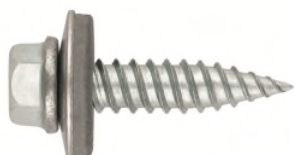


### TAC



TAC + ARVUL (TAC-N)



TAC BIMETAL + ARVUL A2 (TAC-B)



DIN-7504-K RE NI + ARVUL (ARENI)



AUE NI + ARVUL (AUENI)

### PRODUCT DESCRIPTION

- Thin sheet screw + vulcanised EPDM washer.

### CHARACTERISTICS

- Self-drilling screw used to attach elements to sheet metal roofs.
- Available in two finishes:
  - **TAC + ARVUL (TAC-N)**: Steel screw hardened with Atlantis anti-corrosion treatment.
  - **TAC BIMETAL + ARVUL A2 (TAC-B)**: Bi-metal screw with hardened tip and rest of screw body in stainless steel, with Atlantis anti-corrosion treatment
  - **DIN-7504-K RE NI + ARVUL (ARENI)**: Self-drilling screw in hardened steel with Atlantis anticorrosive treatment.
  - **AUE NI + ARVUL (AUE-NI)**: Hardened steel self-tapping screw with Atlantis anticorrosive treatment.
- Includes vulcanised EPDM washer.
- For outside use.
- Resistance in salt spray chamber of 1000 hours
- Quick installation thanks to the self-drilling which makes it suitable for stitching applications.
- Stronger joints on sheet steel thanks to the deformation produced during drilling.
- Capacity to drill and join aluminium profiles on sheet metal roofs simultaneously.
- No swarf created during installation.
- Excellent watertightness.

### APPLICATIONS



PSA-A

PSA-AV

GP-XS

GP-VD

PSE-C

For the installation of solar panels on **coplanar mounting systems for direct fixing**. The structural components of the solar range that are normally installed are:

- **PSE-C**, aluminium profile for direct fixing. During installation, the profile and roof are drilled.
- **PSA-A**, winged aluminium profile for direct fixing. During installation, the profile and roof are drilled.
- **PSA-AV**, winged aluminium solar profile for direct fixing on valley. During installation, it is positioned on the  $\varnothing 7$  drill holes included in the profile, and the roof is drilled.
- **GP-XS**, INDEXTRUT solar perforated guide. During installation, it is positioned on the square perforations, and the roof is drilled.
- **GP-VD**, INDEXTRUT solar perforated guide for direct fixing on valley. During installation, it is positioned on the square perforations, and the roof is drilled.

Used to attach the structure to metal roofs, maintaining watertightness. Quick, reliable installation without the need for pre-drilling.



STR1680

It is also used for the installation of fixing systems, such as an **STR1680** "Adjustable support for trapezoidal roofs", to mount the support on sheet metal or sandwich panel roofs.

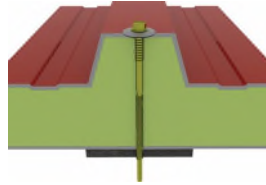
In this case, this is an **assembled coplanar mounting system** used to install solar panels.

**BASE MATERIAL/SEALING ACCESSORIES**

BASE MATERIAL



Metal sheet



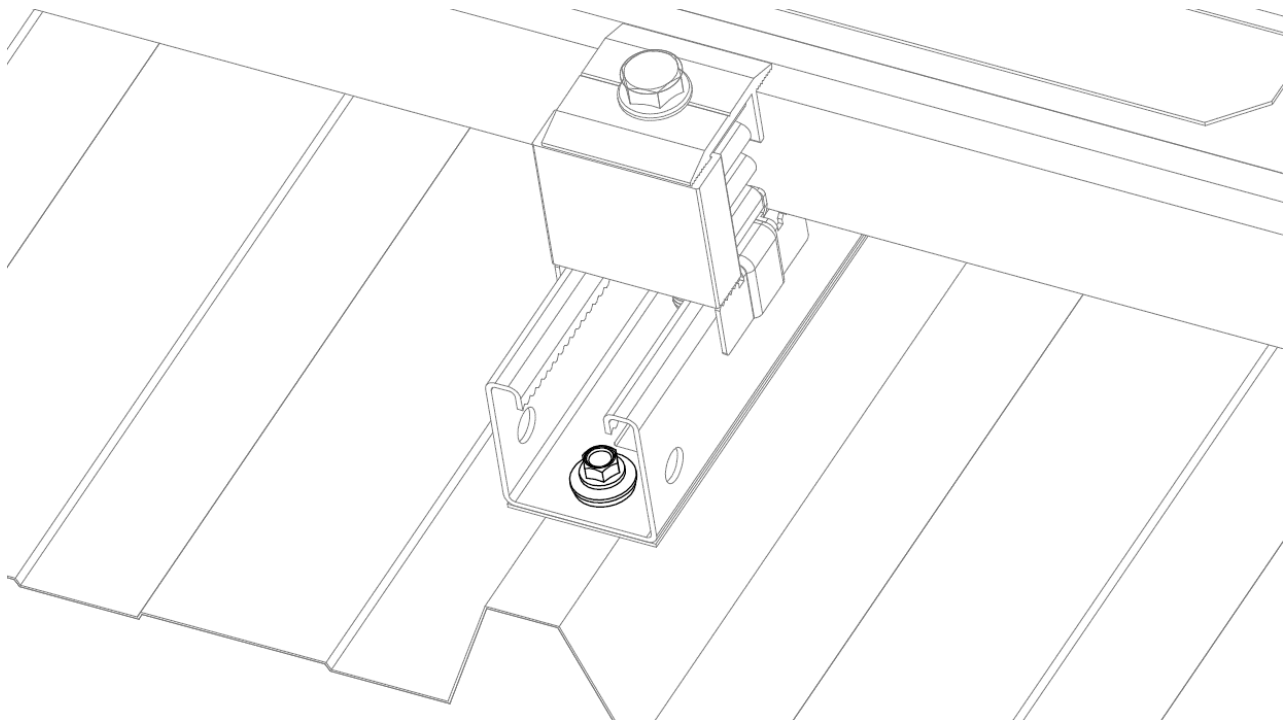
Sandwich panel

SEALING ACCESSORIES

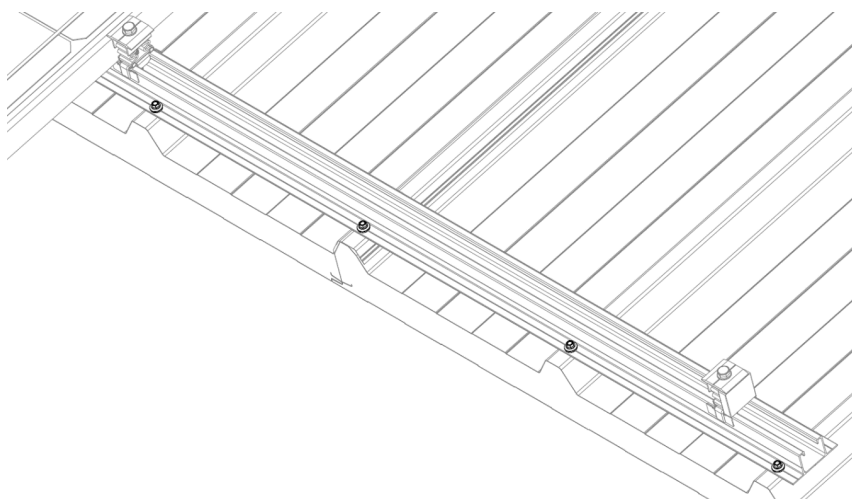


CS-B  
(Butylene adhesive sealing tape)

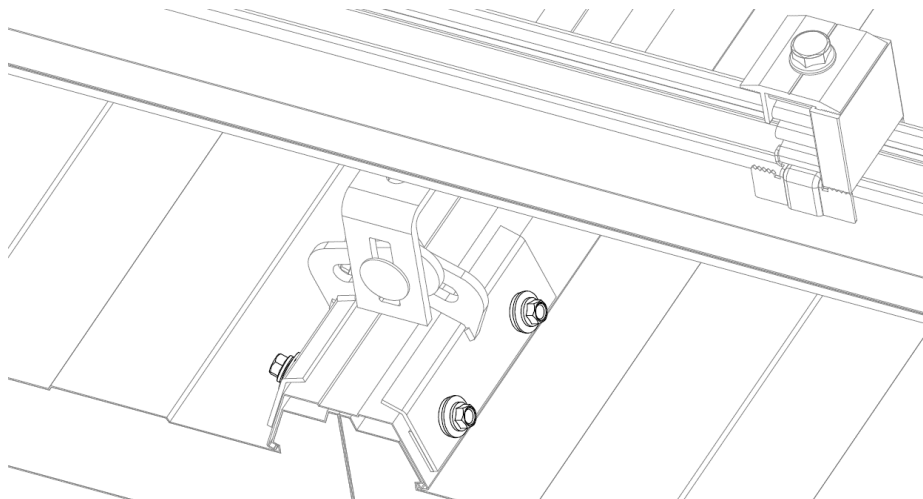
**APPLICATION EXAMPLES**



**Application example 1: Fixing of the GP-XS guide**



Application example 2: Fixing of the PSA-A profile



Application example 2: Fixing of the STR1680 support

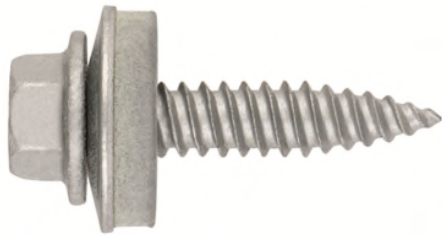
**1.RANGE**

Item	Code	Photo	Description	Tool	Length	Material	Finish	Washer diameter	Washer material	
1	TACN165525		Atlantis C4-M thin sheet screw + vulcanised EPDM - aluminium washer.	5,5mm	25mm			16 mm		
						Steel	Atlantis C4-M		Aluminium	EPDM
2	TACB166025		Atlantis C4-M thin sheet screw + vulcanised EPDM - stainless steel A2 washer.	6,0mm	25mm			16 mm		
						AISI-304	Steel		Atlantis C3-M	AISI-304
3	ARENI166325		Self-drilling screw with vulcanized EPDM-steel washer. Atlantis C4M	6,3mm	25mm			16 mm		
						Steel	Atlantis C4-M		AISI-304	EPDM
4	AUENI166325		Screw with vulcanized EPDM-steel washer. Atlantis C4M	6,3mm	25mm			16 mm		
						Steel	Atlantis C4-M		AISI-304	EPDM

## 2.INSTALLATION DATA

### 2.1 TAC + ARVUL (TAC-N)

### Atlantis thin sheet screw + vulcanised EPDM-aluminium washer.



Material	Finish	Material Washer			
Steel	Atlantis C4-M	Aluminium	EPDM		
Compatible					
PSA-A Winged aluminium profile	PSA-AV Winged aluminium profile for valley	GP-XS INDETRUT solar perforated guider	GP-VD INDETRUT solar perforated guider for valley	PSE-C Aluminium profile	STR1680 Adjustable support for trapezoidal roof
Base material			Sealing accessories		
Metal sheet	Sandwich panel	CS-B Butylene adhesive sealing tape			

#### Measurement table

Code	A (mm)	Em (mm)	Er (mm)	D (mm)	G (mm)	H (mm)	L (m)	P (mm)	SW (mm)
TACN165525	16	1	3	5,4	10,45	3,25	25	1,4	8

#### Drawing

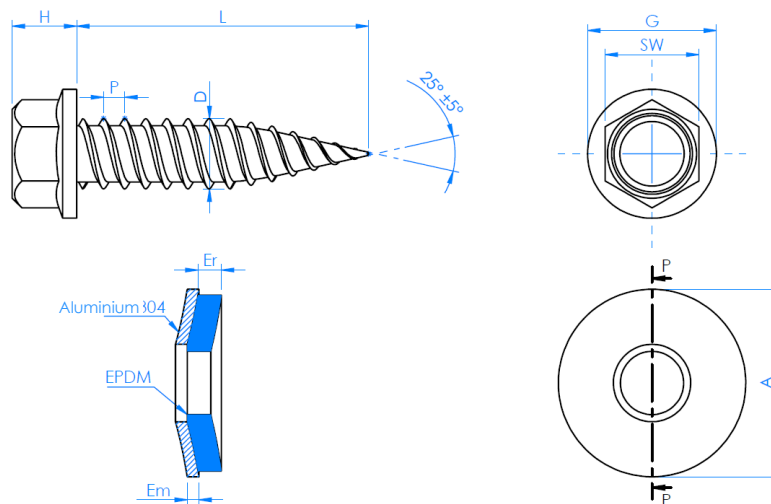
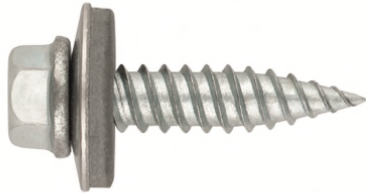


Table showing installation parameters

Reference	Recommended application thicknesses			Type	Installation maximum speed	
TACN165525	Aluminium (1.8 mm) + S280GD steel (max. 1.2 mm)			SW8	1800 RPM	
Extraction loads/Sheet steel thickness (S280GD)						
Reference	e = 0,5mm NRd (kN)	e = 0,6mm NRd (kN)	e = 0,7mm NRd (kN)	e = 0,8mm NRd (kN)	e = 1,0mm NRd (kN)	e = 1,2mm NRd (kN)
TACN165525	0,55	0,76	0,88	1,09	1,43	1,43
Designed extraction load/Thickness of aluminium sheet (Rm min. = 165 N/mm <sup>2</sup> )						
Reference	e = 0,5mm NRd (kN)	e = 0,6mm NRd (kN)	e = 0,7mm NRd (kN)	e = 0,8mm NRd (kN)	e = 1,0mm NRd (kN)	e = 1,2mm NRd (kN)
TACN165525	0,23	0,30	0,38	0,46	0,61	0,75

## 2.2 TAC BIMETAL + ARVUL A2 (TAC-B)

Bi-metal thin sheet screw + vulcanised EPDM-stainless steel A2 washer.



Material		Finish		Material Washer	
AISI-304	Steel	Atlantis C3-M	AISI-304	EPDM	
Compatible					
PSA-A Winged aluminium profile	PSA-AV Winged aluminium profile for valley	GP-XS INDEXTRUT solar perforated guider	GP-VD INDEXTRUT solar perforated guider for valley	PSE-C Aluminium profile	STR1680 Adjustable support for trapezoidal roof
Base material			Sealing accessories		
Metal sheet		Sandwich panel		CS-B Butylene adhesive sealing tape	

Measurement table

Code	A (mm)	Em (mm)	Er (mm)	D (mm)	G (mm)	H (mm)	L (m)	P (mm)	SW (mm)
TACB166025	16	0,8	2	6,0	11	5,25	25	1,8	8

Drawing

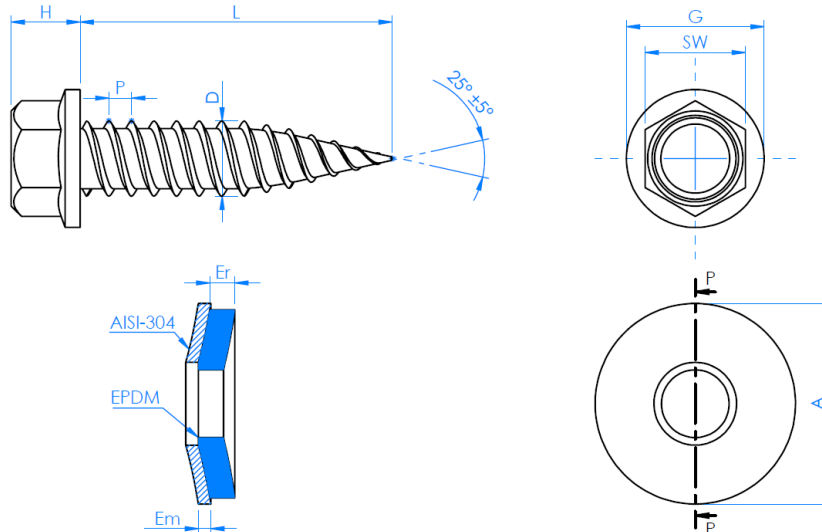


Table showing installation parameters

Reference	Recommended application thicknesses		Type	Installation maximum speed		
TACB166025	Aluminium (1.8 mm) + S280GD steel (max. 1.2 mm)		SW8	1800 RPM		
Extraction loads/Sheet steel thickness (S280GD)						
Reference	e = 0,5mm NRd (kN)	e = 0,6mm NRd (kN)	e = 0,7mm NRd (kN)	e = 0,8mm NRd (kN)	e = 1,0mm NRd (kN)	e = 1,2mm NRd (kN)
TACB166025	0,55	0,79	0,88	1,1	1,45	1,45
Designed extraction load/Thickness of aluminium sheet (Rm min. = 165 N/mm²)						
Reference	e = 0,5mm NRd (kN)	e = 0,6mm NRd (kN)	e = 0,7mm NRd (kN)	e = 0,8mm NRd (kN)	e = 1,0mm NRd (kN)	e = 1,2mm NRd (kN)
TACB166025	0,24	0,31	0,39	0,46	0,65	0,83

## 2.3 DIN-7504-K RE NI + ARVUL (ARENI)

### Self-drilling screw with vulcanized EPDM-steel washer. Atlantis C4M



Material	Finish	Material Washer	
Steel	Atlantis C4-M	AISI-304	EPDM
Compatible			
PSA-A Winged aluminium profile			PSE-C Aluminium profile
Base material		Sealing accessories	
Metal sheet	Sandwich panel	CS-B Butylene adhesive sealing tape	

Measurement table

Code	e (mm)	C (mm)	dk (mm)	dp (mm)	k (mm)	L (m)	P (mm)	SW (mm)
ARENI166325	8,7	1,15	10,5	3,9	5,3	25	1,8	8

Drawing

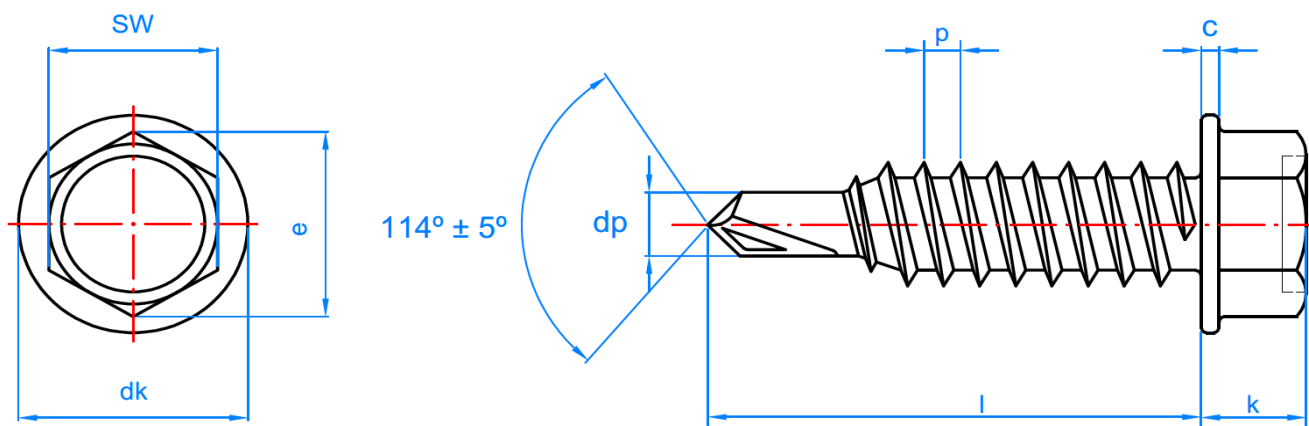


Table showing installation parameters

Reference	Recommended application thicknesses		Type	Installation maximum speed
	ARENI166325	Aluminium (1.8 mm) + S280GD steel (max. 1.2 mm)		
Reference	Extraction loads/Sheet steel thickness (S280GD)		Shear Design Loads on Steel Sheet (S280GD)	
	NRd (kN)		VRd (kN)	
ARENI166325	0,55		4,45	
Reference	Designed extraction load/Thickness of aluminium sheet (Rm min. = 165 N/mm <sup>2</sup> )		Aluminium sheet shear design loads (Rm min=165 N/mm <sup>2</sup> )	
	NRd (kN)		VRd (kN)	
ARENI166325	0,23		4,45	

**2.4 AUE NI + ARVUL (AUENI)**

**Screw with vulcanized EPDM-steel washer. Atlantis C4M**



Material	Finish	Material Washer	
Steel	Atlantis C4-M	AISI-304	EPDM
Compatible			
PSA-AV Winged aluminium profile for direct fixing on valley	GP-XS INDETRUT solar perforated guider	GP-VD INDETRUT solar perforated guider for direct fixing on valley	STR1680 Adjustable support for trapezoidal roof
Base material		Sealing accessories	
Metal sheet	Sandwich panel	CS-B Butylene adhesive sealing tape	

Measurement table

Code	C (mm)	D1 (mm)	D2 (mm)	dk (mm)	k (mm)	L (m)	P (mm)	SW (mm)
AUENI166325	1,0	6,3	4,8	14,3	6,3	25	1,8	10

Drawing

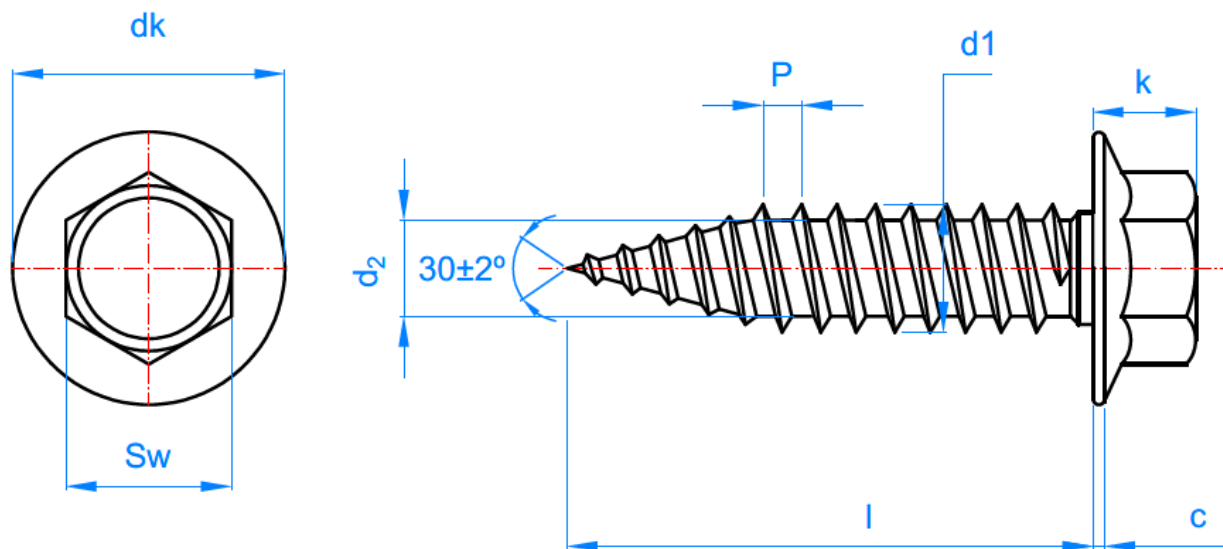


Table showing installation parameters

Reference	Recommended application thicknesses	Type	Installation maximum speed
AUENI166325	S280GD steel (max. 1. mm)	SW10	1400 RPM
Reference	Extraction loads/Sheet steel thickness (S280GD)	Shear loads/Sheet steel thickness (S280GD)	
	$N_{Rd}$ (kN)	$V_{Rd}$ (kN)	
AUENI166325	0,55	4,45	