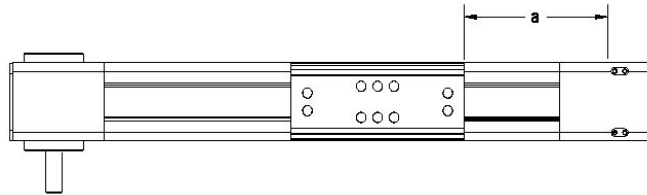


## Belt Tensioning With Frequency Meter Instructions

1. MKR 20-80 & 25-110 Models: Follow the instructions in sections 10.3 and 10.4 of Maintenance Manual RE 82474 to remove the steel sealing strip and release tension from the drive belt. Refer to steps 10.5 through 10.10 to replace spare parts.

CKR Models: Follow the instructions in sections 10.2 and 10.7 of Maintenance Manual RA 82672 to remove the idler end cover and release tension from the drive belt. Refer to steps 10.1 through 10.7 to replace spare parts.

2. Position the module carriage such that the distance between the carriage and the center of the idler pulley, dimension "a", corresponds to one of the values shown in the appropriate tables below.



3. Position the sensor head of the frequency meter near the belt between the carriage and idler pulley. Tap the belt with your finger while simultaneously pressing the red button. Adjust the two threaded rods on the end of the idler pulley with a socket wrench until the frequency measured by the sensor matches the appropriate value from the appropriate table below.

MKR 20-80, Belt Type AT5, 50mm wide				
Distance (a) in mm	200	300	500	1000
Belt Tension Force (N)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)
1400	163	109	65	33
1500	169	113	68	34
1600	175	116	70	35
1700	180	120	72	36
<b>1740</b>	<b>182</b>	<b>121</b>	<b>73</b>	<b>36</b>
1800	185	123	74	37
1900	190	127	76	38
2000	195	130	78	39
2100	200	133	80	40

MKR 25-110, Belt Type AT10, 50mm wide				
Distance (a) in mm	200	300	500	1000
Belt Tension Force (N)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)
2800	174	116	69	35
3000	180	120	72	36
3200	186	124	74	37
3400	191	128	77	38
<b>3480</b>	<b>194</b>	<b>129</b>	<b>77</b>	<b>39</b>
3600	197	131	79	39
3800	202	135	81	40
4000	208	138	83	42
4200	213	142	85	43

CKR 12- 90, Belt Type AT3, 35mm wide				
Distance (a) in mm	200	300	500	1000
Belt Tension Force (N)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)
700	164	110	66	33
800	176	117	70	35
900	186	124	75	37
1000	196	131	79	39
<b>1120</b>	<b>208</b>	<b>139</b>	<b>83</b>	<b>42</b>
1200	215	143	86	43
1300	224	149	90	45
1400	232	155	93	46
1500	241	160	96	48

CKR 15-110, Belt Type AT5, 50mm wide				
Distance (a) in mm	200	300	500	1000
Belt Tension Force (N)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)
1200	151	101	60	30
1300	157	105	63	31
1400	163	109	65	33
<b>1410</b>	<b>164</b>	<b>109</b>	<b>66</b>	<b>33</b>
1600	175	116	70	35
1700	180	120	72	36
1800	185	123	74	37
1900	190	127	76	38

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<b>CKR 20-145, Belt Type AT5, 70mm wide</b>				
Distance (a) in mm	200	300	500	1000
Belt Tension Force (N)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)
1700	149	100	60	30
1900	158	105	63	32
2100	166	111	66	33
2300	174	116	70	35
<b>2475</b>	<b>180</b>	<b>120</b>	<b>72</b>	<b>36</b>
2700	188	126	75	38
2900	195	130	78	39
3100	202	135	81	40
3300	208	139	83	42

<b>CKR 25-200, Belt Type AT10, 100mm wide</b>				
Distance (a) in mm	200	300	500	1000
Belt Tension Force (N)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)	Oscillations (Hz)
4900	254	169	101	51
5100	259	173	104	52
5300	264	176	106	53
5500	269	179	107	54
<b>5662</b>	<b>273</b>	<b>182</b>	<b>109</b>	<b>55</b>
5900	278	186	111	56
6100	283	189	113	57
6300	288	192	115	58
6500	292	195	117	58

4. Measure the distance from the end of the extrusion to both pulley axles. Make necessary adjustments with the tension rods to correct any pulley misalignment. Reference Figure 13.3.1 for MKR and Figure 10.7.1 for CKR.
5. For MKR: Fix the idler pulley in place using the four set screws removed in step 11.2.  
 For CKR: Fix the idler pulley in place using the two set screws loosened in step 10.7.
6. For MKR: Attach the sealing strip per instruction 10.12.  
 For CKR: Attach the idler end cap per instruction 10.7.

Frequency meters are available for rental from Bosch Rexroth for a two week period. Please contact Customer Service for details.

To purchase a frequency meter (model SM4), contact the manufacturer below:

BRECOflex Co., L.L.C.  
 222 Industrial Way West  
 Eatontown, NJ 07724  
 Phone: 732-460-9500  
 Fax: 732-542-6725  
<http://www.brecoflex.com>