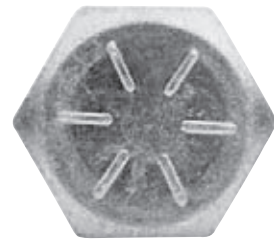
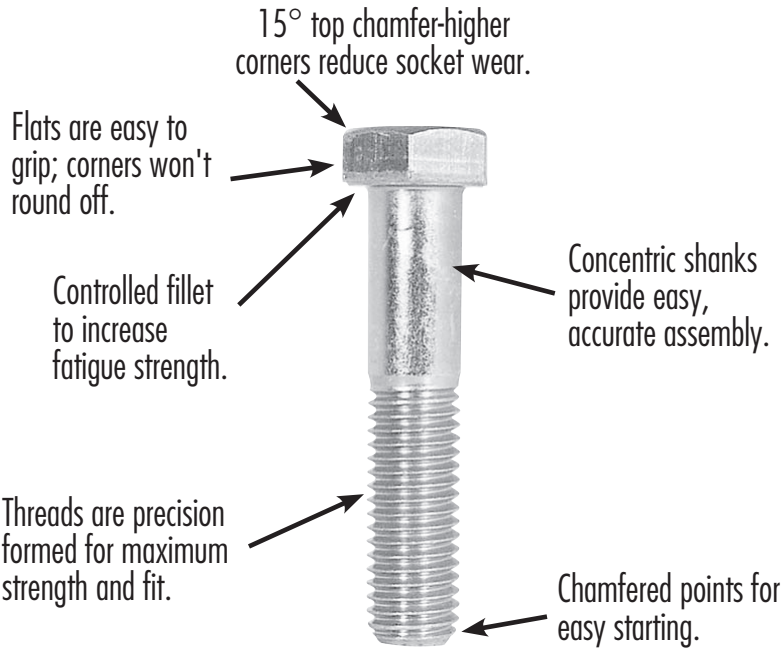
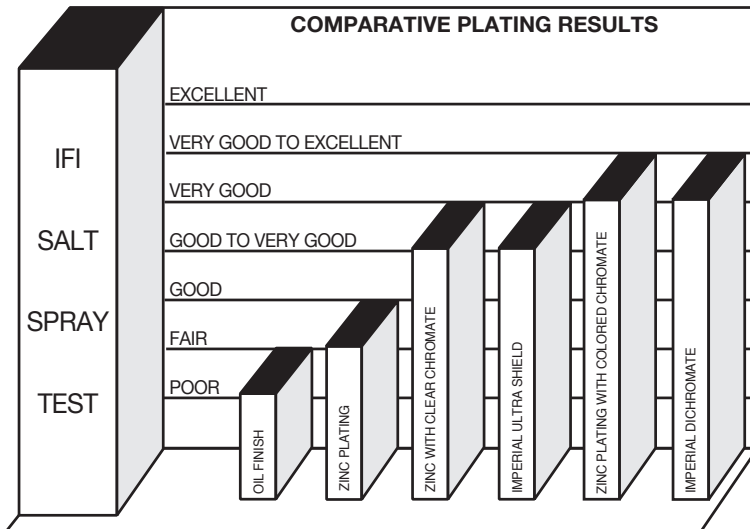


GRADE 8 FASTENERS

For maximum holding power, always use a balanced assembly of Grade 8 Components.
Cap Screw • Hex Nut • Flat Washer • Lock Washer



GRADE 8
ZINC YELLOW
 DICHROMATE PLATING



BOLT DIAMETER	FRACTIONAL MEASUREMENT	
	CAP SCREW WRENCH SIZE	NUT WRENCH SIZE
1/4	7/16	7/16
5/16	1/2	1/2
3/8	9/16	9/16
7/16	5/8	11/16
1/2	3/4	3/4
9/16	13/16	7/8
5/8	15/16	15/16
3/4	1-1/8	1-1/8
7/8	1-5/16	1-5/16
1"	1-1/2	1-1/2
1-1/8	1-11/16	1-11/16
1-1/4	1-7/8	1-7/8
1-3/8	2-1/16	2-1/16
1-1/2	2-1/4	2-1/4
1-3/4	2-5/8	2-5/8
2"	3"	3"
2-1/4	3-3/8	3-3/8
2-1/2	3-3/4	3-3/4
2-3/4	4-1/8	4-1/8
3"	4-1/2	4-1/2

To figure bolt thread length:
 For bolts under 6": twice the bolt diameter plus a 1/4"
 For bolts over 6": twice the bolt diameter plus a 1/2" this gives you the approximate bolt thread length available



PERSONAL CUSTOMER SERVICE / SAME DAY SHIPPING / NO RISK GUARANTEE



IMPERIAL® GRADE 8 FASTENERS

IMPERIAL® GRADE 8 CAP SCREWS

For your toughest fastening applications use Grade 8 Fasteners every time.

- Grade 8 Cap Screws comply with SAE J429, ANSI/ASME B18.2.1 hex cap screws.
- Zinc yellow dichromate plating provides the extra corrosion protection not found in regular zinc plating (see chart below).

- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



TECHNICAL DATA

- Material: medium carbon alloy steel
- Tensile: 150,000 psi minimum
- Hardness: Rockwell hardness C33-C39
- Threads: UNRF & UNRC radius root class 2A to ANSI/ASME B1.1
- Tempering Temperature: 800° F (minimum)
- Decarburization: meets SAE J121
- Discontinuities: meets SAE J1061
- Finish: zinc yellow dichromate ASTM B633, Type II SC1

TO FIGURE BOLT THREAD LENGTH:

- For bolts under 6": twice the bolt diameter plus a 1/4"
- For bolts over 6": twice the bolt diameter plus a 1/2" this gives you the approximate bolt thread length available

1/4 SIZES	PART No. USS (20)	PART No. SAE (28)	QTY.
1/4 x 1/2	16600	17600	100
1/4 x 5/8	16601	—	100
1/4 x 3/4	16602	17602	100
1/4 x 7/8	16603	—	100
1/4 x 1"	16604	17604	100
1/4 x 1-1/4	16605	17605	100
1/4 x 1-1/2	16606	17606	100
1/4 x 1-3/4	16607	—	100
1/4 x 2"	16608	17608	100
1/4 x 2-1/4	16609	17609	100
1/4 x 2-1/2	16610	17610	100
1/4 x 3"	16612	17612	100
1/4 x 3-1/4	16613	—	100
1/4 x 3-1/2	16614	17614	100
1/4 x 4	16616	17616	100
1/4 x 4-1/2	16617	—	100
1/4 x 5	16618	17618	100
1/4 x 5-1/2	16619	—	100
1/4 x 6"	16620	—	100

5/16 SIZES	PART No. USS (18)	PART No. SAE (24)	QTY.
5/16 x 1/2	16621	17621	100
5/16 x 5/8	16622	—	100
5/16 x 3/4	16623	17623	100
5/16 x 1"	16625	17625	100
5/16 x 1-1/4	16626	17626	100
5/16 x 1-1/2	16627	17627	100
5/16 x 1-3/4	16628	17628	100
5/16 x 2"	16629	17629	100
5/16 x 2-1/4	16630	17630	100
5/16 x 2-1/2	16631	17631	100
5/16 x 2-3/4	16632	17632	100
5/16 x 3"	16633	17633	100
5/16 x 3-1/4	16634	—	50
5/16 x 3-1/2	16635	17635	50
5/16 x 3-3/4	16636	—	50
5/16 x 4"	16637	17637	50
5/16 x 4-1/2	16638	—	50
5/16 x 5"	16639	17639	50
5/16 x 5-1/2	16640	—	50
5/16 x 6"	16641	—	50
5/16 x 7-1/2	16169	—	25

3/8 SIZES	PART No. USS (16)	PART No. SAE (24)	QTY.
3/8 x 5/8	16643	17645	100
3/8 x 3/4	16646	17646	100
3/8 x 1"	16648	17648	100
3/8 x 1-1/4	16649	17649	100
3/8 x 1-1/2	16650	17650	100
3/8 x 1-3/4	16651	17651	100
3/8 x 2"	16652	17652	100
3/8 x 2-1/4	16653	17653	50
3/8 x 2-1/2	16654	17654	50
3/8 x 2-3/4	16655	17655	50
3/8 x 3"	16656	17656	50
3/8 x 3-1/4	16657	—	50
3/8 x 3-1/2	16658	17658	50
3/8 x 3-3/4	16659	—	50
3/8 x 4"	16660	17660	50
3/8 x 4-1/2	16661	17661	50
3/8 x 4-3/4	16645	—	25
3/8 x 5"	16662	17662	50
3/8 x 5-1/2	16663	17663	50
3/8 x 6"	16664	17664	50
3/8 x 6-1/2	16665 ★	—	50
3/8 x 7"	16667 ★	—	20

★ Unplated

7/16 SIZES	PART No. USS (14)	PART No. SAE (20)	QTY.
7/16 x 3/4	16671	17671	100
7/16 x 1"	16672	17672	100
7/16 x 1-1/4	16673	17673	50
7/16 x 1-1/2	16674	17674	50
7/16 x 1-3/4	16675	17675	50
7/16 x 2"	16676	17676	50
7/16 x 2-1/4	16677	17677	50
7/16 x 2-1/2	16678	17678	50
7/16 x 2-3/4	16679	17679	50
7/16 x 3"	16680	17680	50
7/16 x 3-1/2	16682	17682	25
7/16 x 4"	16684	17684	25
7/16 x 4-1/2	16685	17685	25
7/16 x 5"	16686	17686	25
7/16 x 5-1/2	16687	—	25
7/16 x 6"	16688	17688	25
7/16 x 6-1/2	16689 ★	—	25
7/16 x 7"	16690 ★	—	25

★ Unplated

1/2 SIZES	PART No. USS (13)	PART No. SAE (20)	QTY.
1/2 x 3/4	16695	17695	50
1/2 x 1"	16696	17696	50
1/2 x 1-1/4	16697	17697	50
1/2 x 1-1/2	16698	17698	50
1/2 x 1-3/4	16699	17699	50
1/2 x 2"	16700	17700	50
1/2 x 2-1/4	16701	17701	50
1/2 x 2-1/2	16702	17702	50
1/2 x 2-3/4	16703	17703	50
1/2 x 3"	16704	17704	50
1/2 x 3-1/4	16705	17705	25
1/2 x 3-1/2	16706	17706	25
1/2 x 3-3/4	16707	17707	25
1/2 x 4"	16708	17708	25
1/2 x 4-1/2	16709	17709	25
1/2 x 5"	16710	17710	25
1/2 x 5-1/2	16711	17711	25
1/2 x 6"	16712	17712	25
1/2 x 6-1/2	16713 ★	17713 ★	5
1/2 x 7"	16714 ★	17714 ★	5
1/2 x 8"	16716 ★	—	5

★ Unplated

9/16 SIZES	PART No. USS (12)	PART No. SAE (18)	QTY.
9/16 x 1"	16719	17719	25
9/16 x 1-1/4	16720	17720	25
9/16 x 1-1/2	16721	17721	25
9/16 x 1-3/4	16722	17722	25
9/16 x 2"	16723	17723	25
9/16 x 2-1/4	16724	17724	25
9/16 x 2-1/2	16725	17725	25
9/16 x 2-3/4	16726	—	25
9/16 x 3"	16727	17727	25
9/16 x 3-1/2	16729	17729	25
9/16 x 4"	16731	17731	25
9/16 x 4-1/2	16732	17732	25
9/16 x 5"	16733	17733	25
9/16 x 5-1/2	16734	17734	25
9/16 x 6"	16735	17735	25

Note: Product may be sourced from multiple vendors.



IMPERIAL® GRADE 8 FASTENERS

IMPERIAL® GRADE 8 CAP SCREWS (CONTINUED)

5/8 SIZES	PART No. USS (11)	PART No. SAE (18)	Qty.
5/8 x 1"	16736	17736	25
5/8 x 1-1/4	16737	17737	25
5/8 x 1-1/2	16738	17738	25
5/8 x 1-1/2	16738-4	—	300
5/8 x 1-3/4	16739	17739	25
5/8 x 2"	16740	17740	25
5/8 x 2-1/4	16741	17741	25
5/8 x 2-1/2	16742	17742	25
5/8 x 2-3/4	16743	17743	25
5/8 x 3"	16744	17744	25
5/8 x 3-1/2	16746	17746	25
5/8 x 4"	16748	17748	25
5/8x 4-1/2	16749	17749	25
5/8 x 5"	16750	17750	25
5/8 x 5-1/2	16751	17751	25
5/8 x 6"	16752	17752	25
5/8 x 6-1/2	16753 ★	17753 ★	5
5/8 x 7"	16754 ★	17754 ★	5
5/8 x 7-1/2	16755 ★	—	5
5/8 x 8"	16756 ★	17756 ★	5
5/8 x 8-1/2	16757 ★	17757 ★	5
5/8 x 10"	—	17890 ★	2
5/8 x 11"	—	17892 ★	2

★ Unplated

3/4 SIZES	PART No. USS (10)	PART No. SAE (20)	Qty.
3/4 x 1"	16759	—	20
3/4 x 1-1/2	16761	17761	20
3/4 x 1-3/4	16762	17762	20
3/4 x 2"	16763	17763	20
3/4 x 2-1/4	16764	17764	20
3/4 x 2-1/2	16765	17765	20
3/4 x 2-3/4	16766	17766	20
3/4 x 3"	16767	17767	20
3/4 x 3-1/2	16769	17769	20
3/4 x 4"	16771	17771	20
3/4x 4-1/2	16772	17772	20
3/4 x 4-3/4	16768	—	20
3/4 x 5"	16773	17773	20
3/4 x 5-1/2	16774	17774	20
3/4 x 6"	16775	17775	20
3/4 x 6-1/2	16776 ★	17776 ★	5
3/4 x 7"	16777 ★	17777 ★	5
3/4 x 7-1/2	16778 ★	17778 ★	5
3/4 x 8"	16779 ★	17779 ★	5
3/4 x 8-1/2	16780 ★	17780 ★	5
3/4 x 9"	16781 ★	—	2
3/4 x 9-1/2	16782 ★	—	2
3/4 x 10"	16783 ★	17783 ★	2
3/4 x 13"	16840 ★	—	2

★ Unplated

7/8 SIZES	PART No. USS (9)	PART No. SAE (14)	Qty.
7/8 x 2"	16784	17784	5
7/8 x 2-1/2	16786	17786	5
7/8 x 3"	16788	17788	5
7/8 x 3-1/2	16790	17790	5
7/8 x 4"	16792	17792	5
7/8 x 4-1/2	16793	17793	5
7/8 x 5"	16794	17794	5
7/8 x 5-1/2	16795	17795	5
7/8 x 6"	16796	17796	2
7/8 x 6-1/2	16797 ★	17798	2
7/8 x 7"	16798 ★	17797	2
7/8 x 7-1/2	16785 ★	—	2
7/8 x 8"	16787 ★	17787 ★	2
7/8 x 9"	16791 ★	17791 ★	2
7/8 x 10"	16800 ★	—	2

★ Unplated

1" SIZES	PART No. USS (8)	PART No. SAE (14)	Qty.
1" x 2"	16799	17799	5
1" x 2-1/2	16801	17801	5
1" x 3"	16803	17803	5
1" x 3-1/2	16805	17805	5
1" x 4"	16807	17807	5
1" x 4-1/2	16808	17808	5
1" x 5"	16809	17809	5
1" x 5-1/2	16810	17810	5
1" x 6"	16811	17811	2
1" x 6-1/2	16812 ★	17812 ★	2
1" x 7"	16813 ★	—	2
1" x 7-1/2	16814	—	2
1" x 8"	16818 ★	17815 ★	2
1" x 8-1/2	16819 ★	—	2
1" x 9"	16820 ★	17817 ★	1
1" x 9-1/2"	16821 ★	—	1
1" x 10"	16816 ★	17819 ★	1
1" x 12"	16824 ★	—	1

★ Unplated

1-1/8 SIZES	PART No. USS (7)	PART No. SAE (12)	Qty.
1-1/8 x 6-1/2	16862 ★	—	1
1-1/8 x 8-1/2	16866 ★	—	1

★ Unplated

1-1/4 SIZES	PART No. USS (7)	PART No. SAE (12)	Qty.
1-1/4 x 6-1/2	16825 ★	—	1
1-1/4 x 7"	16826 ★	—	1

★ Unplated

1-1/2 SIZES	PART No. USS (6)	PART No. SAE (-)	Qty.
1-1/2 x 10	16387 ★	—	5
1-1/2 x 12	16388 ★	—	5

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See page A6 and A7
for Nuts, Washers
and Lock Washers.

See page L32-L34
for Threadlockers.



Ryan
IT Support Specialist

Committed...

"My job is to make the ordering process fast, simple and accurate. Our customers expect it, and I make it happen."

Note: Product may be sourced from multiple vendors.



GRADE 8 CAP SCREWS

- For your toughest fastening applications use Grade 8 Fasteners every time!
- Grade 8 Cap Screws comply with SAE J429, ANSI/ASME B18.2.1 hex cap screws.
- Zinc yellow dichromate plating provides the extra corrosion protection not found in regular zinc plating (see chart below).

- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



TECHNICAL DATA

- Material: medium carbon alloy steel
- Tensile: 150,000 psi minimum
- Hardness: rockwell hardness C33-C39
- Threads: UNRF & UNRC radius root class 2A to ANSI/ASME B1.1
- Tempering Temperature: 800° F (minimum)
- Decarburization: meets SAE J121
- Discontinuities: meets SAE J1061
- Finish: zinc yellow dichromate ASTM B633, Type II SC1

TO FIGURE BOLT THREAD LENGTH:

- For bolts under 6": twice the bolt diameter plus a 1/4"
- For bolts over 6": twice the bolt diameter plus a 1/2" this gives you the approximate bolt thread length available.

1/4 SIZES	PART No. USS (20)	PART No. SAE (28)	QTY.
1/4 x 1/2	16100	17100	100
1/4 x 5/8	16101	—	100
1/4 x 3/4	16102	17102	100
1/4 x 7/8	16103	—	100
1/4 x 1"	16104	17104	100
1/4 x 1-1/4	16105	17105	100
1/4 x 1-1/2	16106	17106	100
1/4 x 1-3/4	16107	17107	100
1/4 x 2"	16108	17108	100
1/4 x 2-1/4	16109	17109	100
1/4 x 2-1/2	16110	17110	100
1/4 x 3"	16112	17112	100
1/4 x 3-1/4	16113	—	100
1/4 x 3-1/2	16114	17114	100
1/4 x 4"	16116	17116	100
1/4 x 4-1/2	16117	—	100
1/4 x 5"	16118	17118	100
1/4 x 5-1/2	16119	—	100
1/4 x 6"	16120	—	100

5/16 SIZES	PART No. USS (18)	PART No. SAE (24)	QTY.
5/16 x 1/2	16121	17121	100
5/16 x 5/8	16122	—	100
5/16 x 3/4	16123	17123	100
5/16 x 1"	16125	17125	100
5/16 x 1-1/4	16126	17126	100
5/16 x 1-1/2	16127	17127	100
5/16 x 1-3/4	16128	17128	100
5/16 x 2"	16129	17129	100
5/16 x 2-1/4	16130	17130	100
5/16 x 2-1/2	16131	17131	100
5/16 x 2-3/4	16132	17132	100
5/16 x 3"	16133	17133	100
5/16 x 3-1/4	16134	17134	50
5/16 x 3-1/2	16135	17135	50
5/16 x 3-3/4	16136	—	50
5/16 x 4"	16137	17137	50
5/16 x 4-1/2	16138	—	50
5/16 x 5"	16139	17139	50
5/16 x 5-1/2	16140	17140	50
5/16 x 6"	16141	—	50

3/8 SIZES	PART No. USS (16)	PART No. SAE (24)	QTY.
3/8 x 5/8	16143	17145	100
3/8 x 3/4	16146	17146	100
3/8 x 1"	16148	17148	100
3/8 x 1-1/4	16149	17149	100
3/8 x 1-1/2	16150	17150	100
3/8 x 1-3/4	16151	17151	100
3/8 x 1-7/8	16142 ★	—	100
3/8 x 2"	16152	17152	100
3/8 x 2-1/4	16153	17153	50
3/8 x 2-1/2	16154	17154	50
3/8 x 2-3/4	16155	17155	50
3/8 x 3"	16156	17156	50
3/8 x 3-1/4	16157	—	50
3/8 x 3-1/2	16158	17158	50
3/8 x 3-3/4	16159	—	50
3/8 x 4"	16160	17160	50
3/8 x 4-1/2	16161	17161	50
3/8 x 5"	16162	17162	50
3/8 x 5-1/2	16163	17163	50
3/8 x 6"	16164	17164	50
3/8 x 6-1/2	16165 ★	—	50
3/8 x 7"	16167 ★	—	20

★ Unplated

7/16 SIZES	PART No. USS (14)	PART No. SAE (20)	QTY.
7/16 x 3/4	16171	17171	100
7/16 x 1"	16172	17172	100
7/16 x 1-1/4	16173	17173	50
7/16 x 1-1/2	16174	17174	50
7/16 x 1-3/4	16175	17175	50
7/16 x 2"	16176	17176	50
7/16 x 2-1/4	16177	17177	50
7/16 x 2-1/2	16178	17178	50
7/16 x 2-3/4	16179	17179	50
7/16 x 3"	16180	17180	50
7/16 x 3-1/2	16182	17182	25
7/16 x 4"	16184	17184	25
7/16 x 4-1/2	16185	17185	25
7/16 x 5"	16186	17186	25
7/16 x 5-1/2	16187	—	25
7/16 x 6"	16188	17188	25
7/16 x 6-1/2	16189 ★	—	25
7/16 x 7"	16190	—	25

1/2 SIZES	PART No. USS (13)	PART No. SAE (20)	QTY.
1/2 x 3/4	16195	17195	50
1/2 x 1"	16196	17196	50
1/2 x 1-1/8	—	17194	50
1/2 x 1-1/4	16197	17197	50
1/2 x 1-1/2	16198	17198	50
1/2 x 1-3/4	16199	17199	50
1/2 x 2"	16200	17200	50
1/2 x 2-1/4	16201	17201	50
1/2 x 2-1/2	16202	17202	50
1/2 x 2-3/4	16203	17203	50
1/2 x 3"	16204	17204	50
1/2 x 3-1/4	16205	17205	25
1/2 x 3-1/2	16206	17206	25
1/2 x 3-3/4	16207	17207	25
1/2 x 4"	16208	17208	25
1/2 x 4-1/2	16209	17209	25
1/2 x 5"	16210	17210	25
1/2 x 5-1/2	16211	17211	25
1/2 x 6"	16212	17212	25
1/2 x 6-1/2	16213 ★	17213 ★	10
1/2 x 7"	16214 ★	17214 ★	10
1/2 x 8"	16216 ★	—	10

9/16 SIZES	PART No. USS (12)	PART No. SAE (18)	QTY.
9/16 x 1"	16219	17219	25
9/16 x 1-1/4	16220	17220	25
9/16 x 1-1/2	16221	17221	25
9/16 x 1-3/4	16222	17222	25
9/16 x 2"	16223	17223	25
9/16 x 2-1/4	16224	17224	25
9/16 x 2-1/2	16225	17225	25
9/16 x 2-3/4	16226	—	25
9/16 x 3"	16227	17227	25
9/16 x 3-1/2	16229	17229	25
9/16 x 4"	16231	17231	25
9/16 x 4-1/2	16232	17232	25
9/16 x 5"	16233	17233	25
9/16 x 5-1/2	16234	17234	25
9/16 x 6"	16235	17235	25

Note: Product may be sourced from multiple vendors.



GRADE 8 FASTENERS

GRADE 8 CAP SCREWS (CONTINUED)

5/8 SIZES	PART No. USS (11)	PART No. SAE (18)	Qty.
5/8 x 1"	16236	17236	25
5/8 x 1-1/4	16237	17237	25
5/8 x 1-1/2	16238	17238	25
5/8 x 1-1/2	16238-4	—	300
5/8 x 1-3/4	16239	17239	25
5/8 x 2"	16240	17240	25
5/8 x 2"	16240-4	—	175
5/8 x 2-1/4"	16241	17241	25
5/8 x 2-1/2	16242	17242	25
5/8 x 2-1/2	16242-4	17242-4	175
5/8 x 2-3/4	16243	—	25
5/8 x 3"	16244	17244	25
5/8 x 3"	16244-4	—	100
5/8 x 3-1/2	16246	17246	25
5/8 x 4"	16248	17248	25
5/8 x 4-1/2	16249	17249	25
5/8 x 5"	16250	17250	25
5/8 x 5-1/2	16251	17251	25
5/8 x 6"	16252	17252	25
5/8 x 6-1/2	16253 ★	17253 ★	10
5/8 x 7"	16254 ★	17254 ★	10
5/8 x 7-1/2	16255 ★	17255 ★	10
5/8 x 8"	16256 ★	17256 ★	10
5/8 x 8-1/2	16257 ★	17257 ★	10
5/8 x 10"	—	17390 ★	10
5/8 x 11"	—	17392 ★	5

3/4 SIZES	PART No. USS (10)	PART No. SAE (16)	Qty.
3/4 x 1"	16259	—	20
3/4 x 1-1/2	16261	17261	20
3/4 x 1-3/4	16262	17262	20
3/4 x 2"	16263	17263	20
3/4 x 2-1/4	16264	17264	20
3/4 x 2-1/2	16265	17265	20
3/4 x 2-3/4	16266	17266	20
3/4 x 3"	16267	17267	20
3/4 x 3-1/2	16269	17269	20
3/4 x 3-3/4	16270	—	20
3/4 x 4"	16271	17271	20
3/4 x 4-1/2	16272	17272	20
3/4 x 4-3/4	16268	—	20
3/4 x 5"	16273	17273	20
3/4 x 5-1/2	16274	17274	20
3/4 x 6"	16275	17275	20
3/4 x 6-1/2	16276 ★	17276 ★	10
3/4 x 7"	16277 ★	17277 ★	10
3/4 x 7-1/2	16278 ★	17278 ★	10
3/4 x 8"	16279 ★	17279 ★	10
3/4 x 8-1/2	16280 ★	17280 ★	10
3/4 x 9"	16281 ★	—	10
3/4 x 9-1/2	16282 ★	—	10
3/4 x 10"	16283 ★	17283 ★	10
3/4 x 13"	16340 ★	17340 ★	5
3/4 x 13-1/2	16342 ★	—	5
3/4 x 14"	16344 ★	—	5
3/4 x 15"	16346 ★	—	5
3/4 x 16"	16348 ★	—	5

7/8 SIZES	PART No. USS (9)	PART No. SAE (14)	Qty.
7/8 x 2"	16284	17284	15
7/8 x 2-1/2	16286	17286	15
7/8 x 3"	16288	17288	15
7/8 x 3-1/2	16290	17290	15
7/8 x 4"	16292	17292	15
7/8 x 4-1/2	16293	17293	15
7/8 x 5"	16294	17294	15
7/8 x 5-1/2	16295	17295	15
7/8 x 6"	16296	17296	15
7/8 x 6-1/2	16297	17298	15
7/8 x 7"	16298	17297	15
7/8 x 7-1/2	16285	—	15
7/8 x 8"	16287	17287	10
7/8 x 8-1/2	16289	—	10
7/8 x 9"	16291	—	5
7/8 x 10"	16300	—	5

1" SIZES	PART No. USS (8)	PART No. SAE (14)	Qty.
1" x 2"	16299	17299	10
1" x 2-1/2	16301	17301	10
1" x 3"	16303	17303	10
1" x 3-1/2	16305	17305	10
1" x 4"	16307	17307	10
1" x 4-1/2	16308	17308	10
1" x 5"	16309	17309	10
1" x 5-1/2	16310	17310	10
1" x 6"	16311	17311	10
1" x 6-1/2	16312	17312	5
1" x 7"	16313	17313	5
1" x 7-1/2	16314	—	5
1" x 8"	16318	17315	5
1" x 8-1/2	16319	—	5
1" x 9"	16320	17317	5
1" x 9-1/2	16321	—	5
1" x 10"	16316	17319	5
1" x 10-1/2	16317	—	5

1-1/4 SIZES	USS (7)	Qty.
1-1/4 x 7"	16326	— 4
1-1/4 x 7"	16330 ★	— 5
1-1/4 x 8"	16327 ★	— 5

★ Unplated

1-1/8 SIZES	PART No. USS (7)	Qty.
1-1/8 x 6-1/2	16362	— 5
1-1/8 x 8-1/2	16366	— 5
1-1/8 x 9-1/2	16368	— 5

FRACTIONAL PITCH GAUGE

- For measuring the thread size of standard fasteners.
- 24-gauge steel construction.

PART No.	Qty.
11112	1



Jay
Senior Product Manager

Knowledgeable...

"Training and experience give our team the ability to find just the right solution for you."

Increase your protection against rust and corrosion use Anti-Seize products from page L35.

Note: Product may be sourced from multiple vendors.



NUTS USED WITH GRADE 8 FASTENERS

GRADE 8 FINISHED HEX NUTS

- For use with SAE J429 Grade 8 Fasteners
- Precision threads, UNC & UNF Class 2B to ANSI/ASME B1.1.
- Countersunk and double chamfered.
- Medium carbon steel.
- Zinc yellow dichromate plating for corrosion resistance, ASTM B633, Type II SC1.



- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**

TECHNICAL DATA

- Hardness: 1/4"-5/8" Nominal Diameter, Rockwell C24-C32; 5/8"-1" Nominal Diameter, Rockwell C26-C34; 1"-1-1/4" Nominal Diameter, Rockwell C26-C36
- Complies with SAE J995 Grade 8 ANSI/ASME B18.2.2 Hex Nuts.
- Tempering Temperature: 800° F (minimum)
- Decarburation: SAE J121
- Discontinuities: SAE J122A



USS PART No.	SIZE	SAE PART No.	SIZE	THICKNESS	QTY.
40150	1/4-20	41151	1/4-28	7/32	200
40152	5/16-18	41153	5/16-24	17/64	200
40154	3/8-16	41155	3/8-24	21/64	100
40156	7/16-14-Std.	41157	7/16-20-Std.	3/8	100
40158	1/2-13	41159	1/2-20	7/16	50
40168	9/16-12	41169	9/16-18	31/64	25
40160	5/8-11	41161	5/8-18	35/64	50
40162	3/4-10	41163	3/4-16	41/64	25
40164	7/8-9	41165	7/8-14	3/4	25
40166	1"-8	41167	1"-14	55/64	25
40170 ★	1-1/4-7	—	—	1-1/16	10
40172 ★	1-1/2-6	—	—	1-9/32	10
40173 ★	1-3/4-5	—	—	1-19/64	10

★ Unplated

GRADE C PREVAILING TORQUE LOCK NUTS

- For use with SAE J429 Grade 8 Fasteners
- Complies with ASTM A563 Grade C; IFI 100/107.
- All metal, plated, and waxed.
- Proof load distress: 150,000 psi
- Locks in all positions.
- One piece all steel. Easy to apply.



- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**

TECHNICAL DATA

- Tempering temperature: 800° F (minimum)
- Decarburation: SAE J121
- Discontinuities: SAE J1061

USS PART No.	SIZE	SAE PART No.	SIZE	WIDTH ACROSS FLATS	NOMINAL THICKNESS	QTY.
57106	1/4-20	58107	1/4-28	7/16	1/4	100
57108	5/16-18	58109	5/16-24	1/2	19/64	100
57110	3/8-16	58111	3/8-24	9/16	3/8	100
57112	7/16-14	58113	7/16-20	11/16	27/64	50
57114	1/2-13	58115	1/2-20	3/4	1/2	50
57116	9/16-12	58117	9/16-18	7/8	35/64	25
57118	5/8-11	58119	5/8-18	15/16	41/64	25
57118-4	5/8-11	—	—	15/16	41/64	350
57120	3/4-10	58121	3/4-16	1-1/8	27/32	20
57120-4	3/4-10	—	—	1-1/8	27/32	100
57122	7/8-9	58123	7/8-14	1-5/16	47/64	15
57124	1"-8	58125	1"-14	1-1/2	15/16	10
57126	1-1/8-7	—	—	1-1/2	15/16	10
—	—	58127	1-1/4-12	1-53/64	1"	10
—	—	58128	1-1/2-12	2-1/4	1"	5

Note: Over 1" size becomes a collar style.

GRADE 8 NYLON INSERT LOCK NUT

- Vibration resistant.
- Positive self-locking nylon collar.
- Plated for corrosion resistance.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	QTY.
42306	1/4-20	100
42308	5/16-18	100
42310	3/8-16	100
42312	7/16-14	50
42314	1/2-13	50
42316	9/16-12	50
42318	5/8-11	25
42318-4	5/8-11	100
42319	3/4-10	25
42322	7/8-9	10
42324	1"-8	10
42326	1-1/8-7	5

SAE PART No.	SIZE	QTY.
42307	1/4-28	100
42309	5/16-24	100
42311	3/8-24	100
42313	7/16-20	50
42315	1/2-20	50
42317	9/16-18	50
42320	5/8-18	25
42321	3/4-16	25
42323 ❖	7/8-14	10
42325	1"-14	10
42327 ★	1-1/8-12	5

★ Unplated ❖ Zinc Plated Only

GRADE 8 SAE HI NYLON INSERT LOCK NUT

- Heat treated steel R/C 26-34.
- Zinc plated.
- Use on spring center bolts and U-bolts.



PART No.	SIZE	OVERALL HEIGHT	QTY.
48319 ★	5/8-18	1"	5
48321	3/4-16	1-1/4	5
48323	7/8-14	1-7/16	5
48325	1"-14	1-43/64	5

★ Unplated

GRADE 8 REVERSIBLE CENTER LOCK NUT

- Unplated.
- Withstands severe vibration.
- Not necessary for a bolt to extend out of the center lock nut.



PART No.	SIZE	QTY.
49115	1/2-20	50



WASHERS USED WITH GRADE 5 OR GRADE 8 FASTENERS

IMPERIAL® ALLOY FLAT WASHERS

- Use with Grade 5 or 8 Fasteners
- High strength alloy steel complies with ASTM F436.
- High tensile strength, won't dish out.
- Smooth burr-free surfaces.
- Parallel bearing surfaces distribute load.
- Zinc yellow dichromate plating for corrosion resistance.
- Rockwell Hardness C38-C45.



USS PART No.	SIZE	O. D.	I. D.	THICKNESS	QTY.
76011	1/4	3/4	5/16	.051/.080	500
76012	5/16	7/8	3/8	.064/.104	500
76013	3/8	1"	7/16	.064/.104	250
76014	7/16	1-1/4	1/2	.064/.104	250
76015	1/2	1-3/8	9/16	.086/.132	100
76016	9/16	1-1/2	5/8	.086/.132	100
76017	5/8	1-3/4	11/16	.108/.160	50
76018	3/4	2"	13/16	.122/.177	25
76019	7/8	2-1/4	15/16	.136/.192	25
76020	1"	2-1/2	1-1/16	.136/.192	25
76022	1-1/4	3"	1-3/8	.136/.192	10
76023 ★	1-1/2	3-1/2	1-5/8	.153/.213	10
79024 ★	1-3/4			.136/.192	25

★ Unplated

SAE PART No.	SIZE	O. D.	I. D.	THICKNESS	QTY.
76511	1/4	5/8	9/32	.051/.080	500
76512	5/16	11/16	11/32	.051/.080	500
76513	3/8	13/16	13/32	.051/.080	250
76514	7/16	59/64	15/32	.051/.080	250
76515	1/2	1-1/16	17/32	.097/.177	100
76516	9/16	1-3/16	19/32	.097/.177	100
76517	5/8	1-5/16	21/32	.122/.177	50
76517-4	5/8	1-5/16	21/32	.122/.177	1400
76518	3/4	1-15/32	13/16	.122/.177	25
76519	7/8	1-3/4	15/16	.136/.177	25
76520	1"	2"	1-1/16	.136/.177	25
76522	1-1/4	2-1/2	1-3/8	.136/.177	10
76524	1-1/2	3"	1-5/8	.136/.177	10
76526	2"	3-3/4	2-1/8	.178/.280	5
76528	2-1/4	4"	2-3/8	.240/.340	5
76530	2-1/2	4-1/2	2-5/8	.240/.340	5

ALLOY FLAT WASHERS

- Use with Grade 5 or 8 Fasteners
- High strength alloy steel complies with ASTM F436.
- High tensile strength, won't dish out.
- Smooth burr-free surfaces.
- Parallel bearing surfaces distribute load.
- Zinc yellow dichromate plating for corrosion resistance.
- Rockwell Hardness C38-C45.



USS PART No.	SIZE	O. D.	I. D.	THICKNESS	QTY.
79011	1/4	3/4	5/16	.051/.080	500
79012	5/16	7/8	3/8	.064/.104	500
79013	3/8	1"	7/16	.064/.104	250
79014	7/16	1-1/4	1/2	.064/.104	250
79015	1/2	1-3/8	9/16	.086/.132	100
79016	9/16	1-1/2	5/8	.086/.132	100
79017	5/8	1-3/4	11/16	.108/.160	50
79018	3/4	2"	13/16	.122/.177	25
79019	7/8	2-1/4	15/16	.136/.192	25
79020	1"	2-1/2	1-1/16	.136/.192	25
79021	1-1/4			.136/.192	25
79023	1-1/2			.136/.192	25

SAE PART No.	SIZE	O. D.	I. D.	THICKNESS	QTY.
79511	1/4	5/8	9/32	.051/.080	500
79512	5/16	11/16	11/32	.051/.080	500
79513	3/8	13/16	13/32	.051/.080	250
79514	7/16	59/64	15/32	.051/.080	250
79515	1/2	1-1/16	17/32	.097/.121	100
79516	9/16	1-3/16	19/32	.097/.121	100
79517	5/8	1-5/16	21/32	.122/.177	50
79518	3/4	1-15/32	13/16	.122/.177	25
79519	7/8	1-3/4	15/16	.136/.177	25
79520	1"	2"	1-1/16	.136/.177	25

EXTRA THICK ALLOY FLAT WASHERS

- Use with Grade 5 or 8 Fasteners
- ASTM F436 Rockwell hardness.
- Rockwell hardness of C38-C45.
- ASTM A325 and A490 dimensional specifications.
- High tensile strength, won't dish out.
- Zinc yellow dichromate plating for corrosion resistance.



USS PART No.	SIZE	O. D.	I. D.	THICKNESS	QTY.
78611	1/4	3/4	5/16	.090-.110	200
78612	5/16	7/8	3/8	.112-.130	100
78613	3/8	1"	7/16	.112-.130	100
78614	7/16	1-1/4	1/2	.140-.158	50
78615	1/2	1-3/8	9/16	.170-.195	50
78617	5/8	1-3/4	11/16	.195-.215	50
78618	3/4	2	13/16	.235-.265	50
78619	7/8	2-1/4	15/16	.235-.265	25
78620	1"	2-1/2	1-1/16	.235-.265	25
78616	9/16"	1-1/2"	5/8"	.170/.195	50

SAE PART No.	SIZE	O. D.	I. D.	THICKNESS	QTY.
77611	1/4	5/8	9/32	.090-.110	200
77612	5/16	11/16	11/32	.090-.110	100
77613	3/8	13/16	13/32	.090-.110	100
77614	7/16	59/64	15/32	.090-.110	50
77615	1/2	1-1/16	17/32	.156-.188	50
77616	9/16	1-3/16	19/32	.156-.188	50
77617	5/8	1-5/16	21/32	.170-.195	50
77618	3/4	1-1/2	13/16	.170-.195	50
77619	7/8	1-3/4	15/16	.235-.265	25
77620	1"	2"	1-1/16	.235-.265	25
77621	1-1/8	2-1/4	1-1/4	.235-.265	25

LOCK WASHERS USED WITH GRADE 5 OR GRADE 8 FASTENERS

ALLOY LOCK WASHER

- Use with Grade 5 or 8 Fasteners
- SAE approved alloy coil spring steel.
- Tempered for non-linking positive locking.
- Greater resistance to high temperature and loosening from vibration.
- Not brittle at low temperature.
- Tighter assemblies due to greater bolt tension per unit of torque.
- Zinc yellow dichromate plating for corrosion resistance.
- ASME B18.21.1 approved. ASTM B633 Type II SC1.



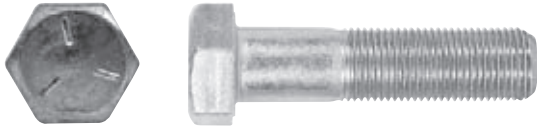
PART No.	SIZE	QTY.
76170	1/4	500
76171	5/16	500
76172	3/8	250
76173	7/16	250
76174	1/2	100
76175	9/16	100

PART No.	SIZE	QTY.
76176	5/8	50
76176-4	5/8	100
76177	3/4	25
76178	7/8	25
76179	1"	25



GRADE 5 HEX HEAD CAP SCREWS

- Conforms to SAE Grade 5 physical and mechanical specifications.
- Zinc plated.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



TECHNICAL DATA

- Material and Mechanical Properties of SAE J429
- Dimensions: ANSI/ASME B18.2.1 hex head cap screws
- Tensile: 1/4"–1" nominal diameter 120,000 psi (minimum)
over 1" nominal diameter 105,000 psi (minimum)
- Proof Load: 1/4"–1" nominal diameter 85,000 psi; over 1" nominal diameter 74,000 psi
- Threads: radius root Class 2A to ANSI/ASME B1.1
- Hardness: 1/4"–1" nominal diameter Rockwell C25-C34 over 1" nominal diameter C19-C30
- Decarburization: meets SAE J121
- Discontinuities: meets SAE J1061

TO FIGURE BOLT THREAD LENGTH:

- For bolts under 6": twice the bolt diameter plus a 1/4"
 - For bolts over 6": twice the bolt diameter plus a 1/2"
- This gives you the approximate bolt thread length available.

1/4 SIZES	PART No. USS (20)	PART No. SAE (28)	QTY.
1/4 x 1/2	20100	21100	100
1/4 x 5/8	20101	21101	100
1/4 x 3/4	20102	21102	100
1/4 x 3/4	20102-4	—	2,500
1/4 x 7/8	20103	—	100
1/4 x 1"	20104	21104	100
1/4 x 1"	20104-4	—	2,200
1/4 x 1-1/4	20105	21105	100
1/4 x 1-1/2	20106	21106	100
1/4 x 1-3/4	20107	21107	100
1/4 x 2"	20108	21108	100
1/4 x 2-1/4	20109	21109	100
1/4 x 2-1/2	20110	21110	100
1/4 x 2-3/4	20111	21111	100
1/4 x 3"	20112	21112	100
1/4 x 3-1/4	20113	—	100
1/4 x 3-1/2	20114	—	100
1/4 x 4"	20116	—	100
1/4 x 4-1/2	20117	—	100
1/4 x 5"	20118	—	100
1/4 x 5-1/2	20119	—	100
1/4 x 6"	20120	—	100

5/16 SIZES	PART No. USS (18)	PART No. SAE (24)	QTY.
5/16 x 1/2	20121	21121	100
5/16 x 5/8	20122	21122	100
5/16 x 3/4	20123	21123	100
5/16 x 7/8	20124	—	100
5/16 x 1"	20125	21125	100
5/16 x 1-1/4	20126	21126	100
5/16 x 1-1/2	20127	21127	100
5/16 x 1-3/4	20128	21128	100
5/16 x 2"	20129	21129	100
5/16 x 2-1/4	20130	21130	100
5/16 x 2-1/2	20131	21131	100
5/16 x 2-3/4	20132	—	100
5/16 x 3"	20133	21133	100
5/16 x 3-1/2	20135	—	50
5/16 x 4"	20137	—	50
5/16 x 4-1/2	20138	—	50
5/16 x 5"	20139	—	50
5/16 x 5-1/2	20140	—	50
5/16 x 6"	20141	—	50
5/16 x 7-1/2	20143	—	20

3/8 SIZES	PART No. USS (16)	PART No. SAE (24)	QTY.
3/8 x 1/2	20144	—	100
3/8 x 5/8	20145	21145	100
3/8 x 3/4	20146	21146	100
3/8 x 7/8	20147	—	100
3/8 x 1"	20148	21148	100
3/8 x 1-1/4	20149	21149	100
3/8 x 1-1/2	20150	21150	100
3/8 x 1-3/4	20151	21151	100
3/8 x 2"	20152	21152	100
3/8 x 2-1/4	20153	21153	50
3/8 x 2-1/2	20154	21154	50
3/8 x 2-3/4	20155	21155	50
3/8 x 3"	20156	21156	50
3/8 x 3-1/4	20157	—	50
3/8 x 3-1/2	20158	21158	50
3/8 x 3-3/4	20159	—	50
3/8 x 4"	20160	21160	50
3/8 x 4-1/2	20161	—	50
3/8 x 5"	20162	—	50
3/8 x 5-1/2	20163	—	50
3/8 x 6"	20164	—	50
3/8 x 8"	20568 ★	—	10

1/2 SIZES	PART No. USS (13)	PART No. SAE (20)	QTY.
1/2 x 3/4	20195	21195	50
1/2 x 1"	20196	21196	50
1/2 x 1-1/4	20197	21197	50
1/2 x 1-1/2	20198	21198	50
1/2 x 1-3/4	20199	21199	50
1/2 x 2"	20200	21200	50
1/2 x 2-1/4	20201	21201	50
1/2 x 2-1/2	20202	21202	50
1/2 x 2-3/4	20203	21203	50
1/2 x 3"	20204	21204	50
1/2 x 3-1/4	20205	21205	25
1/2 x 3-1/2	20206	21206	25
1/2 x 3-3/4	20207	21207	25
1/2 x 4"	20208	21208	25
1/2 x 4-1/2	20209	21209	25
1/2 x 5"	20210	21210	25
1/2 x 5-1/2	20211	21211	25
1/2 x 6"	20212	21212	25
1/2 x 6-1/2	20613 ★	—	10
1/2 x 7"	20614 ★	—	10
1/2 x 8"	20616 ★	—	10

7/16 SIZES	PART No. USS (14)	PART No. SAE (20)	QTY.
7/16 x 3/4	20171	21171	100
7/16 x 1"	20172	21172	100
7/16 x 1-1/4	20173	21173	100
7/16 x 1-1/2	20174	21174	50
7/16 x 1-3/4	20175	21175	50
7/16 x 2"	20176	21176	50
7/16 x 2-1/4	20177	—	50
7/16 x 2-1/2	20178	21178	50
7/16 x 2-3/4	20179	—	50
7/16 x 3"	20180	21180	50
7/16 x 3-1/2	20182	21182	25
7/16 x 4"	20184	21184	25
7/16 x 4-1/2	20185	21185	25
7/16 x 5"	20186	—	25
7/16 x 5-1/2	20187	—	25
7/16 x 6"	20188	—	25

9/16 SIZES	PART No. USS (12)	PART No. SAE (18)	QTY.
9/16 x 1"	20219	—	50
9/16 x 1-1/2	20221	21221	50
9/16 x 1-3/4	20222	—	50
9/16 x 2"	20223	21223	50
9/16 x 2-1/2	20225	21225	50
9/16 x 3"	20227	21227	50
9/16 x 3-1/2	20229	21229	25
9/16 x 4"	20231	21231	25
9/16 x 4-1/2	20232	—	25
9/16 x 5"	20233	—	25
9/16 x 6"	20235	—	25

★ Unplated

Note: Product may be sourced from multiple vendors.



GRADE 5 FASTENERS

GRADE 5 HEX HEAD CAP SCREWS (CONTINUED)

5/8 SIZES	PART No. USS (11)	PART No. SAE (18)	QTY.
5/8 x 1"	20236	21236	25
5/8 x 1-1/4	20237	21237	25
5/8 x 1-1/2	20238	21238	25
5/8 x 1-3/4	20239	21239	25
5/8 x 2"	20240	21240	25
5/8 x 2-1/4	20241	21241	25
5/8 x 2-1/2	20242	21242	25
5/8 x 2-3/4	20243	21243	25
5/8 x 3"	20244	21244	25
5/8 x 3-1/4	—	21245	25
5/8 x 3-1/2	20246	21246	25
5/8 x 4"	20248	21248	25
5/8 x 4-1/2	20249	21249	25
5/8 x 5"	20250	21250	25
5/8 x 5-1/2	20251	21251	25
5/8 x 6"	20252	21252	25
5/8 x 6-1/2	20653 ★	—	10
5/8 x 7"	20654 ★	—	10
5/8 x 8"	20656 ★	—	10
5/8 x 10"	20657 ★	—	10

3/4 SIZES	PART No. USS (10)	PART No. SAE (16)	QTY.
3/4 x 1"	20259	—	20
3/4 x 1-1/4	20260	—	20
3/4 x 1-1/2	20261	21261	20
3/4 x 1-3/4	20262	—	20
3/4 x 2"	20263	21263	20
3/4 x 2-1/4	20264	—	20
3/4 x 2-1/2	20265	21265	20
3/4 x 2-3/4	20266	—	20
3/4 x 3"	20267	21267	20
3/4 x 3-1/4	20268	—	20
3/4 x 3-1/2	20269	21269	20
3/4 x 4"	20271	21271	20
3/4 x 4-1/2	20272	21272	20
3/4 x 5"	20273	21273	20
3/4 x 5-1/2	20274	—	20
3/4 x 6"	20275	21275	20
3/4 x 6-1/2	20676 ★	—	10
3/4 x 7"	20677 ★	—	10
3/4 x 7-1/2	20678 ★	—	10
3/4 x 8"	20679 ★	—	10
3/4 x 10"	20680 ★	—	10
3/4 x 13"	20689 ★	—	5

7/8 SIZES	PART No. USS (9)	PART No. SAE (14)	QTY.
7/8 x 1-1/2	20282	—	15
7/8 x 2"	20284	—	15
7/8 x 2-1/2	20286	—	15
7/8 x 3"	20288	—	15
7/8 x 3-1/2	20290	—	15
7/8 x 4"	20292	—	15
7/8 x 4-1/2	20293	—	15
7/8 x 5"	20294	21294	15
7/8 x 5-1/2	20295	—	15
7/8 x 6"	20296	21296	15

★ Unplated

1" SIZES	PART No. USS (8)	QTY.
1" x 2-1/2	20301	10
1" x 3"	20303	10
1" x 3-1/2	20305	10
1" x 4"	20307	10
1" x 4-1/2	20308	10
1" x 5"	20309	10
1" x 6"	20311	10
1" x 7"	20713 ★	10
1" x 8"	20715 ★	10

★ Unplated

1-1/8 SIZES	PART No. USS (7)	QTY.
1-1/8 x 3"	20755	1



GRADE 5 TAP BOLTS

- Fully threaded hex head.
- Conforms to ANSI/ASME B18.22.1.

SIZE	LENGTH	THREAD	FINISH	PART No.	QTY.
1/4-20	1-1/2	USS	Plain	22106	100
	1-1/2	USS	Zinc	22130	100
	2"	USS	Zinc	22132	100
3/8-16	3"	USS	Zinc	22138	50
	4"	USS	Zinc	22142	50
	5"	USS	Zinc	22146	50



Stefanie
Customer Service

Helpful...

"My job isn't just to take orders. It's to work hard to solve a problem. And then get it done."

See page A55 for
Lock Nuts Torque Chart.

Note: Product may be sourced from multiple vendors.



NUTS USED WITH GRADE 5 FASTENERS

GRADE 5 FINISHED HEX NUTS

- Complies with SAE J995 specifications ANSI/ASME B18.2.2.
- 5/8" size and smaller are double chamfered.
- Nuts larger than 5/8" are double chamfered or have a washer faced bearing surface and chamfered top.
- Decarburization: SAE J121
- Discontinuities: SAE J122A
- Finish: zinc clear chromate; ASTM B633 Type III SC1.
- Threads: class 2BA to ANSI/ASME B1.1
- UNC Proof Load: 1/4"-1" nominal dia. 1 20,000 psi; over 1" nominal dia. 105,000 psi
- UNF Proof Load: 1/4"-1" nominal dia. 109,000 psi; over 1" nominal dia. 94,000 psi
- Rockwell Hardness: C32 (maximum)
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	SAE PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
40130	1/4-20	41131	1/4-28	7/16	7/32	200
40132	5/16-18	41133	5/16-24	1/2	17/64	200
40134	3/8-16	41135	3/8-24	9/16	21/64	100
40136	7/16-14	41137	7/16-20	11/16	3/8	100
40138	1/2-13	41139	1/2-20	3/4	7/16	50
40140	9/16-12	41141	9/16-18	7/8	31/64	50
40142	5/8-11	41143	5/8-18	15/16	35/64	50
40142-4	5/8-11	—	5/8-18	15/16	35/64	500
40144	3/4-10	41145	3/4-16	1-1/8	41/64	25
40144-4	3/4-10	—	3/4-16	1-1/8	41/64	500
40146	7/8-9	41147	7/8-14	1-5/16	3/4	25
40146-4	7/8-9	—	7/8-14	1-5/16	3/4	250
40148	1"-8	41149	1"-14	1-1/2	55/64	25
40148-4	1"-8	—	1"-14	1-1/2	55/64	160

NYLON INSERT LOCK NUTS

- Vibration resistant.
- Positive self-locking nylon collar.
- Zinc plating for corrosion resistance.
- Low carbon.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	SAE PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
42101	6-32	—	—	5/16	3/16	100
42102	8-32	—	—	11/32	15/64	100
42104	10-24	42103	10-32	3/8	1/4	100
42105	12-24	—	—	7/16	6/32	100
42106	1/4-20	43107	1/4-28	7/16	5/16	100
42106-4	1/4-20	—	—	7/16	5/16	3500
42108	5/16-18	43109	5/16-24	1/2	11/32	100
42110	3/8-16	43111	3/8-24	9/16	29/64	100
42112	7/16-14	43113	7/16-20	11/16	29/64	50
42114	1/2-13	43115	1/2-20	3/4	19/32	50
42118	5/8-11	43119	5/8-18	15/16	3/4	50
42120	3/4-10	43121	3/4-16	1-1/8	7/8	25
42122	7/8-9	43123	7/8-14	1-5/16	63/64	25
42124	1"-8	43125	1"-14	1-1/2	1-3/64	25

GRADE B PREVAILING TORQUE LOCK NUTS

- For use with SAE J429 Grade 5 Fasteners.
- Complies with ASTM A563 Grade B; IFI 100/107.
- All metal, plated and waxed.
- Locks in all positions.
- Proof load: 120,000 psi
- One piece all steel. Easy to apply.
- Tempering temperature: 800° F (minimum)
- Decarburization: SAE J121
- Discontinuities: SAE J122A
- Rockwell Hardness: B69-C32
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	SAE PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
59106	1/4-20	59207	1/4-28	7/16	9/32	100
59108	5/16-18	59209	5/16-24	1/2	11/32	100
59110	3/8-16	59211	3/8-24	9/16	13/32	100
59112	7/16-14	59213	7/16-20	11/16	15/32	50
59114	1/2-13	59215	1/2-20	3/4	9/16	50
59116	9/16-12	59217	9/16-18	7/8	5/8	25
59118	5/8-11	59219	5/8-18	15/16	47/64	25
59120	3/4-10	59221	3/4-16	1-1/8	53/64	20
59122	7/8-9	59223	7/8-14	1-5/16	59/64	15
59124	1"-8	59225	1"-14	1-1/2	1-1/16	10

Experience our dedicated customer service.



FLAT / LOCKING / FENDER WASHERS

USS WROUGHT WASHERS

- ASTM F844.
- SAE approved steel.
- Free from burrs.
- ANSI B18.22.1.
- Zinc plated.
- Low carbon.



PART No.	BOLT SIZE	O.D.	I.D.	QTY.
76000	3/16	9/16	1/4	500
76001	1/4	3/4	5/16	500
76002	5/16	7/8	3/8	500
76003	3/8	1"	7/16	250
76004	7/16	1-1/4	1/2	250
76005	1/2	1-3/8	9/16	100
76045 ★	1/2	1-3/8	9/16	100
76006	9/16	1-1/2	5/8	100
76007	5/8	1-3/4	11/16	50
76008	3/4	2"	13/16	25
76009	7/8	2-1/4	15/16	25
76010	1"	2-1/2	1-1/16	25
76036	1-1/8	2-3/4	1-1/4	10
76037	1-1/4	3"	1-3/8	10
76038	1-3/8	3-1/4	1-1/2	10
76039	1-1/2	3-1/2	1-5/8	10

★ Unplated

SAE FLAT WASHERS

- SAE approved prime cold-rolled.
- Smooth, burr-free surfaces.
- ASTM F844.
- ANSI B18.22.1.
- Zinc plated.
- Low carbon.



PART No.	BOLT SIZE	O.D.	I.D.	QTY.
76050	#4	5/16	1/8	250
76051	#6	3/8	5/32	250
76052	#8	7/16	3/16	250
76053	#10	1/2	7/32	250
76054	#12	9/16	1/4	250
76055	1/4	5/8	9/32	500
76056	5/16	11/16	11/32	500
76057	3/8	13/16	13/32	250
76058	7/16	59/64	15/32	250
76059	1/2	1-1/16	17/32	100
76060	9/16	1-3/16	19/32	100
76061	5/8	1-5/16	21/32	50
76062	3/4	1-15/32	13/16	25
76063	7/8	1-3/4	15/16	25
76064	1"	2"	1-1/16	25

EXTERNAL AND INTERNAL STAR WASHERS

- Zinc plated.



SIZE	EXTERNAL PART No.	QTY.	INTERNAL PART No.	QTY.
#4	—	—	76200	100
#6	76221	100	76201	100
#8	76222	100	76202	100
#10	76223	100	76203	100
#12	76224	100	76204	100
1/4	76225	100	76205	100
5/16	76226	100	76206	100
3/8	76227	100	76207	100
7/16	76228	100	76208	100
1/2	76229	100	76209	100
5/8	76230	50	76210	50
3/4	76231	50	76211	50
1"	76233	20	76213	25
1-1/2	—	—	76214	25

MACHINERY BUSHINGS

- 18 gauge is approximately 3/64".
- 14 gauge is approximately 5/64".
- 10 gauge is approximately 9/64".



GAUGE	PART No.	O.D.	I.D.	QTY.
18	70150	7/8	1/2	25
	70151	1"	5/8	25
	70152	1-1/4	3/4	25
	70153	1-3/8	7/8	25
	70154	1-1/2	1"	15
	70155	1-3/4	1-1/8	15
	70156	1-7/8	1-1/4	15
	70157	2-1/8	1-3/8	15
	70158	2-1/4	1-1/2	10
	70159	2-1/2	1-3/4	10
	70170	7/8	1/2	25
	70171	1"	5/8	25
	70172	1-1/4	3/4	25
	70173	1-3/8	7/8	25
14	70174	1-1/2	1"	25
	70175	1-3/4	1-1/8	15
	70176	1-7/8	1-1/4	15
	70177	2-1/8	1-3/8	15
	70178	2-1/4	1-1/2	10
	70181	2-7/8	1-7/8	10
	70190	1-1/4	3/4	25
10	70191	1-3/8	7/8	25
	70192	1-1/2	1"	25
	70194	1-7/8	1-1/4	15
	70196	2-1/4	1-1/2	10

MEDIUM LOCK WASHERS

- For use with Grade 5 Fasteners.
- Meets ANSI/ASME B18.21.1.
- Zinc clear chromate ASTM B633, Type III SCl #4-1" diameter.



PART No.	BOLT SIZE	QTY.
76140	#4	250
76141	#6	250
76142	#8	250
76120	#10	250
76144	#12	250
76121	1/4	500
76122	5/16	500
76123	3/8	250
76124	7/16	250
76125	1/2	100
76126	9/16	100
76127	5/8	50
76128	3/4	25
76129	7/8	25
76130	1"	25
76155 ★	1-1/8	20
76156 ★	1-1/4	10
76158 ★	1-1/2	10

★ Unplated

FENDER WASHERS

- Low carbon.
- Zinc plated.



PART No.	BOLT SIZE	O.D.	MINIMUM THICKNESS	MAXIMUM THICKNESS	QTY.
Thick Fender Washers					
76300	3/16	1"	.108	.160	100
76301	1/4	1"	.108	.160	100
76302	1/4	1-1/4	.108	.160	100
76303	1/4	1-1/2	.108	.160	100
76304	5/16	1-1/4	.108	.160	100
891026	5/16	1-1/4	.108	.160	25
76305	5/16	1-1/2	.108	.160	100
76306	3/8	1-1/4	.108	.160	100
76307	3/8	1-5/8	.108	.160	50
891025	3/8	1-3/4	.108	.160	25
76308	1/2	2"	.108	.160	50
Thin Fender Washers					
76100	3/16	1"	.042	.054	100
76101	1/4	1"	.042	.054	100
76102	1/4	1-1/4	.042	.054	100
76103	1/4	1-1/2	.042	.054	100
76104	5/16	1-1/4	.042	.054	100
76105	5/16	1-1/2	.042	.054	100
76106	3/8	1-1/2	.042	.054	100
76107	3/8	1-5/8	.068	.082	100
76109	3/8	2-1/2	.042	.047	100
76108	1/2	2"	.068	.082	100



FASTENERS

A12

SPECIALTY WASHERS

SEALING WASHERS

- Galvanized and neoprene seal.



PART No.	WASHER DUTY	I.D.	O.D.	METAL THICKNESS	QTY.
76703	Light	3/16	1/2	.0375	500
76704	Light	1/4	3/4	.0375	500
76705	Light	1/4	5/8	.0375	500
76706	Light	5/16	3/4	.0375	500
76707	Light	3/8	1"	.0375	500
76715	Heavy	3/8	1-3/8	.0900	50

COUNTERSUNK EXTERNAL LOCK WASHERS

- Zinc plated.



PART No.	SIZE	QTY.
76241	#6	100
76242	#8	100
76250	M10	50
76243	#10	100
76245	1/4	100
76246	5/16	100
76247	3/8	100

UNGRADED FLAT WASHER

- Finish: Polished Chrome

SIZE	USS PART No.	QTY.	PART No. SAE	QTY.
1/2	177005	500	177055	200



TRIM WASHERS

- Nickel-plated.

DIA.	PART No.	QTY.
#6	76260	100
#8	76261	100
#10	76262	100
#12	76263	100
#14	76264	100



FLANGE BOLTS

SERRATED HEX WASHER FLANGE BOLTS

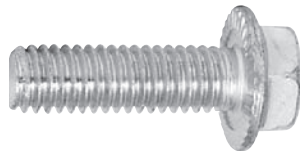
- Heat treated to RC 25-39.
- Minimum tensile strength of 120,000 psi per SAE J429.
- Zinc plated for best corrosion resistance.
- The serrations under the flange aid in the locking factor.
- Grade 5 equivalent.

1/4 SIZES	PART No.	QTY.
1/4 x 3/4	24727	100
1/4 x 1"	24728	100
1/4 x 1-1/4	24729	100
1/4 x 1-1/2	24730	100
1/4 x 1-3/4	24731	100
1/4 x 2"	24732	100

5/16 SIZES	PART No.	QTY.
5/16 x 3/4	24735	100
5/16 x 1"	24736	100
5/16 x 1-1/4	24737	100
5/16 x 1-1/2	24738	100
5/16 x 1-3/4	24739	100
5/16 x 2"	24740	100

3/8 SIZES	PART No.	QTY.
3/8 x 1/2	24810	100
3/8 x 3/4	24800	100
3/8 x 1"	24801	100
3/8 x 1-1/4	24802	100
3/8 x 1-1/4	24802-4	900
3/8 x 1-1/2	24803	50
3/8 x 1-3/4	24804	50
3/8 x 2"	24805	50

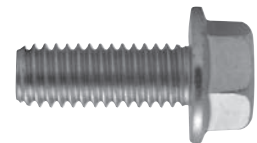
7/16 SIZES	PART No.	QTY.
7/16 x 1"	24812	25



FLANGE BOLTS

- Zinc finish.
- USS (UNC) = COARSE THREAD

3/8 SIZES	USS (16) PART No.	QTY.
1"	19155	100
1-1/4	19156	100
1-1/2	19157	100



Dave
Project Manager

Experienced...

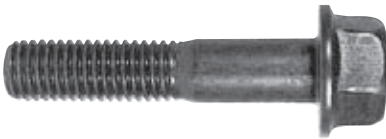
"My years of experience in the industry and product specific information are just one of the resources available for our customers."



FLANGE BOLTS

HIGH STRENGTH FLANGE BOLTS

- Use two-piece (screw and nut) system rather than a four-piece system (one screw, one nut, two washers).
- Offers increased margin of safety between desired clamping load and ultimate strength of assembly.
- A 30% increase in bearing area minimizes brinelling.
- 150,000 psi.
- Phosphate and oil finish.
- Grade 8 equivalent.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



1/4 SIZES	USS (20) PART No.	SAE PART No.	QTY.
1/4 x 3/4	890917	—	100
5/16 SIZES	USS (18) PART No.	SAE PART No.	QTY.
5/16 x 1-3/4	19125	—	50
5/16 x 2"	19126	—	50
5/16 x 2-1/4	19127	—	50
5/16 x 2-1/2	19128	—	50
5/16 x 2-3/4	19129	—	50
5/16 x 3"	19130	—	50
3/8 SIZES	USS (16) PART No.	SAE PART No.	QTY.
3/8 x 3/4	19147	—	50
3/8 x 1"	19148	—	50
3/8 x 1-1/4	19149	—	50
3/8 x 1-1/2	19150	—	50
3/8 x 2"	19152	—	50
3/8 x 2-1/4	19153	—	50
3/8 x 2-1/2	19154	—	25
7/16 SIZES	USS (14) PART No.	SAE (20) PART No.	QTY.
7/16 x 1-1/2	19162	—	50
1/2 SIZES	USS (13) PART No.	SAE (20) PART No.	QTY.
1/2 x 1-1/2	19198	19598	50
1/2 x 1-3/4	19199	19599	25
1/2 x 2"	19200	19600	25
1/2 x 2-1/4	19201	19601	25
1/2 x 2-1/2	19202	19602	25
1/2 x 2-3/4	19203	—	25
1/2 x 3"	19204	—	25
1/2 x 3-1/2	19206	—	25

5/8 SIZES	USS (11)	SAE (18) PART No.	QTY.
5/8 x 1-1/2	19238	19638	25
5/8 x 1-3/4	19239	19639	25
5/8 x 2"	19240	19640	25
5/8 x 2"	19240-4	—	150
5/8 x 2-1/4	19241	19641	25
5/8 x 2-1/2	19242	19642	25
5/8 x 2-3/4	19243	19643	25
5/8 x 3"	19244	19644	25
5/8 x 3-1/2	19246	19646	25
5/8 x 4-1/2	—	—	10
5/8 x 5"	19250	—	10
5/8 x 5-1/2	19251	—	10
5/8 x 6"	19252	—	10
3/4 SIZES	USS (10)	SAE (16) PART No.	QTY.
3/4 x 2"	19263	19660	20
3/4 x 2-1/2	19265	19661	20
3/4 x 3"	19267	19662	20
3/4 x 3-1/2	19269	19663	20
3/4 x 4"	19271	19664	20
3/4 x 4-1/2	19272	—	10

12-POINT HEAD FLANGE BOLTS

- Phosphate and oil finish.
- Smaller head size tool slippage in confined areas.
- Tensile Strength: 170,000 psi minimum
- Yield Strength: 153,000 psi minimum
- Proof Load: 140,000 psi minimum
- Material: alloy steel
- Hardness: 37-43 RC
- Threads: Class 3A
- **USS (UNC) = COARSE THREAD**



1/4 SIZES	USS (20) PART No.	QTY.
1/4 x 1-1/2	19006	20
5/16 SIZES	USS (18) PART No.	QTY.
5/16 x 3/4	19015	20
5/16 x 1-1/4	19018	20
3/8 SIZES	USS (16) PART No.	QTY.
3/8 x 3/4	19030	20
3/8 x 1"	19032	20
3/8 x 1-1/4	19033	20
3/8 x 1-1/2	19034	20
3/8 x 1-3/4	19035	10
3/8 x 2"	19036	10
7/16 SIZES	USS (14) PART No.	QTY.
7/16 x 1-1/4	19050	10

1/2 SIZES	USS (13) PART No.	QTY.
1/2 x 3/4	19061	10
1/2 x 1-1/4	19064	10
1/2 x 1-1/2	19065	10
1/2 x 2"	19067	10
5/8 SIZES	USS (11) PART No.	QTY.
5/8 x 1-1/2	19085	5
5/8 x 1-3/4	19086	5
5/8 x 2"	19087	5
5/8 x 2-1/2	19089	5
3/4 SIZES	USS (10)	QTY.
3/4 x 1-1/2	19104	5
3/4 SIZES	USS (16)	QTY.
3/4 x 4"	19092	5

Cut costs by reducing your vendors. Imperial's Specialty Programs can help.



FLANGE NUTS

PREVAILING TORQUE HEX FLANGE LOCK NUTS

- Grade 8 equivalent.
- Grade G — 150,000 psi minimum proof load.
- Phosphate and oil finish.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	QTY.	SAE PART No.	SIZE	QTY.
40908	1/4-20	50	41910	3/8-24	50
40909	5/16-18	50	41914	1/2-20	50
40910	3/8-16	50	41918	5/8-18	50
40911	7/16-14	50	41918-4	5/8-18	400
40914	1/2-13	50	41920	3/4-16	20
41114 ★	1/2-13	50			
40918	5/8-11	50			
40918-4	5/8-11	400			
41118 ★	5/8-11	300			
40920	3/4-10	20			
41120 ★	3/4-10	180			

★ Cadmium & Wax

SPIN LOCK FLANGE NUT

- Case hardened only.
- Not for use with grade 5 or 8 fasteners



USS PART No.	SIZE	QTY.
890579	1/4-20	100

FLANGE NUT

- Zinc finish.
- **USS (UNC) = COARSE THREAD**



SIZE	USS (16)	QTY.
3/8-16	40925	100

SERRATED FLANGE NUT

- Grade 8 equivalent.
- Plating: Black phosphate
- Serrated under head.



USS PART No.	PART No.	QTY.
5/8-11	48330	25

SERRATED FLANGE LOCK NUTS

- Grade 8 equivalent.
- Unplated.



USS PART No.	SIZE	QTY.
44120	3/8-16	50
44121	1/2-13	50
44122	5/8-11	50

SERRATED FLANGE LOCK NUTS

- Hardened.
- Zinc plated.



USS PART No.	SIZE	QTY.	SAE PART No.	SIZE	QTY.
44101	8-32	100	—	—	100
44103	10-32	100	—	—	100
44106	1/4-20	100	44107	1/4-28	100
44108	5/16-18	100	44109	5/16-24	100
44110	3/8-16	100	44111	3/8-24	100
44112	7/16-14	50	—	—	50
44114	1/2-13	50	—	—	50

JAM NUTS

JAM NUTS

- Complies with SAE J995 specifications.
- 5/8" size and smaller are double chamfered.
- Larger than 5/8" are double chamfered or have a washer faced bearing surface and chamfered top.
- Zinc plated and low carbon.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	PART No. SAE	SIZE	WIDTH ACROSS FLATS	NORMAL THICKNESS	QTY.
54106	1/4-20	55107	1/4-28	7/16	5/32	100
54108	5/16-18	55109	5/16-24	1/2	3/16	100
54110	3/8-16	55111	3/8-24	9/16	7/32	100
54112	7/16-14	55113	7/16-20	11/16	1/4	50
54114	1/2-13	55115	1/2-20	3/4	5/16	50
54116	9/16-12	55117	9/16-18	7/8	5/16	50
54118	5/8-11	55119	5/8-18	15/16	3/8	50
54120	3/4-10	55121	3/4-16	1-1/8	27/64	25
54122	7/8-9	55123	7/8-14	1-5/16	31/64	25
54124	1"-8	55125	1"-14	1-1/2	9/16	25
—	—	55127	1-1/8-12	1-11/16	39/64	25

GRADE 5 LEFT HAND JAM NUTS

- Plain finish.

PART No.	SIZE	WIDTH ACROSS FLATS	NOMINAL THICKNESS	QTY.
44145	5/16-24	1/2	3/16	100
44146	3/8-24	9/16	7/32	100
44149	3/4-10	7/64	13/32	20



THIN PATTERN NYLON INSERT JAM LOCK NUTS

- Zinc plated.
- Low carbon.
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	SAE PART No.	SIZE	QTY.
42136	1/4-20	43136	1/4-28	100
42138	5/16-18	43138	5/16-24	100
42139	3/8-16	43139	3/8-24	100
42144	7/16-14	—	7/16-20	50
42146	1/2-13	43146	1/2-20	50
42148	5/8-11	43148	5/8-18	50
42149	3/4-10	43149	3/4-16	25
42145	1"-8	43145	1"-14	25

LEFT THREAD JAM NUTS

- Complies with SAE J995 specifications.
- Zinc plated.
- Low carbon.
- SAE (UNF), fine thread.



PART No.	SIZE	WIDTH ACROSS FLATS	NORMAL THICKNESS	QTY.
55108	1/4-28	7/16	5/32	100



SLOTTED NUTS

SLOTTED HEX NUTS

- Low carbon.
- Zinc plated.
- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS PART No.	SIZE	SAE PART No.	SIZE	QTY.
45106	1/4-20	—	—	100
45108	5/16-18	—	—	100
45110	3/8-16	45111	3/8-24	100
45112	7/16-14	45113	7/16-20	50
45114	1/2-13	45115	1/2-20	25
45118	5/8-11	45119	5/8-18	25
45120	3/4-10	45121	3/4-16	10
45122	7/8-9	45123	7/8-14	10
45124	1"-8	45125	1"-14	10
45126	1-1/8-7	—	—	5
45128	1-1/4-7	—	—	5

GRADE 5 CASTLE NUTS

- Black phosphate finish.



PART No.	SIZE	QTY.
45303	7/16-20	20
45304	1/2-20	20
45305	9/16-18	20
45306	5/8-18	20
45307	3/4-16	20
45308	7/8-14	20
45309	1"-14	10

THIN PATTERN SLOTTED HEX JAM NUTS

- Grade 2.
- Zinc yellow.
- **USS (UNC) = COARSE THREAD**



USS PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
46125	1"-14	1-1/2	35/64	10

SPECIALTY NUTS

2H HEAVY HEX NUTS

- ASTM A194.
- Low carbon/heat treated.
- Unplated.



PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
50134	3/4-10	1-1/4	47/64	50

GRADE 2 SQUARE NUT

- Suitable for installing shock absorbers.

PART No.	SIZE	FINISH	QTY.
50217	1/2-13	Unplated	25
50220	3/4-10	Zinc	25



SAE HI NUTS

- Complies with SAE J482A specifications.
- Unplated and low carbon.
- Recommended for use with spring center bolts and U-bolts.
- **SAE (UNF) = FINE THREAD**



PART No.	SIZE	OVERALL HEIGHT	QTY.
48111	3/8-24	17/32	50
48113	7/16-20	39/64	50
48115	1/2-20	11/16	50
48117	9/16-18	49/64	25
48119	5/8-18	27/32	25
48121	3/4-16	1"	25
48123	7/8-14	1-5/32	25
48125	1"-14	1-5/16	25

LARGE FINISHED HEX NUTS

- Unplated.
- Low carbon.



PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
40226	1-1/8-7	1-11/16	31/32	10
40228	1-1/4-7	1-7/8	1-1/16	10
40232	1-1/2-6	2-1/4	1-9/32	10

GRADE 5 LEFT THREAD HEX NUTS

- Complies with SAE J995 specifications ANSI/ASME B18.2.2.
- Zinc plated.

SAE PART No.	WIDTH SIZE	ACROSS FLATS	THICKNESS	QTY.
40195	3/4-16	1-1/8	41/64	10

USS PART No.	WIDTH SIZE	ACROSS FLATS	THICKNESS	QTY.
40194	3/4-10	1-1/8	41/64	10



STAR-LOC NUTS/KEP NUTS

- Attached washers prevent loss.
- Rapid assembly.
- Zinc plated. • Low carbon.



PART No.	SIZE	QTY.	PART No.	SIZE	QTY.
56101	6-32	100	56106-4	1/4-20	1,000
56102	8-32	100	56107	1/4-28	100
56103	10-32	100	56108	5/16-18	100
56104	10-24	100	56110	3/8-16	100
56106	1/4-20	100	56111	3/8-24	100

GRADE A CENTER LOCK NUTS

- Permits automatic assembly (the top and bottom are identical).
- Spring-like locking accomplished by opposing distortion areas.
- Bolt need not protrude through the nut for satisfactory lock.
- Zinc plated.



PART No.	SIZE	NOMINAL WIDTH ACROSS FLATS	NOMINAL THICKNESS	QTY.
49214	1/2-13	.743	.437	25

HEAVY HEX NUTS

- SAE J995.
- Low carbon.



PLATED PART No.	UNPLATED PART No.	SIZE	WIDTH ACROSS FLATS	THICKNESS	QTY.
50106	—	1/4-20	1/2	15/64	100
50108	—	5/16-18	9/16	19/64	100
50110	—	3/8-16	11/16	23/64	100
50110-4	—	3/8-16	11/16	23/64	1,250
50112	—	7/16-14	3/4	27/64	100
50114	50115	1/2-13	7/8	31/64	50
50118	50119	5/8-11	1-1/16	39/64	50
50120	50121	3/4-10	1-1/4	47/64	25
50123	50122	7/8-9	1-7/16	55/64	25
50124	—	1"-8	1-5/8	63/64	25
—	50126	1-1/8-7	1-13/16	1-7/64	10



FASTENERS

A16

CARRIAGE BOLTS

LOW CARBON CARRIAGE BOLTS

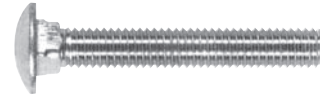
- Twist proof square neck. • Zinc plated.
- Full-dimension trimmed heads. • Non-embedding bearing surface.
- Full or partially threaded; subject to manufacturer availability.



DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.			
10-24	1"	23091	100	5/16-18	3/4	23123	100	3/8-16	1"	23148	100	1/2-13	1-1/2	23198	50			
	1/2	23100	100			1"	23125		100		1"		23148-4	1,000		2"	23200	50
	3/4	23102	100			1-1/4	23126		100		1-1/4		23149	100		2-1/2	23202	50
	1"	23104	100			1-1/2	23127		100		1-1/2		23150	100		3"	23204	50
	1-1/4	23105	100			2"	23129		100		1-3/4		23151	100		4"	23208	25
	1-1/2	23106	100			2"	23129-4		900		2"		23152	100		5"	23210	25
	1-3/4	23107	100			2-1/2	23131		100		2-1/4		23153	50		6"	23212	25
	2"	23108	100			3"	23133		100		2-1/2		23154	50		7"	23638 ★	10
	2-1/4	23109	100			3-1/2	23135		50		3"		23156	50		8"	23640 ★	10
1/4-20	2-1/2	23110	100			4"	23137		50		3-1/2		23158	50		2"	23240	25
	3"	23112	100			4-1/2	23138		50		4"		23160	50		2-1/2	23242	25
	3-1/2	23114	100			5"	23139		50		4-1/2		23161	50		3"	23244	25
	4"	23116	100		5-1/2	23140	50		5"	23162	50		4"	23248	25			
	4-1/2	23117	100		6"	23141	50		5-1/2	23163	50		★ Unplated					
	5"	23118	100						6"	23164	50							
	5-1/2	23119	100						1"	23172	100							
	6"	23120	100					7/16-14	1-1/2	23174	50							
	7"	23122	50						2"	23176	50							

GRADE 5 CARRIAGE BOLTS

- Manufactured from SAE Grade 5 steel. • Zinc plated.
- Full dimension trimmed heads. • Twist proof square neck.
- Non-embedding bearing surface.
- Full or partially threaded; subject to manufacturer availability.



DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.			
1/4-20	1"	24104	100	3/8-16	3/4	24146	100	1/2-13	1-1/4	24197	50	3/4-10	2"	24263	10			
	1-1/2	24106	100			1"	24148		100		1-1/2		24198	50		4"	24267	10
	2"	24108	100			1-1/4	24149		100		1-3/4		24199	50		4-1/2	24268	10
	2-1/2	24110	100			1-1/2	24150		100		2"		24200	50		5"	24269	10
	3"	24112	100			1-3/4	24151		100		2-1/2		24202	50		5-1/2	24270	10
	3/4	24123	100			2"	24152		100		3"		24204	50		6"	24271	10
5/16-18	1"	24125	100		2-1/2	24154	50		3-1/2	24206	25		8"	24275	5			
	1-1/4	24126	100		3"	24156	50		4"	24208	25							
	1-1/2	24127	100		3-1/2	24158	50		1-1/2	24238	25							
	1-3/4	24128	100		4"	24160	50		2"	24240	25							
	2"	24129	100		1"	24172	100		2-1/2	24242	25							
	2-1/2	24131	100		1-1/2	24174	50		3"	24244	25							
	3"	24133	100		1-3/4	24175	50		3-1/2	24246	25							
	6"	24134	50		2"	24176	50		4"	24248	25							
						2-1/2	24178	50		4-1/2	24249	25						
										5"	24250	25						

GRADE 5 RIBBED NECK CARRIAGE BOLTS

- Grade 5 strength: 120,000 psi • Zinc plated.
- For use on trailer roof bows and cross members.
- Perfect for attaching trailer door hardware.



DIA.	OVERALL LENGTH	RIB LENGTH	THREAD LENGTH	ASSEMBLED THICKNESS		PART No.	QTY.	DIA.	OVERALL LENGTH	RIB LENGTH	THREAD LENGTH	ASSEMBLED THICKNESS		PART No.	QTY.	
				MIN	MAX							MIN	MAX			
1/4-20	3/4	.250	3/4	5/16	1/2	24298	100	3/8-16	1"	.250	1-1/8	5/16	5/8	24308	100	
	1"	.250	3/4	5/16	3/4	24300	100			1-1/4	.250	1-1/8	5/16	7/8	24313	100
	1-1/4	.250	3/4	5/16	1"	24299	100			1-1/2	.250	1-1/8	5/16	1-1/8	24309	100
	1-1/2	.250	3/4	5/16	1-1/4	24301	100			1-1/2	.594	1-15/16	5/16	1-1/8	24309-1	100
	1-1/2	.594	3/4	11/16	1-1/4	24301-1 ★	100			2"	.594	1-1/8	11/16	11/16	24310	100
	2"	.594	3/4	11/16	1-3/4	24302	100			2-1/2	.594	1-1/8	11/16	11/16	24311	100
5/16-18	2-1/2	.594	3/4	11/16	2-1/4	24303	100		★ Fully threaded							
	1"	.250	15/16	5/16	11/16	24304	100		NOTE: Rib lengths listed are the rib only.							
	1-1/2	.594	15/16	11/16	1-3/16	24305	100									
	2"	.594	15/16	11/16	1-11/16	24306	100									
	2-1/2	.594	15/16	11/16	2-3/16	24307	100									



CARRIAGE BOLTS

SHAKER SCREEN CARRIAGE BOLT

- Grade 8 equivalent.
- Unplated.

DIA.	LENGTH	PART NO.	QTY.
5/8-11	6"	24292	10
	5"	24294	10
3/4-10	6"	24295	10



STEP BOLTS

- Low Carbon, zinc plated.

DIA.	LENGTH	PART NO.	QTY.
1/4-20	1"	29004	100
	1-1/4	29005	100
	1-1/2	29006	100
	1-3/4	29007	100
	2"	29008	100
	2-1/2	29010	100
3/8-16	3"	29012	100
	1-1/2	29024	50
	2"	29025	50
	3-1/2	29028	50



ELEVATOR BOLTS

LOW CARBON ELEVATOR BOLTS

- Zinc plated.
- Low carbon.

DIA.	LENGTH	PART NO.	QTY.
1/4-20	1"	29104	100
	1-1/4	29105	100
	1-1/2	29106	100
	1-3/4	29107	100
	2"	29108	100
	2-1/2	29110	100
5/16-18	3"	29112	100
	1-1/4	29126	50
	1-1/2	29127	50
	2"	29129	50
3/8-16	2-1/2	29131	50
	1-1/2	29150	50
	1-3/4	29151	50
	2"	29152	50
	2-1/2	29154	50
	3"	29155	50



FANGED HEAD ELEVATOR BOLTS

- 1" head diameter.
- Zinc plated.
- Great for trailer door repairs.
- Low carbon.

DIA.	LENGTH	PART NO.	QTY.
1/4	1-1/4	30105	100
1/4	1-1/2	30106	100
1/4	1-1/2	30106-4	1,000



Experience our dedicated customer service.

PLOW BOLTS

GRADE 8 PLOW BOLTS

- #3 head.
- Unplated.

DIA.	LENGTH	PART NO.	QTY.
5/8-11	2"	28240	25
	2-1/4	28241	25
	2-1/2	28242	25
	3"	28244	25
	3-1/2	28246	25
3/4-10	4"	28248	25
	2-1/2	28265	20
	3"	28267	20



F911 PLOW BOLTS

- Also known as Scraper Bolts.
- Black heat treat finish with light water-soluble oil coating.
- #3 head.
- 180,000 tensile psi.
- Class 2A to ANSI B1.1.

DIA.	LENGTH	PART NO.	QTY.
3/4-10	2-1/2	28330	10
1"-8	3"	28343	5
1"-8	4"	28345	5



GRADE 5 PLOW BOLTS

- #3 head.
- Meets ANSI B18.9 1958 specifications.
- Unplated.

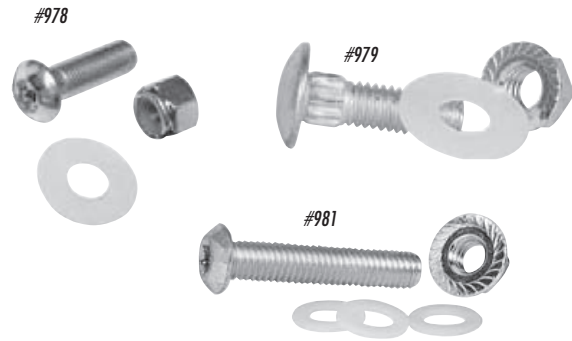
DIA.	LENGTH	PART NO.	QTY.
3/8-16	1"	27148	100
	1-1/4	27149	100
	1-1/2	27150	100
	2"	27152	100
	1-1/4	27173	100
7/16-14	1-1/2	27174	50
	1-3/4	27175	50
	2"	27176	50
	2-1/2	27178	50
1/2-13	1-1/2	27198	50
	2"	27200	50
	2-1/2	27202	50
	3"	27204	50



FASTENER KITS

CROSS MEMBER RAIL REPAIR KIT

PART No.	KIT COMPONENTS	SIZE	QTY.
978	(8) T-45 Torx Button Head Machine Screw, zinc plated, 5.1 heat treated	3/8 x 1-1/4	1
	(8) Nylon Insert Lock Nut, zinc plated	3/8-24	
	(8) Nylon Washers	3/8 x 1 x .03	
979	(8) Grade 5 rib neck carriage bolts.	3/8 x 1-1/4	1
	(8) Serrated Flange Nuts	3/8-16	
	(8) Nylon Washers	3/8 x 1/32 x 1"	
981	(8) T-40 Torx Button Head Machine Screw, zinc plated	3/8-16 x 1-1/4	1
	(8) Hex Head Serrated Flange Nut, zinc plated	3/8-16	
	(8) Nylon Washers	3/8	



THREADED RODS

USS THREADED ROD

- Low carbon steel Grade 2.
- Zinc plated.
- Structural bolting.
- Anchor bolts.

- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



USS AND SAE B-7 ALLOY THREADED ROD

- Meets ASTM A193 Grade B-7 requirements.
- Tensile of 125,000 psi minimum, yield point 105,000 psi minimum.
- For high strength anchoring and hanging.
- Temperature service from 150° F to 1,000° F.
- For use in petroleum, chemical, and power energy industries.
- Zinc yellow dichromate plating.

- **USS (UNC) = COARSE THREAD**
- **SAE (UNF) = FINE THREAD**



24" LENGTHS		
SIZE	PART No.	QTY.
1/4-20	71301	5
5/16-18	71302	5
3/8-16	71303	5
7/16-14	71304	5
1/2-13	71305	5
5/8-11	71307	5
3/4-10	71308	5

36" LENGTHS		
SIZE	PART No.	QTY.
10-24	71315	5
1/4-20	71316	5
5/16-18	71317	5
3/8-16	71318	5
7/16-14	71319	5
1/2-13	71320	5
5/8-11	71322	3
3/4-10	71323	3
7/8-9	71324	3
1"-8	71325	3

36" LENGTH				
SIZE	USS PART No.	SIZE	SAE PART No.	QTY.
1/4-20	16350	1/4-28	17350	5
5/16-18	16351	5/16-24	17351	5
3/8-16	16352	3/8-24	17352	5
7/16-14	16353	7/16-20	17353	3
1/2-13	16354	1/2-20	17354	3
9/16-12	16358	9/16-18	17358	2
5/8-11	16355	5/8-18	17355	2
3/4-10	16356	3/4-16	17356	2
7/8-9	16357	7/8-14	17357	1
1"-8	16359	1"-14	17359	1
1-1/4-7	16361	1-1/4-12	17361	1
1-1/2-6	16364	1-1/2-6	—	1

COUPLING NUTS

SAE FINE COUPLING NUTS

- Zinc plated.
- Extra length.
- Low carbon.

- **SAE (UNF) = FINE THREAD**



SIZE	OUTSIDE HEX SIZE	LENGTH	PART No.	QTY.
1/4-28	3/8	7/8	71329-1	50
5/16-24	7/16	7/8	71330-1	25
3/8-24	1/2	1-1/8	71331-1	25
7/8-14	1-1/4	2-1/2	71336-1	2

USS COARSE COUPLING NUTS

- Zinc plated.
- Extra length.
- Low carbon.

- **USS (UNC) = COARSE THREAD**



SIZE	OUTSIDE HEX SIZE	LENGTH	PART No.	QTY.
1/4-20	3/8	7/8	71329	50
5/16-18	5/8	1-3/4	71330	25
3/8-16	5/8	1-3/4	71331	25
7/16-14	11/16	1-3/4	71332	25
1/2-13	11/16	1-3/4	71333	25
5/8-11	13/16	2-1/8	71334	15
3/4-10	1"	2-1/4	71335	5
7/8-9	1-1/4	2-1/2	71336	2
1"-8	1-3/8	2-3/4	71337	2



EYE BOLTS

EYE-BOLTS

- Zinc plated.
- Low carbon.
- Bent eyes, not welded.
- National coarse rolled threads.
- Not designed for lifting.



Non-Lifting Style

PART No.	BOLT DIA.	SHANK LENGTH	I.D. OF EYE	OVERALL LENGTH	THREAD LENGTH	QTY.
44303	1/4-20	1"	9/16	2"	7/8	25
44305	1/4-20	2"	9/16	3"	1-7/8	25
44307	1/4-20	3"	9/16	4"	2-7/8	25
44313	5/16-18	2"	3/4	3-1/4	1-1/2	10
44314	5/16-18	3"	5/8	4-1/8	2-7/8	10
44315	5/16-18	4"	5/8	5-1/8	2-1/2	10
44319	3/8-16	2-1/4	1"	4"	2"	10
44321	3/8-16	3"	3/4	4-3/8	2-3/4	10
44323	3/8-16	4-1/4	1"	6"	3-7/8	10
44327	1/2-13	3"	1"	5"	2-1/2	5
44328	1/2-13	4"	1"	6"	3"	5
44329	1/2-13	5"	1"	7"	4"	5

HOT GALVANIZED DROP FORGED EYE-BOLTS

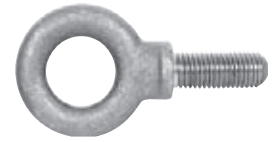
- Nut included.



PART No.	BOLT DIA.	SHANK LENGTH	THREAD LENGTH	I.D. OF EYE	O.D. OF EYE	MAXIMUM LOAD (Lb)	QTY.
44352	1/4-20	2"	1-1/2	1/2	1"	500	10
44353	1/4-20	4"	2"	1/2	1"	500	10
44351	5/16-18	5"	2-1/2	5/8	1-1/4	800	5

SHOULDER EYE-BOLTS

- Drop forged C1035 heat treated steel.
- Self colored.
- Designed for lifting.
- National coarse thread.
- Shanks fully threaded to within 1/8" to 3/8" of shoulder depending on the diameter.
- Safe work load is drastically lowered when loading at any angle. Avoid loading at angles greater than 45° from the center of the bolt.



PART No.	BOLT DIA.	SHANK LENGTH	I.D. OF EYE	O.D. OF EYE	SAFE WORK LOAD (Lb)*	QTY.
44340	1/4-20	1"	3/4	1-3/16	500	5
44341	5/16-18	1-1/8	7/8	1-7/16	900	5
44342	3/8-16	1-1/4	1"	1-21/32	1,300	5
44343	1/2-13	1-1/2	1-3/16	2-1/16	2,400	5
44344	5/8-11	1-3/4	1-3/8	2-1/2	4,000	2
44345	3/4-10	2"	1-1/2	2-13/16	5,000	2
44346	7/8-9	2-1/4	1-11/16	3-1/4	7,000	2
44347	1"-8	2-1/2	1-13/16	3-9/16	9,000	2

* Safe work load is determined on a straight pull.

Protect your fasteners from vibrating loose with Threadlocker or Boltlocker found on page L32 and L34.

SPRING CENTER BOLTS / J BOLTS / THUMB SCREWS

SPRING CENTER BOLTS

- Extra-long threads.
- Slotted fillister head.
- Unplated.
- Use SAE hi-nuts.
- Grade 2.

DIA.	BOLT LENGTH	PART No.	THREAD LENGTH	QTY.
3/8-24	6"	33164	4"	15
	8"	33166	6"	15
	10"	33168	9-1/2"	15
	12"	33170	9-1/2"	15
7/16-20	6"	33188	4"	15
	8"	33190	5-1/2"	10
	10"	33192	9-1/2"	15
	12"	33194	9-1/2"	15
1/2-20	8"	33214	5-1/2"	15
	10"	33216	9-1/2"	15
	12"	33218	9-1/2"	15
	14"	33220	9-1/2"	15



J BOLTS

- Medium carbon heat treated steel.
- Plain finish.

DIA.	LENGTH	PART No.	QTY.
1/2-13	5"	24226	10
	5"	24229	10
5/8-11	6"	24230	10
	8"	24232	5



THUMB SCREWS

- May be plated or unplated.

DIA.	LENGTH	PART No.	QTY.
1/4-20	1/2	27098	50
	3/4	27099	50
	1"	27100	50
5/16-18	1-1/4	27101	50
	3/4	27109	50
	1"	27110	50
3/8-16	1-1/4	27111	50
	3/4	27116	50
	1"	27117	50
	1-1/4	27118	50
	1-1/2	27119	25



SAE HI Nuts on page A15 are recommended for use with Spring Center Bolts.



FASTENERS

A20

SOCKET SCREWS

ALLOY SOCKET HEAD CAP SCREWS

- Class 3A threads. • Alloy heat treated.
- Conforms to ANSI B18.3 and ASTM A574.
- Equal to grade 8.



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
4-40	3/32	1/2	18036	100
		3/4	18038	100
		1"	18040	100
6-32	7/64	1/4	18044	100
		3/8	18045	100
		1/2	18046	100
		5/8	18037	100
		3/4	18048	100
8-32	9/64	1"	18050	100
		1/4	18055	100
		3/8	18056	100
		1/2	18057	100
		5/8	18058	100
10-32	5/32	3/4	18059	100
		1"	18061	100
		1-1/2	18063	100
		3/8	18077	100
		1/2	18078	100
10-32	5/32	5/8	18078-1	100
		3/4	18079	100
		1"	18080	100
		1-1/4	18081	100
		1-1/2	18082	100
10-32	5/32	1-3/4	18083	100
		2"	18084	100
		2-1/2	18085	100
		1/4	18077-1	100
		3/8	18077-2	100
10-32	5/32	1/2	18078-2	100
		5/8	18079-1	100
		3/4	18079-2	100
		1"	18080-1	100
		1-1/4	18081-1	100
1/4-20	3/16	1-1/2	18082-1	100
		1-3/4	18083-1	100
		2"	18084-1	100
		3/8	18099	100
		1/2	18100	100
1/4-20	3/16	5/8	18101	100
		3/4	18102	100
		7/8	18103	100
		1"	18104	100
		1-1/4	18105	100
1/4-28	3/16	1-1/2	18106	100
		1-3/4	18107	100
		2"	18108	100
		2-1/4	18109	100
		2-1/2	18110	100
1/4-28	3/16	3"	18112	100
		3-1/2	18115	100
		4"	18114	100
		4-1/2	18116	100
		1/2	18100-1	100
1/4-28	3/16	3/4	18102-1	100
		1"	18104-1	100
		1-1/4	18105-1	100
		1-1/2	18106-1	100

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
5/16-18	1/4	3/8	18120	100
		1/2	18121	100
		5/8	18122	100
		3/4	18123	100
		7/8	18124	100
		1"	18125	100
		1-1/4	18126	100
		1-1/2	18127	100
		1-3/4	18128	100
		2"	18129	100
5/16-24	1/4	2-1/4	18130	50
		2-1/2	18131	50
		2-3/4	18132	50
		3"	18133	50
		3-1/4	18134	100
		3-1/2	18135	100
		1/2	18121-1	100
		3/4	18123-1	100
		1"	18125-1	100
		1-1/4	18126-1	100
3/8-16	5/16	1-1/2	18127-1	100
		1/2	18144	100
		5/8	18145	100
		3/4	18146	100
		7/8	18147	100
		1"	18148	100
		1-1/4	18149	100
		1-1/2	18150	100
		1-3/4	18151	50
		2"	18152	50
3/8-24	5/16	2-1/4	18153	50
		2-1/2	18154	50
		2-3/4	18155	50
		3"	18156	50
		3-1/2	18158	25
		4"	18160	25
		5"	18164	25
		3/4	18146-1	100
		1"	18148-1	100
		1-1/4	18149-1	100
7/16-14	3/8	1-1/2	18150-1	100
		3/4	18170	100
		1"	18172	50
		1-1/4	18173	50
		1-1/2	18174	50
		2"	18176	50
		2-1/2	18178	25
		3"	18180	25
		1/2	18193	50
		3/4	18195	50
1/2-13	3/8	1"	18196	50
		1-1/4	18197	50
		1-1/2	18198	50
		1-3/4	18199	50
		2"	18200	50
		2-1/4	18201	25
		2-1/2	18202	25
		2-3/4	18205	25
		3"	18204	25
		3-1/2	18206	25
1/2-20	3/8	4"	18208	10
		4-1/2	18209	10
		5"	18210	10
		6-1/2	18213	10
		1"	18196-1	50
		1-1/2	18198-1	50
		2-1/2	18202-1	50

DIA.	KEY SIZE	LENGTH	PART No.	QTY.		
5/8-11	1/2	1"	18236	25		
		1-1/4	18237	25		
		1-1/2	18238	25		
		2"	18240	25		
		2-1/4	18241	25		
		2-1/2	18242	25		
		4-1/2	18248	10		
		1-1/4	18260	10		
		1-1/2	18261	10		
		1-3/4	18262	10		
3/4-10	5/8	2"	18263	10		
		2-1/2	18265	10		
		3"	18267	10		
		3-1/2	18269	5		
		4-1/2	18271	5		
		5"	18272	5		
		3/4-10	1/2	7-1/2	18375	5
		3/4-16	5/8	3"	18267-1	10
		1-8	3/4	3-1/2	18378	5
		1-1/2-12	1	3-1/2	18377	5

HI COLLAR ALLOY LOCK WASHERS

- For use with socket head cap screws.
- High strength and ductility made from carbon steel helical.
- The design ensures secure locking of socket head cap screws.
- Conforms to ANSI B18.21.1.



PART No.	SIZE	QTY.
18004	#10	100
18005	1/4	100
18006	5/16	100
18007	3/8	100
18008	7/16	50
18009	1/2	50
18010	5/8	50
18011	3/4	25

Imperial
continuously
adds new
products.



SOCKET SCREWS

FLAT HEAD SOCKET CAP SCREWS

- Class 3A threads.
- Alloy heat treated.
- Conforms to ANSI B18.3.



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
4-40	1/16	1/2	18559	100
		1/4	18565	100
		3/8	18566	100
6-32	5/64	1/2	18567	100
		3/4	18569	100
		1/2	18572	100
8-32	3/32	1"	18575	100
		3/8	18577	100
		1/2	18578	100
10-24	1/8	3/4	18579	100
		1"	18580	100
		1/2	18586	100
10-32	1/8	3/4	18588	100
		1"	18589	100
		1-3/4	18591	100
		3/8	18599	100
		1/2	18600	100
		5/8	18601	100
1/4-20	5/32	3/4	18602	100
		1"	18604	100
		1-1/4	18605	100
		1-1/2	18606	100
		2"	18608	100
		1/2	18612	100
1/4-28	5/32	3/4	18614	100
		1"	18615	100

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
5/16-18	3/16	1/2	18621	100
		5/8	18622	100
		3/4	18623	100
		1"	18625	100
		1-1/4	18626	100
		1-1/2	18627	100
5/16-24	3/16	1-3/4	18628	100
		2"	18629	100
		1/2	18636	100
		3/4	18638	100
		1"	18639	100
		1-1/4	18640	100
3/8-16	7/32	5/8	18645	100
		3/4	18646	100
		1"	18648	100
		1-1/4	18649	100
		1-1/2	18650	100
		2"	18652	50
3/8-24	7/32	2-1/2	18653	50
		1"	18660	100
7/16-14	1/4	1-1/4	18685	50
		1-1/2	18686	50
		2"	18688	25

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
1/2-13	5/16	3/4	18695	50
		1"	18696	50
		1-1/4	18697	50
		1-1/2	18698	50
		1-3/4	18699	50
		2"	18700	50
1/2-20	5/16	2-1/2	18702	50
		3"	18704	25
		3/4	18715	50
		1-1/4	18717	50
		1-1/2	18718	50
		1-1/4	18737	25
5/8-11	3/8	1-1/2	18738	25
		1-3/4	18739	25
		2"	18740	25
		2-1/2	18742	25
3/4-10	1/2	2-1/2	18752	10
		3"	18754	10
1-8	3/4	3	18760	5

Note: Flat Head Cap Screws are not intended for high strength applications.

BUTTON HEAD SOCKET SCREWS

- Class 3A threads.
- Alloy heat treated.
- Conforms to ANSI B18.3 and Federal Specification FF-S-86.



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
6-32	5/64	3/8	18479	100
		5/8	18481	100
8-32	3/32	1/4	18482	100
		3/8	18483	100
		1/2	18484	100
10-24	1/8	1/2	18489	100
		5/8	18490	100
		3/4	18491	100
		1"	18493	100

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
10-32	1/8	1/4	18494	100
		3/8	18495	100
		1/2	18496	100
		5/8	18497	100
		3/4	18498	100
		1"	18500	100
		3/8	18501	100
		1/2	18502	100
1/4-20	5/32	3/4	18504	100
		1"	18506	100
		1-1/4	18510	100
		1-1/2	18511	100

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
5/16-18	3/16	1/2	18514	100
		3/4	18516	100
		1"	18518	100
		1/2	18525	50
		3/4	18527	50
		1"	18529	50
		1-1/4	18530	50
3/8-16	7/32	1-1/2	18531	50
		1"	18537	25
		1-1/4	18538	25
		1-1/2	18539	25
1/2-13	5/16	2"	18542	10
		4"	18549	10
		2"	18550	10

Note: Button head Socket Screws should not be used in critical strength applications where Socket Head Cap Screws are required.

SQUARE HEAD SET SCREWS-CUP POINT

SQUARE HEAD SET SCREWS-CUP POINT

- Case-hardened.



DIA.	LENGTH	PART No.	QTY.
1/4-20	1/2	17501	100
	3/4	17513	100
	1"	17515	100
5/16-18	1-1/2	17517	100
	2"	17519	100
	3/4	17527	100
3/8-16	1"	17529	100
	1-1/4	17530	100
	2"	17533	100

DIA.	LENGTH	PART No.	QTY.
7/16-14	1-1/4	17540	50
	1-1/4	17544	50
	1-1/2	17545	50
1/2-13	2"	17547	50
	2-1/2	17548	25
	3"	17549	25

DIA.	LENGTH	PART No.	QTY.
5/8-11	1"	17552	25
	2"	17556	25
	3"	17560	25
3/4-10	3"	17572	10



SOCKET SCREWS

CUP POINT SOCKET SET SCREWS

- Class 3A threads.
- Heat treated.
- Conforms to ANSI B18.3 and Federal Specification FF-S-200 Type 1 Style 4.



DIA.	KEY SIZE	LENGTH	PART No.	QTY.	DIA.	KEY SIZE	LENGTH	PART No.	QTY.	DIA.	KEY SIZE	LENGTH	PART No.	QTY.			
6-32	1/16	1/8	18800	100	1/4-20	1/8	3/16	18845	100	3/8-16	3/16	1/4	18875	100			
		3/16	18801	100			1/4	18846	100			5/16	18876	100			
		1/4	18802	100			5/16	18847	100			3/8	18877	100			
		5/16	18803	100			3/8	18848	100			1/2	18879	100			
		3/8	18804	100			1/2	18850	100			5/8	18880	100			
		1/2	18806	100			3/4	18852	100			3/4	18881	100			
		3/4	18808	100			1"	18854	100			1"	18883	100			
8-32	5/64	1/8	18815	100	1/4-28	1/8	1-1/4	18855	100	3/8-24	3/16	1-1/2	18885	100			
		3/16	18816	100			1/4	18846-1	100			1/4	18875-1	100			
		1/4	18817	100			5/16	18847-1	100			3/8	18877-1	100			
		5/16	18818	100			3/8	18848-1	100			1/2	18879-1	100			
		3/8	18819	100			1/2	18850-1	100			3/4	18881-1	100			
		1/2	18821	100			3/4	18852-1	100			1"	18883-1	100			
		3/4	18823	100			1"	18854-1	100			7/16-14	7/32	1/2	18879-2	100	
10-24	3/32	3/16	18830	100	5/16-18	5/32	1/4	18860	100	7/16-20	7/32	1"	18883-2	50			
		1/4	18831	100			5/16	18861	100			1/2	18879-3	100			
		5/16	18832	100			3/8	18862	100			1/2	18892	50			
		3/8	18833	100			1/2	18864	100			3/4	18894	50			
		1/2	18835	100			3/4	18866	100			1"	18896	50			
		3/4	18837	100			1"	18868	100			1-1/2	18898	50			
		1"	18839	100			1/4	18860-1	100			2"	18900	50			
10-32	3/32	3/16	18830-1	100	5/16-24	5/32	5/16	18861-1	100	1/2-20	1/4	1/2	18892-1	50			
		1/4	18831-1	100			3/8	18862-1	100			3/4	18894-1	50			
		5/16	18832-1	100			1/2	18864-1	100			1"	18896-1	50			
		3/8	18833-1	100			3/4	18866-1	100			5/8-11	5/16	1/2	18920	20	
		1/2	18835-1	100			1"	18868-1	100			3/4-10	3/8	1"	18935	10	
		3/4	18837-1	100													
		1"	18839-1	100													

SHOULDER SOCKET HEAD CAP SCREWS

- Hex is clean, deep and sharp to allow greater tightening torques.
- Snap-proof, shear-proof.
- Class 3A threads.
- Conforms to ANSI B18.3 and ASTM A574.



THREAD SIZE	SHOULDER DIA.	SHOULDER LENGTH	KEY SIZE	PART No.	QTY.	THREAD SIZE	SHOULDER DIA.	SHOULDER LENGTH	KEY SIZE	PART No.	QTY.
10-24	1/4	3/8	1/8	18380	25	3/8-16	1/2	1/2	1/4	18413	25
		1/2	1/8	18381	25			3/4	1/4	18414	25
		3/4	1/8	18383	25			1"	1/4	18416	25
		1"	1/8	18384	25			1-1/2	1/4	18418	25
1/4-20	5/16	3/8	5/32	18387	25			1-3/4	1/4	18419	25
		1/2	5/32	18388	25			2"	1/4	18420	25
		3/4	5/32	18390	25			2-1/4	1/4	18421	25
		1"	5/32	18391	25			2-1/2	1/4	18422	25
5/16-18	3/8	3/8	3/16	18396	25			3	1/4	18423	25
		1/2	3/16	18397	25			3-1/2	1/4	18424	25
		3/4	3/16	18399	25			1"	5/16"	18430	25
		1"	3/16	18400	25			1-1/4	5/16	18433	5
		1-1/4	3/16	18401	25	2"	5/16	18434	5		
		1-1/2	3/16	18402	25	2-1/2	5/16	18436	5		
		1-3/4	3/16	18403	25	2-3/4	5/16"	18437	25		
2-1/2	3/16	18406	25	3/4	1-1/2	3/8	18452	5			
					5/8-11	3/4	3"	3/8	18458	5	

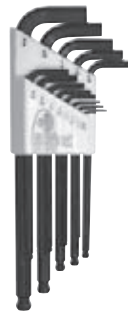


L WRENCHES

BALL DRIVER L-WRENCH SETS

- Set includes handy organizing case.
- Fractional set or fractional and metric set available.

PART No.	SET	SIZES	QTY.
87241	13 Piece Inch Set	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8	1
87243	13 Piece Inch Set 9 Piece Metric Set	.050, 1/16, 5/64, 3/32, 7/64, 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8, MM 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 6.0, 8.0, 10.0	1
87244	13-Piece Metric Set	Long Arm Torx® Ends: T5, T6, T7, T8, T9, T10, T15, T20, T25, T27, T30, T40, T50	1
87247	13 Piece Inch Set	MagicRing Ball Ends: 1/8, 9/64, 5/32, 3/16, 7/32, 1/4, 5/16, 3/8 Standard Ball Ends: .05, 1/16, 5/64, 3/32, 7/64	1
87248	9 Piece Metric Set	MagicRing Ball Ends: MM 3, 4, 5, 6, 8, 10 Standard Ball Ends: MM 1.5, 2.0, 2.5	1



#87241



#87243



#87244



#87247



#87248

HEXAGON KEYS

- Long arm.
- Alloy steel.

PART No.	KEY SIZE	QTY.	PART No.	KEY SIZE	QTY.
18976	5/64	5	18984	1/4	5
18977	3/32	5	18985	5/16	5
18978	7/64	5	18986	3/8	5
18979	1/8	5	18987	1/2	5
18980	9/64	5	18989	5/8	1
18981	5/32	5	18990	3/4	1
18982	3/16	5	18991	7/8	1
18983	7/32	5	18992	1"	1



9-PIECE METRIC HEXAGON KEY WRENCH SET

- Nine-piece metric hex key wrench set.
- MM sizes 1.50 to 10mm.
- Use for DIN 912, DIN 7991 and DIN 916.

PART No.	SIZES	QTY.
13700	1.50, 2, 2.50, 3, 4, 5, 6, 8, 10mm	1



If you can't find the products you are looking for, call us, and we will find it for you.



Melinda
Customer Service

Devoted...

"It's not just finding the right part. It's keeping a shop going. You've got to know that and care about it."



FLOORBOARD SCREWS

COUNTERSUNK FLOORBOARD SCREWS

- Zinc plated or phosphate and oil coated for excellent corrosion protection.
- Complete selection of sizes and lengths for any type of trailer flooring repair.



PART No.	SIZE	DRIVE STYLE	COUNTERSUNK HEAD STYLE	THREAD STYLE	PLATING	QTY.
69275	1/4-20 x 1"	Star	Countersunk	Type F	Black	250
69275-4	1/4-20 x 1"	Star	Countersunk	Type F	Black	2,000
69305	1/4-20 x 1-1/4	Star	Countersunk	Type F	Black	250
69305-4	1/4-20 x 1-1/4	Star	Countersunk	Type F	Black	3,000
69277	1/4-20 x 1-1/2	Star	Countersunk	Type F	Black	250
69277-4	1/4-20 x 1-1/2	Star	Countersunk	Type F	Black	2,000
69276	1/4-20 x 1-1/2	Star	Countersunk	Type F	Zinc	250
69276-4	1/4-20 x 1-1/2	Star	Countersunk	Type F	Zinc	3,000
69273	1/4-20 x 1-3/4	Star	Countersunk	Type F	Black	250
69278	1/4-20 x 2"	Star	Countersunk	Type F	Black	250
69278-4	1/4-20 x 2"	Star	Countersunk	Type F	Black	1,500
69280	1/4-20 x 2-1/4	Star	Countersunk	Type F	Black	250
69280-4	1/4-20 x 2-1/4	Star	Countersunk	Type F	Black	1,200
69279	1/4-20 x 2-1/2	Star	Countersunk	Type F	Black	250
69279-4	1/4-20 x 2-1/2	Star	Countersunk	Type F	Black	1,000

PANHEAD FLOORBOARD SCREWS

- Zinc plated or phosphate and oil coated for excellent corrosion protection.
- Complete selection of sizes and lengths for any type of trailer flooring repair.



PART No.	SIZE	DRIVE STYLE	PAN HEAD HEAD STYLE	THREAD STYLE	PLATING	QTY.
69291	1/4-20 x 1"	Star	Pan Head	Type F	Zinc	250
69291-4	1/4-20 x 1"	Star	Pan Head	Type F	Zinc	2,000
69290	1/4-20 x 1-1/2	Star	Pan Head	Type F	Black	250
69290-4	1/4-20 x 1-1/2	Star	Pan Head	Type F	Black	2,000

PART No.	SIZE	DRIVE STYLE	COUNTERSUNK HEAD STYLE	THREAD STYLE	PLATING	QTY.
69281	1/4-20 x 3"	Star	Countersunk	Type F	Black	250
69281-4	1/4-20 x 3"	Star	Countersunk	Type F	Black	1,000
69282	1/4-20 x 3-1/2	Star	Countersunk	Type F	Black	250
69283	1/4-20 x 4"	Star	Countersunk	Type F	Black	250
69284	1/4-20 x 4-1/2	Star	Countersunk	Type F	Black	250
69286	1/4-20 x 5"	Star	Countersunk	Type F	Black	250
69287	1/4-20 x 6"	Star	Countersunk	Type F	Black	250
69306	5/16-18 x 3/4	Star	Countersunk	Type F	Black	250
69285	5/16-18 x 1"	Star	Countersunk	Type F	Black	250
69285-4	5/16-18 x 1"	Star	Countersunk	Type F	Black	1,600
69269	5/16-18 x 1-1/4	Star	Countersunk	Type F	Black	250
69269-4	5/16-18 x 1-1/4	Star	Countersunk	Type F	Black	2,000
69294	5/16-18 x 1-1/2	Star	Countersunk	Type F	Black	250
69294-4	5/16-18 x 1-1/2	Star	Countersunk	Type F	Black	1,400
69272	5/16-18 x 1-3/4	Star	Countersunk	Type F	Black	250
69262	5/16-18 x 2"	Star	Countersunk	Type F	Black	250
69262-4	5/16-18 x 2"	Star	Countersunk	Type F	Black	1,000
69263	5/16-18 x 2-1/2	Star	Countersunk	Type F	Black	250
69263-4	5/16-18 x 2-1/2	Star	Countersunk	Type F	Black	600
69400 ★	5/16-18 x 2-1/2	Star	Countersunk	Type F	Black	250
69400-4 ★	5/16-18 x 2-1/2	Star	Countersunk	Type F	Black	600
69264	5/16-18 x 3"	Star	Countersunk	Type F	Black	250
69267	5/16-18 x 3-1/2	Star	Countersunk	Type F	Black	250
69268	5/16-18 x 4"	Star	Countersunk	Type F	Black	250
69295	5/16-18 x 5"	Star	Countersunk	Type F	Black	250

★ 1/4" of unthreaded body. Use for floor or door repair.

PART No.	SIZE	DRIVE STYLE	PAN HEAD HEAD STYLE	THREAD STYLE	PLATING	QTY.
69288	1/4-20 x 1-1/2	Star	Pan Head	Type F	Zinc	250
69289	1/4-20 x 1-3/4	Star	Pan Head	Type F	Zinc	250
69307	1/4-20 x 2"	Star	Pan Head	Type F	Zinc	250
68200	1/4-20 x 2"	Phillips	Pan Head	Type F	Zinc	100
69293	5/16-18 x 1-1/4	Star	Pan Head	Type F	Zinc	200
69304-4	5/16-18 x 1-1/4	Star	Pan Head	Type F	Black	1,500
69296	5/16-18 x 2"	Star	Pan Head	Type F	Black	250
69296-4	5/16-18 x 2"	Star	Pan Head	Type F	Black	1,000
69297	5/16-18 x 2"	Star	Pan Head	Type F	Zinc	250
69297-4	5/16-18 x 2"	Star	Pan Head	Type F	Zinc	1,000
69298	5/16-18 x 3"	Star	Pan Head	Type F	Black	250
69299	5/16-18 x 4"	Star	Pan Head	Type F	Black	250
69300	5/16-18 x 5"	Star	Pan Head	Type F	Black	250

For a complete selection of Drill Bits, Drill Bit Indexes, and Drill Bit Centers, see Section I.

DRIVES & BITS

DRILL SIZE CHART FOR INSTALLING FLOORBOARD SCREWS

- Part No. 80572 and 80573 are used for installing 1/4" diameter floorboard screws.
- Part No. 80575 and 80577 are used for installing 5/16" diameter floorboard screws.



DRILL BIT PART No.	DRILL SIZE	FLOORBOARD SCREW DIA.	APPLICATION MATERIAL	OVERALL LENGTH	DECIMAL EQUIVALENT	QTY.
80572	13/64	1/4	Aluminum	3-5/8	0.2031	5
80573	7/32	1/4	Steel	3-3/4	0.2188	5
80575	1/4	5/16	Aluminum	4"	0.2500	5
80577	9/32	5/16	Steel	4-1/4	0.2812	5

BIT HOLDERS FOR HEX INSERTS

- For use with 3/8" and 1/2" impact guns.
- For use with 3/8" and 1/2" ratchet tools.



PART No.	FITS HEX BIT SIZE	FEMALE SQUARE DRIVE SOCKET	SOCKET LENGTH	QTY.
66465	1/4	3/8	1-1/2	2
66466	5/16	3/8	1-1/2	2
66463	1/4	1/2	1-3/4	2
66464	5/16	1/2	1-3/4	2



DRIVE BITS

PREMIUM TORX® DRIVE BITS

- Tough, fracture-resistant tips for long life.
- Great for installing any screws with the Torx Plus Drive Style.
- Lasts six times longer than medium-hard bits.

PART No.	CROSS REF.	HEX SIZE	BIT LENGTH	QTY.
69254	T-6	1/4	1"	5
69206	T-7	1/4	1"	5
69255	T-8	1/4	1"	5
69234	T-10	1/4	1"	5
69233	T-15	1/4	1"	5

PART No.	CROSS REF.	HEX SIZE	BIT LENGTH	QTY.
69238	T-20	1/4	1"	5
66495	T-20+	1/4	1"	5
66504	T-20	5/16	1/4	5
69242	T-25	1/4	1"	5
66496	T-25+	1/4	1"	5
69236	T-25W	1/4	1"	5
69235	T-27	1/4	1"	5
66502	T-25	5/16	1"	5
66497	T-27+	1/4	1"	5
66503	T27	5/16	1"	5
69240	T-30	1/4	1"	5
66498	T-30+	1/4	1"	5

PART No.	CROSS REF.	HEX SIZE	BIT LENGTH	QTY.
69243	T-30	5/16	1"	5
69243-4	T-30	5/16	1"	50
69230	T-40	1/4	1-5/16	5
69241	T-40	1/4	1"	5
66499	T-40+	1/4	1"	5
69244	T-40	5/16	1-1/4	5
69244-4	T-40	5/16	1-1/4	50
69248	T-45	5/16	1-1/4	5
69237	T-50	5/16	1-1/4	5
69245	T-55	5/16	1-1/4	5

Torx® is a registered trademark of Camcar.



PHILLIPS DRIVE BITS

PART No.	HEX SIZE	OVERALL LENGTH	PHILLIPS POINT	QTY.
69252	1/4	1"	#2	5
69246	1/4	1"	#3	5
66490	1/4	2-3/4	#2	2
66491	1/4	2-3/4	#3	2
66470	1/4	1"	#1	5
66487	1/4	1-15/16	#2	5
66510	5/16	1"	#1	5
66513	5/16	1-1/4	#2	5
66511	5/16	1-1/4	#4	5
69261	5/16	1-1/4	#2	5
69247	5/16	1-1/4	#3	5



HEX DRIVE BIT

PART No.	SHANK SIZE	HEX SIZE	OVERALL LENGTH	QTY.
66530	1/4	5/64	1-5/16	5



PREMIUM LONG LENGTH DRIVE BITS

PART No.	CROSS REF.	HEX SIZE	BIT LENGTH	QTY.
69206	T-7	1/4	1"	5
66488	T-8	1/4	3-1/2	2
66480	T-15	1/4	2-3/4	2
66481	T-20	1/4	2-3/4	2
66482	T-25	1/4	2-3/4	2
66484	T-25	1/4	6"	2
66483	T-27	1/4	2-3/4	2
66485	T-27	1/4	6"	2



HEX SOCKET BIT

PART No.	SHANK SIZE	HEX SIZE	OVERALL LENGTH	QTY.
69258	3/16	1/4	1"	10
66501	5/16	7/32	1-5/16	5
66516	5/16	1/4	1-5/16	5
66500	5/16	5/16	1-5/16	5



SLOTTED DRIVE BITS

PART No.	HEX SIZE	OVERALL LENGTH	FITS SCREW	QTY.
69220	1/4	1"	6F-8R	5
69221	1/4	1"	8F-10R	5
66512	5/16	1-1/2	8F-10R	5
69222	1/4	1"	10F-12R	5
69223	5/16	1-1/2	12F-14R	5
69204	5/16	1-3/4	16F-18R	5



1/4" HEX SQUARE DRIVE BIT

PART No.	TIP SIZE	OVERALL LENGTH	SCREW SIZES	QTY.
69232	3/32 (#1)	1-15/16	5-6-7	5
69239	1/8 (#2)	1-15/16	8-9-10	5



STANDARD INSERT BITS

PART No.	CROSS REF.	HEX SIZE	FITS SCREW	QTY.
69253	T-25	1/4	10-16	5
69259-1	T-30	1/4	1/4	5
69251	T-30	5/16	1/4	5
69259	T-40	1/4	5/16	5
69260	T-40	5/16	5/16	5



METRIC SOCKET BIT

PART No.	SIZE	HEX SIZE	OVERALL LENGTH	QTY.
69227	4 mm	1/4	1-5/16	5
69249	5 mm	1/4	1-5/16	5
69219	6 mm	1/4	1-5/16	5
69209	8 mm	1/4	1-5/16	5



DRIVES

MAGNETIC HEX DRIVES

PART No.	SIZE	SCREW SIZE	OVERALL LENGTH	QTY.
66460	1/4	#6-#8	1-11/16	1
66461	5/16	#10-#12	1-11/16	1
66462	3/8	1/4	1-7/8	1
66467	1/4	#6-#8	2-1/2	1
66468	5/16	#10-#12	2-1/2	1
66469	3/8	1/4	2-1/2	1



HEX DRIVES

- Part No. 69250 is magnetic.

PART No.	SIZE	SCREW SIZE	OVERALL LENGTH	QTY.
69225	1/4	1/4	3"	1
69250	1/4	1/4	2-5/16	1



SELF-DRILLING SCREWS

HEX WASHER HEAD SELF DRILLING SCREWS

- Also known as Tek screw.
- Star drive screws quickly drill, tap and insert, usually in less time than it takes to drill a hole.
- Zinc plated.



SIZE	HEAD SIZE	GRIP RANGE	LENGTH	PART No.	QTY.
6	1/4	.035-.90	3/8	69146	100
			1/2	69147	100
			3/4	69148	100
			1"	69149	100
			1/2	69150	100
			1/2	69150-4	500
			1/2	890672 ★	100
			5/8	69182	100
			3/4	69151	100
			3/4	69151-4	500
8	1/4	.035-.100	1"	69152	100
			1"	69152-4	500
			1-1/4	69153	100
			1-1/4	69153-4	500
			1-1/2	69155	100
			1-1/2	69155-4	1000
			2"	69189	100
			1/2	69154	100
			1/2	69154-4	500
			5/8	69197	100
10	5/16	.035-.110	3/4	69156	100
			3/4	69156-4	500
			3/4	890635 ★	100
			1"	69157	100
			1"	69157-4	500
			1"	890271 ★	50
			1-1/4	69158	100
			1-1/2	69171	100
			1-3/4	69171-1	100
			2"	69172	100
12	5/16	.035-.187	3/4	69159	100
			3/4	69159-4	500
			1"	69160	100
			1"	69160-4	500
			1-1/4	69176	100
			1-1/2	69164	100
			1-1/2	69164-4	500
			1-3/4	69178	100
			2"	69177	100
			2-1/2	69183	100
14	3/8	.035-.175	3"	69184	100
			3/4	69161	100
			3/4	69161-4	500
			3/4	890547 ★	50
			1"	69162	100
			1"	69162-4	500
			1"	890548 ★	50
			1-1/4	69173	100
			1-1/2	69174	100
			1-3/4	69179	100
2"	69175	100			
2-1/2	69185	50			
3"	69186	50			

★ Black Oxide plated

LARGE FLANGE SQUARE DRIVE SELF-DRILLING PLYSCREW

- Also known as Tek screw.
- Zinc yellow dichromate plated.
- Square tip drive.
- Use to fasten plywood panels.
- Ideally suited for the truck industry.
- Approximate head diameter: 9/16"
- For use with 1/4" Hex Square Drive Bit, Part No. 69239.
- Serrated under head.



SIZE	LENGTH	PART No.	QTY.
10	3/4	69700	250
	3/4	69700-4	1,000
	1"	69701	250
	1"	69701-4	1,000

SIZE	LENGTH	PART No.	QTY.
10	1"	69701-5	4,000
	1-1/4	69702	250
	1-1/4	69702-4	1,000
	1-1/4	69702-5	4,000

STAR DRIVE SELF-DRILLING PLYSCREW

- Also known as Tek screw.
- Zinc plated.
- Ideally suited for the truck industry.
- Use to fasten plywood panels to metal side posts.
- Fast and easy installation.
- Star drive wafer head.
- Approximate head diameter: 15/32"
- For use with Torx® Bit, Part No. 69242.



SIZE	LENGTH	PART No.	QTY.
10-16	3/4	69598	100
	3/4	69598-4	1,000
	1"	69600	100
	1"	69600-4	5,000

SIZE	LENGTH	PART No.	QTY.
10-16	1-1/4	69601	100
	1-1/4	69601-4	5,000
	1-1/2	69602	100

PHILLIPS PAN HEAD SELF-DRILLING SCREWS

- Also known as Tek screw.
- Self-drilling and self-tapping screws.
- No pre-drilling is necessary.
- Convenient Phillips drive.
- Zinc plated.



SIZE	LENGTH	PART No.	QTY.
6	3/8	69201	100
	1/2	69107	100
	5/8	69202	100
	3/4	69203	100
8	1/2	69163	100
	5/8	69212	100
	3/4	69170	100
	1"	69165	100

SIZE	LENGTH	PART No.	QTY.
8	1-1/4	69213	100
	1-1/2	69215	100
	1/2	69166	100
10	5/8	69218	100
	3/4	69167	100
	1"	69168	100
	1-1/2	69169	100
2"	69224	50	

PHILLIPS SELF-DRILLING PLYSCREW

- Also known as Tek screw.
- Ideally suited for the truck industry.
- Use to fasten plywood panels to metal side posts.
- Fast and easy installation and substantial cost savings.
- Phillips wafer head.
- Approximate head diameter: 15/32"
- For use with #2 Phillips Bit.



SIZE	LENGTH	PART No.	QTY.
10-24	3/4	69499-4	1,000
	1-1/4	69501	100
	1-1/2	69502	100
	1-1/2	69503	1,000



SELF DRILLING SCREWS

HEX HEAD PHILLIPS SELF-DRILLING SCREW WITH NEOPRENE WASHER

- Also known as Tek screw.
- Zinc plated.



SIZE	LENGTH	HEAD SIZE	PART No.	QTY.	HEX DRIVE TOOL PART No.
10"	5/8	5/16	69180	100	66461
	3/4	5/16	69181	100	66461
12"	3/4	5/16	69191	100	66461
	1"	5/16	69216	100	66461
	1"	5/16	69216-4	3,000	66461
1/4	1"	3/8	69214	100	66462
	1-1/2	3/8	69217	100	66462

METRIC HEX HEAD SELF DRILLING SCREW WITH SEMS®

- Also known as Tek screw.
- Phosphate finish.



SIZE	LENGTH	HEX A/F	WASHER	PART No.	QTY.
4.2-1.41	16mm	7mm	12mm	890133	50
	20mm	7mm	12mm	890260	50

THREAD CUTTING SCREWS

HEX WASHER HEAD THREAD CUTTING - TYPE F

- Zinc plated.

SIZE	LENGTH	PART No.	QTY.
6-32	1/2	69119	100
	3/4	69120	100
	1/4	69122	100
8-32	3/8	69123	100
	1/2	69124	100
	3/4	69138	100
10-24	1"	69139	100
	3/8	69126	100
	1/2	69127	100
	3/4	69125	100
10-32	1"	69141	100
	1/4	69140	100
	3/8	69142	50
1/4-20	1/2	69128	50
	3/4	69129	50
	1"	69130	50
	1-1/4	69131	50
5/16-18	1/2	69143	50
	3/4	69132	50
	1"	69133	50
	1-3/4	69188	50
3/8-16	2"	69187	50
	3/4	69134	25
	1"	69135	25
	1-1/4	69136	25
	1-1/2	69137	25



THREAD CUTTING SCREWS TYPE F

- Zinc plated.
- Metal screws fail because of the torque being applied and low holding power.

SIZE	LENGTH	SLOTTED Hd PART No.	PHILLIPS Hd PART No.	QTY.
6-32	3/4	69101	—	100
	1/2	69102	69099	100
8-32	3/4	69103	—	100
	1/2	69104	69115	100
	3/4	69105	69116	100
10-24	1"	69106	69117	100
	1-1/4	—	69114	100
	1-1/2	—	69207	50
	1-3/4	—	69208	50
10-32	1/2	69108	—	100
	3/4	69109	—	100
12-24	1/2	—	69144	50
	3/4	—	69145	50
1/4-20	3/4	69110	—	50
	1"	69111	—	50
	1-1/4	69112	—	50
	1-1/2	69113	—	50



SLOTTED INDENTED HEX WASHER HEAD TYPE 23

- Hardened steel.
- Zinc plated.

SIZE	LENGTH	PART No.	QTY.
10-32	1/2	69205	5,000



★ Unplated

LAG SCREWS

LAG SCREWS

- Hex head.
- Gimlet point.
- Zinc plated.



DIA.	HEX SIZE	PART No.	QTY.
1/4	1"	67104	100
	1-1/4	67105	100
	1-1/2	67106	100
	2"	67108	100
5/16	2-1/2	67110	100
	3"	67112	100
	3-1/2	67114	100
	4"	67116	100
	1"	67125	100
	1-1/2	67127	100

DIA.	HEX SIZE	PART No.	QTY.
5/16	2"	67129	100
	2-1/2	67131	100
	3"	67133	100
	3-1/2	67134	100
	4"	67135	50
	4-1/2	67136	50
	5"	67137	50
	1-1/2	67150	100
	2"	67152	100
	2-1/2	67154	50
3/8	3"	67156	50
	3-1/2	67158	50

DIA.	HEX SIZE	PART No.	QTY.
3/8	4"	67160	50
	4-1/2	67161	50
	5"	67162	50
	5-1/2	67163	50
	6"	67164	50
	7"	67166	25
	8"	67168	25
	2-1/2	67202	50
1/2	3"	67204	50
	4"	67208	25
	6"	67212	10



SHEET METAL SCREWS

PHILLIPS HEAD SHEET METAL SCREWS

- Types A and AB threads.
- Zinc plated.



DIA.	LENGTH	PAN HD PART No.	FLAT HD PART No.	OVAL HD PART No.	QTY.
4	1/4	61350	—	—	100
	3/8	61351	—	—	100
	1/2	—	—	36336 C	100
	3/4	—	—	36337 C	100
	5/8	61353	—	—	100
6	1/4	61359	—	—	100
	3/8	61360	—	36338 C	100
	1/2	61361	—	63361	100
	5/8	—	—	63362	100
	3/4	61363	61513	63363	100
7	1"	61365	—	63365	100
	1-1/4	—	—	36339 C	100
	1-1/2	61367	—	36340 C	100
	1/2	61368	—	—	100
	3/4	61369	—	—	100
8	1"	61370	—	—	100
	3/8	61371	61518	63379	100
	1/2	61372	61519	63372	100
	5/8	61373	61520	63373	100
	3/4	61374	61521	63374	100
10	1"	61376	61522	63376	100
	1-1/4	61377	61523	63377	100
	1-1/2	61378	61524	63378	100
	1-3/4	61379	—	—	100
	2"	61380	61525	—	100
12	2-1/2	61382	—	—	100
	3/8	61383	—	—	100
	1/2	61384	—	63384	100
	5/8	61385	—	63385	100
	3/4	61386	61528	63386	100
14	3/4	61427	—	—	100
	1"	61387	61530	63387	100
	1"	61427	—	—	100
	1-1/4	61388	61531	63388	100
	1-1/2	61389	61532	63389	100
16	1-3/4	61390	61533	—	100
	2"	61391	61534	63391	100
	2-1/2	—	61539	—	50
	1/2	61396	—	—	100
	5/8	61397	—	—	100
18	3/4	61398	61535	63398	100
	1"	61399	61536	63399	100
	1-1/4	61400	61537	—	100
	1-1/2	61401	—	—	100
	2"	61403	—	—	100
20	1/2	61408	—	—	100
	5/8	61409	—	—	100
	3/4	61410	61538	—	100
	3/4	61410-4	—	—	1,000
	1"	61411	61540	—	100
22	1-1/4	61412	61541	—	100
	1-1/2	61413	61542	—	100
	1-3/4	61414	—	—	100
	2"	61415	61544	—	100
	2-1/2	61417	—	—	50
3"	61419	—	—	50	

C - Chrome Plated

SLOTTED HEAD SHEET METAL SCREWS

- Types A and AB threads.
- Zinc plated.



DIA.	LENGTH	PAN HEAD PART No.	FLAT HEAD PART No.	QTY.
4	1/2	60354	—	100
	3/4	60356	—	100
	1/4	60359	—	100
6	3/8	60360	—	100
	1/2	60361	65361	100
	3/4	60363	65363	100
	1"	60365	65365	100
	1-1/4	60340	—	100
7	1/2	60366	—	100
	3/4	60368	—	100
	1"	60369	—	100
	1/4	60370	—	100
	3/8	60371	—	100
8	1/2	60372	65372	100
	5/8	60373	—	100
	3/4	60374	65374	100
	1"	60376	65376	100
	1-1/4	60377	—	100
10	1-1/2	60378	—	100
	3/8	60383	—	100
	1/2	60384	—	100
	5/8	60385	—	100
	3/4	60386	65386	100
12	1"	60387	65387	100
	1-1/4	60388	65388	100
	1-1/2	60389	65389	100
	1-3/4	60390	—	100
	2"	60391	65391	100
14	1/2	60396	—	100
	5/8	60397	—	100
	3/4	60398	65398	100
	1"	60399	65399	100
	1-1/4	60400	65400	100
16	1-1/2	60401	65401	100
	2"	60403	—	100
	1/2	60408	—	100
	5/8	60409	—	100
	3/4	60410	65410	100
18	1"	60411	65411	100
	1-1/4	60412	—	100
	1-1/2	60413	65413	100
	2"	—	65415	100

PHILLIPS HEAD SHEET METAL SCREWS

- Types A and AB threads.
- Black oil plated.



DIA.	LENGTH	PAN HD PART No.	FLAT HD PART No.	OVAL HD PART No.	QTY.
4	3/8	62364	—	—	100
	1/2	62365	—	—	100
	1/2	62361	—	62561	100
6	5/8	62362	—	62562	100
	3/4	62363	—	62563	100
	1"	—	—	62565	100
	1-1/4	—	—	62566	100
	1/2	62372	61516	—	100
8	5/8	62385	—	62573	100
	11/16	—	—	—	100
	3/4	62374	—	62574	100
	1"	62376	—	62576	100
	1-1/4	62389	—	—	50
10	1-1/4	62377	—	62577	100
	1-1/2	62378	—	62578	100
	1-3/4	—	—	62579	100
	1/2	62384	—	62584	100
	3/4	62386	—	62586	100
12	7/8	62383	—	—	100
	1"	62388	—	62587	100
	1-1/2	—	—	62589	100
	5/8	62397	—	—	100
	1"	62399	—	—	100
14	3/4	62410	—	—	100
	1"	62411	—	—	100

PHILLIPS HEAD SHEET METAL SCREWS

- Undersize head.
- Types A and AB threads.
- Oval Head.



DIA.	HEAD	LENGTH	CHROME PART No.	BLACK OIL PART No.	QTY.
8	6	1/2	—	62672	100
8	6	3/4	62350	62674	100
8	6	1"	62351	62675	100
8	6	1-1/4	62352	890255	100
8	6	1-1/2	—	62677	100
10	8	3/4	62353	—	100
10	8	1"	62354	—	100

Phillips and Standard Drive Bits are located on page A25.



TRIM SCREWS

WASHER HEAD TRIM SCREWS STANDARD

DIA.	LENGTH	WASHER O.D.	HEAD STYLE	DRIVE STYLE	POINT STYLE	FINISH	PART No.	QTY.
8	1/2	13/32	Oval	Phillips	Drill	Black	890628	100
8-18	3/4	Countersunk	Oval	Phillips	Screw	Black	890540	100
8	1/2	1/2	Pan	Phillips	Tap	Black	890783	50
8	1/2	31/64	Washer	Phillips	Screw	Black	890922	100
8	1/2	13/32	Washer	Phillips	Teks	Zinc	890529	100
8-18	7/16	7/16	Washer	Phillips	Teks	Black	890220	100
8	1/2	7/16	Washer	Phillips	Teks	Zinc	891014	50
8-18	3/8	7/16	Round	Phillips	Drill	Chrome	890807	50
8-18	1/2	1/2	Round	Phillips	Screw	Zinc	890806	100
8-18	1"	7/16	Round	Pozi	Screw	Black	891096	100
8	3/4	7/16	Round	Phillips	Teks	Zinc	891139	50

WASHER HEAD TRIM SCREWS METRIC

DIA.	LENGTH	WASHER O.D.	HEAD STYLE	DRIVE STYLE	POINT STYLE	FINISH	PART No.	QTY.
M4.2 - 1.41	13mm	8.5mm	Round	Phillips	Pozi	Black	891307	100
M4.2 - 0.79	15mm	11mm	Round	Phillips	Screw	Black	890805	100
M4.2 - 1.41	15mm	11mm	Pan	Phillips	Tap	Zinc	890342	100
M4.2 - 1.41	13mm	11mm	Washer	Phillips	Screw	Zinc	5502	100
M4.2 - 1.41	16mm	11mm	Washer	Phillips	Teks	Black	890221	100



PHILLIPS WASHER HEAD TRIM SCREWS

- Black phosphate or chrome finish.

DIA.	LENGTH	FINISH	PART No.	QTY.
6	5/8	Black	5031	100
	3/4	Black	5040	100
	1"	Black	5044	100
	1-1/2	Black	5046	100
8	5/8	Black	5051	100
	5/8	Chrome	5055	100
	3/4	Black	5052	100
	3/4	Chrome	5056	100
	1"	Black	5053	100
	1"	Chrome	5057	100
	1-1/4	Black	5054	100
	1-1/4	Chrome	5058	100
10	5/8	Black	5060	50
	3/4	Black	5059	50
	1"	Black	5061	50
	1"	Chrome	4929	50
	1-1/4	Black	5062	50



TORX® DRIVE TRIM SCREWS

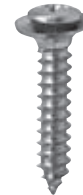
DIA.	LENGTH	HEAD STYLE	FINISH	PART No.	QTY.
M4.2 - 1.41	55mm	Pan	Black	891523	50
M4.2 - 1.41	30mm	Oval	Black	890333	50
8	3/4	Pan	Zinc	62662	50
10-16	3/4	Oval	Chrome	6498	50



PHILLIPS SEMS® FLUSH WASHER HEAD SHEET METAL SCREWS

- Chrome finish.
- Oval head.

DIA.	HEAD SIZE	LENGTH	PART No.	QTY.
8	6	7/8	891643	100



PHILLIPS SEMS® FLUSH WASHER HEAD SHEET METAL SCREWS

- Black oxide finish.
- Oval head.

DIA.	LENGTH	PART No.	QTY.
8	11/16	62593	100
8	7/8	890227	100
8	1"	62596	100
8	1"	890589	50



PHILLIPS SEMS® TEK® FINISHING SCREW

- Black oxide finish.
- Oval head.

HEAD	DIA.	LENGTH	PART No.	QTY.
6	8	3/4	890926	100



PHILLIPS SEMS® TEK® TRIM SCREWS

- Oval Head.
- Countersunk.

DIA.	LENGTH	COLOR	PART No.	QTY.
8	3/4	Black	5065	100
	3/4	Chrome	5066	100
	1	Black	5092	50
	1-1/4	Black	5142	50



PHILLIPS FLAT TOP TRIM SCREWS

- Black phosphate or zinc finish.

DIA.	LENGTH	BLK PHOS PART No.	ZINC PART No.	QTY.
8	5/8	4919-1	—	100
	1/2	4923	—	100
	3/4	4920	—	100
	1"	4921	—	100
	1-1/4	4922	—	50
	1-1/2	4932	—	50
10	3/4	4925	4928	50
	1"	4926	—	500
	1"	4926-1	891515	100
	1-1/4	4927	—	50
	1-1/2	—	891516	100



TORX® TRIM SCREW

- Chrome finish.
- Oval head.

DIA.	LENGTH	PART No.	QTY.
4.2 x 1.41	20mm	891798	25



TORX® DRIVE TRIM SCREW

- Black zinc plating.

DIA.	LENGTH	PART No.	QTY.
10	3/4	5143	100



FASTENERS

A30

HEX SHEET METAL SCREWS

HEX SHEET METAL SCREWS

- Slotted Washer and Hex Head Styles.
- Types A and AB threads.
- Zinc plated.



DIA.	LENGTH	HEX SIZE	SLOTTED WASHER PART No.	HEX PART No.	QTY.
6	3/8	1/4	60263	—	100
	1/2	1/4	60264	—	100
	3/4	1/4	60266	—	100
	1"	1/4	60267	—	100
8	3/8	1/4	60271	66371	100
	1/2	1/4	60272	66372	100
	5/8	1/4	60273	—	100
	3/4	1/4	60274	66374	100
	3/4	1/4	—	99961	5000
	1"	1/4	60276	66376	100
	1"	1/4	—	99962	5000
	1-1/4	1/4	60277	—	100
	1-1/2	1/4	60278	—	100
	1-1/2	1/4	—	99964	2500
	2"	1/4	—	99966	2000
	3"	1/4	—	99968	1000
10	3/8	5/16	60283	—	100
	1/2	5/16	60284	66384	100
	5/8	5/16	60285	66385	100
	3/4	5/16	60286	66386	100
	1"	5/16	60287	66387	100
	1-1/4	5/16	60288	—	100
	1-1/2	5/16	60289	—	100
	2"	5/16	60291	—	100
	3"	5/16	60293	—	100

DIA.	LENGTH	HEX SIZE	SLOTTED WASHER PART No.	HEX PART No.	QTY.
12	1/2	5/16	60296	66396	100
	3/4	5/16	60298	66398	100
	1"	5/16	60299	66399	100
	1-1/4	5/16	60300	—	100
	1-1/2	5/16	60301	—	100
14	1/2	3/8	60308	66408-2	100
	5/8	3/8	60309	66409-2	100
	3/4	3/8	60310	66410-2	100
	1"	3/8	60311	66411-2	100
	1-1/4	3/8	60312	66412-1	100
	1-1/2	3/8	60313	66413-2	100
	3"	3/8	60317	—	100
5/16	1/2	1/2	60320	66431	100
	3/4	1/2	60322	66432	100
	1"	1/2	60324	66433	50
	1-1/4	1/2	60325	66434	50
3/8	1-1/2	1/2	60326	—	50
	3/4	9/16	—	66439	50
	1"	9/16	—	66440	50
	1-1/4	9/16	—	66441	50
	1-1/2	9/16	—	66442	50

DRILL SCREWS

- Slotted-hex, washer-head. Smooth, sharp well-formed threads.
- Hardened, zinc-plated. Well-filled driving faces.
- Unique uniform drill point.



DIA.	LENGTH	HEX SIZE	PART No.	QTY.
6	3/8	1/4	66450	100
7	1/2	1/4	66451	100
8	1/2	1/4	66452	100
	3/4	1/4	66453	100
10	1/2	1/4	66454	100
	3/4	1/4	66455	100

DRYWALL SCREWS

PHILLIPS FINE DRYWALL SCREWS

- Phillips bugle head.
- Black phosphate.
- Sharp point. Fine thread style for fastening drywall to metal up to 24" gauge thick.

DIA.	LENGTH	PART No.	QTY.	DIA.	LENGTH	PART No.	QTY.
6	3/4	12900	100	7	2-1/4	12909	100
	1"	12901	100		8	2"	12930-4
	1-1/8	12902	100	2-1/2		12911	50
	1-1/4	12903	100			3"	12912-4
	1-5/8	12905	100	10			3"
	2"	12907	100		3-3/4	12914	50
2"	12907-4	1000					



PHILLIPS COARSE DRYWALL SCREWS

- Phillips bugle head.
- Black phosphate.
- Fastens drywall to wood studs.

DIA.	LENGTH	PART No.	QTY.
6	1-5/8	12925	50
	1-5/8	12925-4	5000
	2"	12930-4	3500
8	2-1/2	12931	50
	2-1/2	12931-4	2500
	3"	12932	50
	3"	12932-4	2000



WOOD SCREWS

SQUARE DRIVE DECK SCREWS

- Bugle head. Coarse thread, sharp point.
- Hardened steel. Dacrotized finish for high corrosion protection that reduces brittleness.

DIA.	LENGTH	PART No.	QTY.
6	1"	12885	100
	1-1/4	12887	100
	2"	12889	100
8	3"	12892	100
	3	12960	100
10	4"	12894	100



PHILLIPS WOOD SCREW

- Flat head.
- Zinc plated.

DIA.	LENGTH	PART No.	QTY.
10	2-1/2	67220	100



PHILLIPS MACHINE SCREWS

PHILLIPS MACHINE SCREWS

- Zinc plated.



DIA.	LENGTH	PAN HEAD PART NO.	FLAT HD PART NO.	QTY.
4-40	3/8	34396	—	100
	1/4	34400	—	100
	3/8	34402	36033	100
6-32	1/2	34404	36034	100
	3/4	34406	36036	100
	1"	34408	36038	100
	1-1/2	34410	—	100
8-32	1/4	34415	—	100
	3/8	34417	36045	100
	1/2	34418	36046	100
	5/8	—	36047	100
	3/4	34420	36048	100
	1"	34422	36050	100
	1-1/4	—	36051	100
	1-1/2	34424	36052	100
	2"	34426	—	100
	1/4	34430	—	100
10-24	3/8	34432	—	100
	1/2	34433	36058	100
	5/8	—	36059	100
	3/4	34435	36060	100
	1"	34437	36062	100
	1-1/4	34438	36063	100
	1-1/2	34439	36064	100
	2"	34441	36066	100
	2-1/2	34442	—	100
	3"	34443	—	100



DIA.	LENGTH	PAN HEAD PART NO.	FLAT HD PART NO.	QTY.
10-32	1/4	34444	—	100
	3/8	34446	36065	100
	1/2	34447	36072	100
	5/8	34448	36073	100
	3/4	34449	36074	100
	1"	34451	36077	100
	1-1/4	34452	—	100
	1-1/2	34453	36080	100
	2"	34455	36082	100
	2-1/2	34456	—	100
12-24	3"	34458	—	100
	1/2	34457	—	100
	3/4	34459	—	100
	1"	34461	—	100
	1-1/4	34462	—	100
	1-1/2	34463	—	100
	2"	34464	—	100
	1/2	34465	36086	100
	5/8	—	36087	100
	3/4	34467	36088	100
1/4-20	1"	34469	36089	100
	1-1/4	—	36090	100
	1-1/2	34471	36091	100
	2"	34474	36092	100
	2-1/2	34476	—	100
	3"	34478	—	100
	1-1/4	—	36126	100
	1-1/2	34484	36127	100
	2"	34486	—	100

PHILLIPS MACHINE SCREWS

- Zinc plated.



DIA.	LENGTH	TRUSS HD PART NO.	OVAL HD PART NO.	QTY.
6-32	5/8	—	32310	100
	1"	—	32311	100
	1-1/4	—	890272	100
8-32	5/8	—	32321	100
	3/4	—	890273	100
10-24	1-1/4	—	890274	100
	1/2	32278	—	100
12-24	3/4	32279	—	100
	1/2	—	36084	50
1/4-20	1"	32272	—	100

HEX MACHINE SCREW NUTS

- Zinc plated.

DIA.	PART No.	QTY.
4-40	53100	200
5-40	53107	200
6-32	53101	200
8-32	53102	200
10-32	53103	200
10-24	53104	200
12-24	53105	200
1/4-20	53106	200



STAR DRIVE MACHINE SCREWS

STAR DRIVE MACHINE SCREWS

- Zinc plated.
- Heat treated.

DIA.	LENGTH	HEAD STYLE	BIT SIZE	PART No.	QTY.
1/4-20	1"	Pan	T-30	69270	50
	1"	Button	T-45	69292	50
	1"	Button	T-45	69292-4	1,500
3/8-16	1-1/4	Button	T-45	69274	50
	1-1/2	Truss	T-45	69265	50
	2"	Button	T-45	69266	50
3/8-24	1-1/4	Button	T-45	69274-2	50



Torx® and Phillips Drive Bits are located on page A25.

STAR DRIVE MACHINE SCREWS WITH O-RING AND SCOTCH GRIP

- Zinc plated.
- Grade 5.1.

DIA.	LENGTH	HEAD STYLE	BIT SIZE	PART No.	QTY.
3/8-16	1"	Button	T-40	6497	100



Scott
Dedicated Service Advisor

Diligent...

"My customers want it all. And I don't blame them. It's all about delivering real value."



FASTENERS

A32

SLOTTED MACHINE SCREWS

SLOTTED MACHINE SCREWS

• Zinc plated.



DIA.	LENGTH	ROUND HEAD PART NO.	FLAT HEAD PART NO.	TRUSS HEAD PART NO.	QTY.
4-40	1/4	34039	—	—	100
	1/2	34041	35025	—	100
	3/4	34024	—	—	100
6-32	1"	34043	—	—	100
	1/4	34044	—	—	100
	3/8	34045	—	—	100
8-32	1/2	34046	35034	—	100
	5/8	34047	—	—	100
	3/4	34048	—	—	100
	1"	34050	—	—	100
	1-1/4	34101	—	—	100
	1-1/2	34103	—	—	100
	2"	34164	—	—	100
10-24	1/4	34055	—	—	100
	3/8	34056	—	—	100
	1/2	34057	35047	—	100
	5/8	34058	—	—	100
	3/4	34059	35049	—	100
	1-1/4	34062	—	—	100
	1-1/2	34063	—	—	100
12-24	2"	34065	—	—	100
	2-1/2	34171	—	—	100
	3"	34172	—	—	100
	1/4	34173	—	—	100
	3/8	34077	—	—	100
	1/2	34078	35078	—	100
	5/8	34078-1	—	—	100
14-20	3/4	34079	35079	—	100
	1"	34080	35080	32080	100
	1-1/4	34081	35081	—	100
	1-1/2	34082	35082	—	100
	1-3/4	34083	—	—	100
	2"	34084	35084	—	100
	2-1/2	34086	—	—	100
3"	34088	—	—	100	



DIA.	LENGTH	ROUND HEAD PART NO.	FLAT HEAD PART NO.	TRUSS HEAD PART NO.	QTY.
10-32	1/4	34066	—	—	100
	3/8	34067	—	—	100
	1/2	34068	35066	—	100
	5/8	34069	—	—	100
	3/4	34070	35068	—	100
12-24	1"	34071	35070	—	100
	1-1/4	34072	—	—	100
	1-1/2	34073	35073	—	100
	2"	34075	—	—	100
	2-1/2	34141	—	—	100
	3"	34143	—	—	100
	3/8	34090	—	—	100
14-20	1/2	34092	35092	—	100
	3/4	34093	35093	—	100
	1"	34094	35094	—	100
	1-1/4	34095	—	—	100
	1-1/2	34096	—	—	100
	2"	34098	—	—	100
	3/8	34099	—	—	100
16-18	1/2	34100	35100	32100	100
	3/4	34102	35102	32102	100
	1"	34104	35104	32104	100
	1-1/4	34105	35105	32106	100
	1-1/2	34106	35106	32108	100
	1-3/4	34107	35107	32110	100
	2"	34108	35108	32112	100
18-20	2-1/2	34110	35110	—	100
	3"	34112	35112	—	100
	3-1/2	34114	—	—	100
	4"	34116	—	—	100
	1/2	34121	35121	—	100
	3/4	34123	35123	—	100
	1"	34125	35125	32124	100
20-24	1-1/4	—	—	32125	100
	1-1/2	34127	35127	32127	100
	1-3/4	—	—	32129	100
	2"	34129	35129	32131	100
	3/4	—	—	32133	100
	1"	—	35148	32135	100
	1-1/4	—	—	32137	100
24-28	1-1/2	—	—	32139	100
	2"	—	—	32141	100



See page A25 for Slotted Drive Bits available in many sizes.

HEX SLOTTED HEAD MACHINE SCREW

• Zinc plated.



DIA.	LENGTH	HEX SLOTTED PART NO.	QTY.
1/4-20	1/2	69310	100

HEX HEAD MACHINE SCREWS

• Zinc plated.



DIA.	LENGTH	HEX HEAD PART NO.	QTY.
8-32	1/2	32066	100
10-24	1"	32380	100



CALL 1-800-558-2808 / FAX 1-800-553-8769 / WWW.IMPERIALSUPPLIES.COM

10.9 METRIC FASTENERS

10.9 METRIC HEX HEAD CAP SCREWS (DIN)

- 150,000 psi.
- Zinc plated.



PROPERTY CLASS
10.9



DIA.	LENGTH	PART No.	QTY.
M5-0.80 USS	12mm	15106 ★	50
	16mm	15107 ★	50
	20mm	15109 ★	50
	35mm	15112 ★	50
	10mm	15114	50
	12mm	15115	50
	16mm	15117	50
	18mm	15117-1	50
	20mm	15118	50
	25mm	15120	50
DIN M6-1.00 USS	30mm	15121	50
	30mm	15122	50
	35mm	15123	50
	40mm	15124	50
	45mm	15119	50
	45mm	15125	50
	50mm	15126	50
	60mm	15128	50
	65mm	15129	50
	70mm	15131	50
DIN M8-1.25 USS	75mm	15130 ★	50
	10mm	15148	50
	12mm	15149	50
	16mm	15150	50
	20mm	15152	50
	25mm	15154	50
	30mm	15155	50
	35mm	15156	50
	40mm	15157	50
	45mm	15158	50
DIN M12-1.75 USS	50mm	15159	50
	55mm	15160	50
	60mm	15161	50
	65mm	15162	50
	70mm	15163	50
	75mm	15164	50
	80mm	15165	50
	85mm	15166 ★	50
	90mm	15167	50
	100mm	15168	25
DIN M14-2.00 USS	120mm	15171	25
	150mm	15173	25

★ Unplated

★★ Black



DIA.	LENGTH	PART No.	QTY.
DIN 25 M10-1.00	30mm	14174 ★	25
SAE	35mm	14175 ★	25
	20mm	14170-1	25
	25mm	14172-1	25
	30mm	14174-1	25
	35mm	14175-1	25
	40mm	14176-1	25
	80mm	14184-1	25
	12mm	15468 ★	25
	16mm	15469	25
	20mm	15470	25
DIN M10-1.25 SAE	25mm	15472	25
	30mm	890888 ★★	25
	30mm	15474	25
	35mm	15475	25
	40mm	15476	25
	45mm	15477	25
	50mm	15478	25
	55mm	15479	25
	60mm	15480	25
	65mm	15481	25
DIN M10-1.50 USS	70mm	15482	25
	80mm	15484	25
	90mm	15486	25
	100mm	15485	25
	110mm	15487	25
	120mm	15488	25
	130mm	15185	25
	140mm	15189	10
	150mm	15190	5
	150mm	15192 ★	5
DIN M12-1.50 SAE	160mm	15188	5
	5mm	15209	25
	20mm	15491	25
	25mm	15493	25
	30mm	15495	25
	35mm	15496	25
	40mm	15497	25
	45mm	15498	25
	50mm	15499	25
	55mm	15500	25
DIN M12-1.75 USS	60mm	15501	25
	70mm	15503	25
	75mm	15504	25
	80mm	15505	25
	90mm	15507	10
	100mm	15509	10
	110mm	15510	10
	120mm	15512	5
	150mm	15514 ★	5
	50mm	15220	10
M14-1.50 SAE	60mm	15222	10

DIA.	LENGTH	PART No.	QTY.
DIN M14-2.00 USS	20mm	15213	10
	25mm	15214	10
	30mm	15215	10
	35mm	15216	10
	40mm	15217	10
	45mm	15218	10
	50mm	15219	10
	60mm	15221	10
	70mm	15223	10
	80mm	15225	10
DIN M16-2.00 USS	90mm	15227	10
	90mm	15227-1 ★	10
	100mm	15229	10
	120mm	15231	10
	150mm	15234 ★	5
	150mm	15235 ★	5
	20mm	15239 ★	10
	25mm	15240 ★	10
	30mm	15241	10
	35mm	15242	10
DIN M16-2.50 USS	40mm	15243	10
	45mm	15244	10
	50mm	15245	10
	55mm	15246	10
	60mm	15247	10
	70mm	15249	5
	80mm	15251	5
	90mm	15253	5
	100mm	15254	5
	110mm	15255	5
DIN M18-2.50 USS	120mm	15256	5
	130mm	15257	5
	160mm	15260	5
	230mm	15267	2
	40mm	15266	5
	50mm	15269	5
	60mm	15271	5
	70mm	15273	5
	80mm	15275	5
	140mm	15278	10
DIN M20-2.50 USS	30mm	15280	5
	40mm	15282	5
	50mm	15284	5
	60mm	15286	5
	70mm	15288	5
	80mm	15290	5
	90mm	15292	5
	100mm	15293	5
	110mm	15294	5
	120mm	15295	5
DIN M24-3.00 USS	130mm	15296	5
	140mm	15297	5
	230mm	15306 ★	2
	260mm	15309 ★	2
	40mm	15320	5
	50mm	15322	5
	60mm	15324	5
	70mm	15326	5
	80mm	15328	5
	100mm	15332	5

Item is either a full or partial thread depending on manufacturer availability.



10.9 METRIC FASTENERS

METRIC FLANGE BOLTS

- DIN 6921.
- Plating: Black phosphate

PROPERTY CLASS
10.9

DIA. / PITCH	LENGTH	PART No.	QTY.
M6-1.00	12 mm	15601	100
	16 mm	15602	100
	20 mm	15603	100
	25 mm	15604	100
	30 mm	15605	100
	35 mm	15606	100
M8-1.25	40 mm	15607	100
	20 mm	15610	100
	20mm	45415 ★	50
	25 mm	15611	100
	30 mm	15612	50
	35 mm	15613	50
M10-1.5	40 mm	15614	50
	45 mm	15615	50
	50 mm	12805	10
	50 mm	12805-1	25
	60 mm	15616	25



DIA. / PITCH	LENGTH	PART No.	QTY.
M10-1.5	20 mm	15620	50
	25 mm	15621	50
	30 mm	15622	50
	35 mm	15623	50
	40 mm	15624	50
	45 mm	15625	50
M10-1.5	50 mm	15626	25
	60 mm	15627	25
	70 mm	15628	25
	80 mm	15629	25
	30 mm	15635	25
	35 mm	15636	25
M12-1.75	40 mm	15637	25
	50 mm	15639	25
	60 mm	15641	25
	70 mm	15643	25
	80 mm	15645	25
	90 mm	15647	10
M16-2.00	100 mm	15649	10
	40 mm	15655	10
	50 mm	15657	5
	100 mm	15667	5
	120 mm	15671	5

★ Zinc plated

10.9 METRIC HEX HEAD CAP SCREWS (ANSI/ISO)

- 150,800 psi.
- Small head.
- Class 10.9 - Standard Pitch.
- Zinc plated.



PROPERTY CLASS
10.9

DIA. / PITCH	LENGTH	PART No.	QTY.
ISO M10	16mm	15169	25
	20mm	15170	25
	25mm	15172	25
	30mm	15174	25
	35mm	15175	25
	40mm	15176	25
1.50 Pitch	45mm	15177	25
	50mm	15178	25
	55mm	15179	25
	60mm	15180	25
	70mm	15182	25
	80mm	15184	25
1.75 Pitch	90mm	15186	25
	110mm	15187	25

DIA. / PITCH	LENGTH	PART No.	QTY.
ISO M12	20mm	15191	25
	25mm	15193	25
	30mm	15195	25
	35mm	15196	25
	40mm	15197	25
	45mm	15198	25
1.75 Pitch	50mm	15199	25
	55mm	15200	25
	60mm	15201	25
	70mm	15203	25
	75mm	15204	25
	80mm	15205	25
90mm	15207	10	

METRIC FLANGE NUT

- Made to DIN 6921 standard.
- Plating: Black phosphate

DIA. / PITCH	PART No.	QTY.
M6-1.0	15680	50
M8-1.25	15681	50
M10-1.50	15682	50
M12-1.75	15683	50
M16-2.0	15684	25



PROPERTY CLASS
10.9

10.9 METRIC FLANGE BOLT

- Class 10.9.
- JIS head.
- Clear zinc plating.



PROPERTY CLASS
10.9

DIA. / PITCH	LENGTH	PART No.	QTY.
M6-1.0	12mm	45486	100
	16mm	891671	50
	20mm	891673	50
	25mm	45489	100
	30mm	45490	100
	35mm	45492	100
M8-1.25	40mm	45493	100
	12mm	45494	25
	16mm	45495	15
	20mm	45478	50
	25mm	45479	100
	30mm	45480	50
M10-1.25	35mm	45481	100
	40mm	45482	50
	45mm	45483	50
	50mm	45484	50
	60mm	45485	50

DIA. / PITCH	LENGTH	PART No.	QTY.
M10-1.25	16mm	45431	50
	20mm	45422	50
	25mm	45423	50
	30mm	45420	50
	35mm	45425	100
	40mm	45424	50
M10-1.25	40mm	45430	100
	45mm	45428	100
50mm	45426	50	



Bill
Dedicated Service Advisor

Loyal...

"I work for my customers. That's how I look at it, because it's true. I have a role to play in their success."

Experience our dedicated customer service.



NUTS USED WITH 10.9 METRIC FASTENERS

METRIC NYLON INSERT LOCK NUTS

- DIN 985.
- Zinc plated.



PROPERTY CLASS
10

DIA./PITCH	WIDTH ACROSS FLATS	NOMINAL THICKNESS	PART No.	QTY.
M5-0.80	8mm	5mm	12569	50
M6-1.00	10mm	6mm	12570	50
M8-1.25	13mm	7.5mm	12572	50
M10-1.50	17mm	9mm	12573	50
M12-1.75	19mm	11mm	12574	50
M14-2.00	22mm	14mm	12575	50
M16-2.00	24mm	14mm	12576	25
M20-2.50	30mm	16mm	12577	25

METRIC PREVAILING TORQUE LOCK NUTS

- DIN 980V.
- Zinc plated.



PROPERTY CLASS
10

DIA./PITCH	WIDTH ACROSS FLATS	NOMINAL THICKNESS	PART No.	QTY.
M6-1.00	10mm	6mm	12510	50
M8-1.25	13mm	8mm	12511	50
M10-1.50	17mm	10mm	12512	25
M12-1.75	19mm	12mm	12513	25
M14-2.00	22mm	14mm	12514	10
M16-2.00	24mm	17mm	12515	10
M20-2.50	30mm	20mm	12517	5

METRIC HEX NUTS

- DIN 934 and ANSI Styles.
- Zinc plated.



PROPERTY CLASS
10

DIA./PITCH	WIDTH ACROSS FLATS	THICKNESS	PART No.	QTY.
Coarse Pitch				
M5-0.80	8mm	4mm	12449	50
M6-1.00	10mm	5mm	12450	50
M7-1.00	11mm	5.5mm	12451	50
M8-1.25	13mm	6.5mm	12452	50
M10-1.50	16mm	8mm	12453 ◆	50
M10-1.50	17mm	8mm	12457	50
M12-1.75	18mm	10mm	12454 ◆	50
M12-1.75	19mm	10mm	12459	50
M14-2.00	22mm	11mm	12455	25
M16-2.00	24mm	13mm	12456	25
M18-2.50	27mm	15mm	12460	25
M20-2.50	30mm	16mm	12458	25
M24-3.00	36mm	19mm	12466 ★	5
Fine Pitch				
M10-1.25	17mm	8mm	12463 ★	50
M12-1.50	19mm	10mm	12464 ★	50
Extra Fine Pitch				
M10-1.00	17mm	8mm	12462 ★	50
M12-1.25	19mm	10mm	12465 ★	50

- ★ Unplated
- ◆ ANSI Style



If you can't find the products you are looking for, call us, and we will find it for you.



Ray
Sales Trainer

Reliable...

“Continual product and sales training gives our Dedicated Service Advisors the expertise our customers value.”



METRIC WASHERS

METRIC FLAT WASHERS

- Strength is suited for high stress assemblies such as 8.8 or 10.9.
- Smooth, burr-free surface.
- Won't dish out.
- DIN 125.
- Zinc plated.



DIA.	PART No.	QTY.
M6	12620	50
M8	12621	50
M10	12622	50
M12	12623	25
M14	12624	25
M16	12625	25

METRIC FLAT WASHERS

- DIN 125.
- Low carbon.
- Zinc plated.



DIA.	I.D.	O.D.	PART No.	QTY.
M3	3.2mm	7mm	12611	50
M4	4.3mm	9mm	12600	50
M5	5.3mm	10mm	12601	50
M6	6.4mm	12mm	12602	50
M6	6.4mm	12mm	12602-4	1,000
M7	7.4mm	14mm	12603	50
M8	8.4mm	17mm	12604	50

DIA.	I.D.	O.D.	PART No.	QTY.
M10	10.5mm	21mm	12605	50
M10	10.5mm	21mm	12605-4	500
M12	13mm	24mm	12606	50
M14	15mm	28mm	12607	25
M16	17mm	30mm	12612	25
M18	19mm	34mm	12613	25
M20	21mm	37mm	12614	25
M22	23mm	39mm	12615	25
M24	25mm	44mm	12616	10

METRIC SPECIALTY WASHERS

METRIC RIB SPRING WASHERS

- Regular duty.
- Spring steel.
- Zinc plated.



DIA.	O.D.	I.D.	THICKNESS	PART No.	QTY.
M4	4.3mm	7mm		13405	100
M5	5.3mm	9mm		13406	100
M6	6.4mm	10mm		13407	100
M8	8.4mm	13mm		13409	100
M10	10.5mm	16mm		13410	100
M16	17mm	24mm		13413	25

METRIC FLAT WASHERS (LARGE I.D. SPECIFICATION)

- Alloy.
- Zinc plated.
- Outer Diameter: 43.30 – 44.00mm
- Inner Diameter: 25.60 – 26.12mm



DIA.	PART No.	QTY.
M24	12634	25

METRIC LOCK WASHERS

- DIN 127.
- Zinc plated.

DIA.	PART No.	QTY.
3mm	12711	50
4mm	12700	50
5mm	12701	50
6mm	12702	50
6mm	12702-4	1,000
7mm	12703	50
8mm	12704	50
10mm	12705	50
12mm	12706	50
14mm	12707	25
16mm	12712	25
18mm	12713	25
20mm	12714	25
22mm	12715	10
24mm	12716	10



METRIC COPPER WASHERS

- DIN 7603.



DIA.	I.D.	O.D.	THICKNESS	PART No.	QTY.
6mm	6.2mm	9.8mm	0.8mm	12640	100
8mm	8.2mm	11.8mm	0.8mm	12642	100
10mm	10.2mm	15.8mm	0.8mm	12643	100
12mm	12.2mm	17.8mm	1.4mm	12644	100
14mm	14.2mm	19.8mm	1.4mm	12645	100

9.8 METRIC FASTENERS

9.8 METRIC FLANGE BOLT

- Zinc plating.
- Property Class: 9.8



DIA.	LENGTH	PART No.	QTY.
M8 – 1.25	40mm	45496	25
M10 – 1.50	75mm	890870 ★	10

★ Unplated



Allen
Product Manager

Resourceful...

"It's all about doing my homework, looking for options and alternatives for my customers, finding the best quality at a reasonable price."



8.8 METRIC FASTENERS

8.8 METRIC HEX HEAD CAP SCREWS

- Diameter M4-M14: 116,000 psi
- Diameter M16 and up: 120,350 psi
- Zinc plated
- Property class 8.8.
- Item is either a full or partial thread depending on manufacturer availability.

PROPERTY CLASS
8.8



DIA.	LENGTH	PART NO.	QTY.	
M3 .50 Pitch	12mm	12079	50	
	16mm	12081	50	
	20mm	12083	50	
	25mm	12084	50	
	10mm	12095	50	
M4 .70 Pitch	12mm	12100	50	
	16mm	12101	50	
	20mm	12102	50	
	25mm	12103	50	
	30mm	12096	50	
	30mm	12098	50	
	35mm	12097	50	
	35mm	12099	50	
	10mm	12104	50	
	12mm	12105	50	
M5 .80 Pitch	16mm	12106	50	
	20mm	12107	50	
	25mm	12109	50	
	30mm	12111	50	
	30mm	12146	50	
	35mm	12112	50	
	40mm	12113	50	
	40mm	12147	50	
	45mm	12148	50	
	50mm	12153	50	
	55mm	12010	50	
	60mm	12011	50	
	10mm	12114	50	
	12mm	12115	50	
	16mm	12117	50	
	20mm	12118	50	
	25mm	12120	50	
	M6 1.00 Pitch	30mm	12122	50
35mm		12123	50	
40mm		12124	50	
45mm		12125	50	
50mm		12126	50	
65mm		12129	50	
70mm		12130	50	
75mm		12131	50	
85mm		12132	50	
120mm		12128	50	
130mm		12136	25	
12mm		12133	50	
16mm		12134	50	
M7 1.00 Pitch		20mm	12135	50
		25mm	12137	50
		30mm	12139	50
	40mm	12141	50	
	50mm	12143	50	

DIA.	LENGTH	PART NO.	QTY.
M8 1.25 Pitch	12mm	12149	50
	14mm	12151	50
	16mm	12150	50
	20mm	12152	50
	25mm	12154	50
	30mm	12155	50
	35mm	12156	50
	40mm	12157	50
	45mm	12158	50
	50mm	12159	50
	55mm	12160	50
	60mm	12161	50
	65mm	12162	50
	70mm	12163	50
	75mm	12164	50
M8 1.25 Std. Pitch	80mm	12165	50
	90mm	12167	50
	100mm	12168	50
	110mm	12232	25
	120mm	12233	25
	10mm	11151	50
M8 1.00 Fine Pitch	20mm	11152	50
	25mm	11154	50
	30mm	11155	50
	35mm	11156	50
	40mm	11157	50
	50mm	11159	50
	60mm	11160	50
	16mm	12169	50
	20mm	12170	50
	25mm	12172	50
30mm	12174	50	
35mm	12175	50	
40mm	12176-1	50	
40mm	12176	50	
45mm	12177	50	
50mm	12178	25	
55mm	12179	25	
60mm	12180	25	
65mm	12181	25	
70mm	12182	25	
75mm	12173	25	
80mm	12184	25	
85mm	12185	25	
90mm	12186	25	
100mm	12183	25	
110mm	12187	10	
130mm	12189	10	
160mm	12188	5	

DIA.	LENGTH	PART NO.	QTY.	
M10 1.25 Fine Pitch	20mm	11170-1	50	
	25mm	11172-1	50	
	30mm	11174-1	50	
	35mm	11175-1	50	
	40mm	11176-1	50	
	50mm	11178-1	25	
	60mm	12334	25	
	120mm	12335	25	
	M10 1.00 Extra Fine Pitch	20mm	11170	50
		25mm	11172	50
30mm		11174	50	
35mm		11175	50	
40mm		11176	25	
50mm		11178	25	
16mm		12190	25	
20mm		12191	25	
25mm		12193	25	
30mm		12195	25	
35mm		12196	25	
40mm		12197	25	
45mm		12198	25	
50mm		12199	25	
55mm		12200	25	
M12 1.75 Std. Pitch	60mm	12201	25	
	65mm	12202	25	
	70mm	12236	25	
	75mm	12204	25	
	80mm	12237	25	
	90mm	12207	25	
	100mm	12238	25	
	120mm	12239	25	
	20mm	11191-1	25	
	25mm	11193-1	25	
	30mm	11195-1	25	
	35mm	11196-1	25	
	40mm	11197-1	25	
	45mm	11192-1	25	
	50mm	11194-1	25	
55mm	11200-1	25		
M12 1.50 Fine Pitch	60mm	11198	25	
	70mm	11198-1	25	
	80mm	11199-1	25	
	90mm	11201-1	10	
	20mm	11191	25	
	25mm	11193	25	
	30mm	11195	25	
	35mm	11196	25	
	40mm	11197	25	
	50mm	11199	25	
	60mm	11200	25	
	20mm	12211	25	
	25mm	12213	25	
	30mm	12215	25	
	35mm	12216	25	
40mm	12217	25		
M14 2.00 Std. Pitch	45mm	12218	25	
	50mm	12219	25	
	55mm	12220	25	
	60mm	12221	25	
	65mm	12222	25	
	75mm	12224	25	
	90mm	12227	25	
	130mm	12231	25	

DIA.	LENGTH	PART NO.	QTY.
M14 1.50 Fine Pitch	30mm	11207	25
	35mm	11208	25
	40mm	11209	25
	50mm	11219	25
	60mm	11221	25
	75mm	11225	25
M16 2.00 Std. Pitch	25mm	12240	10
	30mm	12241	10
	35mm	12242	10
	40mm	12243	10
	45mm	12244	10
	50mm	12245	10
	55mm	12246	10
	60mm	12247	10
	70mm	12249	10
	80mm	12251	10
M16 1.50 Fine Pitch	90mm	12253	10
	100mm	12254	10
	110mm	12255	10
	150mm	12259	10
	30mm	11344-1	10
	45mm	11346-1	10
	60mm	11349-1	10
	30mm	12280	5
M20 2.50 Pitch	40mm	12282	5
	50mm	12284	5
	60mm	12286	5
	70mm	12288	5
	80mm	12290	5
	90mm	12292	5
	100mm	12293	5
	120mm	12295	5
M18 2.50 Pitch	140mm	12297	5
	30mm	12265	10
	40mm	12267	10
	50mm	12269	10
	60mm	12271	5
	80mm	12275	5
	90mm	12277	5
	50mm	12302	5
M22 2.50 Pitch	60mm	12304	5
	50mm	12322	5
M24 3.00 Pitch	60mm	12324	5
	70mm	12326	5
	80mm	12328	5

★ Unplated

See page A57 for
wrench size chart.



FASTENERS

A38

8.8 METRIC FASTENERS

8.8 METRIC HEX HEAD CAP SCREWS – JIS LOW

- Diameter M4-M14: 116,000 psi
- Diameter M16 and up: 120,350 psi
- Zinc plated.
- JIS B 1180 small head.
- Heat treated.
- Full thread.



PROPERTY CLASS
8.8

METRIC PITCH GAUGE



DIA.	LENGTH	PART No.	QTY.
M8 – 1.25	16 mm	891459	25
	20 mm	891460	25
	25 mm	891461	25
	30 mm	891462	25
	35 mm	891463	25
	40 mm	891464	25
	50 mm	891465	25

DIA.	LENGTH	PART No.	QTY.
M10 – 1.25	20 mm	891724	25
	25 mm	891715	25
	30 mm	891725	25
	35 mm	891726	15
	40 mm	891716	15
	45 mm	891727	15
	50 mm	891728	15
	60 mm	891729	10

DIA.	LENGTH	PART No.	QTY.
M12 – 1.25	30 mm	891730	100
	40 mm	891731	100
	50 mm	891732	100
	60 mm	891733	100

PART No.	QTY.
11111	1

NUTS USED WITH 8.8 METRIC FASTENERS

METRIC HEX NUTS

- DIN 934.
- Zinc plated.

PROPERTY CLASS
8



METRIC NYLON INSERT LOCK NUTS

- DIN 985.
- Zinc plated.

PROPERTY CLASS
8



DIA./PITCH	WIDTH ACROSS FLATS	THICKNESS	PART No.	QTY.
Coarse Pitch				
M3-0.50	5.5mm	2.4mm	12411	50
M4-0.70	7mm	3.2mm	12400	50
M5-0.80	8mm	4mm	12401	50
M6-1.00	10mm	5mm	12402	50
M6-1.00	10mm	5mm	12402-4	1,000
M7-1.00	11mm	5.5mm	12403	50
M8-1.25	13mm	6.5mm	12404	50
M10-1.50	17mm	8mm	12405	50
M10-1.50	17mm	8mm	12405-4	500
M12-1.75	19mm	10mm	12406	50
M14-2.00	22mm	11mm	12407	25
M16-2.00	24mm	13mm	12412	25
M18-2.50	27mm	15mm	12413	25
M20-2.50	30mm	16mm	12414	10
M22-2.50	32mm	18mm	12415	10
M24-3.00	36mm	19mm	12416	10
Fine Pitch				
M8-1.00	13mm	6.5mm	11404	50
M10-1.25	17mm	8mm	11405-1	50
M12-1.50	19mm	10mm	11406-1	50
M14-1.50	22mm	11mm	11407	25
M16-1.50	24mm	13mm	12412-1	25
Extra Fine Pitch				
M10-1.00	17mm	8mm	11405	50
M12-1.25	19mm	10mm	11406	50

DIA./PITCH	WIDTH ACROSS FLATS	THICKNESS	PART No.	QTY.
Coarse Pitch				
M4-0.70	7mm	5mm	12550	50
M5-0.80	8mm	5mm	12551	50
M6-1.00	10mm	6mm	12552	50
M7-1.00	11mm	7.5mm	12553	50
M8-1.25	13mm	8mm	12554	50
M10-1.50	17mm	10mm	12555	50
M12-1.75	19mm	12mm	12556	50
M14-2.00	22mm	14mm	12557	25
M16-2.00	24mm	16mm	12558	25
M18-2.50	27mm	18.5mm	12559	10
M20-2.50	30mm	20mm	12560	10
M24-3.00	36mm	24mm	12562	10
Fine Pitch				
M8-1.00	13mm	8mm	11554	50
M10-1.25	17mm	10mm	11555-1	50
M12-1.50	19mm	12mm	11556-1	50
M14-1.50	22mm	14mm	11557	25
Extra Fine Pitch				
M10-1.00	17mm	10mm	11555	50
M12-1.25	19mm	12mm	11556	50

If you can't find the products you are looking for, call us, and we will find it for you.



FLANGE NUTS USED WITH 8.8 METRIC FASTENERS

METRIC SERRATED FLANGE NUT

- Zinc plated.

PROPERTY CLASS
8



SIZE	PART No.	QTY.	SIZE	PART No.	QTY.
M5 - 0.8	45435	100	M10 - 1.25	45450	50
M6 - 1.0	45440	100	M10 - 1.50	45451	100
M6 - 1.0 \blacklozenge	45491	100	M10 - 1.5	45453	100
M6 - 1.0 \blackstar	45441	100	M12 - 1.75	45454	50
M8 - 1.25	45445	100	★ Yellow Zinc		
M8 - 1.25	45446	50	◆ Clear Zinc		
M8 - 1.25	45455	100	▲ JIS		
M10 - 1.25	45449	25			

METRIC FLANGE NUTS



THREAD	FLANGE O.D.	HEAD SIZE	STYLE	FINISH	PART No.	QTY.
M6 - 1.0	17mm	10mm	Serrated	Blk Phosphate	15678	100
M5 - 0.8	10mm	8mm	Spinning	Zinc, Yellow	15679	50
M10 - 1.5	21mm	15mm	Hex	Phosphate	890315	25
M10 - 1.25	17mm	13mm	Lock	Zinc	890316	50
M8 - 1.25	18mm	13mm	Hex	Zinc	890588	50
M6 - 1.0	14mm	10mm	Hex	Black	890742	100
M12 - 1.75	25mm	18mm	Hex	Blk Phosphate	891711	25
M6 - 0.7	14mm	8mm	Hex	Zinc, Yellow	890461	50
M6 - 0.8	12mm	8mm	Hex	Phosphate	890551	50
M6 - 1.0	14mm	10mm	Lock	Blk Phosphate	890703	50

SPECIALTY NUTS USED WITH 8.8 METRIC FASTENERS

METRIC JIS HEX NUT

- Steel, heat treated.
- Zinc plated.
- JIS B1181.

PROPERTY CLASS
8



PART No.	DIA.	HEX	QTY.
45456	M8 x 1.25	12mm	100
890279	M12 x 1.25	17mm	25

METRIC HEX JAM NUTS

- DIN 439B.
- Zinc plated.
- Low carbon.

PART No.	DIA./PITCH	WIDTH ACROSS FLATS	THICKNESS	QTY.
12497	M5-0.80	8mm	2.7mm	50
12498	M6-1.00	10mm	3.2mm	50
12500	M8-1.25	13mm	5mm	50
12501	M10-1.50	17mm	5mm	50
12502	M12-1.75	19mm	7mm	50
12504	M16-2.00	24mm	8mm	25
12506	M20-2.50	30mm	10mm	10



METRIC WING NUTS

- Full dimension. Solid steel wings.
- Forged steel. Zinc plated.

PART No.	DIA./PITCH	QTY.
12540	M6-1.00	25



METRIC FENDER WASHERS

- Larger outside diameter than standard metric flat washers.
- Zinc plated.



INSIDE DIA.	OUTSIDE DIA.	PART No.	QTY.	INSIDE DIA.	OUTSIDE DIA.	PART No.	QTY.
M4.3	12mm	45459	100	M8.4	20mm	45470	100
M5.3	15mm	45460	100	M8.5	24mm	45471	100
M5.3	20mm	45461	100	M8.5	30mm	45473	100
M6.5	18mm	45465	100	M10.5	30mm	45476	100
M6.5	20mm	45466	100	M10.5	40mm	45477	25
M6.5	25mm	45467	100				

METRIC LOCK WASHERS

- DIN 127.
- Zinc plated.



PART No.	DIA.	QTY.
12711	3mm	50
12700	4mm	50

PART No.	DIA.	QTY.	PART No.	DIA.	QTY.
12701	5mm	50	12707	14mm	25
12702	6mm	50	12712	16mm	25
12703	7mm	50	12713	18mm	25
12704	8mm	50	12714	20mm	25
12705	10mm	50	12715	22mm	10
12706	12mm	50	12716	24mm	10

METRIC CASTLE NUT

- Zinc plated.

PART No.	DIA.	QTY.
12468	M1.4-1.50	25



4.6 METRIC THREADED ROD

METRIC THREADED ROD

- Class 4.6.
- DIN 975.
- Zinc plated.
- All sizes are 1 meter in length.
- Low carbon.

PART No.	DIA./PITCH	QTY.
12650	M6-1.00	5
12652	M8-1.25	5
12653	M10-1.50	5
12654	M12-1.75	3
12655	M14-2.00	2
12656	M16-2.00	1



METRIC SOCKET SCREWS

METRIC SOCKET HEAD CAP SCREWS

- Unplated.
- DIN 912.

PROPERTY CLASS
12.9



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M3 .50 Pitch	2.5	6mm	13079	50
		8mm	13080	50
		10mm	13082	50
		12mm	13083	50
		16mm	13085	50
		20mm	13087	50
M4 .70 Pitch	3	10mm	13098	50
		12mm	13100	50
		16mm	13101	50
		20mm	13102	50
		25mm	13103	50
		40mm	13105	50
M5 .80 Pitch	4	50mm	13106	50
		8mm	13144	100
		10mm	13114	50
		12mm	13108	50
		14mm	13109	50
		16mm	13110	50
		18mm	13116	50
		20mm	13111	50
		25mm	13112	50
		30mm	13113	50
M6 1.00 Pitch	5	40mm	13115	50
		50mm	13117	50
		8mm	13118	50
		10mm	13119	50
		12mm	13120	50
		14mm	13125	50
		16mm	13121	50
		18mm	13129	50
		20mm	13122	50
		25mm	13123	50
		30mm	13124	50
		35mm	13130	50
		40mm	13126	50
		45mm	13127	50
50mm	13128	50		
M8 1.25 Pitch	6	90mm	13133	25
		10mm	13134	50
		12mm	13135	50
		16mm	13136	50
		20mm	13137	50
		25mm	13138	50
		30mm	13139	50
		35mm	13140	50
		40mm	13141	50
		45mm	13142	50
M8 1.25 Pitch	6	50mm	13143	50
		60mm	13145	50
		70mm	13146	50
		80mm	13148	25

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M10 1.50 Pitch	8	12mm	13147	50
		16mm	13149	50
		20mm	13150	50
		25mm	13151	50
		30mm	13152	50
		35mm	13153	50
		40mm	13154	50
		45mm	13155	50
		50mm	13156	50
		60mm	13158	25
M12 1.75 Pitch	10	75mm	13073	25
		80mm	13161	25
		20mm	13162	25
		25mm	13165	25
		30mm	13166	25
		35mm	13167	25
		40mm	13168	25
		45mm	13169	25
		50mm	13170	25
		60mm	13172	25
M14 2.00 Pitch	12	65mm	13173	25
		100mm	13178	5
		110mm	13179	5
		120mm	13180	5
		40mm	13031	10
		50mm	13033	10
		60mm	13035	10
		30mm	13182	10
		35mm	13183	10
		40mm	13184	10
M16 2.00 Pitch	14	50mm	13186	10
		60mm	13188	10
		70mm	13190	10
		80mm	13192	10
		90mm	13194	10
		100mm	13196	10
		50mm	13202	5
		60mm	13204	5
		80mm	13208	5
		90mm	13210	5
M20 2.50 Pitch	17	100mm	13212	5
		40mm	13220	5
		50mm	13222	5
		60mm	13224	5
		80mm	13228	5
		4mm	13290	50
M24 3.00 Pitch	19	6mm	13292	50
		12mm	13295	50
		M3 .50 Pitch	1.5	4mm
6mm	13292	50		
		12mm	13295	50

METRIC SOCKET SET SCREWS

- Unplated.
- DIN 916.

PROPERTY CLASS
12.9



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M4 .70 Pitch	2	6mm	13300	50
		8mm	13301	50
		10mm	13302	50
		12mm	13299	50
		16mm	13304	50
		20mm	13305	50
M5 .80 Pitch	2.5	6mm	13308	50
		8mm	13309	50
		10mm	13310	50
		12mm	13311	50
		14mm	13313	50
		16mm	13312	50
M6 1.00 Pitch	3	20mm	13314	50
		6mm	13317	50
		8mm	13318	50
		10mm	13319	50
		12mm	13320	50
		16mm	13321	50
M8 1.25 Pitch	4	25mm	13323	50
		30mm	13324	50
		35mm	13325	50
		6mm	13327	50
		8mm	13328	50
		10mm	13329	50
M10 1.50 Pitch	5	12mm	13330	50
		14mm	13280	50
		16mm	13331	50
		20mm	13332	50
		25mm	13333	50
		30mm	13334	50
M12 1.75 Pitch	6	10mm	13340	50
		12mm	13341	50
		16mm	13342	50
		25mm	13344	50
		30mm	13345	50
		12mm	13351	50
M10 1.50 Pitch	5	14mm	13350	50
		16mm	13352	50
		20mm	13353	50
		30mm	13355	50

METRIC HI-COLLAR LOCK WASHERS

- Use with metric socket head cap screws.
- DIN 7980.
- Plain finish.



DIA	PART No.	QTY.
M10	13006	50
M12	13007	50
M14	13008	25
M16	13009	25
M18	13010	25
M20	13011	25

Imperial continuously adds new products.



METRIC SOCKET SCREWS

METRIC SOCKET FLAT HEAD CAP SCREWS

- Unplated.
- DIN 7991.

PROPERTY CLASS
10.9



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M3 .50 Pitch	2	10mm	13478	50
		12mm	13479	50
		16mm	13481	50
		20mm	13483	50
M4 .70 Pitch	2.5	8mm	13500	50
		10mm	13501	50
		16mm	13503	50
		20mm	13504	50
		25mm	13505	50
		30mm	13506	50
M5 .80 Pitch	3	8mm	13508	50
		10mm	13509	50
		12mm	13510	50
		16mm	13511	50
		20mm	13512	50
		25mm	13513	50
		30mm	13514	50

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M6 1.00 Pitch	4	10mm	13519	50
		12mm	13520	50
		16mm	13521	50
		20mm	13522	50
		25mm	13523	50
		30mm	13524	50
		35mm	13525	50
		40mm	13526	50
		50mm	13527	50
		16mm	13532	50
M8 1.25 Pitch	5	20mm	13533	50
		25mm	13534	50
		40mm	13537	50
		16mm	13542	50
M10 1.50 Pitch	6	20mm	13543	50
		25mm	13544	50
		30mm	13545	50
		35mm	13546	50
		40mm	13547	50
		50mm	13549	50
		60mm	13551	10

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M12 1.75 Pitch	8	20mm	13555	50
		25mm	13556	50
		30mm	13557	50
		40mm	13560	10
M16 2.00 Pitch	10	50mm	13562	10
		60mm	13576	10
		80mm	13580	10

Note: Flat head socket cap screws DIN 7991 are not intended for high strength applications. The purpose of the Property Class 10.9 strength is to increase the wear resistance of the sockets.

METRIC BUTTON HEAD SOCKET SCREWS

- Class 3A threads.
- Heat treated.

PROPERTY CLASS
10.9



DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M5 .80 Pitch	3	12mm	14238	50
		16mm	14240	50
		12mm	14255	50
M6 1.00 Pitch	4	16mm	14257	50
		20mm	14259	50
		25mm	14260	50

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M10 1.50 Pitch	6	20mm	14295	50

Note: Button head socket screws should not be used in critical strength applications where socket head cap screws are required.

QUICK COMPARISON CHART

MM	INCH	MM	INCH
5	3/16	60	2-3/8
6	1/4	65	2-9/16
8	5/16	70	2-3/4
10	3/8	75	3"
12	1/2	80	3-3/16
16	5/8	85	3-3/8
20	3/4	90	3-1/2
25	1"	100	3-15/16
30	1-3/16	110	4-5/16
35	1-3/8	120	4-11/16
40	1-9/16	130	5-1/8
45	1-3/4	140	5-1/2
50	2"	150	5-15/16
55	2-3/16	160	6-5/16

Measurements are only approximate.



*Kristy
Sales Manager*

Responsive...

"When customers call, I assume they need the part now. Not tomorrow, not next week, but right now."



FASTENERS

A42

METRIC MACHINE SCREWS

METRIC SLOTTED HEAD MACHINE SCREWS

- DIN 84A—Pan head.
- DIN 963A—Flat head.
- Zinc plated.



DIA.	LENGTH	CHEESEHEAD PART No.	FLAT PART No.	PAN PART No.	QTY.	
M3	6mm	13900	13800	—	50	
	.50	8mm	13901	—	50	
	Pitch	10mm	13902	13802	—	50
	5mm	13908	—	—	50	
	6mm	13909	13809	—	50	
	M4	8mm	13910	13810	—	50
.70	10mm	13912	13812	—	50	
Pitch	16mm	13914	—	—	50	
	20mm	13915	13815	—	50	
	25mm	13916	—	—	50	
	6mm	—	—	13923	100	
	8mm	13924	—	—	50	
	10mm	13925	—	—	50	
	M5	12mm	13926	13826	—	50
.80	18mm	—	—	13922	100	
Pitch	20mm	13927	13827	—	50	
	25mm	13928	—	—	50	
	30mm	13929	—	—	50	
	35mm	13930	—	—	50	
	8mm	—	—	13937	100	
	10mm	13938	13838	—	50	
	12mm	13939	—	—	50	
	16mm	13940	13840	—	50	
	M6	20mm	13941	13841	—	50
	1.00	25mm	13942	—	—	50
Pitch	30mm	13943	—	—	50	
	40mm	—	—	13945	100	
	45mm	—	—	13946	100	
	50mm	—	—	13948	100	
	16mm	13950	13850	—	50	
	M8	20mm	13951	—	—	50
	1.25	25mm	13952	13852	—	50
Pitch	30mm	13954	—	—	50	
	M10	30mm	13966	—	—	50
	1.50					
Pitch						

METRIC PHILLIPS HEAD MACHINE SCREWS

- DIN 84A—Pan head.
- DIN 963A—Flat head.
- Zinc plated.



DIA.	LENGTH	PAN PART No.	OVAL PART No.	QTY.	
M2.5	6mm	891098	—	100	
	.45	10mm	891099	100	
	Pitch	12mm	891100	100	
	5mm	891103 ★	—	100	
	6mm	13701	14010	100	
	M3	8mm	13702	14011	100
.50	10mm	13703	14012	100	
Pitch	16mm	—	14014	100	
	20mm	13706	—	50	
	30mm	891104 ★	—	100	
	6mm	—	13708	50	
	8mm	—	14020	100	
	10mm	13728	14021	100	
	M4	12mm	13711	—	100
.70	16mm	—	14023	100	
Pitch	20mm	—	14024	100	
	25mm	13716	—	50	
	25mm	—	14025	100	
	30mm	891107 ★	14026	100	
	8mm	13729	—	100	
	8mm	891110 ★	—	100	
	10mm	13730	14030	100	
	12mm	13726	—	50	
	12mm	891111 ★	—	100	
	16mm	13726-1	—	50	
	M5	16mm	—	14032	100
	.80	20mm	13727	—	50
	Pitch	20mm	—	14034	100
	25mm	—	14035	100	
	30mm	—	14036	100	
	35mm	—	14037	100	
	40mm	—	14038	100	
	50mm	—	14040	100	
	55mm	891112 ★	—	100	



DIA.	LENGTH	PAN PART No.	OVAL PART No.	QTY.	
M6	10mm	13731	14041	100	
	.50	12mm	13732	14042	100
	Pitch	16mm	13740	—	50
	16mm	—	14043	100	
	20mm	13741	—	50	
	20mm	—	14044	100	
	25mm	13742	—	50	
	35mm	—	14045	100	
	30mm	13733	—	50	
	30mm	—	14046	100	
	35mm	—	14047	100	
	40mm	—	14048	100	
	50mm	—	14050	100	
	60mm	—	14051	100	

★ JIS=Japanese Industrial Standards

METRIC TORQUE SCREWS

METRIC TORX® SHEET METAL SCREW

- Oval head.

DIA.	LENGTH	TORX	PART No.	QTY.
Chrome Finish				
M4.2	16mm	T15	13990	50
	20mm	T15	13991	50
	25mm	T15	13992	50
	30mm	T15	13993	50
Black Oxide Finish				
M4.2	20mm	T15	14001	50
	30mm	T15	14002	50
	35mm	T15	891113	50



METRIC TORX® MACHINE SCREWS

- Pan head.

DIA.	LENGTH	TORX	PART No.	QTY.
Chrome Finish				
M4.2	13mm	T15	14003	50
	25mm	T15	13986	50
	35mm	T15	13987	50
Black Oxide Finish				
M4.2	20mm	T15	13980	50
	25mm	T15	13981	50
	70mm	T15	14005	50



316 STAINLESS STEEL FASTENERS

316 STAINLESS STEEL FASTENING SYSTEM

- For extreme corrosion protection.
- FDA approved for use in the food and drug industry.
- The increased nickel content of 316 stainless steel fasteners produces superior protection against the effects of harmful chemicals.
- 316 stainless steel fasteners retain their strength at elevated temperatures (up to 1200° F) because of their 2 to 3% molybdenum content.
- An invisible film protects these fasteners from rusting and corrosion in severe environments.
- The superior corrosion resistance of 316 stainless steel fasteners make them ideal for use in tank trucks, chemical plants, paper mills, refineries, off-shore oil rigs, and any other application where corrosion is a problem.
- Meets the following specifications: ASTM A-276 (Type 316), QQ-S-763 (Class 316), AISI 316, ASTM F-593
- Composition: 16–18% chromium, 10–14% nickel, .08% max. carbon, 2–3% molybdenum
- Tensile strength: 1/4" to 5/8" diameter—100,000 psi;
3/4" to 1" diameter—85,000 psi

316 STAINLESS STEEL CAP SCREWS



DIA.	LENGTH	PART No.	QTY.
1/4-20 UNC	1/2	320100	100
	3/4	320102	100
	1"	320104	100
	1-1/4	320105	100
	1-1/2	320106	100
	1-3/4	320107	100
	2"	320108	100
	2-1/2	320110	100
	3"	320112	50
	3-1/2	320114	50
4"	320116	50	
4-1/2	320117	50	

DIA.	LENGTH	PART No.	QTY.
5/16-18 UNC	1/2	320121	100
	3/4	320123	100
	1"	320125	100
	1-1/4	320126	100
	1-1/2	320127	100
	1-3/4	320128	100
	2"	320129	100
	2-1/2	320131	100
	3-1/2	320135	50
	3/4	320146	100
3/8-16 UNC	1"	320148	100
	1-1/4	320149	100
	1-1/2	320150	100
	1-3/4	320151	100
	2"	320152	50
	2-1/2	320154	50
	3"	320156	50
	3-1/2	320158	50

DIA.	LENGTH	PART No.	QTY.
7/16-14 UNC	1-1/2	320174	50
	2"	320176	50
	1"	320196	50
	1-1/4	320197	50
	1-1/2	320198	50
1/2-13 UNC	2"	320200	50
	2-1/2	320202	25
	3"	320204	25
	3-1/2	320206	25
	4"	320208	25
	5"	320210	25
6"	320212	25	

DIA.	LENGTH	PART No.	QTY.
5/8-11 UNC	1-1/2	320238	10
	2"	320240	10
	2-1/2	320242	5
	3"	320244	5
	3-1/2	320246	5
7/8-9 UNC	4"	320248	5
	4-1/2	320249	5
	5"	320250	5
4"	320292	5	

Flat and Lock Washers are located on page A7.

316 STAINLESS STEEL FLAT WASHERS



SIZE	OUTSIDE DIA.	INSIDE DIA.	NOMINAL THICKNESS	PART No.	QTY.
1/4	.625	.281	.050	376001	100
5/16	.750	.343	.050	376002	100
3/8	.875	.406	.050	376003	100
7/16	1.125	.500	.062	376004	50
1/2	1.250	.531	.062	376005	50
5/8	1.500	.687	.078	376007	50
7/8	2.00	.937	.109	376009	25

316 STAINLESS STEEL LOCK WASHERS



SIZE	PART No.	QTY.
1/4	376121	100
5/16	376122	100
3/8	376123	100
7/16	376124	50
1/2	376125	50
5/8	376127	50
3/4	376128	25

316 STAINLESS STEEL STANDARD HEX NUTS



SIZE	PART No.	QTY.
1/4-20	340106	100
5/16-18	340108	100
3/8-16	340110	100
7/16-14	340112	50
1/2-13	340114	50
5/8-11	340118	25
3/4-10	340120	20
7/8-9	340122	10

316 STAINLESS STEEL THREADED ROD

- 316 stainless steel.
- Nonmagnetic.
- FDA approved for the food industry.
- Length: 36"



DIA.	PART No.	QTY.
5/8-11	371322	1



FASTENERS

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1 8 / 8 3 0 4 S T A I N L E S S S T E E L F A S T E N E R S

18/8 – 304 STAINLESS STEEL HEX HEAD CAP SCREWS

- Excellent corrosion resistance.
- Free-running cold-rolled threads.
- Tensile strength: 1/4" to 5/8" 100,000 psi 3/4" to 1" 85,000 psi
- Resists salt and other corrosive elements.



1/4 SIZES	USS (20) PART No.	SAE (28) PART No.	QTY.
1/4 x 1/2	120100	121100	100
1/4 x 5/8	120101	—	100
1/4 x 3/4	120102	—	100
1/4 x 1"	120104	121104	100
1/4 x 1-1/4	120105	—	100
1/4 x 1-1/2	120106	—	100
1/4 x 1-3/4	120107	—	100
1/4 x 2"	120108	—	100
1/4 x 2-1/2	120110	—	100
1/4 x 3"	120112	—	50

5/16 SIZES	USS (18) PART No.	SAE (24)	QTY.
5/16 x 1/2	120121	—	100
5/16 x 3/4	120123	—	100
5/16 x 1"	120125	—	100
5/16 x 1-1/4	120126	—	100
5/16 x 1-1/2	120127	—	100
5/16 x 2"	120129	—	100
5/16 x 2-1/2	120131	—	100
5/16 x 3"	120133	—	50
5/16 x 3-1/2	120135	—	50

3/8 SIZES	USS (16) PART No.	SAE (24) PART No.	QTY.
3/8 x 1/2	120144	—	100
3/8 x 3/4	120146	—	100
3/8 x 1"	120148	—	100
3/8 x 1-1/4	120149	—	100
3/8 x 1-1/2	120150	—	100
3/8 x 2"	120152	—	100
3/8 x 2-1/4	120151	—	50
3/8 x 2-1/2	120154	—	50
3/8 x 3"	120156	—	50
3/8 x 3-1/2	120158	—	50

3/8 SIZES	USS (16) PART No.	SAE (24) PART No.	QTY.
3/8 x 4"	120160	—	50
3/8 x 4-1/2	120162	—	25
3/8 x 5"	120164	—	25

7/16 SIZES	USS (14) PART No.	SAE (20) PART No.	QTY.
7/16 x 1"	120172	—	50
7/16 x 1-1/2	120174	—	50
7/16 x 2"	120176	—	50
7/16 x 3"	120180	—	25

1/2 SIZES	USS (13) PART No.	SAE (20) PART No.	QTY.
1/2 x 1"	120196	—	50
1/2 x 1-1/4	120197	—	50
1/2 x 1-1/2	120198	—	50
1/2 x 1-3/4	120199	—	50
1/2 x 2"	120200	—	50
1/2 x 2-1/4	120201	—	50
1/2 x 2-1/2	120202	—	50
1/2 x 3"	120204	—	50
1/2 x 3-1/2	120206	—	25
1/2 x 4"	120208	—	25
1/2 x 4-1/2	120210	—	25

5/8 SIZES	USS (11) PART No.	SAE (18) PART No.	QTY.
5/8 x 1-1/2	120238	—	25
5/8 x 2"	120240	—	25
5/8 x 2-1/2	120242	—	25
5/8 x 3"	120244	—	25
5/8 x 3-1/2	120246	—	25
5/8 x 4"	120248	—	25

3/4 SIZES	USS (10) PART No.	SAE (16) PART No.	QTY.
3/4 x 2-1/2	120265	—	15
3/4 x 3"	120267	—	15
3/4 x 3-1/2	120269	—	15
3/4 x 4"	120271	—	15

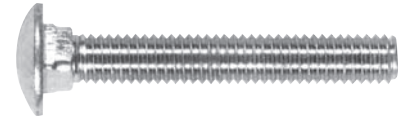
1 8 / 8 3 0 4 S T A I N L E S S S T E E L C A R R I A G E B O L T S

18/8 – 304 STAINLESS STEEL CARRIAGE BOLT

- Full or partially threaded; subject to manufacturer availability.

DIA.	LENGTH	PART No.	QTY.
1/4-20	3/4	123103	100
	1"	123104	100
	1-1/4	123105	100
	2"	123108	100
	2-1/2	123110	100
	3-1/2	123112	50

DIA.	LENGTH	PART No.	QTY.
5/16-18	1"	123125	100
	1-1/2	123127	100
	2"	123129	100
	2-1/2	123131	100
3/8-16	1-1/2	123150	100
	2-1/2	123154	100



1 8 / 8 3 0 4 S T A I N L E S S S T E E L H E X N U T S

18/8 – 304 STAINLESS STEEL NYLON INSERT LOCK NUTS

SIZE	USS PART No.	QTY.	SIZE	SAE PART No.	QTY.
4-40	142099	50	10-32	142103	25
6-32	142100	50			
8-32	142101	50			
10-24	142102	50			
1/4-20	142106	50			
5/16-18	142108	50			
3/8-16	142110	50			
7/16-14	142112	25			
1/2-13	142114	25			
5/8-11	142118	10			



18/8 – 304 STAINLESS STEEL HEX NUTS

SIZE	USS PART No.	QTY.	SIZE	SAE PART No.	QTY.
1/4-20	140106	100	1/4-28	140107	100
5/16-18	140108	100	5/16-24	140109	100
3/8-16	140110	100	3/8-24	140111	100
7/16-14	140112	50			
1/2-13	140114	50			
5/8-11	140118	25			
3/4-10	140120	20			



18/8 – 304 STAINLESS STEEL HEAVY HEX NUTS

PART No.	SIZE	QTY.
150110	3/8-16	100



1 8 / 8 304 STAINLESS STEEL FASTENERS

18/8 – 304 STAINLESS STEEL FLAT WASHERS

- Sizes #4 to #10 are Industrial and AN960C standard.
- Sizes #12 to 1" are Industrial standard only.



SIZE	O.D.	I.D.	NOMINAL THICKNESS	PART No.	QTY.
#4	.312	.125	.031	176050	100
#6	.375	.149	.031	176051	100
#8	.375	.174	.031	176052	100
#10	.437	.203	.062	176000	100
#12	.562	.250	.050	176006	100
1/4	.625	.281	.050	176001	100
5/16	.750	.343	.050	176002	100
3/8	.875	.406	.050	176003	100
7/16	1.125	.500	.062	176004	50
1/2	1.250	.531	.062	176005	50
5/8	1.500	.687	.078	176007	50
3/4	1.875	.812	.109	176008	25
1"	1.75	1.062	.125	176010	10

18/8 – 304 STAINLESS STEEL FENDER WASHERS



BOLT SIZE	O.D.	PART No.	QTY.
1/4	1"	176137	50
3/16	1"	176133	50
1/2	1-1/16	176136	50
1/4	1-1/4	176130	50
5/16	1-1/4	176131	50
1/4	1-1/2	176134	50
3/8	1-1/2	176132	50

18/8 – 304 STAINLESS STEEL LOCK WASHERS



SIZE	PART No.	QTY.
#4	176140	100
#6	176141	100
#8	176142	100
#10 (3/16)	176120	100
#12	176126	100
1/4	176121	100
5/16	176122	100
3/8	176123	100
7/16	176124	50
1/2	176125	50
5/8	176127	50
3/4	176128	25

1 8 / 8 304 STAINLESS STEEL SHEET METAL SCREWS

18/8 – 304 STAINLESS STEEL PHILLIPS SHEET METAL SCREWS

- Excellent resistance to corrosion.
- Phillips drive for less stripping.



DIA.	LENGTH	PAN HEAD PART No.	FLAT HEAD PART No.	OVAL HEAD PART No.	QTY.
6	1/4	161001	—	—	50
	3/8	161002	161082	163330	50
	1/2	161004	161084	163332	50
	3/4	161007	161086	163334	50
	5/8	—	—	163333	50
	1"	161009	161088	163336	50
	1-1/4	161010	—	—	50
8	3/8	161014	161095	163344	50
	1/2	161016	161097	163346	50
	5/8	161018	—	—	50
	3/4	161019	161099	163348	50
	1"	161021	161101	163350	50
	1-1/4	161022	161102	163351	50
	1-1/2	161023	—	—	50
10	1/2	161034	161112	163362	50
	5/8	161036	—	—	50
	3/4	161037	161114	163364	50
	1"	161039	161116	163366	50
	1-1/4	161040	161117	163367	50
	1-1/2	161041	161118	163368	50
	2"	161043	—	—	50



DIA.	LENGTH	PAN HEAD PART No.	FLAT HEAD PART No.	OVAL HEAD PART No.	QTY.
12	1/2	161050	161125	163376	50
	3/4	161052	161127	163378	50
	1"	161054	161129	163380	50
	1-1/4	161055	161130	163381	50
	1-1/2	161056	161131	163382	50
	2"	161058	—	—	50
	1/2	—	—	163390	50
14	3/4	161065	161140	163391	50
	1"	161067	161142	163392	50
	1-1/4	161068	161143	163393	50
	1-1/2	161069	161144	163394	50
	2"	161071	—	—	50
	2-1/2	161073	161148	—	25
	3"	161075	161150	—	25
3-1/2	161077	—	—	25	



18/8 – 304 STAINLESS STEEL HEX WASHER FACED SHEET METAL SCREWS

DIA.	LENGTH	PART No.	QTY.
#10	1/2	131018	100
1/4	3/4	131020	100
#8	1-1/4	131015	100



Imperial offers a complete line of Personal Protective Equipment Products.



FASTENERS

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18/8 304 STAINLESS STEEL MACHINE SCREWS

18/8-304 STAINLESS STEEL PHILLIPS MACHINE SCREWS

- Meets ANSI/ASME B18.6.3 specifications.
- Excellent resistance to corrosion.
- Phillips drive for less stripping.



DIA.	LENGTH	PAN HEAD PART NO.	FLAT HEAD PART NO.	OVAL HEAD PART NO.	TRUSS HEAD PART NO.	QTY.
6-32	5/16	—	—	—	161151	100
	3/8	134429	—	—	—	50
	1/2	134407	136144	136044	—	50
	3/4	134409	136146	136046	—	50
	1"	134411	136148	136048	161154	50
	1-1/4	134412	—	—	—	50
8-32	1/4	134416	—	—	—	50
	1/2	134420	136157	136057	161159	50
	3/4	134422	136159	136059	161161	50
	1"	134424	136161	136061	161162	50
	1-1/4	134425	—	—	—	50
	1-1/2	134426	—	136063	—	50
	1-1/2	—	—	—	161164	100
	2"	134428	—	—	—	50
	3/8	134432	—	—	—	50
	1/2	134434	136170	136070	161166	50
10-24	3/4	134436	136172	136072	161168	50
	1"	134438	136174	136074	161169	50
	1-1/4	134439	—	—	—	50
	1-1/2	134440	136176	136076	161171	50
	2"	134442	—	—	—	50
10-32	1/2	134447	136183	136083	161174	50
	3/4	134449	—	136085	161176	50
	1"	134451	136187	136087	161177	50
	1-1/2	134453	136189	136089	161179	50
	2"	134455	—	—	—	50
	3/4	134458	—	136095	—	50
12-24	1"	134460	—	136097	—	50
	1/2	134467	136203	—	161185	50
1/4-20	3/4	134469	136205	136105	161187	50
	1"	134471	136207	136107	161188	50
	1-1/4	134472	136208	—	161190	50
	1-1/2	134473	136209	—	161191	50
	2"	134475	—	—	161193	50
	2-1/4	134476	—	—	—	50
	3"	—	136213	—	—	25

18/8 - 304 STAINLESS STEEL SLOTTED MACHINE SCREWS

- Excellent resistance to corrosion.
- Precision sawed slots for greater tightening torques.
- Manufacturing process eliminates galling.

DIA.	LENGTH	ROUND HEAD PART NO.	FLAT HEAD PART NO.	QTY.
4-40	1/2	134036	—	100
	3/8	134036	—	100
6-32	1/2	134046	—	100
	1"	134050	—	100
8-32	1/2	134057	—	100
	3/4	134059	—	100
	1-1/4	134062	—	100
10-24	1/2	134078	—	100
	3/4	134079	—	100
	1"	134080	—	100
	1-1/4	134081	—	100
	1-1/2	134082	—	100
10-32	1/2	134068	—	100
	3/4	134070	—	100
	1"	134071	—	100
	1-1/2	134072	—	100
	2"	134075	—	100
	1"	134104	135104	100
1/4-20	1-1/4	134105	135105	100
	1-1/2	134106	—	100
	3"	—	135112	100
5/16-18	1"	134125	—	100

Cut costs by reducing your vendors. Imperial's Specialty Programs can help.

18/8 - 304 STAINLESS STEEL MACHINE SCREW NUTS

PART No.	SIZE	QTY.
153099	4-40	100
153101	6-32	100
153102	8-32	100
153103	10-32	100
153104	10-24	100
153105	12-24	100
153106	1/4-20	100



18/8 - 304 STAINLESS STEEL WING NUTS

PART No.	SIZE	QTY.
152106	1/4-20	100
152108	5/16-18	50
152110	3/8-16	50



18/8 - 304 STAINLESS STEEL ACORN NUTS

- Superior corrosion protection makes these ideal for west coast mirrors.
- Used in fleet maintenance, food industries and in-plant services.

PART No.	DIA.	QTY.
USS		
143103	8-32	50
143104	10-24	50
143106	1/4-20	50
143108	5/16-18	50
SAE		
143105	10-32	50
143110	3/8-16	25



18/8 - 304 STAINLESS STEEL STAR-LOC NUTS

PART No.	SIZE	QTY.
156101	6-32	100
156110	1/4-20	100



1 8 / 8 3 0 4 S T A I N L E S S S T E E L S O C K E T S C R E W S

18/8 – 304 STAINLESS STEEL SOCKET HEAD CAP SCREWS

- Excellent corrosion resistance.
- Heat treated.
- Class 3A threads.

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
8-32	9/64	3/8	118056	50
		1/2	118057	50
		3/4	118059	50
10-24	5/32	1/2	118078	50
		3/4	118079	50
		1"	118080	50
		1-1/2	118082	50
10-32	5/32	1/2	118090	50
		5/8	118092	50
		1"	118094	50
		1/2	118100	50
1/4-20	3/16	5/8	118101	50
		3/4	118102	50
		1"	118104	50
		1-1/4	118105	50
		1-1/2	118106	50
		1-3/4	118107	50
		2"	118108	50
5/16-18	1/4	3/4	118123	50
		1"	118125	50
		1-1/4	118126	50
		1-1/2	118127	50
		2"	118129	50
		3"	118133	25
		3/4	118146	50
3/8-16	5/16	1"	118148	50
		1-1/4	118149	50
		1-1/2	118150	50



18/8 – 304 STAINLESS STEEL BUTTON HEAD SOCKET CAP SCREW

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
1/4-20	5/32	1/2	118505	25
		3/4	118497	100
1/4-20	3/16	2"	118498	100



18/8 – 304 STAINLESS STEEL 6-LOBE MACHINE SCREWS

DIA.	LENGTH	PART No.	QTY.
1/4 - 20	3/4	118499	500
	1"	118500	500
	1-1/4	118501	500
5/16 - 18	1"	118509	500
	1-1/4	118511	500
3/8 - 16	1-1/2	118517	250



18/8 – 304 STAINLESS STEEL CUP POINT SOCKET SET SCREWS

- Excellent corrosion resistance.
- Heat treated.
- Class 3A threads.

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
6-32	1/16	1/4	118802	50
		1/2	118806	50
		3/8	118819	50
8-32	5/64	1/2	118821	50
		1/4	118831	50
		5/16	118832	50
10-24	3/32	3/8	118833	50
		1/2	118835	50
10-32	3/32	1/4	118831-1	50
		1/4	118846	50
		5/16	118847	50
1/4-20	1/8	3/8	118848	50
		1/2	118850	50
5/16-18	5/32	3/8	118862	50
		1/2	118864	50
		3/8	118877	50
3/8-16	3/16	1/2	118879	50
		3/4	118881	50
1/2-13	1/4	1/2	118892	25



18/8 – 304 STAINLESS STEEL FLAT HEAD SOCKET CAP SCREWS

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
1/4-20	5/32	1/2	118600	50
		3/4	118602	50
		3/4	118623	50
5/16-18	3/16	1-1/2	118627	50
3/8-16	7/32	1"	118648	50



18/8 – 304 STAINLESS STEEL THREADED ROD

- Excellent corrosion protection.
- Free-running, cold-rolled threads.
- Superior tensile strength to 125,000 psi.
- High abrasion resistance.
- Easily welded or brazed.
- Eliminates binding, galling, pitting and freezing.
- Available in 36" length only.

PART No.	SIZE	QTY.
171316-1	1/4-20	1
171317-1	5/16-18	1
171318-1	3/8-16	1
171319-1	7/16-14	1
171320-1	1/2-13	1
171323-1	3/4-10	1



METRIC 18/8 304 STAINLESS STEEL FASTENERS

18/8 - 304 STAINLESS STEEL METRIC HEX HEAD CAP SCREWS

- DIN 933: full thread
- DIN 931: partial thread
- Diameter M6-M20
- 101,000 psi.



DIA.	LENGTH	PART No.	DIN	QTY.	
M4	10mm	112097	933	50	
	.70	20mm	112102	933	50
	Pitch	25mm	112103	933	50
M5	10mm	112104	933	50	
	16mm	112106	933	50	
	20mm	112107	933	50	
	.80 Pitch	25mm	112109	933	50
	30mm	112111	933	50	
M6	35mm	112112	933	25	
	45mm	112108	933	25	
	60mm	112116	933	25	
	1.00 Pitch	10mm	112114	933	50
	12mm	112115	933	50	
	16mm	112117	933	50	
	20mm	112118	933	50	
M8	25mm	112120	933	50	
	30mm	112122	933	25	
	40mm	112124	933	25	
	80mm	112140	933	25	
	1.25 Std. Pitch	12mm	112149	933	25
	16mm	112150	933	25	
	20mm	112152	933	25	
	25mm	112154	933	25	
	30mm	112155	933	25	
	40mm	112157	933	25	
M10	45mm	112158	933	25	
	50mm	112159	933	25	
	1.50 Std. Pitch	20mm	112170	933	25
	25mm	112172	933	10	
	30mm	112174	933	10	
M12	35mm	112175	933	10	
	1.75 Std. Pitch	40mm	112176	933	10
	50mm	112178	933	10	



18/8 - 304 STAINLESS STEEL PHILLIPS METRIC MACHINE SCREWS

DIA.	LENGTH	HEAD	PART No.	QTY.
M5-0.8	20mm	Pan	14727	250



18/8 - 304 STAINLESS STEEL METRIC FLAT HEAD SOCKET CAP SCREWS

- Excellent corrosion resistance.
- DIN 7991.

DIA./PITCH	KEY SIZE	LENGTH	PART No.	QTY.
M6-1.00	4	16mm	113521	50



18/8 - 304 STAINLESS STEEL METRIC SOCKET HEAD CAP SCREWS

- Excellent corrosion resistance.
- DIN 912.

DIA.	KEY SIZE	LENGTH	PART No.	QTY.
M4	.70 Pitch	10mm	113098	50
		20mm	113102	50
		30mm	113104	50
		35mm	113105	50
M5	.80 Pitch	10mm	113114	50
		16mm	113110	50
		20mm	113111	50
		25mm	113112	50
		30mm	113113	50
		35mm	113116	50
M6	1.00 Pitch	40mm	113115	50
		45mm	113117	50
		10mm	113119	50
		16mm	113121	50
		20mm	113122	50
M8	1.25 Pitch	25mm	113123	50
		30mm	113124	50
		35mm	113125	50
M8	70mm	113146	50	



18/8 304 STAINLESS STEEL METRIC HEX NUTS

18/8 - 304 STAINLESS STEEL METRIC HEX NUTS

- DIN 934.



SIZE/PITCH	PART No.	QTY.
M5-0.8	112401	100
M6-1.00	112402	100
M8-1.25	112404	50
M10-1.50	112405	50
M12-1.75	112406	25
M16-2.00	112412	10



18/8 - 304 STAINLESS STEEL METRIC NYLON INSERT LOCK NUTS

- DIN 985.

SIZE/PITCH	PART No.	QTY.
M5-0.8	112551	50
M6-1.00	112552	50
M8-1.25	112554	50
M10-1.50	112555	25
M12-1.75	112556	25



Imperial continuously adds new products.

See page L36 for a variety of Thread Sealants.



METRIC 18/8 304 STAINLESS STEEL WASHERS

18/8 - 304 STAINLESS STEEL METRIC LOCK WASHERS

• DIN 127.

SIZE/DIA.	PART No.	QTY.
M6	112702	100
M8	112704	50
M10	112705	50
M12	112706	25



18/8 STAINLESS STEEL METRIC FLAT WASHERS

• DIN 125.

BOLT SIZE	I.D.	O.D.	PART No.	QTY.
M4	4.3mm	9.0mm	112600	100
M5	5.3mm	10.0mm	112601	100
M6	6.4mm	12.5mm	112602	100
M8	8.4mm	17mm	112604	50
M10	10.5mm	21mm	112605	50
M12	13mm	24mm	112606	25



STAINLESS STEEL METRIC HI-COLLAR LOCK WASHERS

• DIN 7980.

- Stainless.
- For socket products.

SIZE/DIA.	PART No.	QTY.
M4	113001	50
M5	113002	50
M8	113005	50
M10	113006	50
M12	113007	50
M14	113008	25
M16	113009	25



If you can't find the products you are looking for, call us, and we will find it for you.

Refer to pages A58 for the inch to metric conversion chart.

410 STAINLESS STEEL SELF-DRILLING SCREWS

410 STAINLESS STEEL HEX WASHER HEAD SELF-DRILLING SCREWS

- Self-drilling screws quickly drill, tap and insert, usually in less time than it takes to drill a hole.
- Also known as Tek screws.

DIA.	LENGTH	PART No.	FOR USE WITH CHUCK SIZE	QTY.
8	1/2	79150	1/4 Part No. 66460	100
	3/4	79151		100
	1"	79152		100
10	3/4	79156	5/16 Part No. 66461	100
	1"	79157		100
	1-1/4	79158		100
12	3/4	79159	5/16 Part No. 66461	100
	1"	79160		100
	2-1/2	79164		100
14	3/4	79161	3/8 Part No. 66462	100
	1"	79162		100
	1-1/4	79173		100
	1-1/2	79163		100



410 STAINLESS STEEL PHILLIPS PAN HEAD SELF-DRILLING SCREWS

- Excellent corrosion protection.
- Self-drilling screws quickly drill, tap, and insert, usually in less time than it takes to drill a hole.
- Also known as Tek screws.

DIA.	LENGTH	PART No.	QTY.
6	1/2	69435	100
	3/4	69436	100
8	1/2	69438	100
	3/4	69439	100
	1"	69440	100
10	1-1/2	69441	100
	1/2	69442	100
	3/4	69443	100
	1"	69444	100
12	1-1/2	69445	100
	3/4	69446	100
	1"	69447	100
14	1-1/2	69448	100
	1"	69449	100
	1-1/2	69450	100
	2"	69451	100



Visit the Imperial website.
www.imperialsupplies.com



ANTI-THEFT FASTENERS

18/8 ANTI-THEFT 6-LOBE PIN-IN BUTTON HEAD MACHINE SCREW

- Prevents tampering of products or vandalism.
- Stops unauthorized adjustments on settings.
- Used in conjunction with matching installation bit.
- 18/8 stainless for extreme corrosion protection.
- Easy six-lobe pin-in drive for ease of installation.



DIA.	LENGTH	PART No.	CROSS REF.	QTY.
8-32	1/2	135418	T-15	20
	3/4	135420	T-15	20
	1"	135422	T-15	20
10-24	1/2	135433	T-25	20
	3/4	135435	T-25	20
	1"	135437	T-25	20
1/4-20	1/2	135465	T-27	20
	3/4	135467	T-27	20
	1"	135469	T-27	20

18/8 ANTI-THEFT 6-LOBE PIN-IN BUTTON HEAD SHEET METAL SCREW

- Prevents tampering of products or vandalism.
- Stops unauthorized adjustments on settings.
- Used in conjunction with matching installation bit.
- 18/8 stainless for extreme corrosion protection.
- Easy six-lobe pin-in drive for ease of installation.



DIA.	LENGTH	PART No.	CROSS REF.	QTY.
8	1/2	161372	T-15	20
	3/4	161374	T-15	20
	1"	161376	T-15	20
10	1/2	161384	T-25	20
	3/4	161386	T-25	20
	1"	161387	T-25	20
12	2"	161394-2	T-25	500
	3"	161396-2	T-25	500
	1/2	161408	T-27	20
14	3/4	161410	T-27	20
	1"	161411	T-27	20
	3/8-16	1-1/4	161420	T-45

TRAILER ANTI-THEFT NUTS

- Zinc plating for corrosion resistance.
- Use Socket No. 49010.



PART No.	SIZE	QTY.
49002	3/8-16	100

6-LOBE PIN-IN DRIVE BITS FOR ANTI-THEFT SCREWS

- For use with 6-lobe pin-in sheet metal and machine screws.
- Includes anti-theft drive bits.

PART No.	CROSS REF.	SIZE/USE WITH:	QTY.
69226	T-15	1/4 Hex	2
69228	T-25	1/4 Hex	2
69229	T-27	1/4 Hex	2
69256	T-40	1/4 Hex	2
69271	T-45	1/4 Hex	2



TAMPER RESISTANT HEX INSERT BIT

- Material: high alloy CVM steel, hardened
- Used for hexagon tamper resistant (pin in) screws.



PART No.	SIZE	HEX	QTY.
66486	7/32	1/4	2

ANTI-THEFT INSTALLATION SOCKET TOOL

- Not for use with impact guns.
- Use with trailer anti-theft nuts.

PART No.	DRIVE STYLE	USE WITH	QTY.
49011	1/4	#10, #12, #14 round head #10 countersunk	1
49010	3/8	3/8" nuts	1



*Ken
Senior Product Manager*

Preparation...

"To me, it's more than just quality parts. It's a quality team, that is well trained, with knowledge of both our products and our customers."

Experience our dedicated customer service.

See page A16 for Carriage Bolts.



NYLON FASTENERS

NYLON HEX HEAD CAP SCREWS

- Lightweight, non-magnetic, non-corrosive, non-toxic, non-flammable, non-abrasive, non-conductive, and heat resistant.
- Excellent for applications where high tensile is not required.

DIA.	LENGTH	PART No.	QTY.
1/4-20	3/4	180006	100
	1"	180008	100
3/8-16	3/4	180042	100
	1-1/2	180046	100



NYLON FLAT WASHERS

I.D.	O.D.	THICKNESS	PART No.	QTY.
1/4	1/2	1/16	180120	100
5/16	1/2	1/16	180122	100
5/16	3/4	1/16	180123	100
3/8	5/8	1/16	180124	100
3/8	1"	1/32	180142	100



NYLON HEX NUTS

SIZE	PART No.	QTY.
1/4-20	180104	100
5/16-18	180106	100
3/8-16	180108	100



BRASS FASTENERS

BRASS SLOTTED ROUND HEAD MACHINE SCREWS

- Yellow brass.
- Non-magnetic.
- Corrosion resistant.

DIA.	LENGTH	PART No.	QTY.
8-32	1/2	234057	100
	3/4	234059	100
10-24	1"	234080	100
1/4-20	1/2	234100	100



BRASS HEX NUTS

- Unplated brass.

SIZE	USS PART No.	SIZE	SAE PART No.	QTY.
10-24	253104	10-32	253103	100
12-24	253105	—	—	100
1/4-20	46106	—	—	100
5/16-18	46108	—	—	100
3/8-16	46110	3/8-24	47111	50
7/16-14	46112	7/16-20	47112	50
1/2-13	46114	—	—	50
5/8-11	46115	—	—	50



BRASS FLAT WASHERS

- Yellow brass.
- Non-magnetic.

FITS SCREW SIZE	PART No.	QTY.
#8	276052	100
#10	276000	100
#12	276054	100
1/4	276001	100



BRASS NYLON INSERT LOCK NUTS

- Corrosion resistant.

SIZE	PART No.	QTY.
1/4-20	44206	50
5/16-18	44208	50
3/8-16	44210	50
1/2-13	44214	20
5/8-11	44218	10

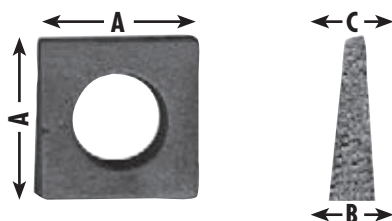


SPECIALITY WASHERS

MALLEABLE BEVEL WASHERS

- Steel.

BOLT SIZE	A DIA.	B DIA.	C DIA.	PART No.	QTY.
3/8	1-1/4 x 1-1/4	11/32	5/32	76532	50
1/2	1-1/4 x 1-1/4	11/32	5/32	76534	50



COPPER FLAT WASHERS

- Unplated.

BOLT SIZE	OUTSIDE DIA.	INSIDE DIA.	THICKNESS	PART No.	QTY.
1/4	5/8	17/64	1/16	76501	100
5/16	1/2	21/64	1/16	76506	50
5/16	3/4	11/32	1/16	76502	100
3/8	5/8	13/32	1/16	76507	50
3/8	1"	13/32	1/16	76503	100
7/16	1-1/8	1/2	5/64	76504	50
1/2	1-3/8	9/16	5/64	76505	50



FASTENERS

A52

SPEED NUTS

FLAT NUTS FOR UNTHREADED SCREWS



PART No.	STUD SIZE	QTY.	PART No.	STUD SIZE	QTY.
37421	3/32	100	37424	3/16	100
891457	7/64	100	37425	1/4	100
37422	1/8	100	37426	5/16	100
37423	5/32	100	37427	3/8	100

FLAT NUTS FOR MACHINE SCREWS



PART No.	THREAD SIZE	QTY.
37400	6-32	100
37401	8-32	100
37402	10-24	100
37403	1/4-20	100

FLAT NUTS FOR SHEET METAL SCREWS



PART No.	SCREW SIZE	QTY.
37410	#6	100
37411	#8	100
37412	#10	100
37413	#12	100
37414	#14	100

U-NUTS

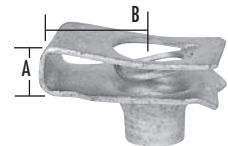
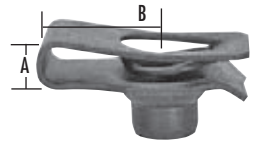
U-NUTS

PART No.	SCREW DIA.	PANEL RANGE	CENTER OF HOLE TO EDGE	QTY.
37230	#6	.025 - .125	3/8	50
37231	#8	.025 - .125	3/8	25
37234	#8	.025 - .125	17/64	50
37235	#8	.025 - .125	1/2	50
37237	#8	.094 - .156	1/2	25
37079	#10	.025 - .060	11/32	50
891300	#10	.030 - .037	3/8	100
37232	#10	.025 - .125	13/32	25
891652	#10	.015 - .035	15/32	100
37236	#14	.025 - .125	5/16	25
37233	#14	.025 - .125	3/8	25



EXTRUDED U-NUTS

PART No.	SCREW DIA.	PANEL RANGE (A)	CENTER OF HOLE TO EDGE (B)	QTY.
37039	10-24	.025" - .125	15/32	50
37042	1/4-20	.025 - .150	19/32	50
37170	1/4-20	.025 - .150	25/32	50
37040	5/16-18	.025 - .150	7/8	25
37041	5/16-18	.025 - .060	9/16	50
37043	5/16-18	.025 - .150	27/32	25
37044	3/8-16	.050 - .200	3/4	25



U-NUTS

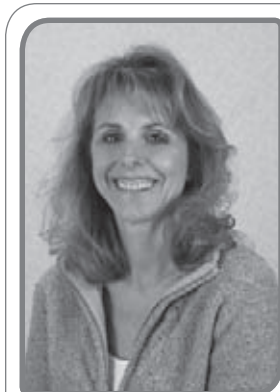
PART No.	MACHINE SCREW DIA.	PANEL RANGE	CENTER OF HOLE TO EDGE	QTY.
891797	1/4-20	.064 - .125	1/2	100
891301	#10-24	.045 - .062	9/16	100



METRIC EXTRUDED U-NUTS

• Blue paint finish.

PART No.	CROSS REFERENCE	THREAD DIA. PITCH	PANEL RANGE (A)		CENTER OF HOLE TO EDGE (B)		QTY.
			(MM)	(IN.)	(MM)	(IN.)	
37150	11500655	M4 - 0.7	0.80 - 4.00	0.030 - .160	13.5	17/32	50
37048	6502152	M6 - 1.00	0.80 - 4.00	0.030 - .160	12	15/32	50
37151	11500658	M6.3 - 1.00	0.80 - 4.00	0.030 - .160	13.5	17/32	25
37152	11503455	M8 - 1.25	0.80 - 4.00	0.030 - .160	14.5	9/16	25
37153	11500661	M8 - 1.25	0.39 - 4.40	0.010 - .175	20.6	13/16	25



Allison
Dedicated Service Advisor

Attentive...

"What will I do to help a customer to get a part or solve a problem? It's, really simple. Whatever it takes."

Think safety first. Always.
Imperial offers a wide range
of Safety Products.



PUSH NUTS

PUSH-ON RETAINERS

- Zinc plated.
- For non-threaded fasteners.

PART No.	STUD SIZE	O.D.	QTY.
37282	1/8	3/8	100
37259	5/16	15/16	50
891330	3/8	3/4	100
37264	3/8	15/16	50
891022	7/16	5/32	100



PUSH NUTS

- Phosphate plated.

PART No.	BOLT DIA.	O.D.	QTY.
37256 ★	#6	11/32	100
37250	#8	3/8	100
37257	#10	7/16	100
37251	1/4	1/2	100
37252	5/16	5/8	100
37253	3/8	25/32	100
37254	7/16	27/32	100
37255	1/2	15/16	100



★ Zinc plated

METRIC PUSH-ON RETAINERS

- For non-threaded studs.

PART No.	O.D.	FINISH	QTY.
890158	M4 x 11mm	Black	100



SPECIALTY NUTS

CAGE NUTS

PART No.	SCREW DIA.	PANEL RANGE	QTY.
37022	8-32	.064" - .105"	25
37020	1/4-20	.025" - .063"	25
37021	5/16-18	.028" - .056"	25
37023	M6-1.00	1.5mm - 2.5mm	25



HEX PAL NUTS

PART No.	THREAD SIZE	HEX WIDTH	QTY.
37276	1/2-20	3/4	100



PAL STYLE NUTS

PART No.	STUD SIZE	HEX HEAD	WASHER DIA.	QTY.
37270	1/8	5/16	17/32	100
37273	5/32	5/16	9/16	100
37271	3/16	3/8	5/8	100
37274	1/4	7/16	11/16	100
37272	5/16	7/16	7/8	100



J-NUTS

PART No.	SCREW DIA.	PANEL RANGE	CENTER OF HOLE TO EDGE	QTY.
37080	#14	.028 - .056	15/32	50
37081	5/16-18	.075 - .098	15/32	25
37093	3/8-16	.050 - .090	9/16	25



WASHER CAP TYPE PUSH NUT FASTENER

PART No.	STUD DIA.	STEEL THICKNESS	OVERALL HEIGHT	CAP DIA.	WASHER DIA.	QTY.
37287	1/2	.030	.328	.567	15/16	100



Amanda
Marketing Coordinator

Flexible...

"There isn't always one answer or one solution. If a customer would like some options, I'm on a mission."



WELL NUTS®

WELL-NUT® THREADED INSERTS

- Neoprene with captive brass nut.
- To install: place Well-Nut® insert all the way into pre-drilled hole until flange is firmly against mounting surface. Pass machine screw through part to be fastened and tighten until snug.

CROSS REF.	THREAD SIZE	GRIP RANGE MIN. - MAX.	HEAD DIA.	HEAD THICKNESS	OVERALL LENGTH	EXTERNAL BODY DIA.	PART No.	QTY.
3876130	10-24	.030 - .227	.562	.187	.767	.375	38013	25
10 S	10-32	.015 - .192	.500	.036	.554	.377	38024	25
13007	10-32	.015 - .192	.500	.036	.554	.377	38022 ♦	25
16244	10-32	.030 - .227	.750	.187	.807	.375	38023	25
10 SL	10-32	.312 - .643	.562	.051	1.051	.375	38030	25
20130258 14002811	M6-1.0	.015 - .094	.787	.051	.630	.500	38032	50
1/4 S	1/4-20	.015 - .111	.630	.051	.630	.500	38025	25
1/4 S	1/4-20	.015 - .111	.630	.051	.630	.500	38025-4	200
MDM6X1	1/4-20	.031 - .187	.740	.187	.829	.500	38026	25
D1420	1/4-20	.031 - .187	.750	.187	.829	.500	6908	50
J1420	1/4-20	.250 - .457	.630	.051	1.051	.500	38029	25
—	5/16-18	.015 - .156	.870	.126	.721	.626	38033	100
E51618	5/16-18	.015 - .156	.875	.125	.725	.620	38027	25
A3816	3/8-16	.015 - .437	1.25	.187	1.062	.750	38028	20

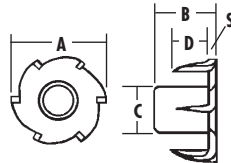
♦ Both inch and metric thread.



SPECIALTY NUTS

SIX PRONG TEE-NUTS®

- Tee-Nut® fasteners eliminate countersinking and add strength to wood construction by providing a steel thread in wood or plywood.
- Tee-Nuts® have six claw-like prongs that penetrate into wood, toe in, and grip so tightly that you have to drive it out of its hole.
- Superior retention in soft wood.



SIZE	A	B	C	D	S + .015 - .000	PART No.	QTY.
1/4-20	3/4	5/16	.294/.289	15/64	.042	6213	25
5/16-18	7/8	3/8	.369/.364	19/64	.052	6217	25
3/8-16	1.0	7/16	.448/.443	11/32	.062	6219	25

JACK NUT

- Zinc plating for corrosion resistance.
- 7/16" work hole.



THREAD SIZE	HEAD DIA.	HEAD THICKNESS	OVERALL LENGTH	EXTERNAL BODY DIA.	PART No.	QTY.
1/4-20	.625	.073	.731	.438	891794	50
1/4-20	.625	.073	.919	.438	37025	25

WING NUTS

- Full dimension.
- Solid steel wings.
- Forged steel.
- Zinc plated.
- Low carbon.



THREAD SIZE	WING SPREAD	PART No.	QTY.
10-24	27/32	52104	100
10-32	27/32	52105	100
1/4-20	1-1/16	52106	100
5/16-18	1-7/32	52108	100
3/8-16	1-13/32	52110	50
7/16-14	1-15/16	52112	50
1/2-13	1-7/8	52114	25



NYLON AIR CLEANER WING NUT

- Self threading.
- Used on air cleaners.
- Nylon material.

SIZE	PART No.	QTY.
1/4", 6mm	52120	10



SLEEVE NUTS

- Plain steel.

THREAD SIZE	PART No.	QTY.
1/4-20	6216	100
3/8-16	6218	100



#6216

#6218



GUIDE FOR PREVAILING-TORQUE LOCK NUT ASSEMBLY TORQUES (CAD AND WAX, GRADE B, C, AND GRADE G FLANGE NUTS) LOCK NUT STANDARDS FROM IFI-100 REQUIREMENTS

Torque-Tension Requirements

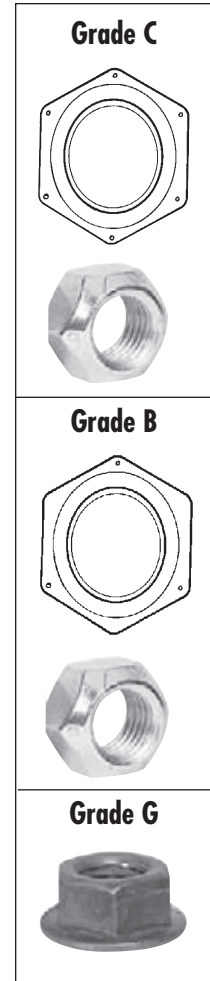
SIZE	GRADE B			GRADE C			GRADE G		
	CLAMP LOAD	ASSEMBLY TORQUE		CLAMP LOAD	ASSEMBLY TORQUE		CLAMP LOAD	ASSEMBLY TORQUE	
THREADS PER INCH	(LB)	MAX.	MIN.	(LB)	MAX.	MIN.	(LB)	MAX.	MIN.
1/4-20	2,000	85**	60**	2,850	125**	85**	2,850	150**	100**
1/4-28	2,300	90**	65**	3,250	125**	85**	3,250	160**	105**
5/16-18	3,350	150**	110**	4,700	190**	130**	4,700	240**	155**
5/16-24	3,700	160**	120**	5,200	200**	140**	5,200	230**	155**
3/8-16	4,950	20	14.5	6,950	28	20	6,950	32	21
3/8-24	5,600	22	16	7,900	29	21	7,900	33	22
7/16-14	6,800	32	23	9,600	43	31	9,600	51	34
7/16-20	7,550	34	24	10,700	43	31	10,700	60	40
1/2-13	9,050	50	37	12,800	62.5	45	12,800	85	55
1/2-20	10,200	52.5	37.5	14,440	70	50	14,440	89	59
9/16-12	11,600	70	50	16,400	95	70	16,400	120	80
9/16-18	13,000	77.5	57.5	18,300	95	70	18,300	132	88
5/8-11	14,500	95	70	20,300	122.5	90	20,300	143	95
5/8-18	16,300	97.5	72.5	23,000	125	90	23,000	175	115
3/4-10	21,300	165	125	30,100	210	155	30,100	240	160
3/4-16	23,800	165	120	33,600	210	155	33,600	270	170
7/8-9	29,500	250	185	41,600	312.5	225	41,600	360	260
7/8-14	32,400	270	200	45,800	312.5	225	45,800	402	247
1-8	38,700	375	275	54,600	462.5	360	54,600	530	410
1-12	42,300	395	290	59,750	490	360	59,750	—	—
1-14	43,000	400	300	61,100	500	362.5	61,100	645	398
1-1/8-7	42,100	404	294	69,000	585	454	69,000	—	—
1-1/8-12	47,500	437	327	76,800	622	453	76,800	—	—
1-1/4-7	53,500	513	375	87,000	736	573	87,000	—	—
1-1/4-12	59,700	549	412	96,600	782	570	96,600	—	—
1-3/8-6	63,800	612	445	104,000	880	685	104,000	—	—
1-3/8-12	72,900	670	503	118,000	955	696	118,000	—	—
1-1/2-6	77,600	745	545	127,000	1,075	837	127,000	—	—
1-1/2-12	87,700	807	605	142,000	1,150	837	142,000	—	—

Clamp loads for the Grade B lock nuts equal 75% of the bolt proof loads specified for SAE J-429 Grade 5, and ASTM A-449 bolts.

Clamp loads for Grade C lock nuts equal 75% of the bolt proof loads specified for SAE J-429 Grade 8, and ASTM A-354 Grade BD bolts.

IFI-100 does not govern lock nuts above 1". The values shown in the chart are to be used as a mid-range guideline.

** Torque values for 1/4" and 5/16" sizes are in inch lb. All other torque values are in foot lb.



METRIC TORQUE CHART FOR HEX HEAD CAP SCREWS

SIZE	CLASS	NEWTON METERS		FOOT POUNDS (APPROX.)		CLASS IMAGE
		ZINC PLATED	UNPLATED	ZINC PLATED	UNPLATED	
M4 x .70 Pitch	8.8	3.1	2.2	2.30	1.65	
M5 x .80 Pitch	8.8	6.1	5.5	4.58	4.13	
M6 x 1.00 Pitch	8.8	10.4	9.5	7.80	7.13	
M7 x 1.00 Pitch	8.8	17.0	15.5	12.75	11.63	
M8 x 1.25 Pitch	8.8	25.0	23.0	18.75	17.25	
M8 x 1.00 Pitch	8.8	27.0	24.5	20.25	18.38	
M10 x 1.50 Pitch	8.8	51.0	46.0	38.25	34.50	
M10 x 1.00 Pitch	8.8	57.0	52.0	42.75	39.00	
M10 x 1.25 Pitch	8.8	54.0	49.0	40.50	36.75	
M12 x 1.75 Pitch	8.8	87.0	79.0	65.25	59.25	
M12 x 1.25 Pitch	8.8	96.0	87.0	72.00	65.25	
M12 x 1.50 Pitch	8.8	92.0	83.0	69.00	62.25	
M14 x 2.00 Pitch	8.8	140.0	125.0	105.00	93.75	
M14 x 1.50 Pitch	8.8	150.0	135.0	112.50	101.25	
M16 x 2.00 Pitch	8.8	215.0	195.0	161.25	146.25	
M18 x 2.50 Pitch	8.8	300.0	280.0	225.00	210.00	
M20 x 2.50 Pitch	8.8	430.0	390.0	322.50	292.50	
M22 x 2.50 Pitch	8.8	580.0	530.0	435.00	397.50	
M24 x 3.00 Pitch	8.8	740.0	670.0	555.00	502.50	
M6 x 1.00 Pitch	10.9	15.5	14.0	11.63	10.50	
M8 x 1.25 Pitch	10.9	37.0	34.0	27.75	25.50	
M10 x 1.50 Pitch	10.9	75.0	68.0	56.25	51.00	
M12 x 1.75 Pitch	10.9	160.0	117.0	97.50	87.75	
M14 x 2.00 Pitch	10.9	205.0	185.0	153.75	138.75	
M16 x 2.00 Pitch	10.9	310.0	280.0	232.50	210.00	

TORQUE CHART FOR STAINLESS STEEL CAP SCREWS

SIZE	316 INCH-LB	18/8 INCH-LB
6-32	10.1	9.6
6-40	12.7	12.1
8-32	20.7	19.8
8-36	23.0	22.0
10-24	23.8	22.8
10-32	33.1	31.7
1/4-20	78.8	75.2
1/4-28	99.0	94.0
5/16-18	138.0	132.0
5/16-24	147.0	142.0
3/8-16	247.0	236.0
3/8-24	271.0	259.0
7/16-14	393.0	376.0
7/16-20	418.0	400.0
1/2-13	542.0	517.0
1/2-20	565.0	541.0
9/16-12	713.0	682.0
9/16-18	787.0	752.0
5/8-11	1,160.0	1,110.0
5/8-18	1,301.0	1,244.0
3/4-10	1,582.0	1,530.0
3/4-16	1,558.0	1,490.0
7/8-9	2,430.0	2,328.0
7/8-14	2,420.0	2,318.0
1"-8	3,595.0	3,440.0
1"-14	3,250.0	3,110.0

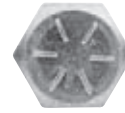


BOLT CLAMP LOADS



BOLT CLAMP LOADS

Suggested Assembly Torque Values



DIAMETER & THREADS PER INCH	USS/SAE GRADE 5				
	TENSILE STRENGTH MIN. PSI	PROOF LOAD LB	CLAMP LOAD LB	TORQUE DRY FT LB	LUBRICATED FT LB
1/4-20	120,000	2,700	2,020	8	6.3
1/4-28	120,000	3,100	2,320	10	7.2
5/16-18	120,000	4,450	3,340	17	13
5/16-24	120,000	4,900	3,700	19	14
3/8-16	120,000	6,600	4,950	30	23
3/8-24	120,000	7,450	5,600	35	25
7/16-14	120,000	9,050	6,780	50	35
7/16-20	120,000	10,100	7,570	55	40
1/2-13	120,000	12,100	9,050	75	55
1/2-20	120,000	13,600	10,200	85	65
9/16-12	120,000	15,500	11,600	110	80
9/16-18	120,000	17,300	12,950	120	90
5/8-11	120,000	19,200	14,400	150	110
5/8-18	120,000	21,800	16,350	170	130
3/4-10	120,000	28,400	21,300	260	200
3/4-16	120,000	31,700	23,780	300	220
7/8-9	120,000	39,300	29,450	430	320
7/8-14	120,000	43,300	32,450	470	350
1-8	120,000	51,500	38,600	640	480
1-14	120,000	57,700	43,300	720	540

DIAMETER & THREADS PER INCH	USS/ SAE GRADE 8				
	TENSILE STRENGTH MIN. PSI	PROOF LOAD LB	CLAMP LOAD LB	TORQUE DRY FT LB	LUBRICATED FT LB
1/4-20	150,000	3,800	2,850	12	9
1/4-28	150,000	4,350	3,250	14	10
5/16-18	150,000	6,300	4,700	24	18
5/16-24	150,000	6,950	5,200	27	20
3/8-16	150,000	9,300	6,980	45	35
3/8-24	150,000	10,500	7,900	50	35
7/16-14	150,000	12,800	9,550	70	50
7/16-20	150,000	14,200	10,650	80	60
1/2-13	150,000	17,000	12,750	110	80
1/2-20	150,000	19,200	14,400	120	90
9/16-12	150,000	21,800	16,350	150	110
9/16-18	150,000	24,400	18,250	170	130
5/8-11	150,000	27,100	20,350	210	160
5/8-18	150,000	30,700	23,000	240	180
3/4-10	150,000	40,100	30,100	380	280
3/4-16	150,000	44,800	33,500	420	310
7/8-9	150,000	55,400	41,600	600	450
7/8-14	150,000	61,100	45,800	670	500
1-8	150,000	72,700	54,500	910	680
1-14	150,000	81,500	61,100	1,020	760

When using anti-seize, reduce the lubed chart reading by 20% to properly torque. Always lubricate and use lubed torque values.

NOTES:

The above recommended assembly torques are offered as a guide only. Torque specifications, especially for critical joints, should be determined under actual assembly conditions due to the many variables involved which are difficult to predict and do affect the torque-tension relationship.

The above recommended clamp loads are based on 75% of the minimum specified proof loads for each grade and size.

Torques for Grades 5 and 8 were calculated based on the following relationship:

$$T = R D P$$

Where: T = Torque (ft lb)

D = Nominal Diameter (in)

P = Clamp Load (lb)

R = Tightening Coefficient

The value of R is assumed to be equal to .20 for dry, unplated conditions and equal to .15 for lubricated, including plated, conditions. Actual values of R can vary between .05 and .35 for commonly encountered conditions.

STRENGTH GRADE	APPLICABLE SIZES	PROOF LOAD STRESS (psi)	YIELD STRENGTH MIN. STRESS (psi)	TENSILE STRESS MIN. (psi)
SAE Gr. 5	1/4 to 1" dia.	85,000	92,000	120,000
	1" dia. to 1-1/2 dia.	74,000	81,000	105,000
SAE Gr. 8	1/4 to 1" dia.	120,000	130,000	150,000

Pounds to Inch Pound Conversion
 lb x 12 = inch lb
 Example: 9 lb x 12 = 108 inch lb

FRACTIONAL MEASUREMENT		
BOLT DIAMETER	CAP SCREW WRENCH SIZE	NUT WRENCH SIZE
1/4	7/16	7/16
5/16	1/2	1/2
3/8	9/16	9/16
7/16	5/8	11/16
1/2	3/4	3/4
9/16	13/16	7/8
5/8	15/16	15/16
3/4	1-1/8	1-1/8
7/8	1-5/16	1-5/16
1"	1-1/2	1-1/2
1-1/8	1-11/16	1-11/16
1-1/4	1-7/8	1-7/8
1-3/8	2-1/16	2-1/16
1-1/2	2-1/4	2-1/4
1-3/4	2-5/8	2-5/8
2"	3"	3"
2-1/4	3-3/8	3-3/8
2-1/2	3-3/4	3-3/4
2-3/4	4-1/8	4-1/8
3"	4-1/2	4-1/2



CAP SCREW HEAD WRENCH SIZE CHART

CAP SCREW HEAD WRENCH SIZE CHART

10.9 ANSI-ISO METRIC MEASUREMENT	
CAP SCREW DIAMETER AND THREAD PITCH	WRENCH SIZE
M10 x 1.50	16mm
M12 x 1.75	18mm

10.9 DIN METRIC MEASUREMENT	
CAP SCREW DIAMETER AND THREAD PITCH	WRENCH SIZE
M6 x 1	10mm
M7 x 1.0	11mm
M8 x 1.125	13mm
M10 x 1.0 Extra Fine	17mm
M10 x 1.25 Fine	17mm
M10 x 1.50 Standard	17mm
M12 x 1.50 Fine	19mm
M12 x 1.75	19mm
M14 x 2.00	21mm
M16 x 2.00	24mm
M20 x 2.50	30mm
M24 x 3.00	36mm

8.8 DIN METRIC MEASUREMENT	
CAP SCREW DIAMETER AND THREAD PITCH	WRENCH SIZE
M4 x .70	7mm
M5 x .80	8mm
M6 x 1.0	10mm
M7 x 1.0	11mm
M8 x 1.0 Fine	13mm
M8 x 1.25 Standard	13mm
M10 x 1.0 Extra Fine	17mm
M10 x 1.25 Fine	17mm
M10 x 1.50 Standard	16mm
M12 x 1.25 Extra Fine	19mm
M12 x 1.50 Fine	19mm
M12 x 1.75 Standard	19mm
M14 x 1.50 Fine	21mm
M14 x 2.0 Standard	21mm
M16 x 2.0	24mm
M18 x 2.5	27mm
M20 x 2.5	30mm
M22 x 2.5	32mm
M24 x 3.0	36mm

DIAMETER / DECIMAL / METRIC CHART FOR SMALL DIAMETERS		
GAUGE OR DIAMETER	DECIMAL (INCHES)	(MM)
No. 0000	0.021	.53
No. 000	0.034	.86
No. 00	0.047	1.19
No. 0	0.060	1.524
No. 1	0.073	1.854
No. 2	0.086	2.184
No. 3	0.099	2.515
No. 4	0.112	2.845
No. 5	0.125	3.175
No. 6	0.138	3.505
No. 8	0.164	4.166
No. 10	0.190	4.826
No. 12	0.216	5.484

FASTENER CONVERSION CHART — INCH TO METRIC		
INCH EQUIVALENT		METRIC SIZE-PITCH
UNC	UNF	ISO AND IFI RECOMMENDED
1-64	1-72	M2 x 0.4
3-48	3-56	M2.5 x 0.45
4-40	4-48	M3 x .05
6-32	6-40	M3.5 x 0.6
8-32	8-36	M4 x .07
10-24	10-32	M5 x .08
1/4-20	1/4-28	M6 x 1
5/16-18	5/16-24	M8 x 1.25
3/8-16	3/8-24	M10 x 1.5
7/16-14	7/16-20	M12 x 1.75
1/2-13	1/2-20	M14 x 2
5/8-11	5/8-18	M18 x 2
3/4-10	3/4-16	M20 x 2.5
1-8	1-12	M24 x 3
1-1/4-7	1-1/8-12	M30 x 3.5
1-1/2-6	1-1/4-12	M36 x 4

COMMON DIN NUMBERS FOR METRIC FASTENERS	
DIN	HEX CAP SCREWS
931	Coarse thread pitch partially threaded (specify grade)
933	Coarse thread pitch fully threaded (specify grade)
930	Fine thread pitch partially threaded (specify grade)
961	Fine thread pitch fully threaded (specify grade)
DIN	NUTS
934	Hex nuts (specify pitch and class)
985	Nylon insert locknuts (specify pitch and class)
980V	All metal locknuts (specify pitch and class)
DIN	WASHERS
125	Flatwashers
127	Lockwashers
DIN	SOCKET PRODUCTS
912	Socket head capscrews (normally GR 12.9 and coarse thread)
7991	Flat head socket capscrews (normally GR 12.9 and coarse thread)
916	Socket setscrews (normally GR 12.9 and coarse thread)
DIN	Machine Screws
7985	Pan head Phillips drive zinc plated
965	Flat head Phillips drive zinc plated
DIN	THREADED ROD
975	All threaded rod (normally 1 meter lengths, specify grade and pitch)



CONVERSION CHART

INCHES DECIMALS MILLIMETERS

INCHES	DECIMALS	MM
1/64	.015625	.39688
1/32	.03125	.79375
3/64	.046875	1.19063
1/16	.0625	1.58750
5/64	.078125	1.98438
3/32	.09375	2.38125
7/64	.109375	2.77813
1/8	.125	3.17500
9/64	.140625	3.57188
5/32	.15625	3.96875
11/64	.171875	4.36563
3/16	.1875	4.76250
13/64	.203125	5.15938
7/32	.21875	5.55625
15/64	.234375	5.95313
1/4	.25	6.35000
17/64	.265625	6.74688
9/32	.28125	7.14375
19/64	.296875	7.54063
5/16	.3125	7.93750
21/64	.328125	8.33438
11/32	.34375	8.73125
23/64	.359375	9.12813
3/8	.375	9.52500
25/64	.390625	9.92188
13/32	.40625	10.31875
27/64	.421875	10.71563
7/16	.4375	11.11250
29/64	.453125	11.50938
15/32	.46875	11.90625
31/64	.484375	12.30313
1/2	.5	12.70000
33/64	.515625	13.09688
17/32	.53125	13.49375
35/64	.546875	13.89063
9/16	.5625	14.28750
37/64	.578125	14.68438
19/32	.59375	15.08125
39/64	.609375	15.47813
5/8	.625	15.87500
41/64	.640625	16.27188
21/32	.65625	16.66875
43/64	.671875	17.06563
11/16	.6875	17.46250
45/64	.703125	17.85938
23/32	.71875	18.25625
47/64	.734375	18.65313
3/4	.75	19.05000
49/64	.765625	19.44688
25/32	.78125	19.84375
51/64	.796875	20.24063
13/16	.8125	20.63750
53/64	.828125	21.03438
27/32	.84375	21.43125
55/64	.859375	21.82813
7/8	.875	22.22500
57/64	.890625	22.62188
29/32	.90625	23.01875
59/64	.921875	23.41563
15/16	.9375	23.81250
61/64	.953125	24.20938
31/32	.96875	24.60625
63/64	.984375	25.00313
1"	1.000	25.40000

MM	INCHES
.1	.0039
.2	.0079
.3	.0118
.4	.0157
.5	.0197
.6	.0236
.7	.0276
.8	.0315
.9	.0354
1	.0394
2	.0787
3	.1181
4	.1575
5	.1969
6	.2362
7	.2756
8	.3150
9	.3543
10	.3937
11	.4331
12	.4724
13	.5118
14	.5512
15	.5906
16	.6299
17	.6693
18	.7087
19	.7480
20	.7874
21	.8268
22	.8661
23	.9055
24	.9449
25	.9843
26	1.0236
27	1.0630
28	1.1024
29	1.1417
30	1.1811
31	1.2205
32	1.2598
33	1.2992
34	1.3386
35	1.3780
36	1.4173
37	1.4567
38	1.4961
39	1.5354
40	1.5748
41	1.6142
42	1.6535
43	1.6929
44	1.7323
45	1.7717
46	1.8110

MM	INCHES
47	1.8504
48	1.8898
49	1.9291
50	1.9685
51	2.0079
52	2.0472
53	2.0866
54	2.1260
55	2.1654
56	2.2047
57	2.2441
58	2.2835
59	2.3228
60	2.3622
61	2.4016
62	2.4409
63	2.4803
64	2.5197
65	2.5591
66	2.5984
67	2.6378
68	2.6772
69	2.7165
70	2.7559
71	2.7953
72	2.8346
73	2.8740
74	2.9134
75	2.9528
76	2.9921
77	3.0315
78	3.0709
79	3.1102
80	3.1496
81	3.1890
82	3.2283
83	3.2677
84	3.3071
85	3.3465
86	3.3858
87	3.4252
88	3.4646
89	3.5039
90	3.5433
91	3.5827
92	3.6220
93	3.6614
94	3.7008
95	3.7402
96	3.7795
97	3.8189
98	3.8583
99	3.8976
100	3.9370

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