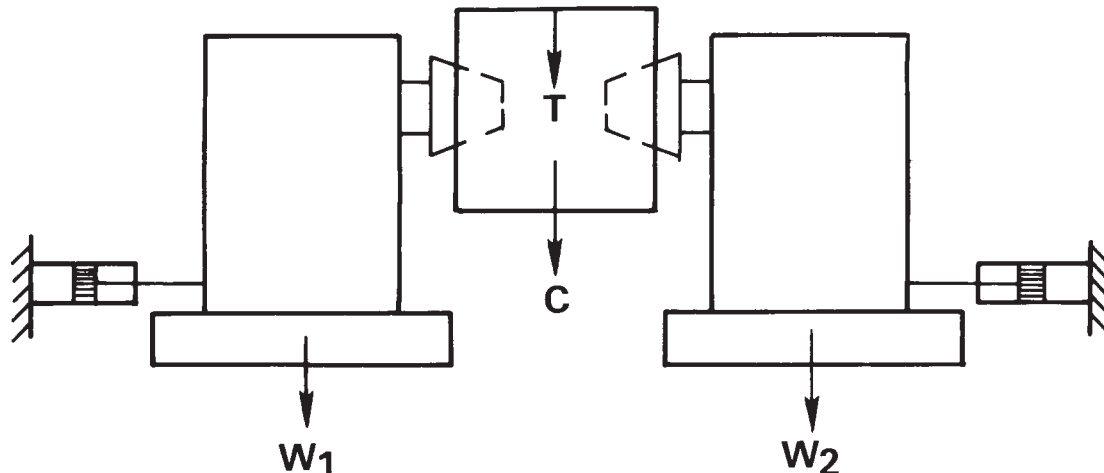




**UNCOILERS – DOUBLE CONE AND DOUBLE STUB
CALCULATIONS FOR GUIDING SYSTEMS**



$$P = \frac{(C + W_1 + W_2 + T) \times f}{A_g} + 250$$

$$*V_a = A_g \times \frac{S}{1200} \times 0.26 + 2$$

$$V_r = 2A_g \times R \times 0.26$$

$$P_m = P \times 0.67$$

ΔP Must be Less Than $P - P_m$

*Based on 1/2" error in 10 linear feet of strip correction rate.

NOMENCLATURE

- C = Coil Weight (max.) (pounds)
- W₁ & W₂ = Reel Weight (pounds)
- T = Strip Tension (total) (pounds)
- f = Coefficient of Friction (0.5 sliding ways -- 0.25 antifriction rollers)
- A_n = Cylinder Area (net — rod end) (in.²)
- A_g = Cylinder Area (gross — head end) (in.²)
- S = Line Speed (max.) (fpm)
- P = Pressure Required (break-away) (psi)
- P_m = Pressure Required (moving) (psi)
- ΔP = Pressure Drop thru Hydraulic Amplifier at Full Flow (psi)
- V_a = Volume Required for Automatic and Manual Coil Shift Modes on Cone or Stub Heads (psi)
- V_r = Volume Required for Rapid Traverse of Individual Reels (gpm)
- R = Rapid Traverse Cylinder Speed (specified by customer) (in./sec)
- 0.26 = Conversion Factor (in.³/sec. to gpm)
- 2 = Constant Volume Required for Jet Nozzle First Stage (gpm)
- 250 = Constant Pressure Required to Maintain Some Back Pressure