

TRANSLATION OF THE ORIGINAL VERSION

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Operation Manual

DSG-D - Double Sided Mitre Fence

For use on sliding table saws according to the DIN EN 1870-18:2011-08 standard



Type: **DSG-D**

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1 Functional description

With the double-sided mitre fence DSG-D, mitre cuts can be made quickly and precisely. The wooden support block included in the scope of delivery enables tear-free cuts and further serves as an additional support during cutting, especially for narrow and short workpieces.

1.1 DSG-D features

- Ideal for fast and stepless production of mitre cuts on narrow and short workpieces at any angle from 0°... 90°
- Automatic length compensation for preferred angles 5/10/15/22.5/30/45/60/67.5°
- An imprinted scale simplifies the production of incorrect mitres
- Easy handling and quick mounting on the trolley of the saw
- Angle measurement adjustable via digital display
- The leg length available for cutting is maximum 1375 mm
- Including wooden support block and wall bracket
- Bounce-free mounted flip stops
- Including adapter

1.2 Operating elements

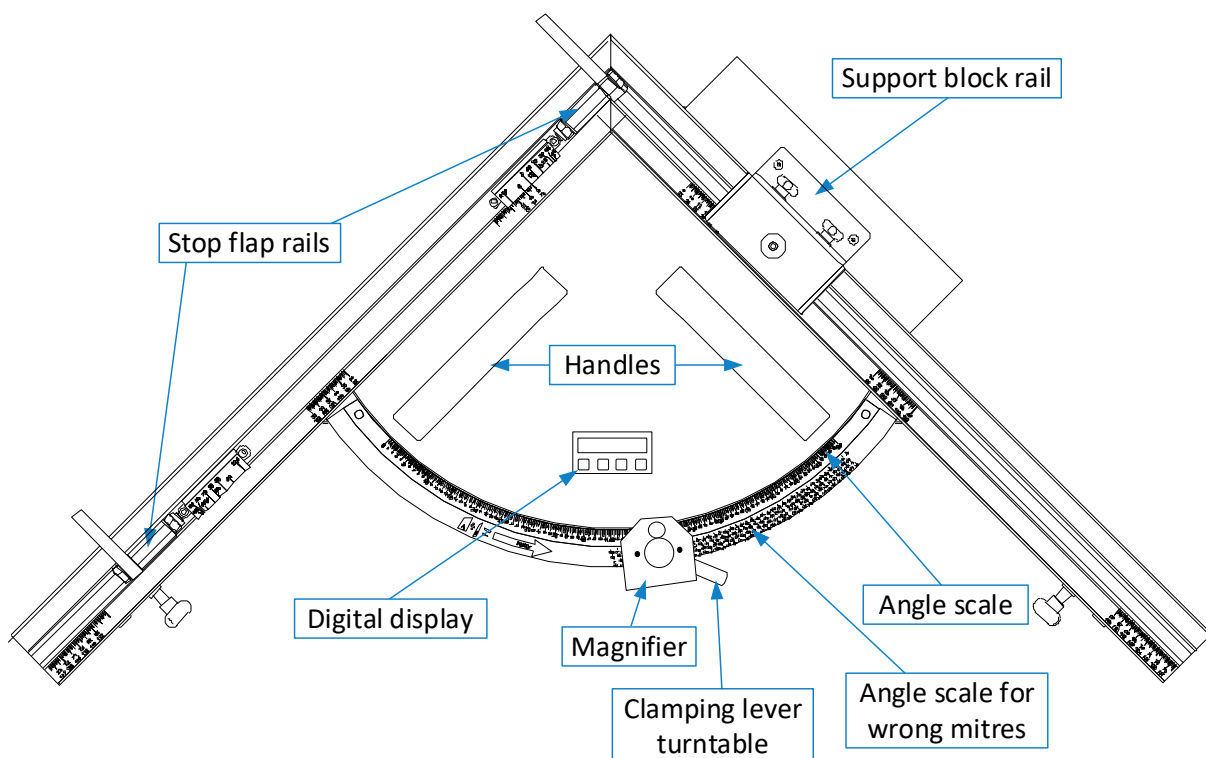


Figure 1: DSG-D operating elements

*) Refer to section ⇒ 2.6 “Digital angle display”

2 Working with the DSG-D

2.1 Placing the fence on the slide table



CAUTION: Secure the machine against unintentional switch-on!

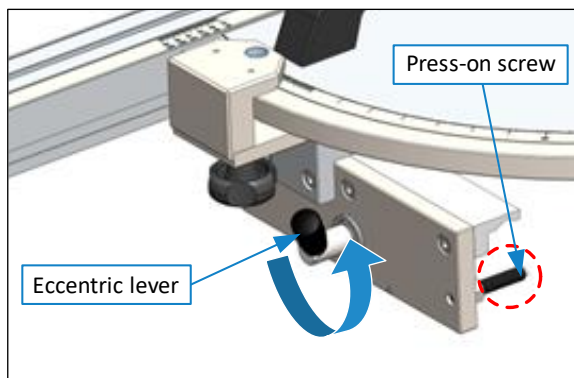


Figure 2: Placing the DSG-D on the slide table

1. Move eccentric lever to "handle up" position.
2. Place the fence on the slide table.
3. Check whether the press-on screws are in contact with the slide table and re-adjust if necessary.

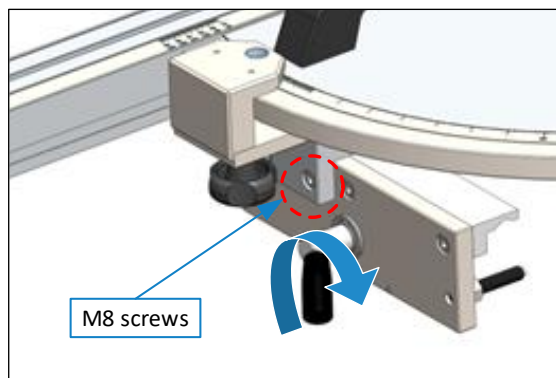


Figure 3: Clamping the DSG-D on the slide table

1. Loosen the two M8 screws. This ensures that the fence rests correctly on the slide table.
2. Clamp the fence by tightening the eccentric lever.
3. Retighten the two M8 screws.

2.2 Adjusting the fence



Precise adjustment of the DSG-D fence is of enormous importance, as it affects the accuracy of all cuts made with it. To achieve optimum cutting results, always use sufficiently precise measuring equipment (e.g. vernier calliper) for adjustment.

1. Swivel the fence to approximately 45° and loosen the four M8 clamping screws (⇒ Figure 1).
2. Now swivel the fence towards position 0 ($\triangleq 90^\circ$) until the stop screws are in contact (⇒ Figure 2).
3. The line in the magnifying glass for reading the swivel angle is now congruent with the 0° resp. 90° line on the angle scale.
4. Clamp the turntable at this position.
5. Insert the support block into the fence profile, which is approximately parallel to the saw blade.



CAUTION: Make sure that the support block is in contact with the profile!

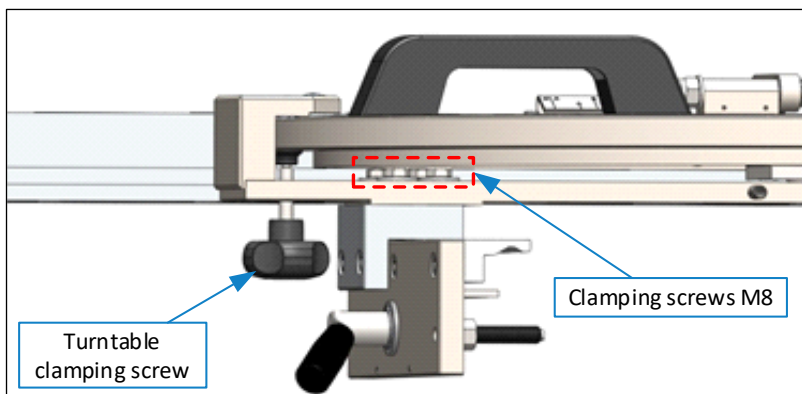


Figure 1: Adjusting the DSG-D (1)

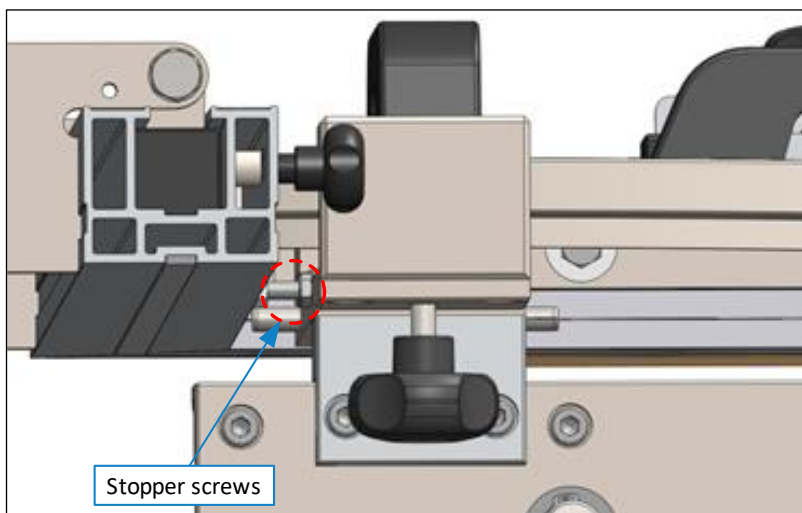


Figure 2: Adjusting the DSG-D (2)

6. Carefully push the fence with the support block up to the saw blade (refer to ⇒ Figure 3).



CAUTION: To prevent the saw blade from being pushed out of position, place an additional material strip to the right of the saw blade and fix it in place with the rip fence!

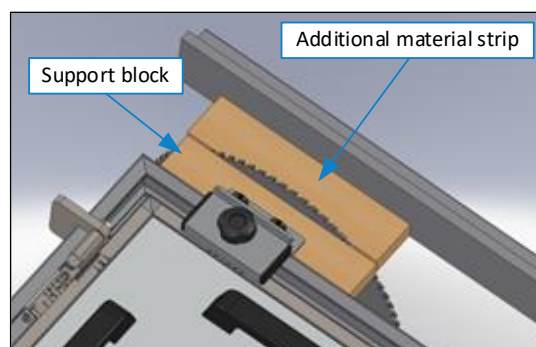


Figure 3: Adjusting the DSG-D (3)

7. At this position, retighten the M8 clamping screws – first on one side.
Then swivel the fence so that the two clamping screws on the other side can be easily reached and tighten them as well.
8. Make a test cut in the 0° resp. 90° position and check whether the position of the scale corresponds to the value measured on the test piece.

9. The length measurement must correspond to position "0" ($\triangleq 90^\circ$) on the angle scale (\Rightarrow Figure 4).
10. If the length measurement does not correspond to the "0" position, leave the DSG-D fence in the clamped state, loosen the screws of the scale, and move it until the 0 of the upper scale corresponds exactly to the measured value (\Rightarrow Figure 4). Then re-tighten the screws.

Example: If a piece of material is cut with the setting 110 mm, but it only has 109 mm when measured, the scale display must be shifted so that the 0 corresponds to the value 10.9 ($\triangleq 109$ mm) on the lower scale (see \Rightarrow Figure 4).

11. Then slide the flap rail into the other profile and check the length here as well.

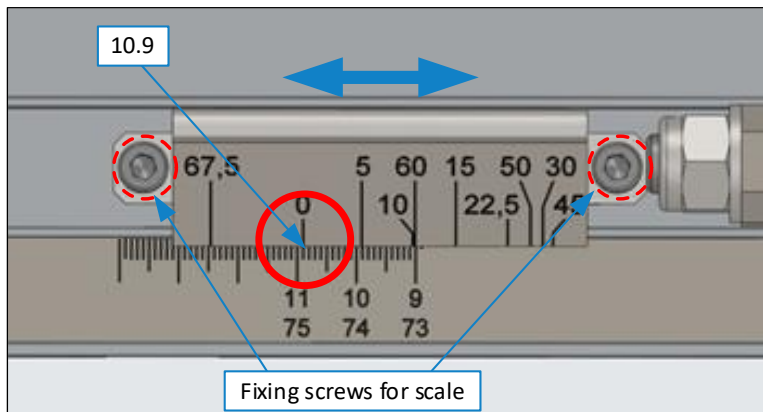


Figure 4: Adjusting the DSG-D (4)

Because the fence scale has different markings for reading the length, it is possible to set the exact length to the cutting line at certain angles.

Example: If, for example, the fence is set to an angle of 22.5° and the length dimension is set so that the marking line on the scale below the 22.5 is congruent with any measure (for example 350 mm) on the scale of the profile, this value is cut measured in the tip (see \Rightarrow Figure 5).

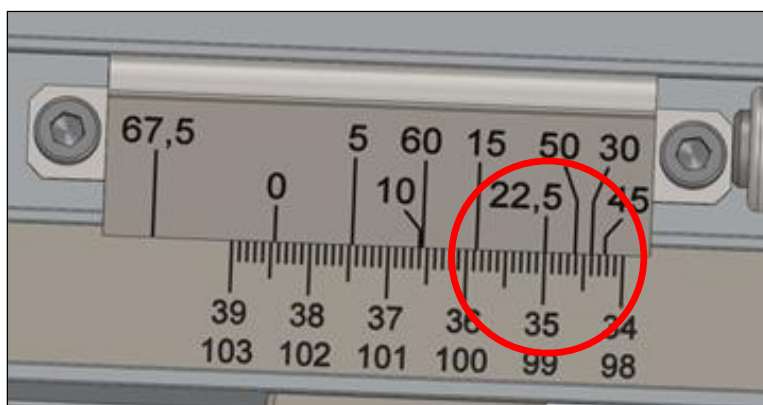


Figure 5: DSG-D adjustment example



The measuring scale in the profile has two measurement rows:

1. Upper scale \rightarrow First stop flap
2. Lower scale \rightarrow Second stop flap (distance = 640 mm)

The maximum cutting length at position "0" resp. 90° is 1375 mm.

If this dimension is to be cut at (for example) 45° , the clamping screw for the flap rail must be offset as shown in \Rightarrow Figure 6.

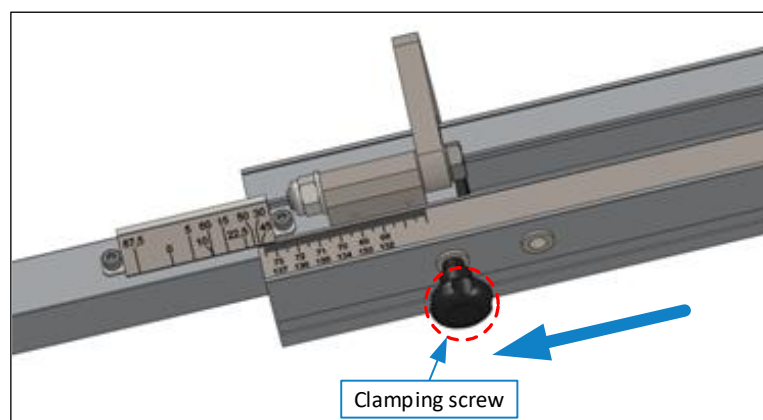


Figure 6: Clamping screw for flap rail

2.3 Produce wrong mitres

To produce incorrect mitres, the DSG-D has a patented printed scale that makes it easy to set the correct angle for the wider and narrower workpiece at the same time.

The procedure is very simple.

Example:

1. Measure the width of wider workpiece (e.g. 180 mm)
2. Measure the width of narrower workpiece (e.g. 100 mm)
3. Calculate factor $\frac{\text{wide dimension } 180}{\text{narrow dimension } 100} = \text{Factor } 1,8$
4. Turn the turntable as shown in ⇒ Figure 7 with the large magnifying glass (L) to a factor of 1.8 and clamp it tight.

This automatically results in the correct angle to the saw blade for the narrower workpiece (S) on the left side of the DSG-D and for the wider workpiece (B) on the right (refer ⇒ Figure 8).

The corresponding sides for the narrow and wide workpiece are also shown graphically on the turntable plate.

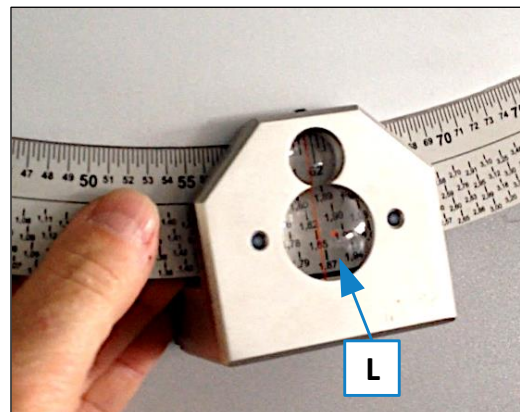


Figure 7: Set factor by scale

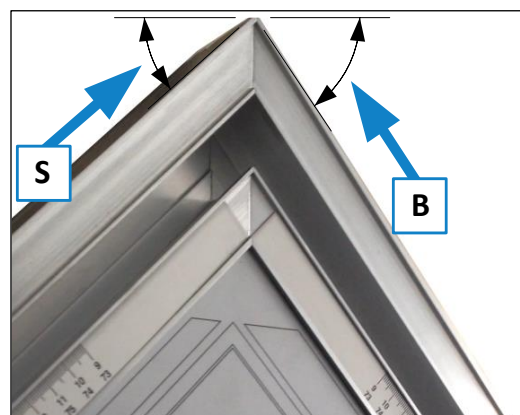


Figure 8: Angles for wrong mitres

2.4 Table for length compensation on the double-sided mitre fence

Using the table (refer to section ⇒ 2.5) the length compensation dimension can be set in addition to the angles printed on the scale of the mitre fence (refer to ⇒ Figure 9).

Example: If a tip dimension of 350 mm is to be set for an angle of 17.5°, the length compensation results in the value of 29.0 mm according to the table on the next page. This value must now be added to the value 350 mm (≙ 35 on the length scale). Thus the 0 on the scale of the stop rail must now be set congruent with 37.9 (≙ 379 mm) on the length scale.

Values with a minus (marked red in the table) are to be subtracted from the tip dimension.

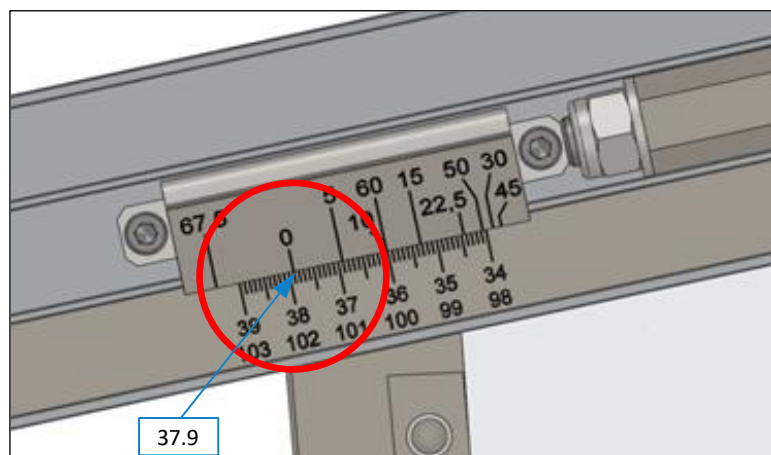


Figure 9: Length compensation via table

2.5 Length compensation X depending on mitre angle

Angle (°)	X (mm)	Angle (°)	X (mm)	Angle (°)	X (mm)
0.5	1.1	24.5	36.4	49.5	38.9
1	2.1	25	36.9	50	38.4
1.5	3.1	25.5	37.3	50.5	37.8
2	4.1	26	37.7	51	37.2
2.5	5.1	26.5	38.1	51.5	36.6
3	6.1	27	38.5	52	36.0
3.5	7.1	27.5	38.9	52.5	35.3
4	8.0	28	39.2	53	34.5
4,5	9.0	28.5	39.6	53.5	33.8
5	9.9	29	39.9	54	32.9
5.5	10.8	29.5	40.2	54.5	32.1
6	11.7	30	40.5	55	31.2
6.5	12.6	30.5	40.8	55.5	30.2
7	13.5	31	41.1	56	29.2
7.5	14.3	31.5	41.4	56.5	28.1
8	15.2	32	41.6	57	27.0
8.5	16.0	32.5	41.8	57.5	25.8
9	16.9	33	42.1	58	24.6
9.5	17.7	33.5	42.3	58.5	23.3
10	18.5	34	42.5	59	21.9
10.5	19.3	34.5	42.6	59.5	20.5
11	20.0	35	42.8	60	18.9
11.5	20.8	35.5	42.9	60.5	17.4
12	21.6	36	43.1	61	15.7
12.5	22.3	36.5	43.2	61.5	13.9
13	23.0	37	43.3	62	12.1
13.5	23.7	38.5	43.4	62.5	10.2
14	24.4	39	43,4	63	8.1
14.5	25.1	39.5	43.5	63.5	6.0
15	25.8	40	43.5	64	3.8
15,5	26.5	40.5	43.4	64.5	1.4
16	27.1	41	43.4	65	-1.1
16.5	27.8	41.5	43.3	65.5	-3.7
17	28.4	42	43.2	66	-6.4
17.5	29.0	42.5	43.1	66.5	-9.3
18	29.6	43	43.0	67	-12.4
18.5	30.2	43.5	42.8	67.5	-15.6
19	30.8	44	42.6	68	-19.0
19.5	31.4	44.5	42.4	68.5	-22.6
20	31.9	45	42.2	69	-26.4
20,5	32.5	45.5	41.9	69.5	-30.4
21	33.0	46	41.6	70	-34.6
21.5	33.5	46.5	41.3	70.5	-39.1
22	34.0	47	41.0	71	-43.8
22.5	34.6	47.5	40.6	71.5	-48.9
23	35.0	48	40.3	72	-54.3
23.5	35.5	48.5	39.8	72.5	-60.0
24	36.0	49	39.4	73	-66.1

2.6 Digital angle display

2.6.1 Calibrate indicator to the fence

Pressing the * key will set the display to the value 0.00. This can be done at any angle setting of the fence.

To return the display to its original position (0.00 at 0° resp. 90°), swing the fence against the fence screws (refer to ⇒ Figure 2) and then press * key.

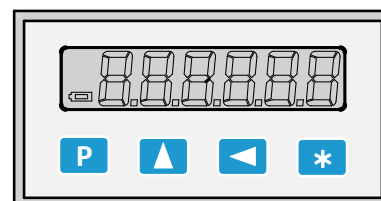


Figure 10: Digital angle display

2.6.2 Battery change

The power supply for the position indicator is provided by two 1.5 Volt batteries type Micro "AAA", which are accessible by loosening the two screws of the battery case on the rear of the unit. When the battery symbol (see ⇒ Figure 10) appears in the display, the battery should be replaced as soon as possible. Please ensure that the polarity is correct (see ⇒ Figure 11).

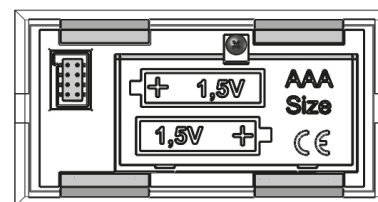


Figure 11: Battery case (rear)

	<p>Since the current angular position is not saved when the battery is changed, the indicator must be recalibrated to the fence afterwards (as described in section ⇒ 2.6.1).</p>
	<p>Fire, explosion and burn hazard! Never recharge batteries or expose them to temperatures above 85° C. Please dispose of the used batteries properly.</p>

2.6.3 Further documentation

Further documentation and manuals for the digital display can be found on the manufacturer's website:

⇒ <https://www.siko-global.com/en-de/products/magline-magnetic-linear-and-angular-measurement/electronic-displays/ma504-1>

3 Wall bracket

The wall bracket for the DSG-D offers a practical way to store the fence within easy reach when not in use. It is already included in the scope of delivery.

The two clamping pins shown in ⇒ Figure 12 are located on the underside of the fence. They can be used for quick and tool-free attachment of the device to the wall bracket.

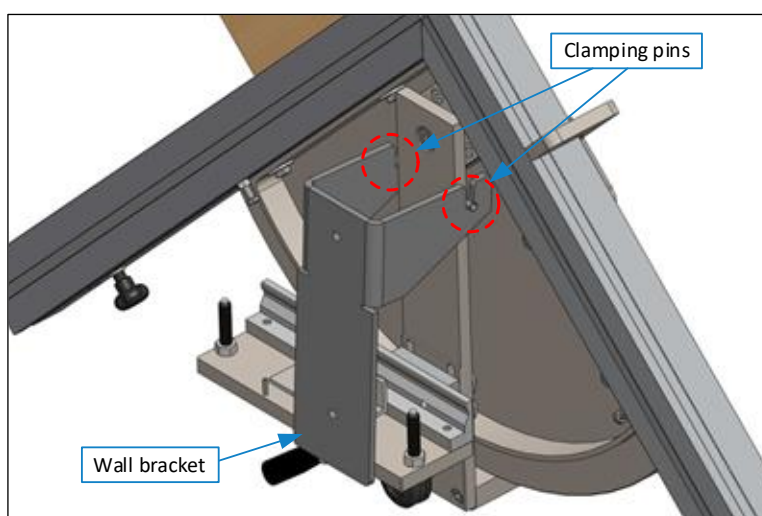


Figure 12: DSG-D wall bracket