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PRODUCT DATASHEET
WING DRILL TEK SCREW

CERTIFIED ISO 9001

EUROPA CE EN 14592

2008 = 01DW-01/14

Product Details

Designed for:	*Fixing timber or composites to steel*
Head style:	*Countersunk or countersunk with nibs*
Drive bit:	*Phillips 3*
Material grade:	*AISI C1022*
Coating:	*500hr Evoshield®*

Wing drill Tek 3 range – for light steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed
TSTF4.2-38-3	4.2x38mm	Tek 3	22mm	1.2-3.5mm	1500-2500 RPM
TSTF4.8-38-3	4/8x38mm	Tek 3	22mm	1.2-3.5mm	1500-2500 RPM
TSTF4.8-45-3	4.8x45mm	Tek 3	27mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-50-3	5.5x50mm	Tek 3	30mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-62-3	5.5x62mm	Tek 3	40mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-80-3	5.5x80mm	Tek 3	60mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-100-3	5.5x100mm	Tek 3	80mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-120-3	5.5x120mm	Tek 3	100mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-150-3	5.5x150mm	Tek 3	130mm	1.2-3.5mm	1500-2500 RPM
TSTF5.5-180-3	5.5x150mm	Tek 3	155mm	1.2-3.5mm	1500-2500 RPM

Wing drill tek 4 range – for medium gauge steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed
TSTF6.3-60-4	6.3 x 60.0mm	Tek 4	FULL	2.5 – 6.0mm	1500-2500RPM
TSTF6.3-85-4	6.3 x 85.0mm	Tek 4	FULL	2.5 – 6.0mm	1500-2500RPM

Wing drill Tek 5 range – for heavy steel

Product Code	Size	Drill point	Effective thread length	Drilling Capacity	Recommended drill speed
TSTF5.5-42-5	5.5x42mm	Tek 5	13mm	4.0-12.5mm	1500-2500 RPM
TSTF5.5-65-5	5.5x65mm	Tek 5	28mm	4.0-12.5mm	1500-2500 RPM
TSTF5.5-85-5	5.5x85mm	Tek 5	50mm	4.0-12.5mm	1500-2500 RPM
TSTF5.5-100-5	5.5x100mm	Tek 5	65mm	4.0-12.5mm	1500-2500 RPM
TSTF5.5-110-5	5.5 x 110mm	Tek 5	75mm	4.0-12.5mm	1500-2500 RPM
TSTF5.5-135-5	5.5x135mm	Tek 5	100mm	4.0-12.5mm	1500-2500 RPM
TSTF5.5-150-5	5.5x150mm	Tek 5		4.0-12.5mm	1500-2500 RPM
TSTF5.5-180-5	5.5x180mm	Tek 5		4.0-12.5mm	1500-2500 RPM

NOTE: The results expressed in the datasheet are taken as mean loads from a range of empirical tests and are ultimate unfactored loads. Each specifier or end user should make his/ her own decision on what safety factors to use relevant to their design application (such as BS 5950, EN 1991, etc).

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Technical Data

Tek 3 range – Unfactored pull out values							
Diameter	Drill point	Steel Thickness					
		1.2mm	1.6mm	2.0mm	2.5mm	3.0mm	4.0mm
4.2mm	Tek 3	1.0kN	1.2kN	1.9kN	3.5kN	3.9kN	4.8kN
4.8mm	Tek 3	1.1kN	1.5kN	2.5kN	3.6kN	3.9kN	4.4kN
5.5mm	Tek 3	1.2kN	2.3kN	3.0kN	4.0kN	4.6kN	5.7kN

Tek 4 range – unfactored pull out values						
Diameter	Drill point	Steel Thickness				
		2.5mm	3.0mm	4.0mm	5.0mm	6.0mm
6.3mm	Tek 4	4.1kN	4.7kN	5.9kN	6.4kN	7.2kN

Tek 5 range – Unfactored pull out values							
Diameter	Drill point	Steel Thickness					
		4.0mm	5.0mm	6.0mm	8.0mm	10.0mm	12.5mm
5.5mm	Tek 5	4.2kN	9.8kN	10.4kN	11.7kN	12.5kN	13.8kN

Hardness Rating (Vickers scale)		
Diameter	Surface Hardness	Core Hardness
4.2mm	582.6HV	477.8HV
4.8mm	570.0HV	474.1HV
5.5mm	592.1HV	478.8HV
6.3mm	587.4 HV0.3	468.9 HV0.3

Ultimate Mechanical Performance		
Diameter	Tensile Strength	Shear Strength
4.2mm	10.4kN	5.2kN
4.8mm	12.4kN	6.4kN
5.5mm	20.1kN	10.3kN
6.3mm	22.7kN	15.2kN

Pullover Performance	
Diameter	In 50mm timber
4.2mm	1.6kN
4.8mm	2.2kN
5.5mm	2.7kN
6.3mm	3.4kN

ABOUT OUR TESTING

All test results were derived from empirical testing performed by ETAS (Evolution Testing & Analytical Services), a UKAS (United Kingdom Accreditation Service) accredited testing laboratory (Accreditation No. 7485). The following tests were performed to the following standards.

7485

Testing Procedures

Test/ Parameter	Standard/ Method/ Procedure
Ultimate Tensile	**ISO 6892-1: 2009** *"Metallic materials – tensile testing – Part 1: Method of test at room temperature"*.
Ultimate Shear	**MIL-STD-1312-13** *"Military Standard: Fastener test method (Method 13) Double shear test".*
Pull Out (Withdrawal Force)	**EN 14566: 2009** *"Mechanical fasteners for gypsum plasterboard systems. Definitions, requirements and test methods".*
Pull Over	**EN 14592: 2008** *"Timber structures. Dowel type fasteners. Requirements".*
Hardness	**ISO 650 7-1: 2005** *"Metallic materials – Vickers hardness test – Part 1: Test method".*
Corrosion Resistance	**EN ISO 9227: 2012** *"Corrosion tests in artificial atmospheres. Salt spray tests".*
Drilling Time Test	**EN 14566: 2009** *"Mechanical fasteners for gypsum plasterboard systems. Definitions, requirements and test methods".*

Laboratory Contact Details

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