

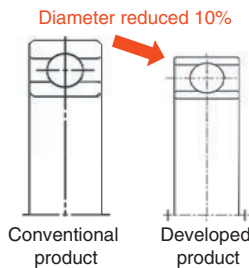
# Ultra-Thin Deep-Groove Ball Bearing (High-load Capacity Type)



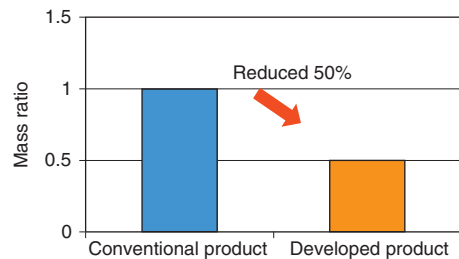
The scope of robot application has been extended from manufacturing industries to the fields of nursing care and service businesses recently. The bearings for precision reduction gears used in the robots generally require capabilities such as small size, light weight, long life and high reliability. This report introduces a bearing newly developed and mass-produced by JTEKT, which is small sized, light weight and has high capacity (long life and high reliability) at the same time.

## Features

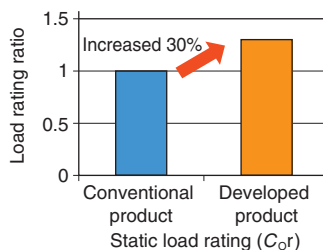
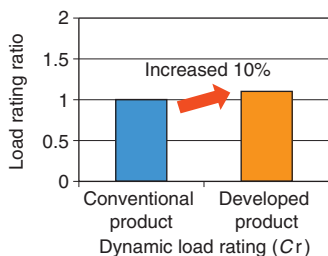
- ① Reduced diameter through the reduction of ring thickness  
 The outside diameter has been reduced by 10% by securing the machining accuracy that supports further reduction of thickness and thus reducing the bearing thickness by approximately 50% in comparison with our conventional bearing (68 series) to achieve downsizing and weight reduction.
- ② Increased load capacity through the increase of the number of rolling elements (balls)  
 The ball filling rate has been increased by 50% in comparison with our conventional bearing (68 series) by adopting a new manufacturing method.  
 This has led to a 10% increase in the dynamic load rating and 30% increase in the static load rating, resulting in the achievement of higher capacity (long life and high reliability).



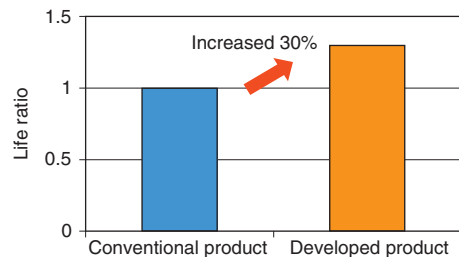
Outside diameter comparison  
(between bearings with same bore diameter)



Mass comparison



Load capacity comparison



Life comparison

(Industrial Machinery Application Engineering Dept., Bearing Operations Headquarters)