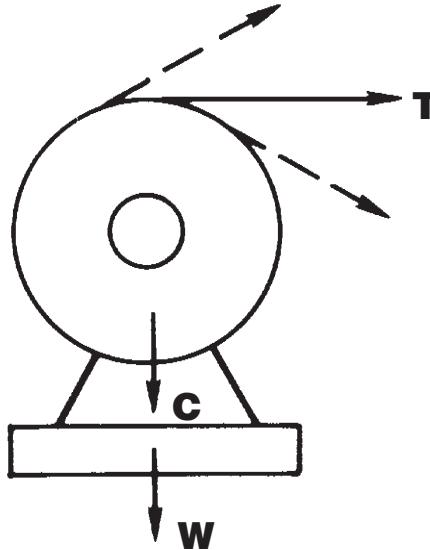


UNCOILERS AND RECOILERS (OVERHUNG MANDRELS) CALCULATIONS FOR GUIDING SYSTEMS



$$P = \frac{(C + W + T) \times f}{A_n}$$

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

$$P_m = P \times 0.67$$

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]
- W = Reel Weight [pounds]
- T = Strip Tension (total) [pounds]
- f = Coefficient of Friction (0.5 sliding ways--0.25 anti-friction 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 = Volume Required [gpm]
- 0.26 = Conversion Factor [in.³/sec. to gpm]
- 2 = Constant Volume Required for Jet Nozzle First Stage [gpm]