



DOWEL PINS, STANDARD SERIES											ASME B18.8.2-2000	
Nominal Size or Nominal Pin Diameter	A Pin Diameter			B Point Diameter		C Crown Height	R Crown Radius	Single Shear Load - Carbon or Alloy Steel lb.	Suggested Hole Diameter			
	Basic	Max	Min	Max	Min	Max	Min		Max	Min		
	1/8	.1250	0.1252	0.1253	0.1251	0.120	0.110		0.041	0.016	1,600	0.1250
3/16	.1875	0.1877	0.1878	0.1876	0.180	0.170	0.062	0.023	3,600	0.1875	0.1870	
1/4	.2500	0.2502	0.2503	0.2501	0.240	0.230	0.083	0.031	6,400	0.2500	0.2495	
5/16	.3125	0.3127	0.3128	0.3126	0.302	0.290	0.104	0.039	10,000	0.3125	0.3120	
3/8	.3750	0.3752	0.3753	0.3751	0.365	0.350	0.125	0.047	14,350	0.3750	0.3745	
7/16	.4375	0.4377	0.4378	0.4376	0.424	0.409	0.146	0.055	19,550	0.4375	0.4370	
1/2	.5000	0.5002	0.5003	0.5001	0.486	0.471	0.167	0.063	25,500	0.5000	0.4995	
5/8	.6250	0.6252	0.6253	0.6251	0.611	0.595	0.208	0.078	39,900	0.6250	0.6245	
3/4	.7500	0.7502	0.7503	0.7501	0.735	0.715	0.250	0.094	57,000	0.7500	0.7495	
7/8	.8750	0.8752	0.8753	0.8751	0.860	0.840	0.293	0.109	78,000	0.8750	0.8745	
1	1.0000	1.0002	1.0003	1.0001	0.980	0.960	0.333	0.125	102,000	1.0000	0.9995	
Tolerance on Length						±0.010 in. (all sizes and lengths)						

Description	A solid headless straight pin with a closely controlled diameter. One end is chamfered with the other end radiused to form a crown.
Applications/ Advantages	Wide variety of uses, including as a plug gage, hinge or shaft. Precise tolerances of dowel pins make them excellent for achieving proper alignment of parts in high-speed assemblies, or as roller bearings in bus/truck wheel housings. Important Note: Dowel pins should be installed by being pressed in, not struck with an impact force.
Material	Pins shall be made from any alloy steel capable of achieving the proper hardness requirements listed herein, having sulfur content of 0.05% maximum, and phosphorus content of 0.04% maximum.
Heat Treatment	Pins shall be hardened by quenching in oil from austenitizing temperature and tempering to meet the proper Rockwell hardness and case depth.
Core Hardness	Rockwell C 47 - 58
Case Hardness	Rockwell C 60 minimum
Case Depth	5/32 diameter & smaller: 0.010 in., minimum. 3/16 diameter and larger: 0.015 in. minimum.
Finish	See Appendix-A for information about the various finishes for dowel pins.