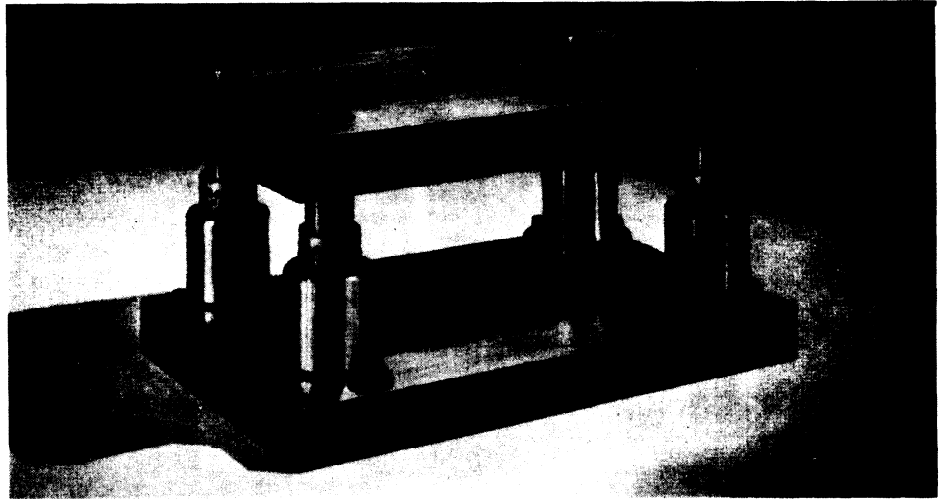




STANDARD

**ROTATING
DANLY STYLE
BALL BEARING
BUSHING
DIE SETS**



provide smooth, free-rolling operation for millions of strokes – without tracking guide posts or bushings

SEE BALL BEARING DIE SET CALALOG DSBB-191 FOR ALL DIE SET AND BALL BEARING PIN & BUSHING DATA

The design features of the Standard Ball Bearing Bushing Assembly provide the ideal performance capability to meet the specific applications, operational demands and precision requirements involved in ball bearing die set use.

Standard Ball Cages, Ball Bearing Guide Posts and Ball Bearing Bushings, which comprise the Standard Ball Bearing Bushing Assembly, are manufactured to rigid standards of precision, using the highest quality aluminum and steel alloys. This combination of design manufacturing accuracy and top quality material results in an assembly offering perfect top-to-bottom bushing uniformity that stays uniform after insertion in die holder; a tough, free-rolling guide post surface; accurately controlled pre-load and ball cage engagement for maximum load capacity in all types of presses, including inclinables.

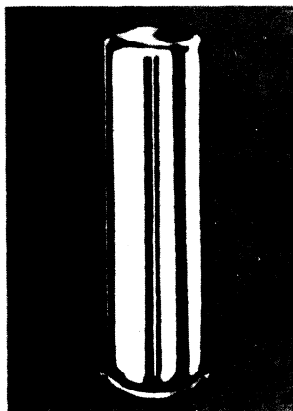
In operation, these features provide unmatched smoothness and accuracy of alignment that assures reduced die wear and long production runs.

Standard Ball Cages, key components in Ball Bearing Bushing Die Set performance, are manufactured from a special aluminum alloy, tough and wear resistant. Ball bearings are of vacuum degassed, fatigue resistant, hardened steel. They are positioned securely in the

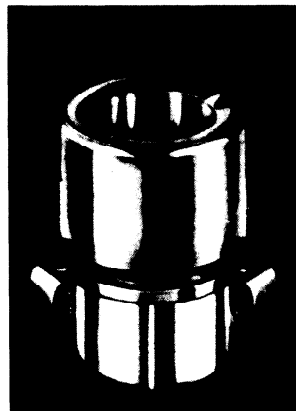
Ball Cage with a precision spinning operation which reduces the possibility of accidental ball dislodgement. Tracking and grooving of the Guide Posts is controlled by arranging the ball bearings in a spiral pattern and by the use of a unique washer assembly with which the Ball Cage is mounted to the bottom of a drilled and tapped Guide Post. This design allows the Ball Cage, when not under pre-load, to rotate freely 360° around the Guide Post to provide extended post life and leave the entire surface of the Guide Post clear for guiding. The Ball Cage can be easily disassembled from the Guide Post, if necessary.

Vacuum degassed quality, electric furnace alloy steel is used for Standard Ball Bearing Bushings and Guide Posts. Ball Bearing Bushings are available in both Demountable and Straight Sleeve types. Standard Demountable Bushings feature ease of assembly and disassembly, with precision clamp-mounting. Straight Sleeve Bushings are wring fit and held in place with Loc-Tite, which eliminates bushing mis-alignment and collapse, thus assuring a uniform fit.

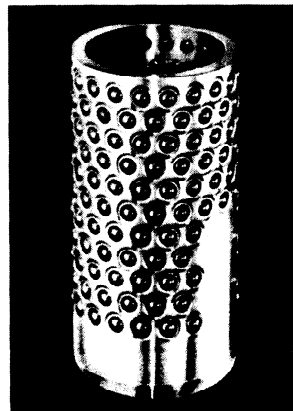
Our Ball Cages, Ball Bearing Guide Posts and Ball Bearing Bushings are completely interchangeable. Dimensional data on the individual components of the Standard Ball Bearing Bushing Assembly is given on the following pages.



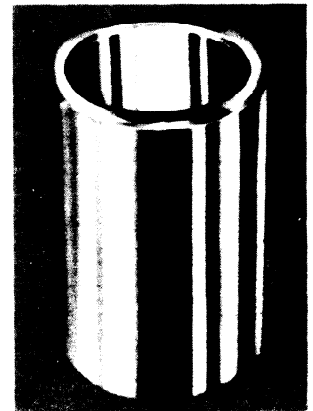
Guide Post



Demountable Bushing



Ball Cage



Straight Sleeve Bushing

Assembly consists of guide post, ball cage (in two different types), and either Demountable or Straight Sleeve Bushing. When assembled, ball cage is mounted to guide post by washer assembly at bottom of post for free rotation.

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