

Marketed By:



فاستنر بوينت (ش.ذ.م.م.)
FASTENER POINT LLC



Manufactured By:



فاستنر بوينت للصناعات (ش.ذ.م.م.)
FASTENER POINT IND. LLC

		PITCH TPI		Stress area in ²			BOLT/SCREW & STUD ASTM A193 B16										NUT ASTM A194 Gr. 4						
BOLT SIZE	Inch	UNC	UNF	8UN	UNC	UNF	8UN	SHANK DIAMETER Inch	WIDTH ACCROSS FLATS Inch	HEAD HEIGHT Inch	YIELD STRESS ksi	YIELD LOAD 8UN lbf	TENSILE STRESS ksi	TORQUE * ft. lbf	REDUCTION OF AREA %	HARDNESS HRC	ELONG-ATION # %	WIDTH ACCROSS FLATS Inch	HEAD HEIGHT Inch	PROOF STRESS ksi	PROOF LOAD 8UN lbf	HARDNESS HRC	
																							0.0318
1/4	20	28			0.0318	0.0364																	
5/16	18	24			0.0524	0.0580																	
3/8	16	24			0.0775	0.0878		0.360-0.388	0.669-0.688	0.226-0.268	105	8,140	125	34	50-	-35	18-	0.669-0.688	0.341-0.377	175	13,560	24-35	
7/16	14	20			0.1063	0.1187					105	11,160	125	55	50-	-35	18-			175	18,600	24-35	
1/2	13	20			0.1419	0.1599		0.482-0.515	0.850-0.875	0.302-0.364	105	14,900	125	83	50-	-35	18-	0.850-0.875	0.464-0.504	175	24,830	24-35	
9/16	12	18			0.182	0.203					105	19,110	125	120	50-	-35	18-			175	31,850	24-35	
5/8	11	18			0.226	0.256		0.605-0.642	1.031-1.062	0.378-0.444	105	23,730	125	166	50-	-35	18-	1.031-1.062	0.587-0.631	175	39,550	24-35	
3/4	10	16			0.334	0.373		0.729-0.768	1.212-1.250	0.455-0.524	105	35,070	125	294	50-	-35	18-	1.212-1.250	0.710-0.758	175	58,450	24-35	
7/8	9	14			0.462	0.509		0.852-0.895	1.394-1.438	0.531-0.604	105	48,510	125	475	50-	-35	18-	1.394-1.438	0.833-0.885	175	80,850	24-35	
1	8	12	8		0.606	0.663	0.606	0.976-1.022	1.575-1.625	0.591-0.700	105	63,630	125	712	50-	-35	18-	1.575-1.625	0.956-1.012	175	106,100	24-35	
1 1/8	7	12	8		0.763	0.856	0.790	1.098-1.149	1.756-1.812	0.658-0.780	105	82,950	125	1,044	50-	-35	18-	1.756-1.812	1.079-1.139	175	138,300	24-35	
1 1/4	7	12	8		0.969	1.073	1.000	1.223-1.277	1.938-2.000	0.749-0.876	105	105,000	125	1,468	50-	-35	18-	1.938-2.000	1.187-1.251	175	175,000	24-35	
1 3/8	6	12	8		1.155	1.315	1.233	1.345-1.404	2.119-2.188	0.810-0.940	105	129,570	125	1,993	50-	-35	18-	2.119-2.188	1.310-1.378	175	216,000	24-35	
1 1/2	6	12	8		1.405	1.581	1.492	1.470-1.531	2.300-2.375	0.902-1.036	105	156,660	125	2,629	50-	-35	18-	2.300-2.375	1.433-1.505	175	261,100	24-35	
1 5/8			8				1.78	1.591-1.658	2.481-2.562	0.978-1.116	105	185,850	125	3,379	50-	-35	18-	2.481-2.562	1.556-1.632	175	309,800	24-35	
1 3/4	5		8		1.90		2.08	1.716-1.785	2.662-2.750	1.054-1.196	105	218,400	125	4,276	50-	-35	18-	2.662-2.750	1.679-1.759	175	364,000	24-35	
1 7/8			8				2.41	1.839-1.912	2.844-2.938	1.130-1.276	105	253,050	125	5,308	50-	-35	18-	2.844-2.938	1.802-1.886	175	421,800	24-35	
2	4 1/2		8		2.50		2.77	1.964-2.039	3.025-3.125	1.175-1.388	105	290,850	125	6,508	50-	-35	18-	3.025-3.125	1.925-2.013	175	484,800	24-35	
2 1/4	4 1/2		8		3.25		3.56	2.214-2.305	3.388-3.500	1.327-1.548	105	373,800	125	9,409	50-	-35	18-	3.388-3.500	2.155-2.251	175	623,000	24-35	
2 1/2	4		8		4.00		4.44	2.461-2.559	3.750-3.875	1.479-1.708	105	466,200	125	13,039	50-	-35	18-	3.750-3.875	2.401-2.505	175	777,000	24-35	
2 3/4	4		8		4.93		5.43	2.711-2.827	4.112-4.250	1.632-1.869	95	515,850	110	15,870	45-	-35	17-	4.112-4.250	2.647-2.759	175	950,300	24-35	
3	4		8		5.97		6.51	2.961-3.081	4.475-4.625	1.815-2.060	95	618,450	110	20,757	45-	-35	17-	4.475-4.625	2.893-3.013	175	1,139,300	24-35	
3 1/4	4		8		7.10		7.69				95	730,550	110	26,562	45-	-35	17-	4.838-5.000	3.124-3.252	175	1,345,800	24-35	
3 1/2	4		8		8.33		8.96				95	851,200	110	33,330	45-	-35	17-	5.200-5.375	3.370-3.506	175	1,568,000	24-35	
3 3/4	4		8		9.66		10.34				95	982,300	110	41,211	45-	-35	17-	5.562-5.750	3.616-3.760	175	1,809,500	24-35	
4	4		8		11.08		11.81				95	1,121,950	758	50,207	45-	-35	17-	5.925-6.125	3.862-4.014	175	2,066,800	24-35	
Dimensions							HEAVY HEX as per ANSI/ASME B18.2.1										HEAVY HEX as per ANSI/ASME B18.2.2						
Markings							'FPI' 'B16'										'FPI' '4L'						
Tempering °C							1200 (650 °C)										1100 (595 °C)						
Heating for 24 Hours for the Nut °C																	1100 (590 °C)						
Hardness After Heating																	94 HRB						
Charpy Test Specimen 10X10X55																	27 J min (Avg)						
Charpy V Notch Impact test at																	-101± C Temp						
Carbon							0.36-0.47										0.40-0.50						
Manganese							0.45-0.70										0.70-0.90						
Sulfur							-0.04										-0.040						
Silicon							0.15-0.35										0.15-0.35						
Chromium							0.80-1.15																
Molybdenum							0.50-0.65										0.20-0.30						
Nickel																							
Vanadium							0.25-0.35																
Boron																							
Copper																							
Nitrogen							-0.035										-0.035						
Phosphorus							-0.015																
Material							Chro-moly-van Steel										AISI 4140/4142/4145						

Notes:

- 8UN means less than 1" UNC thread and above 1" 8 TPI thread
- Left hand side of '-' is minimum value right hand side of '-' is maximum value
Eg. 0.5-0.7 min is 0.5 and max is 0.7
Eg. -0.8 max is 0.8 no minimum value
Eg. 2.0- min is 2.0 no maximum value

* Torque value based on 75% of proof load and finish as received steel
Elongation in length of 4 times Diameter

While every care has been taken in preparation of the information, the company accepts no liability for any loss or damage either direct or consequential, Please refer Original standards for details.