

Setup Assistance

Machine Table STEPCRAFT M-Series



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1. Machine Tables of the M-Series

1.1 Functionality

The M-Series features a modular machine table. The machine is standardly delivered with a machine table consisting of MDF panels and aluminum t-slot profiles, an aluminum T-slot table is optionally available. The following functions are supported by both machine tables:

- Integrated T-slots enable quick and easy clamping of the workpiece using M6 nuts and suitable clamping accessories.
- The table elements can be mounted on two machine table levels. This allows workpieces up to a height of 194 mm to be processed.
- The machine table can be put together individually from the various elements to match the respective project. The combination of different table types and heights is possible, e.g. for the lower-lying assembly of a 4th axis rotary table.
- A special feature of the M-Series is the Freestyle Milling™. In this case the machine table is completely removed to mill through the machine base into a workpiece underneath. The maximum milling depth available is 25 mm.
- The optional 90° T-slot table can be easily installed instead of one of the table elements and makes working with the M-Series even more flexible. Thanks to the T-slots, both vertically and horizontally, the 90° T-slot table is ideal for vertical clamping of workpieces.

1.2 MDF Machine Table with Aluminum T-Slots (standard)

The standard MDF machine table with aluminum T-slots contains single MDF panels of 19 mm thickness and aluminum T-slot profiles in between for the insertion of M6 nuts. The single T-slots are 100 mm apart and run in X direction.

The MDF machine table with aluminum T-slots can be used in the upper and lower guide slots of the Y-axis, thus, allowing the passage height to be changed from 135 mm to 194 mm.

1.3 Aluminum T-Slot Table (optional)

The aluminum T-slot table contains aluminum panels of 19 mm thickness with integrated T-slots for the insertion of M6 nuts. In contrast to the MDF machine table, the T-slots are only 50 mm apart. The single T-slots run in X direction.

The aluminum T-slot table can be used in the upper and lower guide slots of the Y-axis, thus, allowing the passage height to be changed from 135 mm to 194 mm.

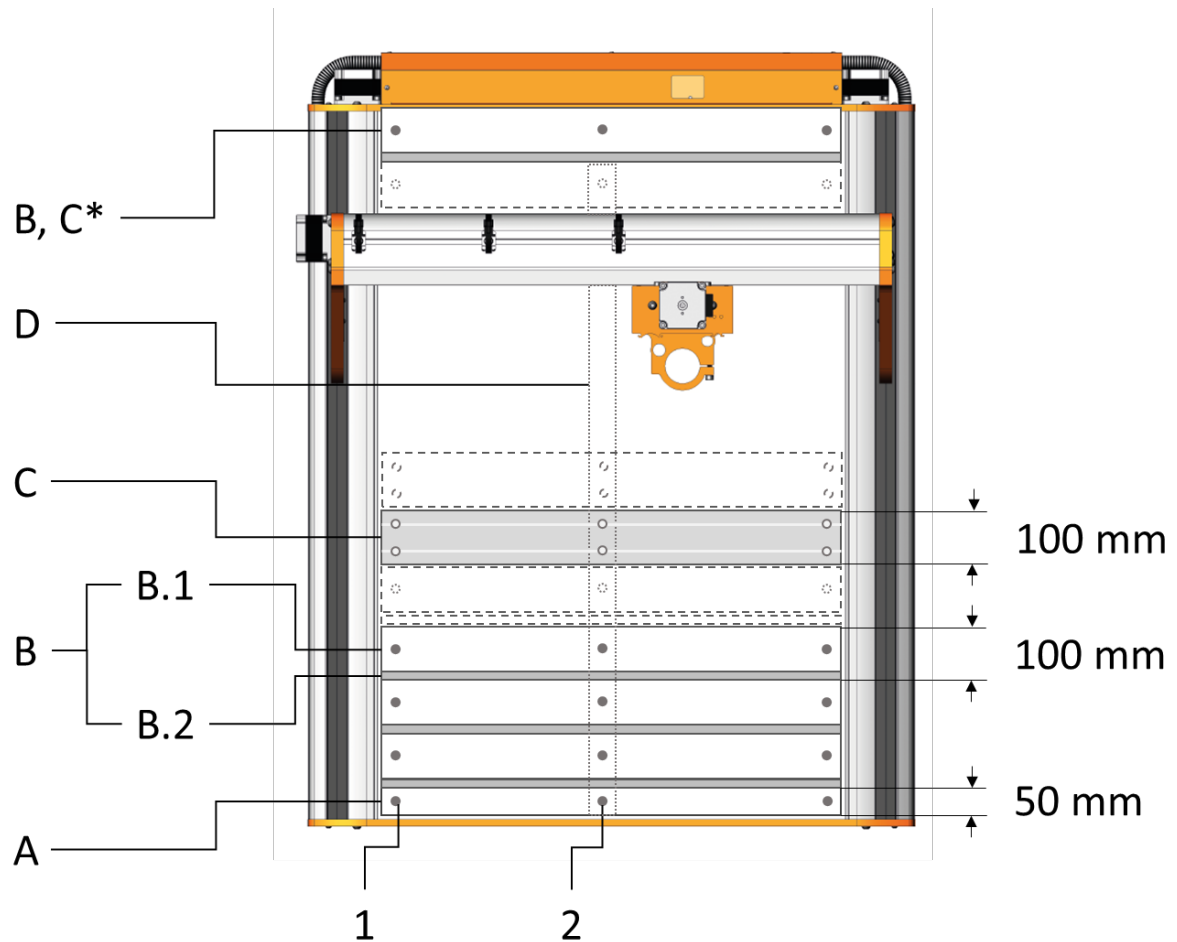
1.4 Admissible Workpiece Size

Machine type	Clamping length	Clamping width
M.500	650 mm	513 mm
M.700	850 mm	643 mm
M.1000	1150 mm	843 mm

2. Machine Table System

2.1 Panel Types

The basic machine table system is identical for all machine sizes of the M-Series. The panels only differ in amount, lengths and material.



Abbr.	Designation	Material resp. table type	Width	Description
A	Front panel	MDF or aluminum	50 mm	The first panel, viewed from the front of the machine, is 50 mm wide. It is made of MDF, alternatively of aluminum.
B.1	Main panel	MDF	84 mm	Main panel of the MDF machine table
B.2	Aluminum t-slot profile	Aluminum	16 mm	Aluminum T-slot profile for the MDF machine table. Can only be used in combination with B.1.
B	Main panel + aluminum t-slot profile	MDF / aluminum	100 mm	The panel B.1 together with the profile B.2 results in the structural unit B, which, like C, has a width of 100 mm.
C	Main panel r 90° t-slot table	Aluminum	100 mm	Main panel of the aluminum machine table with double T-slot at a distance of 50 mm, alternatively the aluminum 90° T-slot table with double T-slots on the horizontal and vertical surface.
D	Stabilization bar	Aluminum	36 mm	The stabilization bar can be screwed under the panel to level and stabilize the machine table. The bar can only be installed if all panels are used on the upper machine table level. The stabilizing bar does not reach below the end panel.
B, C*	Rear panel	MDF / aluminum	100 mm	The back panel is identical to B or C. However, it is not supported by the stabilization bar, since the last panel can be replaced by an integrated tool magazine (in planning).
1	Countersunk screw M6 x 25 mm plus STEPCRAFT EasyFix clamping nut	MDF		Fixation of the MDF panels on the Y-axis
1	Cylinder head screw M6 x 22 mm plus STEPCRAFT EasyFix clamping nut	Aluminum		Fixation of the aluminum panels on the Y-axis
2	Countersunk screw M6 x 25 mm	MDF		Fixation of the MDF panels on the stabilization bar
2	Countersunk screw M4 x 14 mm	Aluminum		Fixation of the aluminum panels on the stabilization bar

2.2 Maximum Panel Amount

Machine type	Clamping length	Maximum panel amount, Type A	Maximum panel amount, Type B/C
M.500	650 mm	1	6
M.700	850 mm	1	8
M.1000	1150 mm	1	11

2.3 Recommendations and Restrictions

The different types of panels can be combined with one another as desired. However, there are technical recommendations and restrictions:

- The MDF main panel B.1 of 84 mm width must always be installed with the aluminum T-slot profile B.2 of 16 mm width. Neither the profile nor the T-slot profile can be used on its own.
- The materials MDF and aluminum have different dimensional tolerances. If possible, one type of material should always be installed on one level in order to maintain an even table uniformity.
- From the front panel to the rear panel, a change from MDF panel A/B to aluminum panel C is possible, a change from aluminum panel A/C to MDF panel B is not possible.
- If the type B and C panels are mixed on the upper machine table level, the stabilizing bar D can only be used for screwing type A / B (MDF) or type A / C (aluminum) panels.
- The first panel, viewed from the front of the machine, is always of type A and therefore 50 mm wide.
- The stabilization bar D can only be installed if the machine table is only used on the upper table level.

2.4 Article Overview

2.4.1 MDF Machine Table with Aluminum T-Slots

Abbr.	Description	Material	Article No.			Scope of delivery
			M.500	M.700	M.1000	
n.a.	MDF machine table with aluminum T-slots	MDF	12002	12003	12004	Complete machine table

Abbr.	Description	Material	Article No.			Scope of delivery
			M.500	M.700	M.1000	
A	Front panel	MDF	11999	12000	112001	1x Panel 3x Countersunk M6 x 25 mm 2x EasyFix clamping nut
B.1	Main panel	MDF	11996	11997	11998	1x Panel 3x Countersunk M6 x 25 mm 2x EasyFix clamping nut
B.2	Aluminum T-slot profile	Aluminum	11984	11985	11986	1x Profile
D	Stabilization bar	Aluminum	12055	12056	12057	1x Profile

2.4.2 Aluminum T-Slot Table

Abbr.	Description	Material	Article No.			Scope of delivery
			M.500	M.700	M.1000	
n.a.	Aluminum T-slot table	Aluminum	12005	12006	12007	Complete machine table

Abbr.	Description	Material	Article No.			Scope of delivery
			M.500	M.700	M.1000	
A	Front panel	Aluminum	11993	11994	11995	1x Panel 2x Cylinder head screw M6 x 22 mm 1x Countersunk M4 x 14 mm 2x EasyFix clamping nut
C	Main panel	Aluminum	11990	11991	11992	1x Panel 4x Cylinder head screw M6 x 22 mm 2x Countersunk M4 x 14 mm 4x EasyFix clamping nut
C	90° T-slot table	Aluminum	11987	11988	11989	1x Panel 4x Cylinder head screw M6 x 22 mm 2x Countersunk M4 x 14 mm 4x EasyFix clamping nut
D	Stabilization bar	Aluminum	12055	12056	12057	1x Profile

2.5 Assembly Notes

You can find an illustration of the MDF machine table with aluminum t-slot profiles in the assembly manual of the M-Series under assembly step 4.0. You will find further information below.

- Plan the assembly of the machine table according to the individual project requirements.
- First insert the front panel (A) on the requested level. Insert the screws (1) together with the loosely screwed EasyFix clamping nuts. While tightening the panel, the EasyFix nuts turn themselves into the clamping position and fix the table element while screwing down. It is not necessary to lock the nut with another tool.
- If the machine table is to be installed consistently as an MDF or aluminum table on the upper level, then install the two rear main panels (B or C) in order to subsequently mount the stabilization bar D. Only then you can insert and screw down the missing main panels (B or C).
- If the table is only installed on the lower level or alternatively over two levels with a 90° t-slot table, you can assemble the table from the front panel from front to back, since the stabilizing bar cannot be installed.

3. Contact

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