



14995-A
SEPTEMBER 2010

Heavy Duty V-Belt Drive Design Manual



RUN WITH US
HIGH PERFORMANCE BELT DRIVES

Product Features

Super HC® V-Belts

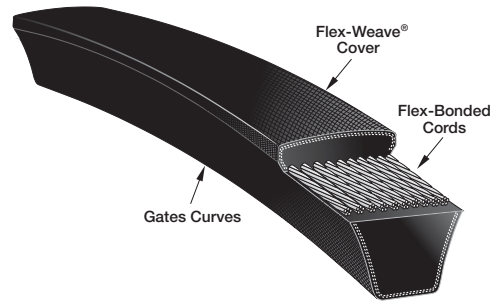
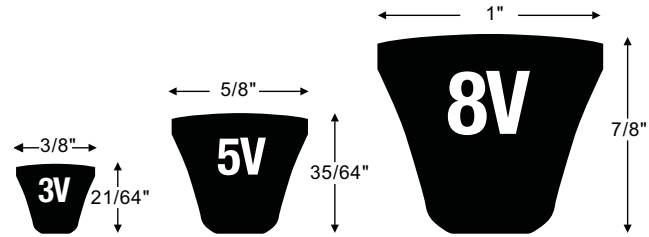
Pioneered by Gates, these “narrow” cross-sections can transmit up to three times the horsepower of the classical cross-sections (A, B, C, and D) in the same amount of drive space.

Markets/Applications

Suitable for all industrial applications, particularly where space, weight and horsepower capacity are critical.

Features/Advantages

- **Gates Curves** provide proper cord support and full contact with the sheave-groove for uniform loading, uniform wear, and increased belt life.
- **Flex-Bonded Cords** are strongly bonded to the body of the belt resulting in equal load distribution and the absorption of bending stress without cord deterioration.
- The **Flex-Weave Cover** is a patented construction for longer cover life, providing extended protection to the core of the belt from oil, dirt, and heat.
- Meets RMA **oil and heat resistant** standards.
- Meets RMA **static conductivity** requirements.



Super HC® Molded Notch Belts

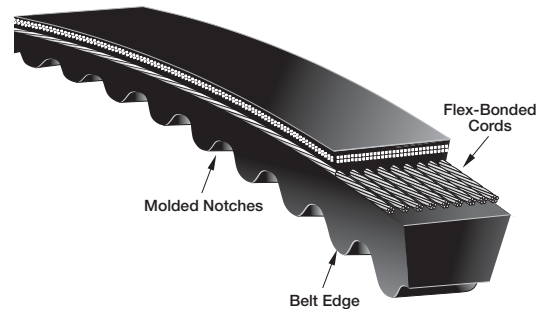
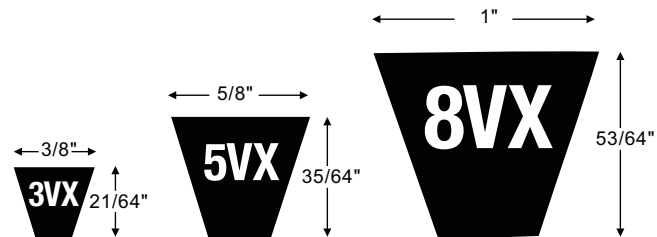
Constructed with Gates proprietary construction, this belt has a superior combination of flex and load carrying capacity, as well as transmitting more horsepower than the classical cross sections in the same amount of drive space.

Markets/Applications

Suitable for all industrial applications, particularly where space, weight and horsepower capacity are critical.

Features/Advantages

- Gates patented EPDM rubber compound technology.
- **Notches molded** into the belt during manufacturing make this belt well suited for drives with smaller diameter sheaves.
- **Belt Edge** is machined for even sheave groove contact resulting in less slip and wear.
- **Flex-Bonded Cords** are strongly bonded to the body of the belt resulting in equal load distribution and the absorption of bending stress without cord deterioration.
- Meets RMA **oil and heat resistant** standards.
- Meets RMA **static conductivity** requirements.



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Table No. B4

Super HC® and Super HC Molded Notch V-Belts and PowerBand® Belts Sizes

(PowerBand Belts are available in 2, 3, 4 or 5 bands in sizes shown, or wider, on a standard non-stock basis.)



Lengths listed as molded notch are available in banded or molded notch construction unless otherwise noted.

3V Part No.	Outside Circum. Effective Length (in)	3V Part No.	Outside Circum. Effective Length (in)	5V Part No.	Outside Circum. Effective Length (in)	5V Part No.	Outside Circum. Effective Length (in)	5V Part No.	Outside Circum. Effective Length (in)	8V Part No.	Outside Circum. Effective Length (in)
3VX250*	25	3VX690**	69	5VX350*	35	5VX720*	72	5VX1160*	116	8V1000*	100
3VX265*	26.5	3VX710	71	5VX362*	36.2	5VX730*	73	5VX1162*	116.2	8V1060*	106
3VX280*	28	3V730*	73	5VX372*	37.2	5VX740*	74	5VX1180**	118	8V1120*	112
3VX290**	29	3VX750	75	5VX382*	38.2	5VX750	75	5V1200**	120	8V1180*	118
3VX300	30	3VX771**	77.1	5VX392*	39.2	5VX760*	76	5V1210**	121	8V1250*	125
3VX315	31.5	3VX800	80	5VX402*	40.2	5VX769*	76.9	5VX1220*	122	8V1320*	132
3VX326**	32.6	3V810*	81	5VX412*	41.2	5VX780*	78	5VX1230*	123	8V1400*	140
3VX335	33.5	3VX826**	82.6	5VX422*	42.2	5VX790*	79	5VX1250	125	8V1500*	150
3VX350**	35	3V830*	83	5VX433*	43.3	5VX800	80	5VX1277*	127.7	8V1600*	160
3VX355	35.5	3VX850	85	5VX450*	45	5VX810*	81	5VX1320	132	8V1700*	170
3VX366**	36.6	3VX900	90	5VX459*	45.9	5VX830*	83	5VX1374*	137.4	8V1800*	180
3VX375	37.5	3VX926**	92.6	5VX470*	47	5VX840*	84	5VX1400	140	8V1900*	190
3VX385**	38.5	3VX950	95	5VX479*	47.9	5VX850	85	5VX1469*	146.9	8V2000*	200
3VX390**	39	3VX974**	97.4	5VX490*	49	5VX860*	86	5VX1500	150	8V2120*	212
3VX400	40	3VX1000	100	5VX500	50	5VX867*	86.7	5VX1600	160	8V2240	224
3VX415**	41.5	3VX1027**	102.7	5VX510*	51	5VX880*	88	5VX1700	170	8V2300**	230
3VX425	42.5	3VX1060	106	5VX519*	51.9	5VX890*	89	5VX1701*	170.1	8V2360	236
3VX450	45	3VX1088**	108.8	5VX530	53	5VX900	90	5VX1800	180	8V2500	250
3VX464**	46.4	3VX1120	112	5VX540*	54	5VX918*	91.8	5VX1900	190	8V2650	265
3VX475	47.5	3VX1146**	114.6	5VX550*	55	5VX930*	93	5VX2000	200	8V2800	280
3VX487**	48.7	3VX1180	118	5VX560	56	5VX940*	94	5V1630***	163	8V3000	300
3VX500	50	3VX1224**	122.4	5VX570*	57	5VX950	95	5V2120	212	8V3150	315
3VX520**	52	3VX1250	125	5VX580*	58	5VX960*	96	5V2240	224	8V3350	335
3VX530	53	3VX1296**	129.6	5VX590*	59	5VX978*	97.8	5V2360	236	8V3550	355
3VX540**	54	3VX1320	132	5VX600	60	5VX990*	99	5V2500	250	8V3750	375
3VX550**	55	3VX1400	140	5VX610*	61	5VX1000	100	5V2650	265	8V4000	400
3VX560	56			5VX619*	61.9	5VX1017*	101.7	5V2800	280	8V4250	425
3VX570**	57			5VX630	63	5VX1030*	103	5V3000	300	8V4500	450
3VX580**	58			5VX650*	65	5VX1050*	105	5V3150	315	8V4750	475
3VX590**	59			5VX660*	66	5VX1060	106	5V3350	335	8V5000	500
3VX600	60			5VX670	67	5VX1080*	108	5V3550	355	8V5600	560
3VX616**	61.6			5VX680*	68	5VX1108*	110.8			8V6000	600
3VX630	63			5VX690*	69	5VX1120	112				
3VX650*/***	65			5VX700*	70	5VX1139*	113.9				
3VX670	67			5VX710	71	5VX1150*	115				

* Not Available in 3V PowerBand

** Only Available in 3VX Single Belts

*** Not Available in 3VX PowerBand

* Only Available in 5VX Single Belt

** Only Available in 5V PowerBand

*** Only Available in 5V Single Belt

* Available in 8VX Single Belt

** Only Available in 8V

Single Belt

NOTES

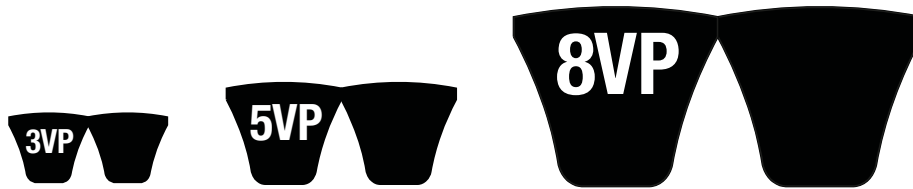
The part number for PowerBand® belts is constructed by placing the number of strands required followed by a slash (/) in front of the V-belt No. For example 6/5VX1000 represents a 5VX1000 with 6 strands.

See Page A5 for additional information on Gates Super HC PowerBand Belts.

Heavy Duty V-Belt Drive Design Manual

Table No. B5

Narrow Predator® and Predator® PowerBand® Belts Sizes



3VP Section		5VP Section		8VP Section	
Predator V-Belt No.	Outside Circumference Effective Length (in)	Predator V-Belt No.	Outside Circumference Effective Length (in)	Predator V-Belt No.	Outside Circumference Effective Length (in)
3VP450*	45	5VP600*	60	8VP1000*	100
3VP475*	47.5	5VP630*	63	8VP1060*	106
3VP500*	50	5VP670*	67	8VP1120*	112
3VP530*	53	5VP710*	71	8VP1180*	118
3VP560*	56	5VP750*	75	8VP1250*	125
3VP600*	60	5VP800	80	8VP1320*	132
3VP630*	63	5VP850	85	8VP1400*	140
3VP670*	67	5VP870*	87	8VP1500*	150
3VP710*	71	5VP900	90	8VP1600	160
3VP750*	75	5VP950	95	8VP1700	170
3VP800*	80	5VP1000	100	8VP1800	180
3VP850*	85	5VP1060	106	8VP1900	190
3VP900*	90	5VP1120	112	8VP2000	200
3VP950*	95	5VP1180	118	8VP2120	212
3VP1000*	100	5VP1250	125	8VP2240	224
3VP1060*	106	5VP1320	132	8VP2360	236
3VP1120*	112	5VP1400	140	8VP2500	250
3VP1180*	118	5VP1500	150	8VP2650	265
3VP1250*	125	5VP1600	160	8VP2800	280
3VP1320*	132	5VP1700	170	8VP3000	300
3VP1400*	140	5VP1800	180	8VP3150	315
		5VP1900	190	8VP3350	335
		5VP2000	200	8VP3550	355
		5VP2030*	203	8VP3750*	375
		5VP2120	212	8VP4000*	400
		5VP2240	224	8VP4250*	425
		5VP2360	236	8VP4500*	450
		5VP2500	250	8VP4750*	475
		5VP2650	265	8VP5000*	500
		5VP2800	280	8VP5600*	560
		5VP3000	300	8VP6000*	600
		5VP3150	315		
		5VP3350	335		
		5VP3550	355		

3VP Predator® belts are available up to 10 strands
* Only Available in 3VP PowerBand Belts

5VP Predator® belts are available up to 16 strands
* Only Available in 5VP PowerBand Belts

8VP Predator® belts are available up to 12 strands
* Only Available in 8VP PowerBand Belts

NOTES:

The part number is constructed by placing the number of strands required followed by a slash (/) in front of the belt size.
For example 6/3VP1000 represents a 3VP1000 with 6 strands.