V-Belt Sizing and Selection Guide

V belts are the most commonly selected belts for power transmission. V belts provide the best combination of traction, speed transfer, drive load distribution, and long service life. The belts are generally endless, and their general cross-section shape is trapezoidal or “V” shaped. The "V" shape of the belt tracks in a groove on a pulley or sheave. The V belt wedges into the groove as the load increases, the greater the load the greater the wedging action—creating power distribution and torque to whatever the V belt is operating. V-belts are most commonly rubber or polymer throughout or there may be fibers embedded in the rubber or polymer for strength and reinforcement. Below are the most common sizes, types and applications.

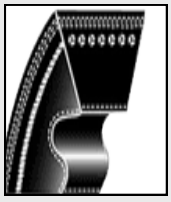
FHP (Fractional Horsepower) V-Belts 3L, 4L, 5L

- For single-groove low horsepower applications typically 3HP and under
- Commonly used in fan applications

A, B, C—Type V-Belts

- Medium horsepower applications
- Single or Multi belt drives and suited for “clutching” applications
- Longer life expectancy than FHP belts, transmitts more HP than FHP V-Belts

AX-, BX-, CX– Type V-Belts



- Medium and High horsepower applications for industrial single or multiple V-Belt drives
- Cogged construction allows belt to flex around drive sheave and run cooler than the no cogged standard V-Belt design.

3VX- and 5VX– V-Belts

- Cogged belt for industrial single or multi V-Belt drives
- Commonly used with high horsepower drives with small sheaves

Measuring for V Belt Length and Width

Knowing the OEM (Original Equipment Manufacturer) numbers from the existing belt is always best. However if they are illegible or this is a new installation there is a way to measure for belt size.

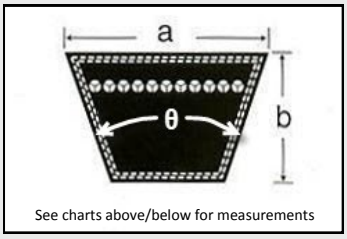
Take a piece of string that you know will fit around the belt and wrap it once around the drive pulleys the belt will be operating in or around the existing belt. Once the end meets the beginning mark cut the string. Measure with a standard tape measure and this will be the belt length needed.

Belts can stretch with use over time, remember to check the sizes of the V Belts offered. Adjust to a slightly lesser length to ensure tightness when measuring an existing belt that has stretched.

To measure the width of the belt simply measure across the top of the belt or the groove it will rest in. Systems with multiple V Belts and pulleys can have the length and width measured individually in the same way.

Standard V Belt Sizes

Belt Type	Top Width a	Height b	Angle (°)	Belt Inside Length (In.)
3L	3/8"	7/32"	40	170-1350
4L	1/2"	5/16"	40	170-4000
5L	5/8"	13/32"	40	230-2680
A	1/2"	5/16"	40	15-400
B	5/8"	13/32"	40	20-800
C	7/8"	17/32"	40	32-800
D	1.25”	3/4"	40	80-800
E	1.5”	29/32"	40	105-800
AX	1/2"	5/16"	38	20 - 118
BX	5/8"	13/32"	38	22 - 138
CX	7/8"	17/32"	38	30 - 138
3VX	3/8”	21/64	40	250 to 1180
5VX	5/8”	35/64	40	410 to 1380



See charts above/below for measurements

Metric V Belt Sizes

Belt Type	Top Width a	Height b	Angle (°)	Belt Inside Length (In.)
SPZ	10mm	8mm	38	20 - 118
SPA	13mm	10mm	38	22 - 138
SPB	16mm	13mm	38	30 - 138
SPC	22mm	18mm	40	250 to 1180

Information sources include W.W. Grainger, Vbelts4less

If you are still having difficulty choosing a V Belt,
please contact us at askzoro@zoro.com or 855-289-9676

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