

# S-MP 54 S 6.3xL / S-MP 64 S 6.3xL / S-MP 74 S 6.3xL self-tapping screws

## Product data

### General information

Material specification: Fastening tools:

made from A2 (AISI 304) stainless steel, with fitted EPDM sealing washer  $\varnothing$  16, 19, 22 mm.

Drilling tool: Hilti UD30  
Screwdriver: Hilti ST1800  
Depth gauge set: Item no. 304611  
Nut set driver S-NSD 8: Item no. 308905  
HSS drill bit

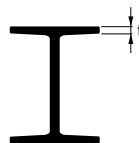
Approvals:



Coloured screws available on request.

Recommended pre-drilled hole diameter in  $t_{II}$ :

t/mm	1.25	1.50	2.00	4.00	6.00	$\geq 7.00$
Pre-drilled $\varnothing$ mm:	5.00	5.00	5.30	5.30	5.50	5.70



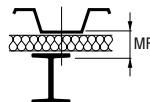
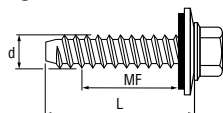
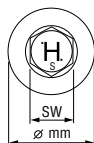
### Dimensions

Uses:

Fastening aluminium or steel sheet on steel or aluminium members, with or without intermediate insulating material.

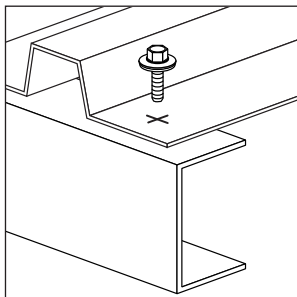
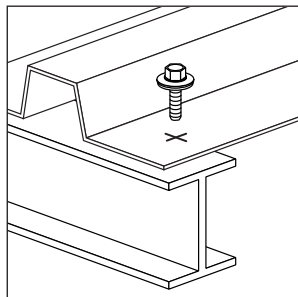
Steel framing      Depth of engagement min. 1.25 mm

Timber framing      Unsuitable



### Applications

Examples



**Load data**

**Design data**

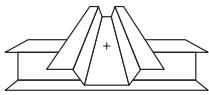
**Screw in end-stop oriented**

<b>Component II steel with <math>t_{II}</math> [mm]</b> S235, S275 or S355 according to DIN EN 10025-2 S280GD, S320GD or S350GD (DIN EN 10326)							
	<b>1.25</b>	<b>1.50</b>	<b>2.00</b>	<b>3.00</b>	<b>4.00</b>	<b>6.00</b>	<b>≥ 7.00</b>
<b>Pre-drill (∅ mm)</b>	5.0	5.0	5.3	5.3	5.3	5.5	5.5
<b>Tightening torque</b>							
Recommendation (Nm)	5	5	5	5	5	5	

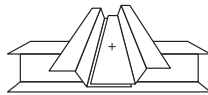
**Component I**

steel with  $t_I$  [mm]  
S280GD or S320GD  
(DIN EN 10326)

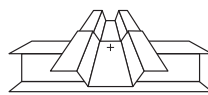
	<b>Shear force <math>V_{R,k}</math> [kN]</b>						
<b>0.50</b>	1.65 ac	1.72 ac	1.78 abcd	1.78 abcd	1.78 abcd	1.78 abcd	1.78 abcd
<b>0.55</b>	2.08 ac	2.21 ac	2.34 abcd	2.34 abcd	2.34 abcd	2.34 abcd	2.34 abcd
<b>0.63</b>	2.50 ac	2.70 ac	2.90 abcd	3.00 abcd	3.10 abcd	3.10 abcd	3.10 abcd
<b>0.75</b>	2.60 ac	3.10 ac	3.30 ac	3.60 ac	3.70 abcd	3.70 abcd	3.70 abcd
<b>0.88</b>	2.80 ac	3.20 ac	3.80 ac	4.10 ac	4.30 ac	4.40 ac	4.40 ac
<b>1.00</b>	3.20	3.60 ac	4.10 ac	4.80 ac	4.90 ac	5.10 ac	5.10 ac
<b>1.13</b>	3.40	4.00	4.60 ac	5.40 ac	5.60 ac	5.80 ac	5.80 ac
<b>1.25</b>	3.60	4.20	5.00 ac	6.10 ac	6.30 ac	6.50 ac	6.50 ac
<b>1.50</b>	3.70	4.40	5.70	6.80	7.10	7.30	7.30
<b>1.75</b>	3.70	4.70	6.20	7.60	7.70	8.10	8.10
<b>2.00</b>	5.00	6.30	7.90	8.30	8.40	9.40	9.40
	<b>Tension force <math>N_{R,k}</math> [kN]</b>						
<b>0.50</b>	0.97 ac	1.35 ac	1.51 abcd	1.51 abcd	1.51 abcd	1.51 abcd	1.51 abcd
<b>0.55</b>	1.23 ac	1.71 ac	1.91 abcd	1.91 abcd	1.91 abcd	1.91 abcd	1.91 abcd
<b>0.63</b>	1.80 ac	2.50 ac	2.80 abcd	2.80 abcd	2.80 abcd	2.80 abcd	2.80 abcd
<b>0.75</b>	2.00 ac	2.60 ac	3.10 ac	3.60 ac	3.60 abcd	3.60 abcd	3.60 abcd
<b>0.88</b>	2.00 ac	2.70 ac	3.30 ac	3.80 ac	3.80 ac	3.80 ac	3.80 ac
<b>1.00</b>	2.00	2.70	3.40 ac	4.00 ac	4.00 ac	4.00 ac	4.00 ac
<b>1.13</b>	2.00	2.70	3.60 ac	4.40 ac	4.40 ac	4.40 ac	4.40 ac
<b>1.25</b>	2.00	2.70	3.60 ac	4.80 ac	4.90 ac	4.90 ac	4.90 ac
<b>1.50</b>	2.00	2.70	3.60	5.60	5.90	5.90	5.90
<b>1.75</b>	2.00	2.70	3.60	5.80	6.90	7.10	7.10
<b>2.00</b>	2.00	2.70	3.60	6.00	7.30	7.60	7.60



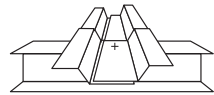
(a)  
single



(b)  
side lap



(c)  
end overlap



(d)  
side lap and end overlap

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

	Tension	Shear
<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.

**Screw selection**
**Screw program**

Fastening thickness MF max. mm	Dimensions (dxL) mm	Sealing washer ∅ mm	Head size AF	Package contents	Ordering designation	Item no.
<b>13</b>	6.3x22	16	8	500	S-MP54S 6.3x22	<b>244214</b>
<b>16</b>	6.3x25	16	8	500	S-MP54S 6.3x25	<b>283199</b>
<b>23</b>	6.3x32	16	8	250	S-MP54S 6.3x32	<b>283200</b>
<b>29</b>	6.3x38	16	8	250	S-MP54S 6.3x38	<b>283201</b>
<b>41</b>	6.3x50	16	8	250	S-MP54S 6.3x50	<b>283202</b>
<b>54</b>	6.3x63	16	8	100	S-MP54S 6.3x63	<b>283203</b>
<b>66</b>	6.3x75	16	8	100	S-MP54S 6.3x75	<b>283204</b>
<b>79</b>	6.3x88	16	8	100	S-MP54S 6.3x88	<b>283205</b>
<b>91</b>	6.3x100	16	8	100	S-MP54S 6.3x100	<b>283206</b>
<b>116</b>	6.3x125	16	8	100	S-MP54S 6.3x125	<b>283341</b>
<b>141</b>	6.3x150	16	8	100	S-MP54S 6.3x150	<b>283536</b>
<b>166</b>	6.3x175	16	8	100	S-MP54S 6.3x175	<b>283537</b>
<b>191</b>	6.3x200	16	8	100	S-MP54S 6.3x200	<b>403179</b>
<b>216</b>	6.3x225	16	8	100	S-MP54S 6.3x225	<b>403180</b>
<b>241</b>	6.3x250	16	8	100	S-MP54S 6.3x250	<b>403181</b>
<b>266</b>	6.3x275	16	8	100	S-MP54S 6.3x275	<b>403182</b>
<b>13</b>	6.3x22	19	8	500	S-MP64S 6.3x22	<b>283538</b>
<b>16</b>	6.3x25	19	8	500	S-MP64S 6.3x25	<b>283540</b>
<b>23</b>	6.3x32	19	8	250	S-MP64S 6.3x32	<b>283541</b>
<b>29</b>	6.3x38	19	8	100	S-MP64S 6.3x38	<b>283542</b>
<b>41</b>	6.3x50	19	8	250	S-MP64S 6.3x50	<b>283544</b>
<b>54</b>	6.3x63	19	8	100	S-MP64S 6.3x63	<b>283545</b>
<b>66</b>	6.3x75	19	8	100	S-MP64S 6.3x75	<b>283546</b>
<b>79</b>	6.3x88	19	8	100	S-MP64S 6.3x88	<b>283547</b>
<b>91</b>	6.3x100	19	8	100	S-MP64S 6.3x100	<b>283552</b>
<b>116</b>	6.3x125	19	8	100	S-MP64S 6.3x125	<b>283553</b>
<b>141</b>	6.3x150	19	8	100	S-MP64S 6.3x150	<b>283554</b>
<b>166</b>	6.3x175	19	8	100	S-MP64S 6.3x175	<b>283555</b>
<b>191</b>	6.3x200	19	8	100	S-MP64S 6.3x200	<b>403183</b>
<b>218</b>	6.3x225	19	8	100	S-MP64S 6.3x225	<b>403184</b>
<b>241</b>	6.3x250	19	8	100	S-MP64S 6.3x250	<b>403185</b>
<b>266</b>	6.3x275	19	8	100	S-MP64S 6.3x275	<b>403186</b>

Fastening thickness MF max. mm	Dimensions (d x L) mm	Sealing washer Ø mm	Head size AF	Package contents	Ordering designation	Item no.
<b>13</b>	6.3x22	22	8	500	S-MP74S 6.3x22	<b>283556</b>
<b>16</b>	6.3x25	22	8	500	S-MP74S 6.3x25	<b>283557</b>
<b>23</b>	6.3x32	22	8	250	S-MP74S 6.3x32	<b>283558</b>
<b>29</b>	6.3x38	22	8	100	S-MP74S 6.3x38	<b>283559</b>
<b>41</b>	6.3x50	22	8	250	S-MP74S 6.3x50	<b>283560</b>
<b>54</b>	6.3x63	22	8	100	S-MP74S 6.3x63	<b>283561</b>
<b>66</b>	6.3x75	22	8	100	S-MP74S 6.3x75	<b>283562</b>
<b>79</b>	6.3x88	22	8	100	S-MP74S 6.3x88	<b>283563</b>
<b>91</b>	6.3x100	22	8	100	S-MP74S 6.3x100	<b>283564</b>
<b>116</b>	6.3x125	22	8	100	S-MP74S 6.3x125	<b>283565</b>
<b>141</b>	6.3x150	22	8	100	S-MP74S 6.3x150	<b>283623</b>
<b>166</b>	6.3x175	22	8	100	S-MP74S 6.3x175	<b>283624</b>
<b>191</b>	6.3x200	22	8	100	S-MP74S 6.3x200	<b>403187</b>
<b>216</b>	6.3x225	22	8	100	S-MP74S 6.3x225	<b>403188</b>
<b>241</b>	6.3x250	22	8	100	S-MP74S 6.3x250	<b>403189</b>
<b>266</b>	6.3x275	22	8	100	S-MP74S 6.3x275	<b>403190</b>