

# Proof loads

Proof loads for coarse threads are specified in table 86 and for fine threads in table 87.

**Table 86 Proof loads, Metric ISO coarse thread**

Thread	Nom. stress area of mandrel $A_s$ mm <sup>2</sup>	Property class										
		04	05	4	5	6	8	9	10	12		
		Proof loads ( $A_s \times S_p$ ), N										
				Style 1	Style 1	Style 1	Style 1	Style 2	Style 2	Style 1	Style 1	Style 2
M 3	5,03	1910	2500	—	2600	3000	4000	—	4500	5200	5700	5800
M 3,5	6,78	2580	3400	—	3550	4050	5400	—	6100	7050	7700	7800
M 4	8,78	3340	4400	—	4550	5250	7000	—	7900	9150	10000	10100
M 5	14,2	5400	7100	—	8250	9500	12140	—	13000	14800	16200	16300
M 6	20,1	7640	10000	—	11700	13500	17200	—	18400	20900	22900	23100
M 7	28,9	11000	14500	—	16800	19400	24700	—	26400	30100	32900	33200
M 8	36,6	13900	18300	—	21600	24900	31800	—	34400	38100	41700	42500
M 10	58	22000	29000	—	34200	39400	50500	—	54500	60300	66100	67300
M 12	84,3	32000	42200	—	51400	59000	74200	—	80100	88500	98600	100300
M 14	115	43700	57500	—	70200	80500	101200	—	109300	120800	134600	136900
M 16	157	59700	78500	—	95800	109900	138200	—	149200	164900	183700	186800
M 18	192	73000	96000	97900	121000	138200	176600	107900	176600	203500	—	230400
M 20	245	93100	122500	125000	154400	176400	225400	218100	225400	259700	—	294000
M 22	303	115100	151500	154500	190900	218200	278800	269700	278800	321200	—	363600
M 24	353	134100	176500	180000	222400	254200	324800	314200	324800	374200	—	423600
M 27	459	174400	229500	234100	289200	330500	422300	408500	422300	486500	—	550800
M 30	561	213200	280500	286100	353400	403900	516100	499300	516100	594700	—	673200
M 33	694	263700	347000	353900	437200	499700	638500	617700	638500	735600	—	832800
M 36	817	310500	408500	416700	514700	588200	751600	727100	751600	866000	—	980400
M 39	976	370900	488000	497800	614900	702700	897900	868600	897900	1035000	—	1171000

Source: ISO 898-2.

**Table 87 Proof loads, Metric ISO fine thread**

Thread	Nom. stress area of mandrel $A_s$ mm <sup>2</sup>	Property class									
		04	05	5	6	8	10	12			
		Proof loads ( $A_s \times S_p$ ), N									
				Style 1	Style 1	Style 1	Style 2	Style 1	Style 2	Style 2	
M8 × 1	39,2	14900	19600	27000	30200	37400	34900	43100	41400	47000	
M10 × 1	64,5	24500	32200	44500	49700	61600	57400	71000	68000	77400	
M10 × 1,25	61,2	23300	30600	44200	47100	58400	54500	67300	64600	73400	
M12 × 1,25	92,1	35000	46000	63500	71800	88000	82000	102200	97200	110500	
M12 × 1,5	88,1	33500	44000	60800	68700	84100	78400	97800	92900	105700	
M14 × 1,5	125	47500	62500	86300	97500	119400	111200	138800	131900	150000	
M16 × 1,5	167	63500	83500	115200	130300	159500	148600	185400	176200	200400	
M18 × 1,5	215	81700	107500	154800	187000	221500	—	—	232200	—	
M18 × 2	204	77500	102000	146900	177500	210100	—	—	220300	—	
M20 × 1,5	272	103400	136000	195800	236600	280200	—	—	293800	—	
M20 × 2	258	98000	129000	185800	224500	265700	—	—	278600	—	
M22 × 1,5	333	126500	166500	239800	289700	343000	—	—	359600	—	
M22 × 2	318	120800	159000	229000	276700	327500	—	—	343400	—	
M24 × 2	384	145900	192000	276500	334100	395500	—	—	414700	—	
M27 × 2	496	188500	248000	351100	431500	510900	—	—	535700	—	
M30 × 2	621	236000	310500	447100	540300	639600	—	—	670700	—	
M33 × 2	761	289200	380500	547900	662100	783800	—	—	821900	—	
M36 × 3	865	328700	432500	622800	804400	942800	—	—	943200	—	
M39 × 3	1030	391400	515000	741600	957900	1123000	—	—	1112000	—	

Source: ISO 898-6.