

W-SA SCREW ANCHOR

02.1

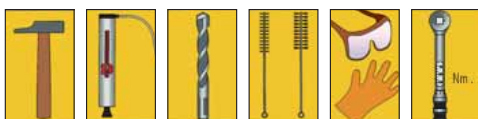
| Performance data | | 7.5 | | 10 | | 12 | | 14 | | 16 | | 20 ⁶⁾ | |
|---|---|--------------------------------|--|------|------|------|------|------|------|-------|------|------------------|--|
| Permissible central tensile load ¹⁾ on a single anchor without edge influence | Tensile zone (cracked concrete C20/25 ²⁾ , $s \geq 3 h_{ef}$, $c \geq 1.5 h_{ef}$ galv. steel A4 | $N_{perm.} [kN] = C20/25^{2)}$ | | 2.0 | 1.7 | 3.6 | 3.6 | 4.8 | 4.8 | 7.9 | 11.7 | - | |
| | Pressure zone (non-cracked concrete C20/25 ²⁾ , $s \geq 3 h_{ef}$, $c \geq 1.5 h_{ef}$ galv. steel A4 | | | 3.0 | 2.6 | 4.8 | 4.8 | 6.4 | 6.4 | 11.9 | 15.9 | $F_{rec.} 11.0$ | |
| Perm. transverse load ¹⁾ on a single anchor without edge influence | Tensile zone (cracked concrete C20/25 ²⁾ , $c \geq 10 h_{ef}$ galv. steel A4 | $V_{perm.} [kN] = C20/25$ | | 3.3 | 4.3 | 7.6 | 9.5 | 12.4 | 13.8 | 17.1 | 23.3 | - | |
| | Pressure zone (non-cracked concrete C20/25 ²⁾ , $c \geq 10 h_{ef}$ galv. steel A4 | | | 3.3 | 5.9 | 7.6 | 9.5 | 12.4 | 15.7 | 17.1 | 23.3 | - | |
| Permissible bending torque galv. steel A4 | $M_{perm.} [Nm]$ | 9.0 | | 10.5 | 18.1 | 21.4 | 39.0 | 44.3 | 62.9 | 103.3 | - | | |
| Permitted load under exposure to fire (R30, R60, R90, R120) see European Technical Approval ETA-05/0012 and ETA-06/0277 | | | | | | | | | | | | | |

| Characteristic values | | 7.5 | | 10 | | 12 | | 14 | | 16 | | 20 | |
|---|---------------------|-----|-----|-------|-----|-------|-----|-------|-----|-------|-----|------|--|
| Minimum axis distance | $s_{min} [mm]$ | 40 | | 50 | | 60 | | 90 | | 100 | | - | |
| Axial spacing | $s_{cr,N} [mm]$ | 120 | | 142.5 | | 163.5 | | 214.5 | | 262.5 | | 300 | |
| Minimum edge spacing | $c_{min} [mm]$ | 40 | | 50 | | 60 | | 90 | | 100 | | - | |
| Edge spacing | $c_{cr,N} [mm]$ | 60 | | 71.3 | | 81.8 | | 107.3 | | 131.3 | | 150 | |
| Minimum component thickness galv. steel A4 | $h_{min} \geq [mm]$ | 100 | 105 | 115 | 130 | 125 | 140 | 150 | 180 | 180 | 160 | - | |
| Effective anchoring depth | $h_{ef} [mm]$ | 40 | | 47.5 | | 54.5 | | 71.5 | | 87.5 | | - | |
| Nom. drill dia. | $d_0 [mm]$ | 6.0 | | 8.0 | | 10.0 | | 12.0 | | 14.0 | | 18.0 | |
| Drill cutting diameter | $d_{cut} \leq [mm]$ | 6.4 | | 8.45 | | 10.45 | | 12.50 | | 14.50 | | - | |
| Drilled hole depth galv. st. A4 | $h_1 \geq [mm]$ | 65 | 75 | 75 | 90 | 85 | 100 | 105 | 130 | 130 | 110 | - | |
| Length of anchor in drilled hole galv. st. A4 | $h_{nom} \geq [mm]$ | 55 | 65 | 65 | 75 | 75 | 90 | 95 | 115 | 115 | 90 | - | |
| Through hole in the component being connected | $d_f \leq [mm]$ | 9.0 | | 12.0 | | 14.0 | | 16.0 | | 18.0 | | 22.0 | |
| Recom. torque while installing anchor | $T_{rec} = [Nm]$ | 15 | | 40 | | 55 | | 90 | | 110 | | 180 | |

| Anchor dimensions | | 7.5 | | 10 | | 12 | | 14 | | 16 | | 20 | |
|------------------------|----------------|-----------------------------------|----|------------------------------------|----|----------------------------------|-----|---------------------------------|----|----------------------------|----|-----------------------------|----|
| W-SA/W-SA A4 | | 7.5 | | 10 | | 12 | | 14 | | 16 | | 20 | |
| Total length | $l [mm]$ | 5 | 60 | 25 | 80 | 45 | 100 | 10 | 75 | 5 | 70 | 15 | 80 |
| Max. attachment height | $t_{fix} [mm]$ | 5 | 60 | 25 | 80 | 45 | 100 | 10 | 75 | 5 | 70 | 15 | 80 |
| Designation | | W-SA 7.5x60/3 ³⁾ | | W-SA 7.5x80/25 ³⁾ | | W-SA 7.5x100/45 ³⁾ | | W-SA A4 7.5x75/10 ³⁾ | | W-SA 10x70/5 ³⁾ | | W-SA 10x80/15 ³⁾ | |
| W-SA screw anchor | Art. no. | 0901 017 501 | | 0901 017 502 | | 0901 017 503 | | 0901 011 001 | | 0901 011 002 | | 0901 011 003 | |
| Galvanised steel | | 7.5 dia. size 13, 10 dia. size 16 | | 12 dia. size 18, 14 dia. size 21 | | 16 dia. size 24, 20 dia. size 30 | | - | | - | | - | |
| W-SA screw anchor | Art. no. | - | | - | | - | | - | | - | | - | |
| Galvanised steel | | - | | - | | - | | - | | - | | - | |
| with large washer | | - | | - | | - | | - | | - | | - | |
| Screw anchor W-SA A4 | Art. no. | - | | 0901 027 501 | | - | | - | | - | | - | |
| A4 stainless steel | | - | | 7.5 dia. size 13, 10 dia. size 16, | | 12 dia. size 18 | | - | | - | | - | |
| Packing unit | PU [Qty.] | 100 | | 50 | | 50 | | 50 | | 25 | | 25 | |

Can be stored in ORSY® system

Würth system components



¹⁾ The partial safety factors of the resistances regulated in the approval and a partial safety factor of the effects of $\gamma_F = 1.4$ have been taken into account. Please refer to the European Technical Approval Guidelines (ETAG), Appendix C, for information on combining tensile and transverse loads, edge influence and groups of anchors.
²⁾ The concrete has normal reinforcement. Higher values are possible for higher concrete strengths.

³⁾ The transverse loads may be assumed acting on the anchor without a lever arm, $l_{fix} \times 0.5 \leq 45$ mm.

⁴⁾ If necessary, the transverse loads must be assumed acting on the anchors with a lever arm if the screw anchor is set deeper.

⁵⁾ The transverse loads must be assumed with a lever arm acting on the anchors.

⁶⁾ Without approval.