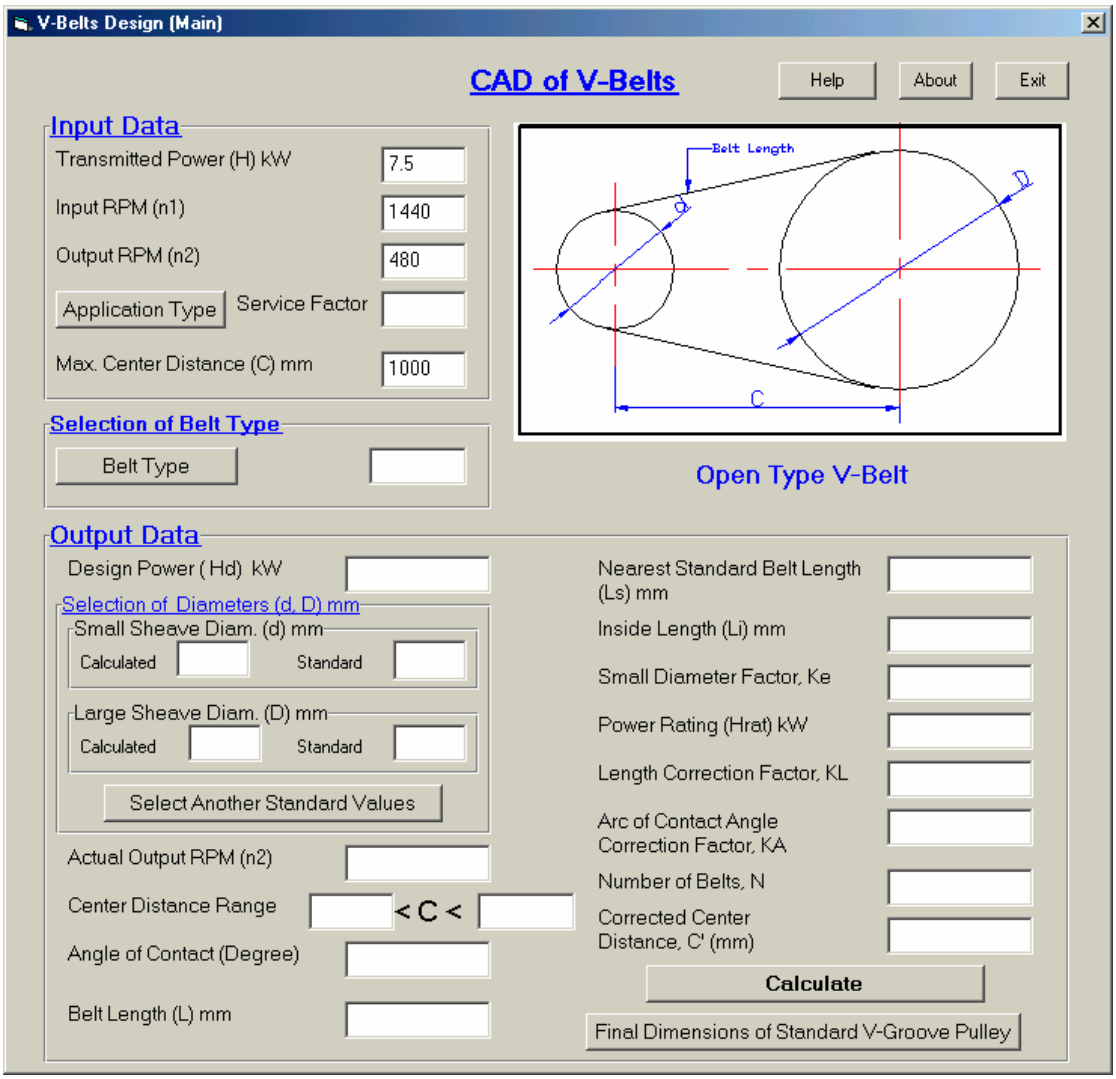
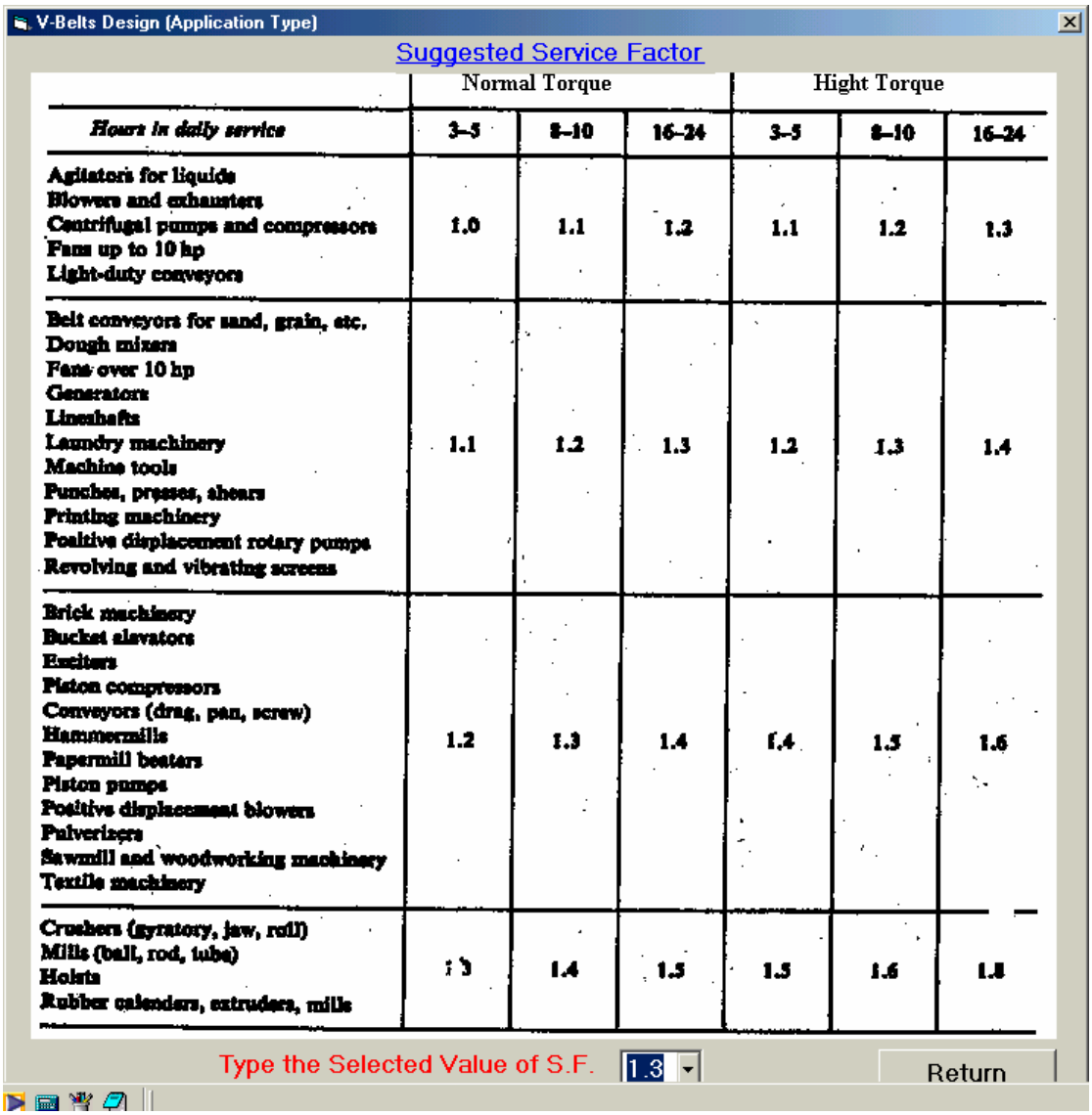
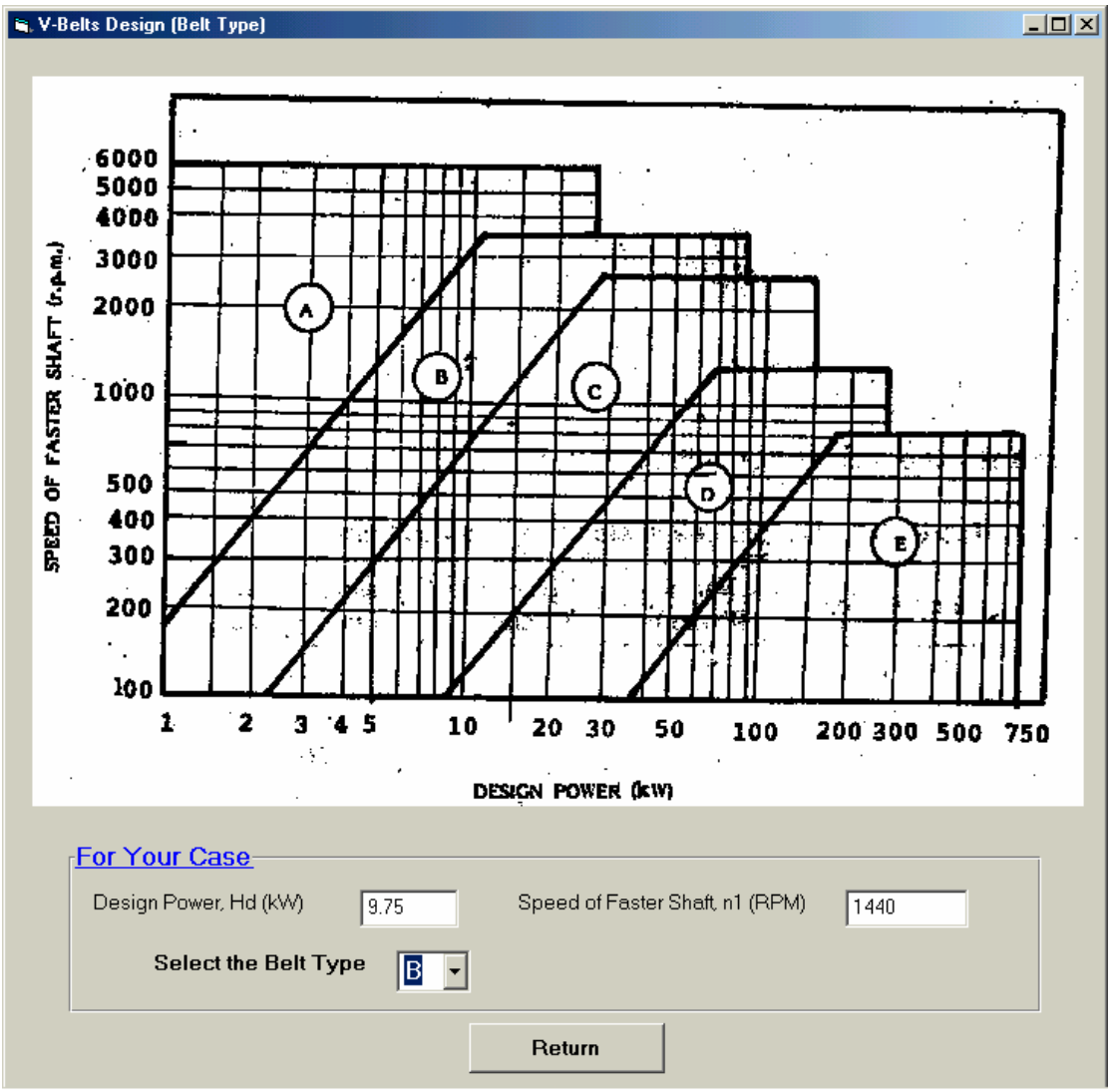
First Screen (Input Data)



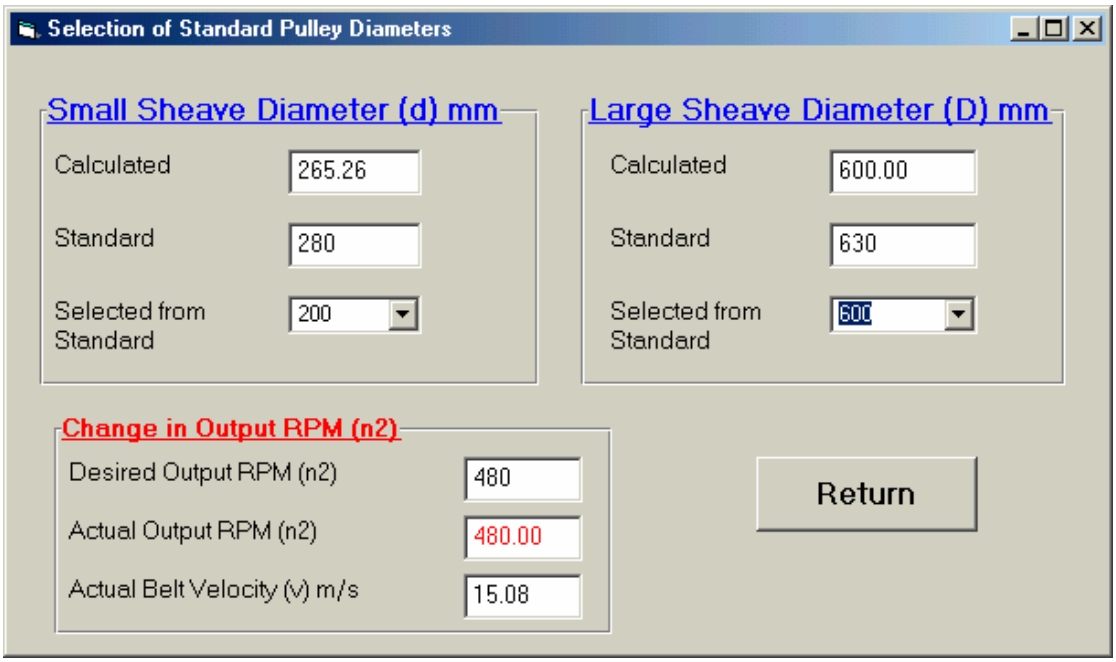
Selection of Service Factor (Input Data)



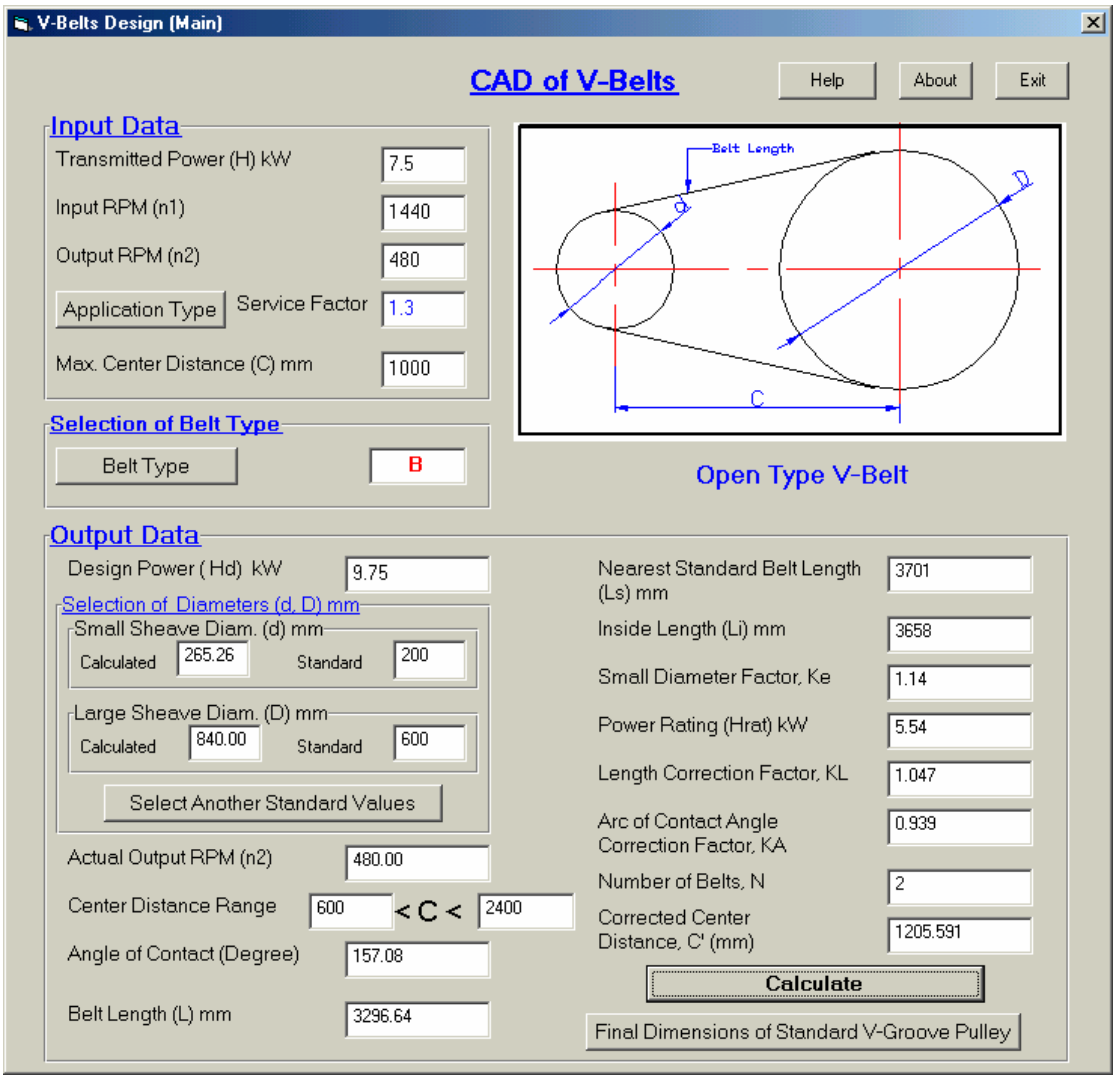
Selection of Belt Type



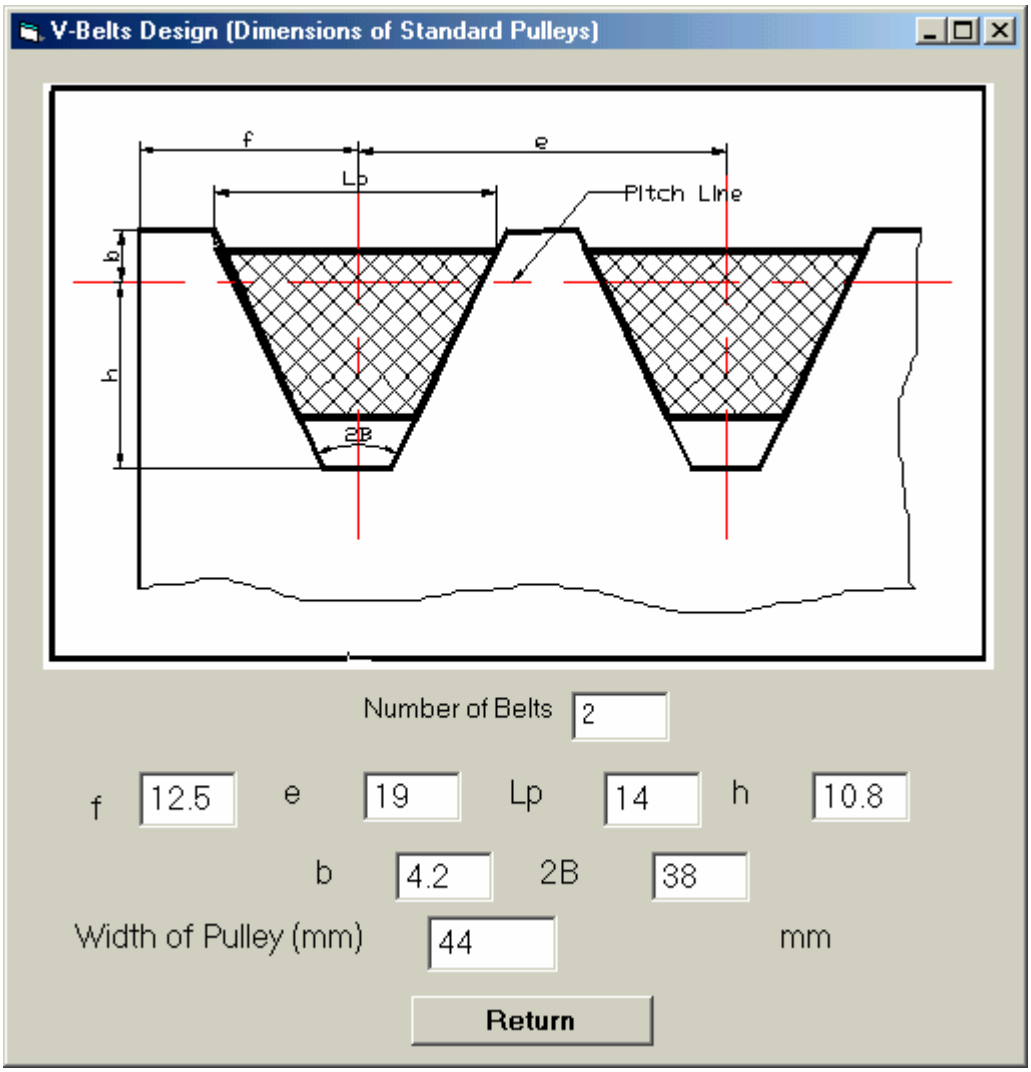
Selection of Sheave Diameters



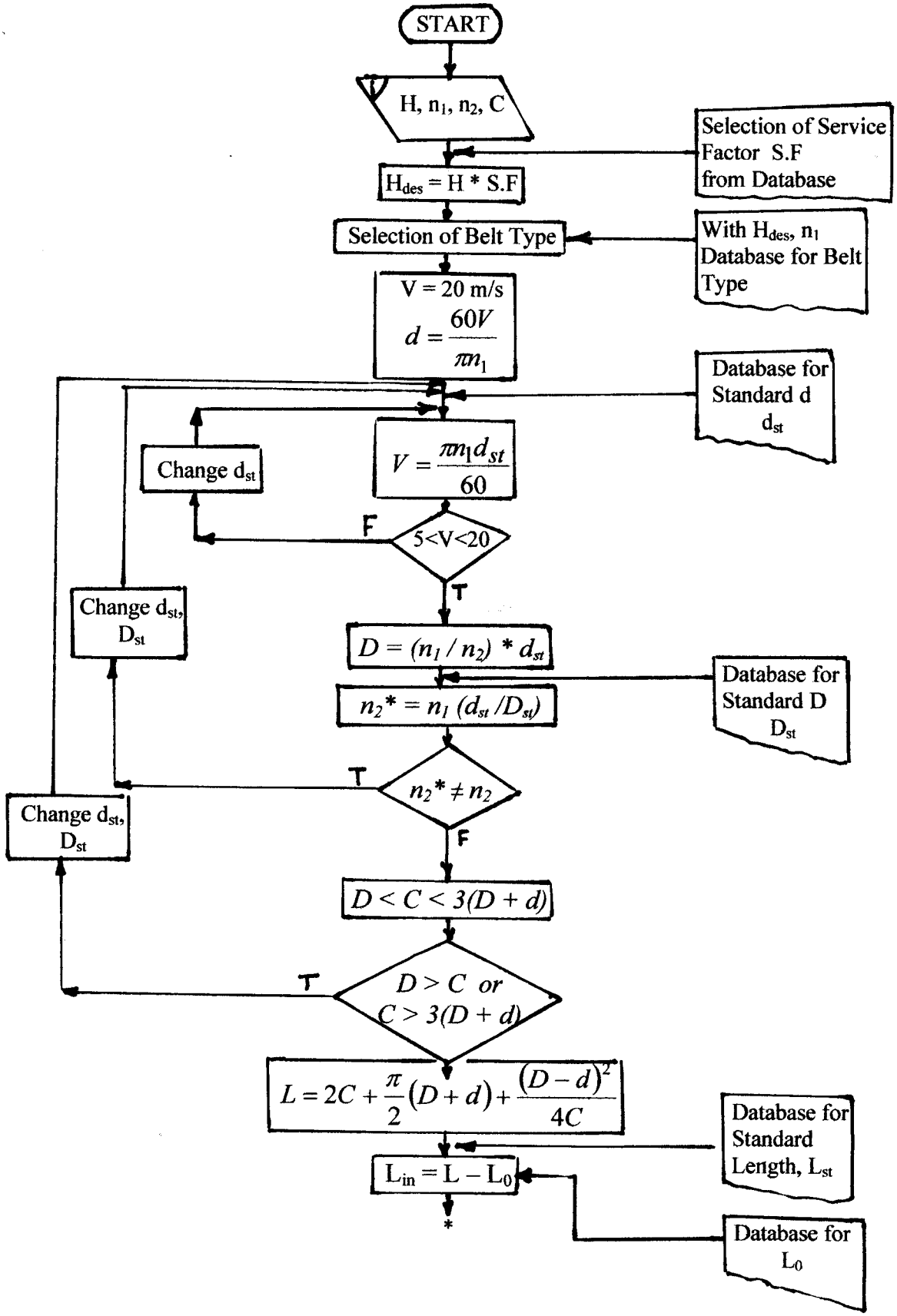
Output Results

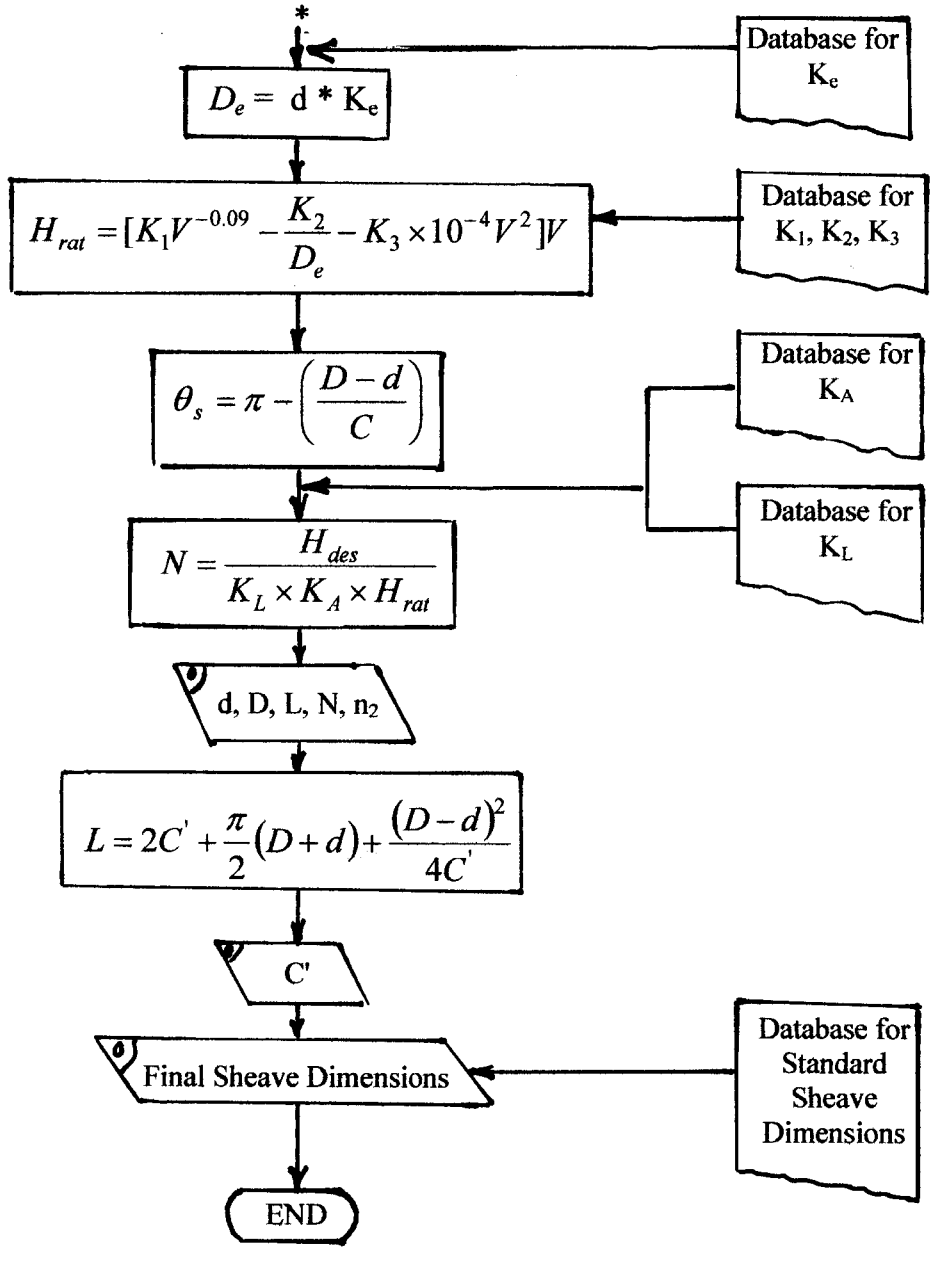


Output Results (Dimensions of Standard Sheaves)



Flowchart for V-Belt Design




*
$D_e = d * K_e$
Database for K_e
$H_{rat} = [K_1 V^{-0.09} - \frac{K_2}{D_e} - K_3 \times 10^{-4} V^2]V$
Database for K_1, K_2, K_3
$\theta_s = \pi - \left(\frac{D-d}{C}\right)$
Database for K_A
Database for K_L
$N = \frac{H_{des}}{K_L \times K_A \times H_{rat}}$
d, D, L, N, n_2
$L = 2C' + \frac{\pi}{2}(D+d) + \frac{(D-d)^2}{4C'}$
C'
Final Sheave Dimensions
Database for Standard Sheave Dimensions
END