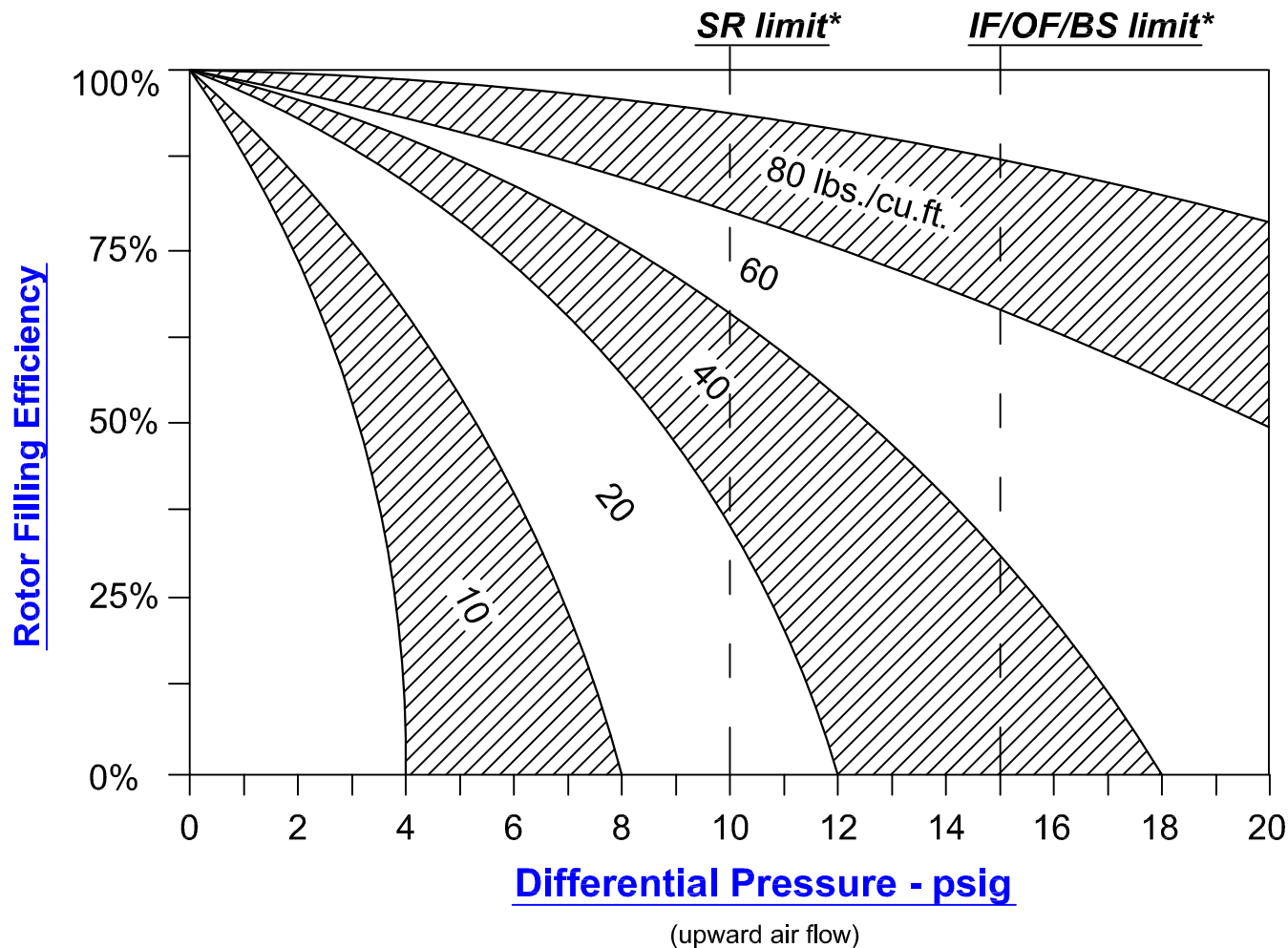


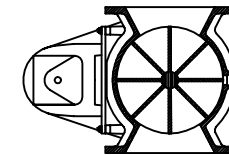
# Rotary Valve Filling Efficiency Guidelines

*Guidelines Only ~ Not for Firm Recommendations!*



\*Extra Heavy Duty designs available for differential pressures up to 75 psig.

X = pressure above



1 psig =  
-2.036"Hg  
-27.68"H2O  
0.069 Bar

Y = pressure below

$$X - Y = Z (\Delta P)$$

**Example:** 6"Hg vacuum above and 6 psig positive pressure below.

- 1) convert "Hg to psig: 6"Hg = -3 psig
- 2) -3 psig - 6 psig = -9 psig  $\Delta P$

**BUSH & WILTON**

Assumes standard 0.005" rotor clearance. Upward air leakage through a rotary valve aerates the product and reduces its apparent bulk density. Increasing rotor clearance increases the leakage rate which has the same effect as increasing the differential pressure.

other material characteristics that can negatively affect filling efficiency:

- cohesiveness
- high angle of repose
- bridging
- hygroscopic
- static charge
- fibers
- larger particles