

ISO FASTENERS SPECIFICATIONS DIFFERENCES

BOLTS

W.A.F. Smaller	M10: M12: M14	= 1.0mm
W.A.F. Larger	M22	= 2.0mm
Thread lengths	ISO	= 2D + 6: = 125mm = 2D + 12: >125mm.<200mm
	SABS 135 (M16-M24) (other sizes)	= 1½D: = 65mm = 2D + 6: > 65mm<125mm = 2D + 12: >125mm<200mm
	SABS 136	= 2D + 6: = 125mm = 2D + 12: > 125mm<200mm
	Strength Grades	4.8 = As Manufactured 4.6 = Stress Relieved 8.8 = Heat Treated 10.9 = Heat Treated

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BOLTS ISO TO SABS / DIN BOLT COMPARISON

BOLT SIZE	DIN 931	ISO 4014	SABS 136	DIN 7990	SABS 135
WIDTH ACROSS FLATS					
M6	10.00	10.00	10.00	-	10.00
M8	13.00	13.00	13.00	-	13.00
M10	17.00	**16.00	17.00	-	17.00
M12	19.00	**18.00	19.00	19.00	19.00
M14	22.00	**21.00	22.00	22.00	22.00
M16	24.00	24.00	24.00	24.00	24.00
M20	30.00	30.00	30.00	30.00	30.00
M22	32.00	**34.00	32.00	32.00	32.00
M24	36.00	36.00	36.00	36.00	36.00
M27	41.00	41.00	41.00	41.00	41.00
M30	46.00	46.00	46.00	46.00	46.00
M36	55.00	55.00	55.00	55.00	55.00
<i>NOTE : ** Indicates changes to specification</i>					

ISO TO SABS/DIN THREAD LENGTH COMPARISON

BOLT SIZE	DIN 931	ISO 4014	SABS 136	DIN 7990	SABS 135
THREAD LENGTH					
M6	2D + 6mm up to and including 125mm Bolt length >125mm & <200mm is 2D+12 Ref. Limits only as Spec. is based upon grip length	Same as DIN Spec	Same as DIN but in this case the 2D+6mm is the control length of thread. Bolts made to DIN can be used for SABS 136 but not visa versa.	Specification is based upon the grip length, on a sliding scale.	Thread length M16-M24 1½ dia. All length up to 65mm. Balance of products same as Din. <125mm (2D+6mm) >125mm
M8					
M10					
M12					
M14					
M16					
M20					
M22					
M24					
M27					
M30					
M36					

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NUTS

W.A.F. Smaller	M10: M12: M14	= 1.0mm
W.A.F. Larger	M22	= 2.0mm
ISO Nut is thicker	M6	= 0.2mm
	M36	= 2.0mm
ISO Nut is a stronger nut with a higher proof load		
Property Class 8 Nuts: (Style 1)	M6 to M16	= As Manufactured
	M20 upwards	= Heat Treated
Strength Grades:	ISO 4032	= Classes 6; 8; 10
	ISO 4034	= Classes 4; 5

ISO TO DIN NUT COMPARISON

NUT SIZE	SABS 136 DIN 934	ISO 4032 STYLE 1	SABS 136 DIN 934	ISO 4032 STYLE 1	DIN 267 PART 4	ISO 898 PT 2 STYLE 1
HEIGHT		ACROSS FLATS			PROOF LOAD	
M6	4.70-5.00	4.90-5.20	10.00	10.00	16000	17200
M8	6.14-6.50	6.44-6.80	13.00	13.00	29000	31800
M10	7.64-8.00	8.04-8.40	17.00	**16.00	46000	50500
M12	9.64-10.00	10.37-10.80	19.00	**18.00	67000	74200
M14	10.30-11.00	12.10-12.80	22.00	**21.00	92000	101200
M16	12.30-13.00	14.10-14.80	24.00	24.00	126000	138200
M20	14.90-16.00	16.90-18.00	30.00	30.00	196000	225400
M22	16.90-18.00	18.10-19.40	32.00	**34.00	242000	278800
M24	17.70-19.00	20.20-21.50	36.00	36.00	282000	324800
M27	20.70-22.00	22.50-23.80	41.00	41.00	367000	422300
M30	22.70-24.00	24.30-25.60	46.00	46.00	448000	516100
M36	27.40-29.00	29.40-31.00	55.00	55.00	653000	751600

NOTE : ** indicates changes to specification

SABS / DIN SPECIFICATIONS	ISO EQUIVALENTS		
	BOLT	SETS	NUTS
SABS 135 Hex Bolts and Nuts	4016	4018	4034 (7H)
SABS 136 Hex Bolts and Nuts	4014	4017	4032 (6H)
SABS 646 (Imperial Hex Bolts & Sets)	No. ISO Equivalent		
SABS 1282 (Mushroom & Countersunk Head Bolts & Nuts)	8677	-	4034(7H)
SABS 1282 (High Strength Bolts & Nuts – for Friction Grip Joints)	7412 (8.8S & 10.9S)	7411 (8.8S & 10.9S)	4775 (Thick Nut) Grades 8S and 10S with 7415 or 7416 WASHER
DIN 555 Hex Nuts	-	-	4034 (7H)
DIN 558 Hex Sets	-	4018	-
DIN 601 Hex Bolts	4016	-	-
DIN 931 Hex Bolts	4014	-	-
DIN 933 Hex Sets	-	4017	-
DIN 934 Hex Nuts Grades 6,8,10 (Metric Coarse and Fine Thread)	-	-	ISO 4032 Metric Coarse (6H) Style 1 Grades 6.8 10
DIN 971. Hex Nuts Grades 6,8 (Style 1 – Metric Fine)	-	-	-
DIN 960 (Metric Fine-Hex Bolts) (Grades 5.6, 8.8, 10.9)	ISO 8765	-	-
DIN 961 (Metric Fine-Hex Set Screws) Grades 5.6, 8.8, 10.9	-	ISO 8676	-
DIN 982 (Nyloc Nut) (Classes 5,8 and 10)	-	-	ISO 7040 Style 1.(Grades 5,8 and 10)
DIN 985 (Nyloc Nut – Thin Nut)	-	-	Nil ISO Standard
DIN 6914 High Strength Hex Head Bolts (Grade 10.9) (Large Width Across Flats)	7412 (8.8S & 10.9S)	7411 (8.8S & 10.9S)	4775 (Thick Nut) Grades 8S and 10S 7415 or 7416 WASHER
DIN 7990 (Grades 4.6 and 5.6 (Structural Bolts for Supply with Nut)	No ISO Equivalent	No ISO Equivalent	4034 (7H)
SABS 135/DIN 555 Nuts (Galvanized)	-	-	ISO 7413
SABS 136/DIN 934 Nuts (Galvanized)	-	-	Hex Nuts for Structural Bolts, Hot Dipped Galvanized (Oversize Tapped) Style 1.Grade 5,6,8
SABS 4042 (Electroplating Bolts/Nuts)	ISO 4042		
DIN 267 Part 9 (Electroplating Bolts/Nuts)	(Threaded Components – Electroplated Coatings)		
SABS 763 (Hot Dipped Galvanizing)	ISO 1461		
DIN 267 Part 10 (Hot Dipped Galvanizing)	(Hot Dipped Galvanizing Coatings)		
SABS 1355 / DIN 84/85 (Machine Screws)	ISO 1207 (Slotted Cheese Head) ISO 1508 (Slotted Pan Head)		
Self Tapping Screws			
DIN 7971	ISO 1481 Slotted Pan Head		
DIN 7972	ISO 1482 Slotted Countersunk (Flat) Head		
DIN 7973	ISO 1483 Slotted Raised Countersunk (Oval) Head		
DIN 7981	ISO 7049 Cross Recessed Pan Head		
DIN 7982	ISO 7050 Cross Recessed Countersunk (Flat) Head		
DIN 7983	ISO 7051 Cross Recessed Raised Countersunk (Oval)Head		