

General Stirring Information

Bearings:

Trubore, **glass** bearings are for use with precision-ground glass shafts or PTFE-covered, stainless steel (8071) shafts. They are not recommended for use with polished glass or plain, stainless steel shafts.

Trubore bearings with a **PTFE inner** component are for use with polished glass shafts and plain, stainless steel shafts. They are not recommended for precision-ground glass shafts or PTFE-covered, stainless steel shafts.

Glass, pressure bearings (8044) are for use with 8075 plain, stainless steel shafts.

8050 Mechanical Seal Bearing may be used with polished or precision-ground glass and plain stainless steel shafts (10, 19 & 28mm). Not recommended for use with PTFE-covered shafts.

13443 Collet Bearing may be used with any type shaft (6, 8 & 10mm).

13445 Debris-free PTFE Bearing should be used with polished glass shafts or plain, stainless steel shafts. They are not recommended for precision-ground glass shafts or PTFE-covered, stainless steel shafts (6, 10 & 19mm).

Stirring Shafts:

Glass, Polished: use only in 8044 glass, pressure bearings or Trubore bearings with a PTFE inner component (8066) or our 13443 PTFE mechanical seal, 8050 mechanical seal and 13445 PTFE debris-free bearings.

Glass, Precision-Ground: use only Trubore glass bearings such as our 8059, 8060, 8061, 8065, etc. series or our 13443 PTFE mechanical seal type and 8050 mechanical seal bearings.

Stainless Steel, Plain: use only in 8044 glass, pressure bearings or Trubore bearings with a PTFE inner component (8066) or our 13443 PTFE mechanical seal, 8050 mechanical seal and 13445 debris-free bearings.

Stainless Steel, PTFE-Covered: use with Trubore glass bearings such as our 8059, 8060, 8061, 8065, etc. series or our 13443 PTFE mechanical seal bearings. Not recommended for use with our PTFE debris-free 13445 bearing.

Trubore® Stirring Equipment — Precision Fit and Performance

Bearings and shafts guaranteed interchangeable

Trubore® stirrers, pioneered and developed by ACE, are the most widely used precision glass stirrers in research today.

If both shaft and bearing of a given size are manufactured by ACE, we guarantee them to be interchangeable.

Precision fit and performance

Every shaft and bearing is individually inspected and air gauged to insure clearance fit of less than .025 mm (0.001-inch).

ACE bearings are smooth and transparent. This feature automatically reduces leak path for a given fit clearance and surface roughness; it also prolongs bearing life.

Special "plateau" grinding is employed on shafts. This provides maximum smoothness consistent with optimum retention of lubricant. In terms of performance, this texture means a low leak rate, which permits at-

tainment of at least 1mm absolute with unlubricated surfaces at speeds less than 100 rpm. It also means that plastic shafts, including Fluorocarbon coated glass shafts, may be used with bearings — a practice not feasible with ground bearings.

Operation

If the components have been properly cleaned prior to operating. A Trubore® stirring unit can be run unlubricated for a limited time at a maximum speed of 500 rpm.

For continuous operation, or operation at speeds greater than 500 rpm, proper lubrication is required. We recommend ACE 8117 Stir-Lube® be used as a proper all-purpose lubricant up to 2000 rpm.

For high-speed stirring over 2000 rpm, we recommend a thin base of 8229 grease with application of 8119 Hi-Lube heavy-duty liquid stirrer lubricant. Both materials are also chemically

inert. If accidentally introduced into a solvent system reaction, they will not react with your product, but will be removed with the solvent. Under no circumstances should glycerin be used; it acts as a grinding medium rather than a lubricant.

Note that only a small lubricant well is provided at the top of some ACE bearings; this is because only a slight amount of Stir-Lube® is needed for many hours of stirring.

Care and cleaning

Because of the very close fit between shaft and bearing, a slight amount of dust or grit will quickly scratch the smooth surface of the bearing. To prevent this, both shaft and bearing should be washed with a good detergent and dried with a wiping cloth — prior to use.

ACE lubricants may be completely removed with acetone or most other ketones.

