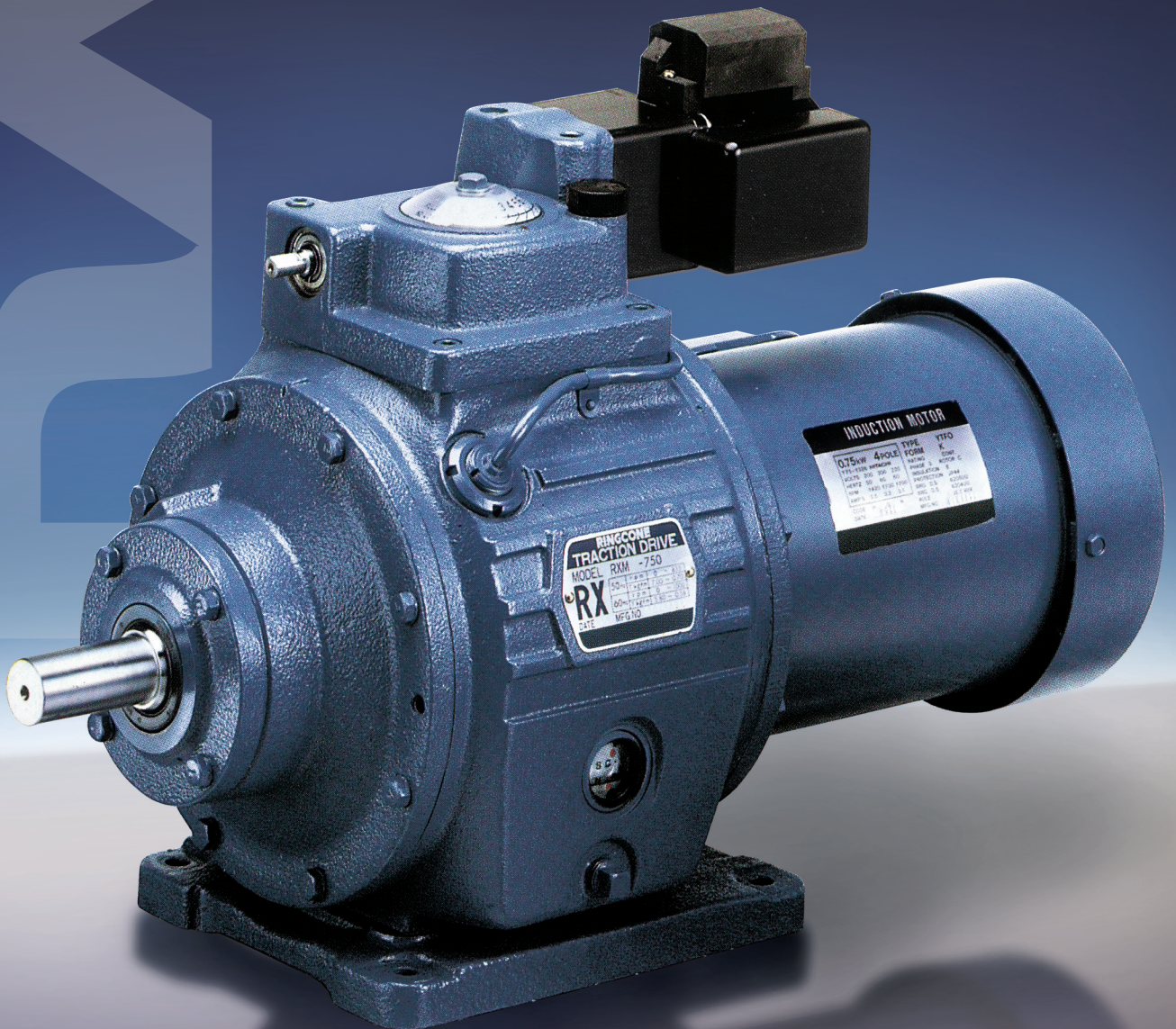


SHIMPO RXC

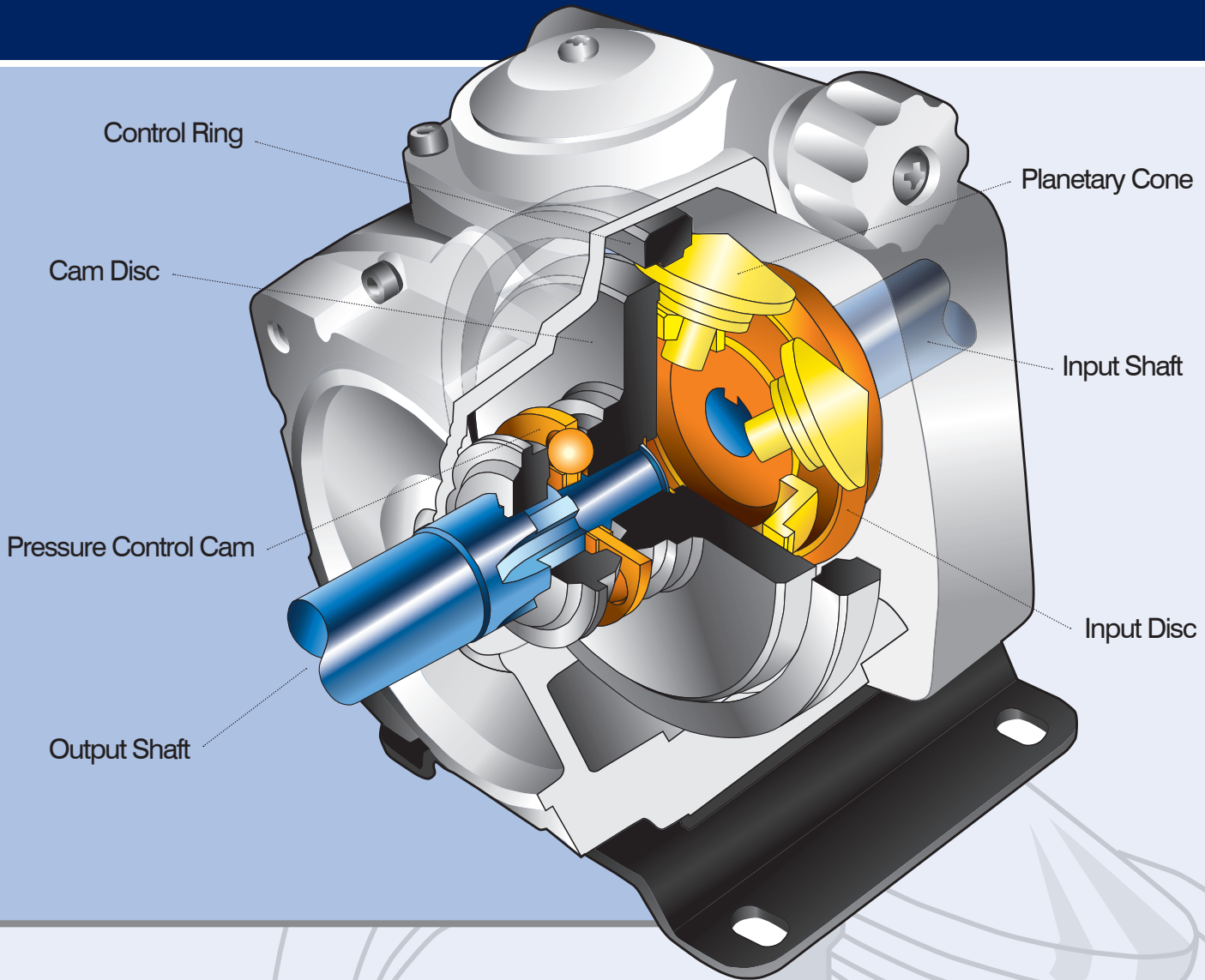
traction drives

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



When an ordinary drive falls short...

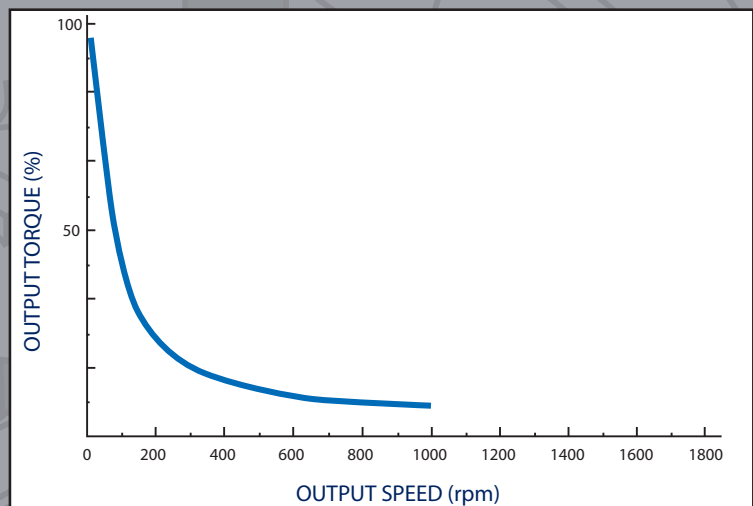
Ring Cone Adjustable Speed Traction Drives



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 to the right, 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.

Typical Torque Curve



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Features & Benefits

Design Features

Operational Benefits

Infinite Speed Range	<ul style="list-style-type: none"> • Easily accelerates high speed loads • Smoothly starts delicate equipment • Provides high starting torque without shock
Oil-Filled Mechanical Design	<ul style="list-style-type: none"> • Rugged, reliable operation • Case seals out the environment • Inherently explosion proof with appropriate motor
Low Speed Torque – up to 285%	<ul style="list-style-type: none"> • Ideal for mixers, extruders or other machines with excessive low speed torque requirements • Easily starts screw conveyors, positive displacement pumps, or any heavy load
NEMA C-face In and Out Available	<ul style="list-style-type: none"> • Simplify mounting of unit, attachment of motor • Mix and match to nearly any motor type
Electronic Speed Control Available	<ul style="list-style-type: none"> • Provides speed regulation better than 1% • Allows easy integration into a complete control system • Easy switchover to manual control when necessary • Low-power control generates no electrical noise

Operating Information

Planetary speed reducers are popular due to the way they transmit a great deal of power through a relatively small package. The central “sun gear” is surrounded by a number of “planet gears” which engage both the sun gear and outer ring gear. Due to the large number of gear teeth always in contact, a great deal of torque is transmitted.

A ring cone traction drive is very similar. The sun gear is replaced by an Input Disc, the planet gears by Cones, and the ring gear by a Control Ring. There are no gear teeth. Torque is transmitted through contact with the rolling edges of the cones.

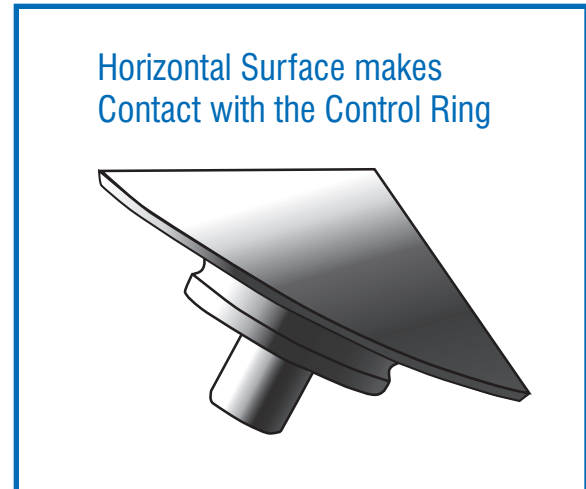
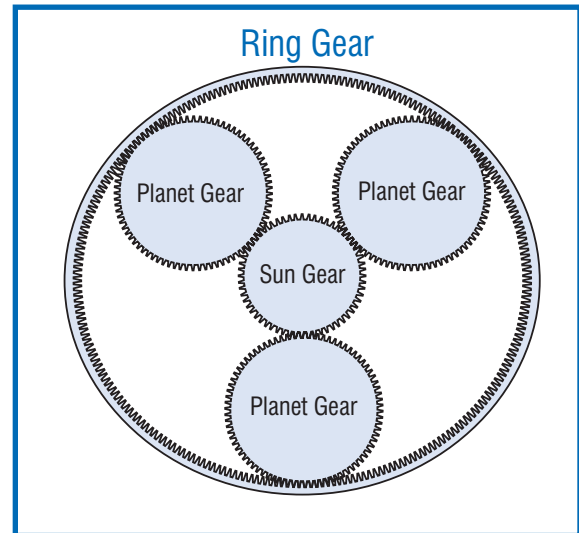
If this were the complete system, and the Cone retainer were tied to the output shaft, it would operate as a simple speed reducer. In fact, Shimpo does manufacture such speed reducers, for applications which cannot tolerate the speed ripple that results from engaging and disengaging gear teeth. No gears, no ripple.

However, the Ring Cone variable speed system separates the cones from the output shaft, and adds another contact element, the Cam Disc, to allow output speed changes.

As shown in the diagram above, the cones are somewhat “umbrella shaped,” with a stem area. When placed in a retainer, the cones are held at such an angle that a portion of the cone surface is horizontal. This horizontal surface makes contact with the Control Ring.

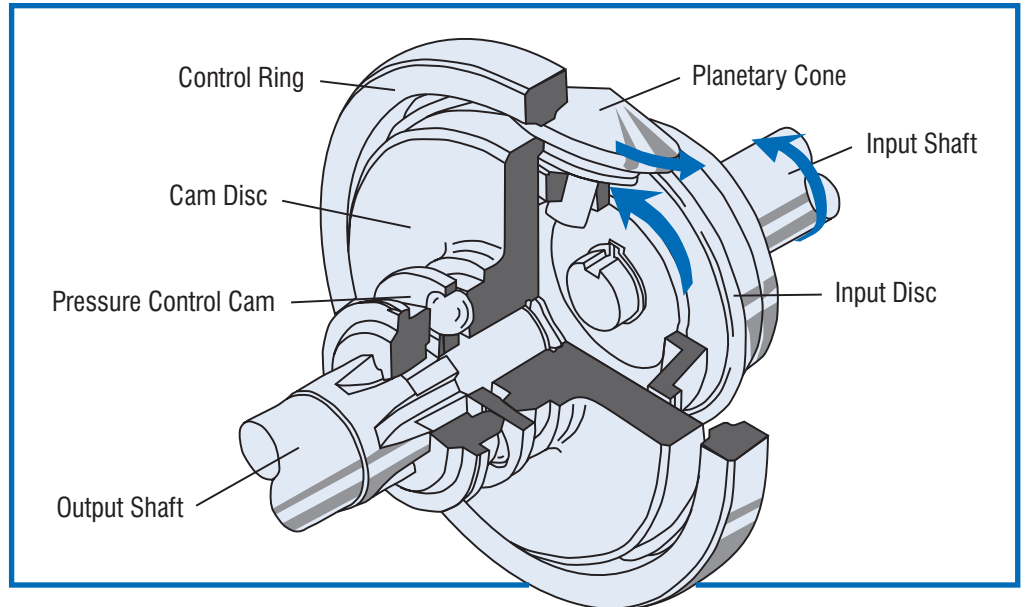
The Input Disk is tied to the input shaft, usually rotating at motor speed, and contacts the Cones under the “umbrella,” on a machined shoulder. The Cam Disc is tied to the output shaft, and contacts the Cones on the underside of their outer edge. The Control Ring is tied to the body of the drive, so it does not rotate. It makes contact with the Cones along the horizontal surface, and can slide from near the outer edge to near the center of the Cones.

The Control Ring is the variable speed element in the Ring Cone system. When moved toward the center of the Cones, it causes them to rotate faster, as they orbit the Input Disc. Moved toward the outer edge, the Control Ring causes the Cones to rotate more slowly. As the outer edges of the Cones change speed, the Cam Disc (and therefore output shaft) also changes speed.



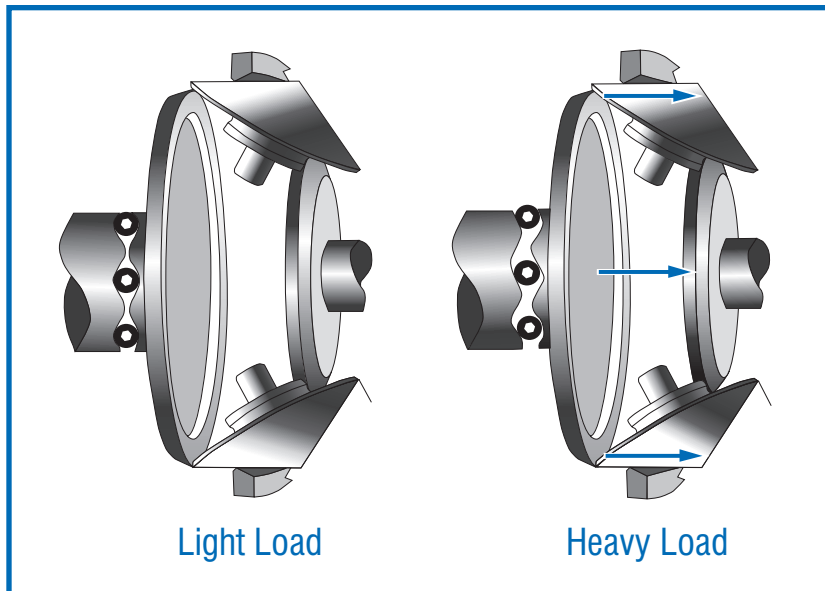
Operating Information

As the Cones spin, they are also orbiting the Input Disk, as with a typical planetary gear system. If the Control Ring is adjusted such that the orbit speed and Cone edge speed cancel each other, the output shaft will remain stationary under power. This is a unique feature of the Ring Cone system.



The Ring Cone system is essentially a variable speed reducer. It's output speed is the result of a changing reduction ratio, which means torque increases as the output speed decreases. This is what makes the Ring Cone system superior to the common AC variable frequency drive, a constant torque system.

To further take advantage of the low speed / high torque relationship, the Ring Cone design adds a spring-loaded cam system which forces the friction components more tightly together as the load increases. This action also causes the Cones to move relative to the Control Ring, slowing the output speed momentarily. The combination both prohibits slip between components, and automatically increases the output torque, two actions which may resolve the increased load.



The result is a system that will stall the properly sized input motor before it will slip. When the load decreases, the spring pressure on the components relaxes, reducing system stress and allowing the output speed to return to normal. Again, a unique feature which makes the Ring Cone system ideal for the toughest applications, especially those subject to wild fluctuations in load.

Selection Procedure

The standard selection procedure for RXC drives is fairly simple. It assumes that the required output torque and speed range have already been determined. If the torque figure does not already include a Service Factor for difficult applications or long hours of use, start at item 1. Otherwise, skip to item 4.

1. Find the application in the Load Classification Table located on page 7. Determine whether the application is a Uniform load, Moderate load, or Heavy shock load.
2. In the table below, find the correct column for the Load Classification, and the correct line for the Duration of Service. The intersection of these parameters contains the Service Factor.
3. Multiply the initial required torque by the Service Factor, to determine the necessary rating torque.
4. In the tables on pages 8 through 21, find the page that includes the speed range required for this application.
5. On that page, locate a torque rating that fits the rating torque as determined above.
6. From the Model Number column of that page, copy the partial model number displayed for that unit.
7. Use the model number chart on page 37 to complete the Model Number (replace the dashes in the partial Model Number), considering any options required for this application.

Duration of Service	Load Classification					
	Uniform (U)		Moderate Shock (M)		Heavy Shock (H)	
	AGMA	Circulate	AGMA	Circulate	AGM	Circulate
Occasional: 1/2 hour per day	0.50	0.50	0.80	0.80	1.25	1.20
Intermittent: 3 hours per day	0.80	0.80	1.00	1.00	1.50	1.35
Up to 10 hours per day	1.00	1.00	1.25	1.20	1.75	1.50
24 hours per day	1.25	1.20	1.50	1.35	2.00	1.60

Note: AGMA service factors shown are the American Gear Manufacturers' recommendations for conventional gear reducers.

Load Classification Table

U - Uniform Load M - Moderate Load H - Heavy Shock Load

AGITATORS		ELEVATORS		MACHINE TOOLS		PULLERS	
Pure Liquids.....	U	Bucket - Uniform load.....	U	Bending Roll.....	M	Barge Haul.....	M
Liquids and Solids.....	M	Bucket - Heavy load.....	M	Notching Press - Belt Driven.....	*	PUMPS	
Liquids - Variable Density.....	M	Bucket - Continuous.....	U	Plate Planer.....	H	Centrifugal.....	H
Semi-liquids Variable Density.....	M*	Centrifugal Discharge.....	U	Punch Press - Gear Driven.....	H	Proportioning.....	M*
BLOWER		Escalators.....	U	Tapping Machines.....	H	Reciprocating	
Centrifugal.....	U	Freight.....	M	Other Machine Tools		Single Acting	
Lobe.....	M	Gravity Discharge.....	U	Main Drives.....	M	3 or more Cylinders.....	M
Vane.....	U	Man Lifts.....	**	Auxiliary Drives.....	U	Double Acting	
BREWING and DISTILLING		Passenger.....	**	METAL MILLS		2 or more Cylinders.....	*
Bottling Machinery.....	U	Service - Hand Lift.....	H	Draw Bench - Carriage.....	H	Single Acting 1 or 2 Cylinders.....	*
Brew Kettles - Continuous Duty.....	U	FANS		Draw Bench - Main Drive.....	M	Double Acting.....	*
Cookers - Continuous Duty.....	U	Centrifugal.....	M	Forming Machines.....	H	Single Cylinder.....	*
Mash Tubs - Continuous Duty.....	U	Cooling Towers.....	**	Pinch Dryer & Scrubber Rolls,		Rotary - Gear Type.....	H
Scale Hopper Frequent Starts.....	M	Induced Draft.....	M	Reversing.....	*	Rotary - Lobe, Vane.....	H
CAN FILLING MACHINES	U	Forced Draft.....	**	Slitters.....	M*	RUBBER INDUSTRY	
CANE KNIVES	M	Induced Draft.....	M	Table Conveyors		Mixer.....	H
CAR DUMPERS	H	Large (Mine, etc.).....	M*	Non-reversing.....	M	Rubber Calendar.....	M
CAR PULLERS - Intermittent Duty	U	Large Industrial.....	M*	Reversing.....	H	Rubber Mill (2 or more).....	M*
CLARIFIERS.....	U	Light (Small Diameter).....	U	Wire Drawing & Flattening		Sheeter.....	M*
CLASSIFIERS.....	M	FEEDERS		Machine.....	M	Tire Building Machines.....	**
CLAY WORKING MACHINERY		Apron.....	M	Wire Winding Machine.....	M	Tire & Tube Press Openers.....	**
Brick Press.....	H	Belt.....	M	MILLS, ROTARY TYPE		Tubers & Strainers.....	M
Briquette Machine.....	H	Disc.....	U	Ball.....	H	SEWAGE DISPOSAL EQUIPMENT	
Clay Working Machinery.....	M	Reciprocating.....	H	Cement Kilns.....	**	Bar Screens.....	H
Pug Mill.....	M	Screw.....	M	Dryers & Coolers.....	M	Chemical Feeders.....	H
COMPRESSORS		FOOD INDUSTRY		Kilns.....	M	Collectors, Circuline or	
Centrifugal.....		Beet Slicer.....	M	Pebble.....	H	Straight Line.....	H
Lobe.....		Cereal Cooker.....	U	Rod.....	H	Dewatering Screens.....	M
Reciprocating		Dough Mixer.....	M	Tumbling Barrels.....	H	Grit Collectors.....	H
Multi-Cylinder.....	M*	Meat Grinders.....	M	MIXERS		Scum Breakers.....	M
Single Cylinder.....	H*	GENERATORS - (Not Welding)	U	Concrete Mixers, Continuous.....	M	Slow or Rapid Mixers.....	M
CONVEYORS - UNIFORMLY		HAMMER MILLS	H	Concrete Mixers, Intermittent.....	U	Sludge Collectors.....	U
LOADED OR FED		LAUNDRY WASHERS		Constant Density.....	U	Thickeners.....	M
Apron.....	M	Reversing.....	M	Variable Density.....	M	Vacuum Filters.....	M
Assembly.....	M	LAUNDRY TUMBLERS	M	OIL INDUSTRY		SCREENS	
Belt.....	M	LINE SHAFTS		Chillers.....	M	Air Washing.....	U
Bucket.....	M	Heavy Shock Load.....	H	Oil Well Pumping.....	**	Rotary - Stone or Gravel.....	M
Chain.....	U	Moderate Shock Load.....	M	Paraffin Filter Press.....	M	Traveling Water Intake.....	U
Flight.....	U	Uniform Load.....	U	Rotary Kilns.....	M	SLABPUSHERS	M
Oven.....	U	LUMBER INDUSTRY		PAPER MILLS		STEERING GEAR	M
CONVEYORS - HEAVY DUTY NOT		Barker - Hydraulic - Mechanical.....	M	Agitators (Mixers).....	M	STOKERS	U
UNIFORMLY FED		Burner Conveyor.....	M	Barker Auxiliaries, Hydraulic.....	M	TEXTILE INDUSTRY	
Apron.....	M	Chain Saw and Drag Saw.....	H	Barker, Mechanical.....	M	Batchers.....	M
Assembly.....	M	Chain Transfer.....	H	Barking Drum.....	H	Calendars.....	M
Belt.....	M	Craneway Transfer.....	H	Beater & Pulper.....	M	Card Machines.....	M*
Bucket.....	M	De-Barking Drum.....	H	Bleacher U.....	U	Cloth Finishing Machines,	
Chain.....	M	Edger Feed.....	M	Calendars.....	M	(washers, pads, tenters, dryers,	
Flight.....	M	Gang Feed.....	M	Calendars - Super.....	H	calendars, etc.).....	M
Live Roll (Package).....	M	Green Chain.....	M	Converting Machines,		Dry Cans.....	M
Oven.....	M	Live Rolls.....	H	except Cutters, Platers.....	M	Dryers.....	M
Reciprocating.....	H	Log Deck.....	H	Conveyors.....	U	Dyeing Machinery.....	M
Screw.....	M	Log Haul - Incline.....	H	Couch.....	M	Knitting Machines (looms, etc.).....	*
Shaker.....	H	Log Haul - Well Type.....	H	Cutters, Platers.....	H	Looms.....	M
CRANES and HOISTS		Log Turning Device.....	H	Cylinders.....	M	Mangles.....	M
Main Hoists		Main Log Conveyor.....	H	Dryers.....	M	Nappers.....	M
Heavy Duty.....	H	Off Bearing Rolls.....	M	Felt Stretcher.....	M	Pads.....	M
Medium Duty.....	M	Planer Feed Chains.....	M	Felt Whipper.....	H	Range Drives.....	*
Reversing.....	M	Planer Floor Chains.....	M	Jordans.....	H	Slashers.....	M
Skip Hoists.....	M	Planer Tilting Hoist.....	M	Log Haul.....	H	Soapers.....	M
Trolley Drive.....	M*	Re-saw Merry-Go-Round		Presses.....	U	Spinners.....	M
Bridge Drive.....	M*	Conveyor.....	M	Pulp Machines.....	M	Tenter Frames.....	M
CRUSHERS		Roll Cases.....	H	Reel.....	M	Washers.....	M
Ore.....	H	Slab Conveyor.....	H	Stock Chests.....	M	Winders (Other than Batchers).....	M
Stone.....	H	Small Waste Conveyor - Belt.....	U	Suction Roll.....	U	Yarn Preparatory Machines (Cards,	
DREDGES		Small Waste Conveyor - Chain.....	M	Washers & Thickeners.....	M	Spinners, Slashers, etc.).....	M
Cable Reels.....	M	Log Turning Device.....	H	Winders.....	U	WINDLASS	M*
Conveyors.....	M	Sorting Table.....	M	PRINTING PRESSES U			
Cutter Head Drives.....	H	Tipple Hoist Conveyor.....	M				
Jig Drives.....	H	Tipple Hoist Drive.....	M				
Maneuvering Winches.....	M	Transfer Conveyor.....	H				
Pumps.....	M	Transfer Rolls.....	H				
Screen Drive.....	H	Tray Drive.....	M				
Stackers.....	M	Trimmer Feed.....	M				
Utility Winches.....	M	Waste Conveyor.....	M				

* In view of varying load conditions, it is suggested that these applications be carefully reviewed before a final selection is made.

**Check safety codes and refer to SHIMPO Drives Customer Service.

Rating Table

Speed Range: 0 - 800 rpm, Motor Speed: 1750 rpm, Reducer: None

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		800	640	480	320	160	0					
2X	Torque HP	15	19	22	26	32	44	N-C0200-----00-	0.25	130	2.8	66
		0.19	0.19	0.17	0.13	0.08	---					
2X	Torque HP	30	36	43	51	65	87	N-C0400-----00-	0.5	130	2.8	66
		0.38	0.037	0.33	0.26	0.17	---					
3X	Torque HP	45	55	65	77	97	130	N-A0500-----00-	0.75	180	3.1	88
		0.57	0.56	0.50	0.39	0.25	---					
3X	Torque HP	60	73	87	102	130	174	N-A0700-----00-	1	180	3.1	88
		0.76	0.74	0.66	0.52	0.33	---					
4X	Torque HP	90	109	130	154	195	260	N-A1000-----00-	1.5	260	4.3	130
		1.14	1.11	0.99	0.78	0.50	---					
4X	Torque HP	120	146	173	205	260	347	N-A1500-----00-	2	260	4.3	130
		1.52	1.48	1.32	1.04	0.66	---					
5X	Torque HP	180	219	260	307	390	521	N-A2200-----00-	3	400	4.3	200
		2.28	2.22	1.98	1.56	0.99	---					
6X	Torque HP	299	364	433	512	650	868	N-A3700-----00-	5	420	4.9	210
		3.80	3.70	3.30	2.60	1.65	---					
7X	Torque HP	449	547	650	768	975	1,300	N-A5500-----00-	7.5	440	5.3	220
		5.70	5.55	4.95	3.90	2.48	---					
7.5X	Torque HP	599	729	867	1,020	1,300	1,740	N-A7500-----00-	10	440	5.3	220
		7.60	7.40	6.60	5.18	3.30	---					
8X	Torque HP	898	1,090	1,300	1,540	1,950	2,600	N-A9100-----00-	15	880	7.7	440
		11.4	11.1	9.90	7.82	4.95	---					
8X	Torque HP	1,200	1,460	1,730	2,050	2,600	3,470	N-A9500-----00-	20	880	7.7	440
		15.2	14.8	13.2	10.4	6.60	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

Speed Range: 0 - 600 rpm, Motor Speed: 1750 rpm, Reducer: None

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		600	480	360	240	120	0					
2X	Torque	19	22	25	28	34	44	N-C0200-----03-	0.25	130	2.8	66
	HP	0.18	0.17	0.14	0.11	0.06	---					
2X	Torque	38	43	49	56	68	87	N-C0400-----03-	0.5	130	2.8	66
	HP	0.36	0.33	0.28	0.21	0.13	---					
3X	Torque	58	65	74	85	102	130	N-A0500-----03-	0.75	180	3.1	88
	HP	0.55	0.50	0.42	0.32	0.19	---					
3X	Torque	77	87	98	113	137	174	N-A0700-----03-	1	180	3.1	88
	HP	0.73	0.66	0.56	0.43	0.26	---					
4X	Torque	115	130	147	169	205	260	N-A1000-----03-	1.5	260	4.3	130
	HP	1.09	0.99	0.84	0.64	0.39	---					
4X	Torque	153	173	196	226	273	347	N-A1500-----03-	2	260	4.3	130
	HP	1.46	1.32	1.12	0.86	0.52	---					
5X	Torque	230	260	294	339	410	521	N-A2200-----03-	3	400	4.3	200
	HP	2.19	1.98	1.68	1.29	0.78	---					
6X	Torque	383	433	490	565	685	868	N-A3700-----03-	5	420	4.9	210
	HP	3.65	3.30	2.80	2.15	1.30	---					
7X	Torque	575	650	735	847	1,020	1,300	N-A5500-----03-	7.5	440	5.3	220
	HP	5.47	4.95	4.20	3.23	1.94	---					
7.5X	Torque	767	867	980	1,130	1,370	1,740	N-A7500-----03-	10	440	5.3	220
	HP	7.30	6.60	5.60	4.30	2.61	---					
8X	Torque	1,150	1,300	1,470	1,690	2,050	2,600	N-A9100-----03-	15	880	7.7	440
	HP	10.9	9.90	8.40	6.44	3.90	---					
8X	Torque	1,530	1,730	1,960	2,260	2,730	3,470	N-A9500-----03-	20	880	7.7	440
	HP	14.6	13.2	11.2	8.61	5.20	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

Speed Range: 0 - 400 rpm, Motor Speed: 1150 rpm, Reducer: None

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		400	320	240	160	80	0					
2X	Torque HP	30	33	37	44	53	66	N-B0400-----03-	0.25	130	2.8	66
		0.19	0.17	0.14	0.11	0.07	---					
2X	Torque HP	59	65	73	87	104	131	N-A0500-----03-	0.5	130	2.8	66
		0.37	0.33	0.28	0.22	0.13	---					
3X	Torque HP	89	98	110	131	157	195	N-A1000-----03-	0.75	180	3.1	88
		0.56	0.50	0.42	0.33	0.20	---					
3X	Torque HP	118	131	147	175	210	261	N-A1000-----03-	1	180	3.1	88
		0.75	0.67	0.56	0.44	0.27	---					
4X	Torque HP	175	195	221	260	312	390	N-A2200-----03-	1.5	260	4.3	130
		1.11	0.99	0.84	0.66	0.40	---					
4X	Torque HP	234	260	291	346	416	521	N-A2200-----03-	2	260	4.3	130
		1.49	1.32	1.11	0.88	0.53	---					
5X	Torque HP	351	390	437	520	624	782	N-A3700-----03-	3	400	4.3	200
		2.23	1.98	1.66	1.32	0.79	---					
6X	Torque HP	585	650	728	866	1,040	1,300	N-A5500-----03-	5	420	4.9	210
		3.71	3.30	2.77	2.20	1.32	---					
7X	Torque HP	877	975	1,092	1,300	1,560	1,950	N-A7500-----03-	7.5	440	5.3	220
		5.57	4.95	4.16	3.30	1.98	---					
7.5X	Torque HP	1,170	1,300	1,456	1,730	2,080	2,610	N-A9100-----03-	10	440	5.3	220
		7.43	6.60	5.54	4.39	2.64	---					
8X	Torque HP	1,760	1,950	2,210	2,540	3,120	3,920	N-A9100-----03-	15	880	7.7	440
		13.4	9.90	8.42	6.45	3.96	---					
8X	Torque HP	2,340	2,600	2,920	3,460	4,160	5,220	N-A9500-----03-	20	880	7.7	440
		14.9	13.2	11.1	8.78	5.28	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 267 rpm, Motor Speed: 1750 rpm, Built-in Planetary
Speed Reducer Ratio: 3:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		267	213	160	107	53	0					
2X	Torque	43	54	63	74	91	125	N-C0283-----00-	0.25	260	2.9	110
	HP	0.18	0.18	0.16	0.13	0.08	---					
2X	Torque	86	103	123	145	185	248	N-C0483-----00-	0.5	260	2.9	110
	HP	0.36	0.35	0.31	0.25	0.16	---					
3X	Torque	128	157	185	219	276	371	N-A0503-----00-	0.75	370	3.5	110
	HP	0.54	0.53	0.47	0.37	0.23	---					
3X	Torque	171	208	248	291	371	496	N-A0703-----00-	1	370	3.5	110
	HP	0.72	0.70	0.63	0.49	0.31	---					
4X	Torque	257	311	371	439	556	741	N-A1003-----00-	1.5	490	4.7	200
	HP	1.09	1.05	0.94	0.74	0.47	---					
4X	Torque	342	416	493	584	741	989	N-A1503-----00-	2	490	4.7	200
	HP	1.45	1.41	1.25	0.99	0.63	---					
5X	Torque	513	624	741	875	1,110	1,480	N-A2203-----00-	3	570	6.1	290
	HP	2.17	2.11	1.88	1.48	0.94	---					
6X	Torque	852	1,040	1,230	1,460	1,850	2,470	N-A3703-----00-	5	840	6.7	420
	HP	3.61	3.52	3.12	2.47	1.57	---					
7X	Torque	1,280	1,560	1,850	2,190	2,780	3,710	N-A5503-----00-	7.5	1,100	7.3	540
	HP	5.42	5.28	4.70	3.71	2.35	---					
7.5X	Torque	1,710	2,080	2,470	2,910	3,710	4,960	N-A7503-----00-	10	1,100	7.3	540
	HP	7.24	7.04	6.27	4.93	3.14	---					
8X	Torque	2,560	3,110	3,710	4,390	5,560	7,410	N-A9103-----00-	15	2,000	3.9	1,100
	HP	10.8	10.5	9.42	7.43	4.71	---					
8X	Torque	3,420	4,160	4,930	5,840	7,410	9,890	N-A9503-----00-	20	2,000	3.9	1,100
	HP	14.5	14.1	12.5	9.88	6.27	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 200 rpm, Motor Speed: 1750 rpm, Built-in Planetary
Speed Reducer Ratio: 3:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		200	160	120	80	40	0					
2X	Torque HP	54	63	71	80	97	125	N-C0283-----03-	0.25	260	2.9	110
		0.17	0.16	0.14	0.10	0.06	---					
2X	Torque HP	108	123	140	160	194	248	N-C0483-----03-	0.5	260	2.9	110
		0.34	0.31	0.27	0.20	0.12	---					
3X	Torque HP	165	185	211	242	291	371	N-A0503-----03-	0.75	370	3.5	110
		0.52	0.47	0.40	0.31	0.18	---					
3X	Torque HP	219	248	279	322	390	496	N-A0703-----03-	1	370	3.5	110
		0.70	0.63	0.53	0.41	0.25	---					
4X	Torque HP	328	371	419	482	584	741	N-A1003-----03-	1.5	490	4.7	200
		1.04	0.94	0.80	0.61	0.37	---					
4X	Torque HP	436	493	559	644	778	989	N-A1503-----03-	2	490	4.7	200
		1.38	1.25	1.06	0.82	0.49	---					
5X	Torque HP	656	741	838	966	1,170	1,480	N-A2203-----03-	3	570	6.1	290
		2.08	1.88	1.60	1.23	0.74	---					
6X	Torque HP	1,090	1,230	1,400	1,610	1,950	2,470	N-A3703-----03-	5	840	6.7	420
		3.46	3.12	2.67	2.04	1.24	---					
7X	Torque HP	1,640	1,850	2,090	2,410	2,910	3,710	N-A5503-----03-	7.5	1,100	7.3	540
		5.20	4.70	3.98	3.06	1.85	---					
7.5X	Torque HP	2,190	2,470	2,790	3,220	3,900	4,960	N-A7503-----03-	10	1,100	7.3	540
		6.95	6.27	5.31	4.09	2.48	---					
8X	Torque HP	3,280	3,710	4,190	4,820	5,840	7,410	N-A9103-----03-	15	2,000	3.9	1,100
		10.41	9.42	7.98	6.12	3.71	---					
8X	Torque HP	4,360	4,930	5,590	6,440	7,780	9,890	N-A9503-----03-	20	2,000	3.9	1,100
		13.8	12.5	10.6	8.17	4.94	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

**Speed Range: 0 - 160 rpm, Motor Speed: 1750 rpm, Built-in Planetary
Speed Reducer Ratio: 5:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		160	128	96	64	32	0					
2X	Torque HP	71	90	105	124	152	209	N-C0285-----00-	0.25	330	2.9	110
		0.18	0.18	0.16	0.13	0.08	---					
2X	Torque HP	143	171	204	242	309	413	N-C0485-----00-	0.5	330	2.9	110
		0.36	0.35	0.31	0.25	0.16	---					
8X	Torque HP	4,270	5,180	6,180	7,320	9,260	12,400	N-A9105-----00-	15	3,300	3.9	1,700
		10.8	10.5	9.41	7.43	4.70	---					
8X	Torque HP	5,700	6,940	8,220	9,740	12,400	16,500	N-A9505-----00-	20	3,300	3.9	1,700
		14.5	14.1	12.5	9.89	6.30	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 133 rpm, Motor Speed: 1750 rpm, Built-in Planetary
Speed Reducer Ratio: 6:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		133	107	80	53	27	0					
3X	Torque	257	314	371	439	553	741	N-A0506-----00-	0.75	490	3.5	110
	HP	0.54	0.53	0.47	0.37	0.23	---					
3X	Torque	342	416	496	581	741	992	N-A0706-----00-	1	490	3.5	110
	HP	0.72	0.70	0.63	0.49	0.31	---					
4X	Torque	513	621	741	878	1,110	1,480	N-A1006-----00-	1.5	620	4.7	200
	HP	1.09	1.05	0.94	0.74	0.47	---					
4X	Torque	648	832	986	1,170	1,480	1,980	N-A1506-----00-	2	620	4.7	200
	HP	1.45	1.41	1.25	0.99	0.63	---					
5X	Torque	1,030	1,250	1,480	1,750	2,220	2,970	N-A2206-----00-	3	730	6.1	330
	HP	2.18	2.12	1.88	1.48	0.94	---					
6X	Torque	1,700	2,070	2,470	2,920	3,710	4,950	N-A3706-----00-	5	1,100	6.7	440
	HP	3.60	3.50	3.14	2.47	1.57	---					
7X	Torque	2,560	3,120	3,710	4,380	5,560	7,410	N-A5506-----00-	7.5	1,400	7.3	690
	HP	5.42	5.28	4.71	3.71	2.35	---					
7.5X	Torque	3,410	4,160	4,940	5,810	7,410	9,920	N-A7506-----00-	10	1,400	7.3	690
	HP	7.21	7.04	6.27	4.92	3.14	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.
Overhung load ratings are based on the load being applied at the center of the output shaft extension.

**Speed Range: 0 - 120 rpm, Motor Speed: 1750 rpm, Built-in Planetary
Speed Reducer Ratio: 5:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		120	96	72	48	24	0					
2X	Torque	90	105	119	133	162	209	N-B0285-----03-	0.25	330	2.9	110
	HP	0.17	0.16	0.14	0.10	0.06	---					
2X	Torque	181	204	233	266	323	413	N-B0485-----03-	0.5	330	2.9	110
	HP	0.34	0.31	0.27	0.20	0.12	---					
8X	Torque	5,460	6,180	6,980	8,030	9,740	12,400	N-A9105-----03-	15	3,300	3.9	1,700
	HP	10.4	9.40	8.00	6.10	3.71	---					
8X	Torque	7,270	8,220	9,310	10,700	13,000	16,500	N-A9505-----03-	20	3,300	3.9	1,700
	HP	13.8	12.5	10.6	8.10	4.95	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.
Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 100 rpm, Motor Speed: 1750 rpm, Built-in Planetary
Speed Reducer Ratio: 6:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		100	80	60	40	20	0					
3X	Torque HP	331	371	422	485	581	741	N-A0506-----03-	0.75	490	3.5	110
		0.52	0.47	0.40	0.31	0.18	---					
3X	Torque HP	439	496	559	644	781	992	N-A0706-----03-	1	490	3.5	110
		0.70	0.63	0.53	0.41	0.25	---					
4X	Torque HP	656	741	838	963	1,170	1,480	N-A1006-----03-	1.5	620	4.7	200
		1.04	0.94	0.80	0.61	0.37	---					
4X	Torque HP	872	986	1,120	1,290	1,560	1,980	N-A1506-----03-	2	620	4.7	200
		1.38	1.25	1.07	0.82	0.50	---					
5X	Torque HP	1,310	1,480	1,680	1,930	2,340	2,970	N-A2206-----03-	3	730	6.1	330
		2.08	1.88	1.60	1.22	0.74	---					
6X	Torque HP	2,180	2,470	2,790	3,220	3,900	4,950	N-A3706-----03-	5	1,100	6.7	440
		3.46	3.14	2.66	2.04	0.74	---					
7X	Torque HP	3,280	3,710	4,190	4,830	5,810	7,410	N-A5506-----03-	7.5	1,400	7.3	690
		5.20	4.71	3.99	3.07	1.84	---					
7.5X	Torque HP	4,370	4,940	5,590	6,440	7,810	9,220	N-A7506-----03-	10	1,400	7.3	690
		6.93	6.27	5.32	4.09	2.84	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 73 rpm, Motor Speed: 1750 rpm, Built-in Circulute
Speed Reducer Ratio: 11:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		72.3	58.2	43.6	29.1	14.6	0					
2X	Torque	153	193	224	265	326	448	N-C02A1-----00-	0.25	480	2.5	240
	HP	0.18	0.18	0.15	0.12	0.08	---					
2X	Torque	305	366	438	519	521	521	N-C04A1-----00-	0.5	480	2.5	240
	HP	0.35	0.34	0.30	0.24	0.12	---					
2X	Torque	305	366	438	519	521	521	N-C04B1-----00-	0.5	790	2.9	400
	HP	0.35	0.34	0.30	0.24	0.15	---					
3X	Torque	458	560	661	783	987	1,323	N-A05B1-----00-	0.75	790	2.9	400
	HP	0.53	0.52	0.46	0.36	0.23	---					
3X	Torque	611	743	885	1,040	1,320	1,740	N-A07B1-----00-	1	790	2.9	400
	HP	0.70	0.69	0.61	0.48	0.30	---					
4X	Torque	916	1,110	1,320	1,570	1,980	2,650	N-A10C1-----00-	1.5	1,400	3.7	700
	HP	1.06	1.02	0.91	0.72	0.46	---					
4X	Torque	1,220	1,490	1,760	2,090	2,650	3,470	N-A15C1-----00-	2	1,400	3.7	700
	HP	1.41	1.38	1.22	0.96	0.61	---					
5X	Torque	1,830	2,230	2,650	3,120	3,970	5,300	N-A22D1-----00-	3	2,600	7.7	1,300
	HP	2.11	2.06	1.83	1.44	0.92	---					
6X	Torque	3,040	3,700	4,410	5,210	6,610	7,810	N-A37D1-----00-	5	2,600	7.7	1,300
	HP	3.51	3.42	3.05	2.40	1.53	---					
7X	Torque	4,570	5,570	6,610	7,810	9,920	13,200	N-A55E1-----00-	7.5	4,600	9.7	2,300
	HP	5.27	5.14	4.58	3.60	2.29	---					
7.5X	Torque	6,090	7,420	8,820	10,380	13,230	17,100	N-A75E1-----00-	10	4,600	9.7	2,300
	HP	7.03	6.85	6.11	4.79	3.05	---					
8X	Torque	9,140	11,100	13,200	15,700	19,800	26,500	N-A91F1-----00-	15	6,700	11.6	3,300
	HP	10.5	10.2	9.14	7.25	4.57	---					
8X	Torque	12,200	14,900	17,600	20,900	26,500	35,300	N-A95F1-----00-	20	6,700	11.6	3,300
	HP	14.1	13.8	12.2	9.65	6.12	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 47 rpm, Motor Speed: 1750 rpm, Built-in Circulate
Speed Reducer Ratio: 17:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		47.1	37.7	28.2	18.8	9.41	0					
2X	Torque HP	236 0.18	299 0.18	346 0.15	409 0.12	503 0.08	692 ---	N-C02A2-----00-	0.25	480	2.5	240
2X	Torque HP	472 0.35	566 0.34	676 0.30	730 0.22	730 0.11	730 ---	N-C04A2-----00-	0.5	480	2.5	240
2X	Torque HP	472 0.35	566 0.34	676 0.30	802 0.24	1,020 0.15	1,370 ---	N-C04B2-----00-	0.5	790	2.9	400
3X	Torque HP	708 0.53	865 0.52	1,020 0.46	1,210 0.36	1,530 0.23	2,040 ---	N-A05B2-----00-	0.75	790	2.9	400
3X	Torque HP	944 0.70	1,150 0.69	1,370 0.61	1,600 0.48	2,040 0.30	2,600 ---	N-A07B2-----00-	1	790	2.9	400
3X	Torque HP	944 0.70	1,150 0.69	1,370 0.61	1,600 0.48	2,040 0.30	2,740 ---	N-A07C2-----00-	1	1,600	3.7	820
4X	Torque HP	1,420 1.06	1,710 1.02	2,040 0.91	2,420 0.72	3,070 0.46	4,090 ---	N-A10C2-----00-	1.5	1,600	3.7	820
4X	Torque HP	1,890 1.41	2,300 1.37	2,720 1.22	3,220 0.96	4,090 0.61	5,460 ---	N-A15C2-----00-	2	1,600	3.7	820
5X	Torque HP	2,830 2.11	3,440 2.05	4,090 1.83	4,830 1.44	6,130 0.92	8,190 ---	N-A22D2-----00-	3	2,900	7.7	1,500
6X	Torque HP	4,700 3.51	5,720 3.42	6,810 3.05	8,050 2.40	10,200 1.52	12,600 ---	N-A37D2-----00-	5	2,900	7.7	1,500
6X	Torque HP	4,700 3.51	5,720 3.42	6,810 3.05	8,050 2.40	10,200 1.52	13,600 ---	N-A37E2-----00-	5	4,600	9.7	2,300
7X	Torque HP	7,060 5.27	8,600 5.14	10,200 4.57	12,100 3.61	15,300 2.28	20,400 ---	N-A55E2-----00-	7.5	4,600	9.7	2,300
7.5X	Torque HP	9,420 7.03	11,500 6.85	13,600 6.11	16,000 4.79	20,400 3.05	21,700 ---	N-A75E2-----00-	10	4,600	9.7	2,300
8X	Torque HP	14,100 10.5	17,100 10.2	20,400 9.14	24,200 7.23	30,700 4.58	40,900 ---	N-A91F2-----00-	15	7,500	11.6	3,700
8X	Torque HP	18,900 14.1	23,000 13.7	27,200 12.2	32,200 9.62	40,900 6.11	52,100 ---	N-A95F2-----00-	20	7,500	11.6	3,700

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

Speed Range: 0 - 28 rpm, Motor Speed: 1750 rpm, Built-in Circulute Speed Reducer Ratio: 29:1

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		27.6	22.1	16.6	11.0	5.52	0					
2X	Torque HP	402	510	590	697	730	730	N-C02A3-----00-	0.25	480	2.5	240
		0.18	0.18	0.15	0.12	0.06	---					
2X	Torque HP	402	510	590	697	858	1,180	N-C02B3-----00-	0.25	790	2.9	400
		0.18	0.18	0.15	0.12	0.08	---					
2X	Torque HP	805	966	1,150	1,370	1,740	2,330	N-C04B3-----00-	0.5	790	2.9	400
		0.35	0.34	0.30	0.24	0.15	---					
3X	Torque HP	1,210	1,480	1,740	2,070	2,600	2,600	N-A05B3-----00-	0.75	790	2.9	400
		0.53	0.52	0.46	0.36	0.23	---					
3X	Torque HP	1,610	1,960	2,330	2,600	2,600	2,600	N-A07B3-----00-	1	790	2.9	400
		0.70	0.69	0.61	0.46	0.23	---					
3X	Torque HP	1,610	1,960	2,330	2,740	3,490	4,670	N-A07C3-----00-	1	1,700	3.7	840
		0.70	0.69	0.61	0.48	0.31	---					
4X	Torque HP	2,410	2,920	3,490	4,130	5,230	6,080	N-A10C3-----00-	1.5	1,700	3.7	840
		1.05	1.02	0.92	0.72	0.46	---					
4X	Torque HP	3,220	3,920	4,640	5,500	6,080	6,080	N-A15C3-----00-	2	1,700	3.7	840
		1.41	1.37	1.22	0.96	0.53	---					
4X	Torque HP	3,220	3,920	4,640	5,500	6,970	9,310	N-A15D3-----00-	2	3,100	7.7	1,500
		1.41	1.37	1.22	0.96	0.61	---					
5X	Torque HP	4,830	5,870	6,970	8,240	10,460	12,600	N-A22D3-----00-	3	3,100	7.7	1,500
		2.11	2.06	1.83	1.44	0.92	---					
6X	Torque HP	8,020	9,760	11,600	12,600	12,600	12,600	N-A37D3-----00-	5	3,100	7.7	1,500
		3.51	3.42	3.05	2.21	1.10	---					
6X	Torque HP	8,020	9,760	11,600	13,700	17,400	23,300	N-A37E3-----00-	5	4,600	9.7	2,300
		3.51	3.42	3.05	2.40	1.52	---					
7X	Torque HP	12,000	14,700	17,400	20,600	26,200	31,200	N-A55E3-----00-	7.5	4,600	9.7	2,300
		5.25	5.15	4.57	3.61	2.29	---					
7.5X	Torque HP	16,100	19,600	23,300	27,400	31,200	31,200	N-A75E3-----00-	10	4,600	9.7	2,300
		7.05	6.86	6.12	4.80	2.73	---					
8X	Torque HP	24,100	29,200	34,900	41,300	52,300	65,100	N-A91F3-----00-	15	7,500	11.6	3,700
		10.5	10.2	9.17	7.23	4.58	---					
8X	Torque HP	32,200	39,200	46,400	55,000	65,100	65,100	N-A95F3-----00-	20	7,500	11.6	3,700
		14.1	13.7	12.2	9.63	5.70	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 23 rpm, Motor Speed: 1750 rpm, Built-in Circulate
Speed Reducer Ratio: 35:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		22.9	18.3	13.7	9.14	4.57	0					
2X	Torque HP	486	615	712	730	730	730	N-C02A4-----00-	0.25	480	2.5	240
		0.18	0.18	0.15	0.12	0.08	---					
2X	Torque HP	486	615	712	842	1,036	1,425	N-C02B4-----00-	0.25	790	2.9	400
		0.18	0.18	0.15	0.12	0.08	---					
2X	Torque HP	971	1,170	1,390	1,650	2,100	2,600	N-C04B4-----00-	0.5	790	2.9	400
		0.35	0.34	0.30	0.24	0.15	---					
3X	Torque HP	1,460	1,780	2,100	2,490	2,600	2,600	N-A05B4-----00-	0.75	790	2.9	400
		0.53	0.52	0.46	0.36	0.19	---					
3X	Torque HP	1,460	1,780	2,100	2,490	3,140	4,210	N-A05C4-----00-	0.75	1,700	3.7	840
		0.53	0.52	0.46	0.36	0.23	---					
3X	Torque HP	1,940	2,360	2,820	3,300	4,210	5,630	N-B07C4-----00-	1	1,700	3.7	840
		0.70	0.68	0.61	0.48	0.31	---					
4X	Torque HP	2,910	3,530	4,210	4,990	6,080	6,080	N-A10C4-----00-	1.5	1,700	3.7	840
		1.06	1.02	0.92	0.72	0.44	---					
4X	Torque HP	2,910	3,530	4,210	4,990	6,310	8,420	N-A10D4-----00-	1.5	3,100	7.7	1,500
		1.06	1.02	0.92	0.72	0.46	---					
4X	Torque HP	3,890	4,730	5,600	6,080	6,080	6,080	N-A15C4-----00-	2	1,700	3.7	840
		1.41	1.37	1.22	0.96	0.61	---					
4X	Torque HP	3,890	4,730	5,600	6,640	8,420	11,230	N-A15D4-----00-	2	3,100	7.7	1,500
		1.41	1.37	1.22	0.96	0.61	---					
5X	Torque HP	5,830	7,090	8,420	9,940	12,600	12,600	N-A22D4-----00-	3	3,100	7.7	1,500
		2.11	2.06	1.83	1.44	0.91	---					
6X	Torque HP	9,680	11,800	14,000	16,600	21,000	28,100	N-A37E4-----00-	5	4,600	9.7	2,300
		3.51	3.42	3.05	2.41	1.52	---					
7X	Torque HP	14,500	17,700	21,000	24,900	31,600	31,200	N-A55E4-----00-	7.5	4,600	9.7	2,300
		5.26	5.14	4.57	3.61	2.29	---					
7.5X	Torque HP	19,400	23,600	28,100	33,000	42,100	56,300	N-A75F4-----00-	10	7,500	11.6	3,700
		7.04	6.85	6.11	4.79	3.05	---					
8X	Torque HP	29,100	35,300	42,100	49,900	63,100	65,100	N-A91F4-----00-	15	7,500	11.6	3,700
		10.6	10.2	9.16	7.24	4.58	---					
8X	Torque HP	38,850	47,268	56,009	65,100	65,100	65,100	N-A95F4-----00-	20	7,500	11.6	3,700
		14.1	13.7	12.2	9.44	4.72	---					
8X	Torque HP	38,850	47,268	56,009	66,369	84,175	112,000	N-A95G4-----00-	20	15,000	15.0	7,300
		14.1	13.7	12.2	9.63	6.11	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.
Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 17 rpm, Motor Speed: 1750 rpm, Built-in Circulute
Speed Reducer Ratio: 47:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		17.0	13.6	10.2	6.81	3.40	0					
2X	Torque HP	652 0.18	826 0.18	956 0.15	1,130 0.12	1,390 0.08	1,910 ---	N-C02B5-----00-	0.25	790	2.9	400
2X	Torque HP	1,300 0.35	1,570 0.34	1,870 0.30	2,220 0.24	2,600 0.14	2,600 ---	N-C04B5-----00-	0.5	790	2.9	400
3X	Torque HP	1,960 0.53	2,390 0.52	2,600 0.42	2,600 0.28	2,600 0.14	2,600 ---	N-A05B5-----00-	0.75	790	2.9	400
3X	Torque HP	1,960 0.53	2,390 0.52	2,830 0.46	3,350 0.36	4,220 0.23	5,650 ---	N-A05C5-----00-	0.75	1,700	3.7	840
3X	Torque HP	2,610 0.70	3,170 0.68	3,780 0.61	4,430 0.48	5,650 0.31	6,080 ---	N-A07C5-----00-	1	1,700	3.7	840
4X	Torque HP	3,910 1.06	4,740 1.02	5,650 0.92	6,080 0.66	6,080 0.33	6,080 ---	N-A10C5-----00-	1.5	1,700	3.7	840
4X	Torque HP	3,910 1.06	4,740 1.02	5,650 0.92	6,700 0.72	8,480 0.46	11,300 ---	N-A10D5-----00-	1.5	3,100	7.7	1,500
4X	Torque HP	5,220 1.41	6,350 1.37	7,520 1.22	8,910 0.96	11,300 0.61	12,600 ---	N-A15D5-----00-	2	3,100	7.7	1,500
5X	Torque HP	7,830 2.11	9,520 2.06	11,300 1.83	12,600 1.44	12,600 0.92	12,600 ---	N-A22D5-----00-	3	3,100	7.7	1,500
5X	Torque HP	7,830 2.11	9,520 2.06	11,300 1.83	13,300 1.44	17,000 0.92	22,700 ---	N-A22E5-----00-	3	4,600	9.7	2,300
6X	Torque HP	13,000 3.51	15,800 3.41	18,800 3.05	22,300 2.41	28,300 1.53	31,200 ---	N-A37E5-----00-	5	4,600	9.7	2,300
7X	Torque HP	19,500 5.27	23,800 5.14	28,300 4.59	31,200 3.61	31,200 2.29	31,200 ---	N-A55E5-----00-	7.5	4,600	9.7	2,300
7X	Torque HP	19,500 5.27	23,800 5.14	28,300 4.59	33,400 3.61	42,400 2.29	56,500 ---	N-A55F5-----00-	7.5	7,500	11.6	3,700
7.5X	Torque HP	26,000 7.02	31,700 6.85	37,700 6.11	44,300 4.79	56,500 3.05	65,100 ---	N-A75F5-----00-	10	7,500	11.6	3,700
8X	Torque HP	39,000 10.5	47,400 10.2	56,500 9.16	65,100 7.03	65,100 3.52	65,100 ---	N-A91F5-----00-	15	7,500	11.6	3,700
8X	Torque HP	52,200 14.1	65,100 14.1	65,100 10.5	65,100 7.03	65,100 3.52	65,100 ---	N-A95F5-----00-	20	7,500	11.6	3,700

Specifications are subject to change without notice. See page 22 - 36 for dimensions.
Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

**Speed Range: 0 - 14 rpm, Motor Speed: 1750 rpm, Built-in Circulute
Speed Reducer Ratio: 59:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		13.6	10.9	8.14	5.42	2.71	0					
2X	Torque HP	819	1,040	1,200	1,420	1,750	2,400	N-C02B6-----00-	0.25	790	2.9	400
		0.18	0.18	0.15	0.12	0.08	---					
2X	Torque HP	1,640	1,960	2,350	2,600	2,600	2,600	N-C04B6-----00-	0.5	790	2.9	400
		0.35	0.34	0.30	0.22	0.11	---					
3X	Torque HP	2,460	3,000	3,550	4,200	5,290	6,080	N-A05C6-----00-	0.75	1,700	3.7	840
		0.53	0.52	0.46	0.36	0.23	---					
3X	Torque HP	3,270	3,980	4,750	5,570	6,080	6,080	N-A07C6-----00-	1	1,700	3.7	840
		0.70	0.69	0.61	0.48	0.26	---					
4X	Torque HP	4,910	5,950	7,090	8,400	10,600	12,600	N-A10D6-----00-	1.5	3,100	7.7	1,500
		1.06	1.02	0.92	0.72	0.46	---					
4X	Torque HP	6,550	7,970	9,440	11,200	12,600	12,600	N-A15D6-----00-	2	3,100	7.7	1,500
		1.41	1.37	1.22	0.96	0.54	---					
5X	Torque HP	9,820	12,000	14,200	16,800	21,300	28,400	N-A22E6-----00-	3	4,600	9.7	2,300
		2.11	2.07	1.83	1.45	0.92	---					
6X	Torque HP	16,300	19,900	23,600	27,900	31,200	31,200	N-A37E6-----00-	5	4,600	9.7	2,300
		3.51	3.43	3.05	2.40	1.34	---					
7X	Torque HP	24,500	29,900	35,500	41,900	53,200	65,100	N-A55F6-----00-	7.5	7,500	11.6	3,700
		5.27	5.15	4.58	3.61	2.29	---					
7.5X	Torque HP	32,700	39,800	47,300	55,700	65,100	65,100	N-A75F6-----00-	10	7,500	11.6	3,700
		7.04	6.85	6.11	4.79	2.80	---					
8X	Torque HP	49,000	59,500	65,100	65,100	65,100	65,100	N-A91F6-----00-	15	7,500	11.6	3,700
		10.5	10.2	9.15	7.23	4.56	---					
8X	Torque HP	49,000	59,500	70,900	84,000	106,000	130,000	N-A91G6-----00-	15	15,000	15.0	7,300
		10.5	10.2	9.15	7.23	4.56	---					
8X	Torque HP	65,500	79,700	94,400	112,000	130,000	130,000	N-A95G6-----00-	20	15,000	15.0	7,300
		14.1	13.7	12.2	9.64	5.59	---					

Specifications are subject to change without notice. See page 22 - 36 for dimensions.

Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Rating Table

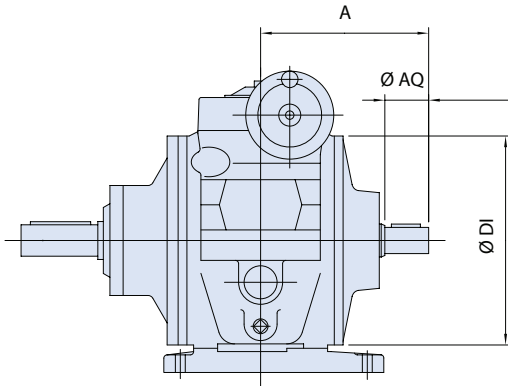
**Speed Range: 0 - 11 rpm, Motor Speed: 1750 rpm, Built-in Circulute
Speed Reducer Ratio: 71:1**

Size	in-lbs HP	Rating at Output rpm						Model Number	Motor HP	OHL lbs	k in	Thrust lbs
		11.3	9.01	6.76	4.51	2.25	0					
2X	Torque HP	985 0.18	1,250 0.18	1,440 0.15	1,710 0.12	2,100 0.08	2,600 ---	N-C02B7-----00-	0.25	790	2.9	400
2X	Torque HP	1,970 0.35	2,360 0.34	2,600 0.28	2,600 0.19	2,600 0.09	2,600 ---	N-C04B7-----00-	0.5	790	2.9	400
3X	Torque HP	2,960 0.53	3,610 0.52	4,270 0.46	5,060 0.36	6,080 0.22	6,080 ---	N-C05C7-----00-	0.75	1,700	3.7	840
3X	Torque HP	3,940 0.70	4,790 0.69	5,710 0.61	6,080 0.43	6,080 0.22	6,080 ---	N-C07C7-----00-	1	1,700	3.7	840
4X	Torque HP	5,910 1.06	7,160 1.02	8,540 0.92	10,100 0.72	12,600 0.45	12,600 ---	N-A10D7-----00-	1.5	3,100	7.7	1,500
4X	Torque HP	7,880 1.41	9,590 1.37	11,400 1.22	12,600 0.90	12,600 0.45	12,600 ---	N-A15D7-----00-	2	3,100	7.7	1,500
5X	Torque HP	11,800 2.11	14,400 2.06	17,100 1.83	20,200 1.44	25,600 0.92	31,200 ---	N-A22E7-----00-	3	4,600	9.7	2,300
6X	Torque HP	19,600 3.50	23,900 3.42	28,400 3.05	31,200 2.23	31,200 1.12	31,200 ---	N-A37E7-----00-	5	4,600	9.7	2,300
7X	Torque HP	29,500 5.27	35,900 5.13	42,700 4.58	50,400 3.60	64,000 2.29	65,100 ---	N-A55F7-----00-	7.5	7,500	11.6	3,700
7.5X	Torque HP	39,300 7.03	47,900 6.85	56,900 6.10	65,100 4.66	65,100 2.33	65,100 ---	N-A75F7-----00-	10	7,500	11.6	3,700
8X	Torque HP	59,000 10.5	71,600 10.2	85,400 9.16	101,000 7.22	128,000 4.58	130,000 ---	N-A91G7-----00-	15	15,000	15.0	7,300
8X	Torque HP	78,800 14.1	95,900 14.1	114,000 10.5	130,000 7.03	130,000 3.52	130,000 ---	N-A95G7-----00-	20	15,000	15.0	7,300

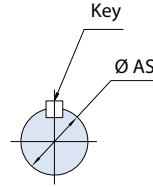
Specifications are subject to change without notice. See page 22 - 36 for dimensions.
Overhung load ratings are based on the load being applied at the center of the output shaft extension.

Dimensions

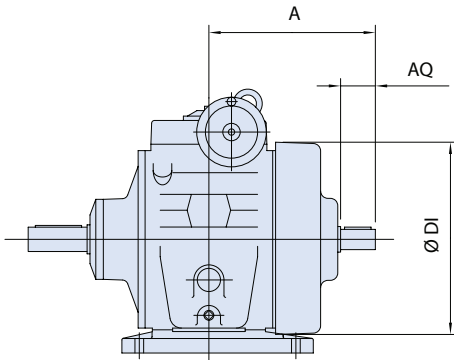
Input Shaft, Size 02 - 15 (2X - 4X)



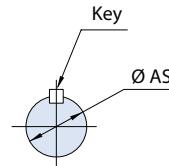
INPUT SHAFT



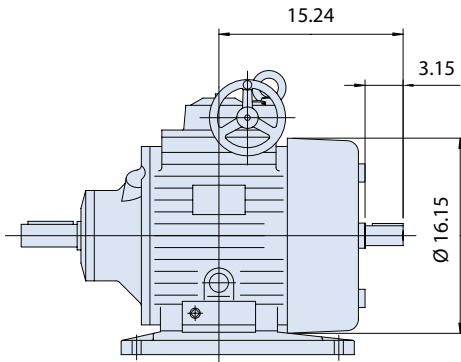
Input Shaft, Size 22 - 75 (5X - 7.5X)



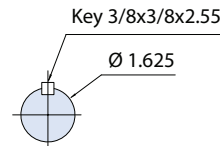
INPUT SHAFT



Input Shaft, Size 91 - 95 (8X)



INPUT SHAFT



Weight (lbs.) 495
Lube Qty (gal.) * 1.32

Input Shaft, Size 02 - 95 (2X - 8X)

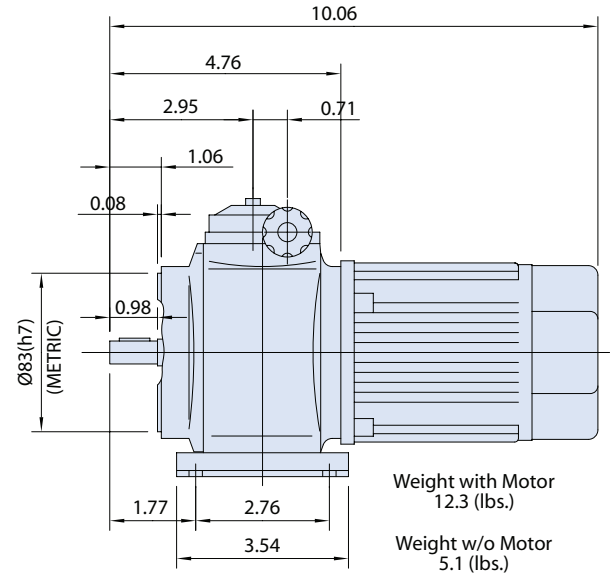
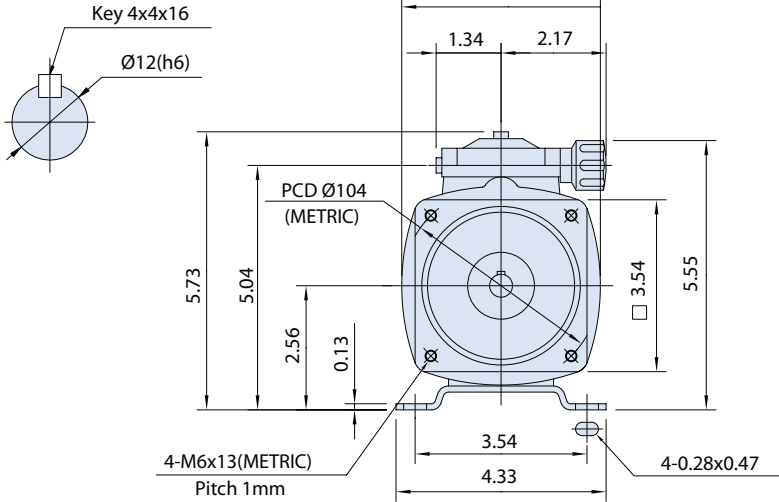
Size	RX Model Number	A	AQ	AS	DI	Input Key	Weight (lbs.)	Lube Qty (gal.) *
2X	NXC02 & NXC04	4.66	1.00	0.625	5.36	3/16x3/16x0.50	24	0.05
3X	NXA05 & NXA07	5.12	1.19	0.625	6.54	3/16x3/16x0.78	45	0.13
4X	NXA10 & NXA15	6.02	1.57	0.938	7.48	1/4x1/4x0.98	65	0.21
5X	NXA22	8.86	2.00	0.938	10.16	1/4x1/4x1.37	106	0.48
6X	NXA37	10.04	2.00	1.125	12.21	1/4x1/4x1.37	171	0.66
7X	NXA55	11.30	2.36	1.375	13.19	3/16x5/16x1.77	225	0.74
7.5X	NXA75	11.30	2.36	1.375	14.18	3/16x5/16x1.77	235	0.58

* For horizontal mounting

Rating Table & Dimensions

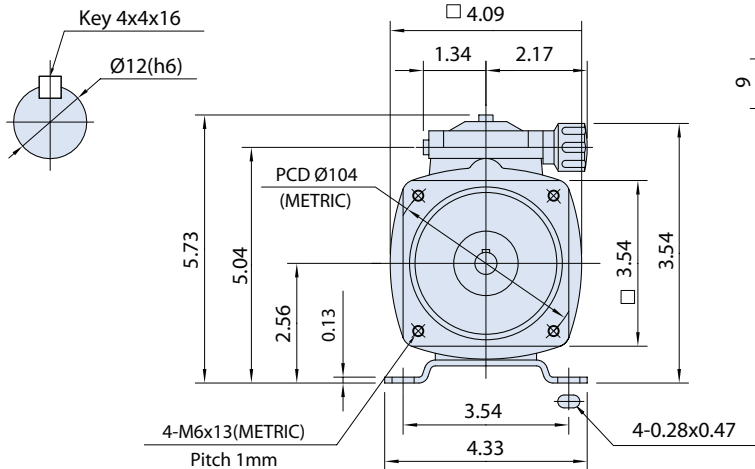
Base Mount, Input C-Face, No Speed Reducer, Size 90 (1X)

OUTPUT SHAFT (METRIC)

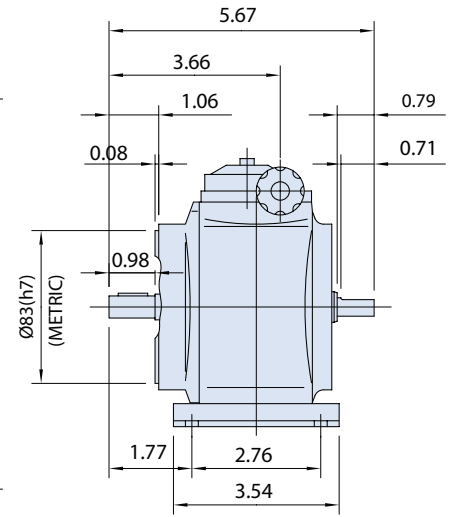
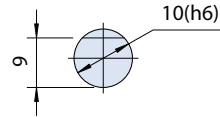


Base Mount, Input Shaft, No Speed Reducer, Size 90 (1X)

OUTPUT SHAFT (METRIC)



INPUT SHAFT (METRIC)



Speed Range: 0 - 1000 rpm, Motor Speed: 1750 rpm, Adjustable Speed Selection
Speed Range: 0 - 1000 rpm, Built-in Speed Reducer Ratio: None

Size	in-lbs HP	Rating at Output rpm					
		1000	800	600	400	200	0
1X	Torque	5.2	6.5	8.7	13	22	36
	HP	0.08	0.08	0.08	0.08	0.07	---

Dimensions

Base Mount, Input C-Face, No Speed Reducer, Sizes 02 - 95 (2X - 8X)

Size	RX Model Number	C	D	DF	E	F	G	H	HC	HH	I
2X	NMC0200 & NMC0400	3.54	5.36	N/A	3.54	4.33	0.56	7.96	6.89	8.19	3.06
3X	NMA0500 & NMA0700	4.17	6.66	N/A	4.72	6.10	0.56	9.45	8.23	9.80	3.85
4X	NMA1000 & NMA1500	4.72	8.27	N/A	5.51	6.69	0.63	10.4	9.22	10.8	5.70
5X	NMA2200	6.06	10.0	N/A	6.30	9.06	0.79	12.8	11.5	13.8	5.31
6X	NMA3700	6.89	11.8	N/A	8.27	10.2	0.87	15.2	13.3	15.7	6.53
7X	NMA5500	7.72	12.8	13.2	9.06	10.6	0.99	16.9	15.0	17.4	7.55
7.5X	NMA7500	7.72	14.7	14.2	9.06	10.6	0.99	16.9	15.0	18.2	7.55

Size	RX Model Number	K1	K2	LK	M	N	Q	R	S	T	Z
2X	NMC0200 & NMC0400	3.63	2.17	9.28	4.73	5.52	1.88	5.15	0.625	0.71	0.36
3X	NMA0500 & NMA0700	4.80	2.92	11.6	5.91	7.29	1.88	6.48	0.625	1.05	0.36
4X	NMA1000 & NMA1500	4.80	2.92	14.7	6.70	7.88	2.75	8.58	1.125	1.05	0.36
5X	NMA2200	6.15	4.09	16.5	7.88	10.6	2.75	9.25	1.125	1.22	0.44
6X	NMA3700	6.89	4.84	19.3	10.2	12.2	3.38	11.3	1.375	1.54	0.59
7X	NMA5500	6.89	4.84	22.7	11.0	13.0	4.00	12.3	1.625	1.54	0.59
7.5X	NMA7500	9.02	4.84	22.7	11.0	13.0	4.00	12.3	1.625	1.54	0.59

Size	RX Model Number	Output Key	Hand-Wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube Qty (gal.) *	Input C-Face
2X	NMC0200 & NMC0400	.188x.188x1.37	2.56	18	24	0.05	56C
3X	NMA0500 & NMA0700	.188x.188x1.37	3.15	18	45	0.13	56C
4X	NMA1000 & NMA1500	.250x.250x2.16	3.15	19	65	0.21	140TC
5X	NMA2200	.250x.250x2.16	4.72	23	106	0.48	180TC
6X	NMA3700	.313x.313x2.75	4.72	20	171	0.66	180TC
7X	NMA5500	.375x.375x3.14	4.72	23	242	0.74	210TC
7.5X	NMA7500	.375x.375x3.14	6.30	23	252	0.58	210TC

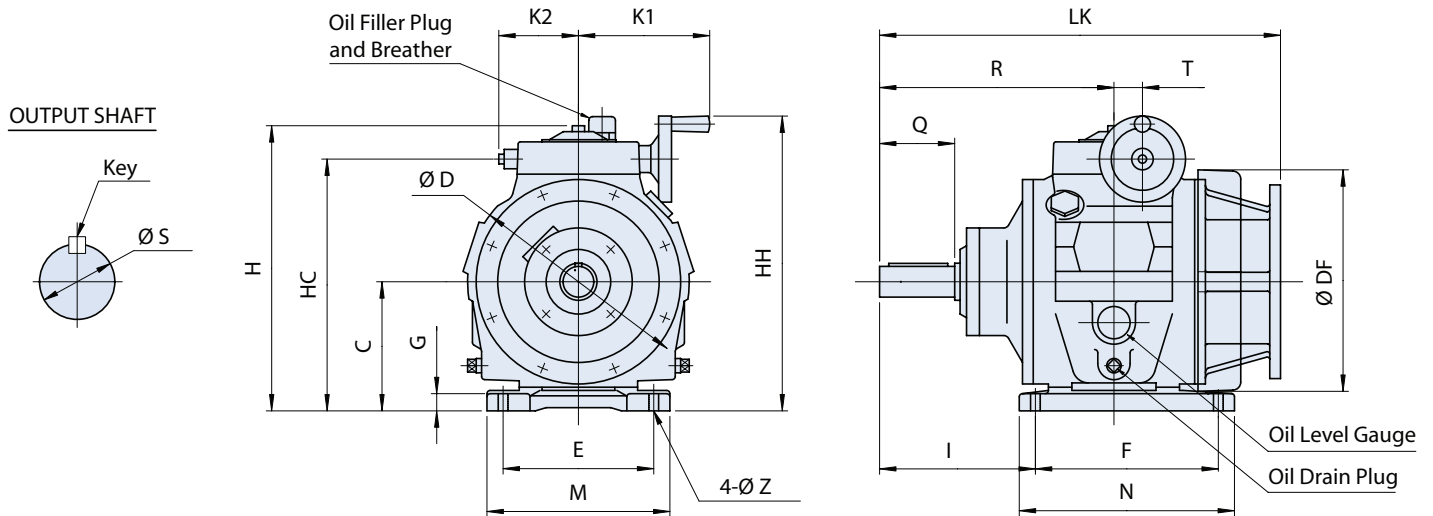
* For horizontal mounting

Units are shipped factory lubricated.

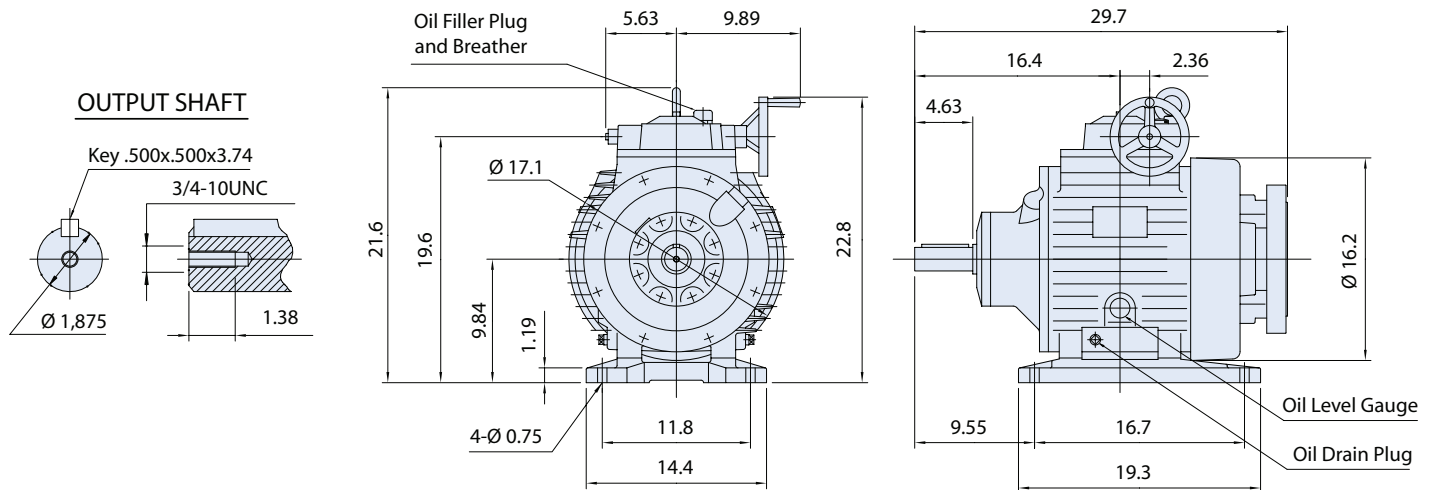
Dimensions are subject to change without notice. Contact Shimpo Drives for certified drawings for installation purposes.

Dimensions

Base Mount, Input C-Face, No Speed Reducer, Sizes 02 - 75 (2X - 7.5X)



Base Mount, Input C-Face, No Speed Reducer, Sizes 91 - 95 (8X)



Dimensions

Flange Mount, Input C-Face, No Speed Reducer, Sizes 02 - 95

Size	RX Model Number	DF	FA	FB	FC	HL	HO	KO	K1	K2	LE
2X	NMC0200 & NMC0400	N/A	5.88	4.50	6.50	3.35	6.3	N/A	3.63	2.17	0.13
3X	NMA0500 & NMA0700	N/A	5.88	4.50	6.50	4.06	7.21	4.93	4.80	2.92	0.13
4X	NMA1000 & NMA1500	N/A	7.25	8.50	9.00	4.49	7.64	6.38	4.80	2.92	0.23
5X	NMA2200	N/A	7.25	8.50	9.00	5.39	9.65	6.19	6.15	4.09	0.25
6X	NMA3700	N/A	7.25	8.50	9.00	6.42	11.0	7.68	6.89	4.84	0.25
7X	NMA5500	13.19	7.25	8.50	9.13	7.28	12.0	8.31	6.89	4.84	0.25
7.5X	NMA7500	14.18	7.25	8.50	9.13	7.28	12.0	8.31	9.02	4.84	0.25

Size	RX Model Number	LG	LK	LR	LZ	Q	R	S	T
2X	NMC0200 & NMC0400	0.39	9.28	2.06	3/8-16UNC	1.88	5.15	0.625	0.71
3X	NMA0500 & NMA0700	0.47	11.56	2.06	3/8-16UNC	1.88	6.48	0.625	1.05
4X	NMA1000 & NMA1500	0.40	14.68	2.37	1/2-13UNC	2.75	8.58	1.125	1.05
5X	NMA2200	0.54	16.45	2.37	1/2-13UNC	2.75	9.25	1.125	1.22
6X	NMA3700	N/A	19.32	2.87	1/2-13UNC	3.38	11.25	1.375	1.54
7X	NMA5500	N/A	22.67	3.51	1/2-13UNC	4.00	12.3	1.625	1.54
7.5X	NMA7500	N/A	22.67	3.51	1/2-13UNC	4.00	12.3	1.625	1.54

Size	RX Model Number	Output Key	Hand-wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube Qty (gal.) *	Input C-Face
2X	NMC0200 & NMC0400	.188x.188x1.37	2.56	18	22	0.11	56C
3X	NMA0500 & NMA0700	.188x.188x1.37	3.15	18	56	0.26	56C
4X	NMA1000 & NMA1500	.250x.250x2.16	3.15	19	74	0.50	140TC
5X	NMA2200	.250x.250x2.16	4.72	23	122	0.71	180TC
6X	NMA3700	.313x.313x2.75	4.72	20	219	1.23	180TC
7X	NMA5500	.375x.375x3.14	4.72	23	296	1.43	210TC
7.5X	NMA7500	.375x.375x3.14	6.30	23	308	1.43	210TC

* For vertical mounting

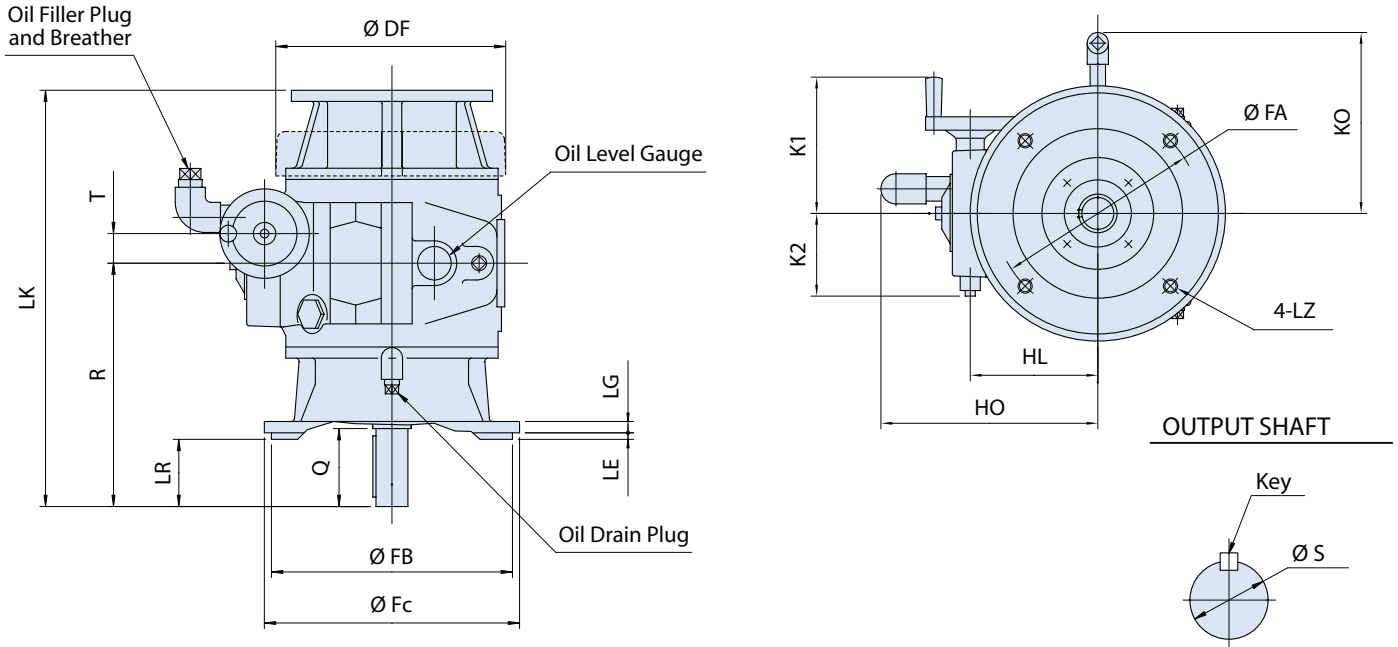
Units are shipped factory lubricated.

Unless otherwise noted, all lengths are in inches.

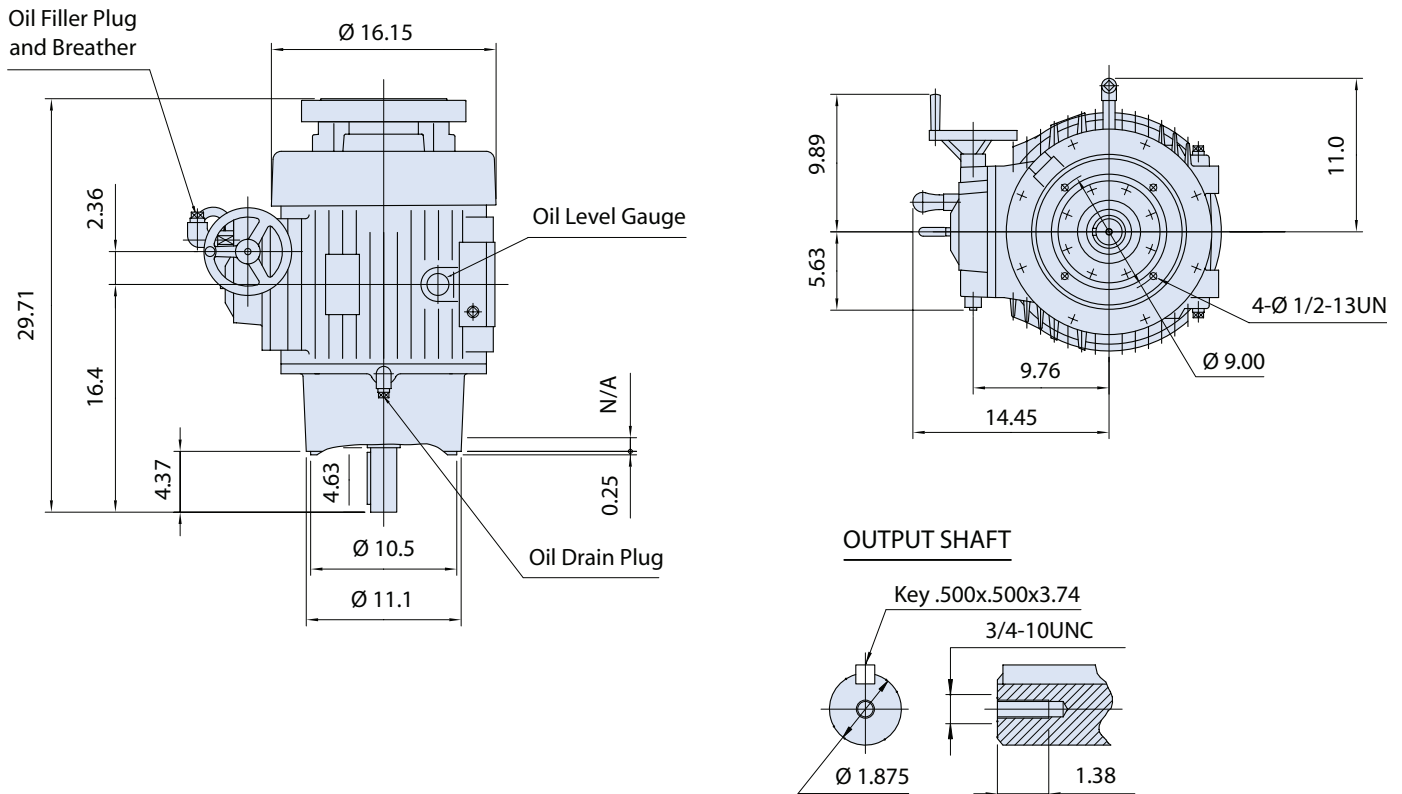
Dimensions are subject to change without notice. Contact Shimpo Drives for certified drawings for installation purposes.

Dimensions

Flange Mount, Input C-Face, No Speed Reducer, Sizes 02 - 75 (2X - 7.5X)



Flange Mount, Input C-Face, No Speed Reducer, Sizes 91 - 95 (8X)



Dimensions

Base Mount, Input C-Face, Planetary Reducer, Sizes 02 - 95 (2X - 8X)

Size	RX Model Number	C	D	DF	E	F	G	H	HC	HH	I	K
2X	NMC0283 & NMC0285 NMC0483 & NMC0485	3.54	5.36	N/A	5.51	6.10	0.67	7.96	6.89	8.19	2.76	1.42
3X	NMA0503 & NMA0506 NMA0703 & NMA0706	4.17	6.66	N/A	7.09	7.95	0.67	9.45	8.23	9.80	3.74	1.58
4X	NMA1003 & NMA1006 NMA0503 & NMA1506	4.72	8.27	N/A	7.80	10.0	0.79	10.4	9.22	10.8	4.33	1.97
5X	NMA2203 & NMA2206	6.06	10.0	N/A	9.45	11.6	1.19	12.8	11.5	13.8	4.72	2.37
6X	NMA3703 & NMA3706	6.89	11.8	N/A	11.81	13.8	1.26	15.2	13.3	15.7	5.31	3.35
7X	NMA5503 & NMA5506	7.72	12.8	13.2	13.0	14.2	1.46	16.9	15.0	17.4	5.91	3.55
7.5X	NMA7503 & NMA7506	7.72	14.7	14.2	13.0	14.2	1.46	16.9	15.0	18.2	5.91	3.55

Size	RX Model Number	K1	K2	LK	M	N	Q (mm)	R	S (mm)	T	Z
2X	NMC0283 & NMC0285 NMC0483 & NMC0485	3.63	2.16	11.9	6.70	7.52	40	7.76	24	0.71	0.43
3X	NMA0503 & NMA0506 NMA0703 & NMA0706	4.80	2.92	15.0	8.67	9.53	50	9.92	24	1.05	0.43
4X	NMA1003 & NMA1006 NMA0503 & NMA1506	4.80	2.92	18.5	9.45	12.0	55	12.4	28	1.05	0.51
5X	NMA2203 & NMA2206	6.15	4.09	21.0	11.42	14.0	60	13.8	32	1.22	0.59
6X	NMA3703 & NMA3706	6.89	4.84	23.9	13.8	17.1	70	15.8	35	1.54	0.71
7X	NMA5503 & NMA5506	6.89	4.84	27.3	15.0	17.7	80	16.9	42	1.54	0.79
7.5X	NMA7503 & NMA7506	9.02	4.84	27.3	15.0	17.7	80	16.9	42	1.54	0.79

Size	RX Model Number	Output Key (mm)	Hand- wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube		Input C-Face
						Adj. Spd. (gal.) *	Reducer (gal.) *	
2X	NMC0283 & NMC0285 NMC0483 & NMC0485	8x7x25	2.56	18	25	0.05	grease	56C
3X	NMA0503 & NMA0506 NMA0703 & NMA0706	8x7x35	3.15	18	58	0.13	0.10	56C
4X	NMA1003 & NMA1006 NMA0503 & NMA1506	8x7x40	3.15	19	101	0.21	0.13	140TC
5X	NMA2203 & NMA2206	10x8x40	4.72	23	118	0.48	0.26	180TC
6X	NMA3703 & NMA3706	10x8x50	4.72	20	242	0.66	0.40	180TC
7X	NMA5503 & NMA5506	12x10x60	4.72	23	327	0.74	0.48	210TC
7.5X	NMA7503 & NMA7506	12x10x60	6.30	23	301	0.58	0.48	210TC

* For horizontal mounting

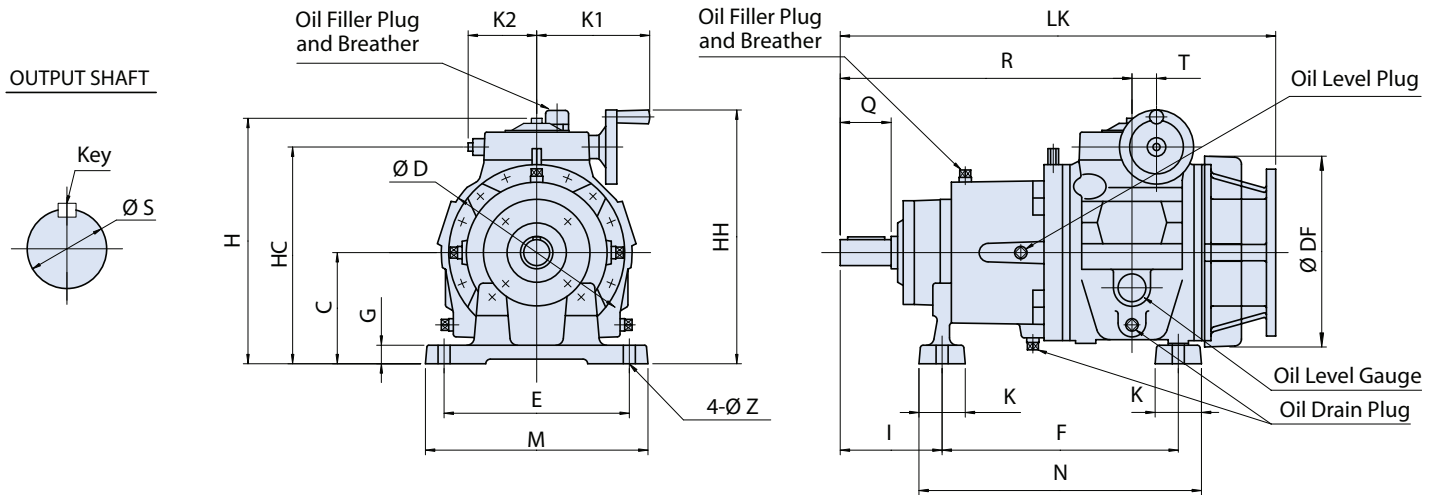
Units are shipped factory lubricated.

Unless otherwise noted, all lengths are in inches.

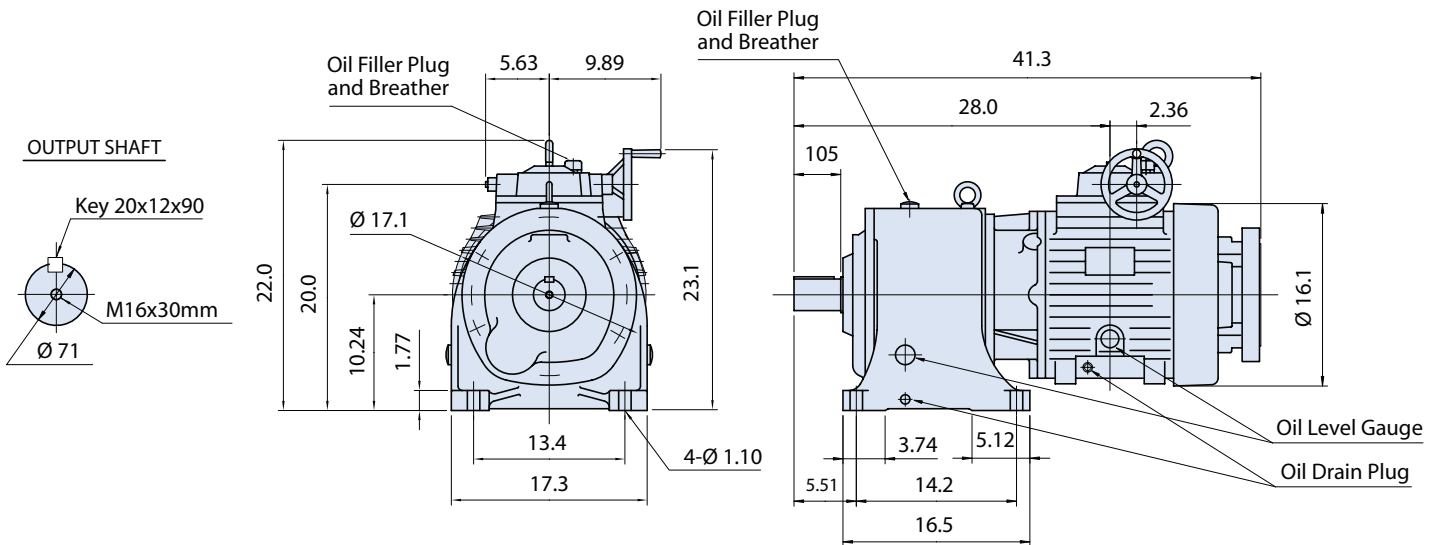
Dimensions are subject to change without notice. Contact Shimpo Drives for certified drawings for installation purposes.

Dimensions

Base Mount, Input C-Face, Planetary Reducer, Sizes 02 - 75 (2X - 7.5X)



Base Mount, Input C-Face, Planetary Reducer, Sizes 91 - 95 (8X)



Dimensions

Flange Mount, Input C-Face, Planetary Reducer, Sizes 02 - 95 (2X - 8X)

Size	RX Model Number	DF	FA	FB	FC	HL	HO	HP	KO	K1	K2
2X	NMC0283 & NMC0285 NMC0483 & NMC0485	N/A	6.50	5.12	7.88	3.35	6.30	N/A	N/A	3.63	2.16
3X	NMA0503 & NMA0506 NMA0703 & NMA0706	N/A	8.47	7.09	9.85	4.06	7.21	4.73	4.97	4.80	2.92
4X	NMA1003 & NMA1006 NMA0503 & MNA1506	N/A	10.43	9.06	11.8	4.49	7.64	5.32	5.83	4.80	2.92
5X	NMA2203 & NMA2206	N/A	11.8	9.84	13.8	5.40	9.65	6.50	6.03	6.15	4.09
6X	NMA3703 & NMA3706	N/A	13.8	11.81	15.75	6.42	11.0	7.29	7.88	6.89	4.84
7X	NMA5503 & NMA5506	13.19	13.8	11.8	15.8	7.29	12.0	8.27	8.39	6.89	4.84
7.5X	NMA7503 & NMA7506	14.18	13.8	11.8	15.8	7.29	12.0	8.27	8.39	9.02	4.84

Size	RX Model Number	LK	LE	LG	LR	LZ	Q (mm)	R	S (mm)	T
2X	NMC0283 & NMC0285 NMC0483 & NMC0485	11.89	0.16	0.56	1.58	0.47	40	7.76	24	0.71
3X	NMA0503 & NMA0506 NMA0703 & NMA0706	15.0	0.24	0.63	1.97	0.59	50	9.92	24	1.05
4X	NMA1003 & NMA1006 NMA0503 & MNA1506	18.5	0.24	0.79	2.17	0.59	55	12.4	28	1.05
5X	NMA2203 & NMA2206	21.0	0.31	0.79	2.36	0.75	60	13.8	32	1.22
6X	NMA3703 & NMA3706	23.9	0.31	0.79	2.76	0.75	70	15.8	35	1.54
7X	NMA5503 & NMA5506	27.33	0.31	0.99	3.16	0.75	80	16.9	42	1.54
7.5X	NMA7503 & NMA7506	27.33	0.31	0.99	3.15	0.75	80	16.9	42	1.54

Size	RX Model Number	Output Key (mm)	Hand-wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube		Input C-Face
						Adj. Spd. (gal.) *	Reducer (gal.) *	
2X	NMC0283 & NMC0285 NMC0483 & NMC0485	8x7x25	2.56	18	24	0.11	grease	56C
3X	NMA0503 & NMA0506 NMA0703 & NMA0706	8x7x35	3.15	18	60	0.26	0.11	56C
4X	NMA1003 & NMA1006 NMA0503 & MNA1506	8x7x40	3.15	19	102	0.50	0.21	140TC
5X	NMA2203 & NMA2206	10x8x40	4.72	23	115	0.72	0.34	180TC
6X	NMA3703 & NMA3706	10x8x50	4.72	20	225	1.27	0.61	180TC
7X	NMA5503 & NMA5506	12x10x60	4.72	23	283	1.43	0.71	210TC
7.5X	NMA7503 & NMA7506	12x10x60	6.30	23	257	1.19	0.71	210TC

* For vertical down mounting

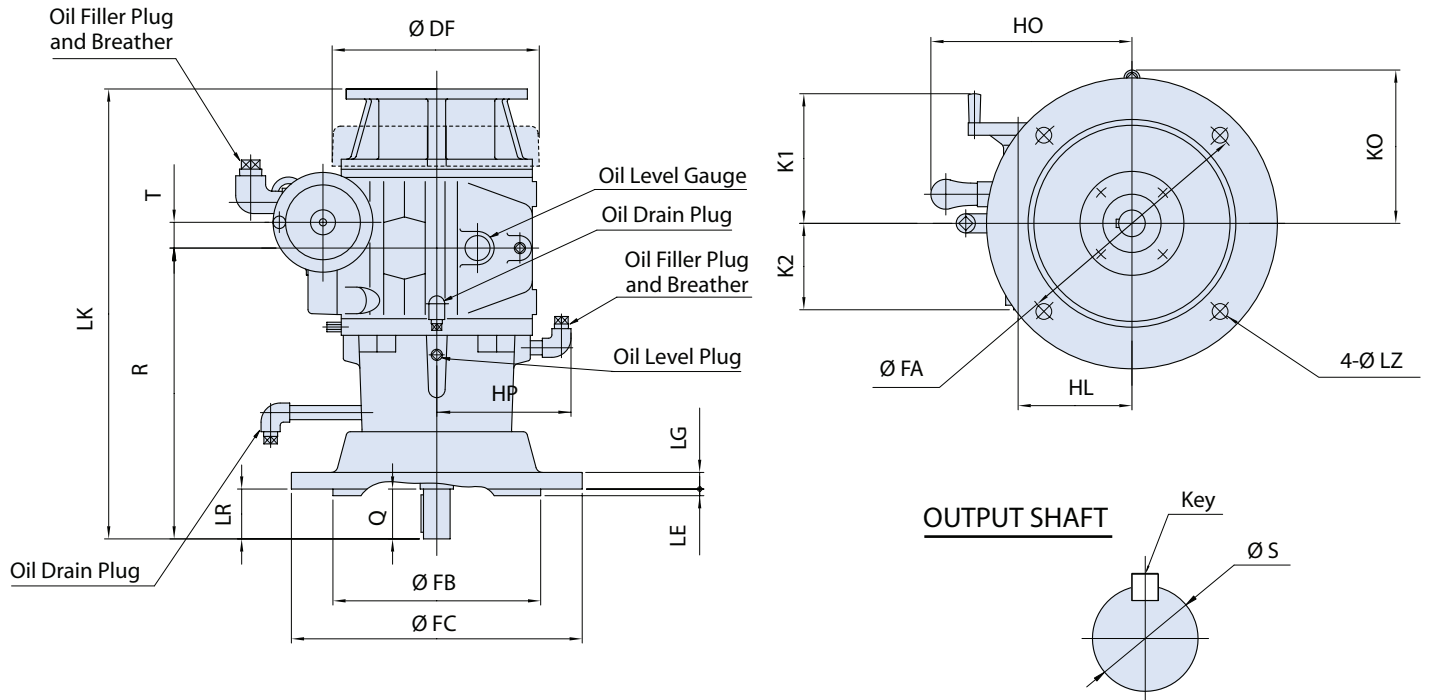
Units are shipped factory lubricated.

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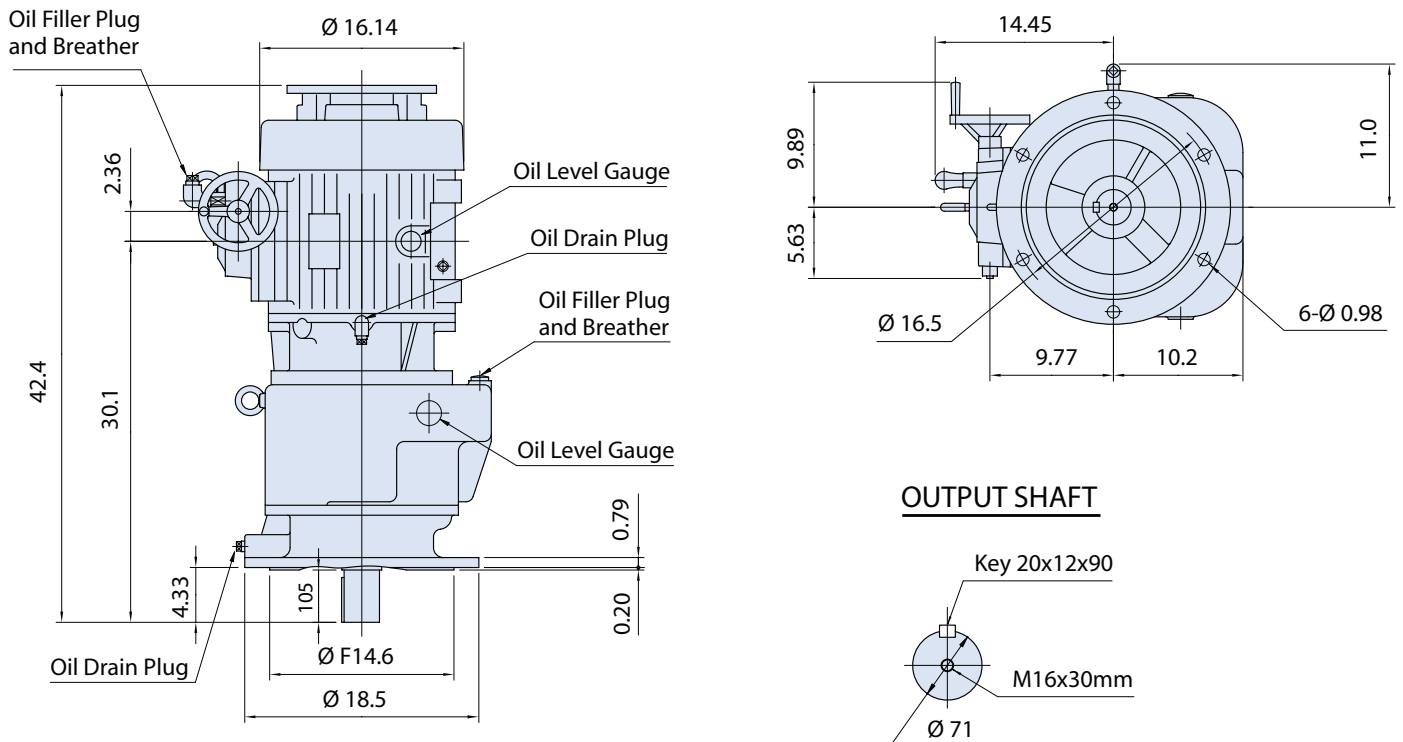
Dimensions are subject to change without notice. Contact Shimpo Drives for certified drawings for installation purposes.

Dimensions

Flange Mount, Input C-Face, Planetary Reducer, Sizes 02 - 75 (2X - 7.5X)



Flange Mount, Input C-Face, Planetary Reducer, Sizes 91 - 95 (8X)



Dimensions

Base Mount, Input C-Face, Circulate Reducer, Sizes 02 - 95 (2X - 8X)

Size	RX Model Number	C	D	DF	E	F	G	H	HC	HH	I
2X	NMC02A	3.54	5.79	N/A	5.71	3.54	0.63	7.96	6.89	8.19	2.57
	NMC02B & NMC04B	4.53	5.91	N/A	5.71	4.72	0.63	8.94	7.88	9.18	3.34
3X	NMA05B & NMA07B	4.53	5.91	N/A	5.71	4.72	0.63	9.81	8.59	10.2	3.34
	NMA05C & NMA07C	5.51	7.48	N/A	7.09	5.91	0.87	10.8	9.57	11.2	4.10
4X	NMA10C & NMA15C	5.51	7.48	N/A	7.09	5.91	0.87	11.2	10.0	11.6	4.10
	NMA10D & NMA15D	6.50	9.26	N/A	8.86	7.09	1.03	12.2	11.0	12.6	5.33
5X	NMA22D	6.50	9.26	N/A	8.86	7.09	1.03	13.2	11.9	14.3	5.33
	NMA22E	7.28	11.8	N/A	11.8	9.84	1.19	14.0	12.7	15.0	5.95
6X	NMA37D	6.50	9.26	N/A	8.86	7.09	1.03	14.8	12.9	15.3	5.33
	NMA37E	7.28	11.8	N/A	11.81	9.84	1.19	15.6	13.7	16.1	5.95
7X	NMA55E	7.28	11.8	13.2	11.81	9.84	1.19	16.4	14.6	16.9	5.95
	NMA55F	8.27	14.2	13.2	13.78	11.6	1.38	17.4	15.6	17.9	7.67
7.5X	NMA75E	7.28	11.8	14.2	11.8	9.84	1.19	16.4	14.6	17.6	5.95
	NMA75F	8.27	14.2	14.2	13.8	11.6	1.38	17.4	15.6	18.6	7.67
8X	NMA91F & NMA95F	8.27	14.2	16.1	13.8	11.6	1.38	20.0	18.0	21.2	7.67
	NMA91G & NMA95G	10.63	18.9	16.1	17.7	15.8	1.58	23.4	20.4	23.6	10.3

Size	RX Model Number	K1	K2	LK	M	N	Q	R	S	T	Z
2X	NMC02A	3.63	2.16	13.2	6.89	4.73	1.19	9.07	0.875	0.71	0.48
	NMC02B & NMC04B	3.63	2.16	15.3	6.89	5.91	1.96	11.1	1.375	0.71	0.48
3X	NMA05B & NMA07B	4.80	2.92	17.2	6.89	5.91	1.96	12.1	1.375	1.05	0.48
	NMA05C & NMA07C	4.80	2.92	19.0	8.67	7.48	2.52	13.9	1.750	1.05	0.59
4X	NMA10C & NMA15C	4.80	2.92	20.6	8.67	7.48	2.52	14.5	1.750	1.05	0.59
	NMA10D & NMA15D	4.80	2.92	21.8	10.8	9.06	3.75	15.7	2.500	1.05	0.75
5X	NMA22D	6.15	4.09	24.3	10.83	9.06	3.75	17.1	2.500	1.22	0.75
	NMA22E	6.15	4.09	26.7	14.18	11.8	4.38	19.5	2.875	1.22	0.87
6X	NMA37D	6.89	4.84	26.2	10.8	9.06	3.75	18.1	2.500	1.54	0.75
	NMA37E	6.89	4.84	28.5	14.2	11.8	4.38	20.4	2.875	1.54	0.87
7X	NMA55E	6.89	4.84	32.0	14.2	11.8	4.38	21.6	2.875	1.54	0.87
	NMA55F	6.89	4.84	34.2	16.7	14.4	5.50	23.8	3.625	1.54	0.99
7.5X	NMA75E	9.02	4.84	32.0	14.2	11.8	4.38	21.6	2.875	1.54	0.87
	NMA75F	9.02	4.84	34.2	16.7	14.4	5.50	23.8	3.625	1.54	0.99
8X	NMA91F & NMA95F	9.89	5.63	47.2	16.7	14.4	5.50	33.9	3.625	2.36	0.99
	NMA91G & NMA95G	9.89	5.63	53.8	21.7	19.7	7.54	40.4	5.000	2.36	1.11

Units are shipped factory lubricated.

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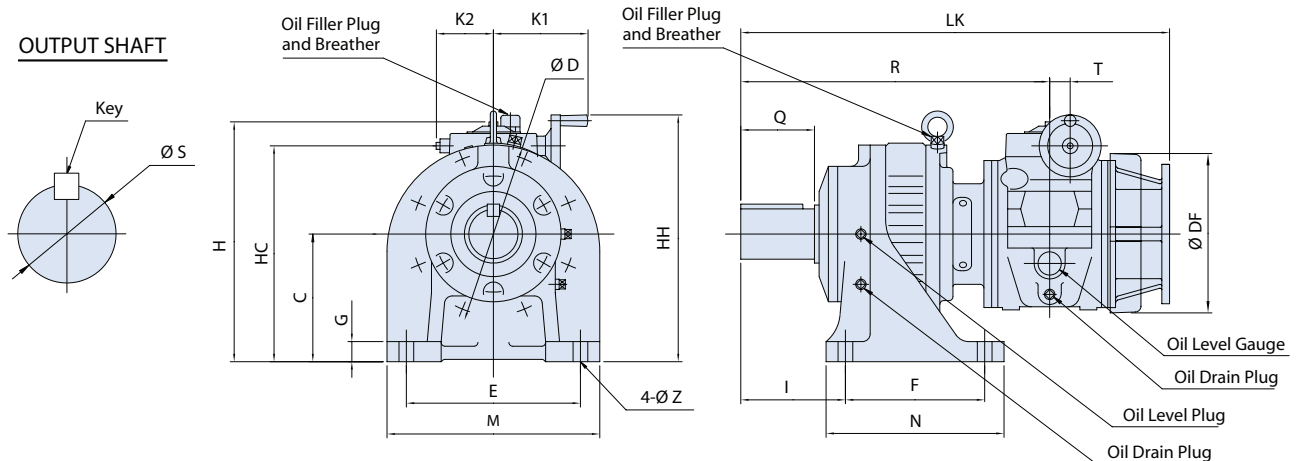
Dimensions

Base Mount, Input C-Face, Circulate Reducer, Sizes 02 - 95 (2X - 3X)

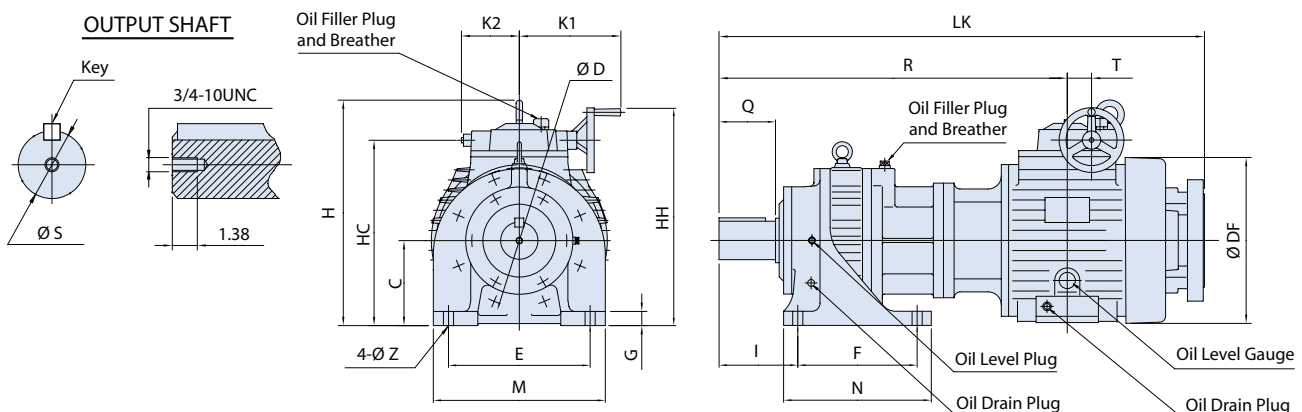
Size	RX Model Number	Output Key	Hand-wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube		Input C-Face
						Adj. Spd. (gal.) *	Reducer (gal.) *	
2X	NMC02A	.188x.188x0.98	2.56	18	35	0.05	grease	56C
	NMC02B & NMC04B	.313x.313x1.77	2.56	18	55	0.05	grease	56C
3X	NMA05B & NMA07B	.313x.313x1.77	3.15	18	71	0.13	grease	56C
	NMA05C & NMA07C	.375x.375x2.16	3.15	18	102	0.13	grease	56C
4X	NMA10C & NMA15C	.375x.375x2.16	3.15	19	142	0.21	grease	140TC
	NMA10D & NMA15D	.625x.625x2.95	3.15	19	193	0.21	grease	140TC
5X	NMA22D	.625x.625x2.95	4.72	23	221	0.48	0.25	180TC
	NMA22E	.750x.750x3.74	4.72	23	325	0.48	0.48	180TC
6X	NMA37D	.625x.625x2.95	4.72	20	317	0.66	0.25	180TC
	NMA37E	.750x.750x3.74	4.72	20	429	0.66	0.48	180TC
7X	NMA55E	.750x.750x3.74	4.72	23	547	0.74	0.48	210TC
	NMA55F	.875x.875x4.53	4.72	23	660	0.74	0.85	210TC
7.5X	NMA75E	.750x.750x3.74	6.30	23	521	0.58	0.48	210TC
	NMA75F	.875x.875x4.53	6.30	23	634	0.58	0.85	210TC
8X	NMA91F & NMA95F	.875x.875x4.53	6.30	21	973	1.32	0.85	250TC
	NMA91G & NMA95G	1.250x.875x6.50	6.30	21	1,323	1.32	1.72	250TC

* For horizontal mounting

Base Mount, Input C-Face, Circulate Reducer, Sizes 02 - 75 (2X - 7.5X)



Base Mount, Input C-Face, Circulate Reducer, Sizes 91 - 95 (8X)



Dimensions

Flange Mount, Input C-Face, Circulute Reducer, Sizes 02 - 95 (2X - 8X)

Size	RX Model Number	DF	FA	FB	FC	HL	H0	K0	K1	K2	LE
2X	NMC02A	N/A	5.12	4.33	6.30	3.35	6.30	N/A	3.63	2.16	0.16
	NMC02B & NMC04B	N/A	6.50	5.12	7.88	3.35	6.30	N/A	3.63	2.16	0.16
3X	NMA05B & NMA07B	N/A	6.50	5.12	7.88	4.06	7.21	4.96	4.80	2.92	0.16
	NMA05C & NMA07C	N/A	8.47	7.09	9.85	4.06	7.21	4.96	4.80	2.92	0.16
4X	NMA10C & NMA15C	N/A	8.47	7.09	9.85	4.49	7.64	5.83	4.80	2.92	0.16
	NMA10D & NMA15D	N/A	10.4	9.06	11.82	4.49	7.64	5.83	4.80	2.92	0.20
5X	NMA22D	N/A	10.4	9.06	11.8	5.40	9.65	6.63	6.15	4.09	0.20
	NMA22E	N/A	13.8	11.8	15.8	5.40	9.65	6.63	6.15	4.09	0.32
6X	NMA37D	N/A	10.4	9.06	11.82	6.42	11.0	7.87	6.89	4.84	0.20
	NMA37E	N/A	13.8	11.8	15.75	6.42	11.0	7.87	6.89	4.84	0.32
7X	NMA55E	13.2	13.8	11.8	15.75	7.29	12.0	8.39	6.89	4.84	0.32
	NMA55F	13.2	15.8	13.8	17.72	7.29	12.0	8.39	6.89	4.84	0.32
7.5X	NMA75E	14.2	13.8	11.8	15.8	7.29	12.0	8.39	9.02	4.84	0.32
	NMA75F	14.2	15.8	13.8	17.7	7.29	12.0	8.39	9.02	4.84	0.32
8X	NMA91F & NMA95F	16.1	15.8	13.8	17.7	9.77	14.45	10.1	9.89	5.63	0.32
	NMA91G & NMA95G	16.1	19.7	17.7	21.7	9.77	14.45	10.1	9.89	5.63	0.32

Size	RX Model Number	LG	LK	LR	n-LZ	Q	R	S	T	Output Key
2X	NMC02A	0.56	13.2	1.19	4-0.48	1.19	9.07	0.875	0.71	.188x.188x0.98
	NMC02B & NMC04B	0.56	15.3	2.00	4-0.48	1.96	11.1	1.375	0.71	.313x.313x1.77
3X	NMA05B & NMA07B	0.56	17.2	2.00	4-0.48	1.96	12.1	1.375	1.05	.313x.313x1.77
	NMA05C & NMA07C	0.71	19.0	2.50	4-0.59	2.52	13.9	1.750	1.05	.375x.375x2.16
4X	NMA10C & NMA15C	0.71	20.6	2.50	4-0.59	2.52	14.5	1.750	1.05	.375x.375x2.16
	NMA10D & NMA15D	0.87	21.8	3.75	8-0.59	3.75	15.7	2.500	1.05	.625x.625x2.95
5X	NMA22D	0.87	24.3	3.75	8-0.59	3.75	17.1	2.500	1.22	.625x.625x2.95
	NMA22E	0.99	26.7	4.38	8-0.75	4.38	19.5	2.875	1.22	.750x.750x3.74
6X	NMA37D	0.87	26.2	3.75	8-0.59	3.75	18.1	2.500	1.54	.625x.625x2.95
	NMA37E	0.99	28.5	4.38	8-0.75	4.38	20.4	2.875	1.54	.750x.750x3.74
7X	NMA55E	0.99	32.0	4.38	8-0.75	4.38	21.6	2.875	1.54	.750x.750x3.74
	NMA55F	0.99	34.2	5.50	8-0.75	5.50	23.8	3.625	1.54	.875x.875x4.53
7.5X	NMA75E	0.99	32.0	4.38	8-0.75	4.38	21.6	2.875	1.54	.750x.750x3.74
	NMA75F	0.99	34.2	5.50	8-0.75	5.50	23.8	3.625	1.54	.875x.875x4.53
8X	NMA91F & NMA95F	0.99	47.2	5.50	8-0.75	5.50	33.9	3.625	2.36	.875x.875x4.53
	NMA91G & NMA95G	1.38	53.8	7.50	8-0.95	7.54	40.4	5.000	2.36	1.250x.875x6.50

Size	RX Model Number	Hand-wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube		Input C-Face
					Adj. Spd. (gal.)	Reducer (gal.)	
2X	NMC02A	2.56	18	28	0.11	grease	56C
	NMC02B & NMC04B	2.56	18	44	0.11	grease	56C
3X	NMA05B & NMA07B	3.15	18	60	0.26	grease	56C
	NMA05C & NMA07C	3.15	18	89	0.26	grease	56C
4X	NMA10C & NMA15C	3.15	19	129	0.50	grease	140TC
	NMA10D & NMA15D	3.15	19	173	0.50	0.40	140TC
5X	NMA22D	4.72	23	197	0.72	0.40	180TC
	NMA22E	4.72	23	300	0.72	0.63	180TC

Dimensions

Flange Mount, Input C-Face, Circulate Reducer, Sizes 02 - 95 (2X - 8X)

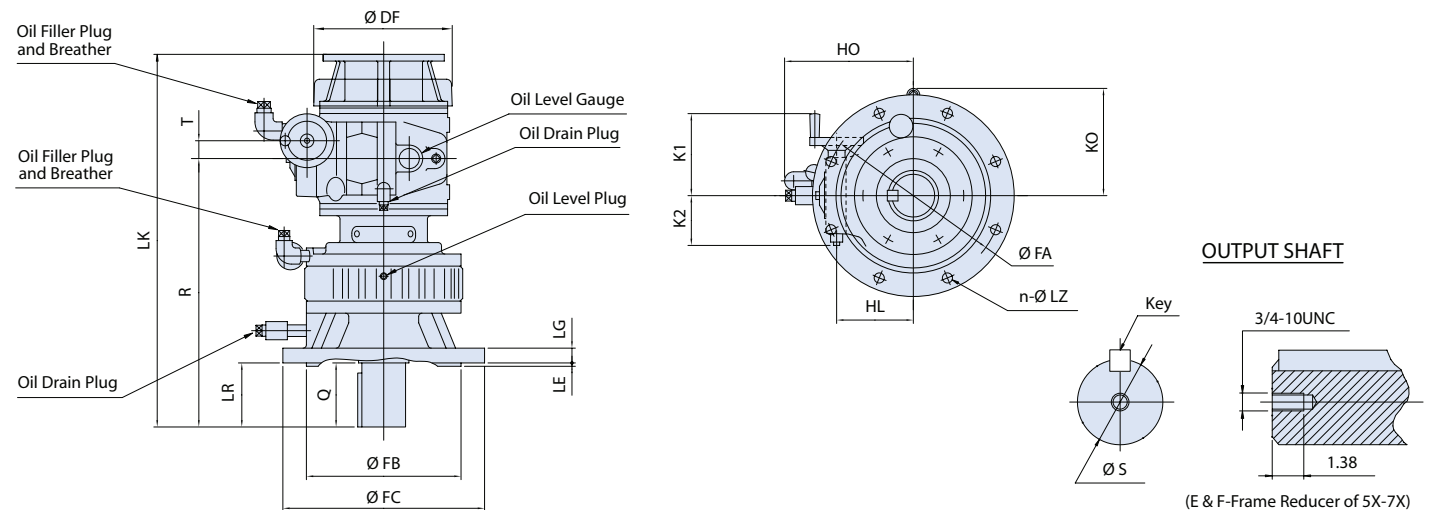
Size	RX Model Number	Hand-wheel Dia.	Hand-wheel Turns	Weight w/o Motor (lbs.)	Lube		Input C-Face
					Adj. Spd. (gal.)	Reducer (gal.)	
6X	NMA37D	4.72	20	255	1.27	0.40	180TC
	NMA37E	4.72	20	357	1.27	0.63	180TC
7X	NMA55E	4.72	23	477	1.43	0.63	210TC
	NMA55F	4.72	23	589	1.43	1.14	210TC
7.5X	NMA75E	6.30	23	451	1.43	0.69	210TC
	NMA75F	6.30	23	563	1.43	1.14	210TC
8X	NMA91F & NMA95F	6.30	21	943	3.95	1.14	250TC
	NMA91G & NMA95G	6.30	21	1,313	3.95	1.85	250TC

Units are shipped factory lubricated.

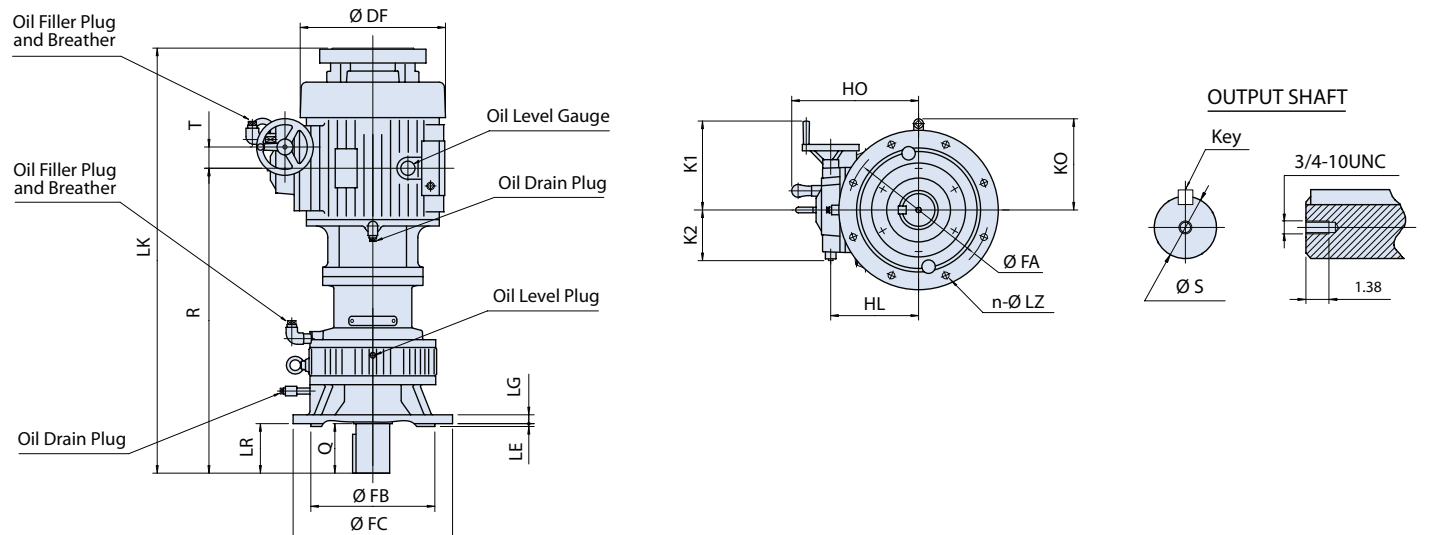
Unless otherwise noted, all lengths are in inches.

Dimensions are subject to change without notice. Contact Shimpo Drives for certified drawings for installation purposes.

Flange Mount, Input C-Face, Circulate Reducer, Sizes 02 - 75 (2X - 7.5X)

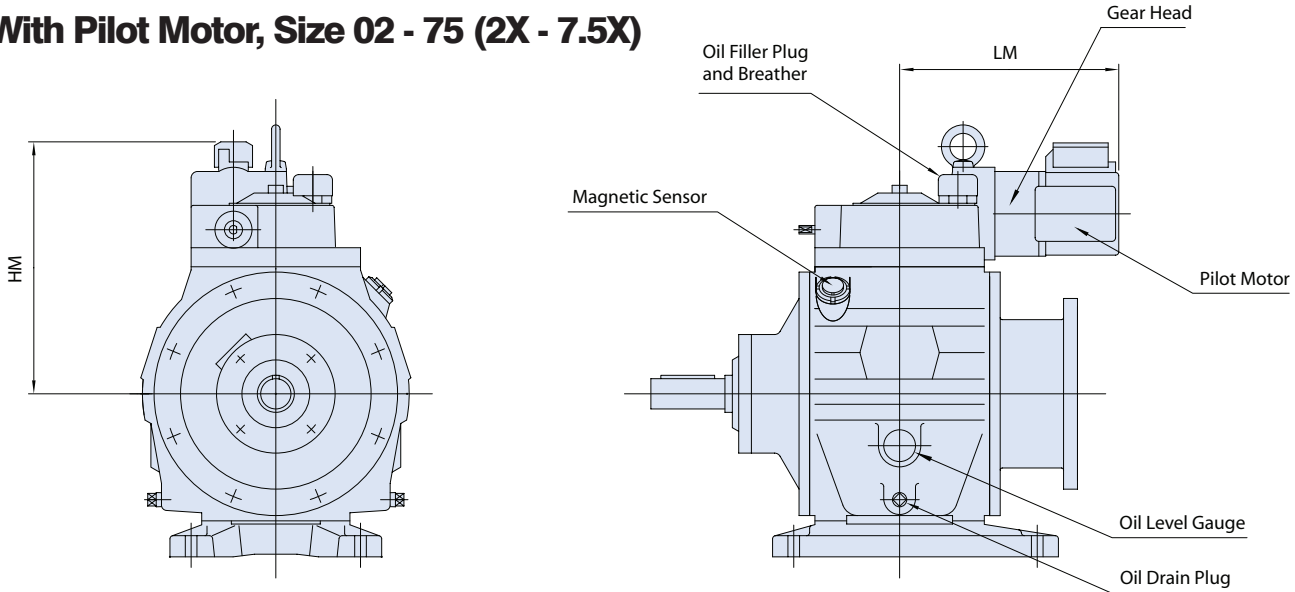


Flange Mount, Input C-Face, Circulate Reducer, Sizes 91 - 95 (8X)

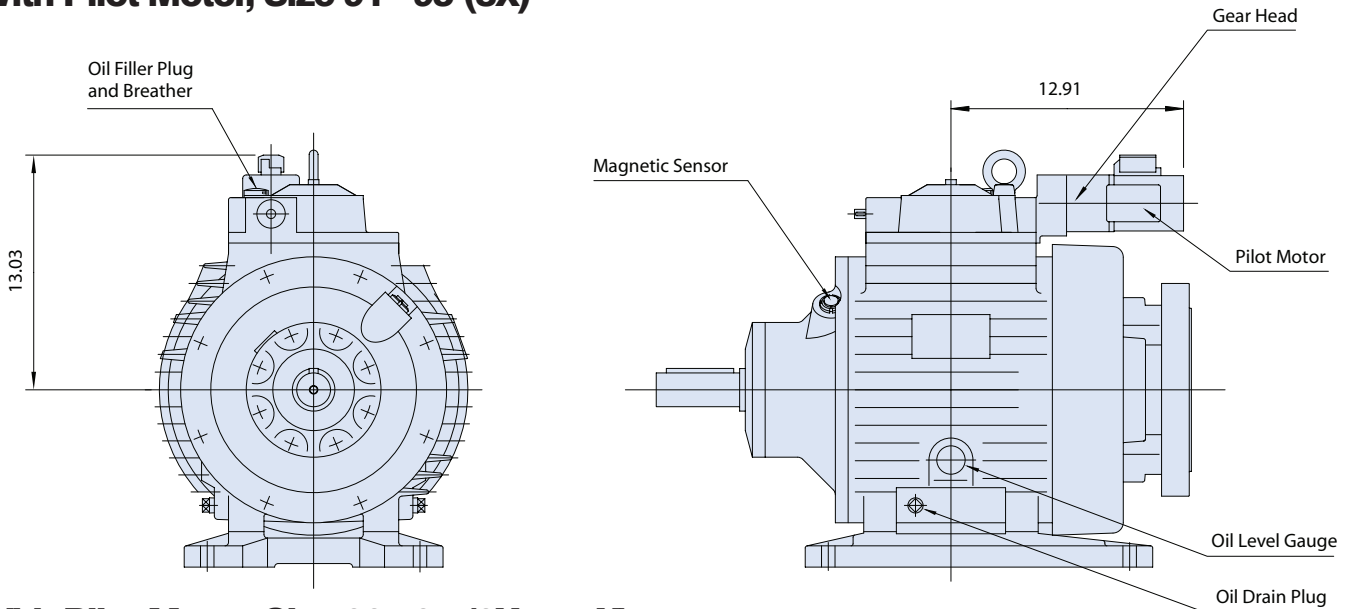


Dimensions

With Pilot Motor, Size 02 - 75 (2X - 7.5X)



With Pilot Motor, Size 91 - 95 (8X)



With Pilot Motor, Size 02 - 95 (2X - 7.5X)

Size	RX Model Number	HM	LM
2X	NMC02 and NMC04	6.90	7.44
3X	NMA05 and NMA07	7.37	7.17
4X	NMA10 and NMA15	7.80	7.17
5X	NMA22	9.37	8.15
6X	NMA37	10.24	8.94
7X	NMA55	11.10	10.83
7.5X	NMA75	11.10	10.83

Model Number Chart

NMA	1	0	B	1	0	3	1	A	A	A	0	3	0
Input Code	Size Code		Reducer Code	Mounting Code	Speed Control Code		Main Motor	Motor Specification		Factory Use	Speed Adjustment	Environmental	
A	B		C	D	E		F	G		H	I	J	

Input Code Ordering Code		A
RMA	1X C-Face Input	
RXA	1X Shaft-In	
NMC	2X C-Face Input	
NXC	2X Shaft-In	
NMA	3X-7X C-Face Input	
NXA	3X-7X Shaft-In	

Size Code Ordering Code		B
90	1X, 0.125HP	
02	2X, 0.25HP	
04	2X, 0.5HP	
05	3X, 0.75HP	
07	3X, 1HP	
10	4X, 1.5HP	
15	4X, 2HP	
22	5X, 3HP	
37	6X, 5HP	
55	7X, 7.5HP	
75	7.5X, 10HP	
91	8X, 15HP	
95	8X, 20HP	

Reducer Code Ordering Code		C
00	No Reducer	
--	See each Rating Table for detail	

Note:
Built-in Planetary or
Built-in Circulate

Note:
* Consult Factory

Mounting Code Ordering Code		D
0	Horizontal with Base	
1	Output Shaft Down w/Flange	
2	Output Shaft Up w/Flange	
4	Output Shaft Down w/Base	
5	Output Shaft Up w/Base	
6	Horizontal with Flange	
L	Wall Mount Left, Viewing from Output Shaft	
R	Wall Mount Right, Viewing from Output Shaft	
*	Special, please specify	

Motor Speed Control Code (Bolt Circle of motor in mm) Ordering Code		E
00	Manual Handwheel	
10	Manual Handwheel w/MGS	
11	Open Loop, PM 115VAC	
12	Open Loop, w/MGS PM 115VAC	
14	Open Loop, w/Auxillary Handwheel, PM 115VAC	
15	Open Loop, w/MGS and Auxillary Handwheel, PM 115VAC	
31	Closed Loop, w/MGS PM 115VAC	
32	Closed Loop, w/MGS and Auxillary Handwheel, PM 115VAC	
33	Closed Loop, w/Pot Feedback PM 115VAC	
35	Closed Loop, w/Pot Feedback and Auxillary Handwheel PM 115VAC	
40	Open Loop, EXP PM 115VAC	
41	Open Loop, w/EXP MGS EXP PM 115VAC	
42	Closed Loop, w/EXP MGS EXP PM 115VAC	
43	Hand Wheel w/EXP MGS	
*	Special, please specify	

Note:
PM: Pilot Motor
MGS: Magnetic Sensor
EXP: Explosion Proof

Worm Position Code Codes 1-6 are for the R_A-90 unit w/integral worm reducer only		H
0	Right angle reducer not used	
1	Vertical up on left	
2	Vertical down on left	
3	Vertical up on right	
4	Vertical down on right	
5	Horizontal on left, worm under	
6	Horizontal on right, worm under	
B	Horizontal on right, worm over	
C	Horizontal on left, worm under	
9	Special, requires description	

Main Motor Ordering Code		F
A	No Motor	
B	1ph, 115/230VAC, 60Hz	
C	3ph, 230/460VAC, 60Hz	
*	Other, please specify	

Motor Specification Ordering Code		G
Motor AA through AE are C-Face connected, 1750rpm		
AA	No Motor	
AB	TEFC	
AC	Wash Down	
AD	Explosion Proof	
AE	Brake Motor	
Motor CB through CE are Top-mounted, 1750rpm		
CB	TEFC	
CC	Wash Down	
CD	Explosion Proof	
CE	Brake Motor	
99	Other, please specify	

Speed Adjustment Ordering Code		I
0	800rpm top speed	
	533rpm w/1165rpm Input	
3	600rpm top speed	
	400rpm w/1165rpm Input	
4	1000rpm Top speed	
*	Other, please specify	

Environmental Ordering Code		J
0	Standard	
2	Washdown protection for Handwheel unit, includes Washdown Breather, V-Ring, Stainless Steel Sleeve under Oil Seal, and White Epoxy Painting	
	Washdown Breather only	
5	Washdown protection for Electric Remote Control unit, includes Washdown Breather, V-Ring, Stainless Steel Sleeve under Oil Seal, and NEMA4 at PM, and White Epoxy Painting	
	NEMA 4 at PM	
*	Other, please specify	

Electric Remote Control Options

The Shimpo RXC Traction Drive is normally supplied with a simple Handwheel to control the output speed. Electric Remote Control (ERC) options are also available.

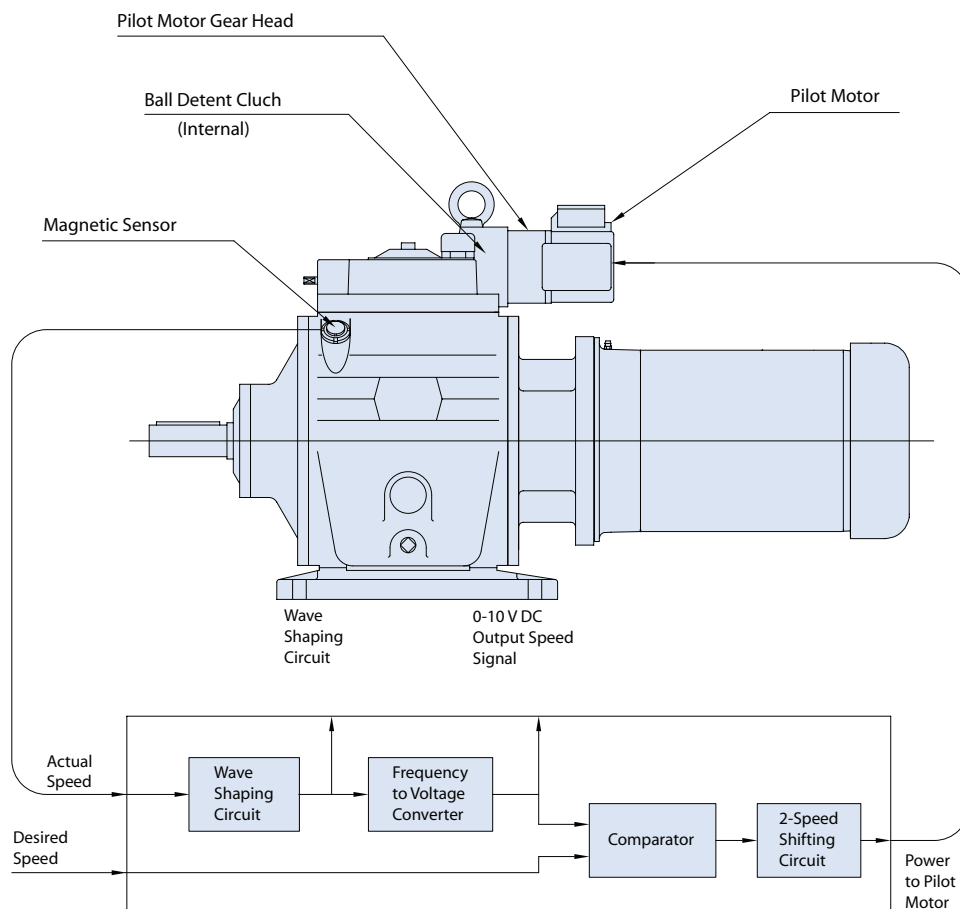
For this option, a small electric gearmotor is mounted to the speed control hardware to adjust the speed. In a simple open-loop configuration, this motor would run in a forward or reverse direction based upon a pair of pushbuttons, or PLC outputs (120VAC). This type of arrangement would normally be used if the object was to simply control the speed from a remote location. To order, request the ERC pilot motor option.

If the application requires that the set speed be maintained within 0.8% of Maximum, a closed-loop configuration is required (pictured below). For this configuration, an electronic controller accepts a set speed command (voltage or current) and monitors a pulse feedback signal from a magnetic sensor, using this information to control the movement of the electric gearmotor.

From the electronic controller, open collector electronic outputs are available which indicate an Alarm condition or an At-Speed condition. An analog voltage signal is also available, relative to actual output speed. To order, request the ERC pilot motor option and add a closed-loop controller.

Additional signal follower options are available upon request.

The following page describes the closed-loop controller hardware and features.



Electric Remote Control Options

LAB-3A-2-RXC-7 Closed-Loop Control

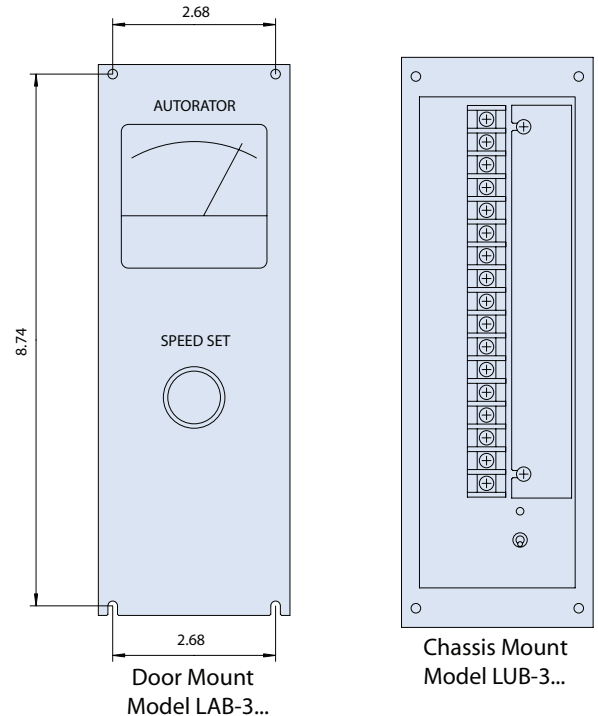
(door mounted)

LUB-3A-2-RXC-7 Closed-Loop Control

(chassis mounted)

Shimpo's LAB and LUB closed-loop controllers provide the intelligence needed to maintain a set speed within very close tolerances (0.8% of Max speed). Both styles use the same electronics, but the LAB is door mounted and includes a speed potentiometer and analog speed meter. The LUB is "chassis" or panel mounted, and includes terminals for a potentiometer and meter (not included).

Electric Speed Controls Door/ Chassis Mount

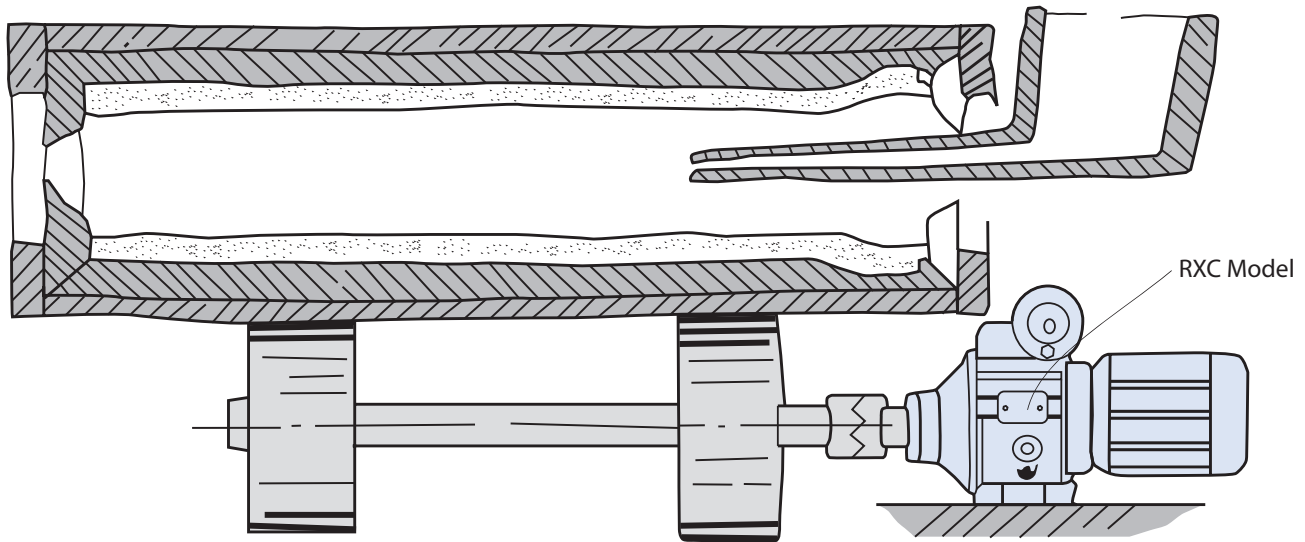


Specifications

Input Power	110 VAC 10%, 60/50 Hz, 100V-A
Speed Control Signal	1 k-ohm potentiometer 0 - 10 V DC, 10 k-ohm input impedance optional 4 - 20 mA DG, 250 ohm input impedance
Speed Control Accuracy	0.8% of maximum speed (5 rpm dead band at the adjustable speed portion)
Controlled Speed Range	80:1 typical (10 rpm min. speed at the adjustable speed section)
Speed Output Signals	60 pulse per revolution of the adjustable speed section (TTL voltage or open collector: 28 V DC, 20 mA max.) 0 - 10 V DC, 5 mA max., proportional to output speed
Other Output Signals (optional)	ALARM - open collector, 28 V DC, 20 mA max. SPEED ARRIVAL - open collector, 28 V DC, 20 mA max.
Speed Shift Time Size 02 through 75 Size 91 through 96 Size 97 and 98	4.1 sec at 60 Hz (5 sec at 50 Hz) 8.2 sec at 60 Hz (10 sec at 50 Hz) 12 sec at 60 Hz (15 sec at 50 Hz)
Front Panel Devices (LAB style)	SPEED SET potentiometer analog speed meter

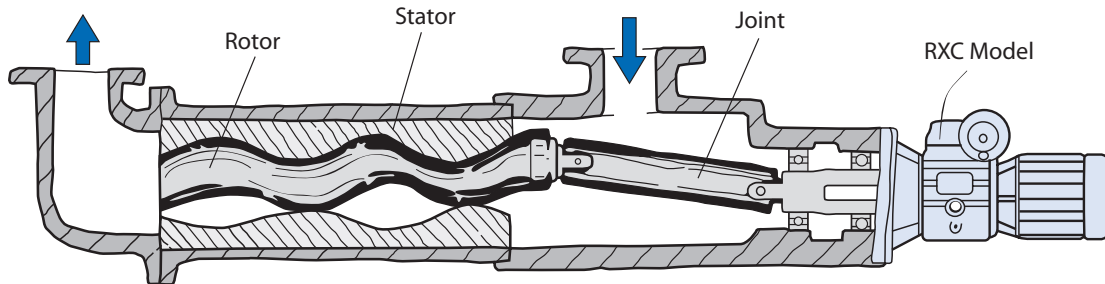
Applications

Centrifugal Casting Machine

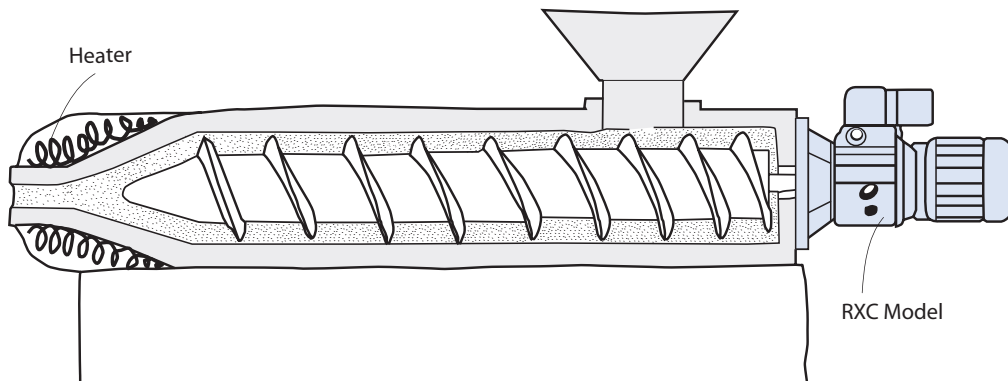


Positive Displacement Pump

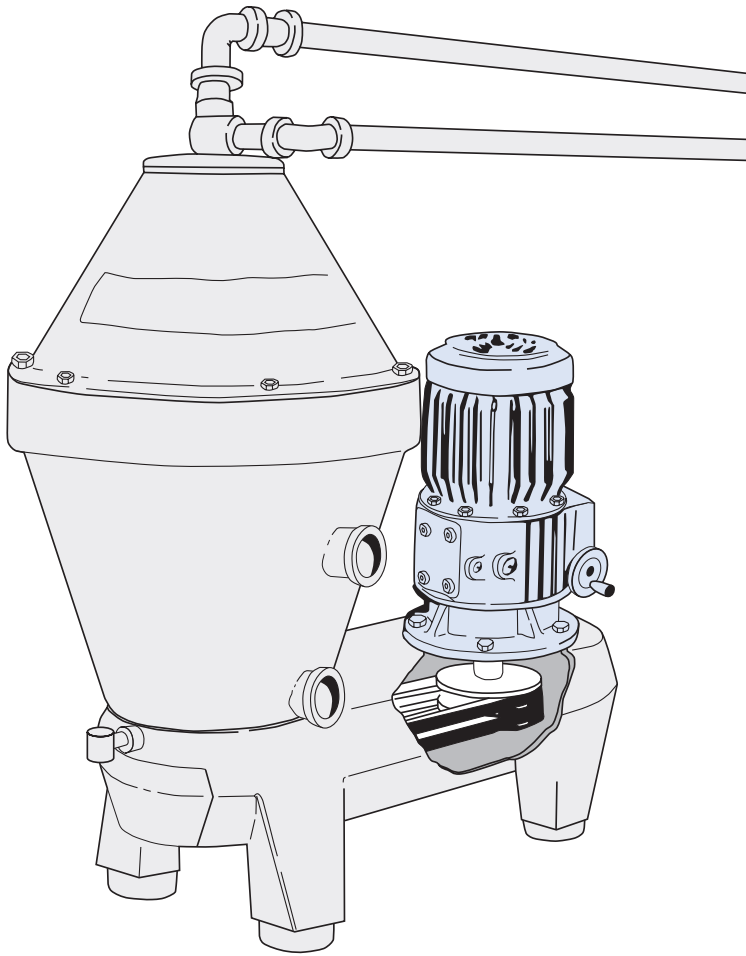
A perfect application. The RXC loves to pump thick lumpy solutions. The internal cam disc automatically compensates for clogs and jams by applying more torque. A well-known problem solver in the oilfield industry.



Extruder



Applications

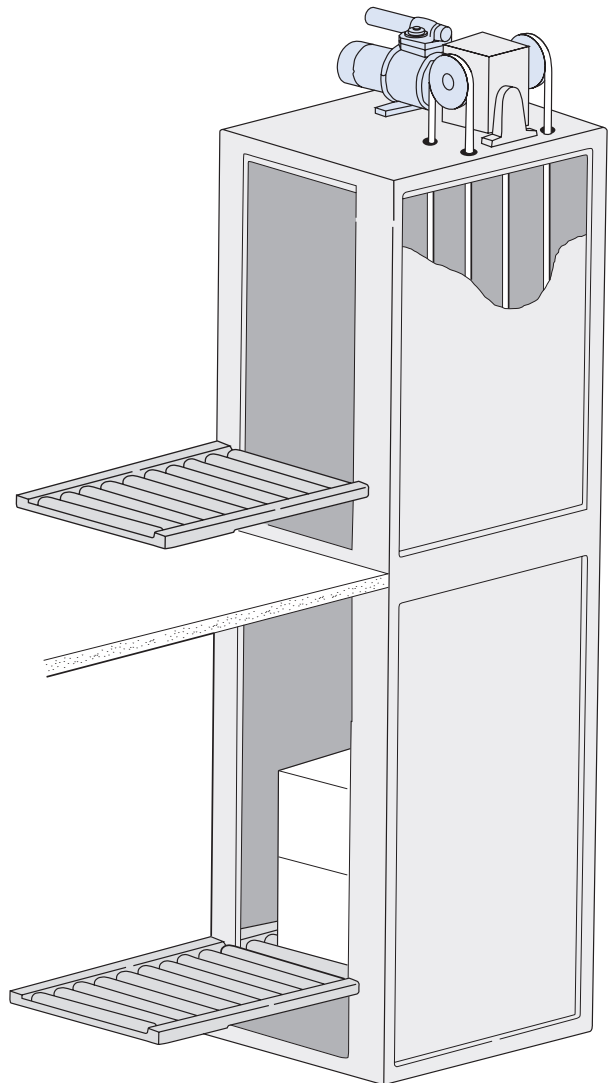


Ingredient Mixer

Mixing lumpy solutions, wet or dry, from rocks to powders to chemicals, is easily handled by the RXC. The drive is inherently non-sparking and commonly used in explosive areas, when driven by an XP motor.

Material Handling Elevator

Simple and foolproof. No issues with lightning storms or poor signal grounding. It just runs whenever you need it.





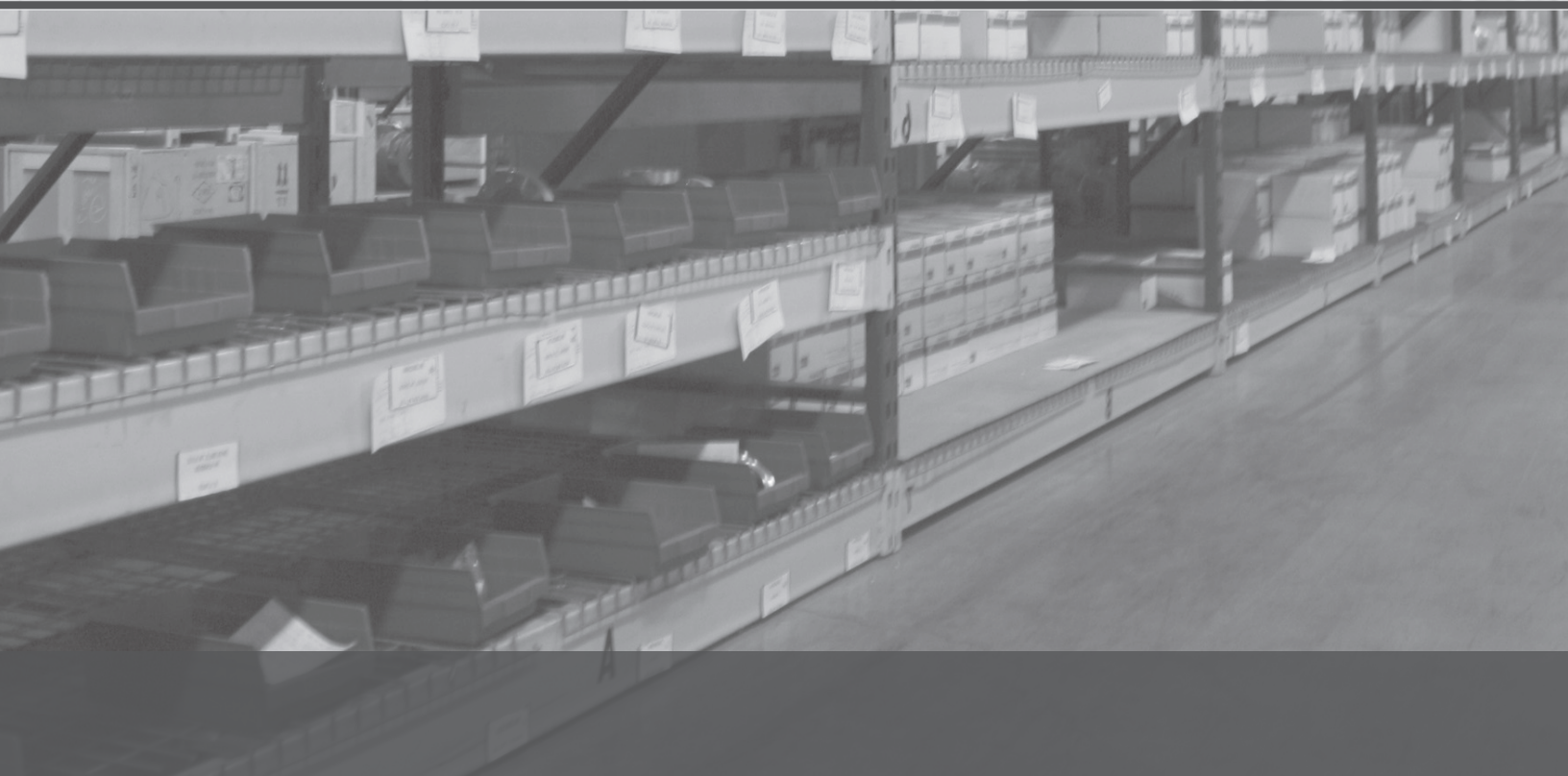
Shimpo Drives, Inc.

A subsidiary of **Nidec-Shimpo America Corporation**, is a leading manufacturer/supplier of quality industrial drive products.

Global Connections/Services

Centrally based in Itasca, Illinois, **Shimpo Drives** is committed to providing superior products and ultimate customer service:

- Worldwide manufacturing facilities through **Nidec-Shimpo Corporation**
- 200 distributor locations throughout North and Latin America
- Same day shipment on all stock reducers
- Knowledgeable inside and field sales and technical support staff
- Extensive technical assistance
- Local field service capabilities



SHIMPO Worldwide Facilities



1

Shimpo's North American headquarters in suburban **Chicago** where we inventory, provide sales, engineering, and product support.

2

Shimpo's Regional offices located in **California** and **North Carolina**, providing sales, engineering and product support.



3

Shimpo's new state of the art factory in **China** with current manufacturing capacity of 16,000 units per month and future expansion capabilities.



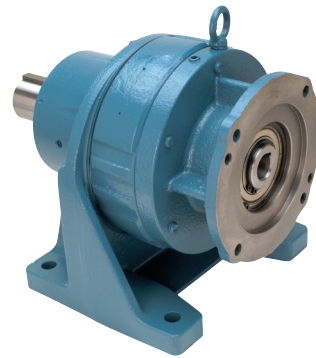
4

Shimpo's corporate offices in **Japan** where the company performs product research, development, and international sales support. ISO 9001 certified.

The Complete Line of **Shimpo Drives** Products



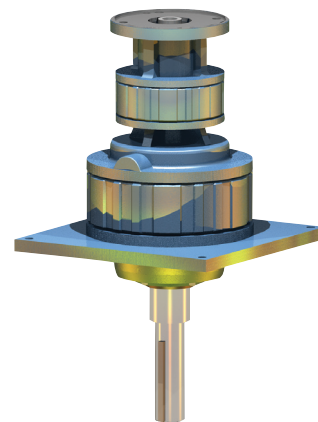
Adjustable Speed Drive



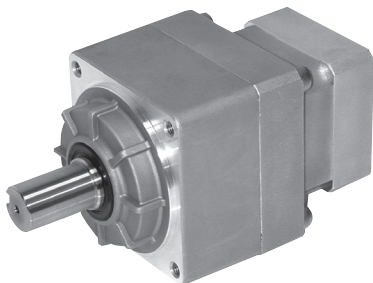
Speed Reducer



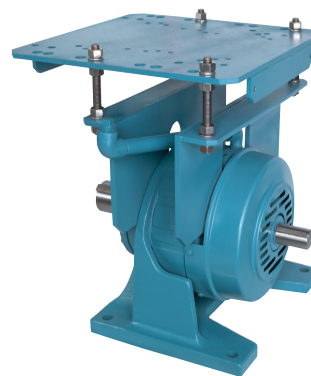
Servo Cycloidal Speed Reducer



Overhead Conveyor Speed Reducer



Servo Planetary Gearhead



Top Mount Adaptor Reducer

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