

# Section 6 Contents

## Appendix & Sales Information

	<b>Page Number</b>
<b>Specification Data Sheet</b> .....	125-126
<b>Kaydon Website</b> .....	127
<b>Kaydon Literature</b> .....	128
<b>Warranty &amp; Legal Information</b> .....	129-131

# Specification Data Sheet *Choose one of 4 easy ways to complete and return*



**MAIL:** Kaydon Corporation, PO Box 688, Muskegon, MI 49443

**ONLINE:** [www.kaydonbearings.com](http://www.kaydonbearings.com), **FAX:** 231-759-4102, **EMAIL:** [bearings@kaydon.com](mailto:bearings@kaydon.com)

## 1. Contact Information

Name	Company	
Title	Address	
Email	City	
Phone	State	
Fax	Postal Code	Country

## 2. Quotation Data

Quotation Quantity	Pcs / delivery lot	Annual Usage	Pcs / year
Required Delivery	Weeks	Target Price	Per Unit
Proposal Required	Date		

## 3. Application Description (please attach additional drawing or sketch)

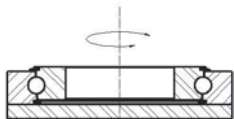
Application (Reference Table 2-4 Service Factors pg. 17)

Which of the following applies?  New application  
 Interchange for existing bearing. Include reason(s) for seeking interchange below.

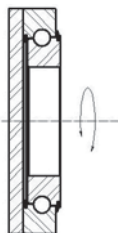
Other considerations

### Position of rotation axis

Vertical



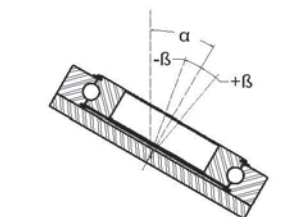
Horizontal



Inclined/Variable

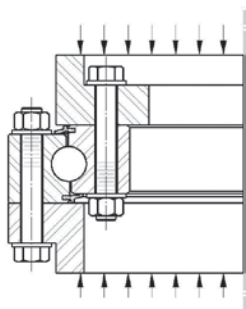
Nominal (relative to vertical)  
 $\alpha$  \_\_\_\_\_ degrees

Range  
 $\pm \beta$  \_\_\_\_\_ degrees

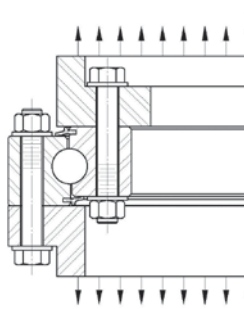


### Axial load direction

Compression



Tension (Suspended)



Ambient temperature	Minimum °F	Normal °F	Maximum °F
Seals Required	<input type="checkbox"/> No <input type="checkbox"/> Yes, Against:		
Specific Lubrication Required	<input type="checkbox"/> No <input type="checkbox"/> Yes, Type:		
Special environmental considerations?	<input type="checkbox"/> No <input type="checkbox"/> Yes, Describe: _____		



# Specification Data Sheet continued

## 4. Bearing Information

	Outline Dimensions		
	Minimum	Preferred	Maximum
<b>ID</b>	in.	in.	in.
<b>OD</b>	in.	in.	in.
<b>Width</b>	in.	in.	in.

	Mounting Holes	
	Inner Race	Outer Race ( <input type="checkbox"/> Same as inner)
<b>Size</b>		
<b>Quantity</b>		
<b>Style</b>	<input type="checkbox"/> Through <input type="checkbox"/> Tapped through <input type="checkbox"/> Tapped blind <input type="checkbox"/> C'drilled <input type="checkbox"/> C'bored	<input type="checkbox"/> Through <input type="checkbox"/> Tapped through <input type="checkbox"/> Tapped blind <input type="checkbox"/> C'drilled <input type="checkbox"/> C'bored

Gear Data		
<input type="checkbox"/> None	<input type="checkbox"/> Internal	<input type="checkbox"/> External
<b>Tooth Form</b>	<input type="checkbox"/> Full Depth	<input type="checkbox"/> Stub

<b>Dia. Pitch (Mod)</b>	
<b>Pitch Diameter</b>	in.
<b>Pressure angle</b>	degrees
<b>Number of teeth</b>	
<b>Addendum mod.</b>	in.
<b>Face width</b>	in.

Mating Pinion (s)	
<b>Number used</b>	
<b>Number of teeth</b>	
<b>Addendum Mod.</b>	in.
<b>OD</b>	in.

Center Distance	
<input type="checkbox"/> Adjustable	<input type="checkbox"/> Fixed, distance _____ in.

## 5. Load Parameters

Load Case	Bearing Loads			Speed (RPM)		Gear Load Torque (ft-lbs)	Percent of Time
	Axial (lbs)	Radial (lbs)	Moment (ft-lbs)	Mean	Max		
<b>Static</b>				—	—	—	
<b>Normal Operating 1</b>							
<b>Normal Operating 2</b>							
<b>Normal Operating 3</b>							
<b>Maximum Operating</b>							
<b>Test/Overload</b>							

<b>Safety factor included in loads above?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes, _____	Additional application service factor required?	<input type="checkbox"/> No <input type="checkbox"/> Yes, _____
---	--	---	--

<b>Rotation</b>	<input type="checkbox"/> Intermittent <input type="checkbox"/> Continuous without interruption <input type="checkbox"/> Oscillating, _____ degrees	<input type="checkbox"/> One direction only <input type="checkbox"/> Alternating directions
-----------------	--	--

<b>Life required (L<sub>10</sub>)</b>	<input type="checkbox"/> Hours (based on speeds in above table) <input type="checkbox"/> Revolutions / oscillations
---------------------------------------	--

<b>Shocks or vibrations?</b>	<input type="checkbox"/> No <input type="checkbox"/> Yes, describe:
------------------------------	--

**Special conditions:** materials, torque, accuracy, seals, protective coatings, etc.

## 6. Comments

Visit our website: [www.kaydonbearings.com](http://www.kaydonbearings.com)  
 for latest releases — newest features —  
 and downloads of catalogs, software,  
 or CAD drawings.

**Click on Resources**



**Click on Products**



Users who download models for the first time sometimes encounter a 3D Product Page log-in screen and need to change settings to allow the website address 3DPublisher.net to use cookies on their computer. If this occurs, simply:

1. Click on Tools
2. Select Internet Options
3. Select the Privacy tab
4. Click on Sites
5. Type in the address 3DPublisher.net
6. Click Allow
7. Click OK
8. Refresh your screen

# Application Information to Help in Your Designs

Also available for download from our website [www.kaydonbearings.com](http://www.kaydonbearings.com).



## 1. Bearings for Aerospace-Defense applications

Highlights Kaydon's experience in a wide range of aerospace-defense applications, plus custom design capabilities and industry certifications (e.g., AS9100B).



## 4. Reali-Slim® thin-section bearings catalog

Complete engineering and selection information on the entire product line, including Reali-Slim MM™ metric series, Reali-Slim TT® turntable series, and Ultra-Slim® series. 132 pages. Request Catalog 300.



## 2. Bearing solutions for the Mining Industry

4-page brochure for mining equipment users features Kaydon's remanufactured and new replacement bearings. Both perform like OEM bearings at lower cost, with faster delivery.



## 5. An illustrated mounting guide for Reali-Slim® bearings

Provides ideas on how to improve designs through better mounting and use of bearing assemblies. 24 pages. Download [Engineered solutions: Reali-Slim® bearings mounting guide](#) from website.



## 3. Remanufactured Bearings program

Explains Kaydon's dedicated program for remanufacturing worn ball and roller bearings to like-new quality at substantial savings, with 1-year warranty.



## 6. Reali-Design® and Reali-Design MM® software

Speeds Reali-Slim® bearing selection process. Includes data sheets, life calculations, and CAD-ready DXF library for both inch and metric series. Software is downloadable from [www.kaydonbearings.com](http://www.kaydonbearings.com).

For Split Roller Bearings, visit our sister division's website: [www.cooperbearings.com](http://www.cooperbearings.com).

# Warranty Information and Legal Notices



**WARNING** - Damage to equipment and danger to human life can result from failure to heed the recommendations in the text identified by the warning symbol.

## Disclaimer

The design and application information contained in this catalog is for illustration only. Responsibility for the application of the products contained in this catalog rests solely with the equipment designer or user. In spite of our best efforts, the material contained in this catalog may contain inaccuracies and typographical errors.

## Hazard Notice

The use of any part, such as those described in this catalog, may be hazardous and have the potential to cause serious injury, including death, to people or property. The purchaser is responsible for evaluating the hazards associated with any part used in their application.

## Kaydon Standard Terms and Conditions of Sale

- 1) **Scope.** Prices quoted are for acceptance within thirty (30) days from date of quotation unless otherwise stated. The terms and conditions of sale set forth below apply to all quotations made and purchase orders accepted by Seller.
- 2) **Acceptance of Orders.** All orders are subject to acceptance by authorized officials at Seller's division or subsidiary offices.
- 3) **Scheduling.** Shipping dates are approximate and are based upon prompt receipt of all necessary information. Buyer shall furnish to Seller written shipping instructions in sufficient time to permit Seller to make shipment at Seller's option within any time or times herein specified for shipment. In the event of a delay in delivery due to any reason described in Section 15 below the delivery date shall be deferred for a period equal to the time lost by reason of delay. In the event such delay shall continue for more than two weeks then, at Seller's option, the order will be deemed cancelled without liability to Seller.
- 4) **Delivery and Transportation.** Seller's delivery dates are approximate and Seller shall use commercially reasonable efforts to deliver in accordance with the delivery and performance schedules. Seller shall not be liable for delays in delivery or other defaults in performance of this order arising out of causes beyond Seller's control. Unless otherwise agreed to in writing by Seller, delivery of the products hereunder shall be made EXW Seller's place of manufacture (Ex-Works INCOTERMS® 2010). Title to products passes to Buyer and products are at risks to Buyer from and after delivery EXW Seller's place of manufacture. Transportation expenses will be paid by Buyer and risk of loss, shortage, delay or damage to products in transit shall fall upon Buyer, whose responsibility it shall be to file claims with the carrier.
- 5) **Terms of Payment.** Invoices are due and payable (30) thirty days from the date of invoice unless other terms are shown on the face hereof. A 1 1/2% carrying charge will be applied to all past due amounts. If shipments are delayed by Buyer, payments shall become due on the date when Seller is prepared to make shipment. If the work covered by the purchase order is delayed by Buyer, payments shall be made based on the purchase price and the percentage of completion. Seller reserves the right to ship to its order and make collection by sight draft with bill of lading attached.
- 6) **Taxes.** Prices do not include foreign or domestic sales, use, excise or similar taxes. Consequently, in addition to the prices specified herein, the amount of any present or future sales, use, excise or other general or specific tax, or export or import duties, tariff or penalties or other governmental charges fixed or imposed by any lawful authority(ies) upon or applicable to the production, sale, shipment, delivery or use of the products sold hereunder shall be added to the price and be paid by Buyer or, in lieu thereof, Buyer shall provide Seller with a tax exemption certificate acceptable to the taxing authorities. If such tax is paid by Seller, Buyer shall reimburse Seller upon presentation of invoice.
- 7) **Warranty.** Seller warrants the products manufactured by it to be free from defects in title, material and workmanship. The extent of Seller's obligation hereunder is to either repair or replace its nonconforming products, EXW Seller's plant, if returned within twelve (12) months after date of delivery. No allowance will be granted for repairs or alterations made by Buyer without Seller's written approval. The warranty shall not be construed to cover the cost of any work done by Buyer on material furnished by Seller or the cost of removal or installation of product. Products and parts not manufactured by Seller are warranted only to the extent and in the manner that the same are warranted to Seller by Seller's vendors and then only to the extent Seller is able to enforce such warranty. THE FOREGOING STATES THE SOLE AND EXCLUSIVE WARRANTIES PROVIDED BY SELLER TO BUYER AND THERE ARE NO OTHER WARRANTIES EITHER EXPRESSED OR IMPLIED IN FACT OR BY LAW. THE WARRANTIES STATED HEREIN ARE IN LIEU OF ALL OTHER WARRANTIES, WRITTEN OR VERBAL, STATUTORY, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WHICH ARE HEREBY DISCLAIMED. SELLER'S WARRANTY DOES NOT APPLY TO ANY GOODS WHICH HAVE BEEN SUBJECTED TO MISUSE, MISHANDLING, MISAPPLICATION, NEGLIGENCE, (INCLUDING BUT NOT LIMITED TO USE OF UNAUTHORIZED PARTS OR ATTACHMENTS), OR ADJUSTMENT OR REPAIR PERFORMED BY ANYONE OTHER THAN SELLER OR ONE OF SELLER'S AUTHORIZED AGENTS.
- 8) **Limitation of Liability.** Seller shall not be responsible, obligated, or liable for any injury or damage resulting from an application or use of its products, either singly or in combination with other products. SELLER'S SOLE LIABILITY FOR BREACH OF WARRANTY OR ANY OTHER CLAIM SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE PRODUCTS OR RETURN OF THE PURCHASE PRICE, AT SELLER'S SOLE OPTION. SELLER SHALL NOT BE LIABLE FOR DAMAGES, INCLUDING BUT NOT LIMITED TO CONSEQUENTIAL, INCIDENTAL, PUNITIVE, LIQUIDATED OR SPECIAL DAMAGES ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THE PRODUCTS OR ARISING OUT OF ACCEPTANCE OF THIS ORDER. BUYER SHALL INDEMNIFY SELLER AGAINST ALL LIABILITY, COST, OR EXPENSE THAT MAY BE SUSTAINED BY SELLER BECAUSE OF ANY SUCH LOSS, DAMAGE, OR INJURY.
- 9) **Acceptance of Products.** Products will be deemed accepted without any claim by Buyer unless written notice of non-acceptance is received by Seller within thirty (30) days of delivery EXW Seller's place of manufacture, or ten (10) days of delivery if the parties agree to shipping terms other than EXW. Such written notice shall not be considered received by Seller unless it is accompanied by all freight bills for such shipment, with agent's notations as to damages, shortages and conditions of equipment, containers and seals. Non-accepted products are subject to return policy stated below.
- 10) **Return of Products.** No product may be returned to Seller without Seller's prior written permission the form of a return material authorization.
- 11) **Damages to Returned Products.** If Buyer elects to return product(s) to Seller for refurbishment, Buyer agrees to accept all risk of damage or destruction of such returned product(s), and Seller shall not be liable for any failure or inability on the part of Seller to complete refurbishment upon any such returned products.
- 12) **Limitations of Actions.** All claims, demands or actions must be brought within one (1) year of date of tender of delivery, or eighteen (18) months of Buyer's order, if no tender of delivery is made, notwithstanding any statutory period of limitation to the contrary.
- 13) **Intellectual Property.** Buyer shall defend, indemnify and hold Seller harmless against any and all claims, demands judgment, expense or loss resulting from infringement of third party patents, copyrights or trademarks arising from Seller's compliance with Buyer's design, specifications or instructions.  
The sale of products or parts hereof by Seller does "not convey any license, rights, title or interest by implication, estoppel, or otherwise, under patent claims, industrial property right, trademark, trade secret

# Warranty Information and Legal Notices

## (continued)

or any other intellectual property rights covering combinations of these products or parts with other devices or elements. Seller retains all intellectual rights, title and interest in the products and its underlying technology, delivered hereunder including Seller's process, manufacturing and all other technologies used in Seller's performance hereunder.

- 14) Financial Responsibility.** If in the sole Judgment of Seller the financial resources of Buyer become impaired or unsatisfactory at any time during the term of the agreement between the parties, then Seller may require of Buyer a deposit or suitable security or margin for performance by Buyer in such amount or amounts from time to time as Seller shall specify. Upon requirement of deposit, Buyer shall make such deposit not later than the close of Seller's next business day. If Buyer fails to make such deposit, then Seller may at its option (1) cancel the agreement between the parties or the undelivered portion thereof. In which case Buyer agrees to pay Seller the difference between the market price on date of cancellation and the contract price; (2) resell at any time for Buyer's account all or any undelivered portion of the products, in which case Buyer agrees to pay Seller the difference between the resale price and the contract price, or (3) otherwise change the terms of payment. In the event Buyer shall be or becomes insolvent, or admits in writing Buyer's inability to pay Buyer's debts as they mature, or if Buyer shall make an assignment with creditors or if there are instituted by or against Buyer proceedings in bankruptcy or under any insolvency laws or for reorganization, receivership or dissolution, Seller may terminate the agreement between the parties at any time and without notice.
- 15) Force Majeure.** Including but not limited to events of war, fire, epidemics, quarantine restrictions, flood, strike, labor trouble, breakage of equipment, accident, riot, the imposition of any government price control regulation or any other act of governmental authority, acts of God or other contingencies (whether similar or dissimilar to the foregoing) beyond the reasonable control of Seller, interfering with the production, supply, transportation, or consumption practice of Seller at the time respecting the products covered by the agreement between the parties or in the event of inability to obtain on terms deemed by Seller to be practicable any raw material (including without limitation energy source) used in connection therewith, quantities so affected shall be deemed to be an excusable delay in Seller's performance for the duration of time such condition exists. As promptly as practicable Seller will notify Buyer of any force majeure event that delays or threatens to delay Seller's timely performance hereunder. Seller may during any period of shortage due to any of these causes, allocate its supply of such raw material among its various uses therefore (e.g. manufacturing and sales) in such manner as Seller deems practicable and allocate its supply of such products among such various uses thereof in any manner which Seller deems fair and reasonable.
- 16) Reasonable Attorneys' Fees.** In the event suit or other proceeding shall be brought for the recovery of the purchase price, or any unpaid balance or the breach by Buyer of any term of the agreement between Seller and Buyer, Buyer shall pay to Seller in addition to any damages provided by law, reasonable attorneys' fees and costs of collection.
- 17) Security Title.** Security title and right of possession of the products sold hereunder shall remain with Seller until all payments due from Buyer to Seller (including deferred payments whether evidenced by notes or otherwise) shall have been made in cash and Buyer agrees to do all acts necessary to perfect and maintain such security right and title in Seller.
- 18) Cancellations.** Buyer may cancel an order only upon written consent and upon payment to Seller of cancellation charges, which shall take into account among other things expenses incurred and commitments already made by Seller, and Seller's profit margin.
- 19) General.**
- (a) The agreement between Buyer and Seller and matter connected with the performance thereof shall be construed in accordance with and governed by the law of the State of Michigan, without regard to its conflict of laws principles. The provisions of the United Nations Convention for the International Sale of Goods ("CISG") shall not govern the rights and obligations of the parties in connection with this order.
- (b) Any assignment of the agreement between Buyer and Seller or any rights or obligation of the agreement by Buyer without written consent of Seller shall be void.
- (c) Except as may be expressly provided to the contrary in writing, the provisions of the agreement between Buyer and Seller are for the benefit of the parties hereto and not for any other person.
- (d) By accepting delivery of any goods sold by Seller, Buyer waives any future claims and rights of setoff or withholding against any payments due hereunder and agrees to pay all sums due regardless of any dispute, setoff, or cross claim.
- (e) No waiver by Seller of any breach of any provision of the agreement between Buyer and Seller will constitute a waiver of any other breach.
- (f) The terms and conditions set forth above contain all of the representations, stipulations, warranties, agreements and understandings with respect to the subject matter of the agreement between Buyer and Seller, and its execution has not been induced by any representation, stipulation, warranty, agreement or understanding (including any course of prior dealings between the parties hereto) of any kind other than those set forth herein.
- (g) No amendment, addition to, alteration, modification or waiver of all or part of the agreement between Buyer and Seller shall be of any force or effect unless in writing and signed by Seller. If the terms and conditions set forth above conflict with those of any purchase order of Buyer written in connection with the sale of the products or any portion thereof, then the terms set forth above shall govern.
- (h) In addition to the rights and remedies conferred upon Seller by law, Seller shall not be required to proceed with the performance of any order or contract, if Buyer is in default in the performance of any order or contract with Seller, and in case of doubt as to Buyer's financial responsibility, shipments under this order may be suspended or sent sight draft with bill of lading attached by Seller.
- (i) No delay or omission by Seller in exercising any right or remedy provided for herein shall constitute a waiver of such right or remedy and shall not be constituted as a bar to or a waiver of any such right or remedy on any future occasion.
- 20) Entire Contract.** The terms and conditions set forth herein constitute the entire expression of all of the terms of this agreement and form a complete and exclusive statement as to the agreement between Seller and Buyer notwithstanding any other representations, promises, warranties, statements or agreements to the contrary. Any additional, contradictory or different terms contained in any initial or subsequent order or communication from Buyer pertaining to the products described on the face hereof are hereby objected to. No course of prior dealings between the parties and no usage of trade shall be relevant to supplement or explain any term used in this agreement. Acceptance or acquiescence in a course of performance rendered under this agreement shall not be relevant to determine the meaning of this Agreement even though the accepting or acquiescing party has knowledge of the nature of the performance and the opportunity for objection. No waiver or alteration of terms herein shall be binding unless in writing, signed by an executive officer of Seller.
- 21) Compliance with Laws.** It is the intention of the parties that the transaction covered by these terms and conditions will at all times, be in compliance with all applicable laws including, without limitation, all export and import laws, regulations and restrictions, foreign corrupt practices and anti-bribery laws.
- 22) Export Licensing/ITAR Representation.** Buyer agrees to comply with all applicable US and applicable non-US export and import laws and regulations, including but not limited to the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations (EAR) governing the export of any product and supporting technical data delivered hereunder. Furthermore, any controlled technical data

# Warranty Information and Legal Notices (continued)

is not to be placed in the public domain, exported from the US, or given to any Foreign Person in the US without the prior specific written authorization of the Seller and the US Department of State or the US Department of Commerce as applicable. Notwithstanding anything that may be to the contrary Buyer's obligation as set forth in this provision shall survive the expiration or termination of this agreement. Buyer agrees to defend, indemnify, and hold Seller harmless from all claims or liabilities that may arise from Buyer's violation of any US or applicable non-US import or export laws.

**23) Arbitration.** With respect to sales in the United States, any controversy or claim arising out of or relating to the Agreement between Buyer and Seller, or the breach thereof, shall be finally settled in the City and

State of the Seller's accepting offices, as referenced in Section 2, by arbitration in accordance with the Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. With respect to sales outside the United States, any controversy or claim arising out of or relating to the Agreement between Buyer and Seller, or the breach thereof shall be finally settled in New York, NY under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules and judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction thereof pursuant to the 1958 Convention on the Recognition and Enforcement of Foreign Arbitral Awards.

2-0001-000-0013 Rev.: A

## “RESPONSIBILITY STATEMENT”

### WARNING

FAILURE OF, OR IMPROPER SELECTION OF, OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from Kaydon Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise. Before you select or use any product or system, it is important that you analyze all aspects of your application and review the information concerning the product in the current product catalog. The user, through its own analysis and testing, is solely responsible for making the final selection of the product or system and assuring that all performance, safety and warning requirements of the application are met. The products and systems described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by Kaydon Corporation and its subsidiaries at any time without notice.

The registered trademarks of Kaydon Corporation include, but are not limited to, Kaydon®, Reali-Slim®, Lami-Shield®, Lami-Seal®, Reali-Design®, Reali-Design MM®, Kaydon infinite bearing solutions™, Endurakote®, WireX®, Endura-Slim®, Endura-Vac™, Ultra-Slim®, Reali-Slim TT®, Reali-Slim MM™, Thinifinite™, Slewifinite™.