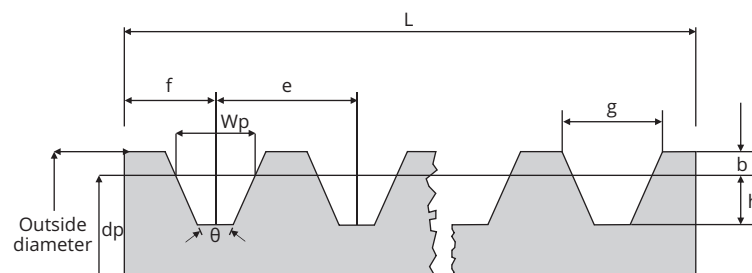


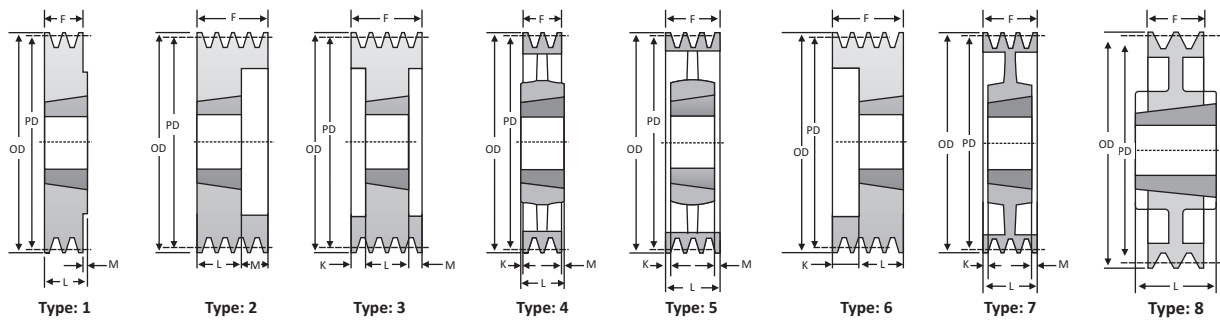
Standard V-Belt Pulley groove details

Section	Groove Pitch Width (Wp) mm	Min. distance from outside diameter to Pitch Dia. (B) mm	Min. groove depth below pitch diameter (Note 4) (h) mm	Centre to centre of groove (See note 2) (e) mm	Edge of pulley to 1st groove centre (See note 3) (f) mm	Pitch diameter (dp) mm	Groove angle (θ)mm	Min. top width of groove (g) mm
Z, SPZ ZX, XPZ	8.5	2.00	9.0	12±0.3	8.0±1.0	Up to 80 Over 80	34±0.5 38±0.5	9.7 9.9
A, SPA AX, XPA	11.0	2.75	11.0	15±0.3	10.0+2.0 -1.0	Up to 118 Over 118	34±0.5 38±0.5	12.7 12.9
B, SPB BX, XPB	14.0	3.50	14.0	19±0.4	12.5+2.0 -1.0	Up to 190 Over 190	34±0.5 38±0.5	16.1 16.4
C, SPC CX, XPC	19.0	4.80	19.0	25.5±0.5	17.0+2.0 -1.0	Up to 315 Over 315	34±0.5 38±0.5	21.9 22.3
D	27.0	8.10	19.9	37±0.6	24.0+3.0 -1.0	Up to 475 475 & over	36±0.5 38±0.5	32.3 32.6
E	32.0	9.60	23.4	44.5±0.7	29.0+4.0 -1.0	Up to 610 Over 610	36±0.5 38±0.5	38.8 39.3
3V, 3VX		0.64	8.0	10.3±0.4	8.7+2.0 -0.8	Up to 88 88 to 152 152 to 305 Above 305	36±0.5 38±0.5 40±0.5 42±0.5	8.9
5V, 5VX		1.27	13.7	17.5±0.4	12.7+3.0 -1.0	Up to 254 254 to 406 Above 406	38±0.5 40±0.5 42±0.5	15.2
8V, 8VX		2.54	22.6	28.6±0.4	19.0+6.0 -1.5	Up to 406 406 to 569 Above 569	38±0.5 40±0.5 42±0.5	25.4



1. The tolerance on the dimensions apply to the distance between the center of any two grooves whether adjacent or not
2. It is recommended that the tolerance on dimensions should be taken into account while aligning the Pulleys
3. When the Pulleys are to be used for V-Belts Z, A, B, C sections, the value of 'h' may be reduced by 20%
4. Only above dimension Pulleys should be used for Banded Belts except for 'A' section, where e=15.9 mm

B / BX & SPB / XPB section Pulleys



Product Code	Pitch Diameter (PD) (mm)	Outer Diameter (OD) (mm)	Number of grooves	Bush Number	Maximum Bore		F	K	L	M	Pulley Type
					Metric (mm)	Imperial (Inches)					
B 0100 01	100	107	1	1610	42	1 5/8"	25	-	25	-	1
B 0100 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0100 03			3	1610	42	1 5/8"	63	38.0	25	-	6
B 0106 01	106	113	1	1610	42	1 5/8"	25	-	25	-	1
B 0106 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0106 03			3	1610	42	1 5/8"	63	38.0	25	-	6
B 0112 01	112	119	1	1610	42	1 5/8"	25	-	25	-	1
B 0112 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0112 03			3	1610	42	1 5/8"	63	38.0	25	-	6
B 0118 01	118	125	1	1610	42	1 5/8"	25	-	25	-	1
B 0118 02			2	1610	42	1 5/8"	44	-	25	19.0	6
B 0118 03			3	1610	42	1 5/8"	63	-	25	38.0	6
B 0125 01	125	132	1	1610	42	1 5/8"	25	-	25	-	1
B 0125 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0125 03			3	1610	42	1 5/8"	63	38.0	25	-	6
B 0125 04			4	2012	50	2"	82	25.0	32	25.0	3
B 0125 05			5	2012	50	2"	101	34.5	32	34.5	3
B 0125 06			6	2012	50	2"	120	44.0	32	44.0	3
B 0132 01	132	139	1	1610	42	1 5/8"	25	-	25	-	1
B 0132 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0132 03			3	1610	42	1 5/8"	63	38.0	25	-	6
B 0132 04			4	2012	50	2"	82	25.0	32	25.0	3
B 0132 05			5	2012	50	2"	101	-	32	69.0	2
B 0132 06			6	2012	50	2"	120	44.0	32	44.0	3
B 0140 01	140	147	1	1610	42	1 5/8"	25	-	25	-	1
B 0140 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0140 03			3	1610	42	1 5/8"	63	38.0	25	-	6
B 0140 04			4	2012	50	2"	82	25.0	32	25.0	3
B 0140 05			5	2012	50	2"	101	-	32	69.0	2
B 0140 06			6	2517	60	2 1/2"	120	44.0	32	44.0	3
B 0150 01	150	157	1	1610	42	1 5/8"	25	-	25	-	1
B 0150 02			2	1610	42	1 5/8"	44	19.0	25	-	6
B 0150 03			3	2012	50	2"	63	31.0	32	-	6
B 0150 04			4	2012	50	2"	82	25.0	32	25.0	3
B 0150 05			5	2517	60	2 1/2"	101	-	45	56.0	2
B 0150 06			6	2517	60	2 1/2"	120	-	45	75.0	2
B 0150 08			8	2517	60	2 1/2"	158	56.5	45	56.5	2
B 0160 01	160	167	1	1610	42	1 5/8"	25	-	25	-	1
B 0160 02			2	2012	50	2"	44	12.0	32	-	6
B 0160 03			3	2517	60	2 1/2"	63	18.0	45	-	6
B 0160 04			4	2517	60	2 1/2"	82	18.5	45	18.5	3
B 0160 05			5	2517	60	2 1/2"	101	28.0	45	28.0	3
B 0160 06			6	2517	60	2 1/2"	120	-	45	75.0	2
B 0160 08			8	3020	75	3"	158	51.5	51	53.5	3

B / BX & SPB / XPB section Pulleys

Product Code	Pitch Diameter (PD) (mm)	Outer Diameter (OD) (mm)	Number of grooves	Bush Number	Maximum Bore		F	K	L	M	Pulley Type
					Metric (mm)	Imperial (Inches)					
B 0170 01	170	177	1	1610	42	1 5/8"	25	-	25	-	1
B 0170 02			2	2012	50	2"	44	12.0	32	-	6
B 0170 03			3	2517	60	2 1/2"	63	18.0	45	-	6
B 0170 04			4	2517	60	2 1/2"	82	18.5	45	18.5	3
B 0170 05			5	3020	75	3"	101	28.0	51	25.0	3
B 0170 06			6	3020	75	3"	120	-	51	69.0	2
B 0170 08			8	3030	75	3"	158	41.0	76	41.0	3
B 0180 01	180	187	1	1610	42	1 5/8"	25	-	25	-	1
B 0180 02			2	2012	50	2"	44	12.0	32	-	6
B 0180 03			3	2517	60	2 1/2"	63	18.0	45	-	6
B 0180 04			4	2517	60	2 1/2"	82	18.5	45	18.5	3
B 0180 05			5	3020	75	3"	101	25.0	51	25.0	3
B 0180 06			6	3020	75	3"	120	-	51	69.0	2
B 0180 08			8	3030	75	3"	158	41.0	76	41.0	3
B 0190 01	190	197	1	2012	50	2"	25	-	32	-	1
B 0190 02			2	2517	60	2 1/2"	44	-	45	-	1
B 0190 03			3	2517	60	2 1/2"	63	18.0	45	-	6
B 0190 04			4	2517	60	2 1/2"	82	18.5	45	18.5	3
B 0190 05			5	3020	75	3"	101	28.0	51	25.0	3
B 0190 06			6	3020	75	3"	120	-	51	75.0	2
B 0190 08			8	3030	75	3"	158	41.0	76	41.0	3
B 0200 01	200	207	1	2012	50	2"	25	-	32	7.0	1
B 0200 02			2	2517	60	2 1/2"	44	-	45	1.0	1
B 0200 03			3	2517	60	2 1/2"	63	-	45	18.0	2
B 0200 04			4	3020	75	3"	82	-	51	31.0	2
B 0200 05			5	3020	75	3"	101	-	51	50.0	2
B 0200 06			6	3020	75	3"	120	-	51	69.0	2
B 0200 08			8	3535	90	3 1/2"	158	34.5	89	34.5	3
B 0212 01	212	219	1	2012	50	2"	25	-	32	7.0	1
B 0212 02			2	2517	60	2 1/2"	44	-	45	1.0	1
B 0212 03			3	2517	60	2 1/2"	63	-	45	18.0	2
B 0212 04			4	3020	75	3"	82	-	51	31.0	2
B 0212 05			5	3020	75	3"	101	-	51	50.0	2
B 0212 06			6	3020	75	3"	120	-	51	69.0	2
B 0212 08			8	3535	90	3 1/2"	158	34.5	89	34.5	3
B 0224 01	224	231	1	2012	50	2"	25	-	32	7.0	1
B 0224 02			2	2517	60	2 1/2"	44	-	45	1.0	1
B 0224 03			3	2517	60	2 1/2"	63	-	45	18.0	2
B 0224 04			4	3020	75	3"	82	-	51	31.0	2
B 0224 05			5	3020	75	3"	101	-	51	50.0	2
B 0224 06			6	3020	75	3"	120	-	51	69.0	2
B 0224 08			8	3535	90	3 1/2"	158	34.5	89	34.5	3
B 0224 10			10	3535	90	3 1/2"	196	53.5	89	53.5	3
B 0236 01	236	243	1	2012	50	2"	25	-	32	7.0	1
B 0236 02			2	2517	60	2 1/2"	44	-	45	1.0	1
B 0236 03			3	2517	60	2 1/2"	63	-	45	18.0	2
B 0236 04			4	3020	75	3"	82	-	51	31.0	2
B 0236 05			5	3020	75	3"	101	-	51	50.0	2
B 0236 06			6	3020	75	3"	120	-	51	69.0	2
B 0236 08			8	3535	90	3 1/2"	158	34.5	89	34.5	3
B 0236 10			10	3535	90	3 1/2"	196	53.5	89	53.5	3
B 0250 01	250	257	1	2012	50	2"	25	-	32	7.0	1
B 0250 02			2	2517	60	2 1/2"	44	-	45	-	8
B 0250 03			3	3020	75	3"	63	-	51	12.0	2
B 0250 04			4	3020	75	3"	82	-	51	31.0	2
B 0250 05			5	3020	75	3"	101	-	51	50.0	2
B 0250 06			6	3020	75	3"	120	-	51	69.0	2
B 0250 08			8	3535	90	3 1/2"	158	34.5	89	34.5	3
B 0250 10			10	3535	90	3 1/2"	196	53.5	89	53.5	3

B / BX & SPB / XPB section Pulleys

Product Code	Pitch Diameter (PD) (mm)	Outer Diameter (OD) (mm)	Number of grooves	Bush Number	Maximum Bore		F	K	L	M	Pulley Type
					Metric (mm)	Imperial (Inches)					
B 0265 01	265	272	1	2012	50	2"	25	-	32	7.0	1
B 0265 02			2	2517	60	2 1/2"	44	-	45	-	8
B 0265 03			3	3020	75	3"	63	6.0	51	6.0	7
B 0265 04			4	3020	75	3"	82	15.5	51	15.5	7
B 0265 05			5	3535	90	3 1/2"	101	6.0	89	6.0	7
B 0265 06			6	3535	90	3 1/2"	120	15.5	89	15.5	7
B 0265 08			8	3535	90	3 1/2"	158	34.5	89	34.5	7
B 0265 10			10	3535	90	3 1/2"	196	53.5	89	53.5	7
B 0280 01	280	287	1	2012	50	2"	25	-	32	7.0	1
B 0280 02			2	2517	60	2 1/2"	44	-	45	-	8
B 0280 03			3	3020	75	3"	63	6.0	51	6.0	7
B 0280 04			4	3020	75	3"	82	15.5	51	15.5	7
B 0280 05			5	3535	90	3 1/2"	101	6.0	89	6.0	7
B 0280 06			6	3535	90	3 1/2"	120	15.5	89	15.5	7
B 0280 08			8	3535	90	3 1/2"	158	34.5	89	34.5	7
B 0280 10			10	3535	90	3 1/2"	196	53.5	89	53.5	7
B 0300 01	300	307	1	2012	50	2"	25	-	32	7.0	1
B 0300 02			2	2517	60	2 1/2"	44	-	45	-	8
B 0300 03			3	3020	75	3"	63	6.0	51	6.0	7
B 0300 04			4	3535	90	3 1/2"	82	-	51	-	8
B 0300 05			5	3535	90	3 1/2"	101	6.0	89	6.0	7
B 0300 06			6	3535	90	3 1/2"	120	15.5	89	15.5	7
B 0300 08			8	3535	90	3 1/2"	158	34.5	89	34.5	7
B 0300 10			10	3535	90	3 1/2"	196	53.5	89	53.5	7
B 0315 01	315	322	1	2012	50	2"	25	-	32	7.0	1
B 0315 02			2	2517	60	2 1/2"	44	-	45	-	8
B 0315 03			3	3020	75	3"	63	6.0	51	6.0	7
B 0315 04			4	3535	90	3 1/2"	82	-	51	-	8
B 0315 05			5	3535	90	3 1/2"	101	6.0	89	6.0	7
B 0315 06			6	3535	90	3 1/2"	120	15.5	89	15.5	7
B 0315 08			8	3535	90	3 1/2"	158	34.5	89	35.0	7
B 0315 10			10	3535	90	3 1/2"	196	53.5	89	53.5	7
B 0335 02	335	342	2	2517	60	2 1/2"	44	-	45	1.0	1
B 0335 03			3	3020	75	3"	63	6.0	51	6.0	7
B 0335 04			4	3535	90	3 1/2"	82	-	51	-	8
B 0335 05			5	3535	90	3 1/2"	101	3.5	89	6.0	7
B 0335 06			6	3535	90	3 1/2"	120	15.5	89	15.5	7
B 0335 08			8	3535	90	3 1/2"	158	34.5	89	34.5	7
B 0335 10			10	4040	100	4"	196	53.5	89	47.0	7
B 0355 02	355	362	2	3020	75	3"	44	3.5	51	3.5	4
B 0355 03			3	3020	75	3"	63	6.0	51	6.0	5
B 0355 04			4	3535	90	3 1/2"	82	-	89	-	8
B 0355 05			5	3535	90	3 1/2"	101	6.0	89	6.0	7
B 0355 06			6	3535	90	3 1/2"	120	15.5	89	15.5	7
B 0355 08			8	3535	90	3 1/2"	158	34.5	89	34.5	7
B 0355 10			10	4040	100	4"	196	47.0	102	47.0	7
B 0375 02	375	382	2	3020	75	3"	44	3.5	51	3.5	4
B 0375 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0375 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0375 05			5	3535	90	3 1/2"	101	6.0	89	6.0	5
B 0375 06			6	3535	90	3 1/2"	120	15.5	89	15.5	5
B 0375 08			8	4040	100	4"	158	28.0	102	28.0	5
B 0375 10			10	4040	100	4"	196	47.0	102	47.0	5

B / BX & SPB / XPB section Pulleys

Product Code	Pitch Diameter (PD) (mm)	Outer Diameter (OD) (mm)	Number of grooves	Bush Number	Maximum Bore		F	K	L	M	Pulley Type
					Metric (mm)	Imperial (Inches)					
B 0400 02	400	407	2	3020	75	3"	44	3.5	51	3.5	4
B 0400 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0400 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0400 05			5	3535	90	3 1/2"	101	6.0	89	6.0	5
B 0400 06			6	3535	90	3 1/2"	120	15.5	89	15.5	5
B 0400 08			8	4040	100	4"	158	28.0	102	28.0	5
B 0400 10			10	4040	100	4"	196	47.0	102	47.0	5
B 0425 02	425	432	2	3020	75	3"	44	3.5	51	3.5	4
B 0425 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0425 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0425 05			5	3535	90	3 1/2"	101	6.0	89	6.0	5
B 0425 06			6	3535	90	3 1/2"	120	15.5	89	15.5	5
B 0425 08			8	4040	100	4"	158	28.0	102	28.0	5
B 0425 10			10	4040	100	4"	196	47.0	102	47.0	5
B 0450 02	450	457	2	3020	75	3"	44	3.5	51	3.5	4
B 0450 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0450 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0450 05			5	3535	90	3 1/2"	101	6.0	89	6.0	5
B 0450 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0450 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0450 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0475 02	475	482	2	3020	75	3"	44	3.5	51	3.5	4
B 0475 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0475 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0475 05			5	3535	90	3 1/2"	101	6.0	89	6.0	5
B 0475 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0475 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0475 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0500 02	500	507	2	3020	75	3"	44	3.5	51	3.5	4
B 0500 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0500 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0500 05			5	3535	90	3 1/2"	101	6.0	89	6.0	5
B 0500 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0500 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0500 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0530 02	530	537	2	3020	75	3"	44	3.5	51	3.5	4
B 0530 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0530 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0530 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0530 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0530 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0530 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0560 02	560	567	2	3020	75	3"	44	3.5	51	3.5	4
B 0560 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0560 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0560 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0560 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0560 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0560 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5

B / BX & SPB / XPB section Pulleys

Product Code	Pitch Diameter (PD) (mm)	Outer Diameter (OD) (mm)	Number of grooves	Bush Number	Maximum Bore		F	K	L	M	Pulley Type
					Metric (mm)	Imperial (Inches)					
B 0600 02	600	607	2	3020	75	3"	44	3.5	51	3.5	4
B 0600 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0600 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0600 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0600 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0600 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0600 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0630 02	630	637	2	3030	75	3"	44	16.0	76	16.0	4
B 0630 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0630 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0630 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0630 06			6	4040	100	4"	120	9.0	102	9.0	5
B 0630 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0630 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0710 02	710	717	2	3030	75	3"	44	16.0	76	16.0	4
B 0710 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0710 04			4	3535	90	3 1/2"	82	3.5	89	3.5	4
B 0710 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0710 06			6	4545	110	4 1/2"	120	3.0	114	3.0	5
B 0710 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0710 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0762 02	762	769	2	3030	75	3"	44	16.0	76	16.0	4
B 0762 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0762 04			4	4040	100	4"	82	10.0	102	10.0	4
B 0762 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0762 06			6	4545	110	4 1/2"	120	3.0	114	3.0	5
B 0762 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0762 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0800 02	800	807	2	3030	75	3"	44	16.0	76	16.0	4
B 0800 03			3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0800 04			4	4040	100	4"	82	10.0	102	10.0	4
B 0800 05			5	4040	100	4"	101	0.5	102	0.5	4
B 0800 06			6	4545	110	4 1/2"	120	3.0	114	3.0	5
B 0800 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0800 10			10	4545	110	4 1/2"	196	41.0	114	41.0	5
B 0900 03	900	907	3	3535	90	3 1/2"	63	13.0	89	13.0	4
B 0900 04			4	4040	100	4"	82	10.0	102	10.0	4
B 0900 05			5	4545	110	4 1/2"	101	6.5	114	6.5	4
B 0900 06			6	4545	110	4 1/2"	120	3.0	114	3.0	5
B 0900 08			8	4545	110	4 1/2"	158	22.0	114	22.0	5
B 0900 10			10	5050	125	5"	196	34.5	127	34.5	5
B 1000 03	1000	1007	3	4040	100	4"	63	19.5	102	19.5	4
B 1000 04			4	4040	100	4"	82	10.0	102	10.0	4
B 1000 05			5	4545	110	4 1/2"	101	6.5	114	6.5	4
B 1000 06			6	4545	110	4 1/2"	120	3.0	127	3.0	5
B 1000 08			8	5050	125	5"	158	15.5	127	15.5	5
B 1000 10			10	5050	125	5"	196	34.5	127	34.5	5
B 1250 03	1250	1257	3	4040	100	4"	63	19.5	102	19.5	4
B 1250 04			4	4040	100	4"	82	10.0	102	10.0	4
B 1250 05			5	4545	110	4 1/2"	101	6.5	114	6.5	4
B 1250 06			6	5050	125	5"	120	3.0	127	3.0	5
B 1250 08			8	5050	125	5"	158	15.5	127	15.5	5
B 1250 10			10	5050	125	5"	196	34.5	127	34.5	5

• Above 'Pulley Description' is for 'B' section Pulleys, replace 'B' with BX, SPB or XPB to arrive at respective Pulley / Product code

• Please refer 'PIX recommended minimum pulley diameter' charts given on page no. 3

• Unlisted sizes are available on request