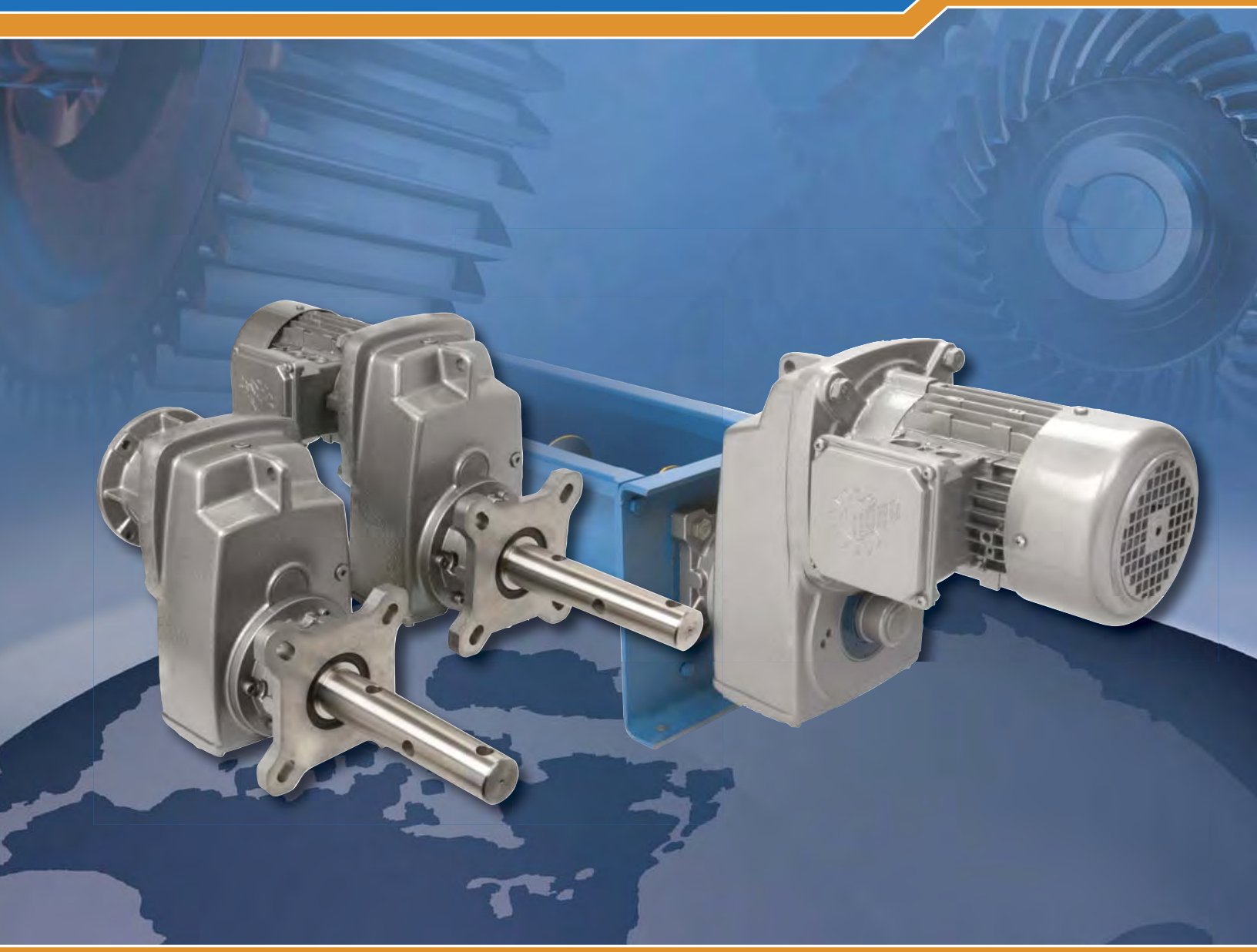
Intelligent Drivesystems



SCREW CONVEYOR GEARMOTORS & SPEED REDUCERS

Durable & Premium Efficient Gear Units

G1129

NORD DRIVESYSTEMS

Screw Conveyor Package Innovative Design

SCP - PRODUCT FEATURES

OPTIMIZED SEALING SYSTEM

- Dual Viton lip seals
- Grease impregnated packing seal
- Dual gap seals (excludes particles) – 0.03" gap
- Material evacuation ports
- Shaft material ditch
- Quadrilip™ sealing

MOUNTING

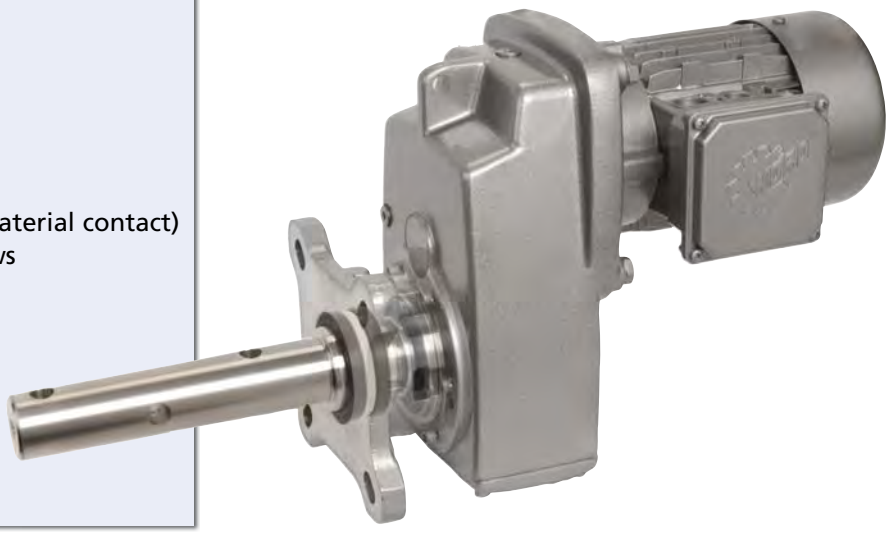
- Standard CEMA mounting
- Versatile flange – multiple bolt patterns
- 3-Hole tapered CEMA drive shaft
  - Easy mounting
  - Easy removal (less fretting – due to less material contact)
- Reduced bearing loads – tapered shaft allows for screw pipe misalignment
- Quick external removal feature

FLANGE

- Standard CEMA mounting
- High strength class 35 gray cast iron
- Versatile flange – multiple bolt patterns

HIGH EFFICIENCY

The NORD SCP design is extremely effective due to the direct coupled gearmotor or NEMA C-face input design. Belted input systems have significantly lower total drive performance. You can further increase the overall efficiency by applying the NORD "H" line of energy efficient motors.



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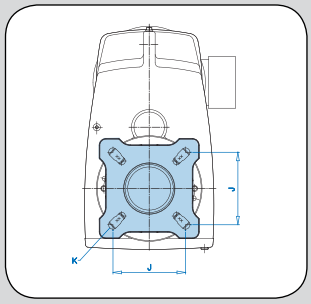
NORD DRIVESYSTEMS

www.nord.com

CEMA CONVEYOR EQUIPMENT MANUFACTURERS ASSOCIATION

UNICASE™



NORD Gear

Company Overview

Since 1965, NORD Gear has grown to global proportions on the strength of product performance, superior customer service, and intelligent solutions to a never ending variety of industrial challenges.

All mechanical and electrical drive components are available from NORD Gear. Our products cover the full range of drive equipment: helical in-line, Clincher™ shaft-mount, helical-bevel, and helical-worm gearboxes, motors and AC drives from 1/6 hp to 250 hp, with torques from 90 lb-in to 900,000 lb-in.

But NORD Gear does far more than manufacture the world's finest drive components. We provide our customers with optimum drive configurations for their specific purposes. NORD provides each and every one of them with truly complete and efficient systems at a price/quality ratio unmatched in today's fast-changing markets.

NORD Gear makes its wide range of products easily available through a global network that provides all customers with prompt delivery and expert support services to consistently exceed customer expectations. We are firmly committed to being totally responsive to the ideas and specifications of every customer, anywhere in the world.

High-Performance Motors & Brakemotors

NORD motors are designed to run cool for longer service life. Low rotor inertia and high starting torque allow peak performance in the most difficult applications for inverter and vector duty per NEMA MG 1-2006 Section 31.4.4.2 voltage spikes. Our motors are internationally accepted, conforming to North American NEMA MG 1 and international IEC electrical specifications. High performance options include brakes, encoders, and forced cooling fans.

Short, On-Time Delivery

As a NORD customer, you can rest assured that your order will be delivered on time. Because NORD has both decentralized assembly and manufacturing operations paired with a globally linked network, we have the ability to offer our customers:

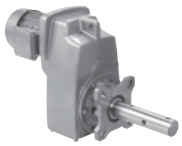
- Fast, reliable responses
- Greater product versatility
- Shorter lead times
- Timely shipping
- Rapid delivery

Quality

Quality is assured at NORD's assembly and manufacturing facilities, based on ISO 9000 standards — from careful inspection of incoming materials to closely monitored machining operations, including gear cutting, turning, hardening & grinding as well as finishing & assembly.

NORD 911

Trouble? Just call 715-NORD-911 (in Canada, 905-796-3606). Emergency service is available 24 hours a day, 7 days a week. We'll answer your call, ship the parts, or build a unit and have it shipped directly to you to provide what you need, when you need it.



Manufacturing

NORD continually invests in research, manufacturing and automation technology. This is to ensure the highest possible quality at affordable prices. NORD invests heavily in our North American facilities as well as our factories around the world. Recent examples include expanding our Waunakee factory and adding numerous new large gear unit assembly cells. In our Glinde, Germany gear factory we added a state-of-the-art multi-chamber vacuum carburization system.

Global Availability

From Shanghai to Charlotte, and everywhere in-between, NORD reaches customers around the world. Deliveries, service, and product support are close at hand, regardless of your location.

Worldwide Standards

NORD products are designed and manufactured based on the latest North American and global standards.

Increased North American Presence

NORD covers North America with over 30 district offices and over 500 distributor branches. NORD operates manufacturing and assembly facilities in Waunakee, WI, Charlotte, NC, Corona, CA, Brampton, ON, and Monterrey, Mexico, resulting in an ever-increasing capacity in North America and giving our customers the shortest lead times in the industry.

Energy Efficiency

Lowering your operating costs is one of our greatest goals! NORD research and development focuses on energy efficiency, with gearboxes, motors, and frequency inverters designed for lower energy consumption. Our fully diverse line of in-line or right-angle units and motors has been developed to suit your needs.

Modular Design

NORD's modular design philosophy provides you with a competitive edge by allowing you to configure drive systems to exactly fit your applications.

More than 20,000,000 combinations of totally unique gearmotors and speed reducers are possible – assembled in-line or right-angle, mounted by foot or flange, featuring solid or hollow shafts with either metric or inch shaft extensions – to give you complete freedom to specify a drive solution that's perfect for you.

Benefits

- More output speeds
- More mounting arrangements/Greater flexibility
- Fewer gear stages/Lower cost
- Metric and inch products

NORD engineers stand ready to assist you with your custom applications. Most standard drives can be modified to your purposes, and custom designs can be developed for special applications.

Key Features

Standard NORD features

Modular Design

All NORD products including the SCP units are modular in design and provide extraordinary flexibility.The SCP unit may also be provided with a number of different input components including:

- Integral motor (Gearmotor)
- NEMA C-face motor adapter
- IEC B5 motor adapter
- Solid input shaft
- Custom motor adapter
  (servo, hydraulic motors, and more)

Large Ratio Per Gear Stage

NORD gear cutting technology allows for the production of gear sets with a higher maximum ratio per stage than many other speed reducer manufacturers. NORD commonly produces gear sets with a maximum ratio of between 9:1 and 10:1 per stage. This allows for double reduction gear units with a maximum ratio between 72:1 and 100:1. Most speed reducer manufacturer's can only produce single-stage reduction of between 5:1 and 6:1. This means a two-stage reducer with a maximum reduction of about 25:1 to 35:1. NORD can often provide a two-stage reducer when most companies must provide three-stage units. The same situation applies to three, four and higher gear stages. This allows NORD to provide superior value and performance in many conditions.

Benefits

- Better value
- Higher efficiency
- Quieter operation
- Lower weight
- Longer life

AUTOVENT™

The AUTOVENT™ prevents bearing damage by blocking entry of foreign material (water, dust, corrosives, etc.) through the breather. A ball and spring check valve opens at approximately 2 psi during operation and closes tightly when the gearbox cools, producing a slightly negative pressure that ensures the valve seals tight. This keeps contaminants out of the oil to maintain proper oil cleanliness reducing contamination, foaming and oxidation. The AUTOVENT™ is perfect for humid conditions, washdown applications, and dusty environments.

Benefits

- Cleaner gearbox oil
- Extended lubrication life
- Longer-lasting seals, gears, and bearings

High-Quality Gearing (Infinite Life Design)

NORD continually invests in state-of-the-art gear production equipment and in gear research. This allows us to produce exceptionally high quality gears.

Benefits

- Designed & manufactured up to AGMA CLASS 13
- Infinite design life
- Case-hardened steel
- Exceptional hardness: 58 Rc minimum
- High-speed gears are ground;
  low speed gears are skive hobbed
- 275% momentary overload capacity
- Low noise
- Low maintenance

Factory Oil Filled

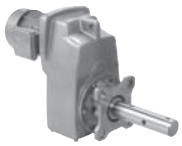
All SCP units are filled at the factory with the proper quantity and type of lubrication. Oil fill before shipping prevents damage from dry start-ups.

Benefits

- No need for filling on-site
- Ensures proper oil grade and fill level

NORD High-Performance Motors & Options

NORD motors are designed to run cool for producing longer service life. Low rotor inertia and high starting torque allow peak performance in the most difficult applications for inverter and vector duty per NEMA MG 1-2006 Section 31.4.4.2 voltage spikes. Our motors are internationally accepted, conforming to North American NEMA MG 1 and international IEC electrical specifications. High performance options include brakes, encoders, and forced cooling fans.



Screw Conveyor Package Overview

NORD has developed a unique class of high performance right-angle speed reducers. The SCP are available as gearmotors and speed reducers with many mounting options. The SCP units provide high performance right-angle helical-bevel gear units at the cost effectiveness of a single worm system.

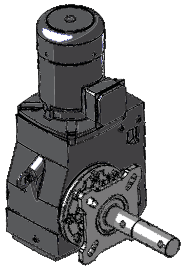
SCP Clincher™ Gear Units (76 - 113)

SK 1282 SCP	SK 1382 SCP
SK 2282 SCP	SK 2382 SCP
SK 3282 SCP	SK 3382 SCP
SK 4282 SCP	SK 4382 SCP
SK 5282 SCP	SK 5382 SCP
SK 6282 SCP	SK 6382 SCP

SCP Bevel Gear Units (118)

SK 9012.1 SCP	SK 9013.1 SCP
SK 9022.1 SCP	SK 9023.1 SCP
SK 9032.1 SCP	SK 9033.1 SCP
SK 9042.1 SCP	SK 9043.1 SCP
SK 9052.1 SCP	SK 9053.1 SCP

Please note that when ordering an SCP unit with a bevel gearbox that the lead times are slightly longer due to the extra manufacturing involved on this specialty product.



Customer Benefits

Simplicity - The NORD SCP screw conveyor package eliminates the need for costly separate v-belt drives by directly coupling their motors to the C-face reducer. More space savings is also possible using an integral gearmotor with the SCP package.

- Reduced cost
- Reduced installation time
- No belt maintenance or guarding
- Space savings
- Higher efficiency
- More transferred torque

UNICASE™ Design

NORD heavy-duty, one-piece housings are precisely machined to meticulous standards. Internal reinforcements further increase strength and rigidity. All bearings and seal seats are contained within the casting, eliminating splits or bolt-on carriers that can weaken the housing and allow oil leakage. Bores and mounting faces are machined in one step, producing extrememly precise tolerances – thus ensuring accurate positioning of gear teeth, bearings and seals, and longer life for all components.

High-Quality Gearing (Infinite Life Design)

NORD continually invests in state-of-the-art gear production equipment and in gear research. This allows us to produce exceptionally high quality gears.

Benefits

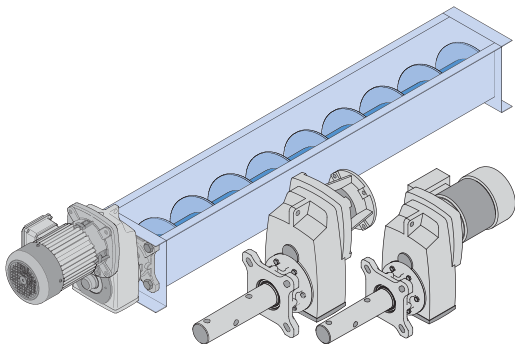
- Designed and manufactured up to AGMA CLASS 13
- Infinite design life
- Case-hardened steel
- Exceptional hardness: 58 Rc minimum
- High-speed gears are ground; low speed gears are skive hobbed
- 275% momentary overload capacity
- Low noise
- Low maintenance

QUADRILIP™ Sealing

The QUADRILIP™ system has four components for sealing lubricant inside, and contaminants outside, the speed reducer. The system includes a double lip seal, single lip seal and greasepack barrier (grease lip). Furthermore, the shaft seal area is super-finished.

Benefits

- Superior protection against leaks
- Long seal life
- Improved protection against contaminants
- Improved speed reducer life
- Reduced maintenance requirements & costs



Key Features

SCP - Product Features

NORD offers a unique class of high performance screw conveyor drives. The NORD SCP line is based upon the premium efficient CLINCHER™ gear units. The SCP series of screw conveyor drives offers superior durability in the most severe load and service conditions. The SCP system may also be provided as right-angle helical-bevel gear drives.

Optimized Sealing System

- **❶ Dual Fluropolymer lip seals**
  The SCP mounting flanges contains dual Fluropolymer seals to provide improved sealing. The Fluropolymer seals provide a high degree of chemical and mechanical protection.
- **❷ Dual gap seals (excludes particles) – 0.03" gap**
  The SCP mounting flange and CEMA drive shaft are designed to provide a mechanical sealing device referred to as a gap seal. The flange owns a clearance of 0.03" at two locations on the shaft. This forms a mechanical block to large particles and prevents their entrance into the gear unit.
- **❸ Shaft material ditch**
  Should any material penetrate the fluoropolymer seals, gap seals and greased packing felt seals, the shaft material ditch provides a material gravity break to divert anything that is working its way down the shaft towards the inside of the gearbox.
- **❹ Greased packing felt seal**
  Provides protection for small objects. If materials work their way past the first fluropolymer lip seal and gap seal it will be trapped within the grease felt sealing ring.
- **❺ Material evacuation ports**
  Provides an exit for any foreign material that infiltrates the external sealing system. Also provides a way to clean out the sealing system.
- **❻ QUADRILIP™ sealing**
  Please see page 5 for details

Mounting

- **Standard CEMA mounting**
  The NORD SCP drives adhere to the CEMA standard mounting dimensions.
- **❼ 3-Hole tapered CEMA drive shaft**
  The NORD SCP CEMA drive shaft is a standard three hole shaft. This allows for mounting to either 2-bolt or 3-bolt connections. The drive shaft is tapered for easier mounting and removal. The taper also reduces shaft loading due to misalignments.
- **Easy mounting**
  The NORD SCP drive is easily mounted into the screw pipe. The taper shaft acts as a guide in assembling the drive shaft into the screw pipe.
- **Easy Removal** -
  There is less fretting due to less material contact.
- **Reduced bearing loads**
  Taper allows for screw pipe misalignment.
- **Quick external removal feature** -
  The SCP drive can be easily removed from the screw pipe in two ways. First is the conventional removal of the complete drive and shaft. Unbolt the mounting flange from the trough and remove the cross bolts from the pipe and shaft. After this is done the drive may be removed. This requires access to inside of the screw pipe which is not always possible.

  The Second way to remove the drive without screw pipe access by unbolting the SCP mounting flange from the drive and removing the drive, leaving the flange and drive shaft attached to the screw pipe.

Flange

- **Standard CEMA mounting**
  The NORD SCP drives adhere to the CEMA standard mounting dimensions.
- **High strength class 35 gray cast iron**
  The SCP drives and screw conveyor flanges are made form high strength class 35 gray cast iron with a minimum tensile strength of 35,000psi.
- **❽ Versatile flange – multiple bolt patterns**
  The SCP mounting flanges often accommodate more that one CEMA bolt pattern. This allows one drive to be used on different screw sizes simply by switching out the drive shaft.

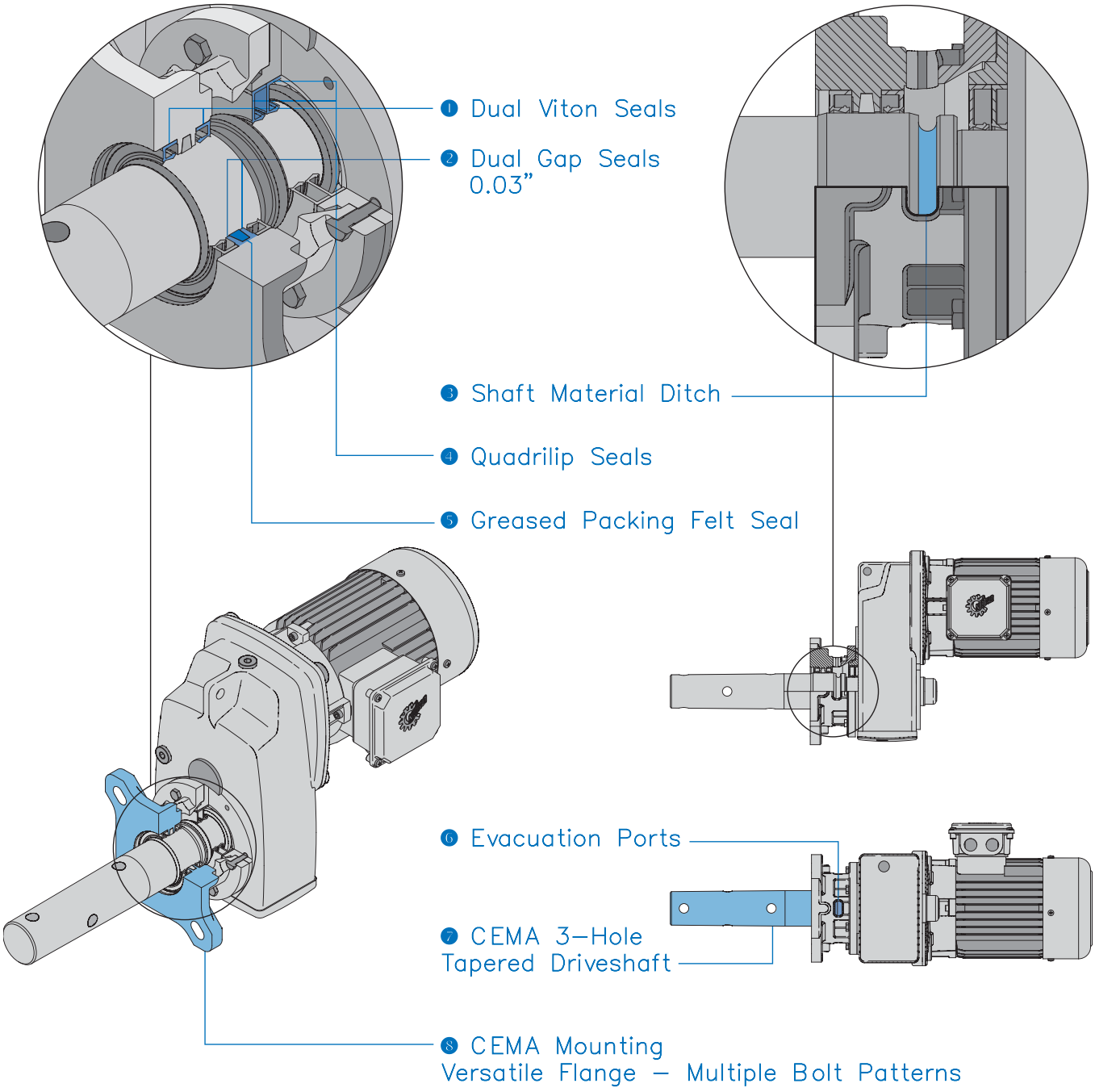
High Efficiency

The NORD SCP design is extremely efficient due to the direct coupled gearmotor or NEMA C-face input design. Belted input systems have scientifically lower total drive efficiency. Efficiency may be further increased by using the NORD "H" line of energy efficient motors.

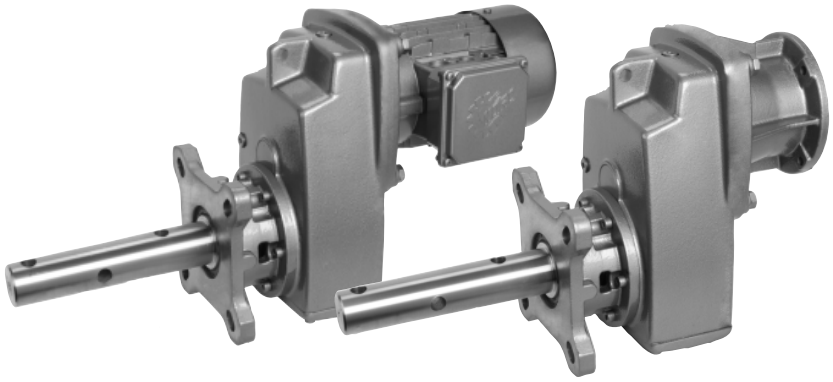
Options

- Grease purge-able seal (PC) - see page 16
- Stainless steel CEMA drive shaft (SM5) - See page 16

Screw Conveyor Key Features and Details



Capacity , Ratings & Combinations



Capacity & Ratings Overview

Model Type	Max Torque [lb-in]	Ratio Range [x:1]	Speed's [rpm]	Max Thrust Load Std Brgs [lb]	Max Thrust Load HD Brgs " VL " [lb]	Gear Stages	Efficiency [%]
SK 1282 SCP	2620	4.79-109.5	365-16	1609	1609	2	97
SK 1382 SCP	2425	87.94-624.45	20-2.8	1550	1609	3	95
SK 2282 SCP	4611	4.51-127.51	388-14	2700	3375	2	97
SK 2382 SCP	4894	82.22-763.41	21-2.3	2700	3375	3	95
SK 3282 SCP	8363	4.48-112.23	391-16	3263	4500	2	97
SK 3382 SCP	9195	89.60-1022.42	20-1.7	3263	4500	3	95
SK 4282 SCP	16089	4.7-155.4	372-11	4950	6750	2	97
SK 4382 SCP	18381	86.83-1585.08	20-1.1	4950	6750	3	95
SK 5282 SCP	28630	4.32-134.03	405-13	7200	9000	2	97
SK 5382 SCP	28320	82.72-1367.08	21-1.3	7200	9000	3	95
SK 6282 SCP	40135	4.39-80.33	399-22	13219	13500	2	97
SK 6382 SCP	53100	24.42-551.58	72-3.2	13253	13500	3	95

CEMA Drive Shaft Combinations

Model type	1.5" shaft	2" shaft	2-7/16" shaft	3" shaft	3-7/16" shaft
SK 1282 SCP	X	X	X		
SK 1382 SCP	X	X	X		
SK 2282 SCP	X	X	X		
SK 2382 SCP	X	X	X		
SK 3282 SCP	X	X	X	X	
SK 3382 SCP	X	X	X	X	
SK 4282 SCP		X	X	X	
SK 4382 SCP		X	X	X	
SK 5282 SCP		X	X	X	X
SK 5382 SCP		X	X	X	X
SK 6282 SCP				X	X
SK 6382 SCP				X	X

SCP
Ordering Guide

	Gear Unit	Reducer Options		Motor/Input	Motor Options
SK	❶	❷	❸		❹
				see page 19	see page 128

❶

Gear Unit
1282 SCP
1382 SCP
2282 SCP
2382 SCP
3282 SCP
3382 SCP
4282 SCP
4382 SCP
5282 SCP
5382 SCP
6282 SCP
6382 SCP
Specialty Bevel Product

❷

Reducer Options	
ADP - Additional Drain Plug	**PC -** Grease Purge Seal
LL - Long Term Storage	**RV -** Drain Valve
MDP - Magnetic Drain Plug	**SM5 -** Stainless Steel CEMA Shaft
OA - Oil Expansion Chamber	**VL -** Heavy Duty Bearings
OSG - Oil Sight Glass	

❹

Motor Options	
F & FC - Blower Cooling Fan	**OL -** Non Ventilated TENV W/Out Fan
RD - Drip Cover Canopy	**OLH -** Non Ventilated TENV W/Out Fan & Cover
RDD - Double Drip Cover Canopy	**WE -** Motor Second Shaft Extension
KD - Condensation Drain Holes	**Z -** High Inertia Motor Fan
KB - Condensation Drain Holes Plugged	**IG -** Incremental Encoderr
IP66 - IP66 Motor Enclosure	**TW -** Thermostat
KKV - Potted Terminal Box	**TF -** Thermistor
MS - Quick Power Disconnect, Harting Plug	**SH -** Anti-Condensation Space Heaters

❸

Input Shaft	NEMA Adapter	IEC Adapter	Integral Motors	Integral Energy Efficent Motors
W	**N56C**	**IEC 63**	**63S/4** - 0.16hp	**80LH/4** - 1hp
	N140TC	**IEC 71**	**63L/4** - 0.25hp	**90SH/4** - 1.5hp
	N180TC	**IEC 80**	**71S/4** - 0.33hp	**90LH/4** - 2hp
	N210TC	**IEC 90**	**71L/4** - 0.50hp	**100LH/4** - 3hp
	N250TC	**IEC 100**	**80S/4** - 0.75hp	**112MH/4** - 5hp
	N280TC	**IEC 112**	**80L/4** - 1hp	**132SH/4** - 7.5hp
		IEC 132	**90S/4** - 1.5hp	**132MH/4** - 10hp
		IEC160	**90L/4** - 2hp	**160MH/4** - 15hp
		IEC180	**100L/4** - 3hp	**160LH/4** - 20hp
			100LA/4 - 5hp	**180MH/4** - 25hp
			112M/4 - 5.4hp	**180LH/4** - 30hp
			132S/4 - 7.5hp	
			132M/4 - 10hp	
			160M/4 - 15hp	
			160L/4 - 20hp	
			180MX/4 - 25hp	
			180LX/4 - 30hp	
			Other Speeds Available	Other Speeds Available

Product Specifications

Ratio

_____ :1

see pages 31 - 62

OR

Output Speed

_____ rpm

see pages 31 - 62

Mounting Position

- ❍ M1
- ❍ M2
- ❍ M3
- ❍ M4
- ❍ M5
- ❍ M6
- ❍ Special _____

CEMA Shaft Diameter

- ❍ 1-1/2"
- ❍ 2"
- ❍ 2-7/16"
- ❍ 3"
- ❍ 3-7/16"

Paint

- ❍ Standard Stainless Steel Paint
- ❍ NSD+ (gray)
- ❍ NSD+W (white)
- ❍ NSD-X3 (gray)
- ❍ NSD-X3W (white)
- ❍ Casting Primed
- ❍ Special _____

Lubricant

- ❍ Standard
- ❍ Synthetic
- ❍ Food Grade
- ❍ Other _____

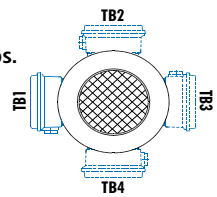
Gearmotor Only Details

Voltage & Frequency

- ❍ 230/460V-60Hz (460V only ≥ 40 hp)
- ❍ 575V-60Hz
- ❍ 208V-60Hz
- ❍ 400V-50Hz
- ❍ Other _____

Terminal Box Pos.

- ❍ TB1
- ❍ TB2
- ❍ TB3
- ❍ TB4

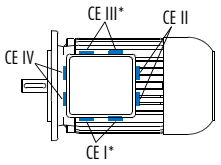


Mtg. Pos. M1 Shown

Conduit Entry Loc.

- ❍ CE I *
- ❍ CE II
- ❍ CE III *
- ❍ CE IV

* Brakemotor



Mtg. Pos. M1 Shown

Gearbox Selection

A number of factors are considered when selecting a gear unit, including gearbox rating, service factor, speed and speed variation, horsepower, thermal capacity, ratio, physical size, ambient conditions and cost. Below are some guideline steps to help aid in the gear unit selection.

1. Determine the speed and/or gear ratio
2. Determine the required power or torque
3. Determine Service Factor
4. Determine CEMA Shaft Diameter
5. Select the basic gearbox type and input
6. Determine the required mounting position
7. Select options
8. Checks – thrust load, NEMA moto weight, thermal considerations, & other application considerations

1. Speed and Gear Ratio

The first step in selecting a gear unit is determining the final output speed or speeds you need. This speed is normally described in revolutions per minute (rpm). This output speed or speeds is determined by the input speed to the gear unit divided by its gear ratio. Their relationship is described by the following formulas.

$$\text{i (gear ratio)} = \frac{\text{Input speed [rpm]}}{\text{Output speed [rpm]}}$$

$$\text{Output speed [rpm]} = \frac{\text{Input speed [rpm]}}{\text{i (gear ratio)}}$$

To specify a gear unit, you can identify either gear ratio needed or the output speed (rpm) if the input speed is known.

2. Power and Torque

The second step for selecting a gear unit is the required power or torque needed to power the load. Torque in this catalog is normally expressed in pound-inches [lb-in].

$$\text{Power [hp]} = \frac{\text{Torque [lb-in] x speed [rpm]}}{63025}$$

$$\text{Torque [lb-in]} = \frac{\text{Power [hp] x 63025}}{\text{speed [rpm]}}$$

For a proper selection you must ensure that the motor or other prime mover can produce enough torque or power and that the gear unit has adequate torque or power capacity.

To specify a gear unit you can identify either torque or power.

3. Service Factor or Service Class

In addition to power or torque, service factor must also be considered. A service factor is essentially the ratio of extra capacity in a gear unit compared to the power or torque that is needed to run that application. The goal of selecting a gear unit with extra capacity (service factor) is to provide adequate service life in operation.

One reason to apply a larger service factor is if a unit operates more hours per day. If a unit runs 24 hours per day it should normally have a higher service factor than a unit that runs 8 hours per day if you expect the same calendar life.

A second reason for applying a larger service factor is to cope with a more difficult application. Even if it takes the same power and speed to operate a rock crusher as a fan, the rock crusher needs a stronger gearbox (higher service factor) to give the same calendar operating life as the gear unit powering the fan.

The real question is how to determine the proper service factor for a gear unit in an application. Following are four possible methods.

Customer or User Specification

Many customers will have their own service factor guidelines or specifications.

AGMA Service Factoring

American Gear Manufacturers Association (AGMA) publishes lists of recommended service factors for different applications. These service factor recommendations have been determined from the experience of many gear manufactures and are in AGMA standard 6010.

AGMA Service Classes

American Gear Manufactures Association (AGMA) has another method for selecting gear units service factors. AGMA standard 6009 lists many applications by a service class (I, II, III) with class I being the simplest applications and class III being the hardest. These application service classes are associated with a range of service factors by the following table.

AGMA Service Class	Service Factor
I	1.00 to 1.39
II	1.40 to 1.99
III	2.00 and above

In the gearmotors selection table each unit is also classified by an AGMA service class.

NORD Mass Acceleration Service Factoring

NORD often uses a calculation based system to properly assign a service factor. This system considers hours of operation per day, the severity of the application and the number of times the equipment is cycled.

AGMA Class of Service

This table has been developed from the collective experience of gearbox and screw conveyor manufacturers and users of speed reducers in typical applications. Maintaining speed reducer Service Factor (S.F.) provides compensation for non-measurable operating loads and daily length of time in service.

The speed reducer selected should have a service factor greater than or equal to service factor suggested for the particular application. This will result in trouble free operation for a reasonable period of time. Insufficient service factor inevitably ends with premature failure of the speed reducer. Note: Each screw conveyor manufacturer determines the proper "margin of safety" for their type of application and equipment.

Operating conditions	Service Factor		
	up to 3 hrs/day	3-10 hrs/day	10-24 hrs/day
Uniformly loaded or fed	I	I	II
Heavy duty	I	II	II

from AGMA Standard 6009-A00

4. CEMA Drive Shaft Size

Available CEMA Shaft Sizes

- 1 - 1/2"
- 2"
- 2 - 7/16"
- 3"
- 3 - 7/16"

CEMA Drive Shaft Connection Strength

For some selections the torque is limited by the CEMA drive shaft connection. It is important to consider the torque limits following when making a selection.

Torque limits - CEMA 350-2003 (Table 3-5) excerpts

Shaft size [in]	2-Bolt [lb-in]	3-Bolt [lb-in]
1 - 1/2	3,070	3,070
2	7,600	7,600
2 - 7/16	9,270	13,900
3	15,400	23,310
3 - 7/16	21,800	32,700

5. Gearbox Input

NORD's modular design allows for a number of different inputs to be added to NORD reducers including:

- Integral motor
- NEMA-C and IEC motor adapter
- Solid input shaft

6. Mounting Position

The gearbox mounting position is an important and often overlooked specification. The mounting position determines how much oil the gear reducer requires, in addition to determining the position of the oil drain, oil fill and vent on the gear drive. NORD offers six basic mounting positions. If your application requires a variation from the six basic mounting positions, please contact NORD.

7. Options

NORD offers a number of mechanical, protective, paint and lubrication options for gear reducers and motors. Please see page 16 for gear unit options and refer to the motor section for motor options.

8. Checks

Thrust Loads (Axial)

Loads that are directed towards or away from the gearbox along the axis of the shaft are called thrust or axial loads. Output shaft thrust capacity [F_A] can be found in the gearmotor rating tables. Thrust load capacities should not exceed the values listed in the tables to ensure long bearing life. Contact NORD for combination loads or a more exact examination of the application.

NEMA C-face Motor Weight Limits

When mounting a motor to a NORD NEMA C-face motor adapter it is important to consider the motor's weight. Following is a table that includes the maximum motor weight the NEMA adapter can support. If the motor exceeds the listed weight it must be externally supported. When a C-face mounted motor is externally supported care must be taken to ensure that the support system does not impose additional pre-loads on the NEMA motor adapter.

NEMA Weights

Motor FRAME	56C	143TC	145TC	182TC
Max Weight [lb]	66	88	110	130
Motor FRAME	**184TC**	**210TC**		
Max Weight [lb]	175	220		

⚠ GENERAL WARNINGS & CAUTIONS ⚠

Applications with risk of personal injury should be reviewed together with NORD. Examples of these are hoist, lifts or other applications where people may be at risk.

NEMA and IEC Adapters

NEMA/IEC adapter have additional shaft coupling and additional bearing seats compared to integral motors so there are higher no-load losses with NEMA or IEC adapters. We recommend mounting the motor directly, since it offers both technical and cost advantages.

NEMA and IEC adapters used in hoist, lifts and other applications with danger of personal injury should be reviewed together with NORD.

NEMA C-Face Adapter Capacity

The NEMA adapters are designed to handle the torques produced by the standard NEMA power assignment at 4-pole (1800 rpm) motor speeds. If a larger motor power than the power listed below is used, NORD should be consulted. Also if a NEMA adapter is being used for other than an AC induction motor NORD should be consulted.

Adapter	Max Power [hp]
56C	1
140TC	2
180TC	5
210TC	10

External Installation, Tropical Use

Gearboxes installed outside, in damp rooms, or used in the tropics may require special seals and anti-corrosion options. Please contact NORD for application assistance.

Special conditions

If special environmental or other conditions exist in transit, storage or operation these need to be considered in the unit selection. Special conditions may include (but are not limited to):

- Exposure to aggressive corrosive materials (contaminated air, gasses, acids, bases, salts, etc.)
- Very high relative humidity
- Direct contact between the motor and liquid
- Material build-up on the gear unit or motor (dirt, dust, sand, etc.)
- High atmospheric pressure
- Radiation
- Extreme temperatures, high, low or large temperature changes
- High vibration, acceleration, shocks or impacts
- Other abnormal conditions

Gear Reducer Ratings

The permissible continuous power limit of gear reducers is limited by both the mechanical rating and the thermal rating. The mechanical rating depends upon the material strength of the gear reducer's gears, bearings, housing, shafts, etc. The mechanical input power limit to the reducer is also a function of the mechanical power rating divided by the relevant reducer service factor.

The thermal rating or thermal limit depends upon the amount of heat generated within the reducer and is influenced by a variety of factors including:

- Churning or splashing losses in the lubricant which depend upon reducer type, ratio, input style, mounting position or oil fill-level, and the circumferential travel velocities of the gear wheels.
- The actual speed and load conditions. These factors determine load-depedent losses in the gear areas and frictional losses in the gear, bearing & seal areas.
- Ambient Conditions:
  - Ambient Temperature.
  - Amount of free air circulation around the drive.
  - Possible near-by heat sources.
  - Heat dissipation or the ability of the reducer to transfer heat through the housing, shafts, and the mating sub-structure or mounting surface.

Storage Before Installation

The gear units and motors should be stored in a dry area before they are to be installed. Special measures are required for longer storage. Please request long term storage instructions from NORD Gear or see page 17.

Observing the Reducer's Thermal Limit

When to Contact NORD

Through computer program analysis NORD can evaluate application conditions and the impact they have on a reducer's thermal capacity.

When applying SCP gear units of case size SK 6282 & larger, consult NORD if any two or more of the following conditions apply:

- Gear ratio, $i_{total} \leq 24:1$
- Input speed, $n_1 > 1800$
- Vertical positioning (mounting position M2 or M4)
- Input configuration: NEMA C-face, IEC, servo adapter or solid-shaft input (Type-W)
- An elevated ambient temperature ≥ 86° F (30 °C)

Dangers of Reducer Overheating

The following problems may result when the reducer's thermal capacity or maximum oil sump temperatures are exceeded:

- Lubrication oxidation, breakdown & deterioration.
- A decrease in lubrication viscosity & film thickness.
- Loss of critical bearing and gear clearances required for proper lubrication.
- Increased contact pressures and increased operating temperatures in the critical load zones of the gearing and bearings.
- An increased possibility for metal-to-metal contact and premature component wear.
- A significant reduction in the lubricant's ability to prevent scuffing, pitting, and in extreme cases galling or welding.

Maximum Oil Sump Temperature Limit

To prevent reducer overheating, the reducer's maximum oil sump temperature limit must not be exceeded for prolonged periods of operation (up to 3 hours continuous operation, depending upon reducer size).

Oil Type	Maximum Oil Temperature Limit	
	NORD	AGMA 9005-D94
Mineral	80-85 °C (176-185 °F)	95 °C (203 °F)
Synthetic	105 °C (220 ° F)	107 ° C (225 ° F)

IMPORTANT NOTE

Use caution when specifying gear reducers for high temperature service. If there is concern about exceeding the allowable safe operating temperatures, please consult NORD to discuss alternatives.

Measures to Expand the Application Range

There are a variety of measures that may be taken in order to protect against thermal overload and expand the application range of the gear reducer. Common examples include the following:

- Recommending a change in lubrication viscosity and/or a specific synthetic lubricant type.
- Applying high-temperature seals.
- Increasing air flow around the gear unit.
- Shielding or protecting the reducer from high heat sources.
- Considering an integral motor instead of the bolt-on input assembly covers. In many cases the motor fan will substantially increase air-flow around the gear unit.

Mounting Positions

The reducer mounting position determines the approximate oil fill level and the appropriate vent location. In some cases the mounting position may dictate possible variation in final reducer assembly. If considering any mounting positions that are not shown as catalog-standard options, it is critical that the customer consult with NORD prior to ordering.

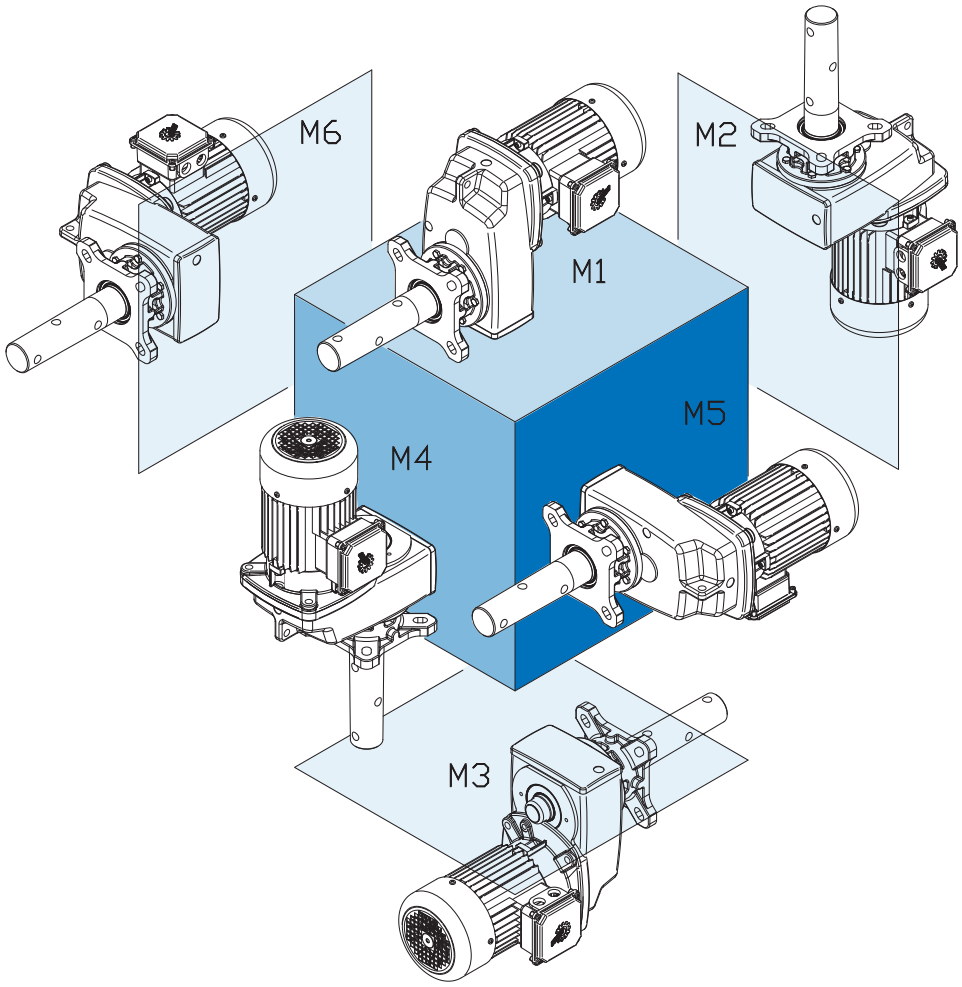
New Mounting Position System

NORD is in the processes of incorporating a new mounting position systems. Historically the NORD mounting position system was based on international motor standards. NORD is changing in an effort to simplify the system. The new system is based on the six sides of a cube. Below is a cross reference between the old and new mounting position codes.

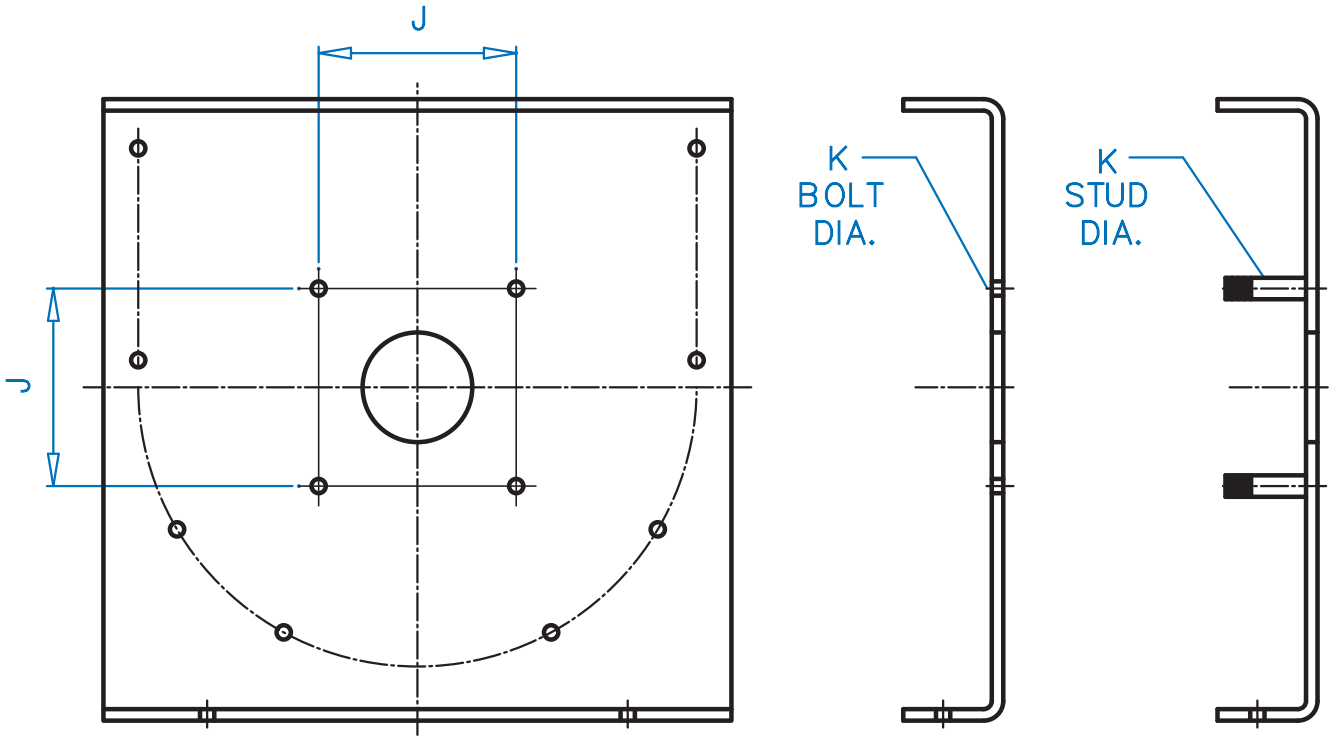
Mounting Position Cross Reference Table

New	M1	M2	M3	M4	M5	M6
Old	B3, B5	V3, V6	B8, B5I	V1, V5	B5II, B6	B7, B5III

Screw Conveyor Package



Screw Conveyor Mounting



Screw Conveyor mounting dimensions from CEMA 300-13 excerpts

Screw Diameter [in]	CEMA Drive shaft [in]	J Width [in]	K Bolt [in]	K Stud [in]
6	1-1/2	4	1/2	7/16
9	1-1/2	4	1/2	7/16
	2	5-1/8	5/8	9/16
12	2	5-1/8	5/8	9/16
	2-7/16	5-5/8	5/8	9/16
	3	6	3/4	3/4
14	2-7/16	5-5/8	5/8	9/16
	3	6	3/4	3/4
16	3	6	3/4	3/4
18	3	6	3/4	3/4
	3-7/16	6-3/4	3/4	3/4
20	3	6	3/4	3/4
	3-7/16	6-3/4	3/4	3/4
24	3-7/16	6-3/4	3/4	3/4

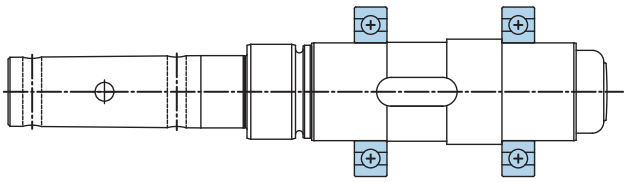
Screw Conveyor Package Gearbox Options

Abbreviation	Description	Page
ADP	Additional drain plug	17
LL	Long term storage	17
DR	Autovent	17
FV	Filtered Vent	17
MDP	Magnetic drain plug	17
OA	Oil Expansion Chamber	16
OSG	Oil sight glass	16
OV	Open vent	17
PC	Grease Purge Seal	16
SM5	Stainless steel output shaft	16
VL	Heavy Duty Bearings	16
none	Special Drain Plugs	17
none	Paint coatings	18

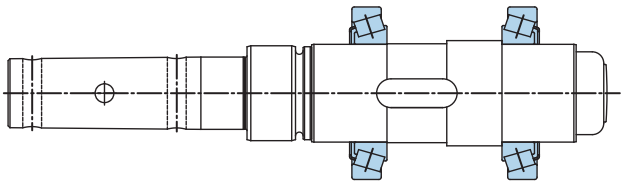
Heavy Duty Output Bearings (VL)

Replacing standard output bearings with heavy-duty versions will increase the external load carrying capacity of the speed reducer. Increased capacity in either or both overhung (radial) or thrust (axial) loading insures that premature bearing failure will not occur due to high stresses in the bearing elements. The increased bearing capacity will also keep the speed reducer as small as possible by not having to select the next larger case size in order to handle the bearing loads. If increased bearing life is desired, larger bearings will reduce the relative stress on the bearings and increase B10 bearing life.

Standard Bearing



Heavy Duty Bearings (VL)-option



Grease Purge Seal (PC)

The SCP screw conveyor package has an optional grease purgeable sealing system. The design replaces the greased packed felt packing seal with a grease filled cavity. The system also includes a grease nipple and relief to allow the seal to be flushed with fresh grease.

Stainless Steel Output Shaft (SM5)

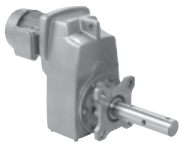
Output shafts made from stainless steel are available and are frequently used in food, pharmaceutical, and washdown applications. In some cases stainless steel solid input shafts may also be provided.

Oil Expansion Chamber (OA)

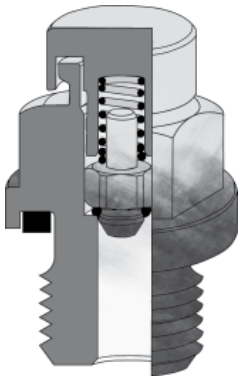
Oil expansion chambers are available for most reducers. These chambers allow for expansion of the oil-air mix in the reducer that can occur during operation. This expansion chamber is similar to a car radiator over-flow chamber.

Oil Sight Glass (OSG)

The oil sight glass provides a visible oil level indication on the reducer. The sight glass replaces the standard steel fill plug and consists of a sealed clear porthole centered in the middle of a brass plug. The sight glass allows for quick oil level and color inspection.



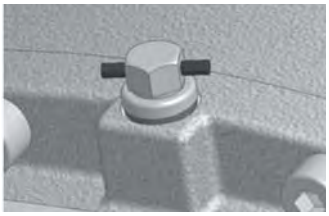
Autovent™ (DR)



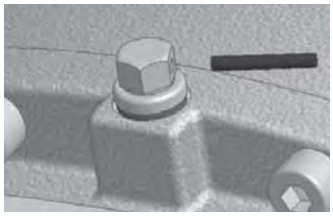
The Autovent™ prevents entry of foreign material, such as water, dust, corrosives, etc… and is perfect for washdown and dusty environments. The Autovent™ is a ball and spring check valve that opens at 2 psi and during operation and closes tightly when the gearbox cools. The Autovent™ is standard on all vented NORD reducers. Some of the benefits are cleaner gearbox oil, extended lubrication life and longer lasting seals, gears, and bearings.

Open Vent (OV)

An open vent may be optionally supplied on NORD reducers. The open vent allows for air pressure differences between the inner space of the reducer and the atmosphere. This open vent will be closed upon delivery to prevent oil leakage. Before the reducer is put in service the open vent should be activated by removing the sealing plug.



Sealed vent



Activated vent

Filtered Vent (FV)

NORD offers a filtered vent, which allows gases to permeate, but does not allow dust and debris to pass through the vent.

Magnetic Drain Plug (MDP)

Magnetic drain plugs attract and hold ferrous metal particles that may circulate inside the reducer's lubrication system. These potentially abrasive particles may cause excessive wear in the reducer if they remain circulating. An increase of collected material may be a warning sign of future problems.

Special Drain Plugs

NORD oil drain valves are offered to make draining the oil from the gearbox clean and easy. The drain hose needs to be supplied by the customer. The hose fittings are offered in either 90° or straight to accommodate the user.

A brass drain valve is threaded into the existing oil drain port of the gearbox. The spring valve is closed using a rubber o-ring. When the hose fitting is threaded into the drain valve, the spring valve is pushed open and allows oil to drain. When the hose fitting is removed, the drain valve closes. A brass, threaded cap is supplied to cover the drain valve when not in use.

Additional Drain Plug Hole (ADP)

NORD can add an additional drain hole to the reducer housing for a small surcharge if required for special oil plumbing needs.

Long Term Storage (LL)

Speed reducers are frequently put in storage prior to installation for long periods of time and in some cases exposed to the elements. NORD's long term storage option protects the unit from moisture or corrosion by coating all unpainted surfaces with a dry, transparent, durable waxy film. Once installation is necessary this waxy film can be easily removed with a commercial de-greaser or petroleum solvent. If possible the store room should be vented and dry, with room temperatures between 23°F and 104 °F (-5 °C and 40 °C).

Paint Coatings

NORD's standard paint coating is a two component, aliphatic polyurethane finish contaning 316 stainless steel material. This gray stainless steel paint has excellent appearance and outstanding physical properties. It is suitable for both indoor and outdoor applications.

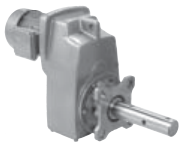
Advantages of NORD's stainless steel two component polyurethane:

- Excellent adhesion to cast iron, aluminum, steel, and plastics
- Excellent corrosion resistance
- Excellent chemical resistance
- Excellent gloss and color retention
- Suitable for indoor and outdoor exposure
- Nonporous and excellent abrasion resistance
- USDA compliant

NORD also offers a variety of severe duty paint coatings that provide a high level of protection against water and severe environments both indoors and outdoors. NSD+ (NORD Severe Duty) consists of a primer undercoat and a stainless steel polyurethane topcoat. For the most demanding environments, NORD offers NSD-X3 (NORD Severe Duty triple coated) which consists of a primer undercoat, stainless steel polyurethane coating, and a clear topcoat. Paint coatings are also available in alternate colors as seen in the table below.

Finish	Color	Coating	Use
Standard (stainless steel paint)	Stainless steel silver (Gray)	1 x Stainless steel (316) top coat (polyurethane)	Indoor or outdoor moderate environment
Alternate color	Black, Blue, Red, Orange	1 x Color top coat (polyurethane)	Indoor or outdoor protected
NSD+			
NORD Severe Duty + NSD+	Stainless steel silver (Gray)	1 x Primer high solid alkyd system 1 x Stainless steel (316) top coat (polyurethane)	Indoor or outdoor moderate environment
NORD Severe Duty +W NSD+W	White	1 x Primer high solid alkyd system 1 x White top coat (polyurethane)	Indoor or outdoor moderate environment
Alternate color NSD+	Black, Blue, Red, Orange	1 x Primer high solid alkyd system 1 x Color top coat (polyurethane)	Indoor or outdoor moderate environment
NSD X3			
NORD Severe Duty Extreme NSD-X3	Stainless steel silver (Gray)	1 x Primer high solid alkyd system 1 x Stainless steel (316) (polyurethane) 1 x Clear top coat (polyurethane)	Indoor or outdoor more severe environment
NORD Severe Duty Extreme NSD-X3W	White	1 x Primer high solid alkyd system 1 x White (polyurethane) 1 x Clear top coat (polyurethane)	Indoor or outdoor more severe environment
Alternate color NSD-X3	Black, Blue, Red, Orange	1 x Primer high solid alkyd system 1 x Color (polyurethane) 1 x Clear top coat (polyurethane)	Indoor or outdoor more severe environment

Special colors and paints possible please contact NORD with your specific requirements.



Input

NORD's modular design allows for many different types of inputs to be added to gear reducers. All inputs are bolt on and include machined pilots to ensure simple and accurate assembly. NORD offers the following different input types:

- Integral motor
- NEMA C-face motor adapter
- IEC B5 motor adapter
- Solid input shaft
- Servo motor adapter
- Top mount motor platform
- Custom mounting interface

Example Nomenclature

SK3282SCP - W

- **W** — Solid Input Shaft
- **SK3282SCP** — Gear unit

SCP Gear unit with solid input shaft.

SK3282SCP -140TC

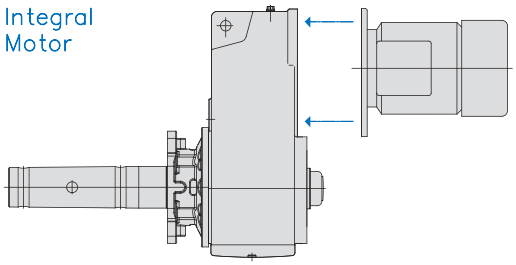
- **140TC** — NEMA 140 TC Motor Adaptor
- **SK3282SCP** — Gear unit

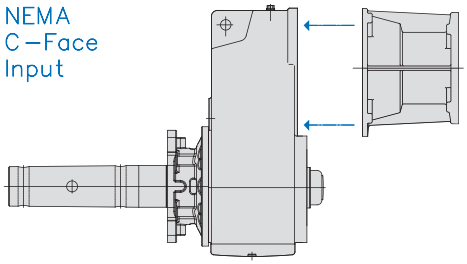
SCP Gear unit to recieve standard NEMA C-Face motor adaptor.

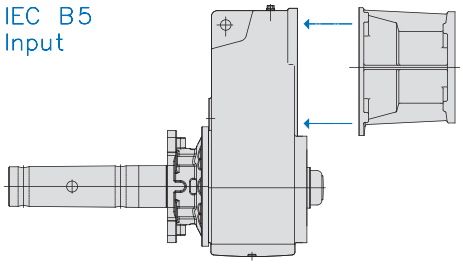
SK3282SCP - IEC80

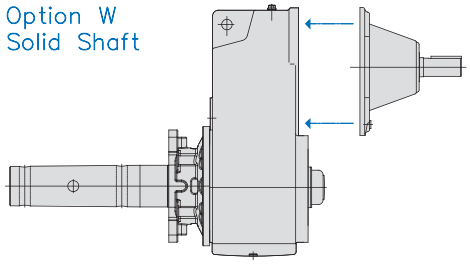
- **IEC80** — IEC 80 B5 Motor Adaptor
- **SK3282SCP** — Gear unit

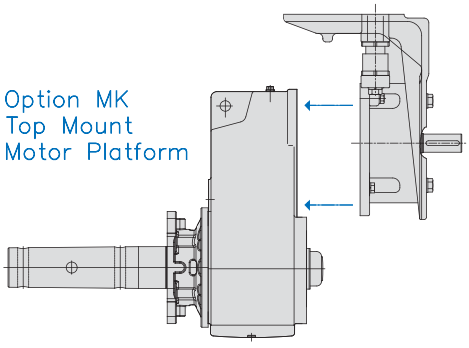
SCP Gear unit to recieve standard metric IEC B5 flange mount motor adaptor.











Integral Motors

NORD provides integral motors that mount directly to the gearbox. Integral motor mounting eliminates the need for costly v-belts or sheaves and directly couples the motor to the reducer. This also results in a dimensionally compact one-piece package.

NORD high performance integral motors are available in many operational voltages, are inverter duty rated, and offer many valuable options including energy efficient motors and power off brakes. For more information on integral motors, see the motor section found on page 119.

NEMA C-Face Motor Adapter

NEMA C-face motor adapters allow for easy installation and removal of industry standard C-face motors. NEMA C-face motor adapters consist of a coupling and an adapter housing that connects the motor to the gear reducer. Gear units with NEMA C-face adapters are commonly used where applications require specialized motors or the user wants to easily find a replacement motor if failure occurs. NORD also offers high performance NEMA C-face motors and brakemotors, that can be factory installed to the motor adapter.

NORD motor adapters deliver nearly 100% of the torque generated by the motor and can be used from -13°F (-25°C) to 212°F (100°C). Most motor adapters have specially sealed bearings that are lubricated for life.

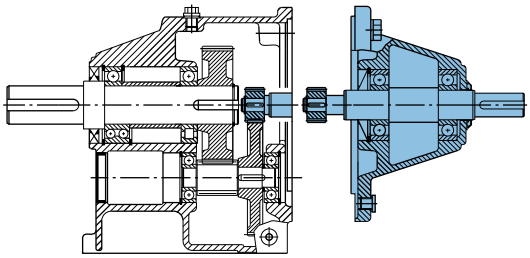
The maximum input power of a gear unit with a NEMA C-face adapter is generally limited by the power rating of the standard NEMA C-face motor size. The power limit is indicated in the ratings table for a standard 4-pole 1750 rpm motor. In some cases the gearbox limit ($T2_{max}$) will be the limiting capacity. Both the NEMA adapter limit and the gearbox torque limit must be considered. If the speeds required exceed those included in the performance and speed reduction tables please contact NORD.

IEC Motor Adapter

IEC motor adapters allow for easy installation and removal of industry standard IEC motors according to DIN 42677. The IEC adapter is very similar to the NEMA C-face adapter in construction. The maximum input power is generally limited by the IEC motor size. For ratings and dimensions, please consult NORDS metric catalogs that may be found online at www.nord.com under the document section.

Solid Input Shaft

Designed to mount couplings, sheaves or sprockets, which transfer torque from the prime mover. The input shaft is made from ANSI 1045 or stronger material and is dimensioned with long keys according to ANSI B17 standards. The maximum gearbox input power rating is indicated in the speed reducer performance tables.



Servo Motor Adapter

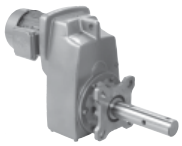
Servo motor adapters are designed to handle the highly dynamic capabilities of servo motors. NORD servo motor adapters have a square mounting flange and are available with either a keyed (SEP) or a key-less (SEK) coupling. They are suitable for speeds up to 3000 rpm and the high torques produced by servo motors. Higher input speeds can be handled for a short duration and the bearings and input shaft are designed to cope with the high torque loads.

Top Motor Mount Platform

Some applications require the motor to be mounted on top of the reducer with a belt drive connection from the motor to the reducer. MK platforms can be bolted-on to all UNICASE™ gearboxes in any mounting position and offer the following advantages:

- Light, vibration inhibiting aluminum construction
- Corrosion resistant, easily adjustable mechanism for belt tensioning
- Corrosion resistant fasteners
- Available in all mounting positions
- Can be swung 90° to the right or left
- Platform has multiple bolt patterns for various motors

Motor platforms are pre-drilled and tapped to bolt on a standard NEMA footed motor. Each platform has belt tension adjusters. Motor, belts, sheaves and guard are supplied by the customer.



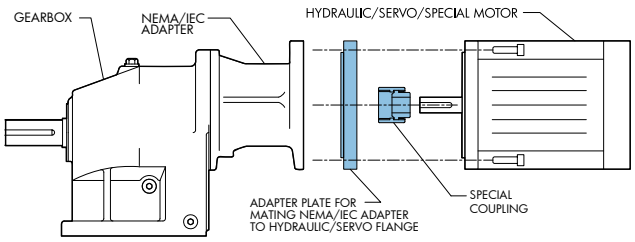
Custom Mounting Interface

NORD can provide custom input adapters typically consisting of a special adapter plate and special coupling to mount non-standard dimensioned motors or other devices.

When a custom input adapter is required, special attention needs to be given for each application to be sure the customer receives the performance that is necessary. The following information is required:

- Motor Dimensional Drawing
- Motor Weight
- Motor performance specifications, including torque, horsepower and operating speed ranges.

NORD engineers will review the performance requirements and make a unit selection based on given parameters.



Vertical Motor Adapter Applications

Gear units with motors frame sizes 250TC (IEC160) and larger, in a vertical up motor mounting position, NORD recommends using an integral gearmotor instead of a NEMA or IEC input adapter. If your application requires this mounting position and a NEMA or IEC input, please consult NORD. In vertical down motor mounted applications it is recommended to shorten the maintenance interval.

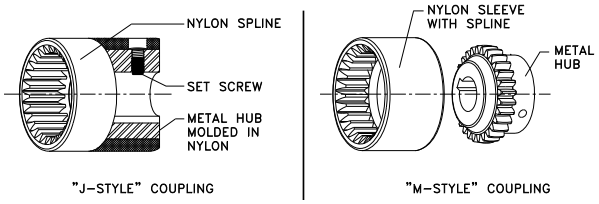
Couplings

Couplings are made with tough abrasion resistant materials, which resist most chemicals and petroleum products. They are electrically isolated (prevent metal to metal contact) and require no lubrication or maintenance. Depending on the size of the C-face input, NORD provides either a gear or jaw type coupling.

Gear Couplings

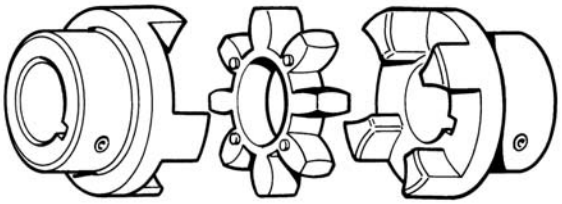
Gear couplings are used with 56C to 280TC adapters and provide a compact space saving design. C-face adapter input shafts have a machined male spline that meshes with a molded nylon spline on the coupling. This specially designed molded nylon sleeve that exhibits high torsional stiffness, resulting in minimum fit-up backlash and reduced internal frictional losses. Gear couplings lightweight design yields low inertia and use blind assembly and slip together components to make inspection easy without disassembly.

NORD incorporates two styles of gear couplings, the "J" and "M" styles. The "J" style is one-piece couplings consisting of a nylon sleeve and metal hub that are fused together. The "M" style is a two-piece coupling consisting of a separate nylon sleeve and metal hub.



Jaw Couplings

Jaw couplings are used with 320TC and larger adapters. The cast iron jaw type couplings have a urethane "spider" that provides smooth transmission of the motor torque and has excellent shock and vibration dampening characteristics. A set screw on the coupling prohibits axial movement along the motor shaft.



The Importance of Proper Lubrication

Proper gearbox lubrication is essential in order to reduce friction and component wear, and protect against corrosion and rust. Gear lubricants reduce heat and wear by inserting a load-sharing "protective fluid film" between mating parts and preventing direct metal to metal contact. Properly selected lubricants will operate under various film conditions, improve heat transfer, optimize reducer efficiency, absorb shock loads, reduce noise, inhibit foaming, and separate water readily.

Design Considerations

Along with many other factors, the gear designer must consider the gear load and speed conditions, and the expected operating oil temperatures. These factors help determine a generally suitable oil category, a desired additive package, preferred base-oil type, and oil viscosity.

It is important that the consumer be aware of these many design factors before making any changes in the critical areas (oil category, base-oil type, viscosity, etc.) One should consult their preferred lubrication supplier or NORD Gear when questions arise.

Gear Oil Types, Categorized by Base Oil

Mineral Oil with an EP Additive (DIN 51517, Type CLP)

High performance mineral gear oils are carefully engineered and manufactured to improve aging characteristics, minimize friction, offer good wear protection, provide corrosion and oxidation resistance, minimize foam, and separate water. Mineral gear oils are classified as API Group I or II oils, depending upon viscosity.

The standard NORD mineral gear oil has an extreme pressure (EP) additive ISO Viscosity Grade EP220 (AGMA 5 EP) and is generally acceptable for helical gear units. Good quality mineral oil should have the ability to operate at moderate sump temperatures (up to 80-85 °C) without losing viscosity or thickness. A minimum viscosity index (VI) of 93 or higher is suggested. The oil must also have good film strength to handle shock loads, high torque, and start-up conditions. A minimum FZG Scuffing Load Stage 12 is desirable.

Advantages:

- Most economical of all the gear oil types.
- Generally offers good compatibility with shaft seals, gaskets, paint finishes, etc.
- Offers good corrosion and oxidation protection.
- Effectively reduces internal friction and wear.

When Synthetic Oils Are Used

Synthetic gear oils are suggested when mineral gear oils have reached their performance limit or when they no longer meet certain application requirements. NORD may recommend synthetic oil for any one of the following conditions:

- Severe duty applications or when gears are exposed to frequent starts and stops, high-load or shock.
- For applications in low or high temperature service.
- To extend oil service interval requirements.
- To eliminate the necessity for seasonal oil changes.
- To extend service life of factory-sealed or maintenance-free gear units.
- To take advantage of performance benefits: shear resistance, low traction coefficient, reduced internal friction, improved lubricity, reduced operating temperatures, improved gear efficiency, etc.

Performance Advantages of Synthetic Oil

Compared to mineral oils, synthetic oils provide a number of performance advantages including:

- Ability to operate at higher temperatures without losing viscosity or thickness, due to a much improved viscosity index.
- Improved low-temperature stability due to a lower pour point
- Increased oil change intervals due to superior oxidative & wear resistance
- Lower tendency to form residues and increased resistance to foaming.
- Other benefits may include: very good shear resistance, low traction coefficient, reduced internal friction, improved lubricity, reduced operating temperatures, improved gear efficiency, extended component life and wear protection.

When application conditions warrant the use of synthetic oil, NORD may suggest a particular type of synthetic oil, depending upon the gear unit type and the application.

Synthetic Hydrocarbon/Polyalphaolefin (SHC/PAO) Oil (DIN 51517, Type CLP-HC)

Synthetic Hydrocarbons (SHC) or Polyalphaolefin (PAO) synthetic base oils offer good miscibility with mineral base oils and are very readily available. SHC/PAO oils are classified as API Group IV oils. The can be formulated with or without anti-wear (AW) or extreme pressure (EP) additives. They can also be formulated for acceptance in food-grade applications.

Advantages:

- Higher viscosity index and therefore greater high-temperature stability than mineral oil.
- Better low-temperature stability and lower pour point than mineral type gear oils
- High surface tension and lower tendency to foam compared to mineral oil, and water-soluble polyglycol gear oils.
- Compatible (miscible) with mineral oil.
- Better water seperability (demulsibility) than PG oils.

Polyalkylene Glycol or Polyglycol Synthetic Oil (DIN 51517, Type CLP-PG)

Polyalkylene glycol or polyglycol (PAG or PG) synthetic gear oils are made readily available through many lubrication suppliers. PG oils are classified as API Group V gear oils. They can also be formulated for acceptance in food-grade applications.

PG gear oils possess extremely low traction coefficients and a viscosity index higher than any of the other synthetics (often greater than 220 VI), resulting in excellent heat resistant, shear stability, and natural anti-wear properties.

Typical PG gear oils are formulated with a 1:1 or higher ratio of ethylene oxide to propylene oxide (50:50 or 60:40 is common); this makes PG gear oils water soluble, providing them with very good corrosion resistance even when water is present in concentrations that are higher then what is normally allowed.

Advantages:

- PG oils offer the highest viscosity index of any other synthetic resulting in excellent heat resistant, shear stability, and superior natural anti-wear properties without requiring EP-additives.
- PG gears oils minimize internal friction and often result in improved gear efficiency.
- PG oils have significantly higher film strength than mineral and SHC/PAO oils and out perform these oils at higher operating oil temperatures (approaching 80°C or higher).

IMPORTANT NOTE

Polyglycol (PG) oils are not miscible with other oil types and should never be mixed with mineral oil, hydrosynthesized synthetic or PAO synthetic oils.

Food-Grade Lubricants

Food-grade lubricants should be manufactured in compliance with FDA 212 CFR 178.3570 and should either satisfy the former 1998 USDA Guidelines as an H1 lubricant or currently qualify as a NSF-H1 lubricant. Please consult with lubrication manufacturers for more information or visit www.nsf.org

H1 food grade oil can only contain additives which appear on the FDA "approved list" for food safe compounds. H1 oils are generally absent of common zinc-based AW additives, and sulfur-phosphorus based, EP chemistries, commonly found in many industrial gear oils.

Food manufacturers control risk and liability by following detailed guidelines outlined by the HACCP (Hazard Analysis and Critical Control Point) program, which includes food-grade H1 lubricants.

Food grade H1 lubricants may be formulated as highly refined mineral oils (white oils), SHC/PAO synthetic oils or PG synthetic oils.

The highly refined nature of good-quality food-grade white-oils provides good long-term oxidative stability and in most cases adequate lubrication under high-load (boundary) conditions. So long as food-grade white oils meet the minimum anti-wear requirements of the normally specified non-food grade oil, they are often acceptable.

Both food-grade white oils and PAO's have an inherent "purity" and absence of polar compounds, making them better than the average mineral oil or even PG oil in terms of demulsibility (water seperability).

Compared to food-grade white-oils, food-grade synthetic PAO or PG oils typically provide:

- Better wear and oxidation resistance.
- Improved high-temperature characteristics.
- Better cold-temperature behavior.

The Importance of Oil Viscosity

Viscosity or the oil's resistance to shear under load, is often considered the single most important property of any gear oil.

NORD Gear Designers have selected the most appropriate ISO viscosity grade of oil, for each type or class of gear reducer. Gear oil viscosity is selected by assuming typical ambient conditions, at rated speed and load conditions.

Important Considerations:

- The correct viscosity selection helps provide proper lubrication and assures that a minimum film thickness is maintained between interacting surfaces.
- The degree to which viscosity changes with temperature or the viscosity index, varies from oil to oil, and depends upon the type of lubricant & additive agents used.
- Selecting too low of a viscosity can result in mixed boundary (partial metal-to metal contact) or boundary lubrication (full metal-to-metal contact) conditions, increasing internal friction heat build-up and wear.
- Selecting too high of a viscosity results in increased churning and squeezing losses in the load zone and excessive heat (especially when peripheral gear speeds are high); Ultimately, this causes the oil temperature to rise and the viscosity to go down, decreasing the effectiveness of the lubricant.

Considering an Oil Viscosity Change

There are three primary reasons to consider a lubrication viscosity change as follows:

1. Low temperature gear oils should be selected so that the pour point is at least 9°F (5°C) lower than the expected minimum ambient temperature. In extreme cases, consider a lower ISO Viscosity rating and test the critical performance of the gear box under cold start-up.

2. High temperature applications may require an increase in the lubricants viscosity to assure proper lubrication conditions in the critical load zones of the gear unit. NORD also recommends switching to synthetic oil if oil sump temperatures exceed 176-185 °F (80-85 °C).

3. In cases of extreme load conditions, gear pairs and antifriction bearings may be more susceptible to scuffing wear. In these operating conditions, it may be beneficial to consider an increased lubrication viscosity and/or lubrication with improved antiwear additive packages.

IMPORTANT NOTE

NORD recommends that the user consult with their primary lubrication supplier when considering changes in oil viscosity.

Maximum Oil Sump Temperature Limit

To prevent reducer overheating, the reducer's maximum oil sump temperature limit must not be exceeded for prolonged periods of operation (up to 3 hours continuous operation, depending upon reducer size).

Oil Type	Maximum Oil Temperature Limit	
	NORD	AGMA 9005-D94
Mineral	80-85 °C (176-185 °F)	95 °C (203 °F)
Synthetic	105 °C (220 ° F)	107 ° C (225 ° F)

IMPORTANT NOTE

Use caution when specifying gear reducers for high temperature service. If there is concern about exceeding the allowable safe operating temperatures, please consult NORD to discuss alternatives.

Ventilation

Most gear reducers are equipped with a vent which helps compensate for air pressure differences between the inner space of the gear unit and the atmosphere.

The spring-pressure vent (Autovent™) is commonly supplied and factory-installed. Normally open vents may also be supplied as an option; normally-open vents are closed upon delivery in order to prevent oil leakage during transport. When normally open vents are supplied, the sealing plugs must be removed prior to commissioning the reducer.

Prior to reducer start-up, it is important to check the maintenance manual to verify that the vent is properly located with respect to mounting position.

Mounting Position

The reducer mounting position determines the approximate oil fill-level and the appropriate vent location. In some cases mounting position may dictate possible variation in final reducer assembly.

If considering any mounting positions that are not shown as catalog-standard options, it is critical that the customer consult with NORD prior to ordering.

Oil Fill Quantities

Oil fill quantities shown in the catalog or maintenance instructions are approximate amounts. The actual oil volume varies depending upon the gear ratio. Prior to commissioning the reducer, the oil-fill level should be checked using the reducer's oil-level plug. It may be necessary to drain excess oil or add additional oil.

Unless otherwise specified, NORD supplies most all gear units factory-filled with the standard lubrication type per the specified mounting position.

Lubrication Replacement

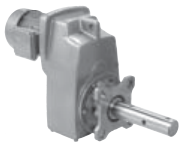
If the gear unit is filled with mineral oil, the lubricant should be replaced at least after every 10,000 operating hours or after every two years. If the gear unit is filled with synthetic oil, the lubricant should be replaced at least after every 20,000 operating hours or after every four years. Often gear reducers are exposed to extreme ambient conditions, hostile environments, wet conditions, or dirty and dusty operating areas. Especially in these situations, it is important to establish a condition-based oil service interval.

The Importance of Routine Oil Analysis

Routine oil analysis, sound lubrication practices, and good tracking of oil performance trends will help establish proper lubrication maintenance and change-out intervals. To maximize equipment reliability, NORD Gear generally recommends a condition-based lubrication maintenance program. One may take exceptions to this general recommendation on sealed-for-life or maintenance-free gear units or smaller and less costly gear units. In these instances, the replacement cost of the gear unit is often small compared to the costs associated with this type of oil analysis program.

NORD suggests replacing the gear oil if oil analysis indicates any of the following:

- Viscosity has changed by approximately 10% or more.
- Debris particles (silicon, dust, dirt or sand) exceed 25 ppm.
- Iron content exceeds 150-200 ppm.
- Water content is greater than 0.05% (500 ppm).
- The total acid number (TAN) tests indicate a significant level of oxidative break-down of the oil, and a critical reduction in performance; If the TAN number measured changes by more than 5% over the new oil, then an oil change would be recommended.



Lubrication Types

Proper gearbox lubrication is essential in order to reduce friction, heat, and component wear. Lubricants reduce heat and wear by inserting a protective "fluid boundary" between mating parts and preventing direct metal to metal contact. Lubricants also help prevent corrosion and oxidation, minimize foam, improve heat transfer, optimize reducer efficiency, absorb shock loads and reduce noise.

Mounting position not only determines the proper fill-level but may also have some effect on final reducer assembly. If considering any mounting positions that are not shown as catalog-standard options, it is critical that the customer consult with NORD prior to ordering. Unless otherwise specified, NORD supplies all Screw conveyor gear units factory-filled with the standard mineral lubrication type and the appropriate quantity.

Standard Oil Lubricants

Gear Unit Type	ISO Viscosity	Oil Type	Ambient Temperature Range	Manufacturer Brand/Type	Notes
Clincher™ SCP	VG220	MIN-EP	0 to 40°C (32 to 104°)	Mobilgear 600XP220	♦❶
	VG220	PAO	-35 to 60°C (-31 to 140°F)	Mobil SHC630	♦
	VG220	FG	-5 to 40°C (23 to 104°F)	Fuchs FM220	♦

Optional Oil Lubricants

Gear Unit Type	ISO Viscosity	Oil Type	Ambient Temperature Range	Manufacturer Brand/Type	Notes
Clincher™ SCP	VG460	PAO	-35 to 80°C (-31 to 176°F)	Mobil SHC 634	-
	VG460	FG-PAO	-35 to 80°C (-31 to 176°F)	Mobil/Cibus SHC460	-
	VG220	FG-PAO	-35 to 60°C (-31 to 140°F)	Mobil/Cibus SHC220	-
	VG150	PAO	-35 to 25°C (-31 to 77°F)	Mobil SHC629	-

Standard Bearing Grease Lubricants

Grease Type/Thickener	NLGI Grade	Ambient Temperature Range	Manufacturer Brand/Type	Notes
Standard (Li-Complex)	NLGI 2	-30 to 60°C (-22 to 140°F)	Mobil Grease XHP222	♦❶
High Temp (Polyurea)	NLGI 2	-25 to 80°C (-13 to 176°F)	Mobil Polyrex EP 2	♦
Food-Grade (AL-Complex)	NLGI 2	-25 to 40°C (-13 to 104°F)	Mobil Grease FM222	♦

♦ Stocked Lubricants

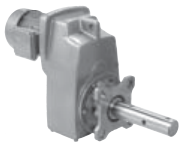
❶ Standard product on serviceable gear units

IMPORTANT NOTES

- Food grade lubricants must be in compliance with FDA 212 CFR 178.3570 and qualify as a NSF-H1 lubricant. Please consult with lubrication manufacturer for more information.
- When making a lubrication change, check with the lubrication supplier to assure compatibility and to obtain recommended cleaning or flushing procedures.
- Do not to mix different oils with different additive packages or different base oil formulation types. Polyglycol(PG) oils are not miscible with other oil types and should never be mixed with mineral oil.
- Consult NORD if considering oils of ISO Viscosity VG100 or lower.

Oil Formulation Codes

MIN-EP	Mineral Oil with EP Additive
PAO	Synthetic Polyalphaolefin Oil
FG	Food-Grade Oil
FG-PAO	Food-Grade, Synthetic Polyalphaolefin Oil



SCP Mounting Positions & Oil Fill Quantities

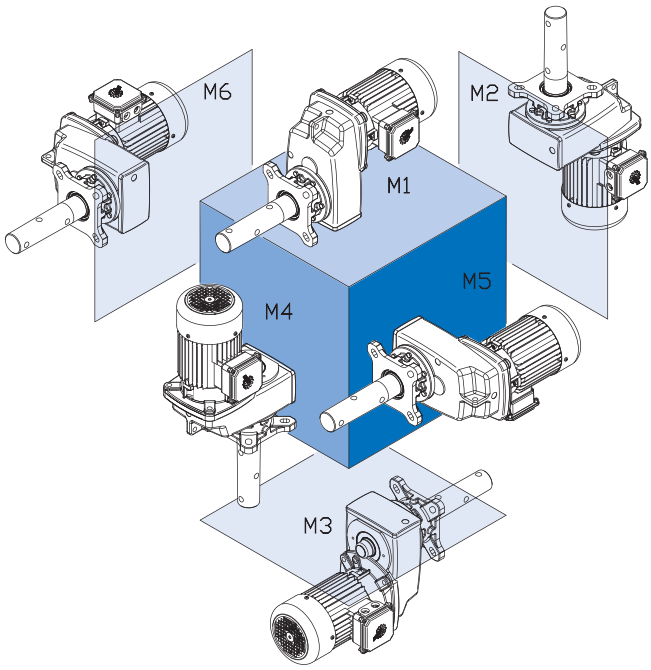
Screw Conveyor Package lubrication

Unless otherwise noted below, the following NORD Gear reducers are shipped from the factory with a pre-determined oil fill level in accordance to the specified reducer size and mounting position. For additional information, please refer to the "Oil Plug & Vent Locations" documentation for your gear unit.

STOP ***HARMFUL SITUATION*** **STOP**

Actual oil volume can vary slightly depending upon the gear case size, mounting and ratio. Prior to commissioning the reducer, check the oil-fill level using the reducer's oil level plug and drain or add additional oil as needed.

For mounting orientations other than shown please consult NORD Gear. Reducer modifications may be required.



Unit Type	Mounting Position											
	M1		M2		M3		M4		M5		M6	
	Quarts	Liters	Quarts	Liters	Quarts	Liters	Quarts	Liters	Quarts	Liters	Quarts	Liters
SK 1282	0.950	0.900	1.37	1.30	0.950	0.900	1.27	1.20	1.000	0.950	1.000	0.950
SK 1382	1.37	1.30	2.43	2.30	1.48	1.40	2.22	2.10	2.11	2.00	2.01	1.90
SK 2282	1.74	1.65	2.54	2.40	2.01	1.90	2.11	2.00	1.90	1.80	1.90	1.80
SK 2382	1.80	1.70	2.75	2.60	2.01	1.90	3.28	3.10	1.59	1.50	1.59	1.50
SK 3282	3.33	3.15	4.33	4.10	3.44	3.25	4.33	4.10	3.33	3.15	3.33	3.15
SK 3382	4.33	4.10	5.18	4.90	3.49	3.30	5.92	5.60	3.49	3.30	3.49	3.30
SK 4282	4.97	4.70	6.45	6.10	5.02	4.75	5.71	5.40	4.97	4.70	4.97	4.70
SK 4382	6.24	5.90	7.19	6.80	5.18	4.90	8.77	8.30	5.18	4.90	5.18	4.90
SK 5282	7.93	7.50	9.30	8.80	7.93	7.50	9.30	8.80	7.61	7.20	7.61	7.20
SK 5382	13.21	12.50	12.68	12.00	7.08	6.70	14.80	14.00	8.77	8.30	8.77	8.30
SK 6282	17.97	17.00	14.80	14.00	12.68	12.00	18.50	17.50	10.57	10.00	14.80	14.00
SK 6382	17.44	16.50	13.74	13.00	10.15	9.60	19.03	18.00	14.80	14.00	13.21	12.50

SCP
Weights

Base Weight

Input Type	SK 1282 [lb]	SK 2282 [lb]	SK 3282 [lb]	SK 4282 [lb]	SK 5282 [lb]	SK 6282 [lb]
3rd gear stage "3"	8	8	11	27	35	
63S/4	39	–	–	–	–	
63L/4	40	–	–	–	–	
71S/4	43	67	100	–		
71L/4	45	69	102	–	–	
80S/4	49	73	106	–	–	
80L/4	51	75	108	–	–	
90S/4	57	82	115	148	227	
90L/4	62	86	119	152	232	
100L/4	71	95	128	161	240	
100LA/4	77	101	135	168	247	432
112M/4	97	121	155	188	267	452
132S/4	–	–	185	218	298	483
132M/4	–	–	209	243	322	507
160M/4	–	–	–	282	362	547
160L/4	–	–	–	320	399	584
180MX/4	–	–	–	–	452	637
180LX/4	–	–	–	–	452	637
225S/4	–	–	–	–	–	867
225M/4	–	–	–	–	–	939
56C	51	82	115	154	234	–
140TC	51	82	115	154	234	–
180TC	66	90	124	170	249	448
210TC	–	–	143	201	280	476
250TC	–	–	–	223	302	531
280TC	–	–	–	–	322	531
320TC	–	–	–	–	–	562
360TC	–	–	–	–	–	562
W	40	77	110	165	245	474

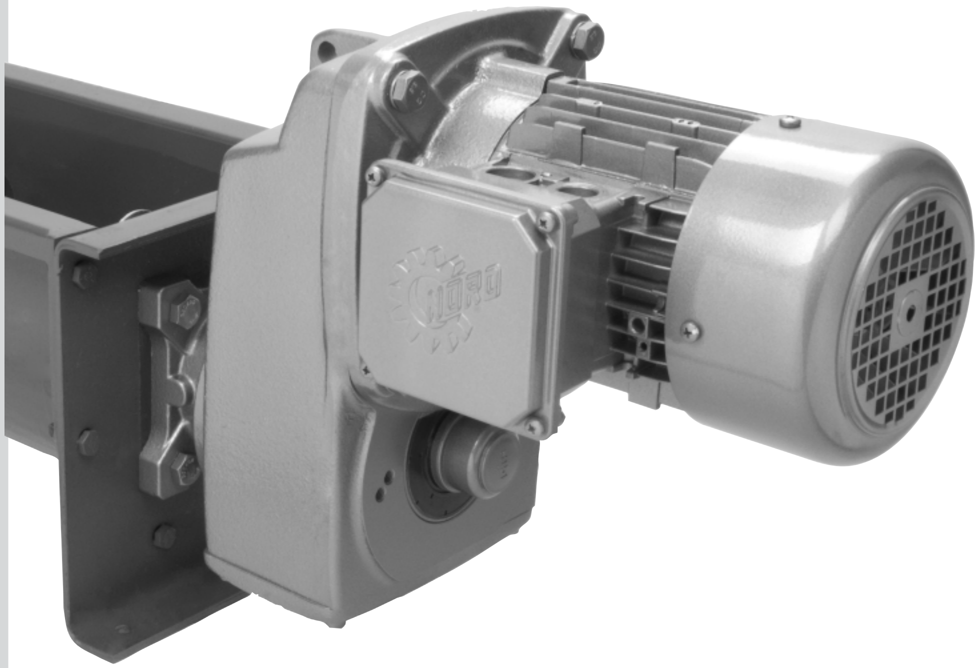
SCP Package Additional Weight

	1-1/2" [lbs]	2" [lbs]	2-7/16" [lbs]	3" [lbs]	3-7/16" [lbs]
SK 1282 SCP	15	23	28	–	–
SK 2282 SCP	18	27	31	–	–
SK 3282 SCP	23	35	39	46	–
SK 4282 SCP	–	41	44	51	–
SK 5282 SCP	–	58	60	67	80
SK 6282 SCP	–	–	–	76	89

SCP Gearmotors & Speed Reducers

Selection

- 0.16 hp
- 0.25 hp
- 0.5 hp
- 0.75 hp
- 1 hp
- 1.5 hp
- 2 hp
- 3 hp
- 5 hp
- 7.5 hp
- 10 hp
- 15 hp
- 20 hp
- 25 hp
- 30 hp
- 40 hp
- 50 hp



DRIVESYSTEMS

www.nord.com

hrust		Integral Gearmotor		Reducer
Brg lb]	HD Brg " VL" [lb]	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input
183	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
516	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
856	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
50	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140T
	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 14

CLINCHER™

Explanation of Selection Tables

OUTPUT SPEED – Output speed at NORD standard efficiency motor rated speed.

OUTPUT TORQUE – Output torque produced by motor.

SERVICE FACTOR

AGMA SERVICE CLASS

TOTAL GEAR RATIO

NEMA C-FACE INPUT

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
355	29	26.1	III	4.79	1613	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
311	33	25.3	III	5.47	1676	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
264	38	24.4	III	6.43	1760	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
235	43	23.5	III	7.24	1825	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
207	49	26.1	III	8.21	1895	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		

ENERGY EFFICIENCT MOTOR

STANDARD EFFICIENCY MOTOR

AXIAL LOAD RATING HEAVY DUTY BEARINGS "VL"

AXIAL LOAD RATING STANDARD BEARINGS

CEMA DRIVESHAFT AVAILABILITY, X=POSSIBLE COMBINATION

0.16 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
355	29	26.1	III	4.79	1613	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
311	33	25.3	III	5.47	1676	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
264	38	24.4	III	6.43	1760	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
235	43	23.5	III	7.24	1825	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
207	49	26.1	III	8.21	1895	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
206	49	22.6	III	8.24	1897	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
185	55	24.4	III	9.18	1958	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
164	62	23.5	III	10.34	2030	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
145	70	22.6	III	11.76	2108	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
120	84	22.1	III	14.11	2174	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
99	103	19.3	III	17.21	2174	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
83	123	16.2	III	20.57	2174	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
67	150	13.2	III	25.22	2174	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
60	169	11.8	III	28.33	2174	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
53	191	10.6	III	32.08	2174	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
37	276	6.3	III	46.19	2171	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
31	330	6.3	III	55.39	2171	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
26	395	6	III	66.23	2171	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
21	484	5.4	III	81.17	2169	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
18	552	3.7	III	92.48	2167	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		
16	653	2.8	III	109.5	2162	1609	SK 1282 SCP - 63S/4		SK 1282 SCP - 56C	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

0.25 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
351	46	16.3	III	4.79	1616	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
307	52	15.8	III	5.47	1681	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
261	61	15.2	III	6.43	1764	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
232	69	14.7	III	7.24	1832	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
205	78	16.3	III	8.21	1897	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
204	79	14.1	III	8.24	1899	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
183	88	15.2	III	9.18	1964	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
162	99	14.7	III	10.34	2032	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
143	112	14.1	III	11.76	2108	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
119	135	13.8	III	14.11	2174	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
98	165	12.1	III	17.21	2174	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
82	197	10.1	III	20.57	2174	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
67	241	8.3	III	25.22	2174	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
59	271	7.4	III	28.33	2171	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
52	307	6.6	III	32.08	2171	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
36	442	3.9	III	46.19	2169	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
30	529	3.9	III	55.39	2167	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
25	633	3.8	III	66.23	2165	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
21	776	3.4	III	81.17	2160	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
18	884	2.3	III	92.48	2156	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		
15	1047	1.8	II	109.5	2147	1609	SK 1282 SCP - 63L/4		SK 1282 SCP - 56C	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

0.33 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
357	59	12.6	III	4.79	1607	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
313	68	12.2	III	5.47	1672	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
266	79	11.8	III	6.43	1751	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
236	89	11.4	III	7.24	1814	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
208	101	12.6	III	8.21	1888	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
208	102	10.9	III	8.24	1888	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
186	113	11.8	III	9.18	1946	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
165	128	11.4	III	10.34	2016	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
145	145	10.9	III	11.76	2095	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
121	174	10.7	III	14.11	2174	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
99	213	9.3	III	17.21	2174	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
83	254	7.8	III	20.57	2174	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
68	312	6.4	III	25.22	2171	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
60	350	5.7	III	28.33	2171	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
53	396	5.1	III	32.08	2171	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
37	571	3	III	46.19	2167	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
31	684	3	III	55.39	2162	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
26	818	2.9	III	66.23	2158	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
21	1003	2.6	III	81.17	2149	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
18	1143	1.8	II	92.48	2142	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
16	1353	1.4	II	109.5	2129	1609	SK 1282 SCP - 71S/4		SK 1282 SCP - 56C	X	X	X		
25	861	4.6	III	69.67	3155	3375	SK 2282 SCP - 71S/4		SK 2282 SCP - 56C	X	X	X		
21	1018	4.1	III	82.42	3152	3375	SK 2282 SCP - 71S/4		SK 2282 SCP - 56C	X	X	X		
17	1248	3.1	III	100.98	3146	3375	SK 2282 SCP - 71S/4		SK 2282 SCP - 56C	X	X	X		
16	1286	2.7	III	104.07	3143	3375	SK 2282 SCP - 71S/4		SK 2282 SCP - 56C	X	X	X		
13	1576	2.1	III	127.51	3132	3375	SK 2282 SCP - 71S/4		SK 2282 SCP - 56C	X	X	X		
24	872	5.7	III	70.56	5146	4500	SK 3282 SCP - 71S/4		SK 3282 SCP - 56C	X	X	X	X	
17	1247	5.7	III	100.88	5141	4500	SK 3282 SCP - 71S/4		SK 3282 SCP - 56C	X	X	X	X	
15	1387	4.9	III	112.23	5139	4500	SK 3282 SCP - 71S/4		SK 3282 SCP - 56C	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

0.50 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
359	87	8.6	III	4.79	1598	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
314	99	8.3	III	5.47	1663	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
267	117	8	III	6.43	1744	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
238	132	7.7	III	7.24	1805	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
210	149	8.6	III	8.21	1874	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
209	150	7.4	III	8.24	1874	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
187	167	8	III	9.18	1937	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
166	188	7.7	III	10.34	2005	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
146	214	7.4	III	11.76	2081	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
122	257	7.2	III	14.11	2174	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
100	313	6.3	III	17.21	2171	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
84	374	5.3	III	20.57	2171	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
68	459	4.3	III	25.22	2169	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
61	515	3.9	III	28.33	2167	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
54	583	3.5	III	32.08	2165	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
42	747	2.6	III	41.07	2160	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
37	840	2.1	III	46.19	2156	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
35	895	2.6	III	49.25	2153	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
31	1007	2.1	III	55.39	2149	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
29	1071	2.3	III	58.89	2144	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
26	1204	2	III	66.23	2138	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
24	1312	2	III	72.17	2131	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
21	1476	1.8	II	81.17	2120	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
19	1681	1.2	I	92.48	2102	1609	SK 1282 SCP - 71L/4		SK 1282 SCP - 56C	X	X	X		
301	104	8.4	III	5.72	2203	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
267	117	8.1	III	6.43	2282	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
230	136	7.8	III	7.48	2383	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
205	152	7.5	III	8.37	2464	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
190	164	8.4	III	9.03	2525	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
169	185	8.1	III	10.15	2610	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

0.50 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
146	215	7.8	III	11.81	2729	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
130	241	7.5	III	13.23	2824	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
104	301	7.8	III	16.53	3015	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
93	337	7.5	III	18.51	3119	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
79	398	7.5	III	21.9	3164	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
72	436	7.8	III	23.96	3164	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
69	454	7.2	III	24.97	3164	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
64	488	7.5	III	26.83	3161	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
58	539	6.7	III	29.65	3161	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
46	676	6	III	37.18	3159	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
25	1267	3.1	III	69.67	3143	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
21	1498	2.8	III	82.42	3134	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
17	1836	2.1	III	100.98	3121	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
17	1892	1.9	II	104.07	3119	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
13	2318	1.5	II	127.51	3094	3375	SK 2282 SCP - 71L/4		SK 2282 SCP - 56C	X	X	X		
207	151	8.5	III	8.31	2813	4381	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
122	257	8.5	III	14.11	3296	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
103	303	8.5	III	16.67	3465	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
85	367	8.5	III	20.18	3659	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
80	389	8	III	21.38	3724	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
77	408	8.5	III	22.45	3778	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
73	431	7.7	III	23.71	3839	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
66	471	8	III	25.88	3938	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
60	522	7.7	III	28.7	4061	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
54	581	7.7	III	31.93	4185	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
46	687	6.9	III	37.77	4399	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
41	764	6.9	III	42.02	4534	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
24	1283	3.9	III	70.56	5141	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
17	1834	3.9	III	100.88	5132	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	
15	2040	3.3	III	112.23	5130	4500	SK 3282 SCP - 71L/4		SK 3282 SCP - 56C	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

0.75 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
357	133	5.6	III	4.79	1595	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
313	151	5.5	III	5.47	1658	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
266	178	5.3	III	6.43	1739	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
236	200	5.1	III	7.24	1798	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
208	227	5.6	III	8.21	1870	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
208	228	4.9	III	8.24	1870	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
186	254	5.3	III	9.18	1928	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
165	286	5.1	III	10.34	1998	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
145	325	4.9	III	11.76	2072	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
121	391	4.8	III	14.11	2171	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
99	476	4.2	III	17.21	2169	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
83	569	3.5	III	20.57	2167	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
68	698	2.9	III	25.22	2162	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
60	784	2.5	III	28.33	2158	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
53	888	2.3	III	32.08	2153	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
42	1137	1.7	II	41.07	2142	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
35	1363	1.7	II	49.25	2126	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
29	1630	1.5	II	58.89	2106	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
24	1998	1.3	I	72.17	2072	1609	SK 1282 SCP - 80S/4		SK 1282 SCP - 56C	X	X	X		
299	158	5.5	III	5.72	2198	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
266	178	5.3	III	6.43	2277	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
229	207	5.1	III	7.48	2383	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
204	232	4.9	III	8.37	2459	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
189	250	5.5	III	9.03	2520	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
168	281	5.3	III	10.15	2610	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
145	327	5.1	III	11.81	2725	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
129	366	4.9	III	13.23	2819	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
103	458	5.1	III	16.53	3008	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
92	512	4.9	III	18.51	3107	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
78	606	4.9	III	21.9	3161	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
71	663	5.1	III	23.96	3159	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
68	691	4.7	III	24.97	3159	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

0.75 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
64	743	4.9	III	26.83	3157	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
58	821	4.4	III	29.65	3157	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
46	1029	4	III	37.18	3150	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
38	1249	3.2	III	45.11	3146	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
32	1494	3	III	53.96	3137	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
27	1767	2.6	III	63.83	3123	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
25	1928	2	III	69.67	3116	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
21	2281	1.9	II	82.42	3096	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
17	2795	1.4	II	100.98	3060	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
16	2880	1.2	I	104.07	3053	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
13	3529	1	I	127.51	2997	3375	SK 2282 SCP - 80S/4		SK 2282 SCP - 56C	X	X	X		
206	230	5.6	III	8.31	2813	4367	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
121	391	5.6	III	14.11	3285	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
103	461	5.6	III	16.67	3454	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
85	559	5.6	III	20.18	3652	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
80	592	5.3	III	21.38	3710	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
76	621	5.6	III	22.45	3764	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
72	656	5.1	III	23.71	3825	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
66	716	5.3	III	25.88	3924	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
60	794	5.1	III	28.7	4039	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
54	884	5.1	III	31.93	4172	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
45	1045	4.6	III	37.77	4374	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
41	1163	4.6	III	42.02	4509	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
36	1330	3.7	III	48.04	4676	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
31	1544	3.7	III	55.79	4889	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
26	1824	3.7	III	65.89	5117	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
24	1953	2.6	III	70.56	5130	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
21	2208	3.4	III	79.76	5126	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
19	2456	3.4	III	88.74	5119	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
17	2792	2.6	III	100.88	5112	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	
15	3106	2.2	III	112.23	5101	4500	SK 3282 SCP - 80S/4		SK 3282 SCP - 56C	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

1 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
344	184	4.1	III	4.79	1604	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
302	210	3.9	III	5.47	1670	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
257	247	3.8	III	6.43	1746	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
228	278	3.7	III	7.24	1809	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
201	315	4.1	III	8.21	1879	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
200	317	3.5	III	8.24	1877	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
180	353	3.8	III	9.18	1937	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
160	397	3.7	III	10.34	2003	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
140	452	3.5	III	11.76	2077	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
117	542	3.4	III	14.11	2167	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
96	661	3	III	17.21	2162	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
80	790	2.5	III	20.57	2158	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
65	969	2.1	III	25.22	2151	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
58	1088	1.8	II	28.33	2144	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
51	1232	1.7	II	32.08	2135	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
40	1578	1.2	I	41.07	2111	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
34	1892	1.2	I	49.25	2084	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
28	2262	1.1	I	58.89	2041	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
23	2773	0.9	*	72.17	1971	1609	SK 1282 SCP - 80L/4	SK 1282 SCP - 80LH/4	SK 1282 SCP - 140TC	X	X	X		
288	220	4	III	5.72	2221	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
257	247	3.8	III	6.43	2295	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
221	287	3.7	III	7.48	2396	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
197	322	3.6	III	8.37	2480	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
183	347	4	III	9.03	2536	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
163	390	3.8	III	10.15	2621	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
140	454	3.7	III	11.81	2745	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
125	508	3.6	III	13.23	2831	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
100	635	3.7	III	16.53	3022	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
89	711	3.6	III	18.51	3128	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
75	841	3.6	III	21.9	3157	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
69	920	3.7	III	23.96	3155	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

1 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
66	959	3.4	III	24.97	3152	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
61	1031	3.6	III	26.83	3150	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
56	1139	3.2	III	29.65	3148	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
44	1428	2.9	III	37.18	3139	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
37	1733	2.3	III	45.11	3125	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
31	2073	2.2	III	53.96	3107	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
26	2452	1.9	II	63.83	3085	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
24	2677	1.5	II	69.67	3069	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
20	3166	1.3	I	82.42	3031	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
16	3879	1	I	100.98	2959	3375	SK 2282 SCP - 80L/4	SK 2282 SCP - 80LH/4	SK 2282 SCP - 140TC	X	X	X		
199	319	4	III	8.31	2831	4403	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
117	542	4	III	14.11	3308	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
99	640	4	III	16.67	3474	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
82	775	4	III	20.18	3670	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
77	821	3.8	III	21.38	3735	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
73	862	4	III	22.45	3794	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
70	911	3.7	III	23.71	3843	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
64	994	3.8	III	25.88	3942	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
57	1103	3.7	III	28.7	4064	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
52	1227	3.7	III	31.93	4187	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
44	1451	3.3	III	37.77	4385	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
39	1614	3.3	III	42.02	4518	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
34	1846	2.6	III	48.04	4685	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
30	2143	2.7	III	55.79	4878	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
25	2531	2.7	III	65.89	5119	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
23	2711	1.8	II	70.56	5114	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
21	3064	2.5	III	79.76	5103	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
19	3409	2.5	III	88.74	5092	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
16	3876	1.8	II	100.88	5076	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	
15	4312	1.6	II	112.23	5058	4500	SK 3282 SCP - 80L/4	SK 3282 SCP - 80LH/4	SK 3282 SCP - 140TC	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

1.5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
347	273	4.1	III	4.79	1591	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
303	312	4.1	III	5.47	1652	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
258	367	3.9	III	6.43	1728	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
229	413	3.8	III	7.24	1791	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
202	468	3	III	8.21	1856	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
201	470	3.6	III	8.24	1854	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
181	523	3.2	III	9.18	1913	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
161	590	2.9	III	10.34	1976	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
141	671	2.7	III	11.76	2045	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
118	805	2.3	III	14.11	2158	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
96	981	2	III	17.21	2149	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
81	1173	1.7	II	20.57	2140	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
66	1438	1.4	II	25.22	2122	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
59	1615	1.2	I	28.33	2108	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
52	1829	1.1	I	32.08	2088	1609	SK 1282 SCP - 90S/4	SK 1282 SCP - 90SH/4	SK 1282 SCP - 140TC	X	X	X		
368	257	4.4	III	4.51	2054	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
290	326	4.2	III	5.72	2203	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
258	367	4	III	6.43	2277	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
222	427	3.8	III	7.48	2381	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
198	477	3.7	III	8.37	2455	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
184	515	4.2	III	9.03	2513	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
164	579	4	III	10.15	2599	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
141	673	3.8	III	11.81	2714	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
125	754	3.7	III	13.23	2804	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
100	943	3.8	III	16.53	2986	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
90	1056	3.7	III	18.51	3085	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
76	1249	3.4	III	21.9	3146	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
69	1366	2.8	III	23.96	3141	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
66	1424	3	III	24.97	3139	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
62	1530	2.5	III	26.83	3134	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
56	1691	2.6	III	29.65	3128	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
53	1781	2.2	III	31.23	3123	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
45	2084	2.1	III	36.54	3107	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
45	2120	1.9	II	37.18	3105	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
38	2493	2	III	43.71	3083	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

1.5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
37	2572	1.5	II	45.11	3076	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
32	2949	1.6	II	51.71	3049	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
31	3077	1.5	II	53.96	3038	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
26	3640	1.3	I	63.83	2986	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
24	3973	1	I	69.67	2950	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
20	4700	0.9	*	82.42	2858	3375	SK 2282 SCP - 90S/4	SK 2282 SCP - 90SH/4	SK 2282 SCP - 140TC	X	X	X		
371	255	4.4	III	4.48	2351	3650	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
292	324	4.8	III	5.68	2518	3911	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
248	382	4.6	III	6.7	2642	4104	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
200	474	4.4	III	8.31	2813	4361	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
169	559	4.6	III	9.8	2952	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
146	649	4.6	III	11.38	3080	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
118	805	4.4	III	14.11	3278	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
100	951	4.4	III	16.67	3440	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
82	1151	4.4	III	20.18	3632	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
78	1219	4	III	21.38	3690	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
74	1280	4.4	III	22.45	3742	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
70	1352	3.9	III	23.71	3796	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
64	1476	4	III	25.88	3893	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
58	1637	3.9	III	28.7	4005	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
52	1821	3.9	III	31.93	4127	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
44	2154	3.4	III	37.77	4318	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
43	2202	2.5	III	38.62	4325	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
40	2396	3.4	III	42.02	4448	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
37	2558	2.6	III	44.85	4509	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
35	2739	1.8	II	48.04	4583	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
31	3021	2.5	III	52.97	4712	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
30	3181	1.8	II	55.79	4775	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
26	3656	2.5	III	64.12	4961	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
25	3757	1.8	II	65.89	4984	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
24	4024	1.2	I	70.56	5069	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
21	4548	1.7	II	79.76	5047	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
19	5060	1.7	II	88.74	5022	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
16	5753	1.2	I	100.88	4984	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	
15	6400	1.1	I	112.23	4943	4500	SK 3282 SCP - 90S/4	SK 3282 SCP - 90SH/4	SK 3282 SCP - 140TC	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

1.5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
274	346	5.4	III	6.06	3652	6203	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
233	407	4.9	III	7.13	3832	6509	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
199	475	4.8	III	8.33	4007	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
180	526	5.4	III	9.23	4131	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
153	619	4.9	III	10.85	4340	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
131	723	4.8	III	12.68	4534	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
109	867	4.8	III	15.2	4786	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
91	1037	4.8	III	18.18	5038	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
77	1223	4.8	III	21.45	5294	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
74	1277	4.6	III	22.39	5353	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
63	1497	4.8	III	26.25	5607	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
63	1507	4.6	III	26.43	5616	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
51	1844	4.6	III	32.34	5958	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
45	2099	4.1	III	36.81	6170	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
41	2323	4.2	III	40.74	6359	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
37	2569	4.1	III	45.05	6541	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
22	4374	3.2	III	76.7	6878	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
18	5162	2.7	III	90.52	6860	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
15	6317	2.2	III	110.78	6829	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
11	8862	1.3	I	155.4	6737	6750	SK 4282 SCP - 90S/4	SK 4282 SCP - 90SH/4	SK 4282 SCP - 140TC		X	X	X	
191	496	5.7	III	8.7	5639	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
128	741	5.7	III	13	6338	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
108	877	5.7	III	15.38	6662	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
94	1003	5.6	III	17.59	6935	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
88	1077	5.7	III	18.88	7081	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
82	1161	5.6	III	20.36	7229	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
66	1426	5.6	III	25	7682	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
54	1739	5.5	III	30.5	8138	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
50	1906	5.6	III	33.43	8377	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
41	2327	5.5	III	40.8	8856	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
30	3168	5.3	III	55.55	9684	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
20	4654	3.5	III	81.61	10035	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
17	5713	3.5	III	100.19	10022	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X
12	7643	3.1	III	134.03	9990	9000	SK 5282 SCP - 90S/4	SK 5282 SCP - 90SH/4	SK 5282 SCP - 140TC		X	X	X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

2 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
347	363	3.1	III	4.79	1577	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
303	415	3.1	III	5.47	1636	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
258	488	3	III	6.43	1712	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
229	549	2.8	III	7.24	1771	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
202	623	2.3	III	8.21	1841	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
201	625	2.7	III	8.24	1829	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
181	696	2.4	III	9.18	1890	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
161	784	2.2	III	10.34	1951	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
141	892	2	III	11.76	2016	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
118	1070	1.7	II	14.11	2117	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
96	1306	1.5	II	17.21	2131	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
81	1560	1.3	I	20.57	2113	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
66	1913	1	I	25.22	2081	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
59	2149	0.9	*	28.33	2054	1609	SK 1282 SCP - 90L/4	SK 1282 SCP - 90LH/4	SK 1282 SCP - 140TC	X	X	X		
368	342	3.3	III	4.51	2045	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
290	434	3.1	III	5.72	2194	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
258	488	3	III	6.43	2266	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
222	567	2.9	III	7.48	2365	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
198	635	2.8	III	8.37	2437	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
184	685	3.1	III	9.03	2504	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
164	770	3	III	10.15	2579	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
141	896	2.9	III	11.81	2691	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
125	1004	2.8	III	13.23	2777	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
100	1254	2.9	III	16.53	2959	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
90	1404	2.8	III	18.51	3049	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
76	1661	2.6	III	21.9	3128	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
69	1818	2.1	III	23.96	3121	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
66	1894	2.3	III	24.97	3116	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
62	2035	1.9	II	26.83	3110	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
56	2249	2	III	29.65	3098	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
53	2369	1.7	II	31.23	3089	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
45	2772	1.6	II	36.54	3062	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
45	2821	1.4	II	37.18	3058	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
38	3316	1.5	II	43.71	3017	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
37	3422	1.2	I	45.11	3006	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
32	3923	1.2	I	51.71	2954	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
31	4094	1.1	I	53.96	2936	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		
26	4842	1	I	63.83	2837	3375	SK 2282 SCP - 90L/4	SK 2282 SCP - 90LH/4	SK 2282 SCP - 140TC	X	X	X		

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

2 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
371	340	3.3	III	4.48	2340	3632	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
292	431	3.6	III	5.68	2507	3886	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
248	508	3.5	III	6.7	2633	4070	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
200	630	3.3	III	8.31	2799	4327	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
169	743	3.5	III	9.8	2936	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
146	863	3.5	III	11.38	3065	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
118	1070	3.3	III	14.11	3258	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
100	1265	3.3	III	16.67	3411	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
82	1531	3.3	III	20.18	3605	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
78	1622	3	III	21.38	3650	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
74	1703	3.3	III	22.45	3715	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
70	1799	2.9	III	23.71	3755	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
64	1963	3	III	25.88	3850	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
58	2177	2.9	III	28.7	3960	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
52	2422	2.9	III	31.93	4070	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
44	2865	2.6	III	37.77	4255	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
43	2930	1.9	II	38.62	4262	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
40	3188	2.6	III	42.02	4379	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
37	3402	1.9	II	44.85	4428	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
35	3644	1.3	I	48.04	4500	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
31	4018	1.9	II	52.97	4626	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
30	4232	1.3	I	55.79	4671	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
26	4864	1.8	II	64.12	4849	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
25	4999	1.3	I	65.89	4874	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
21	6051	1.2	I	79.76	4966	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
19	6732	1.2	I	88.74	4921	4500	SK 3282 SCP - 90L/4	SK 3282 SCP - 90LH/4	SK 3282 SCP - 140TC	X	X	X	X	
274	460	4.1	III	6.06	3638	6194	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
233	541	3.7	III	7.13	3818	6478	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
199	632	3.6	III	8.33	4001	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
180	700	4.1	III	9.23	4124	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
153	823	3.7	III	10.85	4320	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

2 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
131	962	3.6	III	12.68	4518	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
109	1153	3.6	III	15.2	4763	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
91	1379	3.6	III	18.18	5013	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
77	1627	3.6	III	21.45	5258	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
74	1699	3.4	III	22.39	5317	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
63	1991	3.6	III	26.25	5569	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
63	2005	3.4	III	26.43	5587	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
51	2453	3.4	III	32.34	5904	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
45	2792	3.1	III	36.81	6122	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
41	3091	3.2	III	40.74	6298	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
37	3418	3.1	III	45.05	6489	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
22	5819	2.4	III	76.7	6845	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
18	6867	2.1	III	90.52	6813	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
15	8404	1.7	II	110.78	6757	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
11	11789	1	I	155.4	6590	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC		X	X	X	
191	660	4.3	III	8.7	5612	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
128	986	4.3	III	13	6318	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
108	1167	4.3	III	15.38	6640	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
94	1334	4.2	III	17.59	6912	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
88	1432	4.3	III	18.88	7056	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
82	1545	4.2	III	20.36	7205	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
66	1897	4.2	III	25	7657	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
54	2314	4.1	III	30.5	8123	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
50	2536	4.2	III	33.43	8332	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
41	3095	4.1	III	40.8	8811	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
30	4214	4	III	55.55	9644	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
20	6191	2.6	III	81.61	10015	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
17	7601	2.6	III	100.19	9990	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X
12	10168	2.3	III	134.03	9934	9000	SK 5282 SCP - 90L/4	SK 5282 SCP - 90LH/4	SK 5282 SCP - 140TC		X	X	X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

3 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
356	531	2.1	III	4.79	1541	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
312	607	2.5	III	5.47	1595	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
265	714	2.2	III	6.43	1667	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
235	804	2.1	III	7.24	1719	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
208	912	1.6	II	8.21	1784	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
207	915	1.8	II	8.24	1775	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
186	1019	1.6	II	9.18	1832	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
165	1148	1.5	II	10.34	1886	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
145	1306	1.4	II	11.76	1944	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
121	1567	1.2	I	14.11	2039	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
99	1911	1	I	17.21	2081	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
83	2284	0.9	*	20.57	2039	1609	SK 1282 SCP - 100L/4	SK 1282 SCP - 100LH/4	SK 1282 SCP - 180TC	X	X	X		
378	501	3.3	III	4.51	2012	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
298	635	3	III	5.72	2151	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
265	714	2.8	III	6.43	2219	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
228	831	2.6	III	7.48	2313	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
204	929	2.4	III	8.37	2385	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
189	1003	3	III	9.03	2446	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
168	1127	2.8	III	10.15	2522	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
144	1311	2.6	III	11.81	2626	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
129	1469	2.4	III	13.23	2707	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
103	1835	2.3	III	16.53	2880	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
92	2055	2.1	III	18.51	2959	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
78	2432	1.7	II	21.9	3087	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
71	2660	1.4	II	23.96	3069	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
68	2773	1.6	II	24.97	3062	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
64	2979	1.3	I	26.83	3047	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
58	3292	1.3	I	29.65	3020	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
55	3468	1.1	I	31.23	3002	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
47	4057	1.1	I	36.54	2939	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
39	4853	1	I	43.71	2837	3375	SK 2282 SCP - 100L/4	SK 2282 SCP - 100LH/4	SK 2282 SCP - 180TC	X	X	X		
381	497	3.7	III	4.48	2309	3569	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
300	631	3.6	III	5.68	2466	3818	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
254	744	3.4	III	6.7	2583	3992	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
205	923	3.1	III	8.31	2745	4230	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
174	1088	3.4	III	9.8	2882	4430	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
150	1264	3.4	III	11.38	3004	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
121	1567	3.1	III	14.11	3179	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

3 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
102	1851	3.1	III	16.67	3328	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
84	2241	3.1	III	20.18	3503	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
80	2374	2.7	III	21.38	3553	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
76	2493	2.8	III	22.45	3602	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
72	2633	2.5	III	23.71	3647	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
66	2874	2.6	III	25.88	3737	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
59	3187	2.4	III	28.7	3839	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
53	3545	2.2	III	31.93	3935	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
45	4194	1.8	II	37.77	4097	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
44	4288	1.3	I	38.62	4086	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
41	4666	1.8	II	42.02	4205	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
38	4980	1.3	I	44.85	4241	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
32	5882	1.3	I	52.97	4406	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
27	7120	1.3	I	64.12	4604	4500	SK 3282 SCP - 100L/4	SK 3282 SCP - 100LH/4	SK 3282 SCP - 180TC	X	X	X	X	
281	673	4.2	III	6.06	3593	6095	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
239	792	4	III	7.13	3764	6386	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
205	925	3.8	III	8.33	3935	6667	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
185	1025	4.2	III	9.23	4064	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
157	1205	4	III	10.85	4250	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
134	1408	3.8	III	12.68	4444	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
112	1688	3.8	III	15.2	4685	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
94	2019	3.8	III	18.18	4921	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
79	2382	3.8	III	21.45	5162	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
76	2486	3.4	III	22.39	5218	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
65	2915	3.8	III	26.25	5472	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
65	2935	3.4	III	26.43	5472	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
53	3591	3.4	III	32.34	5778	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
47	4042	3	III	36.4	5931	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
46	4087	2.9	III	36.81	5978	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
42	4524	3	III	40.74	6156	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
39	4847	2.9	III	43.65	6228	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
38	5002	2.8	III	45.05	6305	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
33	5796	2.8	III	52.2	6523	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
28	6840	2.3	III	61.6	6813	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
23	8371	1.7	II	75.39	6757	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
22	8517	1.7	II	76.7	6752	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
19	10051	1.4	II	90.52	6683	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	
15	12301	1.2	I	110.78	6559	6750	SK 4282 SCP - 100L/4	SK 4282 SCP - 100LH/4	SK 4282 SCP - 180TC		X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

3 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
269	703	4.7	III	6.33	5056	8498	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
238	796	4.8	III	7.17	5245	8831	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
196	966	4.4	III	8.7	5549	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
180	1050	4.7	III	9.46	5702	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
159	1189	4.8	III	10.71	5897	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
131	1443	4.4	III	13	6246	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
111	1708	4.4	III	15.38	6566	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
97	1953	4.2	III	17.59	6811	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
90	2096	4.4	III	18.88	6953	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
84	2261	4	III	20.36	7099	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
68	2776	4	III	25	7542	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
56	3387	3.6	III	30.5	7974	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
51	3712	4	III	33.43	8206	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
42	4530	3.6	III	40.8	8658	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
36	5249	4	III	47.27	8991	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
31	6168	3.1	III	55.55	9423	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
31	6207	3.7	III	55.9	9421	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
25	7621	3.4	III	68.63	9956	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
21	9062	1.8	II	81.61	9961	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
19	10194	2.4	III	91.81	9934	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
17	11125	1.8	II	100.19	9909	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
13	14882	1.6	II	134.03	9790	9000	SK 5282 SCP - 100L/4	SK 5282 SCP - 100LH/4	SK 5282 SCP - 180TC		X	X	X	X
253	748	5.1	III	6.74	7515	10845	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
218	868	4.9	III	7.82	7835	11324	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
182	1043	4.6	III	9.39	8273	11979	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
160	1181	5.1	III	10.64	8586	12409	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
138	1371	4.9	III	12.35	8964	12978	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
115	1647	4.6	III	14.83	9482	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
91	2076	4.6	III	18.7	10125	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
74	2548	4.6	III	22.95	10760	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
65	2893	4.4	III	26.05	11162	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
57	3320	4.2	III	29.9	11617	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
26	7266	4.1	III	65.44	13219	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X
21	8920	4.1	III	80.33	13199	13500	SK 6282 SCP - 100L/4	SK 6282 SCP - 100LH/4	SK 6282 SCP - 180TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
360	875	1.3	I	4.79	1487	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
315	1000	1.5	II	5.47	1537	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
268	1175	1.4	II	6.43	1595	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
238	1323	1.3	I	7.24	1638	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
210	1500	0.9	*	8.21	1701	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
209	1506	1.1	I	8.24	1683	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
188	1678	1	I	9.18	1737	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
167	1890	0.9	*	10.34	1780	1609	SK 1282 SCP - 100LA/4	SK 1282 SCP - 112MH/4	SK 1282 SCP - 180TC	X	X	X		
382	824	2	III	4.51	1969	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
302	1045	1.8	II	5.72	2099	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
268	1175	1.7	II	6.43	2162	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
231	1367	1.6	II	7.48	2246	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
206	1530	1.5	II	8.37	2311	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
191	1650	1.8	II	9.03	2372	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
170	1855	1.7	II	10.15	2437	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
146	2158	1.6	II	11.81	2536	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
130	2418	1.5	II	13.23	2601	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
104	3021	1.4	II	16.53	2750	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
93	3383	1.3	I	18.51	2815	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
79	4002	1.1	I	21.9	2918	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
72	4379	0.9	*	23.96	2900	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
69	4563	1	I	24.97	2876	3375	SK 2282 SCP - 100LA/4	SK 2282 SCP - 112MH/4	SK 2282 SCP - 180TC	X	X	X		
385	819	2.3	III	4.48	2264	3490	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
304	1038	2.2	III	5.68	2417	3715	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
257	1224	2.1	III	6.7	2527	3872	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
208	1519	1.9	II	8.31	2675	4091	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
176	1791	2.1	III	9.8	2799	4277	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
152	2080	2.1	III	11.38	2912	4446	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
122	2579	1.9	II	14.11	3074	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
103	3047	1.9	II	16.67	3206	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
85	3688	1.9	II	20.18	3359	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
81	3907	1.6	II	21.38	3398	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
77	4103	1.7	II	22.45	3447	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
73	4333	1.5	II	23.71	3474	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
67	4730	1.6	II	25.88	3553	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
60	5245	1.5	II	28.7	3632	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
54	5835	1.3	I	31.93	3713	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
46	6903	1.1	I	37.77	3830	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	
41	7679	1.1	I	42.02	3906	4500	SK 3282 SCP - 100LA/4	SK 3282 SCP - 112MH/4	SK 3282 SCP - 180TC	X	X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
285	1107	2.5	III	6.06	3542	5987	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
242	1303	2.4	III	7.13	3708	6264	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
207	1522	2.3	III	8.33	3879	6530	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
187	1687	2.5	III	9.23	3998	6743	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
159	1983	2.4	III	10.85	4172	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
136	2317	2.3	III	12.68	4354	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
113	2778	2.3	III	15.2	4581	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
95	3322	2.3	III	18.18	4808	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
80	3920	2.3	III	21.45	5031	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
77	4092	2.1	III	22.39	5076	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
66	4797	2.3	III	26.25	5299	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
65	4830	2.1	III	26.43	5306	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
53	5910	2.1	III	32.34	5589	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
47	6652	1.8	II	36.4	5697	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
47	6727	1.7	II	36.81	5751	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
42	7445	1.8	II	40.74	5900	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
40	7977	1.8	II	43.65	5958	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
38	8233	1.7	II	45.05	6055	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
33	9540	1.7	II	52.2	6210	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
28	11258	1.4	II	61.6	6451	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
23	13778	1	I	75.39	6464	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
22	14017	1	I	76.7	6446	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
19	16543	0.9	*	90.52	6251	6750	SK 4282 SCP - 100LA/4	SK 4282 SCP - 112MH/4	SK 4282 SCP - 180TC		X	X	X	
273	1157	2.9	III	6.33	5006	8417	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
241	1310	2.9	III	7.17	5186	8719	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
198	1590	2.7	III	8.7	5486	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
182	1729	2.9	III	9.46	5627	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
161	1957	2.9	III	10.71	5830	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
133	2376	2.7	III	13	6154	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
112	2811	2.7	III	15.38	6455	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
98	3215	2.5	III	17.59	6707	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
91	3450	2.7	III	18.88	6847	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
85	3721	2.4	III	20.36	6980	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
69	4569	2.4	III	25	7400	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
57	5574	2.2	III	30.5	7805	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
52	6109	2.4	III	33.43	8015	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
42	7456	2.2	III	40.8	8444	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
36	8639	2.5	III	47.27	8741	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
31	10152	1.9	II	55.55	9140	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
31	10216	2.3	III	55.9	9108	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
25	12542	2.1	III	68.63	9603	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
21	14915	1.1	I	81.61	9788	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
19	16779	1.5	II	91.81	9716	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
17	18310	1.1	I	100.19	9648	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
13	24494	1	I	134.03	9308	9000	SK 5282 SCP - 100LA/4	SK 5282 SCP - 112MH/4	SK 5282 SCP - 180TC		X	X	X	X
256	1232	3.1	III	6.74	7432	10742	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
221	1429	3	III	7.82	7772	11216	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
184	1716	2.8	III	9.39	8195	11846	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
162	1945	3.1	III	10.64	8501	12290	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
140	2257	3	III	12.35	8876	12854	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
116	2710	2.8	III	14.83	9358	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
92	3417	2.8	III	18.7	10008	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
75	4194	2.8	III	22.95	10616	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
66	4761	2.7	III	26.05	10994	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
58	5464	2.5	III	29.9	11439	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
26	11959	2.5	III	65.44	13149	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X
21	14681	2.5	III	80.33	13095	13500	SK 6282 SCP - 100LA/4	SK 6282 SCP - 112MH/4	SK 6282 SCP - 180TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

7.5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
387	1221	3.3	III	4.48	2219	3402	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
305	1547	3.2	III	5.68	2360	3602	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
259	1824	2.9	III	6.7	2459	3744	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
209	2263	2.6	III	8.31	2597	3935	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
177	2669	2.8	III	9.8	2709	4104	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
152	3099	2.3	III	11.38	2810	4237	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
123	3842	2	III	14.11	2948	4417	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
104	4539	1.6	II	16.67	3060	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
86	5495	1.3	I	20.18	3186	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
81	5822	1.1	I	21.38	3204	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
77	6113	1.2	I	22.45	3254	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
73	6456	1	I	23.71	3260	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
67	7047	1.1	I	25.88	3335	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
60	7815	1	I	28.7	3380	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
54	8695	0.9	*	31.93	3445	4500	SK 3282 SCP - 132S/4	SK 3282 SCP - 132SH/4	SK 3282 SCP - 210TC	X	X	X	X	
369	1280	4	III	4.7	3251	5492	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
347	1362	3.9	III	5	3310	5589	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
320	1479	3.9	III	5.43	3384	5706	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
286	1650	3.7	III	6.06	3488	5884	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
243	1942	3.5	III	7.13	3647	6134	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
208	2268	3.2	III	8.33	3800	6386	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
188	2513	3.7	III	9.23	3917	6581	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
160	2955	3.5	III	10.85	4086	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
137	3453	3.2	III	12.68	4255	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
114	4139	3.2	III	15.2	4464	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
95	4951	3.2	III	18.18	4673	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
81	5841	2.6	III	21.45	4871	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
77	6097	2.5	III	22.39	4905	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
66	7148	2	III	26.25	5121	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
66	7197	2.2	III	26.43	5121	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
65	7276	1.9	II	26.72	5078	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
54	8725	1.8	II	32.04	5301	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
54	8806	1.6	II	32.34	5351	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
48	9912	1.2	I	36.4	5405	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
47	10024	1.2	I	36.81	5488	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
45	10432	1.7	II	38.31	5506	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
43	11094	1.2	I	40.74	5609	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
40	11886	1.2	I	43.65	5627	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
39	12267	1.1	I	45.05	5715	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
33	14214	1.1	I	52.2	5814	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	
28	16774	0.9	*	61.6	5994	6750	SK 4282 SCP - 132S/4	SK 4282 SCP - 132SH/4	SK 4282 SCP - 210TC		X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

7.5 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
274	1724	4.2	III	6.33	4959	8323	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
242	1952	4.1	III	7.17	5135	8622	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
199	2369	3.8	III	8.7	5414	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
183	2576	4.2	III	9.46	5553	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
162	2916	4.1	III	10.71	5753	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
133	3540	3.8	III	13	6062	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
113	4188	3.8	III	15.38	6356	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
99	4790	3.6	III	17.59	6590	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
92	5141	3.8	III	18.88	6728	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
85	5544	3.4	III	20.36	6842	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
69	6808	3.4	III	25	7236	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
57	8305	3.1	III	30.5	7621	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
52	9103	2.2	III	33.43	7805	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
49	9656	2.5	III	35.46	7884	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
43	11110	2	III	40.8	8188	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
41	11421	2.5	III	41.94	8208	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
37	12872	1.7	II	47.27	8411	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
34	14021	2	III	51.49	8638	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
31	15127	1.3	I	55.55	8798	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
31	15222	1.5	II	55.9	8753	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
25	18688	1.4	II	68.63	9191	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
19	25001	1	I	91.81	9275	9000	SK 5282 SCP - 132S/4	SK 5282 SCP - 132SH/4	SK 5282 SCP - 210TC		X	X	X	X
257	1835	4.5	III	6.74	7382	10672	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
222	2129	4.3	III	7.82	7697	11144	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
185	2557	4.1	III	9.39	8114	11732	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
163	2897	4.5	III	10.64	8431	12173	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
140	3363	4.3	III	12.35	8789	12690	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
117	4038	4.1	III	14.83	9248	13381	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
93	5092	4.1	III	18.7	9873	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
76	6249	4.1	III	22.95	10485	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
67	7094	3.9	III	26.05	10836	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
58	8142	3.7	III	29.9	11252	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
44	10751	2.6	III	39.48	12058	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
35	13547	2.6	III	49.75	12807	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
28	16633	2.4	III	61.08	13048	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
27	17820	1.7	II	65.44	13016	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X
22	21874	1.7	II	80.33	12893	13500	SK 6282 SCP - 132S/4	SK 6282 SCP - 132SH/4	SK 6282 SCP - 210TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

10 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
387	1627	2.5	III	4.48	2178	3314	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
305	2064	2.4	III	5.68	2309	3494	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
259	2435	2.2	III	6.7	2394	3614	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
209	3020	2	III	8.31	2513	3769	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
177	3561	2.1	III	9.8	2624	3922	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
152	4136	1.8	II	11.38	2709	4037	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
123	5128	1.5	II	14.11	2822	4169	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
104	6058	1.2	I	16.67	2912	4277	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
86	7333	1	I	20.18	3011	4388	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
77	8158	0.9	*	22.45	3056	4446	SK 3282 SCP - 132M/4	SK 3282 SCP - 132MH/4	SK 3282 SCP - 210TC	X	X	X	X	
369	1708	3	III	4.7	3220	5423	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
347	1817	3	III	5	3272	5499	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
320	1973	2.9	III	5.43	3344	5616	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
286	2202	2.7	III	6.06	3440	5771	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
243	2591	2.6	III	7.13	3584	6008	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
208	3027	2.4	III	8.33	3728	6253	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
188	3354	2.7	III	9.23	3854	6446	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
160	3943	2.6	III	10.85	4005	6689	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
137	4608	2.4	III	12.68	4160	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
114	5524	2.4	III	15.2	4352	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
95	6607	2.4	III	18.18	4545	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
81	7795	1.9	II	21.45	4718	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
77	8137	1.8	II	22.39	4748	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
66	9539	1.5	II	26.25	4930	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
66	9605	1.6	II	26.43	4919	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
65	9710	1.5	II	26.72	4869	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
54	11643	1.4	II	32.04	5072	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
54	11752	1.2	I	32.34	5126	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
47	13377	0.9	*	36.81	5218	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
45	13922	1.3	I	38.31	5213	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
43	14805	0.9	*	40.74	5321	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	
39	16371	0.9	*	45.05	5387	6750	SK 4282 SCP - 132M/4	SK 4282 SCP - 132MH/4	SK 4282 SCP - 210TC		X	X	X	

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

10 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
274	2300	3.2	III	6.33	4910	8255	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
242	2606	3	III	7.17	5094	8539	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
199	3162	2.9	III	8.7	5360	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
183	3438	3.2	III	9.46	5497	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
162	3892	3	III	10.71	5693	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
133	4724	2.9	III	13	5987	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
113	5589	2.9	III	15.38	6264	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
99	6392	2.7	III	17.59	6482	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
92	6861	2.9	III	18.88	6615	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
85	7399	2.6	III	20.36	6725	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
69	9085	2.6	III	25	7090	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
57	11084	2.3	III	30.5	7439	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
52	12148	1.7	II	33.43	7607	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
49	12886	1.9	II	35.46	7652	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
43	14827	1.5	II	40.8	7949	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
41	15241	1.9	II	41.94	7949	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
34	18712	1.5	II	51.49	8321	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
31	20187	0.9	*	55.55	8474	9000	SK 5282 SCP - 132M/4	SK 5282 SCP - 132MH/4	SK 5282 SCP - 210TC		X	X	X	X
257	2449	3.4	III	6.74	7335	10604	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
222	2842	3.3	III	7.82	7659	11057	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
185	3412	3.1	III	9.39	8060	11619	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
163	3867	3.4	III	10.64	8361	12094	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
140	4488	3.3	III	12.35	8714	12589	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
117	5389	3.1	III	14.83	9185	13253	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
93	6796	3.1	III	18.7	9767	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
76	8340	3.1	III	22.95	10350	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
67	9467	3	III	26.05	10674	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
58	10866	2.8	III	29.9	11093	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
44	14347	2	III	39.48	11844	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
35	18079	2	III	49.75	12517	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X
28	22197	1.8	II	61.08	12881	13500	SK 6282 SCP - 132M/4	SK 6282 SCP - 132MH/4	SK 6282 SCP - 210TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

15 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
377	2510	3.3	III	4.7	3130	5225	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
354	2672	3.2	III	5	3173	5301	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
326	2901	3.2	III	5.43	3238	5405	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
292	3238	3	III	6.06	3326	5544	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
248	3810	2.8	III	7.13	3458	5744	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
212	4451	2.5	III	8.33	3580	5940	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
192	4932	2.9	III	9.23	3697	6125	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
163	5797	2.6	III	10.85	3836	6314	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
140	6775	2.3	III	12.68	3951	6509	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
116	8122	2	III	15.2	4118	6743	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
97	9714	1.6	II	18.18	4255	6750	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
83	11461	1.3	I	21.45	4406	6750	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
79	11963	1.3	I	22.39	4399	6750	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
67	14026	1	I	26.25	4545	6750	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
67	14122	1.1	I	26.43	4525	6750	SK 4282 SCP - 160M/4	SK 4282 SCP - 160MH/4	SK 4282 SCP - 250TC		X	X	X	
410	2308	4	III	4.32	4334	7286	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
353	2677	3.9	III	5.01	4516	7585	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
335	2827	3.8	III	5.29	4581	7693	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
310	3051	3.7	III	5.71	4676	7844	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
280	3382	3.5	III	6.33	4804	8060	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
247	3831	3.3	III	7.17	4968	8336	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
203	4649	3.1	III	8.7	5216	8762	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
187	5055	3.5	III	9.46	5357	8973	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
165	5723	3.3	III	10.71	5528	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
136	6946	3.1	III	13	5798	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
115	8218	2.8	III	15.38	6050	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
101	9399	2.6	III	17.59	6242	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
94	10088	2.3	III	18.88	6363	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
87	10879	2.5	III	20.36	6442	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
71	13358	1.9	II	25	6764	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
58	16297	1.6	II	30.5	7040	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
53	17862	1.1	I	33.43	7187	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X
43	21800	1	I	40.8	7434	9000	SK 5282 SCP - 160M/4	SK 5282 SCP - 160MH/4	SK 5282 SCP - 250TC		X	X	X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

15 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
363	2607	4.1	III	4.88	6588	9509	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
322	2939	4	III	5.5	6813	9835	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
306	3088	3.9	III	5.78	6923	9979	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
263	3601	3.7	III	6.74	7205	10402	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
226	4178	3.6	III	7.82	7508	10827	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
188	5017	3.3	III	9.39	7889	11381	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
166	5685	3.7	III	10.64	8192	11826	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
143	6599	3.6	III	12.35	8523	12290	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
119	7924	3.3	III	14.83	8933	12895	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
95	9992	3.3	III	18.7	9488	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
77	12263	3.3	III	22.95	10024	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
68	13919	2.9	III	26.05	10325	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
59	15976	2.5	III	29.9	10674	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
45	21095	1.3	I	39.48	11270	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
36	26583	1.3	I	49.75	11867	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X
29	32636	1.2	I	61.08	12427	13500	SK 6282 SCP - 160M/4	SK 6282 SCP - 160MH/4	SK 6282 SCP - 250TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

20 hp Gearmotors & Speed Reducers

Output Speed n_2 [rpm]	Output Torque T_2 [lb-in]	SF f_a	AGMA Class	Gear Ratio i	Thrust Std Brg [lb]	Thrust H.D. Brg " VL" [lb]	Integral Gearmotor Standard Efficiency Motor	Integral Gearmotor Energy Efficient Motor	Reducer C-Face Input	CEMA DriveShaft 1-1/2"	2"	2-7/16"	3"	3-7/16"
376	3357	2.5	III	4.7	3053	5076	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
353	3570	2.4	III	5	3096	5141	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
325	3877	2.4	III	5.43	3155	5234	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
291	4327	2.2	III	6.06	3233	5344	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
248	5091	2.1	III	7.13	3341	5508	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
212	5947	1.9	II	8.33	3449	5661	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
191	6590	2.2	III	9.23	3564	5837	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
163	7747	1.9	II	10.85	3663	5987	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
139	9053	1.7	II	12.68	3760	6125	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
116	10852	1.5	II	15.2	3888	6293	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
97	12980	1.2	I	18.18	3989	6406	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
82	15315	1	I	21.45	4086	6518	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
79	15986	0.9	*	22.39	4070	6458	SK 4282 SCP - 160L/4	SK 4282 SCP - 160LH/4	SK 4282 SCP - 250TC		X	X	X	
409	3084	3	III	4.32	4282	7193	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
352	3577	2.9	III	5.01	4462	7475	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
334	3777	2.8	III	5.29	4511	7585	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
309	4077	2.8	III	5.71	4606	7745	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
279	4519	2.6	III	6.33	4723	7931	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
246	5119	2.5	III	7.17	4883	8177	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
203	6212	2.3	III	8.7	5105	8566	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
187	6754	2.6	III	9.46	5243	8789	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
165	7647	2.5	III	10.71	5398	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
136	9282	2.3	III	13	5643	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
115	10981	2.1	III	15.38	5868	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
100	12559	1.9	II	17.59	6032	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
93	13480	1.7	II	18.88	6149	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
87	14536	1.9	II	20.36	6206	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
71	17849	1.4	II	25	6476	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
58	21776	1.2	I	30.5	6687	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X
53	23868	0.9	*	33.43	6784	9000	SK 5282 SCP - 160L/4	SK 5282 SCP - 160LH/4	SK 5282 SCP - 250TC		X	X	X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

20 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
362	3484	3.1	III	4.88	6532	9432	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
321	3927	3	III	5.5	6743	9740	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
305	4127	2.9	III	5.78	6831	9866	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
262	4812	2.8	III	6.74	7130	10287	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
226	5583	2.7	III	7.82	7418	10708	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
188	6704	2.5	III	9.39	7765	11198	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
166	7597	2.8	III	10.64	8064	11637	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
143	8818	2.7	III	12.35	8372	12094	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
119	10588	2.5	III	14.83	8780	12629	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
94	13351	2.5	III	18.7	9297	13381	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
77	16386	2.4	III	22.95	9765	13500	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
68	18599	2.2	III	26.05	10037	13500	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
59	21348	1.9	II	29.9	10330	13500	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
45	28188	1	I	39.48	10787	13500	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
35	35520	1	I	49.75	11268	13500	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X
29	43609	0.9	*	61.08	11678	13500	SK 6282 SCP - 160L/4	SK 6282 SCP - 160LH/4	SK 6282 SCP - 250TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

25 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
405	3890	3.5	III	4.32	4239	7101	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
349	4510	3.3	III	5.01	4394	7369	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
331	4762	3.3	III	5.29	4457	7475	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
306	5140	3.1	III	5.71	4543	7607	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
276	5698	3.3	III	6.33	4649	7819	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
244	6455	3	III	7.17	4788	8035	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
201	7832	2.7	III	8.7	5011	8404	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
185	8516	2.4	III	9.46	5135	8593	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
163	9641	2.3	III	10.71	5272	8831	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
135	11703	2	III	13	5492	9000	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
114	13846	1.7	II	15.38	5688	9000	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
99	15835	1.5	II	17.59	5821	9000	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
93	16996	1.4	II	18.88	5931	9000	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
86	18329	1.5	II	20.36	5963	9000	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
70	22506	1.1	I	25	6185	9000	SK 5282 SCP - 180MX/4	SK 5282 SCP - 180MH/4	SK 5282 SCP - 280TC		X	X	X	X
399	3952	4.6	III	4.39	6296	9106	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
359	4393	4.3	III	4.88	6478	9358	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
318	4951	4.1	III	5.5	6687	9646	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
303	5203	4	III	5.78	6773	9772	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
292	5392	3.9	III	5.99	6849	9866	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
260	6068	4	III	6.74	7056	10172	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
224	7040	3.4	III	7.82	7317	10553	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
186	8453	2.9	III	9.39	7655	11039	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
164	9578	4	III	10.64	7958	11491	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
142	11118	3.5	III	12.35	8255	11882	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
118	13350	3	III	14.83	8593	12389	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
94	16834	2.3	III	18.7	9079	13061	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
76	20660	1.9	II	22.95	9536	13500	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
67	23451	1.7	II	26.05	9758	13500	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X
59	26917	1.5	II	29.9	9999	13500	SK 6282 SCP - 180MX/4	SK 6282 SCP - 180MH/4	SK 6282 SCP - 280TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

30 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
406	4654	2.9	III	4.32	4174	7000	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
350	5397	2.8	III	5.01	4327	7250	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
332	5699	2.7	III	5.29	4381	7355	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
307	6151	2.6	III	5.71	4464	7475	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
277	6819	2.7	III	6.33	4568	7670	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
245	7724	2.5	III	7.17	4694	7855	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
202	9372	2.2	III	8.7	4892	8177	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
186	10191	2	III	9.46	5009	8404	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
164	11538	1.9	II	10.71	5137	8593	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
135	14005	1.7	II	13	5315	8901	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
114	16569	1.4	II	15.38	5495	9000	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
100	18950	1.3	I	17.59	5603	9000	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
93	20339	1.1	I	18.88	5697	9000	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
86	21934	1.3	I	20.36	5702	9000	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
70	26932	1	I	25	5873	9000	SK 5282 SCP - 180LX/4	SK 5282 SCP - 180LH/4	SK 5282 SCP - 280TC		X	X	X	X
400	4729	3.8	III	4.39	6233	9005	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
360	5257	3.6	III	4.88	6413	9252	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
319	5925	3.4	III	5.5	6608	9540	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
304	6227	3.3	III	5.78	6703	9646	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
293	6453	3.3	III	5.99	6768	9740	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
260	7261	3.3	III	6.74	6948	10026	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
224	8424	2.8	III	7.82	7214	10402	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
187	10116	2.4	III	9.39	7544	10845	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
165	11462	3.3	III	10.64	7814	11270	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
142	13305	2.9	III	12.35	8087	11657	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
118	15976	2.5	III	14.83	8406	12114	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
94	20145	1.9	II	18.7	8840	12731	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
76	24724	1.6	II	22.95	9250	13295	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
67	28064	1.4	II	26.05	9448	13500	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X
59	32211	1.2	I	29.9	9664	13500	SK 6282 SCP - 180LX/4	SK 6282 SCP - 180LH/4	SK 6282 SCP - 280TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

40 hp & 50 hp Gearmotors & Speed Reducers

Output Speed	Output Torque	SF	AGMA Class	Gear Ratio	Thrust		Integral Gearmotor		Reducer	CEMA DriveShaft				
n_2	T_2	f_a		i	Std Brg	H.D. Brg " VL"	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input	1-1/2"	2"	2-7/16"	3"	3-7/16"
[rpm]	[lb-in]				[lb]	[lb]								
405	6217	2.9	III	4.39	6098	8791	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
365	6912	2.8	III	4.88	6253	9020	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
324	7790	2.6	III	5.5	6442	9284	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
308	8187	2.5	III	5.78	6512	9389	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
297	8484	2.5	III	5.99	6572	9479	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
264	9546	2.8	III	6.74	6748	9725	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
228	11076	2.1	III	7.82	6977	10076	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
190	13300	1.8	II	9.39	7252	10451	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
167	15070	2.5	III	10.64	7538	10845	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
144	17492	2.2	III	12.35	7760	11162	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
120	21005	1.9	II	14.83	8026	11545	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
95	26486	1.5	II	18.7	8368	12035	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
78	32506	1.2	I	22.95	8683	12490	SK 6282 SCP - 200L/4	SK 6282 SCP - 200LH/4	SK 6282 SCP - 320TC				X	X
402	7838	2.3	III	4.39	5994	8651	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
362	8714	2.2	III	4.88	6143	8847	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
321	9821	2.1	III	5.5	6307	9106	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
305	10321	2	III	5.78	6374	9194	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
295	10696	2	III	5.99	6422	9252	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
262	12035	2.2	III	6.74	6599	9479	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
226	13964	1.7	II	7.82	6784	9772	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
188	16767	1.5	II	9.39	7025	10091	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
166	18999	2	III	10.64	7279	10487	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
143	22053	1.8	II	12.35	7459	10742	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
119	26481	1.5	II	14.83	7661	11039	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
94	33391	1.2	I	18.7	7931	11399	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X
77	40980	1	I	22.95	8141	11732	SK 6282 SCP - 225S/4	SK 6282 SCP - 225SH/4	SK 6282 SCP - 320TC				X	X

Output speed and torque ratings are based on the "Standard Efficiency Motor" Power and speed. Performance will vary slightly for other motors.

Selection

- SK 1282, 1382 SCP Ratings & Combinations
- SK 2282 & 2382 SCP Ratings & Combinations
- SK 3282 & 3382 SCP Ratings & Combinations
- SK 4282 & 4382 SCP Ratings & Combinations
- SK 5282 & 5382 SCP Ratings & Combinations
- SK 6282 & 6382 SCP Ratings & Combinations

DRIVESYSTEMS

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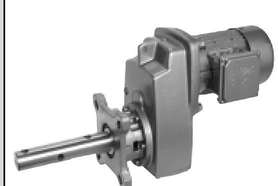
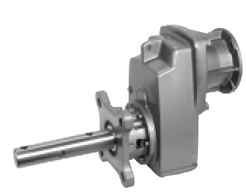
hrust		Integral Gearmotor		Reducer
Brg [lb]	HD Brg "VL" [lb]	Standard Efficiency Motor	Energy Efficient Motor	C-Face Input
183	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
516	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
856	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
950	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140TC
50	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 140T
[illegible]	6750	SK 4282 SCP - 90L/4	SK 4282 SCP - 90LH/4	SK 4282 SCP - 1





CLINCHER™

Screw Conveyor Package Ratings & Combinations

Explanation of Selection Tables

GEARBOX TYPE – Nomenclature for specified gear unit.

TOTAL GEAR RATIO

OUTPUT SPEED – Based on 1750 rpm input speed

MAXIMUM TORQUE RATINGS

MAX POWER RATING – Based on 1750 rpm input speed

NEMA C-FACE INPUT POSSIBLE COMBINATIONS

INTEGRAL MOTOR POSSIBLE COMBINATIONS

W + NEMA

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max Power 1750 rpm input P_{max} [hp]	NEMA C-face			Integral Motor									
					56C 1.0 hp	140TC 2.0 hp	180TC 5.0 hp	63S/4 0.16 hp	63L/4 0.25 hp	71S/4 0.33 hp	71L/4 0.5 hp	80S/4 0.75 hp	80L 80LH/4 1.0 hp	90S 90SH/4 1.5 hp	90L 90LH/4 2 .0 hp	100L 100LH/4 3.0 hp	100LA 112LH/4 5.0 hp
SK 1282 SCP	4.79	365	1133	5.00	X	X	X	X	X	X	X	X	X	X	X	X	X
	5.47	320	1522	5.00	X	X	X	X	X	X	X	X	X	X	X	X	X
	6.43	272	1602	5.00	X	X	X	X	X	X	X	X	X	X	X	X	X
	7.24	242	1655	5.00	X	X	X	X	X	X	X	X	X	X	X	X	X

X = Available Combination

SK 1282 SCP & SK 1382 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face* 56C 1.0 hp	140TC 2.0 hp	180TC 5.0 hp	Integral Motor 63S/4 0.16 hp	63L/4 0.25 hp	71S/4 0.33 hp	71L/4 0.5 hp	80S/4 0.75 hp	80L/4 80LH/4 1.0 hp	90S/4 90SH/4 1.5 hp	90L/4 90LH/4 2 .0 hp	100L/4 100LH/4 3.0 hp	100LA/4 112LH/4 5.0 hp
SK 1282 SCP	4.79	365	1133	*5.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	5.47	320	1522	*5.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	6.43	272	1602	*5.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	7.24	242	1655	*5.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	8.21	213	1416	4.78	X	X	X	X	X	X	X	X	X	X	X	X	X
	8.24	212	1690	5.00	X	X	X	X	X	X	X	X	X	X	X	X	X
	9.18	191	1673	*5.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	10.34	169	1735	4.65	X	X	X	X	X	X	X	X	X	X	X	X	X
	11.76	149	1805	4.27	X	X	X	X	X	X	X	X	X	X	X	X	X
	14.11	124	1859	3.66	X	X	X	X	X	X	X	X	X	X	X	X	X
	17.21	102	1982	3.21	X	X	X	X	X	X	X	X	X	X	X	X	X
	20.57	85	1991	2.68	X	X	X	X	X	X	X	X	X	X	X	X	X
	25.22	69	1991	2.18	X	X	X	X	X	X	X	X	X	X	X	X	X
	28.33	62	1991	1.96	X	X		X	X	X	X	X	X	X	X		
	32.08	55	2036	1.78	X	X		X	X	X	X	X	X	X	X		
	41.07	43	1920	1.31	X	X					X	X	X				
	46.19	38	1735	1.05	X			X	X	X	X						
	49.25	36	2301	1.31	X	X					X	X	X				
	55.39	32	2080	1.06	X			X	X	X	X						
	58.89	30	2505	1.19	X	X					X	X	X				
	66.23	26	2390	0.99	X			X	X	X	X						
	72.17	24	2620	1.00	X	X					X	X	X				
	81.17	22	2620	0.91	X			X	X	X	X						
	92.48	19	2053	0.62	X			X	X	X	X						
	109.50	16	1850	0.47	X			X	X	X							
SK 1382 SCP	87.94	20	2425	0.77	X			X	X	X	X						
	105.11	17	2390	0.63	X			X	X	X	X						
	128.82	14	1991	0.43	X			X	X	X	X						
	163.93	11	1991	0.34	X			X	X	X	X						
	209.87	8.3	2080	0.28	X			X	X	X	X						
	251.67	7.0	2425	0.27	X			X	X	X	X						
	300.93	5.8	2390	0.22	X			X	X	X	X						
	368.79	4.8	1991	0.15	X			X	X	X	X						
	414.78	4.2	1991	0.13	X			X	X	X	X						
	472.60	3.7	1991	0.12	X			X	X	X	X						
	556.83	3.1	1991	0.10	X			X	X	X							
	634.45	2.8	1965	0.09	X			X	X	X							

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* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

SK 2282 SCP & SK 2382 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face* 56C 1.0 hp	140TC 2.0 hp	180TC 5.0 hp	Integral Motor 63S/4 0.16 hp	63L/4 0.25 hp	71S/4 0.33 hp	71L/4 0.5 hp	80S/4 0.75 hp	80L/4 80LH/4 1.0 hp	90S/4 90SH/4 1.5 hp	90L/4 90LH/4 2 .0 hp	100L/4 100LH/4 3.0 hp	100LA/4 112LH/4 5.0 hp
SK 2282 SCP	4.51	388	1646	*5.00*	X	X	X				X	X	X	X	X	X	X
	5.72	306	1876	*5.00*	X	X	X				X	X	X	X	X	X	X
	6.43	272	2000	*5.00*	X	X	X				X	X	X	X	X	X	X
	7.48	234	2151	*5.00*	X	X	X				X	X	X	X	X	X	X
	8.37	209	2266	*5.00*	X	X	X				X	X	X	X	X	X	X
	9.03	194	2965	*5.00*	X	X	X				X	X	X	X	X	X	X
	10.15	172	3151	*5.00*	X	X	X				X	X	X	X	X	X	X
	11.81	148	3398	*5.00*	X	X	X				X	X	X	X	X	X	X
	13.23	132	3584	*5.00*	X	X	X				X	X	X	X	X	X	X
	16.53	106	4168	*5.00*	X	X	X				X	X	X	X	X	X	X
	18.51	95	4301	*5.00*	X	X	X				X	X	X	X	X	X	X
	21.90	80	4248	*5.00*	X	X	X				X	X	X	X	X	X	X
	23.96	73	3850	4.46	X	X	X				X	X	X	X	X	X	X
	24.97	70	4337	4.81	X	X	X				X	X	X	X	X	X	X
	26.83	65	3885	4.01	X	X	X				X	X	X	X	X	X	X
	29.65	59	4425	4.14	X	X	X				X	X	X	X	X	X	X
	31.23	56	3938	3.50	X	X	X							X	X	X	
	36.54	48	4434	3.38	X	X	X							X	X	X	
	37.18	47	4071	3.03	X	X					X	X	X	X	X		
	43.71	40	4983	3.16	X	X	X							X	X	X	
	45.11	39	3983	2.46	X	X						X	X	X	X		
	51.71	34	4611	2.49	X	X	X							X	X	X	
	53.96	32	4478	2.27	X	X						X	X	X	X		
	63.83	27	4611	1.97	X	X						X	X	X	X		
	69.67	25	3921	1.55	X	X				X	X	X	X	X			
	82.42	21	4221	1.41	X	X				X	X	X	X	X			
	100.98	17	3894	1.05	X	X				X	X	X	X	X			
	104.07	17	3513	0.95	X	X				X	X	X					
	127.51	14	3363	0.75	X	X				X	X	X					
SK 2382 SCP	82.22	21	4965	1.50	X	X		X	X	X	X	X	X				
	98.35	18	4983	1.42	X	X		X	X	X	X	X	X				
	116.35	15	4611	1.10	X	X		X	X	X	X	X	X				
	131.86	13	4611	0.95	X	X		X	X	X	X	X	X				
	149.96	12	4611	0.88	X	X		X	X	X	X	X	X				
	185.11	9.5	4611	0.69	X	X		X	X	X	X	X	X				
	236.11	7.4	4186	0.49	X			X	X	X	X						
	276.27	6.3	4894	0.49	X			X	X	X	X						
	330.45	5.3	4983	0.42	X			X	X	X	X						
	390.93	4.5	4611	0.33	X			X	X	X	X						
	482.56	3.6	4611	0.26	X			X	X	X	X						
	623.10	2.8	4611	0.20	X			X	X	X	X						
	763.41	2.3	3876	0.14	X			X	X	X	X						

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* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

SK 3282 SCP & SK 3382 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face*				Integral Motor											
					56C	140TC	180TC	210TC	63L/4	71S/4	71L/4	80S/4	80L/4 80LH/4	90S/4 90SH/4	90L/4 90LH/4	100L/4 100LH/4	100LA/4 112LH/4	132S/SH/4	132M/MH/4	
					1.0 hp	2.0 hp	5.0 hp	10 hp	0.25 hp	0.33 hp	0.5 hp	0.75 hp	1.0 hp	1.5 hp	2 .0 hp	3.0 hp	5.0 hp	7.5 hp	10 hp	
SK 3282 SCP	4.48	391	4080	*10.00*	X	X	X	X						X	X	X	X	X	X	
	5.68	308	4912	*10.00*	X	X	X	X						X	X	X	X	X	X	
	6.70	261	5372	*10.00*	X	X	X	X						X	X	X	X	X	X	
	8.31	211	5983	*10.00*	X	X	X	X				X	X	X	X	X	X	X	X	
	9.80	179	7425	*10.00*	X	X	X	X						X	X	X	X	X	X	
	11.38	154	7266	*10.00*	X	X	X	X						X	X	X	X	X	X	
	14.11	124	7584	*10.00*	X	X	X	X				X	X	X	X	X	X	X	X	
	16.67	105	7443	*10.00*	X	X	X	X				X	X	X	X	X	X	X	X	
	20.18	87	7275	*10.00*	X	X	X	X				X	X	X	X	X	X	X	X	
	21.38	82	6390	8.31	X	X	X	X				X	X	X	X	X	X	X	X	
	22.45	78	7080	8.76	X	X	X	X				X	X	X	X	X	X	X	X	
	23.71	74	7124	8.36	X	X	X	X				X	X	X	X	X	X	X	X	
	25.88	68	7487	8.07	X	X	X	X				X	X	X	X	X	X	X	X	
	28.70	61	7700	7.45	X	X	X	X				X	X	X	X	X	X	X	X	
	31.93	55	7761	6.77	X	X	X	X				X	X	X	X	X	X	X	X	
	37.77	46	7390	5.39	X	X	X					X	X	X	X	X				
	38.62	45	5611	4.00	X	X	X							X	X	X				
	42.02	42	8222	5.48	X	X	X					X	X	X	X	X				
	44.85	39	6522	4.03	X	X	X							X	X	X				
	48.04	36	4885	2.79	X	X						X	X	X	X					
	52.97	33	7478	3.91	X	X	X							X	X	X				
	55.79	31	5682	2.79	X	X						X	X	X	X					
	64.12	27	8983	3.85	X	X	X							X	X	X				
	65.89	27	6708	2.87	X	X						X	X	X	X					
	70.56	25	4991	1.98	X	X				X	X	X	X	X						
	79.76	22	7523	2.62	X	X						X	X	X	X					
	88.74	20	8363	2.65	X	X						X	X	X	X					
	100.88	17	7142	1.93	X	X				X	X	X	X	X						
	112.23	16	6815	1.73	X	X				X	X	X	X	X						
SK 3382 SCP	89.60	20	5496	1.50	X	X			X	X	X	X	X	X	X					
	104.05	17	6505	1.50	X	X			X	X	X	X	X	X	X					
	126.93	14	6850	1.50	X	X			X	X	X	X	X	X	X					
	161.46	11	6974	1.22	X	X			X	X	X	X	X	X	X					
	190.69	9.2	7664	1.12	X	X			X	X	X	X	X	X	X					
	230.83	7.6	8850	1.07	X	X			X	X	X	X	X	X	X					
	287.14	6.1	8301	0.80	X	X			X	X	X	X	X	X	X					
	408.58	4.3	7045	0.48	X				X	X	X	X								
	482.56	3.6	7664	0.44	X				X	X	X	X								
	584.13	3	8850	0.42	X				X	X	X	X								
	726.61	2.4	8354	0.32	X				X	X	X	X								
	808.42	2.2	9195	0.32	X				X	X	X	X								
	919.00	1.9	7275	0.22	X				X	X	X	X								
	1,022.42	1.7	6965	0.19	X				X	X	X	X								

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* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

SK 4282 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face* 56C 1.0 hp	140TC 2.0 hp	180TC 5.0 hp	210TC 10 hp	250TC 20 hp	Integral Motor 90S/4 90SH/4 1.5 hp	90L/4 90LH/4 2 .0 hp	100L/4 100LH/4 3.0 hp	100LA/4 112LH/4 5.0 hp	132S/SH/4 7.5 hp	132M/MH/4 10 hp	160M/MH/4 15 hp	160L/LH/4 20 hp
SK 4282 SCP	4.70	372	9160	*20.00*			X	X	X					X	X	X	X
	5.00	350	9160	*20.00*			X	X	X					X	X	X	X
	5.43	322	9160	*20.00*			X	X	X	X	X	X	X	X	X	X	X
	6.06	289	10620	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	7.13	245	10638	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	8.33	210	11257	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	9.23	190	14461	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	10.85	161	15045	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	12.68	138	15488	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	15.20	115	15930	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	18.18	96	15930	*20.00*	X	X	X	X	X	X	X	X	X	X	X	X	X
	21.45	82	14921	19.41	X	X	X	X	X	X	X	X	X	X	X	X	X
	22.39	78	15036	18.60	X	X	X	X	X	X	X	X	X	X	X	X	X
	26.25	67	14231	15.12	X	X	X	X	X	X	X	X	X	X	X	X	X
	26.43	66	15815	16.55	X	X	X	X	X	X	X	X	X	X	X	X	X
	26.72	65	14160	14.60			X	X						X	X		
	32.04	55	15797	13.78			X	X						X	X		
	32.34	54	14337	12.28	X	X	X	X	X	X	X	X	X	X	X	X	X
	36.40	48	12169	9.26			X	X				X	X	X			
	36.81	48	12390	9.43	X	X	X	X		X	X	X	X	X	X		
	38.31	46	17700	12.91			X	X						X	X		
	40.74	43	13771	9.39	X	X	X	X		X	X	X	X	X	X		
	43.65	40	14160	8.98			X	X				X	X	X			
	45.05	39	14107	8.73	X	X	X	X		X	X	X	X	X	X		
	52.20	34	16089	8.68			X	X				X	X	X			
	61.60	28	15877	7.05			X	X				X	X	X			
	75.39	23	14063	5.13			X	X				X	X	X			
	90.52	19	14160	4.27	X	X	X			X	X	X	X				
	110.78	16	14160	3.59	X	X	X			X	X	X	X				
	155.40	11	11284	1.97	X	X				X	X						

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SK 4382 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max Power 1750 rpm input P_{max} [hp]	NEMA C-face			Integral Motor							
					56C 1.0 hp	140TC 2.0 hp	180TC 5.0 hp	71S/4 0.33 hp	71L/4 0.5 hp	80S/4 0.75 hp	80L 80LH/4 1.0 hp	90S 90SH/4 1.5 hp	90L 90LH/4 2 .0 hp	100L 100LH/4 3.0 hp	100LA 112LH/4 5.0 hp
SK 4382 SCP	86.83	20	17523	5.00	X	X	X		X	X	X	X	X	X	X
	103.82	17	17700	4.77	X	X	X		X	X	X	X	X	X	X
	118.38	15	17700	4.21	X	X	X		X	X	X	X	X	X	X
	140.60	12	17700	3.37	X	X	X		X	X	X	X	X	X	X
	160.20	11	14664	2.56	X	X	X		X	X	X	X	X	X	X
	191.57	9.1	17612	2.54	X	X	X		X	X	X	X	X	X	X
	211.09	8.3	14470	1.90	X	X				X	X	X	X		
	253.12	6.9	17355	1.90	X	X				X	X	X	X		
	272.54	6.4	13912	1.41	X	X		X	X	X	X	X			
	302.65	5.8	18381	1.69	X	X				X	X	X	X		
	326.81	5.4	16727	1.43	X	X		X	X	X	X	X			
	344.84	5.1	14709	1.19	X	X				X	X	X	X		
	390.76	4.5	17700	1.26	X	X		X	X	X	X	X			
	412.38	4.2	17612	1.17	X	X				X	X	X	X		
	445.23	3.9	14744	0.91	X	X		X	X	X	X	X			
	532.44	3.3	17700	0.93	X	X		X	X	X	X	X			
	605.88	2.9	13054	0.60	X	X				X	X	X	X		
	654.27	2.7	10912	0.47	X	X		X	X	X	X	X			
	782.32	2.2	13063	0.46	X	X		X	X	X	X	X			
	1,097.48	1.6	9629	0.24	X	X		X	X	X	X	X			
	1,129.91	1.5	14160	0.34	X	X		X	X	X	X	X			
	1,585.08	1.1	12567	0.22	X	X		X	X	X	X	X			

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SK 5282 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face*						Integral Motor									
					56C	140TC	180TC	210TC	250TC	280TC	90S/4 90SH/4	90S/4 90LH/4	90L/4 100LH/4	100L/4 112LH/4	100LA/4 112LH/4	132S/SH/4	132M/MH/4	160M/MH/4	160L/LH/4	180MX/MH/4	180LX/LH/4
					1.0 hp	2.0 hp	5.0 hp	10 hp	20 hp	30 hp	1.5 hp	2 .0 hp	3.0 hp	5.0 hp	7.5 hp	10 hp	15 hp	20 hp	25 hp	30 hp	
SK 5282 SCP	4.32	405	13718	*30.00*					X	X							X	X	X	X
	5.01	349	15045	*30.00*					X	X							X	X	X	X
	5.29	331	15488	*30.00*					X	X							X	X	X	X
	5.71	306	15930	*30.00*					X	X							X	X	X	X
	6.33	276	18709	*30.00*			X	X	X	X			X	X	X	X	X	X	X	X
	7.17	244	19125	*30.00*			X	X	X	X			X	X	X	X	X	X	X	X
	8.70	201	20886	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	9.46	185	20355	*30.00*			X	X	X	X			X	X	X	X	X	X	X	X
	10.71	163	22125	*30.00*			X	X	X	X			X	X	X	X	X	X	X	X
	13.00	135	23267	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	15.38	114	23010	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	17.59	99	24338	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	18.88	93	23010	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	20.36	86	27435	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	25.00	70	25665	28.49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	30.50	57	25665	23.20	X	X	X	X	X		X	X	X	X	X	X	X	X		
	33.43	52	20355	16.79	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	35.46	49	23895	18.57			X	X							X	X				
	40.80	43	22125	15.09	X	X	X	X	X		X	X	X	X	X	X	X	X		
	41.94	42	28320	18.87			X	X							X	X				
	47.27	37	21240	12.46			X	X					X	X	X					
	51.49	34	28630	15.44			X	X							X	X				
	55.55	32	22125	11.23	X	X	X	X			X	X	X	X	X	X				
	55.90	31	23010	11.31			X	X					X	X	X					
	68.63	25	26285	10.42			X	X					X	X	X					
	81.61	21	16178	5.39	X	X	X				X	X	X	X						
	91.81	19	24417	7.36			X	X					X	X	X					
	100.19	17	19833	5.35	X	X	X				X	X	X	X						
	134.03	13	23488	4.84	X	X	X				X	X	X	X						

◈ The maximum input power limit shown is the largest motor power typically combined with the gear unit. *The Italicized power values shown are not the mechanical limit and often may be increased through discussion with our sales or engineering department.*

* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

SK 5382 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face*				Integral Motor								
					56C 1.0 hp	140TC 2.0 hp	180TC 5.0 hp	210TC 10 hp	71L/4 0.5 hp	80S/4 0.75 hp	80L/4 80LH/4 1.0 hp	90S/4 90SH/4 1.5 hp	90L/4 90LH/4 2 .0 hp	100L/4 100LH/4 3.0 hp	100LA/4 112LH/4 5.0 hp	132S/SH/4 7.5 hp	132M/MH/4 10 hp
SK 5382 SCP	82.72	21	24736	7.50	X	X	X	X	X	X	X	X	X	X	X	X	X
	91.71	19	25665	7.50	X	X	X	X	X	X	X	X	X	X	X	X	X
	117.37	15	24338	5.79	X	X	X	X	X	X	X	X	X	X	X	X	X
	138.82	13	28320	5.84	X	X	X	X	X	X	X	X	X	X	X	X	X
	153.92	11	28320	4.94	X	X	X	X	X	X	X	X	X	X	X	X	X
	171.27	10	24780	3.93	X	X	X		X	X	X	X	X	X	X		
	202.57	8.6	28320	3.86	X	X	X		X	X	X	X	X	X	X		
	248.70	7	28320	3.14	X	X	X		X	X	X	X	X	X	X		
	269.99	6.5	23895	2.46	X	X	X		X	X	X	X	X	X	X		
	331.48	5.3	28320	2.38	X	X	X		X	X	X	X	X	X	X		
	361.69	4.8	24780	1.89	X	X				X	X	X	X				
	427.79	4.1	28320	1.84	X	X				X	X	X	X				
	525.20	3.3	28320	1.48	X	X				X	X	X	X				
	570.18	3.1	24780	1.22	X	X				X	X	X	X				
	700.03	2.5	28320	1.12	X	X				X	X	X	X				
	936.45	1.9	23895	0.72	X	X				X	X	X	X				
	1,367.08	1.3	23895	0.49	X	X				X	X	X	X				

◈ The maximum input power limit shown is the largest motor power typically combined with the gear unit. *The Italicized power values shown are not the mechanical limit and often may be increased through discussion with our sales or engineering department.*

* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

SK 6282 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face*						Integral Motor									
					180TC 5 hp	210TC 10 hp	250TC 20 hp	280TC 30 hp	320TC 40 hp	360TC 50 hp	100L/4 100LH/4 3.0 hp	100LA/4 112LH/4 5.0 hp	132S/SH/4 7.5 hp	132M/MH/4 10 hp	160M/MH/4 15 hp	160L/LH/4 20 hp	180MX/MH/4 25 hp	180LX/LH/4 30 hp	200 l/LH/4 40 hp	225S/SH/4 225M/MH/4 50 hp
SK 6282 SCP	4.39	399	18001	*60.00*			X	X	X	X							X	X	X	X
	4.88	359	19081	*60.00*	X	X	X	X	X	X				X	X	X	X	X	X	X
	5.50	318	20275	*60.00*	X	X	X	X	X	X				X	X	X	X	X	X	X
	5.78	303	20656	*60.00*	X	X	X	X	X	X				X	X	X	X	X	X	X
	5.99	292	21169	*60.00*			X	X	X	X							X	X	X	X
	6.74	260	26462	*60.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	7.82	224	23736	*60.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	9.39	186	24373	*60.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	10.64	164	38179	*60.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	12.35	142	38843	*60.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	14.83	118	39604	*60.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	18.70	94	39179	58.43	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	22.95	76	40135	48.40	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
	26.05	67	40117	42.65	X	X	X	X			X	X	X	X	X	X	X	X		
	29.90	59	40152	37.59	X	X	X	X			X	X	X	X	X	X	X	X		
	39.48	44	28320	19.77	X	X	X	X					X	X	X	X				
	49.75	35	35754	19.86	X	X	X	X					X	X	X	X				
	61.08	29	40135	18.47	X	X	X	X					X	X	X	X				
	65.44	27	29816	12.77	X	X					X	X	X							
	80.33	22	36559	12.76	X	X					X	X	X							

◈ The maximum input power limit shown is the largest motor power typically combined with the gear unit. *The Italicized power values shown are not the mechanical limit and often may be increased through discussion with our sales or engineering department.*

* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

SK 6382 SCP
Ratings & Combinations

Type	Ratio	Output Speed 1750 rpm input n_2 [rpm]	Max Torque T_{max} [lb-in]	Max ◈ Power 1750 rpm input P_{max} [hp]	NEMA C-face*						Integral Motor									
					56C	140TC	180TC	210TC	250TC	280TC	90S/4 90SH/4	90L/4 90LH/4	100L/4 100LH/4	100LA/4 112LH/4	132S/SH/4	132M/MH/4	160M/MH/4	160L/LH/4	180MX/MH/4	180LX/LH/4
					1.0 hp	2.0 hp	5.0 hp	10 hp	15 hp	20 hp	1.5 hp	2 .0 hp	3.0 hp	5.0 hp	7.5 hp	10 hp	15 hp	20 hp	25 hp	30 hp
SK 6382 SCP	24.42	72	41507	*30.00*	X	X	X	X	X	X			X	X	X	X	X	X	X	X
	28.72	61	40710	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	30.91	57	40268	*30.00*	X	X	X	X	X	X			X	X	X	X	X	X	X	X
	36.34	48	40268	*30.00*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	42.46	41	40268	26.20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	51.07	34	44958	24.25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	59.66	29	48675	22.40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	73.50	24	49295	18.77	X	X	X	X	X		X	X	X	X	X	X	X	X		
	75.18	23	53100	19.38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	92.63	19	53100	16.01	X	X	X	X	X		X	X	X	X	X	X	X	X		
	114.79	15	52038	12.39	X	X	X	X	X		X	X	X	X	X	X	X	X		
	126.87	14	40533	9.00	X	X	X	X			X	X	X	X	X	X				
	159.88	11	51065	8.91	X	X	X	X			X	X	X	X	X	X				
	171.34	10	49295	7.82			X	X					X	X	X	X				
	212.33	8.2	41330	5.38			X	X					X	X	X	X				
	225.79	7.8	35577	4.40	X	X	X				X	X	X	X						
	251.76	7.0	39648	4.40	X	X	X				X	X	X	X						
	267.59	6.5	52038	5.37			X	X					X	X	X	X				
	317.28	5.5	49914	4.36	X	X	X				X	X	X	X						
	393.19	4.5	52038	3.72	X	X	X				X	X	X	X						
	445.09	3.9	36905	2.28	X	X					X	X								
	551.58	3.2	45755	2.32	X	X					X	X								

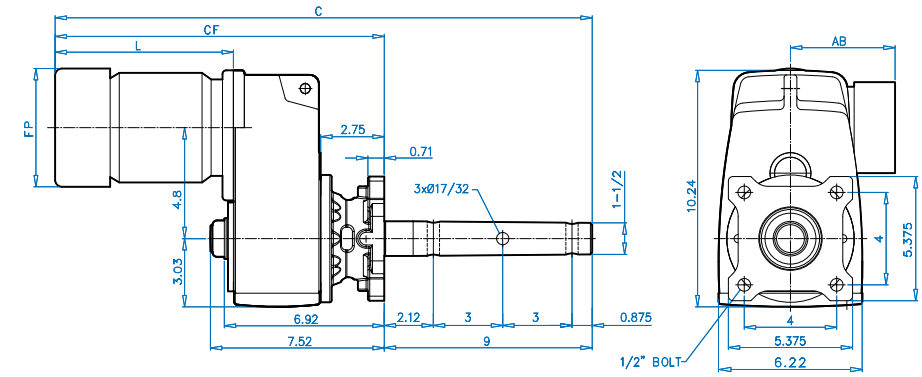
◈ The maximum input power limit shown is the largest motor power typically combined with the gear unit. *The Italicized power values shown are not the mechanical limit and often may be increased through discussion with our sales or engineering department.*

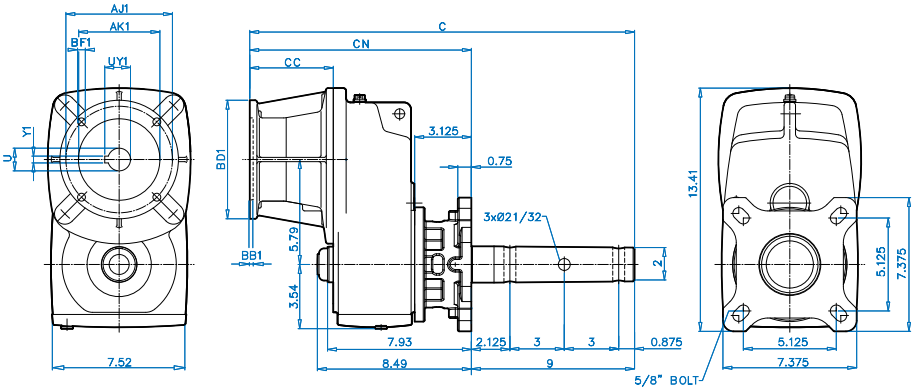
* The NEMA C-face power limit must also be considered when selecting a reducer. The C-face Adapter's Maximum Input Power values are displayed under the Available Combinations and based on a 1750 rpm motor.

Notes

Gearmotors & C-Face Reducers

- SK 1282 SCP
- SK 2282 SCP
- SK 3282 SCP
- SK 4282 SCP
- SK 5282 SCP
- SK 6282 SCP
- 3-Stage Gearmotors & Reducers
- NEMA C-Face Motors
- CEMA Drive Shaft Detail
- 3rd Party Shaft Design & Detail





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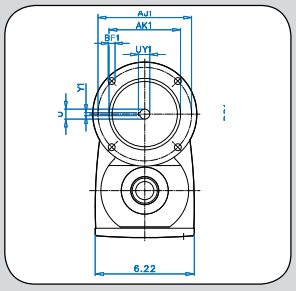
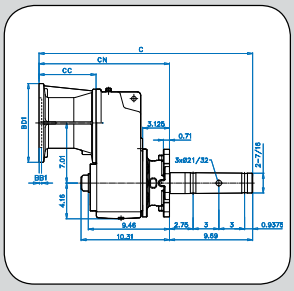
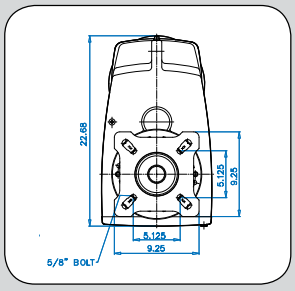
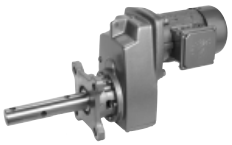
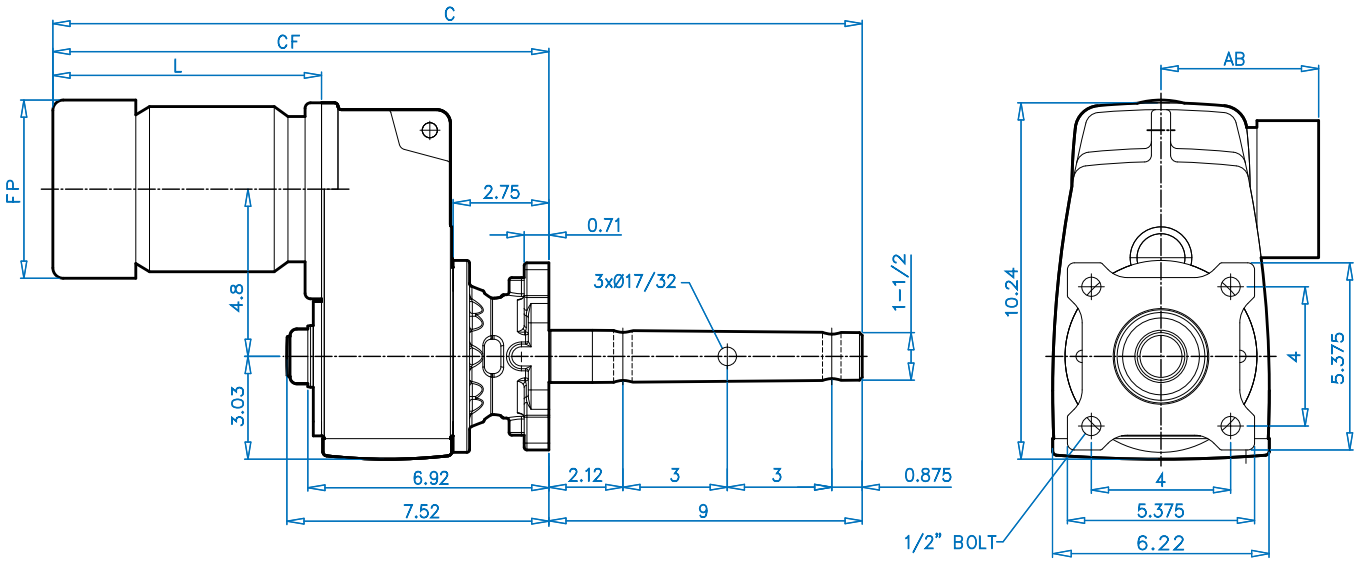






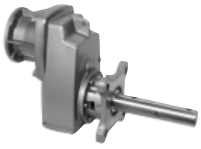
SK 1282 SCP + Motor
1-1/2" CEMA Drive Shaft

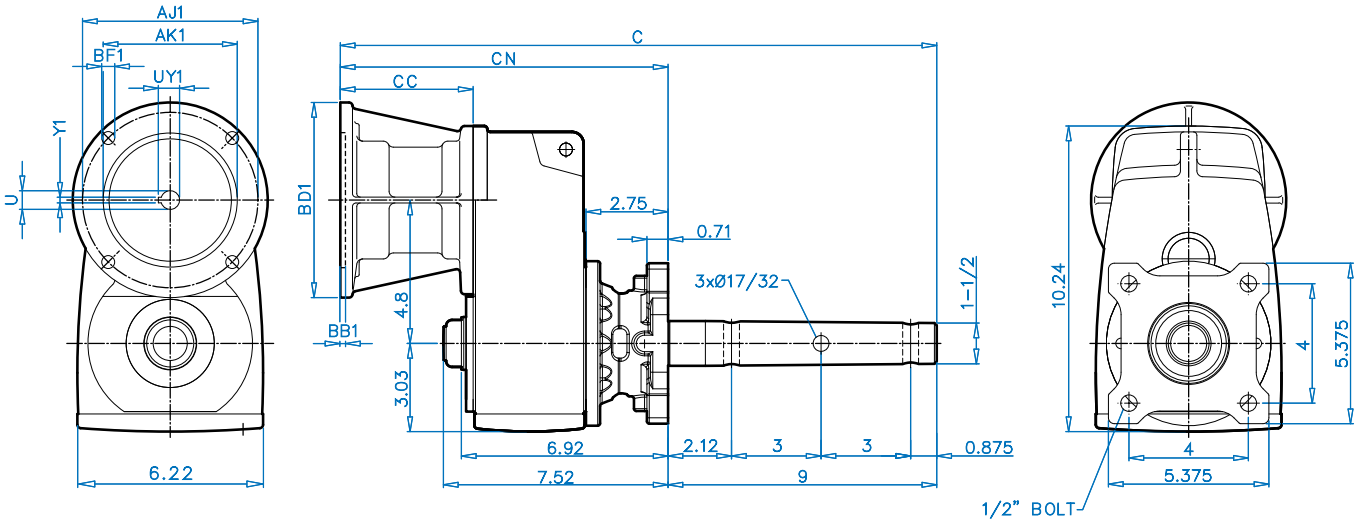




DIMENSIONS

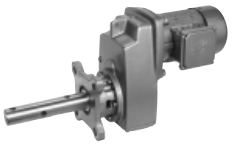
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
63S/L	23.38	14.38	7.73	5.08	4.51
71S/L	24.96	15.96	9.31	5.72	4.86
80S/L/LH	25.94	16.94	10.29	6.43	5.59
90S/SH/L/LH	27.52	18.28	11.87	7.19	5.79
100L/LA/LH	28.74	19.74	13.09	7.90	6.65
112M	29.61	20.61	13.96	8.87	7.05
112MH	30.60	21.60	14.95	8.87	7.05

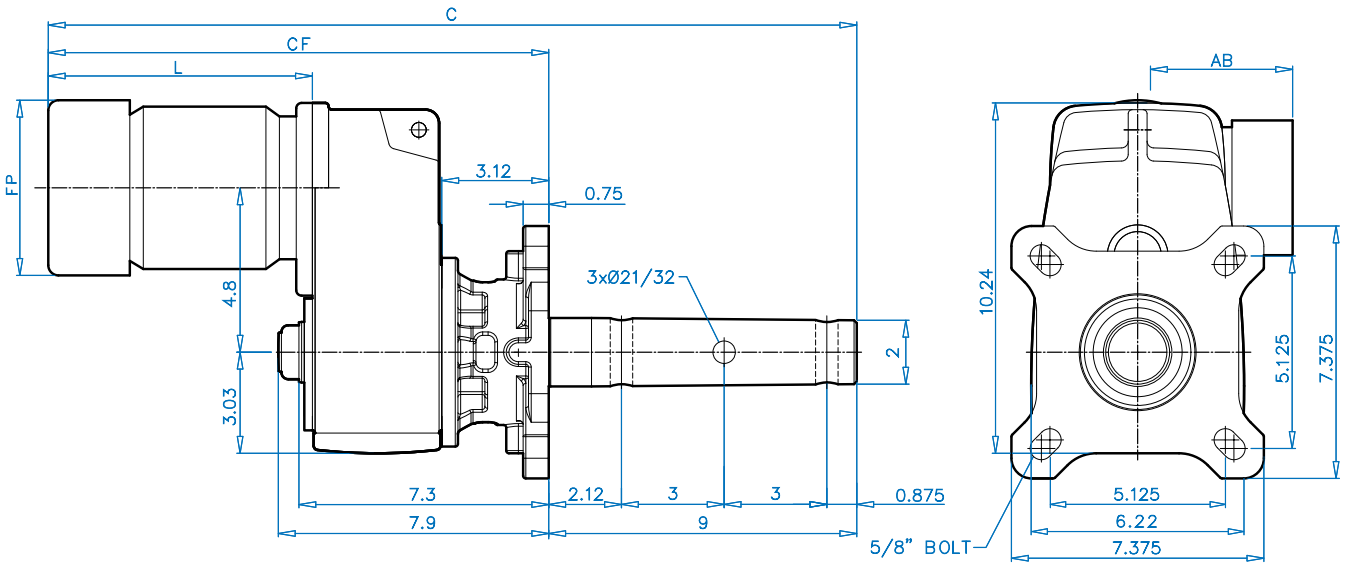




NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	20.10	11.10	4.45	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	20.10	11.10	4.45	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	21.30	12.30	5.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250

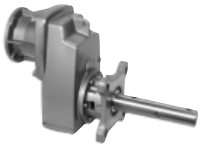
SK 1282 SCP + Motor
2” CEMA Drive Shaft

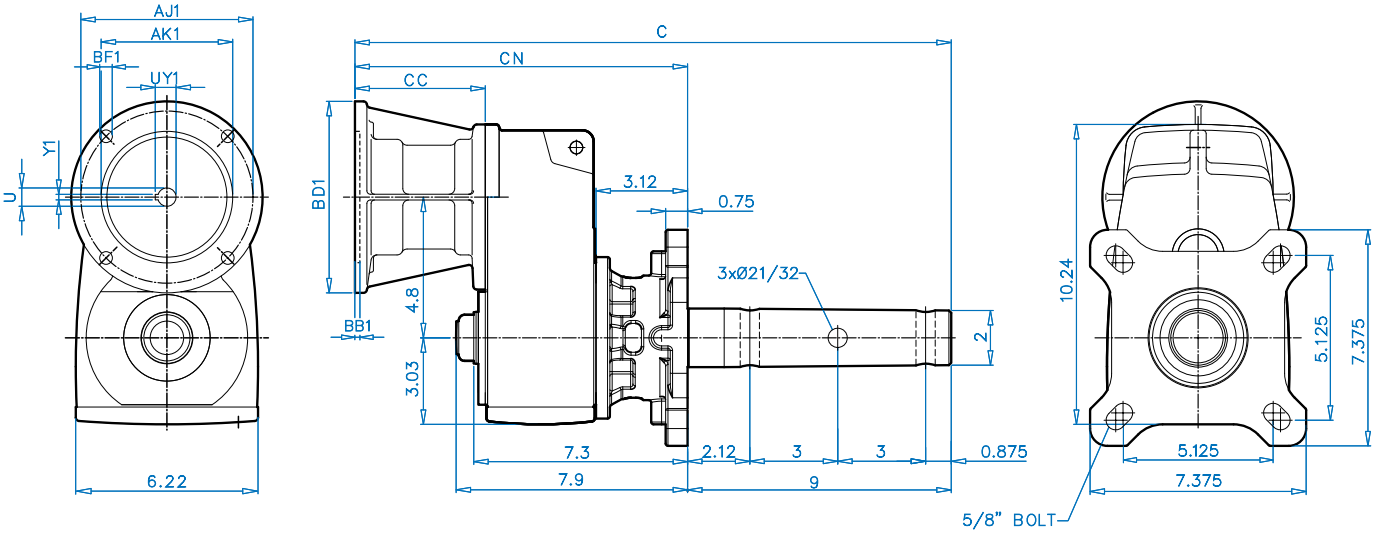




DIMENSIONS

Motor Type	Overall		Motor		
	C	CF	L	FP	AB
63S/L	23.76	14.76	7.73	5.08	4.51
71S/L	25.33	16.33	9.31	5.72	4.86
80S/L/LH	26.32	17.32	10.29	6.43	5.59
90S/SH/L/LH	27.89	18.65	11.87	7.19	5.79
100L/LA/LH	29.11	20.11	13.09	7.90	6.65
112M	29.98	20.98	13.96	8.87	7.05
112MH	30.97	21.97	14.95	8.87	7.05

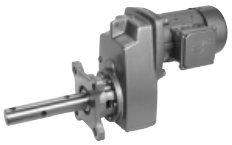


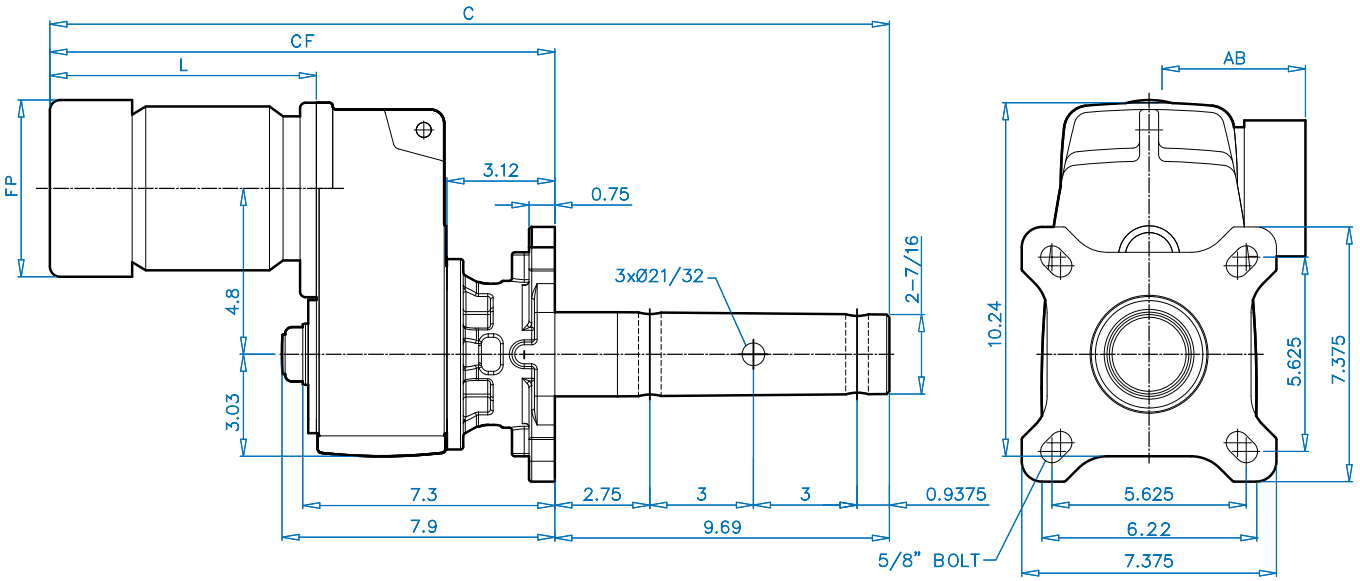


DIMENSIONS

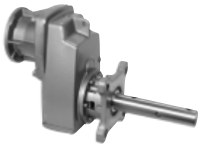
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	20.47	11.47	4.45	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	20.47	11.47	4.45	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	21.67	12.67	5.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250

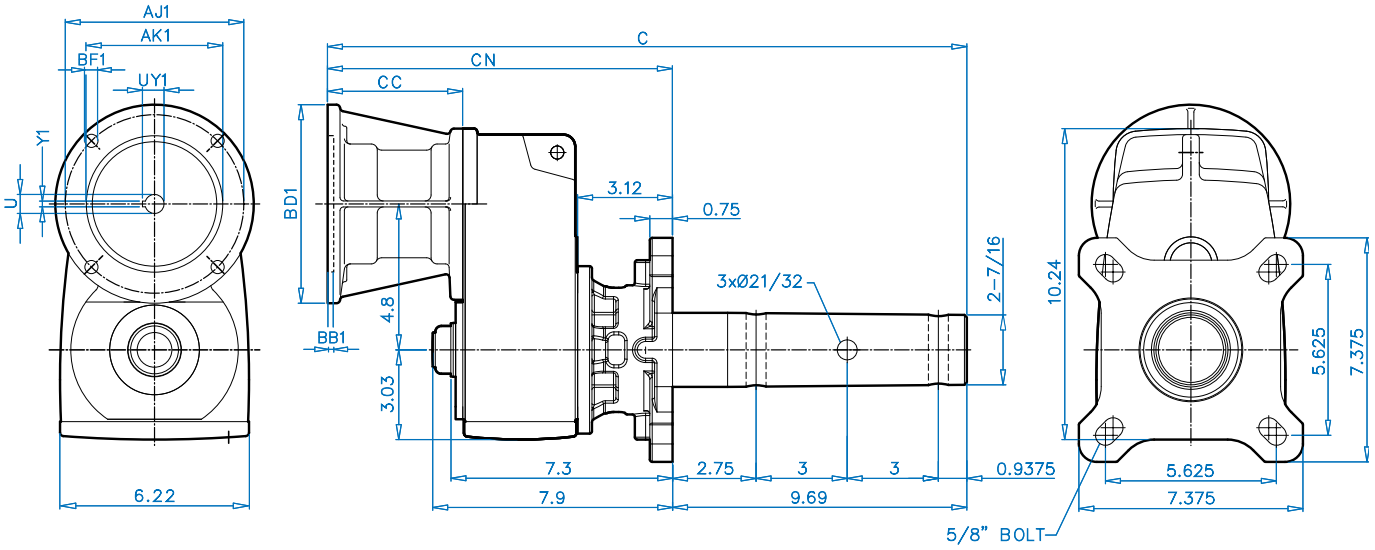
SK 1282 SCP + Motor
2-7/16" CEMA Drive Shaft





Motor Type	Overall		Motor		
	C	CF	L	FP	AB
63S/L	23.76	14.76	7.73	5.08	4.51
71S/L	25.33	16.33	9.31	5.72	4.86
80S/L/LH	26.32	17.32	10.29	6.43	5.59
90S/SH/L/LH	27.89	18.65	11.87	7.19	5.79
100L/LA/LH	29.11	20.11	13.09	7.90	6.65
112M	29.98	20.98	13.96	8.87	7.05
112MH	30.97	21.97	14.95	8.87	7.05

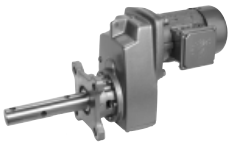


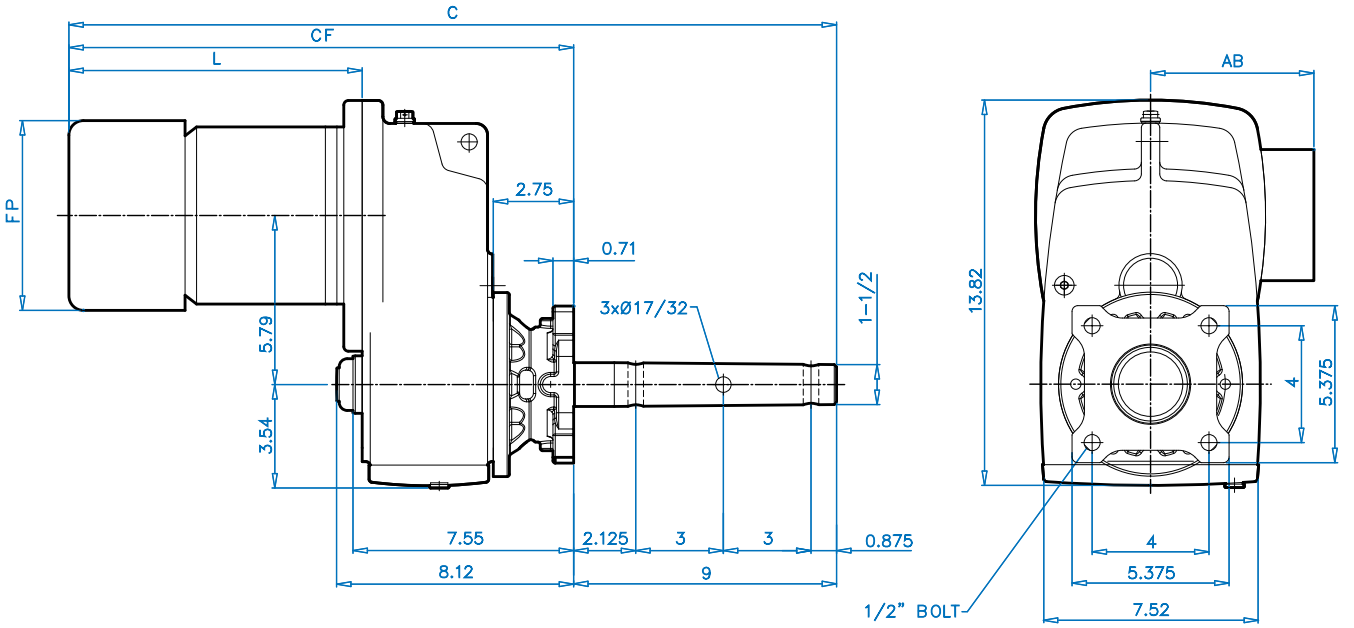


DIMENSIONS

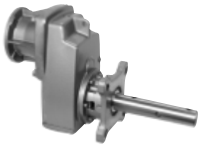
NEMA C-Face Input	Overall		NEMA Input						Coupling		
	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	21.16	11.47	4.45	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	21.16	11.47	4.45	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	22.36	12.67	5.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250

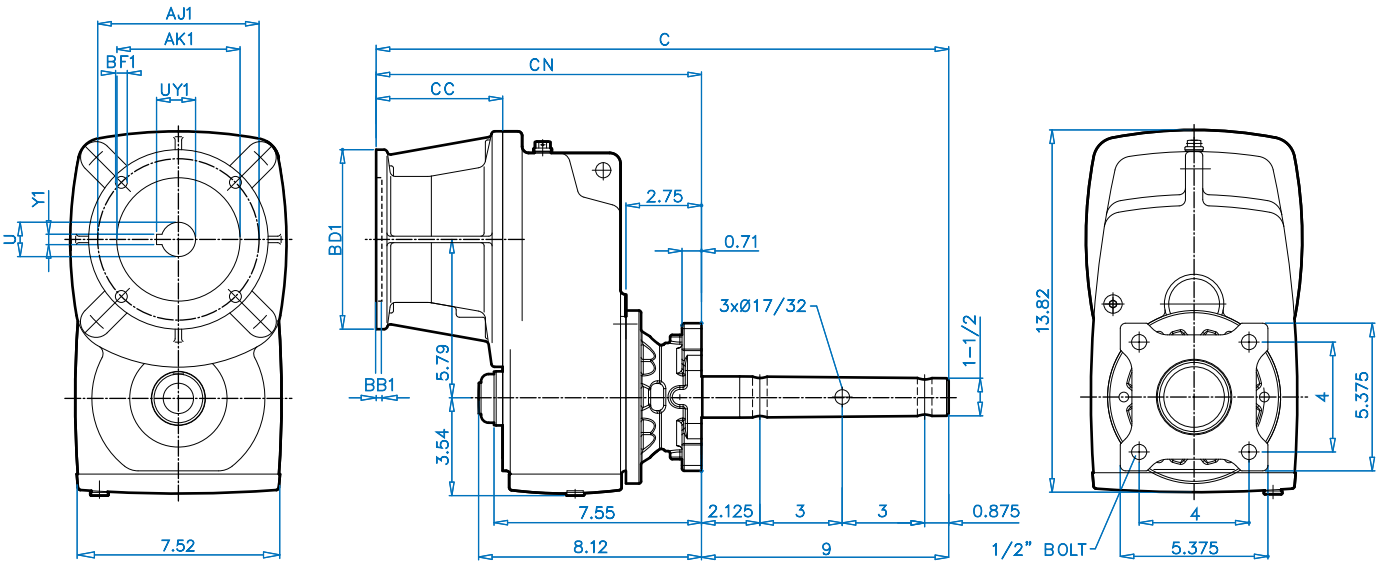
SK 2282 SCP + Motor
1-1/2" CEMA Drive Shaft





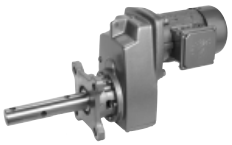
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	25.51	16.51	9.07	5.72	4.86
80S/L/LH	26.49	17.49	10.06	6.43	5.59
90S/SH/L/LH	28.07	19.07	11.63	7.19	5.79
100L/LA/LH	29.29	20.29	12.85	7.90	6.65
112M	30.16	21.16	13.72	8.87	7.05
112MH	31.15	22.15	14.71	8.87	7.05

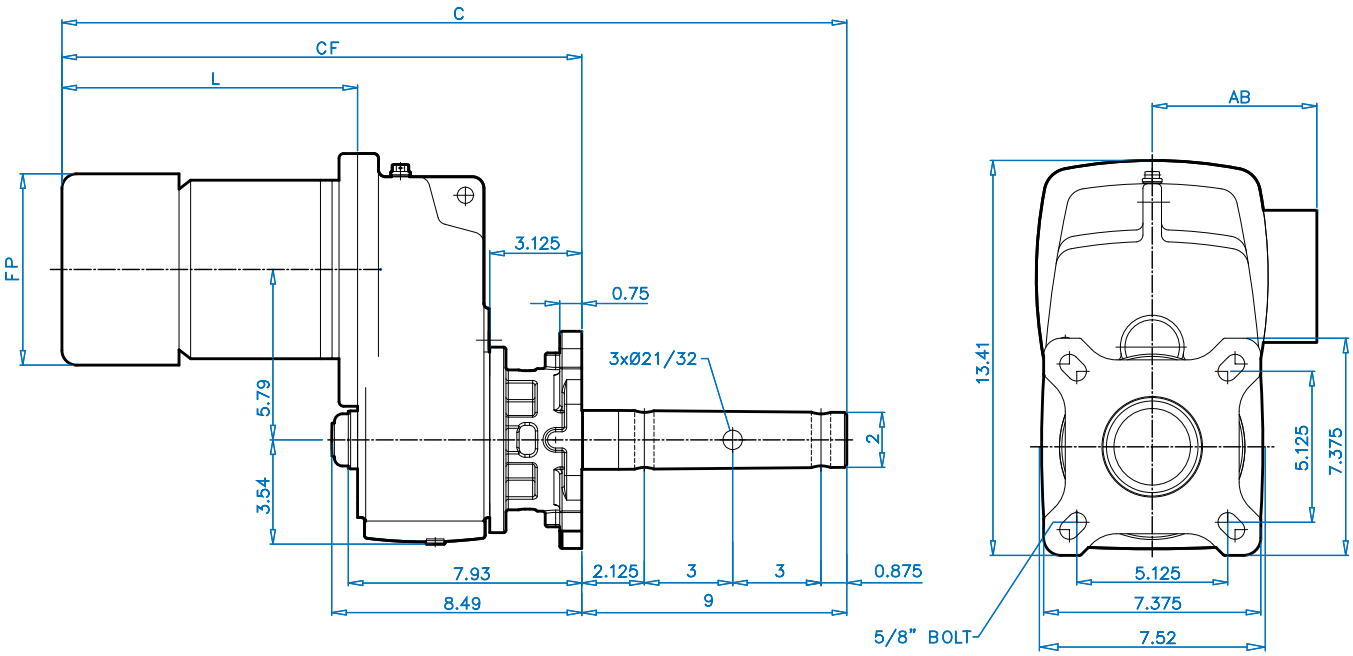




NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	21.04	12.04	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	21.04	12.04	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	23.08	14.08	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250

SK 2282 SCP + Motor
2” CEMA Drive Shaft

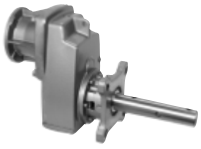


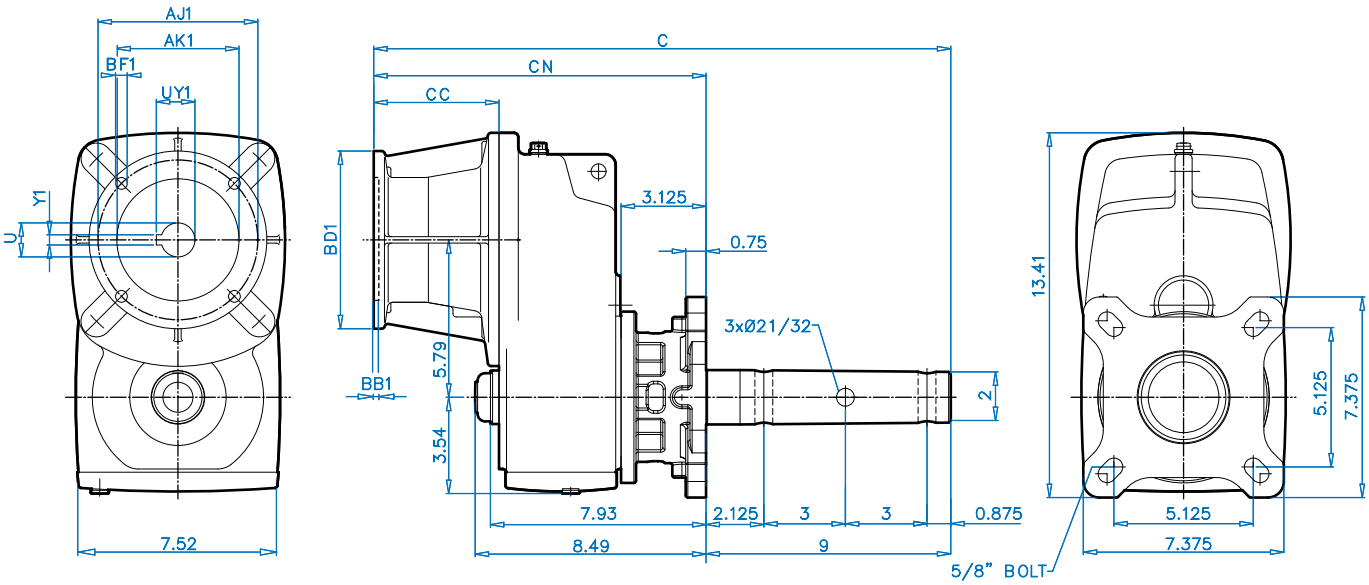


DIMENSIONS

Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	25.88	16.88	9.07	5.72	4.86
80S/L/LH	26.87	17.87	10.06	6.43	5.59
90S/SH/L/LH	28.44	19.44	11.63	7.19	5.79
100L/LA/LH	29.66	20.66	12.85	7.90	6.65
112M	30.53	21.53	13.72	8.87	7.05
112MH	31.53	22.53	14.71	8.87	7.05

SK 2282 SCP + NEMA 2” CEMA Drive Shaft

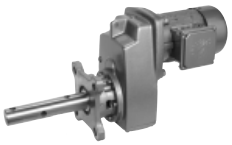


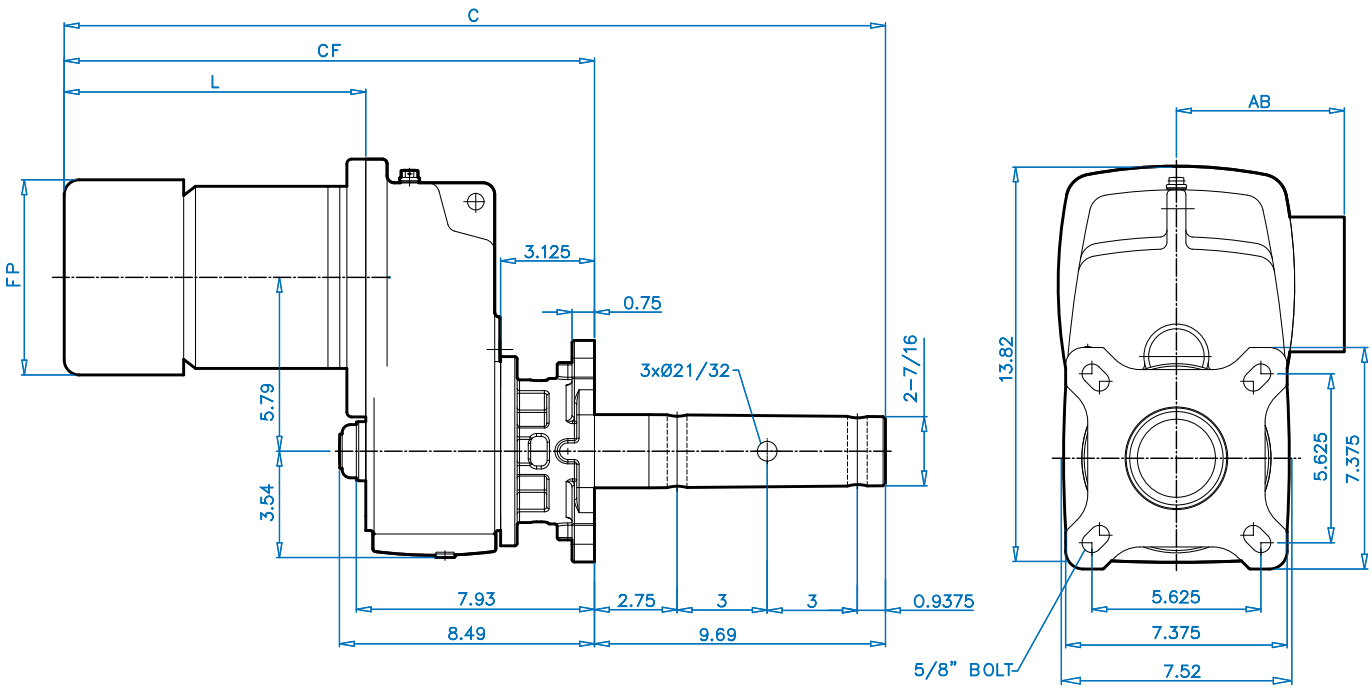


DIMENSIONS

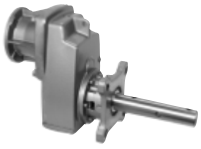
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	21.42	12.42	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	21.42	12.42	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	23.46	14.46	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250

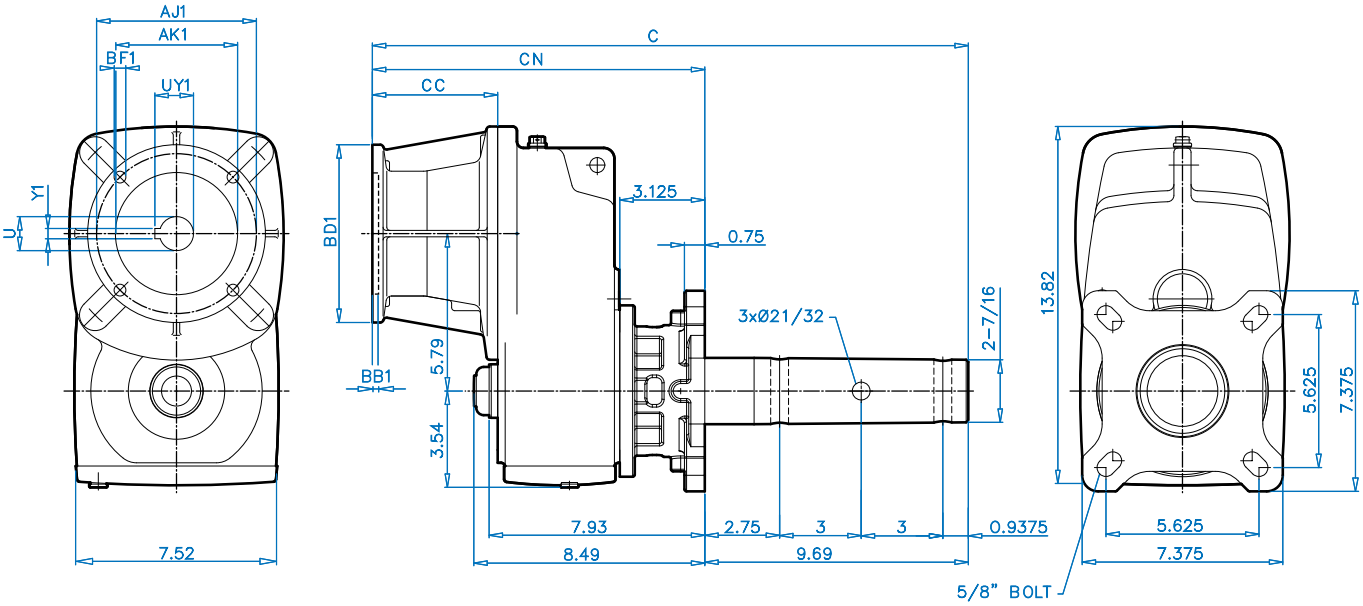
SK 2282 SCP + Motor
2-7/16” CEMA Drive Shaft





Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	26.57	16.88	9.07	5.72	4.86
80S/L/LH	27.56	17.87	10.06	6.43	5.59
90S/SH/L/LH	29.13	19.44	11.63	7.19	5.79
100L/LA/LH	30.35	20.66	12.85	7.90	6.65
112M	31.22	21.53	13.72	8.87	7.05
112MH	32.21	22.53	14.71	8.87	7.05

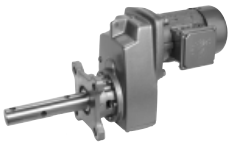


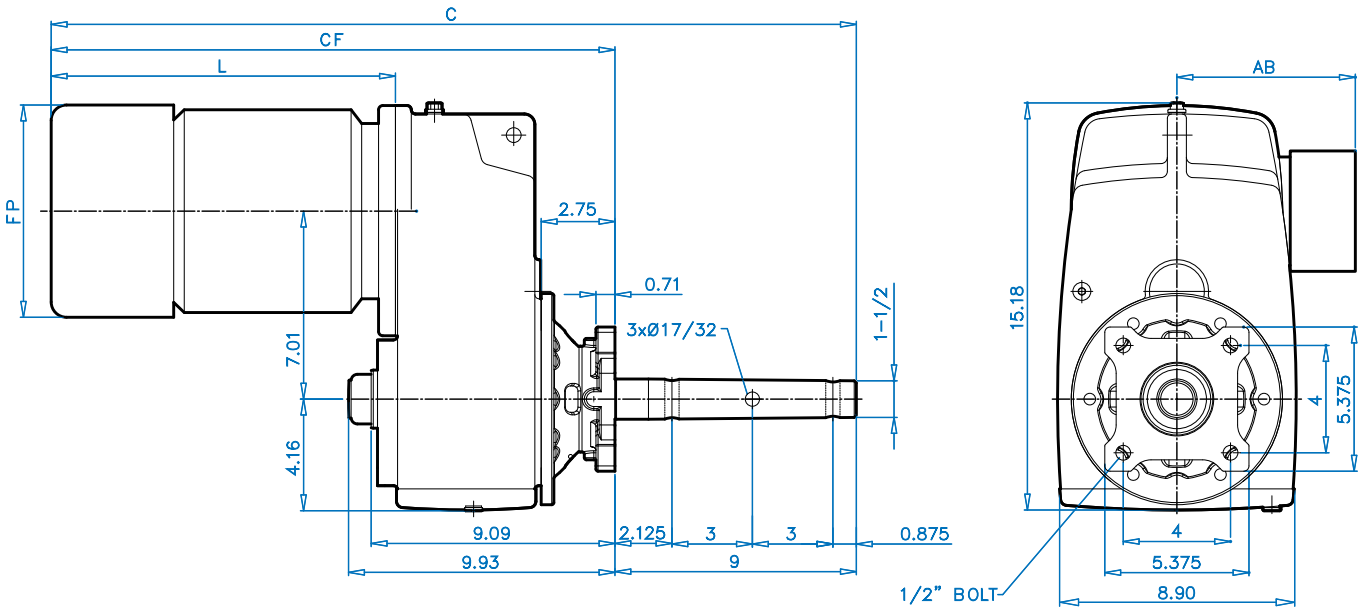


DIMENSIONS

NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	22.11	12.42	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	22.11	12.42	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	24.15	14.46	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250

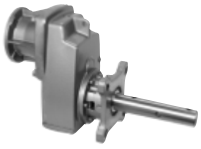
SK 3282 SCP + Motor
1-1/2" CEMA Drive Shaft

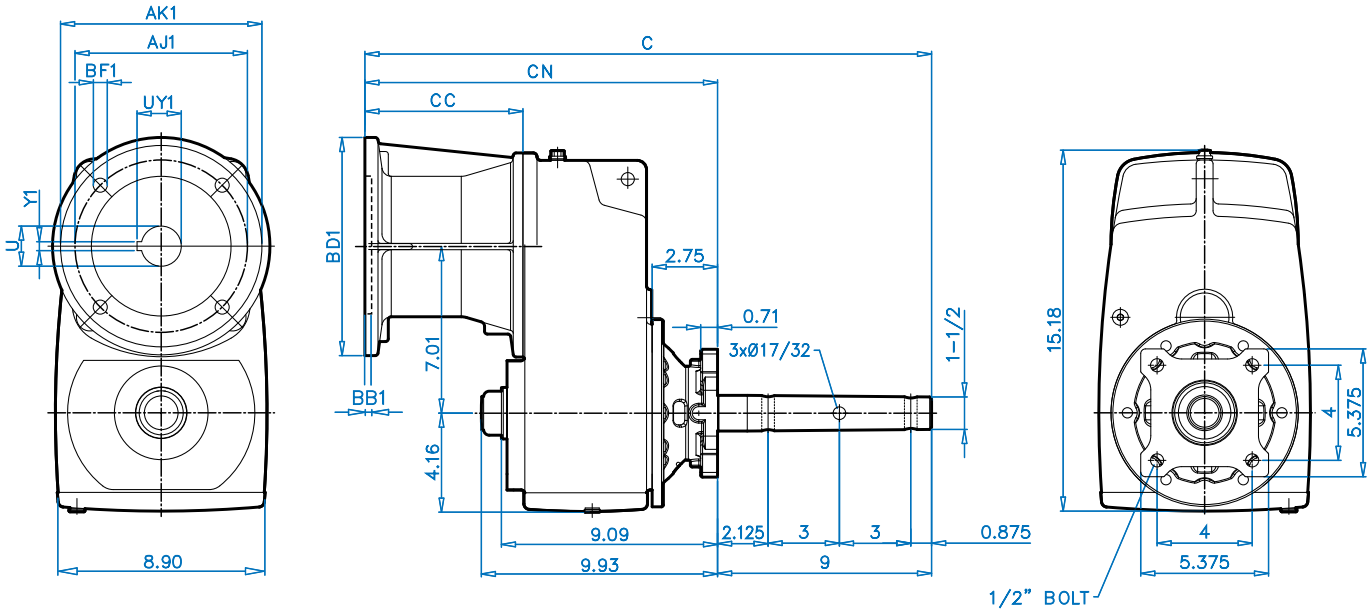




DIMENSIONS

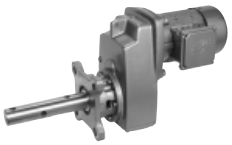
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	26.49	17.41	9.07	5.72	4.86
80S/L/LH	27.47	18.47	10.06	6.43	5.59
90S/SH/L/LH	29.04	20.04	11.63	7.19	5.79
100L/LA/LH	30.27	21.27	12.85	7.90	6.65
112M	31.14	22.14	13.72	8.87	7.05
112MH	32.13	23.13	14.71	8.87	7.05
132S/SH/M/MH	34.56	25.56	17.14	10.45	8.03

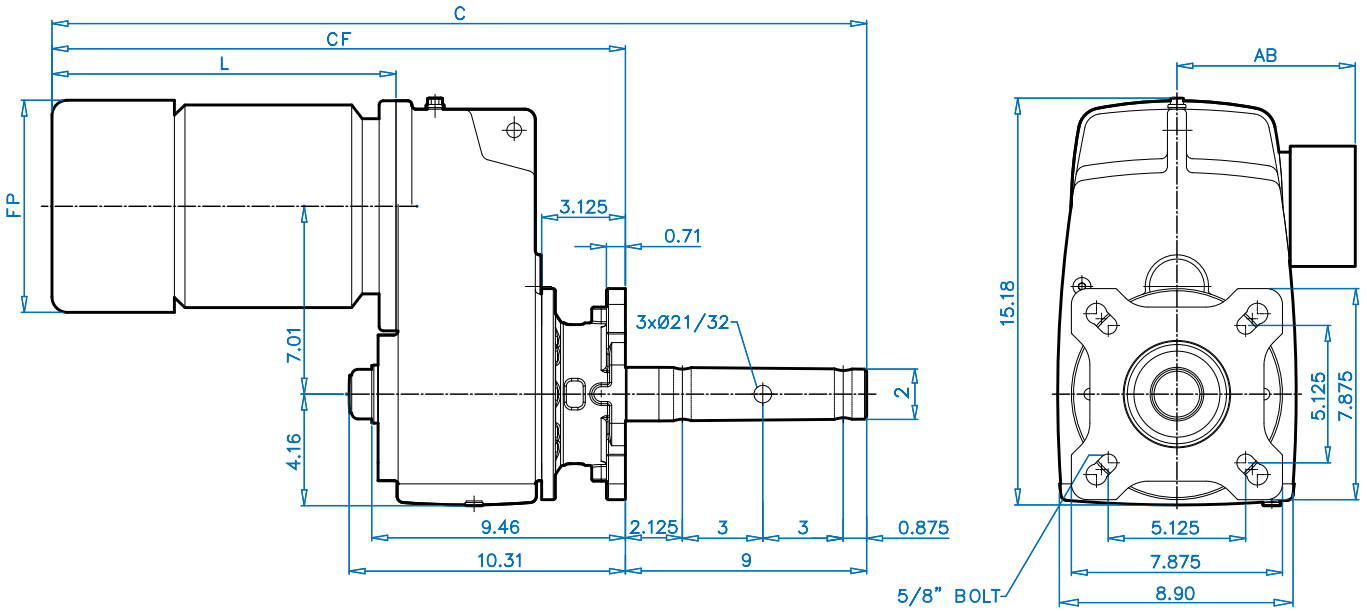




NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	22.02	13.02	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	22.02	13.02	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	24.06	15.06	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	24.06	15.06	6.65	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.310

SK 3282 SCP + Motor
2” CEMA Drive Shaft

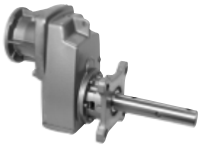


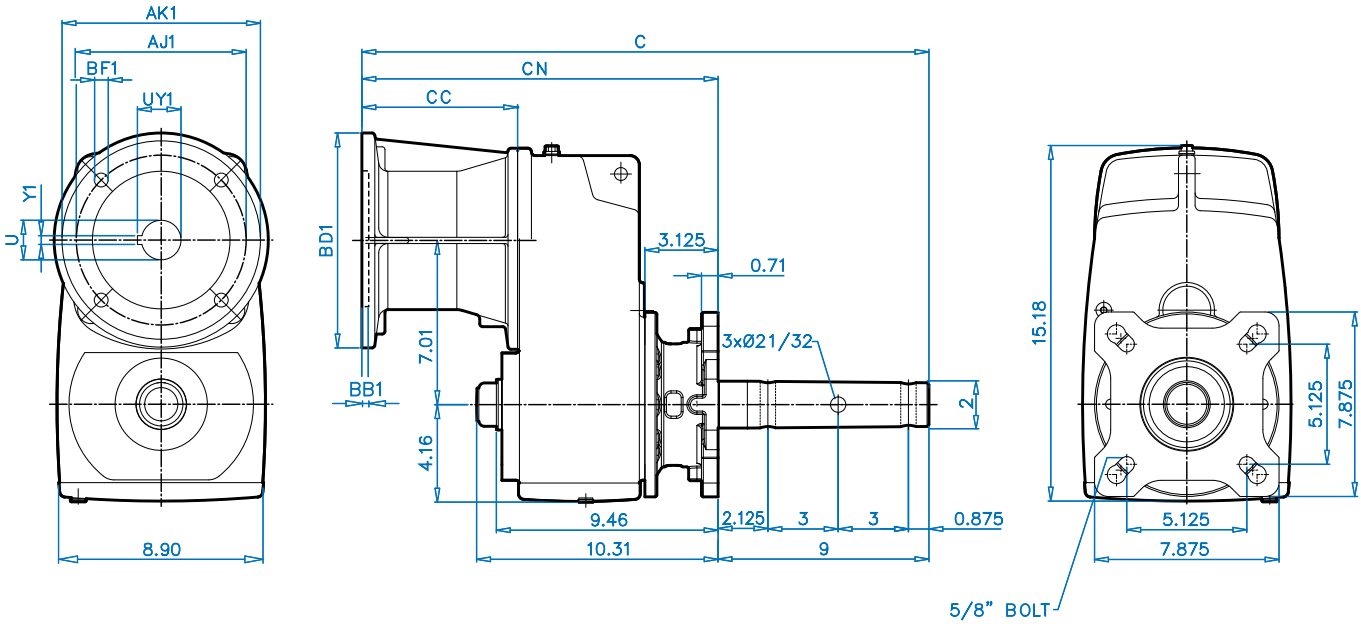


DIMENSIONS

Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	26.86	17.79	9.07	5.72	4.86
80S/L/LH	27.85	18.85	10.06	6.43	5.59
90S/SH/L/LH	29.42	20.42	11.63	7.19	5.79
100L/LA/LH	30.64	21.64	12.85	7.90	6.65
112M	31.51	22.51	13.72	8.87	7.05
112MH	32.50	23.50	14.71	8.87	7.05
132S/SH/M/MH	34.93	25.93	17.14	10.45	8.03

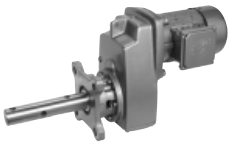
SK 3282 SCP + NEMA 2” CEMA Drive Shaft

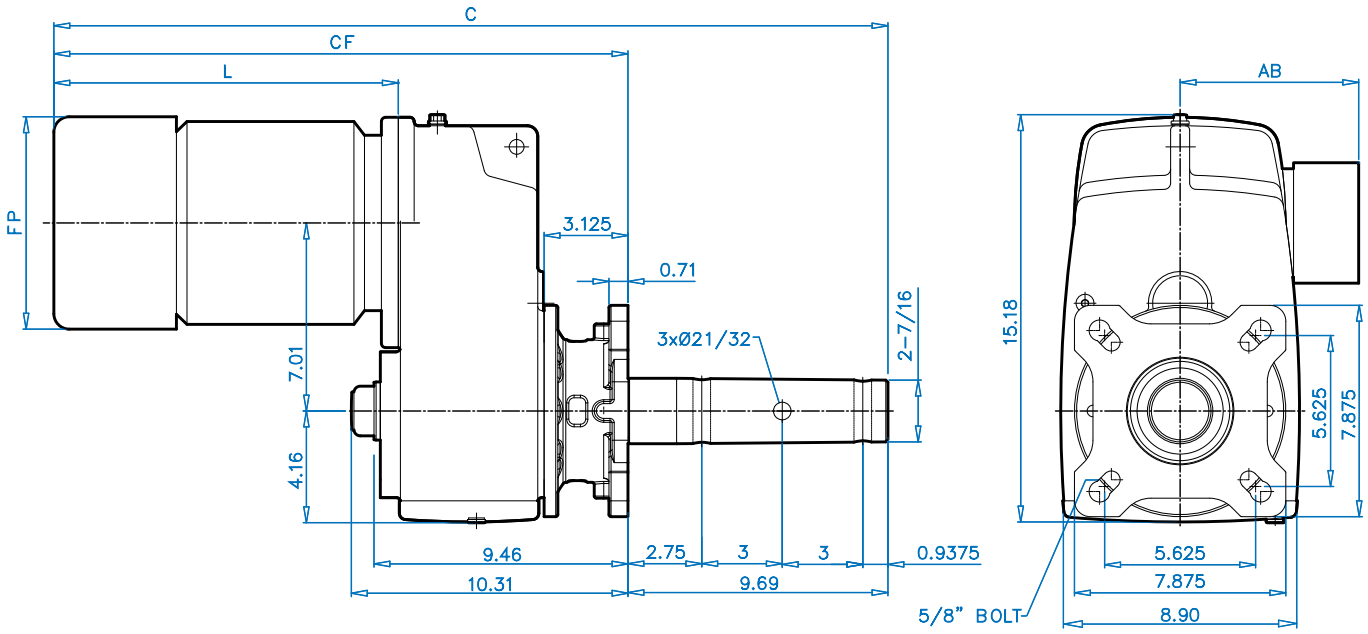




NEMA C-Face Input	Overall		NEMA Input						Coupling		
	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	22.40	13.40	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	22.40	13.40	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	24.44	15.44	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	24.44	15.44	6.65	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.310

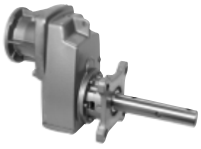
SK 3282 SCP + Motor
2-7/16" CEMA Drive Shaft

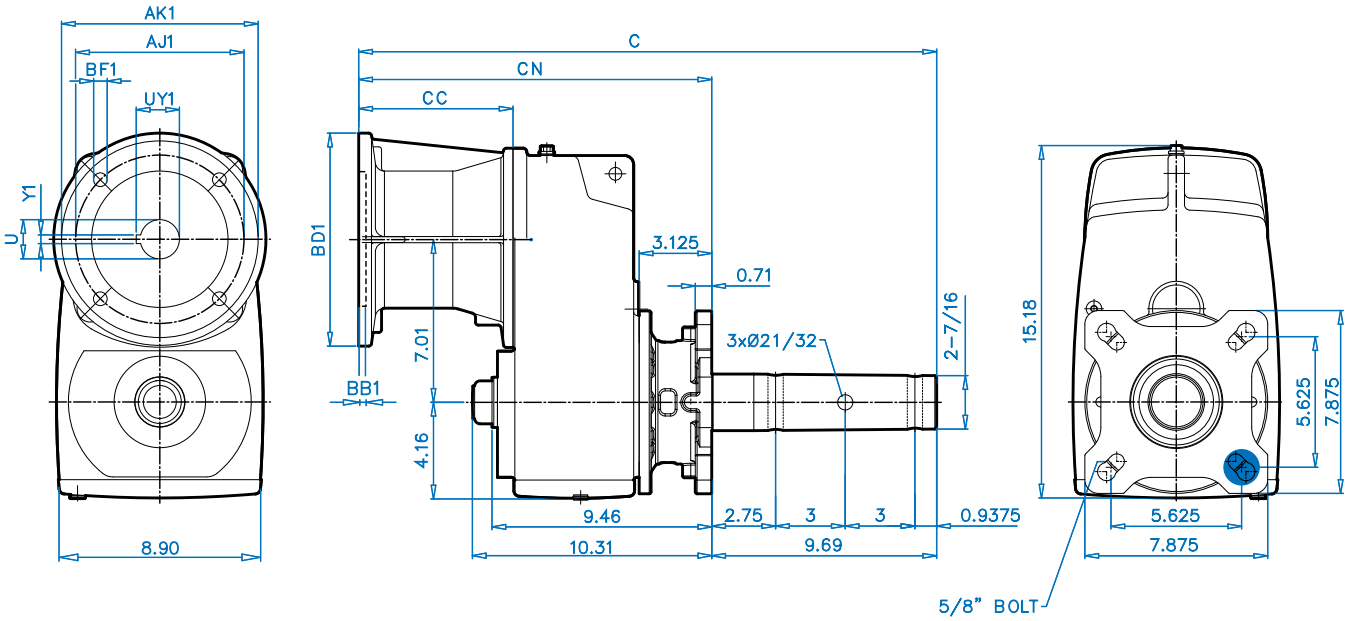




DIMENSIONS

Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	27.55	18.48	9.07	5.72	4.86
80S/L/LH	28.53	18.85	10.06	6.43	5.59
90S/SH/L/LH	30.11	20.42	11.63	7.19	5.79
100L/LA/LH	31.33	21.64	12.85	7.90	6.65
112M	32.20	22.51	13.72	8.87	7.05
112MH	33.19	23.50	14.71	8.87	7.05
132S/SH/M/MH	35.62	25.93	17.14	10.45	8.03

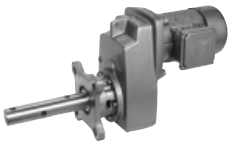


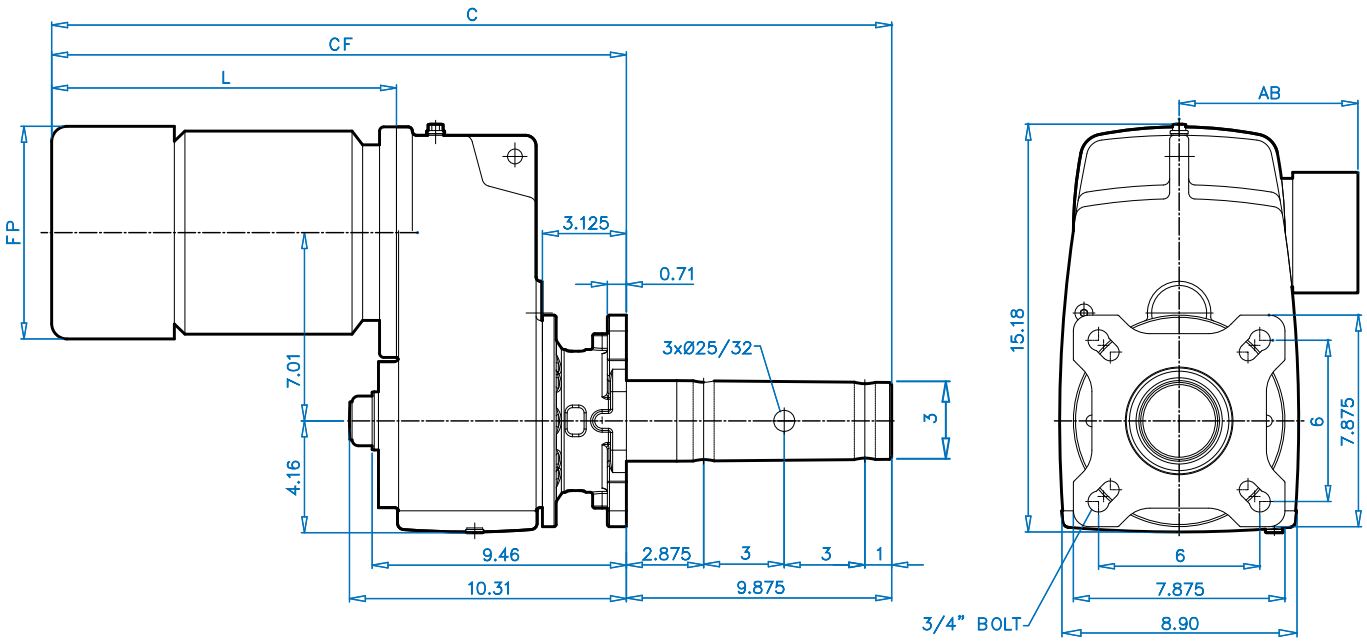


DIMENSIONS

NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	23.08	13.40	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	23.08	13.40	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	25.12	15.44	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	25.12	15.44	6.65	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.310

SK 3282 SCP + Motor
3” CEMA Drive Shaft

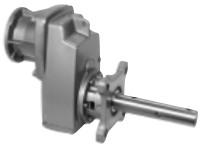


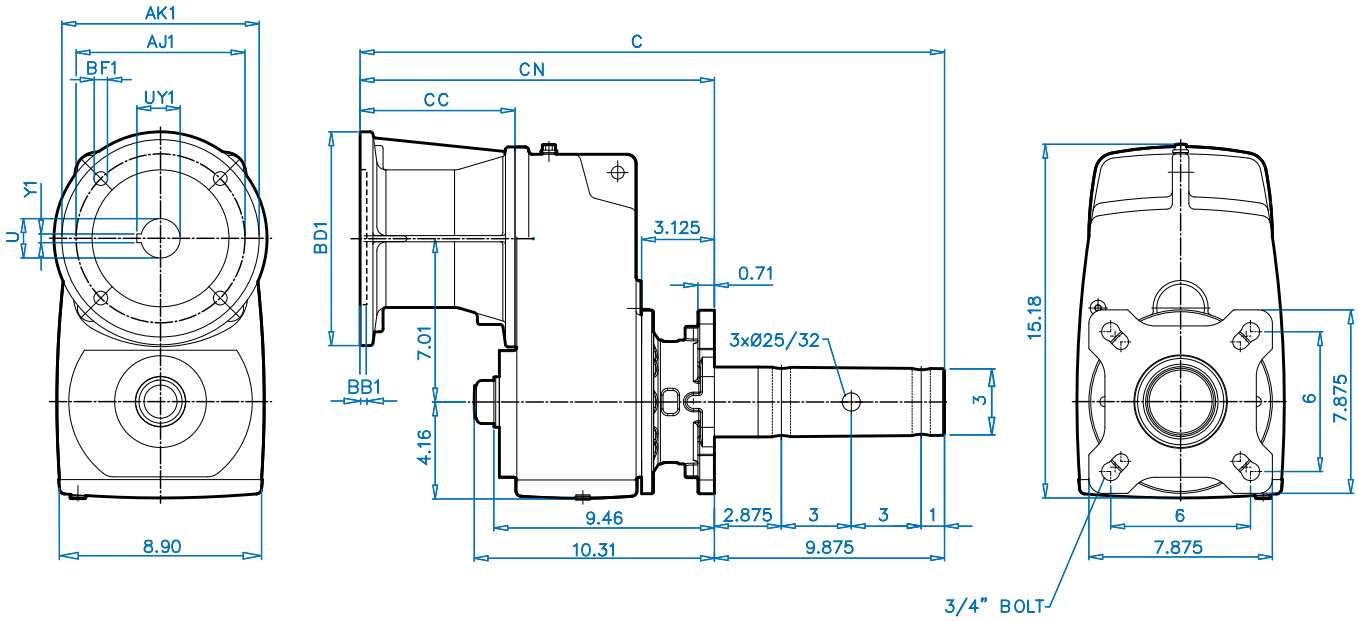


DIMENSIONS

Motor Type	Overall		Motor		
	C	CF	L	FP	AB
71S/L	27.74	18.66	9.07	5.72	4.86
80S/L/LH	28.72	18.85	10.06	6.43	5.59
90S/SH/L/LH	30.29	20.42	11.63	7.19	5.79
100L/LA/LH	31.52	21.64	12.85	7.90	6.65
112M	32.39	22.51	13.72	8.87	7.05
112MH	33.38	23.50	14.71	8.87	7.05
132S/SH/M/MH	35.81	25.93	17.14	10.45	8.03

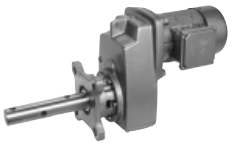
SK 3282 SCP + NEMA 3" CEMA Drive Shaft

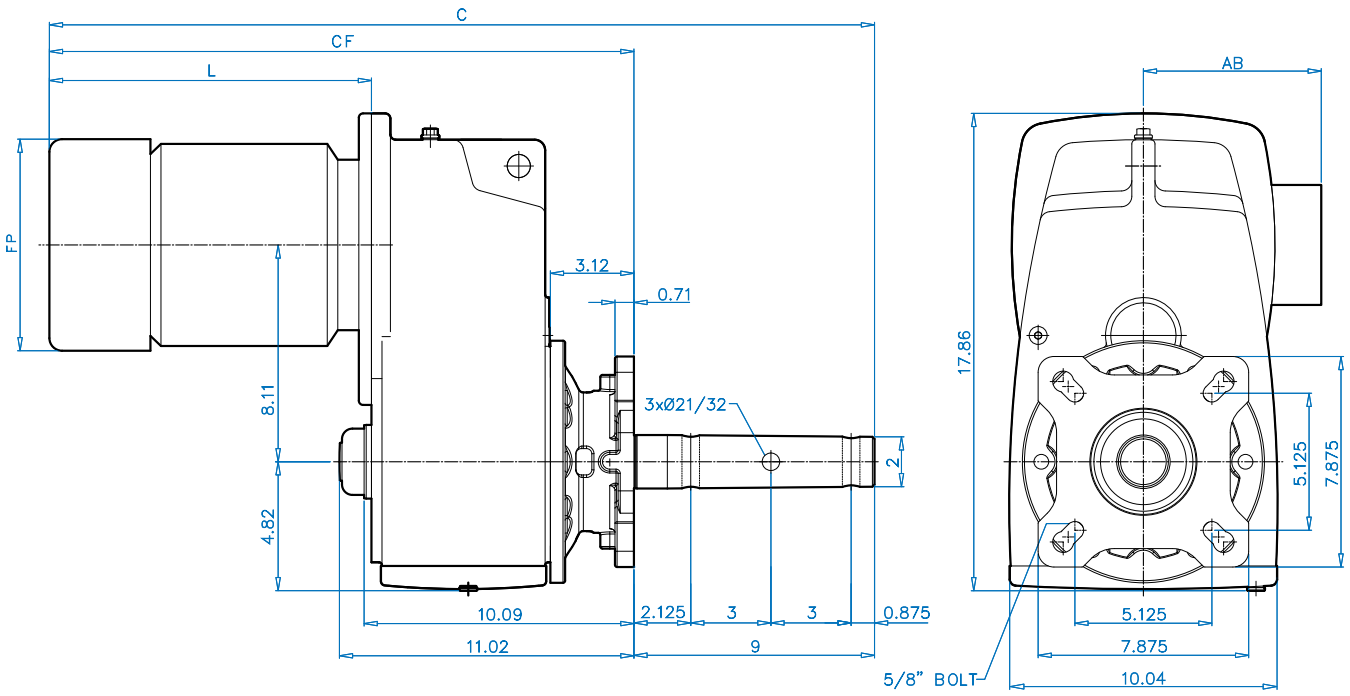




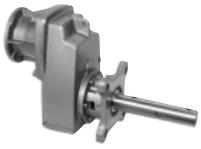
NEMA C-Face Input	Overall		NEMA Input						Coupling		
	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	23.27	13.40	4.61	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	23.27	13.40	4.61	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	25.31	15.44	6.65	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	25.31	15.44	6.65	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.310

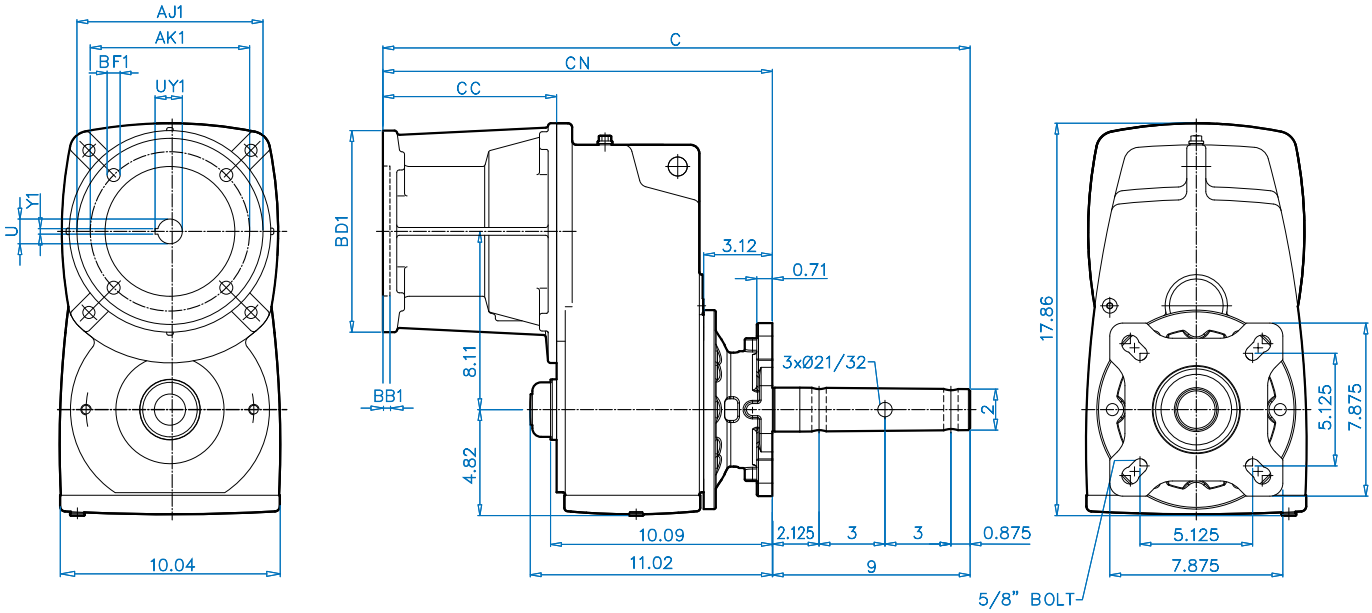
SK 4282 SCP + Motor
2” CEMA Drive Shaft





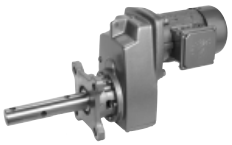
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	29.94	20.94	10.84	7.19	5.79
100L/LA/LH	31.16	22.16	12.06	7.90	6.65
112M	32.03	23.03	12.93	8.87	7.05
112MH	33.02	24.02	13.93	8.87	7.05
132S/SH/M/MH	35.45	26.45	16.35	10.45	8.03
160M/L	38.51	29.51	19.41	12.56	9.53

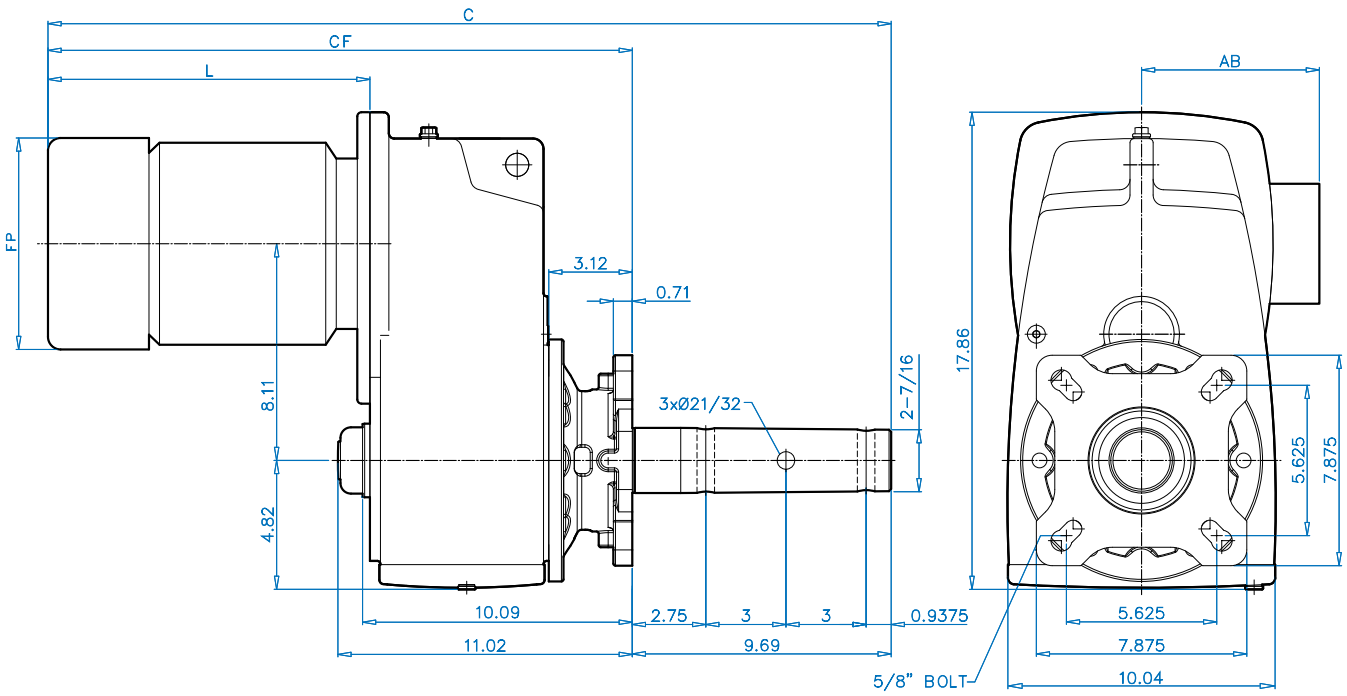




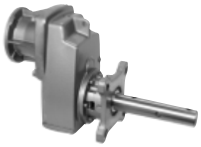
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	23.43	14.43	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	23.43	14.43	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	27.17	18.17	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	27.17	18.17	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	27.01	18.01	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375

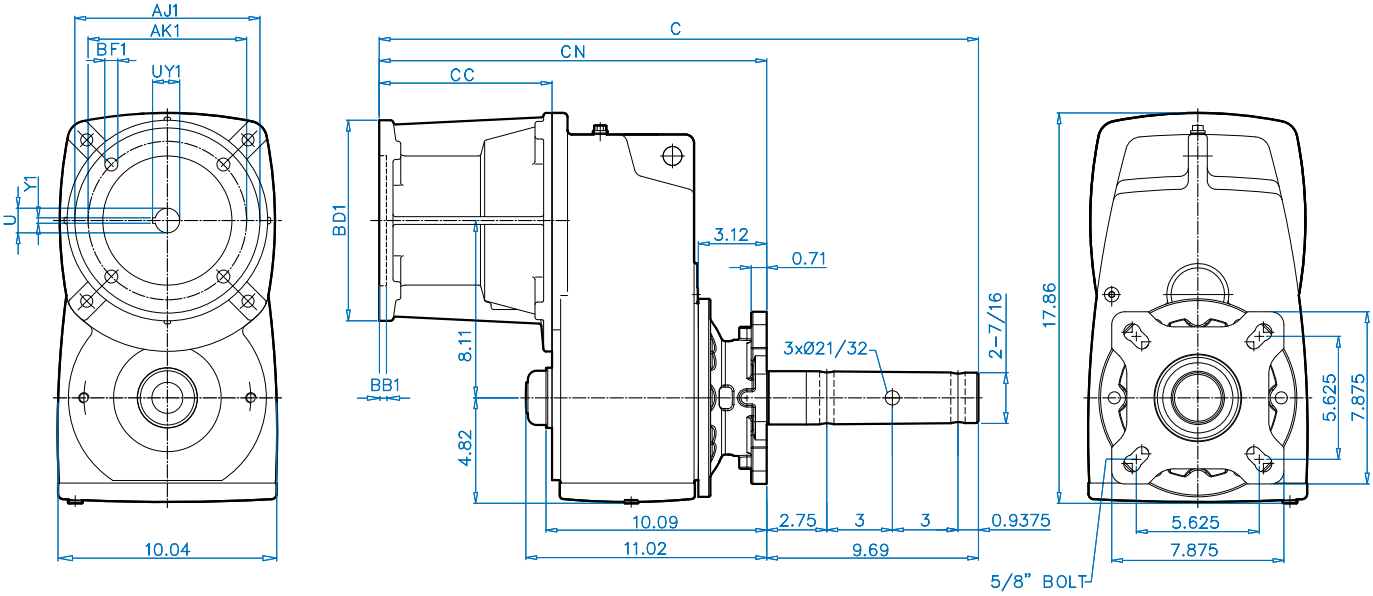
SK 4282 SCP + Motor
2-7/16" CEMA Drive Shaft





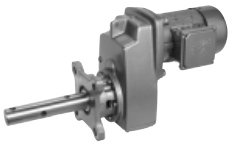
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	30.63	20.94	10.84	7.19	5.79
100L/LA/LH	31.85	22.16	12.06	7.90	6.65
112M	32.72	23.03	12.93	8.87	7.05
112MH	33.71	24.02	13.93	8.87	7.05
132S/SH/M/MH	36.14	26.45	16.35	10.45	8.03
160M/L	39.19	29.51	19.41	12.56	9.53

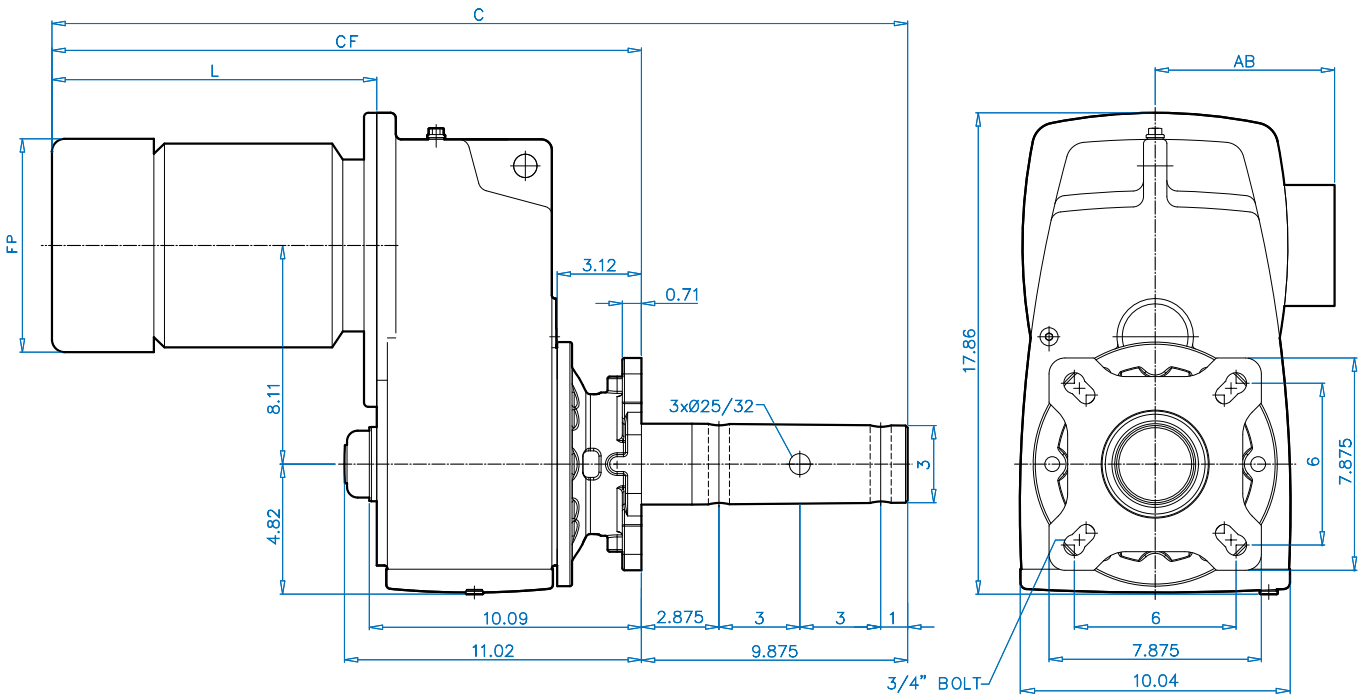




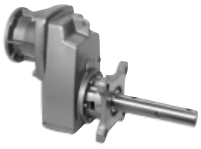
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	24.11	14.43	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	24.11	14.43	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	27.85	18.17	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	27.85	18.17	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	27.70	18.01	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375

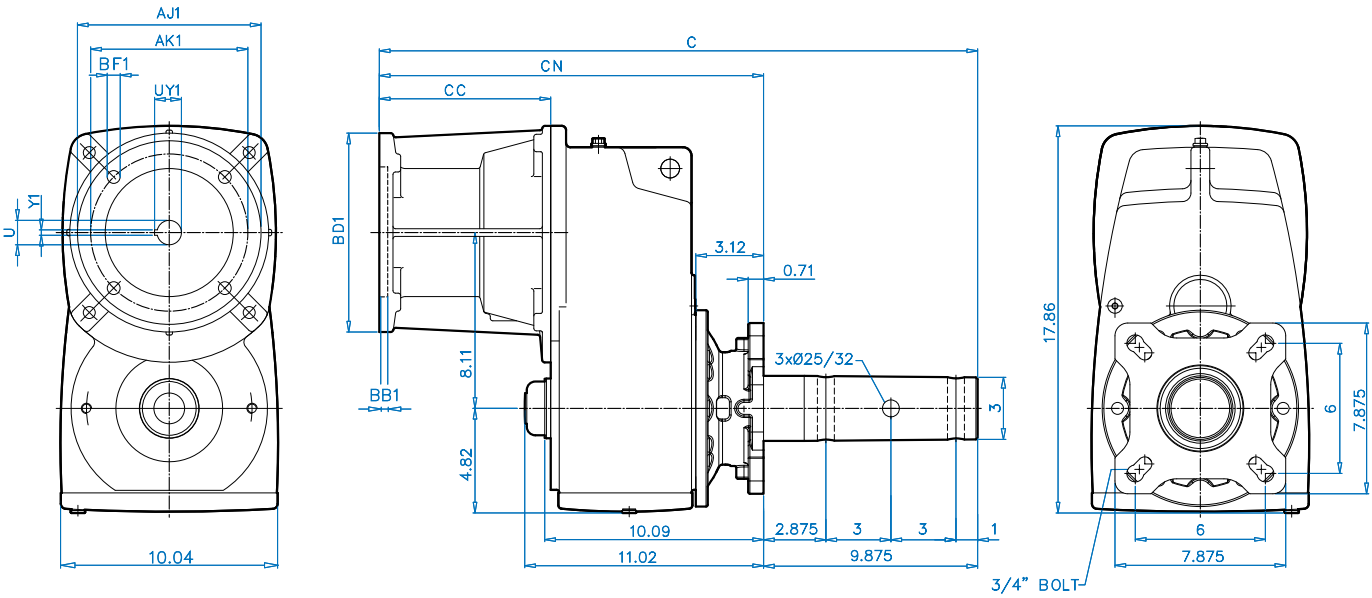
SK 4282 SCP + Motor
3” CEMA Drive Shaft





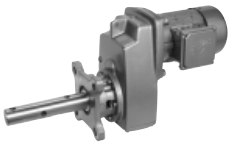
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	30.81	20.94	10.84	7.19	5.79
100L/LA/LH	32.03	22.16	12.06	7.90	6.65
112M	32.90	23.03	12.93	8.87	7.05
112MH	33.90	24.02	13.93	8.87	7.05
132S/SH/M/MH	36.33	26.45	16.35	10.45	8.03
160M/L	39.38	29.51	19.41	12.56	9.53

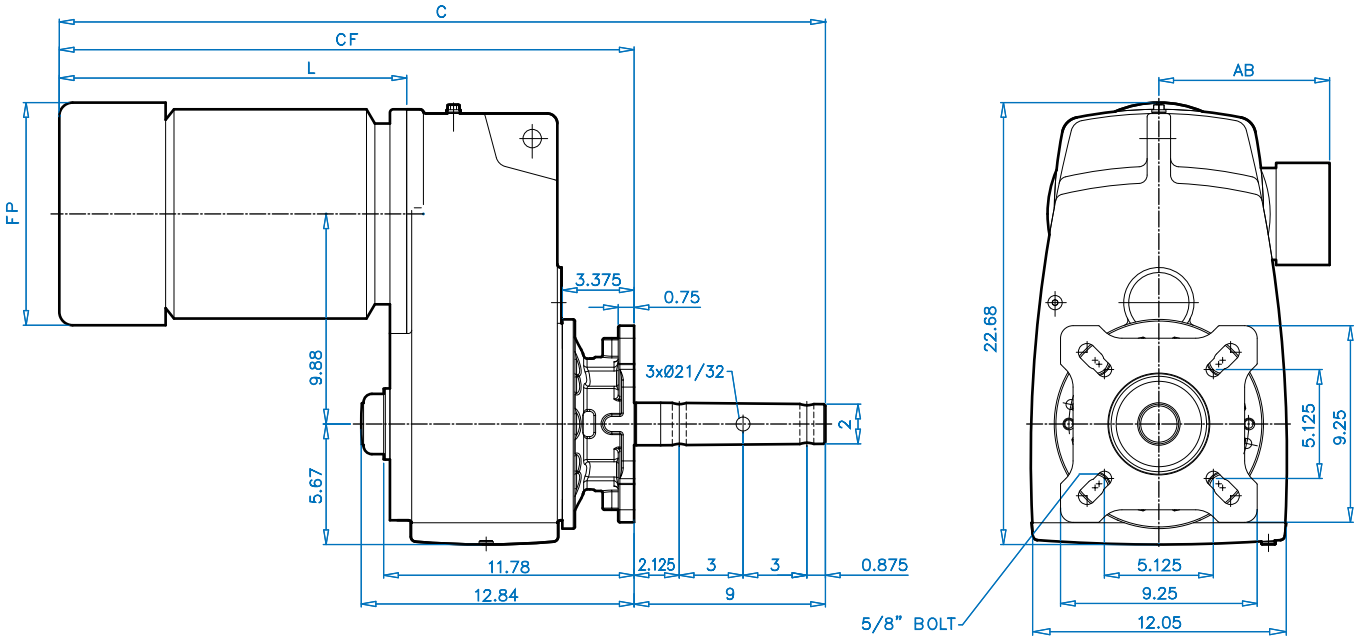




NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	24.30	14.43	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	24.30	14.43	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	28.04	18.17	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	28.04	18.17	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	27.88	18.01	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375

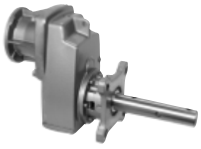
SK 5282 SCP + Motor
2” CEMA Drive Shaft

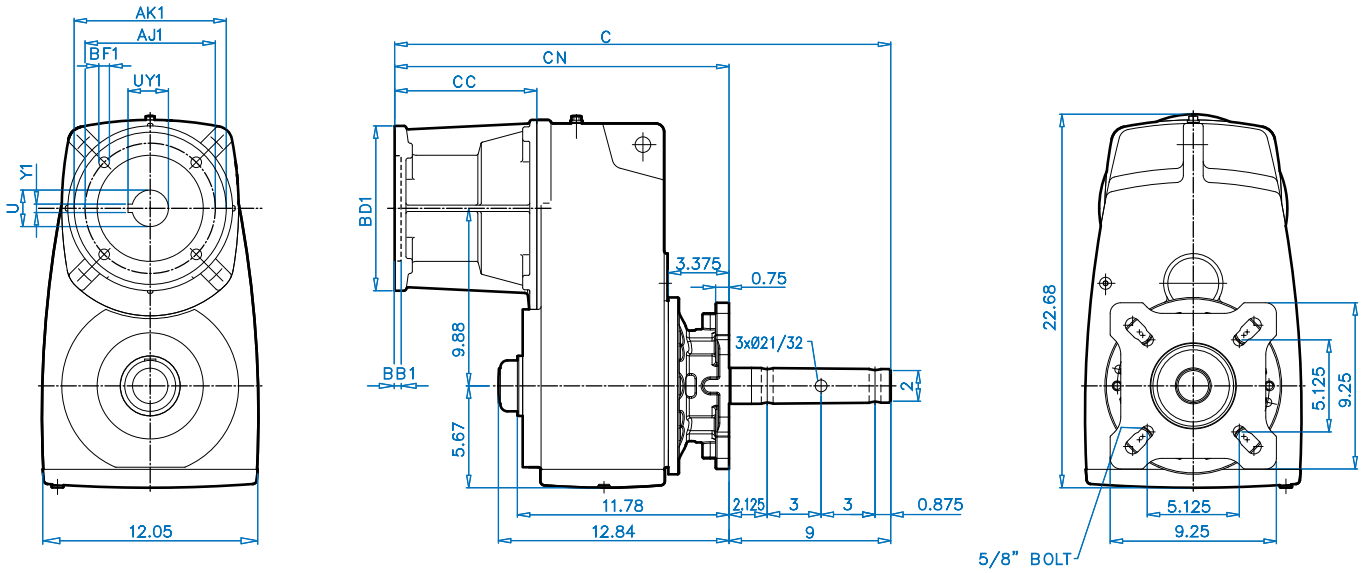




DIMENSIONS

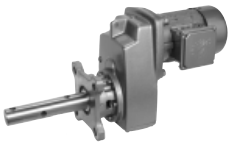
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	30.84	21.84	10.84	7.19	5.79
100L/LA/LH	32.06	23.06	12.06	7.90	6.65
112M	32.93	23.93	12.93	8.87	7.05
112MH	33.92	24.92	13.93	8.87	7.05
132S/SH/M/MH	36.35	27.35	16.35	10.45	8.03
160M/L	39.41	30.41	19.41	12.56	9.53
180MX/LX	39.41	30.41	19.41	12.56	9.53

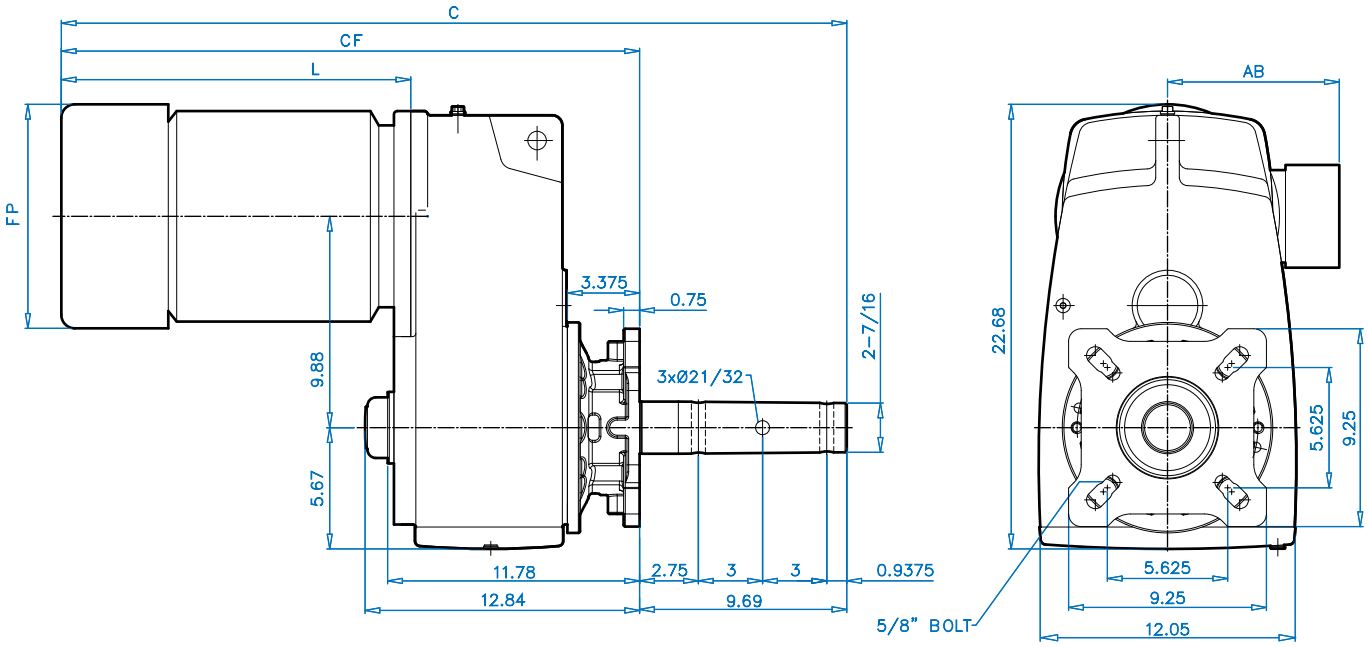




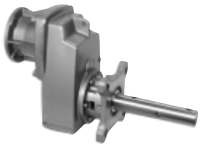
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	24.33	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	24.33	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	28.07	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	28.07	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	27.91	18.91	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375
280TC	28.54	19.54	8.54	9.000	10.50	0.23	13.78	0.55	1.875	2.10	0.500

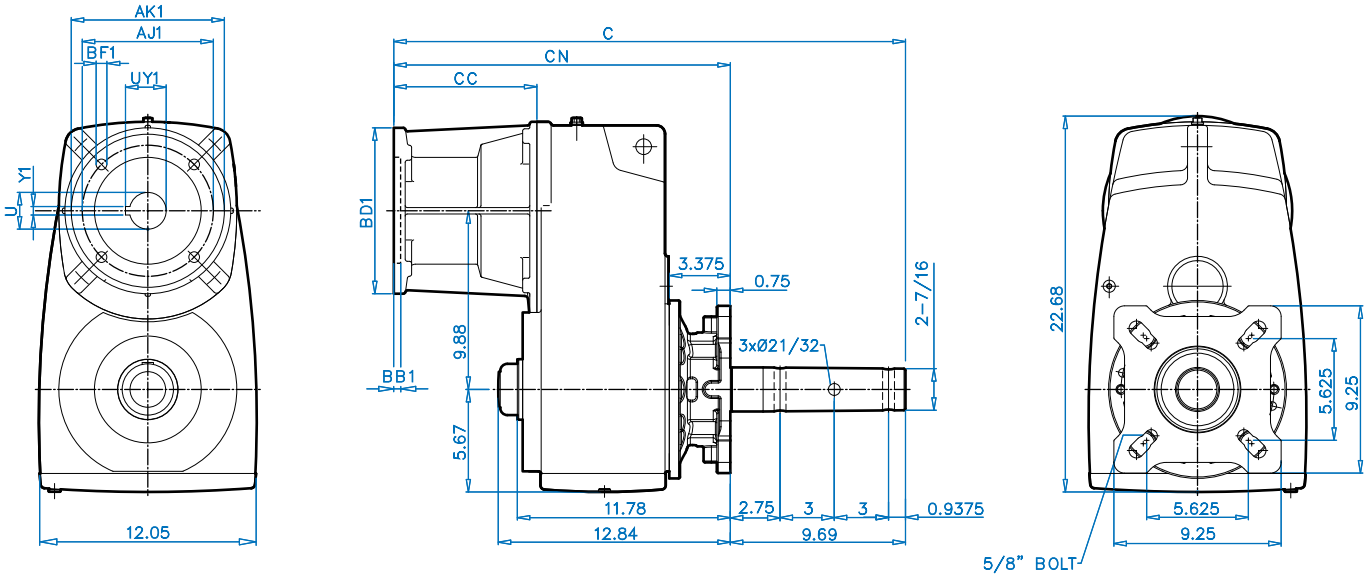
SK 5282 SCP + Motor
2-7/16” CEMA Drive Shaft





Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	31.53	21.84	10.84	7.19	5.79
100L/LA/LH	32.75	23.06	12.06	7.90	6.65
112M	33.62	23.93	12.93	8.87	7.05
112MH	34.61	24.92	13.93	8.87	7.05
132S/SH/M/MH	37.04	27.35	16.35	10.45	8.03
160M/L	40.09	30.41	19.41	12.56	9.53
180MX/LX	40.09	30.41	19.41	12.56	9.53

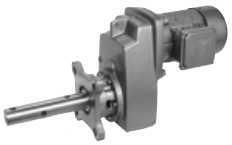


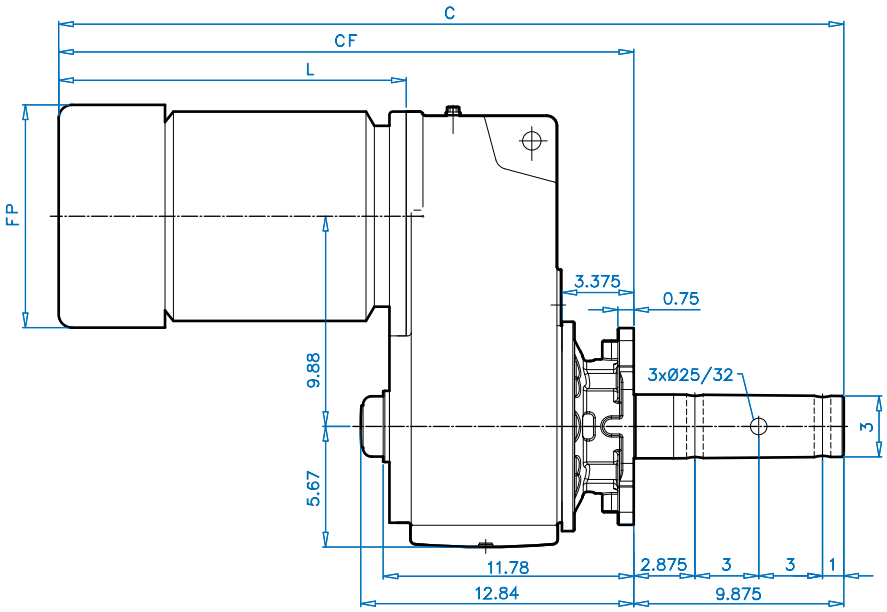


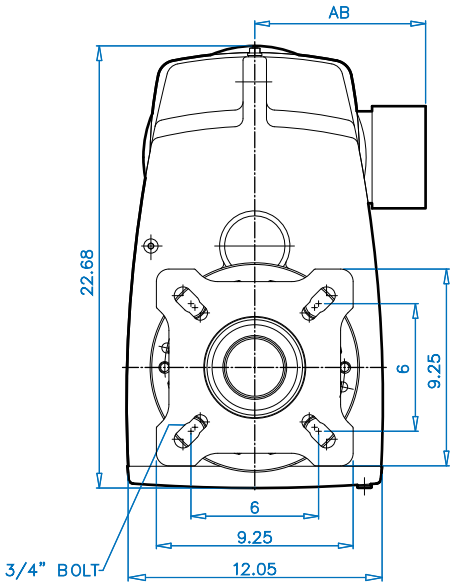
DIMENSIONS

NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	25.02	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	25.02	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	28.76	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	28.76	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	28.60	18.91	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375
280TC	29.23	19.54	8.54	9.000	10.50	0.23	13.78	0.55	1.875	2.10	0.500

SK 5282 SCP + Motor
3” CEMA Drive Shaft

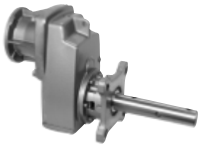


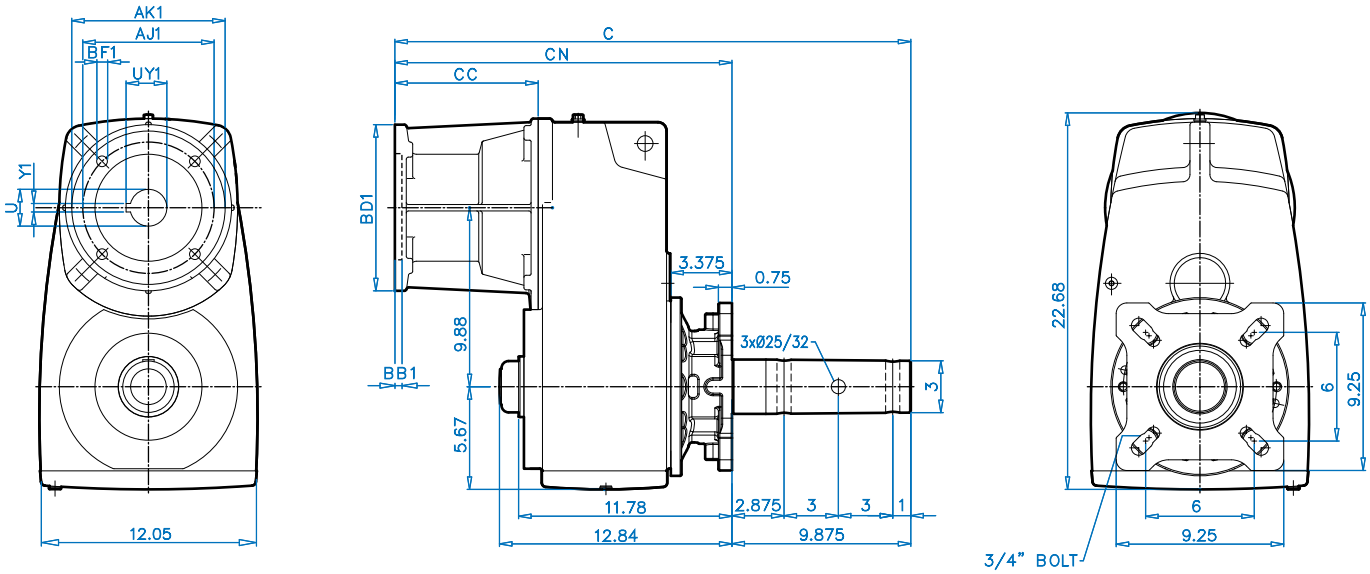




DIMENSIONS

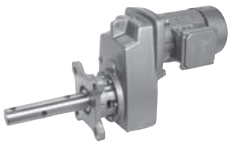
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	31.71	21.84	10.84	7.19	5.79
100L/LA/LH	32.94	23.06	12.06	7.90	6.65
112M	33.81	23.93	12.93	8.87	7.05
112MH	34.80	24.92	13.93	8.87	7.05
132S/SH/M/MH	37.23	27.35	16.35	10.45	8.03
160M/L	40.28	30.41	19.41	12.56	9.53
180MX/LX	40.28	30.41	19.41	12.56	9.53

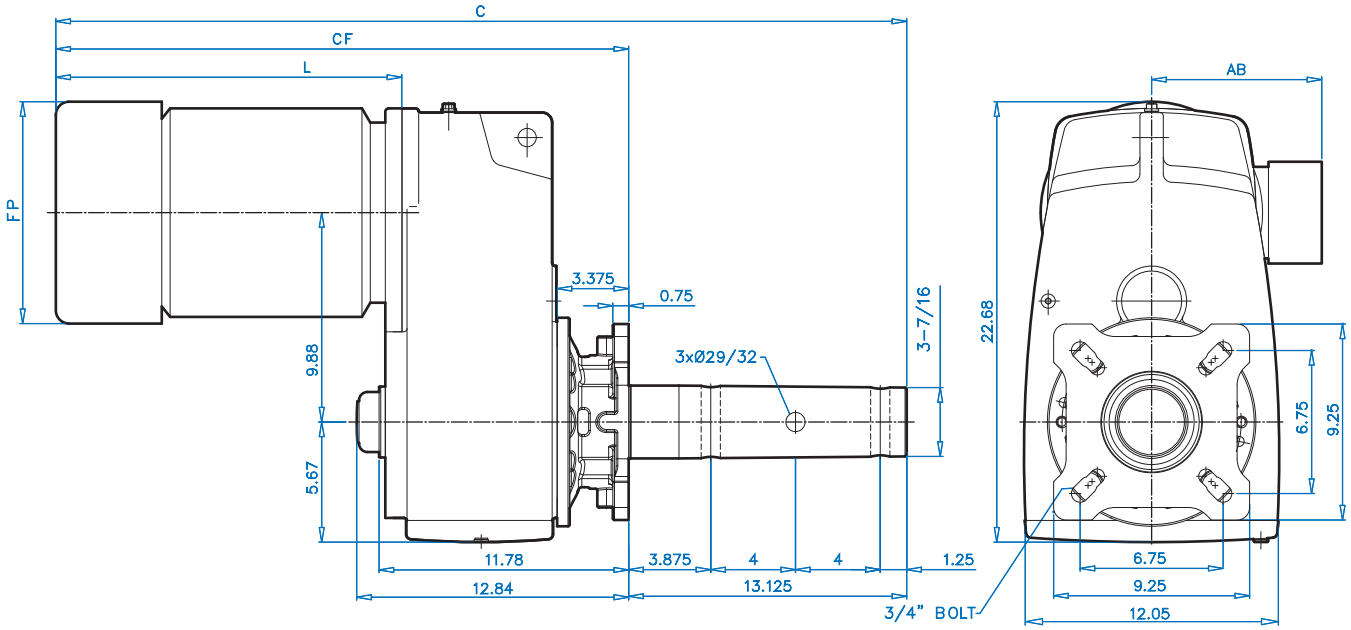




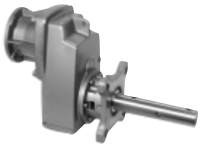
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	25.20	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	25.20	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	28.94	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	28.94	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	28.79	18.91	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375
280TC	29.42	19.54	8.54	9.000	10.50	0.23	13.78	0.55	1.875	2.10	0.500

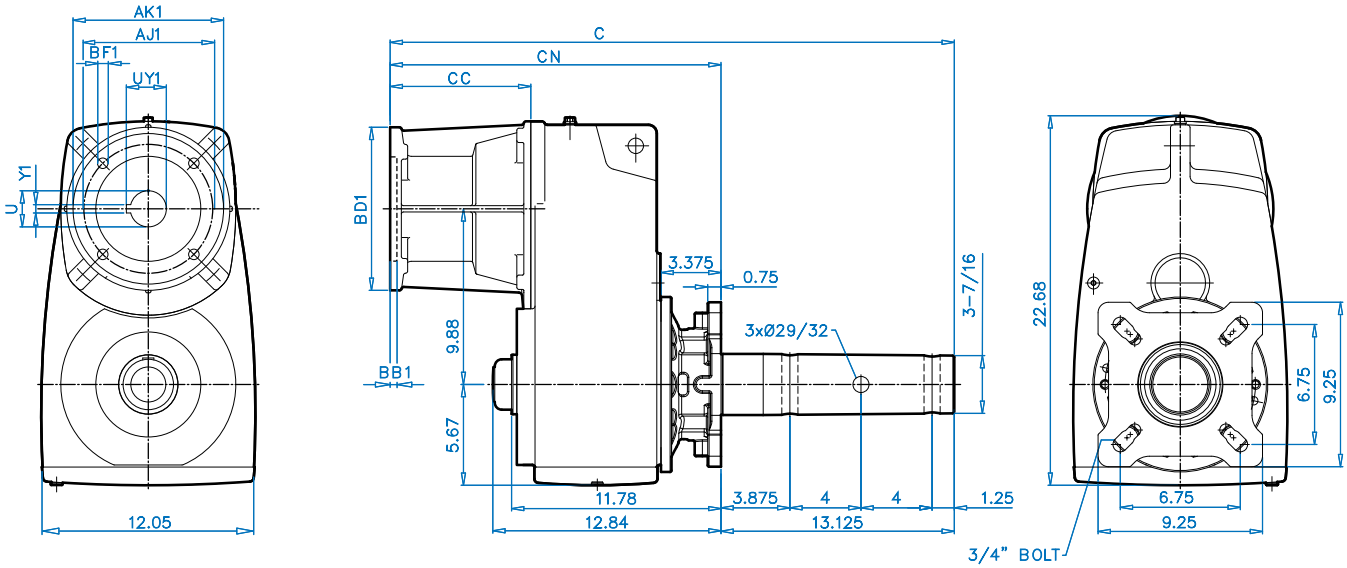
SK 5282 SCP + Motor
3-7/16"CEMA Drive Shaft





Motor Type	Overall		Motor		
	C	CF	L	FP	AB
90S/SH/L/LH	34.96	21.84	10.84	7.19	5.79
100L/LA/LH	35.87	22.75	12.06	7.90	6.65
112M	37.06	23.93	12.93	8.87	7.05
112MH	38.05	24.92	13.93	8.87	7.05
132S/SH/M/MH	40.48	27.35	16.35	10.45	8.03
160M/L	43.53	30.41	19.41	12.56	9.53
180MX/LX	43.53	30.41	19.41	12.56	9.53

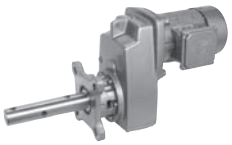


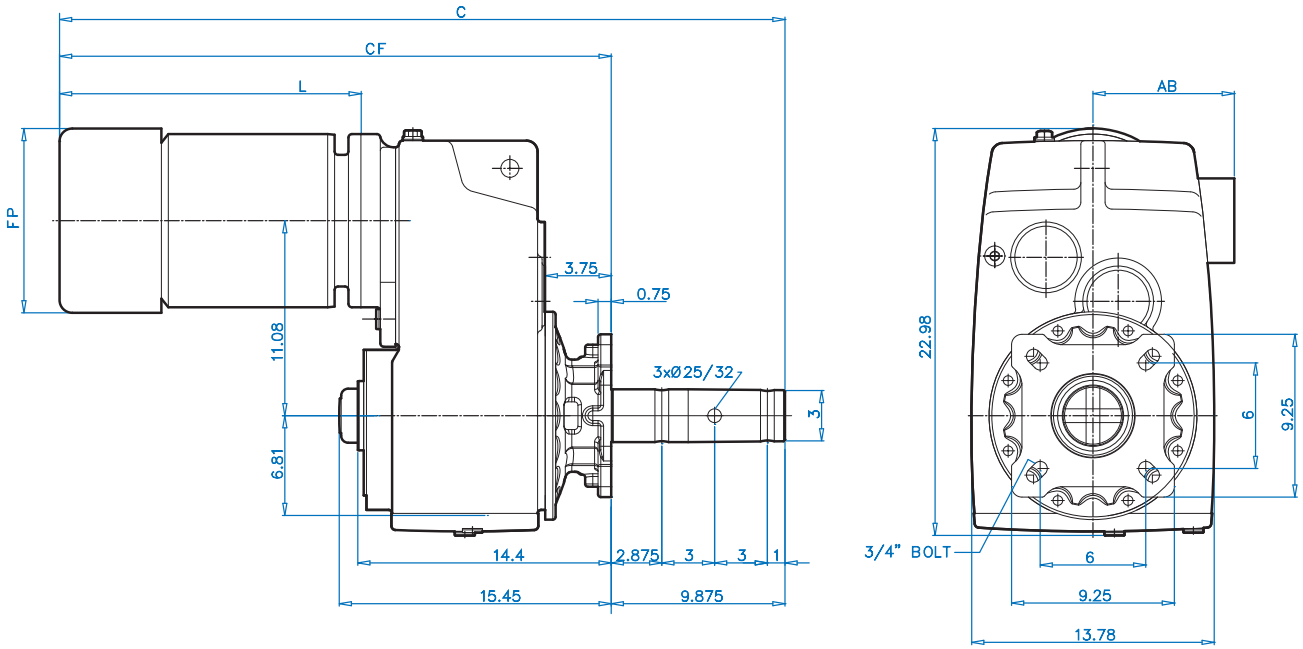


DIMENSIONS

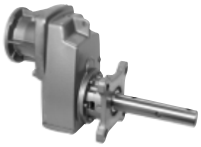
NEMA	Overall			NEMA Input					Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
56C	28.45	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.625	0.71	0.188
140TC	28.45	15.33	4.33	5.875	4.50	0.20	6.54	0.43	0.875	0.96	0.188
180TC	32.19	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	32.19	19.07	8.07	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	32.04	18.91	7.91	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375
280TC	32.67	19.54	8.54	9.000	10.50	0.23	13.78	0.55	1.875	2.10	0.500

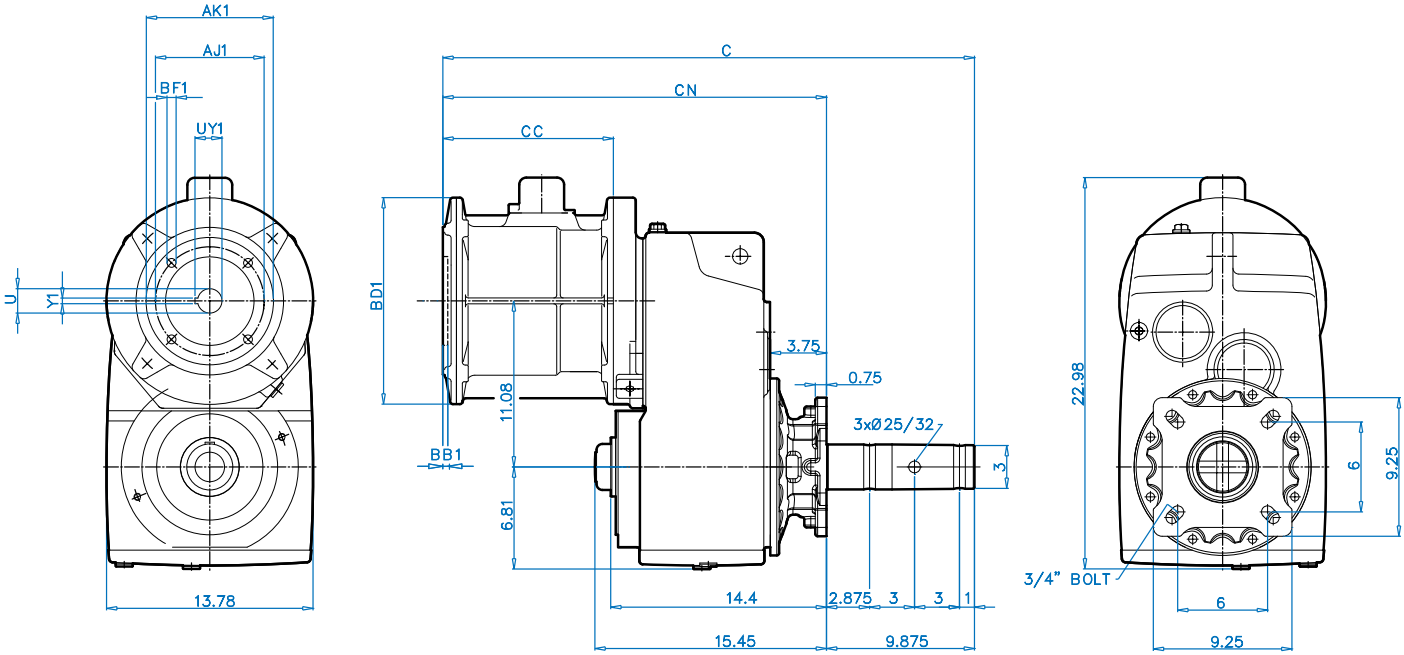
SK 6282 SCP + Motor
3” CEMA Drive Shaft





Motor Type	Overall		Motor		
	C	CF	L	FP	AB
100L/LA/LH	36.50	26.62	12.06	7.90	6.65
112M	37.25	27.38	12.81	8.87	7.05
112MH	38.24	28.37	13.81	8.87	7.05
132S/SH/M/MH	41.58	31.70	17.14	10.45	8.03
160M/L	43.84	33.97	19.41	12.56	9.53
180MX/LX	43.84	33.97	19.41	12.56	9.53
200L	51.52	41.65	27.09	15.83	12.01
225S/M	51.52	41.65	27.09	15.83	12.01

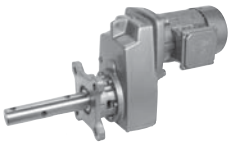


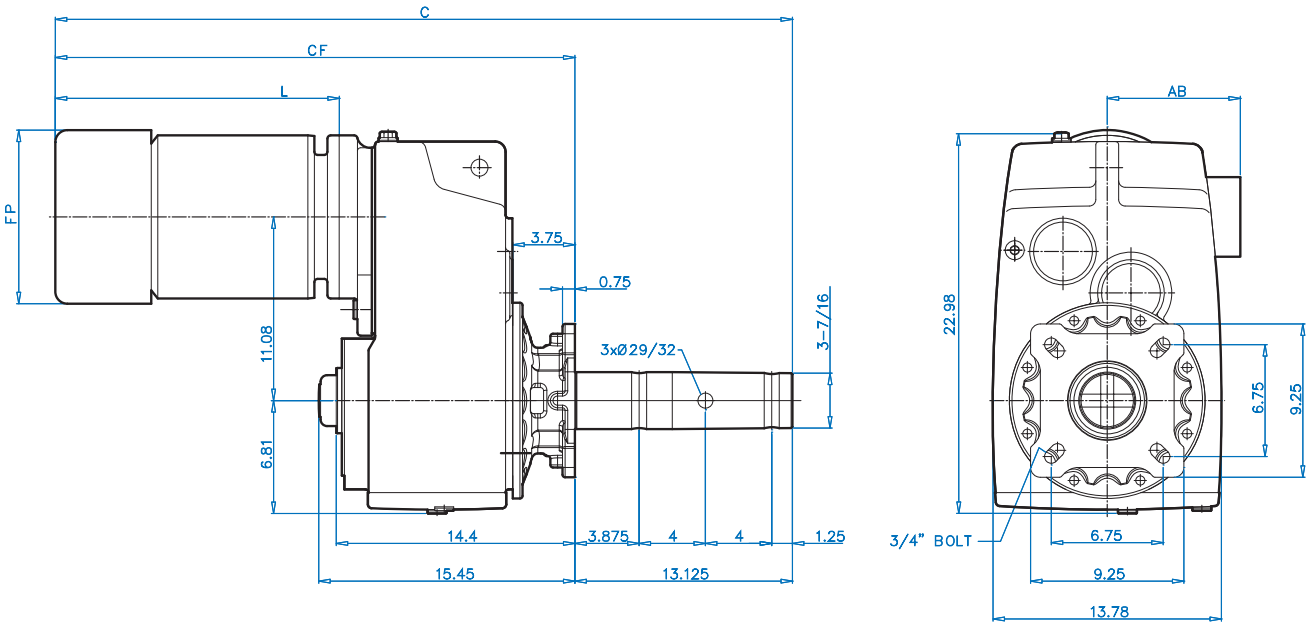


DIMENSIONS

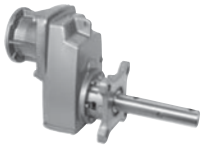
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
180TC	31.95	22.08	7.52	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	31.95	22.08	7.52	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	35.81	25.94	11.38	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375
280TC	35.81	25.94	11.38	9.000	10.50	0.23	13.78	0.55	1.875	2.10	0.500
320TC	34.79	24.91	10.35	11.000	12.50	0.23	15.75	0.71	2.125	2.35	0.500
360 TC	37.70	27.83	13.27	11.000	12.50	0.16	17.72	0.71	2.375	2.65	0.625

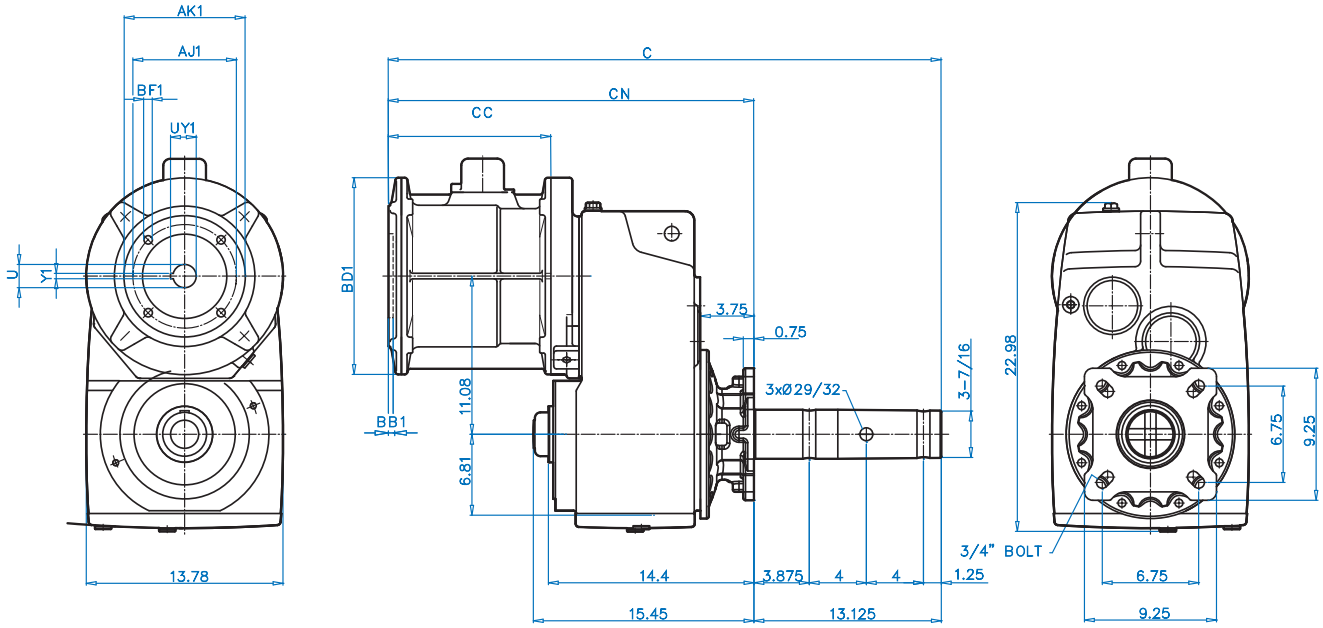
SK 6282 SCP + Motor
3-7/16" CEMA Drive Shaft



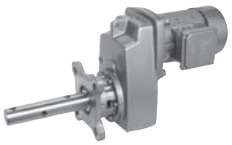


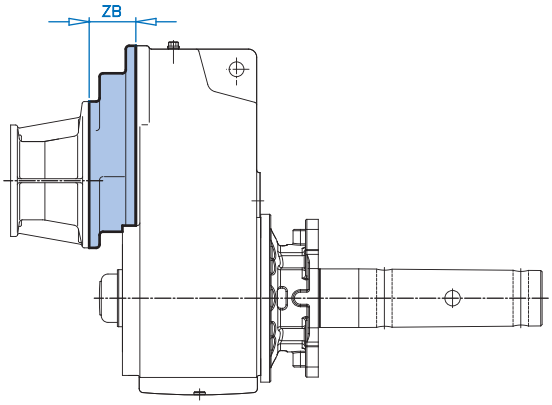
Motor Type	Overall		Motor		
	C	CF	L	FP	AB
100L/LA/LH	39.75	26.62	12.06	7.90	6.65
112M	40.50	27.38	12.81	8.87	7.05
112MH	41.49	28.37	13.81	8.87	7.05
132S/SH/M/MH	49.04	31.70	17.14	10.45	8.03
160M/L	47.09	33.97	19.41	12.56	9.53
180MX/LX	47.09	33.97	19.41	12.56	9.53
200L	54.77	41.65	27.09	15.83	12.01
225S/M	54.77	41.65	27.09	15.83	12.01

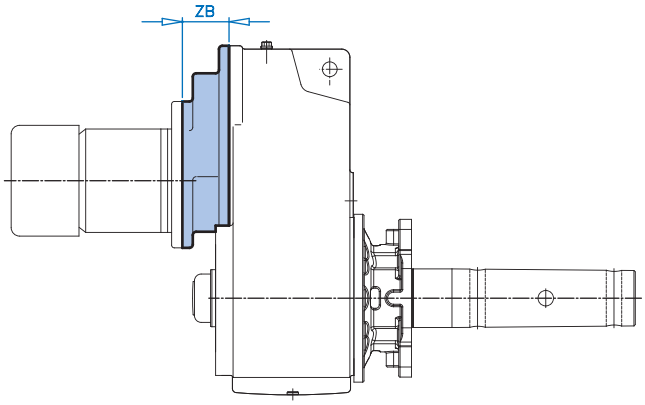




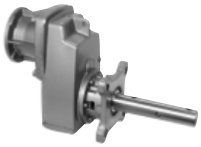
NEMA	Overall		NEMA Input						Coupling		
C-Face Input	C	CN	CC	AJ1	AK1	BB1	BD1	BF1	U1	UY1	Y1
180TC	35.20	22.08	7.52	7.250	8.50	0.23	9.17	0.59	1.125	1.24	0.250
210TC	35.20	22.08	7.52	7.250	8.50	0.23	9.17	0.59	1.375	1.52	0.312
250TC	39.06	25.94	11.38	7.250	8.50	0.23	9.17	0.59	1.625	1.80	0.375
280TC	38.95	25.82	11.26	9.000	10.50	0.23	13.78	0.55	1.875	2.10	0.500
320TC	38.04	24.91	10.35	11.000	12.50	0.23	15.75	0.71	2.125	2.35	0.500
360 TC	40.95	27.83	13.27	11.000	12.50	0.16	17.72	0.71	2.375	2.65	0.625

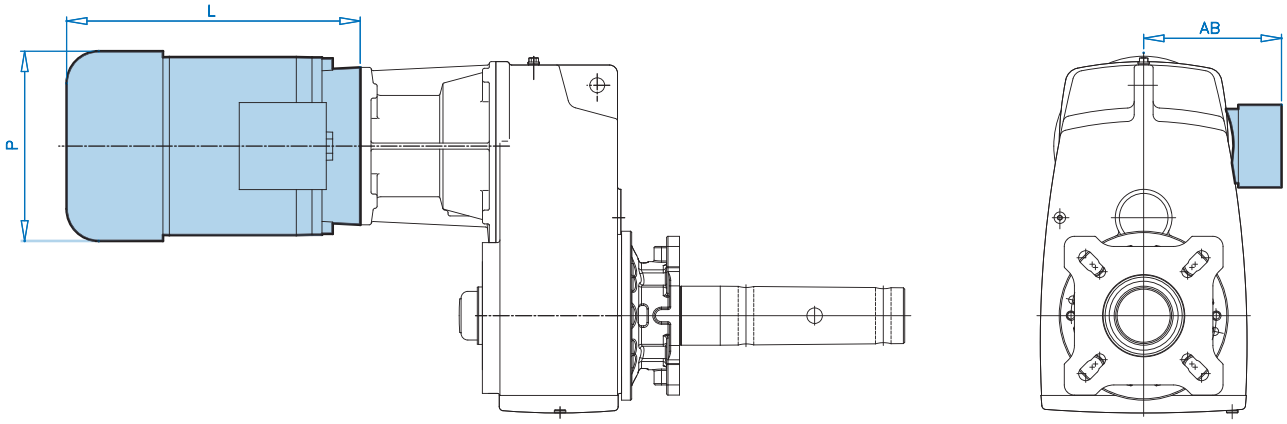






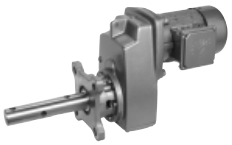
Model Type	ZB
SK 1382 SCP	2.28
SK 2382 SCP	2.36
SK 3382 SCP	2.36
SK 4382 SCP	2.72
SK 5382 SCP	2.72
SK 6382 SCP	0.00

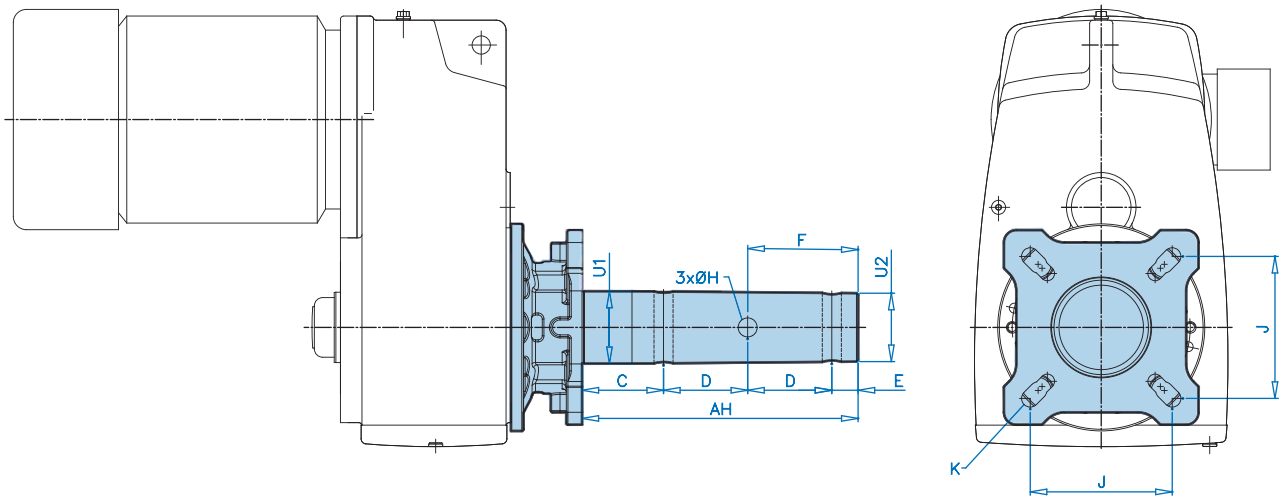




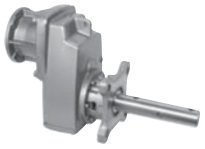
Motor Type	AB	P	L
63S-56C	4.53	5.12	7.56
63L-56C	4.53	5.12	7.56
71S-56C	4.88	5.71	7.64
71L-56C	4.88	5.71	7.64
80S-56C	5.59	6.50	9.45
80L-143TC	5.59	6.50	9.45
90S-145TC	5.79	7.20	10.04
90L-145TC	5.79	7.20	11.02
100L-182TC	6.65	7.91	12.20
100L-184TC	6.65	7.91	12.20
112M-184TC	7.05	8.98	12.83
132S-213TC	8.03	10.47	14.96
132M-215TC	8.03	10.47	16.46

SK SCP + Motor
CEMA Drive Shaft

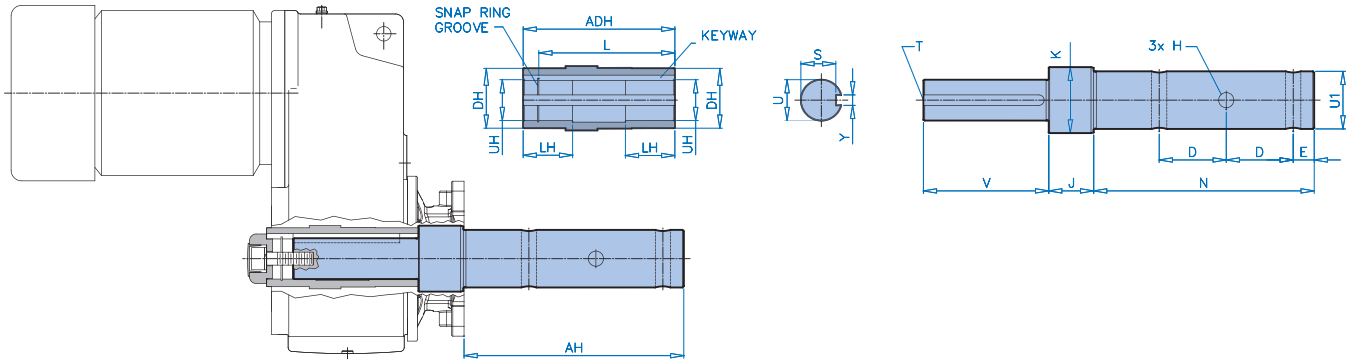




Shaft Size	Shaft								Flange	
	U1	U2	AH	C	D	E	F	H	J	K
1-1/2	1.5	1.41	9.00	2.125	3.0	0.875	5 3/8	17/32	4	9/16
2	2.0	1.91	9.00	2.125	3.0	0.875	5 3/8	21/32	5-1/8	11/16
2-7/16	2.4375	2.34	9.6875	2.75	3.0	0.9375	5 7/16	21/32	5-5/8	11/16
3	3.0	2.91	9.875	2.875	3.0	1.00	5 1/2	25/32	6	13/16
3-7/16	3.4375	3.31	13.125	3.875	4.0	1.25	7 1/4	29/32	6-3/4	13/16



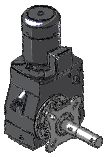
CLINCHER™ SCP + NEMA CEMA Drive Shaft

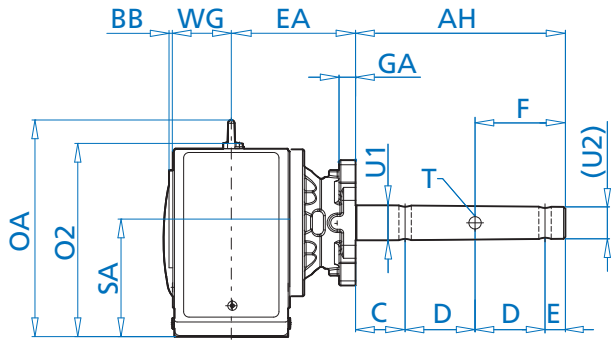


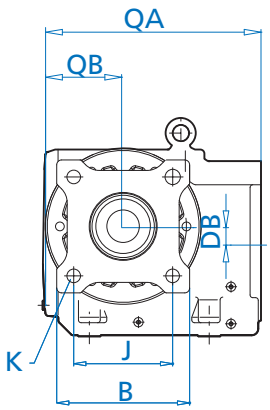
Gear Unit Size	Hollow Shaft				
	UH	ADH	L	LH	DH
SK 1282 SCP	1-3/16 + 0.0008	4.80	3.85	1.57	1.77
SK 2282 SCP	1-7/16 + 0.0010	5.47	4.80	1.97	1.97
SK 3282 SCP	1-5/8 + 0.0010	6.85	6.14	2.28	2.17
SK 4282 SCP	2-1/16 + 0.0010	7.68	6.42	2.56	2.76
SK 5282 SCP	2-7/16 + 0.0012	9.06	7.58	2.95	3.35
SK 6282 SCP	2-3/4 + 0.0012	11.41	9.92	3.54	3.93

	Shaft														
	Shaft Size	U1	AH	D	E	H	N	J	K	U	V	S	Y	T	Key
SK 1282	1-1/2	1-1/2	9	3	7/8	17/32	9.04	2.04	2.165	1.18752-0.0006	3.74	1.049	0.25	7/16-14 x 1	1/4 x 1/4
	2	2	9	3	7/8	21/32	9.04	2.41	2.559	1.18752-0.0006	3.74	1.049	0.25	7/16-14 x 1	1/4 x 1/4
	2-7/16	2-7/16	9-11/16	3	15/16	21/32	9.73	2.41	2.559	1.18752-0.0006	3.74	1.049	0.25	7/16-14 x 1	1/4 x 1/4
SK 2282	1-1/2	1-1/2	9	3	7/8	17/32	9.04	2.04	2.165	1.43752-0.0006	4.65	1.225	0.375	5/8-11 x 1.5	3/8 x 3/8
	2	2	9	3	7/8	21/32	9.04	2.04	2.559	1.43752-0.0006	4.65	1.225	0.375	5/8-11 x 1.5	3/8 x 3/8
	2-7/16	2-7/16	9-11/16	3	15/16	21/32	9.73	2.41	2.559	1.43752-0.0006	4.65	1.225	0.375	5/8-11 x 1.5	3/8 x 3/8
SK 3282	1-1/2	1-1/2	9	3	7/8	17/32	9.04	2.20	2.165	1.625-0.0006	5.91	1.478	0.375	5/8-11 x 1.5	3/8 x 1/4
	2	2	9	3	7/8	21/32	9.04	2.57	3.150	1.625-0.0006	5.91	1.478	0.375	5/8-11 x 1.5	3/8 x 1/4
	2-7/16	2-7/16	9-11/16	3	15/16	21/32	9.73	2.57	3.150	1.625-0.0006	5.91	1.478	0.375	5/8-11 x 1.5	3/8 x 1/4
	3	3	9-7/8	3	1	25/32	9.91	2.57	3.150	1.625-0.0006	5.91	1.478	0.375	5/8-11 x 1.5	3/8 x 1/4
SK 4282	2	2	9	3	7/8	21/32	9.04	2.37	3.150	2.06252-0.0007	6.42	1.844	0.5	5/8-11 x 1.5	1/2 x 3/8
	2-7/16	2-7/16	9-11/16	3	15/16	21/32	9.73	2.37	3.150	2.06252-0.0007	6.42	1.844	0.5	5/8-11 x 1.5	1/2 x 3/8
	3	3	9-7/8	3	1	25/32	9.91	2.37	3.150	2.06252-0.0007	6.42	1.844	0.5	5/8-11 x 1.5	1/2 x 3/8
SK 5282	2	2	9	3	7/8	21/32	9.04	2.68	3.937	2.43752-0.0007	7.48	2.084	0.625	3/4-10 x 2	5/8 x 5/8
	2-7/16	2-7/16	9-11/16	3	15/16	21/32	9.73	2.68	3.937	2.43752-0.0007	7.48	2.084	0.625	3/4-10 x 2	5/8 x 5/8
	3	3	9-7/8	3	1	25/32	9.91	2.68	3.937	2.43752-0.0007	7.48	2.084	0.625	3/4-10 x 2	5/8 x 5/8
	3-7/16	3-7/16	13-1/8	4	1-1/4	29/32	13.16	2.68	3.937	2.43752-0.0007	7.48	2.084	0.625	3/4-10 x 2	5/8 x 5/8
SK 6282	3	3	9-7/8	3	1	25/32	9.91	2.94	3.937	2.750 - 0.0007	10.55	2.402	0.625	3/4-10 x 2	5/8 x 5/8
	3-7/16	3-7/16	13-1/8	4	1-1/4	29/32	13.16	2.94	3.937	2.750 - 0.0007	10.55	2.402	0.625	3/4-10 x 2	5/8 x 5/8

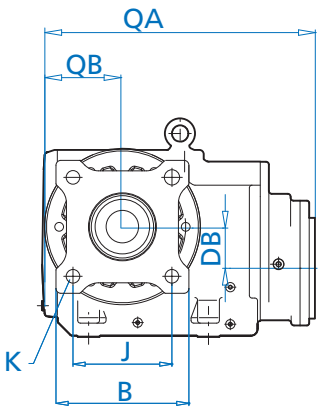
SK 9012.1 - SK9053.1
SCP Dimensions







Standard Housing



3rd Reduction Housing

Bevel SCP Dimensions

	Shaft Dimensions								Flange Dimensions				Housing Dimensions								
Unit	U1	U2	AH	C	D	E	F	T	B	GA	J	K	BB	DB	EA	OA	O2	SA	WG	QA	QB
SK 9012.1	1.500	1.41	9.00	2.125	3.00	0.875	3.875	3x17/32	5.375	0.71	4.000	0.5625	0.12	0.39	5.55	9.09	7.76	4.41	2.80	9.90	3.32
	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	7.375	0.75	5.125	0.6875	0.12	0.39	5.925	9.09	7.76	4.41	2.80	9.90	3.32
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	7.375	0.75	5.625	0.6875	0.12	0.39	5.925	9.09	7.76	4.41	2.80	9.90	3.32
SK 9013.1	1.500	1.41	9.00	2.125	3.00	0.875	3.875	3x17/32	5.375	0.71	4.000	0.5625	0.12	1.57	5.55	9.09	7.76	4.41	2.80	12.18	3.32
	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	7.375	0.75	5.125	0.6875	0.12	1.57	5.925	9.09	7.76	4.41	2.80	12.18	3.32
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	7.375	0.75	5.625	0.6875	0.12	1.57	5.925	9.09	7.76	4.41	2.80	12.18	3.32
SK 9022.1	1.500	1.41	9.00	2.125	3.00	0.875	3.875	3x17/32	5.375	0.71	4.000	0.5625	0.16	0.55	6.14	11.00	9.65	5.63	3.39	11.47	4.03
	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	7.375	0.75	5.125	0.6875	0.16	0.55	6.515	11.00	9.65	5.63	3.39	11.47	4.03
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	7.375	0.75	5.625	0.6875	0.16	0.55	6.515	11.00	9.65	5.63	3.39	11.47	4.03
SK 9023.1	1.500	1.41	9.00	2.125	3.00	0.875	3.875	3x17/32	5.375	0.71	4.000	0.5625	0.16	1.73	6.14	11.00	9.65	5.63	3.39	13.75	4.03
	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	7.375	0.75	5.125	0.6875	0.16	1.73	6.515	11.00	9.65	5.63	3.39	13.75	4.03
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	7.375	0.75	5.625	0.6875	0.16	1.73	6.515	11.00	9.65	5.63	3.39	13.75	4.03
SK 9032.1	1.500	1.41	9.00	2.125	3.00	0.875	3.875	3x17/32	5.375	0.71	4.000	0.5625	0.20	0.94	6.69	13.15	11.75	7.24	3.94	13.11	4.96
	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	7.875	0.71	5.125	0.6875	0.20	0.94	7.065	13.15	11.75	7.24	3.94	13.11	4.96
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	7.875	0.71	5.625	0.6875	0.20	0.94	7.065	13.15	11.75	7.24	3.94	13.11	4.96
	3.000	2.91	9.875	2.875	3.00	1.000	4.000	3x25/32	7.875	0.71	6.000	0.8125	0.20	0.94	7.065	13.15	11.75	7.24	3.94	13.11	4.96
SK 9033.1	1.500	1.41	9.00	2.125	3.00	0.875	3.875	3x17/32	5.375	0.71	4.000	0.5625	0.20	2.91	6.69	13.15	11.75	7.24	3.94	15.49	4.96
	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	7.875	0.71	5.125	0.6875	0.20	2.91	7.065	13.15	11.75	7.24	3.94	15.49	4.96
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	7.875	0.71	5.625	0.6875	0.20	2.91	7.065	13.15	11.75	7.24	3.94	15.49	4.96
	3.000	2.91	9.875	2.875	3.00	1.000	4.000	3x25/32	7.875	0.71	6.000	0.8125	0.20	2.91	7.065	13.15	11.75	7.24	3.94	15.49	4.96
SK 9042.1	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	9.250	0.75	5.125	0.6875	0.20	1.42	7.905	15.71	13.97	8.54	4.53	15.81	6.06
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	9.250	0.75	5.625	0.6875	0.20	1.42	7.905	15.71	13.97	8.54	4.53	15.81	6.06
	3.000	2.91	9.875	2.875	3.00	1.000	4.000	3x25/32	9.250	0.75	6.000	0.8125	0.20	1.42	7.905	15.71	13.97	8.54	4.53	15.81	6.06
	3.4375	3.31	13.125	3.875	4.00	1.250	5.125	3x29/32	9.250	0.75	6.750	0.8125	0.20	1.42	7.905	15.71	13.97	8.54	4.53	15.81	6.06
SK 9043.1	2.000	1.91	9.00	2.125	3.00	0.875	3.875	3x21/32	9.250	0.75	5.125	0.6875	0.20	3.82	7.905	15.71	13.97	8.54	4.53	18.55	6.06
	2.4375	2.31	9.6875	2.750	3.00	0.9375	3.9375	3x21/32	9.250	0.75	5.625	0.6875	0.20	3.82	7.905	15.71	13.97	8.54	4.53	18.55	6.06
	3.000	2.91	9.875	2.875	3.00	1.000	4.000	3x25/32	9.250	0.75	6.000	0.8125	0.20	3.82	7.905	15.71	13.97	8.54	4.53	18.55	6.06
	3.4375	3.31	13.125	3.875	4.00	1.250	5.125	3x29/32	9.250	0.75	6.750	0.8125	0.20	3.82	7.905	15.71	13.97	8.54	4.53	18.55	6.06
SK 9052.1	3.000	2.91	9.875	2.875	3.00	1.000	4.000	3x25/32	9.250	0.75	6.000	0.8125	0.20	1.61	9.085	18.82	16.79	10.31	5.71	19.15	7.32
	3.4375	3.31	13.125	3.875	4.00	1.250	5.125	3x29/32	9.250	0.75	6.750	0.8125	0.20	1.61	9.085	18.82	16.79	10.31	5.71	19.15	7.32
SK 9053.1	3.000	2.91	9.875	2.875	3.00	1.000	4.000	3x25/32	9.250	0.75	6.000	0.8125	0.20	4.61	9.085	18.82	16.79	10.31	5.71	21.89	7.32
	3.4375	3.31	13.125	3.875	4.00	1.250	5.125	3x29/32	9.250	0.75	6.750	0.8125	0.20	4.61	9.085	18.82	16.79	10.31	5.71	21.89	7.32

Motors

- Order Form
- NEMA C-Face Motors
- Engineering Information
- Options
- Environmental Options
- AC Vector Drive Options
- SK 300E Trio AC Vector Drive
- Additional Options
- Ratings Tables
- Dimensions
- Connection Diagrams

NORD DRIVESYSTEMS

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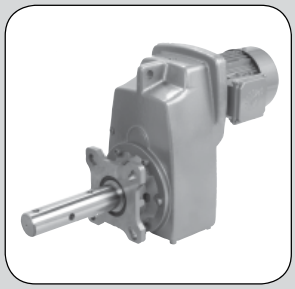
INVERTER DUTY MOTOR

Motor Type	Power Pn		Nn Full-load	In Full-Load Current 230V[a]	In Full-Load Current 460V[a]
	[hp]	[kW]	[rpm]	[A]	[A]
63S/4	0.16	0.12	1700	0.88	0.44
63L/4	0.25	0.18	1680	1.12	0.56
71S/4	0.33	0.25	1710	1.56	0.78
71L/4	0.5	0.37	1720	1.90	0.95
80S/4	0.75	0.55	1710	2.70	1.35
80L/4	1	0.75	1650	3.66	1.83
90S/4	1.5	1.1	1660	4.84	2.42
90L/4	2	1.5	1660	6.34	3.17
100L/4	3	2.2	1705	9.0	4.50
100LA/4	5	3.7	1725	15.2	7.62
132S/4	7.5	5.5	1735	19.8	9.9
132M/4	10	7.5	1735	25.8	12.9
160M/4	15	11	1770	38.4	19.2



Motor Order Form

	Frame	Size	Poles	Motor Options	Brake Size	Brake Options
SK						

Frame	Size	Poles
63	S	4
71	SH	2
80	M	6
90	MH	4-2
100	MX	8-2
112	L	8-4
132	LA	12-2
	LH	Other
	LX	

Paint

- ❍ Unpainted Aluminum Alloy
- ❍ Stainless Steel Paint
- ❍ NSD+ (gray)
- ❍ NSD+W (white)
- ❍ NSD-X3 (gray)
- ❍ NSD-X3W (white)
- ❍ Special _____

Electrical Motor Options

- ❒ **H** - Energy Efficient Motor
- ❒ **TW** - Thermostat
- ❒ **TF** - Thermistor
- ❒ **SH** - Space Heater (select voltage)
  - ❍ 110 Volt ❍ 230 Volt ❍ 460 Volt
- ❒ **ISO** H - Class H insulation
- ❒ **WU** - High Resistance Rotor
- ❒ **4-2** - 2-Speed, 4/2 Pole, 1800/3600rpm
- ❒ **8-2** - 2-Speed, 8/2 Pole, 900/3600rpm
- ❒ **ECR** - Single Phase Motor

Environmental Options

- ❒ **NSD+** - Nord Severe Duty Paint
- ❒ **NSDx3** - Nord Extreme Duty Paint
- ❒ **RD** - Canopy Drip Cover
- ❒ **RDD** - Double Fan Cover
- ❒ **KB** - Condensation Drain Holes (plugged)
- ❒ **KBO** - Condensation Drain Holes (open)
- ❒ **IP66** - IP66 Enclosure Protection
- ❒ **KKV** - Terminal Box Sealed with Resin
- ❒ **AICM** - Additional Insulation
- ❒ **EP** - Epoxy Dipped Windings

AC Vector Drive Related Options

- ❒ **F** - Blower Fan (200-575V 1 & 3 Phase)
- ❒ **FC** - Blower Cooling Fan (115V, 1 Phase)
- ❒ **IG__** - Incremental Encoder
- ❒ **IG__P** - Incremental Encoder with Plug
- ❒ **AG** - Absolute Encoder

Additional Motor Options

- ❒ **OL** - Totally Enclosed Non-Ventilated (TENV)
- ❒ **OL/H** - (TENV) Without Fan Cover
- ❒ **WE** - Second Shaft Extension (Fan Side)
- ❒ **HR** - Hand Wheel
- ❒ **Z** - High Inertia Cast Iron Fan
- ❒ **RLS** - Motor Backstop (rotation viewing fan)
  - ❍ Clockwise ❍ Counter-Clockwise
- ❒ **EKK** - Small Terminal Box (not UL approved)
- ❒ **MS** - Quick Power Plug Connector

Brake Size
BRE 5
BRE 10
BRE 20
BRE 40
BRE 60
BRE 100
BRE 150

- ❒ **HL** - Hand Release Lever
- ❒ **FHL** - Locking Hand Release Lever
- ❒ **HLH** - Hand Release Lever with Hole
- ❒ **RG** - Corrosion Protected Brake
- ❒ **SR** - Dust and Corrosion Protected Brake
- ❒ **ADJ_____Nm** - Adjust Brake Torque
- ❒ **BIP66** - IP66 Brake Enclosure
- ❒ **MIK** - Micro-switch
- ❒ **BSH** - Brake Heating/Bifilar Coil
- ❒ **NRB1** - Quiet Brake Release
- ❒ **NRB2** - Quiet Brake Motor Operation
- ❒ **FBR** - Brass Foil
- ❒ **DBR** - Double Brake
- ❒ **G...P** - High Performance Rectifier
- ❒ **G...V** - Sealed Rectifier
- ❒ **IR** - Current Sensing Relay

Rectifier Selection

Rectifier Wiring

- ❍ Across the line (from motor terminal box)
- ❍ Separate power source (frequency AC vector drive, soft starter)

Brake Supply Voltage

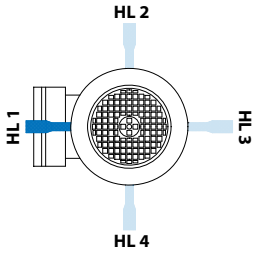
- ❍ 24 VDC
- ❍ 115 VAC
- ❍ 200 VAC
- ❍ 230 VAC
- ❍ 400 VAC
- ❍ 460 VAC
- ❍ 500 VAC
- ❍ 575 VAC
- ❍ Other _____

Braking Method

- ❍ Method 10
- ❍ Method 15
- ❍ Method 20
- ❍ Method 25
- ❍ Method 30
- ❍ Method 35
- ❍ Method 40
- ❍ Method 45
- ❍ Method 50
- ❍ Method 55

Hand Release Position

- ❍ HL1
- ❍ HL2
- ❍ HL3
- ❍ HL4



Mounting

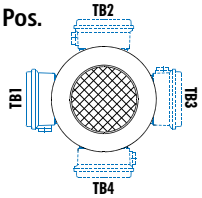
- ❍ Integral to gearbox
- ❍ NEMA C-Face
- ❍ IEC B5 Mount

Voltage & Frequency

- ❍ 230/460V-60Hz
- ❍ 575V-60Hz
- ❍ 208V-60Hz
- ❍ 400V-50Hz
- ❍ 115/230V, 60Hz-1-ph.
- ❍ Other

Terminal Box Pos.

- ❍ TB1
- ❍ TB2
- ❍ TB3
- ❍ TB4

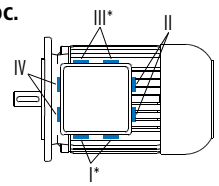


Mtg. Pos. M1 Shown

Conduit Entry Loc.

- ❍ CE I *
- ❍ CE II
- ❍ CE III *
- ❍ CE IV

*Brakemotor



Mtg. Pos. M1 Shown

MOTORS

Motor Options & Construction

NORD motors are stocked in one of two ways. The first method is to stock a complete motor that is ready to be assembled to a gear reducer or shipped as a stand alone motor. The second method, the motor is assembled from component parts. The Mod next to a motor option designates that the option can be added to a complete motor by simple modification. The Build next to a motor option indicates that the motor will need to be built from component parts in order to incorporate the motor option.

Motor Options

Abbreviation	Description	Mod	Build	Page
AG	Absolute Encoder		✓	137
AICM	Additional Insulation		✓	131
ECR	Single Phase Motors, 60Hz		✓	130
EKK	Small Terminal Box	✓		134
EP	Epoxy Dipped Windings		✓	131
F	Blower Cooling Fan	✓		135
FC	Blower Cooling Fan	✓		135
HR	Hand Wheel		✓	132
IG...P	Incremental Encoder		✓	136
ISO H	Class H Insulation		✓	130
KB	Plugged Condensation Drain Holes		✓	131
KBO	Open Condensation Drain Holes		✓	131
KKV	Terminal Box Sealed with Resin	✓		131
MS	Quick Power Plug Connector	✓		134
OL	Totally Enclosed Non-Ventilated	✓		132
OL/H	Totally Enclosed Non Ventilated without Fan Cover		✓	132
RD	Canopy Drip Cover	✓		131
RDD	Double Fan Cover	✓		131
RLS	Motor Backstop		✓	133
SH	Space Heater		✓	130
TF	Thermistor		✓	129
TW	Thermostat		✓	129
WE	2nd Shaft Extension on Fan Side		✓	132
WU	High Resistance Rotor		✓	130
Z	High Inertia Cast Iron Fan		✓	133
-	IP65 Enclosure Protection	✓		131
-	IP66 Enclosure Protection	✓		131
-	Paint Coatings	✓		18

Stocked NEMA C-Face Motors

NEMA C-Face Motors

The National Electrical Manufacturers Association (NEMA) provides standardization of electrical equipment, enabling customers to select from a range of safe, effective and compatible products. A NEMA C-face motor has a machined face with a pilot and threaded holes for direct mounting onto a NORD reducer or other industrial equipment. NORD offers NEMA C-face motors stocked as finished goods and will also assemble NEMA C-face motors to your specifications. For ratings, see page 142.

Stocked NEMA C-Face Motors

Stocked NEMA C-face motors are offered in standard efficiency, energy efficient and in a brakemotor design. They are available in 230/460V-60Hz and 575V-60Hz up to 10 hp. Part numbers for stocked NEMA C-face motors are in the table below.

Assembled per Order NEMA C-Face Motors

NORD will assemble a NEMA C-face motor to your specifications based upon the available motor options from this catalog.

Motor Type	Power	Part Number 230/460V-60Hz	Part Number 575V-60Hz	Weight [lb]
High Performance Motors				
63S/4-56C	1/6 hp	31110012	31110013	7.9
63L/4-56C	1/4 hp	31610012	31610013	9.3
71S/4-56C	1/3 hp	32110012	32110013	11.9
71L/4-56C	1/2 hp	32610012	32610013	13.9
80S/4-56C	3/4 hp	33110012	33110013	17.6
80L/4-56C	1 hp	33610022	n/a	19.8
80L/4-143TC	1 hp	33610012	n/a	19.8
90S/4-145TC	1.5 hp	34110012	n/a	26.5
90L/4-145TC	2 hp	34610012	n/a	30.9
100L/4-182TC	3 hp	35110012	n/a	39.7
100LA/4-184TC	5 hp	35610012	n/a	46.3
132S/4-213TC	7.5 hp	36410012	n/a	97.0
132M/4-215TC	10 hp	36710012	n/a	121.3
160M/4-254TC TW	15 hp	37310012	n/a	160.9
160L/4-256TC TW	20 hp	37510012	n/a	178.6
180MX/4-284TC TW	25hp	37610012	n/a	276.3
180LX/4-286TC TW	30hp	37810012	n/a	307.2
Energy Efficient Motors				
80LH/4-56C	1 hp	33610094	33610095	19.8
80LH/4-143TC	1 hp	33610092	33610093	19.8
90SH/4-145TC	1.5 hp	34110092	34110093	26.5
90LH/4-145TC	2 hp	34610092	34610093	30.9
100LH/4-182TC	3 hp	35610092	35610093	39.7
112MH/4-184TC	5 hp	36110082	36110083	83.6
132SH/4-213TC	7.5 hp	36410092	36410093	97.0
132MH/4-215TC	10 hp	36710092	36710093	121.3
160MH/4-254TC TW	15 hp	37310092	37310093	160.9
160LH/4-256TC TW	20 hp	37510092	37510093	198.4

Standards

All motors are in accordance with existing standards and regulations:

NEMA MG 1 - Motors and Generators:

- Electrical performance
- Motors for operation on variable AC vector drive

UL 1004 – Electric Motors

CSA C22.2 No. 100-04 - Motors and Generators:

Industrial Products
IEC 60034 parts 1, 5, 6, 8, 9, 11 and 14.

- Part 1 – General rules
- Part 5 – Types of enclosures
- Part 6 – Types of cooling
- Part 8 – Terminal lead designations and sense of rotation
- Part 9 – Noise limits
- Part 11 – Integrated thermal protection
- Part 14 – Mechanical vibration

IEC 60038 – Standard voltages

CE	NORD motors carry the CE mark in accordance with the Low Voltage Directive and, if installed properly, the Electromagnetic Compatibility Directive (EMC). The CE mark is required for installation in European Union (EU) states.
®	Many NORD motors from frame size 63 to 315 are an Underwriters Laboratories Recognized component per UL standard 1004. Frames 63-132 File number E191510 Frames 160+ File number E227215
C SP® US	The Canadian Standards Association CUS mark indicates that CSA has tested and approved NORD motors according to both US and Canadian standards. It is equivalent to the Underwriters Laboratories RU recognition mark (UL standard 1004) and the CSA mark according to CSA Standard C22.2 No. 100-04 Frames 63-132 File number LR112560 Frame 160+ File number LR13494
ee	NORD Energy Efficient motors up to frame 160 have been evaluated by the United States Department of Energy and recieved a Certificate of Compliance to certify the efficiency ratings. The certificate of compliance is CC 092B.
CSA E	NORD energy efficient motors carry the CSA energy efficiency verification mark. This mark ensures that CSA has verified that NORD motors are designed and manufactured to meet energy efficiency requirements number EEV112560.

EPAct – US Energy Efficiency

The Energy Policy Act of 1992 (EPAct) covers efficiency levels of general purpose industrial electric motors and became effective October 24, 1997. The basic goal of the law is to promote energy conservation. This law mandated energy efficiency requirements for many devices including some types of industrial electric motors. The efficiency levels are defined in NEMA MG-1 table 12-10. The regulations to implement this law have been developed by the Department of Energy (DOE).

The law covers minimum efficiency levels for general purpose motors including:

- Single-speed, polyphase NEMA T frame (and IEC equivalents)
- 1 to 200 hp (0.75 to 150 kW)
- 1200, 1800 or 3600 rpm
- NEMA design A and B
- Continuous rated
- Foot-mounted
- 230/460V-60Hz

The law excludes the following motor types from minimum efficiency levels:

- Integral gearmotors
- Brake motors

The NORD "H" line of energy efficient motors are designed to meet the efficiency levels defined by EPAct. NORD offers these motors as an option in combination with our high efficiency gear units for superior energy savings.

Efficiency levels for enclosed 4-pole motors per EPAct and NEMA MG 1 - in percent efficiency [%]

Efficiency for EPACT & NEMA MG1 4-Pole Motors

hp	1	1.5	2	3	5	7.5	10
kW	0.75	1.1	1.5	2.2	3.7	5.5	7.5
Eff%	82.5	84.0	84.0	87.5	87.5	89.5	89.5

hp	15	20	25	30	40	50	60
kW	11	15	18.5	22	30	37	45
Eff%	91.0	91.0	92.4	92.4	93.0	93.0	93.6

hp	75	100	125	150	200
kW	55	75	90	110	150
Eff%	94.1	94.5	94.5	95.0	95.0

Canadian Energy Efficiency

The Energy Efficiency Act and the Energy Efficiency Regulations establish minimum energy performance levels for electric motors from 1 to 200 HP (0.75 to 150 kW) for sale or lease in Canada. The Energy Efficiency Regulations were developed by Natural Resources Canada (NRCan).

Certain National Electrical Manufacturers Association (NEMA) motors have been regulated since Feb. 3,1995. Effective Nov. 27, 1997, the Energy Efficiency Regulations were amended to include International Electrotechnical Commission (IEC) motors. This amendment also increased the minimum energy performance levels that motors must meet. For explosion-proof motors and motors contained within an integral gear assembly, the effective date of the Regulations is Nov. 27, 1999.

The regulations mandate that motors carry an energy efficiency verification mark that is authorized by Standards Council of Canada (SCC) accredited certification organization such as Canadian Standards Association (CSA).

CEMEP Agreement
European Efficiency Categories

CEMEP, the association of European Electric Motor Manufacturers, has reached an agreement with the European Commission's General Directorate for Energy so that in the future all 2 and 4-pole low voltage motors from 1 to 100kW will be categorized on the basis of their efficiency. The classification will be displayed on the nameplate and in catalogs. The following categories will be used: EFF1, EFF2 and EFF3.

EFF 1	EFF1-indicates a high efficiency factor.
EFF 2	EFF2-indicates an improved efficiency factor.
EFF 3	EFF3-Indicates a standard efficiency motor.

NORD supplies both motors of EFF1 and EFF2 categories in its 4-pole motors. The category EFF2 motors are the standard efficiency motors and the EFF1 motors are the "H" line of energy efficient motors.

In the future NORD will mark all of its 50-Hz motor with the CEMEP efficiency symbols.

kW	1.1	1.5	2.2	3	4	5.5
hp	1.5	2	3	4	5.4	7.5
EFF1 [%]	83.3	85.0	86.4	87.4	88.3	89.2
EFF2 [%]	76.2	78.5	81.0	82.6	84.2	85.7
EFF3 [%]	<76.2	<78.5	<81.0	<82.6	<84.2	<85.7

kW	7.5	11	15	18.5	22	30
hp	10	15	20	25	30	40
EFF1 [%]	90.1	91.0	91.8	92.2	92.6	93.2
EFF2 [%]	87.0	88.4	89.4	90.0	90.5	91.4
EFF3 [%]	<87.0	<88.4	<89.4	<90.0	<90.5	<91.4

kW	37	45	55	75	90
hp	50	60	75	100	120
EFF1 [%]	93.6	93.9	94.2	94.7	95.0
EFF2 [%]	92.0	92.5	93.0	93.6	93.9
EFF3 [%]	<92.0	<92.5	<93.0	<93.6	<93.9

INVERTER DUTY MOTOR

Inverter/Vector Duty

NORD single–speed motors are Inverter/Vector Duty. The construction of the NORD motors insulating system takes into account the non-sinusoidal wave forms produced by variable frequency drives. NORD uses high grade insulating components and extra first turn protection as well as double coated wire to ensure long service life when connected to AC vector drives. NORD motors can produce full torque at zero speed if properly sized, selected and controlled.

Voltage and Frequency

NORD motors are available in a wide range of voltages and frequencies for use in North America and around the world. For a more detailed list of choices see page 128.

NORD motors designed for North American voltages (208V, 230V, 460V and 575V) conform to the voltage and frequency tolerances in NEMA MG-1. The voltage tolerance is +/-10%, the frequency tolerance is +/- 5% or a combined voltage and frequency tolerance of +/-10%.

Low Inertia

The motor inertia in all NORD motors is extremely low which allows for a much more dynamic motor control capability. Low motor inertia is a significant advantage when using NORD motors with AC vector drives or vector controllers. NORD motors can cycle more frequently and require less mechanical energy to start than standard NEMA frame motors. This leaves more energy to start the load.

High Torque

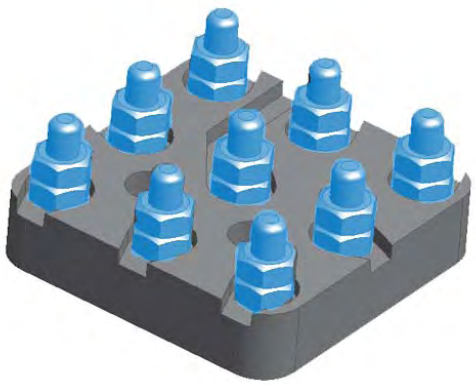
The NORD motors produce higher starting torque than required by NEMA standards. This is achieved through improved motor winding, rotor design and construction.

Non-Sparking Fan

The standard NORD motor fan is a non-sparking design. The fan will also provide proper airflow in either direction of rotation.

Terminal Block

Each NORD motor uses a terminal block, which is a superior method of wire termination when compared to pigtail leads. A terminal block ensures long-term reliability of the power connections.

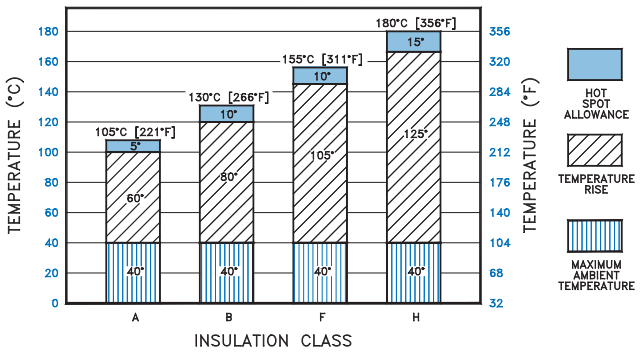


Tropical Protection (Anti-fungal)

As a standard the NORD motor insulation system is tropically protected. The insulating and construction components are inorganic materials that resist fungal growth.

Insulation Class

NORD motors are constructed with a thermal class F insulating system. The motors are also designed for a class B temperature rise (80°C). The use of class F insulation with a class B temperature rise provides increased operating life. Motors constructed with class H insulation are also available as an option.



Insulation System

NORD motor insulation system is designed to provide a superior degree of protection. NORD utilizes the following insulation components:

- Magnet wire – double coated insulation
- Varnish dip impregnation
- Slot liners
- Phase paper
- Phase separators
- Top sticks
- Connecting wire sleeves

Other motor manufacturers eliminate some of these insulating components for cost reduction.

Inverter/Vector Duty – Voltage Spikes

All NORD motors are constructed with an insulating system designed to withstand the repeated voltage spikes generated by modern AC vector drives. The insulation system withstands the ratings in conformance with NEMA MG 1-2006 Section 31.4.4.2 Voltage Spikes.

$V_{peak} = 3.1 \times V_{rated}$ with a Rise time ≤ 0.1µs.

Ambient Temperature

NORD motors are designed to operate with a maximum ambient temperature of 40°C (104°F). If the motor's operating environment exceeds 40°C, the motor's nominal power P_n either needs to be de-rated (see table below) or use upgraded insulation.

Ambient temp [°F]	113	122	131	140
Ambient temp [°C]	45	50	55	60
De-rate factor	0.96	0.92	0.87	0.82

Motor Rated Power = [P_n x De-rate factor]

Elevation

NORD motors are designed to operate at an elevation of up to 3300 ft (1000 m) above sea level. At higher elevations the air is thinner resulting in less cooling capacity. If the motor's nominal power P_n installation elevation exceeds 3300 ft (1000 m), the motor either needs to be de-rated (see table below) or requires upgraded insulation.

Altitude [ft]	5000	6500	8200	10000	11500	13000
Altitude [m]	1500	2000	2500	3000	3500	4000
De-rate Factor	0.97	0.94	0.90	0.86	0.83	0.80

Motor Rated Power = [P_n x De-rate factor]

Service Factor

Motors rated 230/460V-60Hz and 332/575V-60Hz have a service factor of 1.15. Almost all other motors have a service factor of 1.1 or 1.0.

Duty Classes

The following duty types are defined in IEC 60034-1.

Duty Type	Explanation Excerpts
S1	Continuous operation at a constant load, the motor reaches thermal equilibrium
S2	Short-time operation at a constant load for a given time followed by a time of rest until the motor is completely cooled down to ambient temperature. Example: S2-10 minutes Recommended values for determination: 10, 30 min.
S3	Intermittent operation sequential, identical run and rest cycles with constant load. Temperature equilibrium is never reached. Starting current has little effect on temperature rise. The cyclic duration factor (cdf) indicates the portion of operation time in relation to a complete duty cycle. The typical duty cycle time is 10 minutes, unless otherwise specified. Example: S3-40% Recommended values for determination: 25, 40, 60%
S6	Continuous operation with intermittent load sequential, identical cycles of running with constant load and running with no load. No rest periods. Example: S6-40% Recommended values for determination: 25, 40, 60%

Power Increasing Factor for Short-term & Intermittent Operation

Motor ratings in this catalog are based on continuous duty operation (S1). If a motor is designed for S1 duty, but is to be operated for short-time or intermittent operation it can be subjected to higher loads. The available motor power can be raised above the motor rated power by the "increasing factor" in the table below.

Duty Type			Increasing factor
S2	Operating time	10 min	1.40
		30 min	1.15
S3	Cyclic duration factor (cdf)	25%	1.33
		40%	1.18
		60%	1.08
S6	Cyclic duration factor (cdf)	25%	1.45
		40%	1.35
		60%	1.15

Motor Rated Power = [P_n x Increasing factor]

Enclosure

The NORD standard motors are provided with Totally Enclosed Fan-Cooled (TEFC) with an IP55 enclosure rating. Other enclosures are available, including Totally Enclosed Non-Ventilated (TENV), Totally Enclosed Blower-Cooled (TEBC), and IP66.

The motor integral cooling fan provides proper air flow in either direction of rotation. The IEC cooling classification is IC 411 according to IEC 60034-6.

IP Enclosures per IEC 60034-5 - Simplified

	1st digit Foreign body protection		2nd digit Water protection
0	No protection	0	No Protection
1	Protected against solid objects 50mm (2 in) in diameter and larger	1	Protected against dripping water
2	Protected against solid objects 12 mm (1/2 in) in diameter and larger	2	Protected against dripping water up to a 15 degree angle
3	Protected against solid objects 2.5 mm (0.1 in) in diameter and larger	3	Protection against sprayed water
4	Protected against solid objects 1 mm (0.04 in) in diameter and larger	4	Protection against splashed water
5	Protected against dust	5	Protection against water jets
6	Dust tight	6	Protection against high pressure water jets
7	--	7	Protection against intermittent submersion in water
8	--	8	Protection against continuous submersion in water

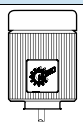
Protective Features

All NORD Motors and Speed Reducers are constructed to provide a high degree of protection against wet and severe environments. NORD Motors and Speed Reducers are extremely well sealed against moisture ingress and use corrosion and moisture resistant components. NORD has recently made many enhancements in the motor and gear units standard construction to provide improved environmental protection. Many of the standard protection features of the NORD units are only available at an additional cost from other motor and gear drive suppliers. NORD designs all gearmotors, speed reducers and motors for installation in harsh industrial, commercial and municipal installation environments.

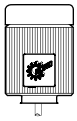
Standard Construction

- Shaft lip seals on both ends of the motor shafts
- Stator to endbell connections sealed to exclude moisture
- Double coated magnetic wire insulation
- Inverter/vector duty insulation system conforms to NEMA MG1-1998, section 31.4.4.2 voltage spikes
- Moisture resistant varnish dipped windings improved varnish materials
- Inorganic insulating components for tropical protection
- Moisture resistant motor windings
- Conduit box sealed with gaskets
- Corrosion resistant alloy materials
- Threaded cable entry holes

Motors for Indoor Operation - Option Codes

	Dry Conditions	Wet or Humid Conditions
Ambient Temperature Fluctuation	–	KB, SH
Paint	–	NSD+
Vertical Motor Mount 	RD	RDD

Motors for Outdoor Operation - Option Codes

	Sheltered from the Elements	Exposed to the Elements
Ambient Temperature Fluctuation	KB, SH	KB, SH, KKV
Paint	NSD+	NSDx3
Vertical Motor Mount 	RD	RDD

Option Code Key

KB	Condensation Drain Holes - Plugged	Page 131
SH	Space Heater	Page 130
KKV	Terminal Box Sealed with Resin	Page 131
NSD+	Nord Severe Duty Paint	Page 18
NSDx3	Nord Severe Extreme Duty X3 Paint	Page 18
RD	Canopy Drip Cover	Page 131
RDD	Double Fan Cover	Page 131

General Options

Voltage and Frequency

NORD motors are available in a number of voltages and frequencies. The standard voltages are commonly available. Optional voltages can be provided, but may include an increase in price and additional lead time. It also may be possible to provide motors with special voltages and frequency operation points.

Standard Voltages

Single speed motors	Two speed motors
230/460V-60Hz (up to 30 hp)	460V-60Hz
460V-60Hz (40 hp and larger)	230V-60Hz
575V-60Hz	575V-60Hz
400V-50Hz	400V-50Hz

Optional Voltages

Single speed motors	Two speed motors
208V-60Hz (up to 10 hp, not available in energy efficient design)	Other voltages & frequencies available upon request
380V-50Hz	
415V-50Hz	
380V-60Hz	
Other voltages & frequencies available upon request	

Poles / speeds

NORD offers a variety of single speed and two speed motors in addition to the standard 4 pole motor. NORD single speed motors are inverter/vector duty rated, however, it is not recommended to run a NORD two speed motor with an AC vector drive.

Number of Poles	Synchronous Speed at 60Hz	Synchronous Speed at 50Hz	Notes:
Single Speed Motors			
4	1800 rpm	1500 rpm	–
2	3600 rpm	3000 rpm	–
6	1200 rpm	1000 rpm	–
Two Speed Motors			
4-2	1800/3600 rpm	1500/3000 rpm	Single winding
8-2	900/3600 rpm	750/3000 rpm	Two winding
8-4	900/1800 rpm	750/1500 rpm	Single winding

Other speeds available upon request.

US Canadian Standard (CUS)

CUS motor construction defines that NORD motors are constructed in accordance to UL 1004 (electric motors) and CSA C22.2 No. 100-04 (motors and generators) guidelines. This option is standard for 208, 230, 460, and 575 Volt operation at 60 Hz.

Motors nameplated with the CUS option will be marked and indicating that the Underwriters Laboratories and CSA have tested and approved NORD motors according to both US and Canadian standards.

Motor Protection

Selecting the appropriate motor protective system is a key factor in reliable motor operation. There are two common classes of motor protection; current based and motor temperature based. Electrical installation codes require at least two types of protection in the motors circuit, both of which are normally current based. First is short-circuit protection normally accomplished by fuses or circuit breakers. Second is "motor overload protection" this is normally a device called a "motor overload" or a "heater." Current based protection is effective in some conditions. NORD can provide two different types of motor temperature based protection, a PTC thermistor (TF) or a bi-metallic thermostat (TW). Temperature based protection is more effective motor protection in many situations, see the table below.

⬆ = Good protection ⬌= Limited protection ⬇ = No protection	Fuses	Motor Overloads	PTC Thermistor (TF)	Bi-metallic Switch (TW)
Over current up to 200%	⬇	⬆	⬆	⬆
High inertia starting	⬇	⬌	⬆	⬌
Frequent motor starts	⬇	⬌	⬆	⬆
Stalling	⬌	⬌	⬌	⬌
Single phasing	⬇	⬌	⬆	⬆
Supply voltage deviations	⬇	⬆	⬆	⬆
Supply frequency deviations	⬇	⬆	⬆	⬆
Inadequate motor cooling	⬇	⬇	⬆	⬆
Bearing Damage	⬇	⬇	⬆	⬆

Thermostat (TW)

Build

Three bimetallic switches are connected in series in the motor windings, one per motor phase. Upon reaching the limit temperature, this device automatically opens circuits. The installer is responsible to wire the thermostat into the motor control circuit. After the temperature has fallen below the trip limit, the thermostat switch re-sets automatically. The auto resetting property must be considered when designing the safety aspects of the control scheme.

TW Ratings	
NC (Normally Closed)	auto resetting
Voltage	6 to 500VAC
Current	1.6 A
Resistance	less than 50 mΩ

Thermistor (TF)

Build

Three positive temperature coefficient (PTC) thermistors are connected in series in the motor windings, one per motor phase. Thermistors require an external tripping device. Upon reaching the limit temperature, the thermistors change their resistance suddenly. In connection with a tripping device, this property is employed to monitor the motor temperature. The relay built into the tripping device has a make-and-break-contact, which is used in the control wiring. NORD does not provide the external tripping device with the TF thermistor option. You must request a thermistor tripping device separately. Many AC vecotor drives and PLCs include a built in PTC thermistor evaluation input.

TF Ratings	
Transition Temperature	150 °C +/- 5°C
Resistance < Transition	20 ... 500 . Ω
Resistance > Transition	> 4k Ω.
Reed Voltage	< 7,5 V
Rated Current	< 1 mA
Motor Ambient Temp.	40°C

Space Heater (SH)

Build

Motors subjected to extreme temperature fluctuations or severe climatic conditions can be damaged by the formation of condensation. NORD can provide motor anti-condensation space heaters inside the motor to heat up the windings when the motor is not operating. This will prevent moisture from condensing inside the motor. The space heaters must not be switched on while the motor is running.

Space Heater Voltage Must be specified

Voltages available
❍ 115V – 50/60Hz
❍ 230V – 50/60Hz
❍ 460V – 50/60Hz
❍ other voltages available on request

Class H Insulation (ISO H)

Build

NORD motors can be manufactured with class H insulation system. Standard NORD motors include double coated magnetic wire windings. When these windings are paired with a class H insulation it provides extra temperature capacity for the motor and will lengthen the motor's life. Class H insulation rated motors are also an advantage in some severe applications:

- Increased ambient temperature installations above 40°C (104°F)
- Increased elevation installations – above 3300 ft (1000 m)
- Applications with a high number of starts per hour.
- Meets class H insulation motor specifications
- Lower operating frequency when used with AC vector drive systems
- For additional information on insulation class see page 125.

High Resistance Rotor (WU)

Build

Using Silumin rotor material, NORD offers a high resistance rotor to soften the motors operation and allow higher overload torques.

Single Phase Motors, 60Hz (ECR)

Build

The ECR series of single phase motors is intended for demanding operation at 60Hz with a supply voltage of 115V or 230V. The permissible voltage range is 115/230V +/- 10%. The ECR motors have a 1.15 service factor and are available from 0.16 - 2 hp.

Paint Coatings

Mod

NORD's standard paint coating is a two component, aliphatic polyurethane finish contaning 316 stainless steel material. This gray stainless steel paint has excellent appearance and outstanding physical properties. It is suitable for both indoor and outdoor applications. For more information and an explanation of all of our paint options please see page 18

Condensation Drain Holes

NORD motors can be equipped with condensation drain holes. These drain holes are placed in the motor endbells at the lowest possible point. The drain holes are closed at the factory with plastic snap in plugs. They allow for condensation accumulation in the motor to drain after the closing plugs are removed.

The motor drain holes can be provided by NORD either open (KBO) or sealed with a closing plug (KB).

IMPORTANT NOTE

The motor must be installed in the mounting orientation specified on the nameplate or the drain holes will not function properly and may result with the motor filling with water.

Condensation Drain Holes, Plugged (KB)

Build

KB drain holes are plugged for shipment. In order for the holes to effectively drain moisture, the plugs must be removed before using the motor.

Condensation Drain Holes, Open (KBO)

Build

KBO drain holes are shipped open (not plugged).

IP65 Enclosure Protection

Mod

NORD motors can be provided with an IP65 enclosure protection. IP65 protection is suitable for wet, low-pressure wash down and extremely dusty environments.

IP	1st digit Foreign body protection	IP	2nd digit Water protection
6	Dust tight	5	Protection against water jets

IP66 Enclosure Protection

Mod

NORD motors can be provided with an IP66 enclosure protection. IP66 protection is suitable for wet, high-pressure wash down and extremely dusty environments, and includes all requirements included in IP65 enclosure protection.

IP	1st digit Foreign body protection	IP	2nd digit Water protection
6	Dust tight	6	Protection against high pressure water jets

Terminal Box Sealed with Resin (KKV)

Mod

Terminal boxes can be sealed with a flexible, electrically safe resin to ensure that contaminants, water, and moisture cannot pass through the terminal box into the stator body. This option is helpful in extremely dusty, wet and humid environments. Another environment where this option is helpful is in installations that have frequent large temperature swings where condensation may form.

Additional Insulation (AICM)

Build

NORD can provide additional insulation inside the motor to provide additional electrical protection in extremely wet or corrosive environments. An electrically safe insulating material is coated internally in the stator windings and on the rotor body

Epoxy Dipped Windings (EP)

Build

In extremely wet environments, the motor windings are dipped in epoxy for improved moisture protection. The motor can also be treated with the standard NORD Severe Duty + (NSD+) package for an even higher degree of protection.

Canopy Drip Cover (RD)

Mod

For wet or dirty installations where the fan end of the motor is mounted up, thus allowing water or debris to fall into the motor's fan guard, NORD offers a canopy drip cover to block this falling water or debris.

Double Fan Cover (RDD)

Mod

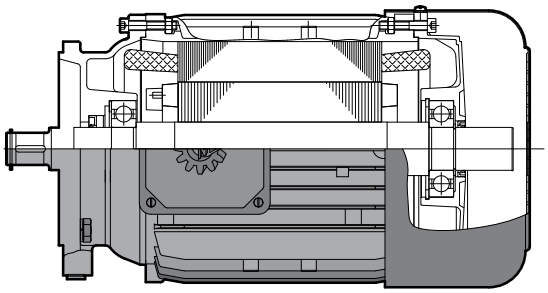
For wet or dirty installations where the fan end of the motor is mounted up, the NORD Double Fan Cover provides protection against falling or wind blown water, snow, dirt or debris from entering the back of the motor.

Additional Options

Totally Enclosed Non-Ventilated (OL) Mod

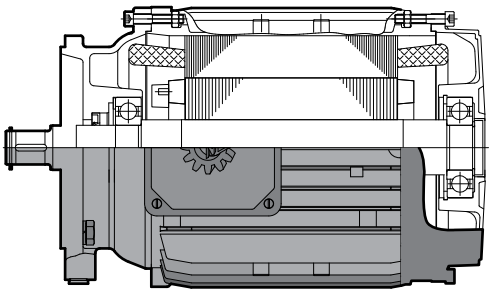
NORD can provide totally enclosed non-ventilated (TENV) motor enclosure. TENV motors provide benefits in certain operating environments; such as extremely dusty or dirty applications, where cooling fans may have material accumulation, which can be detrimental to the motor and the application. The OL series of motors are the standard fan cooled motor construction including the fan cover, but provided without the fan. TENV motors can also be used to reduce cooling fan noise on a standard motor.

A TENV motor's frame size is larger then a totally enclosed fan cooled (TEFC) motor. For intermittent operation, a TENV motor can be operated at a 50% duty cycle at full rated power.



Totally Enclosed Non-Ventilated, without Fan Cover (OL/H) Build

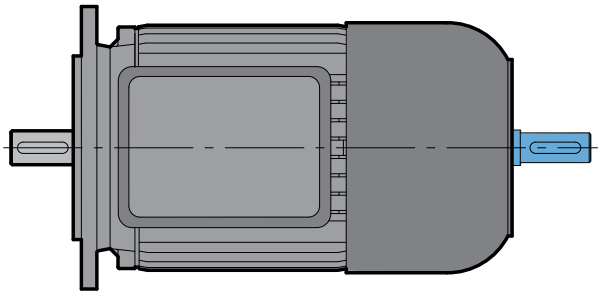
The OL/H series of TENV motors are more compact in space than the OL series. They do not include the rotor shaft extension through the back bearing end bell or the fan cover.



2nd Shaft Extension on Fan Side (WE) Build

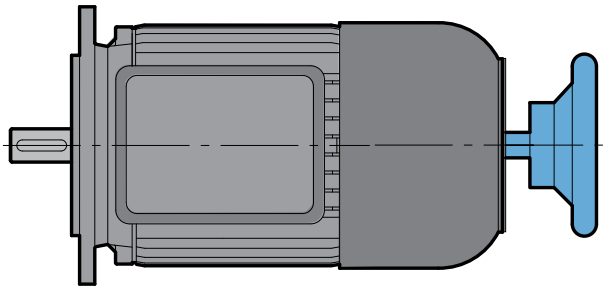
NORD can provide a second shaft extension on the fan side of the motor that protrudes through the fan cover. This extension can be used as a power take-off or to mount customer supplied devices such as encoders and tachometers.

The shaft extension can be provided on both motors with and without brakes. The shaft extension can not be used on motors with blower fans (F) or (FC). For dimensions see pages 148 - 152.



Hand Wheel (HR) Build

Motors can be supplied with a hand wheel provided on the second shaft extension. The hand wheel can be used for manual operation during power outages, or for machine positioning setup. For dimensions see pages 148 - 152.



WARNING

The customer is required to provide appropriate safety guarding of the rotating hand wheel.

High Inertia Cast Iron Fan (Z)

Build

An optional cast iron motor cooling fan is available. This fan is used as a mechanical soft start and/or soft stop. This fan adds inertia to the motor. The high inertia fan can also be used for a flywheel effect to store mechanical energy. This can be helpful in smoothing rapid load changes. The cast iron fan replaces the standard plastic motor fan. The motor length is the same as a brakemotor.

Motor Frame	Fan Inertia J_z[lb-ft²]
71	0.0475
80	0.1140
90	0.2375
100	0.2684
112	0.5653
132	0.9500

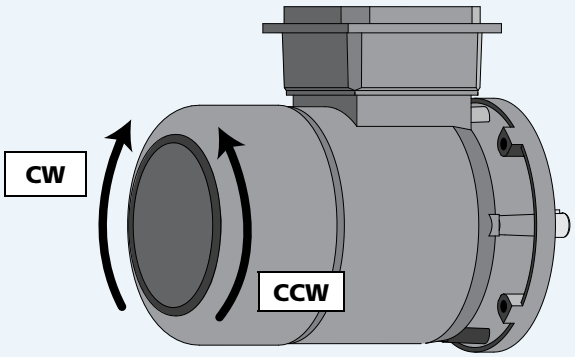
Motor Backstop (RLS)

Build

NORD can provide backstops on many motor frames. A backstop will prevent the motor from rotating in one direction. A common use is to prevent a motor from allowing a load to move backwards when power is removed. A motor brake can also be used for this same purpose. A backstop adds length to the motor. For the motor length extension, see the table below.

The allowable direction of rotation must be specified in the order.

Allowable Shaft Rotation
❍ Clockwise - Back of Motor
❍ Counter Clockwise - Back of Motor



Motor Size	Backstop Torque [lb-in]	Minimum Speed [rpm]	Motor Extension [in]
80S/L	1150	860	2.52
90S/L	1150	860	2.95
100L	1150	860	3.58
112M	3270	750	3.66
132S/M	3270	750	4.21
160M/L	7880	670	6.57
180MX/LX	7880	670	6.73
200L	9120	630	6.57
225S/M	9120	630	6.57
250M	22130	400	9.84
280S/M	51330	320	11.02

Additional Options

Quick Power Plug Connector (MS)

Mod

The quick power plug connector (MS) is a simple and fast way to connect and disconnect a motor or brake motor. The MS connector is available on NORD three-phase motors from frame size 63 to 132. The motor connections are made by a modular power plug manfacturer by Harting. After the first installation, the motor can be quickly changed by simply plugging and unplugging the electrical connections. This will ensure the new motor is properly wired. This is a significant advantage to equipment builders who fabricate machinery on site and then ship to another location. The motor with the MS connector can simply be plugged in during final installation.

NORD supplies the male connector half mounted on the motor conduit box. The customer must supply the female connector half mounted on the power wiring. NORD supplies a protective plastic cover on the motor male connector half to protect from dirt and damage prior to installation.

Advantages:

- Simple motor wiring
- Accurate wiring of motor at final job site
- Fast motor replacement
- Accurate wiring of replacement motor
- Ideal for portable equipment
- Reduces the required personnel for motor replacement
- Faster motor changes reduce down time

Plug ratings:

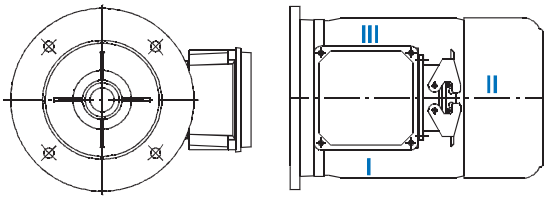
Manufacturer	Harting
Connector	HAN 10 ES/HAN 10ESS Cage Clamp Connectors
Number of Pins	10-Male
Voltage	600VAC per UL/CSA
Current	16A - Continuous

Motor Power Plug Kits:

Includes conduit box, mounting hardware & Male Harting Motor Plug

P/N	Motor size
11035350	63 + 71
13035350	80 + 90 + 100
16035350	112
16335350	132

Power Plug Positions



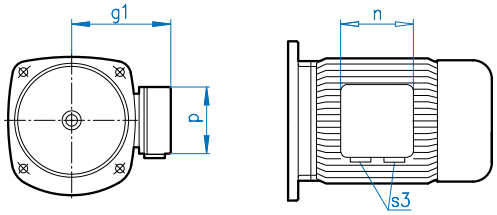
Power plug position must be specified

Power Plug Position		
❍ I	❍ II	❍ III

Small Terminal Box (EKK)

Mod

The motor terminal box can be provided as a smaller, one-piece terminal design. This option is valid for standard motors 0.16 - 10 hp and is not available for Brakemotors.

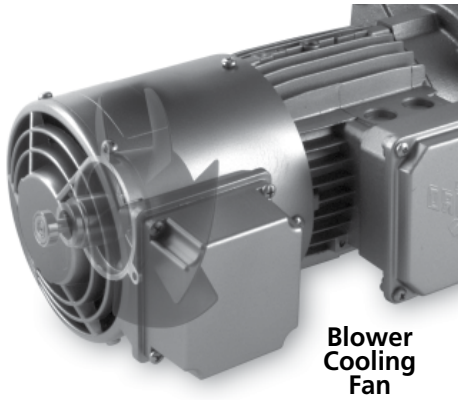


EKK Dimensions				
Motor Frame	**g1**	**n**	**p**	**S3**
63	3.94	2.95	2.95	2x M16 x 1.5
71	4.29	2.95	2.95	2x M16 x 1.5
80	4.88	3.62	3.62	2x M20 x 1.5
90	5.08	3.62	3.62	2x M20 x 1.5
100	5.51	3.62	3.62	2x M20 x 1.5
112	5.91	3.62	3.62	2x M20 x 1.5
132	6.85	4.13	4.13	2x M25 x 1.5

Blower Cooling Fan (F & FC)

Mod

NORD offers continuous running motor mounted cooling fans that provide motor cooling at low motor speeds. When a motor is operated on an AC vector drive at low frequency, standard rotor fans do not provide adequate airflow for cooling. NORD's separate powered motor cooling fans provide that necessary airflow. These separately powered fans replace the standard motor fan cover and fan.



Blower Cooling Fan

Option F – 3ph & 1ph 220-575V 50/60Hz

Motor Frame	60Hz Ratings			50Hz Ratings		
	Voltage [V]	Current [A]	Power [W]	Voltage [V]	Current [A]	Power [W]
Single phase connection - ⊥ (Delta)						
63	230 – 277	0.11	38	230 – 277	0.10	27
71	230 – 277	0.12	41	230 – 277	0.10	28
80	230 – 277	0.13	44	230 – 277	0.11	29
90	230 – 277	0.25	88	230 – 277	0.26	72
100	230 – 277	0.28	88	230 – 277	0.26	70
112	230 – 277	0.31	107	230 – 277	0.26	73
132	230 – 277	0.27	89	230 – 277	0.29	82
160 - 225	230 – 277	0.41	140	230 – 277	0.45	128
Three phase low-voltage connection - ⊥ (Delta)						
63	220 – 332	0.08	23	220 – 290	0.10	27
71	220 – 332	0.08	24	220 – 290	0.10	30
80	220 – 332	0.08	25	220 – 290	0.01	29
90	220 – 332	0.21	64	220 – 290	0.28	86
100	220 – 332	0.21	66	220 – 290	0.27	86
112	220 – 332	0.23	70	220 – 290	0.27	85
132	220 – 332	0.25	74	220 – 290	0.32	96
160 - 225	220 – 322	0.49	165	220 – 290	0.52	155
Three phase high-voltage connection - (Y)						
63	380 – 575	0.04	23	380 – 500	0.05	29
71	380 – 575	0.04	25	380 – 500	0.05	30
80	380 – 575	0.04	26	380 – 500	0.05	29
90	380 – 575	0.12	62	380 – 500	0.16	82
100	380 – 575	0.12	66	380 – 500	0.16	83
112	380 – 575	0.13	70	380 – 500	0.16	82
132	380 – 575	0.14	75	380 – 500	0.18	96
160 - 225	380 – 575	0.28	165	380 – 500	0.29	155

Option FC – 115V 50/60Hz 1ph

Motor Frame	60Hz Ratings			50Hz Ratings		
	Voltage [V]	Current [A]	Power [W]	Voltage [V]	Current [A]	Power [W]
Single Phase Connection - ⊥ (Delta)						
63	100 – 135	0.23	42	100 – 135	0.30	42
71	100 – 135	0.23	47	100 – 135	0.30	44
80	100 – 135	0.27	57	100 – 135	0.30	43
90	100 – 135	0.46	102	100 – 135	0.57	78
100	100 – 135	0.53	105	100 – 135	0.54	78
112	100 – 135	0.60	115	100 – 135	0.55	80

AC Vector Drive
Related Options

Incremental Encoder (IG..P)

Build

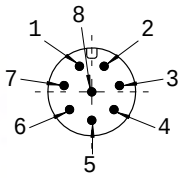
NORD can provide an incremental encoder mounted on the back of a motor or brake motor. Commonly encoders are used as speed or position feedback devices for use with AC drives, motion controllers or PLC's. Below are standard encoders; however, others can be supplied on request.

Encoder nomenclature must be specified.

Encoder nomenclature

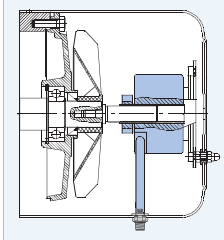
Encoder Type: Quadrature Differential Marker pulse

M12 Connector Interface

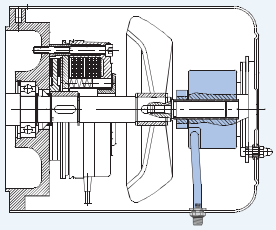


Wiring Diagram

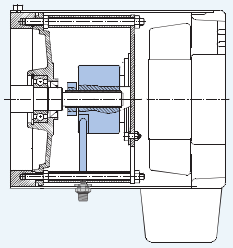
Pin	Conn	Cord
1	0V	WH
2	+V	BN
3	A	GN
4	A\	YE
5	B	GY
6	B\	PK
7	Z	BU
8	Z\	RD
Nut	Gnd	Open



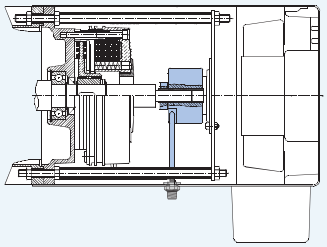
Standard Motor with Encoder



Encoder with Brake Option



Encoder with F Type Blower Fan



Brake Option, Blower Fan with Encoder

	IG1 P	IG4 P	IG11 P	IG41 P	IG12 P	IG42 P	IG13 P	IG43 P
Interface	TTL/RS422 (26C31)		TTL/RS422 (26C31)		HTL/Push-pull (IC-WE)		Line Driver (7272)	
Logic [VDC]	5		5		10-30		5-30	
Pulse Count [PPR]	1024	4096	1024	4096	1024	4096	1024	4096
Power Supply [VDC]	4-6	4-6	10-30	10-30	10-30	10-30	5-30	5-30
Part Number	19551500	19551520	19551502	19551522	19551501	19551521	19551503	19551523
Max Current Draw [mA]	100				150			
Max Frequency [kHz]	300							
Ambient Temperature [°F]	-4 to185							
Enclosure	IP66							
Cable	M12 8-pin male plug							

Pre-fabricated Encoder Cables

NORD can provide Turck pre-fabricated encoder molded cordsets (M12, 8-pin, shielded, twisted pair)

Length	In-line		Right-angle	
	NORD P/N	Turck P/N	NORD P/N	Turck P/N
2m	19551580	E-RKC 8T-264-2	19551584	E-WKC 8T-264-2
5m	19551581	E-RKC 8T-264-5	19551585	E-WKC 8T-264-5
10m	19551582	E-RKC 8T-264-10	19551586	E-WKC 8T-264-10
15m	19551583	E-RKC 8T-264-15	19551587	E-WKC 8T-264-15
Field Wireable	19551588	CMB 8181-0	-	-
Custom	order from Turck	E-RKC 8T-264	order from Turck	E-WKC 8T-264

Encoders for NORD AC Drives

NORD AC vector drives with encoder inputs are designed to use TTL/RS422 encoders. There are also advantages in using an encoder with the 10-30VDC power supply system. The NORD AC vector drives can use a wide range of pulse counts, however the 1024PPR version provides good performance with minimal interference issues. A 4096 PPR encoder can also be used and will provide increased precision in some application but has some increased concerns with noise interference.

Recommended encoder: IG11P – 1024PPR/TTL/10-30VDC
Alternate encoder: IG41P – 4096PPR/TTL/10-30VDC

Absolute Encoder (AG)

Build

Absolute encoders offer a unique value (voltage, binary count, etc.) for each mechanical position. When an absolute encoder is powered up, the position of the encoder is known. Absolute encoders are available in single or multi-turn versions. The encoder is attached under the fan cover with field bus connection outside the fan cover.

Absolute encoders can be provided to meet a variety of specifications:

- Resolution: up to 17 bits of resolution per turn (131,072 steps) with 4096 turns (12 bits of turns)
- Interfaces: Synchronous serial interface (SSI), SSI with incremental track, ProfiBus, DeviceNet, CANopen, CANlift, and other interfaces

AC Vector Drive
SK 300E Trio

NORDAC SK 300E
Motor Mounted Frequency AC Vector Drive

For select HP ratings, NORD can provide a fully programmable, high performance AC vector drive mounted on the motor. This motor mounted AC vector drives:

- Eliminates the need to separately mount & wire the AC drive
- Insures AC vector drive/motor compatibility
- Has an IP 55 washdown duty enclosure
- Provides Electronic Motor Overload protection
- Insures smooth constant torque operation down to 2 Hz (check motor thermal limitations)
- Features a unique plug-in construction where the program stays with the motor, minimizing return to service time in the event of AC vector drive replacement

SK 300E AC Vector Drive Ratings

- 200-240 VAC 3 phase 50/60 Hz input, ½ through 3 HP
- 380-480 VAC 3 phase 50/60 Hz input, 3/4 through 5 HP
- Full range of built-in pre-engineered options available
- For dimensions see page 154

Selection Steps

1) Choose the SK300E-trio AC vector drive based on motor ratings and input line voltage
2) Select the required Trio Interface (TI)
3) Select the braking resistor if required
4) Select additional customer based I/O if required (SK CU2-STD)
5) Select cover mounted technology unit if required
6) If remote wall mounting is required
7) Select any needed programming tools

Step 1: AC vector drive Selection

Basic NORD Motor Description	Power Rating HP/kW	P [in]	240 VAC Input Inverter Type SK 300E	480 VAC Input Inverter Type SK 300E
63 S/4	0.16 / 0.12	5.12	-370-323-B	-550-340-B
63 L/4	0.25 / 0.18	5.12	-370-323-B	-550-340-B
71 S/4	0.33 / 0.25	5.71	-370-323-B	-550-340-B
71/L/4	0.50 / 0.37	5.71	-370-323-B	-550-340-B
80 S/4	0.75 / 0.55	6.50	-550-323-B	-550-340-B
80 L/4	1.00/ 0.75	6.50	-750-323-B	-750-340-B
90 S/4	1.50/ 1.1	7.20	-111-323-B	-111-340-B
90 L/4	2.00/ 1.5	7.20	-151-323-B	-151-340-B
100 L/4	3.00/ 2.2	7.91	-221-323-B	-221-340-B
100 L/40	5.00/ 3.7	7.91	Not Available	-401-340-B

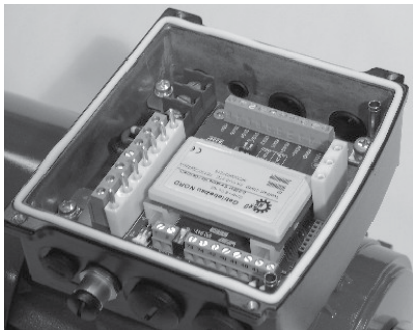
AC Vector Drive Ratings

Type designation SK 300E	-370-323-B	-550-323-B	-750-323-B	-111-323B	-151-323-B	-221-323-B	-550-340-B	-750-340-B	-111-340-B	-151-340-B	-221-340-B	-301-340-B	-401-340-B
Supply Voltage	3 Phase 200-240 VAC +/- 10%, 47-63 Hz						3 Phase 380-480 VAC, -20%/+10%, 47-63 Hz						
Motor Rating	1/2 HP	3/4	1 HP	1 1/2 HP	2 HP	3 HP	3/4 HP	1 HP	1 1/2 HP	2 HP	3 HP	4 HP	5 HP
Rated Output Current Amps [RMS]	2.2	3	4	5.5	7	9.5	1.6	2.2	3	3.7	5.5	7	9.2
Typical Output Current Amps [RMS]	3.1	4.2	5.6	7.7	9.8	13.3	2.5	3.1	4.2	5.2	7.7	9.8	12.9

Step 2: Selection of Trio Interface (TI)

Following selection of the appropriate SK 300E AC vector drive rating from the preceding chart, an appropriate Trio Interface (TI) must be specified. The Trio Interface (TI) is an adapter that replaces the motor conduit box and contains a circuit board that the SK 300E plugs into.

A typical TI is shown below



SK 300E Trio Interface (TI) Types

SK TI 0/1	For standard 380-480 VAC units
SK TI 0/1 - 230	For standard 200-240 VAC units
SK TI 0/2	For 380-480 VAC units using Harting connectors
SK TI 0/2 – 230	200-240 VAC units using Harting connectors

Harding H10E series connector options for side 1(CE1) of SK TI 0/2 (and -230) Interfaces

LE H10E	Socket for AC supply input
MA H10E	Plug for motor output

Conduit plate options for side 3(CE3) of SK TI 0/2 (and -230) Interfaces

SK DA4	Plate with 4 x M16
SK DA2	Plate with 2 x M20 and 1 x M16 (Provided as standard with SK TI 0/2)
SK DA1	Plate with 1 x M25 and 2 x M16
SK DA0	Plate with no entries

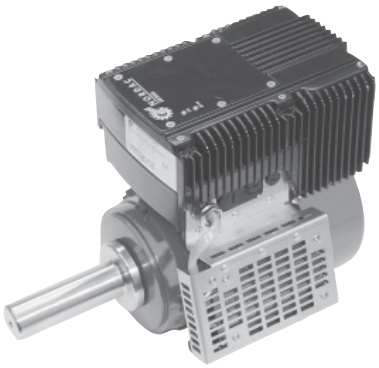
Added related components for Trio Interfaces

P/N 018524200	M20 x ½ adapter (Qty 2 provided as standard on assembled trios)
P/N 011015410	Adapter to mount Trio Interface on 63 & 71 frame motors
P/N 013097000	Gasket to mount Trio Interface on 63 & 71 frame motors

SK 300E Options & Related Information

Step 3: Braking Resistors

Braking Resistor Options for SK 300E for mounting on Trio Interface



During dynamic braking, energy is delivered from the load through the motor (acting as a generator) to the AC vector drive. The AC vector drive dissipates this energy as heat via the integral brake chopper to the optional external braking resistors.

For use with SK TI 0/1 adapters

SK BR3-120/100-TI 0/1	120 ohm/100 W for all ratings except 5 HP
SK BR3-82/200-TI 0/1	82 ohm/200 W for 5 HP only

For use with SK TI 0/2 adapters

SK BR3-120/100-TI 0/2	120 ohm/100 W for all ratings except 5 HP
SK BR3-82/200-TI 0/2	82 ohm/200 W for 5 HP only

Step 4: Customer I/O Based Control Interface Option - SK CU2-STD

The standard I/O based control available via the Trio Interface can be expanded via selection of an optional Customer Unit, **SK CU2-STD**, that plugs into the Trio Interface. Interface I/O points are listed on the following chart:

I/O on standard Trio Interface	Additional I/O on SK CU2-STD Option
1 X programmable digital input	4 X programmable digital input
5 VDC and 15 VDC power supplies	2 X single-ended analog inputs
RS 485 interface via M-12 connector and terminals	+10 VDC reference supply
1 X programmable relay output	1 X selectable/programmable analog/digital output
	PID control access

Step 5: Cover Mounted Technology Unit (TU) Options

A variety of pre-engineered plug in Technology Unit (TU) options can be ordered to replace the standard blank cover of the SK 300E AC vector drive. Only a single TU can be installed on the AC vector drive at a given time. Available units include operator and field bus interfaces:

Technology Unit (TU) Name	Description
SK TU2-POT	Analog reference potentiometer box with L/Off/R control switch
SK TU2-CTR	Digital control/programmer with 4 digit, 7 segment LED display
SK TU2-PBR	Profibus field bus interface
SK TU2-PBR-24V	Profibus field bus interface powered by customer 24 VDC supply
SK TU2-PBR-KL	Profibus field bus interface with clamp on connectors
SK TU2-AS1	AS (Actuator/Sensor) Interface
SK TU2-CAO	CANopen field bus interface
SK TU2-DEV	DeviceNet field bus interface
SK TU2-IBS	InterBus field bus interface
SK TU2-DECKEL	Original blank cover for TU slot (in case TU option is removed)

Step 6: Wall Mounting Option Kit, SK WMK-DA1

The wall mounting kit enables placing the SK 300E AC vector drive on a nearby wall or the machine instead of directly on the NORD motor or gearmotor. The Trio Interface (TI) is still required and all other options can be used.

Step 7 : Additional Tools & Related Interface Options

In addition to the cover mounted SK TU2-CTR option, there are several additional options that enable simple programming and control of the SK 300E:

Handheld Parameter Box (P-Box) with 10 foot cable, SK PAR-2H

Detachable external add-on unit that can be used to program and display parameters and control the operation of the connected SK 300E. Features multi-line plain text display selectable in six languages. Manages and stores up to five unique AC vector drive programs. Cable plugs into M-12 connector in side of Trio Interface.

Panel Mount Parameter Box (P-Box), SK PAR-2E

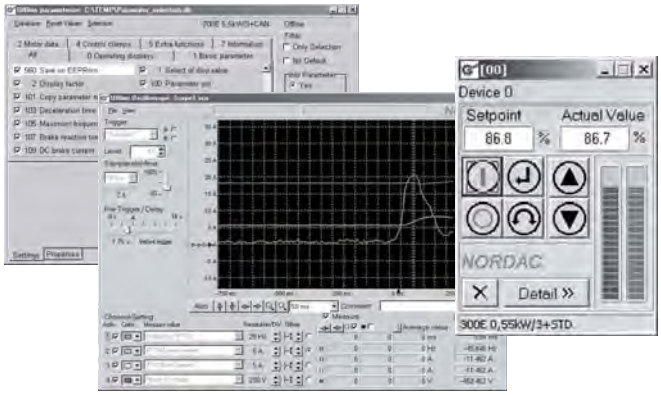
Panel Mount version of Parameter Box with same functionality as SK PAR-2H. Installs in cut-out in front of customer supplied operator panel. Interface connection is performed by customer with their shielded cable via terminals on SK PAR-2E and SK 300E.

NORD CON Software – Available free at NORD Website

NORD CON Software is a Windows-based PC program that enables the control and programming of NORDAC AC vector drives. It provides for accessing up to 31 AC vector drives simultaneously via the RS485 interface. It features both off-line and on-line programming and data management modes.

NORD CON allows user to:

- Program AC vector drives and upload/download parameter files
- Control connected AC vector drives for test/troubleshooting
- Monitor connected AC vector drives and examine up to four variables versus time with built-in oscilloscope feature
- Display parameter information in six languages



Optional accessories required to interface user PC to SK 300E via NORD CON are:

SK IC1 – RS 485 to RS 232 interface converter
Enables communication between RS 232 port on computer and RS 485 port on SK 300E

Cable SK 300E –
10 foot cable that connects between the 9-Pin D shell connector on the SK IC1 and the M-12 connector on the side of the SK 300E Trio Interface.

Electromechanical Brake Interface & Coil Voltage Selection

As standard, the SK 300E provides a dedicated high voltage DC power supply and coordination software to directly control an Electromechanical Brake. This is equivalent to using a half wave rectifier, so the brake coil voltage must be specified per the following chart:

Nominal Inverter AC Input Voltage	Brake Coil Voltage
440 – 480 VAC	205 VDC
200 – 240 VAC	105 VDC
380 – 415 VAC	180 VDC

The brake gets connected to terminals +Br and –Br on the Trio Interface

Motor overload protection

Electronic motor overload protection is provided as standard on the SK 300E AC vector drive. If required, more precise protection can be achieved via the use of motor thermostats (TW) or thermistor sensors (TF). These devices can be interfaced to the SK 300E via the programmable digital input to indicate a motor over temperature error.

Performance Data

Standard Efficiency

230/460V – 60Hz

Inverter duty • TEFC
Synchronous speed 1800rpm @ 60Hz • 4-pole • Three-phase
Voltages: 230/460V – 60Hz • 1.15 Service Factor
Continuous Duty • 40°C Ambient • up to 3300ft Elevation
Class B temperature rise • Class F insulation

Motor Type	Power Pn		Nn Full-load	In Full-Load Current		Ia/In	Code Letter	Torque Tn	Ta/Tn	Tk/Tn	pf	Eff.	Jm Inertia
				230V	460V								
	[hp]	[kW]	[rpm]	[A]	[A]	[%]		[lb-in]				[%]	[lb-ft²]
63S/4	0.16	0.12	1700	0.88	0.44	245	F	5.92	2.1	2.2	0.66	52	0.005
63L/4	0.25	0.18	1680	1.12	0.56	275	E	8.99	2.1	2.2	0.71	57	0.0067
71S/4	0.33	0.25	1710	1.56	0.78	310	G	12.3	2.5	2.4	0.64	63	0.017
71L/4	0.5	0.37	1720	1.90	0.95	355	F	18.0	2.45	2.6	0.69	71	0.0204
80S/4	0.75	0.55	1710	2.70	1.35	355	F	27.0	2.2	2.2	0.71	72	0.0259
80L/4	1	0.75	1650	3.66	1.83	390	G	38.1	2.2	2.3	0.74	70	0.0345
90S/4	1.5	1.1	1660	4.84	2.42	445	G	55.6	2.7	2.6	0.78	73	0.055
90L/4	2	1.5	1660	6.34	3.17	465	G	75.8	2.55	2.5	0.80	74	0.074
100L/4	3	2.2	1705	9.0	4.50	490	G	108	2.3	2.6	0.81	82	0.107
100LA/4	5	3.7	1725	15.2	7.62	510	G	180	2.7	3.1	0.75	81	0.141
132S/4	7.5	5.5	1735	19.8	9.9	545	G	267	2.45	2.75	0.82	86	0.55
132M/4	10	7.5	1735	25.8	12.9	645	H	363	2.9	3.2	0.84	87	0.752
160M/4	15	11	1770	38.4	19.2	665	H	522	2.45	3.0	0.82	88	0.95
160L/4	20	15	1765	49	24.5	725	H	713	2.9	3.3	0.86	89.4	1.23
180MX/4	25	18.5	1750	60	30	860	K	887	2.95	3.4	0.87	89	1.35
180LX/4	30	22	1755	71	35.5	980	L	1052	3.4	3.7	0.87	89.4	1.35

Pn - Full load power
Nn - Full load speed
In - Full load current
Ia - Locked-rotor current
Ia/In - Locked-rotor current ratio (%)
Tn - Full-load torque
Ta - Locked-rotor torque

Ta/Tn - Locked-rotor torque ratio
Tk - Break-down torque
Tk/Tn - Break-down torque ratio
pf - Power factor
Eff - Normal efficiency
Jm - Motor inertia

Energy Efficient (EPAct)

230/460V – 60Hz / EE

Inverter duty • TEFC
Synchronous speed 1800rpm @ 60Hz • 4-pole • Three-phase
Voltages: 230/460V – 60Hz • 1.15 Service Factor
Continuous Duty • 40°C Ambient • up to 3300ft Elevation
Class B temperature rise • Class F insulation

Motor Type	Power Pn		Nn Full-load	In Full-Load Current		Ia/In	Code Letter	Torque Tn	Ta/Tn	Tk/Tn	pf	Eff.	Jm Inertia
				230V	460V								
	[hp]	[kW]	[rpm]	[A]	[A]	[%]		[lb-in]				[%]	[lb-ft²]
80LH/4	1	0.75	1750	3.88	1.94	600	L	36.0	4.6	4.3	0.59	82.5	0.051
90SH/4	1.5	1.1	1740	4.3	2.15	630	J	53.1	3.5	3.8	0.76	84.0	0.085
90LH/4	2	1.5	1745	6.3	3.15	670	K	72.1	4.3	4.5	0.71	84.0	0.092
100LH/4	3	2.2	1765	8.6	4.3	790	L	105	3.6	4.7	0.73	87.5	0.178
112MH/4	5	3.7	1770	14.4	7.2	810	L	176	4.0	4.8	0.76	87.5	0.304
132SH/4	7.5	5.5	1780	20.9	10.5	820	L	259	4.3	4.6	0.74	89.5	0.75
132MH/4	10	7.5	1770	27.0	13.5	735	J	356	3.2	4.0	0.78	89.5	0.84
160MH/4	15	11	1765	35.8	17.9	810	J	527	2.6	3.2	0.85	91.0	1.23
160LH/4	20	15	1765	49	24.5	850	K	712	2.8	3.5	0.85	91.0	1.35
180MH/4	25	18.5	1770	61	30.5	840	K	879	2.8	3.6	0.83	92.4	3.56
180LH/4	30	22	1770	72	36	880	K	1046	3.1	3.9	0.83	92.4	4.51

Pn - Full load power
Nn - Full load speed
In - Full load current
Ia - Locked-rotor current
Ia/In - Locked-rotor current ratio (%)
Tn - Full-load torque
Ta - Locked-rotor torque
Ta/Tn - Locked-rotor torque ratio
Tk - Break-down torque
Tk/Tn - Break-down torque ratio
pf - Power factor
Eff - Normal efficiency
Jm - Motor inertia

Performance Data

Standard Efficiency

575V – 60Hz

Inverter duty • TEFC
Synchronous speed 1800rpm @ 60Hz • 4-pole • Three-phase
Voltages: 332/575V – 60Hz • 1.15 Service Factor
Continuous Duty • 40°C Ambient • up to 3300ft Elevation
Class B temperature rise • Class F insulation

Motor Type	Power Pn		Nn Full-load	In Full-Load Current 575V	Ia/In	Code Letter	Torque Tn	Ta/Tn	Tk/Tn	pf	Eff.	Jm Inertia
	[hp]	[kW]	[rpm]	[A]	[%]		[lb-in]				[%]	[lb-ft²]
63S/4	0.16	0.12	1700	0.37	245	F	5.92	2.1	2.2	0.66	52	0.005
63L/4	0.25	0.18	1680	0.46	275	E	8.99	2.1	2.2	0.71	57	0.0067
71S/4	0.33	0.25	1710	0.66	310	G	12.3	2.5	2.4	0.64	63	0.017
71L/4	0.5	0.37	1720	0.8	355	F	18.0	2.45	2.6	0.69	71	0.0204
80S/4	0.75	0.55	1710	1.12	355	F	27.0	2.2	2.2	0.71	72	0.0259
80L/4	1	0.75	1650	1.46	390	G	38.1	2.2	2.3	0.74	70	0.0345
90S/4	1.5	1.1	1660	1.94	445	G	55.6	2.7	2.6	0.78	73	0.055
90L/4	2	1.5	1660	2.54	465	G	75.8	2.55	2.5	0.80	74	0.074
100L/4	3	2.2	1705	3.6	490	G	108	2.3	2.6	0.81	82	0.107
100LA/4	5	3.7	1725	6.1	510	G	180	2.7	3.1	0.75	81	0.141
132S/4	7.5	5.5	1735	7.92	545	G	267	2.45	2.75	0.82	86	0.55
132M/4	10	7.5	1735	10.3	645	H	363	2.9	3.2	0.84	87	0.752
160M/4	15	11	1770	14.7	665	H	522	2.45	3.0	0.82	88	0.95
160L/4	20	15	1765	19.5	725	H	713	2.9	3.3	0.86	89.4	1.23
180MX/4	25	18.5	1750	24.0	860	K	887	2.95	3.4	0.87	89	1.35
180LX/4	30	22	1755	28.4	980	L	1052	3.4	3.7	0.87	89.4	1.35

Pn - **Full load power**
Nn - **Full load speed**
In - **Full load current**
Ia - **Locked-rotor current**
Ia/In - **Locked-rotor current ratio (%)**
Tn - **Full-load torque**
Ta - **Locked-rotor torque**
Ta/Tn - **Locked-rotor torque ratio**
Tk - **Break-down torque**
Tk/Tn - **Break-down torque ratio**
pf - **Power factor**
Eff - **Normal efficiency**
Jm - **Motor inertia**

Energy Efficient (EPAct)

575V – 60Hz / EE

Inverter duty • TEFC
Synchronous speed 1800rpm @ 60Hz • 4-pole • Three-phase
Voltages: 332/575V – 60Hz • 1.15 Service Factor
Continuous Duty • 40°C Ambient • up to 3300ft Elevation
Class B temperature rise • Class F insulation

Motor Type	Power Pn		Nn Full-load	In Full-Load Current 575V	Ia/In	Code Letter	Torque Tn	Ta/Tn	Tk/Tn	pf	Eff.	Jm Inertia
	[hp]	[kW]	[rpm]	[A]	[%]		[lb-in]				[%]	[lb-ft²]
80LH/4	1	0.75	1750	1.5	600	L	36.0	4.6	4.3	0.59	82.5	0.051
90SH/4	1.5	1.1	1740	1.75	630	J	53.1	3.5	3.8	0.76	84.0	0.085
90LH/4	2	1.5	1745	2.45	670	K	72.1	4.3	4.5	0.71	84.0	0.092
100LH/4	3	2.2	1765	3.4	790	L	105	3.6	4.7	0.73	87.5	0.178
112MH/4	5	3.7	1770	5.6	810	L	176	4.0	4.8	0.76	87.5	0.304
132SH/4	7.5	5.5	1780	8.3	820	L	259	4.3	4.6	0.74	89.5	0.75
132MH/4	10	7.5	1770	10.8	735	J	356	3.2	4.0	0.78	89.5	0.84
160MH/4	15	11	1765	14.3	810	J	527	2.6	3.2	0.85	91.0	1.23
160LH/4	20	15	1765	19.6	850	K	712	2.8	3.5	0.85	91.0	1.35
180MH/4	25	18.5	1770	24.4	840	K	879	2.8	3.6	0.83	92.4	3.56
180LH/4	30	22	1770	28.8	880	K	1046	3.1	3.9	0.83	92.4	4.51

Pn - **Full load power**
Nn - **Full load speed**
In - **Full load current**
Ia - **Locked-rotor current**
Ia/In - **Locked-rotor current ratio (%)**
Tn - **Full-load torque**
Ta - **Locked-rotor torque**

Ta/Tn - **Locked-rotor torque ratio**
Tk - **Break-down torque**
Tk/Tn - **Break-down torque ratio**
pf - **Power factor**
Eff - **Normal efficiency**
Jm - **Motor inertia**

Performance Data

Standard Efficiency

200-208V – 60Hz

Inverter duty • Induction motor • TEFC
Synchronous speed 1800rpm @ 60Hz • 4-pole • Three-phase
Voltages: 208V – 60Hz • 1.15 Service Factor
Continuous Duty • 40°C Ambient • up to 3300ft Elevation
Class B temperature rise • Class F insulation

Motor Type	Power Pn		Nn Full-load	In 208V	Ia/In	Code Letter	Torque Tn	Ta/Tn	Tk/Tn	pf	Eff.	Jm Inertia
	[hp]	[kW]	[rpm]	[A]	[%]		[lb-in]				[%]	[lb-ft²]
63S/4	0.16	0.12	1700	0.97	245	F	5.93	2.1	2.2	0.66	52	0.005
63L/4	0.25	0.18	1680	1.24	275	E	9.38	2.1	2.2	0.71	57	0.0067
71S/4	0.33	0.25	1710	1.73	310	G	12.2	2.5	2.4	0.64	63	0.015
71L/4	0.5	0.37	1720	2.10	355	F	18.3	2.45	2.6	0.69	71	0.0181
80S/4	0.75	0.55	1710	2.99	355	F	27.6	2.2	2.2	0.71	72	0.0304
80L/4	1	0.75	1650	4.05	390	G	38.2	2.2	2.3	0.74	70	0.0392
90S/4	1.5	1.1	1660	5.35	445	G	57.0	2.7	2.6	0.78	73	0.0670
90L/4	2	1.5	1660	7.01	465	G	75.9	2.55	2.5	0.80	74	0.0855
100L/4	3	2.2	1705	9.95	490	G	111	2.3	2.6	0.81	82	0.107
100LA/4	5	3.7	1725	16.8	510	G	183	2.7	3.1	0.75	81	0.162
132S/4	7.5	5.5	1735	21.9	545	G	272	2.45	2.75	0.82	86	0.553
132M/4	10	7.5	1735	28.5	645	H	363	2.9	3.2	0.84	87	0.753

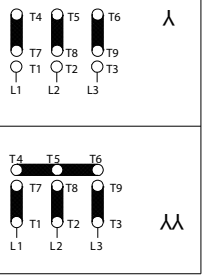
Pn - **Full load power**
Nn - **Full load speed**
In - **Full load current**
Ia - **Locked-rotor current**
Ia/In - **Locked-rotor current ratio (%)**
Tn - **Full-load torque**
Ta - **Locked-rotor torque**

Ta/Tn - **Locked-rotor torque ratio**
Tk - **Break-down torque**
Tk/Tn - **Break-down torque ratio**
pf - **Power factor**
Eff - **Normal efficiency**
Jm - **Motor inertia**

Frames 63-132
230 / 460V, 60Hz, 3Ø 200 / 400V, 50Hz, 3Ø
190 / 380V, 60Hz, 3Ø

120094410

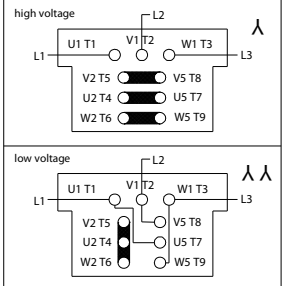
WIRING DIAGRAM
3 PHASE MOTOR



Frames 160 +
230 / 460V, 60Hz, 3Ø 200 / 400V, 50Hz, 3Ø
190 / 380V, 60Hz, 3Ø

120095260

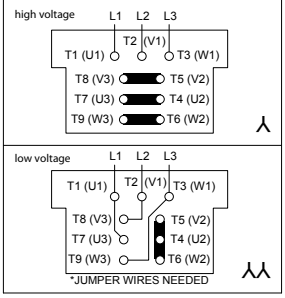
WIRING DIAGRAM
3 PHASE MOTOR



Frames 160 +
230 / 460V, 60Hz, 3Ø 200 / 400V, 50Hz, 3Ø
190 / 380V, 60Hz, 3Ø

120095500 REV 1

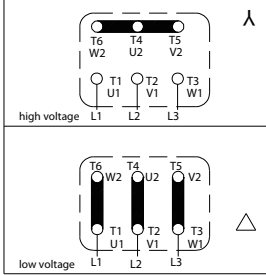
WIRING DIAGRAM
3 PHASE MOTOR



460 / 800V, 60Hz, 3Ø 230 / 400V, 50Hz, 3Ø
208 / 360V, 60Hz, 3Ø 400 / 690V, 50Hz, 3Ø
332 / 575V, 60Hz, 3Ø

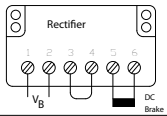
120095270

WIRING DIAGRAM
3 PHASE MOTOR

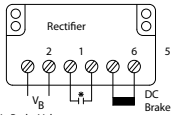


120094440

Normal Brake Reaction Time
(AC - Switching)



Rapid Brake Reaction Time
(DC - Switching)

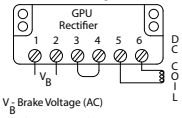


VB Brake Voltage
Terminals 1 & 2
- AC brake power input
Terminals 3 & 4
- DC switching, fast react
Terminals 5 & 6
- Brake coil, DC voltage out
* Customer supplied contact

STANDARD
BRAKE RECTIFIER

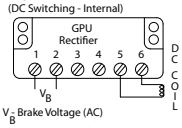
120094450

Normal Brake Reaction Time
(AC Switching)



VB Brake Voltage (AC)
Terminals 1 & 2 - AC Brake Power Input
Terminals 3 & 4 - DC Switching, Fast React Terminals
Terminals 5 & 6 - DC Voltage Output to Brake.

Rapid Brake Reaction Time
(DC Switching - Internal)

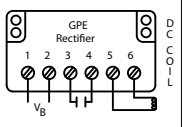


VB Brake Voltage (AC)
Terminals 1 & 2 - AC Brake Power Input
Terminals 3 & 4 - No Jumper Connected
Terminals 5 & 6 - DC Voltage Output to Brake.

GPU BRAKE
RECTIFIER

120094460

Rapid Brake Reaction Time
(DC Switching - External)



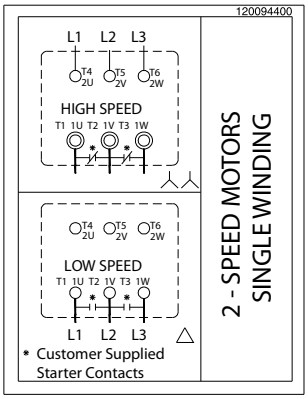
VB Brake Voltage (AC)
Terminals 1 & 2 - AC Brake Power Input
Terminals 3 & 4 - DC Switching, Contactor - IEC AC3
Terminals 5 & 6 -DC Voltage Output to Brake.

GPE BRAKE
RECTIFIER

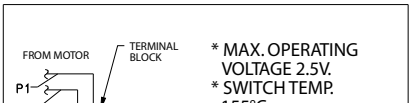
Use with P/N's 19140230 & 19140240

2 - SPEED MOTORS
SINGLE WINDING (4-2 & 8-4 POLE)

120094400



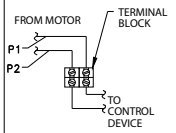
2 - SPEED MOTORS
SINGLE WINDING



* MAX. OPERATING VOLTAGE 2.5V.
* SWITCH TEMP. 155°C
* RESPONSE TIME < 5 SECONDS

THERMISTOR
"TF" OPTION

120095240



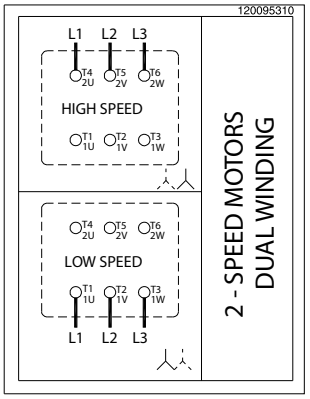
* NC (NORMALLY CLOSED) CONTACTS RATED 1.6A AT 2.50 VAC
* 6-500 VAC WORKING RANGE
* AUTOMATIC RESET AT 30 ± 15°C TEMP. DROP

THERMISTATS
"TW" OPTION

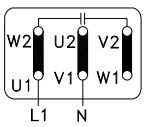
120095230

2 - SPEED MOTORS
DUAL WINDING (8-2 POLE)

120095310



2 - SPEED MOTORS
DUAL WINDING



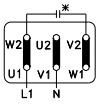
1 PHASE
115V*
50/60 Hz

* CAPACITOR IS SUPPLIED

BLOWER COOLING FAN
"FC" OPTION

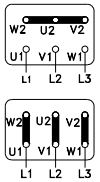
120095460

OPTION "F" 1 PH



230V
50 / 60 Hz

OPTION "F" 3 PH



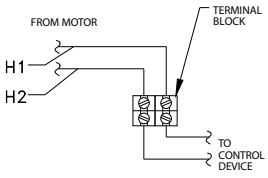
380-575V
50 / 60 Hz

220-332V
50 / 60 Hz

* CAPACITOR IS SUPPLIED

BLOWER COOLING FAN
"F" OPTION

120095250



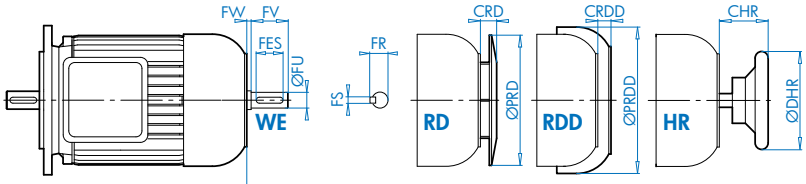
SPACE HEATER
"SH" OPTION

120095220

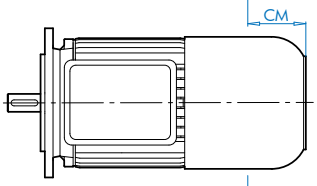
MOTORS

Dimensions
Motor Options

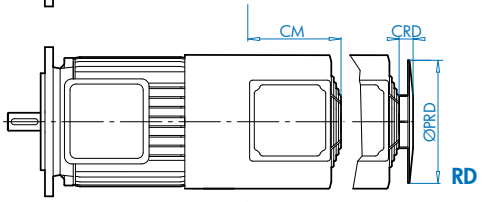
Standard Motor



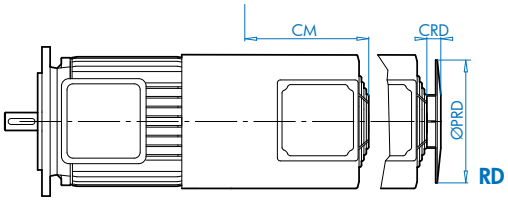
Option IG



Option F



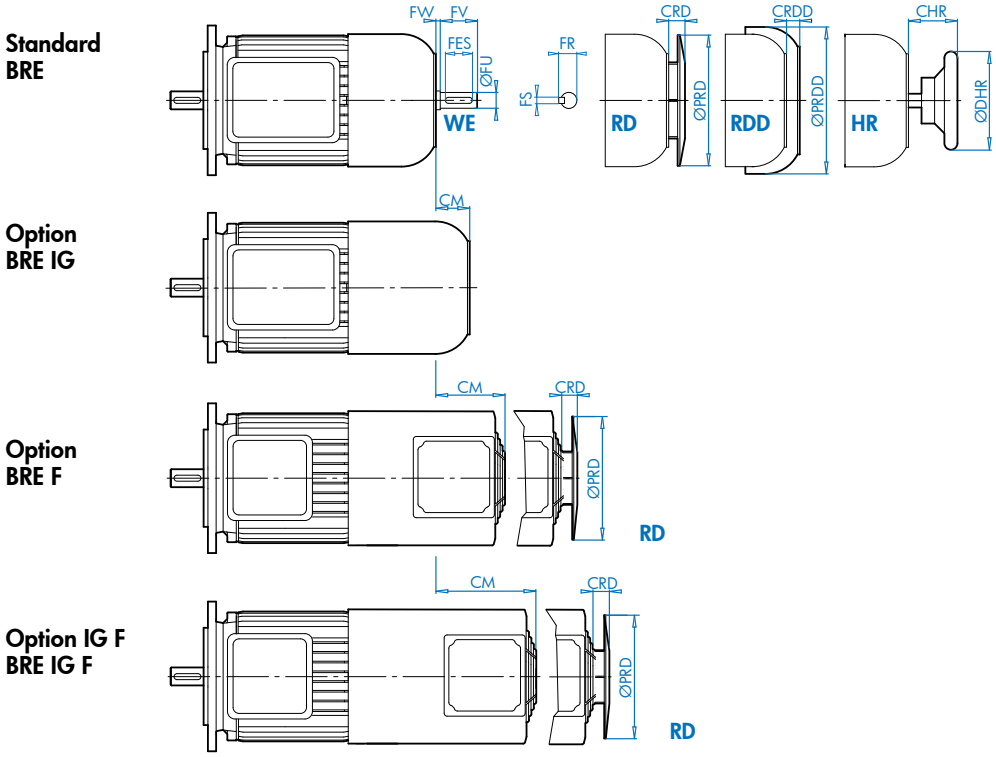
Option IG F



MOTORS

Motor Type	WE						RD		RDD		HR		IG	F	IG F	RD/IG/IGF	
	FU	FR	FV	FW	FES	FS	PRD	CRD	PRDD	CRDD	DHR	CHR	CM	CM	CM	PRD	CRD
	[mm]						[in]										
63S/L	11	12.5	23	0	16	4	4.84	0.47	6.02	1.06	3.94	1.54	2.20	3.46	6.22	5.24	1.46
71S/L	11	16.0	23	1	16	4	5.43	0.47	6.65	0.94	3.94	1.57	2.20	3.50	5.67	5.91	1.46
80S/L	14	21.5	30	3	20	5	6.14	0.63	7.20	1.22	3.94	1.93	2.40	3.54	5.51	6.69	1.57
90S/L	19	27.0	40	7	32	6	6.93	0.63	7.91	1.22	6.30	2.64	2.83	4.09	5.87	7.40	1.18
100L	24	31.0	50	6	40	8	7.64	0.63	8.86	1.10	6.30	2.95	2.71	3.74	6.10	8.27	1.10
112M	24	31.0	50	4	40	8	8.58	0.63	10.43	1.50	6.30	2.91	2.67	3.90	5.87	9.80	1.30
132S/M	32	41.0	80	18	70	10	10.12	0.71	12.51	1.61	7.87	4.57	2.48	4.53	6.10	11.81	0.98
160M/L	38	46.0	80	23	90	12	9.84	2.09	14.45	1.77	9.84	4.72	2.95	6.50	6.93	13.31	1.26
180MX/LX	*	*	*	*	*	*	13.39	3.15	15.87	2.76	*	*	4.13	5.87	7.83	13.31	1.26

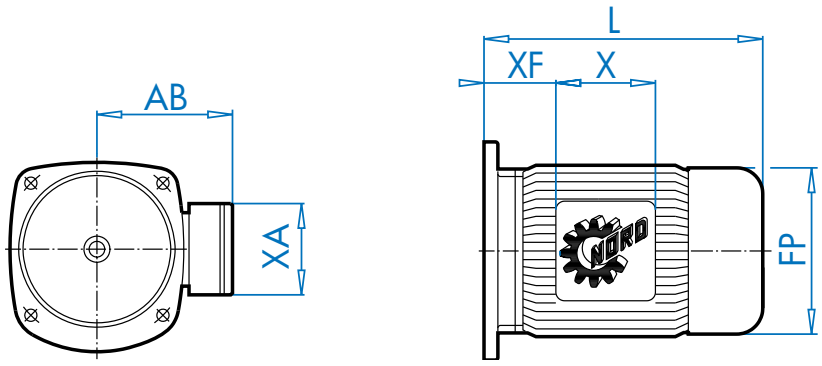
* **Consult Factory**



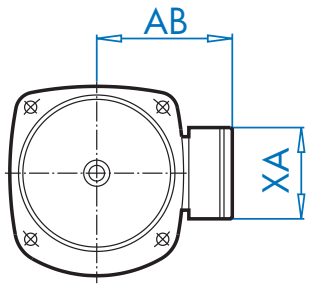
Motor Type	WE						RD		RDD		HR		IG	F	IG F	RD/IG/IGF	
	FU	FR	FV	FW	FES	FS	PRD	CRD	PRDD	CRDD	DHR	CHR	CM	CM	CM	PRD	CRD
	[mm]						[in]										
63S/L	11	12.5	23	3.5	16	4	4.84	0.47	6.02	1.02	0.39	1.69	2.44	3.54	4.92	5.24	1.46
71S/L	11	16.0	23	3.5	16	4	5.43	0.47	6.65	0.94	3.94	1.69	2.91	3.70	5.47	5.91	1.46
80S/L	14	21.5	30	4	20	5	6.14	0.63	7.20	1.22	3.94	1.97	2.20	3.50	5.47	6.69	1.57
90S/L	14	27.0	30	8	32	6	6.93	0.63	7.91	1.22	6.30	2.68	2.76	3.94	5.71	7.40	1.18
100L	24	31.0	50	10	40	8	7.64	0.63	8.86	0.87	6.30	3.07	2.80	4.13	5.52	8.27	1.10
112M	24	31.0	50	7	40	8	8.58	0.63	10.43	1.50	6.30	3.03	2.52	4.13	5.52	9.80	1.30
132S/M	32	41.0	80	10	70	10	10.12	0.71	12.60	1.61	7.87	4.25	2.56	4.92	6.10	11.81	0.98
160M/L	38	46.0	80	19	90	12	12.20	0.75	14.45	1.77	9.84	4.57	1.54	5.12	6.50	13.31	1.26
180MX/LX	*	*	*	*	*	*	13.70	0.75	15.87	2.76	*	*	1.97	5.71	8.46	13.31	1.26

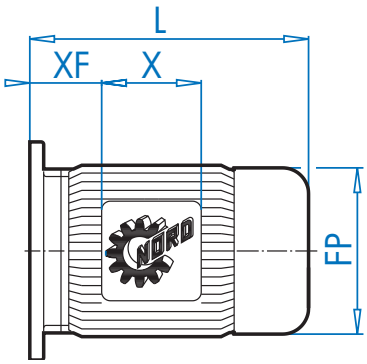
*** Consult Factory**

Dimensions
Conduit Box & Cable Entry



Type / Flange	Options	Outline dimensions						Cable entry	
63S/L		FP	AB	XF	X	L	XA	ce	ce-adapter
B14		5.12	4.53	0.47	3.94	7.56	3.94	2 × M20×1.5	1/2" NPT
160S		5.12	4.53	0.63	3.94	7.72	3.94	2 × M20×1.5	1/2" NPT
B14	BRE	5.12	4.84	0.71	5.28	9.76	3.50	2 × M20×1.5	1/2" NPT
160S	BRE	5.12	4.84	0.87	5.28	9.92	3.50	2 × M20×1.5	1/2" NPT
71S/L		**FP**	**AB**	**XF**	**X**	**L**	**XA**	**ce**	**ce-adapter**
B14		5.71	4.88	0.79	3.94	8.43	3.94	2 × M20×1.5	1/2" NPT
160S		5.71	4.88	1.65	3.94	9.29	3.94	2 × M20×1.5	1/2" NPT
250S		5.71	4.88	1.42	3.94	9.06	3.94	2 × M20×1.5	1/2" NPT
B14	BRE	5.75	5.24	1.02	5.28	10.71	3.50	2 × M20×1.5	1/2" NPT
160S	BRE	5.75	5.24	1.89	5.28	11.57	3.50	2 × M20×1.5	1/2" NPT
250S	BRE	5.75	5.24	1.65	5.28	11.34	3.50	2 × M20×1.5	1/2" NPT
80S/L/LH		**FP**	**AB**	**XF**	**X**	**L**	**XA**	**ce**	**ce-adapter**
B14		6.50	5.59	0.87	4.49	9.29	4.49	2 × M25×1.5	3/4" NPT
160S		6.50	5.59	1.85	4.49	10.28	4.49	2 × M25×1.5	3/4" NPT
250S		6.50	5.59	1.61	4.49	10.04	4.49	2 × M25×1.5	3/4" NPT
B14	BRE	6.50	5.59	1.02	6.02	11.81	4.25	2 × M25×1.5	3/4" NPT
160S	BRE	6.50	5.59	2.01	6.02	12.80	4.25	2 × M25×1.5	3/4" NPT
250S	BRE	6.50	5.59	1.77	6.02	12.56	4.25	2 × M25×1.5	3/4" NPT
90S/L/SH/LH		**FP**	**AB**	**XF**	**X**	**L**	**XA**	**ce**	**ce-adapter**
B14		7.20	5.79	1.02	4.49	10.87	4.49	2 × M25×1.5	3/4" NPT
160S		7.20	5.79	2.05	4.49	11.89	4.49	2 × M25×1.5	3/4" NPT
250S		7.20	5.79	1.81	4.49	11.65	4.49	2 × M25×1.5	3/4" NPT
300S		7.20	5.79	1.02	4.49	10.87	4.49	2 × M25×1.5	3/4" NPT
B14	BRE	7.20	5.79	1.18	6.02	13.82	4.25	2 × M25×1.5	3/4" NPT
160S	BRE	7.20	5.79	2.20	6.02	14.84	4.25	2 × M25×1.5	3/4" NPT
250S	BRE	7.20	5.79	1.97	6.02	14.61	4.25	2 × M25×1.5	3/4" NPT
300S	BRE	7.20	5.79	1.18	6.02	13.82	4.25	2 × M25×1.5	3/4" NPT



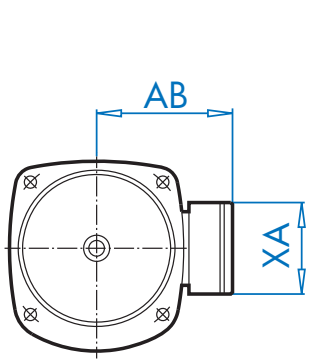


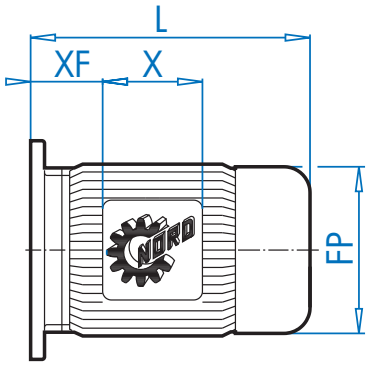
Type / Flange	Options	Outline dimensions						Cable entry	
100L/L/LA/LH		FP	AB	XF	X	L	XA	ce	ce-adapter
B14		7.91	6.65	1.26	4.49	12.05	4.49	2 × M32×1.5	1" NPT
160S		7.91	6.65	2.28	4.49	13.07	4.49	2 × M32×1.5	1" NPT
250S		7.91	6.65	2.05	4.49	12.83	4.49	2 × M32×1.5	1" NPT
300S		7.91	6.65	1.26	4.49	12.05	4.49	2 × M32×1.5	1" NPT
Ø 250		7.91	6.65	1.26	4.49	12.05	4.49	2 × M32×1.5	1" NPT
B14	BRE	7.91	6.77	1.42	6.02	15.63	4.25	2 × M25×1.5	1" NPT
160S	BRE	7.91	6.77	2.44	6.02	16.65	4.25	2 × M25×1.5	1" NPT
250S	BRE	7.91	6.77	2.20	6.02	16.42	4.25	2 × M25×1.5	1" NPT
300S	BRE	7.91	6.77	1.42	6.02	15.63	4.25	2 × M25×1.5	1" NPT
Ø 250	BRE	7.91	6.77	1.42	6.02	15.63	4.25	2 × M25×1.5	1" NPT

112M/SH/MH		FP	AB	XF	X	L	XA	ce	ce-adapter
B14		8.98	7.05	1.77	4.49	12.83	4.49	2 × M32×1.5	1" NPT
160S		8.98	7.05	2.91	4.49	13.98	4.49	2 × M32×1.5	1" NPT
250S		8.98	7.05	2.68	4.49	13.74	4.49	2 × M32×1.5	1" NPT
300S		8.98	7.05	1.89	4.49	12.95	4.49	2 × M32×1.5	1" NPT
Ø 250		8.98	7.05	1.77	4.49	12.83	4.49	2 × M32×1.5	1" NPT
B14	BRE	8.98	7.17	1.93	6.02	16.50	4.25	2 × M25×1.5	1" NPT
160S	BRE	8.98	7.17	3.07	6.02	17.64	4.25	2 × M25×1.5	1" NPT
250S	BRE	8.98	7.17	2.83	6.02	17.40	4.25	2 × M25×1.5	1" NPT
300S	BRE	8.98	7.17	2.05	6.02	16.61	4.25	2 × M25×1.5	1" NPT
Ø 250	BRE	8.98	7.17	1.93	6.02	16.50	4.25	2 × M25×1.5	1" NPT

132S/M/SH/MH		FP	AB	XF	X	L	XA	ce	ce-adapter
B14		10.47	8.03	2.09	4.80	16.42	4.80	2 × M32×1.5	1" NPT
250S		10.47	8.03	2.80	4.80	17.13	4.80	2 × M32×1.5	1" NPT
300S		10.47	8.03	2.01	4.80	16.34	4.80	2 × M32×1.5	1" NPT
Ø 250		10.47	8.03	2.80	4.80	17.13	4.80	2 × M32×1.5	1" NPT
B14	BRE	10.47	7.91	1.77	7.28	20.59	5.47	2 × M25×1.5	1" NPT
250S	BRE	10.47	7.91	7.28	7.28	21.34	5.47	2 × M25×1.5	1" NPT
300S	BRE	10.47	7.91	1.73	7.28	20.55	5.47	2 × M25×1.5	1" NPT
Ø 250	BRE	10.47	7.91	2.52	7.28	21.34	5.47	2 × M25×1.5	1" NPT

Dimensions
Conduit Box & Cable Entry





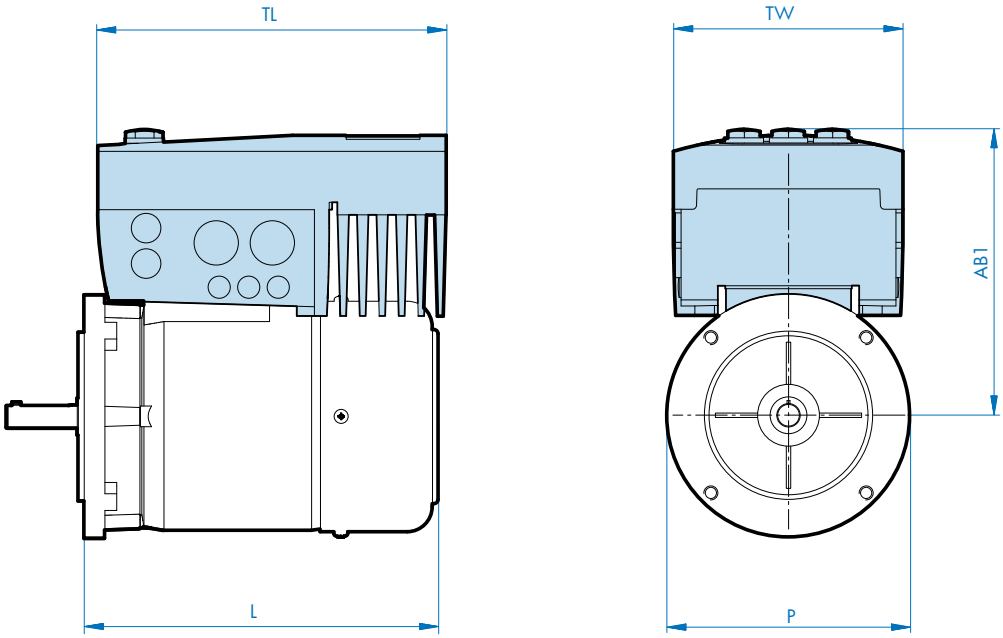
Type / Flange	Options	Outline dimensions						Cable entry	
160M/L/MH		FP	AB	XF	X	L	XA	ce	ce-adapter
300S		12.60	8.90	3.07	6.50	18.82	6.50	2 × M40×1.5	1.0" NPT
Ø 300		12.60	8.90	3.07	6.50	18.82	6.50	2 × M40×1.5	1.0" NPT
Ø 350		12.60	8.90	3.07	6.50	18.82	6.50	2 × M40×1.5	1.0" NPT
300S	BRE	12.60	8.90	3.07	6.50	25.39	6.50	2 × M40×1.5	1.0" NPT
Ø 300	BRE	12.60	8.90	3.07	6.50	25.39	6.50	2 × M40×1.5	1.0" NPT
Ø 350	BRE	12.60	8.90	3.07	6.50	25.39	6.50	2 × M40×1.5	1.0" NPT

160LH		FP	AB	XF	X	L	XA	ce	ce-adapter
300S		12.60	8.90	3.07	6.50	20.39	6.50	2 × M40×1.5	1.0" NPT
Ø 300		12.60	8.90	3.07	6.50	20.39	6.50	2 × M40×1.5	1.0" NPT
Ø 350		12.60	8.90	3.07	6.50	20.39	6.50	2 × M40×1.5	1.0" NPT
300S	BRE	12.60	8.90	3.07	6.50	27.13	6.50	2 × M40×1.5	1.0" NPT
Ø 300	BRE	12.60	8.90	3.07	6.50	27.13	6.50	2 × M40×1.5	1.0" NPT
Ø 350	BRE	12.60	8.90	3.07	6.50	27.13	6.50	2 × M40×1.5	1.0" NPT

180MX/LX		FP	AB	XF	X	L	XA	ce	ce-adapter
300S		12.60	8.90	3.07	6.50	20.39	6.50	2 × M40×1.5	1.0" NPT
Ø 300		12.60	8.90	3.07	6.50	20.39	6.50	2 × M40×1.5	1.0" NPT
Ø 350		12.60	8.90	3.07	6.50	20.39	6.50	2 × M40×1.5	1.0" NPT
300S	BRE	12.60	8.90	3.07	6.50	27.13	6.50	2 × M40×1.5	1.0" NPT
Ø 300	BRE	12.60	8.90	3.07	6.50	27.13	6.50	2 × M40×1.5	1.0" NPT
Ø 350	BRE	12.60	8.90	3.07	6.50	27.13	6.50	2 × M40×1.5	1.0" NPT

180MH/LH		FP	AB	XF	X	L	XA	ce	ce-adapter
Ø 300		14.09	10.20	4.45	5.20	24.49	5.98	2 × M40×1.5	1.0" NPT
Ø 350		14.09	10.20	3.66	5.20	23.70	5.98	2 × M40×1.5	1.0" NPT
Ø 300	BRE	14.09	10.20	3.86	6.38	28.62	6.38	2 × M40×1.5	1.0" NPT
Ø 350	BRE	14.09	10.20	3.07	6.38	27.83	6.38	2 × M40×1.5	1.0" NPT

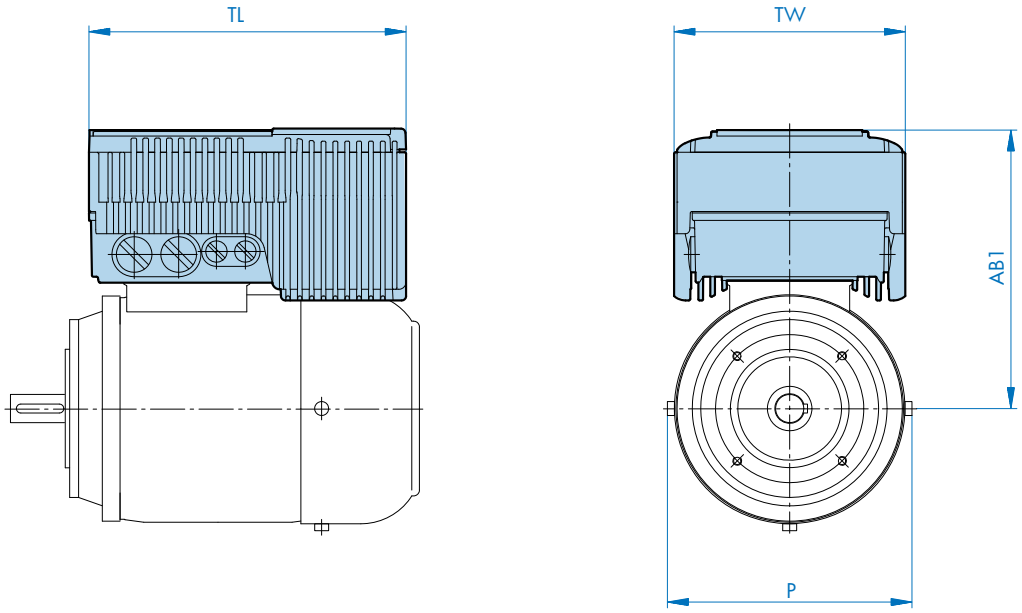
Motor Dimensions with SK 200E Motor Mounted AC Vector Drive



AC Vector Drive Size	Motor	Width		Length			
		P [in]	TW [in]	L [in]	TL [in]	AB1 [in]	Weight [lbs]
Size 1	71S/L	5.71	6.14	8.43	9.29	7.91	6.61
	80S/L	6.50		9.29		7.68	
	90S/L	7.20		10.87		7.87	
	100L/LA	7.91		12.05		8.23	
Size 2	80S/L	6.50	6.93	9.29	10.47	7.95	9.04
	90S/L	7.20		10.87		8.15	
	100L/LA	7.91		12.05		8.58	
	112M	8.98		12.83		8.98	
Size 3	100L/LA	7.91	8.58	12.05	12.99	9.88	15.21
	112M	8.98		12.83		10.28	
	132S/M	10.47		16.18		10.31	
Size 4	132S/M	10.47	12.01	16.18	18.90	12.32	37.48
	160M/L	12.60		19.37		12.52	
	180MX/LX	14.09		24.17		13.19	

Dimensions
SK 300E Trio AC Vector Drive

Motor Dimensions with SK 300E Motor Mounted AC Vector Drive



Basic NORD Motor Description	240 VAC Input AC Vector Drive			480 VAC Input AC Vector Drive		
	Type SK 300E	AC Vector Drive Size	AB1 [in]	Type SK 300E	AC Vector Drive Size	AB1 [in]
63S/4	**-370-323-B**	Size 1	7.48	**-550-340-B**	Size 1	7.48
63L/4	**-370-323-B**	Size 1	7.48	**-550-340-B**	Size 1	7.48
71S/4	**-370-323-B**	Size 1	7.78	**-550-340-B**	Size 1	7.78
71L/4	**-370-323-B**	Size 1	7.78	**-550-340-B**	Size 1	7.78
80S/4	**-550-323-B**	Size 1	7.42	**-550-340-B**	Size 1	7.42
80L/4	**-750-323-B**	Size 1	7.42	**-750-340-B**	Size 1	7.42
90S/4	**-111-323-B**	Size 2	8.69	**-111-340-B**	Size 1	7.62
90L/4	**-151-323-B**	Size 2	8.69	**-151-340-B**	Size 1	7.62
100L/4	**-221-323-B**	Size 2	9.19	**-221-340-B**	Size 2	9.19
100LA/4	**Not Available**	N/A	N/A	**-401-340-B**	Size 2	9.19

AC Vector Drive Size	TL [in]	TW [in]	Weight [lbs]
Size 1	8.43	6.14	8.8
Size 2	11.14	7.72	18.5

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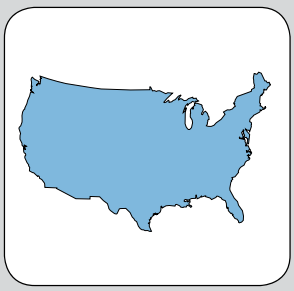

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SCP
Ordering Guide

	Gear Unit	Reducer Options	Motor/Input	Motor Options
SK	❶	❷	❸	❹
			see page 19	see page 128

❶

Gear Unit
1282 SCP
1382 SCP
2282 SCP
2382 SCP
3282 SCP
3382 SCP
4282 SCP
4382 SCP
5282 SCP
5382 SCP
6282 SCP
6382 SCP
Specialty Bevel Product

❷

Reducer Options	
ADP - Additional Drain Plug	**PC -** Grease Purge Seal
LL - Long Term Storage	**RV -** Drain Valve
MDP - Magnetic Drain Plug	**SM5 -** Stainless Steel CEMA Shaft
OA - Oil Expansion Chamber	**VL -** Heavy Duty Bearings
OSG - Oil Sight Glass	

❹

Motor Options	
F & FC - Blower Cooling Fan	**OL -** Non Ventilated TENV W/Out Fan
RD - Drip Cover Canopy	**OLH -** Non Ventilated TENV W/Out Fan & Cover
RDD - Double Drip Cover Canopy	**WE -** Motor Second Shaft Extension
KD - Condensation Drain Holes	**Z -** High Inertia Motor Fan
KB - Condensation Drain Holes Plugged	**IG -** Incremental Encoderr
IP66 - IP66 Motor Enclosure	**TW -** Thermostat
KKV - Potted Terminal Box	**TF -** Thermistor
MS - Quick Power Disconnect, Harting Plug	**SH -** Anti-Condensation Space Heaters

❸

Input Shaft	NEMA Adapter	IEC Adapter	Integral Motors	Integral Energy Efficent Motors
W	**N56C**	**IEC 63**	**63S/4** - 0.16hp	**80LH/4** - 1hp
	N140TC	**IEC 71**	**63L/4** - 0.25hp	**90SH/4** - 1.5hp
	N180TC	**IEC 80**	**71S/4** - 0.33hp	**90LH/4** - 2hp
	N210TC	**IEC 90**	**71L/4** - 0.50hp	**100LH/4** - 3hp
	N250TC	**IEC 100**	**80S/4** - 0.75hp	**112MH/4** - 5hp
	N280TC	**IEC 112**	**80L/4** - 1hp	**132SH/4** - 7.5hp
		IEC 132	**90S/4** - 1.5hp	**132MH/4** - 10hp
		IEC160	**90L/4** - 2hp	**160MH/4** - 15hp
		IEC180	**100L/4** - 3hp	**160LH/4** - 20hp
			100LA/4 - 5hp	**180MH/4** - 25hp
			112M/4 - 5.4hp	**180LH/4** - 30hp
			132S/4 - 7.5hp	
			132M/4 - 10hp	
			160M/4 - 15hp	
			160L/4 - 20hp	
			180MX/4 - 25hp	
			180LX/4 - 30hp	
			Other Speeds Available	Other Speeds Available

Product Specifications

Ratio

_____ :1

see pages 31 - 62

OR

Output Speed

_____ rpm

see pages 31 - 62

Mounting Position

- ❍ M1
- ❍ M2
- ❍ M3
- ❍ M4
- ❍ M5
- ❍ M6
- ❍ Special _____

CEMA Shaft Diameter

- ❍ 1-1/2″
- ❍ 2″
- ❍ 2-7/16″
- ❍ 3″
- ❍ 3-7/16″

Paint

- ❍ Standard Stainless Steel Paint
- ❍ NSD+ (gray)
- ❍ NSD+W (white)
- ❍ NSD-X3 (gray)
- ❍ NSD-X3W (white)
- ❍ Casting Primed
- ❍ Special _____

Lubricant

- ❍ Standard
- ❍ Synthetic
- ❍ Food Grade
- ❍ Other _____

CONTACTS

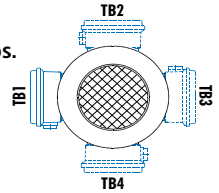
Gearmotor Only Details

Voltage & Frequency

- ❍ 230/460V-60Hz (460V only ≥ 40 hp)
- ❍ 575V-60Hz
- ❍ 208V-60Hz
- ❍ 400V-50Hz
- ❍ Other _____

Terminal Box Pos.

- ❍ TB1
- ❍ TB2
- ❍ TB3
- ❍ TB4

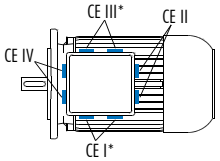


Mtg. Pos. M1 Shown

Conduit Entry Loc.

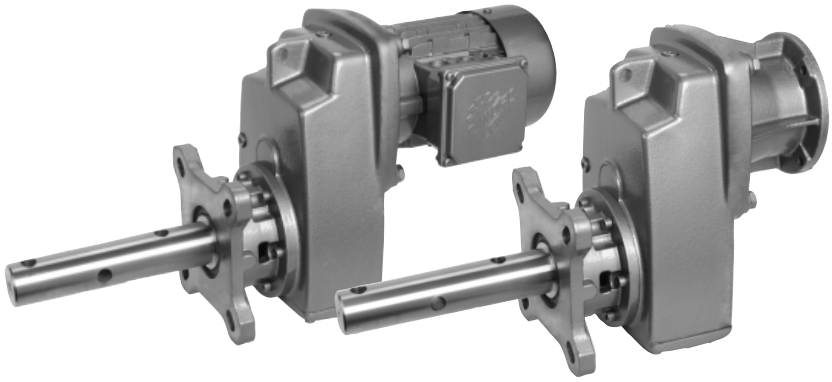
- ❍ CE I *
- ❍ CE II
- ❍ CE III *
- ❍ CE IV

* Brakemotor



Mtg. Pos. M1 Shown

Capacity , Ratings & Combinations



Capacity & Ratings Overview

Model Type	Max Torque [lb-in]	Ratio Range [x:1]	Speed's [rpm]	Max Thrust Load Std Brgs [lb]	Max Thrust Load HD Brgs " VL" [lb]	Gear Stages	Efficiency [%]
SK 1282 SCP	2620	4.79-109.5	365-16	1609	1609	2	97
SK 1382 SCP	2425	87.94-624.45	20-2.8	1550	1609	3	95
SK 2282 SCP	4611	4.51-127.51	388-14	2700	3375	2	97
SK 2382 SCP	4894	82.22-763.41	21-2.3	2700	3375	3	95
SK 3282 SCP	8363	4.48-112.23	391-16	3263	4500	2	97
SK 3382 SCP	9195	89.60-1022.42	20-1.7	3263	4500	3	95
SK 4282 SCP	16089	4.7-155.4	372-11	4950	6750	2	97
SK 4382 SCP	18381	86.83-1585.08	20-1.1	4950	6750	3	95
SK 5282 SCP	28630	4.32-134.03	405-13	7200	9000	2	97
SK 5382 SCP	28320	82.72-1367.08	21-1.3	7200	9000	3	95
SK 6282 SCP	40135	4.39-80.33	399-22	13219	13500	2	97
SK 6382 SCP	53100	24.42-551.58	72-3.2	13253	13500	3	95

CEMA Drive Shaft Combinations

Model type	1.5" shaft	2" shaft	2-7/16" shaft	3" shaft	3-7/16" shaft
SK 1282 SCP	X	X	X		
SK 1382 SCP	X	X	X		
SK 2282 SCP	X	X	X		
SK 2382 SCP	X	X	X		
SK 3282 SCP	X	X	X	X	
SK 3382 SCP	X	X	X	X	
SK 4282 SCP		X	X	X	
SK 4382 SCP		X	X	X	
SK 5282 SCP		X	X	X	X
SK 5382 SCP		X	X	X	X
SK 6282 SCP				X	X
SK 6382 SCP				X	X

NORD GEAR CORPORATION

Conditions of Sale

1. CONTRACT

Any contract between Nord Gear Corporation, hereinafter designated as Seller, and the Buyer is subject to the terms and conditions of sale hereinafter set forth. Any deviation from such terms and conditions must be specifically set forth in writing and consented to by Seller. Accordingly, the Buyer and Seller acknowledge and agree that the terms and conditions set forth below and on the face hereof shall govern Buyer's purchase of the goods described on the face hereof and shall take precedence over and represents the final agreement between Buyer and Seller, notwithstanding any inconsistent, contradictory or other prior or further conditions contained in any oral or written request or purchase order issued by Buyer or any other document furnished by Buyer in connection with its purchase of the Goods, regardless of whether such document or documents are exchanged simultaneously with this Invoice or prior or subsequent thereto. Any additional or different terms or conditions which may appear in any communicaiton, oral or written, from Seller, its officers, employees, agents or representatives, are hereby expressly rejected and shall not be effective or binding upon the Seller, unless specifically hereafter agreed to in writing by Seller and no such additional or different terms or conditions in any document submitted to Seller by Buyer shall become part of the contract between Buyer and Seller, unless such written acceptance by Seller specifically recognizes and assents to their inclusion. Any objection by Buyer to the terms and conditions hereof shall be ineffective unless Seller is advised in writing thereof within two (2) days of the date of this Invoice.

2. CONFIRMATION

An order shall be deemed accepted only when duly confirmed by Seller, at Nord Gear Corporation's home office in Waunakee, Wisconsin, and upon such confirmation the order shall become a contract binding upon the parties hereto, their successors and assigns.

3. PRICES

Prices shown are list prices and may be subject to applicable discounts. Unless otherwise agreed upon in writing, prices are FOB factory Waunakee, Wisconsin. Prices and discounts are subject to change without notice until order is accepted. Seller's prices do not include cost of any inspection permits required.

4. LIMITED WARRANTY

Seller warrants the goods sold hereunder to be free from defects in material and workmanship under normal use and service not arising from misuse, negligence, or accident, including but not limited to the use, installation, and transportation of the goods by the Buyer, its agents, servants, employees, or by carriers. Such obligations under this warranty are limited to remedying any deficiencies in the goods at Waunakee, Wisconsin, or at such place or places in the United States of America as may be designated by Seller. THIS WARRANTY SHALL PERTAIN TO ANY PART OR PARTS OF ANY GOODS TO WHICH BUYER OR ITS ASSIGNS HAS GIVEN WRITTEN NOTICE OF CLAIMED DEFECTS TO SELLER. NORD GEAR CORP. WARRANTS ITS PRODUCTS AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF 12 MONTHS FROM DATE OF INSTALLATION OR 18 MONTHS FROM DATE OF SHIPMENT WHICHEVER COMES FIRST ON ALL COMPONENTS. 36 MONTHS FROM DATE OF INVOICE OR 24 MONTHS FROM DATE OF INSTALLATION WHICHEVER COMES FIRST ON GEARS AND HOUSINGS ONLY. PARTS WHICH ARE SUBJECT TO OPERATIONAL WEAR AND TEAR, SUCH AS BELTS & TRACTION DISCS, ARE NOT COVERED BY THE LIMITED WARRANTY. Buyer shall be required to furnish Seller with details of such defects and this warranty shall be effective as to such goods which Seller's examination shall disclose to its satisfaction to have been defective and which at Seller's option shall promptly thereafter be returned to Seller or its nominees. THE LIMITED WARRANTY SET FORTH HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH HEREIN, SELLER HAS MADE AND MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, AS TO THE GOODS SOLD HEREUNDER, INCLUDING, BUT NOT LIMITED TO, THEIR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. ANY DESCRIPTION OR MODEL OF THE GOODS IS FOR IDENTIFICATION OR ILLUSTRATIVE PURPOSES ONLY AND SHALL NOT BE DEEMED TO CREATE ANY WARRANTY, EXPRESS OR IMPLIED. SELLER MAKES NO REPRESENTATIONS AS TO THE CAPACITY OR PERFORMANCE OF THE GOODS SOLD HEREUNDER, EXCEPT AS SET FORTH IN THE INVOICE'S SPECIFICATIONS OR OTHER VALID AGREEMENT OR CONDITION AGREED TO BETWEEN THE PARTIES, AND ANY SUCH REPRESENTATIONS ARE EXPRESSLY CONDITIONED UPON THE CORRECTNESS OF THE DATA AND INFORMATION FURNISHED BY THE BUYER AND UPON THE GOODS BEING PROPERLY INSTALLED AND MAINTAINED. THE REMEDIES OF THE BUYER PROVIDED HEREUNDER ARE EXCLUSIVE. In no event shall the Seller be liable to the Buyer or to any other person for any loss or damage, direct or indirect, arising out of or caused by the use or operation of the goods, or for the loss of profits, business, or good will, or for any incidental, special or consequential damages. Seller shall in no event be liable to any person or firm (including any assignee or Buyer) except Buyer and its successors. Unless specifically authorized by Seller in writing, Seller shall not become responsible for any repair work done by Buyer or any other party on any goods sold. Any and all costs of the return to the Seller of such goods and all related costs to remove and re-install such goods, shall be borne by Buyer. Goods sold but not manufactured by the Seller are being warranted as to defects in material and workmanship consistent with the limited warranty policy of the original manufacturer of the goods and if there is not such a limited warranty policy, the warranty shall be limited to the provision of the preceding paragraph of Article 4 herein. Standards for the operating characteristics of the gearboxes and the gearmotors are in conformity with Seller's tests.

5. SHORTAGE AND NONCONFORMITY

Any claim of shortage or that the goods do not conform with the specifications of the order or model must be made in writing within ten (10) days after delivery of the goods (as to which such claim is made) to Buyer or its nominees, but in no event shall the claim be later than within the time limit provided by the carrier or insurance company, otherwise such claim shall be deemed waived. Buyer may not return any goods claimed to be in non-conformity without Seller's prior written authorization. Goods returned without permission will not be accepted, including for credit, and will be returned to Buyer, F.O.B. Sellter's plant. Any claim based on the receipt of damaged Goods must be filed with the carrier which delivered the goods. The samples, measurements, dimensions and weights contained in the Seller's catalogs, sales manuals, photographs and drawings constitute only an approximate guide. The Seller reserves the right to make any change which the Seller, in its absolute discretion, considers necessary. While the goods will be delivered principally according to specifications or standards or quantities agreed upon, insignificant deviations or insignificant changes in construction are permissible. The same applies to partial deliveries, In the event that Buyer has a verified claim of shortage or nonconformity of the goods to the specifications of the order or the model, and if such claim has been submitted within the required time limit as set forth above, the Seller shall, at its own expense, make up for the shortage of the goods, or replace or repair the goods, as the case may be, but in no event shall Seller be or become liable to Buyer or to any other person or persons for any loss in damage, direct or indirect, arising out of or caused by such incidents or for the loss of profits, business or good will. The liability of the Seller to Buyer, if any hereunder, for breach of warranty, contract, negligence or otherwise, shall in no event exceed the amount of the purchase price of the goods sold with respect to which any damages are claimed. Shipping dates are estimates unless parties expressly agree on time of the essence.

6. FORCE MAJEURE

The obligation of the Seller shall be modified or excused, as the case may be, for reasons of Acts of God, war, governmental law regulations, strikes or lock-outs, fire, breakdown of machinery, whether in its own business enterprise, or if for any other cause beyond Seller's control, the goods cannot be delivered or their delivery becomes delayed in whole or in part. In the above instances time for delivery shall be extended for the period of the delay caused, with the proviso, however, that either party may cancel in writing the undelivered portion of the order or contract if the delay exceeds six (6) months from the delivery date originally confirmed by Seller. In no event shall Seller become liable in the aforesaid instances to Buyer or any third party for consequential damages or business loss.

7. SHIPMENT AS UNIT

Each shipment by Seller shall be treated as a separate and distinct unit with respect, but only with respect to forwarding, terms of payment, and the making of claims by the Buyer: provided, however, that if the Buyer defaults in the payment of any obligation to Seller or any installments thereof, under any agreement between Buyer and Seller, or if Buyer refuses to accept any goods when tendered for delivery, the Seller may, on fifteen (15) days written notice to the Buyer, without prejudice to Seller's other lawful remedies, either defer further performance until the defaulted payments are made in full, or make future deliveries for cash in advance only, or treat the entire contract or contracts with Buyer as breached by the Buyer and pursue its remedies for breach.

8. BUYER'S REFUSAL OF DELIVERY

If Buyer refuses to accept delivery of any goods tendered for delivery, then Seller, without prejudice to Seller's other lawful remedies, may either store or cause such goods to be stored in a warehouse, for buyer's account and at Buyer's cost, risk and expense, or sell such goods (without notice) to any purchases at public or private sale, and hold the Buyer liable for any difference between (a) the contract price of the goods, and (b) the price at which goods are resold less the costs and expense of such resale including brokerage commissions, or restocking charges.

9. GOODS IN TRANSIT

If prior to delivery or while the goods are in transit, Buyer or Seller becomes bankrupt or insolvent, or any petition in bankruptcy or for the reorganization or for a state court receivership is filed against Buyer or Seller, as the case may be, then the other party hereto may forthwith terminate this contract by giving written notice of such termination. Such termination shall not affect any claim for damages available to the Buyer, provided that if Buyer is then indebted to Seller, the amount of any such damage claim shall be abated to the extent that the indebtedness of Buyer to Seller, as actually paid in money, is abated by any order of judgement entered or any plan adopted in any bankruptcy, reorganization, receivership, or similar proceeding. Such termination shall not prejudice the Seller's rights to any amounts then due under the contract. If Buyer becomes bankrupt or insolvent or any petition in bankruptcy or for reorganizing or if a state court receivership is filed against Buyer, then, at its option Seller may take possession of any goods theretofore sold to Buyer, in connection with which the full purchase price has not been paid, analogous to the terms and provisions set forth in Paragraphs 11 and 12 hereinafter.

10. DELIVERY

(a) Any indicated dates of delivery are approximate only, but NORD Gear will attempt to meet them whenever possible. (b) NORD Gear will not be liable for any penalty clausess contained in any specifications or order submitted unless agreed to in writing by an authorized officer of NORD Gear Corporation. (c) Unless otherwise agreed, delivery of the goods to any carrier shall constitute delivery to the Buyer, and thereafter the risk of loss or damage to the goods shall be upon the Buyer. (d) If the Buyer does not give delivery instructions to the Seller at least (10) days prior to the delivery date ex factory confirmed by the Seller, the Seller may deliver the goods to a carrier of its own choosing, at Buyer's cost and risk, or, at Seller's option, may store the goods on the pier or any warehouse, at Buyer's cost and risk. Any purchase price in such event becomes due and payable within ten (10) days of such storage.

11. PAYMENT OF PURCHASE PRICE

Time of payment is of the essence under the contract. Unless otherwise provided, terms of payment are 30 days net from the date of invoice with a 1% discount if paid within 10 days of date of invoice. Upon default in any of the terms of the contract, or failure to comply with any of the conditions thereof, or upon seizure of the property under execution or other legal process, or if the Buyer becomes bankrupt or insolvent, or any petition for reorganization or for a state court receivership is filed against Buyer, or if the Buyer makes any assignment for the benefit of it's creditors or otherwise sells, encumbers or disposes of the goods, or if for any other reason the Seller should deem itself insecure, the full amount of the purchase price then remaining unpaid shall at once become due and payable at the option of the Seller.

12. BUYER'S DEFAULT

Upon the Buyer's default, the Seller may dispose of the merchandise in any manner that it deems fit and, if it desires to resell same, may do so at private or public sale, with or without notice, and with or without the property being at the place of sale, subject, however, to applicable laws. The Seller or its assigns shall have the right to bid at such sale and may become the purchaser of the property. The proceeds of the sale shall first be applied to the expenses incurred in retaking, repairing, storing and selling the goods, reasonable attorney's fees included, and then shall be applied to the payment of the balance due under the contract. Any surplus amount shall be paid to the Buyer. If a deficiency results after the resale, the Buyer agrees to pay such forthwith, together with reasonable attorney's fees, for the recovery of the goods incurred by the Seller. If upon the Buyer's default, the Seller elects not to resell any goods which it may repossess, then the cost of repossession, including reasonable attorney's fees, shall forthwith be due and payable from Buyer to Seller. Buyer agrees to pay all reasonable costs and reasonable attorneys' fees incurred by Seller in enforcing Seller's rights against Buyer, including Seller's right to payment of the purchase price of the goods and Buyer's payment of all other amounts owing to Seller required under this Invoice and Conditions of Sale.

13. SECURITY INTEREST AND TITLE

In states and localities which are governed by the Uniform Commercial Code, this contract shall serve as security agreement, reserving in Seller a security interest until full payment of purchase price. The provisions of the Uniform Commercial Code regarding security interest shall have preference and apply if inconsistent with other terms of the conditions of sale. In states and localities where the Uniform Commercial Code does not apply, title to the goods shall remain in the Seller or its assigns until full payment of the purchase price. Buyer agrees to execute forthwith any and all documents in such a way and form as Seller may need for filing or recording the security interest under the Uniform Commercial Code with the proper registers or offices, or for filing or recording the conditional sales contract.

14. SALES AND USE TAX

Buyer agrees to bear and pay any sales or use tax in connection with the purchase herein, and to hold the Seller harmless from payment. At the option the Seller, Buyer shall give evidence of payment or of exemption certificate.

15. INSURANCE

The Buyer shall keep the goods insured against damage by fire, water or other casualty as required by Seller, with a company acceptable to Seller, with loss payable to Seller for the total purchase price until the Seller is fully paid. Seller, if it so elects, may place said insurance at Buyer's expense; Seller may cancel such insurance at any time and without notice and may receive the return premium, if any.

16. MODIFICATION BY SELLER

Any contract may be assigned or transferred by the Seller, or the time for the making of any payment due by Buyer may be extended by Seller without derogation of any of the rights of the Seller or its assigns. Waiver by any party of any default shall not be deemed a waiver of any subsequent default.

17. RETURNED GOODS

No goods will be accepted for return unless authorized in writing by Seller. In all cases, transportation and restocking charges will be borne by Buyer.

18. PACKING

The Buyer will be charged for export packaging or other special packing desired. Cost for cartage to ship or transfer express will be added to the invoice. No credit will be allowed if no packing is required.

19. CHANGES/CANCELLATION

NORD Gear will not accept changes in specifications to a confirmed order unless such changes are requested in writing and confirmed back in writing. In addition, the purchaser must to agree to any additional charges that may arise from the change. Placing orders on hold or cancellation of orders require Seller's written approval, and are subject to cancellation and/or restocking charges.

20. BUYER'S RESPONSIBILITY AS TO MAINTENANCE

Buyer shall use and shall require its employees and agents to use all safety devices and guards and shall maintain the same in proper working order. Buyer shall use and require its employees and agents to use safe operation procedures in operating the equipment and shall further obey and have its employees and agents obey safety instructions given by Seller. If Buyer fails to meet the obligations herein, Buyer agrees to defend, indemnify and save Seller harmless from any liability or obligation with regard to any personal injuries or property damages directly or indirectly connected with the operation of the equipment. Buyer further agrees to notify Seller promptly and in any event not later than ten (10) days after notice or knowledge of any accident or malfunction involving Seller's equipment which has caused personal injury or property damages and to cooperate fully with Seller in investigating and determining the causes of such accident and malfunction. In the event that Buyer fails to give such notice to Seller or to cooperate with Seller, Buyer shall be obligated to defend, indemnify and save Seller harmless from any such claims arising from such accident.

21. MISCELLANEOUS PROVISIONS

(a) If for any reason a provision of a contract is legally invalid, then in such event the rest of the contract shall remain in full force and affect, except that the parties shall try to replace such invalid provision closest to their original mutual intentions. (b) This Invoice and these Conditions of Sale constitute the entire agreement between the parties regarding the subject matter hereof and supercedes all prior agreements, understandings and statements, whether oral or written, regarding such subject matter. No modification to, change in or departure from, the provisions of this Invoice and Conditions of Sale shall be valid or binding on Seller, unless approved in writing by Seller. No course of dealing or usage of trade shall be applicable unless expressly incorporated into this Invoice and Conditions of Sale. Any amendments to any contract or contracts between the parties shall be valid only upon the written consent of both parties.

22. NON ASSIGNMENT BY BUYER

Contract or contracts may not be assigned by the Buyer without prior written consent of the Seller.

23. APPLICABLE LAW AND VENUE

All contracts and their interpretation are governed by the applicable, substantive laws of the State of Wisconsin. Any litigation brought by the Buyer regarding this Invoice or goods purchased hereunder may only be brought in the Circuit Court for Dane County, Wisconsin.

NORD GEAR LIMITED

Terms and Conditions of Sale

1. CONTRACT

Any contract between Nord Gear Limited, hereinafter designated as Seller, and the Buyer is subject to the terms and conditions of sale hereinafter set forth. Any deviation from such terms and conditions must be specifically set forth in writing and consented to by Seller.

2. CONFIRMATION

An order shall be deemed accepted only when duly confirmed by Seller, at Nord Gear Limited's home office in Brampton, Ontario, and upon such confirmation the order shall become a contract binding upon the parties hereto, their successors and assigns.

3. PRICES

Prices shown are list prices and may be subject to applicable discounts. Unless otherwise agreed upon in writing, prices are FOB factory Bramton, Ontario. Prices and discounts are subject to change without notice until order is accepted. Seller's prices do not include cost of any inspection permits required.

4. LIMITED WARRANTY

Seller warrants the goods sold hereunder to be free from defects in material and workmanship under normal use and service not arising from misuse, negligence, or accident, including but not limited to the use, installation, and transportation of the goods by the Buyer, its agents, servants, employees, or by carriers. Such obligations under this warranty are limited to remedying any deficiencies in the goods at Brampton, Ontario, or at such place or places in Canada as may be designated by Seller. This warranty shall pertain to any part or parts of any goods to which Buyer or its assigns has, within one year from date of original factory invoice, given written notice of claimed defects to Seller. Buyer shall be required to furnish Seller with details of such defects and this warranty shall be effective as to such goods which Seller's examination shall disclose to its satisfaction to have been defective and which at Seller's option shall promptly thereafter be returned to Seller or its nominees. EXCEPT FOR THE EXPRESS WARRANTIES SET FORTH ABOVE, SELLER HAS MADE NO WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, AS TO THE GOODS SOLD HEREUNDER, INCLUDING, BUT NOT LIMITED TO THEIR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE. ANY DESCRIPTION OR MODEL OF THE GOODS IS FOR IDENTIFICATION OR ILLUSTRATIVE PURPOSES ONLY AND SHALL NOT BE DEEMED TO CREATE AN EXPRESS WARRANTY. THE REMEDIES OF THE BUYER SET FORTH IN THIS SECTION ARE EXCLUSIVE. In no event shall the Seller be liable to the Buyer or to any other person for any loss or damage, direct or indirect, arising out of or caused by the use or operation of the goods, or for the loss of profits, business, or good will, or for any incidental, special or consequential damages. Seller shall in no event be liable to any person or firm (including any assignee or Buyer) except Buyer and its successors. Unless specifically authorized by Seller in writing, Seller shall not become responsible for any repair work done by Buyer or any other party on any goods sold. Any costs of the return of such goods to Seller shall be borne by Buyer. Goods sold but not manufactured by the Seller are being warranted as to defects in material and workmanship consistent with the limited warranty policy of the original manufacturer of the goods and if there is not such a limited warranty policy, the warranty shall be limited to the provisions of the preceding paragraph of Article 4 herein. Standards for the operating characteristics of the gearboxes and the gearmotors are in conformity with Seller's test. THIS WARRANTY IS IN LIEU OF ALL OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE THE SELLER DOES NOT ASSUME, NOR DOES IT AUTHORIZE ANY PERSON TO ASSUME, ON ITS BEHALF, ANY OTHER OBLIGATION OR LIABILITY.

5. SHORTAGE AND NONCONFORMITY

Any claim of shortage or that the goods do not conform with the specifications of the order or model must be made in writing within ten (10) days after delivery of the goods (as to which such claim is made) to Buyer or its nominees, but in no event shall the claim be later than within the time limit provided by the carrier or insurance company, otherwise such claim shall be deemed waived. The samples, measurements, dimensions and weights contained in the Seller's catalogs, sales manuals, photographs and drawings constitute only an approximate guide. The Seller reserves the right to make any changes which the Seller, in its absolute discretion, considers necessary. While the goods will be delivered principally according to specifications or standards or quantities agreed upon, insignificant deviations or insignificant changes in construction are permissible. The same applies to partial deliveries. In the event that Buyer has a verified claim of shortage or noncomformity of the goods to the specifications of the order or the model, and if such claim has been submitted within the required time limit as set forth above, the Seller shall, at its own expense, make up for the shortage of the goods, or replace or repair the goods, as the case may be, but in no event shall Seller be or become liable to Buyer or to any other person or persons for any loss in damage, direct or indirect, arising out of or caused by such incidents or for the loss of profits, business or good will. Shipping dates are estimates unless parties expressly agree on time of the essence.

6. FORCE MAJEURE

The obligation of the Seller shall be modified or excused, as the case may be, for reasons of Acts of God, war, governmental law regulations, strikes or lock-outs, fire, breakdown of machinery, whether in its own business enterprise, or if for any other cause beyond Seller's control, the goods cannot be delivered or their delivery becomes delayed in whole or in part. In the above instances time for delivery shall be extended for the period of the delay caused, with the proviso, however, that either party may cancel in writing the undelivered portion of the order or contract if the delay exceeds six (6) months from the delivery date originally confirmed by Seller. In no event shall Seller become liable in the aforesaid instances to Buyer or any third party for consequential damages or business loss.

7. SHIPMENT AS UNIT

Each shipment by Seller shall be treated as a separate and distinct unit with respect, but only with respect to forwarding, terms of payment, and the making of claims by the Buyer; provided, however, that if the Buyer defaults in the payment of any obligation to Seller or any installments thereof, under any agreement between Buyer and Seller, or if Buyer refuses to accept any goods when tendered for delivery, the Seller may, on fifteen (15) days' written notice to the Buyer, without prejudice to Seller's other lawful remedies, either defer further performance until the defaulted payments are made in full, or make future deliveries for cash in advance only, or treat the entire contract or contracts with Buyer as breached by the Buyer and pursue its remedies for breach.

8. BUYER'S REFUSAL OF DELIVERY

If Buyer refuses to accept delivery of any goods tendered for delivery, then Seller, without prejudice to Seller's other lawful remedies, may either store or cause such goods to be stored in a warehouse, for Buyer's account and at Buyer's cost, risk and expense, or sell such goods (without notice) to any purchaser at public or private sale, and hold Buyer liable for any difference between (a) the contract price of the goods, and (b) the price at which goods are resold less the costs and expense of such resale including brokerage commissions, or restocking charges.

9. GOODS IN TRANSIT

If prior to delivery or while the goods are in transit, Buyer or Seller becomes bankrupt or insolvent, or any petition in bankruptcy or for the reorganization or for appointment of a receiver is filed against Buyer or Seller, as the case may be, then the other party hereto may forthwith terminate this contract by giving written notice of such termination. Such termination shall not affect any claim for damages available to the Buyer, provided that if Buyer is then indebted to Seller, the amount of any such damage claim shall be abated to the extent that the indebtedness of Buyer to Seller, as actually paid in money, is abated by any order or judgment entered or any plan adopted in any bankruptcy, reorganization, receivership, or similar proceeding. Such termination shall not prejudice the Seller's rights to any amounts then due under the contract. If Buyer becomes bankrupt or insolvent or any petition in bankruptcy or for reorganization or if a state court receivership is filed against Buyer, then, at its option, Seller may take possession of any goods theretofore sold to Buyer, in connection with which the full purchase price has not been paid, analogous to the terms and provisions set forth in Paragraphs 11 and 12 hereinafter.

10. DELIVERY

(a) Unless otherwise agreed, delivery of the goods to any carrier shall constitute delivery to the Buyer, and thereafter the risk of loss or damage to the goods shall be upon the Buyer. (b) If the Buyer does not give delivery instructions to the Seller at least (10) days prior to the delivery date *ex factory* confirmed by the Seller, the Seller may deliver the goods to a carrier of its own choosing, at Buyer's cost and risk, or, at Seller's option, may store the goods on the pier or on any warehouse, at Buyer's cost and risk. Any purchase price in such event becomes due and payable within ten (10) days of such storage.

11. PAYMENT OF PURCHASE PRICE

Time of payment is of the essence under the contract. Upon default in any of the terms of the contract, or failure to comply with any of the conditions thereof, or upon seizure of the property under execution or other legal process, or if the Buyer becomes bankrupt or insolvent, or any petition for reorganization or for appointment of a receiver is filed against Buyer, or if the Buyer makes any assignment for the benefit of its creditors or otherwise sells, encumbers or disposes of the goods, or if for any other reason the Seller should deem itself insecure, the full amount of the purchase price then remaining unpaid shall at once become due and payable at the option of the Seller.

12. BUYER'S DEFAULT

Upon the Buyer's default, the Seller may dispose of the merchandise in any manner that it deems fit and, if it desires to resell same, may do so at private or public sale, with or without notice, and with or without the property being at the place of sale, subject, however, to applicable laws. The Seller or its assigns shall have the right to bid at such sale and may become the purchaser of the property. The proceeds of the sale shall first be applied to the expenses incurred in retaking, repairing, storing and selling the goods, reasonable solicitor's fees included, and then shall be applied to the payment of the balance due under the contract. Any surplus amount shall be paid to the Buyer. If a deficiency results after the resale, the Buyer agrees to pay such forthwith, together with reasonable solicitor's fees, for the recovery of the goods incurred by the Seller. If upon the Buyer's default, the Seller elects not to resell any goods which it may repossess, then the cost of repossession, including reasonable solicitor's fees, shall forthwith be due and payable from Buyer to Seller.

13. SECURITY INTEREST AND TITLE

In provinces which are governed by a Personal Property Security Act, this contract shall serve as Security Agreement, reserving in Seller a security interest until full payment of purchase price. The provisions of the Personal Property Security Act regarding security interest shall have preference and apply if inconsistent with other terms of the conditions of sale herein. In provinces where a Personal Property Security Act does not apply, title to the goods shall remain in the Seller or its assigns until full payment of the purchase price. Buyer agrees to execute forthwith any and all documents in such a way and form as Seller may need for filing or recording the security interest under a Personal Property Security Act with the proper registers or offices, or for filing or recording the Conditional Sales Contract herein.

14. SALES AND USE TAX

The Seller's prices do not include sales, use, excise or other taxes payable to any governmental authority in respect of the sale of Seller's goods. The Buyer shall pay, in addition to the Seller's price the amount of any such taxes or shall reimburse the Seller for the amount thereof that the Seller may be required to pay. At the option of the Seller, Buyer shall give evidence of payment or of exemption certificate.

15. INSURANCE

The Buyer shall keep the goods insured against damage by fire, water or other casualty as required by Seller, with a company acceptable to Seller, with loss payable to Seller for the total purchase price until the Seller is fully paid. Seller, if it so elects, may place said insurance at Buyer's expense; Seller may cancel such insurance at any time and without notice and may receive the return premium, if any.

16. MODIFICATION BY SELLER

Any contract may be assigned or transferred by the Seller, or the time for the making of any payment due by Buyer may be extended by Seller without derogation of any of the rights of the Seller or its assigns. Waiver by any party of any default shall not be deemed a waiver of any subsequent default.

17. RETURNED GOODS

No goods will be accepted for return unless authorized in writing by Seller. In all cases, transportation and restocking charges will be borne by Buyer.

18. PACKING

The Seller does not charge for standard packaging for domestic shipment. The Buyer will be charged, however, for export packaging or other special packing desired. Cost for cartage to ship or transfer express will be added to the invoice. No credit will be allowed if no packing is required.

19. EXPORT ORDER

Export orders are to be accompanied by a confirmed irrevocable Letter of Credit in Seller's favor, in Canadian currency, with an accredited Canadian bank, subject to Seller's draft, with shipping documents attached.

20. CANCELLATION

Placing orders on hold or cancellation of orders require Seller's written approval, and are subject to cancellation and/or restocking charges.

21. BUYER'S RESPONSIBILITY AS TO MAINTENANCE

Buyer shall use and shall require its employees and agents to use all safety devices and guards and shall maintain the same in proper working order. Buyer shall use and require its employees and agents to use safe operating procedures in operating the equipment and shall further obey and have its employees and agents obey safety instructions given by Seller. If Buyer fails to meet the obligations herein, Buyer agrees to indemnify and save Seller harmless from any liability or obligation with regard to any personal injuries or property damages directly or indirectly connected with the operation of the equipment. Buyer further agrees to notify Seller promptly and in any event not later than ten (10) days after notice or knowledge of any accident or malfunction involving Seller's equipment which has caused personal injury or property damages and to cooperate fully with Seller in investigating and determining the causes of such accident and malfunction. In the event that Buyer fails to give such notice to Seller or to cooperate with Seller, Buyer shall be obligated to indemnify and save Seller harmless from any such claims arising from such accident.

22. MISCELLANEOUS PROVISIONS

(a) If for any reason a provision of a contract is legally invalid, then in such event the rest of the contract shall remain in full force and affect, except that the parties shall try to replace such invalid provision with a provision closest to their original mutual intentions. (b) Any amendments to any contract or contracts require the consent in writing by both parties.

23. NON ASSIGNMENT BY BUYER

Contract or contracts may not be assigned by the Buyer without prior written consent of the Seller.

24. APPLICABLE LAW

All contracts are governed by the applicable laws of Ontario.

25. This instrument sets forth the entire understanding and agreement of the parties hereto in respect of the subject matter hereof, and all prior undertakings between the parties hereto, together with all representations and obligations of such parties in respect of such subject matter, shall be superceded by and merged into this instrument.

26. The provisions of this agreement shall bind and enure to the benefit of the parties hereto and their respective heirs, executors, administrators, successors and (subject to any restrictions or assignment herein above set forth) assigns, as the case may be.

27. The parties acknowledge that they have requested this Contract and all notices or other documents relating thereto be drafted in the English language.

Les parties reconnaisent qu'ils ont requis que ce contrat et tous les avis ou autres documents qui s'y rapportent soient rediges en langue anglaise.

"Terms and Conditions in French available upon request."

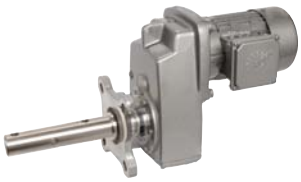
Product Overview

UNICASE™ SPEED REDUCERS

HELICAL IN-LINE
- Foot or Flange Mount
- Torque up to 205,000 lb-in
- Gear ratios – 1.82:1 to over 300,000:1

NORDBLOC®.1 HELICAL IN-LINE
- Foot or Flange Mount
- Torque up to 26,550 lb-in
- Gear ratios – 1.88:1 to over 370:1

PARALLEL HELICAL CLINCHER™
- Shaft, Flange or Foot Mount
- Torque up to 797,000 lb-in
- Gear ratios – 4.26:1 to over 300,000:1



SCP SCREW CONVEYOR PACKAGE
- Shaft, or Flange Mount
- Torque up to 53,100 lb-in
- Gear ratios – 4.32:1 to over 1500:1

RIGHT ANGLE HELICAL-BEVEL 2-STAGE
- Foot, Flange or Shaft Mount
- Torque up to 5,840 lb-in
- Gear ratios – 4.1:1 to 72:1

RIGHT ANGLE HELICAL-BEVEL
- Foot, Flange or Shaft Mount
- Torque up to 283,000 lb-in
- Gear ratios – 8.04:1 to over 300,000:1

RIGHT ANGLE HELICAL-WORM
- Foot, Flange or Shaft Mount
- Torque up to 27,585 lb-in
- Gear ratios – 4.40:1 to over 300,000:1

HIGH PERFORMANCE MOTORS & BRAKEMOTORS

INVERTER/VECTOR DUTY
- Standard or Energy Efficient
- Integral, NEMA or Metric IEC
- 1/6 to 250 hp

UNICASE™ SPEED REDUCERS

MINICASE™ RIGHT ANGLE WORM
- Foot, Flange or Shaft Mount
- Torque up to 3,540 lb-in
- Gear ratios – 5:1 to 500:1

FLEXBLOC™ WORM
- Modular bolt-on options
- Torque up to 4,683 lb-in
- Gear ratios – 5:1 to 3,000:1

MAXXDRIVE™ LARGE INDUSTRIAL GEAR UNITS PARALLEL HELICAL
- Modular bolt-on options
- Torque up to 2,027,000 lb-in
- Gear ratios – 5:1 to 1,600:1

MAXXDRIVE™ LARGE INDUSTRIAL GEAR UNITS HELICAL-BEVEL
- Modular bolt-on options
- Torque up to 2,027,000 lb-in
- Gear ratios – 5:1 to 1,600:1

NORDAC AC VECTOR DRIVES

SK200E
- Decentralized, high performance
- 380-480V, 3-phase to 10 hp
- 200-240V, 3-phase to 5 hp
- 200-240V, 1-phase to 1.5 hp
- 100-120V, 1-phase to 1 hp

SK500/520/530E
- Compact, high performance
- 380-480V, 3-phase, to 30hp
- 200-240V, 3-phase, to 15hp
- 200-240V, 1-phase, to 3hp
- 110-120V, 1-phase, to 1.5hp

SK700E
- Flexible high performance
- 380-460V, 3-phase, to 200hp

NORD DRIVESYSTEMS

DRIVESYSTEMS

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