

SELF DRILLING SCREWS DIN 7504 – CARBON STEEL

HEXAGON HEAD – 7504K
ISO 15480



PAN HEAD – 7504M
ISO 15481



COUNTERSUNK HEAD – 7504O
ISO 15482



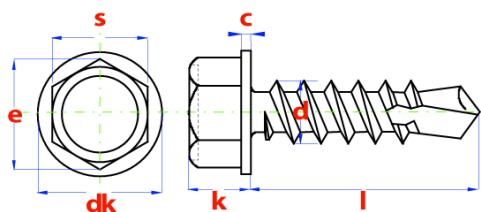
Material and surface

- Hardened steel C1022
- Zinc plating min 5µm according to EN ISO 4042

Application

- For the fixing of general plate to plate joints and light metal constructions

Screw properties



For dimensional details see
<https://www.pgb-europe.com/files/importfiles/fast/h/tdoc/07504.pdf>

Installation parameters

Parameter	Unit	ST2,9	ST3,5	ST3,9	ST4,2	ST4,8	ST5,5	ST6,3
Maximal installation force	[N]	150	150	200	250	250	350	350
Drill speed	[rpm]	1800-2500	1800-2500	1800-2500	1800-2500	1800-2500	1000-1800	1000-1800
Drill capacity	[mm]	0,7-1,4	0,7-2,25	0,7-2,4	1,75-3,0	1,75-4,4	1,75-5,25	2,5-6,0
Max drill time	[s]	3	4	4,5	5	7	11	13
Max torque	[Nm]	1,5	2,8	3,8	4,7	6,9	10,4	16,9

Oblique values not part of ISO 10666

Maximal fixture thickness

L	ST 2,9	ST 3,5	ST 3,9	ST 4,2	ST 4,8	ST 5,5	ST 6,3
9,5	3,25	2,85					
11	4,6	4,2					
13	6,6	6,2	5,8	4,3	3,7		
16	9,6	9,2	8,8	7,3	5,5		
19	12,5	12,1	11,7	10,3	8,7	8,7	7
22		15,1	14,7	13,3	11,7	11,7	10
25		18,1	17,7	16,3	14,7	14,7	13
32		25,1	24,5	23	21,5	21,5	20
38			30,5	29	27,5	27,5	26
45				36	34,5	34,5	33
50				41	39,5	39,5	38
60					49,5	49,5	48
63					52,5	52,5	51
73					62,5	62,5	61
75					64,5	64,5	63
80					69,5		68
90					79,5		78
100					89,5		88

Oblique values not part of ISO 15480-15481-15482

Screw resistance

Diameter	Tension [kN]	Shear [kN]
ST 2,9	1,46	0,73
ST 3,5	2,14	1,07
ST 3,9	2,62	1,31
ST 4,2	2,95	1,48
ST 4,8	3,94	1,97
ST 5,5	5,34	2,67
ST 6,3	7,32	3,66

Calculated values for the screw's resistance itself including the partial safety factor of $\gamma_{1,15}$. For tension loads, the inherent resistance of plates to be fixed must be taken into account, which is usually less than the resistance of the screw itself, as the screw will probably tear the plates.

SELF DRILLING SCREWS DIN 7504 – **STAINLESS STEEL**

HEXAGON HEAD – 7504K
ISO 15480



PAN HEAD – 7504M
ISO 15481



COUNTERSUNK HEAD – 7504O
ISO 15482



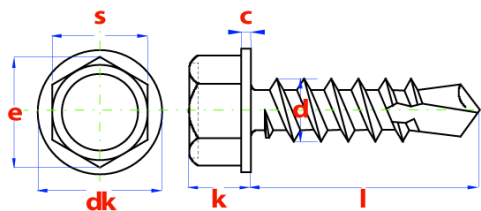
Material and surface

- Stainless steel A2 (AISI 304).

Application

- For the fixing in aluminum and plastics.

Screw properties



For dimensional details see

<https://www.pgb-europe.com/files/importfiles/fast/h/tdoc/07504.pdf>

Installation parameters

Parameter	Unit	ST2,9	ST3,5	ST3,9	ST4,2	ST4,8	ST5,5	ST6,3
Maximal installation force	[N]	150	150	200	250	250	350	350
Drill speed	[rpm]	1000-1500	1000-1500	1000-1500	1000-1500	1000-1500	600-1000	600-1000
Drill capacity	[mm]	0,7-1,4	0,7-2,25	0,7-2,4	1,75-3,0	1,75-4,4	1,75-5,25	2,5-6,0
Max drill time	[s]	3	4	4,5	5	7	11	13
Max torque	[Nm]	1,5	2,8	3,8	4,7	6,9	10,4	16,9

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19	12,5	12,1	11,7	10,3	8,7	8,7	7
22		15,1	14,7	13,3	11,7	11,7	10
25		18,1	17,7	16,3	14,7	14,7	13
32		25,1	24,5	23	21,5	21,5	20
38			30,5	29	27,5	27,5	26
45				36	34,5	34,5	33
50				41	39,5	39,5	38
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63					52,5	52,5	51
73					62,5	62,5	61
75					64,5	64,5	63
80					69,5		68
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