



TIMBER CONSTRUCTION

THE RIGHT PRODUCT FOR
EVERY APPLICATION

**READY
FOR WORK**



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TIMBER DESIGN SOFTWARE

Würth Technical Software II

- Quick solution - the program suggests users an economical solution
- At a distance - screw groups taking into account all spacing and edge distances
- Alternatives at a glance - the product filter selection contains a structured overview of all working loads and the required numbers of screws
- More options - straight screws, main-secondary beam connections, screws inserted at an inclined angle, washers, angled washers
- Detailed printout with references to the code and approval for convenient reviews
- Additionally, further information like product data sheets, approvals or CAD files can be downloaded directly from the software

CAD/ BIM DATABASE

From now on, high-quality CAD data in different levels of detail and file formats for 2D, 3D and BIM applications is available for download in our new free-of-charge CAD database.

Individual data or products or entire data packages can be downloaded quickly and easily without entering an access package. The BIM-ready CAD data can be used in the planning tool e.g. for Revit.

In addition, you can transfer CAD files directly to your CAD software via our Click2CAD Toolbox or our Revit plug-in.

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Abbreviation	Designation
CS	Countersunk head
CSMP	Countersunk head with milling pockets
CSMR	Countersunk head with milling ribs
WW	Woodwork head
RCS	Raised countersunk head
SRCS	Small raised countersunk head
COMBI	Combi head
WH	Washer head
WH II	Washer head II
PH	Pan head
TRH	Truss head
JH	Joist hanger screw head
BP	Back panel head
SCS	Piano hinge head
CH	Cylinder head
TH	Top head
E12	E12 external hexalobular head
plus	Drill tip

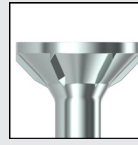
HEAD TYPES

Countersunk head with head recess and milling pockets (CSMP)



- Head recess for mounting a cover cap with centre pin
- Can be used universally in coated engineered wood panelling, softwood and hardware connections thanks to milling pockets integrated into the countersunk head
- 90° head geometry for combination with 90° countersinks in metal

Countersunk head with milling ribs (CSMR)



- Easy sinking of the head in hardwood and softwood including areas around knots, as well as hard engineered wood panels thanks to very high milling performance of the milling ribs integrated in the countersunk head

Washer head (WH)



- Very high head pull-through resistance and compression values thanks to very large head diameter
- Well-designed screw connection with screw head lying against the wood

Washer head II (WH II)



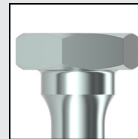
- High head pull-through resistance and compression values thanks to very large head diameter
- Well-designed screw connection with screw head lying against the wood or countersunk in the wood
- Compression value can be increased by combination with washers

Joist hanger screw head (JH)



- Flat, large contact surface
- Shaft reinforcement for high resistance to shear loads
- For load-bearing sheet metal parts or steel-wood joints

Combi head (COMBI)



- Can be tightened with RW bit or hexagon socket
- Flat, large contact surface
- Shank reinforcement for precise fit and resistance to shear loads on metal-wood joints
- High load transfer when used in wood-wood joints in combination with washers

External TX (E12)



- Ideal for high power transmission
- Integrated washer for metal connections
- Tighten with suitable socket

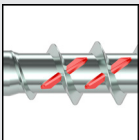
Cylinder head (CH)



- Small head that can be countersunk in wood
- Reduced splitting when countersinking the head

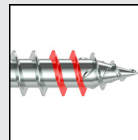
THREAD TYPES

Integrated milling shank for $d \geq 5$ mm and length ≥ 70 mm



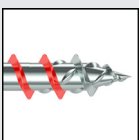
- Low risk of screw breakage thanks to high breaking torque
- Spares all tools and accessories applied (bit/screwdriver) thanks to reduced amount of force required
- Little material destruction thanks to displacing and milling effect
- The integrated milling shank reduces the risk of injury caused by metal chips

Single asymmetrical high-performance thread – stainless steel



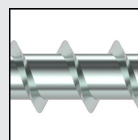
- Single thread of ASSY 4 stainless steel means higher breaking torque
- Reinforced, asymmetrical thread flank geometry for higher power transmission in hardwood
- Better effective anchorage depth due to increased thread flank

Coarse asymmetrical high-performance thread - steel



- No over-tightening or stripping and high feed thanks to coarse thread of ASSY 4 steel
- Reinforced, asymmetrical thread flank geometry for higher power transmission in hardwood
- Better effective anchorage depth due to increased thread flank

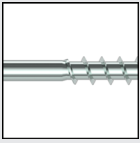
Symmetrical high-performance thread



- Symmetrical high-performance thread for loads in any direction

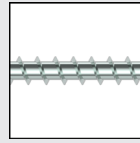
THREAD TYPES

Partial thread (PT)



- For connecting two wooden components
- Compression by head contact pressure and free-moving shank (component to be connected)

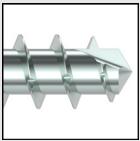
Full thread (FT)



- For connecting thin materials, such as steel or hardware with wood
- Maximum thread length for increased pull-out resistance of the screw

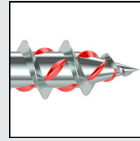
TIP TYPES

Drill tip (plus)



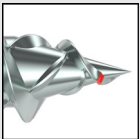
- Very small admissible edge spacing of $3 \times d$ e.g. screws with $d = 8$ mm for beam widths of 60 mm, no pre-drilling required, no splitting or rupturing of the wood
- Little run-off of long screws

Tip with milling ribs



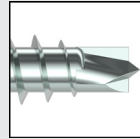
- Smooth thread start ensures optimized recessing and biting of the screw
- Prevents splitting thanks to milling ribs with displacement effect
- Reduced screw-in force needed thanks to minimized friction of thread in wood

Thread with milling ribs



- Non-destructive separation and displacement of wood fibres when driving in the screw
- Wood structure is largely maintained and the thread is optimally integrated into the wood structure

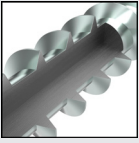
Centring drill tip (BSP)



- Edge distances as with pre-drilled holes and no risk of splitting thanks to effective chip removal and adjusted cutting edges
- Precise positioning without slipping even on hard surfaces thanks to centring pin
- Exact drilling process thanks to precise fibre cutting with sharp cutting edges
- Fast biting thanks to smooth start of thread

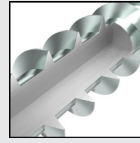
MATERIAL

Hardened steel



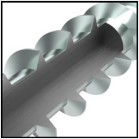
- Hardened steel for high breaking torque

A4 stainless steel - T5/CRC III



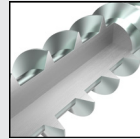
- Austenitic, non-magnetic class A4 stainless steel
- Suitable for screw connections in woods with high levels of tannic acids
- Service class 3
- Corrosion resistance class T5/CRC III (EN 14592:2022)

Unhardened steel



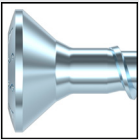
- Unhardened steel for flexible loads

HCR 1.4539 stainless steel - T5/CRC IV



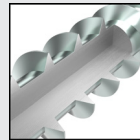
- Highly corrosion resistant, austenitic, non-magnetic class
- HCR (highly corrosion resistant) 1.4539 stainless steel
- Suitable for highly chloride or SO₂-contaminated areas with simultaneous exposure to splash water or fog
- Service class 3
- Corrosion resistance class T5/CRC IV (EN 14592:2022)

Zinc-plated - T1/C1



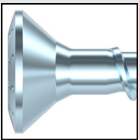
- Corrosion protection thanks to blue zinc plating
- Passivated free from chromium(VI)
- Friction-reducing coating for easy screwing
- Service class 1
- Corrosion resistance class T1/C1 (EN 14592:2022)

HCR 1.4529 stainless steel - T5/CRC V



- Highly corrosion resistant, austenitic, non-magnetic class
- HCR (highly corrosion resistant) 1.4529 stainless steel
- Suitable for extremely chloride-contaminated areas with simultaneous exposure to SO₂ and chlorine gas and high temperatures
- Service class 3
- Corrosion resistance class T5/CRC V (EN 14592:2022)

Zinc-plated - T2/C2nw



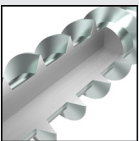
- Corrosion protection thanks to blue zinc plating
- Passivated free from chromium(VI)
- Friction-reducing coating for easy screwing
- Service class 2
- Corrosion resistance class T2/C2nw (EN 14592:2022)

Zinc-nickel-plated - T2/C2nw



- Corrosion protection thanks to zinc-nickel coating
- Passivated free from chromium(VI)
- Corrosion resistance 500 h in salt spray test (EN ISO 9227)
- Service class 2
- Corrosion resistance class T2/C2nw (EN 14592:2022)

A2 stainless steel - T3/CRC II



- Austenitic, non-magnetic class A2 stainless steel
- Service class 3
- Corrosion resistance class T3/CRC II (EN 14592:2022)

NORDIC - T3(15)/C4(15)



- Corrosion protection thanks to zinc-flake coating
- Passivated free from chromium(VI)
- Corrosion resistance 1200 h in salt spray test (EN ISO 9227)
- Service class 2
- Corrosion resistance class T3(15)/C4(15) (EN 14592:2022)

KEY TO PICTOGRAM

TYPES OF WOOD

Wood substrate



Suitable for hardwood



Suitable for softwood



WOOD-BASED MATERIALS

Suitable for MDF



Suitable for Plywood



Suitable for chipboard and OSB



Suitable for gluelam and CLT



Suitable for LVL

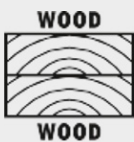


MATERIAL COMBINATIONS

Steel-Wood



Wood-Wood



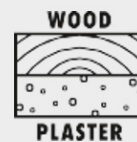
Wood-Masonry



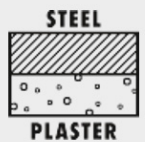
Concrete-Wood



Wood-Gypsum

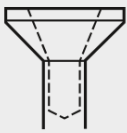


Steel-Gypsum



PRODUCT PROPERTIES

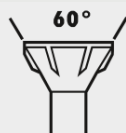
With head hole



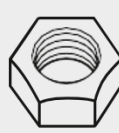
With painted head



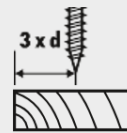
60° countersunk head with milling pockets



Metric connecting thread



Short edge distance



Stainless steel



Locking thread

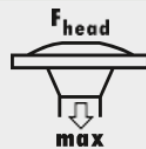


PRODUCT PROPERTIES

Joining effect



High head pull-through



Colored head



Corrosivity class salt spray test



Collated screws



FIELDS OF APPLICATION

Timber construction



Furniture construction



Window construction



Transport anchor system



Outdoors



Indoors

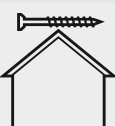


Swimming pool

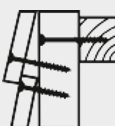


CONSTRUCTION APPLICATIONS

Insulation on the roof



Wooden facades



Wood screw anchor applications



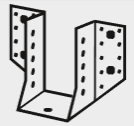
Wooden decks



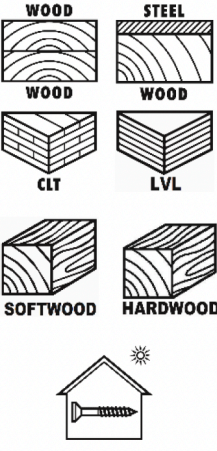
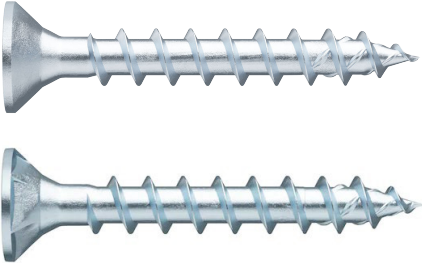
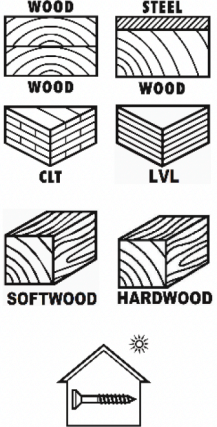
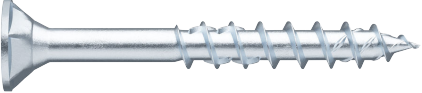
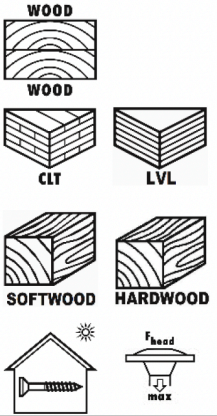
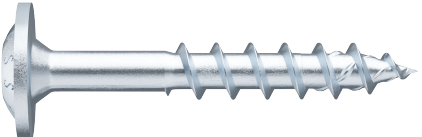
Flooring applications



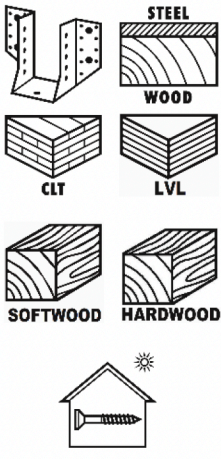
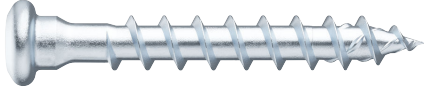
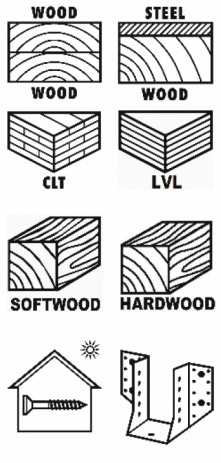
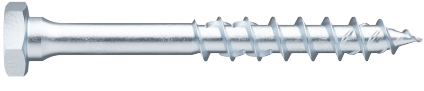
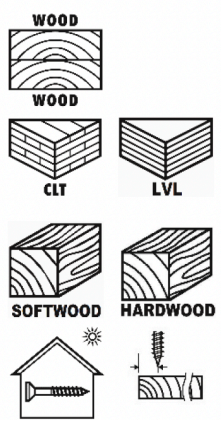
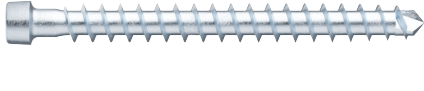
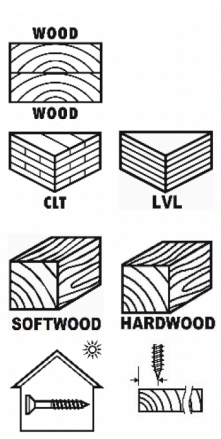
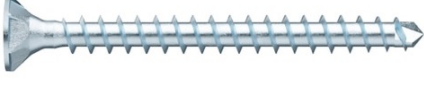
Sheet metal parts



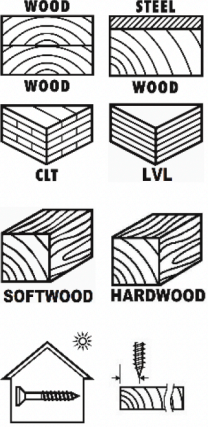
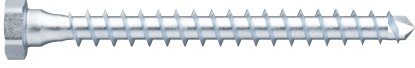
TIMBER SCREWS

Field of application		BIM/CAD	Product description
		<p>ASSY® 4 CSMP</p> <p>Link to product</p>	<p>Timber screw, full threaded, countersunk head. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Prefix 0190 0</p>
		<p>ASSY® 4 CSMP</p> <p>Link to product</p>	<p>Timber screw, partially threaded, countersunk head with milling pockets. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Prefix 0190 1</p>
		<p>ASSY® 4 WH</p> <p>Link to product</p>	<p>Timber screw, partially threaded, large washer head. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Prefix 0177 3</p>

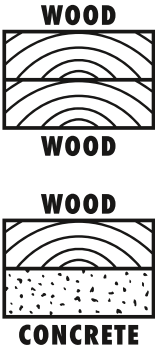

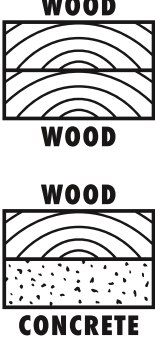
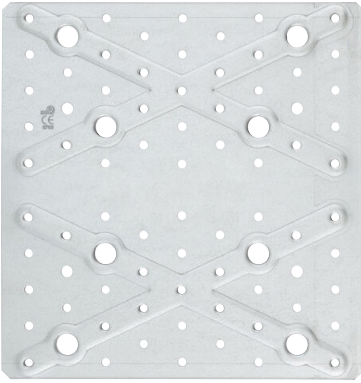
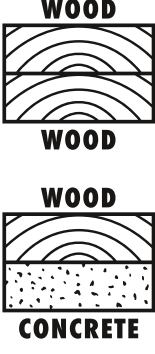

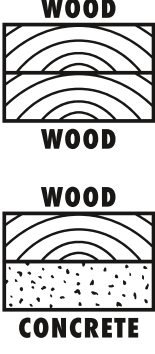

TIMBER SCREWS

		<p>ASSY® 4 JH</p> <p>Link to product</p>	<p>Joist hanger screw, full threaded, For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Hole dimension in steel sheet = Screw diameter (d) + 1 mm in accordance with Eurocode 5.</p> <p>Prefix 0153 35</p>
		<p>ASSY® 4 COMBI</p> <p>Link to product</p>	<p>Timber screw, partially threaded, hexagon combi head. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Hole dimension in steel sheet = Screw diameter (d) + 1 mm in accordance with Eurocode 5.</p> <p>Prefix 0158 7</p>
		<p>ASSYplus 4 VG CH</p> <p>Link to product</p>	<p>Timber screw, full threaded, cylindrical head. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Prefix 0150 0</p>
		<p>ASSYplus 4 VG 4 CSMP</p> <p>Link to product</p>	<p>Timber screw, full threaded, countersunk head with milling pockets. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Prefix 0150 1</p>

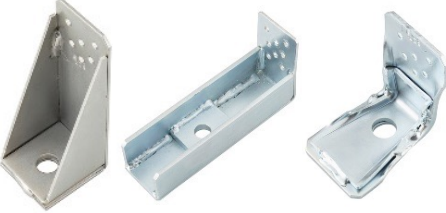







TIMBER SCREWS

 <p>WOOD STEEL WOOD WOOD CLT LVL SOFTWOOD HARDWOOD</p> <p>Icons showing wood grain patterns, cross-sections of CLT and LVL, and a house icon with a screw being inserted into wood.</p>	 <p>A long, silver-colored timber screw with a hexagonal head and a full thread.</p>	<p>ASSYplus VG 4 COMBI</p> <p>Link to product</p>	<p>Timber screw, full threaded, hexagon combi head. For installation in wood in an indoor environment (service class 1) or in wood that is not directly exposed to the outdoor climate or in contact with the ground (service class 2).</p> <p>Hole dimension in steel sheet = Screw diameter (d) + 1 mm in accordance with Eurocode 5.</p> <p>Prefix 0150 2</p>
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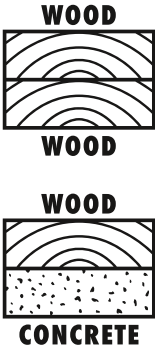

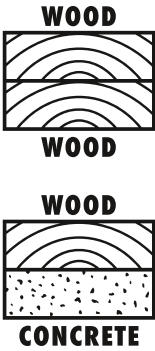

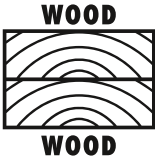

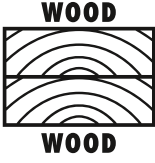

TIMBER CONSTRUCTION CONNECTORS

Field of application		BIM/CAD	Product description
 <p>WOOD</p> <p>WOOD</p> <p>WOOD</p> <p>CONCRETE</p>		<p>DENEb bracket</p> <p>Link to product</p>	<p>The Deneb angle bracket is ideal for connecting timber elements to concrete or wooden substructures, with high shear and tensile loads.</p> <p>Part number 5390 000 300</p>
 <p>WOOD</p> <p>WOOD</p> <p>WOOD</p> <p>CONCRETE</p>		<p>DENEb plate</p> <p>Link to product</p>	<p>The Deneb plate is ideal for connecting timber elements to concrete or wooden substructures, with high shear and tensile loads.</p> <p>Part number 5390 000 400</p>
 <p>WOOD</p> <p>WOOD</p> <p>WOOD</p> <p>CONCRETE</p>		<p>Tension anchor HTA</p> <p>Link to product</p>	<p>The HTA tension anchor is ideal for connecting timber elements to concrete, steel or wooden substructures, with high tensile loads.</p> <p>Prefix 5392 000 1</p>
 <p>WOOD</p> <p>WOOD</p> <p>WOOD</p> <p>CONCRETE</p>		<p>Tension anchor V-plus</p> <p>Link to product</p>	<p>The V-plus tension anchor is ideal for connecting timber elements to concrete, steel or wooden substructures, with high tensile loads.</p> <p>Prefix 5392 000 2</p>

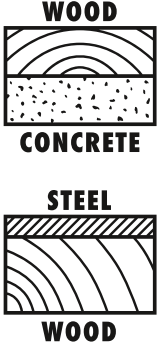


TIMBER CONSTRUCTION CONNECTORS

<p>WOOD</p>  <p>WOOD</p> <p>WOOD</p>  <p>CONCRETE</p>		<p>Tension anchor HTA-2-Base element</p> <p>Link to product</p>	<p>The HTA-2 base elements is ideal for connecting timber elements to concrete, steel or wooden substructures, with high tensile loads. Pre-production in factory possible, such as assembly of the backplate or complete panelling and completion of internal walls.</p> <p>Prefix 5392 000 3</p>
<p>WOOD</p>  <p>WOOD</p>		<p>Tension anchor HTA-2-Backplate</p> <p>Link to product</p>	<p>The backplate-2 is used with HTA-2 base elements. Pre-assembly of the backplate with anchor nails or joist hanger screws in the factory. Final assembly of the base element using pias® screws for connecting to the backplate</p> <p>Prefix 5392 000 3</p>
<p>WOOD</p>  <p>WOOD</p>		<p>Tension anchor HTA-2-Floor connector</p> <p>Link to product</p>	<p>The floor connector-2 is used with HTA-2 base elements. Final assembly of the floor connector on the construction site using self-drilling pias® screws on the two ends of the backplates.</p> <p>Prefix 5392 000 3</p>
<p>WOOD</p>  <p>WOOD</p> <p>WOOD</p>  <p>CONCRETE</p>		<p>Angle bracket V 4 mm</p> <p>Link to product</p>	<p>The angle bracket-V is ideal for connecting timber elements to concrete or wooden substructures, with high tensile loads. The slot in the base plate enables optimum adjustment during construction.</p> <p>Prefix 5390 210</p>
<p>WOOD</p>  <p>WOOD</p> <p>WOOD</p>  <p>CONCRETE</p>		<p>Angle bracket type A 2,5 & 3 mm</p> <p>Link to product</p>	<p>The angle bracket with reinforcement is ideal for connecting timber elements to concrete or wooden substructures. Suitable for universal use in standard connections such as intersecting timbers</p> <p>Prefix 5390 201</p>


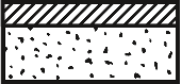


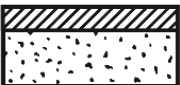
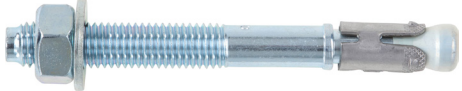

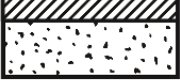

TIMBER CONSTRUCTION CONNECTORS

 <p>WOOD</p> <p>WOOD</p> <p>WOOD</p> <p>CONCRETE</p>		<p>Angle bracket type A 1,5 mm</p> <p>Link to product</p>	<p>The angle bracket with reinforcement is ideal for connecting timber elements to concrete or wooden substructures. Suitable for universal use in standard connections such as intersecting timbers</p> <p>Prefix 5390 202</p>
 <p>WOOD</p> <p>WOOD</p> <p>WOOD</p> <p>CONCRETE</p>		<p>Tensile plate connector 3,0 mm</p> <p>Link to product</p>	<p>The tensile plate connector is ideal for connecting timber elements to concrete or wooden substructures, with high tensile loads.</p> <p>Prefix 5390 000 5</p>
 <p>WOOD</p> <p>WOOD</p>		<p>Angled washer 30° CLT</p> <p>Link to product</p>	<p>The angled washer 30° CLT is ideal for connecting timber elements with gap-free assembly and extensive pre-production of timber elements in the factory.</p> <p>Part number 0457 700 462</p>
 <p>WOOD</p> <p>WOOD</p>		<p>Plug-in connectors</p> <p>Link to product</p>	<p>Ideal for concealed or visible connections, the plug-in connectors enable a high degree of pre-fabrication and hence a considerable reduction in assembly times. High load transfer in and perpendicular to the direction of insertion, tension, compression and torque load transfers around all three axes</p> <p>Prefix 0681 352 2</p>

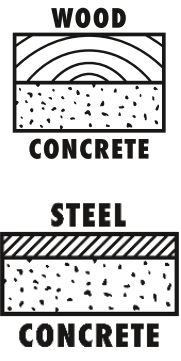

TIMBER CONSTRUCTION CONNECTORS

 <p>WOOD</p> <p>CONCRETE</p> <p>STEEL</p> <p>WOOD</p>		<p>Plug-in connectors CS</p> <p>Link to product</p>	<p>Ideal for concealed or visible connections, the plug-in connectors enable a high degree of pre-fabrication and hence a considerable reduction in assembly times. High load transfer in and perpendicular to the direction of insertion, tension, compression and torque load transfers around all three axes.</p> <p>Prefix 0681 352 5</p>
		<p>Special system screw for Plug-in connectors</p> <p>Link to product</p>	<p>Depending on the connector type, the appropriate type of special system screws should be used as per ETA-12/0067 approval in order to guarantee the specified characteristic load-bearing values.</p> <p>Prefix 0681 352</p>

CONCRETE CONNECTIONS

Field of application		BIM/CAD	Product description
<p>WOOD</p>  <p>CONCRETE</p> <p>STEEL</p>  <p>CONCRETE</p>		<p>Concrete screw - W-BS</p> <p>Link to product</p>	<p>Highest load capacities and efficient mounting. Ideal for mounting metal structures in concrete. European Technical Assessment ETA-16/0043 for individual fixing point, option 1, cracked and uncracked concrete, seismic performance category C1 (6-14) and C2 (8-14)</p> <p>Prefix 5929 1</p>
<p>WOOD</p>  <p>CONCRETE</p> <p>STEEL</p>  <p>CONCRETE</p>		<p>Anchor - W-FAZ</p> <p>Link to product</p>	<p>Anchor for high loads in cracked and non-cracked concrete. Ideal for mounting metal structures in concrete. European Technical Assessment ETA-99/0011 for individual fixing point, option 1, cracked and uncracked concrete, seismic performance category C1 and C2 (M8-M20)</p> <p>Prefix 5928 2</p>
<p>WOOD</p>  <p>CONCRETE</p> <p>STEEL</p>  <p>CONCRETE</p>		<p>Injection mortar WIT-UH 300</p> <p>Link to product</p>	<p>High-performance mortar for concrete and post-installed rebar connections. Ideal for mounting metal structures in concrete. European Technical Assessment ETA-18/0509 for individual fixing point, option 1, cracked and uncracked concrete, seismic performance category C1 (M8 to M30) and C2 (M12 to M24)</p> <p>Part number 5918 500 420</p>

CONCRETE CONNECTIONS

 <p>WOOD CONCRETE</p> <p>STEEL CONCRETE</p>		<p>Anchor rod W-VD-A/S 5.8</p> <p>Link to product</p>	<p>For use with WIT injection mortar UH-300. Ideal for mounting metal structures in concrete</p> <p>Prefix 5915 1</p>
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**READY
FOR WORK**

TIMBER CONSTRUCTION - THE RIGHT PRODUCT FOR EVERY APPLICATION

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