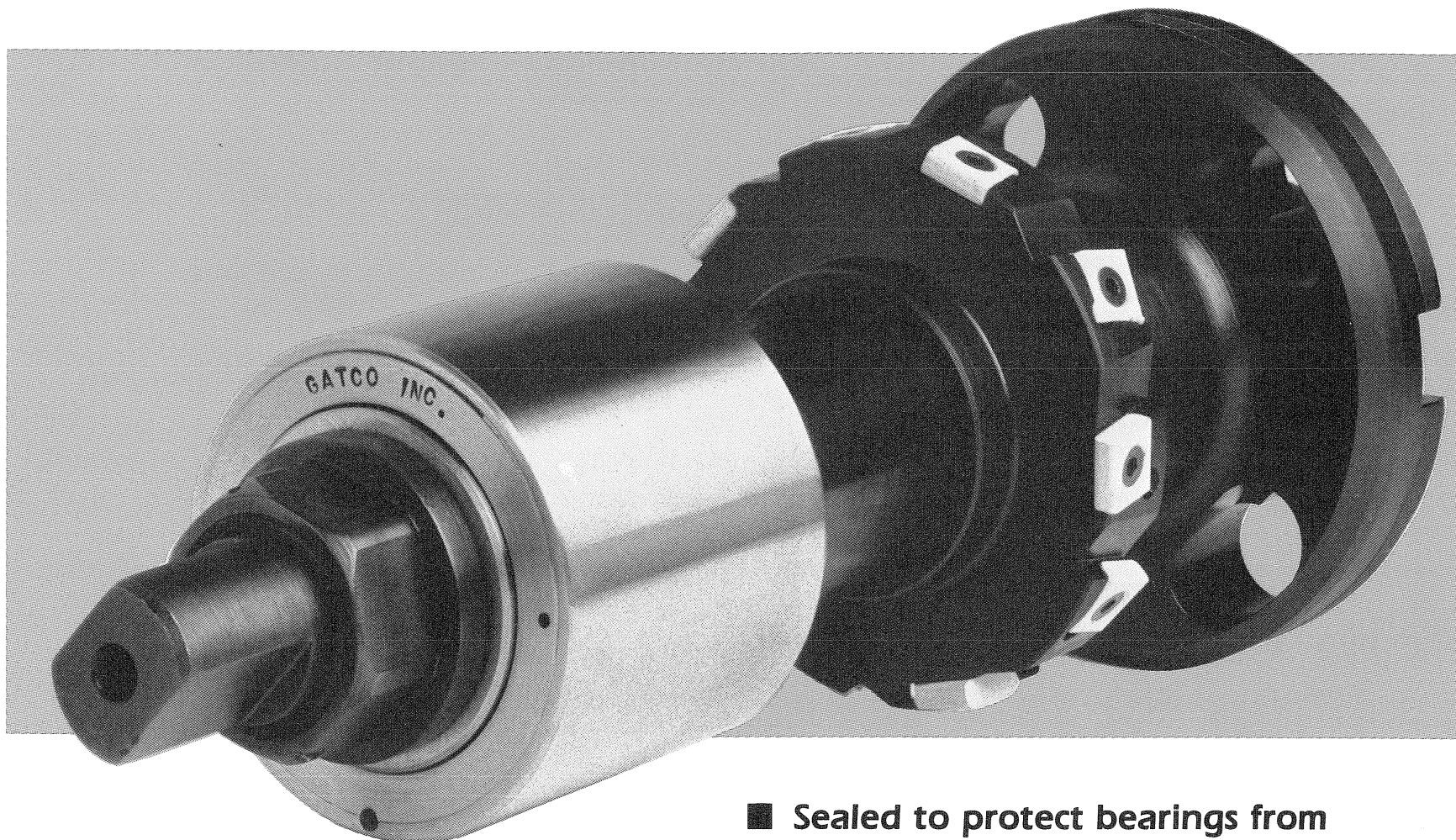


GATCO, INC.

**DATA
SHEET
1003**

Precision Milling Machine Arbor Bushings Eliminate Vibration and Chatter



- **Helps dampen and evenly distribute cutting forces**
- **Eliminates vibration and chatter**
- **Eliminates excessive mounting clearances**

Milling machine arbor bushing supports receive the most abuse in milling applications, next to the cutters themselves. Quite often, however, milling arbor assemblies are designed and built with little thought given to proper mounting, fit or calibration of the precision bearings, resulting in chatter, vibration and premature failure of the cutters and bushings. Gatco rotary milling arbor bushings eliminate these problems.

Horizontal milling creates heavy intermittent radial loads on the milling arbor. Gatco bushings provide the rigid support necessary to evenly distribute these forces, and

- **Sealed to protect bearings from contamination**
- **Unique cartridge design simplifies replacement**
- **Incorporates heavy-duty bearings**
- **Wide selection of I.D., O.D. and length combinations**

their unique design allows them to rotate at high speeds virtually friction-free. They are capable of handling heavy loads and interrupted cuts while maintaining cutting accuracy.

Gatco offers a complete line of milling machine bushings for production machines as well as stand-alone horizontal milling machines. These bushings simply slip on the milling arbor at assembly and are secured when the arbor nut is drawn tight. All fitting and calibration is done by Gatco at the factory.

Types of Milling Machine Bushings

Three types of milling machine bushings are available:

OUTBOARD SUPPORT BUSHINGS are mounted on the end of the milling arbor opposite the spindle. This bushing is critical because it has to be capable of handling the high forces generated by the cut and still have the accuracy to hold finish part tolerances.

MID-SUPPORT BUSHINGS are mounted on gang arbors and can be positioned anywhere between the spindle and the outboard support bushing. Mounted directly on the arbor, the bushings may be incorporated either singly or in multiples for adequate support. Overall length is held so that they also act as a spacer.

TAPERED O.D. BUSHINGS are most commonly used to support milling arbors on stand-alone tool room horizontal milling machines. They replace the tapered O.D. bronze bushings commonly designed into these machines.

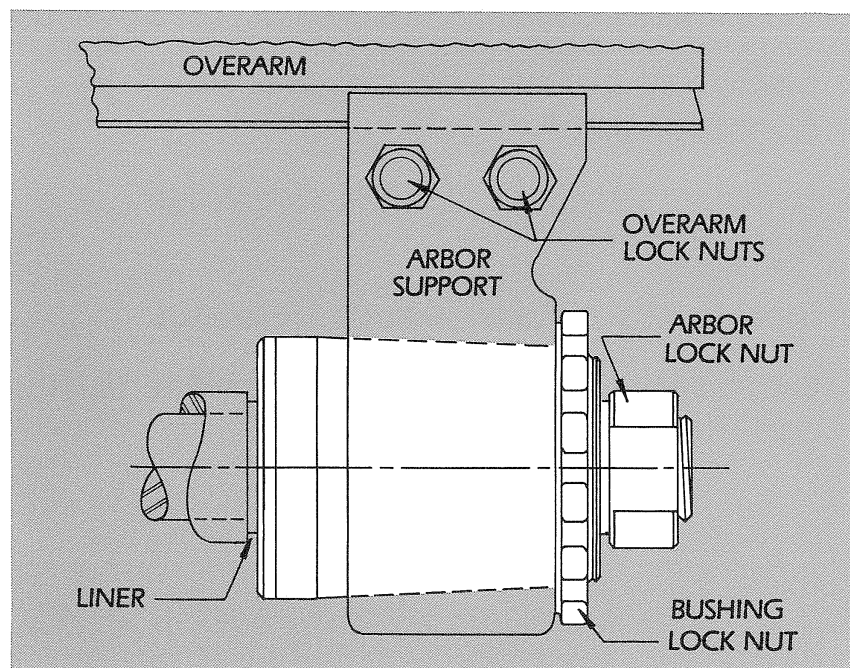
Although a large number of dimensional combinations are available, Gatco rotary bushings may be designed and built to meet the requirements of particular applications. Considering the improvements in milling performance and tool life, Gatco bushings are a practical



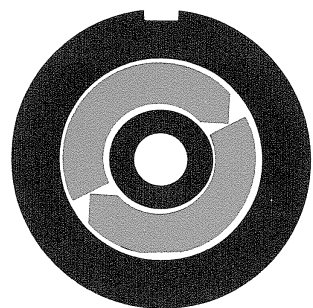
and economical addition to every milling machine.

Milling machine bushings are not cataloged due to the numerous variations. Call Gatco with your milling arbor requirements.

Horizontal milling machine outboard support bushings for tool rooms.



- Eliminates chatter and vibration
- Increases cutter life
- Provides greater precision through increased rigidity of the arbor
- Eliminates twisted arbors and frozen bushings
- Cutting speeds and feeds can be increased
- Eliminates arbor scoring
- Decreases maintenance costs
- Simple installation
- One bushing for various arbor sizes



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