

NexBot Robotics 711-004

Tapered Roller Bearing

NexBot
Robotics

SKU: NXB-GEN-711-004 | Category: Wear Parts & Consumables > Bearings & Seals > Joint Bearings

Overview

The NexBot Robotics 711-004 is a high-precision tapered roller bearing designed as a direct replacement component for critical, high-load robot joints. This component is essential for maintaining the operational accuracy and extending the service life of compatible NexBot robotic arms, ensuring consistent performance in demanding industrial environments. Constructed from high-carbon chromium steel (GCr15), this bearing offers exceptional hardness and wear resistance, which is critical for components under continuous mechanical stress. The tapered roller design is specifically engineered to accommodate both high radial and axial loads simultaneously, a common condition in multi-axis articulated robots during acceleration and deceleration. This design minimizes friction and heat generation, contributing to greater energy efficiency and preventing premature wear on adjacent joint components. With a dynamic load rating of over 150 kN, it provides a robust solution for heavy-duty applications. The bearing features a 70 mm bore diameter and a 110 mm outer diameter, manufactured to exacting tolerances to eliminate play or backlash within the joint assembly. This precision is fundamental to achieving the robot's specified repeatability. This component is frequently used in applications such as automated welding, CNC machine tending, and heavy payload palletizing, where positional accuracy directly impacts product quality and throughput. For proper maintenance, this bearing should be installed as part of a scheduled service plan, following the procedures outlined in the robot's technical manual. Replacing critical wear parts like the 711-004 bearing at recommended service intervals is key to preventing unplanned downtime and maintaining peak operational safety and efficiency.

Technical Specifications

Parameter	Value	Unit
Weight	1.8	kg
Material	High-Carbon Chromium Steel (GCr15)	
Country of Origin	SE	
Dimensions	70 mm Bore x 110 mm OD x 25 mm Width	

Safety Notice: This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).

