



PROPERTIES OF STAINLESS STEEL AISI 316 (A4)

| BOLT SIZE | PITCH | STRESS AREA MM2 | BOTL/NUT AISI 316 CLASS 70 OR EN 1.4401 | | | | | BOTL/NUT AISI 316 CLASS 80 OR EN 1.4401 | | | | |
|-----------|-------|-----------------|---|---------------|---------------|----------------------|----------------|---|---------------|---------------|----------------------|--------------|
| | | | PROOF STRESS N/MM2 | PROOF LOAD KN | TOUR-QUE* N-m | TENSILE STRESS N/MM2 | ELONGA-TION# % | PROOF STRESS N/MM2 | PROOF LOAD KN | TOUR-QUE* N-m | TENSILE STRESS N/MM2 | ELOGATIO on# |
| M6 | 1 | 20.1 | 450 | 9.0 | 7.3 | 700.0 | 40.0 | 600 | 12.1 | 9.7 | 800.0 | 40.0 |
| M8 | 1.25 | 36.6 | 450 | 16.5 | 17.7 | 700.0 | 40.0 | 600 | 22.0 | 23.6 | 800.0 | 40.0 |
| M10 | 1.5 | 58.8 | 450 | 26.5 | 35.5 | 700.0 | 40.0 | 600 | 35.3 | 47.4 | 800.0 | 40.0 |
| M12 | 1.75 | 84.3 | 450 | 37.9 | 61.1 | 700.0 | 40.0 | 600 | 50.6 | 81.5 | 800.0 | 40.0 |
| M14 | 2.0 | 115.0 | 450 | 51.8 | 97.3 | 700.0 | 40.0 | 600 | 69.0 | 129.7 | 800.0 | 40.0 |
| M16 | 2.0 | 157.0 | 450 | 70.7 | 151.8 | 700.0 | 40.0 | 600 | 94.2 | 202.3 | 800.0 | 40.0 |
| M18 | 2.5 | 192.0 | 450 | 86.4 | 208.8 | 700.0 | 40.0 | 600 | 115.2 | 278.4 | 800.0 | 40.0 |
| M20 | 2.5 | 245.0 | 450 | 110.3 | 296.0 | 700.0 | 40.0 | 600 | 147.0 | 394.7 | 800.0 | 40.0 |
| M22 | 2.5 | 303.0 | 450 | 136.4 | 402.7 | 700.0 | 40.0 | 600 | 181.8 | 536.9 | 800.0 | 40.0 |
| M24 | 3.0 | 353.0 | 450 | 158.9 | 511.8 | 700.0 | 40.0 | 600 | 211.8 | 682.4 | 800.0 | 40.0 |
| M27 | 3.0 | 459.0 | 450 | 206.6 | 748.7 | 700.0 | 40.0 | 600 | 275.4 | 998.3 | 800.0 | 40.0 |
| M30 | 3.5 | 561.0 | 450 | 252.5 | 1,017 | 700.0 | 40.0 | 600 | 336.6 | 1,356 | 800.0 | 40.0 |
| M33 | 3.5 | 694.0 | 450 | 312.3 | 1,384 | 700.0 | 40.0 | 600 | 416.4 | 1,845 | 800.0 | 40.0 |
| M36 | 4.0 | 817.0 | 450 | 367.7 | 1,777 | 700.0 | 40.0 | 600 | 490.2 | 2,369 | 800.0 | 40.0 |
| M39 | 4.0 | 976.0 | 450 | 439.2 | 2,300 | 700.0 | 40.0 | 600 | 585.6 | 3,066 | 800.0 | 40.0 |
| M42 | 4.5 | 1,120.0 | | | | | | | | | | |
| M45 | 4.5 | 1,310.0 | | | | | | | | | | |
| M48 | 5.0 | 1,470.0 | | | | | | | | | | |
| M52 | 5.0 | 1,760.0 | | | | | | | | | | |
| M56 | 5.5 | 2,030.0 | | | | | | | | | | |
| M60 | 5.5 | 2,360.0 | | | | | | | | | | |
| M64 | 6.0 | 2,680.0 | | | | | | | | | | |
| M68 | 6.0 | 3,060.0 | | | | | | | | | | |
| M72 | 6.0 | 3,460.0 | | | | | | | | | | |

| DIMENSIONS | NORMAL HEX | NORMAL HEX |
|-------------|--------------|--------------|
| MARKINGS | 'RS' 'A4-70' | 'RS' 'A4-80' |
| CARBON | -0.07 | -0.07 |
| MANAGENESE | -2.0 | -2.0 |
| SULPHUR | -0.03 | -0.03 |
| SILICON | -1.0 | -1.0 |
| CHROMIUM | 16.0-18.0 | 16.0-18.0 |
| MOLYDENUM | 2.0-3.0 | 2.0-3.0 |
| NICKLE | 10.0-14.0 | 10.0-14.0 |
| VANADIUM | | |
| BORON | | |
| PHOSPHOROUS | -0.045 | -0.045 |
| MATERIAL | SS 316 | AISI 316 |

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

*If carbon is < 0.03 SS316L

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* Torque value based on 75% of proof load and finish as recieved steel