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Authorised and notified according to Article 29 of the Regulation (EU) No 305/2011 of the European Parliament and of the Council of 9 March 2011

European Technical Assessment ETA-25/1169 of 2026/01/06

I General Part

Technical Assessment Body issuing the ETA and designated according to Article 66 of the Regulation (EU) No 305/2011: ETA-Danmark A/S

Trade name of the construction product:	Rotho Blaas RIVET
Product family to which the above construction product belongs:	Blind rivets for connections of metal sheets
Manufacturer:	ROTHO BLAAS SRL Via dell'Adige 2/1 IT-39040 Cortaccia (BZ)
Manufacturing plant:	ROTHO BLAAS SRL Manufacturing Plants: RV1 and RV2
This European Technical Assessment contains:	22 pages including 16 annexes which form an integral part of the document
This European Technical Assessment is issued in accordance with Regulation (EU) No 305/2011, based on:	EAD 331064-00-0602: Blind rivets for connections of metal sheets and plates
This version replaces:	-

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II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESSMENT

1 Technical description of the product

The product Rotho Blaas RIVET are blind rivets made of aluminum. The blind rivets and the corresponding connections are subject to tension and/or shear forces. An Example of the blind rivets is shown in Figure 1

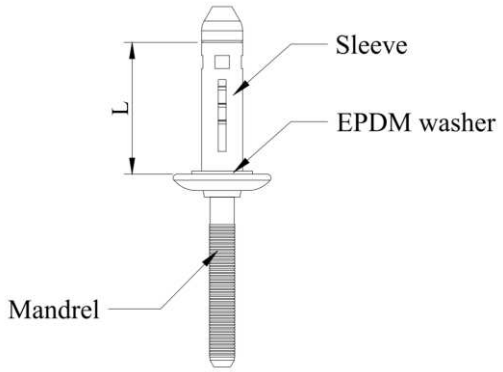


Figure 1: Examples of blind rivet

The blind rivets, described in this ETA are summarized in Table 1.

Table 1: Blind rivets

Rivet	Length [L] mm	Grip Range mm
RIVET Ø6.3	20.2 23.4	1.6 – 6.4 3.2 – 9.5
RIVET Ø7.7	27.7	1.0 – 9.5

See also annex 3-10 for more information about the blind rivets and the pre-drill diameter.

2 Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

Blind rivets type Rotho Blaas RIVET are intended to be used for joining metal members. They are intended to be used for fastening metal sheeting to metal substructure, joining sheet metals or other thin-gauge metal members primarily applied in lightweight constructions.

Blind rivets are intended to be used in connections under static or quasi-static actions whereby the blind rivet is subjected to tension or shear forces.

More information in table, section 3: “Performance of the product and references to the methods used for its assessment”.

The Assessment in accordance with EAD 331064-00-0602 provides the property and resistance values of the blind rivets required for calculation set out in EN 1993-1-8 and EN 1993-1-3 (joints of steel members) or EN 1999-1-1 and EN 1999-1-4 (joints of aluminium members).

Since these calculation approaches are limited to narrow boundary conditions, assessment methods are also made available which provide load-bearing capacity values for applications outside these limits. In any case, the determination of characteristic values is based on tests.

The provisions made in this European Technical Assessment are based on an assumed intended working life of the blind rivets of 25 years, provided the manufacturers conditions laid down in the manufacturers data sheet for the packaging, transport, storage, installation, use, maintenance and repair are met.

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by the Technical Assessment Body issuing an ETA based on the EAD 331064-00-0602 but are regarded only as means for expressing the expected economically reasonable working life of the product.

3 Performance of the product and references to the methods used for its assessment

Characteristic	Assessment of characteristic
3.1 Mechanical resistance and stability (BWR1)	
Nominal tensile load of blind rivet, $F_{t,nom}$ [kN]	No performance assessed
Nominal shear load of blind rivet, $F_{v,nom}$ [kN]	No performance assessed
Tension resistance of blind rivet, $F_{t,Rk}$ [kN]	No performance assessed
Shear resistance of blind rivet, $F_{v,Rk}$ [kN]	No performance assessed
Mandrel head retention capability, $F_{hr,k}$ [kN]	No performance assessed
Pull-through resistance (blind rivet head), $F_{p.Rk}$ [kN]	No performance assessed
Pull-out resistance (blind rivet head), $F_{o,Rk}$ [kN]	No performance assessed
Tension resistance in certain joint, $F_{j,t,Rk} = N_{Rk}$ [kN]	See annex 3-16
Shear resistance in certain joint, $F_{j,v,Rk} = V_{R,k}$ [kN]	See annex 3-16
3.2 Safety in case of fire (BWR2)	
Reaction to fire	The product is classified as **Euroclass A1** in accordance with EN 13501-1 and EC Decision 96/603/EC.
3.3 Aspects of durability	
Corrosion protection	No performance assessed

See additional information in section 3.8 – 3.9.

3.8 Methods of verification

The characteristic values of the blind rivets are based on the EAD 331064-00-0602.

3.9 General aspects related to the fitness for use of the product.

The European Technical Assessment is issued for the product based on agreed data/information, deposited with ETA-Danmark, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to ETA-Danmark before the changes are introduced. ETA-Danmark will decide if such changes affect the ETA and consequently the validity of the CE marking based on the ETA and if so whether further assessment or alterations to the ETA, shall be necessary.

The blind rivets are manufactured in accordance with the provisions of this European Technical Assessment using the manufacturing processes as identified in the inspection of the plant by the notified inspection body and laid down in the technical documentation.

4 Assessment and verification of constancy of performance (hereinafter AVCP) system applied, with reference to its legal base

4.1 AVCP system

According to the Commission Decision 98/241/EC, as amended by the Commission Decision 2001/596/EC, the system(s) of assessment and verification of constancy of performance is system **2+** (see Annex V to Regulation (EU) No 305/2011).

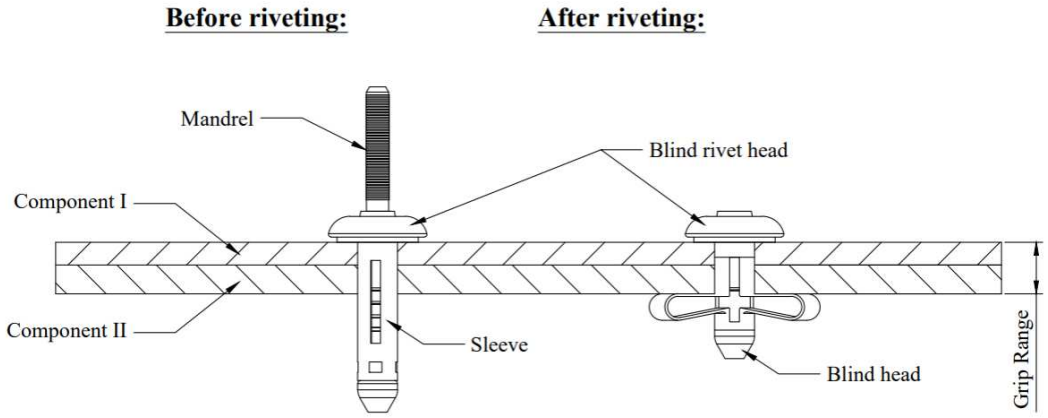
5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at ETA-Danmark.

Issued in Copenhagen on 2026-01-06 by

Thomas Bruun
Managing Director, ETA-Danmark

Examples of execution of a connection (from EAD 331064-00-0602)



Terms for materials

Sleeve	Material of the sleeve of the rivet
Mandrel	Material of the mandrel of the rivet
Component I	Material of the metal member or sheeting which is fastened to the substructure (accessible for installation).
Component II	Material of the substructure where the blind head is formed.

Terms for dimensions

t_I	Thickness of component I
t_{II}	Thickness of component II
$\Sigma(t_i)$	Sum of the thicknesses of all components

Terms for performances

$V_{R,k}$	Characteristic value of shear resistance of the connection $V_{Rk} = F_{v,t,Rk}$ according to EAD 331064-00-0602
$N_{R,k}$	Characteristic value of tension resistance of the connection $N_{Rk} = F_{j,t,Rk}$ according to EAD 331064-00-0602
$N_{R,II,k}$	Characteristic value of pull-out resistance referred to component II

Used terms in the Annexes	Annex 1
Blind rivets for connections of metal sheets and plates	

Determination of Design Values

The design value of tension and shear resistance has to be determined as follows:

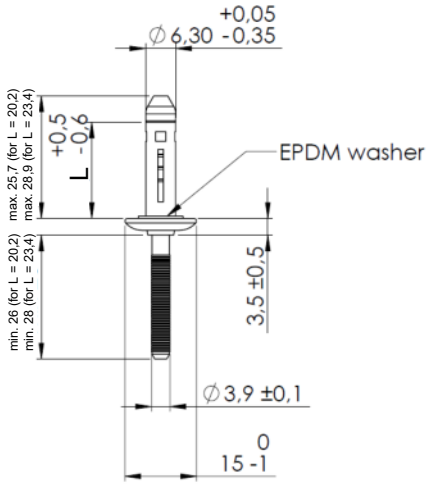
$$N_{R,d} = \frac{N_{R,k}}{\gamma_M} \qquad V_{R,d} = \frac{V_{R,k}}{\gamma_M}$$

The characteristic values $N_{R,k}$ and $V_{R,k}$ are given in the Annexes. For intermediate dimension of metal member or sheeting or substructure the characteristic value of the thinner dimension is used.
The recommended partial safety factor is $\gamma_M = 1{,}25$, if no partial safety factor is given in national regulations or national Annexes to Eurocode 3.
For asymmetric metal substructures with thickness $t_{II} < 5$ mm (for instance Z- or C-shaped profiles), the characteristic value $N_{R,k}$ given in the Annexes has to be reduced to 70%.
In case of combined tension and shear forces the following interaction equation is taken into account:

$$\frac{N_{S,d}}{N_{R,d}} + \frac{V_{S,d}}{V_{R,d}} = 1{,}0$$

$N_{S,d}$ and $V_{S,d}$ indicates the design values of applied tension and shear forces.

Installation conditions
The installation is carried out according to the manufacturer's instructions.
The rivets may only be used in connections where no or only negligibly small temperature-related constraint stresses occur.
The rivets may only be installed with machinery recommended by the manufacturer.
The rivets are fixed rectangular to the surface of the metal member or sheeting.
The thickness of the clamped components have to correspond to the grip range of the rivet.



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: S280GD to S550GD – EN 10346

Component II: S280GD to S550GD – EN 10346
S235 to S355 – EN 10025-1

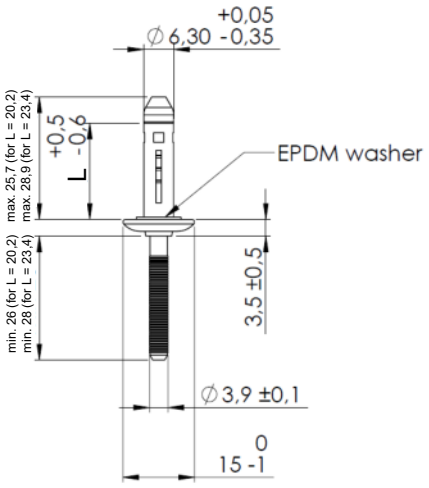
Pre-drill-diameter component I: Ø 6.5 mm
Pre-drill-diameter component II: Ø 6.5 mm

Component I: steel sheeting with Rm ≥ 360 N/mm2 Component II: steel sheeting with Rm ≥ 360 N/mm2										
t_I [mm]		t_{II} [mm]								
		0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.50	≥3.50
$V_{R,k}$ [kN]	1.50	1.22	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	1.75	1.19	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	2.00	1.16	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	2.25	1.13	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	≥2.50	1.10	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
$N_{R,k}$ [kN]	1.50	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	1.75	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	2.00	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	2.25	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	≥2.50	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
$N_{R,II,k}$ [kN]		0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 3



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Component II: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Pre-drill-diameter component I: Ø 6.5 mm

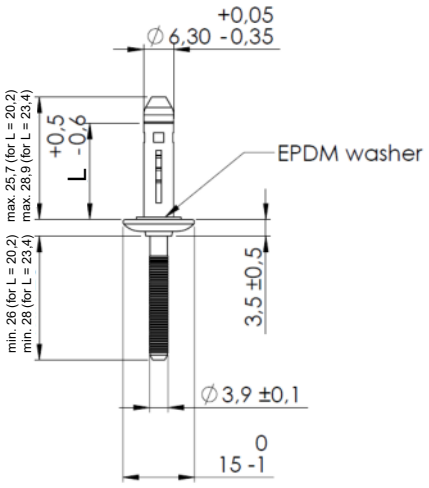
Pre-drill-diameter component II: Ø 6.5 mm

Component I: aluminum sheeting with $R_m \geq 165$ N/mm² Component II: aluminum sheeting with $R_m \geq 165$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	1.75	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	2.00	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	2.25	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	≥2.50	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
$N_{R.k}$ [kN]	1.50	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	1.75	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	2.00	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	2.25	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	≥2.50	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
$N_{R.II.k}$ [kN]		0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 4



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with Rm ≥ 215 N/mm²

Component II: Aluminum alloy – EN 573 with Rm ≥ 215 N/mm²

Pre-drill-diameter component I: Ø 6.5 mm

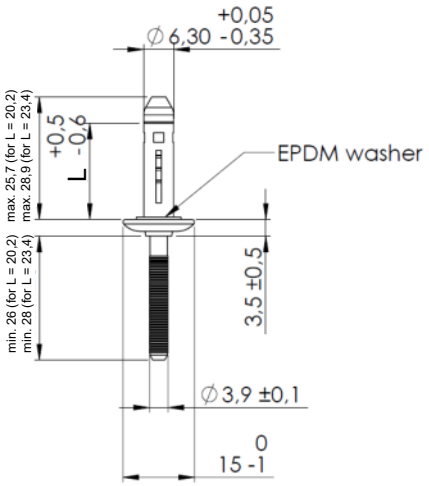
Pre-drill-diameter component II: Ø 6.5 mm

Component I: aluminum sheeting with R_m ≥ 215 N/mm² Component II: aluminum sheeting with R_m ≥ 215 N/mm²									
tI [mm]		tII [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	1.06	1.20	1.33	1.47	1.81	2.23	2.86	2.86	2.86
	1.75	1.06	1.20	1.33	1.47	1.81	2.23	2.86	2.86	2.86
	2.00	1.06	1.20	1.33	1.47	1.81	2.23	2.86	2.86	2.86
	2.25	1.06	1.20	1.33	1.47	1.81	2.23	2.86	2.86	2.86
	≥2.50	1.06	1.20	1.33	1.47	1.81	2.23	2.86	2.86	2.86
$N_{R.k}$ [kN]	1.50	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	1.75	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	2.00	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	2.25	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	≥2.50	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
$N_{R.II.k}$ [kN]		0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 5



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Component II: S280GD to S550GD – EN 10346

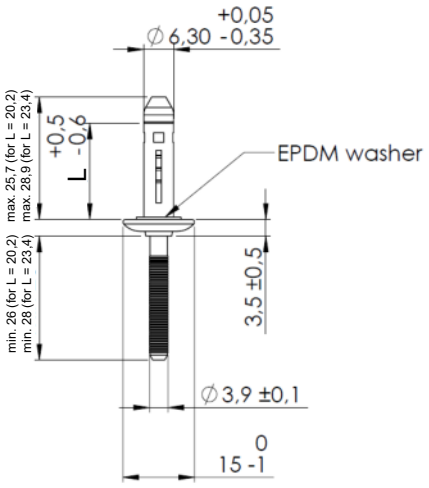
Pre-drill-diameter component I: Ø 6.5 mm
Pre-drill-diameter component II: Ø 6.5 mm

Component I: aluminum sheeting with $R_m \geq 165$ N/mm² Component II: steel sheeting with $R_m \geq 360$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	1.10	1.55	2.18	2.15	2.19	2.19	2.19	2.19	2.19
	1.75	1.10	1.55	2.18	2.15	2.19	2.19	2.19	2.19	2.19
	2.00	1.10	1.55	2.18	2.15	2.19	2.19	2.19	2.19	2.19
	2.25	1.10	1.55	2.18	2.15	2.19	2.19	2.19	2.19	2.19
	≥2.50	1.10	1.55	2.18	2.15	2.19	2.19	2.19	2.19	2.19
$N_{R.k}$ [kN]	1.50	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	1.75	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	2.00	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	2.25	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	≥2.50	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
$N_{R.II.k}$ [kN]		0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 6



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 215$ N/mm²

Component II: S280GD to S550GD – EN 10346

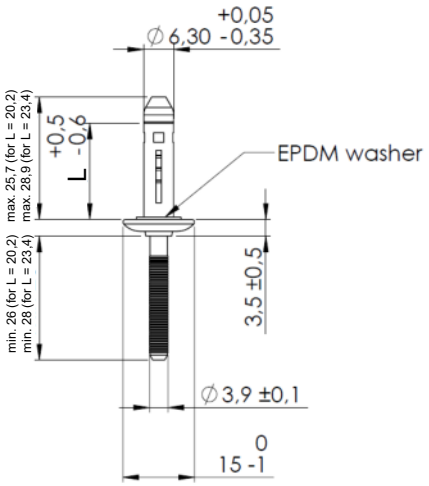
Pre-drill-diameter component I: Ø 6.5 mm
Pre-drill-diameter component II: Ø 6.5 mm

Component I: aluminum sheeting with $R_m \geq 215$ N/mm² Component II: steel sheeting with $R_m \geq 360$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	1.10	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	1.75	1.10	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	2.00	1.10	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	2.25	1.10	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
	≥2.50	1.10	1.55	2.18	2.15	2.84	2.84	2.84	2.84	2.84
$N_{R.k}$ [kN]	1.50	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	1.75	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	2.00	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	2.25	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
	≥2.50	0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53
$N_{R.II.k}$ [kN]		0.81	1.07	1.39	1.50	1.53	1.53	1.53	1.53	1.53

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 7



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: S280GD to S550GD – EN 10346

Component II: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Pre-drill-diameter component I: Ø 6.5 mm
Pre-drill-diameter component II: Ø 6.5 mm

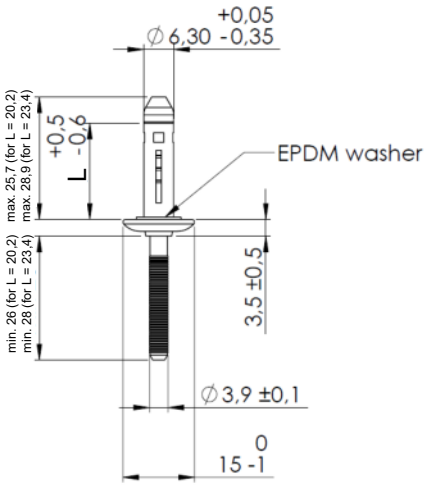
Component I: steel sheeting with $R_m \geq 360$ N/mm²
Component II: aluminum sheeting with $R_m \geq 165$ N/mm²

t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	1.75	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	2.00	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	2.25	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
	≥2.50	0.82	0.92	1.03	1.13	1.39	1.71	2.19	2.19	2.19
$N_{R.k}$ [kN]	1.50	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	1.75	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	2.00	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	2.25	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
	≥2.50	0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07
$N_{R.II.k}$ [kN]		0.43	0.55	0.68	0.80	1.07	1.07	1.07	1.07	1.07

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 8



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: S280GD to S550GD – EN 10346

Component II: Aluminum alloy – EN 573 with $R_m \geq 215$ N/mm²

Pre-drill-diameter component I: Ø 6.5 mm
Pre-drill-diameter component II: Ø 6.5 mm

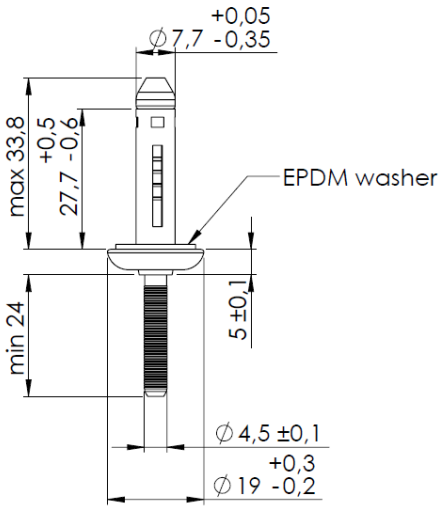
Component I: steel sheeting with $R_m \geq 360$ N/mm²
Component II: aluminum sheeting with $R_m \geq 215$ N/mm²

t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	1.06	1.20	1.33	1.47	1.81	2.23	2.84	2.84	2.84
	1.75	1.06	1.20	1.33	1.47	1.81	2.23	2.84	2.84	2.84
	2.00	1.06	1.20	1.33	1.47	1.81	2.23	2.84	2.84	2.84
	2.25	1.06	1.20	1.33	1.47	1.81	2.23	2.84	2.84	2.84
	≥2.50	1.06	1.20	1.33	1.47	1.81	2.23	2.84	2.84	2.84
$N_{R.k}$ [kN]	1.50	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	1.75	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	2.00	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	2.25	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
	≥2.50	0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39
$N_{R.II.k}$ [kN]		0.56	0.72	0.88	1.04	1.39	1.39	1.39	1.39	1.39

Blind rivet

RIVET Ø6.3 x 20.2 (grip/fixing range 1.6-6.4 mm)
RIVET Ø6.3 x 23.4 (grip/fixing range 3.2-9.5 mm)

Annex 9



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: S280GD to S550GD – EN 10346

Component II: S280GD to S550GD – EN 10346
S235 to S355 – EN 10025-1

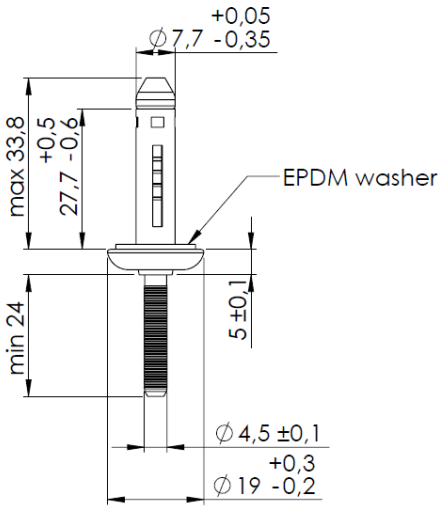
Pre-drill-diameter component I: Ø 8.0 mm
Pre-drill-diameter component II: Ø 8.0 mm

Component I: steel sheeting with Rm ≥ 360 N/mm2 Component II: steel sheeting with Rm ≥ 360 N/mm2									
t_I [mm]		t_{II} [mm]								
		0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.92	1.26	2.01	2.50	3.69	3.69	3.69	3.69	3.69
	1.75	0.91	1.26	2.01	2.50	3.69	3.69	3.69	3.69	3.69
	2.00	0.91	1.26	2.01	2.50	3.69	3.69	3.69	3.69	3.69
	2.25	0.90	1.26	2.01	2.50	3.69	3.69	3.69	3.69	3.69
	≥2.50	0.89	1.26	2.01	2.50	3.69	3.69	3.69	3.69	3.69
$N_{R.k}$ [kN]	1.50	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	1.75	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	2.00	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	2.25	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	≥2.50	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
$N_{R.II.k}$ [kN]		1.05	1.46	1.55	2.23	2.67	2.67	2.67	2.67	2.67

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 10



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Component II: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Pre-drill-diameter component I: Ø 8.0 mm

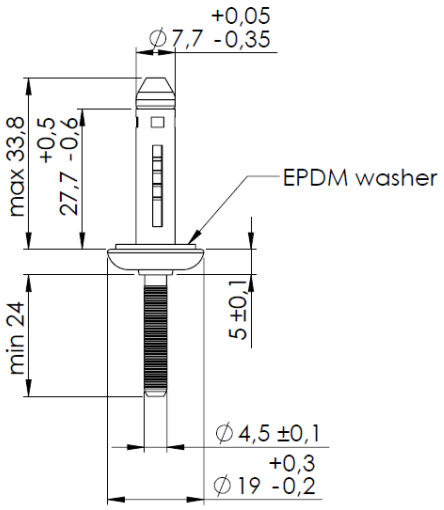
Pre-drill-diameter component II: Ø 8.0 mm

Component I: aluminum sheeting with $R_m \geq 165$ N/mm² Component II: aluminum sheeting with $R_m \geq 165$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	1.75	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	2.00	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	2.25	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	≥2.50	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
$N_{R.k}$ [kN]	1.50	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	1.75	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	2.00	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	2.25	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	≥2.50	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
$N_{R.II.k}$ [kN]		0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 11



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 215$ N/mm²

Component II: Aluminum alloy – EN 573 with $R_m \geq 215$ N/mm²

Pre-drill-diameter component I: Ø 8.0 mm

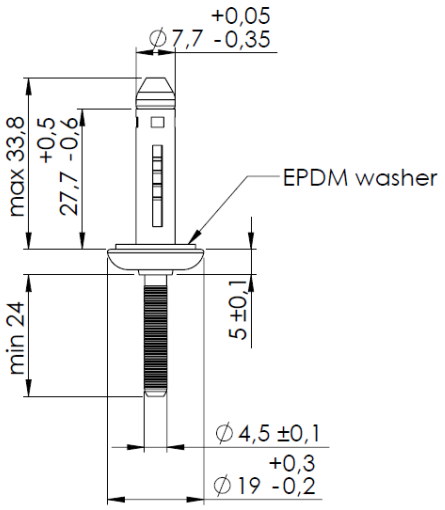
Pre-drill-diameter component II: Ø 8.0 mm

Component I: aluminum sheeting with $R_m \geq 215$ N/mm² Component II: aluminum sheeting with $R_m \geq 215$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	1.75	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	2.00	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	2.25	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	≥2.50	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
$N_{R.k}$ [kN]	1.50	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	1.75	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	2.00	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	2.25	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	≥2.50	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
$N_{R.II.k}$ [kN]		0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 12



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Component II: S280GD to S550GD – EN 10346

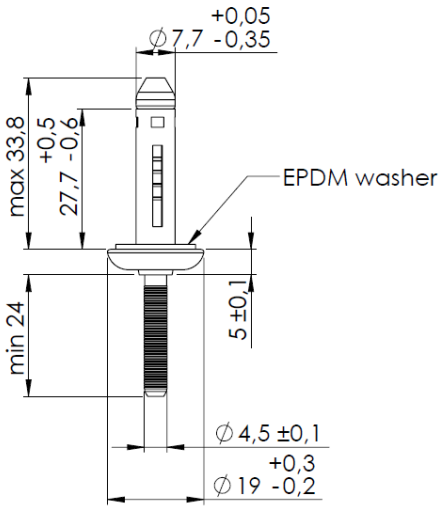
Pre-drill-diameter component I: Ø 8.0 mm
Pre-drill-diameter component II: Ø 8.0 mm

Component I: aluminum sheeting with $R_m \geq 165$ N/mm² Component II: steel sheeting with $R_m \geq 360$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.89	1.26	2.01	2.50	2.66	2.66	2.66	2.66	2.66
	1.75	0.89	1.26	2.01	2.50	2.66	2.66	2.66	2.66	2.66
	2.00	0.89	1.26	2.01	2.50	2.66	2.66	2.66	2.66	2.66
	2.25	0.89	1.26	2.01	2.50	2.66	2.66	2.66	2.66	2.66
	≥2.50	0.89	1.26	2.01	2.50	2.66	2.66	2.66	2.66	2.66
$N_{R.k}$ [kN]	1.50	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	1.75	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	2.00	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	2.25	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	≥2.50	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
$N_{R.II.k}$ [kN]		1.05	1.46	1.55	2.23	2.67	2.67	2.67	2.67	2.67

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 13



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: Aluminum alloy – EN 573 with $R_m \geq 215$ N/mm²

Component II: S280GD to S550GD – EN 10346

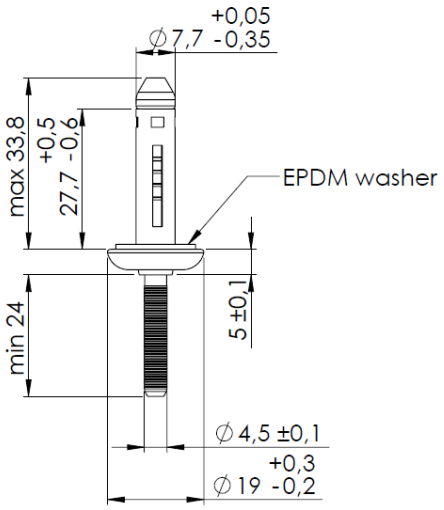
Pre-drill-diameter component I: Ø 8.0 mm
Pre-drill-diameter component II: Ø 8.0 mm

Component I: aluminum sheeting with $R_m \geq 215$ N/mm² Component II: steel sheeting with $R_m \geq 360$ N/mm²									
t_I [mm]		t_{II} [mm]								
		0.40	0.50	0.63	0.75	1.00	1.25	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.89	1.26	2.01	2.50	3.46	3.46	3.46	3.46	3.46
	1.75	0.89	1.26	2.01	2.50	3.46	3.46	3.46	3.46	3.46
	2.00	0.89	1.26	2.01	2.50	3.46	3.46	3.46	3.46	3.46
	2.25	0.89	1.26	2.01	2.50	3.46	3.46	3.46	3.46	3.46
	≥2.50	0.89	1.26	2.01	2.50	3.46	3.46	3.46	3.46	3.46
$N_{R.k}$ [kN]	1.50	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	1.75	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	2.00	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	2.25	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
	≥2.50	1.05	1.46	1.55	2.23	2.56	2.56	2.56	2.56	2.56
$N_{R.II.k}$ [kN]		1.05	1.46	1.55	2.23	2.67	2.67	2.67	2.67	2.67

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 14



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: S280GD to S550GD – EN 10346

Component II: Aluminum alloy – EN 573 with $R_m \geq 165$ N/mm²

Pre-drill-diameter component I: Ø 8.0 mm
Pre-drill-diameter component II: Ø 8.0 mm

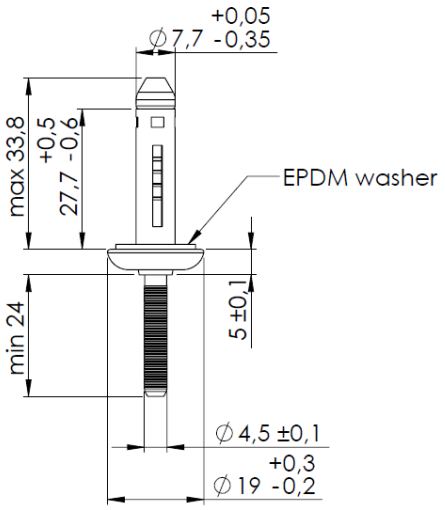
Component I: steel sheeting with $R_m \geq 360$ N/mm²
Component II: aluminum sheeting with $R_m \geq 165$ N/mm²

t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	1.75	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	2.00	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	2.25	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
	≥2.50	0.63	0.82	1.01	1.20	1.65	2.05	2.66	2.66	2.66
$N_{R.k}$ [kN]	1.50	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	1.75	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	2.00	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	2.25	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
	≥2.50	0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97
$N_{R.II.k}$ [kN]		0.53	0.68	0.84	0.99	1.34	1.59	1.97	1.97	1.97

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 15



Materials:

sleeve: Aluminum EN AW-5019 - EN 573-3

mandrel: Aluminum EN AW-7010 - EN 573-3

Component I: S280GD to S550GD – EN 10346

Component II: Aluminum alloy – EN 573 with $R_m \geq 215$ N/mm²

Pre-drill-diameter component I: Ø 8.0 mm
Pre-drill-diameter component II: Ø 8.0 mm

Component I: steel sheeting with $R_m \geq 360$ N/mm²
Component II: aluminum sheeting with $R_m \geq 215$ N/mm²

t_I [mm]		t_{II} [mm]								
		0.50	0.60	0.70	0.80	1.00	1.20	1.50	2.50	≥3.50
$V_{R.k}$ [kN]	1.50	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	1.75	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	2.00	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	2.25	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
	≥2.50	0.82	1.07	1.32	1.57	2.16	2.68	3.46	3.46	3.46
$N_{R.k}$ [kN]	1.50	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	1.75	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	2.00	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	2.25	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
	≥2.50	0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56
$N_{R.II.k}$ [kN]		0.70	0.90	1.09	1.29	1.75	2.07	2.56	2.56	2.56

Blind rivet

RIVET Ø7.7 x 27.7 (grip/fixing range 1.0-9.5 mm)

Annex 16