MOTION & CONTROL™
NSK

Designed for Machine Tool Spindles

Ultra High Speed Angular Contact Ball Bearings With Newly Developed SURSAVE™ Cage

High performance in a wide range of applications:
Low NRRO, low heat-generation, and high speed performance achieved with new outer ring guided cage

■ Features

1. Low NRRO

Reduced NRRO (Non-Repeatable RunOut) by 50% compared with conventional products

2. Low Torque

Reduced torque by 20% compared with conventional products

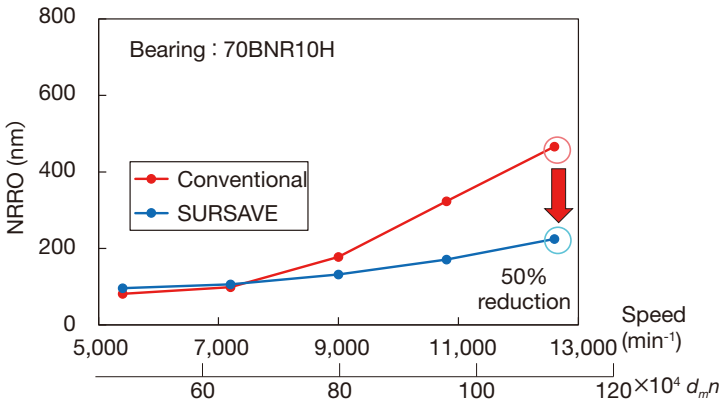
3. High Speed Performance

$d_m n$ 3 million was achieved

■ Low NRRO

50% reduced NRRO contributes to improved surface finish of workpiece.

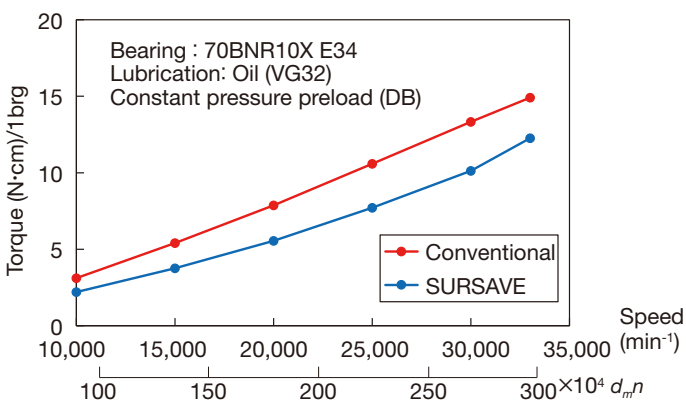
NRRO



■ Low Torque

20% reduced torque contributes to low heat generation and energy savings.

Running Torque at High Speeds



■ Formulation of Bearing Numbers

Bearing Number Example

80	BNR	10	H	TSR	V1V	SU	EL	P4	MTSX
Nominal Bore Diameter	Bearing Type	Dimension Series	Material	Cage					
									Grease
								Accuracy	
							Preload		
						Arrangement			
					Seal				

■ Applicable Product Series

Nominal Bore Diameter	Bearing Type	Dimension Series	Material Code	Inner and Outer Ring	Balls*2	Seal
ϕ30~90, ϕ100, ϕ110	BNR BER	10*1	S	Bearing steel (SUJ2)	Bearing steel (SUJ2)	Open type Rubber non-contact seal
			E		Ultra long life rolling elements (EQTF)	
			H		Ceramic (Si3N4)	
			X	Heat resistant steel for high speed operation (SHX)	Ceramic (Si3N4)	

*1 Plan to expand support to dimension series 19.
*2 For ball materials, Robust S (SUJ2) is available at 30BxR10 to 40BxR10, and Robust E (EQTF) is available at 45BxR10 to 110BxR10. (BxR: BNR or BER)

For more information about NSK products, please contact: **www.nsk.com**

Eco-awareness and reliability in motion NSK

NSK used environmentally friendly paper and printing methods for this publication.

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