

PRODUCT	TENSILE STRENGTH		SIZE RANGE				EQUIVALENT STANDARDS					
	Property Class		Diameter		Length							
	Psi. Min.	N/mm <sup>2</sup>	Metric	Inch*	Metric	Inch*	IS	ISO	DIN	BS	ANSI	JIS
Socket Head Cap Screws 	190000	1,300 (12.9)	M2 to M42	1/8 to 1"	6 to 300 mm	3/16" to 10"	2269	4762	912	4168 2470	B18.3.1M	B1176
Socket Countersunk Head Screws 	160000	1,050 (12.9)	M3 to M24	3/16" to 5/16"	6 to 60 mm	3/8" to 1.1/4"	6761	--	7991	4168 2470	B18.3.5M	--
Socket Button Head Cap Screws 	--	1,050 (12.9)	M3 to M12	--	6 to 50 mm	--	--	7380	9427	4168	B18.3.4M	--
Socket Head Shoulder Screw 	--	(12.9)	M6 to M24	--	10 to 120 mm	--	--	7379	9841	4168	--	--
Socket Set Screws Knurled Cup 	Hardness HRc 45 Min.		M3 to M20	1/8" to 3/4"	3 to 85 mm	3/16" to 3"	6094	4026 4027 4028 4029	913 914 915 916	4168 2470	B18.3.6M	B1177
Durlok Bolt 	--	12.9	M6 to M20	--	12 to 100 mm	--	As Per Unbrako Specification					
Hex Wrenches 	Hardness HRc 47 Min.		1.5 to 32 mm	1/16" to 3/4"	--	--	3082	2936	911	4168 2470	B18.3.2M	B4648
Hex Head Bolts 	800/830 (8.8) 1,040 (10.9)	Grade R,S V	M4 to M42	1/4" to 2"	10 to 300 mm	1/2" to 12"	1364	4014 4017	931 933	1083 1768	B18.2.1	B1180
Hex Nuts 	Nut Grade 8/10	Nut Grade 8/5	M6 to M72	1/4" to 1-1/2"	--	--	1364	4032	934	1083 1768	B18.2.4.1M B18.2.2	B1181
High Strength Structural Bolts, Nuts, Washers 	Bolts 8.8/10.9 Nuts 8/10	--	M16 to M30	--	40 to 300 mm	--	3757 6623 6649	7412 4775 7415	6914 6915 6916	4395	B18.2.3.7M B18.2.4.6M	B1186
Stud With 2 Heavy nuts 	Stud B7 Nut 2H		M12-M56	1/2" to 2-1/4"	60 to 500 mm	2.1/4" to 27"					A193 A194	
Special Products 	--	800/830 (8.8) 1,040 (10.9)	M3 to M42	1/8" to 1"	6 to 410 mm	3/8" to 12"	As per customer specifications					

\*Thread type in any of the following inch series : BSW, BA, UNC & UNF.

\*\* Thread type in NPTF

Note : UNBRAKO standards meet, or in many instances, exceed the requirements of the standards listed.

**Plating** : No guarantee can be given for UNBRAKO products which have been plated by the users and / or outside plates, who may not have considered hydrogen embrittlement problem.

METRIC PRODUCTS							UNIFIED INCH PRODUCTS				B.S. INCH PRODUCTS					
SIZE	THREAD PITCH & T.P.I.				Major Dia		SIZE	T.P.I.		Major Dia	SIZE	T.P.I.		Major Dia	T.P.I.	Major Dia
	COARSE		FINE					UNC	UNF			inch	BSW			
	PITCH (mm)	T.P.I.	PITCH (mm)	T.P.I.	mm	Inch										
M3	0.50	51	-	-	3.00	0.118	#5	40	44	0.125	1/8	40	-	0.125		
							#6	32	40	0.138	5 BA				43.1	0.126
											4 BA				38.5	0.142
M4	0.70	36	-	-	4.00	0.157	#8	32	36	0.164	3 BA	24	32	0.187	34.8	0.161
M5	0.80	32	-	-	5.00	0.197	#10	24	32	0.190	3/16					
											2 BA				31.3	0.185
											1 BA				28.2	0.209
M6	1.0	25	-	-	6.00	0.236	1/4	20	28	0.250	1/4	20	26	0.250	25.4	0.236
											0 BA					
M8	1.25	20	1.00	25	8.00	0.315	5/16	18	24	0.313	5/16	18	22	0.313		
M10	1.50	17	1.25	20	10.00	0.394	3/8	16	24	0.375	3/8	16	20	0.375		
M12	1.75	14.5	1.25	20	12.00	0.472	1/2	13	20	0.500	7/16	14	18	0.438		
											1/2	12	16	0.500		
(M14)	2.00	12.5	1.50	17	14.00	0.551										
M16	2.00	12.5	1.50	17	16.00	0.630	5/8	11	18	0.625	5/8	11	14	0.625		
(M18)	2.50	10	1.50	17	18.00	0.709										
M20	2.50	10	1.50	17	20.00	0.787	3/4	10	16	0.750	3/4	10	12	0.750		
(M22)	2.50	10	1.50	17	22.00	0.866	7/8	9	14	0.875	7/8	9	11	0.875		
M24	3.00	8.5	2.00	13	24.00	0.945	1	8	12	1.000	1	8	10	1.000		
							1-1/8	7	12	1.125	1-1/8	7	9	1.125		
(M27)	3.00	8.50	2.00	13	27.00	1.063										
M30	3.50	7.25	2.00	13	30.00	1.181	1-1/4	7	12	1.250	1-1/4	7	9	1.250		
(M33)	3.50	7.25	2.00	13	33.00	1.299										
M36	4.00	6.40	3.00	8.5	36.00	1.417	1-1/2	6	12	1.500	1-1/2	6	8	1.500		
(M39)	4.00	6.40	3.00	8.5	39.00	1.535										
M42	4.50	5.60	3.00	8.5	42.00	1.653										

Note : Sizes in brackets are non-preferred standards

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1. **Specifications** : Generally conforming to IS : 1364, ISO : 4014/4017, DIN 931/933.
2. **Threads** : ISO Metric 6g as per IS:4218.
3. **Material and Mechanical Properties** : Property Class 10.9 as per IS : 1367.
4. **Note** : Shaded size are fully threaded. Prices for fully threaded screws beyond shaded sizes will cost 10% extra.
5. Orders for Property class 8.8 can be accepted subject to our confirmation on the basis of item wise quantities.  
Price list for 8.8 available separately.
6. Upto 80MM Dia can be manufactured against request.
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