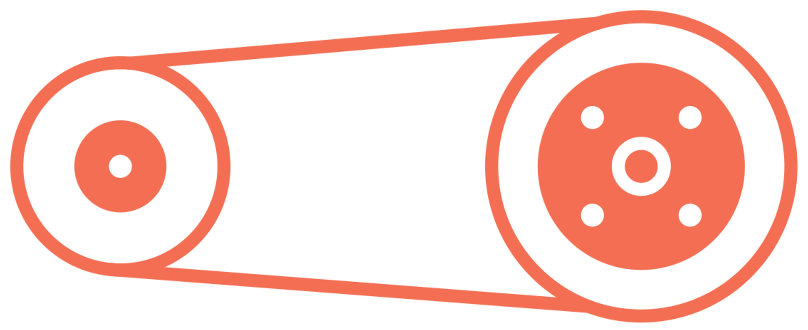
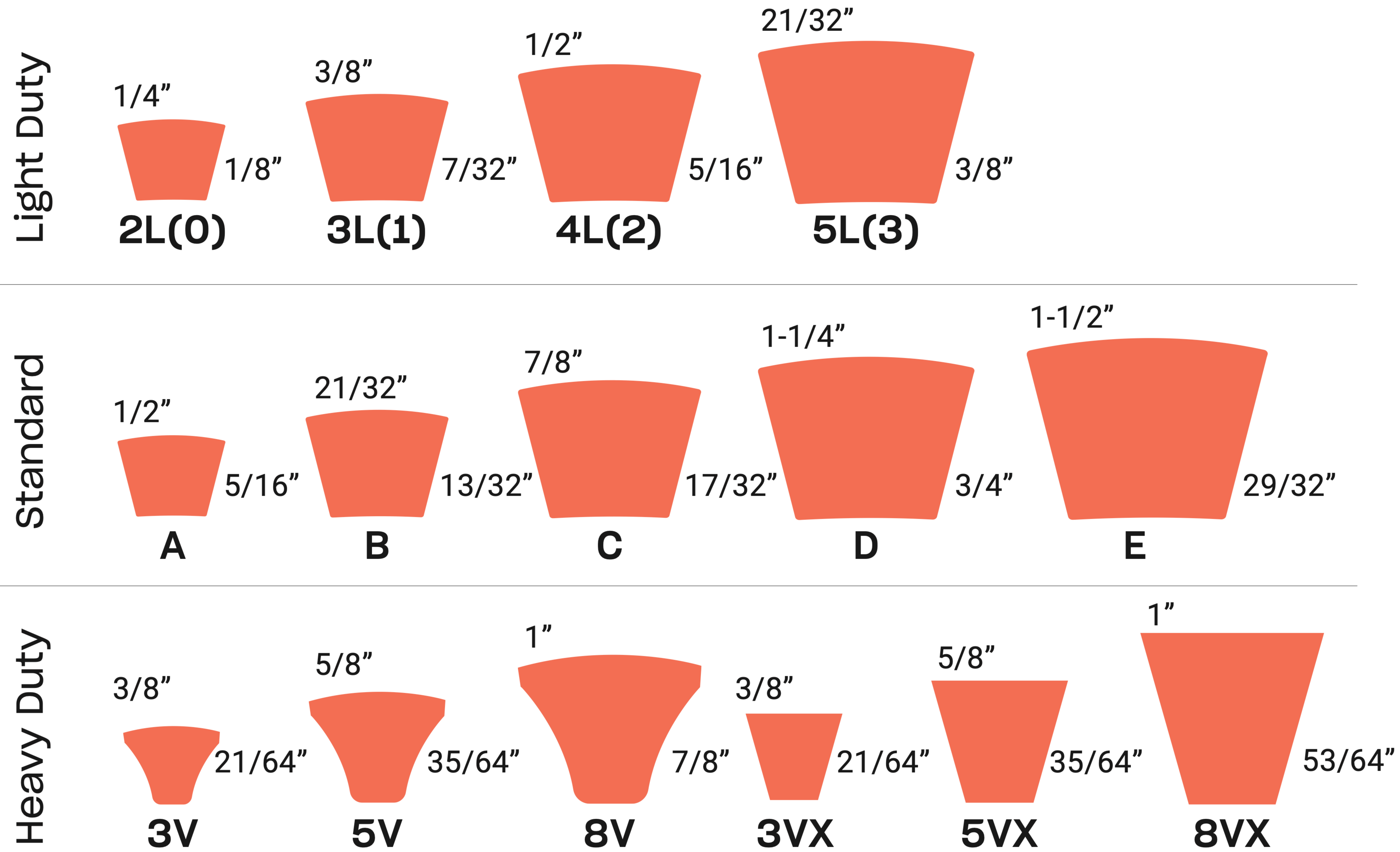
POWER TRANSMISSION BELTS



V-BELT

The most widely used style of rubber belt in most industries is the V-Belt. It drives through frictional contact between the sides of the belt and the sheave groove surfaces.Typically, the V-Belt does not make contact with the bottom of the sheave groove.

BELT SIZING



BELT LENGTH MEASUREMENT

- pD = diameter of large sheave
- pd = diameter of small sheave
- SS = center distance shaft to shaft

$$\frac{(pD \times 3.14)}{2} + \frac{(pd \times 3.14)}{2} + SS = \text{length}$$

BELT DEFLECTION

Regardless of your years of experience in replacing belts, a Belt Tensioning Gauge is highly recommended. When belts are too loose, belts are damaged and when belts are too tight, bearings are damaged. Belts should be properly tensioned, allowed to run for a couple of hours, then re-tensioned. Refer to the following chart to determine the lowest tension at which the belts won’t slip under peak load conditions.

Belt Cross Section	Smallest Sheave Diameter Range	RPM Range	Belt Deflection Force			
			Super Gripbelts and Unnotched Gripbands		Gripnotch Belts and Notched Gripbands	
			Used Belt	New Belt	Used Belt	New Belt
A, AX	3.0 - 3.6	1000 - 2500 2501 - 4000	3.7 2.8	5.5 4.2	4.1 3.4	6.1 5.0
	3.8 - 4.8	1000 - 2500 2501 - 4000	4.5 3.8	6.8 5.7	5.0 4.3	7.4 6.4
	5.0 - 7.0	1000 - 2500 2501 - 4000	5.4 4.7	8.0 7.0	5.7 5.1	8.4 7.6
B, BX	3.4 - 4.2	860 - 2500 2501 - 4000	- -	- -	4.9 4.2	7.2 6.2
	4.4 - 5.6	860 - 2500 2501 - 4000	5.3 4.5	7.9 6.7	7.1 6.1	10.5 9.1
	5.8 - 8.6	860 - 2500 2501 - 4000	6.3 6.0	9.4 8.9	8.5 7.3	12.6 10.9
C, CX	7.0 - 9.0	500 - 1740 1741 - 3000	11.5 9.4	17.0 13.8	14.7 11.9	21.8 17.5
	9.5 - 16.0	500 - 1740 1741 - 3000	14.1 12.5	21.0 18.5	15.9 14.6	23.5 21.6
D	12.0 - 16.0	200 - 850 851 - 1500	24.9 21.2	37.0 31.3	- -	- -
	18.0 - 20.0	200 - 850 851 - 1500	30.4 25.6	45.2 38.0	- -	- -
3V, 3VX	2.2 - 2.4	1000 - 2500 2501 - 4000	- -	- -	3.3 2.9	4.9 4.3
	2.65 - 3.65	1000 - 2500 2501 - 4000	3.6 3.0	5.1 4.4	4.2 3.8	6.2 5.6
	4.12 - 6.90	1000 - 2500 2501 - 4000	4.9 4.4	7.3 6.6	5.3 4.9	7.9 7.3
5V, 5VX	4.4 - 6.7	500 - 1749 1741 - 3000 3001 - 4000	- - -	- - -	10.2 8.8 5.6	15.2 13.2 8.5
	7.1 - 10.9	500 - 1740 1741 - 3000	12.7 11.2	18.9 16.7	14.8 13.7	22.1 20.1
	11.8 - 16.0	500 - 1740 1741 - 3000	15.5 14.6	23.4 21.8	17.1 16.8	25.5 20.0
8V	12.5 - 17.0	200 - 850 851 - 1500	33.0 26.8	49.3 39.9	- -	- -
	18.0 - 22.4	200 - 850 851 - 1500	39.6 53.3	59.2 52.7	- -	- -

acoem
530-G Southlake Boulevard
Richmond, VA 23236
804-379-2250
www.acoem.us