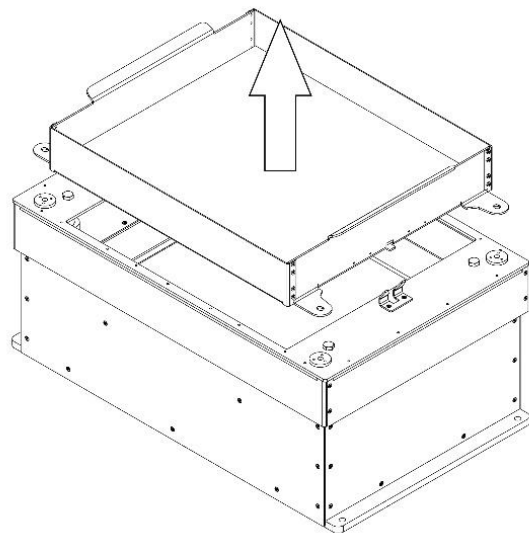


Risk of crushing. Be sure that the backlight is off before removing the platform module

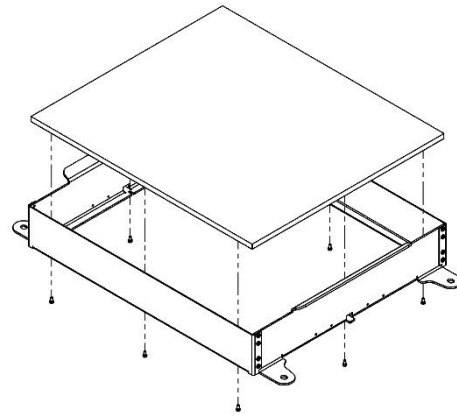
Step 1 Unscrew the 4 handle screws



Step 2 Remove the Asycube platform assembly.



Step 3 Unscrew the 8 screws and take the platform out of the frame



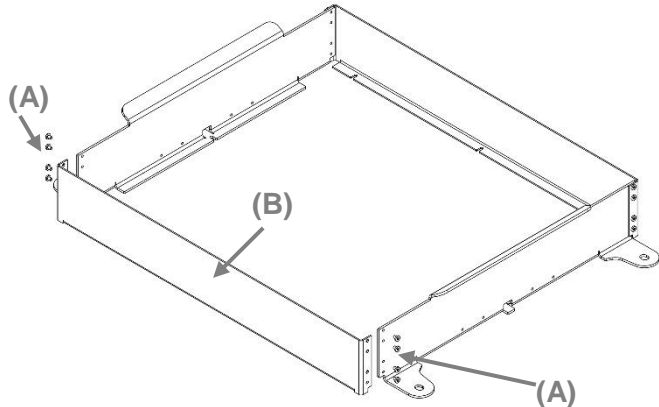
Step 4 Assembly:
Position the platform in the frame (8 screws 0.8Nm).
Position the assembly on the Asycube:
Tighten the 4 handle screws securely by hand

Figure 4-1: Remove the platform

4.2.3. Platform in purge configuration

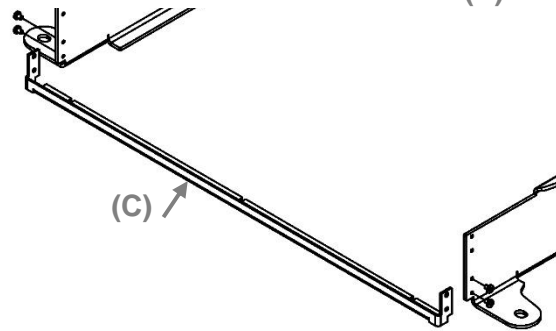
Step 1

Completely unscrew the 8 screws (A) using a Torx 8 screwdriver and remove the flank (B)

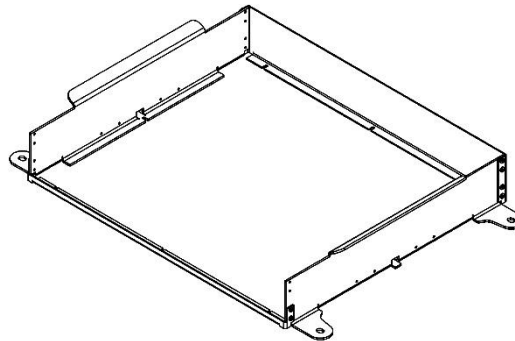


Step 2

Fit the adapter piece (C) and secure it using 4 screws (0.6 Nm)



The part (C) is available as an option.



Option to attach a purge spout to the base of the Asycube using 4 screws (D) (0.6 Nm)

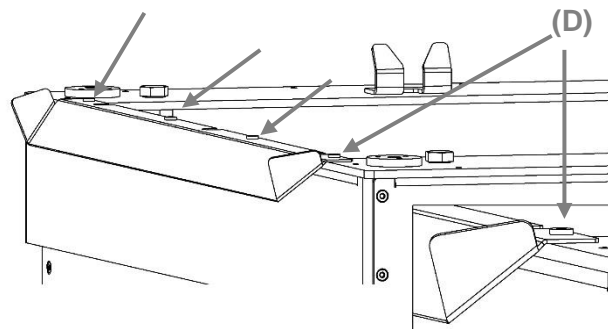


Figure 4-2: Platform in purge configuration.

4.2.4. Checking and cleaning the platform

Material needed:

- Lint-free cloth
- Isopropanol alcohol

IMPORTANT:

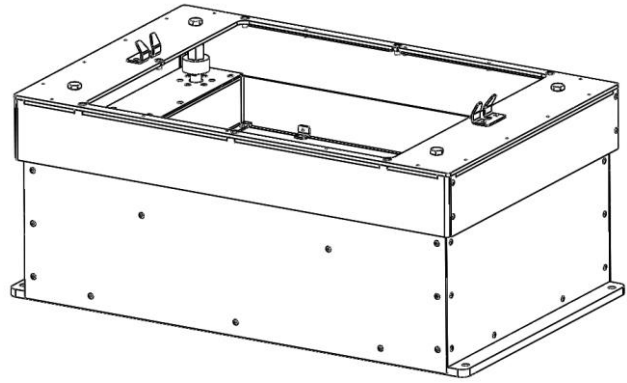


Replace the surface if it is damaged to the extent that it obstructs the vision or behaviour of the parts.

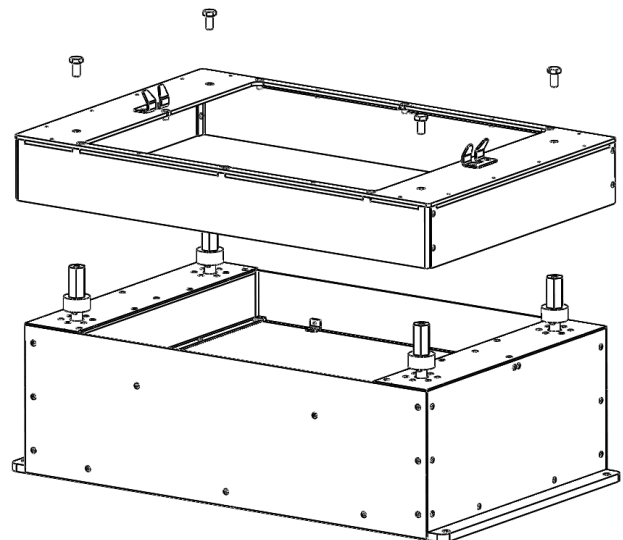
4.2.5. Replacing ball joints

Step 1 Remove the platform and completely unscrew the 4 nuts (A) whilst holding the hexagonal extension (B)

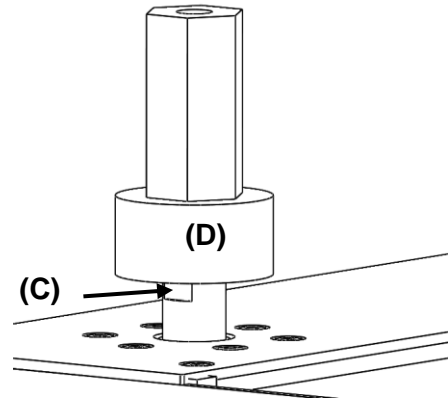
Use size 13 and 17 open-end wrenches



Step 2 Remove the upper assembly (B)

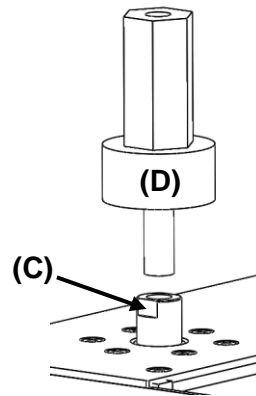


Step 3 Hold the axis (C) with a size 10 open-end wrench whilst you loosen the ball joint (D)

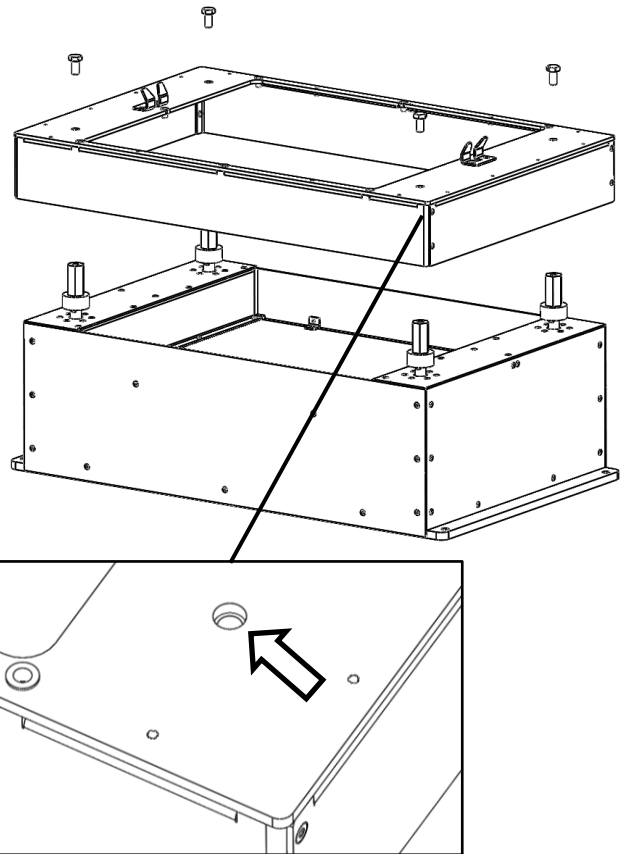


Step 4 Apply a drop of adhesive (type: Loctite 243 or similar) to the outer thread of the new ball joint.

Securely tighten the new ball joint (D) BY HAND (do not use a tool) (mounting bush + extension), whilst maintaining the axis (C) with a size 10 open-end wrench



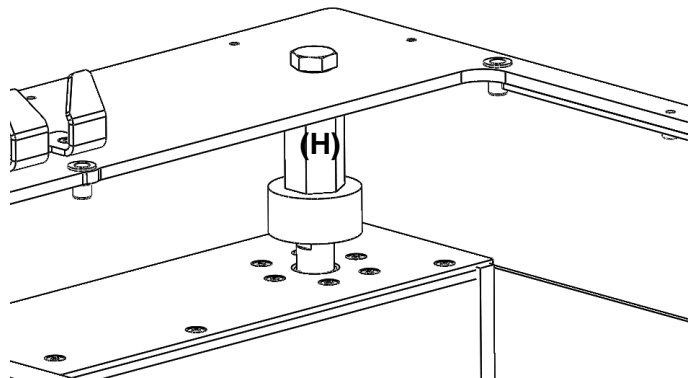
Step 5 Place the upper assembly (B) on the 4 ball joints and carefully align the holes opposite the threads



Step 6 Apply a drop of adhesive (type: Loctite 243 or similar) to the nuts



Tighten (4.4 Nm) the four nuts **WHILST HOLDING** the hexagonal extension (H) with a size 17 open-end wrench



4.3. Repairs

This section gives a list of the components, which can be replaced directly by the customer.
For any other repair, the product must be returned to the manufacturer.



IMPORTANT!

For any kind of repair, always use Asyрил products.

Part name
Backlight assembly (see 4.3.1)
Platform and platform assembly (see 4.2.2)
Ball joints (see 4.2.5)

Table 4-2: Replaceable parts

4.3.1. Replacing/installing the backlight



DANGER!

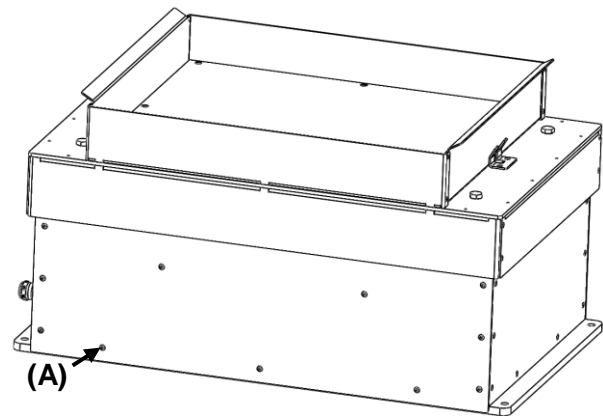
Make sure that all power sources and other cables to the unit are disconnected before changing the backlight.

Material needed:

- New backlight assembly ordered from Asyrl
- Flat wrench size 5.5
- Torx key size 10

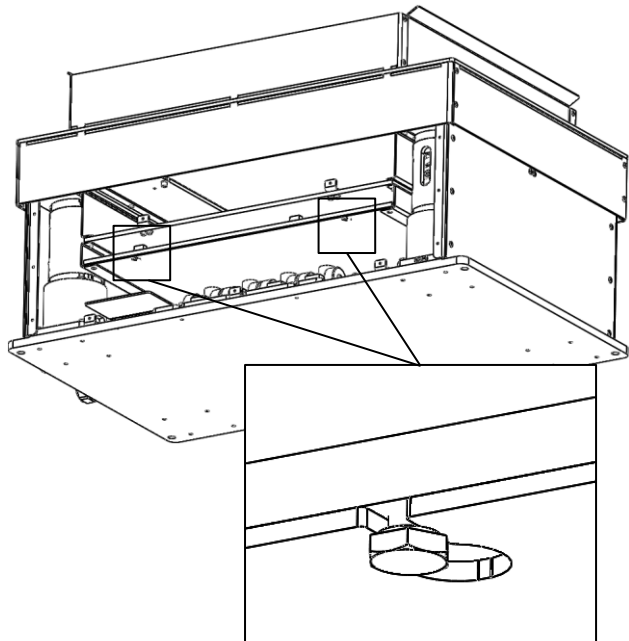
Step 1 Unscrew the screws on both sides **(A)** and remove the two side covers

Use a torx key size 10



Step 2 On both sides, unscrew the four bolts **(B)**

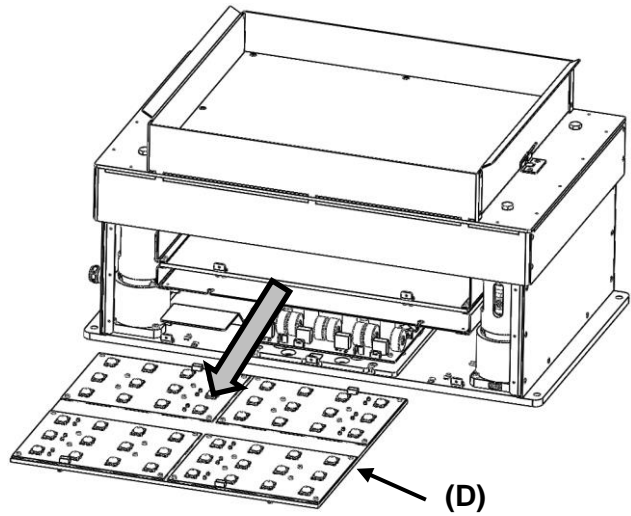
Use a flat wrench size 5.5



Step 3

Carefully disconnect the connectors from the electronics

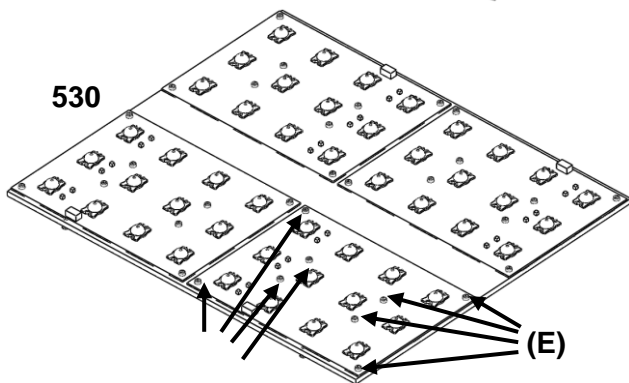
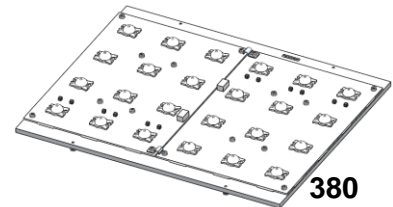
Remove the old backlight assembly (D)



Replace the complete backlight assembly or only a backlight board by unscrewing the 8 screws (E) (it may be necessary to use a tool to detach the backlight print)

Step 4

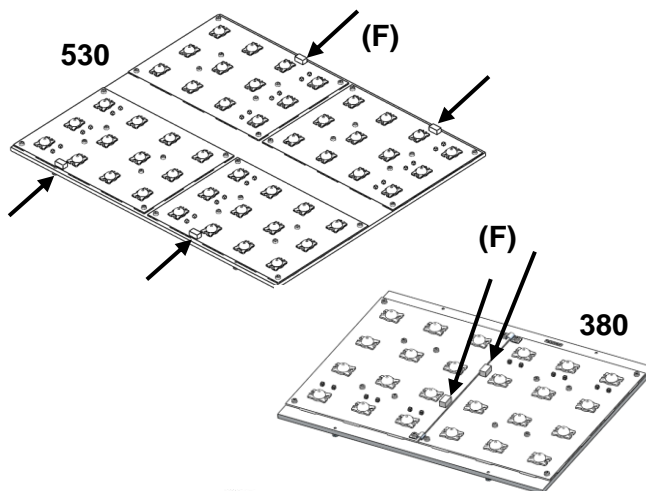
Use a torx key size 10



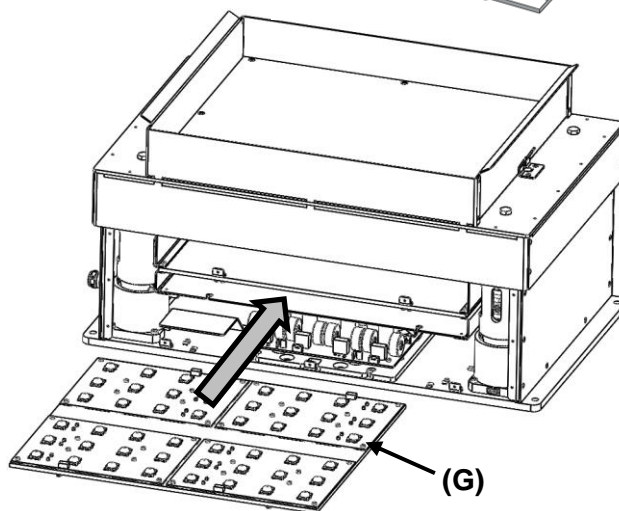
Step 5 Replace the backlight boards respecting the position of the connector (F), and tighten the 8 screws (0.7 Nm)

Take care to remove the protective film on the underside of the backlight board

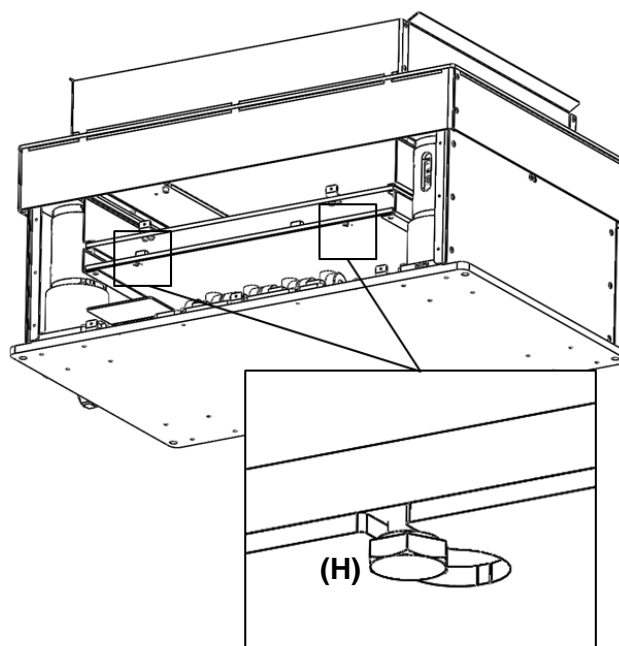
Use a torx key size 10



Step 6 Insert the backlight assembly (G) and align it with the support

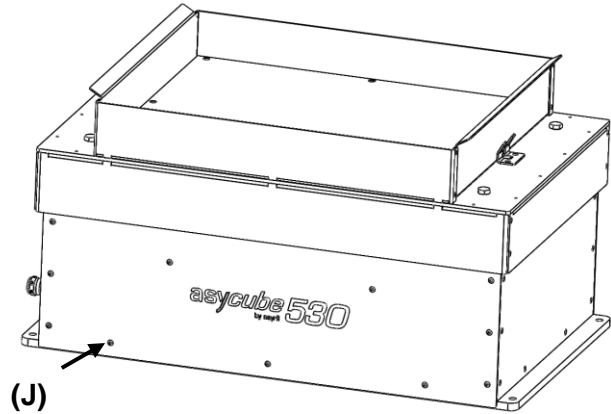


Step 7 Tighten the four bolts (H)
Use a flat wrench size 5.5



Step 6 Connect the connectors to the electronics

Step 7 Refit the covers (J) on both sides and tighten (1.3 Nm) the screws on both sides
Use a Torx key size 10 (0.8 Nm)



4.3.1.1. Configure the Asycube with a new backlight colour

You can set the colour of the backlight in the Asycube. It is useful, for example, to be able to adapt interfaces depending of the colour or whether there is backlight or not.

- With HMI

To modify the parameter, use the following procedure:

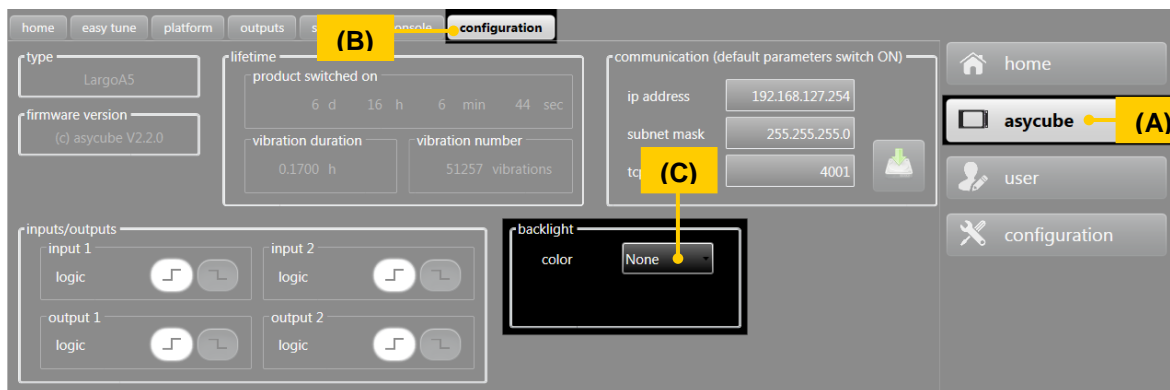


Figure 4-3: Change backlight colour in HMI

Ref.	Designation	Description
(A)	"Asycube" button	Press this button to display the Asycube screen.
(B)	"Asycube configuration" button	Press this button to display the Asycube configuration tab.
(C)	"Colour" select box	This box is used to select the colour of the backlight. If "None" is chosen, backlight tab and backlight switches disappear.

For more information about the HMI, please refer to the user interface documentation.

- With dll

To modify the parameter with plugin.Net, use this function:

SetBacklightColor (BacklightColor color, string password)

The password is important, because to write this parameter, you need to be logged in the firmware as integrator. The password is 1234.

For more information on the DLL, please refer to the integration manual.

- Using TCP commands

To modify the parameter with TCP commands, use this sequence of commands:

Command	Function	More information
1 {wp7=1234}	Login in integrator mode	
2 {wp97="x"}	Write colour of backlight	"x": 0: Green 1: Red 2: Blue 3: IR 4: UV 5: White 99: None
3 {df}	Save configuration in flash memory	
4 {wp7=1}	Logout	

4.3.2. Recover IP address using default IP address

The following procedure explains how to reboot the Asycube on the default IP address, subnet mask and TCP port number to be able to modify the IP address, subnet mask and TCP port number when they are unknown and cannot be found. Following this procedure, you are able to connect to the Asycube with default parameters and then modify unknown parameters.

<p>Step 1 Disconnect the power cable (A) (or switch off the power supply to the Asycube)</p>	
<p>Step 2 Insert a tip in the "Reset IP" hole (B) and reconnect the power cable or switch on the Asycube.</p> <p>The Asycube will load the following default parameters at start-up:</p> <p>IP: 192.168.127.254</p> <p>SubnetMask: 255.255.255.0</p> <p>TCP port: 4001</p>	
<p>Step 3 Parameters in the memory can now be modified (by direct access via Asycube commands, by functions in dll or by Asycube configuration page in HMI (see relative documentation for more detail).</p>	

4.4. Technical support

4.4.1. For better service ...

Have you read the relevant manuals and not found the answers to your questions? Before calling the support service, note the following information for your system:

- Serial number and product key for your equipment
- Software version
- Alarm or error message displayed on the screen

4.4.2. Contact

A wealth of information is available on our website: www.asyril.com

You can also contact us by mail or through our website contact form:

support@asyril.com

+41 26 653 7190

5. Annexes

5.1. CE certificate

Déclaration d'incorporation

conformément à la Directive Machine CE 2006/42/CE, Annexe II 1. B
pour quasi-machines
Original



Fabricant	Personne établie dans la Communauté autorisée à constituer le dossier technique en question
Asyril SA	Damien Perriaz
ZI Le Vivier 22	Asyril SA
CH-1690 Villaz-St-Pierre	ZI Le Vivier 22
	CH - 1690 Villaz-St-Pierre

Description et identification de la quasi-machine

Produit	ASYCUBE 380
Type	ACUBE 380
Numéro de série	A19000000 à A50000000
Fonction	Equipement de distribution de composants en vrac

Il est précisé que les exigences essentielles suivantes de la Directive Machine 2006/42/CE sont remplies :

1.1.6, 1.1.7, 1.3., 1.3.7, 1.5.1, 1.5.5, 1.5.6, 1.5.7, 1.5.8, 1.5.10, 1.5.11, 1.5.12, 1.6.1

Il est indiqué et après que le dossier technique spécial a été établi selon l'Annexe VII partie B.

Une déclaration précise expressément que la quasi-machine satisfait à l'ensemble des dispositions pertinentes des directives ou des règlements CE suivants.

2006/42/CE	Directive 2006/42/CE du Parlement européen et du Conseil du 17 mai 2006 relative aux machines et modifiant la directive 95/16/CE (refonte) (1) Publié dans L 157/24 de 09.06.2006
2014/30/UE	Directive 2014/30/UE du Parlement européen et du Conseil du 26 février 2014 relative à l'harmonisation des législations des États membres concernant la compatibilité électromagnétique (refonte) Publié dans 2014/L 95/79 de 29.03.2014

Référence aux normes harmonisées visées à l'article 7, paragraphe 2 :

EN ISO 12100:2010-11	Sécurité des machines - Principes généraux de conception - Appréciation du risque et réduction du risque (ISO 12100:2010)
EN 349:1993+A1:2008	Sécurité des machines - Ecartements minimaux pour prévenir les risques d'écrasement de parties du corps humain
EN 62471:2008	Sécurité photobiologique des lampes et des appareils utilisant des lampes (CEI 62471:2006, modifiée)
EN ISO 13732-1:2008	Ergonomie des ambiances thermiques - Méthodes d'évaluation de la réponse humaine au contact avec des surfaces - Partie 1: Surfaces chaudes (ISO 13732-1:2006)
EN ISO 13849-1:2015	Sécurité des machines — Parties des systèmes de commande relatives à la sécurité — Partie 1: Principes généraux de conception (ISO 13849-1:2015)
EN 62061:2005	Sécurité des machines - Sécurité fonctionnelle des systèmes de commande électriques, électroniques et électroniques programmables relatifs à la sécurité
EN 60204-1:2006/AC:2010	Sécurité des machines - Equipement électrique des machines - Partie 1: Règles générales
EN 61000-6-3:2007/A1:2011/AC:2012	Compatibilité électromagnétique (CEM) - Partie 6-3: Normes générique; Norme sur l'émission pour les environnements résidentiels, commerciaux et de l'industrie légère
EN 60204-1:2006-06	Sécurité des machines - Equipement électrique des machines - Partie 1: Règles générales

Le fabricant ou son mandataire a l'obligation de transmettre le dossier technique relatif à la machine complète à la suite d'une demande dûment motivée des autorités nationales. Cette transmission a lieu -sous format électronique

Elle ne porte pas préjudice aux droits de propriété intellectuelle du fabricant !

Déclaration importante ! La quasi-machine ne doit pas être mise en service avant que la machine finale dans laquelle elle doit être incorporée ait été déclarée conforme aux dispositions pertinentes de la présente directive, le cas échéant.

Villaz-St-Pierre, 30/04/2019

Lieu, Date


Signature
Alain Codourey
Chief Executive Officer

Déclaration d'incorporation

conformément à la Directive Machine CE 2006/42/CE, Annexe II 1. B
pour quasi-machines



Fabricant	Personne établie dans la Communauté autorisée à constituer le dossier technique en question
Asyril	Jean-Baptiste Berset
ZI Le Vivier 22	Asyril SA
CH - 1690 Villaz-St-Pierre	ZI Le Vivier 22
	CH - 1690 Villaz-St-Pierre

Description et identification de la quasi-machine

Produit	ASYCUBE 530
Type	ACUBE 530
Numéro de série	A14380000 à A50000000
Fonction	Equipement de distribution de composants en vrac.

Il est précisé que les exigences essentielles suivantes de la Directive Machine 2006/42/CE sont remplies :

1.1.1, 1.1.2, 1.1.3, 1.1.5, 1.3.2, 1.3.4, 1.3.7, 1.5.1, 1.5.8, 1.6.1

Il est indiqué ci-après que le dossier technique spécial a été établi selon l'Annexe VII partie B.

Une déclaration précise expressément que la quasi-machine satisfait à l'ensemble des dispositions pertinentes des directives ou des règlements CE suivants.

2006/42/CE	Directive 2006/42/CE du Parlement européen et du Conseil du 17 mai 2006 relative aux machines et modifiant la directive 95/16/CE (refonte) (1) Publié dans L 157/24 de 09.06.2006
2014/30/UE	Directive 2014/30/UE du Parlement européen et du Conseil du 26 février 2014 relative à l'harmonisation des législations des États membres concernant la compatibilité électromagnétique (refonte) Publié dans L 96/79 de 29.03.2014

Référence aux normes harmonisées visées à l'article 7, paragraphe 2 :

EN 349:1993+A1:2008	Sécurité des machines - Ecartements minimaux pour prévenir les risques d'écrasement de parties du corps humain
EN 62471:2008	Sécurité photobiologique des lampes et des appareils utilisant des lampes (CEI 62471:2008, modifiée)
EN 60204-1:2006/AC:2010	Sécurité des machines - Equipement électrique des machines - Partie 1: Règles générales
EN ISO 13732-1:2008	Ergonomie des ambiances thermiques - Méthodes d'évaluation de la réponse humaine au contact avec des surfaces - Partie 1: Surfaces chaudes (ISO 13732-1:2008)
CEI 61000-6-2:2016	Compatibilité électromagnétique (CEM) - Partie 6-2: Normes génériques - Norme d'immunité pour les environnements industriels
CEI 61000-6-4:2007/A1:2011 CEI 61000-6-4:2006/AMD2010	Compatibilité électromagnétique (CEM) - Partie 6-4: Normes génériques; Norme sur l'émission pour les environnements industriels


Le fabricant ou son mandataire a l'obligation de transmettre le dossier technique relatif à la machine complète à la suite d'une demande dûment motivée des autorités nationales. Cette transmission a lieu - sous format électronique

Elle ne porte pas préjudice aux droits de propriété intellectuelle du fabricant !

Déclaration importante ! La quasi-machine ne doit pas être mise en service avant que la machine finale dans laquelle elle doit être incorporée ait été déclarée conforme aux dispositions pertinentes de la présente directive, le cas échéant.

Villaz-St-Pierre, 01/09/2018

Lieu, Date


Signature
Alain Codourey
Chief Executive Officer

Review history

Rev.	Date	Author	Comments
A	16.08.2017	PeD	Original version
B	23.07.2019	PeD	Addition of Asycube 380
B1	04.11.2019	HuG	Asycube 530 V2

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