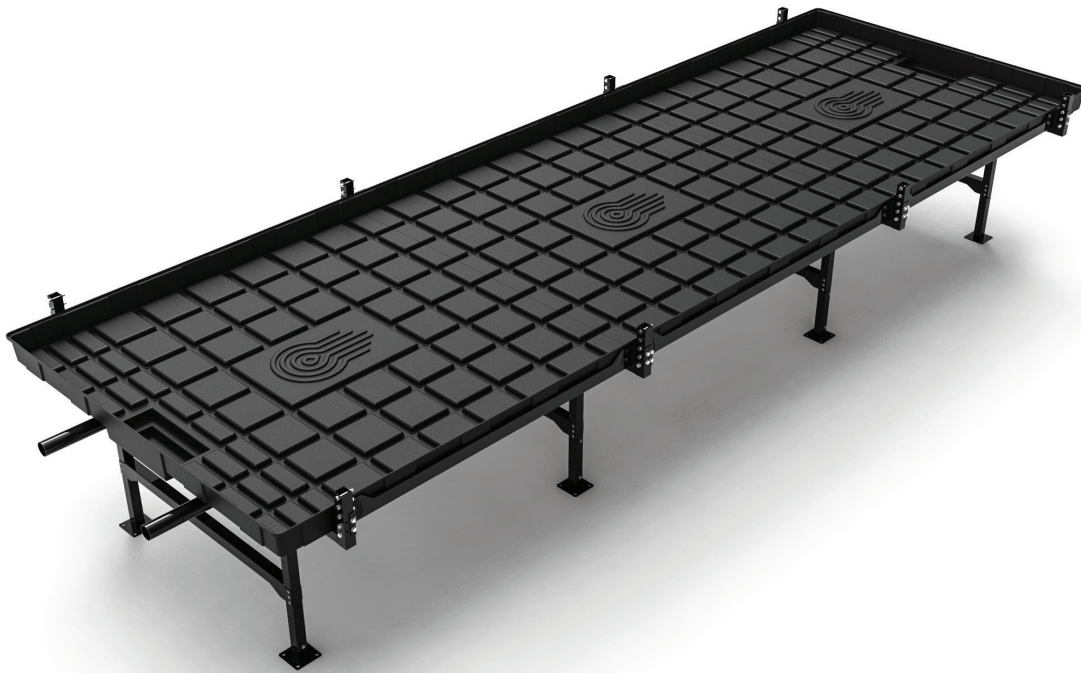




IDROROLL ASSEMBLY INSTRUCTION



INTRODUCTION

PRELIMINARY INDICATIONS

BEFORE STARTING

Carefully read instructions before starting assembling your new rolling modular cultivation bench.

NOTE

Equip yourself in advance of the following tools, not included with the benches, to successfully and properly complete the assembly of your new rolling modular cultivation bench:

- Battery-powered screwdriver with clutch
- Impact drill
- Riveter
- Glue gun
- Laser level
- Normal level
- Wire chalker
- Meter
- Detergent
- Clean cloths
- Cement anchors with fine hexagonal head screw
- Wrenches (8mm – 10mm – 13mm)
- Ratchets (8mm – 10mm – 13mm)
- Hexagonal socket wrenches (8mm – 10mm – 13mm)

SETTING UP THE CLUTCH OF THE SCREWDRIVER

Use the lowest clutch level of the screwdriver. Once the head of the screw is in contact with the support surface, finish fastening manually with a wrench and a ratchet.

Be very careful when fastening screws with the battery-powered screwdriver. Excessive fastening will result in damaging the screw as well as the area of the support where you are fastening on.

SAFETY PRECAUTIONS

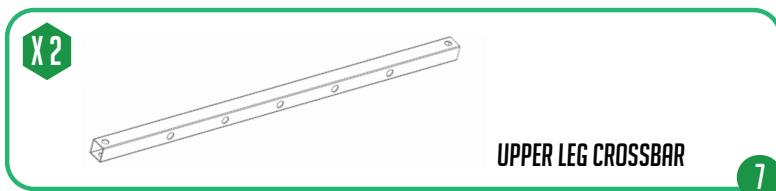
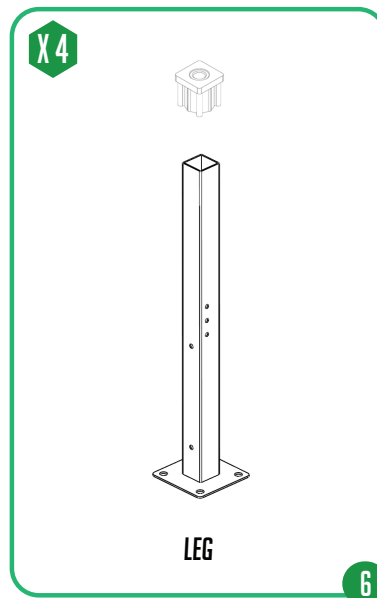
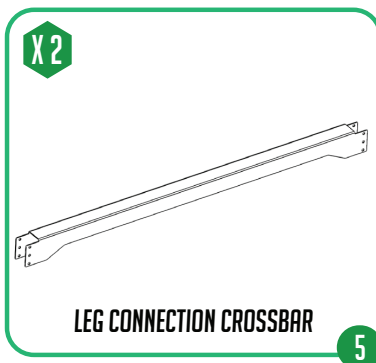
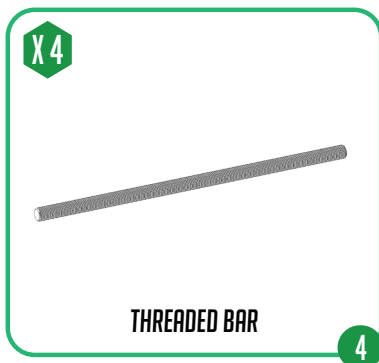
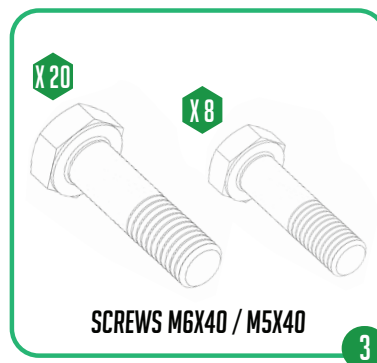
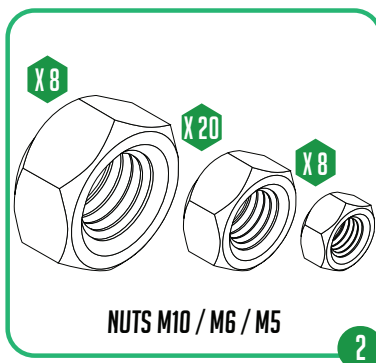
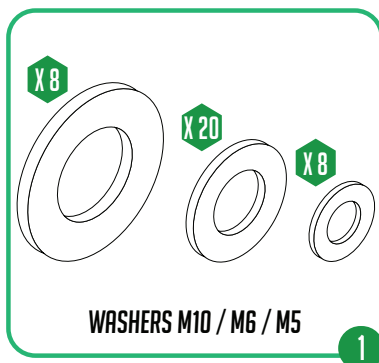
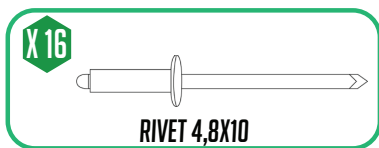
Read and follow carefully all the information before starting the assembly. Not following the advises and instructions may result serious personal injuries, damage to products and to the environment where installation occurs.

- ⬡ Rolling modular cultivation bench must always be fastened with high-quality anchors on cement surface free of relevant signs of deterioration
- ⬡ Never load more than 150Kg/m² on the cultivation bench
- ⬡ Use the modular cultivation bench only after you are sure to have successfully finished all of the assembling operations
- ⬡ Keep hands and fingers away from rolling tubes and roll-over protection plates
- ⬡ Do not extend threaded bars beyond prescribed maximum measures

Idrolab Hydroponics® is not liable for any damaged caused to person and things from the improper use of the supplied materials.

IDROROLL START KIT

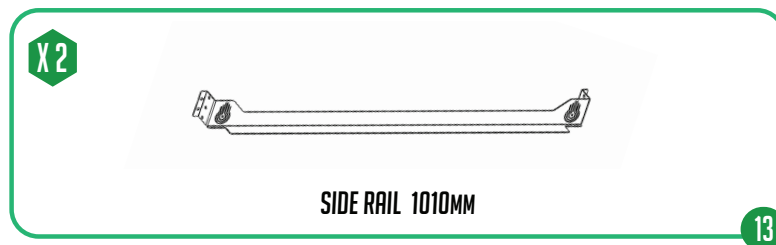
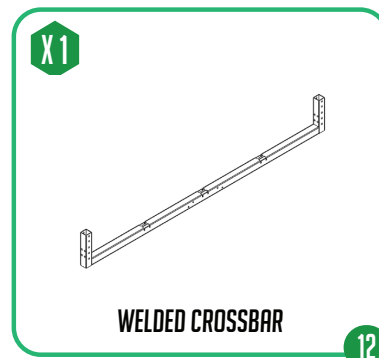
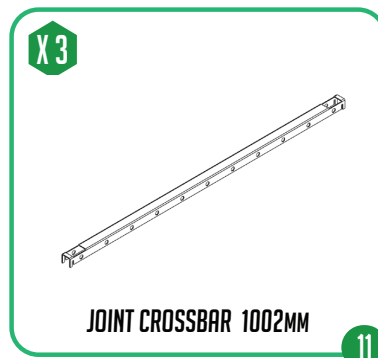
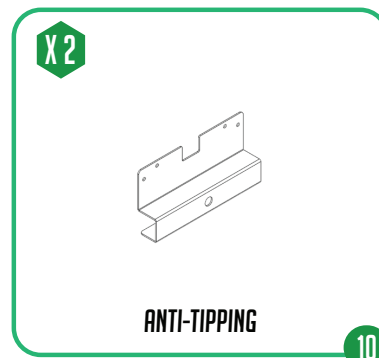
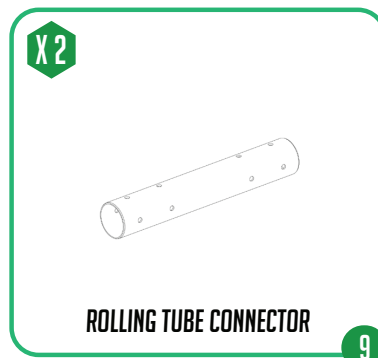
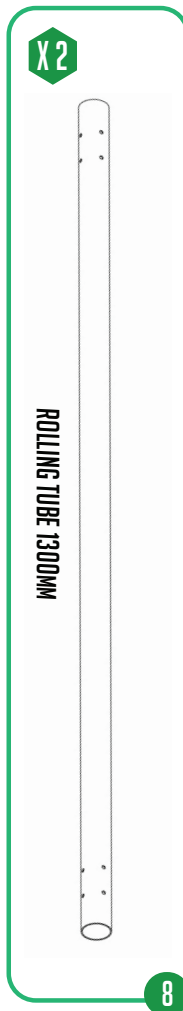
COMPONENTS



The HYDRO BROS

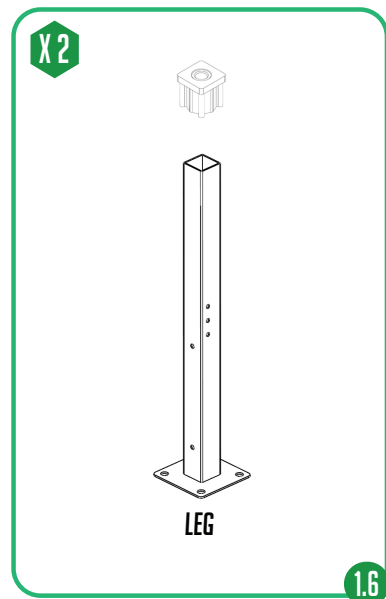
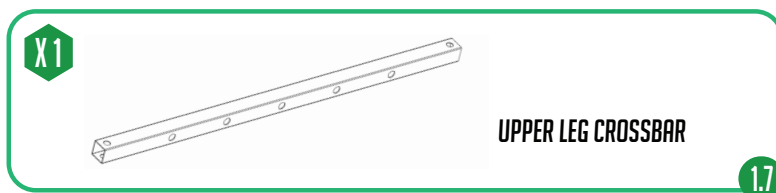
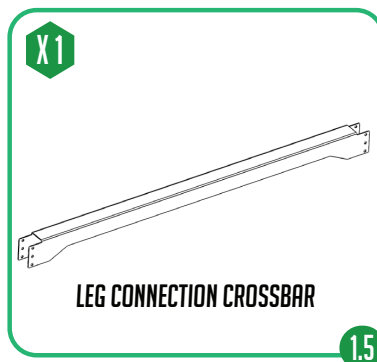
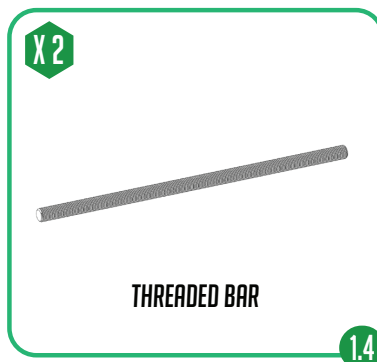
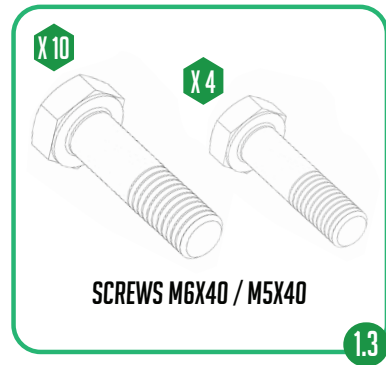
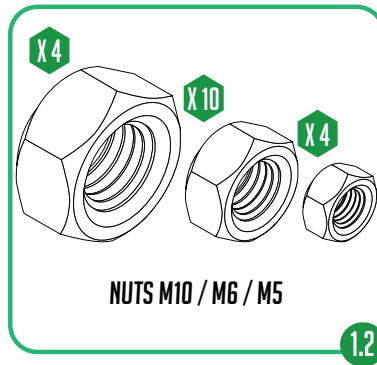
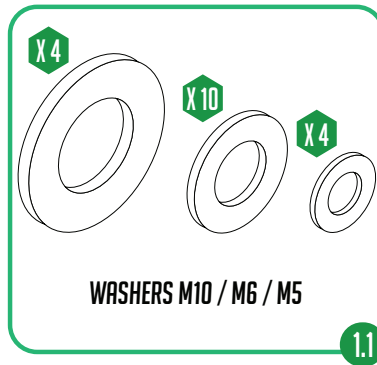
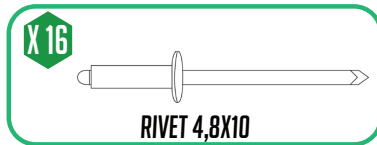
START KIT IDROROLL

COMPONENTS



IDROROLL MODULAR KIT

COMPONENTS



MODULAR KIT IDROROLL

COMPONENTS



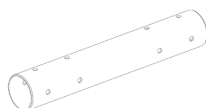
X 2

ROLLING TUBE 1200MM



1.8

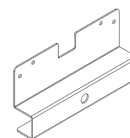
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ROLLING TUBE CONNECTOR

1.9

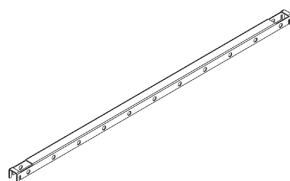
X 1



ANTI-TIPPING

1.10

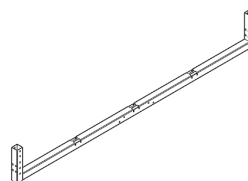
X 3



JOINT CROSSBAR 1200MM

1.11

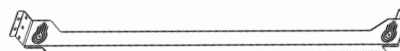
X 1



WELDED CROSSBAR

1.12

X 2

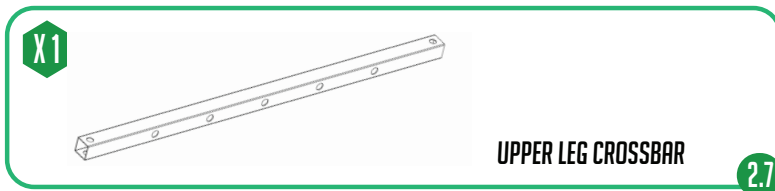
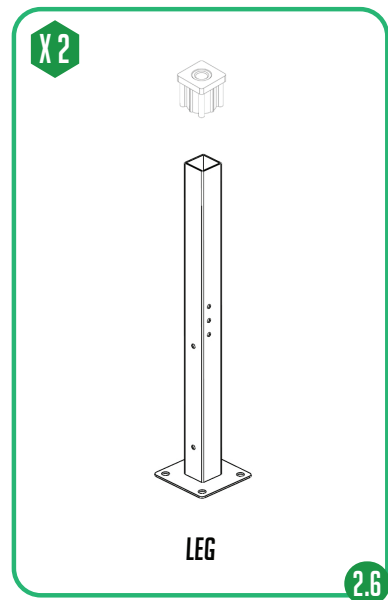
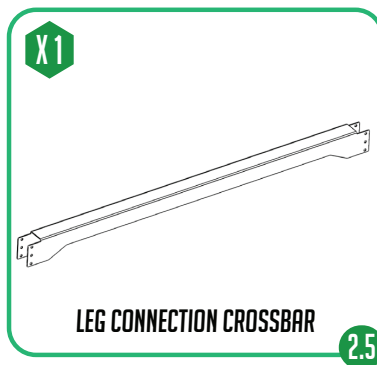
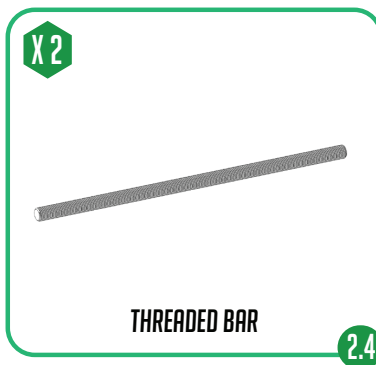
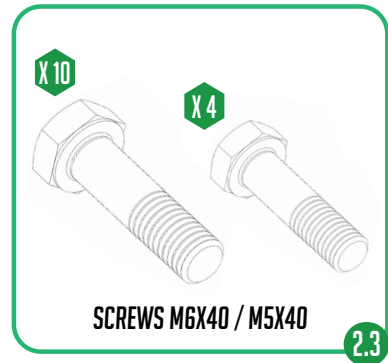
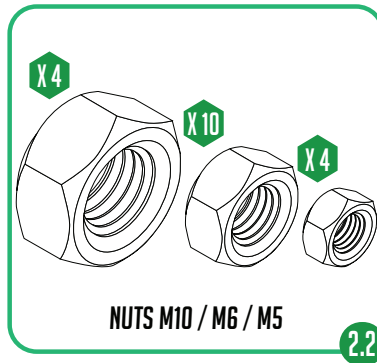
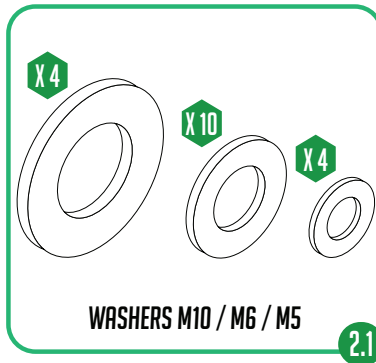
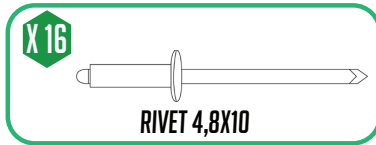


SIDE RAIL 1200MM

1.13

IDROROLL END KIT

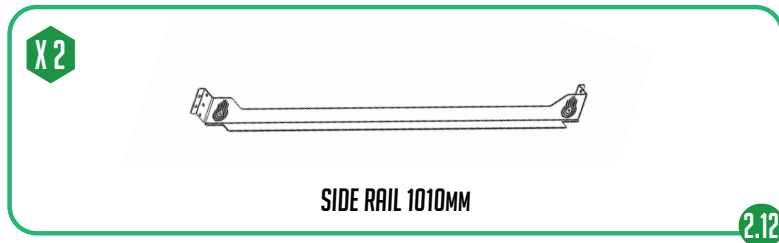
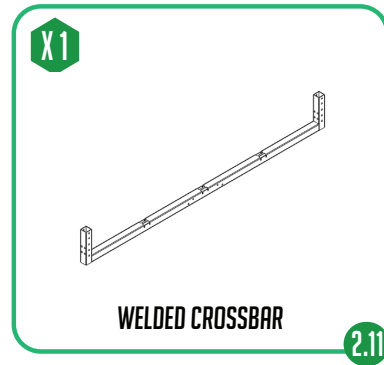
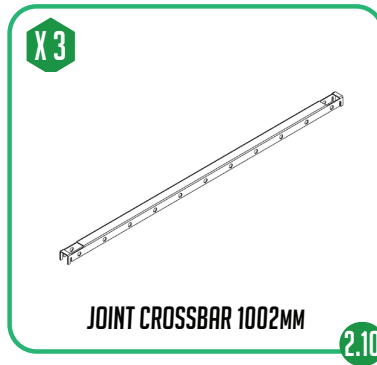
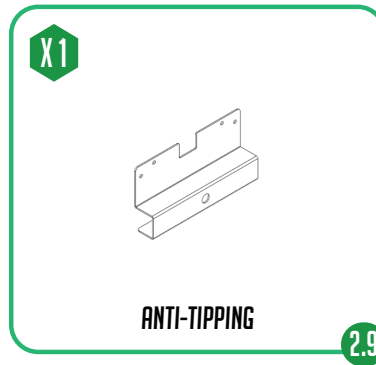
COMPONENTS



The HYDRO BROS

END KIT IDROROLL

COMPONENTS

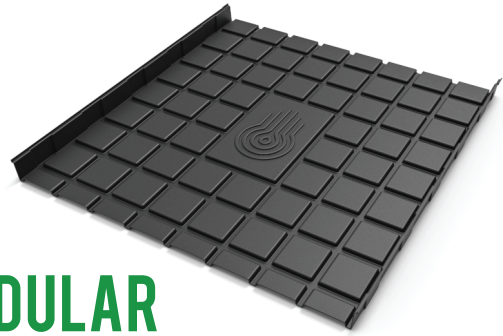


SIZING

COMPONENTS



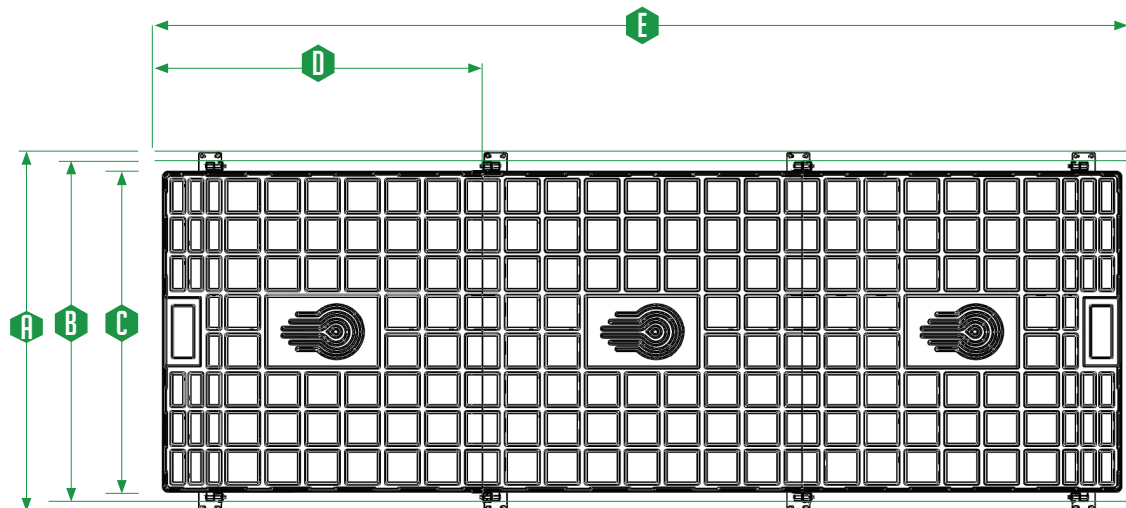
START



MODULAR

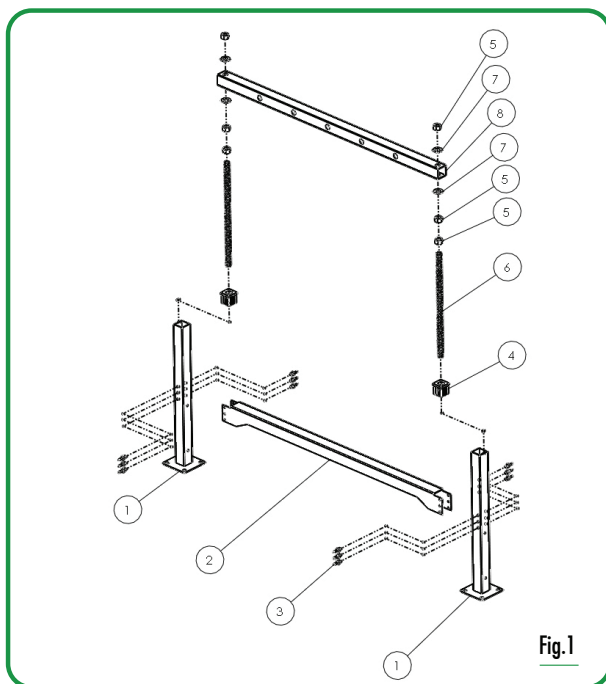


END



ASSEMBLING THE LEGS ON THE FRAME

STEP 1



1.1 Fasten with riveter the LEG CONNECTING CROSSBAR (2) to the LEG (1) using all of the 3 rivet holes (3) to ensure a stable and durable anchoring.

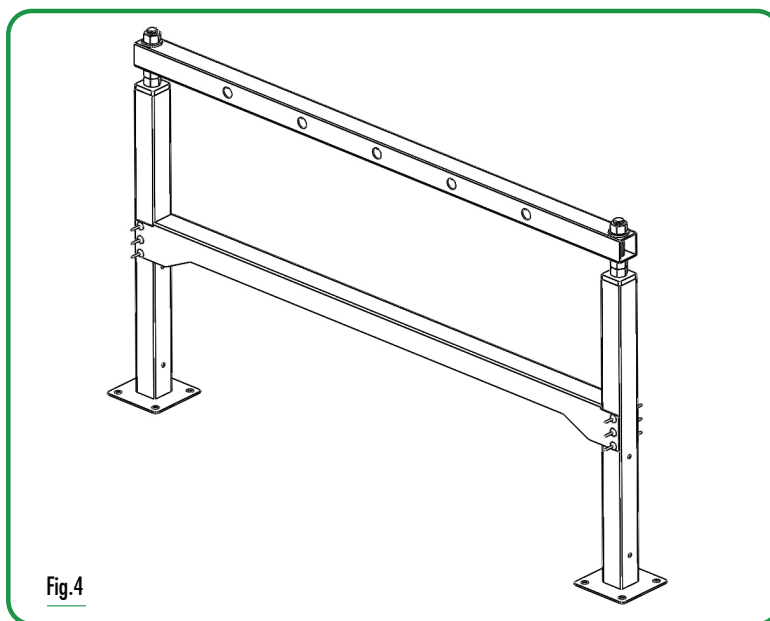
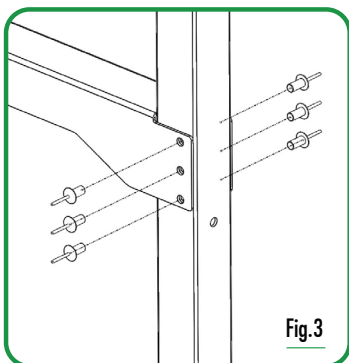
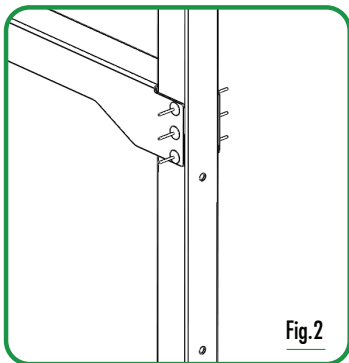
1.2 Enter the THREADED BAR INSERT (4) over the LEG (1).

1.3 Enter the THREADED BAR (6) in the THREADED BAR INSERT (4) leaving out at least 6cm of the THREADED BAR.

1.4 Insert 2X NUT M10 (5) and 1X WASHER M10 (7) over the THREADED BARS.

1.5 Insert the UPPER LEG CROSSBAR (8) in the THREADED BARS (6).

1.6 Insert 1X NUT M10 and 1X WASHER M10 over the THREADED BARS.



ASSEMBLING THE SQUASHED BAR

NOT INCLUDED IN KIT, PURCHASED SEPARATELY

STEP 2

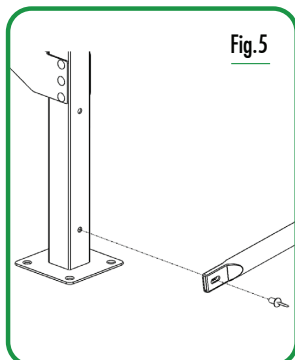


Fig. 5

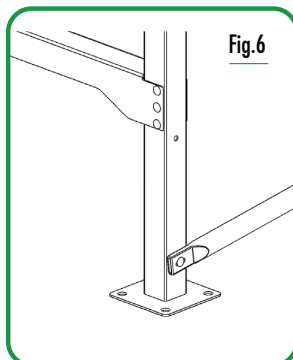


Fig. 6

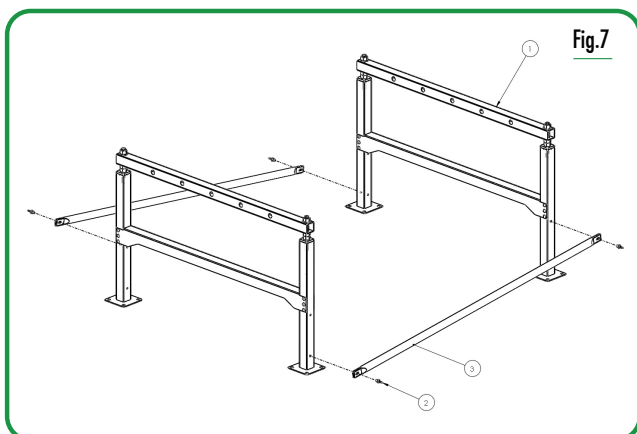


Fig. 7

2.1 Fasten with rivets (2) the edges of the SQUASHED BAR 1042,5mm (3) in the rivet holes on the external side of the LEG. Rivet one side of the SQUASHED BAR in the lower hole and the other edge in the higher hole, to create a diagonal anchoring as shown in Fig 5-6

2.2 Repeat the same operation also for the other SQUASHED BAR 1042,5mm (3) but anchor it inverting inclination a shown in Fig. 7

2.3 Repeat the same operation also for each additional kit

NOTE

Squashed bar for module kit are 1235mm long, whereas START/END KIT squashed bar are 1042,5mm

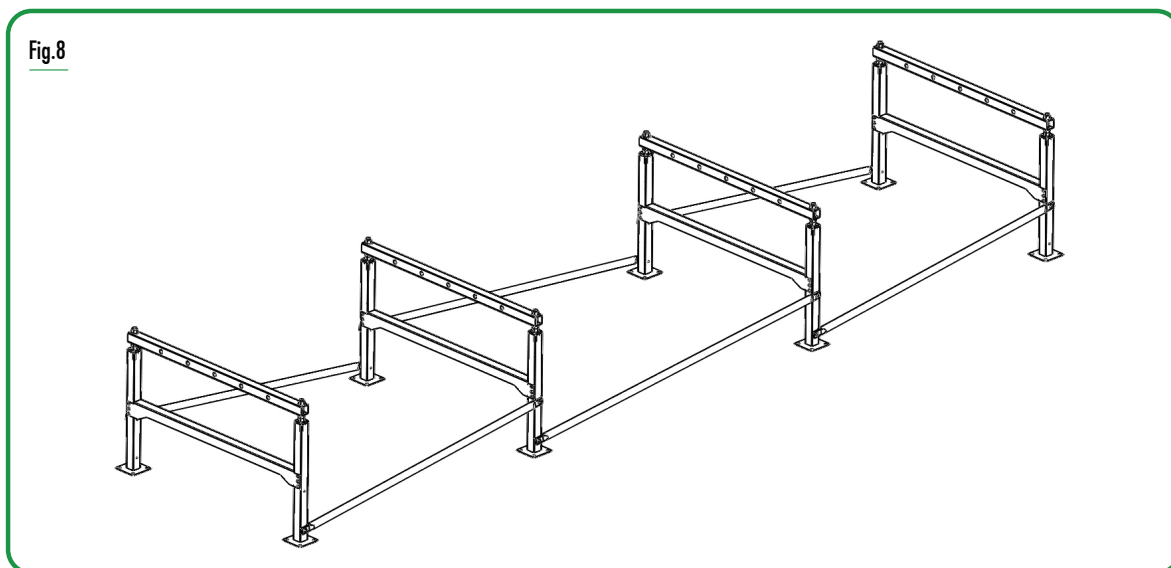


Fig. 8

REGULATION OF THREADED BARS

STEP 3

Fig.9

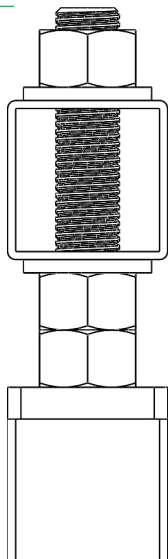
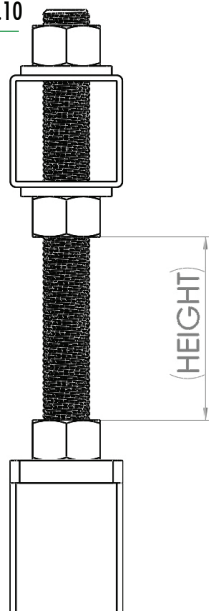


Fig.10



NOTE

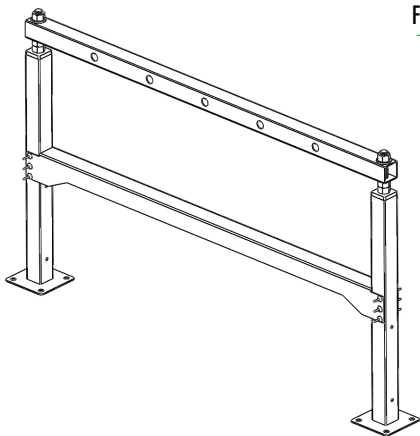
It is fundamental to give the rolling bench the right slope for correct drainage of waste solution. slope must be uniform throughout the length and the user can regulate it through the threaded bars entered over the legs as in STEP1

3.1 Starting from the down-slope side, regulate the THREADED BARS at minimum height as shown in Fig. 9

3.2 Using a normal level, check that the UPPER LEG CROSSBAR Fig.11 is perfectly horizontal. In case not, also because of the floor, proceed with micro-regulations until perfectly horizontal.

3.3 Repeat regulating the height of each module until END KIT by increasing the slope between each module of at least 1 cm.

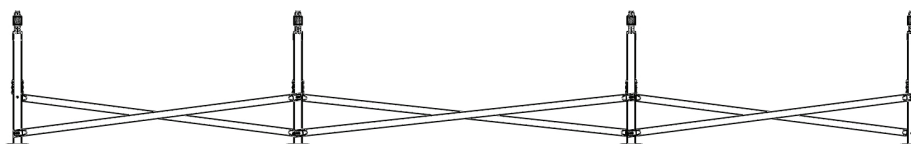
Fig.11



NOTE

You can increase the slope between each module up to 1.5cm, for faster drainage, but not beyond this limit.

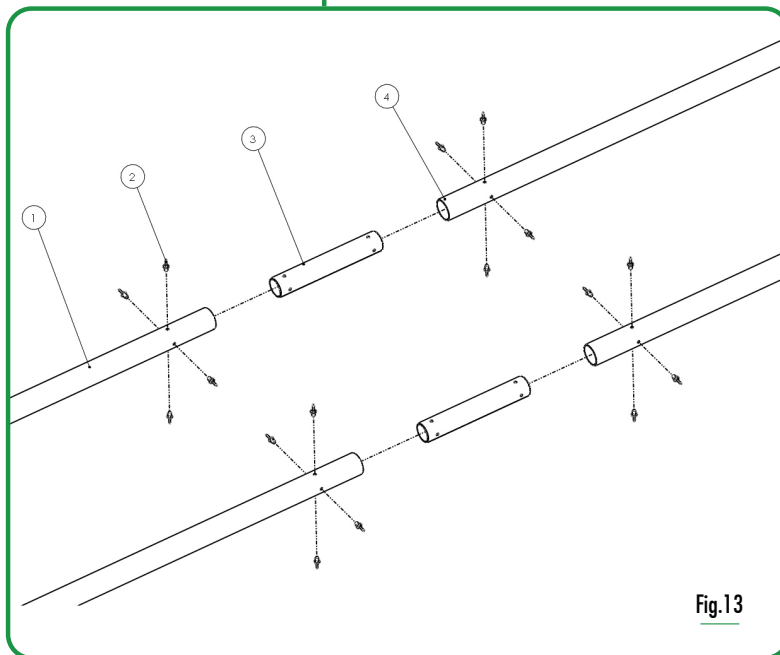
Fig.12



ASSEMBLING THE ROLLING TUBES

STEP 4

- 4.1 Fasten the ROLLING TUBE CONNECTOR (3) inside the ROLLING TUBES (1, 4) with 8 rivets
- 4.2 Repeat the same operation for each KIT

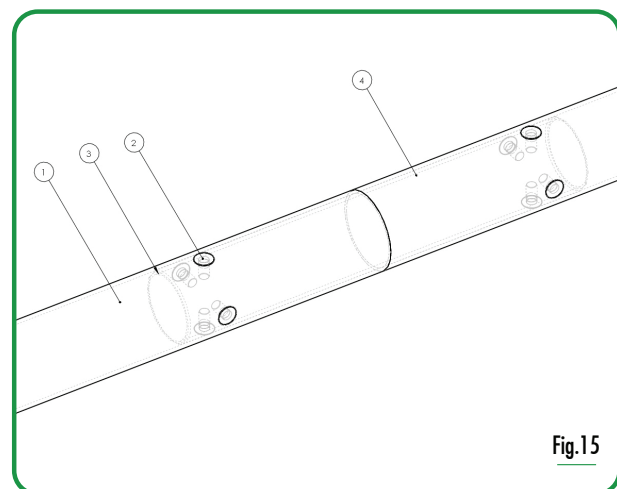
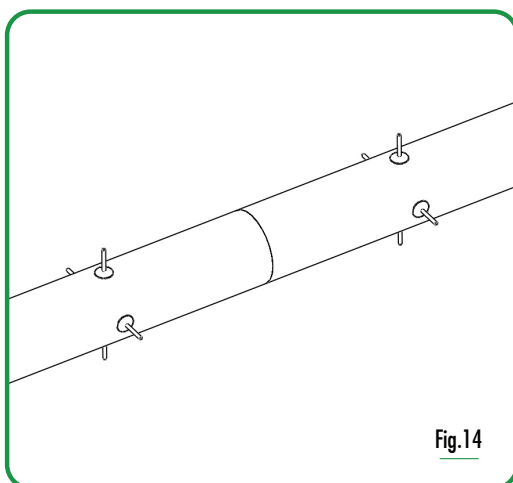


NOTE

To facilitate this step, it is suggested that you place in position all the rivets before fixing them with the riveter.

NOTE

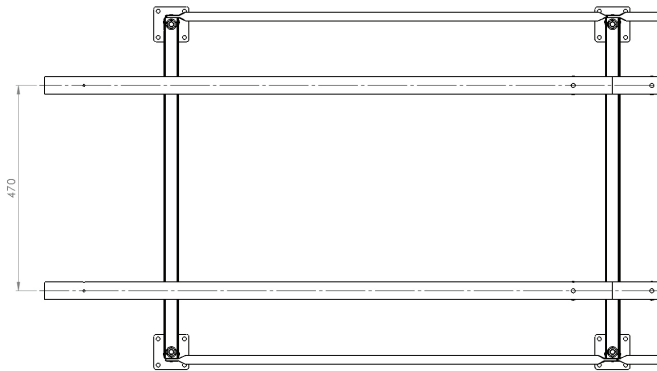
ROLLING TUBES for MODULAR KIT are 1200mm long, whereas ROLLING TUBE for START/END KIT are 1300mm long



PLACING THE ROLLING TUBES

STEP 5

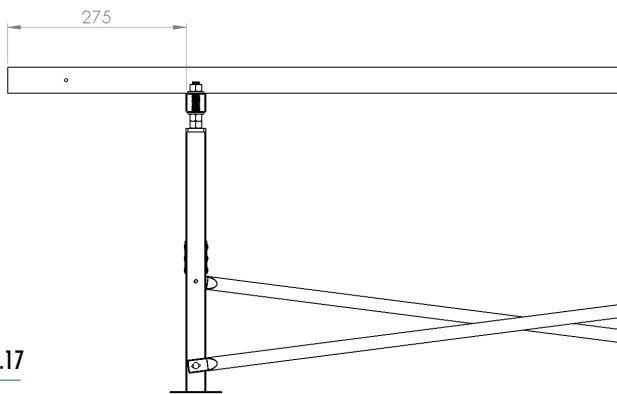
Fig.16



5.1 Place the assembled ROLLING TUBES over the UPPER LEG CROSSBARS by leaving a center distance of 470mm as shown in Fig. 16

5.2 Regulate the ROLLING TUBES by leaving them out 275mm from the edge of the LEGS as shown in Fig 17

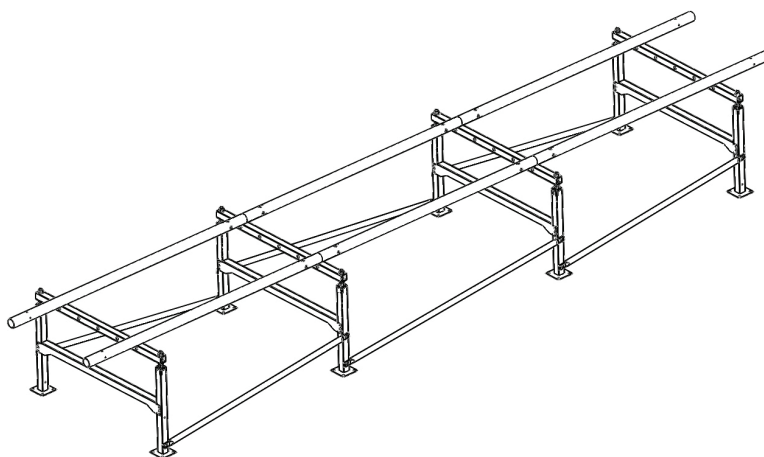
Fig.17



NOTE

it will be necessary to regulate again the rolling tubes after installing the frame. it is also possible to vary the center distance of the rolling tubes. the shorter the center distance, the higher the lateral movement. never install with less than 400mm center distance

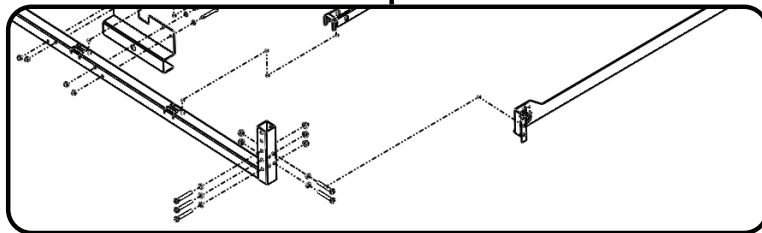
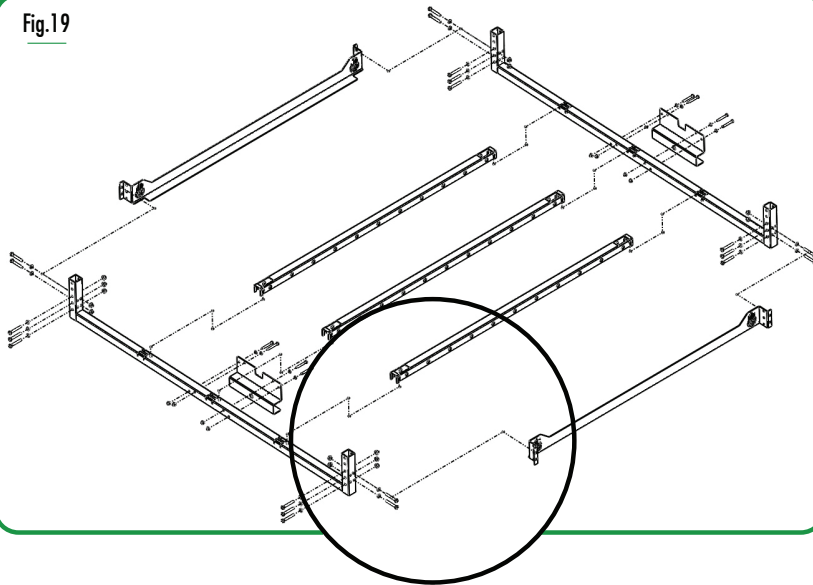
Fig.18



ASSEMBLING THE STARTING FRAME

STEP 6

Fig.19



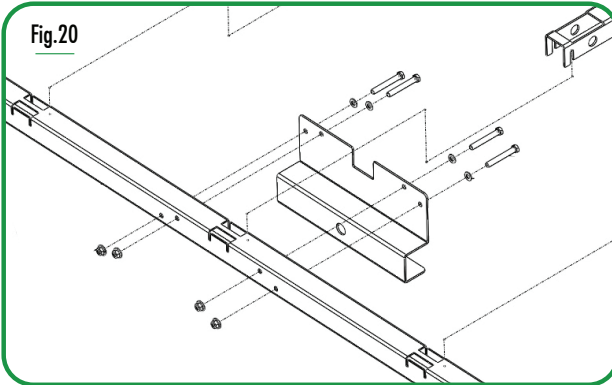
6.1 Fasten with two screws (3) the edge of the SIDE RAIL (13) to the WELDED CROSSBAR (12) using the external screw holes as shown in Fig. 19

6.2 Fasten with two screws (3) the free edge of the SIDE RAIL (13) to the other WELDED CROSSBAR (12) using the external screw holes.

6.3 Repeat the same operations also on the second SIDE RAIL (13)

6.4 Place the JOINT CROSSBAR (11) in their specific enclosures found in WELDED CROSSBARS (12) as shown in Fig. 20

Fig.20



NOTE

With 4 screws (3) m5x40mm fix the anti-tipping plate (10) to the welded crosspiece (12) as in fig. 20.

Fig.21

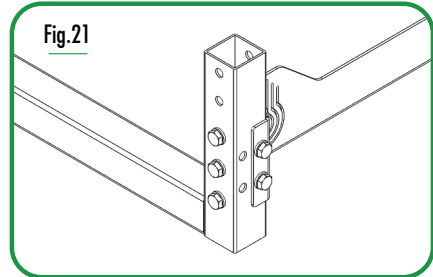
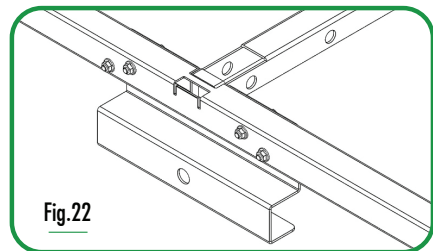
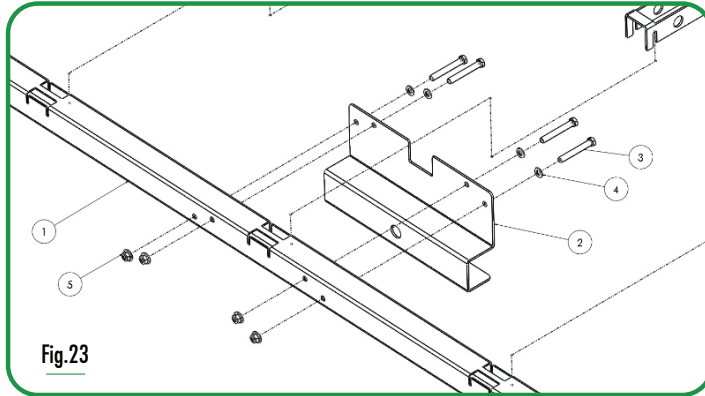


Fig.22

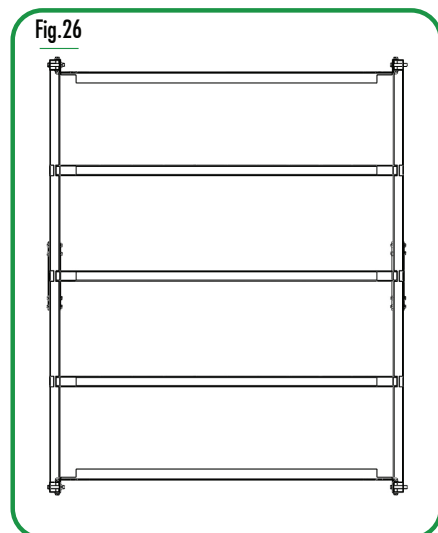
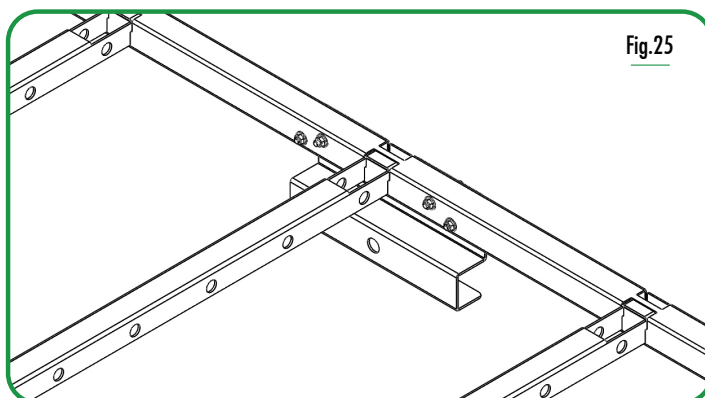
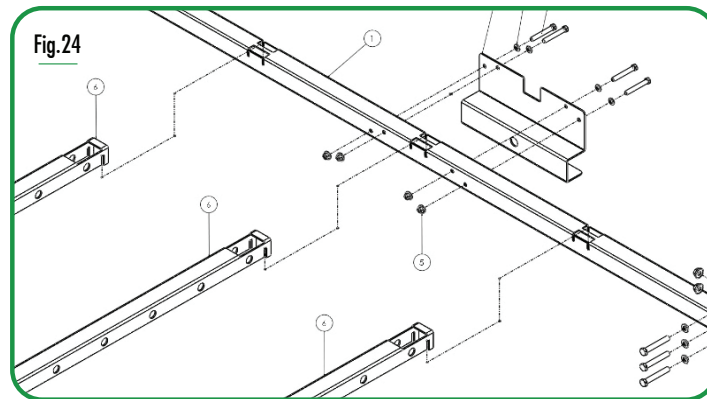


ASSEMBLING THE STARTING FRAME

STEP 6.1



6.5 Fix the ROLL-OVER PROTECTION (10) on the WELDED CROSSBARS (12) with 3X BOLT M5x40mm (3) as shown in Fig. 23



ASSEMBLING THE MODULE FRAME

STEP 7

Fig.27

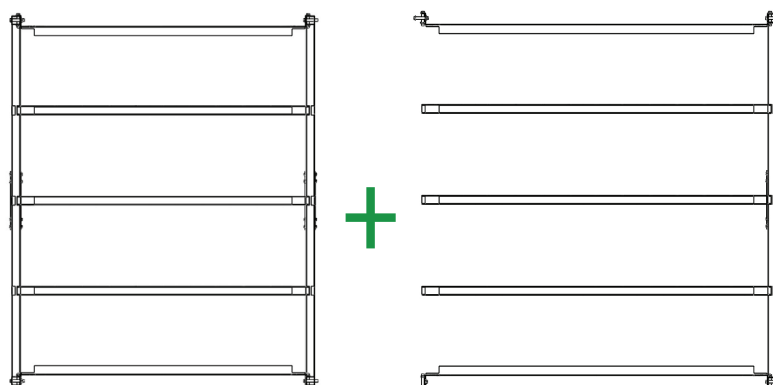


Fig.28

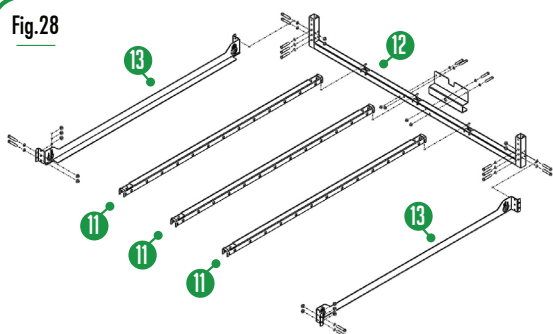
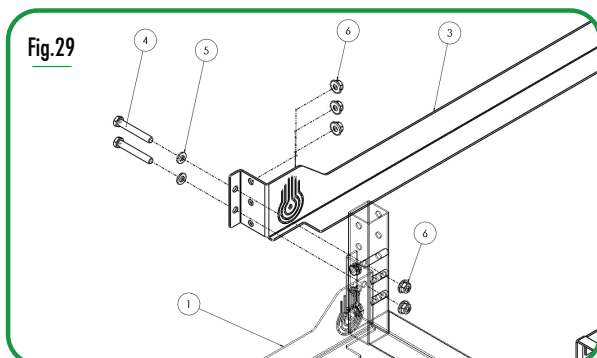


Fig.29



- 7.1 Fasten with two screws the edge of the SIDE RAIL (13) to the WELDED CROSSBAR (4) using the two external screw holes on the WELDED CROSSBAR (12) included in the kit by leaving free the other edge of the SIDE RAIL (13) as shown in Fig. 28
- 7.2 Repeat the same operation also for the other SIDE RAIL (13) included in the kit.
- 7.3 Fasten with two screws the free edge of the SIDE RAIL (13) to the free edge of the WELDED CROSSBAR (12) previously assembled in the START FRAME (STEP6) as shown in Fig. 29
- 7.4 Repeat the same operation also for the second SIDE RAIL (13) included in the kit.
- 7.5 Place the JOINT CROSSBARS (11) in their specific enclosures found in WELDED CROSSBARS (12) as shown in Fig. 28

ASSEMBLING THE MODULE FRAME

STEP 7.1

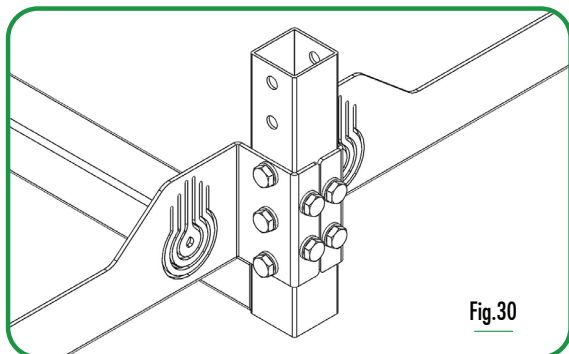


Fig.30

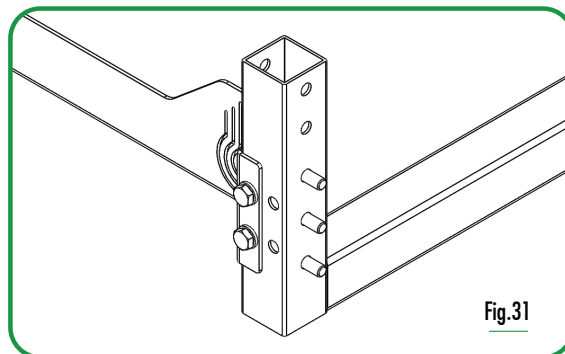


Fig.31

NOTE

The assembling instructions for MODULAR FRAME have to be repeated a number of times equal to the number of MODULAR FRAME you have purchased. Before assembling the END FRAME all the MODULAR FRAME must have been assembled.

Example:

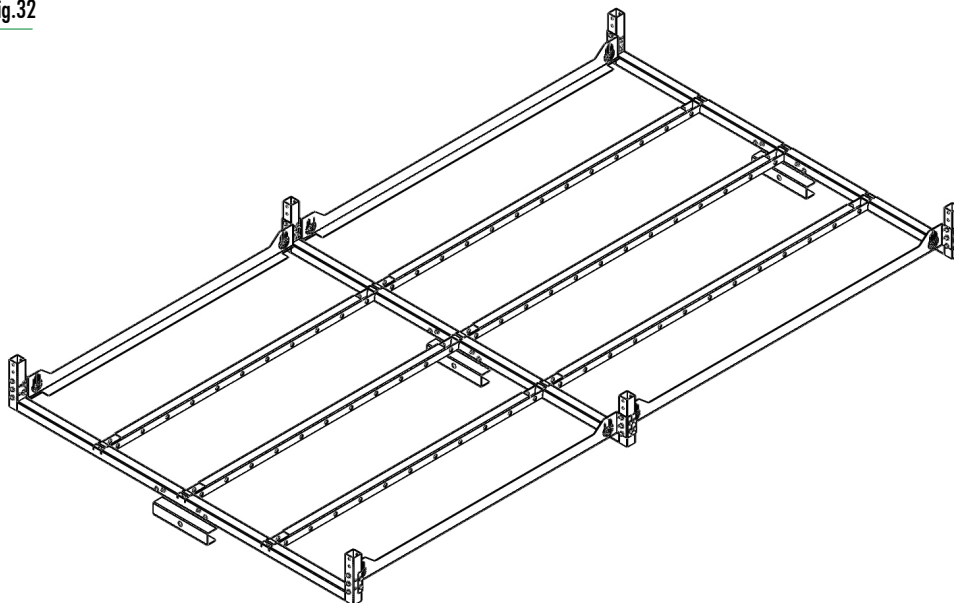
⬡ IDROROLL 120x240 = 1 start frame + 1 end frame

⬡ IDROROLL 120x480 = 1 start frame + 2 modular frame + 1 end frame

⬡ IDROROLL 120x360 = 1 start frame + 1 modular frame + 1 end frame

⬡ IDROROLL 120x1800 = 1 start frame + 13 modular frame + 1 end frame

Fig.32



ASSEMBLING THE END FRAME

STEP 8

Fig.33

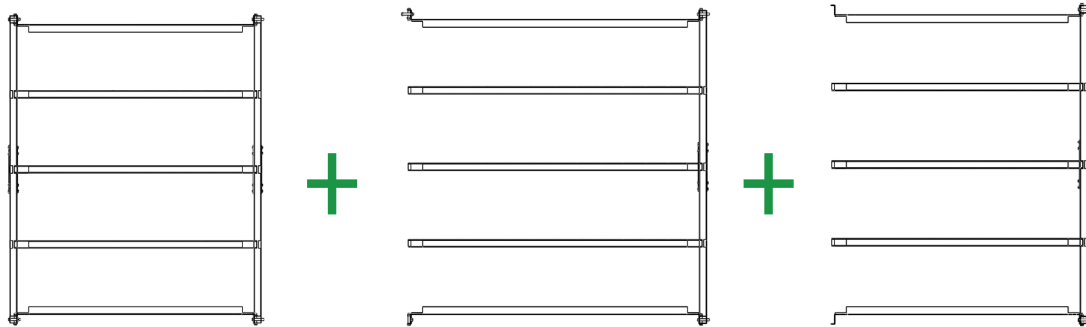
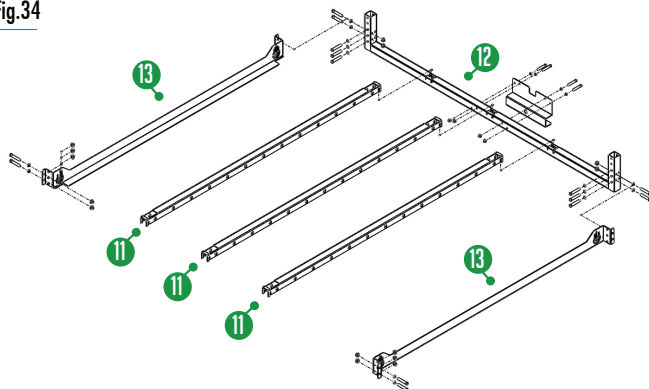


Fig.34



8.1 Fasten with two screws the edge of the SIDE RAIL (13) to the WELDED CROSSBAR (12) using the two external screw holes on the WELDED CROSSBAR included in the kit by leaving free the other edge of the SIDE RAIL (13) as shown in Fig. 34

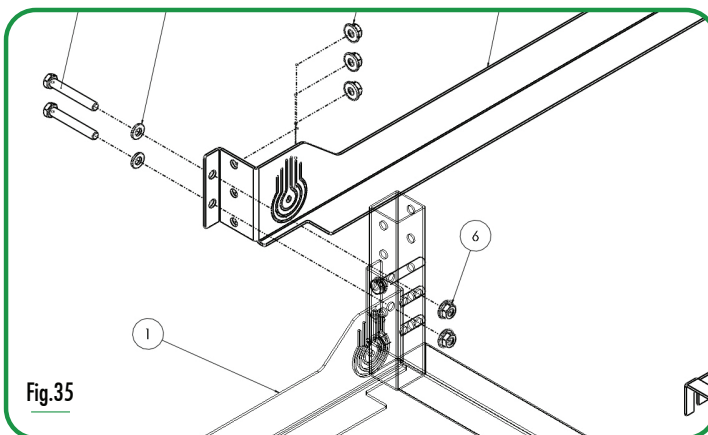
8.2 Repeat the same operation also for the other SIDE RAIL (13) included in the kit

8.3 Fasten with two screws the free edge of the SIDE RAIL (13) to the free edge of the WELDED CROSSBAR (12) previously assembled in the MODULE FRAME (STEP7) as shown in Fig. 35

8.4 Repeat the same operation also for the second SIDE RAIL (13) included in the kit.

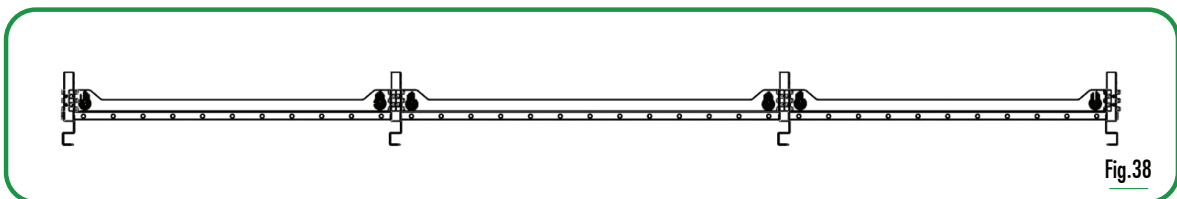
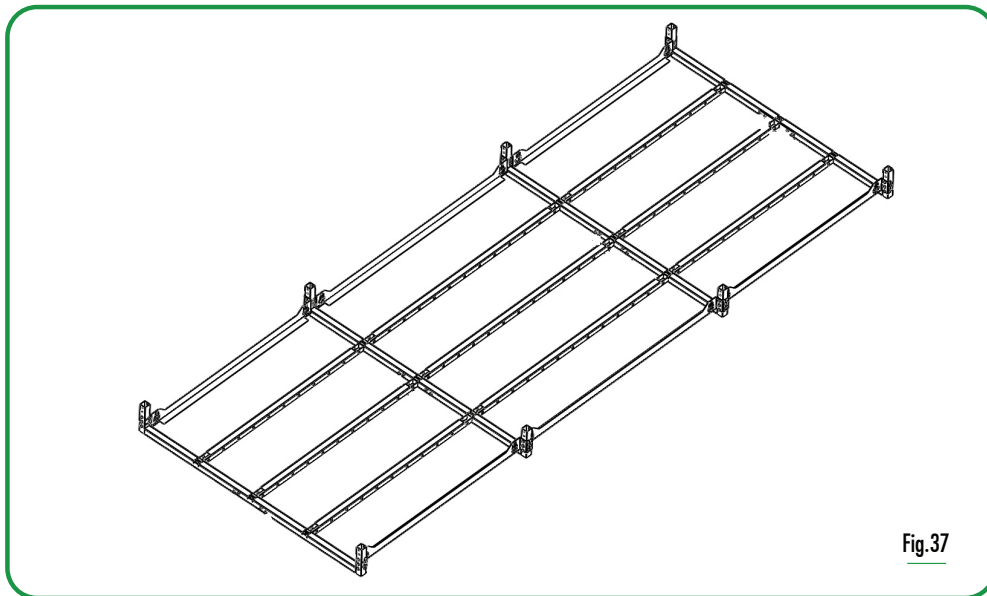
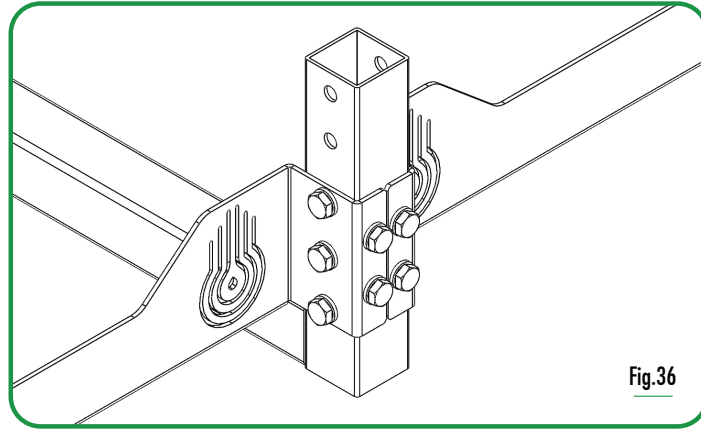
8.5 Place the SNAP-IN CROSSBARS (11) in their specific enclosures found in WELDED CROSSBARS (12) as shown in Fig. 37

Fig.35



ASSEMBLING THE END FRAME

STEP 8.1



INSTALLING THE FRAME OVER THE SUPPORT FRAME

STEP 9

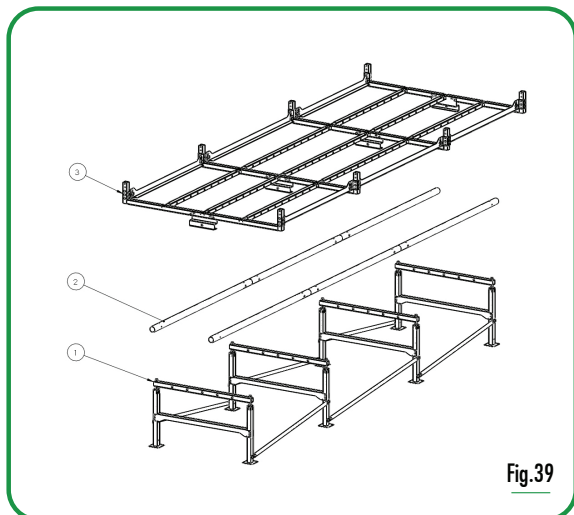


Fig.39

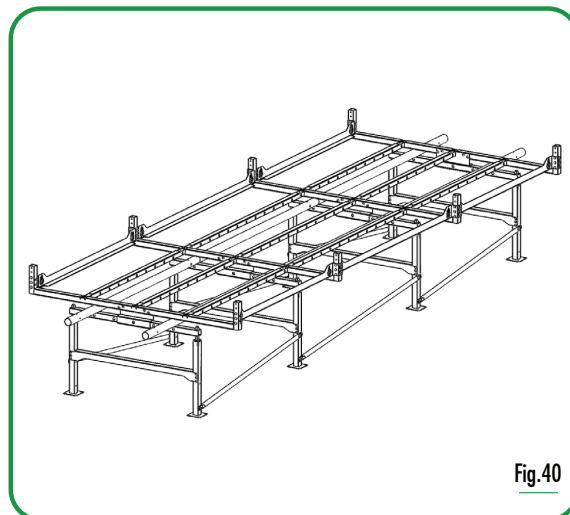


Fig.40

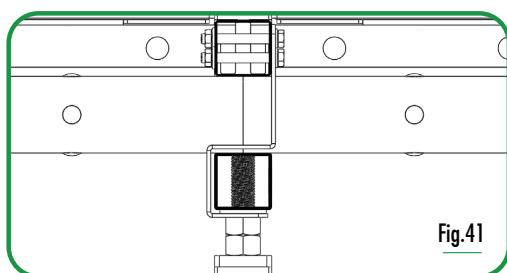


Fig.41

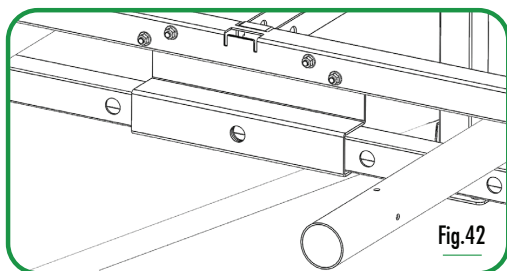


Fig.42

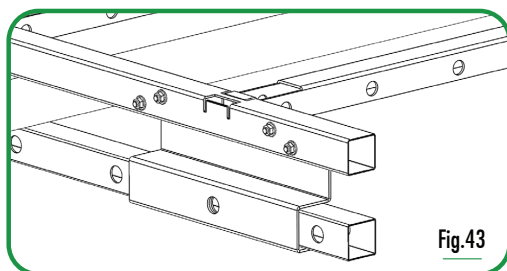


Fig.43

- 9.1 Place the frame over the support base as shown in Fig. 39
- 9.2 When the support base is longer than 480cm, frame placement must be divided in blocks of no more than 480cm and then linked together once in position over the support base.
- 9.3 Ensure that ANTI-TIPPING (10) entangles properly the UPPER LEG CROSSBAR (7) without creating teleconferences as shown in Fig. 42. The correct placement of the ANTI-TIPPING (10) will create the space of action for ROLLING TUBE (8). In this step is very important to check the level of each leg and overall leveling.
- 9.4 Ground-related height differences may cause attrition during the movements of rolling tubes. Thanks to micro-regulations through THREADED BAR (4) it will be possible to install the support base also on irregular grounds.
- 9.5 Once the support is assembled and correctly leveled, repeat the operations of STEP5 to ensure the correct distance of the ROLLING TUBE (8) and their proper functioning.

ASSEMBLING THE TRAYS

STEP 10

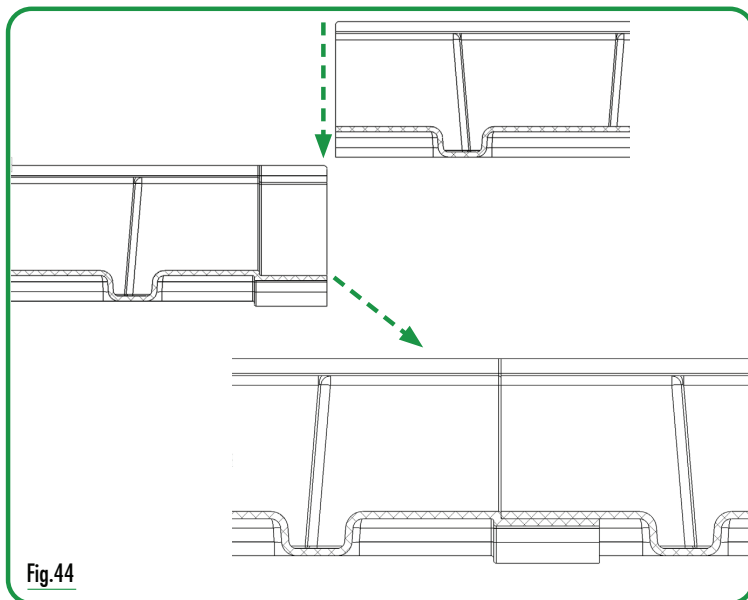


Fig. 44

NOTE

To guarantee a perfect drainage without spills it is **MANDATORY** to seal the trays with appropriate glue.
 You can use both silicon glue or a specific glue. Using specific glue will result in a flawless surface, but irreversible assembly of trays. Once glued, the trays will be welded together. Using silicon glue will result in a reduced appearance, but reversible assembly of trays. Upon need, you will be able to disassemble the trays and reuse them in other applications.

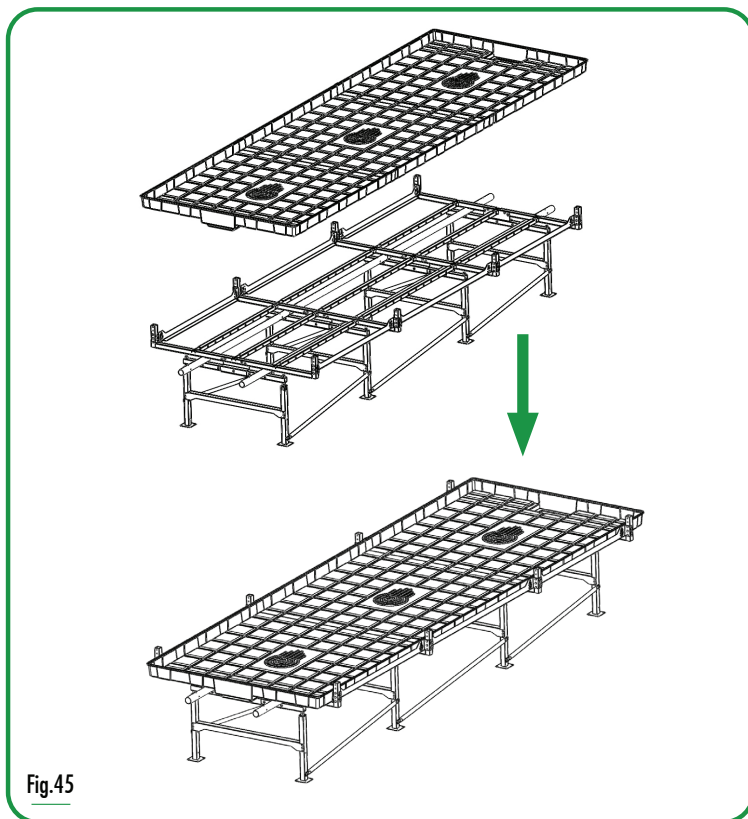


Fig. 45

- 10.1 Enclose the trays in position as shown in Fig. 44-45
- 10.2 Distribute uniformly the glue along the male edge of the START TRAY as shown in Fig. 44-45
- 10.3 Position the female end of the MODULE TRAY on the male edge of the START TRAY where you have distributed to glue as shown in Fig. 44-45
- 10.4 Once positioned, it is suggested to place heavy weights along the coupling line of the two trays for at least 24 hours
- 10.5 Repeat steps 10.2 – 10.3 – 10.4 for every additional MODULE TRAY and finally for the END TRAY of your system

ASSEMBLING THE NET POLE

STEP 11

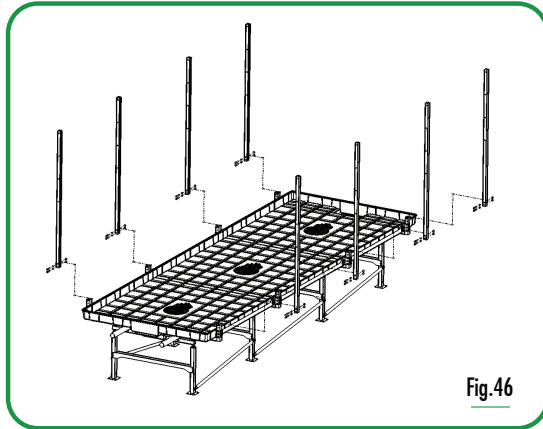


Fig.46

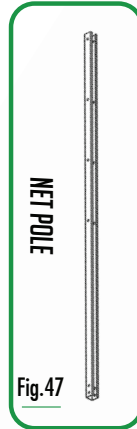


Fig.47

NOTE

Nets support poles (Fig. 47) are an optional accessory, purchasable separately. Our modular growing supports are designed with enclosures to install support poles every 120cm. For a perfect fastening of nets to the poles a pole every 240cm is usually enough.

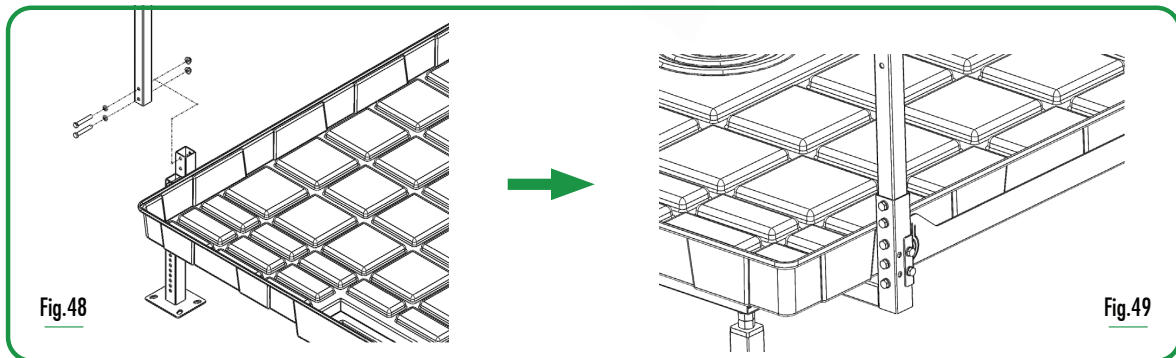


Fig.48

Fig.49

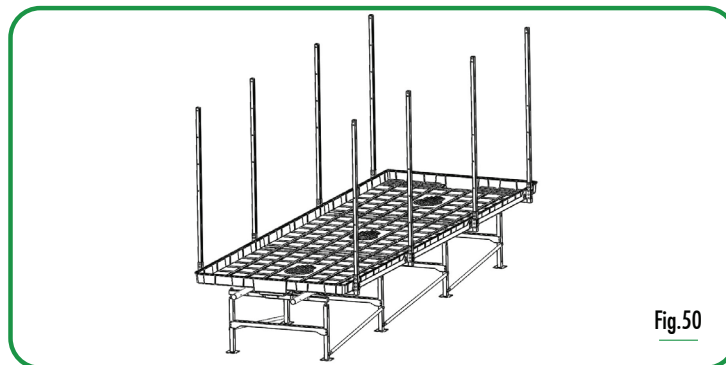


Fig.50

11.1 Enclose the support pole in the specific enclosure found in the WELDED CROSSBAR (12) as shown in Fig. 48

11.2 Fasten with 2 short screws in the specific holes found in the WELDED CROSSBAR (12) as shown in Fig. 49