

Marketed By:



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



Manufactured By:



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

| BOLT SIZE | PITCH | STRESS AREA | BOLT/SCREW & STUD ASTM A320M L7 | | | | | | | | | | NUT ASTM A194M Gr. 7 | | | | |
|------------------------------------|-------|-----------------|---------------------------------------|---------------------|-------------|--------------|------------|----------------|----------|-------------------|----------|---------------|---------------------------------------|--------------|--------------|------------|----------|
| | | | SHANK DIAMETER | WIDTH ACCROSS FLATS | HEAD HEIGHT | YIELD STRESS | YIELD LOAD | TENSILE STRESS | TORQUE * | REDUCTION OF AREA | HARDNESS | ELONG-ATION # | WIDTH ACCROSS FLATS | HEAD HEIGHT | PROOF STRESS | PROOF LOAD | HARDNESS |
| mm | mm | mm ² | mm | mm | mm | Mpa | KN | Mpa | N-m | % | HRC | % | mm | mm | Mpa | KN | HRC |
| M6 | 1 | 20.1 | | | | 725 | 14.6 | 860 | 11.7 | 50- | -35 | 16- | | | 1205 | 24.2 | 24-35 |
| M8 | 1.25 | 36.6 | | | | 725 | 26.5 | 860 | 28.5 | 50- | -35 | 16- | | | 1205 | 44.1 | 24-35 |
| M10 | 1.5 | 58.8 | | | | 725 | 42.6 | 860 | 57.2 | 50- | -35 | 16- | | | 1205 | 70.9 | 24-35 |
| M12 | 1.75 | 84.3 | 11.73~12.00 | 20.67~21.00 | 7.24~7.76 | 725 | 61.1 | 860 | 98.5 | 50- | -35 | 16- | 20.16~21.00 | 11.90~12.30 | 1205 | 101.6 | 24-35 |
| M14 | 2.0 | 115.0 | 13.73~14.00 | 23.67~24.00 | 8.51~9.09 | 725 | 83.4 | 860 | 156.7 | 50- | -35 | 16- | 23.16~24.00 | 13.60~14.30 | 1205 | 138.6 | 24-35 |
| M16 | 2.0 | 157.0 | 15.73~16.00 | 26.67~27.00 | 9.68~10.32 | 725 | 113.8 | 860 | 244.5 | 50- | -35 | 16- | 26.16~27.00 | 16.40~17.10 | 1205 | 189.2 | 24-35 |
| M18 | 2.5 | 192.0 | | | | 725 | 139.2 | 860 | 336.4 | 50- | -35 | 16- | | | 1205 | 231.4 | 24-35 |
| M20 | 2.5 | 245.0 | 19.67~20.00 | 33.00~34.00 | 12.12~12.88 | 725 | 177.6 | 860 | 476.9 | 50- | -35 | 16- | 33.00~34.00 | 19.40~20.70 | 1205 | 295.2 | 24-35 |
| M22 | 2.5 | 303.0 | | | | 725 | 219.7 | 860 | 648.8 | 50- | -35 | 16- | 35.00~36.00 | 22.30~23.60 | 1205 | 365.1 | 24-35 |
| M24 | 3.0 | 353.0 | 23.67~24.00 | 40.00~41.00 | 14.56~15.44 | 725 | 255.9 | 860 | 824.6 | 50- | -35 | 16- | 40.00~41.00 | 22.90~24.20 | 1205 | 425.4 | 24-35 |
| M27 | 3.0 | 459.0 | | | | 725 | 332.8 | 860 | 1,206 | 50- | -35 | 16- | 45.00~46.00 | 26.30~27.60 | 1205 | 553.1 | 24-35 |
| M30 | 3.5 | 561.0 | 29.67~30.00 | 49.00~50.00 | 17.92~19.48 | 725 | 406.7 | 860 | 1,638 | 50- | -35 | 16- | 49.00~50.00 | 29.10~30.70 | 1205 | 676.0 | 24-35 |
| M33 | 3.5 | 694.0 | | | | 725 | 503.2 | 860 | 2,229 | 50- | -35 | 16- | | | 1205 | 836.3 | 24-35 |
| M36 | 4.0 | 817.0 | 35.61~36.00 | 58.80~60.00 | 21.72~23.38 | 725 | 592.3 | 860 | 2,863 | 50- | -35 | 16- | 58.80~60.00 | 35.00~36.60 | 1205 | 984.5 | 24-35 |
| M39 | 4.0 | 976.0 | | | | 725 | 707.6 | 860 | 3,705 | 50- | -35 | 16- | | | 1205 | 1,176 | 24-35 |
| M42 | 4.5 | 1,120.0 | | | | 725 | 812.0 | 860 | 4,578 | 50- | -35 | 16- | 67.90~70.00 | 40.40~42.00 | 1205 | 1,350 | 24-35 |
| M45 | 4.5 | 1,310.0 | | | | 725 | 949.8 | 860 | 5,738 | 50- | -35 | 16- | | | 1205 | 1,579 | 24-35 |
| M48 | 5.0 | 1,470.0 | | | | 725 | 1,065.8 | 860 | 6,868 | 50- | -35 | 16- | 77.60~80.00 | 46.40~48.00 | 1205 | 1,771 | 24-35 |
| M52 | 5.0 | 1,760.0 | | | | 725 | 1,276.0 | 860 | 8,908 | 50- | -35 | 16- | | | 1205 | 2,121 | 24-35 |
| M56 | 5.5 | 2,030.0 | | | | 725 | 1,471.8 | 860 | 11,065 | 50- | -35 | 16- | 87.20~90.00 | 54.10~56.00 | 1205 | 2,446 | 24-35 |
| M60 | 5.5 | 2,360.0 | | | | 725 | 1,711.0 | 860 | 13,782 | 50- | -35 | 16- | | | 1205 | 2,844 | 24-35 |
| M64 | 6.0 | 2,680.0 | | | | 725 | 1,943.0 | 860 | 16,694 | 50- | -35 | 16- | 96.80~100.00 | 62.10~64.00 | 1205 | 3,229 | 24-35 |
| M68 | 6.0 | 3,060.0 | | | | 725 | 2,218.5 | 860 | 20,253 | 50- | -35 | 16- | | | 1205 | 3,687 | 24-35 |
| M72 | 6.0 | 3,460.0 | | | | 725 | 2,508.5 | 860 | 24,247 | 50- | -35 | 16- | 106.40~110.00 | 70.10~72.00 | 1205 | 4,169 | 24-35 |
| M76 | 6.0 | 3,890.0 | | | | 725 | 2,820.3 | 860 | 28,775 | 50- | -35 | 16- | | | 1205 | 4,687 | 24-35 |
| M80 | 6.0 | 4,340.0 | | | | 725 | 3,146.5 | 860 | 33,793 | 50- | -35 | 16- | 116.00~120.00 | 78.10~80.00 | 1205 | 5,230 | 24-35 |
| M85 | 6.0 | 4,950.0 | | | | 725 | 3,588.8 | 860 | 40,952 | 50- | -35 | 16- | | | 1205 | 5,965 | 24-35 |
| M90 | 6.0 | 5,590.0 | | | | 725 | 4,052.8 | 860 | 48,967 | 50- | -35 | 16- | 130.50~135.00 | 87.80~90.00 | 1205 | 6,736 | 24-35 |
| M95 | 6.0 | 6,270.0 | | | | 725 | 4,545.8 | 860 | 57,975 | 50- | -35 | 16- | | | 1205 | 7,555 | 24-35 |
| M100 | 6.0 | 6,990.0 | | | | 725 | 5,067.8 | 860 | 68,035 | 50- | -35 | 16- | 145.00~150.00 | 97.80~100.00 | 1205 | 8,423 | 24-35 |
| Dimensions | | | HEAVY HEX as per ANSI/ASME B18.2.3.3M | | | | | | | | | | HEAVY HEX as per ANSI/ASME B18.2.4.6M | | | | |
| Markings | | | 'FPI' 'L7' | | | | | | | | | | 'FPI' '7L' | | | | |
| Tempering °C | | | 593 (1100° F) | | | | | | | | | | 595 (1100° F) | | | | |
| Heating for 24Hours for the Nut °C | | | | | | | | | | | | | 590 (1100° F) | | | | |
| Hardness After Heating | | | | | | | | | | | | | 94 HRB | | | | |
| Charpy Test Specimen 10X10X55 | | | 27 J min (Avg) | | | | | | | | | | 27 J min (Avg) | | | | |
| Charpy V Notch Impact test at | | | -101° C Temp | | | | | | | | | | -101° C Temp | | | | |
| Carbon | | | 0.38-0.48 | | | | | | | | | | 0.37-0.49 | | | | |
| Manganese | | | 0.75-1.0 | | | | | | | | | | 0.65-1.10 | | | | |
| Sulfur | | | -0.04 | | | | | | | | | | 0.04 | | | | |
| Silicon | | | 0.15-0.35 | | | | | | | | | | 0.15-0.35 | | | | |
| Chromium | | | 0.80-1.1 | | | | | | | | | | 0.75-1.20 | | | | |
| Molybdenum | | | 0.15-0.25 | | | | | | | | | | 0.15-0.25 | | | | |
| Nickle | | | - | | | | | | | | | | | | | | |
| Vanadium | | | | | | | | | | | | | | | | | |
| Boron | | | | | | | | | | | | | | | | | |
| Copper | | | | | | | | | | | | | | | | | |
| Nitrogen | | | | | | | | | | | | | | | | | |
| Phosphorus | | | | | | | | | | | | | | | | | |
| Material | | | -0.035 | | | | | | | | | | -0.035 | | | | |

Notes:

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

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