



ITT

Lowara

Standards conversion

DIN	ISO	UNI
6900-5		
931	4014	5737
960	8765	5738
933	4017	5739
961	8676	5740
609		
610		
561		
479		
478		
480		
404		
920		
84	1207	6107
8243		
85	1580	
912	4762	5931
86		
7985	7045	7687
963	2009	6109
965	7046	7688
964	2010	
966	7047	7689
464		
465		
58531		
653		
58530		
444		
81698		
938		
939		
835		
940		
551	4766	
438	7436	
417	7435	
926		
553	7434	
913	4026	5923
915	4028	5925
914	4027	5927
70613		
7516		
79711	1481	
7972	1482	
7973	1483	
601	4016	
558	4018	
7990		
5903		
607		
603	8677	5732
63301		
21547		
604		
608		
605		
15237		
188		
261		
25192		
186		
7992		
316		
3266		
529		
525		

DIN	ISO	UNI
934	4032	5588
970	4032	
439	4035	
936	4035	
935	7035	5593
937	7038	
70618		
562		
917		
548		
1861		
546		
64032		
981		
0504		
70851		
929		
467		
6303		
58521		
466		
980	7042	
982	7040	
985	7040	
555	4034	
6334		
557		
798		
315		
582		
1478		
1480		
1479		
125	7089	6592
988		
433	7092	
1440	8738	
1441		
7349		
126	7091	
134		
436		
9021	7093	6593
440	7094	
128		8839
6796		
2093		
6908		
137		
434		
435		
6916	7146	5714
6917		
6918		
7980		
127		
6797		
6906		
6798		8842
6907		
6798		
93		
432		
5406	2982	
70952		
94	1234	
571		
96		
97		

DIN	ISO	UNI
95		
7996		
7997		
7995		
906		
907		
910		
7604		
1440		
1433		
1443	2340	
1436		
1434		
1444	2341	
1435		
7341		
7	2338	
7979	8735	
6325	8734	
1	2339	
258	8737	
7977	8737	
7978	8736	
1481	8752	6873
7346	8752	
1472	8745	
1470	8739	
1473	8740	
1477	8747	
1476	8746	
124		
660	1051	
674		
661		
675		
662		
302		
7338		
123		
7339		
7340		
7337		
268	3117	
271	3117	
6883	2492	
6886		
6885	R773	6604
6884	2492	
6887		
7993		
9045		
6799		
471		7435
472		7437
6914		5712
6915		5713
	7380	7380
7984		9327
7991		5933
916	4029	5929
7981	7049	6954
7982	7050	6955
7983	7051	6956
7976	1479	6949
7343	8750	6875

Technical information
SYMBOLS USED TO DESIGNATE THE STRENGTH AND SURFACE FINISH OF NUTS AND BOLTS

First complementary nr.	ISO/DIN Symbol	Tensile Strength R _m (N/mm ²)	Yield Point R _{el} (N/mm ²)
.0 -	4.6	340 - 550	210
.1 -	5.6	500 - 700	280
.2 -	5.8	500 - 700	400
.3 -	6.8	600 - 800	480
.5 -	8.8	800 - 1000	640
.7 -	10.9	1000 - 1200	900
.8 -	BRASS		
.9 -	per special instruction		

Second complementary nr.	Surface Finish
.- 0	no finish
.- 2	black finish
.- 3	phosphate coating
.- 4	cadmium plating
.- 5	zinc coating
.- 6	brass coating
.- 7	nickel plating
.- 8	chrome plating
.- 9	per special instruction

Strength characteristics calculation in the strength class ISO/DIN

-R_m: first number x 100 = tensile strength in N/mm²
 -R_{el}: first number x second number x 10 = yield point in N/mm²

Example: 8.8 = 8 x 100 = 800 N/mm² (R_m) 8 x 8 x 10 = 640 N/mm² (R_{el})

Example: ČSN 021 101.55

Second number after a dot is 5,
 i.e. zinc coated finish
 Type of zinc has to be added
 by word (white, yellow)

METRIC PITCH THREAD

PITCH	THREAD PITCH (P)			
	Standard	Fine		
	M	MF	MF-1	MF-2
M1,6	0,35	M1,6x0,2		
M2	0,4	M2x0,25		
M2,5	0,45	M2,5x0,35		
M3	0,5	M3x0,35		
M3,5	0,6	M3,5x0,35		
M4	0,7	M4x0,5		
M5	0,8	M5x0,5		
M6	1	M6x0,5		
M8	1,25	M8x1		
M10	1,5	M10x1,25	M10x1	
M12	1,75	M12x1,5	M12x1,25	M12x1
M14	2	M14x1,5	M14x1	
M16	2	M16x1,5	M16x1	
M18	2,5	M18x1,5	M18x1	
M20	2,5	M20x1,5	M20x1,25	M20x1
M22	2,5	M22x1,5	M22x1,25	M22x1
M24	3	M24x2	M24x1,25	M24x1
M27	3	M27x1,5	M27x1,5	M27x1
M30	3,5	M30x1,5	M30x1,5	M30x1
M33	3,5	M33x2	M33x1,25	
M36	4	M36x3	M36x2	M36x1,5
M39	4	M39x3	M39x2	M39x1,5
M42	4,5	M42x3	M42x2	M42x1,5
M45	4,5	M45x3	M45x2	M45x1,5
M48	5	M48x3	M48x2	M48x1,5
M52	5	M52x3	M52x2	
M56	5,5	M56x4	M56x3	M56x2
M60	5,5	M60x4	M60x2	M60x1,5
M64	6	M64x4	M64x2	M64x1,5
M68	6	M68x4	M68x2	
M72	6	M72x4	M72x2	
M76	6	M76x4	M76x2	
M80	6	M80x4	M80x2	
M90	6	M90x4	M90x2	
M100	6	M100x4	M100x2	

IMPERIAL PITCH THREAD

BSW (Ww) BRITISH STANDARD WITHWORTH
BSF BRITISH STANDARD FINE (fine)

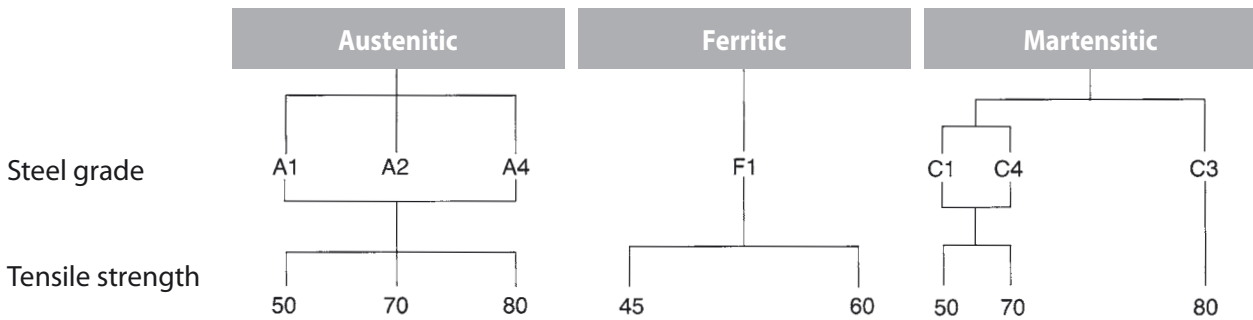
UNC UNIFIED COARSE (coarse)
UNF UNIFIED FINE (fine)

Diameter		BSW	BSF	UNC	UNF
inch	mm	Number of Threads per Inch			
2	2,18			56	94
3	2,51			48	56
4	2,84			40	48
5	3,17			40	44
1/8"	3,17	40			
6	3,50			32	40
5/32"	3,96	32			
8	4,15			32	36
3/16"	4,76	24	32		
10	4,82			24	32
12	5,48			24	28
7/32"	5,55	24	28		
1/4"	6,35	20	26	20	28
5/16"	7,94	18	22	18	24
3/8"	9,53	16	20	16	24
7/16"	11,11	14	18	14	20
1/2"	12,70	12	16	13	20
9/16"	14,29	12	16	12	18
5/8"	15,88	11	14	11	18
3/4"	19,05	10	12	10	16
7/8"	22,23	9	11	9	14
1"	25,40	8	10	8	12(14)
1 1/8"	28,57	7	9	7	12
1 1/4"	31,75	7	9	7	12
1 3/8"	34,92	6	8	6	12
1 1/2"	38,10	6	8	6	12
1 3/4"	44,45	5	7	5	
2"	50,80	4 1/2	7	4 1/2	

Stainless steel fasteners

Due to its quality and longer lifetime stainless steel fasteners becomes more popular despite its higher price. Stainless steel materials are produced from 3 types of steel:

- a. Austenitic
- b. Martensitic
- c. Ferritic



Chemical composition in %									
Steel grade		C	Si	Mn	P	S	Cr	Mo	Ni
Austenitic	A1	0,12	1,0	2,0	0,20	0,15 - 0,35	17,0 - 19,0	0,6	8,0 - 10,0
	A2	0,08	1,0	2,0	0,05	0,03	17,0 - 20,0		8,0 - 13,0
	A4	0,08	1,0	2,0	0,05	0,03	16,0 - 18,5	2,0 - 3,0	10,0 - 14,0
Martensitic	C1	0,09 - 0,15	1,0	1,0	0,05	0,03	11,5 - 14,0		1,0
	C3	0,17 - 0,25	1,0	1,0	0,04	0,03	16,0 - 18,0		1,5 - 2,5
	C4	0,08 - 0,15	1,0	1,5	0,06	0,15 - 0,35	12,0 - 14,0	0,6	1,0
Ferritic	F1	0,12	1,0	1,0	0,04	0,03	11,5 - 14,0		0,5

A1: For applications where partial corrosion resistance is sufficient.

A2: Most commonly used stainless steel.

A4: Best corrosion resistant stainless steel with molybdenum alloy.

DIN – STN Stainless Steel Conversion Table

Marking according to DIN		Marking according to STN	Marking according to DIN		Marking according to STN
grade	material number		grade	material number	
A1	1.4305	17 243	C1	1.4021	17 022
A2	1.4301	17 240	C1	1.4034	17 024
A2	1.4541	17 247-8	C3	1.4057	17 145
A4	1.4401	17 346	C4	1.4104	
A4	1.4571	17 347	F1	1.4006	17 021