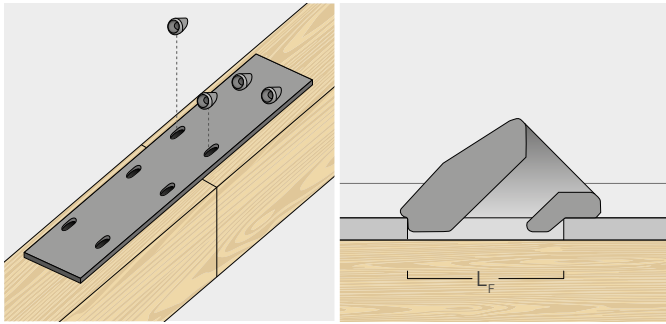
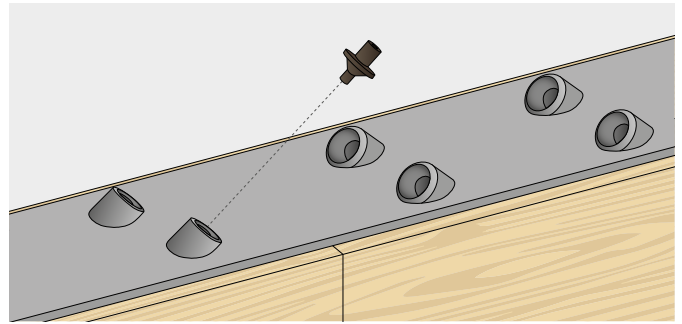


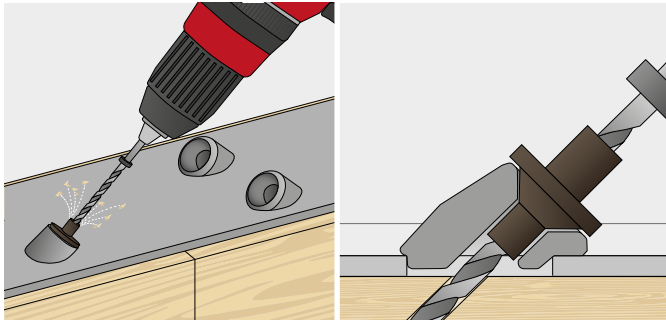
INSTALLATION WITH THE AID OF A PRE-DRILL JIG



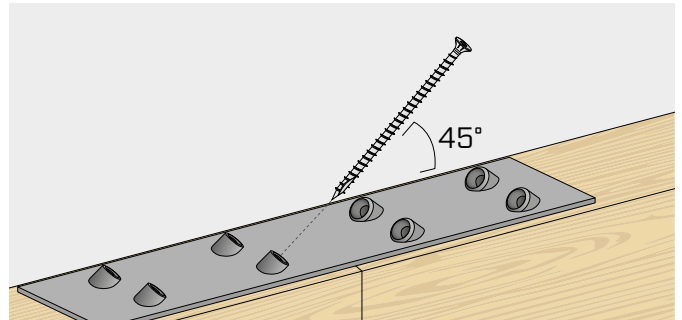
Place the steel plate on the wood and set the VGU washers in the slots provided.



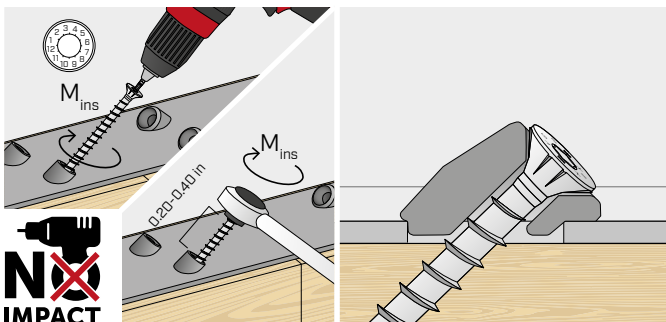
Use the VGU JIG template of the correct diameter by positioning it in the VGU washer



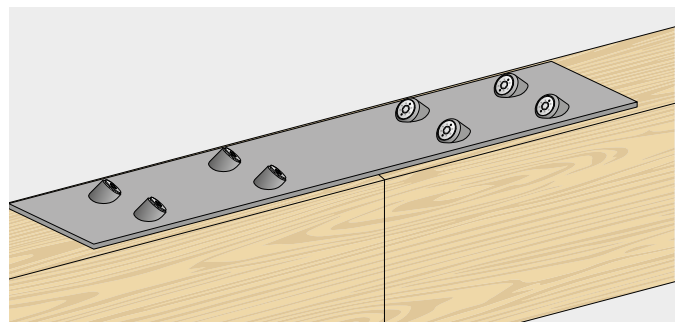
Using the pre-drill template, prepare a pre-drill/guide hole (at least 2 inches length) using an appropriate tip.



Position the screw and respect the 45° angle of insertion.



Install the screw, and stop when the screw head makes contact with the metal element.
Ensure correct tightening and full contact between the entire surface of the screw head and the metal element.



Perform the operation for all washers.
The assembly must be performed so as to guarantee that the stress is evenly distributed among all the installed VGU washers.

NOTE

- Check VGS INSTALLATION INSTRUCTIONS on Rothoblaas's website or inside the product box for the complete installation indications.

GENERAL PRINCIPLES

- Tabulated values comply with NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION in accordance with ESR-4645.
- To determine allowable loads for use with ASD, design loads for use with LRFD or both, tabulated values must be multiplied by all adjustment factors included in the NDS for dowel-type fasteners.
- As part of the connection design, the structural wood members, the steel plates must be sized and verified in accordance with the corresponding Section of the NDS and must be done separately by the designer.
- Connections with multiple screws must be designed in accordance with the corresponding Sections of the NDS and ESR-4645.
- VGZ screws must be installed and used in dry in-service conditions in accordance with the NDS (wet service factor for connection CM is 1.0).
- VGZ screws must be positioned in accordance with the minimum distances.
- For simultaneous loads, in different directions, on a screw, the allowable load must be evaluated using the following equation: (Design Uplift ÷ Allowable Up-

lift) + (Design F_1 ÷ Allowable F_1) + (Design F_2 ÷ Allowable F_2) ≤ 1.0, where the three terms in the unity equation represent the possible generated force directions. The number of terms that must be considered for simultaneous loading is the sole discretion of the designer and depends on the method of calculating wind forces and the utilization of the screws within the structural system.

SLIDING RESISTANCE

- Unless otherwise noted, the screws are intended to be inserted half in the main member and half in the side member.
- The 45° inclined screw is intended to work in withdrawal and the resulting resistance of the connection is given by the projection of the withdrawal resistance (along screw axis) onto the shear plane.
- The design values must be inferior to f_{tens} of the screw projected onto the shear plane.



WOODY, get it done faster

WOODY is the ideal timber connector for prefabricated **Timber Frame** structures. Featuring a dovetail shape offering unrivalled precision, it perfectly adapts to panels in OSB, gypsum fibre and plywood.

WOODY speeds up production, ensures secure, long-lasting connections and eliminates installation errors thanks to its perfect symmetry.

Offering tolerances otherwise unattainable with metal plate systems, it is precise, it is universal, it is WOODY:



rothoblaas.com



rothoblaas

Solutions for Building Technology

STRUCTURAL REINFORCEMENT SYSTEM

CERTIFICATION FOR TIMBER AND CONCRETE

Structural connector approved for timber applications according to ETA-11/0030 and for timber-concrete applications according to ETA-22/0806.

RAPID DRY SYSTEM

Available in diameters 0.63 and 0.79 inch, it is used to reinforce and connect large elements. The timber thread allows application without the need for resins or adhesives.

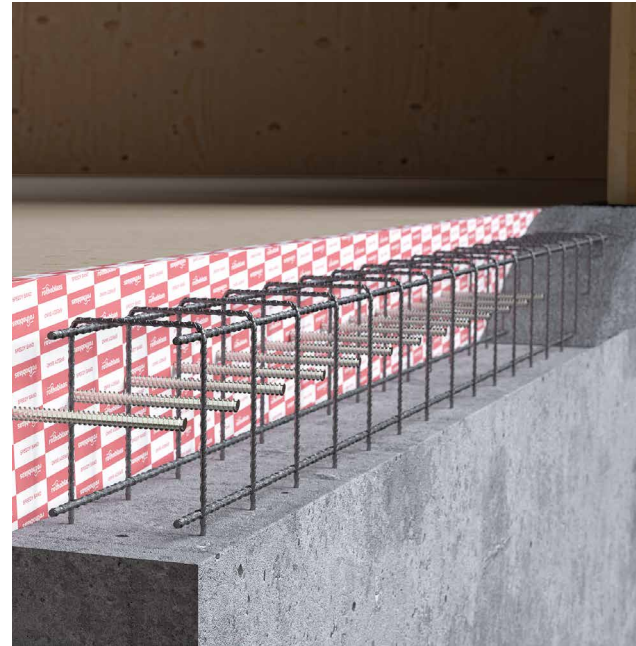
STRUCTURAL REINFORCEMENT

The high-performance tensile steel ($f_{y,k} = 640 \text{ N/mm}^2$) - ETA-11/0030 and the large dimensions available make RTR ideal for structural reinforcement applications.

LARGE SPANS

The system, developed for applications on large span elements, allows fast and secure reinforcement and connections on any beam size due to the considerable length of the bars.

Ideal for factory installations.



DIAMETER [in]

0.63 **0.63** 0.79 0.79

LENGTH [in]

86 5/8

EXPOSURE CONDITION

EC1 DRY

ATMOSPHERIC CORROSIVITY

C1 C2

WOOD CORROSIVITY

T1 T2

MATERIAL

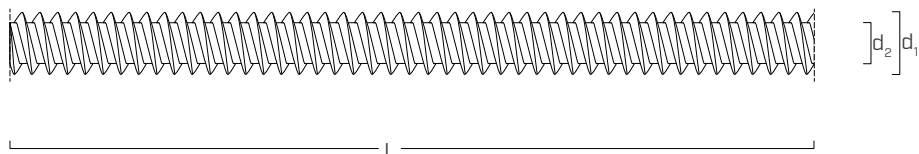
Zn
ELECTRO
PLATED electrogalvanized carbon steel



CODES AND DIMENSIONS

d_1 [mm] [in]	CODE	L [mm] [in]	pcs
16 0.63	RTR162200	2200 86 5/8	10
20 0.79	RTR202200	2200 86 5/8	5

GEOMETRY



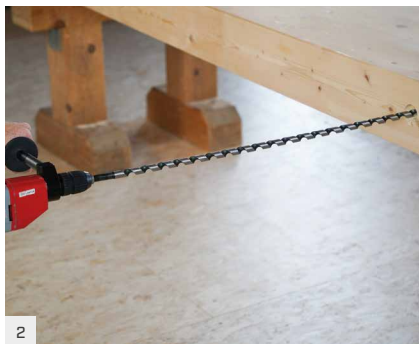
Nominal diameter	d_1	[in] ⁽¹⁾	0.63	0.79
Outer thread diameter	d_1	[mm] [in]	16 0.630	20 0.787
Thread diameter	d_2	[in]	0.472	0.591
Pre-drilling hole diameter	d_v	[in]	1/2	5/8

⁽¹⁾The nominal diameter of the screw is converted into imperial units and rounded up to the nearest decimal point.

■ INSTALLATION SUGGESTIONS



For a better finish, it is recommended to drill a hole through BORMAX to accommodate the timber end cap.



Pre-drill the hole inside the timber element, ensuring that it is straight. The use of COL-UMN ensures better accuracy.



Cut the RTR threaded rod to the desired length, ensuring that it is less than the depth of the pre-drilling.



Assemble the sleeve (ATCS007 or ATCS008) onto the adapter with safety clutch (DUVSKU). Alternatively, a simple adapter (ATCS2010) can be used.



Insert the sleeve into the threaded rod and the adapter into the screwdriver. We recommend the use of the handle (DUD38SH) for more control and stability when screwing.



Screw up to the length defined in the design. We recommend limiting the insertion moment value to 150 ft-lbs (RTR Ø0.63 inch) and 220 ft-lbs (RTR Ø0.79 inch).

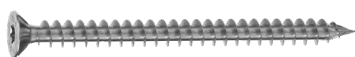


Unscrew the sleeve from the bar.



If provided, insert a TAP cap to conceal the threaded rod and ensure better aesthetic finish and fire strength.

■ RELATED PRODUCTS



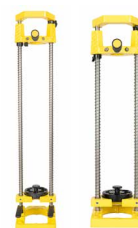
VGS
page 184



LEWIS
page 442



D 38 RLE
page 435



COLUMN
page 439

DOUBLE THREADED SCREW FOR INSULATION

CONTINUOUS INSULATION

Allows continuous, uninterrupted fastening of roof insulation package. Limits thermal bridges in compliance with energy saving regulations. The cylindrical head is ideal for hidden insertion in the batten. Screw also certified in versions with flange head (DGT) and countersunk head (DGS).

CERTIFICATION

Connector for hard and soft insulation, for roofing and façade applications, CE certified according to ETA-11/0030. Available in two diameters (0.16 and 0.18 inch) to optimize the number of fasteners.

MYPROJECT

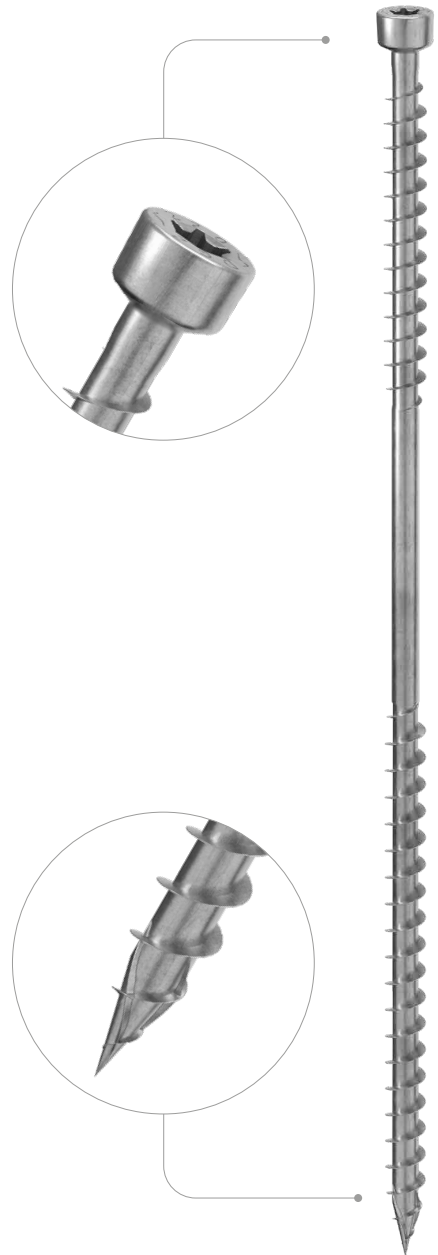
Free MyProject software for customized fastening calculation, accompanied by a calculation report.

3 THORNS TIP

Thanks to the 3 THORNS tip, minimum installation distances are reduced. More screws can be used in less space and larger screws in smaller elements. Costs and time for project implementation are reduced.

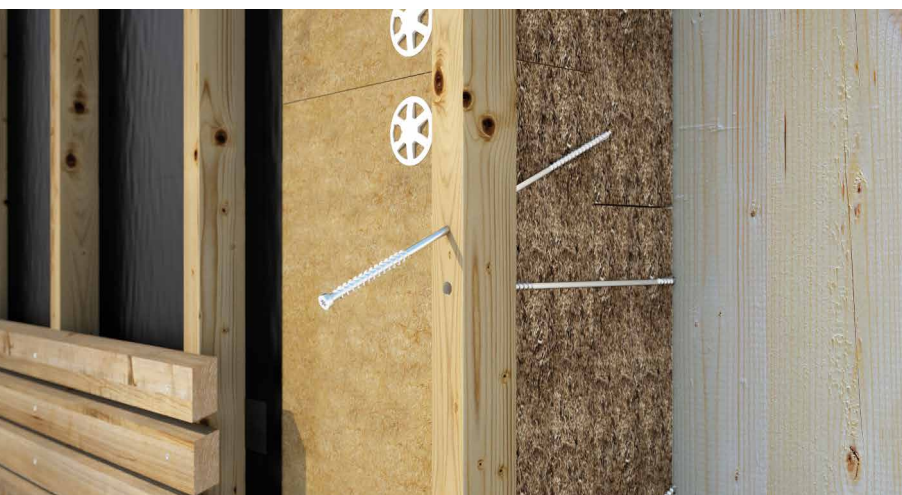


DIAMETER [in]	0.24	0.28	0.36	0.36
LENGTH [in]	3 1/8	8 5/8	20 1/2	20 1/2
EXPOSURE CONDITION	EC1	EC2	EC3	EC4
ATMOSPHERIC CORROSIVITY	C1	C2	C3	C4
WOOD CORROSIVITY	T1	T2	T3	T4
MATERIAL	Zn electrogalvanized carbon steel			



FIELDS OF USE

- timber based panels
- solid timber
- glulam (Glued Laminated Timber)
- CLT, LVL
- engineered timbers



THERMAL BRIDGES

Thanks to the double thread, the roof insulation package can be fixed to the supporting structure without any interruptions, thus limiting thermal bridges. Certification specific for fastening on both hard and soft insulation.

VENTILATED FAÇADES

Also tested, certified and calculated on façade joists and with engineered woods such as LVL, Plywood or other laminated veneer products.