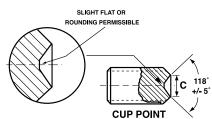
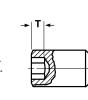
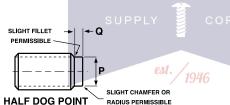
## Sockets

## **Socket Set Screws**

Alloy Steel



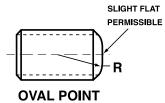




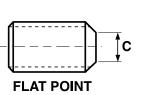
SOCKET SET SCREWS + ALLOY STEEL         Blue Devi           Nominal Size         Shortest Nominal Length To Which Column T Applies         J         Tightening Torque (Inch-Lbs)           0         0.13         0.14         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.11         0.16         0.11		CUP POINT Y HALF DOG POINT RADIUS PERMISSIBLE							
Nominal Size         Cup & Flat Point         Cone & Oval Point         Hait Dog Point         Hex Key Size         regiment of the second secon		SOCKET S	et Screws - Al	LOY STEEL		ASME B18.3-2003, Blue Devil®			
Nominal Size         Cup & Flat Point         Cone & Oval Point         Hat Dog Point         Hex Key Size         (Inch-Lbs.)           0         0.13         0.13         0.13         0.13         0.28         66           1         0.13         0.19         0.13         0.35         1.8           2         0.13         0.19         0.19         0.35         1.8           3         1         0.19         0.19         0.19         0.50         5.           4         0.09         0.19         0.19         0.19         0.50         5.           5         0.19         0.19         0.19         1/16         9.5         9.5           6         0.19         0.25         0.25         3/32         3/35         1/4         9.5         1/4         1/4         9.5         3/32         3/35         1/4 <th></th> <th>Shortest Nomi</th> <th>nal Length To Which Col</th> <th>J</th> <th>Tightening Torque</th>		Shortest Nomi	nal Length To Which Col	J	Tightening Torque				
1         0.13         0.19         0.13         0.035         1.8           2         0.13         0.19         0.19         0.035         1.8           F         3         1         0.19         0.19         0.19         0.050         5.           4         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.19         0.16         0.5           5         0.19         0.19         0.19         0.19         1.16         9.5           6         0.19         0.25         0.25         0.19         1.16         9.5           8         0.19         0.25         0.25         0.31         0.31         1.8         77.9           516         0.31         0.44         0.38         532         156           3/8         0.38         0.44         0.43         0.44         0.31         1.4         615           3/8         0.38         0.44         0.43         0.63         0.63         1.4         615           3/4         0.75         1.00         1.00         1.00         1.25         9/16         7/10         1.33           1	Nominal Size	Cup & Flat Point	Cone & Oval Point	Half Dog Point	Hex Key Size				
2         0.13         0.19         0.19         0.035         1.8           4         0.19         0.19         0.050         5.           4         0.19         0.19         0.050         5.           5         0.19         0.19         0.19         0.19         0.50         5.           6         0.19         0.25         0.19         1/16         9.5           8         0.19         0.25         0.25         3/82         3/3.5           1/4         0.25         0.25         3/82         3/3.5           1/4         0.25         0.25         3/82         3/3.5           1/4         0.25         0.25         3/82         3/3.5           1/4         0.31         0.44         0.44         0.38         5/32         16/6           3/8         0.38         0.44         0.44         0.46         17/1         6/16         13/3           1/2         0.50         0.63         0.63         1/4         6/15         13/3           3/4         0.75         1.00         1.00         1/2         5/30           1         1.00         1.25         1.25         9/1	0	0.13	0.13	0.13	.028	.86			
3         0.19         0.19         0.19         0.50         5.           4         0.19         0.19         0.19         0.650         5.           5         0.19         0.19         0.19         0.19         1/16         9.5           6         0.19         0.25         0.25         5.64         19.4         10         9.5           10         0.19         0.25         0.25         3.76         3.76         3.79         3.79           5/16         0.31         0.44         0.38         5/32         156         3.77         3.76         3.76         3.78         3.76         3.76         3.76         3.73         4.48         3.76         2.73         3.76         3.76         3.76         3.73         4.44         0.44         3.76         2.73         3.76         3.76         3.76         3.76         3.76         3.73         4.48         3.76         3.76         3.76         3.76         3.73         4.28         3.73         4.28         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76         3.76	1	0.13	0.19	0.13	.035	1.8			
4       0.19       0.19       0.19       0.50       5.         5       0.19       0.19       0.19       1.16       9.5         6       0.19       0.25       0.19       1.16       9.5         8       0.19       0.25       0.25       5.644       19.4         10       0.19       0.25       0.25       3.82       3.3.5         14       0.25       0.25       3.82       3.3.5         14       0.25       0.25       3.82       3.3.5         16       0.31       0.44       0.38       5.722       156         3/8       0.38       0.44       0.44       3/16       273         7/16       0.44       0.63       0.50       7732       428         1/2       0.50       0.63       0.88       0.63       114       615         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       9/16       730       9/16       7310         0       0.88       1.00       1.00       1/2       5130 <td>2</td> <td>0.13</td> <td>0.19</td> <td>0.19</td> <td>.035</td> <td>1.8</td>	2	0.13	0.19	0.19	.035	1.8			
5       0.19       0.19       0.19       1/16       9.5         6       0.19       0.25       0.19       1/16       9.5         8       0.19       0.25       0.25       5/64       19.4         10       0.19       0.25       0.25       3/32       3/32       3/32         1/4       60       0.25       0.31       0.31       1/16       7/79         5/16       0.31       0.44       0.38       5/32       156         3/8       0.38       0.44       0.44       0.38       5/32       156         3/8       0.38       0.44       0.44       0.63       1/2       1/3	3	0.19	0.19	0.19	.050	5.			
6         0.19         0.25         0.19         1/16         9.5           8         0.19         0.25         0.25         3/2         3/32         3/3.5           1/4         0.19         0.25         0.25         3/32         3/3.5         3/32         3/3.5           1/4         0.25         0.25         0.31         0.31         1/4         6         2/5           3/8         0.31         0.44         0.38         5/32         1/56         3/3           3/8         0.38         0.44         0.44         3/3         2/2         4/28           1/2         0.50         0.63         0.63         1/4         6/15         3/8         0.63         0.83         1/4         6/15           3/4         0.75         1.00         1.00         3/8         2/16         7/16         1/2         5/30           1         1.00         1.25         1/2         5/16         1/2         5/30         1/30         1/2         5/30         1/4         6/15         1/2         5/30         1/4         6/15         1/2         5/30         1/4         6/15         1/2         5/30         1/4         1/2	4	0.19	0.19	0.19	.050	5.			
8         0.19         0.25         0.25         5/64         19.4           10         0.19         0.25         0.25         3/32         33.5           1/4         0.25         0.31         0.31         1/4         77.9           5/16         0.31         0.44         0.38         5/32         156           3/8         0.38         0.44         0.44         3/16         273           7/16         0.44         0.63         0.63         1/4         615           5/8         0.63         0.63         1/4         615         615           5/8         0.63         0.88         0.88         5/16         1315           3/4         0.75         1.00         1.00         3/8         2150           7/8         0.88         1.00         1.00         1/2         5130           1         1.00         1.25         9/16         7010         7010           1         0.01         1.25         9/16         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010         7010	5 👉	0.19	0.19	0.19	1/16	9.5			
10       0.19       0.25       0.25       3/32       33.5         1/4       0.25       0.31       0.31       0.31       1/8       77.9         5/16       0.31       0.44       0.38       5/32       156         3/8       0.38       0.44       0.44       3/16       273         7/16       0.44       0.63       0.50       7732       428         1/2       0.50       0.63       0.63       1/4       615         5/8       0.63       0.88       0.88       5/16       1315         3/4       0.75       1.00       1.00       3/8       2150         7/78       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       1.25       9/16       7010         1       1.00       1.25       1.25       9/16       7010       7010         Far point: A set screw with a protonding by with a flat surface at the end opposite had of the hexagonal drive. <i>Far point:</i> A set screw with a store or the end and a surge-stapade indentation at the other end. Hal/Dog point: A set screw with a store or the end and semice mananel drive. <i>Core point:</i> A set screw with a store or the end opposite that of the hexagonal drive. <i>Far point:</i> A set screw with a store or the end opposite that	6	0.19	0.25	0.19	1/16	9.5			
1/4       1/8       77.9         5/16       0.31       0.44       0.38       5/32       156         3/8       0.38       0.44       0.44       3/8       5/32       156         3/8       0.38       0.44       0.44       3/16       273         7/16       0.44       0.63       0.50       7/32       428         1/2       0.50       0.63       0.63       1/4       615         5/8       0.63       0.88       0.88       5/16       1315         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       9/16       7010       100         1       1.00       1.25       9/16       7010       0.08         1       1.00       1.25       9/16       7010       0.08       0.08         1       0.01       1.25       9/16       7010       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       0.08       <	8	0.19	0.25	0.25	5/64	19.4			
5/16       0.31       0.44       0.38       5/32       156         3/8       0.38       0.44       0.44       3/16       273         7/16       0.44       0.63       0.50       7/32       428         1/2       0.50       0.63       0.63       1/4       615         5/8       0.63       0.88       0.88       5/16       1315         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       1.25       9/16       7010         Half-Dog point: A set screw with a portuning tow inta fact surface at the end opposite that of the hexagonal drive.       CORP         Half-Dog point: A set screw with a portuning tow inta fact surface at the end opposite that of the hexagonal drive.       CORP         Half-Dog point: A set screw with a portuning to with a fact surface at the end opposite that of the hexagonal drive.       CORP         Half-Dog point: A set screw with a portuning to with a fact surface at the end opposite that of the hexagonal drive.       CorP point: A set screw with a starbace at the end opposite that of the hexagonal drive.         Cup point: The cup point is the most used via dowein.       Corp point: A set screw with a starbace the end opposite that of the hexagonal driv	10	0.19	0.25	0.25	3/32	33.5			
3/8       0.38       0.44       0.44       3/16       273         7/16       0.44       0.63       0.50       7/32       428         1/2       0.50       0.63       0.63       1/4       615         5/8       0.63       0.88       0.83       1/4       615         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       1.25       9/16       7010         1       1.00       1.25       1.25       9/16       7010       7010         Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Half-Dog point: A set screw with a protuding tow tha fat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a noval-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a noval-shaped point at the opposite that of the hexagonal drive. Core point: A set screw with a fat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a fat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a protucing the drist, permanent and semi-permanent location of parts on sthafts with hadrbag point: headed to permanent setting. The point should in closely to the diameter of the drine the drist of the drinitimum deforming. Also	1/4 est.	0.25	0.31	0.31	1/8	77.9			
7/16       0.44       0.63       0.50       7/32       428         1/2       0.50       0.63       0.63       1/4       615         5/8       0.63       0.88       0.88       5/16       1315         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       3/8       2150         1       1.00       1.25       1.25       9/16       7010         Description       Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a flat surface at the end opposite that of the hexagonal drive. Core point: The cup point is the most used style set screw. Designed for flat, permanent and semi-permanent location of paris on shafts with hardness differential of 10-15 Rockwell C points and where cuting or the dameter of the drive doe or against the flat. Often used instead of a dowel pin.         Advantages       Oud point: Preferred style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotten splined or grooved, and for applications where point should fit cokely to the damaler	5/16	0.31	0.44	0.38	5/32	156			
1/2       0.50       0.63       0.63       1/4       615         5/8       0.63       0.88       0.88       5/16       1315         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       9/16       7010       7010         Cup point: A sealess screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Haif-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the hexagonal drive. Core point: A set screw with a store at the end opposite that of the chazgonal drive. Core point: A set screw opposite store at the end opposite that of the chazgonal drive.	3/8	0.38	0.44	0.44	3/16	273			
5/8       0.63       0.88       0.88       5/16       1315         3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       1.25       9/16       7010         Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Oral point: A set screw with a harp conical-shaped point at the opposite end from the hexagonal drive. Oral point: A set screw with a harp conical-shaped point at the opposite end from the hexagonal drive. Cone point: A set screw with a harp conical-shaped point at the opposite end from the hexagonal drive. Cone point: The cup point is the most used style set screw. Designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cuting in or cup edge on the shaft is acceptable. Half-Dog point: The cup point is the most used style set screw. Designed for fast, permanent as emisperimal science of the drilled hole or against the flat. Often used instead of a dowel pin.         Oval point: Preferred style for frequent reset on soft or hard shafts with minimum derming. Also chosen for permanent setting on shaft spate splined or grooved, and for applications where point meets shaft on an angle. Sometimes substituted for the cup on int 3/s </td <td>7/16</td> <td>0.44</td> <td>0.63</td> <td>0.50</td> <td>7/32</td> <td colspan="2">428</td>	7/16	0.44	0.63	0.50	7/32	428			
3/4       0.75       1.00       1.00       3/8       2150         7/8       0.88       1.00       1.00       1/2       5130         1       1.00       1.25       1.25       9/16       7010         Description       Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Hait-Dog point: A set screw with a protructing tip with a flat surface at the end opposite that of the hexagonal drive. Oral point: A set screw with a noral-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a hary concile-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a hary concile-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a hary concile-shaped point at the copposite of the drive in the hexagonal drive. Core point: A set screw with a hary concile-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a hary concile-shaped point at the copposite of the drive of the hexagonal drive. Core point: The cup point is the most used style set screw. The posite that of the drilled hole or against the flat. Often used instead of a dowel pin.         Advantages       Cup point: Preferred style for frequent reseting or relocating on hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotter splined or grooved, and for applications there point meters shaft on an angle. Sometimes substitute for the application of halt improves the contacts.         Material       Core point: For permanent setting on soft or hardered shafts. The deep penetratin it offers gives this st	1/2	0.50	0.63	0.63	1/4	615			
7/8         0.88         1.00         1.00         1/2         5130           1         1.00         1.25         1.25         9/16         7010           Description         Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Weat the end opposite that of the hexagonal drive. Weat point: A set screw with a noval-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a sharp conical-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a sharp conical-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a sharp conical-shaped point at the end opposite that of the hexagonal drive. Core point: The cup point is the most used style set screw. Designed for fact, the end opposite that of the hexagonal drive. Care point: The cup point is the most used style set screw. Designed for fact, the end opposite that of the hexagonal drive. Half-Dog point: Intended for permanent setting. The point should fit closely to the diameter of the drilled hole or against the flat. Often used instead of a dowel pin.           Oval point: Prefered style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotte splined or grooved, and for applications where point meets shaft on an angle. Sometimes substituted for the cup point shafts on that improves the contacts.           Core point: For permanent setting on relocating on hard steel shafts and where minimal damage to shafts is necessary. Ground flats on the shaft improves the contacts.	5/8	0.63	0.88	0.88	5/16	1315			
1         1.00         1.25         1.25         9/16         7010           Description         Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Oval point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a protructing tip with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a sturface at the end opposite that of the hexagonal drive. Cup point: The cup point is the most used style set screw. Designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cutting in of cup edge on the shaft is acceptable. Half-Dog point: Intended for permanent setting. The point should fit closely to the diameter of the drilled hole or against the flat. Often used instead of a dwelp pin.           Advantages         Oval point: Prefered style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spote splined or grooved, and for applications where point meets shafts and where gives this style set screw the highest tor-sional & a holding power. For shafts of Pockwell hardness C15 or over, spot point half is depth. Can also be used as a pivot or hanger. When two set screws are used in a set screw collar, their holding power is determined by their location with respect to each other. Screws shall be made from an aloy steel which conforms to the following chemical composition requirements (per product analysis)- Carbon: 0.28 to 0.50%; Phosphorus: 0.040% maximum; Sulfur: 0.045% maximum. Also, one or more of the following elements shall	3/4	0.75	1.00	1.00	3/8	2150			
Description         Cup point: A headless screw threaded the entire length. It has a hexagonal drive at one end and a cup-shaped indentation at the other end. Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Drain: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Flat point: A set screw with a noval-shaped point at the end opposite that of the hexagonal drive. Core point: A set screw with a flat surface at the end opposite that of the hexagonal drive. Core point: A set screw with a sharp conical-shaped point at the opposite end from the hexagonal drive. Core point: A set screw with a sharp conical-shaped point at the opposite end from the hexagonal drive. Core point: Inter cup point is the most used style set screw. Designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cutting of the drilled hole or against the flat. Otten used instead of a dowel pin.           Applications/ Advantages         Oval point: Preferred style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotte splined for frequent reseting or relocating on hard steel shaft an angle. Sometimes substituted for the cup point style.           Material         Core point: For permanent setting on soft or hard-shafts with normum deforming disp. Carbon: Disp. Probability. Disp. Disp. Screw shall be made from an alloy steel which conforms to the following chemical composition with respect to each other. Screw shall be made from an alloy steel which conforms to the following chemical composite on the optiowing ensures shall be present is sufficient quantity to meet the strength requirements listed below.           Material         Screws shall be heat tr	7/8	0.88	1.00	1.00	1/2	5130			
Description       Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. <i>Oval point:</i> A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. <i>Oval point:</i> A set screw with a noval-shaped point at the end opposite that of the hexagonal drive. <i>Core point:</i> A set screw with a sharp conical-shaped point at the end opposite that of the hexagonal drive. <i>Core point:</i> A set screw with a sharp conical-shaped point at the opposite that of the hexagonal drive. <i>Core point:</i> A set screw with a sharp conical-shaped point at the opposite that of the hexagonal drive. <i>Core point:</i> The cup point is the most used style set screw. Designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cutting in of cup edge on the shaft is accreptable. Half-Dog point: There op point is the most used style set screw. Designed for a dowel pin. <i>Oval point:</i> Preferred style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotted instead of a dowel pin. <i>Oval point:</i> Preferred style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotted splined or grooved, and for applications where point meets shaft on an angle. Sometimes substituted for the cup point style. <i>Flat point:</i> Preferred style for frequent reset on soft or hard set shafts and where minimal damage to shafts is necessary. Ground flats on t	1	1.00	1.25	1.25	9/16	7010			
Applications/ Advantages       Cup point: The cup point is the most used style set screw. Designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cutting in of cup edge on the shaft is acceptable. Half-Dog point: Intended for permanent setting. The point should fit closely to the diameter of the drilled hole or against the flat. Often used instead of a dowel pin.         Oval point: Preferred style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotted splined or grooved, and for applications where point meets shaft on an angle. Sometimes substituted for the cup point style. Flat point: Designed for frequent resetting or relocating on hard steel shafts and where minimal damage to shafts is necessary. Ground flats on the shaft improves the contacts.         Cone point: For permanent setting on soft or hardeness C15 or over, spot point half its depth. Can also be used as a pivot or hanger. When two set screws are used in a set screw collar, their holding power is determined by their location with respect to each other. Screws shall be made from an alloy steel which conforms to the following chemical composition requirements (per product analysis) carbor: 0.28 to 0.50%; Phosphorus: 0.040% maximum; Sulfur: 0.045% maximum. Also, one or more of the following elements shall be present is sufficient quantity to meet the strength requirements listed below: chromium, nickel, molybdenum or vanadium.         Heat Treatment       Screws shall be heat treated by oil quenching from above the transformation temperature and then tempered at a temperature sufficient to meet the hardness requirements listed below.         Heat Treatment       Socket set screws of a sufficient length to be tested (as listed in the above table	Description	Half-Dog point: A set screw with a protruding tip with a flat surface at the end opposite that of the hexagonal drive. Oval point: A set screw with an oval-shaped point at the end opposite that of the hexagonal drive. Flat point: A set screw with a flat surface at the end opposite that of the hexagonal drive.							
Material       Screws shall be made from an alloy steel which conforms to the following chemical composition requirements (per product analysis) Carbon: 0.28 to 0.50%; Phosphorus: 0.040% maximum; Sulfur: 0.045% maximum. Also, one or more of the following elements shall be present in sufficient quantity to meet the strength requirements listed below: chromium, nickel, molybdenum or vanadium.         Heat Treatment       Screws shall be heat treated by oil quenching from above the transformation temperature and then tempered at a temperature sufficient to meet the hardness requirements listed below.         Hardness       Rockwell C45 - 53         orsional Strength       Socket set screws of a sufficient length to be tested (as listed in the above table) shall withstand application of the test torque specified in said tab without evidence of the socket reaming or the screw bursting.		<ul> <li>Cup point: The cup point is the most used style set screw. Designed for fast, permanent and semi-permanent location of parts on shafts with hardness differential of 10-15 Rockwell C points and where cutting in of cup edge on the shaft is acceptable.</li> <li>Half-Dog point: Intended for permanent setting. The point should fit closely to the diameter of the drilled hole or against the flat. Often used instead of a dowel pin.</li> <li>Oval point: Preferred style for frequent reset on soft or hard shafts with minimum deforming. Also chosen for permanent setting on shafts spotted, splined or grooved, and for applications where point meets shaft on an angle. Sometimes substituted for the cup point style.</li> <li>Flat point: Designed for frequent resetting or relocating on hard steel shafts and where minimal damage to shafts is necessary. Ground flats on the shaft improves the contacts.</li> <li>Cone point: For permanent setting on soft or hardened shafts. The deep penetration it offers gives this style set screw the highest tor-sional &amp; axial holding power. For shafts of Rockwell hardness C15 or over, spot point half its depth. Can also be used as a pivot or hanger.</li> </ul>							
Hardness       Rockwell C45 - 53         orsional Strength       Socket set screws of a sufficient length to be tested (as listed in the above table) shall withstand application of the test torque specified in said tab without evidence of the socket reaming or the screw bursting.		Screws shall be made from an alloy steel which conforms to the following chemical composition requirements (per product analysis) Carbon: 0.28 to 0.50%; Phosphorus: 0.040% maximum; Sulfur: 0.045% maximum. Also, one or more of the following elements shall be present in							
orsional Strength Socket set screws of a sufficient length to be tested (as listed in the above table) shall withstand application of the test torque specified in said tab without evidence of the socket reaming or the screw bursting.		CORP.							
<b>#6</b>	naranooo								
	orsional Strength	Socket set screws of a suffic		d in the above table) shall with		torque specified in said tab			

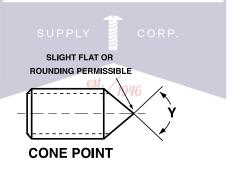
## **Socket Set Screws**











е і т	ТІМ	C Soc	KET SE	T SCRI	ews <b>- A</b> li	OY STEEL			ASME	B18
	J	Т		C	R	Y	I	P Q		
Nominal	Hexagon	Key	Cup & F	Cup & Flat Point Oval Point		Cone Pt. Angle 90°		Half Do	g Point	
Size	Socket Size	Engage- ment	Dian	neter	Radius	±2° for these lengths and over; 118° ± 2°	Diameter		Length	
	Nom	Min	Max	Min	Basic	for shorter lengths	Max	Min	Max	
0	0.028	0.050	0.033	0.027	0.045	0.09	0.040	0.037	0.017	
1	0.035	0.060	0.040	0.033	0.055	0.09	0.049	0.045	0.021	
2	0.035	0.060	0.047	0.039	0.064	0.13	0.057	0.053	0.024	
3	0.050	0.070	0.054	0.045	0.074	0.13	0.066	0.062	0.027	
4	0.050	0.070	0.061	0.051	0.084	0.19	0.075	0.070	0.030	
5	0.062	0.080	0.067	0.057	0.094	0.19	0.083	0.078	0.033	
6	0.062	0.080	0.074	0.064	0.104	0.19	0.092	0.087	0.038	
8	0.078	0.090	0.087	0.076	0.123	0.25	0.109	0.10 <mark>3</mark>	0.043	
10	0.094	0.100	0.102	0.088	0.142	0.25	0.127	0.120	0.049	
1/4	0.125	0.125	0.132	0.118	0.188	0.31	0.156	0.149	0.067	
5/16	0.156	0.156	0.172	0.156	0.234	0.38	0.203	0.195	0.082	
3/8	0.188	0.188	0.212	0.194	0.281	0.44	0.250	0.241	0.099	
7/16	0.219	0.219	0.252	0.232	0.328	0.50	0.297	0.287	0.114	
1/2	0.250	0.250	0.291	0.270	0.375	0.57	0.344	0.334	0.130	
5/8	0.312	0.312	0.371	0.347	0.469	0.75	0.469	0.456	0.164	
3/4	0.375	0.375	0.450	0.425	0.562	0.88	0.562	0.549	0.196	
7/8	0.500	0.500	0.530	0.502	0.656	1.00	0.656	0.642	0.227	
1	0.562	0.562	0.609	0.579	0.750	1.13	0.750	0.734	0.260	

	Nominal Screw Length				
Tolerance on Length	Up to 0.63 in., Incl.	Over 0.63 to 2.00 in., Incl.	Over 2.00 to 6.00 in., Incl.		
	±0.01	±0.02	±0.03		

## JPPLY C

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