NSK

NUB SERIES

BEARINGS FOR CONTINUOUS CASTING MACHINES



BRANDS OF **NSK EUROPE**

NSK RHP *bearings* PPL

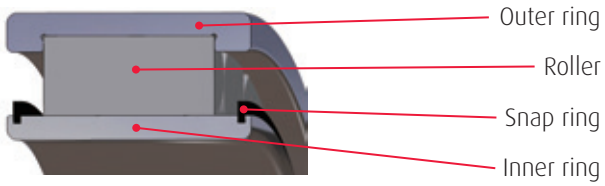
Bearings for Guide Rolls

Bearings used in the guide rolls of continuous casting machines are exposed to harsh conditions such as heavy load at ultra-low-speed in a hot and wet environment. In order to extend segment maintenance interval, high-performance bearings with longer life and higher reliability are necessary.



Through extensive knowledge, decades of experience in the steel industry and using cutting edge analysis technology, NSK has optimized the design of guide roll bearings. Additionally, these bearings ease the fitting and removal process.

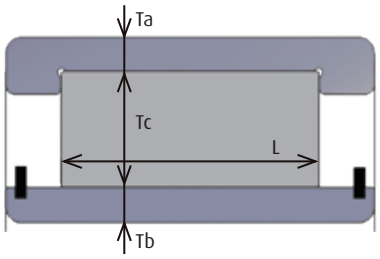
Cutaway View



Features

Long Life & High Reliability

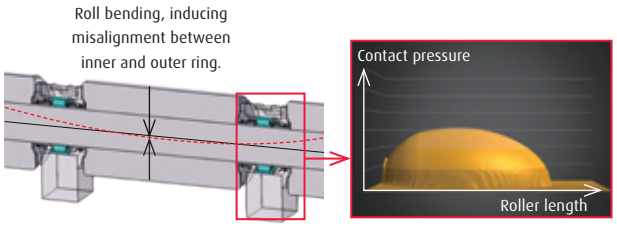
High capacity through optimized design.



Optimized parameters
∝ Ta , Tb , Tc , L & Z (Z:number of rollers)

Self-Aligning Functionality

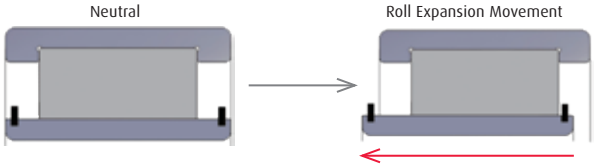
Load distribution is equal across the roller length, even during roll-bending & expansion.



Contact pressure inside bearing

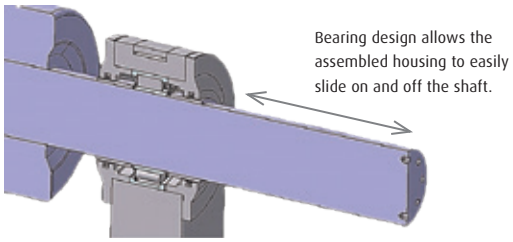
Free floating capability

Enables smooth movement between rollers and inner ring.



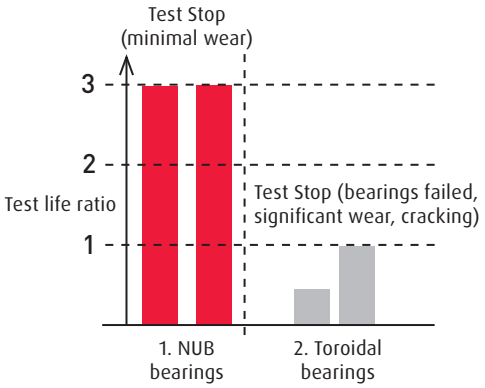
Easy Handling

The housing and bearing assembly are easy to handle without any special tools. This improves work efficiency and safety.



Bench Testing

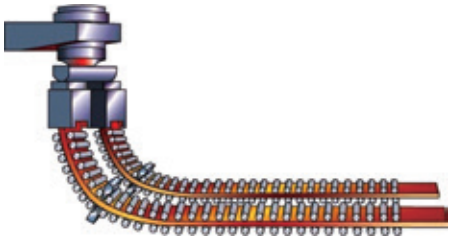
As part of the development process, NSK's innovative design was benchmarked against one of the standard design of non-locating bearing. Subjected to the same detrimental conditions (high load, low speed, misalignment and axial flotation), NSK's NUB bearings achieved at least 3 times the lifetime of toroidal bearings.

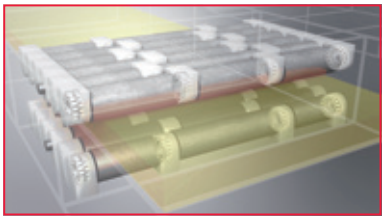


Field Testing

NSK have field trialled these bearings in continuous casting machines at customers. They achieved the expected long life results without any premature failure, assuring a stable operation and reliable performance for the customer.

Continuous Casting Machine (for Heavy Plates)

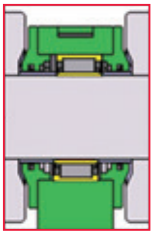




Roll Segment Unit

Roll Arrangement

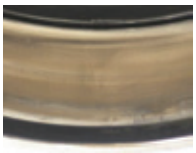




Housing structure

Field Testing Results

Bearing number: 160NUB40VC4
Test period: 9 months
Production amount: Approx. 1.0M tons
Appearance: No abnormalities detected
(Possible for continued use)



Outer Ring Raceway



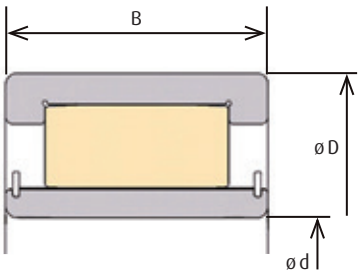
Inner Ring Raceway



Roller Surface

Bearing Number List

Dimensions (mm)			Bearing No.	Basic Load Ratings (kN)	
d	D	B		Cr	Cor
120	180	60	120NUB40V	450	740
130	200	69	130NUB40V	570	950
140	210	69	140NUB40V	560	960
150	225	75	150NUB40V	665	1160
160	240	80	160NUB40V	765	1360



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