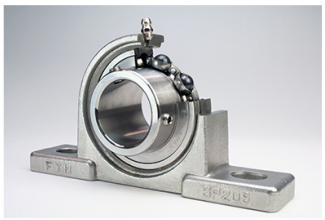
CERAMIC BALL UNITS

In 1984, for the first time in Japan, FYH succeeded in the production of total ceramic bearings from start-to-finish production of raw materials. Since that time, user feedback has confirmed that this series has proven itself as the ultimate choice for a multitude of special operating environments. After more than two decades of continual development, this series has been evaluated as "the most reliable maintenance-free bearing" for any industry, and it has evolved to include a variety of options to satisfy many specifi c needs.
The ceramic balls and precision inner and outer rings of the Ceraball bearing demonstrate excellent wear resistance and provide longevity and stable performance in applications where temperature extremes, high speed, torque, and corrosion are factors.

The Ceraball series exhibits extremely high anti-abrasion qualities and offers remarkably stable performance in the most severe environments.

Ceraball features
Reduced maintenance costs
Re-lubrication intervals can be significantly extended or eliminated altogether.
Green bearings
Excessive grease discharge can be eliminated thereby contributing to a cleaner environment.
Independent operation
Supplementary items such as cooling devices and automatic grease replenishment systems can be eliminated.
Low friction
Low friction operation reduces the amount of energy required thereby saving electricity and money.
High stress resistance
The threat of shattering from foreign matter incursion is greatly reduced which creates a safer working environment.
Non-conductive
Electric arcing is eliminated.



Y2

Y3

CERAMIC BALL HIGH TEMP UNITS						
Suffix Code	Max Operating temperature		Inner/Outer Ring	Lubricant	Seal	Feature
	(°C)	(°F)				
D9K6S6Y2	230	446	Stainless steel	Grease fluorochemical	Fluoroelastomer	When liquids or gasses are present in higher concentrations, standard bearings operating in temperatures above 180°C (356°F) can deteriorate from surface oxidation rather quickly. The Ceramic ball units can be incorporated into stainless steel bearings to prevent rapid corrosion. If the operating temperature exceeds 230°C (446°F) then seals are omitted and only slingers are utilized.
D9P4S6Y2	260	500	Stainless steel	Grease fluorochemical	-	
S6Y3	450	842	Stainless steel	Self-lubricating material	-	Standard bearings utilizing grease as a lubricant cannot function well above 260°C (500°F). FYH has developed a solid self-lubricating lubricant which can operate in temperatures over 450°C (842°F) particularly at lower RPM's > dn 5,000.

Maintenance cost reduction example on a heat-treatment furnace

Standard unit

The standard unit is re-lubricated with high-temperature grease every day and completely changed every six months.

Ceramic ball unit

The Ceramic ball unit operates for SIX years without re-lubrication.