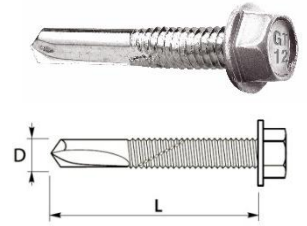


GTR 12

SCREWS WITHOUT WASHER
FOR FIXING STEEL SHEETS



PRODUCT DESCRIPTION

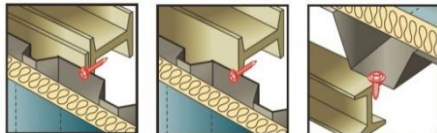
Self-drilling, self-tapping screws made of surface-hardened carbon steel, galvanized electrolytically, with drilling point # 5, fine thread and hexagonal head, without washer.

Additional corrosion protection: gRey.coat coating.


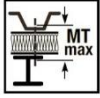
APPLICATION

Designed for fixing profiled steel structural steel to hot rolled steel constructions.

Designed for use in environments with corrosivity category C1, C2, C3 and C4 according to PN-EN ISO 12944-2: 2001



LENGTH OF SCREWS

Fastener type		Dimensions D x L [mm]	Maximum drill capacity [mm]	Maximum thickness of fixed elements [mm]	
			DC	MTmax	
GTR 12	NA	5,5 x 35	12,00	4	
GTR 12	NA	5,5 x 51	12,00	20	
GTR 12	NA	5,5 x 67	12,00	36	

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

NATIONAL TECHNICAL ASSESSMENT ITB-KOT-2018/0680

CHARACTERISTIC LOAD BEARING CAPACITY FOR SHEAR AND PULL-OUT RESISTANCE IN A STEEL BASE

Substrate thickness ¹⁾ [mm]		4,00	5,00	6,00	8,00	10,00	12,00	Wood class \geq C24
$M_{t,nom}$		6 Nm						
Attachment thickness ²⁾ [mm]	SHEAR [kN]	0,50	1,34	1,34	1,34	1,34	1,34	—
		0,55	1,34	1,34	1,34	1,34	1,34	—
		0,63	1,46	1,46	1,46	1,46	1,46	—
		0,75	1,93	1,93	1,93	1,93	1,93	—
		0,88	2,35	2,35	2,35	2,35	2,35	—
		1,00	2,82	2,82	2,82	2,82	2,82	—
		1,13	2,82	2,82	2,82	2,82	2,82	—
		1,25	2,82	2,82	2,82	2,82	2,82	—
		1,50	2,82	2,82	2,82	2,82	2,82	—
		1,75	2,82	2,82	2,82	2,82	2,82	—
	2,00	2,82	2,82	2,82	2,82	2,82	—	
	FOR PULL OUT [kN]	0,50	0,61	0,61	0,61	0,61	0,61	—
		0,55	0,61	0,61	0,61	0,61	0,61	—
		0,63	0,90	0,90	0,90	0,90	0,90	—
		0,75	0,99	0,99	0,99	0,99	0,99	—
		0,88	0,99	0,99	0,99	0,99	0,99	—
		1,00	1,13	1,13	1,13	1,13	1,13	—
		1,13	1,13	1,13	1,13	1,13	1,13	—
		1,25	1,13	1,13	1,13	1,13	1,13	—
		1,50	1,13	1,13	1,13	1,13	1,13	—
1,75		1,13	1,13	1,13	1,13	1,13	—	
2,00	1,13	1,13	1,13	1,13	1,13	—		

¹⁾ steel grade S280GD, S320GD or S350GD according to PN-EN 10346:2015

²⁾ steel grade S280GD, S320GD or S350GD according to PN-EN 10346:2015

If both elements I and II are made of steel grade S320GD, values $V_{R,k}$ can be increased by 8,3%

If both elements I and II are made of steel grade S350GD, values $V_{R,k}$ can be increased by 16,6%

EUROPEAN TECHNICAL APPROVAL ETA-12/0580

CHARACTERISTIC LOAD BEARING CAPACITY OF SHEAR RESISTANCE

tN,II* [mm]	4,00	5,00	6,00	8,00	10,00
VR,k [kN] for tN,I* [mm]	0,50	1,34	1,34	1,34	1,34
	0,55	1,34	1,34	1,34	1,34
	0,63	1,46	1,46	1,46	1,46
	0,75	1,93	1,93	1,93	1,93
	0,88	2,35	2,35	2,35	2,35
	1,00	2,82	2,82	2,82	2,82
	1,13	2,82	2,82	2,82	2,82
	1,25	2,82	2,82	2,82	2,82
	1,50	2,82	2,82	2,82	2,82
	1,75	2,82	2,82	2,82	2,82
	2,00	2,82	2,82	2,82	2,82

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

To define a design load should divide the value of the characteristic load by a safety factor $\gamma_m = 1,33$.

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

tN,II* [mm]	4,00	5,00	6,00	8,00	10,00
NR,k [kN] for tN,I* [mm]	0,50	0,61	0,61	0,61	0,61
	0,55	0,61	0,61	0,61	0,61
	0,63	0,90	0,90	0,90	0,90
	0,75	0,99	0,99	0,99	0,99
	0,88	0,99	0,99	0,99	0,99
	1,00	1,13	1,13	1,13	1,13
	1,13	1,13	1,13	1,13	1,13
	1,25	1,13	1,13	1,13	1,13
	1,50	1,13	1,13	1,13	1,13
	1,75	1,13	1,13	1,13	1,13
	2,00	1,13	1,13	1,13	1,13

Component I: S280GD, S320GD or S350GD – EN 10346

Component II: S280GD, S320GD or S350GD – EN 10346

To define a design load should divide the value of the characteristic load by a safety factor $\gamma_m = 1,33$.

OTHER FEATURES

BASE MATERIAL:	STEEL PROFILE
SIZE OF HEX HEAD:	8 mm
MINIMUM THICKNESS OF STEEL BASE:	4,00 mm
MAXIMUM DRILLING CAPACITY:	12,00 mm
ADDITIONAL CORROSION PROTECTION:	gRey.coat
CORROSIVITY CATEGORY:	C4
TECHNICAL OPINION ON CORROSION PROTECTION:	02248/16/Z00NZM
PAINTING POSSIBILITY:	YES
THICKNESS OF POLYESTER PAINT:	50 µm
TIGHTENING TORQUE:	5 Nm
RECOMMENDED SPEED OF THE TOOL WITHOUT LOAD:	1500 rpm

