

NON-PRE LOAD BOLT DIN 931

STANDARDS

DIN 931 (International Standard)

	M12		M16		M20		M22		M24		M27		M30		M36	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Nominal Dia	1.75		2.00		2.50		2.50		3.00		3.00		3.50		4.00	
Coarse Pitch	1.75		2.00		2.50		2.50		3.00		3.00		3.50		4.00	
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	Elongatio n	Hardness	
			N/mm ²	mm ²	kN	kN	%	min	max
Full Threaded Bolts									
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 4014 / DIN 931	M24	830	353	212	293	12	23	34
Finish / Coating	Self Color (Black)	M27	830	459	275	331	12	23	34
	Hot Dip Galvanized	M30	830	561	337	466	12	23	34
	Zinc Electroplated	M36	830	817	490	678	12	23	34
Product Marking	BS EN ISO 898-1/ISO 4014/DIN 931								

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