DECLARATION of PERFORMANCE

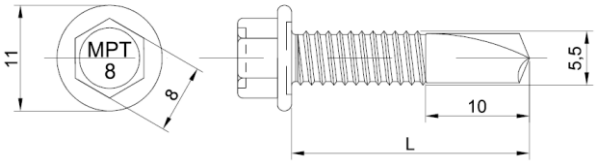
No 03/MPT8/0371/2023

CE

1. *Unique identification code of the product-type*: **MPT8, MPT8+(A14/A16/I14/I16)**
2. *Intended use:* **MPT 8 self-drilling screws are intended to be used for fastening steel sheeting to steel supporting structures.**
3. *Name, registered trade name or registered trade mark and contact address of the manufacturer:* **Marcopol Sp. z o.o. Producer of Bolts str. Oliwska 100, 80-209 Chwaszczyno Poland**
4. *System or systems of assessment and verification of constancy of performance of the construction product:* **System "2+" of assessment**
5. *European Technical Assessment:* **ETA 18/0371 issued 05.10.2023**
   Technical Assessment Body: **Technický a zkušební ústav stavební Praha, s.p.**
   Notified Body: **Number: 1020 - Technický a zkušební ústav stavební Praha, s.p.**
6. *Declared performance:*

	Essential characteristics	Performance	Technical specification
3.1 BWR 1: Mechanical resistance and stability			
3.1.1	Characteristic Shear Resistance of the Connection	see Table 1 ÷ 5 below	ETA 18/0371
3.1.2	Characteristic Tension Resistance of the Connection	see Table 1 ÷ 5 below	ETA 18/0371
3.1.3	Design Resistance in case of combined Tension and Shear Forces (interaction)	No Performance Assessed	ETA 18/0371
3.1.4	Check of Deformation Capacity in case of constraining forces due to temperature	No Performance Assessed	ETA 18/0371
3.1.5	Durability		
	Ceramic coating Ruspert Silver	according to individual Producer documentation C3 medium, C4 low	ETA 18/0371
3.2 BWR 2: Safety in case of fire			
3.2.1	Reaction to fire	The performance of the product is class A1	EN 13501-1

Table 1: Characteristic Tension Resistance $N_{R.k}$ and Shear Resistance $V_{R,k}$ [kN]



Materials
Fastener: carbon steel – SAE1022
quenched, tempered and galvanized (Ruspert Silver)
Washer: -
Component I: S280GD, S320GD or S350GD – EN 10346
Component II: S235 – EN 10025-1

Drilling capacity: $\Sigma(t_{N2} + t_{II}) \leq 8{,}50$ mm

Timber substructures
no performance determined

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm									—	—	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	1,23	1,23	1,23	1,23	1,23	—	—	—	—	—	—	*bearing resistance of component I **bearing resistance of component II
	0,88	1,31	1,31	1,31	1,31	1,31	—	—	—	—	—	—	
	1,00	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,13	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,25	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,50	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	1,38	1,38	1,38	1,38	1,38	—	—	—	—	—	—	*bearing resistance of component II **bearing resistance of component I
	0,88	1,45	1,45	1,45	1,45	1,45	—	—	—	—	—	—	
	1,00	2,00	2,00	2,00	2,00	2,00	—	—	—	—	—	—	
	1,13	2,00	2,00	2,00	2,00	2,00	—	—	—	—	—	—	
	1,25	2,06	2,06	2,06	2,06	2,06	—	—	—	—	—	—	
	1,50	2,06	2,06	2,06	2,06	2,06	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	

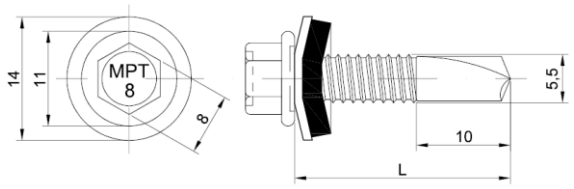
If both components I and II are made of S320GD the values $V_{R,k}$ may be increased by 8,3%
If both components I and II are made of S350GD the values $V_{R,k}$ may be increased by 16,6%

MPT 8 fastening screws for metal members and sheeting

MPT 8 5,5 × L
with hexagon head

Table 1

Table 2: Characteristic Tension Resistance $N_{R.k}$ and Shear Resistance $V_{R,k}$ [kN]



Materials
Fastener: carbon steel – SAE1022 quenched, tempered and galvanized (Ruspert Silver)
Washer: EPDM sealing ring with metal top made of stainless steel
Component I: S280GD, S320GD or S350GD – EN 10346
Component II: S235 – EN 10025-1

Drilling capacity: $\Sigma(t_{N2} + t_{II}) \leq 8{,}50$ mm

Timber substructures
no performance determined

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm									—	—	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	1,23	1,23	1,23	1,23	1,23	—	—	—	—	—	—	*bearing resistance of component I **bearing resistance of component II
	0,88	1,31	1,31	1,31	1,31	1,31	—	—	—	—	—	—	
	1,00	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,13	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,25	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,50	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	3,30	3,30	3,30	3,30	3,30	—	—	—	—	—	—	*bearing resistance of component II **bearing resistance of component I
	0,88	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—	—	
	1,00	4,19	4,19	4,19	4,19	4,19	—	—	—	—	—	—	
	1,13	4,19	4,19	4,19	4,19	4,19	—	—	—	—	—	—	
	1,25	4,21	4,21	4,21	4,21	4,21	—	—	—	—	—	—	
	1,50	4,21	4,21	4,21	4,21	4,21	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	

If both components I and II are made of S320GD the values $V_{R,k}$ may be increased by 8,3%
If both components I and II are made of S350GD the values $V_{R,k}$ may be increased by 16,6%

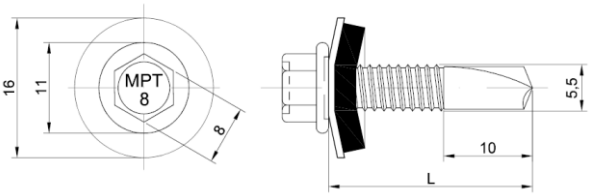
MPT 8 fastening screws for metal members and sheeting

MPT 8 5,5 × L + l14

with hexagon head and sealing washer ≥ Ø14 mm
with metal top made of stainless steel

Table 2

Table 3: Characteristic Tension Resistance $N_{R.k}$ and Shear Resistance $V_{R,k}$ [kN]



Materials
Fastener: carbon steel – SAE1022 quenched, tempered and galvanized (Ruspert Silver)
Washer: EPDM sealing ring with metal top made of stainless steel
Component I: S280GD, S320GD or S350GD – EN 10346
Component II: S235 – EN 10025-1

Drilling capacity: $\Sigma(t_{N2} + t_{II}) \leq 8{,}50$ mm

Timber substructures
no performance determined

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm									—	—	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	1,23	1,23	1,23	1,23	1,23	—	—	—	—	—	—	*bearing resistance of component I **bearing resistance of component II
	0,88	1,31	1,31	1,31	1,31	1,31	—	—	—	—	—	—	
	1,00	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,13	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,25	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,50	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	3,33	3,33	3,33	3,33	3,33	—	—	—	—	—	—	*bearing resistance of component II **bearing resistance of component I
	0,88	4,04	4,04	4,04	4,04	4,04	—	—	—	—	—	—	
	1,00	4,23	4,23	4,23	4,23	4,23	—	—	—	—	—	—	
	1,13	4,23	4,23	4,23	4,23	4,23	—	—	—	—	—	—	
	1,25	4,26	4,26	4,26	4,26	4,26	—	—	—	—	—	—	
	1,50	4,26	4,26	4,26	4,26	4,26	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	

If both components I and II are made of S320GD the values $V_{R,k}$ may be increased by 8,3%
If both components I and II are made of S350GD the values $V_{R,k}$ may be increased by 16,6%

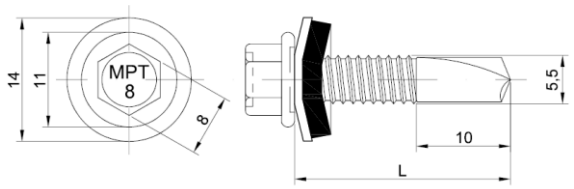
MPT 8 fastening screws for metal members and sheeting

MPT 8 5,5 × L +I16

with hexagon head and sealing washer ≥ Ø16 mm
with metal top made of stainless steel

Table 3

Table 4: Characteristic Tension Resistance $N_{R.k}$ and Shear Resistance $V_{R,k}$ [kN]



Materials

Fastener:	carbon steel – SAE1022 quenched, tempered and galvanized (Ruspert Silver)
Washer:	EPDM sealing ring with metal top made of aluminum
Component I:	S280GD, S320GD or S350GD – EN 10346
Component II:	S235 – EN 10025-1

Drilling capacity: $\Sigma(t_{N2} + t_{II}) \leq 8{,}50$ mm

Timber substructures
no performance determined

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm									—	—	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	1,23	1,23	1,23	1,23	1,23	—	—	—	—	—	—	*bearing resistance of component I **bearing resistance of component II
	0,88	1,31	1,31	1,31	1,31	1,31	—	—	—	—	—	—	
	1,00	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,13	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,25	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,50	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	3,30	3,30	3,30	3,30	3,30	—	—	—	—	—	—	*bearing resistance of component II **bearing resistance of component I
	0,88	4,00	4,00	4,00	4,00	4,00	—	—	—	—	—	—	
	1,00	4,19	4,19	4,19	4,19	4,19	—	—	—	—	—	—	
	1,13	4,19	4,19	4,19	4,19	4,19	—	—	—	—	—	—	
	1,25	4,21	4,21	4,21	4,21	4,21	—	—	—	—	—	—	
	1,50	4,21	4,21	4,21	4,21	4,21	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	

If both components I and II are made of S320GD the values $V_{R,k}$ may be increased by 8,3%
If both components I and II are made of S350GD the values $V_{R,k}$ may be increased by 16,6%

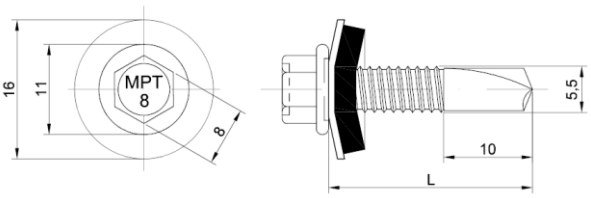
MPT 8 fastening screws for metal members and sheeting

MPT 8 5,5 × L + A14

with hexagon head and sealing washer ≥ Ø14 mm
with metal top made of aluminum

Table 4

Table 5: Characteristic Tension Resistance $N_{R.k}$ and Shear Resistance $V_{R,k}$ [kN]



Materials
Fastener: carbon steel – SAE1022
quenched, tempered and galvanized (Ruspert Silver)
Washer: EPDM sealing ring with metal top
made of aluminum
Component I: S280GD, S320GD or S350GD – EN 10346
Component II: S235 – EN 10025-1

Drilling capacity: $\Sigma(t_{N2} + t_{II}) \leq 8{,}50$ mm

Timber substructures
no performance determined

$t_{N,II}$ [mm]		3,00	4,00	5,00	6,00	7,00	8,00	9,00	10,00	11,00	Wood class ≥ C24		
$M_{t,nom}$		5 Nm									—	—	
$V_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	1,23	1,23	1,23	1,23	1,23	—	—	—	—	—	—	*bearing resistance of component I **bearing resistance of component II
	0,88	1,31	1,31	1,31	1,31	1,31	—	—	—	—	—	—	
	1,00	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,13	1,64	1,64	1,64	1,64	1,64	—	—	—	—	—	—	
	1,25	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,50	1,72	1,72	1,72	1,72	1,72	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	
$N_{R,k}$ [kN] for $t_{N,I}$ [mm]	0,75	3,33	3,33	3,33	3,33	3,33	—	—	—	—	—	—	*bearing resistance of component II **bearing resistance of component I
	0,88	4,04	4,04	4,04	4,04	4,04	—	—	—	—	—	—	
	1,00	4,23	4,23	4,23	4,23	4,23	—	—	—	—	—	—	
	1,13	4,23	4,23	4,23	4,23	4,23	—	—	—	—	—	—	
	1,25	4,26	4,26	4,26	4,26	4,26	—	—	—	—	—	—	
	1,50	4,26	4,26	4,26	4,26	4,26	—	—	—	—	—	—	
	1,75	—	—	—	—	—	—	—	—	—	—	—	
	2,00	—	—	—	—	—	—	—	—	—	—	—	

If both components I and II are made of S320GD the values $V_{R,k}$ may be increased by 8,3%
If both components I and II are made of S350GD the values $V_{R,k}$ may be increased by 16,6%

MPT 8 fastening screws for metal members and sheeting

MPT 8 5,5 × L + A16

with hexagon head and sealing washer ≥ Ø16 mm
with metal top made of aluminum

Table 5

7. **The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point *6***

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 3.

Signed by:

Chwaszczyno, 10.11.2023