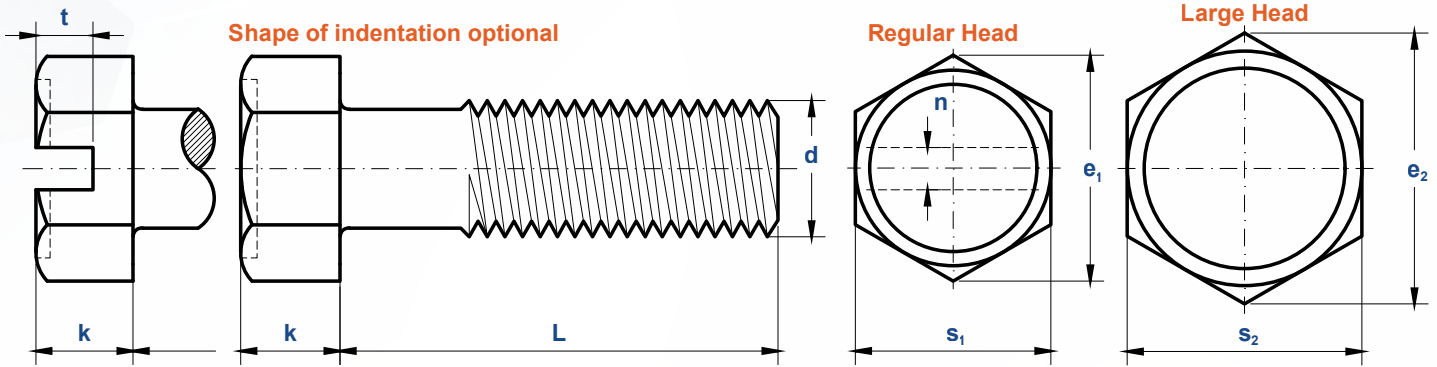




Thread Size d			1#	2#	3#	4#	5#	6#	8#	10#	12#	1/4	5/16	3/8	7/16	1/2
d	Nominal Size		0.0730	0.0860	0.0990	0.1120	0.1250	0.1380	0.1640	0.1900	0.2160	0.2500	0.3125	0.3750	0.4375	0.5000
PP			64	56	48	40	40	32	32	24	24	20	18	16	14	13
s ₁	Regular Head	max	0.125	0.125	0.188	0.188	0.188	0.250	0.250	0.312	0.312	0.375	0.500	0.562	0.625	0.750
		min	0.120	0.120	0.181	0.181	0.181	0.244	0.244	0.305	0.305	0.367	0.489	0.551	0.610	0.735
s ₂	Large Head	max	/	/	/	0.219	0.250	/	0.312	/	0.375	0.438	/	/	/	/
		min	/	/	/	0.213	0.244	/	0.305	/	0.367	0.428	/	/	/	/
e ₁	Regular Head	min	0.134	0.134	0.202	0.202	0.202	0.272	0.272	0.340	0.340	0.409	0.545	0.614	0.682	0.820
e ₂	Large Head	min	/	/	/	0.238	0.272	/	0.340	/	0.409	0.477	/	/	/	/
k	max		0.044	0.050	0.055	0.060	0.070	0.093	0.110	0.120	0.155	0.190	0.230	0.295	0.348	0.400
	min		0.036	0.040	0.044	0.049	0.058	0.080	0.096	0.105	0.139	0.172	0.208	0.270	0.321	0.367
n	max		/	/	/	0.039	0.043	0.048	0.054	0.060	0.067	0.075	0.084	0.094	/	/
	min		/	/	/	0.031	0.035	0.039	0.045	0.050	0.056	0.064	0.072	0.081	/	/
t ^④	max		/	/	/	0.036	0.042	0.046	0.066	0.072	0.093	0.101	0.122	0.156	/	/
	min		/	/	/	0.025	0.030	0.033	0.052	0.057	0.077	0.083	0.100	0.131	/	/

- ①. The diameter of the body on machine screws having other than trim heads shall not be less than the Class 2A thread minimum pitch diameter nor greater than the basic major diameter of the thread.
- ②. A slight rounding of all edges and corners of the hex surface of indented hex heads shall be permissible, provided the diameter of the bearing circle is equal to no less than 90% of the specified minimum width-across-flat dimension.
- ③. Unless otherwise specified by the purchaser, hex head machine screws are not slotted.
- ④. Slot depth beyond the bottom of the indentation on indented heads shall not be less than one-third of the minimum slot depth specified.
- ⑤. Unless otherwise specified by the purchaser, regular hex heads shall be furnished, and both regular and large head styles may be intended head, trimmed head, or fully upset head construction, at the option of the manufacturer.
- ⑥. Dimensions across flats and across corners of the head shall be measured at the point of maximum metal. The taper of the sides of the hex (the angle between one side and the axis) shall not exceed 2 degrees or 0.004 in., whichever is greater, the specified width across flats being the large dimension.
- ⑦. The rounding due to lack of fill on all six corners of the head shall be reasonably uniform, and the width across corners of the head shall be such that when a sharp ring having an inside diameter equal to the specified minimum width across corners is placed on the top and bottom of the head, the head shall protrude by an amount equal to or greater than the F value tabulated. See Mandatory Appendix II for across-corners gaging of hex heads.
- ⑧. Large hex heads are intended for screw and washer assemblies (sems) as specified in ASME B18.13, and other applications requiring large bearings.
- ⑨. Machine Screw Length of Thread 1) Sizes No.5 and smaller. Screws of nominal lengths equal to three diameters and shorter shall have full-form threads extending to within one pitch (thread) of the bearing surface of the head, or closer, if practicable. Nominal lengths greater than three diameters, up to and including 1-1/8 in., shall have full-form threads extending to within two pitches (threads) of the bearing surface of the head, or closer, if practicable. Screws of longer nominal lengths shall, unless otherwise specified, have a minimum length of full-form thread of 1 in. 2) Sizes No.6 and smaller. Screws of nominal lengths equal to three diameters and shorter shall have full-form threads extending to within one pitch (thread) of the bearing surface of the head, or closer, if practicable. Nominal lengths greater than three diameters, up to and including 2 in., shall have full-form threads extending to within two pitches (threads) of the bearing surface of the head, or closer, if practicable. Screws of longer nominal lengths shall have a minimum length of full-form thread of 1.5 in., unless otherwise specified.