MAIMOON
BUILDING & CONSTRUCTION MATERIAL TRADING LLC

NON -PRE LOAD BOLT DIN 933

STANDARDS		DIN 933 (International Standard)															
Nominal Dia		M12		M16		M20		M22		M24		M27		M30		M36	
Coarse Pitch		1.75		2.00		2.50		2.50		3.00		3.00		3.50		4.00	
		Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Thread Length ≤100 & ≥100		30	36	38	44	46	52	50	56	54	60	60	70	66	72	78	86
Across Flat	s	18.48	18.67	23.16	23.67	29.16	29.67	31.00	31.61	35.38	36.00	40.00	41.00	45.00	46.00	53.80	55.00
Across Corner	e	20.88	21.10	26.17	26.75	32.95	33.53	35.03	35.72	39.55	39.98	45.20	46.20	50.85	51.85	60.79	61.79
Head Thickness	k	7.32	7.68	9.82	10.18	12.85	12.71	13.78	14.22	14.78	15.22	16.65	17.65	18.28	19.12	22.08	22.95
Face Washer	df	16.50	16.55	22.05	22.10	27.75	27.80	29.40	29.60	33.30	33.45	36.80	36.90	42.80	43.00	51.20	51.25
Face Washer Depth	c	0.15	0.6	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8	0.2	0.8
Radios	r	0.60 Min		0.60 Min		0.80 Min		0.80 Min		0.80 Min		1.00 Min		1.00 Min		1.00 Min	
Transition Diameter	de	13.7		17.7		22.40		24.70		26.40		31.60		33.40		39.40	

Characteristic		Standard	Size	Tensile Strength	Stress Area	Proof Load	Min Ult Tensile	Elongation	Hardness HRC	
Full Threaded Bolts				N/mm^2	mm^2	kN	kN	%	min	max
General Requirement		ISO 898-1	M12	800	84.3	48.9	67.4	12	22	33
Material & Manufacture		BS EN ISO 898-1 Class 8.8	M16	830	157	91	125	12	23	34
Mechanical Properties		BS EN ISO 898-1 Class 8.8	M20	830	245	147	203	12	23	34
Thread Tolerance		6g / ISO 724, ISO 965-1	M22	830	303	182	252	12	23	34
Dimension		ISO 898-1 / ISO 4017 / DIN 933	M24	830	353	212	293	12	23	34
Finish / Coating	Self Color (Black)	ISO 4014 as Standard	M27	830	459	275	331	12	23	34
	Hot Dip Galvanized	BS EN ISO 10684 / BS729	M30	830	561	337	466	12	23	34
	Zinc Electroplated	BS EN ISO 4042	M36	830	817	490	678	12	23	34
Product Marking		BS EN ISO 898-1/ISO 4017/DIN 933								

For other property classes see ISO898-1 for steel and ISO 3506-1 for stainless steel respectively.
Whichever is shorter.

All dimension are based on mm