

PRODUCT DATA SHEET – WSDST

Section 1. PRODUCT DESCRIPTION

SELF-DRILLING SCREW FOR FIXING TIMBER IN STEEL CONSTRUCTION – WSDST

Self-drilling screw WSDST is made of heat-treated carbon steel with galvanized zinc coating 12 µm. The screws are specially designed for direct fixing of timber in steel construction. Countersunk head facilitates the facing of a screw at level of fixed wooden element, and self-drilling tip provides a possibility of drilling both timber and metal elements. Steel wings expand the hole in the wooden element rendering damage impossible during the process of drilling the screw through steel flooring. The wings are removed while driving the screw in steel construction.

Use:

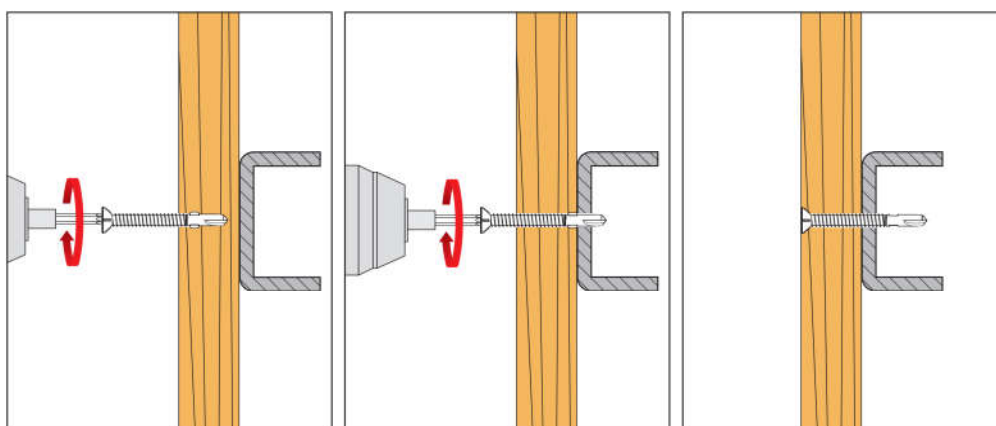
- fixing timber directly in steel construction
- fixing wood-based panels in profiles

Self-drilling screws hold National Technical Assessment:
ITB-KOT-2020/1057 Rev. 1



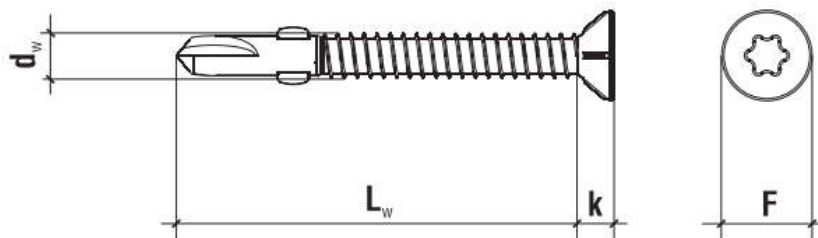
Section 2. METHOD OF INSTALLATION

1. Original self-drilling screws delivered by the manufacturer can be used only
2. Before installation identify the substrate, its thickness and environmental conditions (expressed as corrosivity categories), and then select screws which meet the above criteria
3. Correctly select screw type, its length, drilling capacity depending on thickness of steel construction and thickness of element being fixed
4. Drilling capacity for each screw is given in corresponding Product Data Sheet and National Technical Assessment
5. Make sure to set optimum rotary speed when screwing, as too high rotary speed may cause burning of drilling bits and make it impossible to fasten the screw
6. At all times screws should be installed perpendicularly to the substrate surface



PRODUCT DATA SHEET – WSDST

Section 3. TECHNICAL DATA



| TECHNICAL PARAMETERS | | |
|-------------------------------|-------------------|------------------------------------|
| Parameter | Unit | Value |
| Screw diameter | d_w [mm] | 6,3 |
| Drilling capacity | Σt_i [mm] | ≤ 6 |
| Drive type | S [mm] | TX-30 |
| Head height | k [mm] | 5,2 |
| Head diameter | F [mm] | 12,0 |
| Tip length | [mm] | 22,0 |
| Screw material | - | carbon steel |
| Corrosion protection | - | galvanized zinc coating 12 μ m |
| Substrate material | - | steel \geq S280GD |
| National Technical Assessment | - | ITB-KOT-2020/1057 |

| INSTALLATION PARAMETERS | | |
|-------------------------------------|----------------|--------------|
| Parameter | Unit | Value |
| Screw diameter | d_w [mm] | 6,3 |
| Diameter of hole in the substrate | d_o [mm] | - |
| Min. depth of hole in the substrate | h_o [mm] | - |
| Anchorage depth | h_{eff} [mm] | push-through |
| Min. substrate thickness | h_{min} [mm] | 1,0 |
| Min. spacing | s_{min} [mm] | 50 |
| Min. distance from edge | c_{min} [mm] | 25 |

| RESISTANCE | | | | | |
|---------------------------------------|--------------------------|------|------|------|------|
| Characteristic pull-out strength [kN] | | | | | |
| Screw type | Substrate thickness [mm] | | | | |
| | 1,00 | 1,25 | 1,50 | 2,00 | 3,00 |
| WSDST-6,3 | 0,86 | 1,52 | 3,18 | 4,56 | 7,58 |

*Partial safety factor of 1.33 recommended

| SELECTION TABLE | | | |
|---------------------------------------|-----------------------|--------------------|---------------------------|
| WSDST (galvanized zinc coating ZN) | Screw dimensions | Max. usable length | Number of pieces in a box |
| | $d_w \times L_w$ [mm] | t_{fix} [mm] | [pcs] |
| WSDST-63050 | 6,3 x 50 | 21 | 250 |
| WSDST-63060 | 6,3 x 60 | 31 | 200 |
| WSDST-63070 | 6,3 x 70 | 41 | 200 |

Section 4. REMARKS

1. All previous versions of this Product Data Sheet shall cease to be valid
2. Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. KLIMAS Sp. z o.o. is not responsible for correctness and quality of the fixing if recommendations regarding method of use and installation are not followed.