



Machine underframe Assembly instructions



Overview

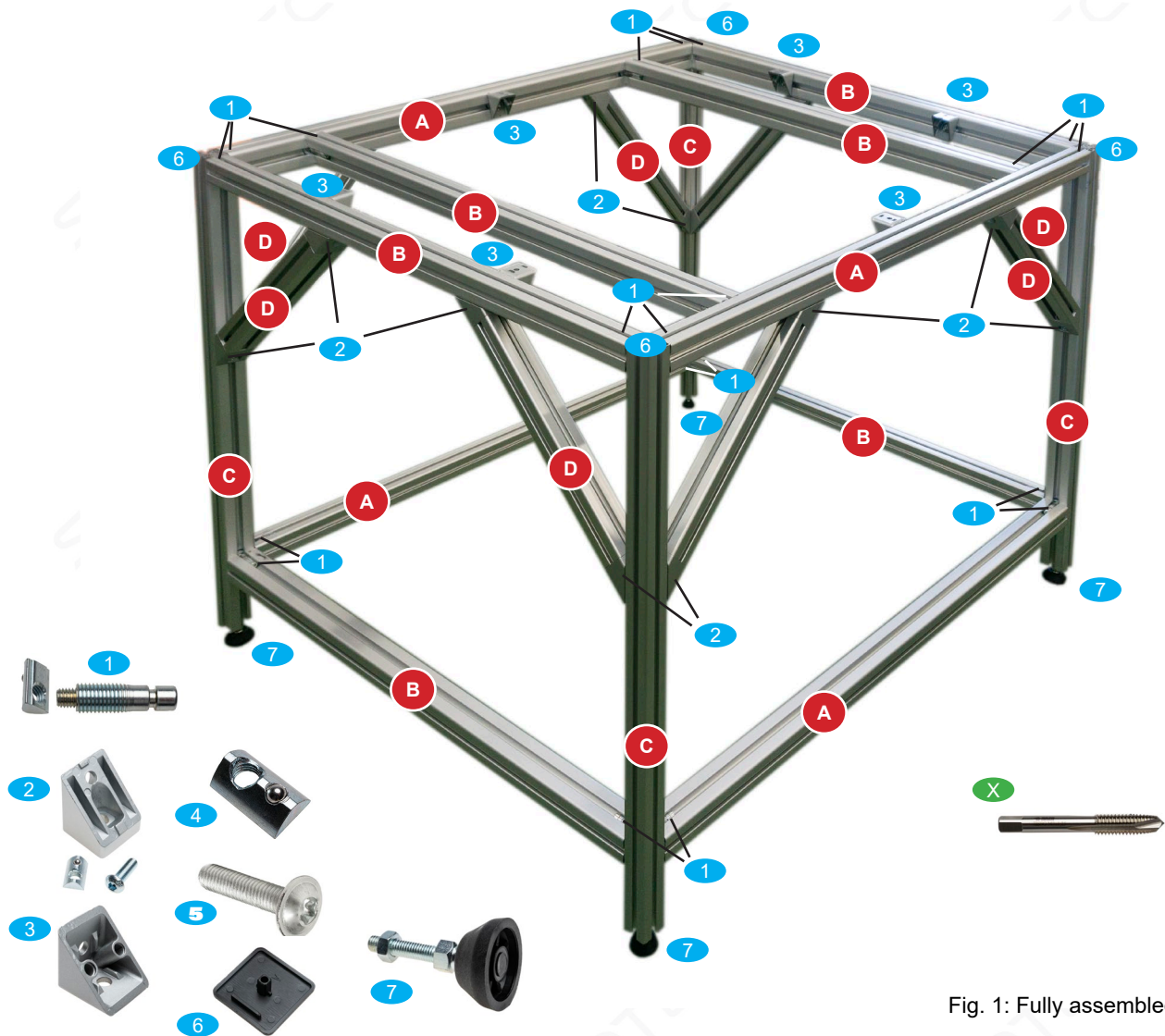


Fig. 1: Fully assembled kit

Fittings

Pos.	Designation	Number
1	Threaded connector set	36
2	Angle set 8 40x40 45°	16
3	Angle 8 40x40	6
4	T-slot nut 8, M8	6
5	Button head screw ISO 7380 M8x16	6
6	Cover cap 8 40x40	4
7	Adjustable foot D40 M8x60	4

X Screw tap M8 x 1,25

Profile parts

Pos.	Designation	Number
A	Longitudinal profiles frame	4
B	Cross sections frame	4
B	Cross profile support	2
B	Cross profile transport strut (optional)	(1)
C	Upright profiles frame	4
D	Stiffening profiles	8

General information

Threaded connectors

The frame profiles are assembled with so-called “threaded connectors”. The correct handling is explained below.

- Clamp the profile with screw clamps on a stable work surface.
- Grease the external thread with some thread cutting grease.
- Screw the threaded piece into the profile groove using a Torx T50 screwdriver bit.

i Note

The threaded part can break. Be careful when screwing it in. You may need to turn it back and forth several times.

- The outer edge of the thread must be flush with the front face of the profile. Screw the thread in a maximum of 1 mm deeper than the front face!
- Screwing in may cause burrs to form on the front surface of the profile. Smooth the front surface of the profile if necessary.
- Clean the threaded connector and profile of excess thread cutting grease.
- Connect the threaded connector to the profile using a T-slot nut (part of the set). Depending on the application, pay attention to the orientation of the T-slot nut.
- If a viewing panel is threaded into the profile groove, it may be necessary to first remove a recess for the connector at the panel corners. It is advisable to first thread the panel into the groove, finally align the framing profiles and only then mark and remove the necessary recess on the panel. It has proven to be good practice to work your way towards the final dimension in several small steps.

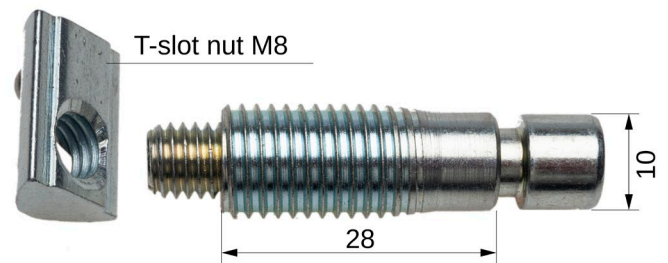


Fig. 1: Form connector set with corresponding slot nut

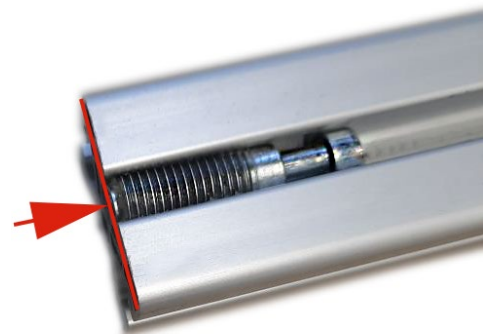


Fig. 2: Screw the threaded piece flush with the face



Fig. 3: Example of assembly screw connection

Construction

Prepare stiffeners

- Enlarge/pre-drill the longitudinal hole in the stiffening profiles at both ends (\varnothing 7 mm, depth approx. 20 mm). Then...
- ... cut thread (M8, depth approx. 20 mm).
- Screw the angle **2** to both ends using a round-head screw M8x25 with a stiffening profile. The screw is part of the angle set.
- Later connect the angle to the frame using M8x20 and a slot nut. The screw and slot nut are part of the angle set.



Fig. 4: Pre-assembly of the stiffeners

Build longitudinal frame

- Pre-drill upright profiles **C** at the lower end (\varnothing 7 mm, depth approx. 35 mm) and ...
- ... cut thread (M8, depth approx. 35 mm).
- Screw the adjustable feet **7** into the lower end of the high profiles.
- Insert a threaded connector into the upper and lower grooves at both ends of the lower longitudinal profiles **A**.
- Insert a threaded connector into the lower groove at both ends of the upper longitudinal profiles **A**.
- Connect all threaded connector sets to the respective upright profile **C** using the T-nuts provided. Do not fully tighten the screws yet.
- Connect the longitudinal profiles and upright profiles with the prepared 45° stiffeners. Make sure the angles are correct. Do not tighten the screws completely yet.

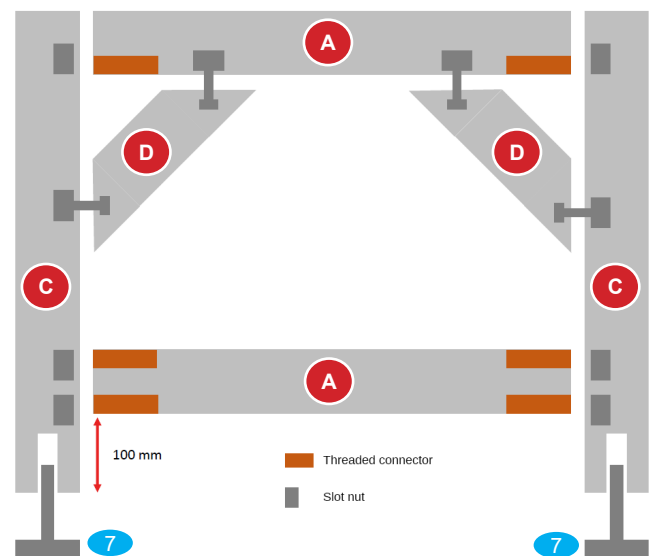


Fig. 5: Assembly of the longitudinal frames

Connecting longitudinal frames with cross profiles

- Insert a threaded connector into the upper and lower grooves at both ends of the lower cross profiles **B**.
- Insert a threaded connector into the lower groove at both ends of the upper cross profiles **B**.

Connect all threaded connectors to the respective upright profile **C** using the T-nuts provided. Do not tighten the screws completely yet.

- Connect the cross profiles and upright profiles with the prepared 45° stiffeners. Make sure the angles are correct. Do not tighten the screws completely yet.

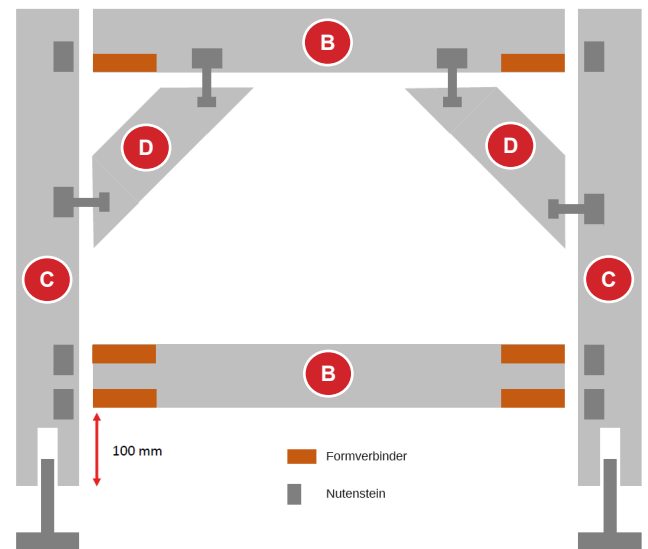


Fig. 6: Cross connection of the longitudinal frames

Cross profiles for support and transport strut

- Insert a threaded connector into the left and right grooves at both ends of the support cross profiles **B**. If necessary, align the position with the plate fastening points!
- Connect all threaded connector sets to the longitudinal profiles using the enclosed T-nuts. Do not fully tighten the screws yet.

Cross profile transport strut

i Note

The transport strut is only available for frames with a length or width of 1000 mm or more.

- Connect the cross profile **B** for the transport strut in the same way as the support profiles using threaded connectors and slot nuts in the middle between the lower longitudinal profiles. Do not tighten the screws completely yet.

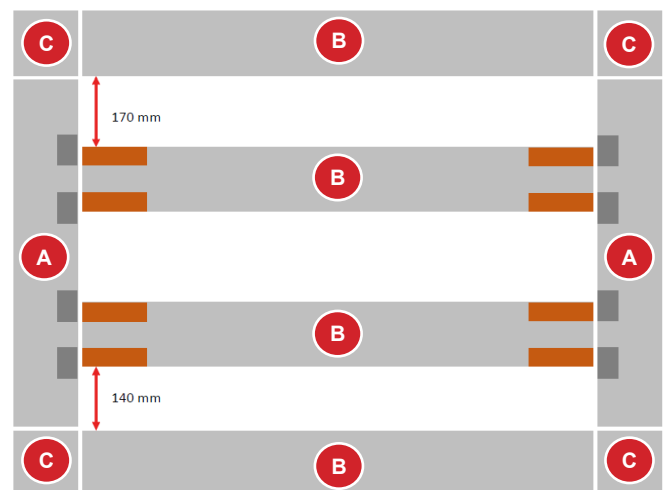


Fig. 7: Installation of the cross profiles for the table support. The distances at the front and back depend on the actual conditions.

Final assembly

Support angle

(if a plate is mounted)

- Remove all four guide bars from each of the angles **3**. Use a pestle and hammer to remove them. A firm blow to the bar will usually break it off.
- Attach one of the brackets to each of the positions shown in Fig. 10 using an M8x16 screw **5** and an M8 slot nut **4**. If necessary, align the position with the mounting holes in the base plate.
- Only attach the cover caps of the angles after the final alignment and tightening of the screws.

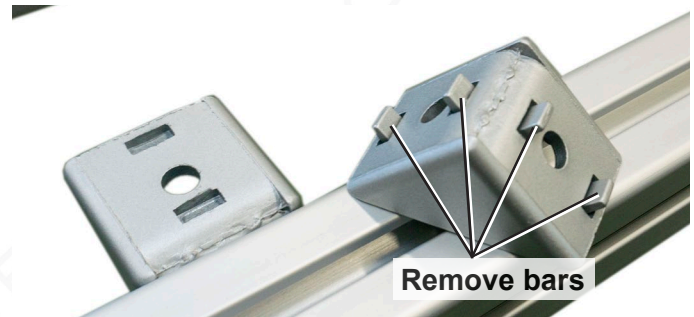


Fig. 8: Before mounting the angles, remove the guide bars



Fig. 9: Example of correctly mounted support angle

Tightening the screw connections

- Make sure the angles between the profiles are correct.
- Make sure the adjustable feet are at the correct height.
- Tighten all connections alternately, always checking the squareness between the profiles.

Cover caps

- Close the upper ends of the upright profiles **B** with a cover cap **6**.

i Note

When using a machine housing that is mounted on the underframe, the cover caps of the high profiles are not required.

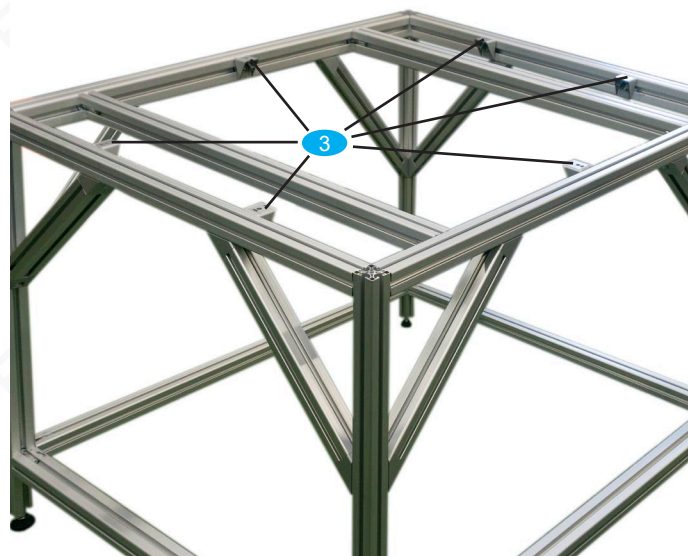


Bild 10: Position of the support angles