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Westfield Fasteners Product Specification:

Hexalobular Socket Pan Head Screws - similar to DIN 7985

This product guide contains the specification for metric threaded hexalobular or six lobe pan head machine screws, standard parts available from Westfield Fasteners. The basis of this specification is the DIN standard DIN 7985.

Product Description

These metric machine screws feature a rounded pan head with an internal hexalobular drive recess, commonly known as Torx or six-lobe. The drive design provides positive engagement with a suitable driver bit, helping to reduce cam-out during installation and removal.

Hexalobular socket screws are widely used in automotive, electronics, machinery and general engineering applications where reliable drive engagement and repeatable assembly are important.

Scope of the DIN standard.

DIN 7985 specifies the dimensions and requirements for cross-recessed pan head machine screws. Although it does not cover hexalobular drive recesses, the head dimensions of the screws described in this datasheet are based on those specified in DIN 7985.

ISO 14583 is the corresponding international standard for hexalobular socket pan head screws. However, its head dimensions differ slightly from those specified in DIN 7985, and the two specifications should not be assumed to be dimensionally identical.

The hexalobular drive size may vary according to the manufacturer and product variant. Where applicable, the drive size is stated in the individual product description.

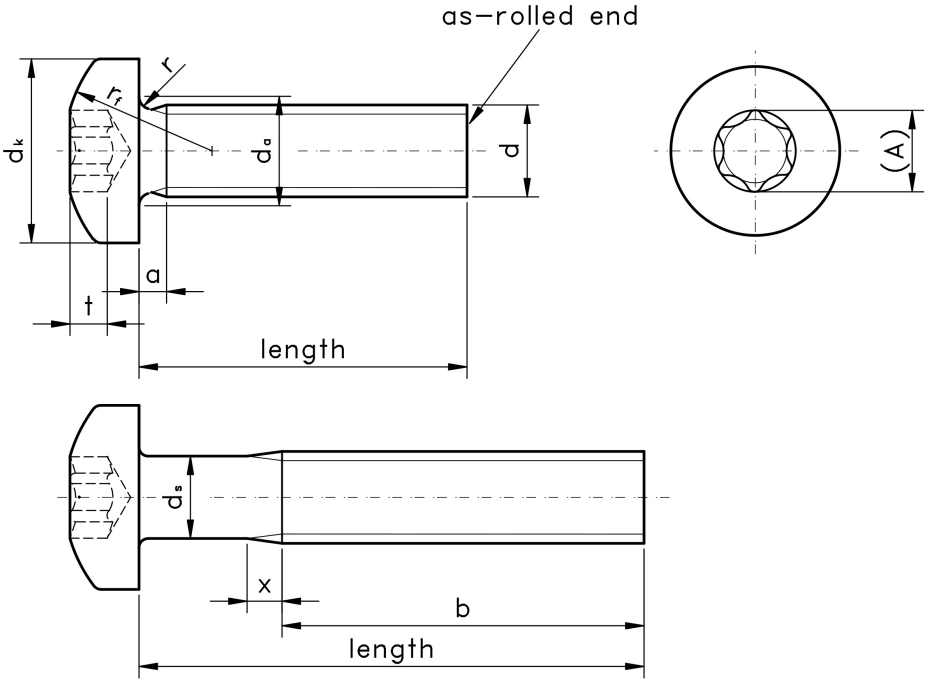


Figure 1: Hexalobular Socket Pan Head Screw

Notes to figure 1:

- ds - Shank diameter. Where an unthreaded shank is present, this is generally approximately equal to the nominal thread diameter.

Table 1: Dimensions and Tolerances - Based on DIN 7985

Thread, d		M1.6	M2	M2.5	M3	M3.5	M4	M5	M6	M8	M10
p		0.35	0.4	0.45	0.5	0.6	0.7	0.8	1.0	1.25	1.5
a	max	0.7	0.8	0.9	1	1.2	1.4	1.6	2	2.5	3
b	min	15	16	18	19	20	22	25	28	34	40
d_a	max	2.1	2.6	3.1	3.6	4.1	4.7	5.7	6.8	9.2	11.2
d_k	nom=max	3.2	4.0	5.0	5.6	7.0	8.0	10.0	12.0	16.0	20.0
	min	2.9	3.7	4.7	5.7	6.64	7.64	9.64	11.57	15.57	19.48
k	nom	1.30	1.60	2.00	2.40	2.70	3.10	3.80	4.60	6.00	7.50
	max	1.42	1.72	2.12	2.52	2.82	3.25	3.95	4.75	6.15	7.68
	min	1.18	1.48	1.88	2.28	2.58	2.95	3.65	4.45	5.85	7.32
r	max	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.25	0.4	0.4
r_f	=	3	4	5	6	7	8	10	12	16	20
x	max	0.9	1.0	1.1	1.25	1.5	1.75	2.0	2.5	3.2	3.8
A, TX Key		T5	T6	T8	T10	T15	T20	T25	T30	T40	T50

Table 2: Screw Length Tolerances - Based on DIN 7985

mm	+/-
2-3	0.2
4-6	0.25
8-10	0.3
12-18	0.35
20-30	0.4
35-50	0.5
55-60	1

For further information on the relevant dimensional specifications, refer to DIN 7985 and ISO 14583. Actual product dimensions should be confirmed against the tables above.