

SHIMPO

High Precision Servo Reducers



Improving the Speed of Industry....

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Customer Service and Support

Distinction in Service and Support

NIDEC-SHIMPO has invested heavily in the past few years in building a global customer service and application support network that will meet the evolving needs of our customers. By leveraging our global infrastructure, our OEM customers maintain their competitiveness and profitability at home while able to expand into emerging markets abroad without any drop-off of service and support.

NIDEC-SHIMPO pledges that we will continue to expand our service and support network footprint globally, and continuously strive for perfection as a dependable partner to our customers. In this section you will learn about our service and support capabilities that we will leverage in order to provide you peace of mind.

Online and Phone Support

Resolve your technical issues quickly and accurately, without disrupting your business. With the NIDEC-SHIMPO OEM Partner Service Program, your company and your customers have immediate access to our global network of support centers and resources. Whether you need help designing, installing, and maintaining equipment or diagnosing an operating issue, NIDEC-SHIMPO will deliver the tools and information that you need in order to insure that your equipment is running to perfection.

Contact your local sales office for immediate support either over the phone or in the field. A list of locations can be found on the back cover of this catalog. All OEM accounts in North America have a dedicated Technical Support Engineer, knowledgeable about your business, on-standby ready to support you and your customers. If you do not know who to contact, please call our 1-800 number in order to get properly directed to the right person for help.

For online support, please visit our website in order to download any drawings, instruction manuals, or technical performance specifications that you require. All catalogs and brochures will also be easily downloadable on the website. If you prefer to inquire about an issue or for more information, please do not hesitate to submit your request online or start a dialogue with our Info address.

Training Services

Investing our time in you, so together we build better, more competitive product for your customer. As the industrial world becomes increasingly competitive, new technologies are introduced every year requiring manufacturers to constantly rationalize and update existing designs. As a result, successful manufacturers realize the absolute need for product training.

NIDEC-SHIMPO has a network of engineers that are factory trained and authorized to provide your workforce solid training on our products and basic power transmission concepts. The main objective of our standard program and materials is to better empower your workforce to size and select gear reducers and motors for any motion control applications. We provide this service at no cost to our customers, because we see the value in building a more knowledgeable customer and helping them more quickly react to equipment design revisions when needed.

Some other gear reducer manufacturers are not as forthcoming with sharing information with their customers, an attempt to hide their higher manufacturing costs or to use unreleased performance data as a "product differentiator". NIDEC-SHIMPO views their customers as a long-term partnership, and we train and share information with our customers freely based on that vision.

Training classes can be conducted online, at any of our sales branches or offices, or at key distributor branches when requested. NIDEC-SHIMPO can also bring the training session to your facility in order to make better use of your time and costs. A thorough hands-on training seminar can be provided at our Itasca, IL build facility, where customers can get the opportunity to completely assemble and test one of our Able units.

The NIDEC-SHIMPO training program options provide support for any budget. Our training programs improve your employees' skill and knowledge competencies in the areas of power transmission and motion control while addressing any location, time, travel and productivity constraints. Contact your local sales office today in order to get a power transmission refresher on your calendar.



SHIMPO Drives Hotline:

Toll-free: (800) 842-1479

Email: info@shimpodrives.com

The Able Series 5-Year Warranty

1. **STANDARD WARRANTY.** With the exception of shaft seals, which is a normal wear item, Seller warrants that the products manufactured by the Seller to be free from defects in materials and workmanship under normal use and proper maintenance for:
- RXC sizes 02 – 90 (excluding electrical products) 2-years
 - RXC sizes 91 – 98 (excluding electrical products) 1-year
 - Circulute® Reducers..... 2-years
 - Electrical Products..... 1-year
 - Able Reducers 5-years**
- a. If within such period any product shall be proved to the Seller’s reasonable satisfaction to be defective, such product shall be repaired or replaced at our option. The Seller’s obligation and Buyer’s exclusive remedy will be limited to such repair or replacement and shall be conditioned upon the Seller receiving written notice of any alleged defect no later than thirty (30) days after its discovery within the warranty period.
- b. Shipping terms for any repaired or replaced product will be FOB shipping point unless negotiated otherwise. If necessary, Seller reserves the right to inspect the product claimed to be defective at Buyer’s location or place of installation. Travel time and expenses for any Seller service personnel provided to Buyer’s premises to affect such repair or replacement will be at the Buyer’s expense. Seller reserves the right to satisfy our warranty obligation in full by reimbursing the Buyer for all payments made to Seller and Buyer shall thereupon return the product to Seller.
- c. These warranties shall not be effective if the product has been subject to overload, misuse, negligence, or accident, or if the product has been repaired or altered outside of Seller’s factory or authorized control in any respect which, in our judgment, adversely affects its condition or operation. Buyer shall establish, to our satisfaction, that the product has at all times, been properly assembled, installed, serviced, maintained, tested, operated and used in accordance with the current maintenance and operating instructions of Seller and has not been altered or modified in any manner without our prior written consent.
- d. The Seller’s warranty obligation shall not be effective for components or products hereunder where the product 1) is consumed by normal wear and tear, 2) is consumed by an application that was above the rated capacity, and 3) has a normal life that is fundamentally shorter in the length of time than the standard warranty as outlined, hereunder.
- e. No extended warranty will be offered on wear items unless otherwise agreed to in writing by NIDEC-SHIMPO management at the time of the sale.
- f. Descriptions or representations of the products provided by the Seller’s employees, sales representatives, and distributors, regardless written or verbal, should not be construed as an expressed or implied warranty that would supersede any element of this standard warranty. Expressed or implied warranties are acceptable but only on a case-by-case basis as determined necessary by the Seller. A separate expressed or implied warranty must be provided in writing and confirmed by NIDEC-SHIMPO management in order to be valid at the time of sale.
- g. THE STANDARD WARRANTY AS DESCRIBED HEREIN SHALL BE IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED RELATED TO THE SELLER’S PRODUCTS, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS, AND SHALL BE IN LIEU OF ANY OBLIGATIONS OR LIABILITY ON THE SELLER’S BEHALF.



Standard Terms and Conditions

STANDARD TERMS AND CONDITIONS

- 1. SHIPPING AND PAYMENT TERMS.** Unless otherwise specified, shipping terms are FOB shipping point, and payment terms are net 30 days. All payments are to be made in United States funds.
- 2. TAXES AND SECURITY INTEREST.** Unless otherwise specified, the prices stated do not include any taxes which may now or hereafter be applicable to the products or performance of any services by Seller. Buyer agrees to pay or reimburse Seller for any such required taxes and all connected penalties and interests, or in lieu thereof, Buyer shall provide Seller with tax exemption documents acceptable to the taxing authorities involved. Buyer, by acceptance of the goods ordered, represents and warrants that Buyer is solvent and able to pay for the goods in accordance with the terms of sale. As security for payment of the purchase price for the products and all other amounts due from the Buyer under these Terms, Buyer hereby grants Seller a security interest in the products and agrees to execute and permit Seller to file and record all documents which may be requested by Seller in order to create, perfect, evidence and establish the foregoing security interest. If Buyer fails to pay any amount when due, or, prior to payment of all amounts due, removes all or any part of the products from Buyer's premises, we shall exercise any or all of the rights and remedies given to secured parties under the UCC of the State of Illinois, and under similar laws of any other state, if applicable.
- 3. RETURN GOODS.** No product will be accepted for return unless authorized with appropriate returned goods number assigned. In all cases, freight charges must be prepaid. Buyer will be responsible for any damages incurred in transit to goods being returned. Title shall pass to Seller upon Seller's acceptance of return goods.
- 4. CANCELLATION.** Terms, once accepted and approved by Seller, shall not be canceled or altered by Buyer, and Buyer shall not otherwise cause the work or shipment to be delayed, except with the consent of and upon the terms and conditions approved by Seller in writing. Orders canceled or suspended with our consent are subject to cancellation and/ or other charges as determined by Seller.
- 5. DELAY IN DELIVERIES.** In no event shall Seller be liable for nondelivery or delays in delivery of products, or in the performance of any other obligations, arising directly or indirectly from acts of God, acts (including delay or failure to act) of any governmental authority (de jure or de facto), war (declared or undeclared), riot, fires, floods, weather, labor disputes, sabotage, epidemics, factory shutdowns or alterations, embargoes, delays, shortages or inability to procure transportation, labor, manufacturing facilities or materials, failure to obtain timely instructions or information from Buyer, or inability due to causes of any other kind beyond our control. The foregoing provisions shall apply even though such cause may occur after performance of our obligations has been delayed for other causes.
- 6. INDEMNIFICATION.** Buyer shall notify Seller promptly in writing and in all events within ten (10) days after its occurrence, of any accident or malfunction involving the products which results in injury to or death of any persons, property damage or economic loss of any kind, and Buyer shall cooperate fully with Seller in investigating and determining the cause of any such accident or malfunction. Buyer further agrees to indemnify and hold Seller harmless from and against all claims and damages imposed upon Seller or incurred arising, directly or indirectly, from Buyer's failure to perform or satisfy any of the Terms described herein.
- 7. GENERAL PROVISIONS.** These Terms shall be governed, construed and enforced in accordance with the laws of the State of Illinois, and shall be binding upon and inure to the benefit of any successors, assigns, and legal Distributors of Seller and Buyer. The Terms are not assignable without Seller's prior written approval. A judicial or administrative declaration in any jurisdiction of the invalidity of any one or more of the provisions of the Terms in any jurisdiction, nor shall such declaration have any effect on the validity of interpretation of the Terms outside that jurisdiction.

8. **MINIMUM ORDER CHARGE.** The minimum charge on an order will be \$60.00.
9. **BOXING ORDER CHARGE.** No charge is made for standard boxing or crating required by transportation companies for domestic shipments. Cost of special boxing, export boxing, cartage to steamer or transfer expenses will be added to the invoice unless charges are shown to be included in the prices.

Any and all Terms are subject to change prior to Buyer's acceptance of these Terms.

PROPERTY AND PATENT RIGHTS

1. Seller retains for itself any and all property rights, including but not limited to all patent, copyright, and trade secret rights, to any software materials and to all designs, engineering details, documentation, and other data pertaining to any product designed in connection herewith and to all right of discovery, invention or patent rights arising out of the work done in connection herewith. Buyer expressly agrees that it will not assert any property rights herein, except the right for itself and subsequent owners to use the product.
2. Buyer acknowledges that any software materials constitute valuable trade secrets of Seller and are unpublished works on which Seller holds the sole and exclusive copyright. Buyer agrees to maintain and protect the confidentiality of these trade secrets and agrees not to disclose them or use them for any purpose not contemplated by this Agreement. Buyer agrees to formulate and adopt appropriate safeguards in light of its own operating activities, to insure protection of the confidentiality of these trade secrets. Buyer shall immediately notify Seller of any information which comes to its attention which indicates that there has been any loss of confidentiality of Seller trade secret information.

SUBMISSION AND ACCEPTANCE OF ORDERS

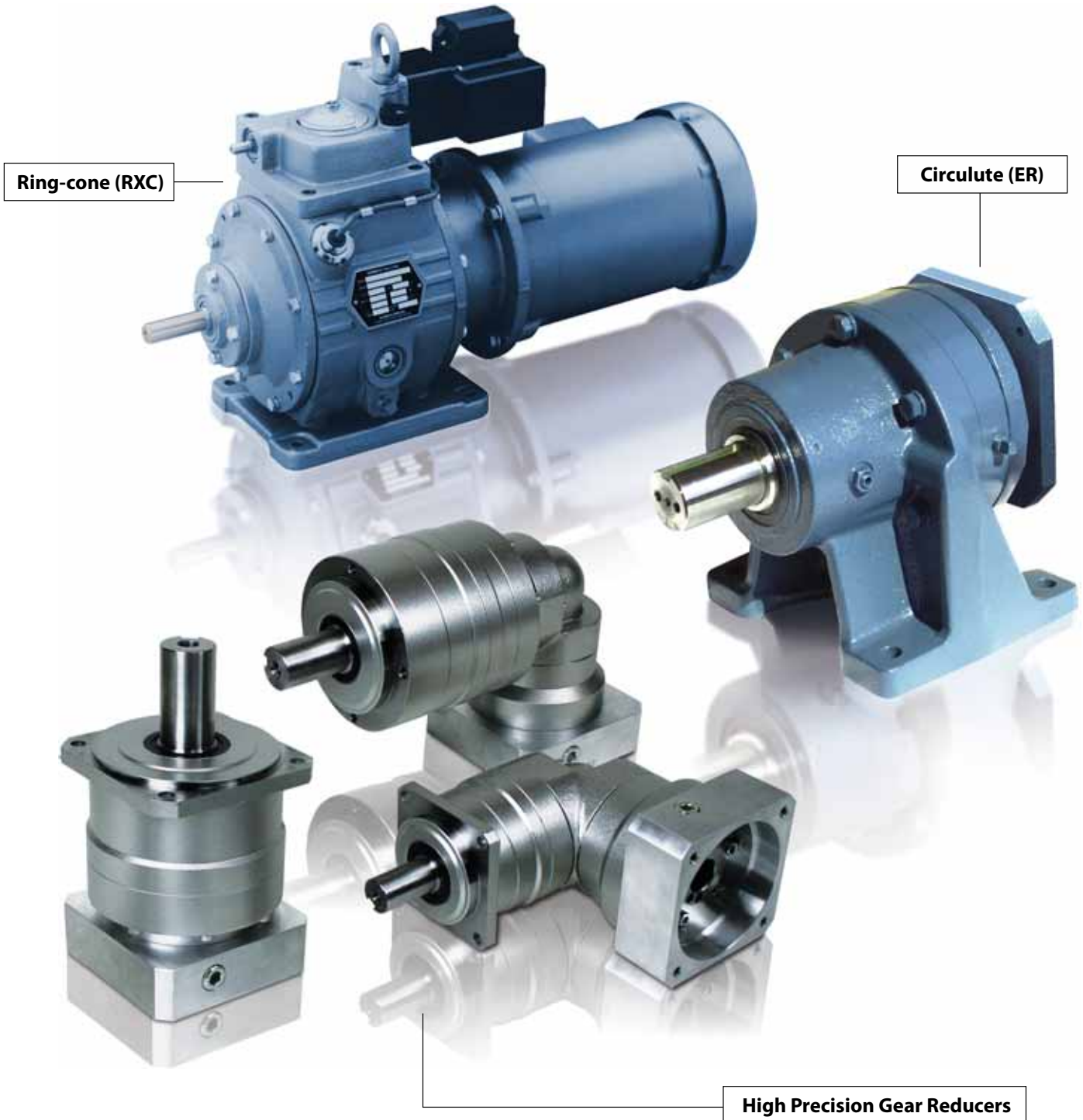
1. All orders and contracts are subject to acceptance or rejection by an officer of Seller or any individual authorized by Seller in writing, at the main offices of Seller, which approval or rejection shall in all cases be in writing to the Buyer, and no order or contract shall be binding until so accepted. Seller reserves the right to refuse any business originating in the Territory of the Buyer, for any reason which in the considered judgment of Seller is sufficient grounds for refusal.
2. On orders and contracts of a deferred-payment nature, all such payment and credit extensions are subject to final review and approval by Seller. Seller may accept such orders or contracts, withhold shipment after initial acceptance if for any reason the Buyer's credit has become impaired.

SHIPMENTS AND SHIPPING INFORMATION



1. All shipments, from whatever source, shall be contingent upon prior approval of the order or contract by Seller, and after such prior approval, upon the effect of strikes, accidents, embargoes, priorities, or any cause natural or otherwise, beyond the control of this Seller. Seller, in effect, assumes no liability hereunder for its failure to make shipment on any order or contract.
2. All Products are prepared by Seller for North American land shipment only under this Agreement. Any special preparations, for water shipment or foreign trade outside of the North Americas, must be arranged for as a special consideration.

Product Categories

NIDEC-SHIMPO has segmented our products into three separate product categories in order to better align our product development, sales efforts, and marketing activities with the needs of our customers. Our high-precision ABLE gear reducers have a separate sales and distribution channel from our traditional power transmission product categories such as our Circulute (ER) and Ring-Cone (RXC) series. This catalog focuses mainly on our high-precision products, and not as much on our traditional power transmission products more often applied in heavy industrial applications. The next few pages will provide a general overview of these traditional power transmission products that are also very dependable and valuable solutions for our customers.



High Precision Gear Reducers




		
<p>ABLE Inline Series</p>	<p>ABLE Right Angle Series</p>	<p>ABLE with Rotary Stage</p>

Traditional Power Transmission

Mechanical Adjustable Speed Drives

		
<p>Standard Ring-cone</p>	<p>Ring-cone Motor Assembly</p>	

Industrial Duty Speed Reducers

		
<p>Circulute Cycloidal Reducer</p>	<p>Circulute with Servo Input</p>	<p>Circulute Pulley Style</p>

Please contact NIDEC-SHIMPO for more detailed information about any of our products that are not adequately covered within this catalog.

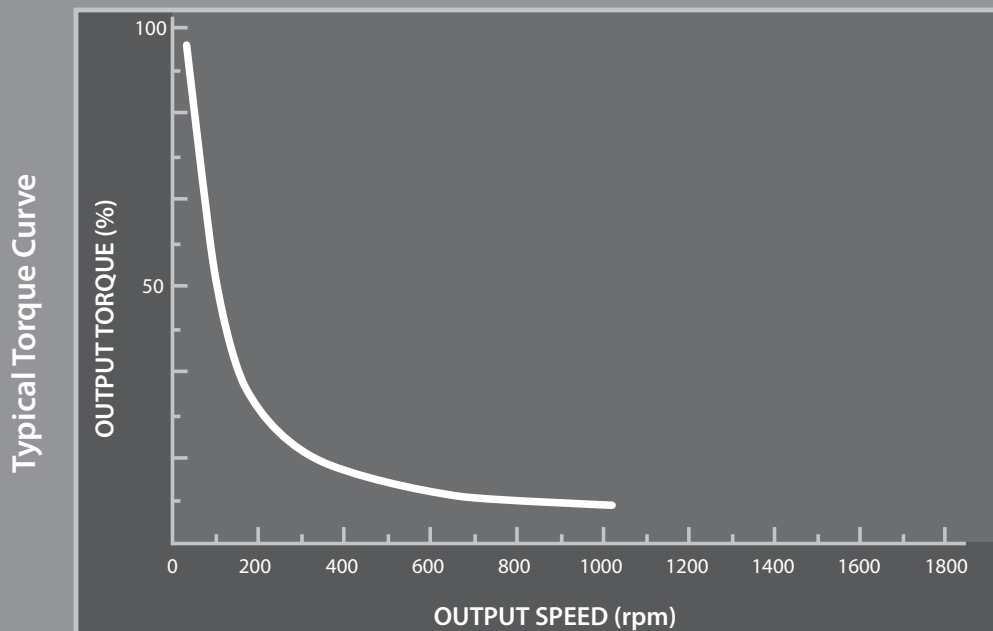
Mechanical Adjustable Speed Drives

RXC Traction Drives, Mechanical Advantage

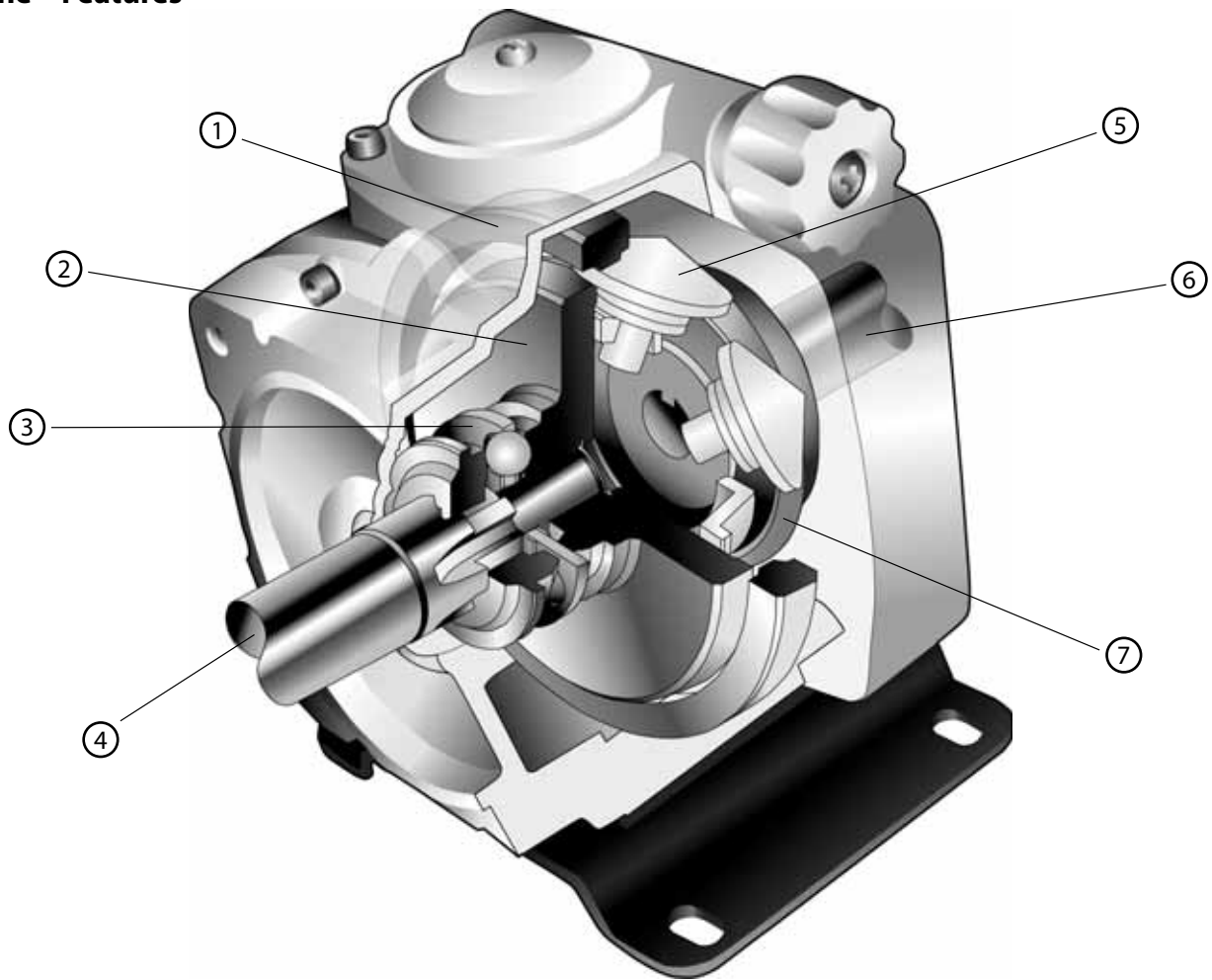
The SHIMPO RXC drive has a strong advantage over a common electronic variable speed drive. With an electronic drive, the output torque remains constant from base speed down to the lower limit, whatever it may be. As shown in the graph below, an RXC drive's output torque increases as the speed drops. This allows the user to set a low speed that can help the drive push through difficult areas.



Featuring an all metal power train and optional advanced electronic control capabilities...



Ring-cone – Features



- ① Control ring
- ② Cam disc
- ③ Pressure control cam
- ④ Output shaft
- ⑤ Planetary cone
- ⑥ Input shaft
- ⑦ Input disc

Industrial Duty Speed Reducers

Circulute 3000, Precision Backlash

The Circulute 3000 Speed Reducer delivers the features today's industry needs. High reduction ratios, without sacrificing efficiency. Compact designs, without requiring special motors. Exceptional shock load capacity, without having to oversize. Greater overhung load capacities, without using expensive special components. A precision backlash option, without resorting to special gearing. All of this, while requiring minimal maintenance.



The ideal reducer for both induction and servo motor applications...

Optional Mounting Base Matches Industry-Standard Dimensions...

High Efficiency Cycloidal Reducer Design

- Single stage reduction ratios up to 71:1 saves space
- Rolling motion minimizes friction and wear, reducing heat, and results in a 95% efficiency rating, per stage
- 500% shock load capability as there are primarily compressive forces rather than shear forces on the tooth
- Low speed of cycloidal wheel results in minimal reflected inertia, less wear, and extremely long service life
- Due to the large overall "tooth / pin" contact area, select a Circulute Reducer using smaller mechanical service factors

Two Backlash Ratings

- Standard backlash offers the highest available torque rating at an economical price
- Low backlash results in tighter positional tolerances

Multiple Inputs: NEMA C-Face, Servo Square Flange, Shaft Input, Shovel Base, Top Mount

- Versatility to fit whatever prime mover is needed for the application
- NEMA and Servo input flanges are compact "quill-style" hollow-bore configuration, eliminating input couplings and guards
- Quill-style input features an input support bearing to control fretting corrosion between motor shaft and reducer hub, and permit tighter internal tolerances
- NEMA input flange includes threaded back-off holes for easy motor removal

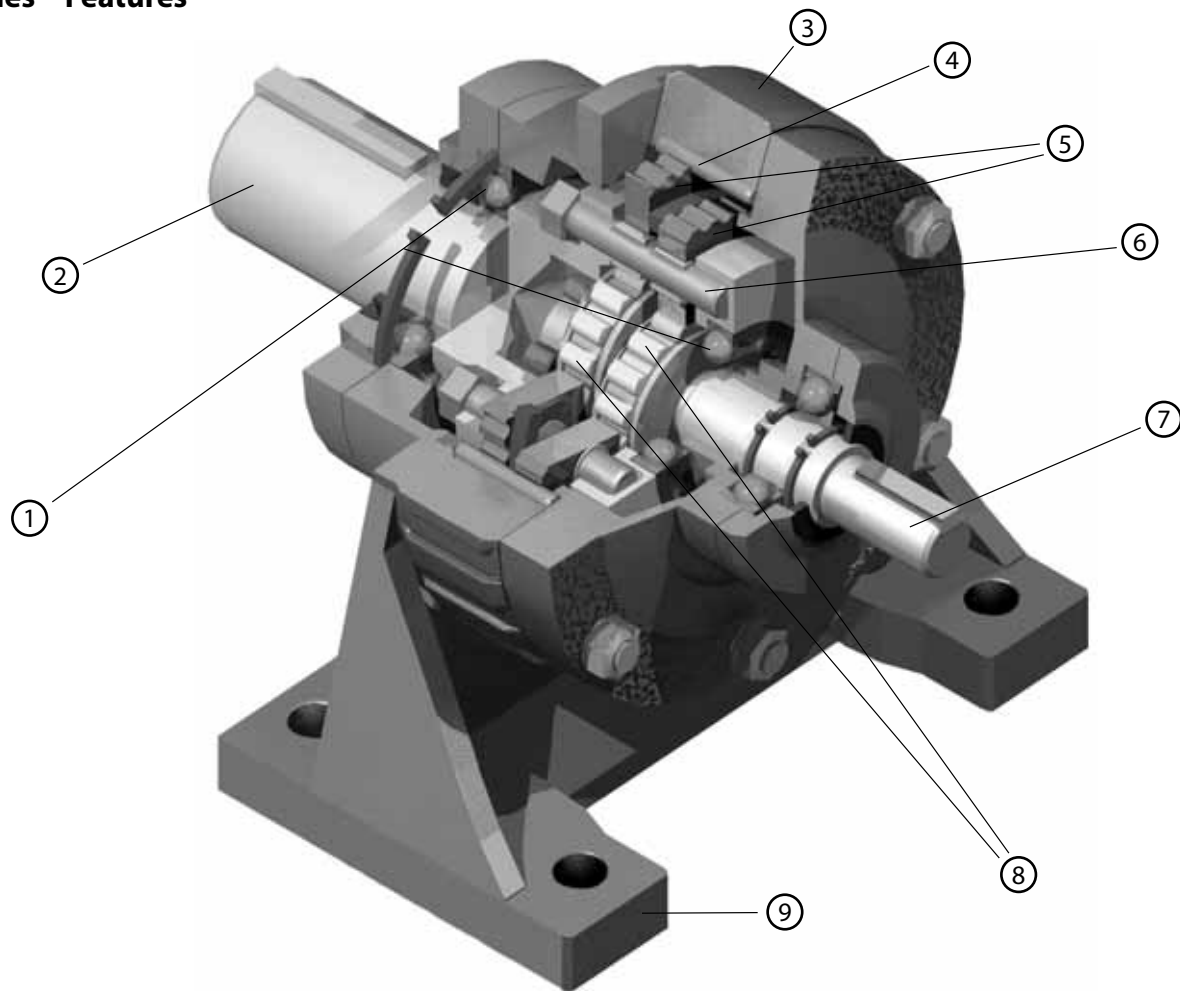
Straddle Mount Output Shaft Bearings sizes D, E, F)

- Supports output shaft and drive pins to provide exceptional overhung and thrust load capability, without the need for special bearings or housings

Multiple Mounting Options: Foot, Flange, Ring

- Versatility to fit anywhere on your machine
- Ring style allows output bearing to extend well within the machine for greatest overhung load rating

ER-Series – Features



- ① Output shaft bearings
- ② Output shaft
- ③ Internal pin housing
- ④ Internal pin
- ⑤ Wheels
- ⑥ Carrier pins
- ⑦ Input shaft
- ⑧ Eccentric roller bearings
- ⑨ Mounting housing

Locations and Contact Information

Americas



NIDEC-SHIMPO AMERICA CORPORATION

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Itasca, IL 60143 USA

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Engineering & Product
Support

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Fax: (630) 924-7382

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Asia-Pacific



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Seoul, Korea

NIDEC-SHIMPO (TAIWAN) CORPORATION

Taichung City, China

NIDEC-SHIMPO (HONG KONG) COMPANY, LTD.

Hong Kong, China

NIDEC-SHIMPO (SINGAPORE) CORPORATION

Singapore

NIDEC-SHIMPO INDIA SALES AND TRADING

Bangalore, India

Many other satellite sales office locations throughout Asia-Pacific. Please contact NIDEC-SHIMPO for more information.

*SHIMPO's North American headquarters
is located in suburban Chicago*



www.shimpodrives.com

A *Nidec* Group Company

SHIMPO — All for dreams

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