

## HMF type Bearing unit for HDD

(New type multi-lobes bearings)

- 1) Our developed sintered bearings and technologies
- 2) Structure of hard disk drive motor
- 3) Examples of FDB for spindle motor (Fluid Dynamic Bearings)
- 4) Application of multi-lobes bearings
- 5) New type HMF bearing unit
- 6) Bearing manufacturing process and material
- 7) Characteristics of bearing performance and design

New Business Development Office  
Executive Officer **Hideo Shikata**

## Sintered products (Machine parts)

For transportation machines, For vehicles transmission parts

For vehicles parts, Vehicles parts for auxiliary units,

For motor cycles, Industrial machines

For industrial machine parts for

- general- purpose engine
- construction machinery
- general- purpose engine
- hydraulic equipment
- agricultural machines



## Sintered products (Bearings)

For motors, For home applications, For audio equipment,  
For construction machines



For motors



Special shape bearings



For construction machinery



Polygon mirror motor



Spindle motors for compact disk



Spindle motor for HDD

We developed precise manufacturing technology and bearing materials.  
Apply to hard disk motors.

# Hitachi Powdered Metals Global Network

**Sintering Technologies Inc**  
[Structural Parts,Valve Guide,Seat]

**Bleistahl Produktions-GmbH**  
[Valve Guide,Seat]

**HPM Matsudo Plant**  
[Structural Parts,Sintering Bearing]  
**Katori Plant**  
[Structural Parts,Valve Guide,Seat]

**Korea Powder Metallurgy**  
[Structural Parts,Valve Guide,Seat]

**MIBA**  
[Structural Parts]

**Hitachi Powdered Metals (Dongguan)**  
[PM products etc.]



**Mahle Metal Leve Miba Sinterizados Ltda**  
[Structural Parts]

**Thai Sintered Products**  
[Structural Parts]

**Hitachi Powdered Metals (Singapore)**  
[Sintering Bearing,Structural Parts]

# Structure of hard disk drive motor (Disk supporting mechanism by FDB)

