

TORQUE WRENCH 3/8" (19-110Nm)

Instruction Manual

Micrometer adjustable torque wrenches are precision tools that allow for accurate tightening of bolts and other fasteners to specific torque values. This user guide is designed to provide detailed instructions on how to use, maintain, and clean a micrometer adjustable torque wrench with a range of 19-110Nm.

Using the Micrometer Adjustable Torque Wrench

1. Set the torque value: First, turn the handle of the torque wrench to the desired torque value. This will move the micrometer scale to the appropriate position. Make sure to read the torque value carefully and ensure that it is the correct value for the fastener you are tightening.
2. Attach the socket: Next, attach the appropriate socket to the end of the torque wrench. Make sure that the socket is securely attached to the wrench and that it is the correct size for the fastener you are tightening.
3. Tighten the fastener: Place the socket onto the fastener and turn the torque wrench handle in a clockwise direction. Continue tightening the fastener until you feel the wrench "click" or "snap." This indicates that the desired torque value has been reached and the fastener is tightened correctly.
4. Reset the wrench: Once you have finished using the torque wrench, it is important to reset it back to its lowest torque setting. This will help to prevent any damage to the wrench and ensure that it is ready for the next use.

Maintaining the Micrometer Adjustable Torque Wrench

1. Store the wrench correctly: When not in use, store the torque wrench in a dry and clean place. Avoid exposing it to moisture or extreme temperatures.
2. Regular calibration: It is important to have your torque wrench regularly calibrated to ensure its accuracy. Check with the manufacturer or a reputable calibration service to determine how often your specific wrench should be calibrated.
3. Inspect before each use: Before using the torque wrench, inspect it for any signs of damage or wear. Pay particular attention to the torque scale and the handle, ensuring they are not damaged or bent.
4. Lubricate: To ensure smooth operation, periodically lubricate the moving parts of the torque wrench. Use a light machine oil or silicone lubricant to avoid attracting dirt and debris.

Warnings for the Users

1. Over-tightening: Do not exceed the maximum torque range of the wrench, as this can lead to over-tightening and potentially cause damage to the fastener or the tool.
2. Use only on clean and dry fasteners: Do not use the torque wrench on dirty, greasy, or wet fasteners. This can affect the accuracy of the torque measurement and damage the tool.
3. Do not drop the wrench: Dropping the torque wrench can cause damage to the internal mechanism and affect its accuracy. Always handle the tool with care.

Example for 85Nm See figure 1 and figure 2.

To use the torque wrench to tighten a fastener to 85Nm, follow these steps:

1. Turn the handle until zero graduation on the bevel's edge of the handle is lined up with the vertical mark on the case and is even with the 82Nm graduation.
2. Turn the handle clockwise until the 1Nm graduation on the bevel's edge of the handle is in line with the vertical line on the case.
3. Lock the handle securely by turning the lock nut clockwise. When it is set on 85Nm, it is ready to use.
4. Reset the wrench: Once you have finished using the torque wrench, reset it back to its lowest torque setting.

Cleaning the Micrometer Adjustable Torque Wrench

To clean the torque wrench, follow these steps:

1. Wipe down the tool: Using a clean, dry cloth, wipe down the entire torque wrench to remove any dirt or debris.
2. Clean the torque scale: Use a soft-bristled brush or a cloth to clean the torque scale and ensure that it is free of any debris or dirt. Avoid using harsh or abrasive cleaners that could damage the scale.
3. Lubricate the tool: After cleaning, apply a light machine oil or silicone lubricant to the moving parts of the torque wrench to ensure smooth operation.
4. Store the tool: Once the torque wrench is cleaned and lubricated, store it in a dry and clean place until the next use.

Note: It is important to clean and lubricate the torque wrench after each use, especially if it has been exposed to dirt, debris, or moisture. This will help to ensure its accuracy and prolong its lifespan.

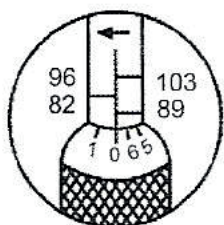


FIG1 82 Nm

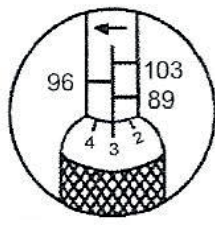


FIG2 85Nm

DO NOT CONTINUE TO PULL AFTER WRENCH RELEASES. TAKE EXTRA CARE AT LOW TORQUE SETTINGS.

TORQUE WRENCH 3/8" (19-110Nm)

Instruction Manual

Conversion Tables

Foot Pounds (Ft.Lbs)	Kilo-gram Meters (Kgm or mkp)	Newton Meters (N.m)	Newton Meters (N.m)	Foot Pounds (Ft.Lbs)	Kilo-gram Meters (Kgm or mkp)	Kilo-gram Meters (Kgm or mkp)	Newton Meters (N.m)	Foot Pounds (Ft.Lbs)
5	0.69	6.78	10	7.38	1.02	1	9.81	7.23
10	1.38	13.56	20	14.75	2.04	2	19.61	14.47
15	2.07	20.34	30	22.13	3.06	3	29.42	21.70
20	2.76	27.12	40	29.50	4.08	4	39.23	28.93
25	3.46	33.90	50	36.88	5.10	5	49.04	36.17
30	4.15	40.68	60	44.26	6.12	6	58.84	43.40
35	4.84	47.46	70	51.63	7.14	7	68.65	47.87
40	5.53	54.24	80	59.01	8.16	8	78.46	50.63
45	6.22	61.02	90	66.38	9.18	9	88.26	65.10
50	6.91	67.80	100	73.76	10.20	10	98.07	72.33
55	7.60	74.58	110	81.14	11.22	11	107.88	79.57
60	8.29	81.36	120	88.51	12.24	12	117.68	86.80
65	8.98	88.14	130	95.89	13.26	13	127.48	94.03
70	9.67	94.92	140	103.26	14.28	14	137.30	101.27
75	10.37	101.70	150	110.64	15.30	15	147.11	108.50
80	11.06	108.48	160	118.02	16.32	16	156.91	115.74
85	11.75	115.26	170	125.39	17.34	17	166.72	122.97
90	12.44	122.04	180	132.77	18.36	18	176.53	130.20
95	13.13	128.82	190	140.14	19.38	19	186.33	137.43
100	13.82	135.60	200	147.52	20.40	20	196.14	144.67
105	14.51	142.38	210	154.90	21.42	21	205.95	151.90
110	15.20	149.16	220	162.27	22.44	22	215.75	159.13
115	15.89	155.94	230	169.65	23.46	23	225.37	166.37
120	16.58	162.72	240	177.02	24.48	24	235.37	173.60
125	17.28	169.50	250	184.40	25.50	25	245.18	180.84
130	17.97	176.28	260	191.78	26.52	26	254.98	188.08
135	18.66	183.06	270	199.15	27.54	27	264.79	195.30
140	19.35	189.84	280	206.53	28.56	28	274.60	202.54
145	20.04	196.62	290	213.91	29.58	29	284.41	209.77
150	20.73	203.40	300	221.29	30.60	30	294.22	217.00
155	21.42	210.18	310	228.67	31.62	31	304.03	224.23
160	22.11	216.96	320	236.05	32.64	32	313.84	231.46
165	22.80	223.74	330	243.43	33.66	33	323.65	238.69
170	23.49	230.52	340	250.81	34.68	34	333.46	245.92
175	24.19	237.70	350	258.30	35.70	35	343.35	253.05
180	24.88	244.08	360	265.68	36.72	36	353.16	260.28
185	25.57	250.86	370	273.06	37.74	37	362.97	267.51
190	26.26	257.64	380	280.44	38.76	38	372.78	274.74
195	26.95	264.42	390	287.82	39.78	39	382.59	281.97
200	27.64	271.20	400	295.20	40.80	40	392.40	289.20
205	28.33	277.98	410	302.58	41.82	41	402.21	296.43
210	29.02	284.76						
215	29.71	291.54						
220	30.40	298.32						
225	31.09	305.10						
230	31.78	311.88						
235	32.47	318.66						
240	33.16	325.44						
245	33.85	332.22						
250	34.54	339.00						
260	35.88	352.56						
270	37.26	366.12						
280	38.64	379.68						
290	40.02	393.24						
300	41.40	406.80						

Conversion Formulas

<p>1 CMKG = 13.887 IN-OZ</p> <p>1 CMKG = 0.867 IN-LB</p> <p>1 MKG = 7.233 FT-LB</p> <p>1 KPCM = 1 CMKG</p> <p>1 CMKG = 0.098 Nm</p> <p>1 FT-LB = 12 IN-LB</p>	<p>1dNm = 14.16 IN-OZ</p> <p>1 Nm = 8.8507 IN-LB</p> <p>1 Nm = 0.73756 FT-LB</p> <p>1 KPM = 1MKG</p> <p>1 MKG = 9.80665 Nm</p>
---	--