



All bearings, angular contact or radial, need to be locked in place. This can be done with a precision nut, bolt pattern on a face plate, or other application specific means. A few key points of this clamping force are;

- Proper clamping procedure
- Not exceeding GMN recommended maximum forces
- Establishing enough of a clamping force to achieve proper engagement
- Tight tolerancing

\*\*All of these topics are further covered on [www.gmnbt.com/bearing-clamping-force.htm](http://www.gmnbt.com/bearing-clamping-force.htm). Please reference this webpage for more thorough explanations.

**NOTE:** Clamping force below is what is recommended, NOT the tightening torque. The tightening torque is specific to the thread stated, if one is using a different thread, a different tightening torque needs to be calculated.

Bore Diameter	Bore Code	Recommended Clamping Force (kN)				**Specific to stated thread only**				
						Tighten Torque (Nm)				Thread
		618...	619...	60...	62...	618...	619...	60...	62...	
5	5	-	0.6	0.7	0.8	-	0.4	0.5	0.6	M 5 x 0.5
6	6	-	0.8	0.8	1.4	-	0.7	0.7	1.3	M 6 x 0.5
7	7	-	0.9	1.1	1.6	-	0.8	1.2	1.6	M 7 x 0.5
8	8	-	0.9	1.3	-	-	1.0	1.5	-	M 8 x 0.75
9	9	-	1.0	1.4	1.9	-	1.3	1.9	2.6	M 9 x 0.75
10	00	1.0	1.1	1.6	2.1	1.4	1.6	2.3	3.1	M 10 x 0.75
12	01	1.1	1.2	1.6	2.3	1.7	2.0	2.7	4.1	M 12 x 1
15	02	1.3	1.5	2.0	2.4	2.6	3.0	4.2	5.0	M 15 x 1
17	03	1.4	1.8	2.4	3.0	3.2	3.9	5.5	7.0	M 17 x 1
20	04	2.2	2.4	3.1	4.2	5.6	6.4	8.3	15.0	M 20 x 1
25	05	2.5	3.1	3.8	4.7	8.2	15.0	15.0	20.0	M 25 x 1.5
30	06	3.0	3.1	4.5	6.0	15.0	15.0	20.0	25.0	M 30 x 1.5
35	07	3.1	4.1	5.0	8.0	15.0	20.0	25.0	40.0	M 35 x 1.5
40	08	3.4	4.6	6.5	9.0	20.0	25.0	35.0	50.0	M 40 x 1.5
45	09	-	5.5	7.5	9.5	-	30.0	45.0	60.0	M 45 x 1.5
50	10	-	4.7	8.0	10.0	-	30.0	50.0	65.0	M 50 x 1.5
55	11	-	6.0	10.0	12.0	-	45.0	75.0	90.0	M 55 x 2
60	12	-	6.0	11.0	16.0	-	45.0	85.0	120.0	M 60 x 2
65	13	-	6.0	11.0	19.0	-	50.0	95.0	160.0	M 65 x 2
70	14	-	9.0	13.0	-	-	80.0	120.0	-	M 70 x 2
75	15	-	9.5	13.0	-	-	90.0	130.0	-	M 75 x 2
80	16	-	9.5	16.0	-	-	95.0	170.0	-	M 80 x 2
85	17	-	13.0	17.0	-	-	140.0	180.0	-	M 85 x 2
90	18	-	13.0	19.0	-	-	150.0	220.0	-	M 90 x 2
95	19	-	13.0	20.0	-	-	160.0	240.0	-	M 95 x 2
100	20	-	16.0	20.0	-	-	210.0	260.0	-	M 100 x 2
105	21	-	17.0	22.0	-	-	220.0	300.0	-	M 105 x 2
110	22	-	17.0	26.0	-	-	230.0	360.0	-	M 110 x 2
120	24	-	21.0	27.0	-	-	310.0	410.0	-	M 120 x 2