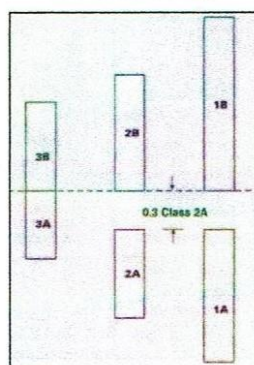


## ISO INCH THREAD WITH A STANDARD UNC-2A TOLERANCE

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

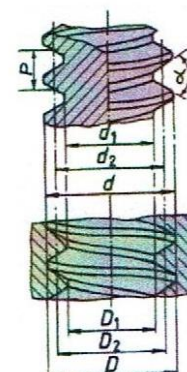
<b>1A = 1,500 x 2A</b>	<b>1B = 1,950 x 2A</b>
<b>2A = 1,000</b>	<b>2B = 1,300 x 2A</b>
<b>3A = 0,750 x 2A</b>	<b>3B = 0,975 x 2A</b>

Example :

On a **½-13 UNC-2A** screw the pitch diameter tolerance is **0,127 mm**

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

<b>1A</b> is $0,127 \times 1,5 = 0,1905$	<b>1B</b> is $0,127 \times 1,950 = 0,248$
	<b>2B</b> is $0,127 \times 1,300 = 0,165$
<b>3A</b> is $0,127 \times 0,75 = 0,095$	<b>3B</b> is $0,127 \times 0,975 = 0,124$



Denomination	or	d mm (nom.)	d <sub>2</sub> nom	d <sub>2</sub> max	d <sub>2</sub> min
3-48 UNC	0,099-48 UNC	2,515	2,172	2,154	2,095
4-40 UNC	0,112-40 UNC	2,845	2,433	2,413	2,350
5-40 UNC	0,125-40 UNC	3,175	2,764	2,743	2,677
6-32 UNC	0,138-32 UNC	3,505	2,990	2,969	2,898
8-32 UNC	0,164-32 UNC	4,166	3,650	3,627	3,553
10-24 UNC	0,190-24 UNC	4,826	4,138	4,112	4,028
12-24 UNC	0,216-24 UNC	5,486	4,798	4,773	4,686
¼-20 UNC	0,250-20 UNC	6,350	5,525	5,497	5,403
5/16-18 UNC	0,3125-18 UNC	7,937	7,021	6,990	6,888
3/8-16 UNC	0,375-16 UNC	9,525	8,494	8,461	8,349
7/16-14 UNC	0,4375-14 UNC	11,112	9,934	9,830	9,779
½-13 UNC	0,500-13 UNC	12,700	11,430	11,392	11,265
9/16-12 UNC	0,5625-12 UNC	14,288	12,913	12,873	12,741
5/8-11 UNC	0,625-11 UNC	15,875	14,376	14,336	14,196
¾-10 UNC	0,750-10 UNC	19,050	17,399	17,353	17,203
7/8-9 UNC	0,875-9 UNC	22,225	20,391	20,343	20,183
1-8 UNC	1,000-8 UNC	25,400	23,338	23,287	23,114
1 1/8-7 UNC	1,125-7 UNC	28,575	26,218	26,162	25,979
1 1/4-7 UNC	1,250-7 UNC	31,750	29,393	29,337	29,149
1 3/8-6 UNC	1,375-6 UNC	34,925	32,174	32,113	31,910
1 1/2-6 UNC	1,500-6 UNC	38,100	35,349	35,288	35,082
1 3/4-5 UNC	1,750-5 UNC	44,450	41,151	41,082	40,856
2-4 1/2 UNC	2,000-4 1/2 UNC	50,800	47,135	47,061	46,820
2 1/4-4 1/2 UNC	2,250-4 1/2 UNC	57,150	53,485	53,411	53,165
2 1/2-4 UNC	2,500-4 UNC	63,500	59,375	59,296	59,032
2 3/4-4 UNC	2,750-4 UNC	69,850	65,725	65,644	65,377
3-4 UNC	3,000-4 UNC	76,200	74,615	71,994	71,722
3 1/4-4 UNC	3,250-4 UNC	82,550	78,425	78,341	78,064
3 1/2-4 UNC	3,500-4 UNC	88,900	87,775	84,691	84,412
3 3/4-4 UNC	3,750-4 UNC	92,250	91,125	91,039	90,754
4-4 UNC	4,000-4 UNC	101,600	97,475	97,389	97,102

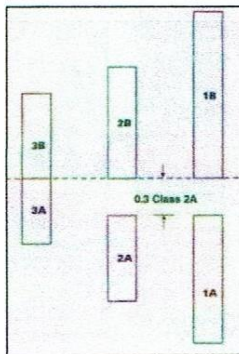
For more UN thread types and tolerances (UNF and UNEF) go to  
**THREAD MANUAL** under **SUPPORT INFO**

## ISO INCH THREAD WITH A STANDARD UNC-2B 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



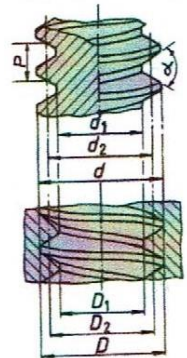
Tolerance class **2A** is the foundation

<b>1A = 1,500 x 2A</b>	<b>1B = 1,950 x 2A</b>
<b>2A = 1,000</b>	<b>2B = 1,300 x 2A</b>
<b>3A = 0,750 x 2A</b>	<b>3B = 0,975 x 2A</b>

Example :  
On a **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 x 0,3 = **0,038** i.e. 0.3 x 2A pitch diameter tolerance

<b>1A</b> is 0,127 x 1,5= <b>0,1905</b>	<b>1B</b> is 0,127 x 1,950 = <b>0,248</b>
<b>2B</b> is 0,127 x 1,300 = <b>0,165</b>	
<b>3A</b> is 0,127 x 0,75= <b>0,095</b>	<b>3B</b> is 0,127 x 0,975 = <b>0,124</b>



Betegnelse	eller	D mm (nom.)	D <sub>2</sub> nom	D <sub>2</sub> min	D <sub>2</sub> max
3-48 UNC	0,099-48 UNC	2,515	2,172	2,172	2,248
4-40 UNC	0,112-40 UNC	2,845	2,433	2,433	2,517
5-40 UNC	0,125-40 UNC	3,175	2,764	2,764	2,847
6-32 UNC	0,138-32 UNC	3,505	2,990	2,990	3,084
8-32 UNC	0,164-32 UNC	4,166	3,650	3,650	3,746
10-24 UNC	0,190-24 UNC	4,826	4,138	4,138	4,247
12-24 UNC	0,216-24 UNC	5,486	4,798	4,798	4,910
1/4-20 UNC	0,250-20 UNC	6,350	5,525	5,525	5,649
5/16-18 UNC	0,3125-18 UNC	7,937	7,021	7,021	7,155
3/8-16 UNC	0,375-16 UNC	9,525	8,494	8,494	8,639
7/16-14 UNC	0,4375-14 UNC	11,112	9,934	9,934	10,089
1/2-13 UNC	0,500-13 UNC	12,700	11,430	11,430	11,595
9/16-12 UNC	0,5625-12 UNC	14,288	12,913	12,913	13,086
5/8-11 UNC	0,625-11 UNC	15,875	14,376	14,376	14,559
3/4-10 UNC	0,750-10 UNC	19,050	17,399	17,399	17,595
7/8-9 UNC	0,875-9 UNC	22,225	20,391	20,391	20,599
1-8 UNC	1,000-8 UNC	25,400	23,338	23,338	23,561
1 1/8-7 UNC	1,125-7 UNC	28,575	26,218	26,218	26,457
1 1/4-7 UNC	1,250-7 UNC	31,750	29,393	29,393	29,637
1 3/8-6 UNC	1,375-6 UNC	34,925	32,174	32,174	32,438
1 1/2-6 UNC	1,500-6 UNC	38,100	35,349	35,349	35,616
1 3/4-5 UNC	1,750-5 UNC	44,450	41,151	41,151	41,445
2-4 1/2 UNC	2,000-4 1/2 UNC	50,800	47,135	47,135	47,450
2 1/4-4 1/2 UNC	2,250-4 1/2 UNC	57,150	53,485	53,485	53,805
2 1/2-4 UNC	2,500-4 UNC	63,500	59,375	59,375	59,718
2 3/4-4 UNC	2,750-4 UNC	69,850	65,725	65,725	66,073
3-4 UNC	3,000-4 UNC	76,200	74,615	74,615	72,428
3 1/4-4 UNC	3,250-4 UNC	82,550	78,425	78,425	78,783
3 1/2-4 UNC	3,500-4 UNC	88,900	87,775	87,775	85,138
3 3/4-4 UNC	3,750-4 UNC	92,250	91,125	91,125	91,493
4-4 UNC	4,000-4 UNC	101,600	97,475	97,475	97,848

For more UN thread types and tolerances (**UNF and UNEF**) go to  
**THREAD MANUAL** under **SUPPORT INFO**