

S-CD63S / S-CD73S

**HILTI**

## S-CD 63 S 5.5xL / S-CD 73 S 5.5xL self-drilling screw

### Product data

#### General information

##### Material specification:

made from A2 (AISI 304) material with fitted sealing washer  $\varnothing$  19 or 22 mm.

Hardened drill point and thread start for trouble-free drilling and thread cutting in the supporting member, stainless steel section (threaded shank and head) for corrosion resistance.

Coloured screws available on request.

##### Fastening tools

Screwdriver: Hilti ST 1800

Drive using depth

gauge set: Item no. 304611

Nut set driver S-NSD 8: Item no. 308901

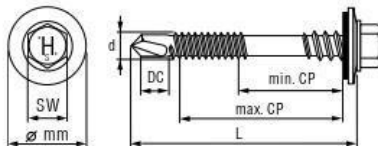
##### Approvals



#### Dimensions

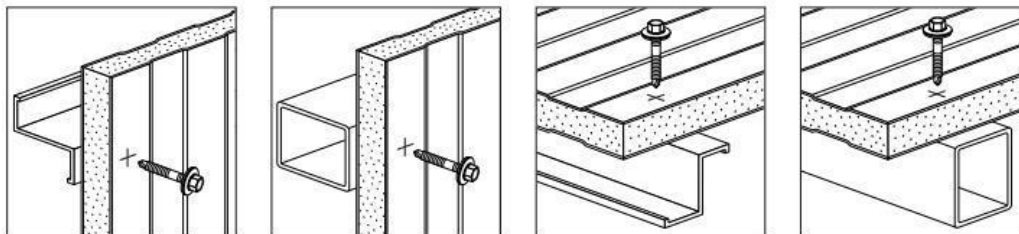
##### Uses:

The Hilti S-CD self-drilling screw features a threadless shank for relief of pressure on the sandwich panel (no denting) and a threaded section at the head for good sealing washer contact.



#### Applications

##### Examples



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**Load data**

**Design data**

**Drilling capacity  $\Sigma (t_{N2} + t_{II})$**

max.  $\leq 5.5$  mm

<b>Component II steel with <math>t_{II}</math> [mm]</b>					
S235J according to DIN EN 10025-2 S280GD or S320GD (DIN EN 10326)					
	1.50	2.00	2.50	3.00	4.00

<b>Component I</b>						
Sheeting with $t_{N1}$ or $t_{N2}$ [mm]						
S280GD or S320GD (DIN EN 10326)						
	<b>Shear force <math>V_{R,k}</math> [kN]</b>					
0.50	1.30	1.30	1.30	1.30	1.30	1.30
0.55	1.50	1.50	1.50	1.50	1.50	1.50
0.63	1.70	1.70	1.70	1.70	1.70	1.70
0.75	2.00 <sup>a)</sup>	2.00	2.00	2.00	2.00	2.00
0.88	2.30 <sup>a)</sup>	2.30	2.30	2.30	2.30	2.30
1.00	2.50 <sup>a)</sup>	2.60 <sup>a)</sup>	2.60	2.60	2.60	2.60
	<b>Tension force <math>N_{R,k}</math> [kN]</b>					
0.50	1.80	2.60 <sup>b)</sup>	2.60 <sup>b)</sup>	2.60 <sup>b)</sup>	2.60 <sup>b)</sup>	2.60 <sup>b)</sup>
0.55	1.80	2.80	3.00 <sup>b)</sup>	3.00 <sup>b)</sup>	3.00 <sup>b)</sup>	3.00 <sup>b)</sup>
0.63	1.80	2.80	3.40 <sup>b)</sup>	3.40 <sup>b)</sup>	3.40 <sup>b)</sup>	3.40 <sup>b)</sup>
0.75	1.80	2.80	3.80	4.20 <sup>b)</sup>	4.20 <sup>b)</sup>	4.20 <sup>b)</sup>
0.88	1.80	2.80	3.80	4.50	4.50	4.50
1.00	1.80	2.80	3.80	4.50	4.50	4.50

For  $t_{N2}$  made of S320GD all  $V_{R,k}$  values, except those marked with <sup>a)</sup>, can be increased by 8.3%.

For  $t_{N2}$  and  $t_{II}$  made of S320GD all  $V_{R,k}$  values can be increased by 8.3%.

For  $t_{N1}$  made of S320GD all  $N_{R,k}$  values, except those marked with <sup>b)</sup>, can be increased by 8.3%.

For  $t_{N1}$  and  $t_{II}$  made of S320GD all  $V_{R,k}$  values can be increased by 8.3%.

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**Max. screw head deflection u**

depending on the  
 sandwich panel thickness  
 [mm]

<b>40</b>	18.0	8.0	7.0	6.0	5.0
<b>50</b>	22.0	10.5	9.0	7.5	6.5
<b>60</b>	26.0	13.0	11.0	9.0	8.0
<b>70</b>	29.5	16.5	14.0	12.0	11.5
<b>80</b>	33.0	20.0	17.5	15.0	14.0
<b>100</b>	33.0	20.0	17.5	15.0	14.0
<b>120</b>	33.0	20.0	17.5	15.0	14.0
<b>≥140</b>	33.0	20.0	17.5	15.0	14.0

**Safety factors according to EN 1993-1-3 and CUAP 06.02/07**

	<b>Tension</b>	<b>Shear</b>
<b>Partial safety concept</b>		
Partial safety factor	$\gamma_M = 1.33$	$\gamma_M = 1.33$
Influence of cyclic loading	$\alpha_{\text{cyclic}} = 1.0$	- / -
Design load	$N_{Rd} = 1.0 \cdot N_{Rk} / 1.33$	$V_{Rd} = V_{Rk} / 1.33$
<b>Global safety concept</b>		
Global safety factor *	$\gamma_{\text{GLOB}} = 2.0$	$\gamma_{\text{GLOB}} = 2.0$
Recommended load	$N_{\text{rec}} = 1.0 \cdot N_{Rk} / 2.0$	$V_{\text{rec}} = V_{Rk} / 2.0$

\* Note: The global safety factor of 2.0 includes a partial safety factor of  $\gamma_F = 1.5$  for wind load. For other loads safety factors should be applied in accordance with the appropriate standards.

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**Screw selection**

**Screw program**

Drilling thickness DC mm	Sandwich panel thickness CP min.-max. in mm	Dimensions (dxL) mm	Sealing washer ∅ mm	Head size AF	Package contents	Ordering designation	Item no.
2.0-5.5	22- 47	5.5x75	19	8	100	S-CD63S 5.5x75	<b>375244</b>
2.0-5.5	32- 57	5.5x85	19	8	100	S-CD63S 5.5x85	<b>375245</b>
2.0-5.5	42- 67	5.5x95	19	8	100	S-CD63S 5.5x95	<b>375246</b>
2.0-5.5	62- 87	5.5x115	19	8	100	S-CD63S 5.5x115	<b>375247</b>
2.0-5.5	82-107	5.5x135	19	8	100	S-CD63S 5.5x135	<b>375248</b>
2.0-5.5	102-127	5.5x155	19	8	100	S-CD63S 5.5x155	<b>375249</b>
2.0-5.5	122-147	5.5x175	19	8	100	S-CD63S 5.5x175	<b>284542</b>
2.0-5.5	137-182	5.5x210	19	8	100	S-CD63S 5.5x210	<b>284543</b>
2.0-5.5	22- 47	5.5x75	22	8	100	S-CD73S 5.5x75	<b>285642</b>
2.0-5.5	32- 57	5.5x85	22	8	100	S-CD73S 5.5x85	<b>285643</b>
2.0-5.5	42- 67	5.5x95	22	8	100	S-CD73S 5.5x95	<b>285644</b>
2.0-5.5	62- 87	5.5x115	22	8	100	S-CD73S 5.5x115	<b>285645</b>
2.0-5.5	82-107	5.5x135	22	8	100	S-CD73S 5.5x135	<b>285646</b>
2.0-5.5	102-127	5.5x155	22	8	100	S-CD73S 5.5x155	<b>285647</b>
2.0-5.5	122-147	5.5x175	22	8	100	S-CD73S 5.5x175	<b>285648</b>
2.0-5.5	137-182	5.5x210	22	8	100	S-CD73S 5.5x210	<b>285649</b>