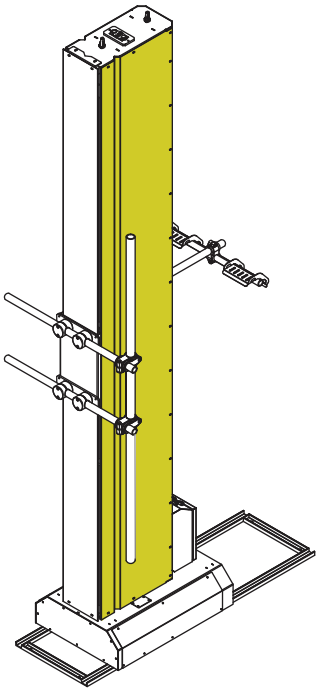
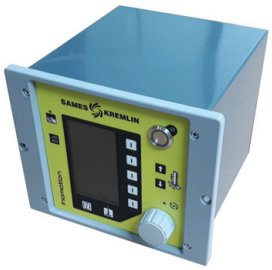
SAMES KREMLIN





User manual

Inorecip V
and
Inomotion

SAMES KREMLIN SAS - 13, Chemin de Malacher - 38240 MEYLAN - FRANCE
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Throughout the year, our company offers training courses in the operation and maintenance of your equipment.
A catalogue is available on request. Choose from a wide range of courses to acquire the skills or knowledge that is required to match your production requirements and objectives.
Our training courses can be delivered at your site or in the training centre at our Meylan head office.

Training department:
Tel. 33 (0)4 76 41 60 04
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SAMES KREMLIN SAS operating manuals are written in French and translated into English, German, Spanish, Italian and Portuguese.
The French version is deemed the official text and **SAMES KREMLIN** will not be liable for the translations into other languages.

Inorecip V and Inomotion

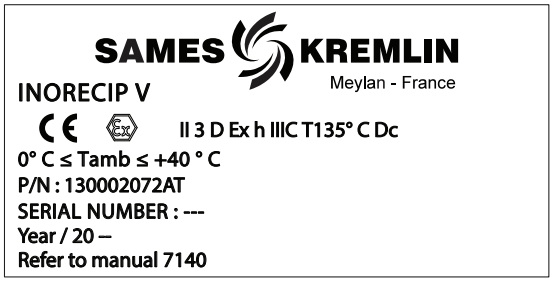
1. Health and safety instructions

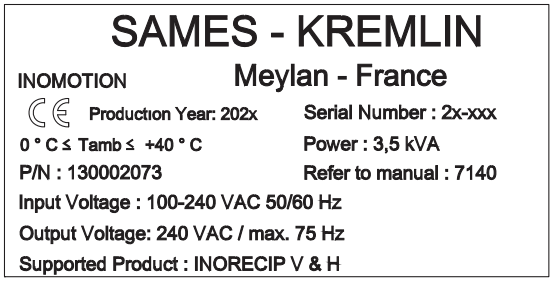
This manual contains links to the following instructions manuals:

- see RT Nr 7133 for **Inogun A** projector.
- see RT Nr 7167 for **Inorecip H**.

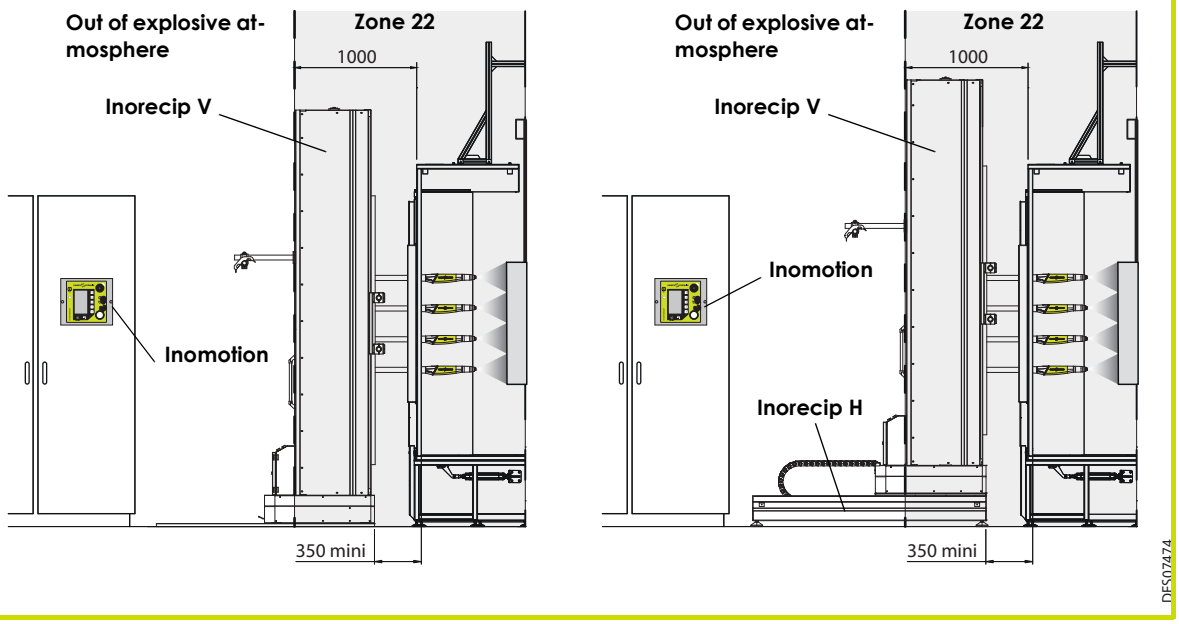
1.1. Marking

Inorecip H is classified as category 3 according to the ATEX 2014/34/EU directive.





The front part is implanted in zone 22 and the rear part is out of zone.



1.2. Simplified analysis of potential ignition sources according to EN 80079-36

Risk of ignition		Measures applied to prevent the source of ignition from becoming effective
Potential source of ignition	Description / Main cause (What are the conditions causing the risk of ignition)	Description of the measure applied
Hot surface	Friction of the drive belt on the pulleys and of the rollers on the rails	Plastic belt: does not transmit heat Moving speed < 36m/min
Sparks of mechanical origin	Sparks caused by the fall of the carriages (belt breaking) or by a change in the stroke of the carriages	Carriages equipped with high and low elastic stops
Static electricity	Electrostatic discharge between metal parts and earth (e.g. rollers / rails, pulley / axis / belt)	All metal parts must be earthed.
	Electrostatic discharge at the belt	Antistatic belt

1.3. Precautions for Use

This document contains information that all operators should be aware of and understand before using the **Inorecip V and Inomotion.** This information highlights situations that could result in serious damage and indicates the precautions that should be taken to avoid them.

WARNING : Before any use of the equipment, check that all operators:

- have previously be trained by the compagny **SAMES KREMLIN**, or by their distributors registered by them for this purpose.
- have read and understood the user manual and all rules for installation and operation, as laid out below.

It is the responsibility of the operators' workshop manager to ensure these two points and it is also his responsibility to make sure that all operators have read and understood the user manuals for any peripheral electrical equipment present in the powdering area.

1.4. Warnings

DANGER:

It is imperative that anyone wearing a pacemaker does not use the equipment and does not enter the projection area.
High voltage can cause the pacemaker to malfunction.

WARNING : Safety may be jeopardized if this equipment is not operated, disassembled and reassembled in compliance with the instructions given in this manual and in any European Standard or national safety regulations in force.

WARNING : Equipment performance is only guaranteed if original spare parts distributed by SAMES KREMLIN are used.

WARNING : This equipment must only be used in projection locations in accordance with EN 16985. The equipment should only be used in well-ventilated areas to reduce health, fire and explosion hazards. The efficiency of the exhaust ventilation system must be checked daily.

1 The operator must wear shoes according to standard EN ISO 20344 and the insulation resistance measured must not exceed 100 MΩ.

2 The protective clothes, including gloves, must conform to standard EN 1149-5 and the insulation resistance measured must not exceed 100 MΩ.

3 Using individual protection equipment will limit the risks of contact and/or inhalation of toxic product, gas, vapours, fog or dusts that can be produced while using the equipment. The user has to follow the coating product manufacturer's recommendations.

4 Appropriate measures must be taken to prevent, during periods of non-use and/or when the equipment is out of service, that potential energy is present in the equipment.

5 The ambient operating temperature must be between 0° and 40° C.

6 The **Inorecip V and Inomotion** equipment must be maintained regularly in accordance with the indications and instructions given by **SAMES KREMLIN**.
Repairs must be carried out in strict accordance with these instructions.

7 The use inside the booth of open flames, incandescent objects, devices or objects that can generate sparks is prohibited.
It is also forbidden to store flammable products or the containers containing them near the cabin and in front of the doors.It is necessary to keep the surrounding area clear and clean.

8 Earthing is required of all conductive enclosures of electrical equipment and all conductive components in potentially explosive atmospheres by conductive connection to the earth terminal.

9 It will be necessary, in the spraying area, to have an antistatic floor such as bare concrete, metal grating, etc...

10 In case of an emergency, the equipment can be switched off via emergency stop buttons located on the powder booth or on the control cabinet.

11 Ensure that the pneumatic pressure inside is completely exhausted before adjusting or servicing pressurized systems or parts.

12 Disconnect, lock out and switch off electrical equipment before servicing electrical equipment.

13 Switch off all electrical or electrostatic equipment immediately, even if you are exposed to a slight electric shock. Do not restart the equipment until the problem has been diagnosed and resolved.

1.5. Important recommendations

1.5.1. Installation of the **Inorecip V** reciprocator
The **Inorecip V** alone or mounted on an **Inorecip H** must be installed on a flat floor with a resistance of 40 daN/cm2.

It is better to equalize the loads on both sides of the assembly. If this is not possible, the admissible overhang must not be more than 30 cm from the robot axis.
If the load cantilevered towards the front of the assembly, the distance of the center of gravity of the assembly from the fixing tube must not exceed 10 cm.
The allowable loads on the **Inorecip V** assembly are 50 kg at a speed equal to 36 m/min for assemblies dedicated to powder installations.

1.5.2. Maximum speed of **Inorecip V**
The **Inorecip V** has a maximum speed equal to 36 m/min at 50Hz.


WARNING : Access to the work area, when using the Inorecip, must be regulated and/or limited by means of a standard protective wire mesh enclosure.


WARNING : The warranty does not cover damage resulting from higher sweep speeds.

1.5.3. Vibrations of the **Inorecip V**
If the assembly vibrates unusually, it usually means:
- Loose or worn belt.
- Loads too high and/or too eccentric (too much overhang).


WARNING : The warranty does not cover damage caused by loads higher than recommended and/or with an overhang higher than recommended.


WARNING : The start-up and use of the Inorecip V must be in accordance with the Machinery Directive and the EN 60204-1 standard (safety of machinery).

1.5.4. **Inomotion** installation
The **Inomotion** control module will be integrated in a control cabinet outside of any explosive area. It will be connected to the **Inorecip V** and **Inorecip H** (option) by a set of cables supplied by **SAMES KREMLIN**.


WARNING : it is imperative to connect the Inomotion to the ground of the control unit or to a good quality ground.

WARNING : it is important, in order to avoid any material breaking, to adjust the mechanical stops of the carriage with the mounted projectors, before starting up the Inomotion (see § 4.5 page 24).

1.5.5. Ambient temperature

Inorerecip V and Inomotion are designed to normally operate at an ambient temperature comprised between 0°C and + 40°C.

The storage temperature must never exceed +60°C.

1.6. Guarantee

Under the guarantee, which applies only to the buyer, **SAMES KREMLIN** agrees to repair operating faults resulting from a design fault, materials or manufacture, under the conditions set out below.

The guarantee claim must define the exact nature of the fault concerned, in writing.
The **SAMES KREMLIN** guarantee only covers equipment that has been serviced and cleaned according to standard procedures and our own instructions, that has been fitted with parts approved by **SAMES KREMLIN** or that has not been modified by the customer.

More precisely, the guarantee does not cover damage resulting from:

- the customer's negligence or inattention,
- incorrect use,
- use of a control system not designed by **SAMES KREMLIN** or a **SAMES KREMLIN** control system modified by a third party without written permission from an authorized **SAMES KREMLIN** technical agent,
- failure to follow procedures,
- accidents such as: collision with external objects, or similar events,
- flooding, earthquake, fire or similar events,

The **SAMES KREMLIN Inorecip V** reciprocator and **Inomotion** control module are covered by a warranty (refer to the general sales conditions for its application).

The guarantee does not apply to wearing parts.

The guarantee will take effect from the date of the first start-up or of the provisional acceptance report.

Under no circumstances, either in the context of this guarantee or in other contexts, will **SAMES KREMLIN** be held responsible for physical injury or intangible damage, damage to brand image and loss of production resulting directly from its products.

2. Introduction

2.1. General - Inorecip V

The **Inorecip V** reciprocator is designed to equip automatic powder coating installations.
It is composed of a mechanism controlled by an **Inomotion** control module placed in an electrical cabinet.
It allows to drive, with a vertical reciprocating movement, powder projectors, for example:

- 12 **Inogun A** powder projectors,
- 4 **Inobell** powder projectors.

In case of use with a booth, to avoid crushing of limbs (fingers, hands...) between the projectors and the booth, it is imperative to install and adjust the limit stops at the upper and lower parts of the stroke as well as protective barriers around the equipment.

2.2. General - Inomotion

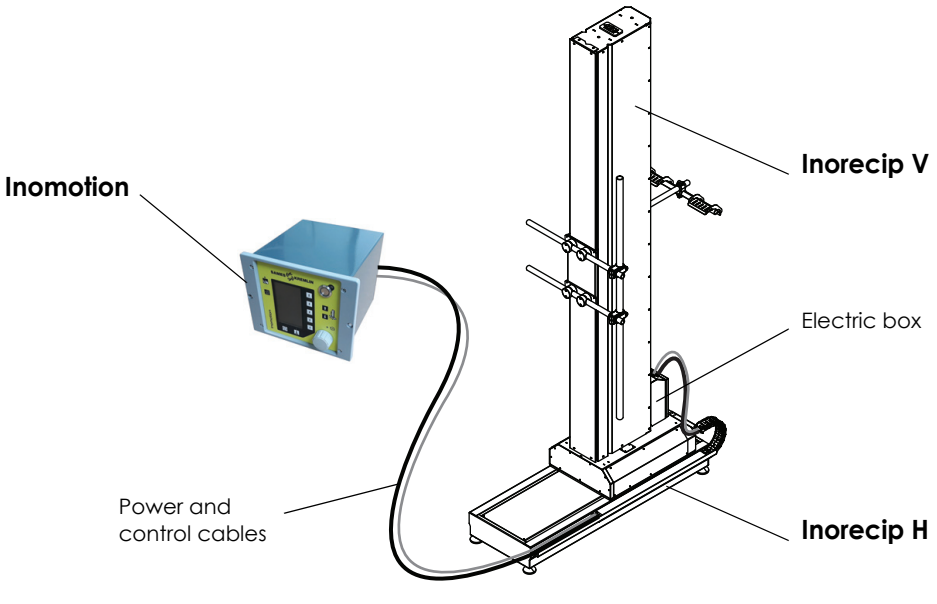
The Inomotion control module allows to remotely control the vertical reciprocating mechanism of the **Inorecip V** and the horizontal positioning of the **Inorecip H** (option).
It is connected by power and control cables to the box located at the rear of the **Inorecip V**.

2.3. Inorecip H (option)

The In and Out carriage **Inorecip H** is an unit placed under the **Inorecip V** reciprocator giving it the possibility to move along a second horizontal axis.

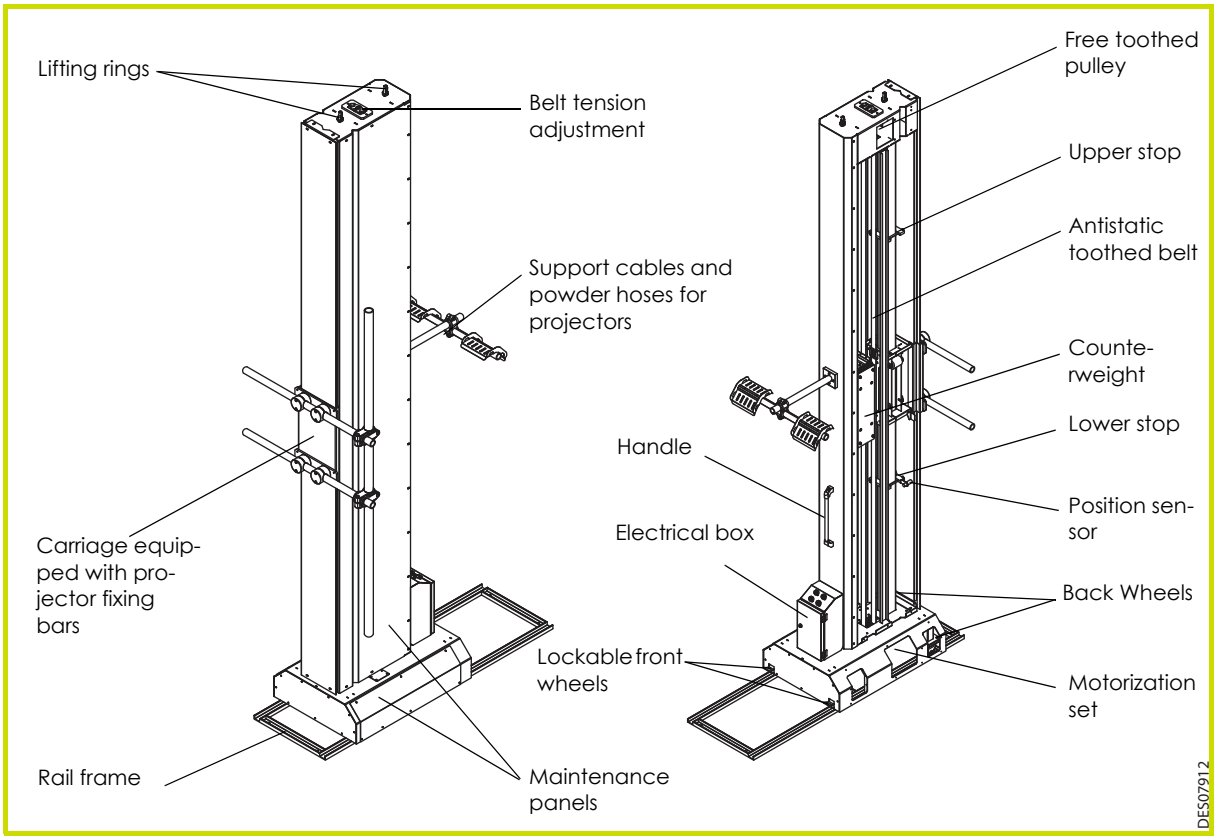
The **Inorecip H** allows to keep a constant coating distance whatever the width of the parts. It is controlled via the **Inomotion** control module, which receives information from the part width detection system.

This second axis is also often used for the automatic cleaning mode of the projectors.



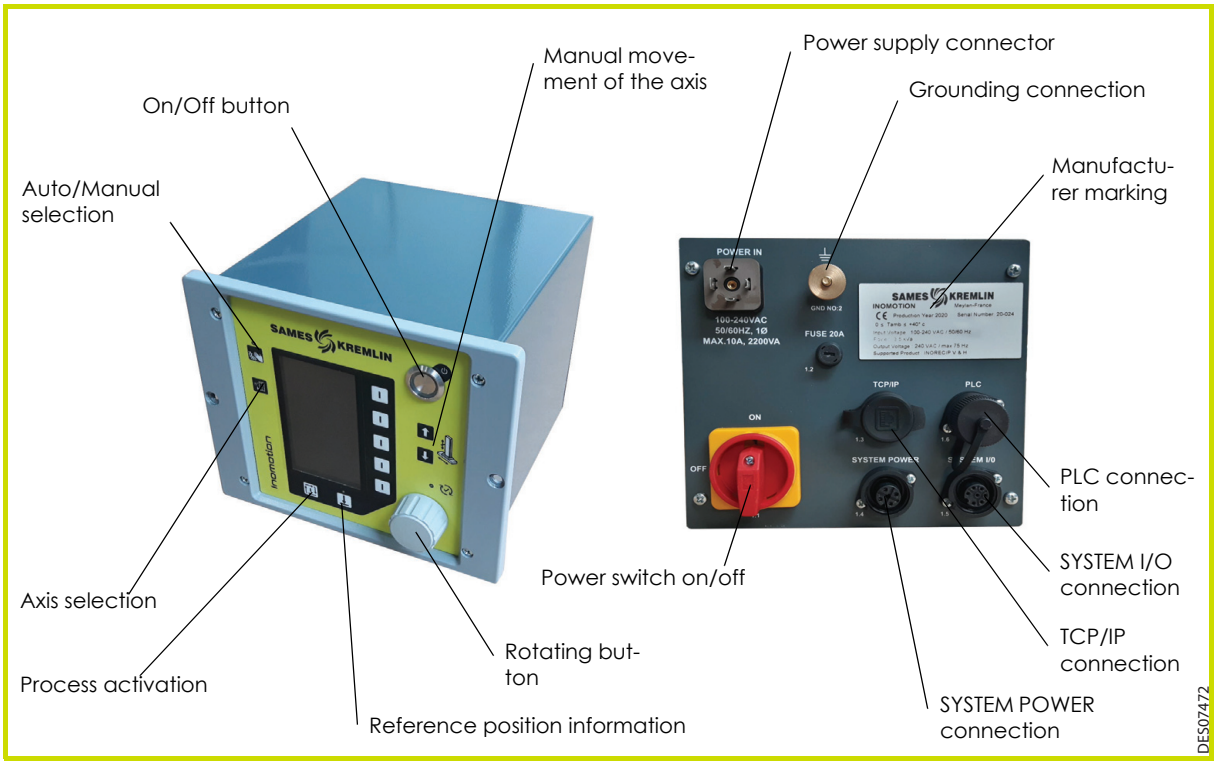
2.4. Description

2.4.1. **Inorecip V**



Element	Function
Lifting rings	Hanging rings for handling
Belt tension adjustment	Tension adjustment system of the toothed belt thanks to the idler pulley
Idler toothed pulley	Drive belt idler pulley
Support cables and powder hoses for projectors	Allows correct positioning of the power cables and powder hoses of the projectors on the reciprocator
Maintenance panels	Removable access panels to the mechanisms
Electrical box	Electrical connection with **Inomotion** and **Inorecip H**
Counterweight	Carriage balancing weight on the belt
Antistatic toothed belt	Carriage drive belt
Upper stop	Carriage stop in upper position
Position sensor	Allows the detection of the low position of the carriage
Equipped carriage	Powder projector fixing bars support
Lower stop	Carriage stop in down position
Rail frame	Structure equipped with two rails fixed to the floor
Motorization set	Motor equipped with a gear motor and a coder
Handle	Allows manual movement of the robot
Wheels	Lockable front wheels and free rear wheels.

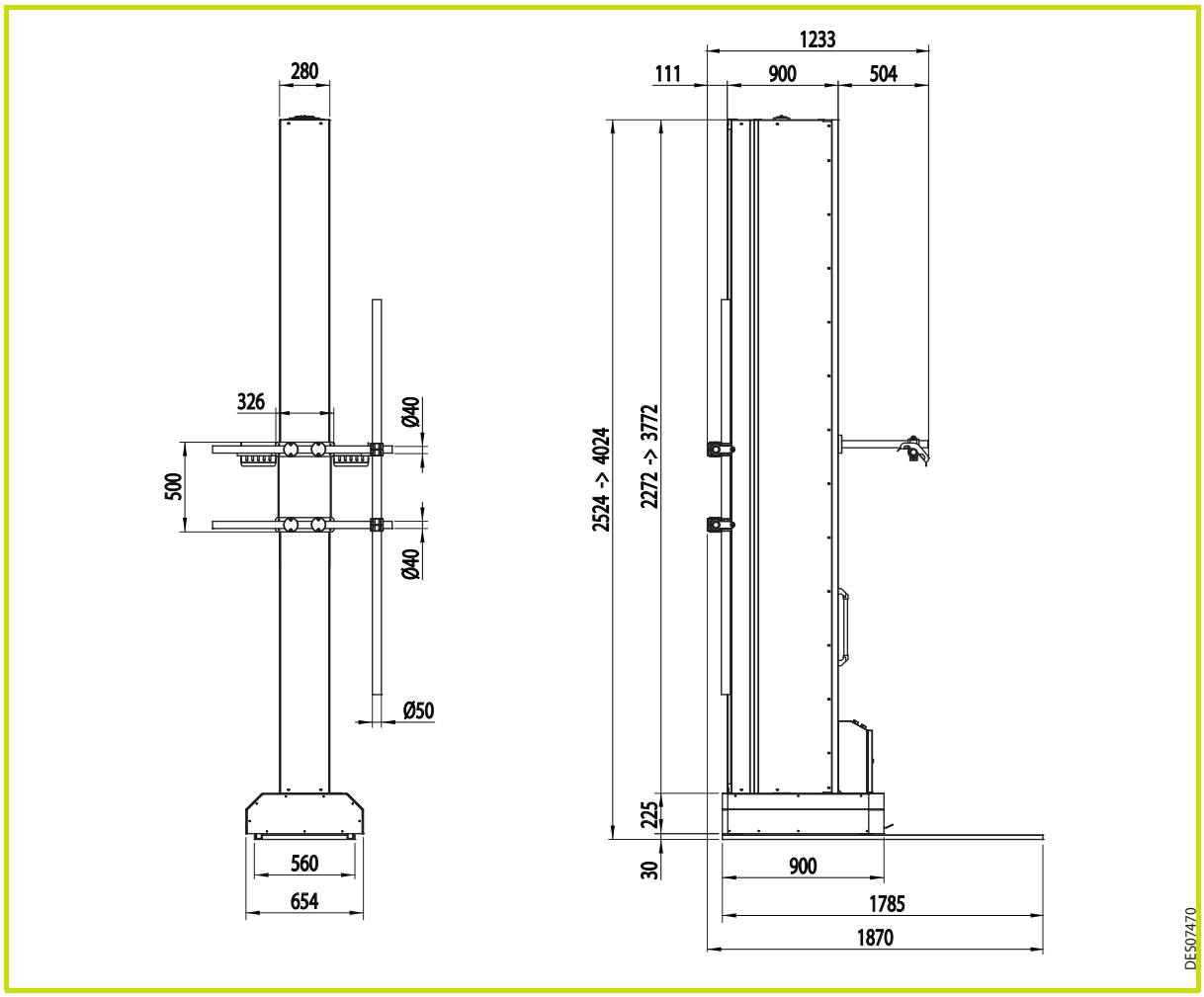
2.4.2. **Inomotion**



Element	Function
On/Off button	Allows the power on of the control interface
Manual movement of the axis	Manual control of vertical and horizontal axis movements
Adjustment rotating button	Allows the change of the displayed values
Reference position information	Allows the return to the display of the reference position information.
Process activation	Start of the powder coating process
Axis selection	Selects the axis to be parameterized
Auto/Manual selection	Selects automatic or manual mode
Power supply connector	Mains connection of the **Inomotion**
Grounding connection	Grounding connection of the unit
Manufacturer marking	Manufacturer's certification label
PLC connection	PLC connection
SYSTEM I/O connection	Connection of inputs/outputs
TCP/IP connection	TCP/IP connection
SYSTEM POWER connection	Power supply of the **Inorecip V**
Power switch on	Main and emergency stop switch

3. Characteristics

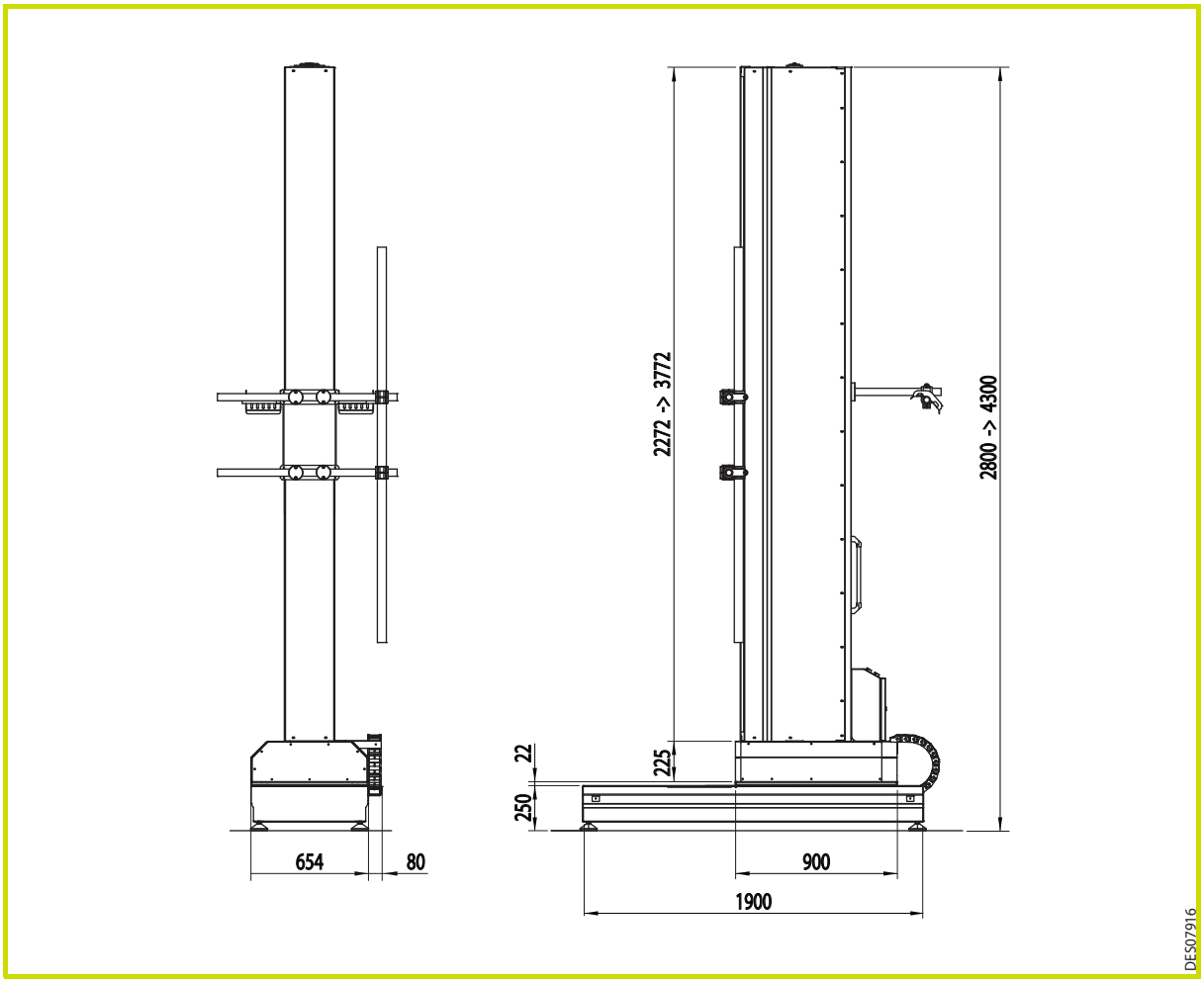
3.1. Dimensions (mm) of the Inorecip V



3.2. General characteristics of the Inorecip V

Inorecip V						
Height (mm)	2524	2824	3124	3424	3724	4024
Stroke (mm)	1200	1500	1800	2100	2400	2700
Empty weight (kg)	278	300	323	350	383	415
Sweep speed at 50 Hz	adjustable continuous, max. 36 m/min .					
Permissible load on the robot	50 kg					
Lifting rings	Ø 35 m					
Diameters of support bars	Ø 40 mm (horizontal) et Ø 50 m (vertical)					
Power supply: single-phase	230 VAC ± 10%					
Power of the gear motor	0.37 kW					
Frequency	50 - 60 Hz					
Normal sound pressure level	< 60 dB (A)					
Max. operating temperature	40° C					

3.3. Dimensions (mm) of the Inorecip V and Inorecip H assembly



The characteristics of the Inorecip H are described in the user manual (see RT Nr 7167).

3.4. General characteristics of the Inomotion

Inomotion	
Height	182 mm
Width	220 mm
Depth	250 mm
Mass	3.34 kg
Power supply: single-phase	230 VAC
Frequency	50 - 60 Hz

4. Starting up

WARNING : Before switching on the Inomotion control module, to avoid any hardware damage, it is imperative to set the lower "MIN POS" and upper "MAX POS" operating limits on the module (see § 5.3.2 page 28).
When starting up the Inomotion, each axis will automatically position itself on its reference point, at the low electrical stop for the Inorecip V, and at the front for the Inorecip H

4.1. Tools

The tools listed below are recommended for installation and maintenance of the equipment.

- Flat and Phillips screwdriver.
- Allen wrenches.
- Flat and pipe wrenches.
- Multi-grip and cutting pliers.
- Stepladder.

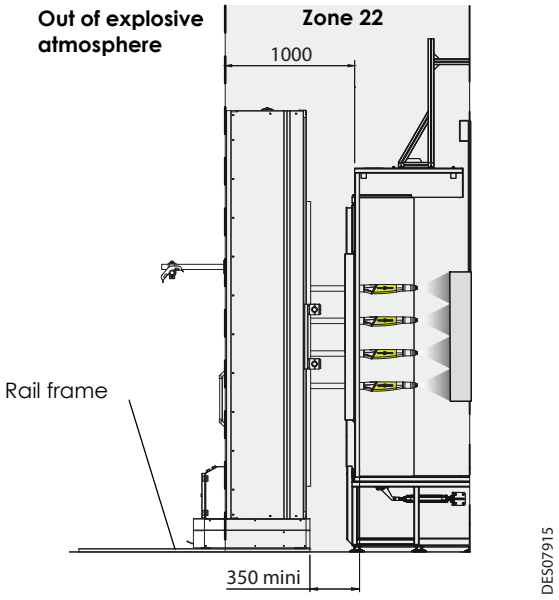
4.2. Installation

The position of the Inorecip V having been defined in accordance with the installation of the powder booth, the following connections and adjustments are made:

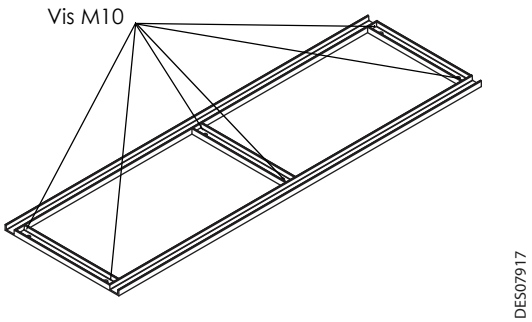
4.2.1. Installation of the rail frame on the floor

Inorecip V must be installed on a flat floor with a resistance of 40 daN/cm^2.

WARNING : it is imperative to respect the minimum distance of 350 mm between the Inorecip V and the inside of the powder booth.



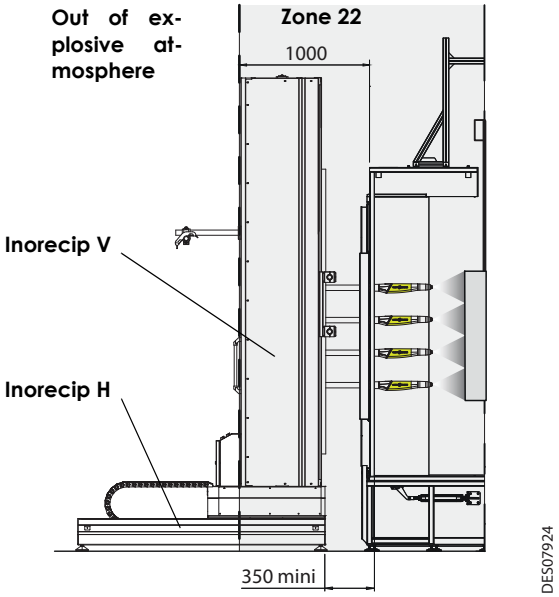
Fix the rail frame to the floor with 6 M10 screws.



4.2.2. Installation of the **Inorecip H** (option)

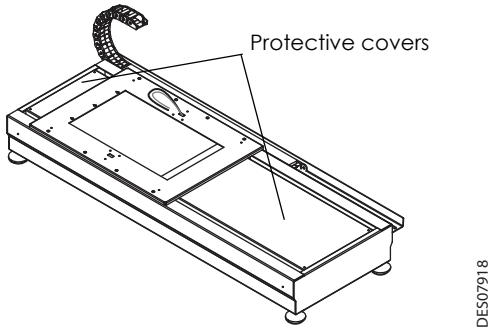
Inorecip H must be installed on a flat floor with a resistance of 40 daN/cm^2.

WARNING : it is imperative to respect the minimum distance of 350 mm between the Inorecip V and the inside of the powder booth.

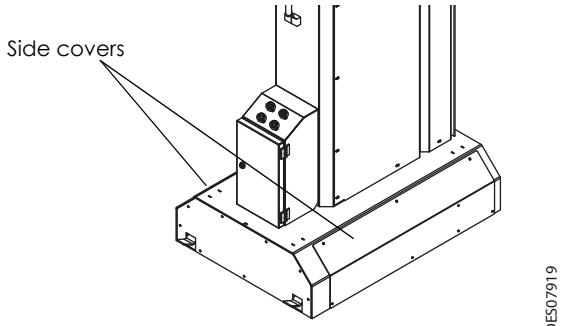


WARNING : The handling of the Inorecip V must be done by at least two operators and the lifting equipment must be adapted to the weight and size of the robot.

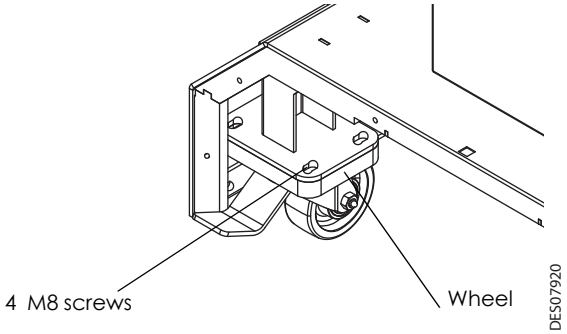
Remove the two protective covers of the **Inorecip H** with 4 M4 screws per cover.



Remove the 2 side covers of **Inorecip V** with 6 M4 screws per cover.



Remove the 4 wheels of the **Inorecip V** by removing the 4 M8 screws per wheel.

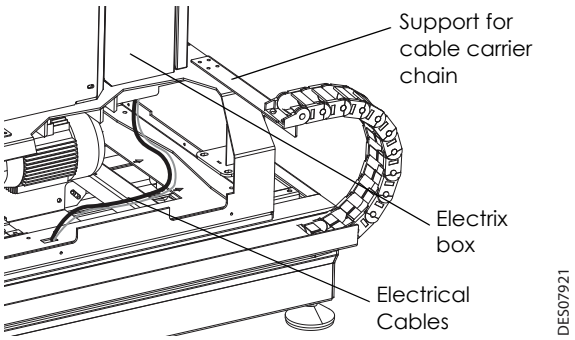


Position the Inorecip V on the Inorecip H mounting plate and fix it with 8 M8 screws.

Pass the electrical cables coming out of the mounting plate through the access hole (**A**) under the **Inorecip V** electrical box

Reassemble the 2 side covers of I**norecip V** using 6 CHC M4 screws per cover.

Fix the cable carrier chain support on the **Inorecip V** with 4 screws and fix the cable carrier chain on its support with 2 screws.



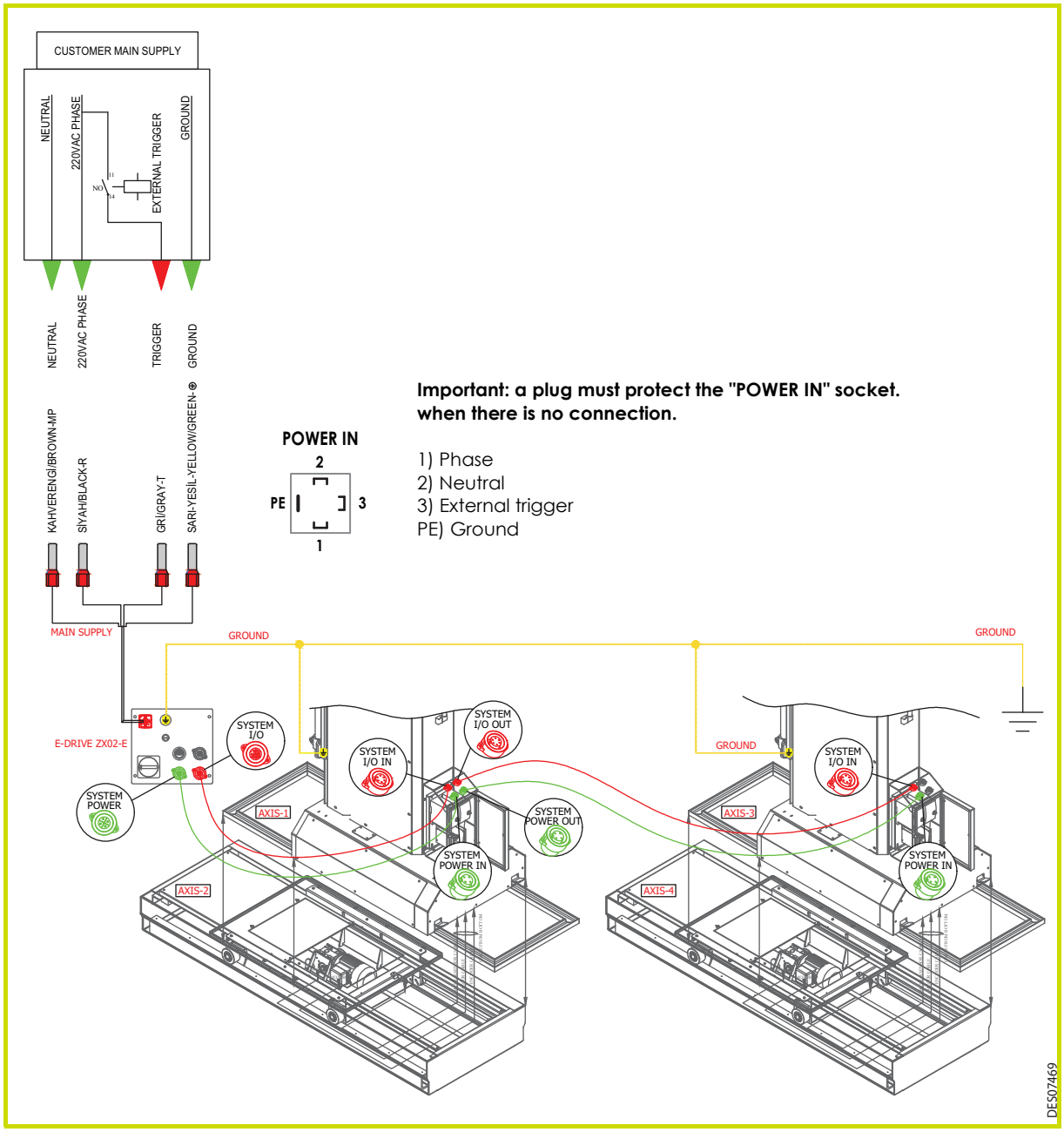
Install the drive and the electronic board delivered with the 2nd axis box transformation cable kit (P/N # 130002077).

Connect the electrical wires to the new variator (**C**) and the plugs to the new electronic board (**B**).

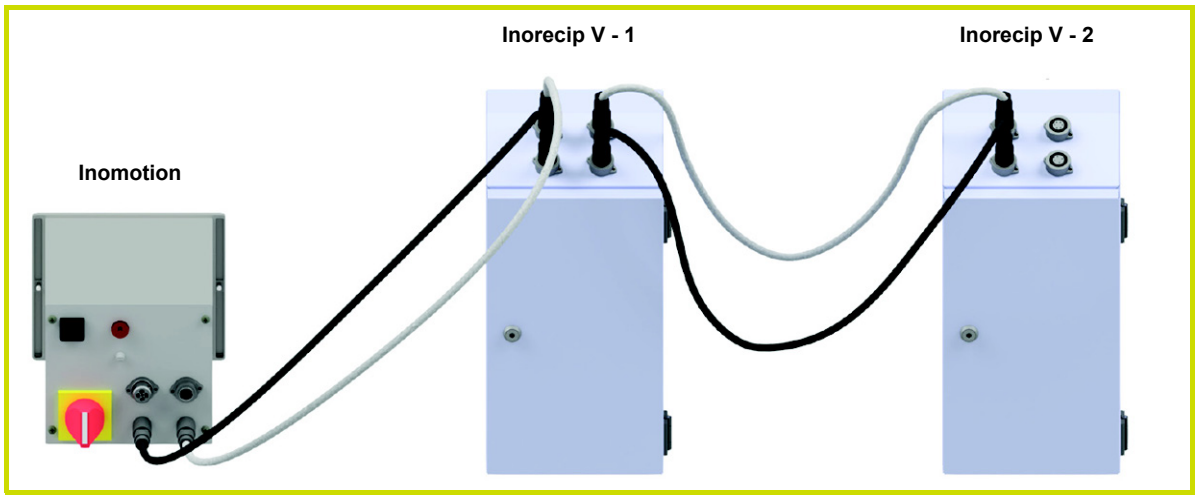
Fix the variator (**C**) and the electronic board (**B)** in the box.

4.2.3. Electrical connection Inorecip V - Inomotion control unit

From the Inomotion control module, connect the electrical cables to the plugs of the electrical box at the back of the **Inorecip V**.
Note: the electrical equipment will be more than one meter away from the opening area of the cabin (outside explosive atmosphere).



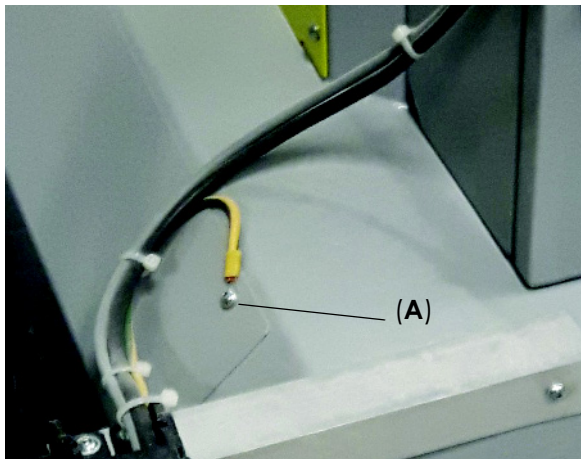
Wiring configuration between the Inomotion and two Inorecip V.



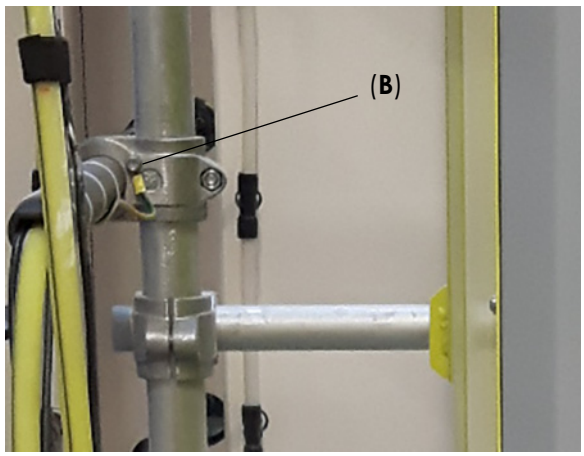
4.2.4. Grounding connection

WARNING : it is imperative to connect the Inorecip V to the ground of the control unit or to a good quality ground.

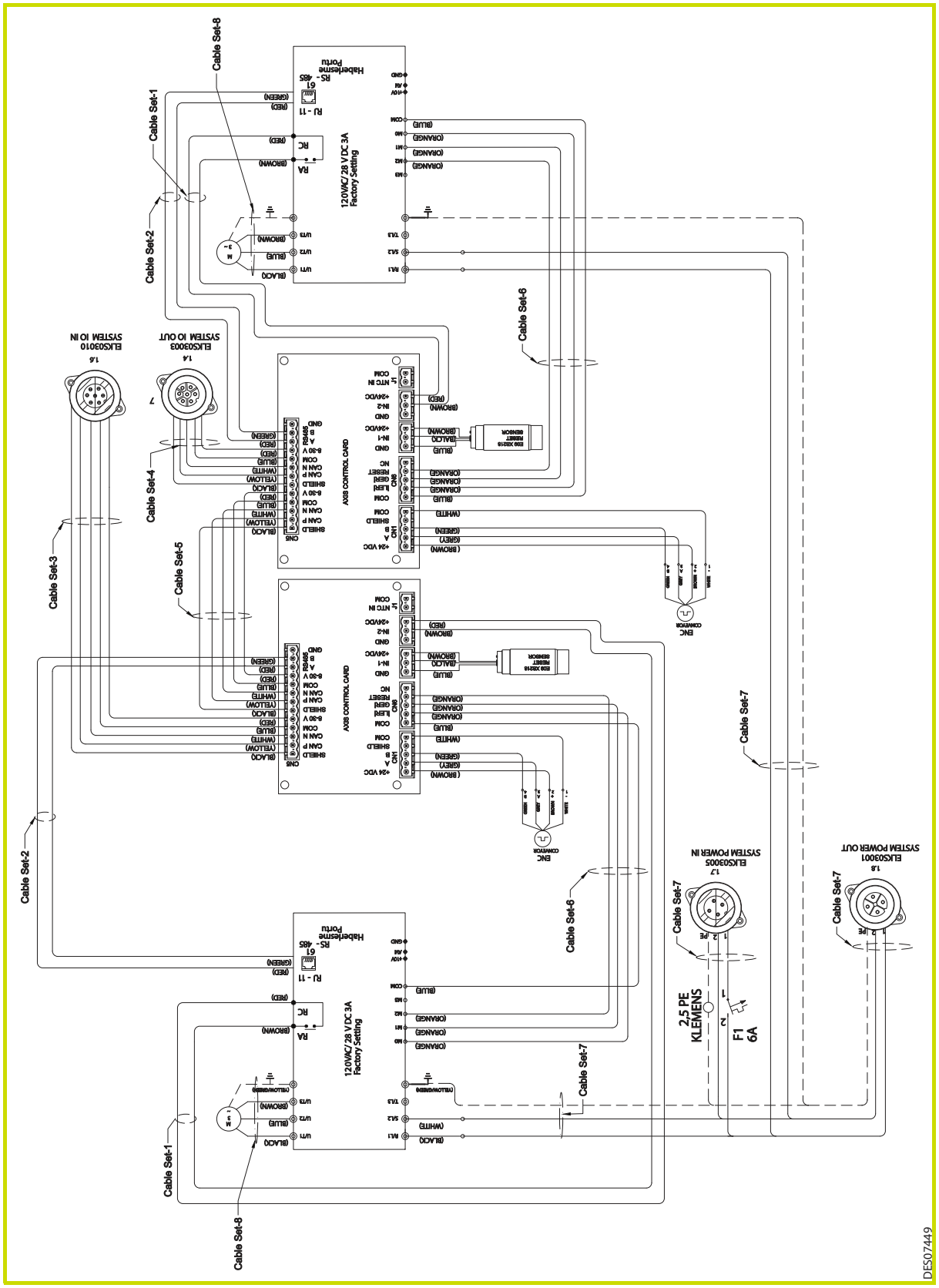
From the control unit or a good quality ground, connect a green/yellow protective grounding cable to the brass screw (**A**) located on the base of the **Inorecip V**.



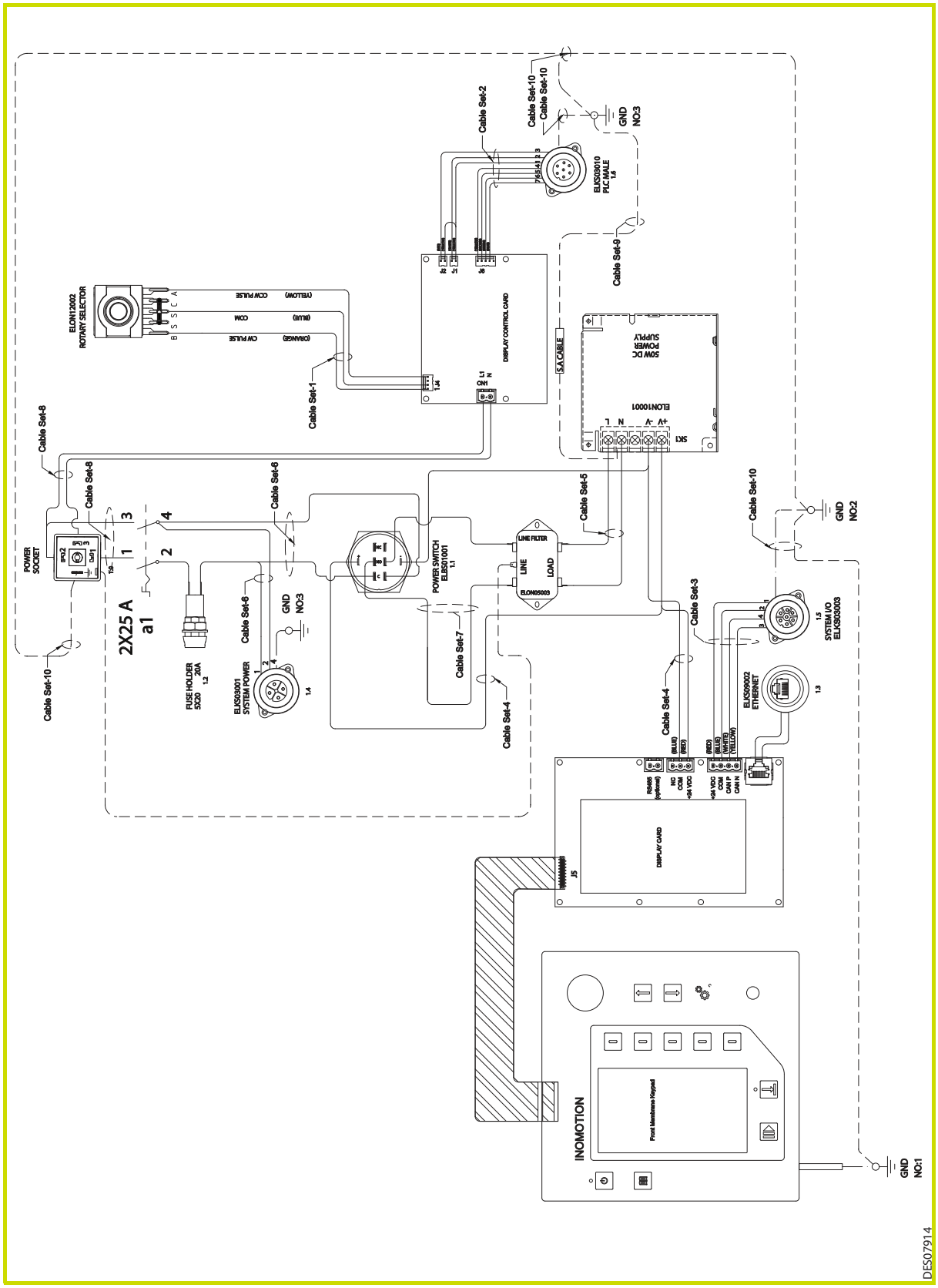
Connect a green/yellow protective grounding cable to a bar or nut of the powder projectors by means of a screw (**B**) for example.



4.2.5. Electrical diagram of the **Inorecip V**



4.2.6. Electrical diagram of the **Inomotion**



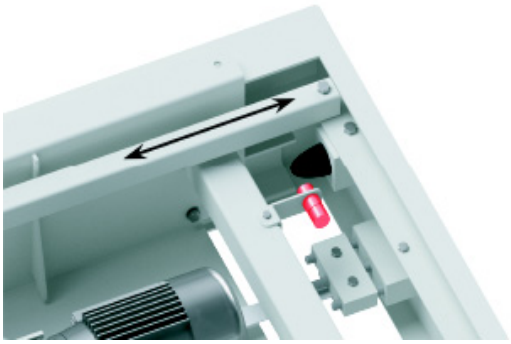
4.3. Reference point of Inorecip V

WARNING : Before switching on the Inomotion control module, in order to avoid any hardware damage, the lower "MIN POS" and upper "MAX POS" operating limits must be set on the module (see § 5.3.2 page 28).
When starting up the Inomotion, each axis will automatically position itself on its reference point, at the low electrical stop for the Inorecip V, and at the front for the Inorecip H.

The reference point (low sensor for **Inorecip V**) allows the coder to calibrate itself and is used as a reference point to calculate the lower and upper inversion points. When starting up the **Inomotion**, each axis will position itself, at a slow speed, on its reference point automatically. At the bottom, on the position sensor for the **Inorecip V** and at the front for the **Inorecip H**. The mechanical rubber stops are positioned about 50 mm downstream of their respective position sensor.
For transport reasons, the **Inorecip V** is delivered with the rubber stopper and the carriage in the lowest position.

4.4. Inorecip H reference point (option)

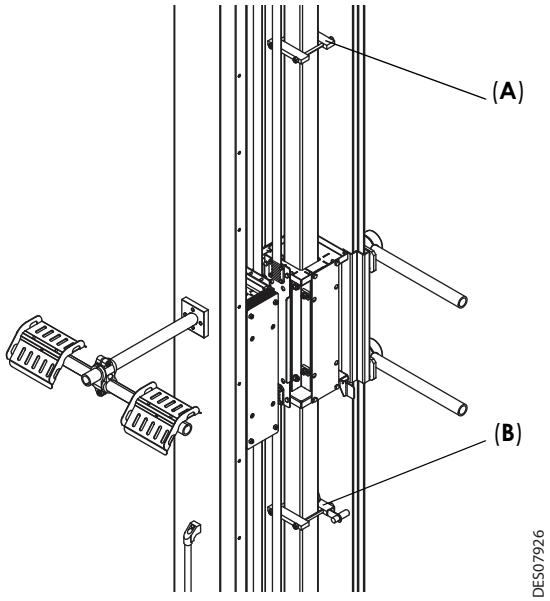
The reference point of the **Inorecip H** is adjusted to the position of the sensor when it is 2 mm from the mechanical end stop. This is the factory setting.



4.5. Adjustment of the stops

The stops limit the stroke of the altitude carriage
Adjustment procedure for the two stops:

- **Step 1**: Remove the side panel.
- **Step 2**: Move down the height carriage until the lowest projector is about 50 mm above the lower edge of the slot of the powder booth
- **Step 3**: Loosen the two M10 nuts on the lower plate (**B**) and position the mechanical rubber stop in contact with the carriage.
- **Step 4**: Tighten the two M10 nuts.
  Proceed in the same way to position the upper stop (A) at the required stroke, taking care to respect the height of the slot in the booth
- **Step 5**: Reinstall the side panel.



Note: When adjusting the stops, make sure that the power supply cables for the position sensors remain free.

WARNING : After adjusting the mechanical stops, the "MIN POS" and "MAX POS" values (see § 5.3.2 page 28) must be checked. The values must not be greater than the maximum stroke between the stops.

4.6. Loading the reciprocator

The equipment must be fixed by means of suitable fastening nuts on the vertical bar, which is itself supported by the two horizontal bars fixed on the robot carriage. The powder projectors must be 250 mm apart in height on the vertical bar. For a good functioning of the mechanism, it is desirable that:

- the distribution and overhang of the admissible loads (50 kg maximum) are respected.
- the weight of the carriage, equipped with cables and pipes, is substantially balanced by the weight of the counterweight with its weights.

4.7. Counterweight adjustment

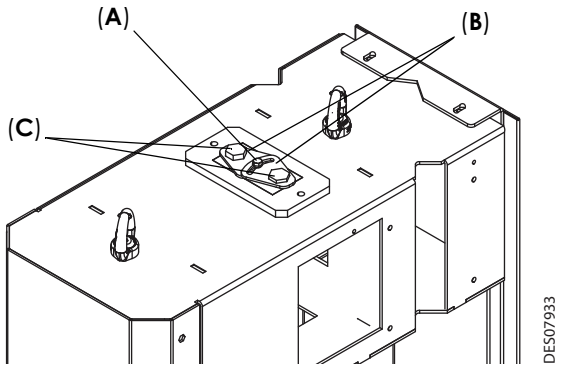
For a good working of the equipment, it is advisable that the weight of the carriage, equipped with the cables and hoses of the projectors, is substantially balanced by the weight of the counterweights equipped with its ballasts. This balance is achieved by adding or removing weights that are accessible after removing the side panels of the **Inorecip V**.
Each ballast weighs approximately 1.8 kg. Tighten the 4 fixing nuts (M8) by counterweights after changing the ballast.

Number of projector	Number of ballasts
2	4
4	8
6	10
8	16
10	20
12	22

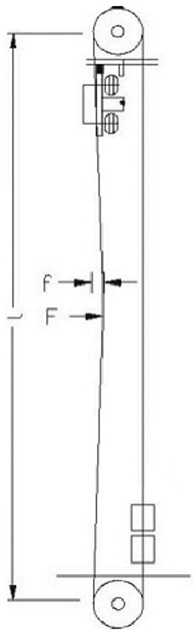
4.8. Antistatic toothed belt tension adjustment

For correct operation of the equipment, it is recommended that the antistatic toothed belt on the carriage be correctly tensioned and aligned.

- Remove the side panel.
- Move the carriage down to the lower stop
- Loosen the locking screw (**A**).
- Tighten the belt by tightening the 2 screws (**C**).
- Apply a force **F** = 50 N on the belt and control the tension distance according to the table below:



Stroke (mm)	Distance between pulleys (L) (mm)	Tension distance (F) (mm)
1200	2196	28
1500	2496	31,2
1800	2796	34,9
2100	3096	38,7
2400	3396	42,5
2700	3696	46,2

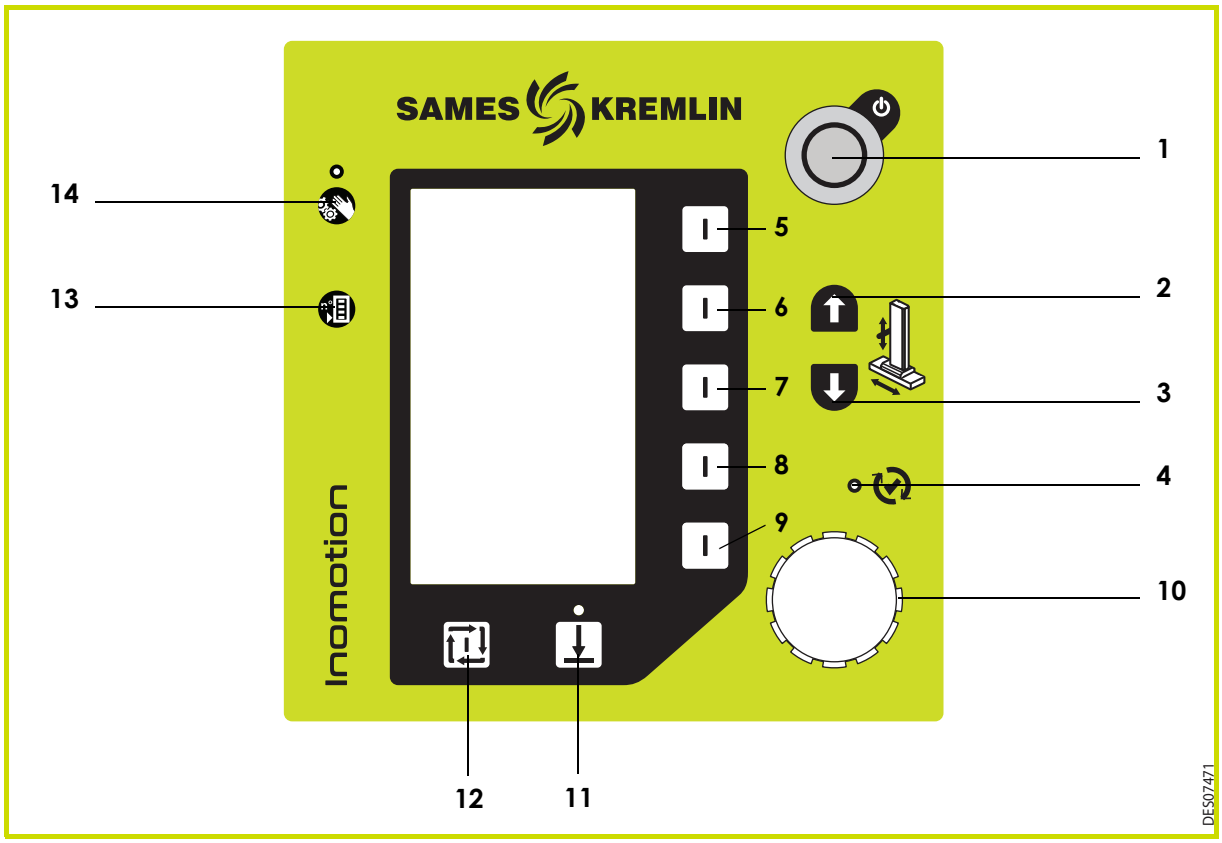


- Tighten the locking screw (**A**).
- Reassemble the side panel.

5. Operating of the Inomotion

5.1. Screen Operating Modes

The **Inomotion** control module allows the display and setting of the operating parameters of the **Inorecip V** and **Inorecip H**.
This screen is used to enter the operating instructions for the operating modes:



Item	Description
1	On/Off switch
2	Manual upward movement of the axis
3	Manual downward movement of the axis
4	Axis active/inactive mode LED indicator
5-6-7-8-9	Enable value inputs
10	Adjustment rotating button
11	Reference position OK
12	Axis enable
13	Axis selection
14	Automatic cycle starting

5.2. Start and setup menu

Power is turned on by the switch on the back of the Inomotion and by pressing the on/off button on the front panel to activate the display. The main menu appears, and the operator can then begin to set up the module (see § 5.4 page 29).

On power-up, each axis connected to the Inomotion moves to its reference position. The LED (11) should then turn green to confirm that the coder has been set up. One screen page for each connected axis.
When an axis cannot reach its reference point, an error code appears on the left side of the screen (see § 5.4 page 29).

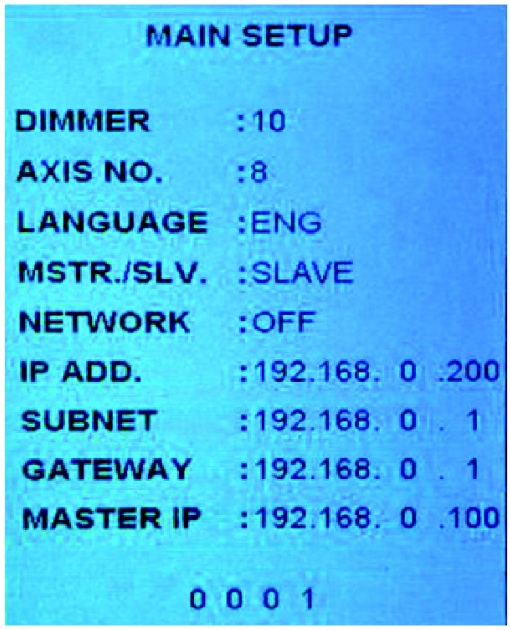
5.3. Configuration pages

5.3.1. Configuration main page

Pressing and holding the On/Off switch (**14**) for 2 seconds without making any changes on the screen will switch to the "**Main Setup**" screen.

The keys (5) and (6) are used to move up and down between the lines. Turn the setting rotating button (10) to change the value of any line.

These parameters are set at the factory and only need to be checked if necessary.



Parameters	Limits	Description
Dimmer	0/10	Screen brightness adjustment
Axis N°	0/8	Maximum number of axis that can be controlled
Language	ENG-TR-RU	Language Options
MSTR./SLV	Master/slave modes	**Master**: the module is configured as "Master" in a network where the operational parameters are sent to other modules **Slave** in a network where operational parameters are copied from a "**Master**" module

Serial communication:

The **Inomotion** has an RJ45 connection that allows the module to be connected to a PLC. In this case, the setting parameters of the module are processed directly via the PLC and the **Inomotion** module is used as a "Slave".

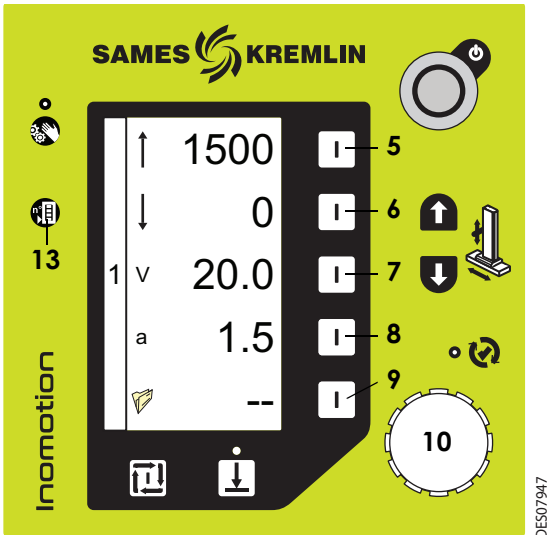
Info code	Settings	Factory preset
IP address	IP address of the device itself.	192.168.0.200
Subnet Mask	Subnet mask of the network to which the module is connected.	192.168.0.1
Gateway	Gateway of the network to which the module is connected	192.168.0.1
Master IP	Valid only when the module is defined as "**Slave**" in networks. Defines the IP address of the master module in the network. The operating parameters of the module are copied from the master module whose IP parameter is pointed to in this setting.	192.168.0.100

5.3.2. Axis configuration pages

After the Main Setup screen, the Setup screen allows to adjust the properties of the axis by pressing the key (13). Pressing this key again switches to the settings of the other axes.

Info code	Vertical axis	Horizontal axis
Axis type for vertical axis = OSC (for oscillation)	0/10	POS.
Max POS.	1200/1500/1800/2100/2400/2700	1000
Min POS.	0	0
HOM. Retard	50 ms	0
HOM. Freq.	10 Hz	10 Hz
Max. Freq.	75 Hz	50 Hz
Max V (Speed)	36 m/min	8 m/min
Min V	6 m/min	4 m/min
V recommended	**20 m/min**	**5 m/min**
Max a (acceleration)	2,5 m/s^2	2,5 m/s^2
Min a	0,5 m/s^2	0,5 m/s^2
a recommended	**1,5 m/s^2**	**1,5 m/s^2**
HOM. T. Out	30	30
MOT. T. Lim	120	120
ENC. 1P. mm	0.26043925	0.27286458
1 Hz/V	0.48715338	0.50666928

5.4. Main menu page



Each parameter can be selected with the keys (**5**,**6**,**7**,**8**,**9**) on the right-hand side and change their values with the rotating button (**10**).

1st line: Setting of the upper inversion point. The maximum value is set on the configuration page.

2nd line: setting of the lower inversion point. The minimum value is zero, or the value set on the configuration page.

3rd line: Speed setting.

4th line: Acceleration setting.

5th line: indicates the number of the selected program.

Note: The programming of the tables is described in chapter 5.5. To set up a new axis, press key (13), the number of the axis concerned is shown on the left side of the screen.

5.5. Creation and operation of programs

The **Inomotion** can store up to 50 programs in memory.

Creation of programs;
1. In the "Main Menu" page, after having set the operating parameters of the axes, press key (**9**) and hold it down for 2 seconds.

2. Set the number of the program to be stored, turn the setting rotating button (**10**) and select the desired program number.

3. Save the program by pressing and holding down the key (**9**) until the program number flashes rapidly and then release.

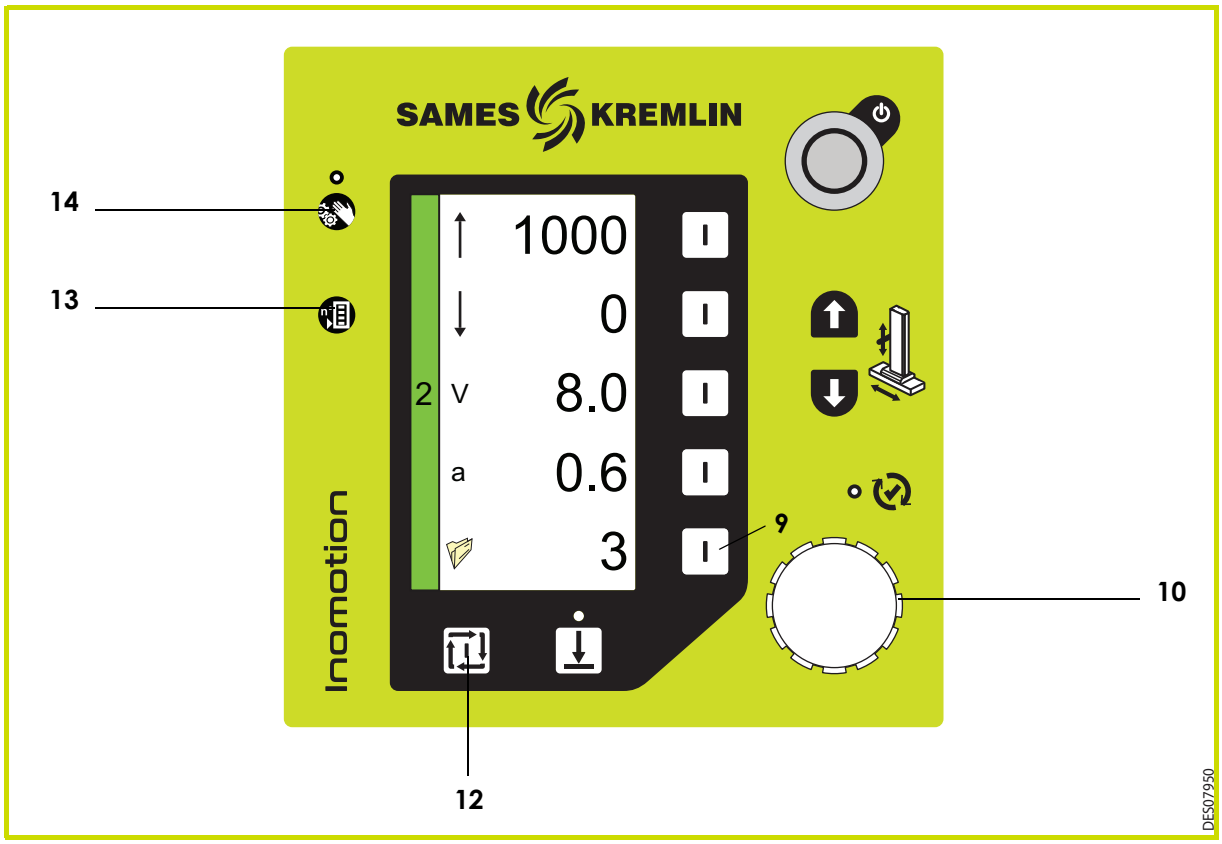
4. Press and hold down the key (**9**) until the program number starts flashing. Keep pressed until it starts flashing at short intervals.

Activating programs;
1. To activate the stored program, press key (**9**) once.

2. Turn the setting rotating button (**10**) to select the desired program number

5.6. Start-up procedure

- **Step 1**: After entering and saving a program, select the required axis(es) with the key (13) and activate or deactivate the axis number with the key (12). The axis number turns green when active.
- **Step 2**: Select the required program number for each axis using the rotating button (10).
- **Step 3**: Start or stop the automatic cycle for the active axis by pressing the key (14)



Error code	Symptoms	Remedies
E1	Start position error	- Check sensor connections and whether it is defective - Check if the belt is broken or too loose
E2	Short stroke error	- Check the stroke parameters from the programs via the interface. The distance between the upper and lower stroke limits is too short in relation to the set speed. Increase the upper or lower stroke/reduce the speed/increase the acceleration.
E4	Speed control communication error	-Check the communication cable connection between the RS485 communication port and the reciprocator electronic board. -Check the accuracy of parameters such as communication protocol, address, communication speed
E8	Motor Overheating Error	- Visually inspect the motor. Check for dust or powder on the motor. - Check the cooling fan for operation or damage
E16	Coder error	- Check the coder connections - The coder is connected to the motor shaft by 2 set screws. Check whether these screws are loose or not. - If it is loose, tighten it securely. - If you still get an error, replace the coder.
E1000	Axis communication error	- Check the communication cable connections and if there are any damaged cables. - Check the connections of the reciprocator's electronic board and if it is faulty
E220V	Remote Trigger Error	The 230 VAC must be connected to the trigger pin (Axis active / passive) - The power switch on the control cabinet (if present) must be in the "On" position in order to supply the **Inomotion's** interlock connection with 230 VAC.

All errors, except E220V, refer to the axis number which is shown on the left side of the Inomotion display during operation. An error code, e.g. E1000, that has been observed during axis operation on page 2 does not mean that there is an E1000 error in all axes. It means that the module sets an E1000 error for the axis.

The main page must be changed to the pages of the other active axes to observe the status of each axis.

6. Maintenance

WARNING : Before any intervention on the Inorecip V, it is imperative to cut off the power supply.

6.1. Maintenance summary table

Therefore, the frequency of maintenance indicated in the procedures below is only indicative. The user will have to create his own maintenance range as he uses the **SAMES KREMLIN** equipment.

Procedure		Detail	Duration	Frequency
Maintenance				
A		Checking the condition, tension and alignment of the antistatic toothed belt	30 min	*twice a year*
B		Checking the free running of the carriage rollers	10 min	twice a year
Replacement				
C	**C1**	Replacement of the antistatic toothed belt	45 min	-
	C2	Replacement of coder	20 min	-
	C3	Replacement of the rollers of the altitude carriage	45 min	-
	C4	Replacement of the rollers of the counterweight carriage	45 min	-

6.2. Maintenance

WARNING : All cleaning operations must be carried out using compressed air only. Water should never be used to clean the equipment.

After the first 100 and 200 hours, then every 1000 hours (or twice a year):

- Check the condition and tension of the belt and, if necessary, correct and clean it.

- Check the free running of the carriage rollers:
  - Altitude carriage rollers: The rollers at the front bottom and rear top are subject to overhang forces from the projection equipment: they must not rotate freely. On the other hand, the opposite rollers, i.e. the low rear and high front rollers, must be able to rotate easily but without excessive play. Check this at several points along the stroke of the carriage (as slight deformations of the railways may have been produced by the welding work.
  - Counterweight carriage rollers: the rollers must be able to rotate easily but without excessive free play. Check this at several points along the carriage stroke (as slight deformations of the railways may have been caused by welding work).
  - If necessary, change the position of the rollers. To do this: Slightly loosen the M5 locking screw on the roller axis.

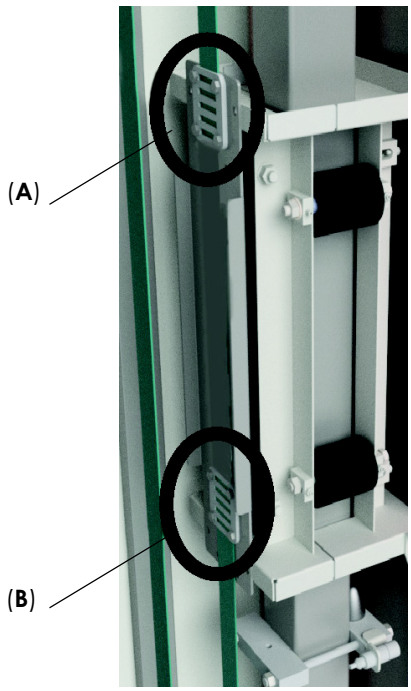
6.3. Replacement

6.3.1. Procedure C1: Replacement of the antistatic toothed belt

WARNING : Before removing the belt, it is necessary to secure the counterweight

To do so, the projectors mounted on the **Inorecip V** have been removed from the booth:
Move the altitude carriage down to altitude until it touches the lower stop.

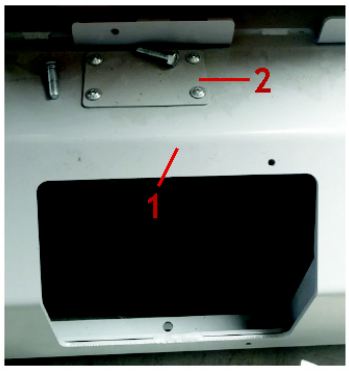
- Move the altitude cart down until it touches the lower stop.
- Secure the counterweight carriage by placing a cleat (100x100) of a size adapted to the height between the counterweight carriage and the base of the Inorecip V.
- Slacken the belt by loosening the two tensioning screws (see § 4.8 page 25).
- Note the position of the locking plates on the altitude carriage and on the counterweight carriage as they should be reassembled in approximately the same position, then loosen the upper (**A**) and lower (**B**) locking plates and remove the belt.
- Proceed in the reverse order for reassembly.
- Adjust the tension of the new belt (see § 4.8 page 25).



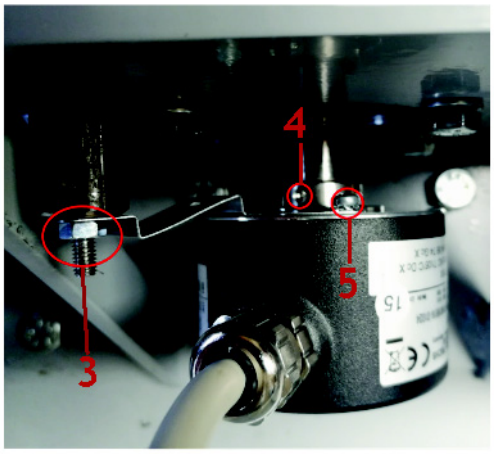
6.3.2. Procedure C2: Replacement of the coder

After 3 to 5,000 hours of operation, or in case of accidental damage, it may be necessary to change the coder. Caution: The coder is very fragile, especially its connection terminals.
For proper operation of the equipment, it is recommended that the antistatic toothed belt on the carriage is correctly adjusted.

- **Step 1**: Move the carriage down to the bottom stop.
- **Step 2**: Switch off the power supply to the **Inomotion** and disconnect the electrical connections to the coder.
- **Step 3**: Remove the side panel (1) and the access trap door.



- **Step 4**: Unscrew the coder cable.
- **Step 5**: Remove the nut (3) from the coder anti-rotation plate
- **Step 6**: Remove the coder from the motor shaft by unscrewing the screw (**4**).
- **Step 7**: Remove the coder anti-rotation plate by unscrewing the screws (**5**).
- **Step 8**: Proceed in reverse order for reassembly.

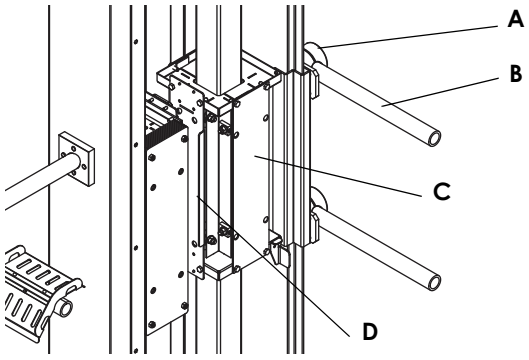


6.3.3. Procedure C3: Replacement of the rollers of the altitude carriage

If the altitude carriage starts to vibrate excessively during operation, especially at the inversion points, in most cases the cause is too much play in the rollers or defective or worn rollers.

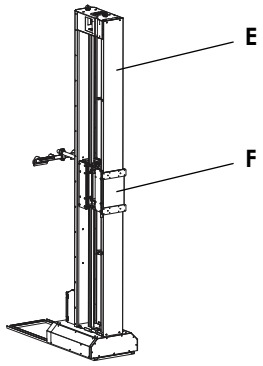
- Move the altitude carriage down until it touches the lower stop.
- Remove the side panels.
- Remove the antistatic toothed belt from the altitude carriage (see § 6.3.1 page 33).

- Remove the belt retaining plate (D) from the altitude carriage.
- Remove the 2 side protection plates (C) from the side rollers of the height carriage.
- On the front of the reciprocator, remove the projector support bars (A) and the 4 fixing nuts (B).



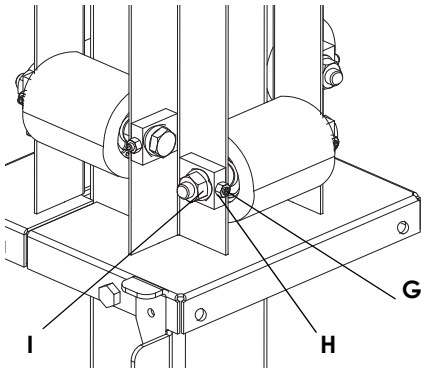
DES07944

- Remove the front panel (**E**) of the robot using 4 screws. **This operation must be performed by at least two operators as the panel is heavy and bulky**.
- Remove the bar support plate (**F**) from the carriage with 4 screws.
- Loosen the lock nut (**H**) and unscrew the setscrew (**G**).



DES07949

- Remove the nut (**I**) from the roller axis and pull out the roller. Proceed in the same way for the other rollers of the altitude carriage.
- Proceed in the reverse order to reassemble the new rollers. Adjust the rollers(see § 4.2 page 16)
- Proceed in the reverse order to reassemble the plates and panels described above.
- Check the belt tension(see § 4.8 page 25) before reassembling the Inorecip V side panels.

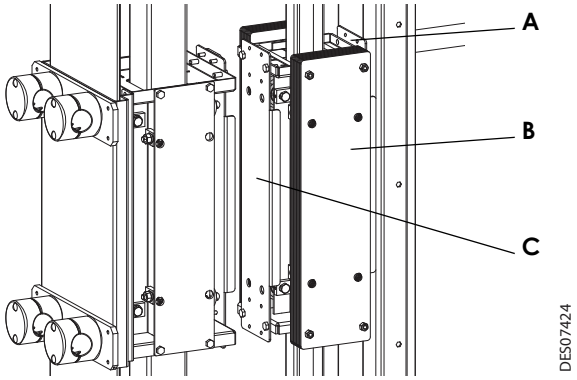


DES07946

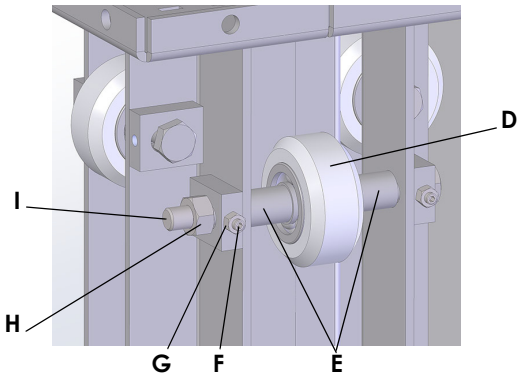
6.3.4. Procedure C4: Replacement of the rollers of the counterweight carriage

If the conterweight carriage starts to vibrate excessively during operation, especially at the inversion points, in most cases the cause is too much play in the rollers or defective or worn rollers.

- Move the conterweight carriage down until it touches the lower stop.
- Remove the side panels.
- Secure the counterweight carriage by placing a cleat (100x100) of a size adapted to the height between the counterweight carriage and the base of the **Inorecip V**.
- Remove the antistatic toothed belt (see § 6.3.1 page 33).
- Remove the belt retaining plate (**C**) and the rear roller protection plate (**A**) (4 screws per plate)
- Remove both sets of side weights (**B**) with 4 nuts per set



- Loosen the lock nut (**G**) and unscrew the set screw (**F**) on both sides of the roller.
- Remove the nut (**H**) from the roller shaft and pull out the roller assembly (**D**) and spacers (**E**). Proceed in the same way for the other rollers of the counterweight carriage
- Proceed in the reverse order to reassemble the new rollers. Adjust the rollers(see § 4.2 page 16).

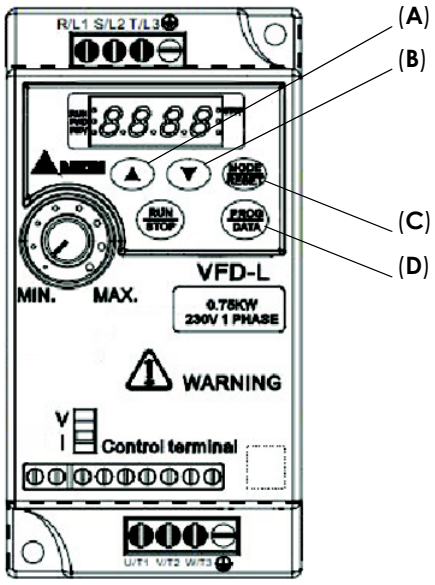


- Proceed in the reverse order to reassemble the plates and panels described above
- Check the belt tension (see § 4.8 page 25) before reassembling the side panels of the **Inorecip V**.

6.4. Drive settings

For **Inorecip V** to work properly, check the settings indicated in the table below on the drive located in the electrical box of the reciprocator.

Adjustment procedure of the drive:



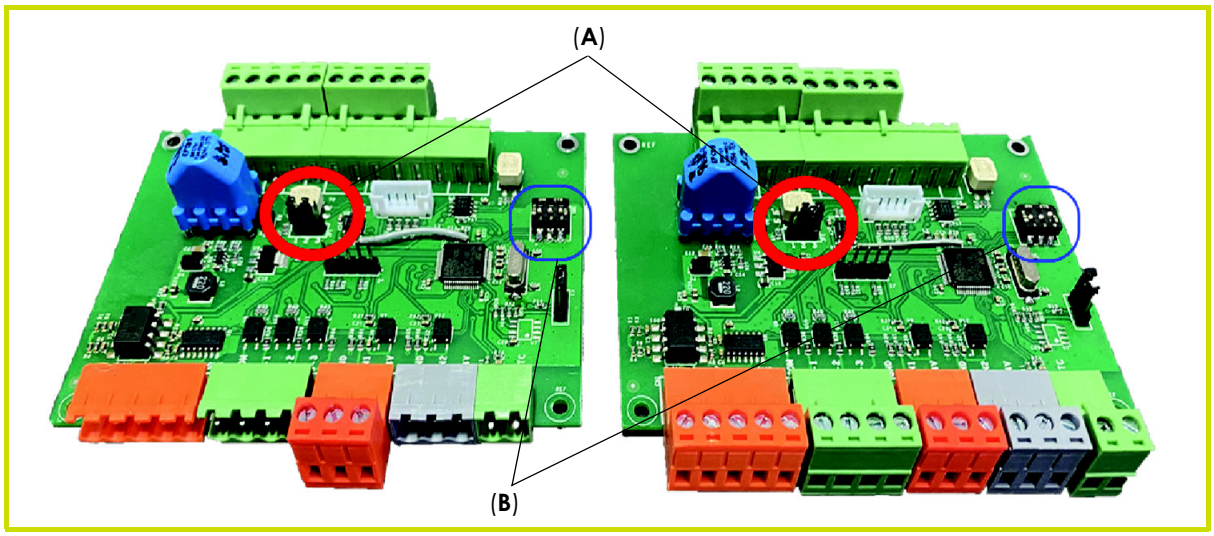
- **Step 1**: Press key (**D**). "1-" is displayed on the screen.
- **Step 2**: Press key (**D**) again. "1-00" is displayed on the screen.
- **Step 3**: Press key (**D**) again. "1-00" is displayed on the screen. This allows to access to the parameter.
- **Step 4**: Press key (**A**). The value "75.0" is displayed for parameter 1-00.
- **Step 5**: Press key (**D**). "END" is displayed momentarily. The setting is now saved. The parameter is displayed on the screen again.
- **Step 6**: Press key (**A**) to move to the next parameter.
- **Step 7**: Press key (**D**) to set the next parameter.
- **Step 8**: Repeat the procedure for each parameter from **Step 4**.
- **Step 9**: After saving all parameters, press key (**C**) twice to return to the main menu.

Settings	Inorecip V Settings
1-00	75,0
1-01	75,0
1-02	230 V
1-03	50
1-04	230
1-06	10
2-00	4 (RS-485 communication interface)
2-01	2 (For external terminals, the STOP keyboard is disabled
6-02	2 (Enabled during constant-speed operation and stopped after detection)
6-03	70
6-04	0.5
7-00	40
7-01	40
7-02	9
8-00	10
8-02	0.5
9-02	2 (Warning and stop ramp)
9-04	2 (Mode RTU / 8,N,2)

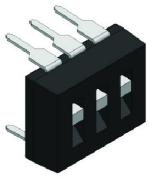
6.5. Settings of the electronic board

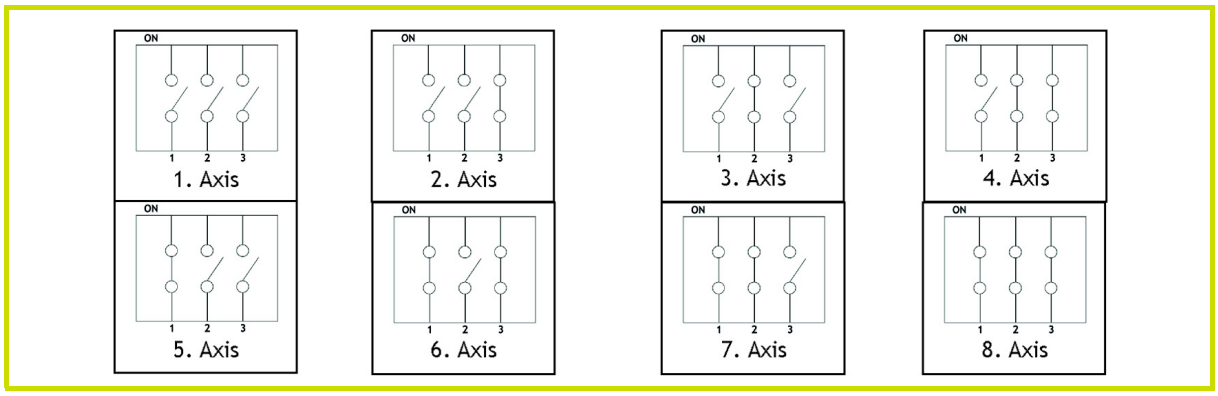
Make sure the strap (A) is properly connected. Depending on the number of robots used, the first one must be connected to pins 1 and 2.
The last axis must be connected to pins 2 and 3

For example, if two two-axis robots are used: each robot has 2 vertical and 2 horizontal axes. In this case, the strap (**A**) must be placed on pins 1 and 2 of the axis boards of the 1st vertical axis, 1st horizontal axis and 2nd vertical axis. The strap (**A**) of the second card of the 2nd horizontal axis must be placed on pins 2 and 3.



The settings of the switch axis (B) on the axis map are given below.
Set the axis maps according to the order of the axes to be used.
The Inomotion control unit can control up to 8 axes.


Switch



WARNING : The electronic control boards are set up by SAMES KREMLIN. Do not modify these parameters unless necessary.

7. Manutention

WARNING : Inorecip V must be handled with care by at least 2 operators who must never be under the reciprocator during handling.

7.1. Packing, transport

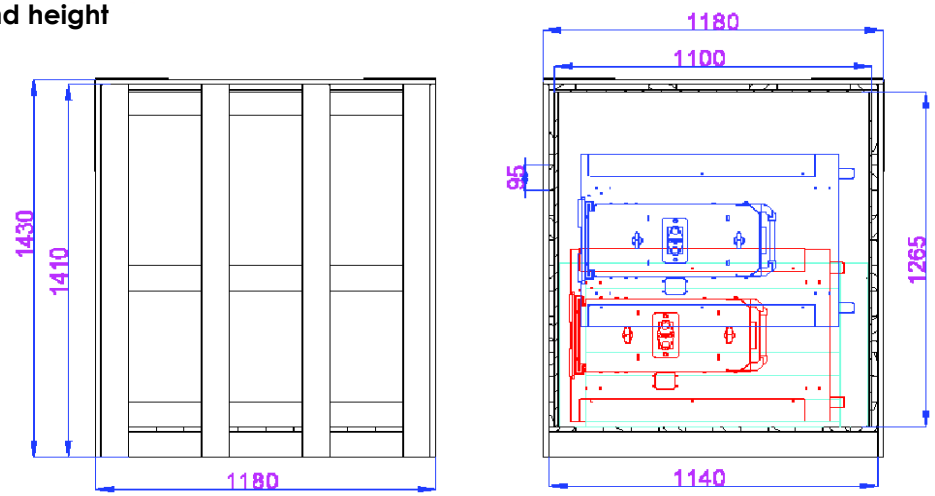
Special precautions must be taken when transporting **Inorecip V** when:

- The customer must package, transport and ship the product himself, so that **SAMES KREMLIN** can carry out repair or maintenance work
- The product must be shipped for destruction or recycling.

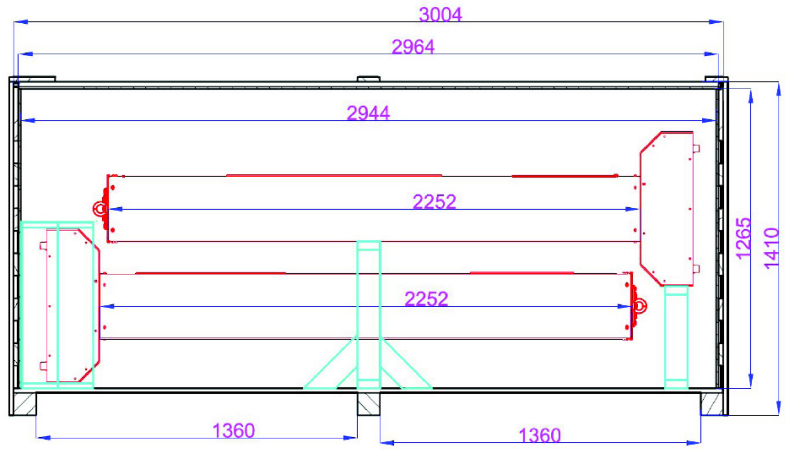
Note: It is recommended to use sufficiently strong and stable wooden packages. The dimensions of the packagings are given so that two Inorecip V can fit into the same box.

7.1.1. Package dimensions

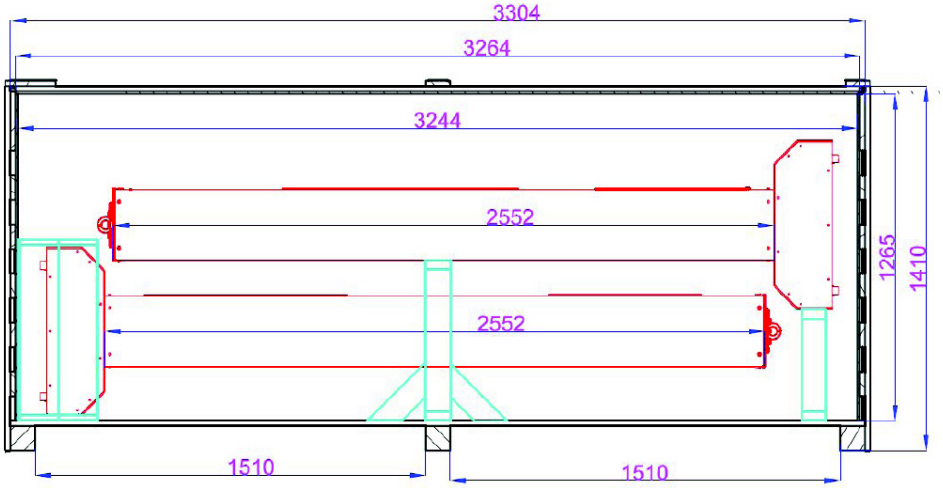
Width and height



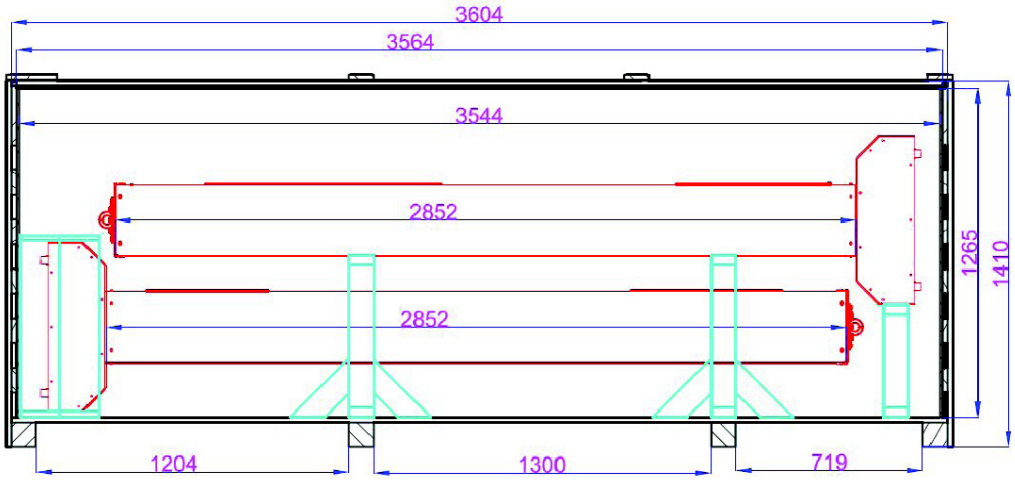
1200 Stroke length



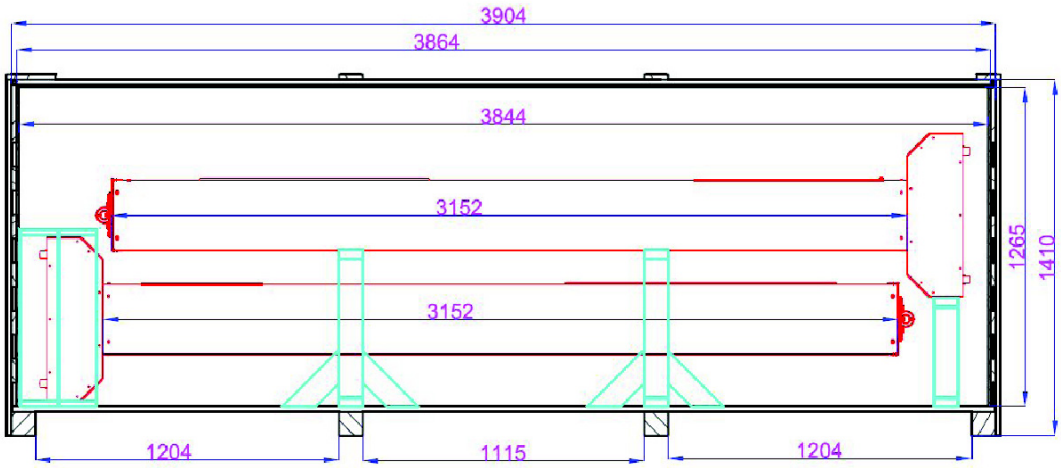
1500 Stroke length



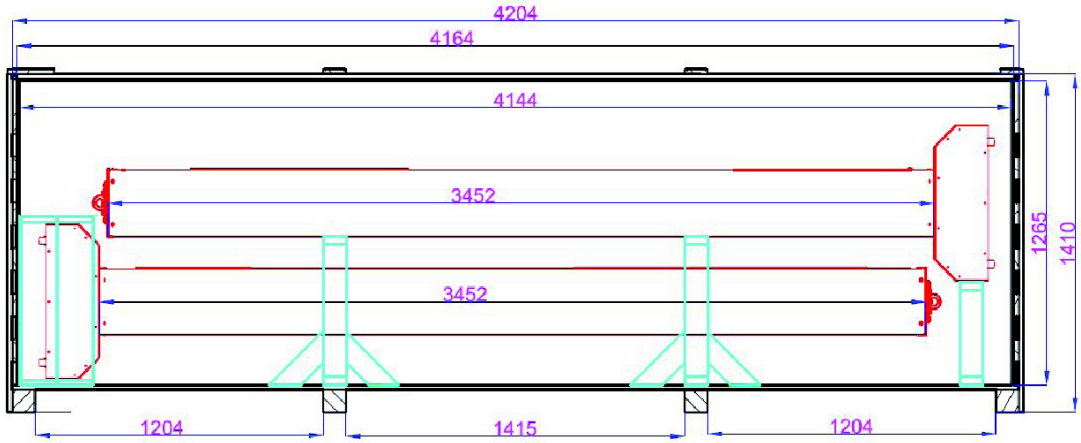
1800 Stroke length



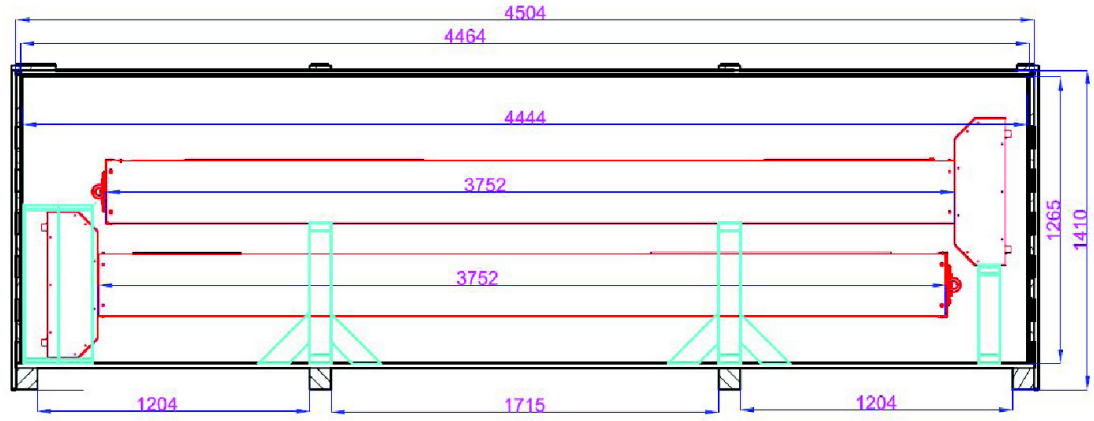
2100 Stroke length



2400 Stroke length



2700 Stroke length



7.1.2. Package weight

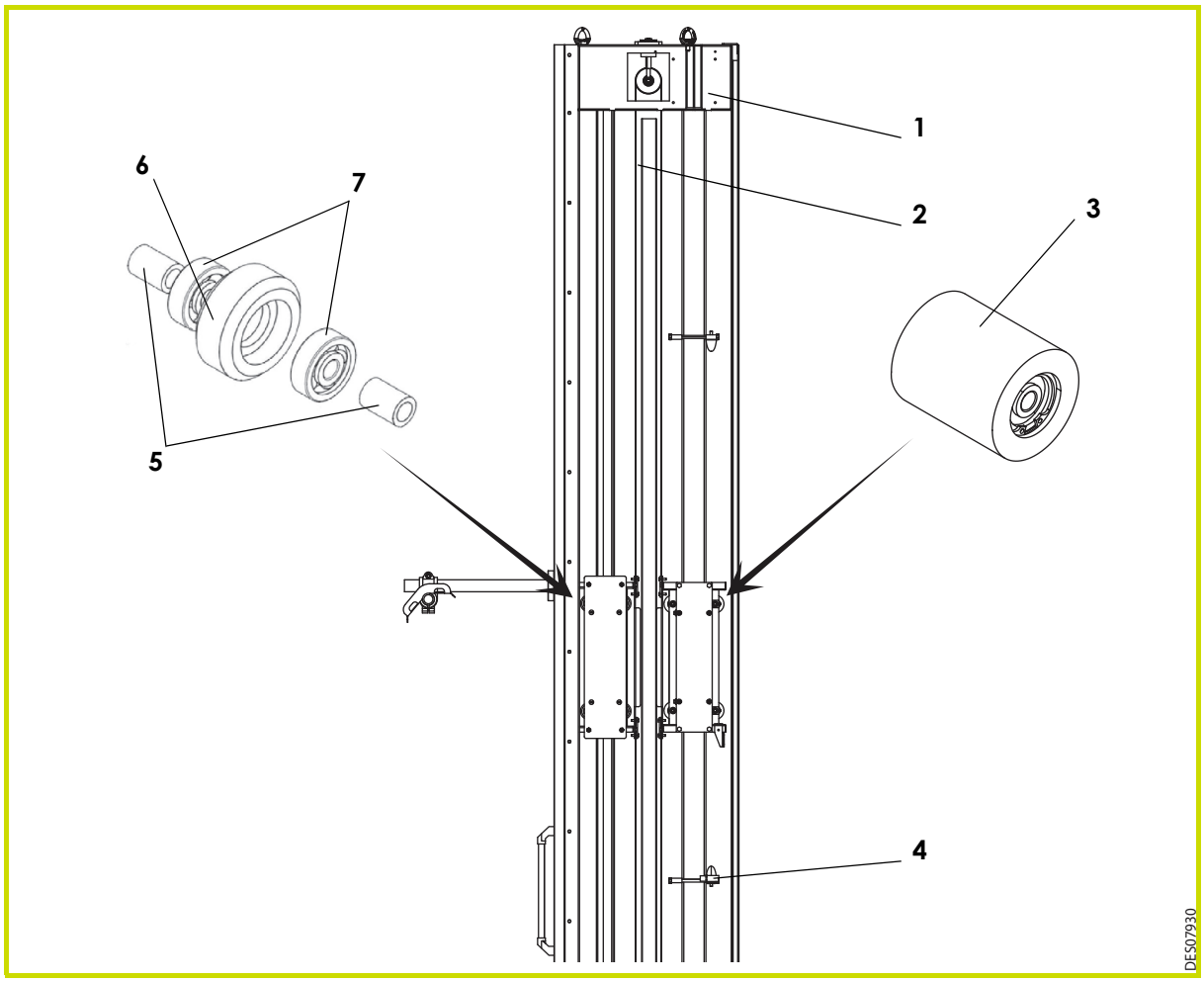
Stroke (mm)	Inorecip V (kg)	Packed (kg)	2 Inorecip V packed
1200	277.5	225	780
1500	300	240	840
1800	322.5	255	900
2100	350	270	970
2400	382.5	285	1050
2700	415	300	1130
Inorecip H	Inorecip H Approx. 250 kg with one pallet		

8. Troobleshootings

Symptoms	Probable Causes	Remedies
The **Inorecip V** works, but there is a clicking noise when the movement is reversed.	The belt is slack and causes a loss of carriage position	Tighten the belt
	The nuts of the belt fastening on the carriage are loosened	Tighten these nuts
	Counterweight adjustment nuts are loosened	Tighten these nuts
Vibrations of the moving carriage.	Blocked or defective guiding rollers	Replace the rollers
Oscillations of the moving carriage.	Improperly adjusted rollers on the guiding profile	Adjusting the roller support
	Too much projector overhang	Bring the projectors closer to the carriage axis

9. Spare parts list

9.1. Inorecip V



Item	Part Number	Description	Qty	Unit of sale	Maintenance level for spare parts (*)
	130002072-180AT	**Inorecip V**	1	1	
1	**130002088**	**Free Toothed Pulley Kit**	**1**	**1**	**3**
2	130002087	Antistatic toothed belt	1	1	3
3	**130002086**	**Altitude carriage roller kit**	**8**	**1**	**3**
4	110002897AT	Position sensor	2	1	1
5	130002109	Spacer	16	1	1
6	130002107	Counterweight carriage roller	8	1	1
7	130002108	Ball bearing	16	1	1

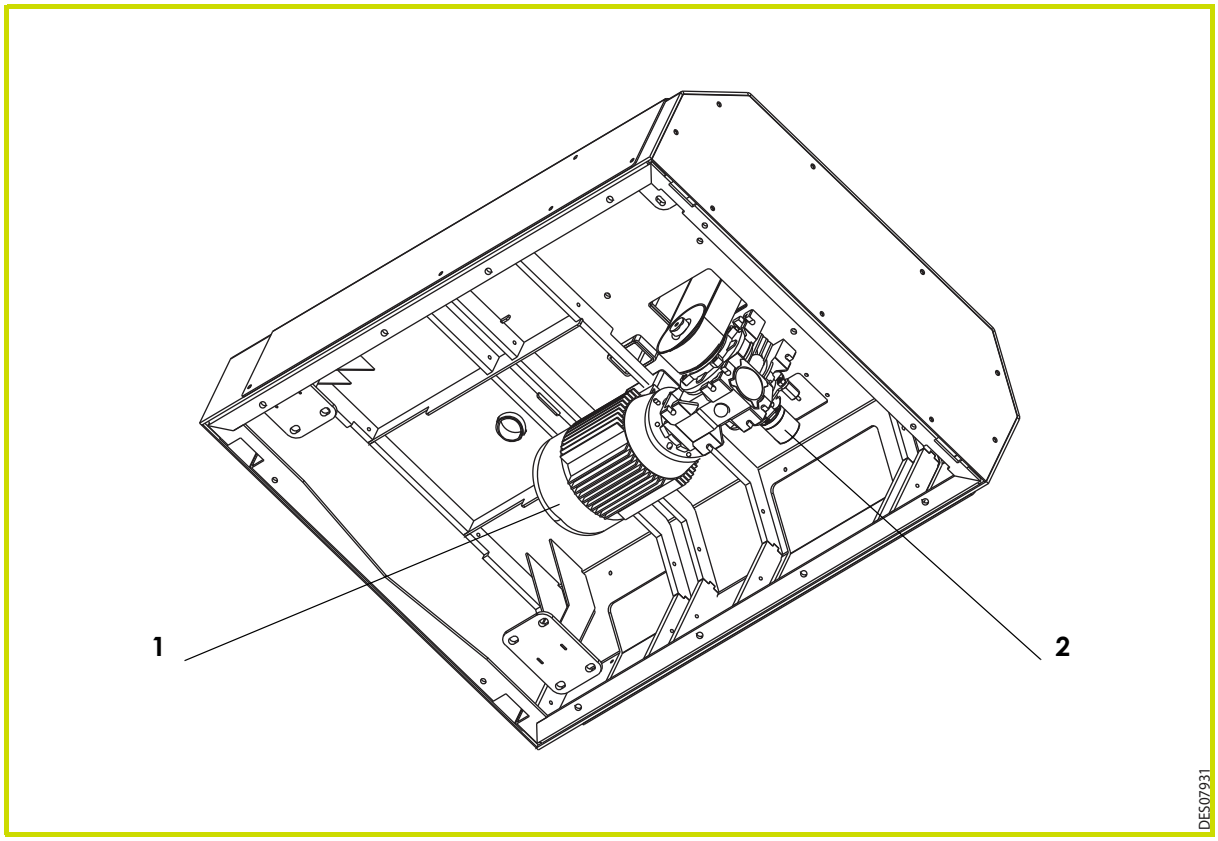
(*)
Level 1: Standard preventive maintenance
Level 2: Corrective maintenance
Level 3: Exceptional maintenance

9.2. Inomotion

Item	Part Number	Description	Qty	Unit of sale	Mainte-nance level for spare parts (*)
1	**130002073**	**Inomotion**	**1**	**1**	**3**
-	130002076	Power and control cable kit	1	1	3

(*)
Level 1: Standard preventive maintenance
Level 2: Corrective maintenance
Level 3: Exceptional maintenance

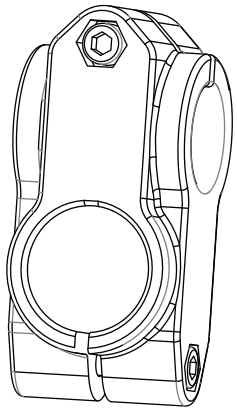
9.3. Motorization assembly



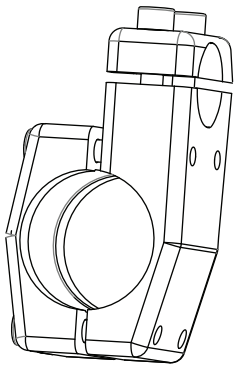
Item	Part Number	Description	Qty	Unit of sale	Mainte-nance level for spare parts (*)
1	110002895AT	Geared motor 0.37 kW	1	1	3
2	110002896AT	Coder	1	1	3

(*)
Level 1: Standard preventive maintenance
Level 2: Corrective maintenance
Level 3: Exceptional maintenance

9.4. Additional equipments



Item	Part Number	Description	Qty	Unit of sale	Maintenance level for spare parts (*)
-	200000412	Fixing nut 50/40	2	1	3
-	900001079	Aluminum tube D: 50 x 5 x 2200 mm	1	1	3



Item	Part Number	Description	Qty	Unit of sale	Maintenance level for spare parts (*)
-	749805	Fixing nut 50/30	1	1	3

(*)
Level 1: Standard preventive maintenance
Level 2: Corrective maintenance
Level 3: Exceptional maintenance

10. Revision index History

Rev.	Date	Description	Modification locating
A	Nov. 2020	First issue	

DECLARATION UE DE CONFORMITE
EU DECLARATION OF CONFORMITY
EU- KONFORMITÄTSERKLÄRUNG
DECLARACIÓN UE DE CONFORMIDAD
DICHIARAZIONE DI CONFORMITÀ UE
DECLARAÇÃO UE DE CONFORMIDADE
EU-CONFORMITEITSVERKLARING

CE

EU- VAATIMUKSENMUKAISUUSVAKUUTUS
DEKLARACJA ZGODNOŚCI UE
EU PROHLÁŠENÍ O SHODĚ
IZJAVA EU O SKLADNOSTI
VYHLÁSENIE O ZHODE
EU-MEGFELELŐSÉGI NYILATKOZAT
DECLARAŢIA DE CONFORMITATE UE

Le fabricant / The manufacturer / Der Hersteller / El fabricante / Il produttore / O fabricante / De fabrikant / Tillverkare / Valmistaja / Producent / Výrobce / Proizvajalec / Výrobca / Gyártó / Fabricantul:	**SAMES KREMLIN SAS** 13, chemin de Malacher 38 240 - MEYLAN - FRANCE Tél. : 33 (0)4 76 41 60 60

Déclare que le matériel désigné ci-après / Herewith declares that the equipment / erklärt hiermit, dass die / Declara que el material designado a continuación / Dichiara che il materiale sottoindicato / Declara que o material a seguir designado / verklaart dat de hieronder aangeduide apparatuur / Kungör att den utrustning som anges här nedan / ilmoittaa, että alla mainitut laitteistot / Oświadcza, że wymienione poniżej urządzenia / Prohlašuje, že níže uvedené vybavení / Izjavlja, da je opisana oprema spodaj / Vyhlasuje, že zariadenie uvedené nižšie / Kijelenti, hogy a megjelölt anyag a továbbiakban / Declară că echipamentul precizat mai jos:

Robot / reciprocator

INORECIP V / INOMOTION

Est conforme à la législation d'harmonisation de l'Union applicable suivante / Is in conformity with the relevant Union harmonisation legislation / Erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union / es conforme con la legislación de armonización pertinente de la Unión / è conforme alla pertinente normativa di armonizzazione dell'Unione / in overeenstemming met de desbetteffende harmonisatiewetgeving van de Unie / med den relevanta harmoniserade unionslagstiftningen / on asiaa koskevan unionin yhdenmukaistamislainsäädännön vaatimusten mukainen / jest zgodny z odnośnymi wymaganiami unijnego prawodawstwa harmonizacyjnego / Shoduje se s následující příslušnou evropskou harmonizační legislativou / V skladu s harmonizirano zakonodajo Unije / Je v súlade s uplatniteľnými harmonizačnými právnymi predpismi EÚ / Megfelel a következő alkalmazandó uniós harmonizációs szabályozásnak / Este conform cu legislaţia aplicabilă de armonizare de mai jos

Directive ATEX / ATEX Directive / ATEX Richtlinie / Directiva ATEX / Direttiva ATEX / Diretiva ATEX / ATEX-Richtijn / ATEX-direktivet / ATEX-direktivi / Dyrektywa ATEX / Směrnice ATEX / Direktiva ATEX / Smernica ATEX / ATEX-irányelv Ex II 3 D Ex h IIIC T135°C Dc EN 80079-36 : 2016 + EN 80079-37 : 2016 La partie avant de l'INORECIP V est installée en zone 22, la partie arrière est hors atmosphère explosive, voir le manuel d'utilisation. Le module de commande INOMOTION sera intégré dans une armoire de commande en dehors de toute zone explosive. / The front part of INORECIP is implanted in zone 22 and the rear part is out of hazardous area, see user manual. The INOMOTION control module will be integrated in a control cabinet outside of any explosive area.	**2014/34/UE**
Procédure d'évaluation de la conformité : Module A Documentation technique (Annexe VIII) / Conformity assessment procedure: Module A Technical documentation (ANNEX VIII) / Verfahren zur Konformitätsbewertung: Modul A Technische Unterlagen (ANLAGE VIII) / Procedimiento de evaluación de la conformidad: Módulo A Documentación técnica (ANEXO VIII) / Procedura di valutazione della conformità: Modulo A Documentazione tecnica (ALLEGATO VIII) / Procedimento de avaliação da conformidade: Módulo A Documentação técnica (ANEXO VIII) / Conformiteitsbeoordelingsprocedure: Module A Technische documentatie (BIJLAGE VIII) / Förfarande för bedömning av överensstämmelse: Modul A Teknisk dokumentation (BILAGA VIII) / Vaatimustenmukaisuusarviointimenetelmä: moduuli A Tekninen dokumentaatio (LIITE VIII) / Procedura oceny zgodności: Moduł A Dokumentacji technicznej (ZAŁĄCZNIK VIII) / Postup posuzování shody: Modul A Technická dokumentace (PŘÍLOHA VIII) / Postopek preverjanja skladnosti: Modul A Tehnična dokumentacija (PRILOGA VIII) / Postup posudzovania zhody: Modul A Technická dokumentácia (PRÍLOHA VIII) / Megfelelőségértékelési eljárás: A. modul Műszaki dokumentáció (VIII. MELLÉKLET) / Procedura de evaluare a conformităţii: Modulul A Documentaţia tehnică (ANEXA VIII)	

La présente déclaration de conformité est établie sous la seule responsabilité du fabricant / This declaration of conformity is issued under the sole responsibility of the manufacturer / Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller / La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante / La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante / A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante / Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant / Denna försäkran om överensstämmelse utfärdas på tillverkarens eget ansvar / Tämä vaatimustenmukaisuusvakuutus on annettu valmistajan yksinomaisella vastuulla / Niniejsza deklaracja zgodności wydana zostaje na wyłączną odpowiedzianość producenta / Toto prohlášení o skodě se vydává na výhradní odpovědnost výrobce / Za izdajo te izjave o skladnosti je odgovoren izključno proizvajalec / Toto vyhlásenie o zhode sa vydáva / na vlastnú zodpovednosť výrobcu / Ezt a megfelelőségi nylatkozatot a gyártó kizárólagos felelőssége mellett adják ti / Prezenta declaraţie de conformitate este emisă pe răspunderea exclusivă a producătorului.

Directeur Recherche & Développement / Research & Development Director / Direktor für Forschung & Entwicklung / Director de Investigación y Desarrollo / Direttore Ricerca e sviluppo / Diretor de Pesquisa e desenvolvimento/ Manager Onderzoek en Ontwikkeling / Direktör för Forskning och Utveckling / Johtaja tutkimus ja kehitys / Dyrektor ds. Badań i rozwoju / Ředitel výzkumu a vývoje / Direktor za raziskave in razvoj / Riaditeľ pre výskum a vývoj / Kutatási és Fejlesztési Igazgató / Director de cercetare și dezvoltare	Richard WLODARCZYK

Fait à Meylan, le / Established in Meylan, on / Geschehen zu Meylan, am / En Meylan, a / Redatto a Meylan, / Vastgesteld te Meylan, / Utformat i Meylan, den / Meylan, Ranska, / Sporządzono w Meylan, dnia / Meylan, dnia / V Meylanu, / V Meylan dňa / Kelt Meylanban, / Întocmită la Meylan, pe data de 20/08/2021 – 08/20/2021

DECLARATION D'INCORPORATION
DECLARATION OF INCORPORATION
EINBAUERKLÄRUNG
DECLARACIÓN DE INCORPORACIÓN
DICHIARAZIONE DI INCORPORAZIONE
DECLARAÇÃO DE INCORPORAÇÃO
INBOUWVERKLARING BETREFFENDE
FÖRSÄKRAN FÖR INBYGGNAD

CE

PUOLIVALMISTEIDEN LIITTÄMISVAKUUTUS
DEKLARACJA WŁĄCZENIA
PROHLÁŠENÍ O ZABUDOVÁNÍ
DEKLARACIJA O VGRADNJI
VYHLÁSENIE O ZAČLENENÍ
BEÉPÍTÉSI NYILATKOZAT
DECLARAȚIE DE ÎNCORPORARE

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Déclare que sur la quasi-machine désignée ci-après / Herewith declares that for the following partly completed machinery :

Robot / reciprocator

INORECIP V / INOMOTION

Ont été appliquées la norme EN 12100 : 2010 et les exigences essentielles de santé et de sécurité de la directive Machines 2006/42/CE ci-dessous / The standard EN 12100 : 2010 and the essential health and safety requirements below of the Directive 2006/42/CE on Machinery have been applied :

1.1	**Généralités / General remarks**
1.1.5	Conception de la machine en vue de sa manutention / Design of machinery to facilitate its handling
1.2	**Systèmes de commande / Control systems**
1.2.1	Sécurité et fiabilité des systèmes de commande / Safety and reliability of control systems
1.2.2	Organes de service / Control devices
1.2.3	Mise en marche / Starting
1.2.4	Arrêt / Stopping
1.3	**Mesures de protection contre les risques mécaniques / Protection against mechanical hazards**
1.3.1	Risque de perte de stabilité / Risk of loss of stability
1.3.2	Risque de rupture en service / Risk of break-up during operation
1.3.3	Risques dus aux chutes, aux éjections d'objets / Risks due to falling or ejected objects
1.3.4	Risques dûs aux surfaces, aux arêtes ou aux angles / Risks due to surfaces, edges or angles
1.3.7	Risques liés aux éléments mobiles / Risks related to moving parts
1.4	**Protecteurs et dispositifs de protection / Guards and protectective devices**
1.4.1	Protecteurs fixes / Fixed guards
1.5	**Risques dûs à d'autres dangers / Risks due to other hazards**
1.5.1	Alimentation en énergie électrique / Electricity supply
1.5.2	Electricité statique / Static electricity
1.5.3	Alimentation en énergie autre qu'électrique / Energy supply other than electricity
1.5.4	Erreurs de montage / Errors of fitting
1.5.6	Incendie / Fire
1.5.7	Explosion / Explosion
1.5.8	Bruit / Noise
1.5.9	Vibrations / Vibrations
1.6	**Entretien / Maintenance**
1.7	**Informations / Information**

Cette quasi-machine ne doit pas être mise en service avant que la machine finale dans laquelle elle doit être incorporée ait été déclarée conforme à la directive Machines 2006/42/CE / This partly completed machinery must not be put into service until the final machinery in which it is to be incorporated has been declared in conformity with Directive 2006/42/CE on Machinery.

SAMES KREMLIN a constitué la documentation technique conformément à l'annexe VII partie B / et s'engage à transmettre, à la suite d'une demande dûment motivée des autorités nationales, les informations pertinentes concernant la quasi-machine sous la forme la plus appropriée / SAMES KREMLIN has established the technical documentation and undertakes to transmit, in response to a reasoned request by the national authorities, relevant information on the partly completed machinery in the most appropriate form.

Directeur Recherche & Développement / Research & Development Director / Direktor für Forschung & Entwicklung / Director de Investigación y Desarrollo / Direttore Ricerca e sviluppo / Diretor de Pesquisa e desenvolvimento/ Manager Onderzoek en Ontwikkeling / Direktör för Forskning och Utveckling / Johtaja tutkimus ja kehitys / Dyrektor ds. Badań i rozwoju / Ředitel výzkumu a vývoje / Direktor za raziskave in razvoj / Riaditeľ pre výskum a vývoj / Kutatási és Fejlesztési Igazgató / Director de cercetare și dezvoltare	Richard WLODARCZYK 

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