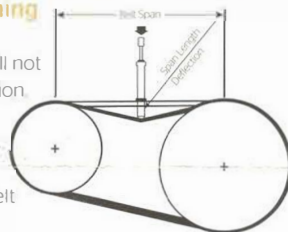


V-Belt Tensioning Tables

Industrial V-Belt Tension Tester

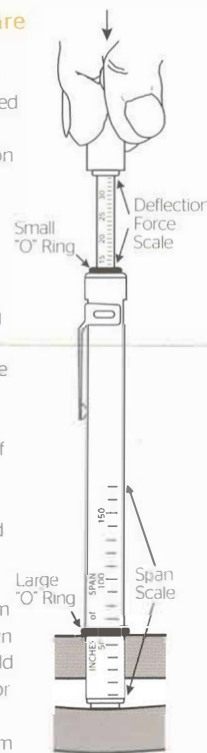
General rules of tensioning

1. Ideal tension is the lowest tension at which the belt will not slip under peak load condition.
2. Check tension frequency during the first 24-48 hours of operation.
3. Overtensioning shortens belt and bearing life.
4. Keep belts free from foreign material which may cause slip.
5. Make V-drive inspection on a periodic basis. Tension when slipping. Never apply belt dressing as this will damage the belt and cause early failure.



Tension measurement procedure

1. Measure the belt span (see sketch).
2. Position the bottom of the large "O" ring on the span scale at the measured belt span.
3. Set the small "O" ring on the deflection force scale to zero.
4. Place the tension tester squarely on one belt at the center of the belt span. Apply a force on the plunger and perpendicular to the belt span until the bottom of the large "O" ring is even with the top of the next belt or with the bottom of a straight edge laid across the sheaves.
5. Remove the tension tester and read the force applied from the bottom of the small "O" ring on the deflection force scale.
6. Compare the force you have applied with the values given in the tables on this sheet. The forces should be between the minimum and maximum shown. The maximum value is shown under "New Belt" and new belts should be tensioned at this value to allow for expected tension loss. Used belts should be maintained at the minimum value indicated in the chart.



Note: The ratio of deflection to belt span is 1:64 in either units of measurement.

- *Multiply table values by the number of Torque Team ribs to achieve recommended tensioning value.
1. The table deflection forces and strand tensions are typically at maximum values to cover the broad range of loads, RPM and pulley combinations for all possible drives.
 2. For drives where hub loads are critical, high speed drives or other drives with special circumstances, the belt deflection force and strand installation tension should be calculated by using formulas found in existing Engineering Manuals or use the MaximizerPro™ Drive Selection Analysis Program.
 3. Consult the TensionRite™ Belt Frequency Meter manual for detailed information on using the frequency based tension gauge.
 4. Three different levels of Continental ContiTech brand tension gauges are offered to aid you in properly tensioning your power transmission belts. See your sales representative or your local authorized Products Power Transmission distributor for more information on these tensioning gauges.

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		Belt Deflection Force (lbs.)				
Cross Section	Smallest Sheave Diameter Range (inches)	RPM Range	Uncogged Hy-T® Belts & Uncogged Hy-T Torque Team® Belts		Cogged Torque-Flex® and Machined Edge Torque Team® Belts*	
			New Belt	Used Belt	New Belt	Used Belt
A, AX	30 - 36	1000 - 2500	55	37	61	41
		2501 - 4000	42	28	50	34
	38 - 48	1000 - 2500	68	45	74	50
		2501 - 4000	57	38	64	43
	50 - 70	1000 - 2500	80	54	94	57
		2501 - 4000	70	47	76	51
B, BX	34 - 42	860 - 2500	N/A	N/A	72	49
		2501 - 4000	N/A	N/A	62	42
	44 - 56	860 - 2500	79	53	105	71
		2501 - 4000	67	45	91	62
	58 - 86	860 - 2500	94	63	126	85
		2501 - 4000	82	60	109	73
C, CX	70 - 90	500 - 1740	170	115	218	147
		1741 - 3000	138	94	175	119
	95 - 160	500 - 1740	210	141	235	159
		1741 - 3000	185	125	216	146
	120 - 180	200 - 850	370	249	N/A	N/A
		851 - 1500	313	212	N/A	N/A
D	180 - 200	200 - 850	451	304	N/A	N/A
		851 - 1500	380	256	N/A	N/A
	22 - 24	1000 - 2500	N/A	N/A	49	33
		2501 - 4000	N/A	N/A	43	29
	265 - 365	1000 - 2500	51	36	62	42
		2501 - 4000	44	30	56	38
3V, 3VX, X/P	412 - 630	1000 - 2500	73	49	79	53
		2501 - 4000	66	44	73	49
	500 - 1740	N/A	N/A	152	102	
		1750 - 3000	N/A	N/A	132	88
	3001 - 4000	N/A	N/A	85	56	
		500 - 1740	189	127	221	148
5V, 5VX, 5PB, XPB	711 - 1109	1741 - 3000	167	112	201	137
		500 - 1740	234	155	255	171
	1118 - 160	1741 - 3000	218	146	250	168
		200 - 850	493	330	N/A	N/A
	125 - 170	851 - 1500	199	268	N/A	N/A
		200 - 850	592	396	N/A	N/A
8V	180 - 224	851 - 1500	527	353	N/A	N/A
Belt Deflection Force (kg)						
Cross Section	Smallest Sheave Diameter Range (mm)	RPM Range	Uncogged Hy-T® Belts & Uncogged Hy-T Torque Team® Belts		Cogged Torque-Flex® and Machined Edge Torque Team® Belts*	
			New Belt	Used Belt	New Belt	Used Belt
A, AX	75 - 90	1000 - 2500	12	17	28	19
		2501 - 4000	13	11	23	15
	91 - 120	1000 - 2500	20	20	34	23
		2501 - 4000	17	17	29	20
	121 - 175	1000 - 2500	24	24	43	26
		2501 - 4000	21	21	34	23
B, BX	85 - 105	860 - 2500	N/A	N/A	33	22
		2501 - 4000	N/A	N/A	28	19
	106 - 140	860 - 2500	24	24	48	32
		2501 - 4000	20	20	41	28
	141 - 220	860 - 2500	20	20	57	39
		2501 - 4000	22	22	49	33
C, CX	175 - 230	500 - 1740	42	42	99	67
		1741 - 3000	43	43	79	54
	231 - 400	500 - 1740	84	84	107	72
		1741 - 3000	57	57	98	66
	401 - 510	200 - 850	113	113	N/A	N/A
		851 - 1500	96	96	N/A	N/A
D	55 - 60	1000 - 2500	N/A	N/A	22	15
		2501 - 4000	N/A	N/A	20	13
	61 - 90	1000 - 2500	16	16	28	19
		2501 - 4000	14	14	25	17
	91 - 175	1000 - 2500	22	22	36	24
		2501 - 4000	20	20	33	22
3V, 3VX, X/P	110 - 170	500 - 1740	N/A	N/A	60	46
		1750 - 3000	N/A	N/A	60	46
	276 - 400	3001 - 4000	N/A	N/A	39	25
		500 - 1740	58	58	100	67
	5V, 5VX, 5PB, XPB	1741 - 3000	51	51	91	62
		500 - 1740	70	70	116	78
8V	315 - 430	1741 - 3000	66	66	113	76
		200 - 850	150	150	N/A	N/A
	431 - 570	851 - 1500	152	122	N/A	N/A
		200 - 850	180	180	N/A	N/A
		851 - 1500	160	160	N/A	N/A

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