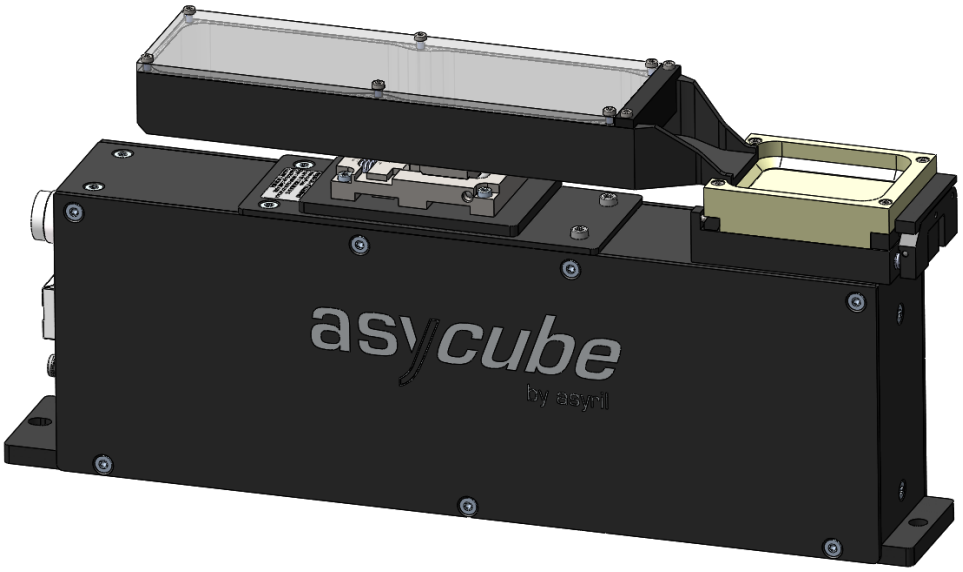
asyril Experts in Flexible Feeding Systems

Asycube 50 & 80

Operating Manual



Document	Asyril_ASYCUBE-50_80_Operating_Manual_EN 000.100.501		
Version	A	**Date**	28.07.2016

Table of Contents

1. Introduction

1.1. Generalities

The following document is the property of Asyril 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. Before operating your product, please read this document in order to ensure a correct use of the product. Nevertheless, if you meet difficulties during the operation or the maintenance, please, feel free to contact Asyril customer service.

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 death or serious injury.

DANGER!

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

WARNING!

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

NOTE :

The user should read carefully this information to ensure the correct use of the product, although failure to do so would not result in injury.

REFER TO …

For more information on a specific subject, the reader should read other manual, or refer to other paragraph.

WARNING!

Asyril shall not be liable whatsoever for any loss or damage arising from a failure to observe the items specified in “Safety Precautions.” The customer is responsible to provide the necessary instruction to the persons concerned.

NOTE :

All dimensions in this document are expressed in millimeters

1.2. Safety precautions

1.2.1. General safety precaution

1.2.1.1. *Transport*

DANGER !

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

1.2.1.2. *General*

DANGER !

Be sure that all power sources and other cables to the unit are disconnected before working on the product.

DANGER !

Only qualified personnel (trained by Asyril and with professional experience) are authorized to work on this device.

DANGER !

Do not unscrew the housing of the system controls. Serious injury or death could result from electric shock. Only authorized personnel from Asyril SA are allowed to access this part 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. Unauthorized modification may cause the product to malfunction, resulting in injury, electric shock, fire, etc.

DANGER !

Turn off the power to the product 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 the main unit or controller may come in contact with water or oil droplets.

1.2.1.3. *Disposal*

When the product becomes no longer usable or necessary, dispose of it properly as an industrial waste.

WARNING!

Observe the valid legal regulation for appropriate disposal protecting environment.

1.2.2. Specific warnings

1.2.2.1. *Safety Equipment for Operators*

- For safety reasons operators must wear protective eyewear when using the backlight of the Asycube without diffuser installed. (the backlight lighting LEDs is equivalent to a Class 1 compared with lasers)

For more information on visible or non visible radiation emitted by the backlight, please refer to "1.2.2.2 Specific warnings concerning this product" on page 6.

NOTE :

It is the customer responsibility to install warning signs informing that anyone working around the Asycube must wear safety equipment.

1.2.2.2. *Specific warnings concerning this product*

(A) Backlight

The Asycube has an integrated Backlight that consists of LED's (Light Emitting Diodes). These LED's emit visible or non-visible radiation depending on the color of the Backlight. LED's illumination can create discomfort od damage to cornea. Never look directly into the light source without any personal protection (e.g. protective eyewear). Customers are encouraged to document their unique application and instruct employees on procedures to limit exposure to LED radiation. This Backlight is not constructed to be used permanently. Please switch off the illumination after image acquisition. (Auto-switch OFF after 30" of timeout)

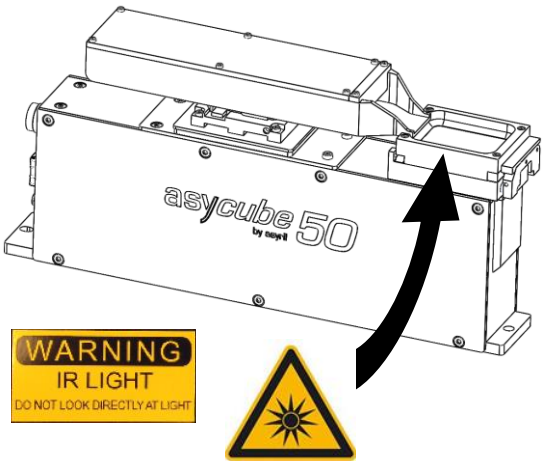


Figure 1-1 :Specific warnings concerning the Asycube

The used LED are class 0 according to the norm EN 62471. It is the responsibility of customers to document their own application and instruct employees on procedures to limit exposure to LED radiation. Following prevention agent can be suggested:

A. Interpose, insofar as the job allows, a high pass filter at x nm depending on the color (see 2.6.5) under a fixed or adjustable connection between the source and the employee
B. When the implementation of the foregoing is not possible, provide workers with goggles or face shield suitable for blocking radiation beyond 700nm;
C. Prohibit or limit as possible direct access to the source (exposure in the axis of radiation), see “Conditions of use of products TPL VISION” below
D. Establish a security perimeter to prevent operators from approaching the source at distances beyond the nominal ocular hazard recommended by the manufacturer
E. In all cases, ensure that the means used properly mitigate exposure variables (characteristics of screens or goggles to choose based on wavelength which operators are exposed).

Temperature

The active elements into the asycube make the surfaces shown on the picture heating up to 40°C in nominal use. This temperature can nevertheless increase to 55°C in extreme use.

It is the responsibility of customers to document their own application and instruct employees on procedures to avoid contact with these surfaces

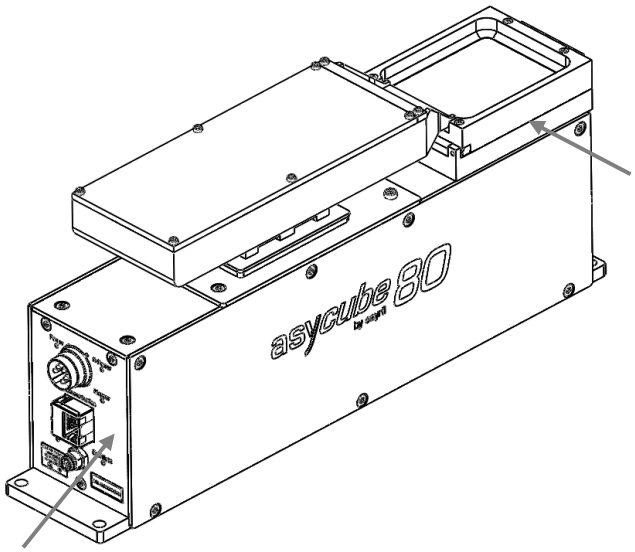


Figure 1-2 :Specific warnings

1.3. Warranty information

You will find all the Asyril warranty information (duration, scope of warranty …) on the general conditions of sale.

1.4. CE information

The declaration of incorporation as a partly completed machinery can be found here below.

NOTE:

The partly completed machinery (Asycube) must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with provisions of this directive, where appropriate.

Refer to"5.1 CE Certificate*" on page 38 for the complete CE Certificate of the asycube.*

1.5. Related manuals

As described in the Table 1-1, this manual is an integral part of the Asycube documentation set. This manual covers the installation, a technical description, the maintenance, and the reparation of your system. Information on the transport and safety precautions are also included in this manual.

Manual Title	Manual reference	Description of the content
Operating manual	ASYCUBE-50-80_Operating_Manual_EN	THIS MANUAL
HMI manual	HMI_User_Guide_EN	Directly accessible via the HMI
Programming guide	ASYCUBE-50-80_Programming_Guide_EN	Describes the way of programming and integrating your Asycube in the final machine.
Plugin .NET	ASYCUBE_PLUGIN_.NET_Integration_Guide_EN	Describes the Asycube dll's that are High-level libraries which helps to integrate Asycubes using .Net 3.5 environment.

Table 1-1 : related manuals

2. Description

2.1. First glimpse at the product

Asycube sets new standards in miniature part feeding. Its 3D vibratory platform allows fast and flexible presentation of miniature parts (0.2 mm to 8 mm) to a robot equipped with a vision system. It consists in:

(A) A 3D vibrating platform (optional)

(B) A removable hopper where the components are stored (optional)

(C) Electrical interfaces (communication, power supply, I/Os…)

(D) An integrated mechanism allowing to remove the platform easily without additional tooling

(E) An integrated backlight (optional) that allows an easy recognition of the parts with a camera

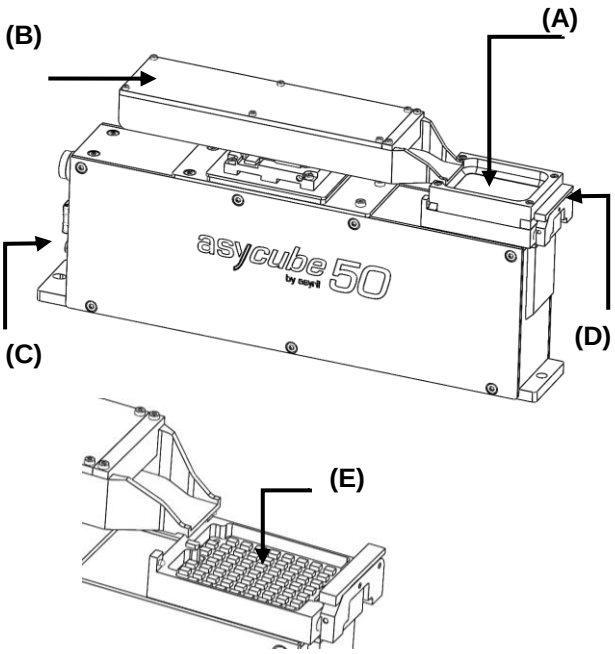


Figure 2-1 : Asycube overview

For more information on electrical interfaces to the Asycube, please refer to "2.4. Electric Interfaces" on page 15

For more information on how to remove or change the platform, please refer to "4.2.2. Remove the platform" on page 30

For more information on the procedure to control the platform and bulk vibrations, please refer to the HMI manual

For more information on the backlight color and the procedure to exchange the backlight, please refer to "4.2.3 Exchange of the backlight" on page 31

2.2. General Characteristics

WARNING !

Do not use the product outside the specifications. In cases of nonobservance the product guarantee will expire.

2.2.1. Technical features

	Asycube 50	Asycube 80
Typical part size	from 0.2 mm to 3 mm side length	from 3 mm to 8 mm side length
Integrated LED backlight	Optional ✓	Optional ✓
Interchangeable backlight color	*(green, red, blue, white, infrared) please refer to "2.6.5 Backlight" on page 25 for more information.*	
Independent vibrations in three orthogonal directions	✓	✓
Interchangeable vibration platform	*Refer to section 4.2.2 for more information.*	
Easily removable hopper	✓	✓

2.2.2. Overall dimensions

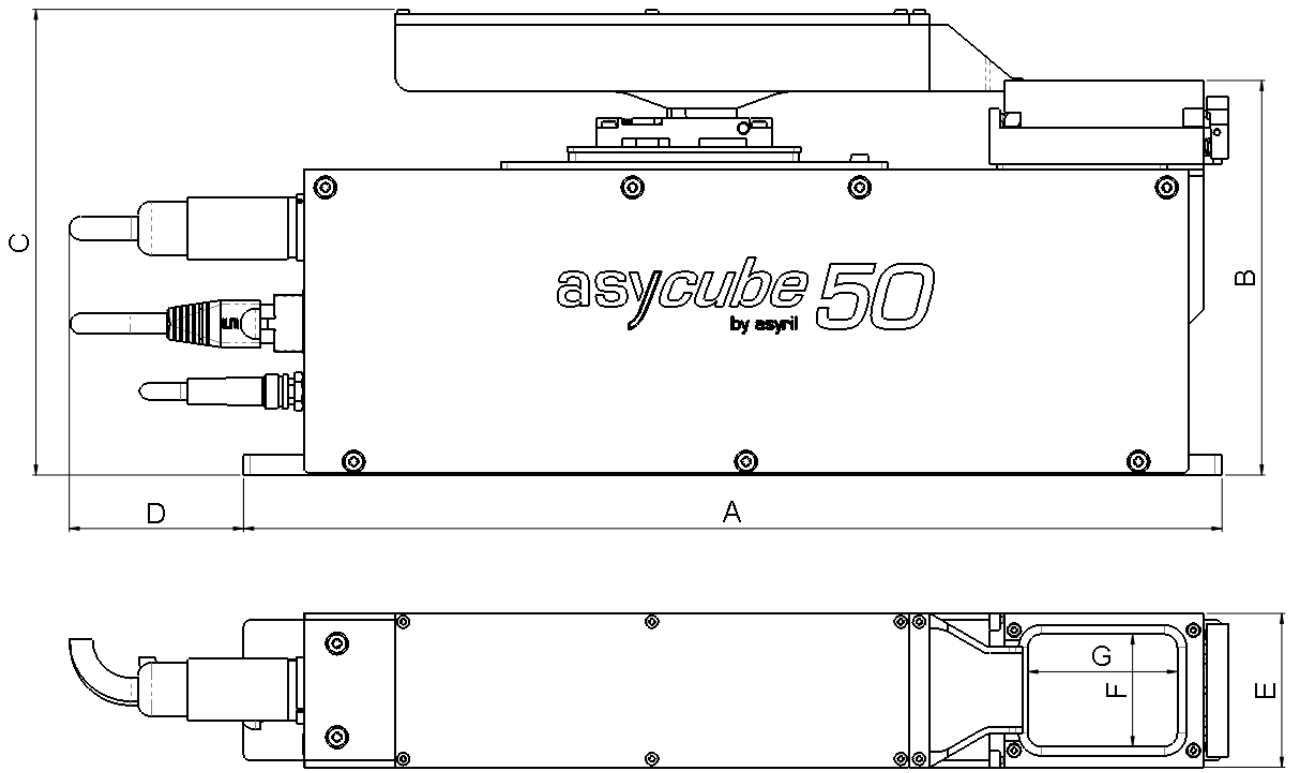


Figure 2-2 : overall dimensions

Characteristic		Asycube *50*	Asycube *80*
Footprint (mm)	A	293	320
	E	46	65
Platform height (mm)	B	118	119
Total height (mm)	C	140	140
Cables	D	50	50
Size of vibration platform (mm)	F	34	52
	G	45	65
Weight (kg)		3.1	3.7

Additional space is needed around the Asycube to unclamp and remove the platform with the integrated lever:

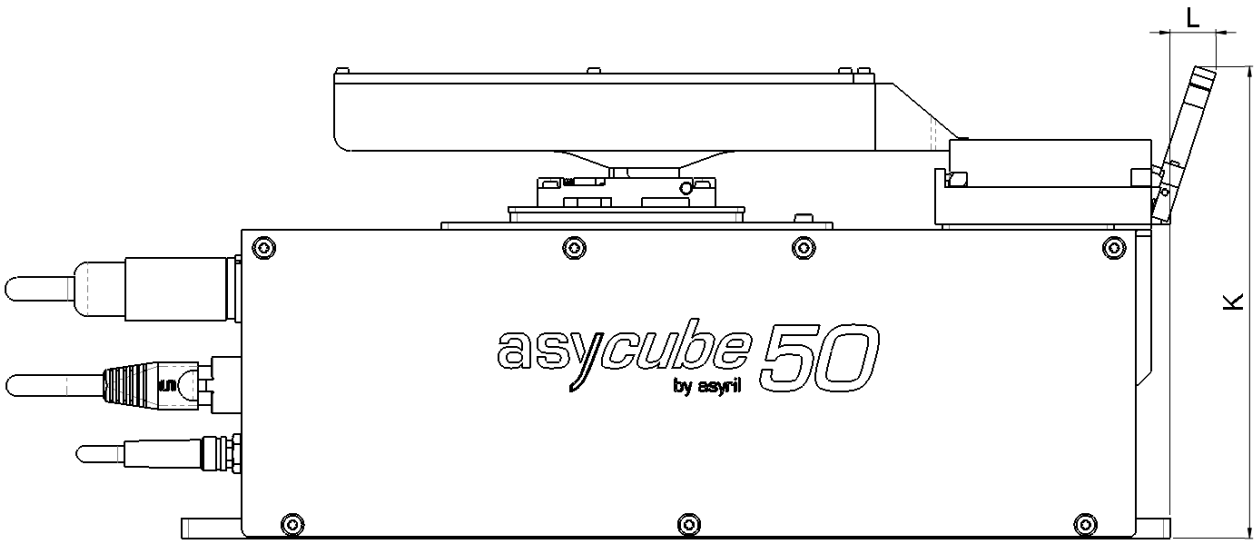


Figure 2-3 : overall dimensions with "lever"

Characteristic		Asycube *50*	Asycube *80*
Lever footprint (mm)	K	140	140
	L	15	12

Refer to "4.2.2 Remove the platform" on page 30 for more information on how to remove the platform.

2.2.3. Visual signals

The LEDs give the following information on the state of the Asycube :

LED	State	Meaning
Power	On	24V on Power input
S-power	On	24V on S-Power input (see 2.4.2 for more information)
Platform	On	Platform vibrating
Hopper	On	Hopper vibrating
State	Blinking Time on : 100ms	System in standby
	Blinking Time on : 900ms	System in service
Backlight	On	24V on backlight Synchronization input
1	On	Communication

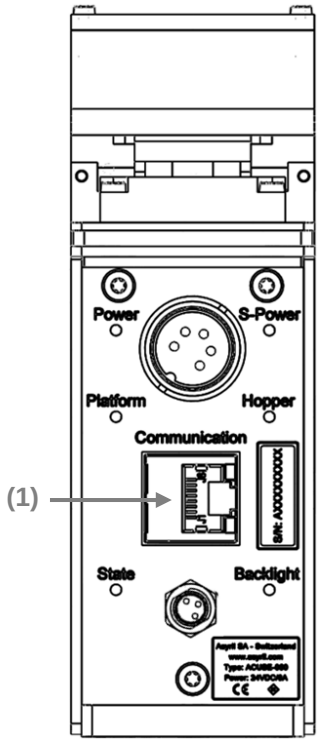


Figure 2-4 : Asycube LED indicator

2.3. Performance

2.3.1. Workspace (Picking surface)

The picking surface dimensions corresponds to the Asycube platform size :

Data	Asycube *50*	Asycube *80*
A	34 mm	52 mm
B	45 mm	65 mm

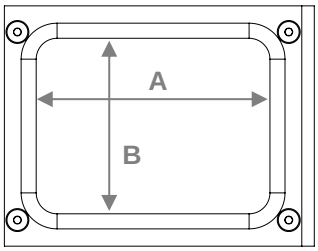


Figure 2-5 : Picking surface

2.3.2. Displacement of the parts

To define a specific movement with the Asycube several parameters need to be configured. For each movement on the cube, twelve parameters must be set. Calling these twelve parameters will generate specific vibrations (corresponding to the sum of the movements of the three actuators situated below the platform).

The figure on the right shows the predefined parameters and the associated movements.

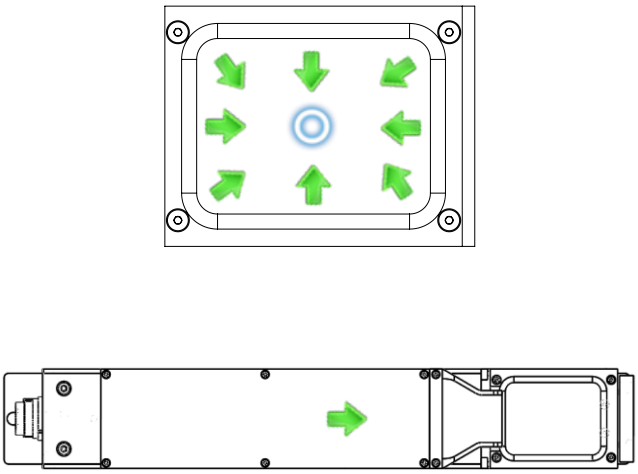


Figure 2-6 : predefined displacement of the parts

For more information on these parameters, and to learn how to configure them, in order to control the cube and hopper vibrations, please refer to the Asyril_ASYCUBE-50_80_Programming_Guide

2.4. Electric Interfaces

2.4.1. Overview

The asycube is a standalone module with its own controller. The electrical interfaces are at the back of the product:

(A) Power connection
(B) Ethernet connection (RJ45)
(C) Backlight synchronization

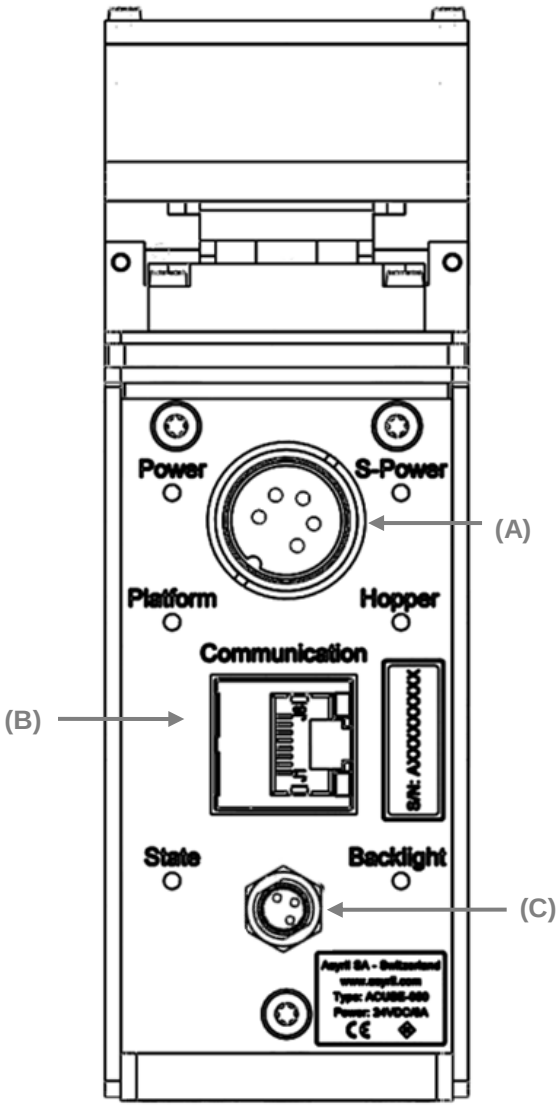


Figure 2-7 : Electrical interfaces to the Asycube

No cable are delivered with the Asycube, but can be ordered separately (please refer to the chapter 2.6.6 “Cables”

2.4.2. Power connection

WARNING !

- Before supplying power to the Asycube, check the nominal voltage.
- Ensure that the power cable is connected to the asycube before switching on
- Always turn off the power supply of the asycube before disconnecting the power cable.

Power	Signal description
(1)	24VDC PELV S-Power
(2)	0V GND S-Power
(3)	24VDC PELV Power
(4)	0V GND Power
(5)	EARTH

Connector type (on asycube side) :
M16, 5 Poles, male

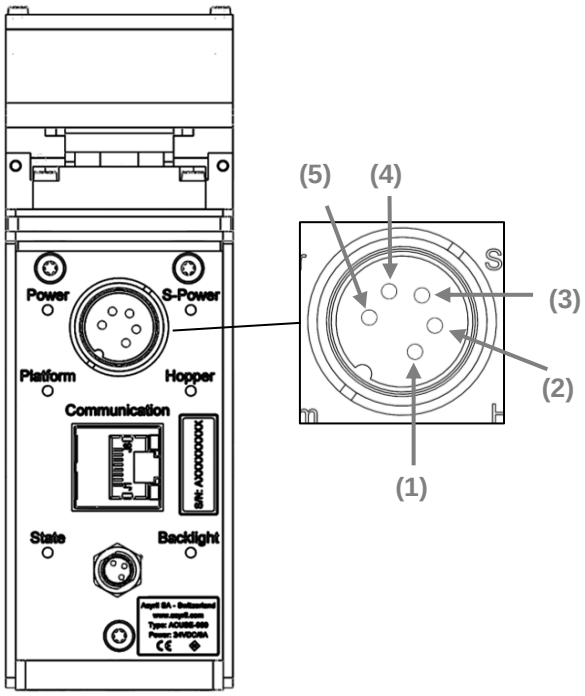


Figure 2-8 : power connection

In case of all functions working simultaneously (vibration, backlight, hopper), the current increases to 6A

Characteristic	Value
Voltage	+24V DC ± 5%
Current Power	5 A
Current S-Power	1 A

NOTE

S-Power is the safety power for the backlight. Cutting this S-Power ensures that the backlight stays OFF (e.g. to secure IR backlight danger).

The following connection schematic shows the way to connect the Asycube depending if your application requires using an external relay to ensure that the backlight is safely switched off or not.
In any case, both “Power” and “S-Power” have to be supplied for using the backlight.

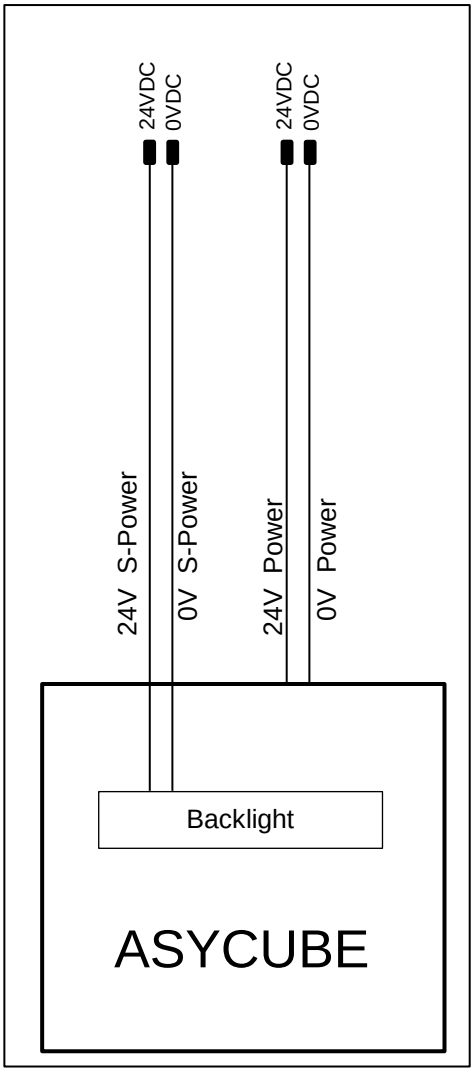


Figure 2-9

Power connection without safety relay

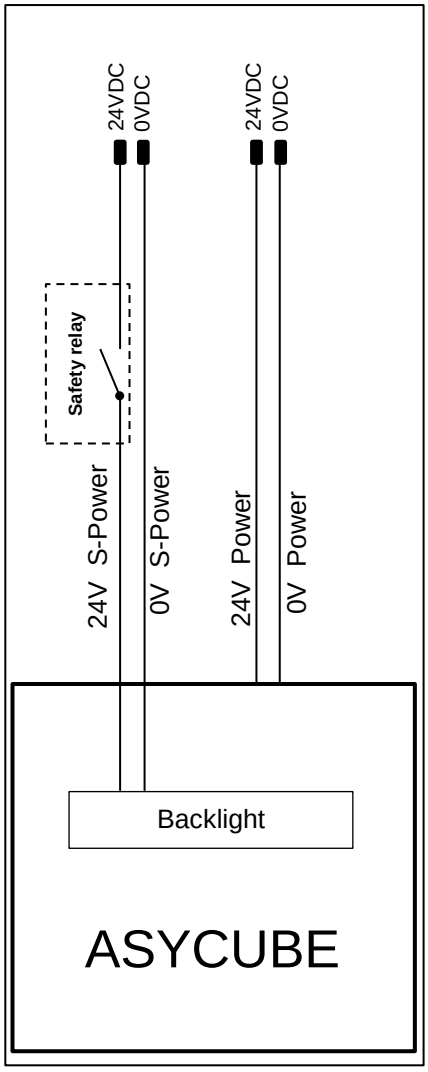


Figure 2-10

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

2.4.3. Communication

The communication with the Asycube is established by a standard Ethernet communication via RJ45 port **(A)**

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 4.2.4.

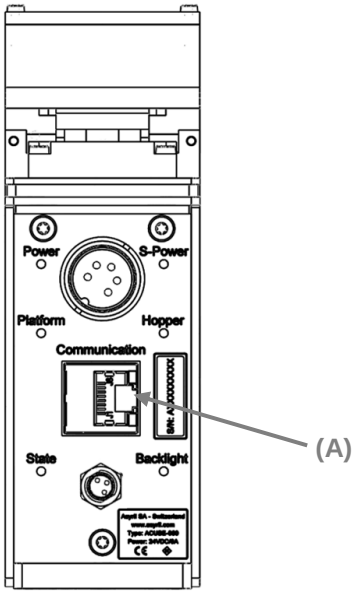


Figure 2-11 : Ethernet connection RJ45

2.4.4. Backlight Synchronization

A standard M8 three-pins female cable enables to synchronize camera acquisition and Asycube backlight illumination, it must be connected as follows :

Pin	Signal
(1)	Not wired
(3)	0V GND
(4)	+24 V pulse (illumination synch.)

Connector type (on asycube side) :
M8, 3P, male

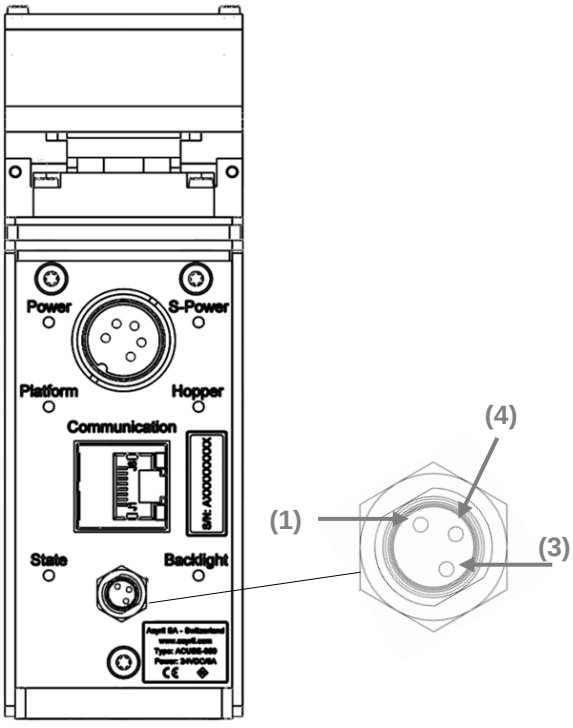


Figure 2-12 : Backlight synchronization

NOTE :

The Asycube Backlight illumination time corresponds to the length of the pulse signal.

2.5. Mechanical Interfaces

2.5.1. Attachment of the Asycube

To guarantee a proper behavior of the Asycube a tight fastening to a solid underground is necessary. The following holes in the base plate of the different Asycubes can be used to fix it mechanically.

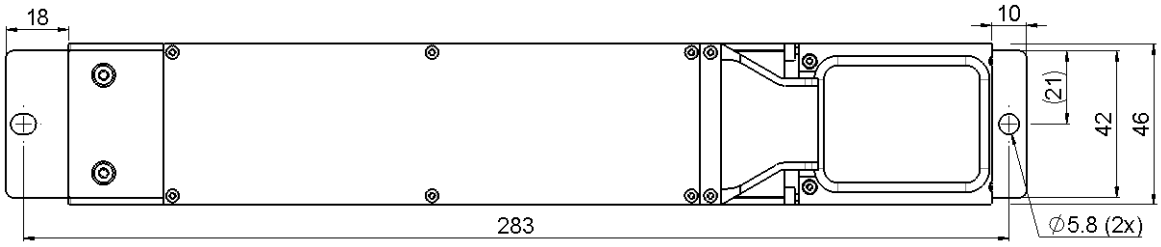


Figure 2-13 : attachment of the Asycube 50

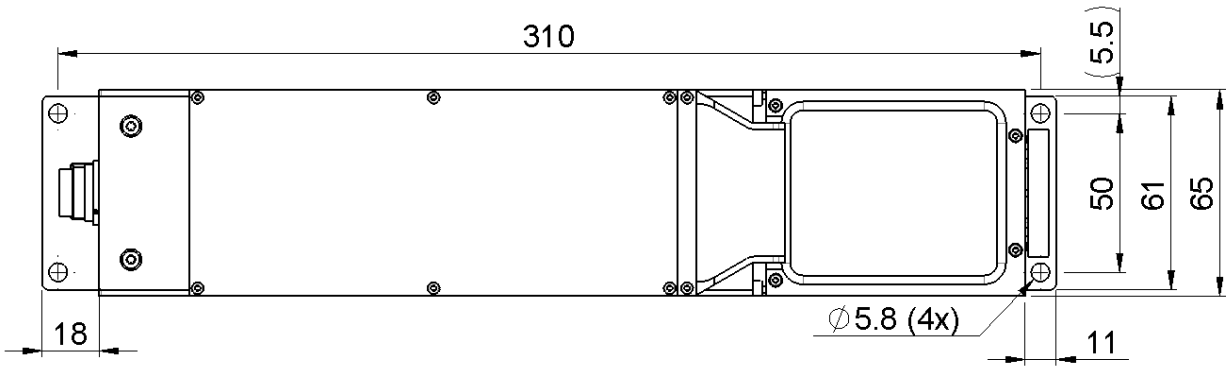


Figure 2-14 : attachment of the Asycube 80

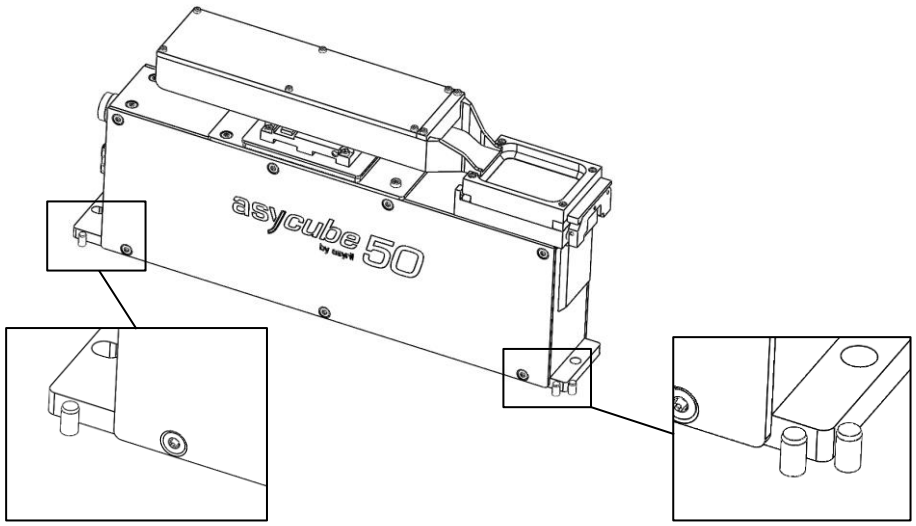


Figure 2-15 : precise positioning of the Asycubes

2.6. Accessories and Optional modules

2.6.1. Platform

The Asycube platform is available in option.

The table below indicates its article number (not structured platform):

Product	Part number
Asycube 50 platform	000.100.284
Asycube 80 platform	000.100.301

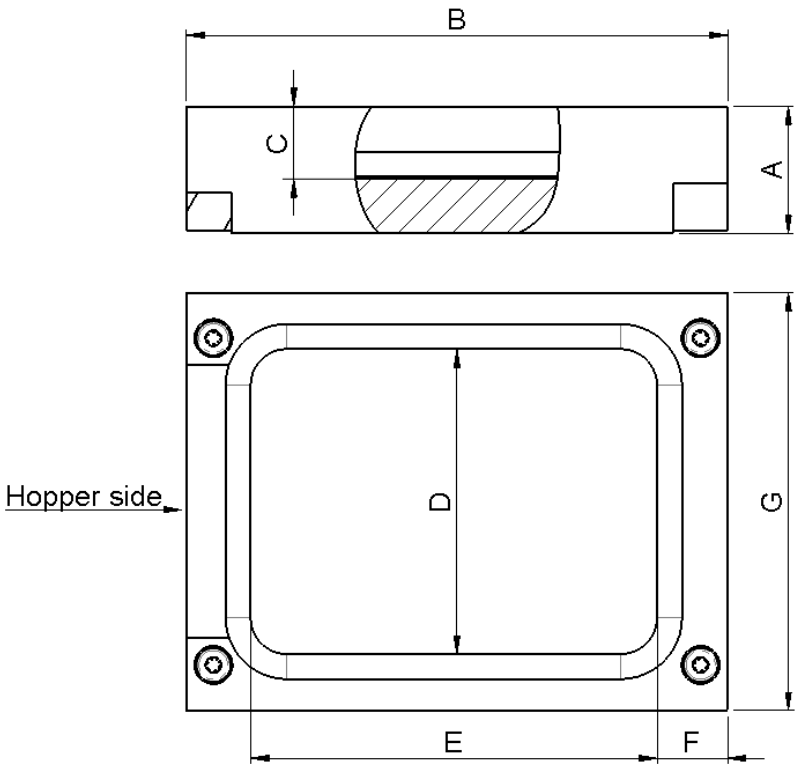


Figure 2-16 : overall dimensions of the platform

	Asycube *50*	Asycube *80*
A	14	15
B	60	82
C	8	9
D	34	52
E	45	65
F	8	9
G	46	65

2.6.2. Platform with purge

A platform with purge function is available in option with the Asycube 50 and 80.

The purge option consists in a platform (A) with a special geometry, which allows the components to be evacuated in a dedicated box (B).

The box can be easily removed by the operator without tooling.

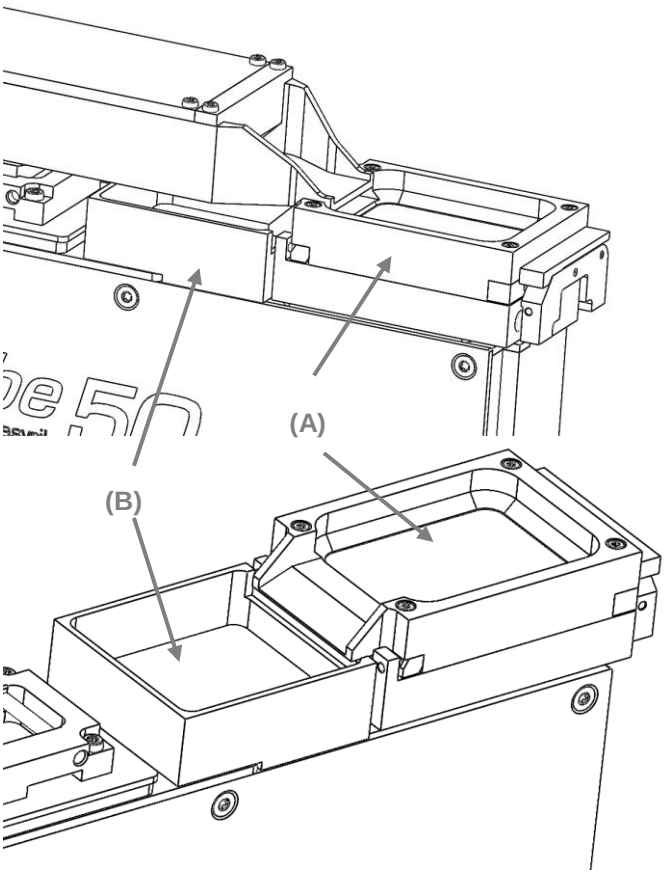


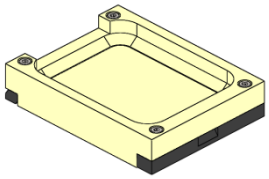
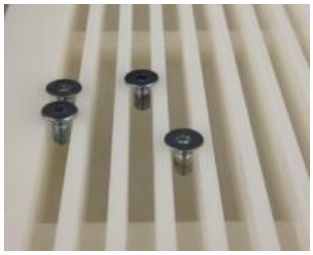
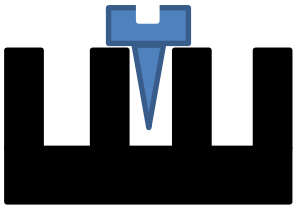
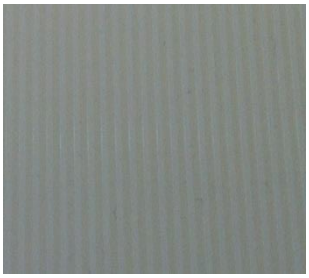
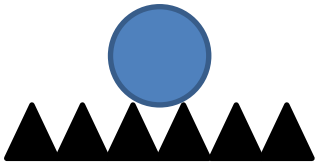
Figure 2-17 : Purge option

The table below shows the article number of the platform with purge and of the purge boxes

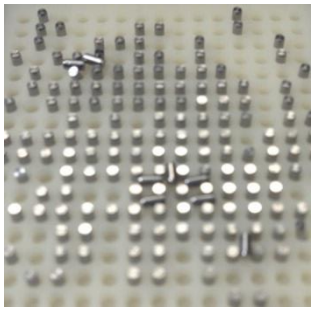
Product	Part number
Asycube 50 platform with purge	000.100.865
Asycube 80 platform with purge	000.100.866
Asycube 50 purge box	000.100.254
Asycube 80 purge box	000.100.298

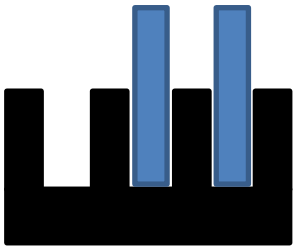
2.6.3. Special platform

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 are as follows:

Platform type	Example – picture	Example – drawing	Advantage
Flat		 Ex : Bolts	This type of platform can be used for a large variety of components mainly components with a flat surface allowing a stable resting position.
Grooves (deep)		 Ex : Screws, Rivets	Screw type components can be fed in vertical position when the platform is structured with deep grooves.
Grooves (wide)		 Ex : Cylinders, Needles	Wide grooves are useful when cylindrical components are fed. They reduce the stabilising time significantly after component displacements on the platform surface (stop the components from rolling on the surface).
Grooves (narrow)		 Ex : Thin washers	Narrow grooves are necessary to reduce surface contact especially for flat and light components. This reduces adhesion forces and improves the component displacements on the feeder surface. It also improves the pick-performance of the robot.

Holes





Ex : Pins

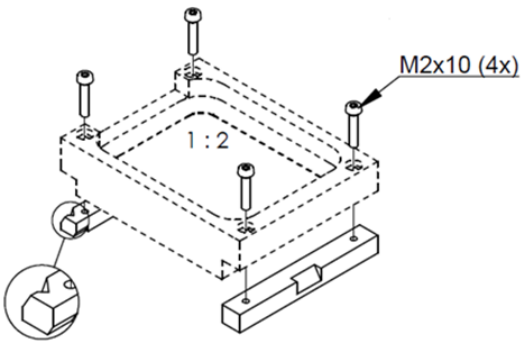
Holes are useful when cylindrical components are to be fed and presented upright.

NOTE :

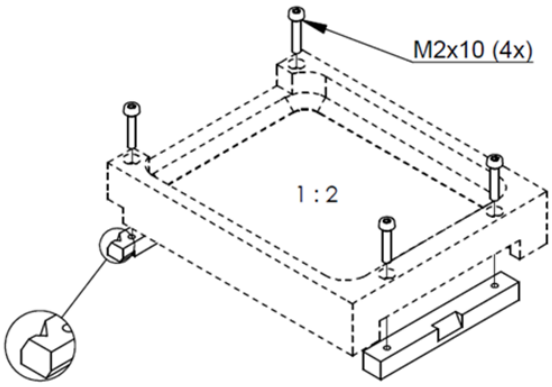
For more information on these special platforms, contact Asyril customer's service.

The customer can also make his own platforms, in this case plate fixation kits can be ordered by Asyril

Asycube 50



Asycube 80



Product	Part number
Fixation kit 50	000.100.388
Fixation kit 80	000.100.418

2.6.4. Hopper

A hopper is available in option.

It is delivered with a separate cover, a retaining dam and screws, which can be assembled by customer if needed.

Product	Part number
Hopper Asycube 50	000.100.269
Hopper Asycube 80	000.100.307

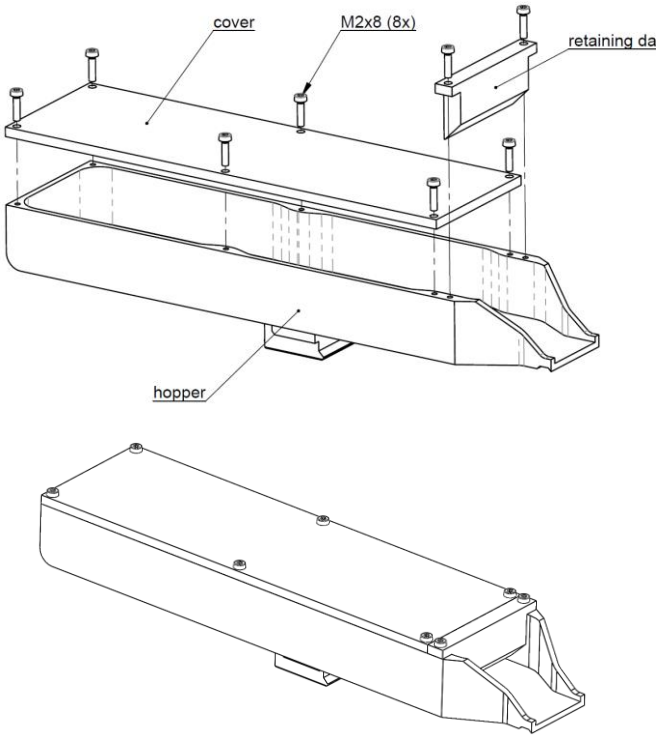


Figure 2-18 : Hopper

2.6.5. Backlight

Following backlight are available in option:

Backlight Asycube *80*		
Color	Wavelength	Part Number
Blue	465 nm	000.100.748
Green	520 nm	000.100.743
Infrared	880 nm	000.100.750
Red	640 nm	000.100.746
White	6500 K	000.100.749

Backlight Asycube *50*		
Color	Wavelength	Part Number
Blue	465 nm	000.100.754
Green	520 nm	000.100.751
Infrared	880 nm	000.100.756
Red	640 nm	000.100.752
White	6500 K	000.100.755

If this option is ordered at the same time with the Asycube, it is delivered mounted in the feeder.

For more information on the backlight color and the procedure to exchange the backlight, please refer to "4.2.3 Exchange of the backlight on page 31".

NOTE :
For more information on these bespoke backlights, contact Asyril customer's service.

2.6.6. Cables

Following cables are available:

Product	Part Number
Power cable (5m)	900.006.215
Ethernet RJ45 cable (5m)	601.000.218
Synchro-backlight cable (5m)	900.006.223

NOTE :
For more information on these cables, contact Asyril customer's service.

WARNING :
All these cables are **NOT** adapted for cable carriers (cable tracks).

3. Transportation, handling and installation

3.1. Packaging of the product, transportation and handling

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

WARNING !

- Be aware of the weight and take care when transporting the system.
- Always hold the system firmly with two hands.
- The operator should not carry heavy shipping boxes by himself.
- If the shipping box is to be left standing, it should be in a horizontal position.
- Do not climb on the shipping box.
- Do not place heavy objects on top of the shipping box.

The Asycube is shipped in a cardboard with the following dimensions:

	Asycube 50	Asycube 80
Dimensions (mm)	500x330x130	500x330x130
Gross weight	4kg	5kg

Table 3-1 : gross weight and dimensions of the product in packaging

3.2. Before unpacking

Before unpacking, look at the ShockWatch Label.

If the Shockwatch is red, or if any evidence of damage during transit is detected please :

(A) request that the carrier's agent be present at the time of unpacking

(B) pay special attention to any damage on the exteriors of the product

(C) if any damage has occurred, do not sign the delivery slip and contact Asyril

(D) in every cases, make a notation on the delivery slip

Figure 3-1 : ShockWatch

NOTE :

If the items received do not match to your order, or are damaged, do not sign the receipt, and contact Asyril as soon as possible.

3.3. Unpacking instructions

NOTE

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

WARNING !

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

1. Carefully open the shipping box by using a cutter

WARNING !

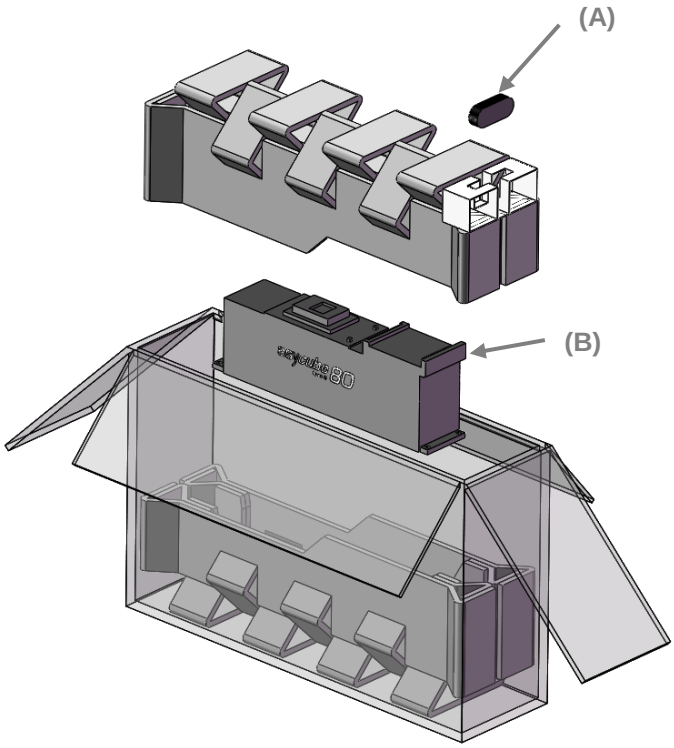
Take care not to cut too deep or else you would damage *the Asycube !*

2. Remove the documentation USB key **(A)** and set it aside

3. Verify that there is no visible damage

NOTE :

If the items **(B)** received do not match to your order, or are damaged, contact Asyril .



4. Follow the operating manual included in the USB key for fixing the Asycube and starting using it

NOTE :

Potential accessories are supplied separately in a second box

Locate the identification information at the back of the product and ensure that the product you have received is the correct one (S/N).

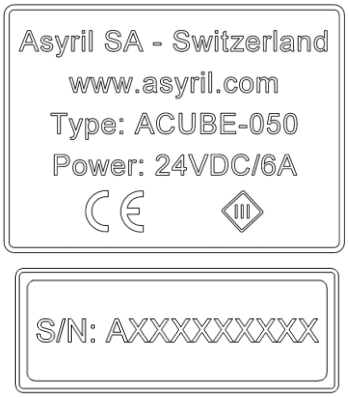


Figure 3-2 : Product information (example)

3.4. Installation and storage environment

WARNING !

The Asycube must be mounted on a smooth, flat and strong surface. Ensure yourself that the Asycube is not submitted to mounting flexure. Failure to do so would degrade feeder performance.

3.4.1. Installation environment

The Asycube can be used under following conditions:

- The asycube 50 and 80 are IP40
- Working temperature: +5°C to +40°C
- Humidity: 30% to 80%max. non-condensing

WARNING !

In the case humidity or temperature variation, note that it might affect the global performances of the Asycube.

- Avoid extreme electromagnetic waves, ultraviolet rays and radiation.
- Avoid using the product in a place where the main unit or controller may be exposed to water or oil droplets.
- Clean room application: cleanliness class ISO7

WARNING !

Do not use the product in an atmosphere of corrosive gases.

3.4.2. Storage environment

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

4. Maintenance and reparation

4.1. Safety precautions

4.1.1. General safety precautions

WARNING !

There are no user serviceable parts inside the product. Contact a supplier for maintenance. In case of non-respect, the product guarantee will expire.

DANGER !

Do not operate the system when it is damaged. Control may defects before use

DANGER !

Power down the system and unplug it from the supply before maintenance.

DANGER !

Do not pour water onto the product. Spraying water over the product, washing it with water or using it in water may cause the product to malfunction, resulting in injury, electric shock, fire, etc.

4.2. Maintenance

WARNING !

For any kind of maintenance, always use Asyril products.

4.2.1. Periodic maintenance schedule

Our products are largely maintenance-free, however, simple inspections should be done at regular intervals to ensure optimal performances, and safety operating of your product.

	Item	Period	Reference
General	Cleaning of the product	Week	
	Visual check of electrical harness	Year	
	Visual check and cleaning of the plate	Week	Section 4.2.3.1
specific process	It is the customer's responsibility to schedule the maintenance of his specific process	/	/
Backlight	Visual check	Month	

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 your particular system, its operating environment and the amount of usage.

4.2.2. Remove the platform

DANGER !

Be sure that the backlight is off before removing the platform module. Failure to follow this instruction may cause permanent damage to the backlight.

Step 1 Turn the lever **(A)** clockwise and pull it forward

Step 2 Remove the platform **(B)**

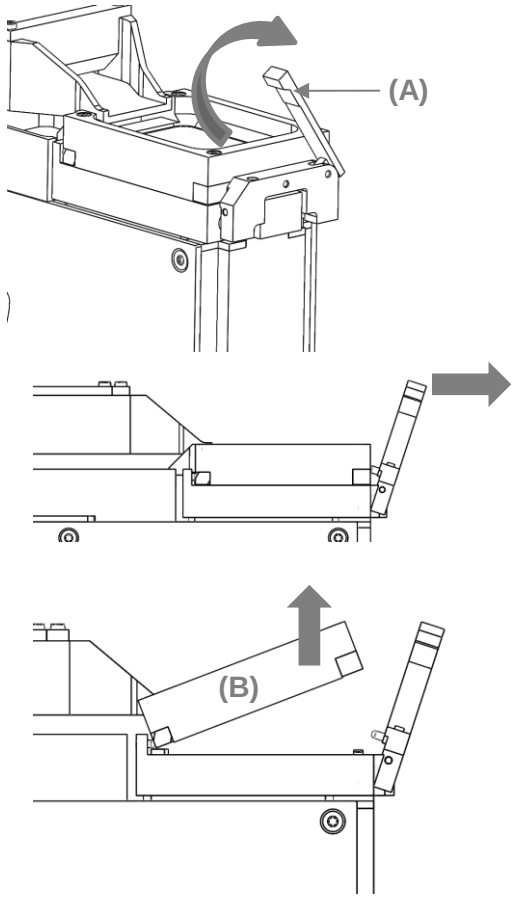


Figure 4-1 : remove the platform

4.2.3. Exchange of the backlight

DANGER !

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

Step 1 Remove the platform module **(A)**

Refer to "4.2.2 Remove the platform" on page 30 for more information on how to remove the platform.

Step 2 Remove the four screws **(B)**

Step 3 Remove the backlight **(C)**

Step 4 Place the new backlight

Step 5 Screw the four screws (0.2 Nm)

Step 6 Remount the platform module

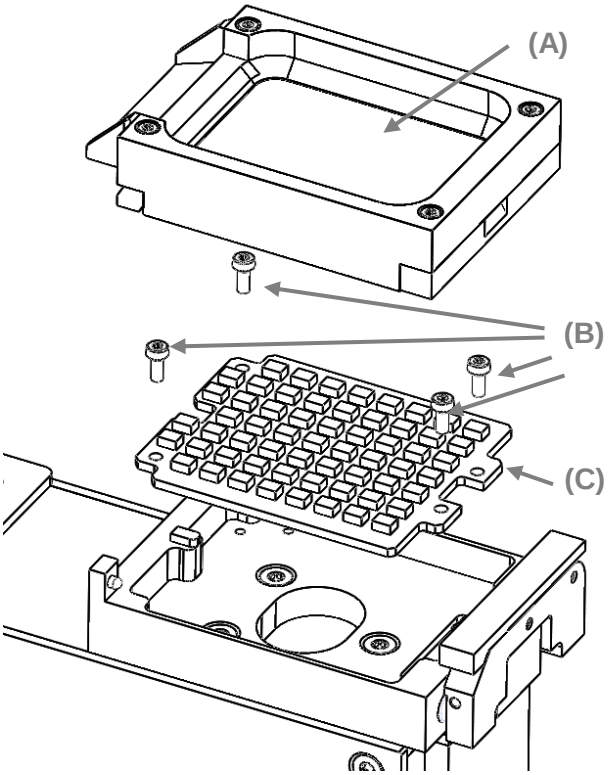


Figure 4-2 : exchange of the backlight

4.2.3.1. *Configure the Asycube with a new backlight color*

You can set the information of the color of the backlight in the Asycube. It is useful for example to be able to adapt interfaces depending of the color or depending if there is no backlight.

- With HMI

To modify the parameter, use the following procedure:

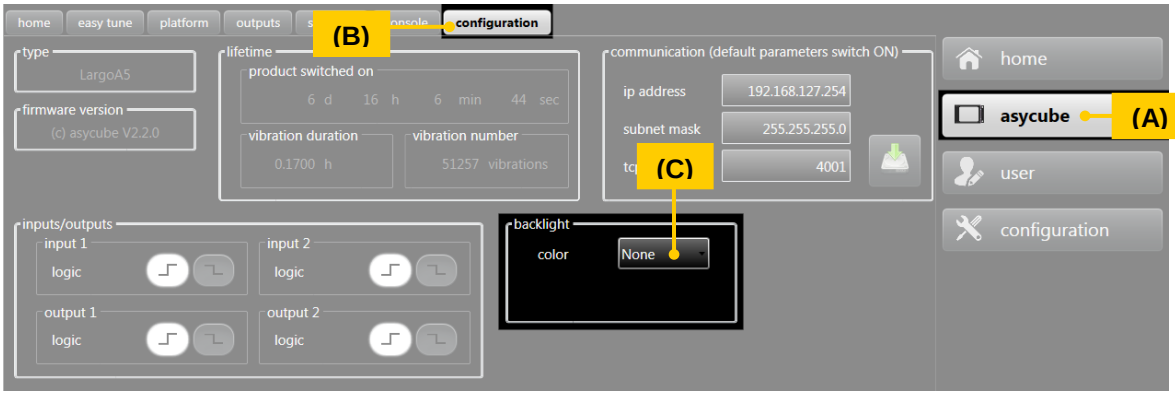


Figure 4-3 : change backlight color in HMI

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)	*"Color" select box*	This select box allows selecting the color 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. Password is 1234.

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

- Using tcp commands

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

	Command	Function	More informations
1	{wp7=1234}	Login in integrator mode	
2	{wp97="x"}	Write color 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	

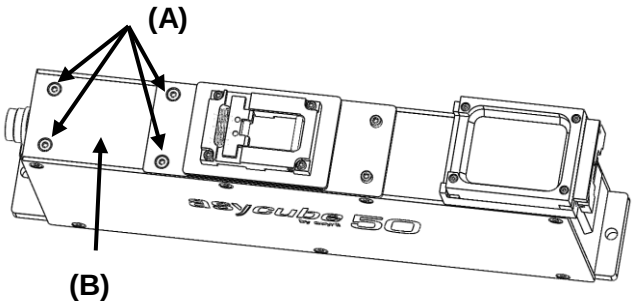
4.2.4. Recover IP address using default IP address

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

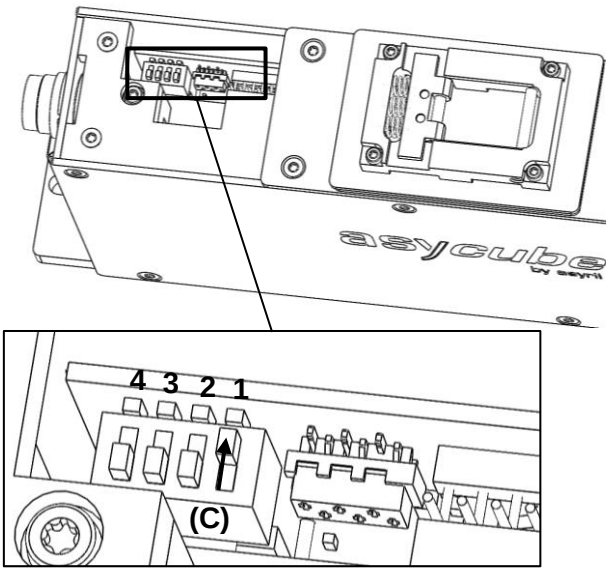
Step 1 Remove the hopper

Unscrew the 4 screws **(A)** and remove the cover **(B)**

Use a torx key size 10



Step 2 Place selector 1 in "on" position **(C)**



Step 3 Disconnect and reconnect the power cable (or switch off and switch on the power on the Asycube).

The Asycube will take the default parameters by the new startup :

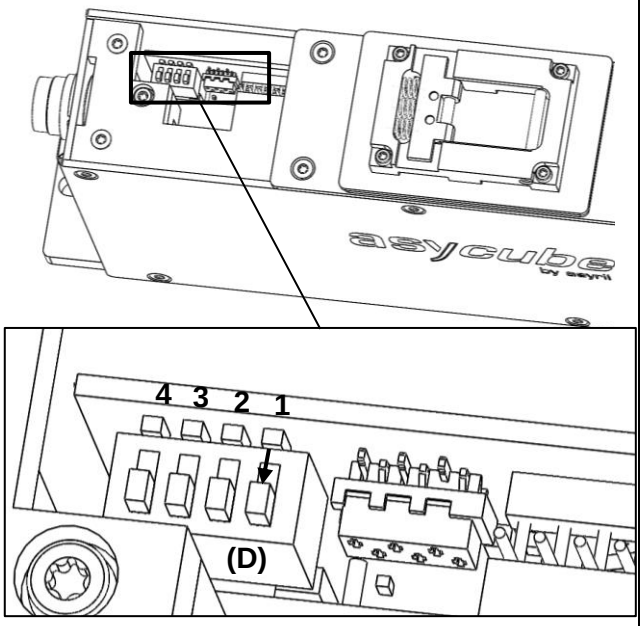
IP: 192.168.127.254

SubnetMask: 255.255.255.0

TCP Port: 4001

Step 4 Parameters in memory can now be modified (by direct access with commands to the Asycube, by functions in dll or by Asycube configuration page in HMI (see relative documentations for more details)).

Step 5 When parameters are defined as desired, replace selector 1 in position **(D)**.

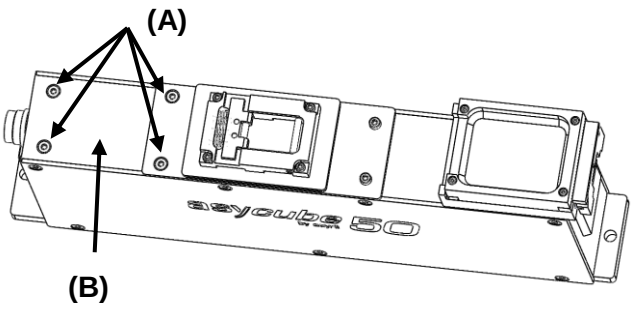


Step 6 Disconnect and reconnect the power cable (or switch off and switch on the power on the Asycube).

The Asycube will take the parameters defined by the new startup.

Step 7 Replace the cover **(B)** and screw the 4 screws **(A)**

Use an torx key size 10 (0.9Nm)



4.2.5. Control and Cleaning of the platform

Material needed :

- Lint-free cloth
- isopropanol alcohol

Step 1 Control the surface of the platform **(A)** and be particularly careful to the following points :

- Big claws
- Dirt or spotted surface
- Oily or greasy surface

WARNING :

If the surface is so damaged that it influences the vision or the behavior of the parts, it must be replaced

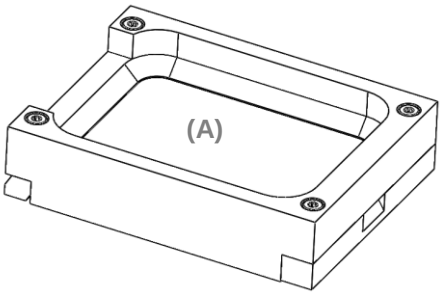


Figure 4-4 : Platform

Step 2 Clean the surface of the platform

4.3. Reparation

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.

WARNING !

For any kind of reparation, always use Asyril products.

Name of the part	Article number
Plate for Asycube 50	000.100.284
Plate with purge for Asycube 50	000.100.865
Plate fixation kit for Asycube 50	000.100.388
Green backlight for Asycube 50	000.100.751
Red backlight for Asycube 50	000.100.752
Blue backlight for Asycube 50	000.100.754
White backlight for Asycube 50	000.100.755
Infrared backlight for Asycube 50	000.100.756
Hopper 110cm3 for Asycube 50	000.100.269
Purge box for Asycube 50	000.100.254
Plate for Asycube 80	000.100.301
Plate with purge for Asycube 80	000.100.866
Plate fixation kit for Asycube 80	000.100.418
Green backlight for Asycube 80	000.100.743
Red backlight for Asycube 80	000.100.746
Blue backlight for Asycube 80	000.100.748
White backlight for Asycube 80	000.100.749
Infrared backlight for Asycube 80	000.100.750
Hopper 160cm3 for Asycube 80	000.100.307
Purge box for Asycube 80	000.100.298

Table 4-2 : Replaceable parts

4.4. Technical support

4.4.1. For better service …

You have read the check list and the related manuals without finding answers to your questions ? Before calling the support service, note the following information for your system:

- serial number and product key of your material
- software version
- alarm or error message displayed on the screen

4.4.2. Contact

You can find lot of information on our website: www.asyril.ch
You can also contact us by mail or call our support service:

support@asyril.ch +41 26 653 7190

5. Annexes

5.1. CE Certificate

Declaration of incorporation

according to the EU Machinery Directive 2006/42/EC, Annex II 1. B
for partly completed machinery

asyril Experts in Flexible Feeding Systems

Manufacturer

Asyril SA

ZI Le Vivier 22

CH - 1690 Villaz-St-Pierre

Person established in the Community authorised to compile the relevant technical documentation

Jean-Baptiste Berset

Asyril SA

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Description and identification of the partly completed machinery

Product / Article	ACUBE-50 & 80
Type	Asycube 50 & 80
Serial number	A16000000 à A50000000
Project number	ACUBE-50 & 80 EN
Function	Smooth vibration feeder for ultra efficient component distribution

It is declared that the following essential requirements of the Machinery Directive 2006/42/EC have been fulfilled:

1.3., 1.3.7, 1.5.1, 1.5.10, 1.5.11, 1.6.1

It is also declared that the relevant technical documentation has been compiled in accordance with part B of Annex VII.

It is expressly declared that the machinery the partly completed machinery fulfils all relevant provisions of the following EU Directives or Regulations:

2006/42/EC	Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast) (1)
2014/30/EU	Directive 2014/30/EU of the European Parliament and of the Council of 26 February 2014 on the harmonisation of the laws of the Member States relating to electromagnetic compatibility (recast)

Reference to the harmonised standards used, as referred to in Article 7 (2):

EN 349:1993+A1:2008	Safety of machinery - Minimum gaps to avoid crushing of parts of the human body
EN ISO 13732-1:2008	Ergonomics of the thermal environment - Methods for the assessment of human responses to contact with surfaces - Part 1: Hot surfaces (ISO 13732-1:2006)
EN 60204-1:2006/AC:2010	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
EN ISO14121-2:2008	Safety of machinery -- Risk assessment -- Part 2: Practical guidance and examples of methods
EN ISO 11553-1:2008	Safety of machinery - Laser processing machines - Part 1: General safety requirements (ISO 11553-1:2005)
EN ISO 12100:2010-11	Safety of machinery - General principles for design - Risk assessment and risk reduction (ISO 12100:2010)

The manufacturer or his authorised representative undertake to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery. This transmission takes place
- in electronic format

This does not affect the intellectual property rights!

Important note! The partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of this Directive, where appropriate.

Villaz-St-Pierre, 2016-06-13

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Place, Date

Signature
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Director

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Rev.	Date	Author	Comments
A	28.07.2016	BeJ	Initial Version

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