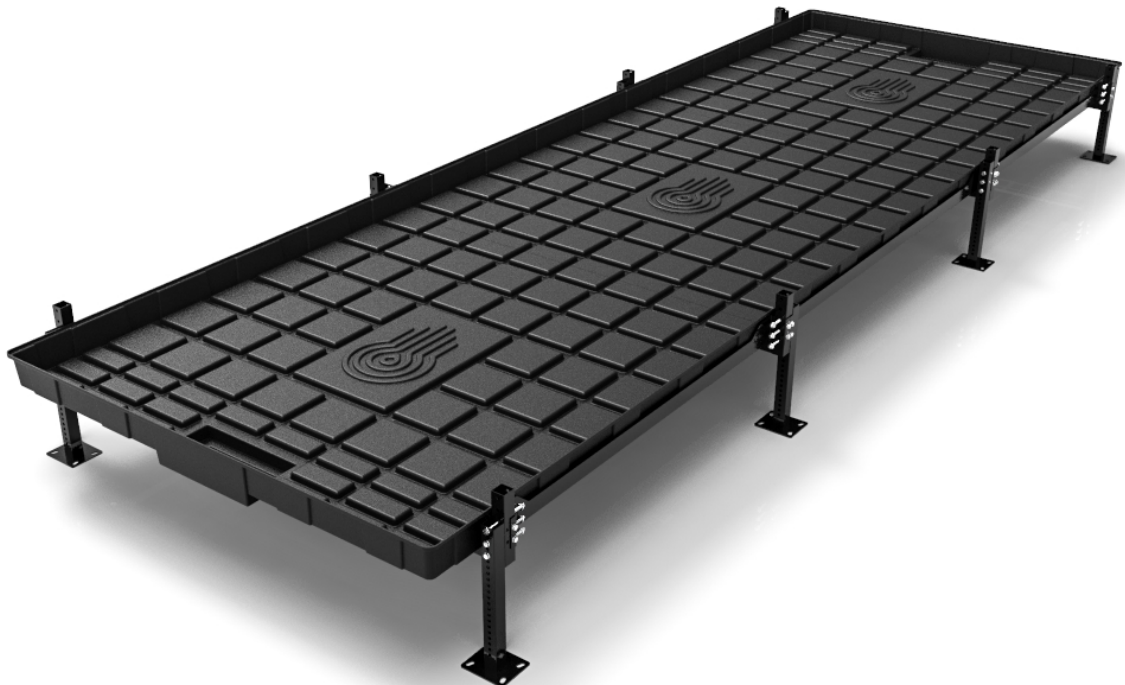


idrolabTM
— HYDROPONICS —

IDRORACK 1 ASSEMBLY INSTRUCTION



COMMERCIAL CULTIVATION SUPPLY
WWW.IDROLABHYDROPONICS.COM

THANKS YOU

Innovation and offering unique solutions for growers of any kind is the aim of Idrolab hydroponics. Our cultivation benches are just one example of the passion, care and quality that company offers day after day to its customers, granting the best service available in the market.

Idrolab's modular benches guarantee an exceptional improvement in the work-flow required for the maintenance of an industrial hydroponic system.

FLEXIBILITY

Flexibility is a great added value for every industrial cultivation system created by Idrolab Hydroponics. Thanks to the innovative design of the modular cultivation supports, the company once again shows his commitment to its customers.

Modular benches are available in 4 different types: fixed, fixed 2-layers, fixed 3-layers and rolling. This offer allows for an incredible adaptability to the needs of the customer.

Starting from your desired cultivation layout, our specialized team will study the most appropriate design of cultivation benches with the aim of providing the best productive results.

SUPPORTO

YOU SUCCESS is OUR SUCCESS! We provide full availability of our specialized Team to support and solve any problem for all the growers that will use our cultivation systems.

Do not hesitate to contact us for any problem or information about our products.

Ancora Grazie per aver scelto idrolab Hydroponics®

BEFORE STARTING

Carefully read instructions before starting assembling your new 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 modular cultivation bench:

- ⬡ Battery-powered screwdriver with clutch
- ⬡ Impact drill
- ⬡ 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

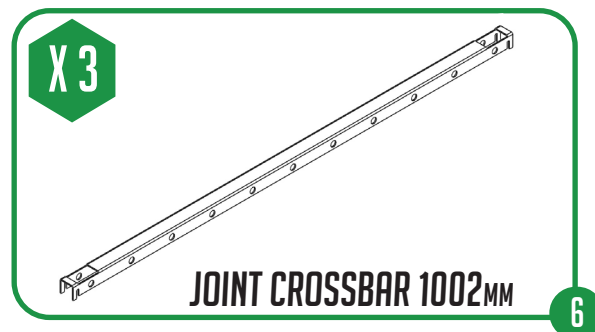
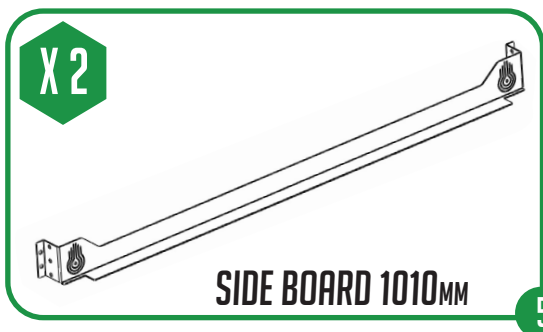
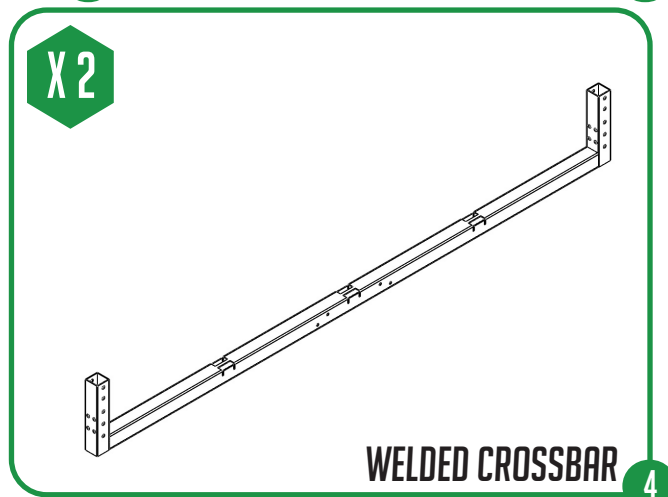
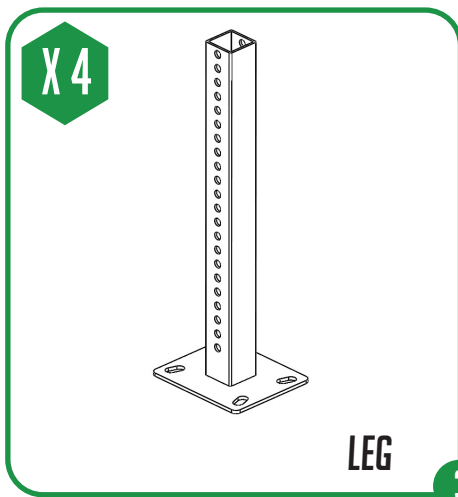
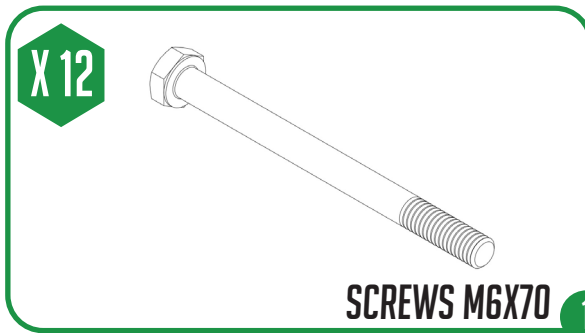
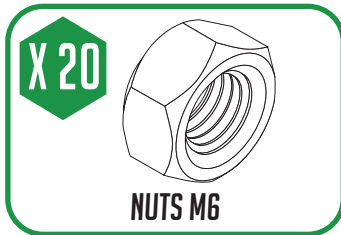
Read and follow carefully all the information before starting the assembly. Not following the advises and instructions may result serious personal injuries, damage to products and to the environment where installation occurs.

- 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

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

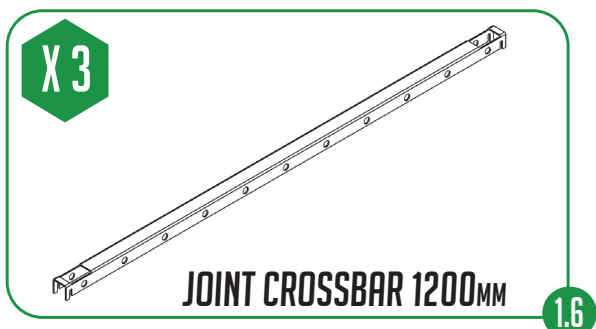
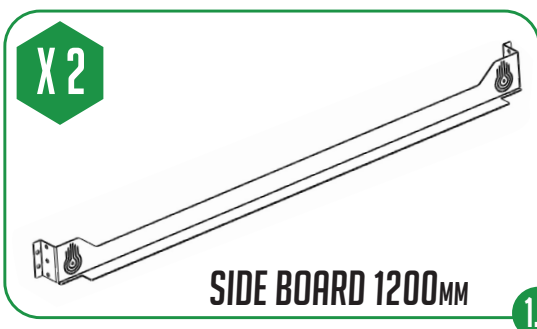
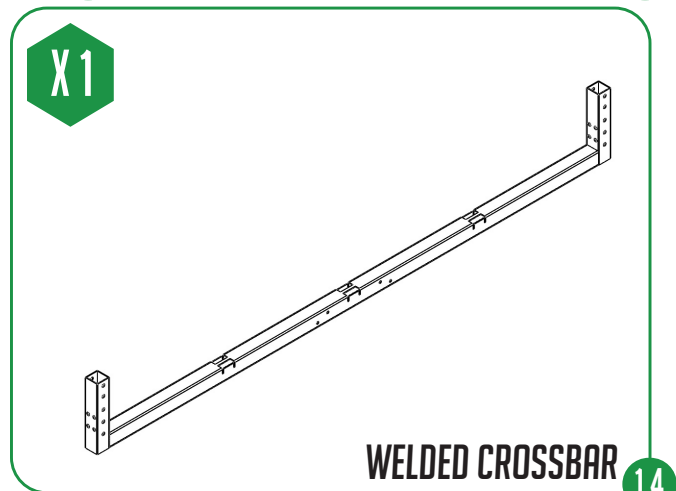
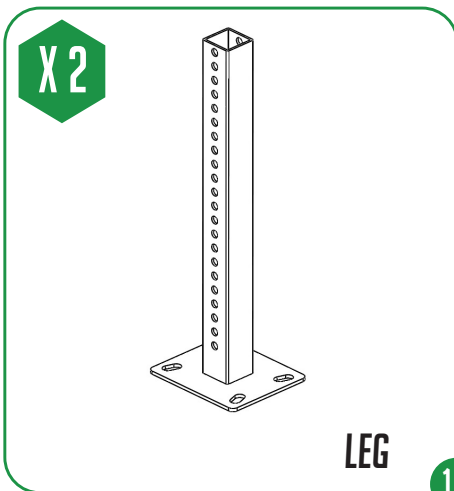
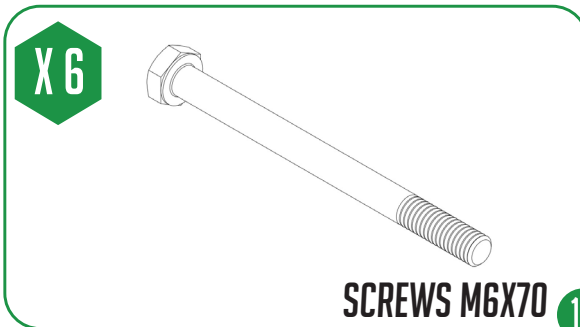
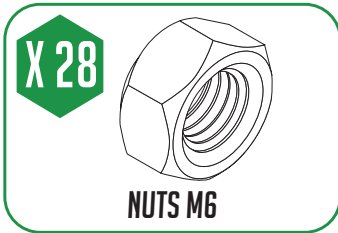
IDRORACK START KIT

COMPONENTS



IDRORACK MODULAR KIT

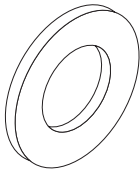
COMPONENTS



IDRORACK END KIT

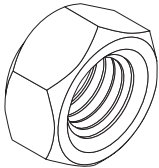
COMPONENTS

X 28



WASHERS M6

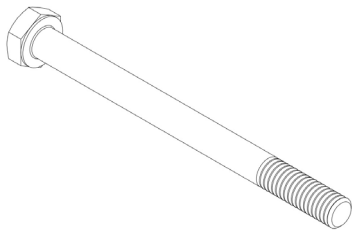
X 14



NUTS M6



X 6



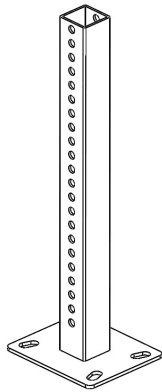
SCREWS M6X70 2.1

X 8



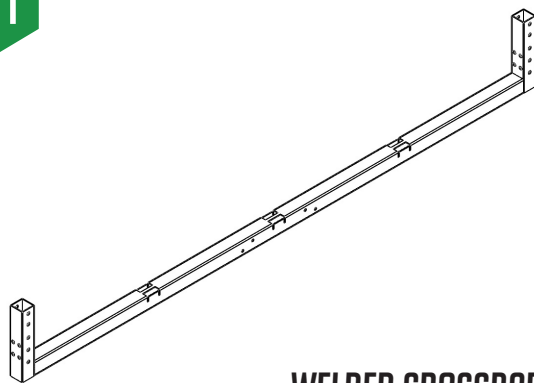
SCREWS M6X40 2.2

X 2



LEG 2.3

X 1



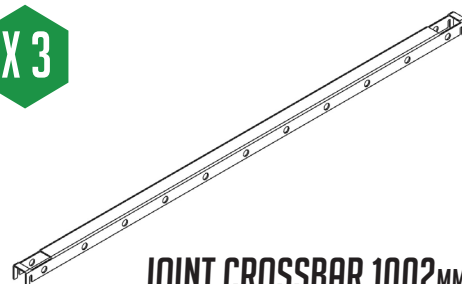
WELDED CROSSBAR 2.4

X 2

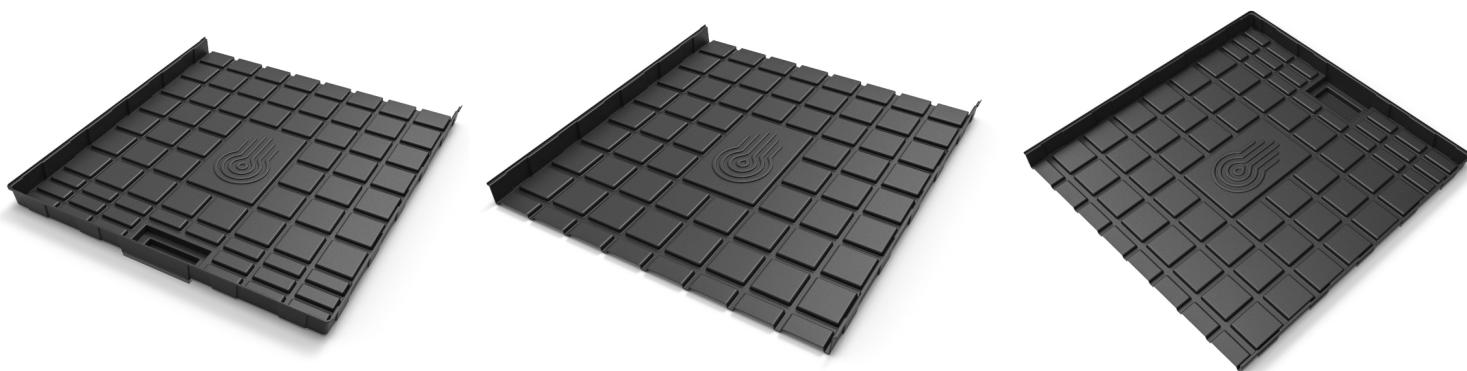


SIDE BOARD 1010MM 2.5

X 3



JOINT CROSSBAR 1002MM 2.6



The bench modules are designed to host our modular trays.

Also the modular trays are provided in different types: start, module, end.

Each tray is 1200mm x 1200mm in size. Example in Fig. 1 shows sizing of 3x assembled trays.

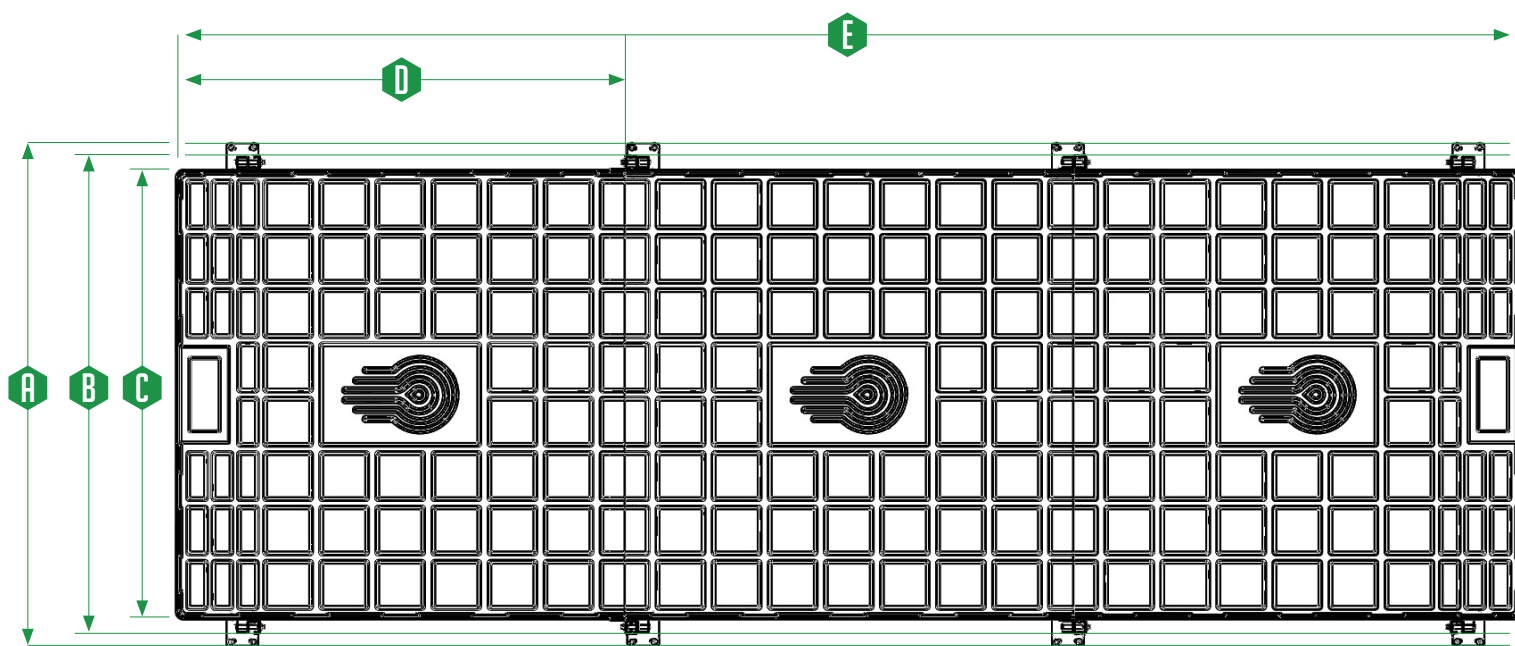


Fig. 1

A LEG SIZE: 1335MM

B FRAME SIZE: 1265MM

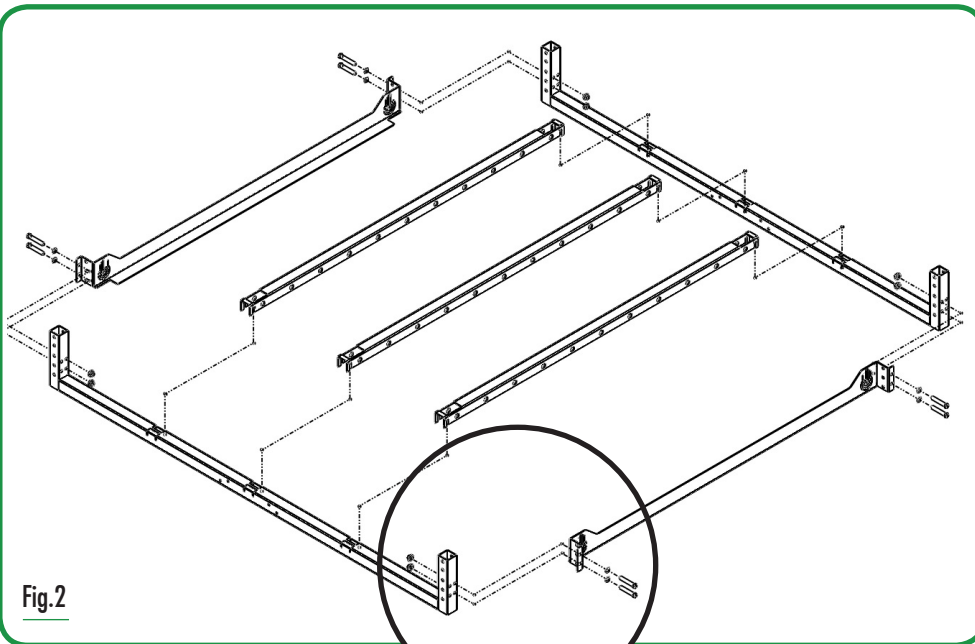
C TRAY LEGTH: 1200MM

D TRAY WIDTH: 1200MM

E ASSEMBLED TRAYS SIZE: 1200MM X3 =3600MM

ASSEMBLING THE STARTING FRAME

STEP 1

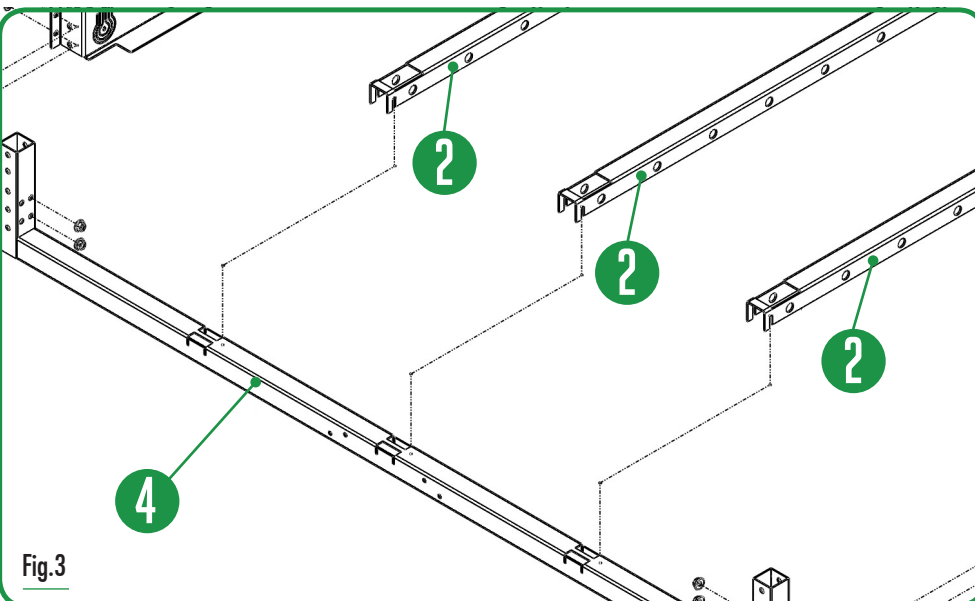
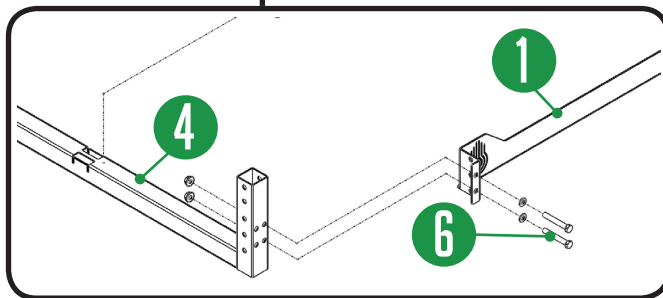


1.1 Fasten with two screws (5) the edge of the SIDE RAIL (1) to the WELDED CROSSBAR (4) using the external screw holes as shown in fig.2

1.2 Fasten with two screws (5) the free edge of the SIDE RAIL (1) to the other WELDED CROSSBAR (4) using the external screw holes as shown in fig. 2

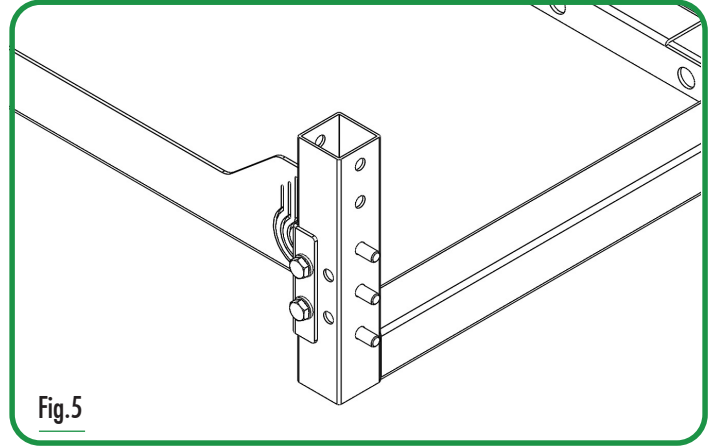
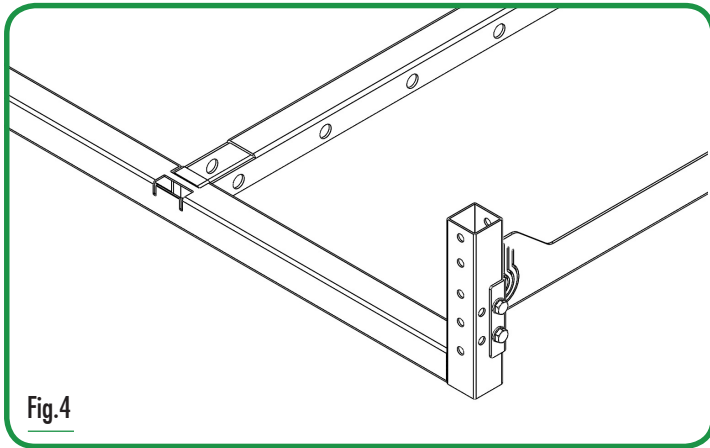
1.3 Repeat the same operations also on the second SNAP-IN CROSSBAR (1)

1.4 Place the SNAP-IN CROSSBARS (2) in their specific enclosures found in WELDED CROSSBARS (4) as shown in fig.3



ASSEMBLING THE STARTING FRAME

STEP 1



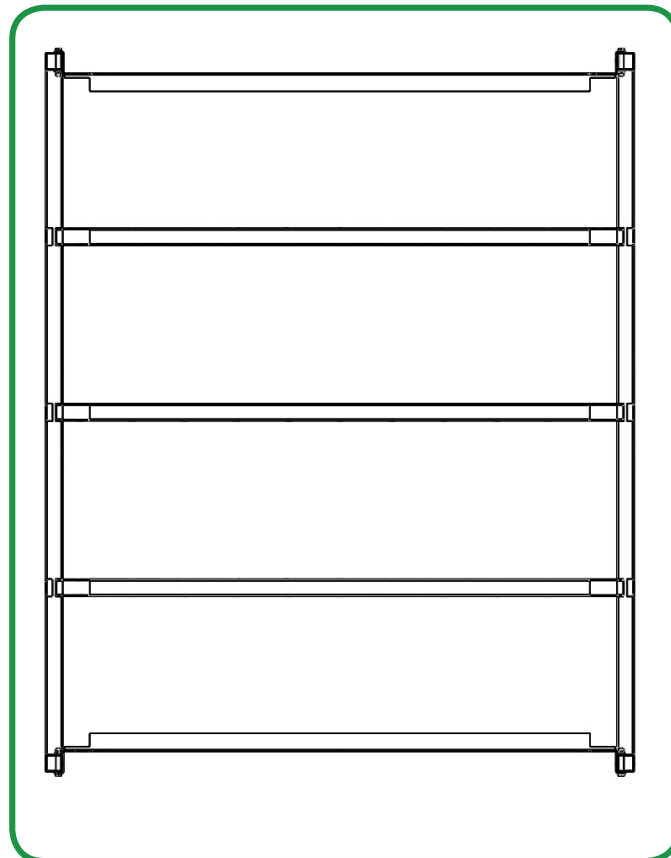
1.3

OPTIONAL

To enhance the already strong stability of the frame, we have added 3 additional screw holes for additional fastening between the SIDE RAIL (1) and the WELDED CROSSBAR (4). **Additional screws are not provided with the kit.**

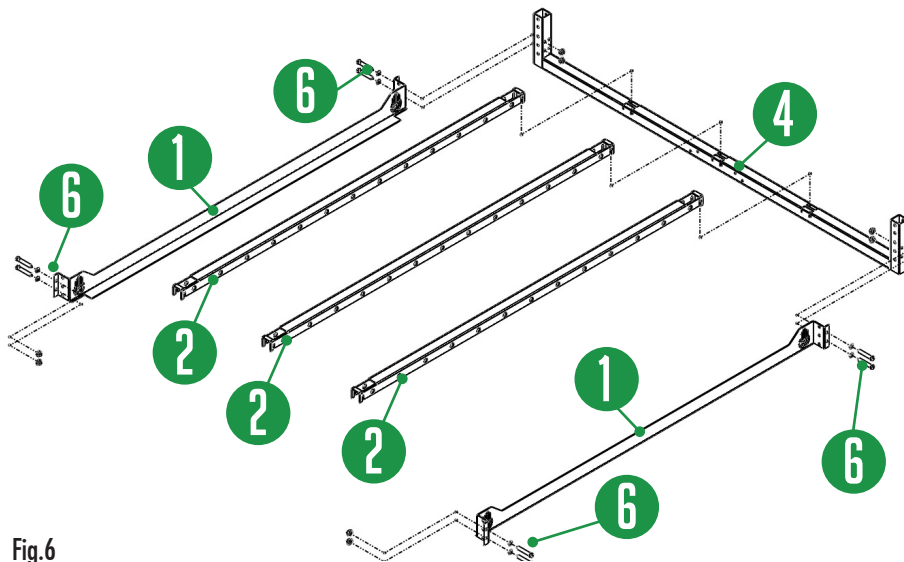
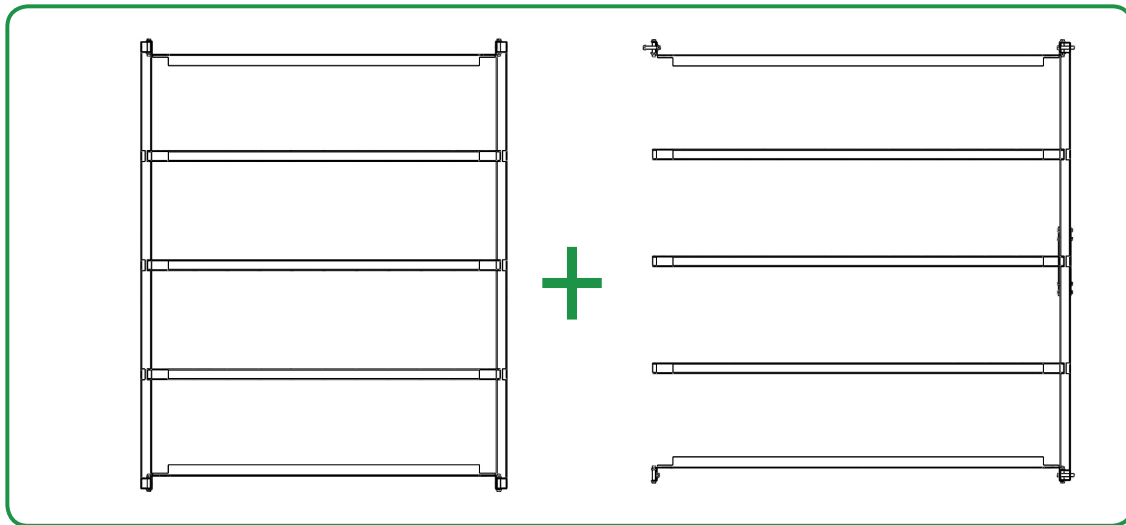
The user may ask for such optional screws, or buy them himself.

Do the following if you would like to go through this optional step: once finished step 1.4, insert the screws with the head toward the side of the WELDED CROSSBAR on which you have already fastened the edge of the SIDE RAIL as in steps 1.1 – 1.2 – 1.3 and leaving unfastened the other side of the screw as it will couple with the SIDE RAIL (1) of the next frame as shown in Figs. 4-5.



ASSEMBLING THE MODULE FRAME (120X360 O SUPERIORE)

STEP 2



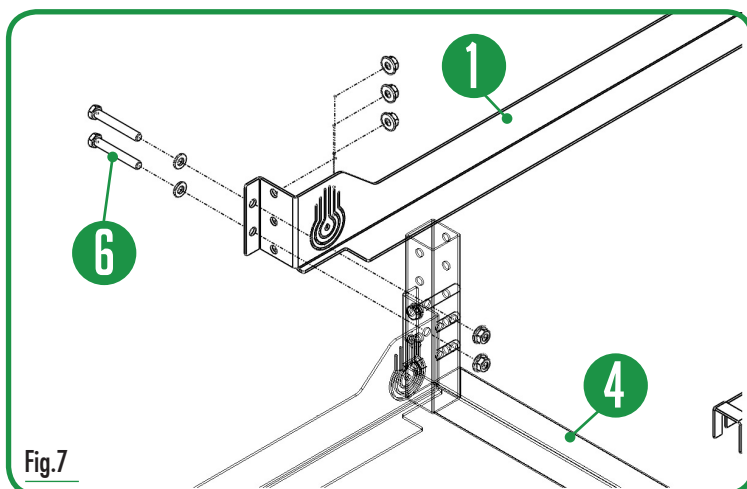
2.1 Fasten with two screws the edge of the SIDE RAIL (1.1) to the WELDED CROSSBAR (4) using the two external screw holes on the WELDED CROSSBAR included in the kit by leaving free the other edge of the SIDE RAIL (1.1) as shown in [fig.6](#)

2.2 Repeat the same operation also for the other SIDE RAIL (1.1) included in the kit

2.3 Fasten with two screws the free edge of the SIDE RAIL (1.1) to the free edge of the WELDED CROSSBAR (4) previously assembled in the START FRAME (STEP1) as shown in [fig.7](#)

2.4 Repeat the same operation also for the second SIDE RAIL (1.1) included in the kit.

2.5 Place the SNAP-IN CROSSBARS (2.1) in their specific enclosures found in WELDED CROSSBARS (4) as shown in [fig.6](#)



ASSEMBLING THE MODULE FRAME (120X360 O SUPERIORE)

STEP 2

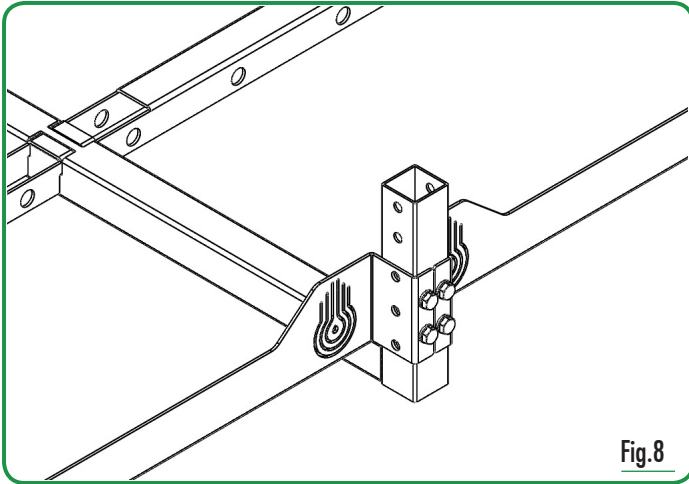


Fig.8

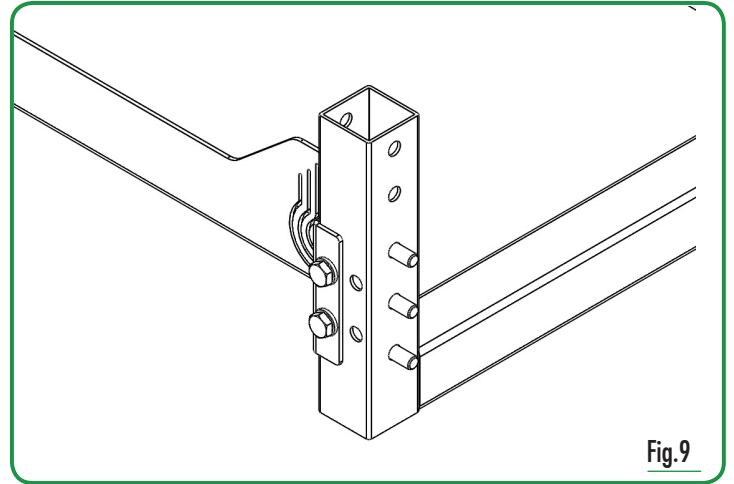


Fig.9

2.6 OPTIONAL

To enhance the already strong stability of the frame, we have added 3 additional screw holes for additional fastening between the SIDE RAIL (1.1) and the WELDED CROSSBAR (4). **Additional screws are not provided with the kit.**

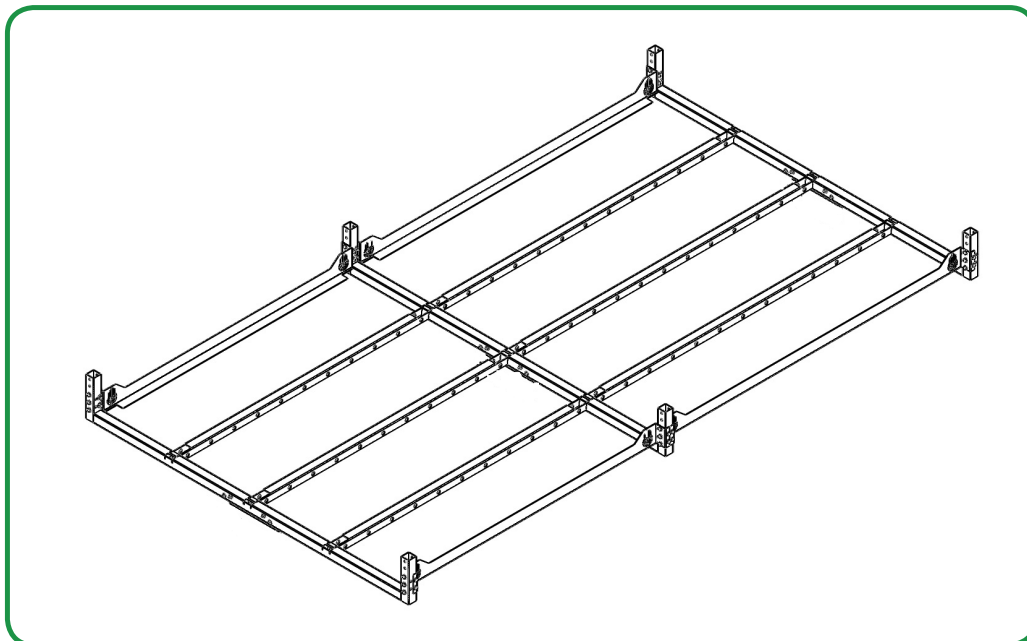
The user may ask for such optional screws, or buy them himself.

Do the following if you would like to go through this optional step: once finished step 2.5, insert the screws with the head toward the side of the WELDED CROSSBAR on which you have already fastened the edge of the SIDE RAIL as in STEP1 and STEP2 and leaving unfastened the other side of the screw as it will couple with the SIDE RAIL (1.1) of the next frame as shown in Figs. 8-9.

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:

- ⬡ Grow bench 120x240 = 1 start frame + 1 end frame
- ⬡ Grow bench 120x480 = 1 start frame + 2 modular frame + 1 end frame
- ⬡ Grow bench 120x360 = 1 start frame + 1 modular frame + 1 modular end
- ⬡ Grow bench 120x1800 = 1 start frame + 13 modular frame + 1 end frame



ASSEMBLING THE END FRAME

STEP 3 - INTRODUCTION

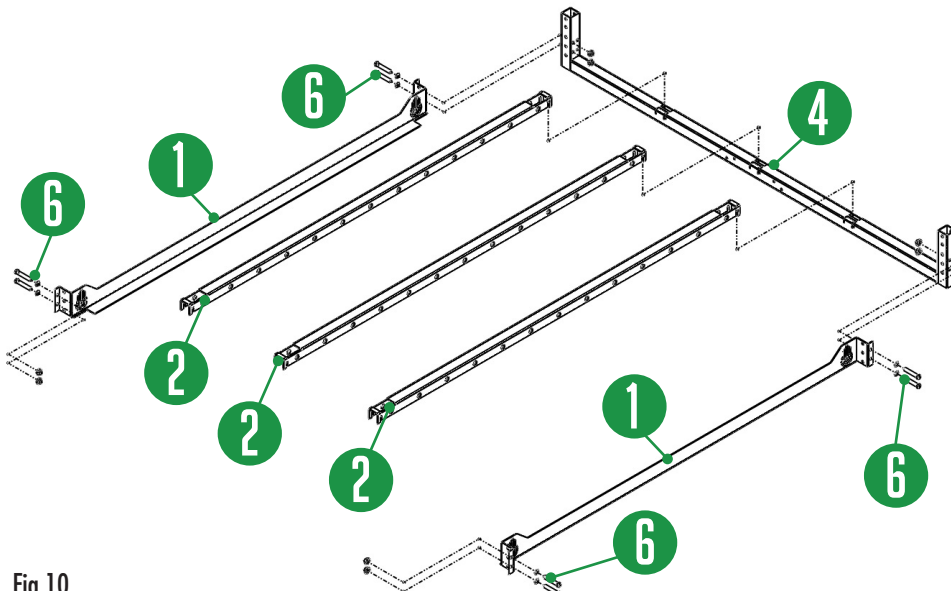
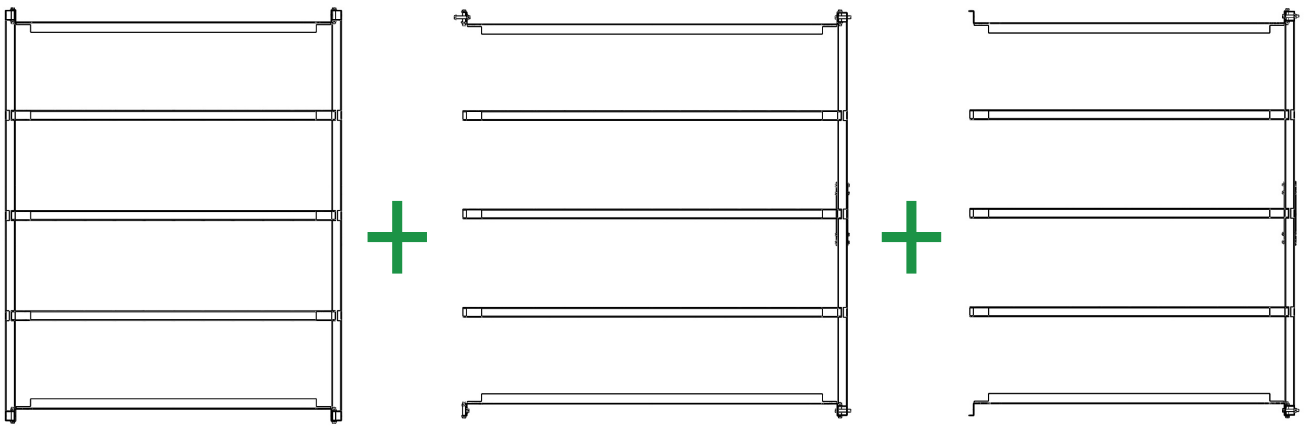


Fig.10

3.1 Fasten with two screws the edge of the SIDE RAIL (1) to the WELDED CROSSBAR (4) using the two external screw holes on the WELDED CROSSBAR included in the kit by leaving free the other edge of the SIDE RAIL (1.1) as shown in fig.10

3.2 Repeat the same operation also for the other SIDE RAIL (1) included in the kit

3.3 Fasten with two screws the free edge of the SIDE RAIL (1) to the free edge of the WELDED CROSSBAR (4) previously assembled in the MODULE FRAME (STEP2) as shown in fig.11

3.4 Repeat the same operation also for the second SIDE RAIL (1) included in the kit.

3.5 Place the SNAP-IN CROSSBARS (3) in their specific enclosures found in WELDED CROSSBARS (4) as shown in fig.10

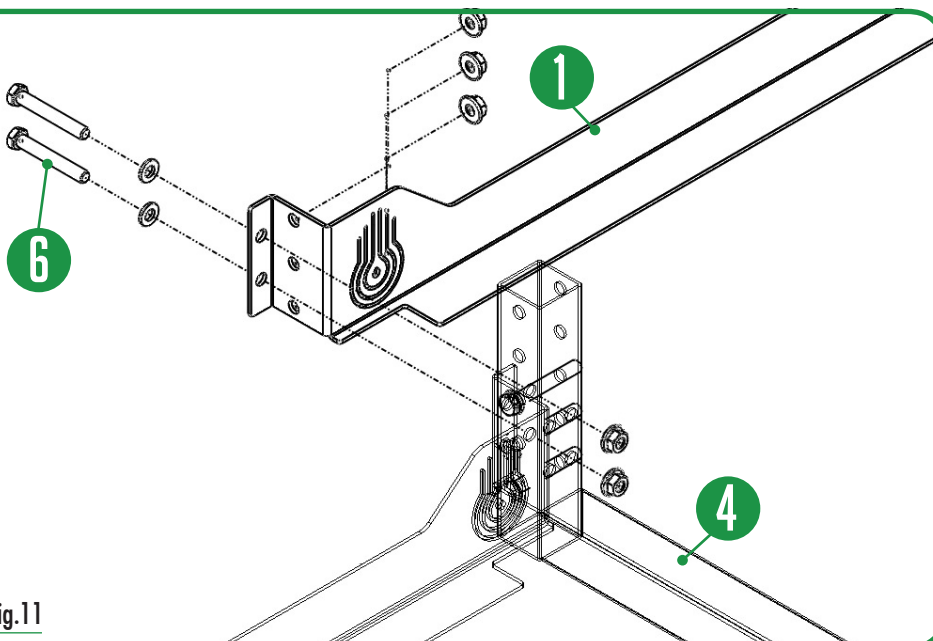


Fig.11

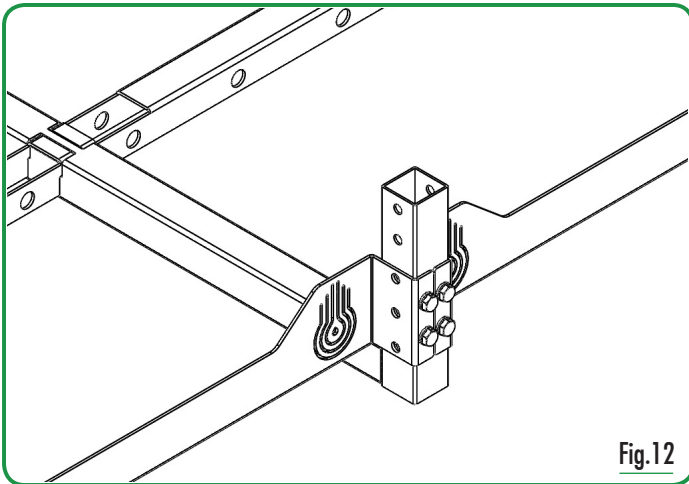


Fig.12

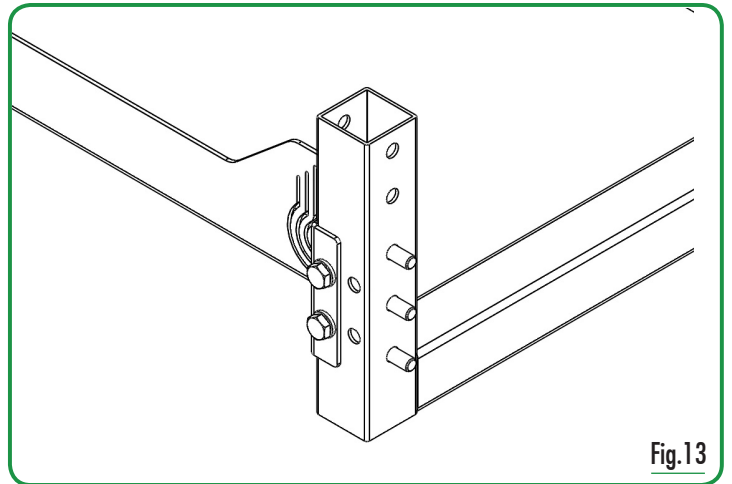


Fig.13

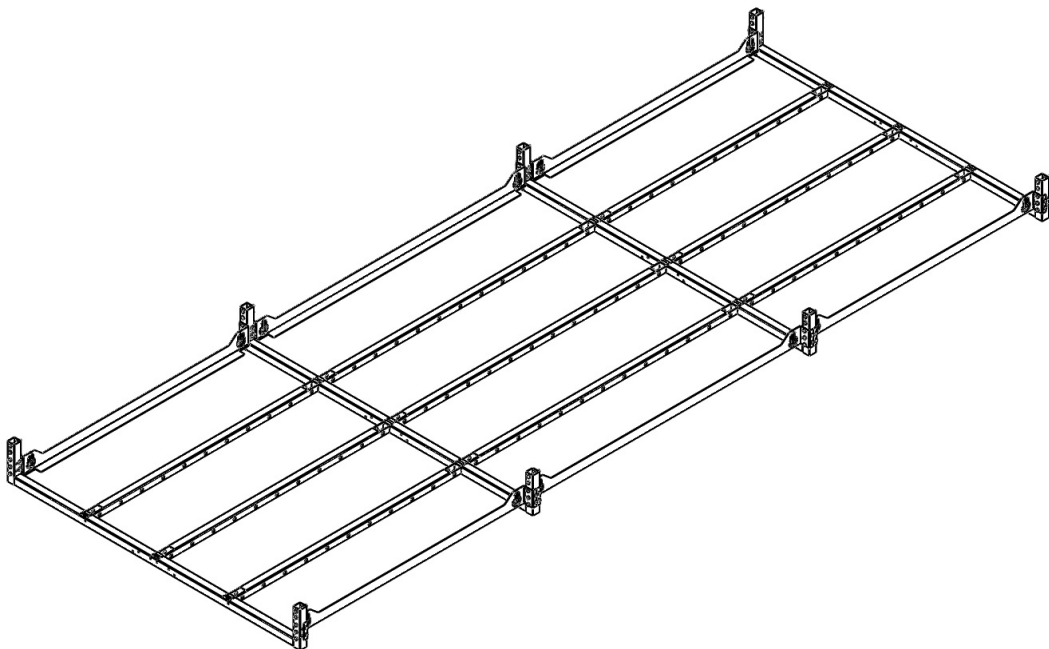
3.6

OPTIONAL

To enhance the already strong stability of the frame, we have added 3 additional screw holes for additional fastening between the SIDE RAIL (1.1) and the WELDED CROSSBAR (4). **Additional screws are not provided with the kit.**

The user may ask for such optional screws, or buy them himself.

Do the following if you would like to go through this optional step: once finished step 3.5, insert the screws with the head toward the side of the WELDED CROSSBAR on which you have already fastened the edge of the SIDE RAIL as in STEP1, STEP2 and STEP3 and finally fasten also the other side of the screw with a washer and a hexagonal nut as shown in Figs. 12-13.



ASSEMBLING THE LEGS ON THE FRAME

STEP 4 - INTRODUCTION

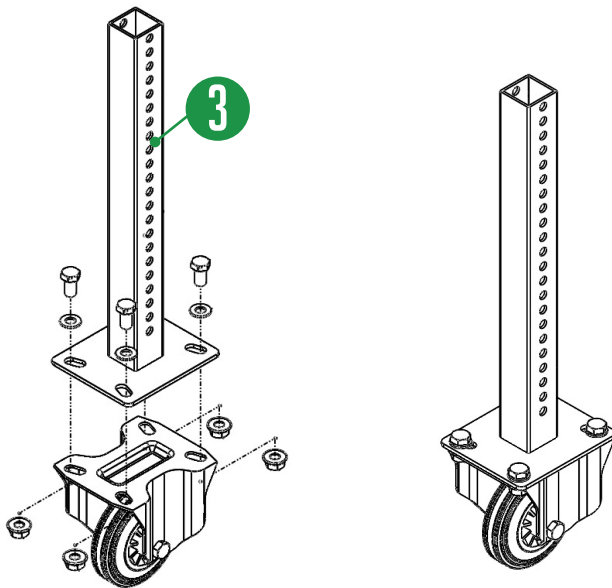


Fig.14

NOTE

All the legs of the grow bench are produced with a support to enclose commercial wheels to make your bench movable. Wheels can be purchased separately and are not included in the kits. Assembling is shown in [fig.14](#).

NOTE

Through the legs you will provide your cultivation bench the right slope for the drainage of the waste solution out of the trays. Legs are designed with pass-through holes 1 cm from each other across all the height of the leg.

As shown in [fig.15](#) the first pair of legs has to be fastened to the frame with 3 screws positioned at the 3 highest pass-through holes of the leg, leaving one hole free between each screw. Subsequent pairs of legs must be fastened to its frame by scaling down one position (start from the second pass-through hole for the second pair of legs, the third pass-through hole for the third pair of legs, etc.)

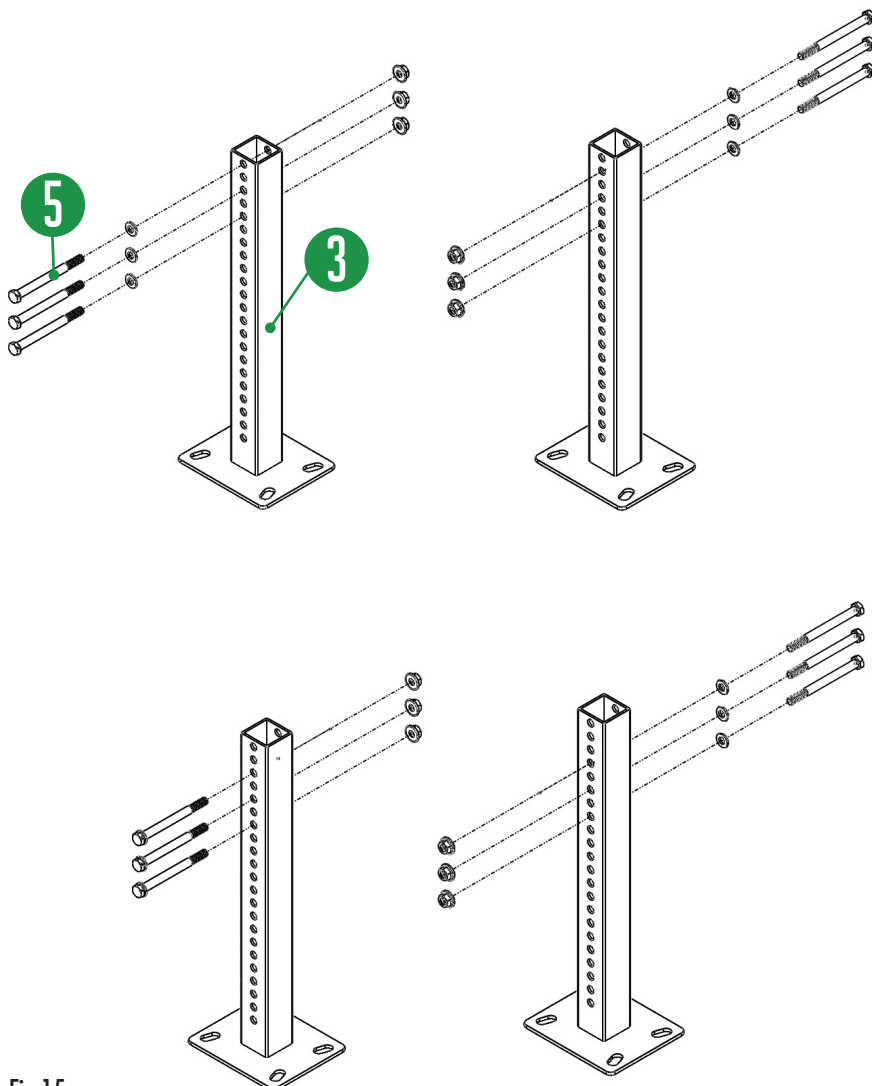


Fig.15

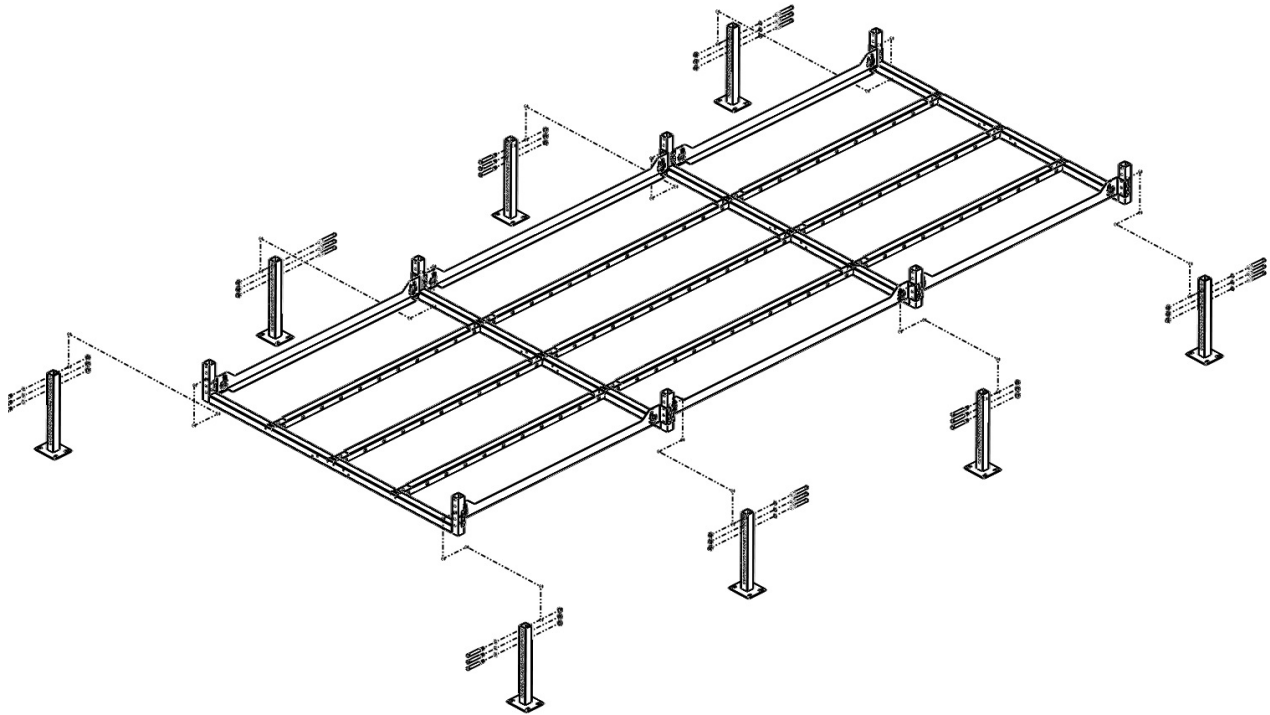


Fig. 16

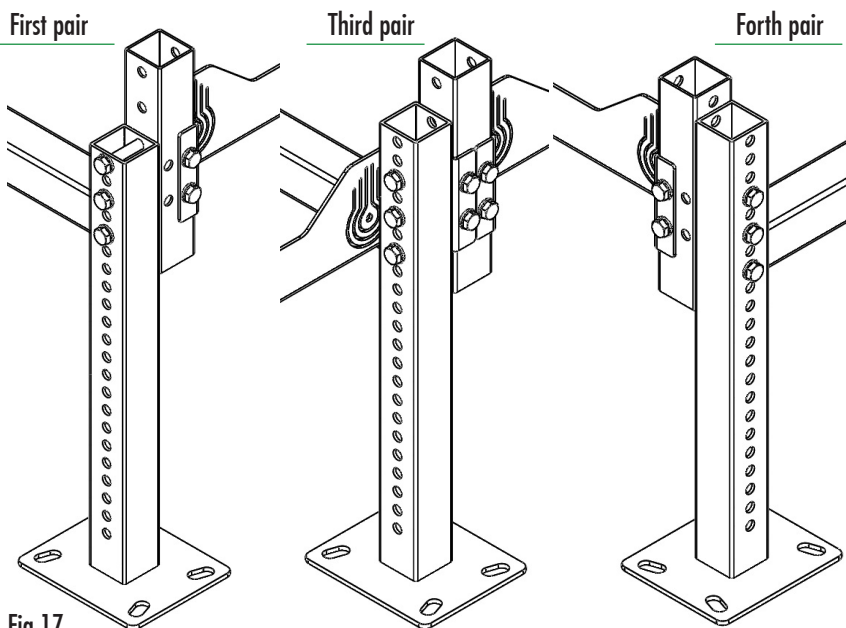


Fig. 17

NOTE

The above instructions refers to a growing support made of a START, MODULE and END FRAME. If you have additional MODULE FRAMES, just repeat step 4.4 and remember to scale properly with pass-through holes in subsequent steps.

- 4.1 The aid of external supports (easels, stands) to support the frame will greatly facilitate the assembly of the legs.
- 4.2 Fasten with 3 screws in pass-through holes 1, 3 and 5 the first pair of legs on the external side of of the first WELDED CROSSBAR of the START FRAME (Fig. 16) as shown in Fig. 17
- 4.3 Fasten with 3 screws in pass-through holes 2, 4 and 6 the second pair of legs on the external side of of the second WELDED CROSSBAR of the MODULE FRAME (Fig. 16) as shown in Fig. 17
- 4.4 Fasten with 3 screws in pass-through holes 3, 5 and 7 the third pair of legs on the external side of of the third WELDED CROSSBAR of the MODULAR FRAME (Fig. 16) as shown in Fig. 17
- 4.5 Fasten with 3 screws in pass-through holes 3, 5 and 7 the fourth pair of legs on the external side of of the fourth WELDED CROSSBAR of the END FRAME (Fig. 16) as shown in Fig. 17

ASSEMBLING THE LEGS ON THE FRAME

STEP 4 - INTRODUCTION

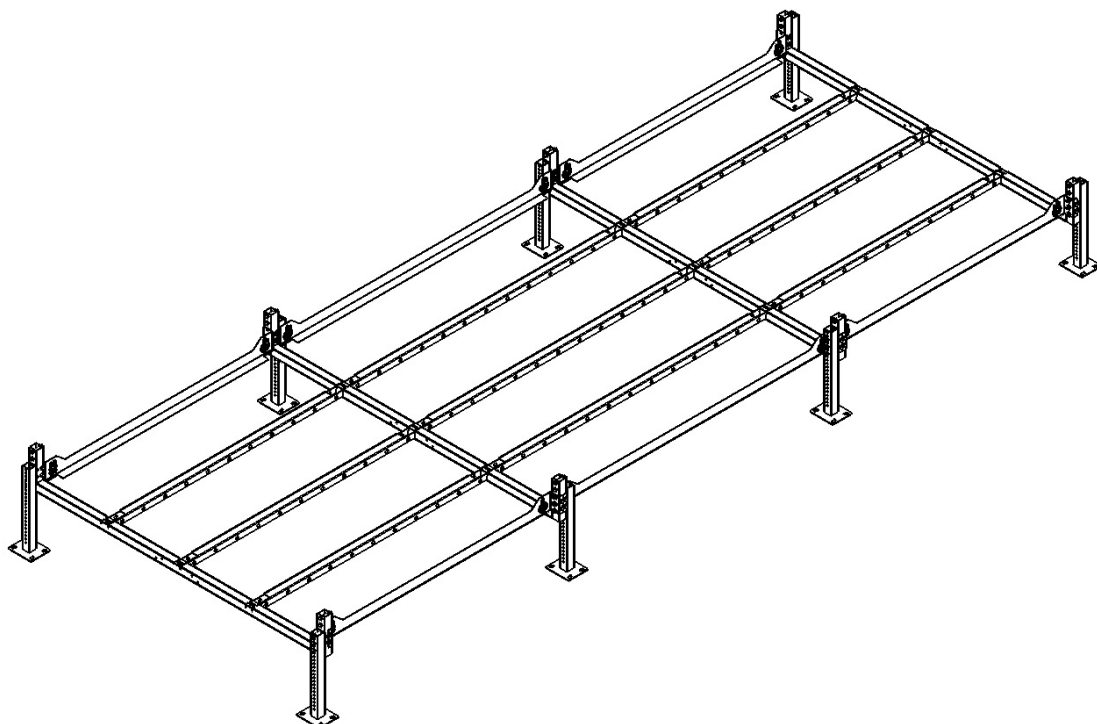


Fig.18

Once all the legs are correctly assembled in to the frame as shown in Fig. 18, there will be a slope of 1cm every 120cm of length as shown in Fig. 18-19. The waste solution will easily reach the drainage without leaving any residue.

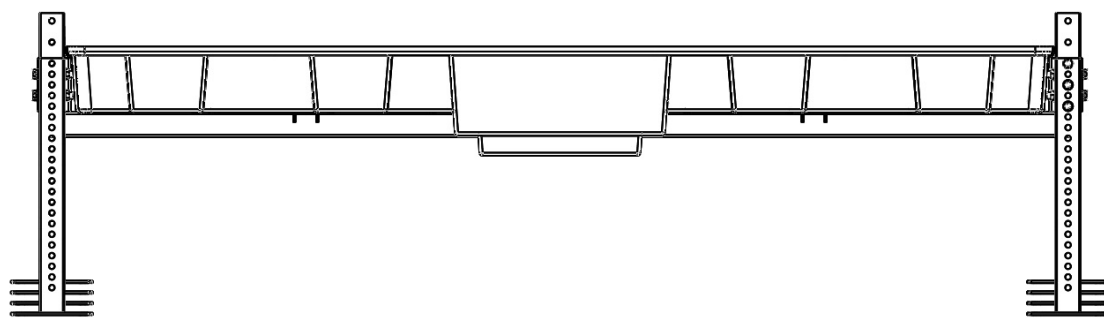


Fig.19

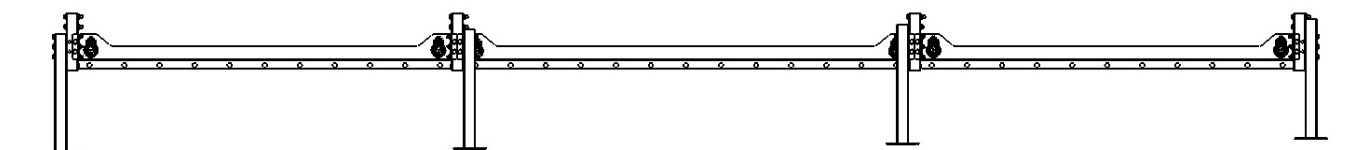


Fig.20

ASSEMBLING THE LEGS ON THE FRAME

STEP 5 - ASSEMBLING THE TRAYS

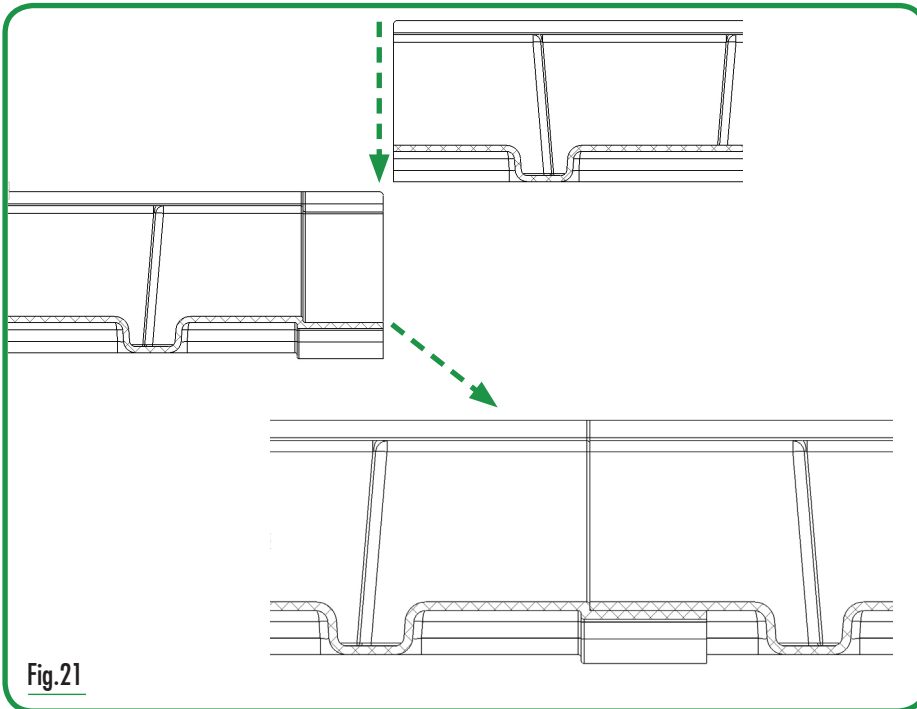


Fig. 21

NOTA

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.

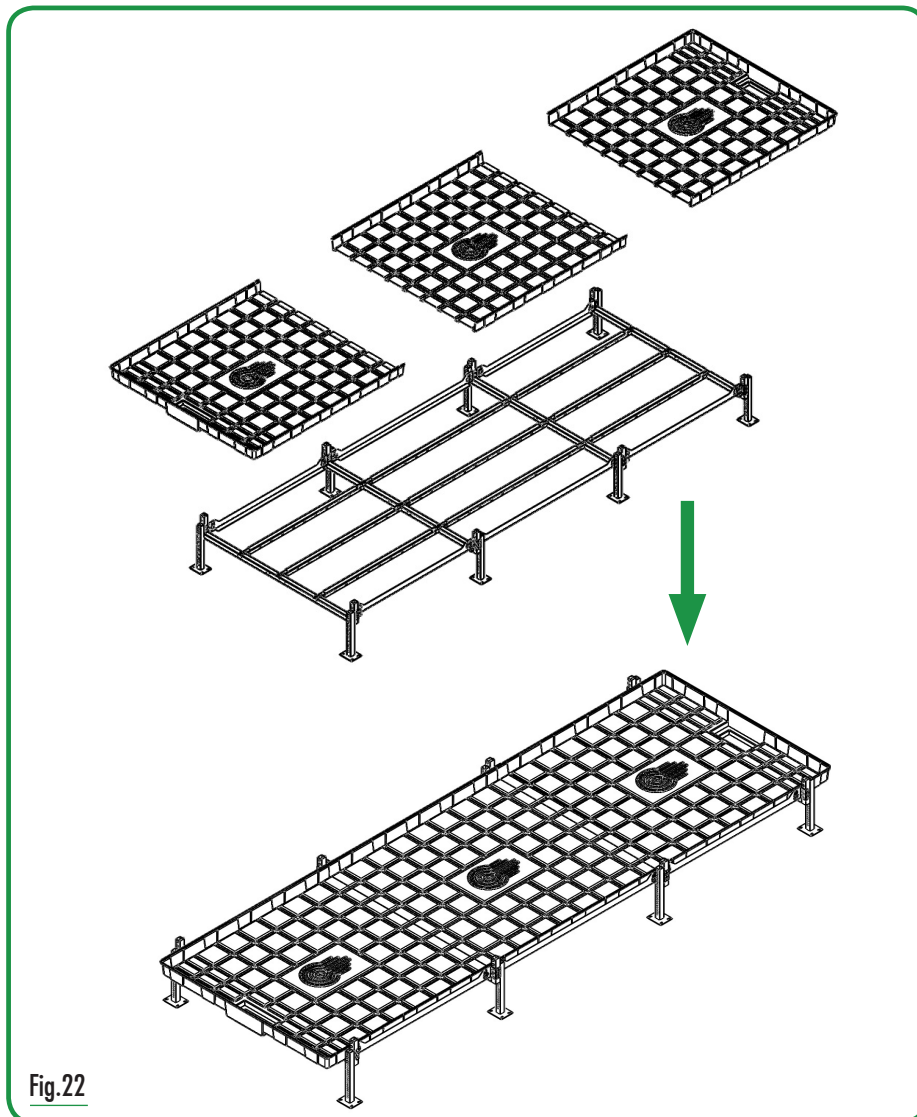


Fig. 22

- 5.1 Enclose the trays in position as shown in [fig.21-22](#).
- 5.2 Distribute uniformly the glue along the male edge of the START TRAY as shown in [fig.21-22](#).
- 5.3 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.21-22](#).
- 5.4 Once positioned, it is suggested to place heavy weights along the coupling line of the two trays for at least 24 hours
- 5.5 Repeat steps 5.2 – 5.3 – 5.4 for every additional MODULE TRAY and finally for the END TRAY of your system

ASSEMBLING THE POLES

STEP 6

NOTE

Nets support poles 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.

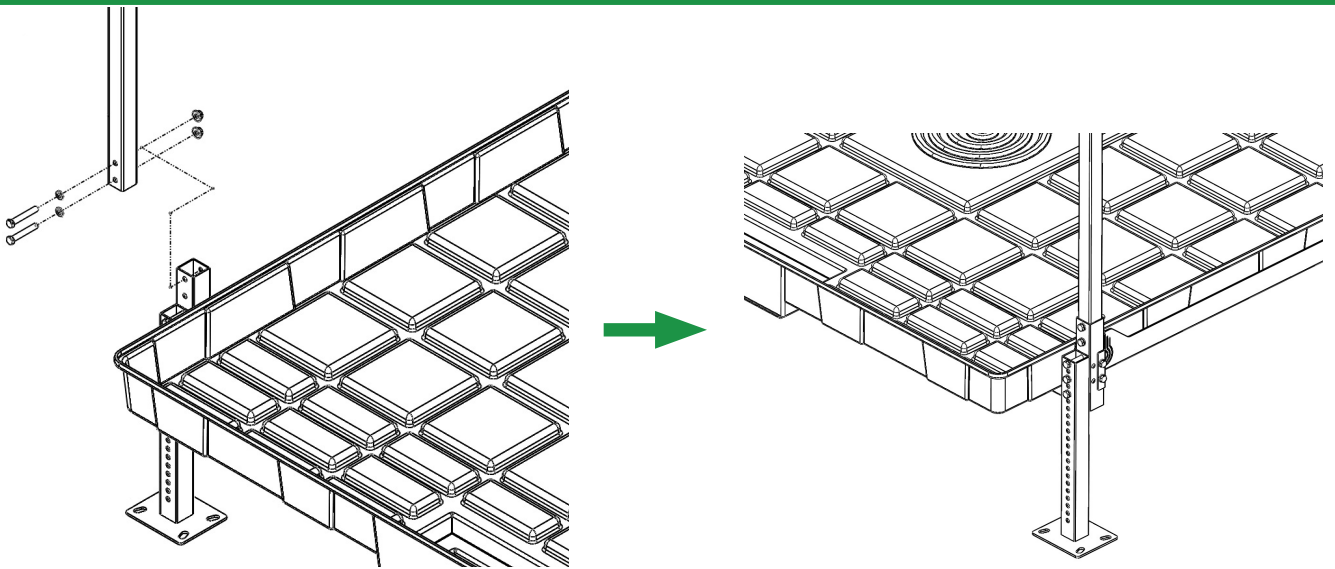
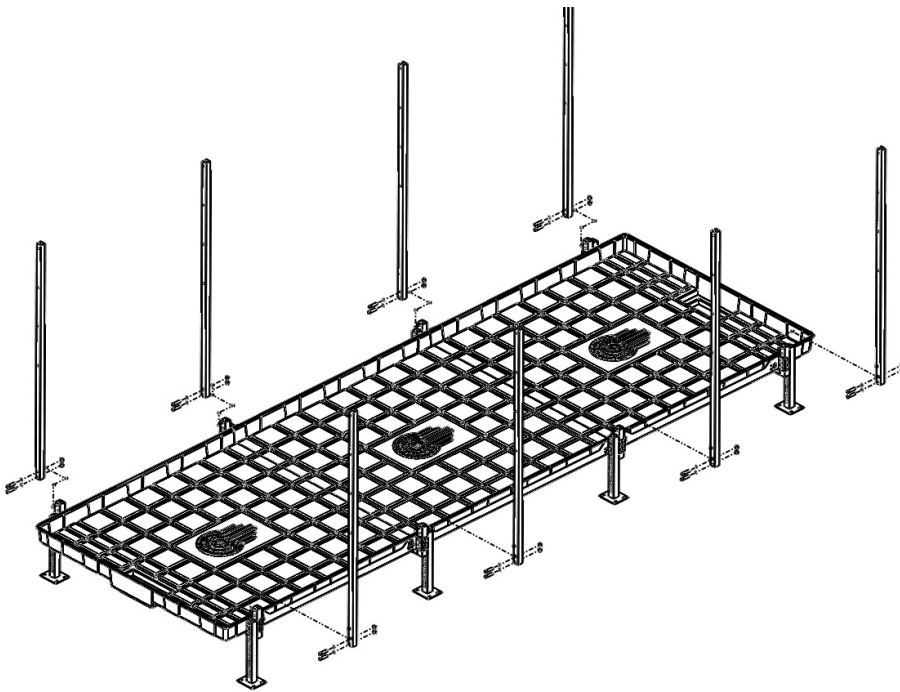
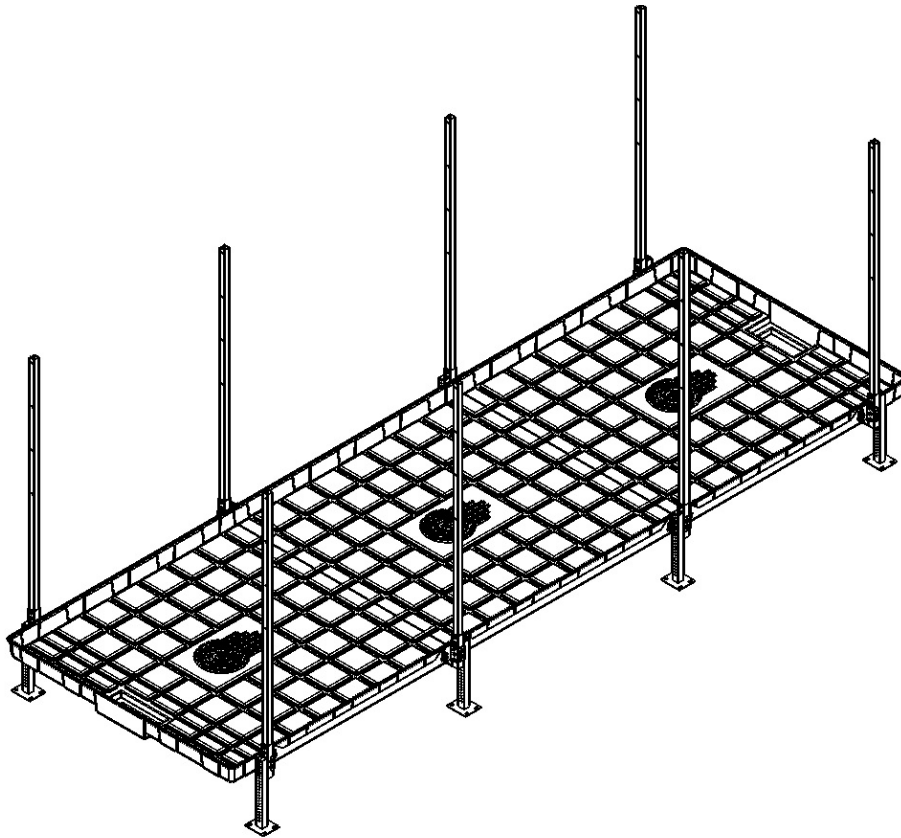


Fig.23

6.1 Enclose the support pole in the specific enclosure found in the WELDED CROSSBAR as shown in fig.23.

6.2 Fasten with 2 short screws in the specific holes found in the WELDED CROSSBAR as shown in fig.23.





IDRORACK 1 ASSEMBLY INSTRUCTION

GROW BIG OR GO HOME

