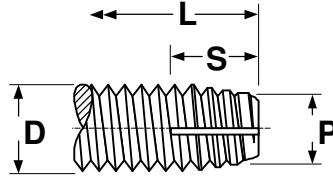




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Type 1 Thread Cutting Screws Technical Specifications



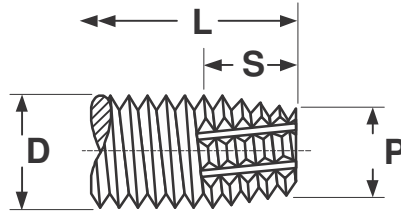
Thread and Point Details for Type 1 Thread Cutting Screws														ASME B-18.6.4- 1998
Nominal Size or Basic Screw Dia	Threads Per Inch	D		P	S Point Taper Length				L				Min Torsional Strength, lb.-in.	
		Major Dia		Point Dia	Short Screws		Long Screws		Determinant Length for Point Taper		Min Practical Nominal Screw Length			
		Max	Min	Ref	Max	Min	Max	Min	90 deg Head	Csk Head	90° Head	Csk Head		
2	0.0860	56	0.0860	0.0813	0.0680	0.062	0.0450	0.080	0.062	5/32	3/16	5/32	3/16	5
4	0.1120	40	0.1120	0.1061	0.0870	0.088	0.0620	0.112	0.088	7/32	1/4	3/16	1/4	13
6	0.1380	32	0.1380	0.1312	0.1070	0.109	0.0780	0.141	0.109	1/4	5/16	1/4	5/16	23
8	0.1640	32	0.1640	0.1571	0.1320	0.109	0.0780	0.141	0.109	1/4	11/32	1/4	5/16	42
10	0.1900	24	0.1900	0.1818	0.1480	0.146	0.1040	0.188	0.146	11/32	7/16	5/16	13/32	56
10	0.1900	32	0.1900	0.1831	0.1580	0.109	0.0780	0.141	0.109	1/4	11/32	1/4	5/16	74
12	0.2160	24	0.2160	0.2078	0.1740	0.146	0.1040	0.188	0.146	11/32	7/16	5/16	13/32	93
1/4"	0.2500	20	0.2500	0.2408	0.2000	0.175	0.1250	0.225	0.175	13/32	17/32	3/8	1/2	140
5/16"	0.3125	18	0.3125	0.3026	0.2570	0.194	0.1390	0.250	0.194	15/32	19/32	7/16	9/16	306
3/8"	0.3750	16	0.3750	0.3643	0.3120	0.219	0.1560	0.281	0.219	1/2	11/16	15/32	5/8	560
1/2"	0.5000	13	0.5000	0.4876	0.4230	0.269	0.1920	0.346	0.269	5/8	25/32	19/32	3/4	1075



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Description	Type 1 Thread cutting screws have a machine screw thread, blunt point and single cutting edge for general use. Produces a fine standard machine screw thread for field replacement.	
	Steel	Stainless Steel
Application	Use in sheet metals, structural shapes, alloys and plastics. Stainless steel offers additional corrosion resistance, but has limitations as a softer metal. The material into which the thread cutting screw is driven should have a lower hardness by 10-20 Rockwell hardness points.	
Material	AISI 1016-1024 or equivalent steel	18-8 Stainless steel
Heat Treatment	Quenched in liquid and then tempered by reheating to 650°F min.	18-8 stainless steel screws are not heat treated
Surface Hardness	Rockwell C45 min	-
Case Depth	#4-#6 dia: .002 - .007 #8-#12 dia: .004 - .009 1/4" dia. and larger: .005-.011	-
Core Hardness	Rockwell C28 - 38	-

Type F Thread Cutting Screws Technical Specifications



Thread and Point Details for Type F Thread Cutting Screws														ASME B-18.6.4- 1998
Nominal Size or Basic Screw Dia		Threads Per Inch	D		P	S Point Taper Length				L				Min Torsional Strength, lb.-in. (Steel Screws only)
			Major Dia		Point Dia	Short Screws		Long Screws		Determinant Length for Point Taper		Min Practical Nominal Screw Length		
			Max	Min	Ref	Max	Min	Max	Min	90 deg Head	Csk Head	90° Head	Csk Head	
2	0.0860	56	0.0860	0.0813	0.0680	0.062	0.0450	0.080	0.062	5/32	3/16	5/32	3/16	5
4	0.1120	40	0.1120	0.1061	0.0870	0.088	0.0620	0.112	0.088	7/32	1/4	3/16	1/4	13
5	0.1250	40	0.1250	0.1191	0.1000	0.880	0.0620	0.112	0.088	7/32	9/32	3/16	1/4	18
6	0.1380	32	0.1380	0.1312	0.1070	0.109	0.0780	0.141	0.109	1/4	5/16	1/4	5/16	23
8	0.1640	32	0.1640	0.1571	0.1320	0.109	0.0780	0.141	0.109	1/4	11/32	1/4	5/16	42
10	0.1900	24	0.1900	0.1818	0.1480	0.146	0.1040	0.188	0.146	11/32	7/16	5/16	13/32	56
10	0.1900	32	0.1900	0.1831	0.1580	0.109	0.0780	0.141	0.109	1/4	11/32	1/4	5/16	74
12	0.2160	24	0.2160	0.2078	0.1740	0.146	0.1040	0.188	0.146	11/32	7/16	5/16	13/32	93
1/4"	0.2500	20	0.2500	0.2408	0.2000	0.175	0.1250	0.225	0.175	13/32	17/32	3/8	1/2	140
5/16"	0.3125	18	0.3125	0.3026	0.2570	0.194	0.1390	0.250	0.194	15/32	19/32	7/16	9/16	306
3/8"	0.3750	16	0.3750	0.3643	0.3120	0.219	0.1560	0.281	0.219	1/2	11/16	15/32	5/8	560
1/2"	0.5000	13	0.5000	0.4876	0.4230	0.269	0.1920	0.346	0.269	5/8	25/32	19/32	3/4	1075



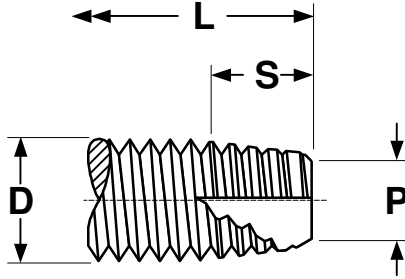
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Description	Type F Thread cutting screws have a machine screw thread, blunt point, tapered entering threads and multiple cutting edges. Produces a fine standard machine screw thread for field replacement.	
	Steel	Stainless Steel
Application	Use in heavy gauge sheet metal, aluminum, zinc and lead die castings, cast iron, brass and plastic. The material into which the thread cutting screw is driven should have a lower hardness by 10-20 Rockwell hardness points	
Material	AISI 1016-1024 or equivalent steel	18-8 stainless steel or 410 martensitic stainless steel
Heat Treatment	Quenched in liquid and then tempered by reheating to 650 ^o F min.	18-8 stainless steel screws are not heat treated. 410 stainless screws are to be annealed by heating to 1850-1950 ^o F, for at least ½ hr and rapid air or oil quenched then reheated to 525 ^o F for at least 1 hr and then air cooled to provide the required hardness properties
Hardness	Rockwell C45 min. Steel core hardness (after tempering) Rockwell C28-38	Stainless 410: Rockwell C38-42 Stainless 18-8 Rockwell B90-C20
Case Depth	#4-#6 dia: .002 - .007 #8-#12 dia:.004 - .009 ¼" dia. and larger: .005-.011	-



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Type 23 Thread Cutting Screws Technical Specifications



Thread and Point Details for Type 23 Thread Cutting Screws														ASME B-18.6.4- 1998
Nominal Size or Basic Screw Dia	Threads Per Inch	D		P	S Point Taper Length				L				Min Torsional Strength, lb.-in.	
		Major Dia		Point Dia	Short Screws		Long Screws		Determinant Length for Point Taper		Min Practical Nominal Screw Length			
		Max	Min	Ref	Max	Min	Max	Min	90 deg Head	Csk Head	90° Head	Csk Head		
2	0.0860	56	0.0860	0.0813	0.0680	0.062	0.0450	0.080	0.062	5/32	3/16	5/32	3/16	5
4	0.1120	40	0.1120	0.1061	0.0870	0.088	0.0620	0.112	0.088	7/32	1/4	3/16	1/4	13
5	0.1250	40	0.1250	0.1191	0.1000	0.880	0.0620	0.112	0.088	7/32	9/32	3/16	1/4	18
6	0.1380	32	0.1380	0.1312	0.1070	0.109	0.0780	0.141	0.109	1/4	5/16	1/4	5/16	23
8	0.1640	32	0.1640	0.1571	0.1320	0.109	0.0780	0.141	0.109	1/4	11/32	1/4	5/16	42
10	0.1900	24	0.1900	0.1818	0.1480	0.146	0.1040	0.188	0.146	11/32	7/16	5/16	13/32	56
10	0.1900	32	0.1900	0.1831	0.1580	0.109	0.0780	0.141	0.109	1/4	11/32	1/4	5/16	74
12	0.2160	24	0.2160	0.2078	0.1740	0.146	0.1040	0.188	0.146	11/32	7/16	5/16	13/32	93
1/4"	0.2500	20	0.2500	0.2408	0.2000	0.175	0.1250	0.225	0.175	13/32	17/32	3/8	1/2	140
5/16"	0.3125	18	0.3125	0.3026	0.2570	0.194	0.1390	0.250	0.194	15/32	19/32	7/16	9/16	306
3/8"	0.3750	16	0.3750	0.3643	0.3120	0.219	0.1560	0.281	0.219	1/2	11/16	15/32	5/8	560



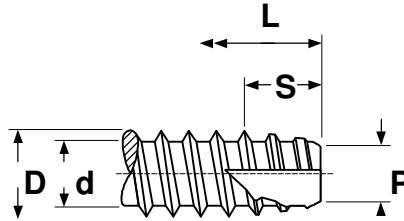
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Description	Type 23 Thread cutting screws have a machine screw thread, blunt point, tapered entering threads and a single wide cutting edge with a chip cavity. Produces a fine standard machine screw thread for field replacement.	
	Steel	Stainless Steel
Application	Use in cast iron, zinc and aluminum die castings and plastics. The type 23 chip cavity provides excellent chip clearing with minimum tightening torque. The material into which the thread cutting screw is driven should have a lower hardness by 10-20 Rockwell hardness points	
Material	AISI 1016-1024 or equivalent steel	18-8 stainless
Heat Treatment	Quenched in liquid and then tempered by reheating to 650 ^o F min.	18-8 stainless steel screws are not heat treated
Surface Hardness	Rockwell C45 min	-
Case Depth	#4-#6 dia: .002 - .007 #8-#12 dia: .004 - .009 1/4" dia. and larger: .005-.011	
Core Hardness	Steel core hardness (after tempering) Rockwell C28-38	Rockwell B90-C20



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Type 25 Thread Cutting Screws Technical Specifications



Thread and Point Details for Type 25 Thread Cutting Screws												ASME B-18.6.4- 1998
Nominal Size or Basic Screw Dia	Threads Per Inch	D		d		P	S		L		Min Torsional Strength, lb.-in. (Steel Screws Only)	
		Major Dia		Minor Dia		Point Dia	Point Taper Length		Min Preactical Nominal Screw Length			
		Max	Min	Max	Min	Ref	Max	Min	90 deg Head	Csk Head		
2	0.0860	32	0.0880	0.082	0.064	0.060	0.0580	0.062	0.047	5/32	3/16	4
4	0.1120	24	0.1140	0.108	0.086	0.082	0.0790	0.083	0.063	3/16	1/4	13
5	0.1250	20	0.1300	0.123	0.094	0.090	0.0870	0.10	0.075	7/32	9/32	18
6	0.1380	20	0.1390	0.132	0.104	0.099	0.0950	0.10	0.075	1/4	9/32	24
7	0.1510	19	0.1540	0.147	0.115	0.109	0.1050	0.105	0.079	1/4	5/16	30
8	0.1640	18	0.1660	0.159	0.122	0.116	0.1120	0.111	0.083	9/32	11/32	39
10	0.1900	16	0.1890	0.182	0.141	0.135	0.1300	0.125	0.094	5/16	3/8	56
12	0.2160	14	0.2150	0.208	0.164	0.157	0.1520	0.143	0.107	11/32	7/16	88
1/4	0.2500	14	0.2460	0.237	0.192	0.185	0.1790	0.143	0.107	3/8	1/2	142
5/16	0.3125	12	0.3150	0.306	0.244	0.236	0.2300	0.167	0.125	15/32	19/32	290
3/8	0.3750	12	0.3800	0.371	0.309	0.299	0.2930	0.167	0.125	17/32	11/16	590



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Description	Type 25 Thread cutting screws have a coarse Type B thread with a blunt point, tapered entering threads and a single wide cutting edge with chip cavity.	
	Steel	Stainless Steel
Application	Use in plastics and other soft materials. The type 25 chip cavity provides excellent chip clearing with minimum tightening torque. The material into which the thread cutting screw is driven should have a lower hardness by 10-20 Rockwell hardness points	
Material	AISI 1016-1024 or equivalent steel	18-8 stainless
Heat Treatment	Quenched in liquid and then tempered by reheating to 650°F min.	18-8 stainless steel screws are not heat treated
Surface Hardness	Rockwell C45 min	-
Case Depth	#4-#6 dia: .002 - .007 #8-#12 dia: .004 - .009 1/4" dia. and larger: .005-.011	
Core Hardness	Steel core hardness (after tempering) Rockwell C28-38	Rockwell B90-C20