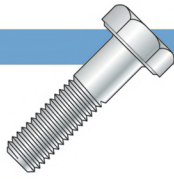




**MUDGE**  
**FASTENERS, INC.**  
METRIC

## CAP SCREWS & BOLTS

- DIN 603 Carriage Bolt, A2 SS
- DIN 603 Carriage Bolt, A4 SS
- DIN 931 Class 8.8 Hex Cap Screw, Steel Zinc
- DIN 931 Class 10.9 Hex Cap Screw, Plain Steel
- DIN 933 Class 8.8 Hex Cap Screw, Steel Zinc
- DIN 933 Class 10.9 Hex Cap Screw, Plain Steel
- DIN 6921 Flange Screw
  - A2 Stainless
  - Class 8.8 RoHS Zinc
  - Class 8.8 Plain
  - Class 10.9 Black Phosphate
  - Class 10.9 Plain
- DIN 6921 Serrated Flange Screw
  - A2 Stainless
  - Class 8.8 Zinc



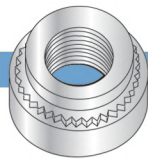
## MACHINE SCREWS

- DIN 965 Flat Phillips (Type H)
  - 18-8 Stainless
  - A4 Stainless
  - Black Oxide over 18-8 SS
  - Steel Zinc
  - Steel Black Oxide
- DIN 7985 Six-Lobe Pan Steel, RoHS Zinc
- DIN 7985A Pan Phillips (Type H)
  - 18-8 SS
  - A4 Stainless
  - Black Oxide over 18-8 SS
  - Steel Zinc
  - Steel Black Oxide
- ISO 7045 Pan Six-Lobe
  - A2 SS
  - Steel Black Oxide
  - Steel RoHS Zinc
- ISO 14581 Flat Six-Lobe
  - Class 8.8 Steel RoHS Zinc
  - 18-8 Stainless
- ISO 14583 Pan Six-Lobe
  - Class 8.8 Steel RoHS Zinc
  - A2 Stainless
  - A4 Stainless
- JIS-B1111 Small Head Pan Phillips
  - Steel Zinc
  - A2 Stainless
- JIS-B 1111 Truss Phillips A2 Stainless



## ELECTRONIC HARDWARE

- Self-Clinching Nut, Steel Zinc
- Flush Head Self-Clinching Studs, Steel Zinc
- Hex Male-Female Standoffs
  - 4.5mm Aluminum
  - 6 mm Aluminum
  - 4.5 mm 18-8 SS
  - 6 mm 18-8 SS



## RIVET NUTS

- Hex Body Thin Head, Steel Zinc Yellow
- Round Ribbed Body
  - Small Head, Steel Zinc Yellow
  - Large Flange, Steel Zinc Yellow
- Round Body Large Flange
  - Aluminum
  - Steel Zinc Yellow



## SPRING PINS

- ISO 8752, Steel Black



## THREAD-ROLLING SCREWS

- DIN 7500-C Pan Type Z Recess (1A)
  - Steel Zinc & Waxed
  - Steel RoHS Zinc Yellow & Waxed
  - Steel Black Zinc & Waxed
  - 18-8 SS, Passivized & Waxed
- DIN 7500-CE Pan Six-Lobe Recess
  - 18-8 SS, Passivized & Waxed
  - Steel Zinc & Waxed
- DIN 7500~D Hex Washer Unslotted
  - 18-8 SS, Passivized & Waxed
  - Steel Zinc & Waxed
  - Steel Zinc Black & Waxed
- DIN 7500-M Flat Six-Lobe
  - 18-8 SS, Passivized & Waxed
- DIN 7500-M Flat Type Z Recess (1A)
  - Steel Zinc & Waxed
  - 18-8 SS, Passivized & Waxed
- Alternatives To Plastite® / Plas-Fix® 45
  - Flat Six-Lobe, Steel RoHS Zinc
  - Pan Six-Lobe, Steel RoHS Zinc
  - Pan Pozi, Steel RoHS Zinc



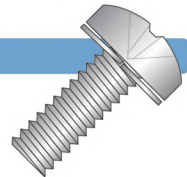
## THREAD-FORMING SCREWS

- Alternatives to EJOT® Type-PT®, A2 Stainless
  - Flat Phillips
  - Pan Phillips
  - Flat Six-Lobe
  - Pan Six-Lobe
  - Round Washer Six-Lobe
- Alternatives to EJOT® Type-PT®, Steel Zinc
  - Flat Phillips
  - Pan Phillips
  - Flat Six-Lobe
  - Pan Six-Lobe
  - Round Washer Six-Lobe



## SEMS

- DIN 7985A Pan Phillips
  - Flat Washer to DIN 6902A, Steel Zinc
  - Internal Tooth, A2 SS
  - Spring Lock Washer, 18-8 SS
  - Spring Lock Washer, Steel Zinc
- ISO 7045 Pan Phillips
  - Conical Washer, Stainless
  - Conical Washer, Steel Zinc
  - External Tooth L/W, Stainless
  - External Tooth L/W, Steel Black Oxide
  - External Tooth L/W, Steel Zinc
  - Internal Tooth L/W, Stainless
  - Internal Tooth L/W, Steel Zinc
  - Helical Split L/W, A2 Stainless
  - Helical Split L/W, Steel Zinc
- JIS-B1187 Hex Phillips Split Lock/Flat Washer
  - Steel Zinc Yellow
  - Steel RoHS Zinc Yellow
- JIS-B1188 Pan Phillips
  - Split L/W, Steel Zinc
  - Split Lock/Flat Washer, A2 Stainless
  - Split Lock/Flat Washer, Steel Zinc
  - Split Lock/Flat Washer, Steel Zinc Yellow
  - Split Lock/Flat Washer, Steel RoHS Zinc Yellow
  - External Tooth, Steel Zinc Yellow
  - External Tooth, Steel RoHS Zinc Yellow
  - Internal Tooth L/W, Steel RoHS Zinc Yellow

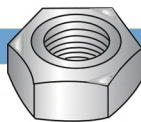


## NUTS



- Cage Nuts, Steel Zinc
- Coupling, Type-9070 Round, A2 Stainless
- DIN 439 B Hex Jam
  - Class A2 Stainless
  - Steel Zinc
- DIN 466 Knurled Thumb, A2 Stainless
- DIN 557 Square, A2 Stainless
- DIN 562 Thin Square, A2 Stainless
- DIN 917 Low-Type Hex Cap, A2 Stainless
- DIN 934 Hex
  - Classes 6 & 8, Style 1, Steel Zinc
  - Class 10, Style 1, Steel Zinc
  - Class 10, Style 1, Plain Steel
  - Class 50, 18-8 SS
  - Class 50, A4 SS
  - Class 50, Black Oxide over 18-8
- DIN 980 Prevailing Torque Top Lock, A2 Stainless
- DIN 982 Nylon Insert High Hex Stop
  - A2 Stainless
  - A4 Stainless
- DIN 985 Nylon Insert Stop
  - 18-8 Stainless
  - A4 Stainless
  - Class 8, Steel Zinc
  - Class 8, Steel Black Oxide
- DIN 986 Nylon Insert Dome Cap Stop, A2 Stainless
- DIN 1587 Acorn Cap
  - A2 Stainless
  - A4 Stainless
- DIN 6334 Hex Coupling
  - A2 Stainless
  - A4 Stainless
- DIN 6923 Serrated Flange
  - Class 70 A2 Stainless
  - Class 8 Steel Zinc
- DIN 6923 Flange
  - 18-8 & 316 Stainless
  - Class 8 Steel RoHS Zinc
  - Class 8 Steel RoHS Zinc Yellow
  - Class 8 Steel RoHS Zinc Yellow, Serrated
  - Class 10 Steel RoHS Zinc & Zinc Yellow Baked
- DIN 6926 Nylon Insert Flange
  - A2 Stainless
  - A2 Stainless, Serrated
  - Class 8 Steel Zinc
- DIN 6927 Flange Top Lock
  - Class 10 Steel Black Phosphate & Oil
- ISO 4032 Class A2-70 Stainless
- K-Lock Nuts
  - A2 Stainless
  - Class 8 Steel Zinc
- Prevailing Torque Lock Nuts, Class 10 Steel
  - DIN980V, Cad & Wax
  - ASME B18.16.3M, Cad & Wax
- Wing Nuts, Cold Forged, Steel Zinc
- Wing Nuts, Type-315 American-Style
  - A2 Stainless
  - A4 Stainless

## WELD NUTS



- Offset Hole, Single Projection
- Center Hole, Multiple Projection
- DIN 928 Square
  - A2 SS
  - Steel Plain
- DIN 929 Hex
  - A2 SS
  - A4 SS
  - Steel Plain

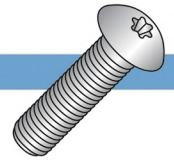
## WASHERS



- DIN 125A Standard Flat
  - 18-8 SS
  - Black Oxide over 18-8 SS
  - Steel Zinc
- DIN 127B Split Lock
  - 18-8 SS
  - Black Oxide over 18-8 SS
  - Steel Zinc
  - Steel Thermal Black
- DIN 128 Curved Spring Lock
  - A2 Stainless
  - A4 Stainless
- DIN 433 Small Flat, Steel Zinc
- DIN 6797A External Tooth Lock
  - A2 Stainless
  - Steel Black Oxide
  - Steel Zinc
- DIN 6797J Internal Tooth Lock
  - A2 Stainless
  - Steel Black Oxide
  - Steel Zinc
- DIN 6798 Serrated Ext Tooth Lock, A2 Stainless
- DIN 7980 High Collar Split Lock
  - A2 Stainless
  - Steel Plain
  - Steel Zinc
- DIN 9021 Fender
  - A2 Stainless
  - A4 Stainless
- Finishing, Countersunk
  - A2 Stainless
  - A4 Stainless
- Serrated Conical Spring Lock, A2 Stainless

## SOCKETS (SIX-LOBE & HEX)

- ISO 7380 Six-Lobe Button Head
  - Class 10.9 Steel Zinc
  - A2 Stainless



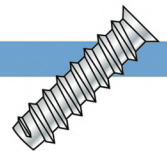
## HEX SOCKETS (BLUE DEVIL® — ALLOY)

- Socket Head Cap Screws
- Flat Head Cap Screws
- Button Head Cap Screws
- Socket Set Screws—Cup Point
- Hex Wrenches—Short Arm



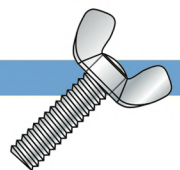
## WOOD-WORKING SCREWS

- European Drawer Screws—Flat Head
  - Phillips, Steel Zinc
  - Phillips, Steel Nickel
  - Pozi, Steel Nickel
  - Square Recess, Steel Zinc
  - Square Recess, Steel Nickel



## WING SCREWS

- Light Series Cold Forged American-Type, A2 SS



DIN Standard	ISO Standard	JIS Standard	Bossard Standard		Category Descriptions
			Steel Zinc (Unless Noted)	Stainless (Class Noted)	
13	68				Internal Threads, Class 6H
13	898-1				External Threads, Class 6g
13	R1501				Internal Threads, Class 6H
84	1207		330	650 (A2) 651 (A4)	Machine Screws, Slotted Cheese Head
85	1580		344	652 (A2) 653 (A4)	Machine Screws, Slotted Pan Head
125A	7089		715	670 (A2) 671 (A4)	Flat Washers, Standard
126	7091		724		Flat Washers, Wider I.D.
127B			762	672 (A2) 673 (A4)	Split Lockwashers
128			769	674 (A2) 8856 (A4)	Curved Spring Lockwashers
267	4759/1				Tolerance Values for Metric Fasteners
315			208		Malleable Cast Wing Nuts
439B	4035		124	630 (A2) 631 (A4)	Hex Jam Nuts
433	7092		726	1414 (A2) 6 (A4)	Flat Washers, Small O.D.
466			215	10904 (A1)	Knurled Thumb Nuts
557			147	10769 (A2)	Square Nuts
562			145	3525 (A2)	Thin Square Nuts
603	8677	B1171	30401	645 (A2) 31107 (A4)	Carriage Bolts, Regular Square Neck
603	8678	B1171			Carriage Bolts, Short Neck
911	2936		1169*		Hex Keys
912	4762		8**	611 (A2) 613 (A4)	Socket Head Cap Screws, Partially Threaded
			7**	610 (A2) 612 (A4)	Socket Head Cap Screws, Fully Threaded
913	4026		24*	617 (A2) 4723 (A4)	Socket Set Screws - Flat Point
914	4027		25*	618 (A2) 33032 (A4)	Socket Set Screws - Cone Point
915	4028		26*	619 (A2)	Socket Set Screws - Dog Point
916	4029		27*	621 (A2) 4721 (A4)	Socket Set Screws - Cup Point
917			154 (Cl 6 ZP)	13244 (A2) 634 (A4)	Hex Cap Nut, Low Type
929			193 (plain)	31 (A2) 10766 (A4)	Hex Weld Nuts, with 3 Projections
931	4014		55 (8.8 plain) 57 (8.8 ZP) 72 (10.9 plain)	623 (A2) 625 (A4)	Hex Bolts, Partial Thread
933	4017		56 (8.8 ZP) 71 (10.9 plain)	622 (A2) 624 (A4)	Hex Cap Screws, Full Thread
934	4032		109 (Cl 6 ZP) 117 (Cl 8 ZP) 121 (Cl 10 plain)	5713 (A2) 2586 (A4)	Hex Nuts, Style 1, Class 6, 8 (some sizes), 10 (some sizes)--Coarse
934K			1364		K-Lock Nuts, Class 8

\*\* Class 12.9 Steel Black (plain)  
\* Hardened, Plain Steel

DIN Standard	ISO Standard	JIS Standard	Bossard Standard		Category Descriptions
			Steel Zinc (Unless Noted)	Stainless (Class Noted)	
963	2009		357	654 (A2) 655 (A4)	Machine Screws, Slotted Flat Head
964	2010		368	656 (A2) 657 (A4)	Machine Screws, Slotted Oval Head
965	7046		388 (Phil)	661 (A2 Phil)	Machine Screws, Phillips Flat Head
966	7047		392	78 (A2)	Machine Screws, Phillips Oval Head
970	4032				Hex Nuts, Style 1, Classes 6, 8 & 10
980 V	7719		40036 (Cl 10 ZP)	5242 (A2)	All Metal Lock Nuts
982	7041		164 (Cl 8 ZP)	20739 (A2) 2079 (A4)	Nylon Insert Lock Nuts, Heavy Pattern
985	7040		163 (Cl 8 ZP)	637 (A2) 1722 (A4)	Nylon insert Lock Nuts, Regular Pattern
986			167 (Cl 6/8 ZP)		Prevailing Torque Domed Hex Cap Nuts
1587			150 (Cl 6 ZP)	635 (A2) 1721 (A4)	Domed Hex Cap Nuts
3155					Cold Formed Wing Nuts, Class 5
6334					Hex Coupling Nuts
6797A		B1255	789	2842 (A2)	External Tooth Lockwashers
6797J		B1255	790	2843 (A2)	Internal Tooth Lockwashers
6798A			781	675 (A2)	Serrated External Tooth Lockwashers
6798V		B1255	30718		Countersunk External Tooth Lockwashers
6921		B1189	41200 (Cl 8.8 ZP) 20170 (Cl 8.8 ZP)•		Flange Bolts
6923	4161	B 1190	41187 (Cl 8 ZP) 1973 (Cl 8 ZY) 30312 (Cl 8 ZP) •	14476 (A2) 11207 (A4) •	Flange Nuts
6926	7043		6783		Prevailing Torque Hex Flange Lock Nuts
6999D		B1255			Combination External-Internal Tooth Lockwashers
7971C	1481		941	692 (A2)	Slotted Tapping Screws - Pan Head
7972C	1482		990	693 (A2)	Slotted Tapping Screws - Flat Head
7973C	1483		991		Slotted Tapping Screws - Oval Head
7976C	1479		2707		Slotted Tapping Screws - Hex Head
7981C	7049		994	695 (A2)	Phillips Tapping Screws - Hex Head
7982C	7050		995	696 (A2)	Phillips Tapping Screws - Flat Head
7983C	7051		996	697 (A2)	Phillips Tapping Screws - Oval Head
7985	7045		384	660 (A2)	Machine Screws, Phillips Pan Head
7991	10632		20 (Cl 10.9 plain)	616 (A2)	Flat Socket Cap Screws

• Serrated