

Adjustable Center Distance Drives

All dimensions are in inches

Rated HP	Pitch Ratio	Series Model	Max. Pitch Diameter	Min. Pitch Diameter	Belt Center	Length	Face Diameter	Belt Size	Stock Bore Sizes
Single Face Moveable									
.75	2:1	30 TBR	3.13	1.57	.78	2.69	3.38	A	.5•.625•.75
1	2.5:1	40 TBR	4.00	1.60	.78	2.69	4.25	A	.5•.625•.75
1	3.4:1	40TBR-W	4.00	1.13	.78	2.69	4.25	A	.5
1.5	2.7:1	50 TBR	4.65	1.72	.78	3.19	5.00	B	.5•.625•.75•.875
2	2.5:1	57-20 TBR	5.40	2.16	.78	3.06	5.75	B	.5•.625•.75•.875
3	2.5:1	57 TBR	5.40	2.16	1.09	3.88	5.75	B	.75•.875•.625•1•1.125
5	2:1	66 TBR	6.20	3.10	1.09	3.88	6.63	B	.75•.875•1•1.125
5	1.6:1	86 TBR	8.28	5.17	1.09	3.88	8.63	B	.75•.875•1•1.125
Double Face Moveable									
1	2.3:1	DCV 140	3.75	1.63	2.19	4.38	4.00	A	.5•.625•.75•.875
1.5	2.5:1	DCV 150	4.70	1.88	2.19	4.38	5.00	B	.5•.625•.75•.875
1.5	3:1	DCW 1160	5.90	1.98	2.19	4.38	6.13	1422V	.625•.75•.875
2	2.2:1	DCV 157-20	5.40	2.45	2.19	4.38	5.75	B	.5•.625•.75•.875
3	2.2:1	DCV 157	5.40	2.45	2.50	4.94	5.75	B	.75•.875•1•1.125
3	3:1	DCW 1270	7.28	2.42	2.87	5.88	7.50	1922	.75•.875•1•1.125
5	2.5:1	DCV 167	6.50	2.60	2.88	5.88	6.88	B	.75•.875•1•1.125
5	3:1	DCW 1590	8.75	2.90	3.53	7.06	9.00	2322V	1•1.125•1.25•1.375
10	3:1	DCW 1711	10.70	3.57	4.33	8.66	11.00	3226V	1•1.125•1.25•1.375
20	2.5:1	DCW 2011	10.65	4.26	4.88	9.75	11.00	3230HV	1.375•1.625•1.875
30	3:1	DCW 2513	12.60	4.20	4.88	9.75	13.00	4430V	1.375•1.625•1.875
Two Groove/Belt									
5	2:1	DCV 257	5.40	2.70	3.13	6.38	5.75	B (two)	.75•.875•1•1.125
7.5	1.75:1	DCV 265	6.50	3.70	3.75	7.53	7.00	C (two)	1•1.125•1.25•1.375
Asymmetric									
5	3:1	A96	9.30	3.10	1.82	6.56	9.69	23A	Collet No. 512
10	3:1	A 112	10.80	3.60	2.32	7.25	11.25	26A	Collet No. 512
20	2.5:1	A 112-33	10.70	4.30	2.27	7.44	11.25	33A	Collet No. 512
30	2.3:1	A130-33	12.40	5.40	2.52	7.44	13.00	33A	Collet No. 7713

To calculate the speed range of a Hi-Lo Variable Speed Pulley and a Companion Sheave, simply multiply the *Motor Speed* x *Maximum Pitch Diameter of the Variable Speed Pulley*, then divide that by the *Pitch Diameter of the Driven Sheave*. This gives you the *Maximum RPM*.

Divide this by the *Pitch Ratio* to find the *Minimum RPM*.
 Example: DCW 1160 / 14W7 w/1750 motor: $(1750 \times 5.9) \div 6.8 = 1518$ max RPM / 3 = 506 min RPM

One shaft is fixed and the other is moveable. The variable speed pulley is normally mounted on the moveable shaft and a fixed diameter sheave on the stationary shaft. By using an adjustable motor base, speed variation of the driven shaft is accomplished by mechanically changing the center distance between the shafts. An increase in center distance will pull the belt to a smaller diameter in the variable speed pulley. This increases the drive ratio and reduces the driven shaft RPM. A decrease in center distance allows the spring-loaded pulley faces to close and push the belt to a larger diameter.

