

## ISO INCH THREAD WITH A STANDARD UNEF-2A TOLERANCE

Ref. ASME B1.1 1989 Unified Inch Screw Threads

### Relationship between the tolerances

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

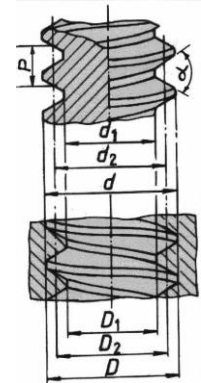
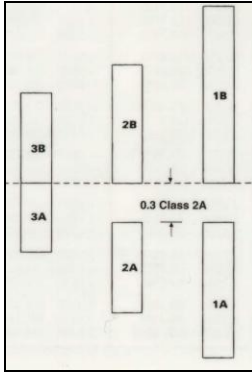
$$1A \text{ is } 0,127 \times 1,5 = \mathbf{0,1905}$$

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

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

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

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



Denomination	or	d mm (nom.)	d <sub>2</sub> nom	d <sub>2</sub> max	d <sub>2</sub> min
12-32 UNEF	0,216-32 UNEF	5,486	4,971	4,948	4,869
$\frac{1}{4}$ -32 UNEF	0,250-32 UNEF	6,350	5,834	5,809	5,728
$\frac{5}{16}$ -32 UNEF	0,3125-32 UNEF	7,937	7,422	7,396	7,315
$\frac{3}{8}$ -32 UNEF	0,375-32 UNEF	9,525	9,010	8,984	8,898
$\frac{7}{16}$ -28 UNEF	0,4375-28 UNEF	11,112	10,523	10,495	10,404
$\frac{1}{2}$ -28 UNEF	0,500-28 UNEF	12,700	12,111	12,083	11,989
$\frac{9}{16}$ -24 UNEF	0,5625-24 UNEF	14,288	13,599	13,569	13,470
$\frac{5}{8}$ -24 UNEF	0,625-24 UNEF	15,875	15,187	15,156	15,055
$\frac{11}{16}$ -24 UNEF	0,6875-24 UNEF	17,462	16,774	16,744	16,642
$\frac{3}{4}$ -20 UNEF	0,750-20 UNEF	19,050	18,224	18,191	18,080
$\frac{13}{16}$ -20 UNEF	0,8125-20 UNEF	20,637	19,812	19,779	19,667
$\frac{7}{8}$ -20 UNEF	0,875-20 UNEF	22,225	21,399	21,366	21,255
$\frac{15}{16}$ -20 UNEF	0,9375-20 UNEF	23,812	22,987	22,951	22,837
1-20 UNEF	1,000-20 UNEF	25,400	24,574	24,539	24,425
$1\frac{1}{16}$ -18 UNEF	1,0625-18 UNEF	26,987	26,071	26,035	25,916
$1\frac{1}{8}$ -18 UNEF	1,125-18 UNEF	28,575	27,658	27,622	27,503
$1\frac{3}{16}$ -18 UNEF	1,1875-18 UNEF	30,162	29,245	29,207	29,083
$1\frac{1}{4}$ -18 UNEF	1,250-18 UNEF	31,750	30,833	30,795	30,671
$1\frac{5}{16}$ -18 UNEF	1,3125-18 UNEF	33,337	32,421	32,382	32,258
$1\frac{3}{8}$ -18 UNEF	1,375-18 UNEF	34,925	34,008	33,970	33,846
$1\frac{7}{16}$ -18 UNEF	1,4375-18 UNEF	36,512	35,595	35,557	35,430
$1\frac{1}{2}$ -18 UNEF	1,500-18 UNEF	38,100	37,183	37,145	37,018
$1\frac{9}{16}$ -18 UNEF	1,5625-18 UNEF	39,687	38,771	38,732	38,605
$1\frac{5}{8}$ -18 UNEF	1,625-18 UNEF	41,275	40,358	40,320	40,193
$1\frac{11}{16}$ -18 UNEF	1,6875-18 UNEF	42,862	41,945	41,907	41,778