

Table - 3

DIMENSIONS OF STANDARD VEE-GROOVED PULLEYS									
Groove Cross Section	Minimum Pulley Pitch Diameter	Pulley Pitch Diameter	Groove Angle	Minimum Top width of groove	Minimum Groove depth below outside diameter, 'h'	Centre to Centre of grooves			Edge of Pulley to first Groove Centre
	mm	mm	Deg ± 0.0	mm	mm	mm			mm
SPZ	63	Upto 80 Over 80	34 38	9.7 9.9	11.0	12.0	±	0.3	8.0 1.0
A	75	Upto 118	34	13.0	13.8*	15.5	±	0.3	10.0 2.0
SPA	90	Over 118	38	13.3					1.0
B	125	Upto 190	34	16.6	17.5*	19.0	±	0.4	12.5 2.0
SPB	160	Over 190	38	16.9					1.0
C	200	Upto 315	34	22.5	23.8*	25.5	±	0.5	17.0 2.0
SPC	224	Over 315	38	22.9					1.0
D	350	Upto 475 Over 475	36 38	32.3 32.6	28.0	37.0	±	0.6	24.0 3.0 1.0
E	500	Upto 630 Over 630	36 38	38.3 38.6	33.0	44.5	±	0.7	29.0 4.0 1.0
BB	125	Upto 190 Over 190	34 38	16.6 16.9	14.0	----			----
HL	147	----	26	44.5	28.6	----			----
HM	168	----	26	50.8	32.6	----			----
3V	67	Upto 88 89 - 152 153 - 305	36 38 40	8.89	8.64	10.3	±	0.4	8.74 + 2.4 - 0.8
5V	180	Upto 253 254 - 406 Over 406	38 40 42	15.24	14.99	17.5	±	0.4	12.70 + 32. - 1.2
8V	315	Upto 406 406 - 569 Over 569	38 40 42	25.40	25.15	28.6	±	0.4	19.05 + 64. - 1.6
FHP (3L)	38	Upto 55 56 - 81 82 - 107	32 34 36	9.15 9.25 9.35	10.30	----			----

* When pulleys are to be used for belt sections A, B or C only, dimension 'h' may be reduced by 20%.

Table - 4

DRIVE DESIGN FORMULAE

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

$$C = A + \sqrt{A^2 - B}$$

where

$$A = \frac{L}{4} - 0.3925(D+d)$$

$$B = \frac{(D-d)^2}{8}$$

$$\text{Number of belts } N = \frac{P \times F_s}{R \times F_L \times F_c}$$

where

L = Belt Pitch Length, mm

C = Centre Distance, mm

D = Pitch dia. of large pulley, mm

d = Pitch dia. of small pulley, mm

R = Power Rating per belt, KW

FL = Belt Length Correction Factor

Fc = Arc of contact correction Factor

Fs = Service Factor

P = Drive Power in Kw.