

EDT Polymer Block Bearings

FEATURES AND BENEFITS:

- Eliminate product contamination from ball bearing failure
- Available in inch and metric sizes
- Choice of materials for solving specific problems
- Interchangeable with industry standard cast housings and ball bearings
- USDA Meat and Poultry approved, USDA Dairy accepted (FDA has no equipment or component approval program)
- Cost effective and convenient
- Lubrication not required
- Corrosion resistant

MATERIAL SELECTION CHART

Poly-Round Bearing Materials	PV (1) Limit	Maximum Speed V (SFM)	Maximum Loading P (PSI)	Continuous Operating Temp.	Performance in Moisture		ΔT Dimensional Stability w/Temp Change	Chemical Resistance	Abrasion Resistance	Impact Resistance	USDA/FDA Contact Approval
					Washdown	Submerged					
PA UHMW white	1,000	50	800	150°F	Excellent	Excellent	Poor	Excellent	Abrasion applications are very unpredictable. Each application must be tested for abrasion resistance (2).	Excellent	Direct
NA grey	6,000	350	2,000	220°F	Excellent	Good	Fair	Fair		Excellent	Incidental

(1) PV limits are shown for unlubricated radial bearing applications. Low temperature / submerged installation may permit PV limits up to 2x higher. For high ambient temperatures, calculated PVs must be reduced.

(2) Proper use of exclusionary seals can greatly extend bearing life. Forsheda V-rings are very effective with any of EDT's plane bearings.

Block bearings can accommodate only a slight degree of shaft misalignment. In locations where misalignment occurs, self-aligning bearing units should be used.

EDT offers self-aligning housings:

Polymer housings (see Section D-GREY)

Stainless housings (see Section E-BLUE)

EDT offers solid polymer spherical bearing inserts:

Poly-Round bearings (see Section H-WHITE)

HOW TO CALCULATE PV

PV - $P \times V$

P - pressure in PSI (lbs./sq. in.)

V - velocity in SFM (surface ft./min.)

P - F/A

where F = force (load) on bearing

A = shaft dia (in.) x LTB

(LTB = bearing length through the bore)

V - $.262 \times D \times \text{RPM}$

where D = shaft diameter (in.)

RPM = shaft revolutions/min.

LOCKING SLEEVES

EDT 316 stainless steel locking sleeves protect shaft surfaces from abrasion and the normal wear caused by plane bearings. Locking sleeves provide:



- Improved journal surface to increase bearing life
- Control of lateral shaft movement (replaces standard locking collar)
- Protection to shaft
- Abrasion resistance
- Repair to damaged shafting

Locking sleeves can run on either side of the solid polymer block bearing, depending on the space available.



For locking sleeves details, see page F-9 -- RED Section