

FHP (Fractional Horsepower) V-Belts

- For single-groove low HP applications (under 3 HP)
- Ideal for fan applications

Belt Type	Pitch Dia. †	1.25‡	1.5	1.75	2.0	2.5	3.0	3.5	4.0	4.5	5.0		
3L	HP Rating*	0.09	0.15	0.23	0.29	0.43	0.55	0.61	0.67	0.73	0.78		
Belt Type	Pitch Dia. †	1.25‡	1.5‡	2.0‡	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	
4L	HP Rating*	0.09	0.14	0.29	0.60	0.88	1.17	1.37	1.49	1.61	1.70	1.78	
Belt Type	Pitch Dia. †	2.2‡	2.5‡	3.0‡	3.4	3.9	4.4	4.9	5.4	5.9	6.4	6.9	7.4
5L	HP Rating*	0.36	0.45	0.71	1.07	1.52	1.95	2.26	2.39	2.50	2.59	2.68	2.71

(* HP ratings are of a single belt and are not corrected for ratio, arc of contact, or belt length. They are based on a 1.0 service factor. RMA service factor requirements vary from 1.0 to 2.0 depending on application. (†) Pitch diameter of smaller sheave operating at 1750 RPM. Dimensions in inches. (‡) Below RMA minimum recommended pitch diameters.

A, B, and C Type V-Belts

- Medium HP applications
- For industrial applications requiring single or multiple V-belt drives
- Transmit more HP and have longer life expectancy than FHP V-belts
- Suited for "clutching" applications

Belt Type	Pitch Dia. †	2.00‡	2.20‡	2.60‡	3.00	3.40	3.70	4.00	4.40	4.70	5.00	5.40	5.70	6.00	6.40	7.00	8.00
A	HP Rating*	0.90	1.17	1.69	2.23	2.95	3.40	4.00	4.69	5.20	5.96	6.35	6.83	7.30	7.91	8.81	10.22
Belt Type	Pitch Dia. †	3.00‡	3.40‡	3.80‡	4.20‡	4.60‡	5.00‡	5.40	5.80	6.20	6.60	7.00	7.40	8.00	8.60	9.00	9.40
B	HP Rating*	1.58	2.47	3.34	4.19	5.10	6.16	7.21	8.22	9.22	10.19	11.13	12.06	13.39	14.66	15.48	16.27
Belt Type	Pitch Dia. †	5.60‡	7.00‡	7.40‡	7.80‡	8.20‡	8.60‡	9.00	9.40	9.80	10.20	11.00	12.00	14.00			
C	HP Rating*	6.94	12.09	13.62	15.11	16.56	17.96	19.32	20.62	21.88	23.09	25.35	27.86	31.76			

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AX, BX, and CX Type V-Belts

- Medium/high HP applications
- For industrial applications requiring single or multiple V-belt drives
- Transmit more HP than comparable A, B, and C belts
- Raw edge design provides more aggressive gripping with less belt slippage
- Cogged construction allows belt to flex easier around drive sheave and run cooler than noncogged belts
- Not for use on "clutching" applications because of aggressive grip

Belt Type	Pitch Dia. †	2.00‡	2.20	2.60	3.00	3.40	3.70	4.00	4.40	4.70	5.00	5.40	5.70	6.00	6.40	7.00	8.00
AX	HP Rating*	1.24	1.58	2.25	2.90	3.53	3.99	4.46	5.15	5.67	6.18	6.84	7.34	7.82	8.45	9.39	10.88
Belt Type	Pitch Dia. †	3.00‡	3.40‡	3.80	4.20	4.60	5.00	5.40	5.80	6.20	6.60	7.00	7.40	8.00	8.60	9.00	9.40
BX	HP Rating*	3.72	4.62	5.50	6.36	7.19	8.08	9.19	10.27	11.34	12.39	13.41	14.42	15.89	17.32	18.23	19.13
Belt Type	Pitch Dia. †	5.60‡	7.00	7.40	7.80	8.20	8.60	9.00	9.40	9.80	10.20	11.00	12.00	14.00			
CX	HP Rating*	14.10	18.35	19.49	20.60	21.66	23.14	24.61	26.05	27.44	28.79	31.37	34.32	39.31			

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3VX and 5VX Type V-Belts

- High HP applications
- For industrial applications requiring single or multiple V-belt drives
- Transmit substantially more HP than A, AX, B, BX, C, and CX, which allows for more compact drive systems (smaller sheave OD and/or fewer grooves)
- Raw edge, cogged

Belt Type	Pitch Dia. †	2.15	2.30	2.45	2.60	2.95	3.10	3.30	3.60	4.45	4.70	4.95	5.25	5.95	6.85	7.95	10.55
3VX	HP Rating*	1.37	1.63	1.89	2.15	2.75	3.01	3.34	3.85	5.25	5.65	6.05	6.53	7.63	9.01	10.64	14.22
Belt Type	Pitch Dia. †	4.30	4.55	4.80	5.10	5.40	5.70	5.90	6.20	6.50	6.70	7.00	7.40	7.90	8.40	9.10	9.50
5VX	HP Rating*	8.23	9.40	10.55	11.93	13.30	14.66	15.56	16.89	18.22	19.10	20.41	22.13	24.26	26.35	29.23	30.84

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Selection Guidelines

FOR DIRECT REPLACEMENT WHEN ORIGINAL BELT PART NUMBER IS AVAILABLE

Match RMA (Rubber Manufacturers' Association) number/manufacturer's part number (from your existing V-belt), then make selection from the following pages. Dayton V-belts conform to RMA standards.

FOR NEW APPLICATIONS OR WHEN ORIGINAL BELT PART NUMBER IS NOT AVAILABLE

When replacing V-belts with worn markings, use the belt cross-sections at the top of each page to identify the belt type. Belt length can be determined by using either the Browning V-belt rule, No. 3HX32 (available on page 134), or by using the belt length formula calculation on this page. Based on RMA standards, HP tables are provided below for assistance when designing new applications.

BELT INTERCHANGE*

RMA Belt Size	BROWNING	GOODYEAR	GATES	DAYCO
3L, 4L, 5L	FHP	Fractional HP	TRUFLEX	Durapower FHP
A, B, C	Super Gripbelts	HY-T	HI-POWER	Super Blue Ribbon
AX, BX, CX	Gripnitch	Torque-Flex	TRI-POWER	Gold Label Cog-Belt
3VX, 5VX	358	HY-T Wedge	SUPER HC	Power Wedge Vee Cog-Belt

(* Contact local Grainger branch for assistance with cross-referencing specific part numbers.

Sheave Pitch Diameters TO CALCULATE MOTOR SHEAVE PITCH DIAMETER

Multiply driven sheave RPM by driven sheave pitch diameter and divide by motor sheave RPM.

TO CALCULATE DRIVEN SHEAVE PITCH DIAMETER

Multiply motor sheave RPM by motor sheave pitch diameter and divide by driven sheave RPM.

FORMULA

(Motor Sheave P.D.) x (Motor Sheave RPM) = (Driven Sheave P.D.) x (Driven Sheave RPM)

V-Belt Comparison

Dayton V-belts interchange with major brands like Browning, Goodyear, Gates, Dayco, and others.

$$L = 2C + 1.57(D+d) + \frac{(D-d)^2}{4C}$$

L = Pitch Length of Belt
C = Center Distance
D = Pitch Diameter of Large Sheave
d = Pitch Diameter of Small Sheave

