

- Dimensions
- Mechanical Properties
- Application Data

ASME B18.3 : Hexagon Socket Set Screws

Nom. Size	dp	dz	dt max.	da	B nom.	Y (Note 3)	Proof Torque (in-lb), min.
#0	0.027 - 0.033	0.027 - 0.033	0.0060	0.037 - 0.040	0.028	0.09	1.1
#1	0.033 - 0.040	0.033 - 0.040	0.0073	0.045 - 0.049	0.035	0.09	2.1
#2	0.039 - 0.047	0.039 - 0.047	0.0086	0.053 - 0.057	0.035	0.13	2.1
#3	0.045 - 0.054	0.045 - 0.054	0.0099	0.062 - 0.066	0.050	0.13	6.0
#4	0.051 - 0.061	0.051 - 0.061	0.0112	0.070 - 0.075	0.050	0.19	6.0
#5	0.057 - 0.067	0.057 - 0.067	0.0125	0.078 - 0.083	1/16 0.062	0.19	11
#6	0.064 - 0.074	0.064 - 0.074	0.0138	0.087 - 0.092	1/16 0.062	0.19	11
#8	0.076 - 0.087	0.076 - 0.087	0.0164	0.103 - 0.109	5/64 0.078	0.25	23
#10	0.088 - 0.102	0.088 - 0.102	0.0190	0.120 - 0.127	3/32 0.094	0.25	40
1/4	0.118 - 0.132	0.118 - 0.132	0.0250	0.149 - 0.156	1/8 0.125	0.31	94
5/16	0.156 - 0.172	0.156 - 0.172	0.0312	0.195 - 0.203	5/32 0.156	0.38	183
3/8	0.194 - 0.212	0.194 - 0.212	0.0375	0.241 - 0.250	3/16 0.188	0.44	317
7/16	0.232 - 0.252	0.232 - 0.252	0.0437	0.287 - 0.297	7/32 0.219	0.50	502
1/2	0.270 - 0.291	0.270 - 0.291	0.0500	0.334 - 0.344	1/4 0.250	0.57	750
5/8	0.347 - 0.371	0.347 - 0.371	0.0625	0.456 - 0.469	5/16 0.312	0.75	1460
3/4	0.425 - 0.450	0.425 - 0.450	0.0750	0.549 - 0.562	3/8 0.375	0.88	2520
7/8	0.502 - 0.530	0.502 - 0.530	0.0875	0.642 - 0.656	1/2 0.500	1.00	5750
1"	0.579 - 0.609	0.579 - 0.609	0.1000	0.734 - 0.750	9/16 0.562	1.13	8000

Mechanical Properties

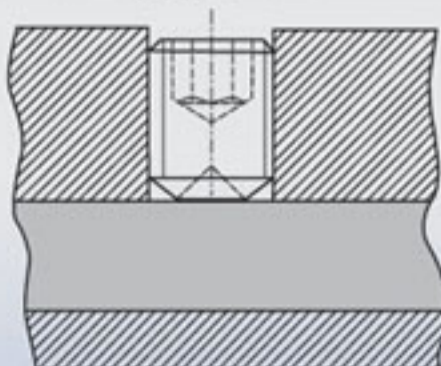
Property Class	45H
Hardness ( HRC )	45-53
Decarburization and Carburization (See Page 34 )	E = 3/4H1

Table 1 Length Tolerance

Nom. Length	Tolerance on Length
Up to 0.63, incl.	± 0.01
Over 0.63 to 2.00, incl.	± 0.02
Over 2.00 to 6.00, incl.	± 0.03
Over 6.00	± 0.06

■ Typical Application Fixture

Socket set screws are designed to be used where permanent or adjustable locations of components on shafts is required. There are numerous end point designs to fit many applications.



■ Typical Torque Test Fixture

1. Torque wrench
2. Set screw under test
3. Test block: hardness min. 50 HRC, tolerance class of the internal thread 2B
4. Backing screw: hardness 450 HV to 570 HV

