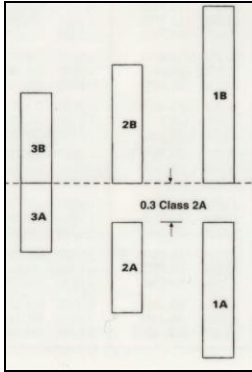


ISO INCH THREAD WITH A STANDARD UNEF-3B TOLERANCE

Ref. ASME B1.1 1989 Unified Inch Screw Threads

Relationship between the tolerances

mm to ins. / 25,4
ins. to mm x 25,4



Tolerance class **2A** is the foundation

$$1A = 1,500 \times 2A$$

$$1B = 1,950 \times 2A$$

$$2A = 1,000$$

$$2B = 1,300 \times 2A$$

$$3A = 0,750 \times 2A$$

$$3B = 0,975 \times 2A$$

Example :

On a $\frac{1}{2}$ -13 UNC-2A screw the pitch diameter tolerance is **0,127 mm**

Allowance from the nominal pitch diameter for **2A** and **1A**
is $0,127 \times 0,3 = \mathbf{0,038}$ i.e. $0.3 \times 2A$ pitch diameter tolerance

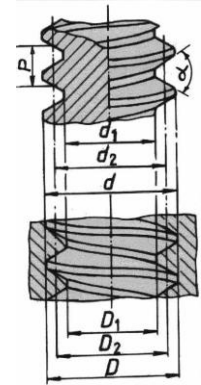
$$1A \text{ is } 0,127 \times 1,5 = \mathbf{0,1905}$$

$$1B \text{ is } 0,127 \times 1,950 = \mathbf{0,248}$$

$$2B \text{ is } 0,127 \times 1,300 = \mathbf{0,165}$$

$$3A \text{ is } 0,127 \times 0,75 = \mathbf{0,095}$$

$$3B \text{ is } 0,127 \times 0,975 = \mathbf{0,124}$$



| Denomination | or | d mm (nom.) | d ₂ nom | d ₂ max | d ₂ min |
|-----------------|----------------|-------------|--------------------|--------------------|--------------------|
| 12-32 UNEF | 0,216-32 UNEF | 5,486 | 4,971 | 5,050 | 4,971 |
| 1/4-32 UNEF | 0,250-32 UNEF | 6,350 | 5,834 | 5,913 | 5,834 |
| 5/16-32 UNEF | 0,3125-32 UNEF | 7,937 | 7,422 | 7,501 | 7,422 |
| 3/8-32 UNEF | 0,375-32 UNEF | 9,525 | 9,010 | 9,093 | 9,010 |
| 7/16-28 UNEF | 0,4375-28 UNEF | 11,112 | 10,523 | 10,612 | 10,523 |
| 1/2-28 UNEF | 0,500-28 UNEF | 12,700 | 12,111 | 12,202 | 12,111 |
| 9/16-24 UNEF | 0,5625-24 UNEF | 14,288 | 13,599 | 13,696 | 13,599 |
| 5/8-24 UNEF | 0,625-24 UNEF | 15,875 | 15,187 | 15,286 | 15,187 |
| 11/16-24 UNEF | 0,6875-24 UNEF | 17,462 | 16,774 | 16,873 | 16,774 |
| 3/4-20 UNEF | 0,750-20 UNEF | 19,050 | 18,224 | 18,334 | 18,224 |
| 13/16-20 UNEF | 0,8125-20 UNEF | 20,637 | 19,812 | 19,921 | 19,812 |
| 7/8-20 UNEF | 0,875-20 UNEF | 22,225 | 21,399 | 21,509 | 21,399 |
| 15/16-20 UNEF | 0,9375-20 UNEF | 23,812 | 22,987 | 23,099 | 22,987 |
| 1-20 UNEF | 1,000-20 UNEF | 25,400 | 24,574 | 24,686 | 24,574 |
| 1 1/16-18 UNEF | 1.0625-18 UNEF | 26,987 | 26,071 | 26,187 | 26,071 |
| 1 1/8-18 UNEF | 1,125-18 UNEF | 28,575 | 27,658 | 27,775 | 27,658 |
| 1 3/16-18 UNEF | 1.1875-18 UNEF | 30,162 | 29,245 | 29,365 | 29,245 |
| 1 1/4-18 UNEF | 1,250-18 UNEF | 31,750 | 30,833 | 30,952 | 30,833 |
| 1 5/16-18 UNEF | 1.3125-18 UNEF | 33,337 | 32,421 | 32,540 | 32,421 |
| 1 3/8-18 UNEF | 1,375-18 UNEF | 34,925 | 34,008 | 34,127 | 34,008 |
| 1 7/16-18 UNEF | 1.4375-18 UNEF | 36,512 | 35,595 | 35,717 | 35,595 |
| 1 1/2-18 UNEF | 1,500-18 UNEF | 38,100 | 37,183 | 37,305 | 37,183 |
| 1 9/16-18 UNEF | 1.5625-18 UNEF | 39,687 | 38,771 | 38,892 | 38,771 |
| 1 5/8-18 UNEF | 1.625-18 UNEF | 41,275 | 40,358 | 40,480 | 40,358 |
| 1 11/16-18 UNEF | 1.6875-18 UNEF | 42,862 | 41,945 | 42,070 | 41,945 |