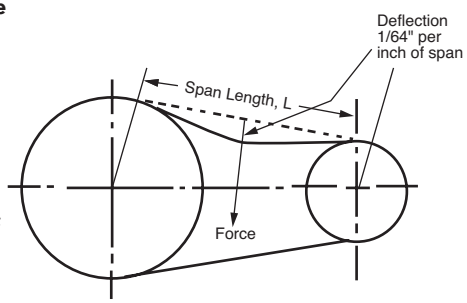
V-Belt Tension Gauge

Proper tension is the key to long, efficient, trouble-free belt operation. When you install a new set of belts, use the gauge to establish correct tension. Then, to maintain performance, re-check belt tension after 24-48 hours. The payoff is maximum belt life, reduced downtime and uninterrupted equipment service.

Save these Instructions for Future Use

1. **CAUTION: Before doing maintenance or tensioning on belt drives, turn equipment off and lock out the power source. Use guards on machinery when running.**

   Place a matched set of Bando belts over the sheave grooves. Take up the slack until the belts appear fairly taut.



2. With the drive stopped, measure the belt span length of your drive (see sketch). Set the rubber O-ring on the body of the tension gauge at the dimension equal to 1/64" for every inch of span length. For example, the deflection for a 32" span is 1/64" x 32 or 1/2".
3. Set the O-ring on the plunger at zero against the body of the tension gauge.
4. With the tension gauge perpendicular to the span apply a force to a belt in the center of the span. Deflect the belt until the bottom of the large O-ring is even with the top of the next belt, or the bottom of the straight edge laid across the top of other belts on the drive.

   Release pressure and read pounds of force used at o-ring plunger.

   Note: when new belts are installed on a drive, the tension will drop rapidly during the first few hours. Thus, for new belts, tighten to the initial installation deflection force shown in the tables on back. Re-check tension after the first 24-48 hours of operation. Subsequent re-tensioning should fall between the minimum and maximum forces shown in the tables.
5. Compare the force required in Step 4 with the ranges in the tables on back. Tighten or loosen belts to bring them into the recommended range.

   Note: the proper tension for a v-belt drive is the lowest tension at which the belts won't slip under peak load conditions.

V-Belt Cross Section	Small Pulley Diameter Range (in.)	Recommended Deflection Force (lbs.)		
		Initial Installation	Re-tensioning	
			Max.	Min.
3L	1.5 - 2.0	1.4	1.1	0.8
	2.1 - 2.7	1.9	1.4	1.1
	2.8 - 4.0	2.5	2.0	1.5
4L	1.5 - 2.0	2.1	1.6	1.2
	2.1 - 2.7	2.4	1.8	1.4
	2.8 - 4.0	3.1	2.3	1.8
5L	3.0 - 3.5	3.2	2.5	1.9
	3.6 - 4.5	4.1	3.2	2.4
	4.6 - 6.0	5.1	3.9	3.0

V-Belt Cross Section	Small Pulley Diameter Range (in.)	Recommended Deflection Force (lbs.)		
		Initial Installation	Re-tensioning	
			Max.	Min.
A	3.0 - 3.4	3.3	2.9	2.2
	3.6 - 4.2	3.5	3.1	2.4
	4.6 - 6.0	3.7	3.3	2.5
B	4.6 - 5.4	6.0	5.1	4.0
	5.6 - 7.4	6.3	5.5	4.2
	7.5 - 9.4	6.6	5.7	4.4
C	7.0 - 8.5	13.2	11.5	8.5
	9.0 - 12.0	13.9	12.1	9.3
	13.0 - 16.0	14.6	12.6	9.7
D	12.0 - 15.5	26.5	22.9	17.6
	16.0 - 21.0	27.9	24.3	18.7
	22.0 - 27.0	29.1	25.6	19.6
E	17.7 - 23.6	39.7	34.4	26.5
	23.7 - 31.5	41.7	36.2	27.8
	31.6 - 39.3	43.7	37.9	29.1
AX	2.1 - 3.4	4.4	3.7	2.9
	3.6 - 4.2	4.6	4.0	3.1
	4.6 - 6.0	4.9	4.2	3.3
BX	3.7 - 5.4	7.7	6.6	5.1
	5.6 - 7.4	8.2	7.1	5.5
	8.6 - 9.4	8.6	7.5	5.7
CX	5.8 - 8.5	17.2	15.0	11.5
	9.0 - 12.0	18.1	15.7	12.1
	13.0 - 16.0	19.0	16.5	12.8

V-Belt Cross Section	Small Pulley Diameter Range (in.)	Recommended Deflection Force (lbs.)		
		Initial Installation	Re-tensioning	
			Max.	Min.
3V	2.65 - 3.35	5.5	4.8	3.9
	3.65 - 4.12	6.4	5.7	4.4
	4.50 - 5.60	7.5	6.6	5.1
	6.00 - 10.60	8.6	7.5	5.7
5V	7.10 - 8.50	19.2	16.7	13.0
	9.00 - 11.80	23.3	20.3	15.6
	12.50 - 16.00	27.3	23.9	18.5
8V	12.50 - 16.00	50.9	44.3	34.4
	17.00 - 20.00	57.1	49.8	38.6
	21.20 - 24.60	61.3	53.3	41.4
3VX	2.20 - 3.35	5.5	4.8	3.9
	3.65 - 4.12	6.4	5.7	4.4
	4.50 - 5.60	7.5	6.6	5.0
	6.00 - 10.60	8.6	7.5	5.7
5VX	4.40 - 8.50	19.2	16.7	13.0
	9.00 - 11.80	23.3	20.3	15.6
	12.50 -16.00	27.3	23.8	18.5

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