

Stresses Due to Press Fit Bushings Calculator		
inner radius of bushing A =	0.6250	in ▼
outer radius of bushing B =	0.7500	in
outer radius of ring (lug) C =	1.0000	in
inner radius of ring (lug) D =	0.7498	in
modulus of elasticity ring (lug) E_{ring} =	36,000.0	psi
modulus of elasticity E_{bush} =	36,000.0	psi
Poisson's ratio μ_{ring} =	0.3200	-
Poisson's ratio μ_{bush} =	0.6200	-
Internal pressure D_p =	50.000	psi
External pressure B_p =	50.000	psi
Calculated Results		
Eq. 2 Radial displacement inner surface u_{ring} =	0.00540	in
Eq. 3 Radial displacement outer surface $u_{bushing}$ =	-0.00856	in
Eq. 1 Size difference before assembly δ =	0.01396	in
Eq. 4 pressure p =	76.055	psi
Eq. 5 maximum radial stress for a bushing f_r =	-76.055	psi
Eq. 6 Maximum radial tangential stresses for ring f_t =	271.386	psi
Eq. 7 maximum shear stress f_s =	173.721	psi
Eq. 8 maximum radial stress for a bushing f_r =	-76.055	psi
Eq. 9 maximum tangential stress for a bushing f_t =	497.814	psi