



NO-TWIST MILL SPECIALTY BEARINGS FOR HIGH SPEED WIRE ROD MILLS CUSTOM DESIGN FOR RELIABILITY UNDER THE HARSHEST CONDITIONS

primetals.com

WE AIM TO CONTINUALLY ADVANCE OUR BEARING TECHNOLOGY AND WE HAVE

COLLABORATING WITH THE BEST

Our engineers continuously work in close collaboration with recognized leaders in the bearing industry, such as SKF® specialty bearing division (formerly MRC®), using technology at the forefront of the industry to improve and update the design of our proprietary No-Twist® Mill specialty bearings.

RESULTS IN THE BEST

The technology to model bearings and simulate various bearing environments has advanced significantly in recent years. Bearing materials and the making of these materials to extend mechanical limits and reliability have evolved significantly. Manufacturing methods related to machining, tooling, and process have advanced, improving dimensional precision and feature form. All these enhancements contribute to the better and more efficient bearing operation and are the basis for Primetals Technologies latest generation of No-Twist® Mill specialty bearings.

RECENT UPDATES INCLUDE

Production

- Increased precision class across the entire range of No-Twist[®] Mill specialty bearings
- Tightened control of critical contact surfaces for improved pressure distribution and running accuracy
- Improved cage balance for better running efficiency

Design

• Improved inner surface lubrication of rolling elements, to overcome challenging centrifugal effects

Packaging

- Improvements to protect bearings from handling damage and extend shelf life
- Increased level of security to ensure genuine Primetals Technologies No-Twist[®] Mill specialty bearings





Bearing raceway form

Bearing raceway form with improved waviness

Primetals Technologies ensures that technology improvements are systematically introduced as they become known, making our latest generation of No-Twist[®] Mill specialty bearings stronger and more dependable than ever.

To make it easier for customers we have maintained the same identifying part numbers since the bearing's inception. Because of this, customers only need to order according to the original part number and can have confidence in knowing that they will receive the latest technology.



KEY FEATURES OF NO-TWIST MILL SPECIALTY BEARINGS

- More than 125 years of experience in the design and production of the highest quality high-speed rolling mill equipment
- Developed in conjunction with top aerospace manufacturer SKF[®] specialty bearing division (formerly MRC[®])
- Custom designs and application specific for a wide range of operating speeds and load conditions
- High-grade forged rings meet the most stringent steel cleanliness requirements
- Cage designs optimized to prevent skidding and failure under the most adverse conditions

MAIN BENEFITS

- Maximize the performance and reliability of critical machinery
- Reduce unscheduled downtime
- Extended service life between scheduled maintenance
- Highest quality materials reduce corrosion and wear
- Exact fitment eliminates adverse effects on bearing life from fitting stresses
- Meets all warranty requirements

WE SET OUT TO PROVIDE THE MOST INNOVATIVE **CUSTOM BEARING SPECIALTY SOLUTIONS** AND WE DID

The rolling process is very demanding on your equipment, especially equipment that operates continuously at high speeds and under extreme conditions like rolling element bearings. Poor-quality bearings can break down, leading to unscheduled downtime, which can devastate your bottom line. That is why it is vital that you only use bearings that have been specifically designed and tested for your high speed rolling equipment. Primetals Technologies proprietary No-Twist® Mill specialty bearings ensure that your No-Twist[®] Mills and Reducing/Sizing Mills continuously operate at optimal levels.

In addition to a comprehensive update across our entire range of No-Twist[®] Mill specialty bearings, our team of engineers has harnessed the latest advancements in bearing technology to deliver specialized custom bearing solutions for particularly harsh operating conditions. These solutions include our state-of-the-art hybrid ceramic No-Twist® Mill specialty bearings, which extend the operational lifespan, as well as No-Twist[®] Mill specialty bearings engineered from corrosion-resistant steels, purpose-built to excel in excessively moist conditions. Only Primetals Technologies offers customers access to specialized solutions specific to their high speed rolling mill equipment and operation.



CONSUMABLE CONUNDRUM

Roll housings are the backbone of a rolling mill. A housing is essentially a collection of consumable parts that are directly managing the rolling forces. Due to its extreme environmental work conditions, maintenance must be performed on the roll housing far more frequently than other main mill drive components.

To remove this bottleneck from the process Primetals Technologies set out to develop more robust roll housing components that would require less maintenance and improve overall performance.

HYBRID NO-TWIST MILL SPECIALTY BEARINGS

Because the whole is only as strong as the sum of its parts, we analyzed each component to determine how to improve the service life of the entire housing in between rebuilds. We began by extending the life of the Clevite bearings (through proper lubrication), then we developed a new Lamiflex thrust washer which increased runtime. The final piece of the puzzle was extending the life of the roll pinion thrust bearings by the application of our latest hybrid No-Twist[®] Mill specialty bearing design which utilizes the optimal materials available for increased material fatigue strength and extended life.

DETERIORATION DILEMMA

Some mills operate in excessively wet environments where it is challenging to control moisture in the interior of the drive equipment. This is a difficult condition for a bearing to tolerate and corrosion can be the onset of a premature bearing failure. The issue of corrosion compounds when there are multiple rolling outlets or an unsteady production schedule leading to extended idle periods for the equipment.

CORROSION RESISTANT NO-TWIST MILL SPECIALTY BEARINGS

Interchangeable No-Twist® Mill specialty bearings made from more corrosion resistant materials are available. These bearings fit the same as the original bearing but provide a higher tolerance to the presence of moisture.

PRIMETALS TECHNOLOGIES GENUINE NO-TWIST MILL SPECIALTY BEARINGS BE SURE YOUR INVENTORY IS AUTHENTIC AND CUTTING EDGE



The latest generation No-Twist® Mill specialty bearings are easily identified by new artwork printed directly on the package



A matching data matrix code is included on both the outer package as well as on the bearing face that can be scanned to retrieve data that confirms product authenticity



Primetals Technologies	
Part number	162250C
Manufacturer Part number —	7226D12E (0001)
	MADE IN USA
	(1) COMPLETE BE
Unique serial number —	S/N 00001

PURPOSE-BUILT TO PERFORM

Originally designed in the 1960s specifically for use in Morgan Vee No-Twist[®] Mills. Rod Reducing/Sizing Mills and High Speed Laying Heads, today's No-Twist[®] Mill specialty bearings extend the legacy of purpose built bearings for high speed wire rod and bar mill equipment.

DO NOT BE FOOLED BY BARGAIN BEARINGS

There are many global channels for sourcing bearings that may match the extremely basic parameters of the Primetals Technologies No-Twist® Mill specialty bearings, but there is only one source for the genuine product. Use caution when ordering your bearing, as we have seen both alternate suppliers and counterfeit products claiming to be Primetals Technologies. We distributed our genuine No-Twist® Mill specialty bearings to mill users exclusively through the Primetals Technologies global network.

The development of No-Twist® Mill specialty bearings has been ongoing since inception, based on the experience of mill operations and the latest bearing technology. Any substitute for the genuine product will have little value as measured by the performance of the bearing at any cost. That is why we manufacture every new No-Twist® Mill specialty bearing with a series of matching data matrix codes. These codes help to identify the bearing and ensure that it is authentic.

IMPROVED PACKAGING

- No-Twist[®] Mill specialty bearings are custom packed to prevent handling damage
- Vacuum sealing is used to isolate the No-Twist® Mill specialty bearings from harsh environments, extending the shelf life
- Latest generation No-Twist[®] Mill specialty bearings are easily identified by new artwork printed directly on the package

PRODUCT MARKING

A matching data matrix code is included on both the outer and inner packaging as well as on the bearing face that can be scanned to retrieve data that confirms product authenticity including:

- Part number
- Serial number
- Lot number (manufacturer)

SCAN THE CODE

To see a sample of the data that will ensure that you are only using genuine Primetals Technologies No-Twist[®] Mill specialty bearings, use a QR code reader application other than your phones camera application to scan this code.





A vacuum sealing process is used to isolate the bearing from harsh environments, extending the shelf life

Primetals Technologies USA LLC

A Group Company of Mitsubishi Heavy Industries 93 Gilmore Dr. Sutton, MA 01590, USA

primetals.com

Brochure No.: T10-3-N786-L2-P-V1-EN © 2024 Primetals Technologies Ltd. All rights reserved

The information (including, e.g., figures and numbers) provided in this document contains merely general descriptions or characteristics of performance based on estimates and assumptions which have not been verified. These estimates and assumptions have to be analyzed on a case-to-case basis and might change as a result of further product development. It is no representation, does not constitute and/or evidence a contract or an offer to enter into a contract to any extent and is not binding upon the parties. Any obligation to provide and/ or demonstrate respective characteristics shall only exist if expressly agreed in the terms of the contract.

Primetals Technologies excludes any liability whatsoever under or in connection with any provided information, estimates and assumptions. The provided information estimates and assumptions shall be without prejudice to any possible future offer and/or contract.

Any information provided by Primetals Technologies to the recipient shall be subject to applicable confidentiality obligations and shall be used by the recipient at their own convenience and at their sole risk.

Primetals is a trademark of Primetals Technologies Ltd. No-Twist is a registered trademark of Primetals Technologies USA LLC. SKF and MRC are trademarks of AB SKF.