

# The SPIDI® versa hanger

The often difficult hanging of the cladding into the hanger rail due to production-related tolerances or unevenness of the respective cladding material is now a thing of the past: an innovative mounting assistance enables effortless insertion and removal of the panel during installation. Thanks to the intelligent geometry, the SPIDI® versa hangers do not tilt, even with large panels.

The adjusting screws are perfectly matched to the design of the hangers. They prevent the hangers from falling out of the SPIDI® versa hanger rail and therefore guarantee secure and reliable fastening without compromising on stability.





watch the video here

# The SPIDI® versa hanger profile

The hanger profile has been specifically optimized to achieve an ideal ratio between high section modulus and low weight. Thanks to its shape, it also achieves remarkable torsional stiffness without exerting additional tensile forces on the undercut anchors of the hangers.

The SPIDI® versa connector serves as a connecting and extension element for the rails to reduce waste and conserve resources. Used as an assembling assistance, it also enables precise horizontal alignment of the profiles.



## SPIDI® versa compatibility

Thanks to the well thought-out new development of the SPIDI® versa hangers, different undercut anchors or blind fasteners can be used with one and the same hanger.

SPIDI® versa KFSM 50.1 hangers (width 50 mm) are suitable for use with Keil (hexagon), Fischer Zyklon FZP II Tergo+ (M6) undercut anchors, SFS blind fasteners TUF-S and the Swisspearl Sigma 8 Pro system.

The hangers have adjustment and fixing holes. The adjusting and fixing screws are available separately.

### SPIDI® versa KFSM 50.1 hanger with adjustment and fixing holes



SPIDI® versa KFSM 50.1 with SFS blind fastener TUF-S



SPIDI® versa KFSM 50.1 with Fischer undercut anchor Zyklon FZP II Tergo+



SPIDI® versa KFSM 50.1 with Swisspearl Sigma 8 Pro System



# SPIDI® versa system components

SPIDI® versa KFSM 50.1 hanger

for Keil, Fischer Zyklon FZP II Tergo+, SFS TUF-S, Swisspearl Sigma 8 Pro with adjustment and fixing holes

SPIDI® versa AP 25.1 hanger profile, length: 3m SPIDI® versa AP 25.1 hanger profile, length: 6m

SPIDI® versa fixing screw 4,8x25, external hexagon 8 SPIDI® versa adjustment screw M6x14, hexagon socket SPIDI® versa adjustment screw M6x14, hexagon socket

SPIDI® versa AP-V 250.1 connector

250 x 25 x 3 mm (LxHxT), alloy aluminium EN-AW 6063 T6

Optional:

SPIDI® versa TL 50.1 seperating layer

PU 100 pcs.

PU 2 pcs.

PU 2 pcs.

PU 500 pcs. PU 500 pcs. PU 100 pcs.

PU 50 pcs.

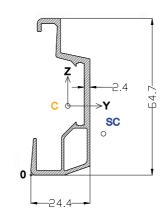
PU 100 pcs.

# SPIDI® versa hanger profile AP 25.1



## Aluminum extrusion profile EN AW 6063 T66 according to DIN EN 1999-1-1

$f_{ok}$	200	[N/mm <sup>2</sup> ]	characteristic value of 0,2 % proof strength
$f_{uk}$	245	$[N/mm^2]$	characteristic value of ultimate tensile strength
$f_{od}$	181.82*	[N/mm <sup>2</sup> ]	design value of 0,2 % proof strength
f <sub>ud</sub>	222.73*	$[N/mm^2]$	design value of ultimate tensile strength
Α	8	[%]	minimum elongation at fracture
Е	70,000	$[N/mm^2]$	modulus of elasticity
G	27,000	[N/mm <sup>2</sup> ]	shear modulus
ν	0.3	[-]	poisson's ratio in elastic stage
α	23×10 <sup>-6</sup>	[1/C°]	coefficient of linear thermal expansion
ρ	2,700	$[kg/m^3]$	unit mass





#### Geometric properties

A	254.00 [mm <sup>2</sup> ]	cross-section
C <sub>y</sub>	15.24 [mm]	distance of center of gravity in the Y-direction (reference from 0)
C <sub>z</sub>	28.58 [mm]	distance of center of gravity in the Z-direction (reference from 0)

#### Moments of inertia

I <sub>y</sub> 11.61	[cm <sup>4</sup> ]	moment of inertia about the Y-axis
I <sub>z</sub> 1.54	[cm <sup>4</sup> ]	moment of inertia about the Z-axis

### Shear properties

$A_{y}$	0.53 [cm <sup>2</sup> ]	shear area in the Y-direction
A <sub>z</sub>	1.08 [cm <sup>2</sup> ]	shear area in the Z-direction
SCy	14.70 [mm]	distance of shear center from the center of gravity in the Z-direction
SC <sub>z</sub>	-11.60 [mm]	distance of shear center from the center of gravity in the Y-direction

## Torsional properties

I <sub>,</sub> 0.33 [cm <sup>4</sup> ] torsional moment of inertia	
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### Cross-sectional resistances

$M_{x,Rd,el}$	0.0248*	[kNm]	elastic moment about the X-axis (torsional moment)
$M_{y,Rd,el}$	0.5466*	[kNm]	elastic moment about the Y-axis
$M_{z,Rd,el}$	0.1925*	[kNm]	elastic moment about the Z-axis
$W_{y}$	1,0587	[cm <sup>3</sup> ]	elastic resistance moment about the Y-axis
W <sub>z</sub>	3,0061	[cm <sup>3</sup> ]	elastic resistance moment about the Z-axis
$V_{yRd}$	4.26	[kN]	ultimate shear force in the Y-direction
V <sub>zRd</sub>	4.83	[kN]	ultimate shear force in the Z-direction

<sup>\*=</sup>based on  $\gamma_{m1}$ =1.1 according to EN 1999-1-1. Note: Partial safety factor may be defined differently depending on national annex and should be verified!



With the innovative hanger system SPIDI® versa, Slavonia shows once again that safety, profitability and optimization are feasible.

- intelligent geometry for effortless mounting and setting down, even with large panels
- perfectly matched adjusting screw
- compatible with the most common fasteners
- optimized hanger profile
- connector also serves as an assembling assistance

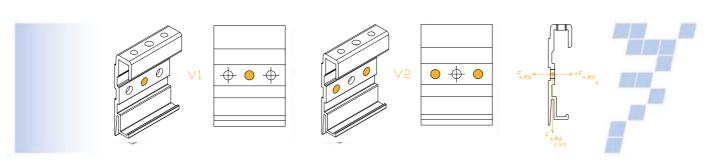


SPIDI® versa VMB-AFS 1

# SPIDI® versa hanger KFSM 50.1

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#### Cross-sectional resistances

F <sub>x,Rd</sub>	1.1* [kN]	design resistance for horizontal tension/compression
F <sub>z,Rd</sub>	1.1* [kN]	design resistance for vertical shear force
Int.	1.0 [-]	interaction condition $(F_{x,Ed}/F_{x,Rd})+(F_{z,Ed}/F_{z,Rd}) \le 1,0$

<sup>\*</sup>based on  $\gamma_m = 1.1$  according to EN 1999-1-1. Note: Partial safety factor may be defined differently depending on national annex and should be verified! Resistance determined by FEM without plate fixation. Resistances valid for both mounting variants (V1+V2).



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