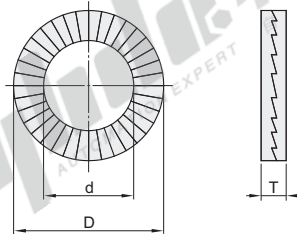


Code	Type	Material	Surface Treatment	Hardness	Heat-resistant Temperature
TBQ11	Lock Washers	S60C	Dacromet Plating	HRC44~	20~200°C



ⓘ This product is to be used in pairs.

ⓘ Applicable Standards : DIN25201



The first perspective

Part Number		Applicable Screw	d	D	T Thickness
Code	No.				
TBQ11	3	M3	3.4	7	1.8
	4	M4	4.4	7.6	
	5	M5	5.4	9	
	6	M6	6.5	10.8	
	8	M8	8.7	13.5	
	10	M10	10.7	16.6	2.5
	12	M12	13.0	19.5	
	14	M14	15.2	23	
	16	M16	17.0	25.4	
	18	M18	19.5	29	
	20	M20	21.4	30.7	3.4
	22	M22	23.4	34.5	
	24	M24	25.3	39	
	27	M27	28.4	42	
	30	M30	31.4	47	

☑ Recommended Tightening Torque and Tightening Force

No.	Applicable Screw (M×Pitch)	Screw Strength Class:10.9 with Carbon Steel Washer Recommended Tightening Torque and Tightening Force				Screw Strength Class:12.9 with Carbon Steel Washer Recommended Tightening Torque and Tightening Force			
		Lubricant Oil, GF=71% $\mu_{th}=0.13, \mu_b=0.14$		GTP600, GF=75% $\mu_{th}=0.08, \mu_b=0.13$		Lubricant Oil, GF=71% $\mu_{th}=0.13, \mu_b=0.12$		GTP600, GF=75% $\mu_{th}=0.08, \mu_b=0.11$	
		Torque (Nm)	Tightening Force (kN)	Torque (Nm)	Tightening Force (kN)	Torque (Nm)	Tightening Force (kN)	Torque (Nm)	Tightening Force (kN)
3	3×0.5	1.8	3.2	1.6	3.4	2.0	3.9	1.7	4.1
4	4×0.7	4.1	5.6	3.6	5.9	4.6	6.7	4.0	7.1
5	5×0.8	8.1	9.1	7	9.6	9.1	10.9	7.7	11.5
6	6×1.0	14.1	12.9	12.3	13.6	15.8	15.4	13.5	16.3
8	8×1.25	34	23	30	25	38	28	32	30
10	10×1.5	67	37	58	39	75	44	64	47
12	12×1.75	115	54	99	57	128	65	109	68
14	14×2.0	183	74	158	78	204	89	174	94
16	16×2.0	279	100	240	106	311	120	263	127
18	18×2.5	391	123	337	130	437	148	370	156
20	20×2.5	547	156	470	165	610	188	515	198
22	22×2.5	745	194	639	205	831	233	699	246
24	24×3.0	942	225	809	238	1052	270	887	286
27	27×3.0	1375	294	1176	310	1533	352	1288	372
30	30×3.5	1875	358	1608	378	2091	430	1761	454

GTP600=Lubricant
1N=0.2251b

GF=Coefficient at the Yield Point
1Nm=0.738ft-1b

μ_{th} =Coefficient of Friction at Screw Thread

μ_b =Coefficient of Friction in Washer



Please order as shown

Part Number		Applicable Screw
Code	No.	
TBQ11	3	M3
	4	M4
	5	M5

TBQ11—4



Discount price
Per 1~99 100~
Price 100% Additional quotation



Delivery
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