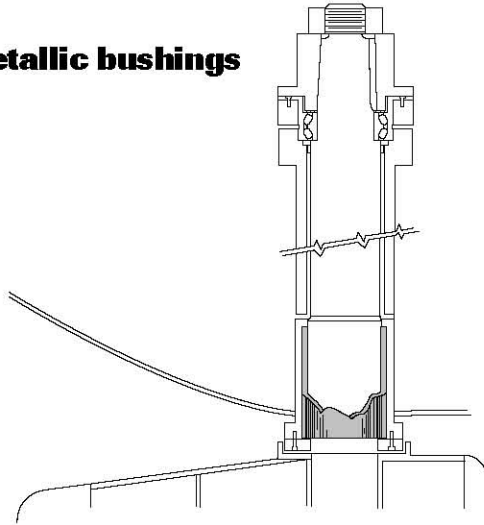




**DX
 non-metallic bushings**



PRODUCT SPECIFICATIONS

PHYSICAL PROPERTIES:

Deformation	Load PSI	Deflection	Temperature	
	225 300	.004" .0045"	72° F 72° F	
Compressive Strength	15,000	Elastic Limit	72° F	
	Tensile 3000 PSI			
Expansion and Contraction	Configuration	Contraction	Temp.	Recovery
	Std. Tubular	.002" -.0025" per inch of OD	-20° F	100%
Absorption	Aging	Liquid	Temp.	Vol. Change %
	70 hrs.	ASTM #3 Oil	212° F	+ 4.9%
	70 hrs.	ASTM #3 Oil	100° F	+ less than 1%
	70 hrs.	ASTM #3 Oil	72° F	Negligible
	70 hrs.	H ₂ O	212° F	+ 2.6%
	70 hrs.	H ₂ O	100° F	Negligible
Range of working temperature - -20° to 180° continuous service.				

CALCULATING THE FINISHED (MACHINED) SIZE OF DX

Nominal Bushing I.D. and O.D. dimensions must be adjusted to allow for proper shaft to bearing running clearance, thermal expansion and contraction and interference press fit. Before machining, calculate the finished machined bearing I.D. and O.D. dimensions as follows:

EXAMPLE:

Nominal Shaft Diameter: 8 inches
 Nominal Bearing Housing Diameter: 12 inches

To determine the finished machined bearing I.D. dimension

refer to the machining tables and add the running clearance (Table X), thermal factor (Table Y) and press fit allowance (Table Z), to the nominal shaft diameter.

Finished Machined Bearing I.D. Dimension equals:

+ Nominal Bearing Shaft Diameter 8.000
 + Running Clearance (Table X) 0.018
 + Thermal Factor (Table Y) 0.016
 + Press Fit Allowance (Table Z) 0.008
 8.042 inches I.D.

To determine the finished machined bearing O.D. dimension

refer to the machining tables and add the thermal factor (Table Y) and the press fit allowance (Table Z), to the nominal bearing housing diameter.

Finished Machined Bearing O.D. Dimension equals:

+ Nominal Bearing Housing Diameter 12.000
 + Thermal Factor (Table Y) 0.016
 + Press Fit Allowance (Table Z) 0.008
 12.024 inches O.D.

TABLE X – RUNNING CLEARANCE

Nominal ID inches	2	3	4	5	6	7	8	9	10	11	12	13	14
Allowance inches	0.012	0.013	0.014	0.015	0.016	0.017	0.018	0.019	0.020	0.021	0.022	0.023	0.024
Nominal ID mm	50.80	76.20	101.60	127.00	152.40	177.80	203.20	228.60	254.00	279.40	304.80	330.20	355.60
Allowance mm	0.30	0.33	0.36	0.38	0.41	0.43	0.46	0.48	0.51	0.53	0.56	0.58	0.61

TABLE Y – THERMAL FACTOR

Nominal ID inches	2	3	4	5	6	7	8	9	10	11	12	13	14
Allowance inches	0.004	0.006	0.008	0.010	0.012	0.014	0.016	0.018	0.020	0.022	0.024	0.026	0.028
Nominal ID mm	50.80	76.20	101.60	127.00	152.00	177.80	203.20	228.60	254.00	279.40	304.80	330.20	355.60
Allowance mm	0.10	0.15	0.20	0.25	0.30	0.35	0.41	0.46	0.51	0.56	0.61	0.66	0.71

TABLE Z – PRESS FIT ALLOWANCE

Nominal ID inches	2	3	4	5	6	7	8	9	10	11	12	13	14
Allowance inches	0.005	0.005	0.005	0.005	0.005	0.008	0.008	0.008	0.008	0.010	0.010	0.010	0.010
Nominal ID mm	50.80	76.20	101.60	127.00	152.00	177.80	203.20	228.60	254.00	279.40	304.80	330.20	355.60
Allowance mm	0.13	0.13	0.13	0.13	0.13	0.20	0.20	0.20	0.20	0.25	0.25	0.25	0.25