

## HOW TO USE A V-BELT TENSION GAUGE

- 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 belts over the sheave grooves. Take up the slack until the belts appear fairly taut.

- 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 inch for every inch of span length. For example, the deflection for a 32 inch span is 1/64 inch x 32, 1/2 inch.
- Set the O-ring on the plunger at 0 against the body of the tension gauge.
- With the tension gauge perpendicular to the span, apply a force to a belt in the center of the span. Deflect the belt until bottom of the large O-ring is even with

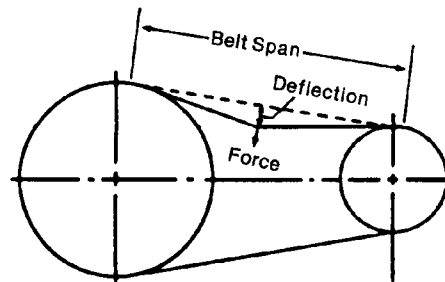
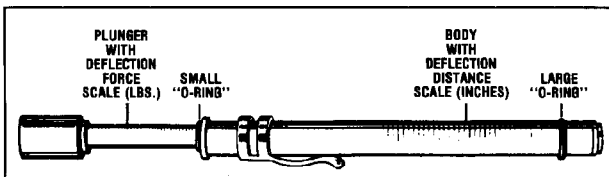
the top of the next belt, or the bottom of a straight edge laid across the top of other belt(s) on the drive. Release pressure and read pounds of force used at O-ring on plunger.

**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 below. Check tension frequently during the first 24 hours of operation. Subsequent retensioning should fall between the minimum and maximum forces shown in the tables.

- Compare the force required in step 4 with the ranges in the tables below.

Tighten or loosen belts to bring them into the recommended range.

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



V-Belt Cross Section	Small Sheave Diameter Range (Inches)	Recommended Deflection Force (Lbs.)		
		Initial Installation	Retensioning	
			Maximum	Minimum
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
	8.6- 9.4	6.6	5.7	4.4
C	7.0- 8.5	13.2	11.5	8.8
	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
	16.0-18.0	27.8	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 Sheave Diameter Range (Inches)	Recommended Deflection Force (Lbs.)		
		Initial Installation	Retensioning	
			Maximum	Minimum
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	23.8	18.5
8V	12.50-16.00	50.9	44.3	34.4
	17.00-20.00	57.1	49.8	38.6
	21.20-24.80	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