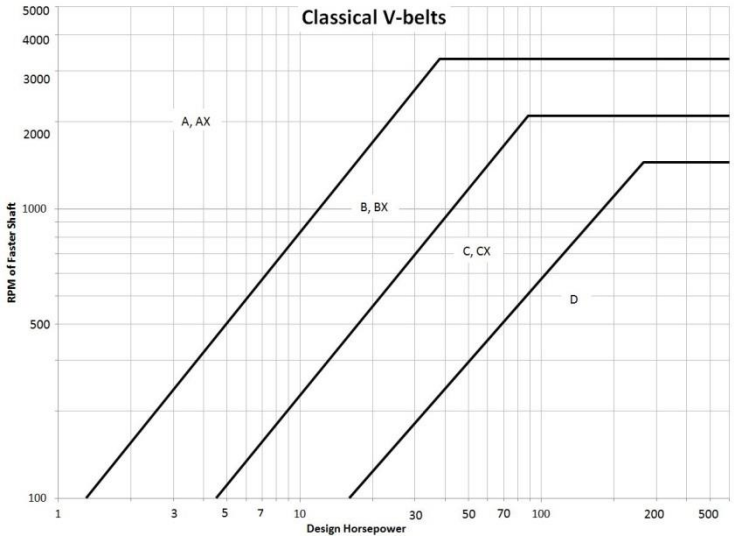
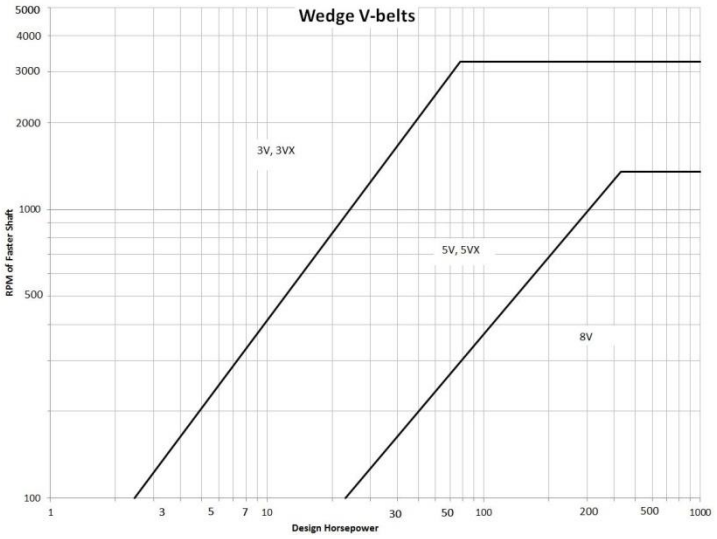
V-Belt Quick Selection Guide

1. Determine the drive's requirements. How much power (Actual Horsepower) do needs to be delivered and at what speed (RPM)? What are the limits on center distance and pulley sizes?
2. From the Service Factor Table, choose the Service Factor most applicable to the specific application. Refer to the table below.
3. Calculate the required Design Horsepower by multiplying the Actual Horsepower by the Service Factor.
4. Use the Design Horsepower and Speed of the Faster Shaft $\left(\frac{Speed\ of\ Driver}{Speed\ of\ Driven} = \frac{Diameter\ of\ Driven}{Diameter\ of\ Driver}\right)$ to determine which belt section is best suited for the drive. Refer to the figures below.
   - Other factors must also be considered when selecting a belt section. For example, cogged belts can be used on smaller pulleys and can handle higher temperatures but are also more expensive. There are minimum recommended pulley diameters for each belt section. Running the belt on a pulley smaller than recommended will drastically reduce belt life.
5. After selecting a belt section, refer the Belt Drive Design Program found at www.bestorq.com to obtain more information about the required belting. (Note that an authorized email address and password is required to access the program.) The program will determine the nearest stock belt size, belt speed, RPM of the larger pulley, rated HP per belt, number of belts required and arc of contact as well as other information.
   The following information must be entered:
   - Actual Horsepower
   - Service Factor
   - Belt Cross-Section
   - Smaller Pulley Diameter
   - Smaller Pulley RPM
   - Larger Pulley Diameter
   - Desired Center Distance
6. Following the recommendations given by the design program AND the installation and maintenance guidelines is necessary to maximize belt life.





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Typical Service Factors

Notes:
Choose the Driving and Driven Units closest to your application.
Intermittent Service: 3-5 hours per day or seasonal
Normal Service: 6-16 hours per day, peak or occasional starting load ≤ 200% rated load
Continuous Service: starting or peak load ≥ 200% of rated load, 16-24 hours per day
For Idlers add the following to the service factors:
Inside Slack Side: 0.0 Outside Slack Side: 0.1
Inside Tight Side: 0.1 Outside Tight Side: 0.2
Use a service factor of 2.0 for equipment subject to choking.

Type of Driven Unit		Type of Driving Unit					
		AC Motors: Normal Torque, Squirrel Cage, Star-Delta Start Synchronous and Split Phase DC Motors: Shunt Wound Multiple Cylinder Engines			AC Motors: High Torque, High Split, Repulsion-Induction, Single Phase Series Wound and Compound Wound, Slip Ring DC Motors: Series and Compound Wound Single Cylinder Engines		
		Intermittent	Normal	Continuous	Intermittent	Normal	Continuous
	Agitators for Liquids Blowers and Exhausters Centrifugal Pumps and Compressors Fans up to 10 HP Light Duty Conveyors	1.0	1.1	1.2	1.1	1.2	1.3
	Belt Conveyers for Sand, Grain, etc. Mixers Fans Over 10HP Generators Line Shafts Laundry Machinery Machine Tools Punches, Presses, Shears Printing Machinery Positive Displacement Pumps Revolving and Vibrating Screens	1.1	1.2	1.3	1.2	1.3	1.4
	Brick Machinery Bucket Elevators Exciters Piston Compressors Conveyors (Drag-Pan-Screw) Hammer Mills Paper Mill Beaters Piston Pumps Positive Displacement Blowers Pulverizers Saw Mill and Woodworking Machinery Textile Machinery	1.2	1.3	1.4	1.4	1.5	1.6
	Crushers (Gyratory-Jaw-Roll) Mills (Ball-Rod-Tube) Hoists Rubber (Calenders-Extruders-Mills)	1.3	1.4	1.5	1.5	1.6	1.8