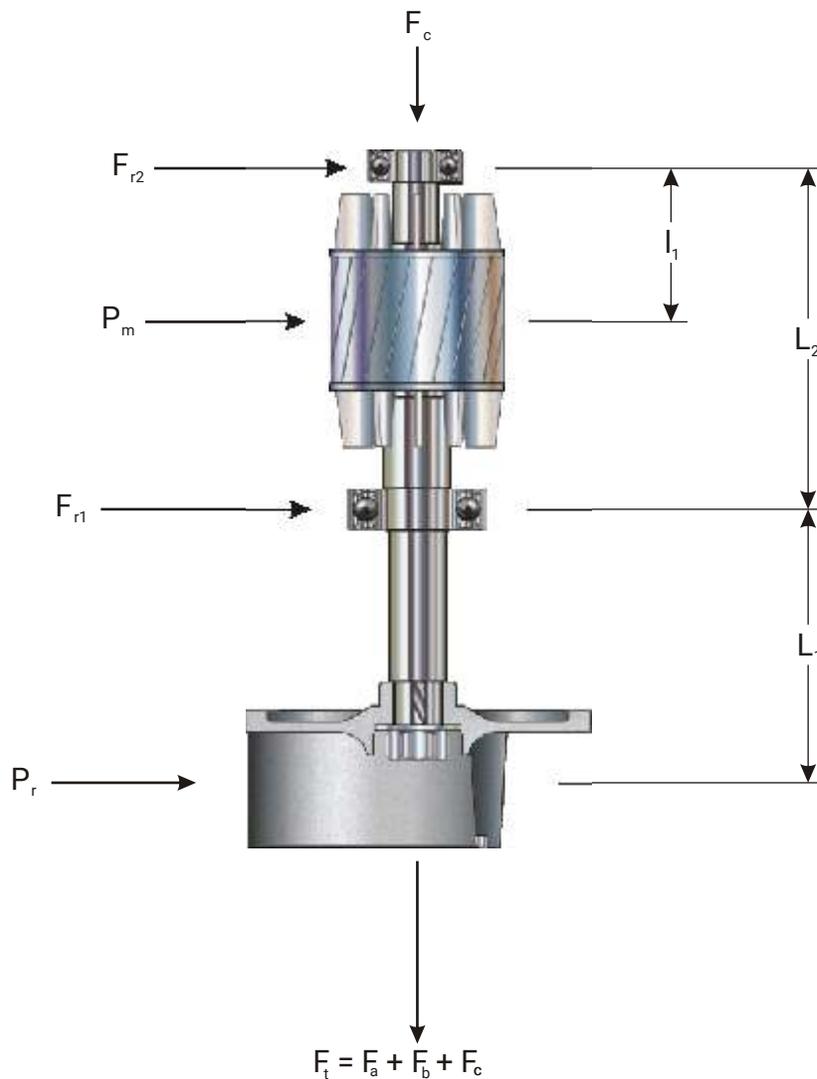


ENGINEERING DATA

BEARING LIFE CALCULATIONS



P_m = Magnet Force, kg.
 P_r = Radial Thrust, kg.
 F_a = Axial Thrust, kg.
 F_b = Weight of Rotor, kg.
 F_c = Pre Load of Wave Washer, kg.
 F_t = Total Actual Axial Load, kg.
 F_{r1} = Actual Radial Load, kg.
 F_{r2} = " " " "
 X = Radial Equivalent Load Factor
 Y = Axial Thrust Equivalent Load Factor
 l_1 = Magnetic Center

L_1 = Shaft Over-hang
 L_2 = Bearing Span
 F = Bearing Load (equivalent load), kg.
 C = Basic Load Rating of Bearing, kg.
 f_n = Speed Factor
 TH = B10 Bearing Life Total Hours

$$F_{r1} = \frac{P_m \times l_1 + P_r \times (L_1 + L_2)}{L_2}$$

$$F = X \times F_{r1} + Y \times F_t$$

$$TH = 500 \times (f_n \times C / F)^3$$