WAFER HEAD SCREW

SCREW FOR FASTENING OF PLASTERBOARDS TO WOOD OR STEEL

- Twin threads for faster installation
- S-point for fast penetration of sheet metal
- The large flat secures a good load distribution and an aesthetic finish
- Surface treated zinc (C1) or ZYTEC™ M (C3) for better corrosions resistance
- Available in more than 500 colours (QUALICOAT certified powder)

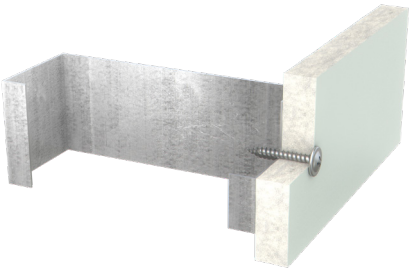
Phillips recess | Corrosion category | Hardened steel

PRODUCT RANGE

MG/PG	Item no.	Item name	Thread [mm]	Length L [mm]	Drill capacity [mm]	Head [mm]	Unit [pcs]
06 3100	10727	PPS 4.2 X 13 PH2	Ø4.2	13	Max 1.0	Ø10.8 PH2	1000
	14104	PPS 4.2 X 16 PH2		16			
	10722	PPS 4.2 X 19 PH2		19			500
	10725	PPS 4.2 X 25 PH2		25			
	10726	PPS 4.2 X 32 PH2		32			
	14105	PPS 4.2 X 38 PH2		38			
	10724	PPS 4.2 X 45 PH2		45			250
	10723	PPS 4.2 X 65 PH2		65			
	14107	PPS 4.2 X 75 PH2		75			
	13079	PPS 4.2 X 85 PH2		85			200

TYPICAL APPLICATION

- Fastening of plasterboards to wood
- Fastening of plasterboards to steel



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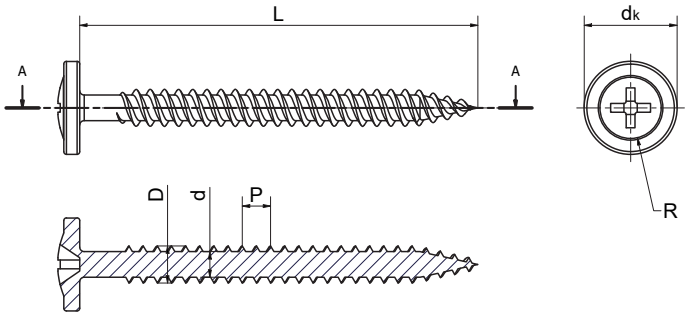
TECHNICAL DATA

Outer diameter, D	[mm]	Ø4.2
Inner diameter, d	[mm]	Ø3.0
Head diameter, d_k	[mm]	Ø10.8
Washer diameter, d_w	[mm]	-
Drill point diameter, d_p	[mm]	-
Drill point length, l_p	[mm]	-
Pitch, P	[mm]	2.8
Drive type, R	[-]	PH2



DESIGN RESISTANCE

The design resistance of the screw is determined in accordance with EN 1995-1-1:2004 + AC:2006 + A1:2008 + A2:2014, Eurocode 5 for timber structures.

The resistance when loaded in tension, N_{Rd}, appears from the table on the right and is the minimum value of the pull-out resistance of the supporting object and the tension resistance of the screw. Thus, the pull-through resistance of the fixed object is not taken into account.

The theoretical values must be considered indicative since the conditions at the construction site may vary. Practical tests of the specific application are recommended for verification of the listed values.

Assumptions:

Fixed object: Plasterboard or cladding

Supporting object: Structural wood, C24
Density, ρ_k = 350 kg/m³

L = Length of the screw [mm]
t = Thickness of the fixed object [mm]

All resistances are stated in kN (1 kN ≈ 100 kg)
Safety factor: γ_M = 1.35, k_{mod} = 0.90

MG/PG: 06 3100 PPS 4.2 X L PH2

Design resistance when loaded in tension, N_{Rd} [kN]							
t \ L	13	16	19	25	32	38	≥45
0.50	0.38	0.47	0.56	0.74	0.95	1.14	1.21
0.55	0.38	0.47	0.56	0.74	0.95	1.13	1.21
0.63	0.37	0.47	0.56	0.74	0.95	1.13	1.21
0.75	0.37	0.46	0.55	0.73	0.95	1.13	1.21
0.88	0.37	0.46	0.55	0.73	0.94	1.12	1.21
1.00	0.36	0.45	0.55	0.73	0.94	1.12	1.21

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DESIGN RESISTANCE

The design resistance of the screw is determined in accordance with EN 1993-1-3:2006 + AC:2009, Eurocode 3 for steel structures.

The resistance when loaded in tension, N_{Rd}, appears from the table on the right and is the minimum value of the pull-out resistance of the supporting object and the tension resistance of the screw. Thus, the pull-through resistance of the fixed object is not taken into account.

The theoretical values must be considered indicative since the conditions at the construction site may vary. Practical tests of the specific application are recommended for verification of the listed values.

Assumptions:

Fixed object: Plasterboard or cladding

Supporting object: Steel S280GD - EN 10346

t_I = Thickness of the fixed object [mm]
t_{II} = Thickness of the supporting object [mm]

All resistances are stated in kN (1 kN ≈ 100 kg)
Safety factor: γ_M = 1.35

MG/PG: 06 3100 PPS 4.2 X L PH2

Design resistance when loaded in tension, N_{Rd} [kN]						
t_I \ t_{II}	0.50	0.55	0.63	0.75	0.88	1.00
0.50	0.25	0.25	0.25	0.25	0.25	0.25
0.55	0.27	0.27	0.27	0.27	0.27	0.27
0.63	0.31	0.31	0.31	0.31	0.31	0.31
0.75	0.37	0.37	0.37	0.37	0.37	0.37
0.88	0.44	0.44	0.44	0.44	0.44	0.44
1.00	0.50	0.50	0.50	0.50	0.50	0.50

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