

GT 02

SCREWS WITHOUT WASHER
FOR OVERLAP JOINTS (STAPLE)



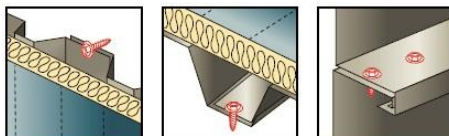
PRODUCT DESCRIPTION

Self-drilling, self-tapping screws made of surface-hardened carbon steel, electroplated, with a reduced drilling point, fine thread and a hex head, without a washer.

APPLICATION

Designed for fastening overlap joints of thin corrugated construction steel sheets and sandwich panels (roof tiles). Protected with paint coating - polyester thickness of not less than 50 μm , intended for use in environments with corrosivity class C1, C2 and C3 according to PN-EN ISO 12944-2: 2001 standard.

Galvanized without paint coating intended for use in environments with corrosivity class C1, C2.



LENGTH OF SCREWS

Fastener type		Dimensions D x L [mm]	Maximum drill capacity [mm]	Maximum thickness of fixed elements [mm]	
			DC	MTmax	
GT 02	brak	4,8 x 20	2 x 1,00	10,00	

The working length of the connector is calculated from the maximum thickness of the DC substrate

TECHNICAL APPROVAL AT-5242/2013

LOAD BEARING CAPACITY OF PULL-OUT RESISTANCE IN A STEEL BASE

Thickness of steel base *, [mm]	Characteristic load bearing capacity N_{rk} , [kN]			
	Thickness of mounted steel sheets **, [mm]			
	0,50	0,60	0,75	1,00
0,50	0,80	—	—	—
0,60	—	1,02	—	—
0,75	—	—	1,95	—
1,00	—	—	—	2,50

Thickness of steel base *, [mm]	Design load bearing capacity N_{rd} , [kN]			
	Thickness of mounted steel sheets **, [mm]			
	0,50	0,60	0,75	1,00
0,50	0,43	—	—	—
0,60	—	0,55	—	—
0,75	—	—	1,00	—
1,00	—	—	—	1,35

* S280GD steel substrate according to PN-EN 10326: 2006 standard

** Mounted sheet steel of grade S235JR + N according to PN-EN 10025: 2007 standard

LOAD BEARING CAPACITY OF SHEAR RESISTANCE

Thickness of mounted steel sheets *, [mm]	0,50	0,75	1,00
Characteristic load bearing capacity N_{rk} , [kN]	1,40	3,00	4,75
Design load bearing capacity N_{rd} , [kN]	0,75	1,60	2,60

* S280GD steel substrate according to PN-EN 10346: 2006 standard, fastened sheet steel of grade S235JR + N according to PN-EN 10025: 2007 standard

EUROPEAN TECHNICAL APPROVAL ETA-12/0580

CHARACTERISTIC LOAD BEARING CAPACITY OF PULL-OUT RESISTANCE IN A STEEL BASE

tN,II* [mm]	0,50	0,55	0,63	0,75	0,88	1,00
VR,k [kN] for tN,I* [mm]						
0,50	0,51	0,51	0,51	0,51	0,51	0,51
0,55	0,51	0,51	0,51	0,51	0,51	0,51
0,63	0,55	0,55	0,73	0,76	0,76	0,76
0,75	0,55	0,55	0,73	0,84	0,84	0,84
0,88	0,55	0,55	0,73	0,84	0,84	0,84
1,00	0,55	0,55	0,73	0,84	0,94	0,94

Element I - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

Element II - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

To determine the structural carrying capacity of the characteristic safety factor $\gamma_m = 1.33$.

CHARACTERISTIC LOAD BEARING CAPACITY OF SHEAR RESISTANCE

tN,II* [mm]	0,50	0,55	0,63	0,75	0,88	1,00
VR,k [kN] for tN,I* [mm]						
0,50	1,05	1,05	1,05	1,05	1,05	1,05
0,55	1,05	1,05	1,05	1,05	1,05	1,05
0,63	1,05	1,05	1,42	1,42	1,42	1,42
0,75	1,05	1,05	1,42	2,02	2,02	2,02
0,88	1,05	1,05	1,42	2,02	2,21	2,21
1,00	1,05	1,05	1,42	2,02	2,21	2,53

Element I - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

Element II - sheet steel class S280GD; S320GD; Standard S350GD according to EN 10346.

To determine the structural carrying capacity of the characteristic safety factor $\gamma_m = 1.33$.

OTHER FEATURES

BASE MATERIAL: *TRAPEZOIDAL METAL SHEET*

SIZE OF HEX HEAD: *8 mm*

MINIMUM THICKNESS OF STEEL BASE: *2 x 0,50 mm*

MAXIMUM CAPACITY OF DRILLING: *2 x 1,00 mm*

THICKNESS OF ZINC COATING: *12 μ m*

CORROSIVE ENVIRONMENT: *PAINTED - C3
UNPAINTED - C2*

OPINION ON ANTI-CORROSIVE PROTECTION: *02248/16/Z00NZM*

POSSIBILITY OF PAINTING: *YES*

PAINT COATING THICKNESS: *50 μ m*

TIGHTENING TORQUE: *3 Nm*

RECOMMENDED ROTARY SPEED (IDLE): *1800 rpm*

