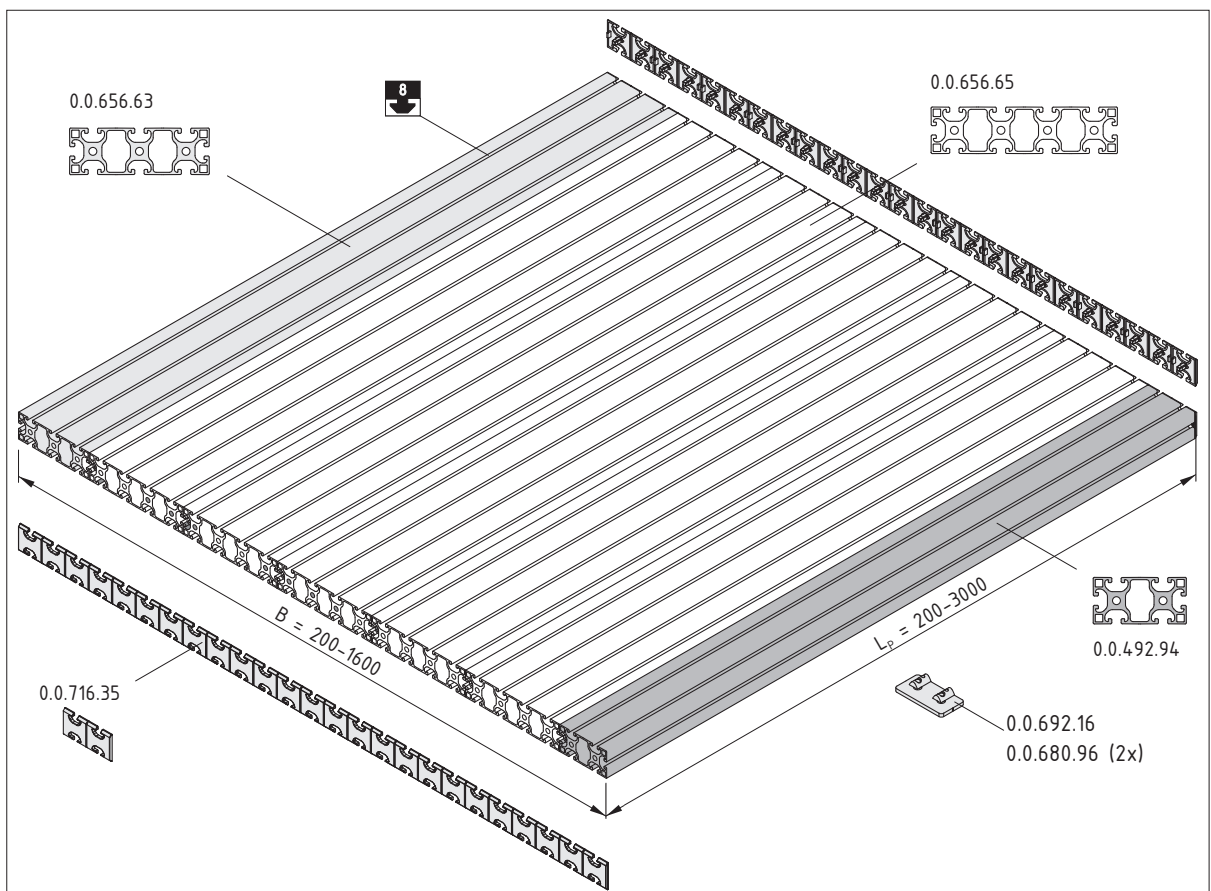
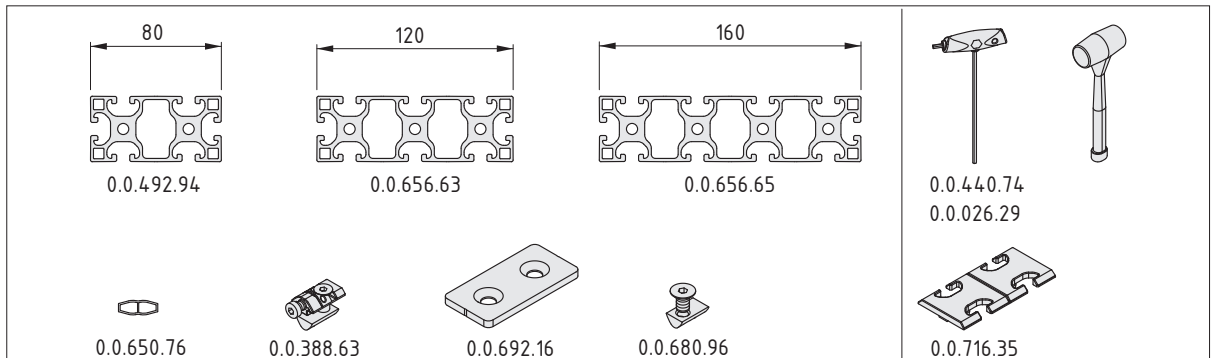




Groove Plate
Notes on Use and Installation

Groove Plate

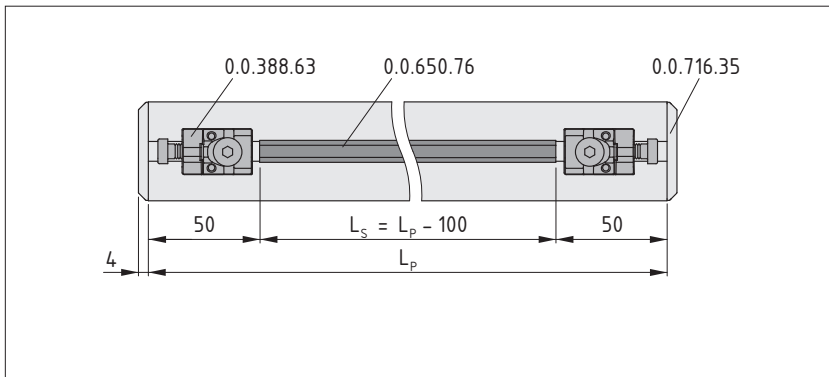


Selection of components

The Groove Plate is composed of up to three different profiles of the X series and other parts. To produce different widths B of the Groove Plate in 40mm steps, the following parts are required.

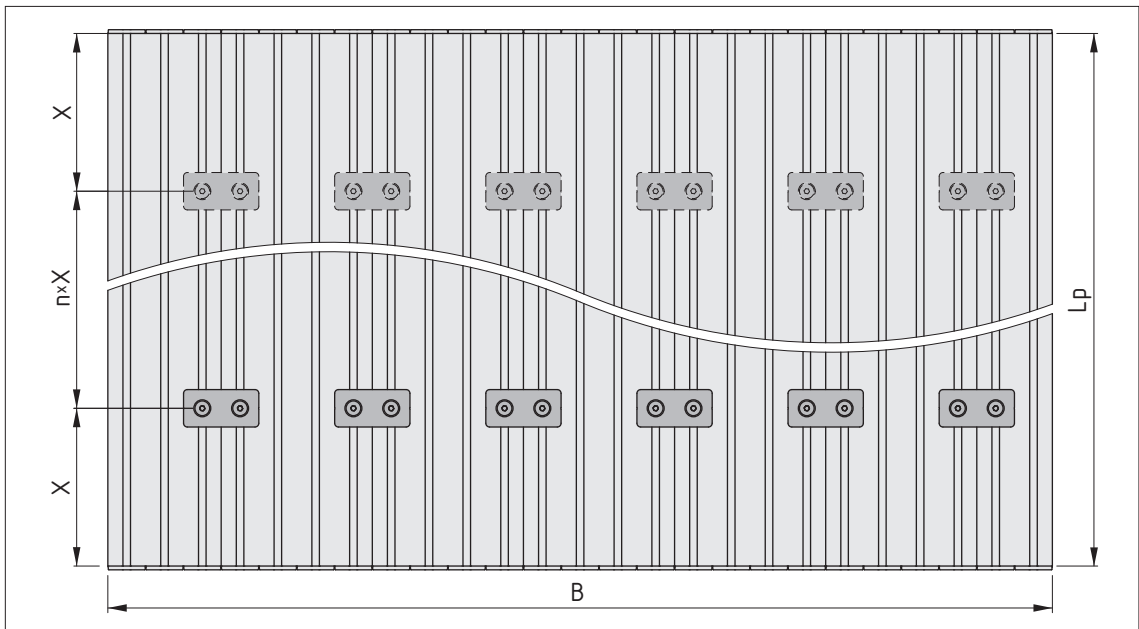
Width B [mm]	Amount of Profile X 8 80x40 light 0.0.492.94	Amount of Profile X 8 120x40 light 0.0.656.63	Amount of Profile X 8 160x40 light 0.0.656.65	Amount of Caps (both sides) 0.0.716.35	Amount of Direct-Fastening Set 8 0.0.388.63	Amount of Step Spacer Profile, cut-offs 0.0.650.76*
200	1	1	0	5	2	1
240	1	0	1	6	2	1
280	0	1	1	7	2	1
320	0	0	2	8	2	1
360	1	1	1	9	4	2
400	1	0	2	10	4	2
440	0	1	2	11	4	2
480	0	0	3	12	4	2
520	1	1	2	13	6	3
560	1	0	3	14	6	3
600	0	1	3	15	6	3
640	0	0	4	16	6	3
680	1	1	3	17	8	4
720	1	0	4	18	8	4
760	0	1	4	19	8	4
800	0	0	5	20	8	4
840	1	1	4	21	10	5
880	1	0	5	22	10	5
920	0	1	5	23	10	5
960	0	0	6	24	10	5
1000	1	1	5	25	12	6
1040	1	0	6	26	12	6
1080	0	1	6	27	12	6
1120	0	0	7	28	12	6
1160	1	1	6	29	14	7
1200	1	0	7	30	14	7
1240	0	1	7	31	14	7
1280	0	0	8	32	14	7
1320	1	1	7	33	16	8
1360	1	0	8	34	16	8
1400	0	1	8	35	16	8
1440	0	0	9	36	16	8
1480	1	1	8	37	18	9
1520	1	0	9	38	18	9
1560	0	1	9	39	18	9
1600	0	0	10	40	18	9

*Length Step Spacer Profile L_s = Length Profile L_p - 100 mm



Selection of the support by brackets

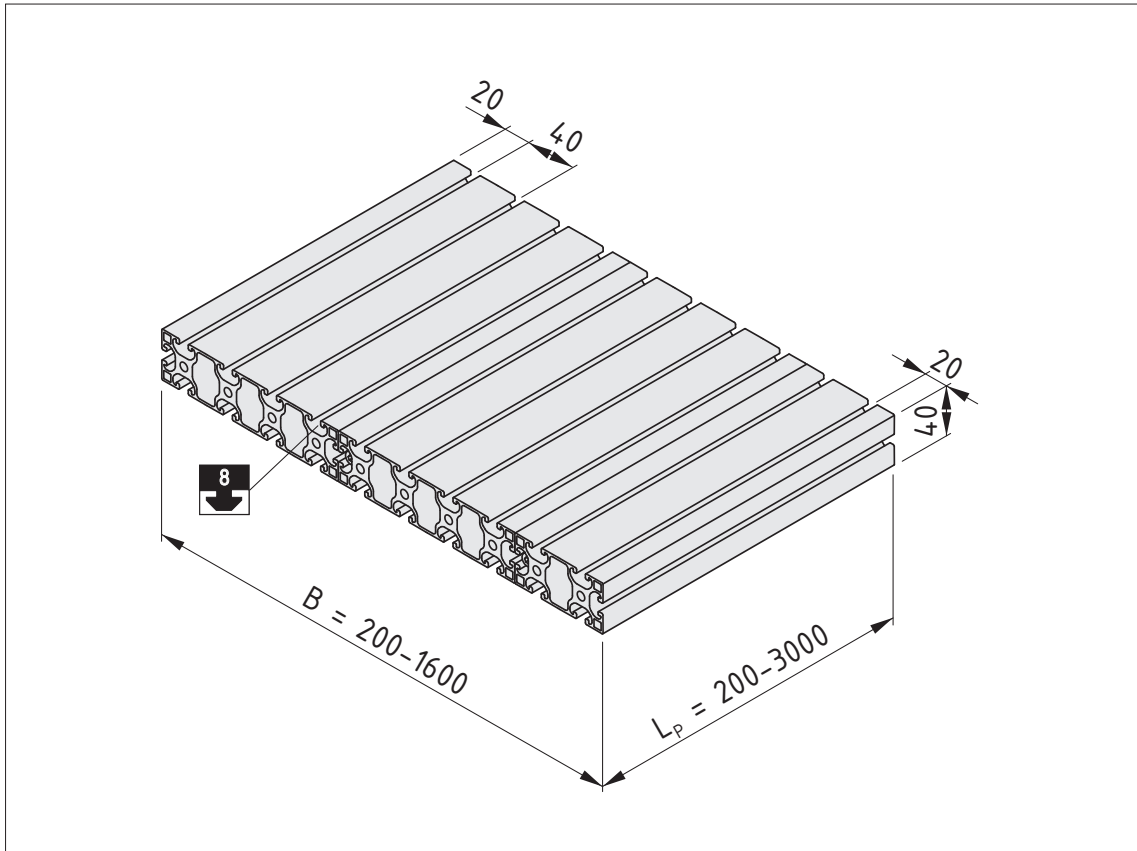
The support of the stability of the Groove Plate and the number of Brackets 8 80x40 flat St (0.0.692.16) used, depends on the size of the unsupported Groove Plate ($L_P \times B$).



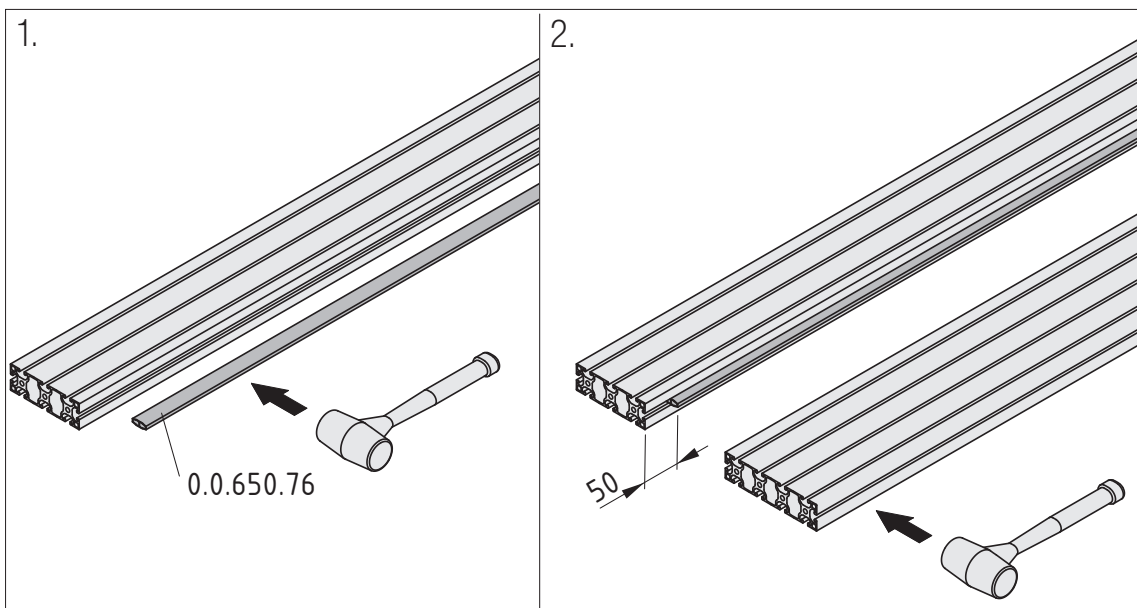
Amount of brackets required (0.0.692.16) depending on the width B and the profile length L _p						
B [mm]	L _p = 0-500 [mm]	L _p = 501-1000 [mm]	L _p = 1001-1500 [mm]	L _p = 1501-2000 [mm]	L _p = 2001-2500 [mm]	L _p = 2501-3000 [mm]
200	0	1	2	3	4	5
240	0	1	2	3	4	5
280	0	1	2	3	4	5
320	0	1	2	3	4	5
360	0	2	4	6	8	10
400	0	2	4	6	8	10
440	0	2	4	6	8	10
480	0	2	4	6	8	10
520	0	3	6	9	12	15
560	0	3	6	9	12	15
600	0	3	6	9	12	15
640	0	3	6	9	12	15
680	0	4	8	12	16	20
720	0	4	8	12	16	20
760	0	4	8	12	16	20
800	0	4	8	12	16	20
840	0	5	10	15	20	25
880	0	5	10	15	20	25
920	0	5	10	15	20	25
960	0	5	10	15	20	25
1000	0	6	12	18	24	30
1040	0	6	12	18	24	30
1080	0	6	12	18	24	30
1120	0	6	12	18	24	30
1160	0	7	14	21	28	35
1200	0	7	14	21	28	35
1240	0	7	14	21	28	35
1280	0	7	14	21	28	35
1320	0	8	16	24	32	40
1360	0	8	16	24	32	40
1400	0	8	16	24	32	40
1440	0	8	16	24	32	40
1480	0	9	18	27	36	45
1520	0	9	18	27	36	45
1560	0	9	18	27	36	45
1600	0	9	18	27	36	45

* CAUTION! Each bracket 8 80x40 St (0.0.692.16) requires two Fastening Set 8 2-5mm (0.0.680.96)

Assembly

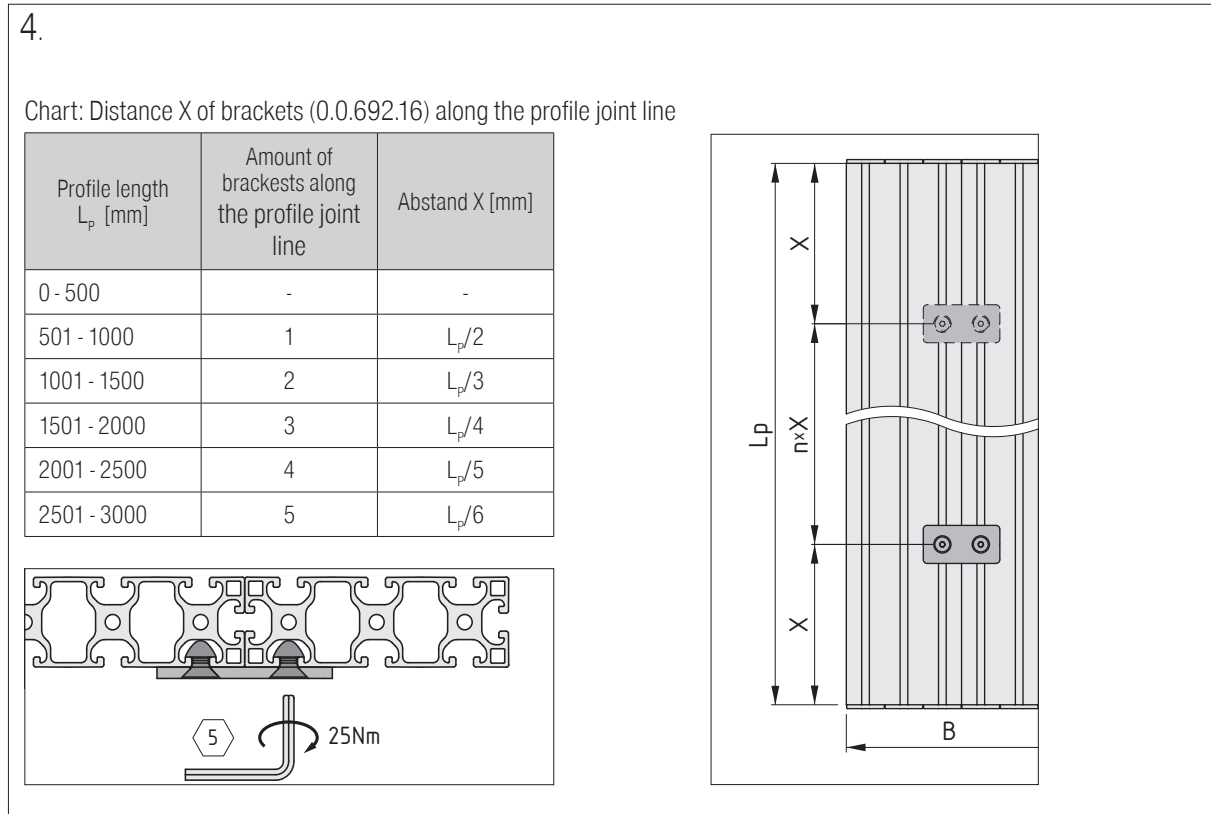
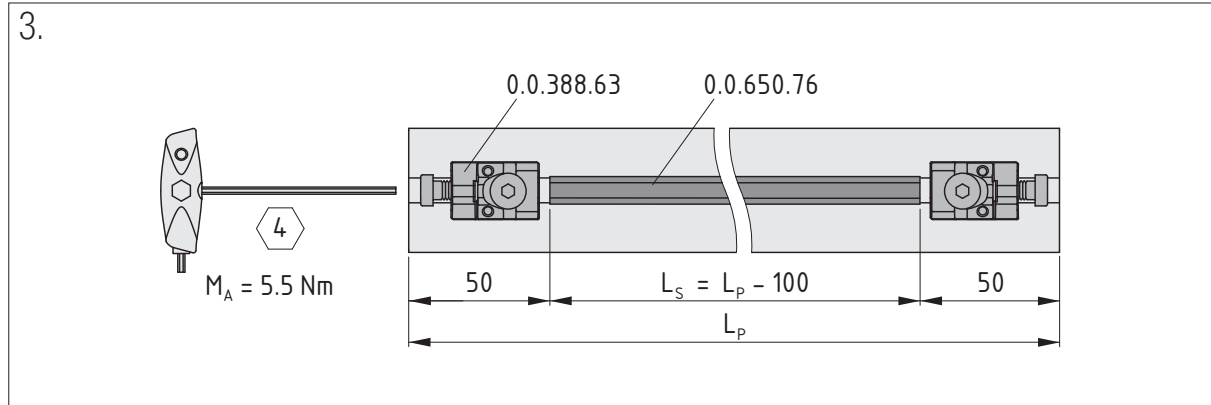


To ensure the best possible flatness of the application side of the Groove Plate, it is mounted on a flat table surface.

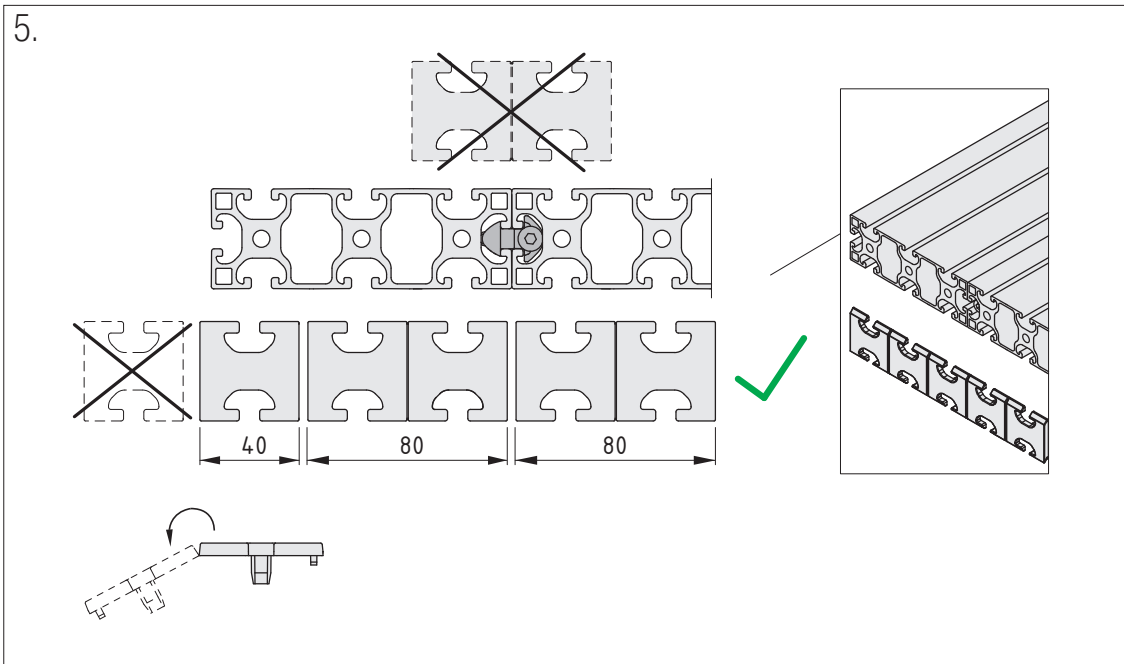


Place the application side of the Groove Plate on a flat table surface, with the bottom side facing up. Using a soft-head hammer, carefully drive the step spacer profile into the groove of the profile and then carefully drive the next profile onto the step spacer profile.

If no further profile is to be assembled, the grooved plate is aligned and screwed in place as in step 3.



The use of brackets is necessary from a profile length of $L_P > 500 \text{ mm}$. The brackets are evenly distributed along the profile joint lines.



If necessary, the Caps (0.0.716.35) are carefully tapped onto the profile end cross-sections with a soft-headed hammer. When using the Profile X 8 120x40 light, one Cap is divided and the single, half Cap is installed on the outside of the Profile X 8 120x40.

CAUTION! Do not install the Caps over a profile joint.

Technical data

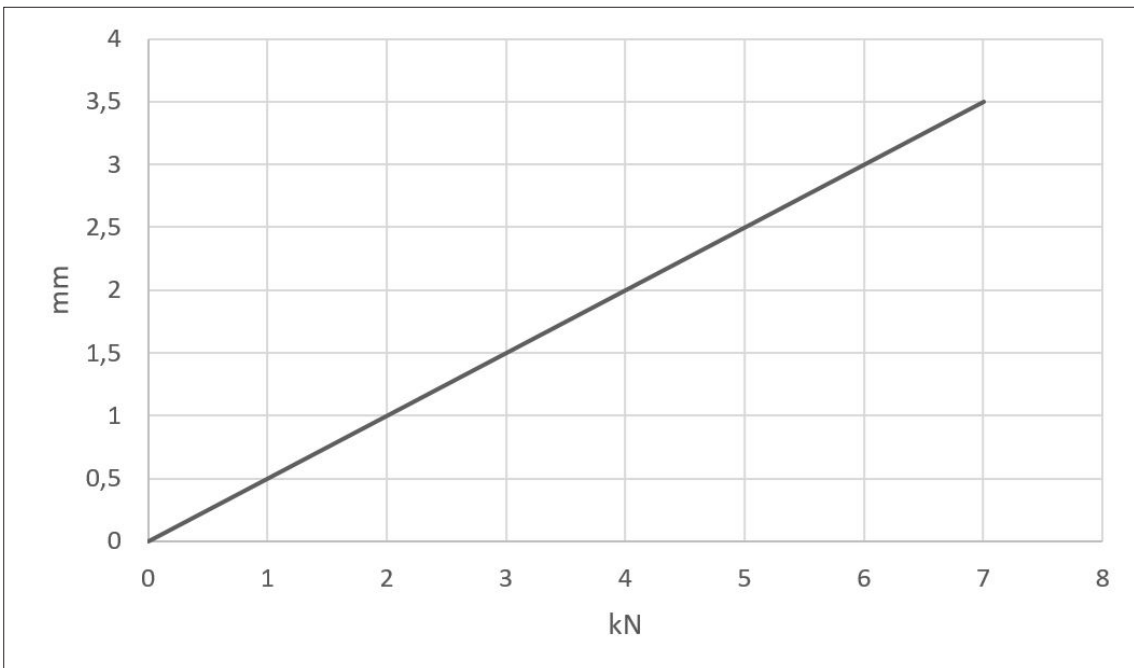


Diagram: Deflection in the elastic range of a central, point load on a 1x1m Groove Plate with a circumferential support frame

Material properties:

- ESD: the Groove Plate is ESD suitable, the Cap is not

Material:

- Profiles: AlMgSi0,5 F25
- Fastener: G-St, stainless
- Countersunk Screw DIN 7991-M6x20 St, bright zinc-plated
- Hexagon Socket Head Cap Screw DIN 7984-M6x14 St, bright zinc-plated
- Spacer sleeve POM, black
- T-Slot Nut 8 St M6 St, bright zinc-plated
- Step Spacer Profile PE-HD
- Bracket 8 80x40 St St, bright zinc-plated
- Fastening Set St, bright zinc-plated
- Weight assembled Groove Plate approx. 37,5 kg/m²

Width of the assembled Groove Plate [mm]	Width tolerance
0 - 360	±1
360 - 800	±2
800 - 1160	±3
1160 - 1600	±4

Tolerance of the saw cut of the profile length L_p according to ISO 2768mk

Application

The possibilities for integrating the Groove Plate into our modular system are unlimited.

One option is to integrate the Groove Plate into a frame or rack according to the expected loads.

For fixing, we recommend using the Angle Brackets 8 40 St (0.0.692.14) and the corresponding Fastening Set 8 2-5mm (0.0.680.96).

The Angle Brackets are installed on each profile assembled in the Groove Plate on the cut surfaces and in sufficient number along the outer profiles, depending on the profile length L_p and the load.

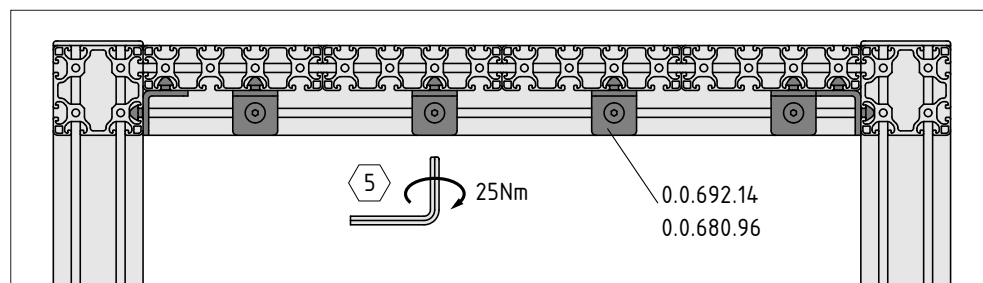


Figure: possible use of the grooved plate in an aluminum profile frame.

item

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