

# **HARCO**

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# DRIVE UNITS CATALOG



**STERLING**  
**ELECTRIC, INC.**

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## Motors and Controls



### AC Motors

**HP:** 0.25-2000

**RPM:** 3600, 1800, 1200, 900, 720 and 600 (also 2 & 4 speed)

**Power Supply:** 3 phase, 60Hz, standard 208-230/460 or 575 VAC; also above 200 HP- 2300 or 4000 VAC; wide variety of special voltages and frequencies available

**Frames:** 182-587U (cool running U-frames), 56-449T (stock T-frames) and over NEMA frames above 400 HP

**Enclosures:** ODP, TENV, WP-I, WP-II, TEWAC, TEFV and Sterli-Seal® (Washdown Duty)

**Nema Designs:** A, B, C,D and Wound Rotor; special designs for specific applications

**Mountings:** Footed, C-face, D-flange, P-base and special mounting faces or flanges for specific applications

**Brakemotors:** 0.25-30 HP (T-frames) and 0.25-60 HP (U-frames)

**Outstanding Features:** CONSTRUCTION - rugged cast iron or rolled steel (0.25-2hp) available;

BEARINGS - oversized ball bearings; SERVICE FACTOR - standard 1.15; INSULATION - Class B or F insulation available; NAMEPLATE - stainless steel standard

### Sterli-Seal® Stainless Motors

**HP:** 0.33-10

**RPM:** 3600 and 1800

**Power Supply:** 3 phase, 60 Hz, standard 208-230/460 and 575 VAC

**Enclosure:** TENV and TEFC (Washdown Duty)

**Nema Design:** B

**Mountings:** Footed, C-face footed, C-face footless and Close Coupled Pump Style "JM"

**Outstanding Features:** CONSTRUCTION - All stainless steel frame, brackets, fan cover, conduit box and shaft; BEARINGS - oversized ball bearings; SERVICE FACTOR - standard 1.15; INSULATION - Class F; all fits with RTV sealant and four-quadrant stainless steel drain plugs in C-face bracket



### Adjustable Frequency AC Motors

**HP:** 1 - 150

**RPM:** 3600, 1800 and 1200

**Power Supply:** 3 phase, 60 Hz, standard 208-230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** TEFC, TEBC (totally enclosed blower cooled) and Sterli-Seal® (Washdown Duty)

**Mountings:** Footed, C-face and special mounting faces available for specific applications

**Outstanding Features:** Special spike resistant magnet wire; Class "H" insulation with Class "B" temperature rise; full phase to phase insulation; winding temperature thermostats standard; optional encoder for closed loop applications

### Speed-Tron® 2000AC Controls

**Power Supply:** 3 phase input, 3 phase output; .25 - 5 HP 230 VAC; .25 - 20 HP 460 VAC

**Enclosures:** NEMA 1, NEMA 12, and NEMA 4X/12 Sterli-Seal® (Washdown Duty)

**Outstanding Features:** 50 or 60 Hz input line frequency; 3 - 240 Hz operating frequency range; selectable local or remote operation; 0 - 10 VDC or 4 - 20 ma signal follower capability; simple approach to programming functions by use of a keypad and digital display



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## Motors, Controls and Gearmotors & Reducers



### Speed-Tron® DC Controls

**Power Supply:** 115 or 230 VAC, 1 phase jumper selectable; 0.25-1 HP 115 VAC 90 VDC armature; 0.25-2 HP 230 VAC 180 VDC armature

**Enclosures:** Chassis, NEMA 1 and NEMA 4/12 Sterli-Seal® (Washdown Duty)

**Options:** Run/log with operator controls; reversing with operator controls; instrument interface 0-10 VDC or 4-20 ma; torque with operator controls; torque with instrument interface

### DC Motors (Permanent Magnet)

**HP:** 0.25-2

**RPM:** 1725 base speed

**Power Supply:** 90 or 180 VDC

**Enclosures:** TEFC and Sterli-Seal® (Washdown Duty)

**Mountings:** C-face footed and C-face footless

**Options:** 7 VDC / 1000 RPM tachometer



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### Classic Helical Gearmotors & Reducers

**HP:** 0.25-100

**Reductions:** Single, Double, Triple and Quadruple

**RPM:** 780-3.3

**Power Supply:** 3 phase, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown Duty)

**Nema Designs:** B, C, D and special designs for specific application

**Input:** Solid shaft, C-face (coupling) and integral

**Mountings:** REDUCER - base, C-face and flange; MOTOR - base, C-face, shelf and motor-over mount

**Outstanding Features:** Oversized, rugged cast iron construction; positive oil seals allow mounting in any position without modification; all gears located between bearings-no overhung loads; rugged gears diameter and wide face; bearing housing integrally cast to assure proper alignment; low shaft places torsional stress close to feet

### 2000HG Helical Gearmotors & Reducers

**HP:** 0.25-75

**Reductions:** Double and Triple

**RPM:** 887-7

**Power Supply:** 3 phase, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown Duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Input:** Solid shaft and C-face (quill style with nylon bushing)

**Mountings:** Base and flange; interchangeable with major European suppliers

**Outstanding Features:** REDUCER - compact single piece cast iron housing; positive oil seals allow mounting in any position without modification; all gears located between bearings - no overhung loads; hardened and ground pinions and gears; bearings housings integrally cast to assure proper alignment; unique C-face bushing system prevents fretting and corrosion of motor shaft



## **Gearmotors & Reducers, Shaft Mounts and Conveyors**



### **2000SM Shaft Mount Gearmotors & Reducers**

**HP:** 0.25-100

**Reductions:** Double and Triple

**RPM:** 337-5

**Power Supply:** 3 phase, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown Duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Input:** Solid shaft and C-face (quill style with nylon bushing)

**Mountings:** Base, flange, solid shaft and hollowshaft; interchangeable with major European suppliers

**Outstanding Features:** REDUCER - single piece cast iron housing; positive oil seals allow mounting in any position without modification; all gears located between bearings-no overhung loads; hardened and ground pinions and gears; bearing housings integrally cast in case to assure proper alignment; unique C-face bushing system prevents fretting and corrosion of motor shaft

### **AGMA Shaft Mounts and Screw Conveyors**

**HP:** 0.25-60

**Ratios:** 5:1, 15:1 and 25:1

**Output Shaft Bores:** 15/16-3 7/16

**Options:** Motor mounts, backstops and taconite seals

**Outstanding Features:** ribbed cast iron housing; single tapered bushing design is self-locking and will not back off shaft; fretting and corrosion of bushing to shaft is prevented; hardened and ground pinions and gears; standard double lip seals on ground and polished shafts protect against leaking



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### **2000C Cycloidal Gearmotors & Reducers**

**HP:** 0.25-200

**Stages:** Single and Double

**RPM:** 300-0.23

**Power Supply:** 3 phase, 60Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown Duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Input:** Solid shaft, C-face (coupling) and C-face (quill)

**Mountings:** Base and flange; interchangeable with major cycloidal suppliers

**Outstanding Features:** Rolling contact for high torque; compact design (high ratios in small cases); high shock load capability; thermal ratings exceed mechanical ratings; high efficiency at high ratios

### **Right Angle Gearmotors & Reducers**

**HP:** 0.25-30

**Reduction:** Single and double worm or combination helical/worm

**RPM:** 345-0.48

**Power Supply:** 3 phase, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown Duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Input:** solid shaft, C-face (coupling) and C-face (quill)

**Mountings:** Base, ring, bracket, flange and hollowshaft

**Center Distance:** 1"-10"

**Outstanding Features:** Precision ground worms of high quality alloy steel; accurate hobbed cast bronze gears; tapered roller bearings on output shaft permit maximum overhung load capacity; large oil reservoir for splash lubrication affords cool operation and oil seal design provides trouble free operation





## Motors & Drives and Gearmotors & Reducers



### 2000HW Helical Worn Gearmotors & Reducers

**HP:** 0.25-20

**Reductions:** Double and Triple

**RPM:** 219-2

**Power Supply:** 3 PHASE, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Input:** Solid shaft and C-face (quill style with nylon bushing)

**Mountings:** Base, flange, solid shaft and hollowshaft; interchangeable with major European suppliers

**Outstanding Features:** REDUCER - all cast iron housing; positive oil seals allow mounting in any position without modification. All gears located between bearings-no overhung loads; hardened and ground pinions, gears and worn shafts; high quality bronze worm gearing; bearing housings integrally cast in case to assure proper alignment; unique C-face bushing system prevents fretting and corrosion of motor shaft

### 2000HB Helical Bevel Gearmotors & Reducers

**HP:** 5-150

**Reduction:** Triple

**RPM:** 225-11

**Power Supply:** 3 phase, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

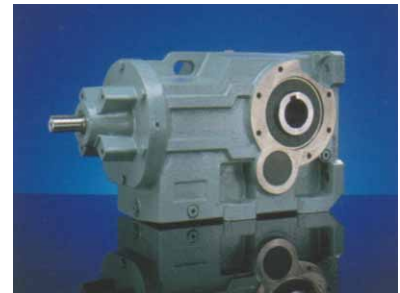
**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Input:** solid shaft and C-face (quill style with nylon bushing)

**Mounting:** Base, flange, solid shaft and hollowshaft; interchangeable with major European suppliers

**Outstanding Features:** REDUCER - all cast iron housing including integral feet; positive oil seals allow mounting in any position without modification. All gears located between bearings-no overhung loads; hardened and ground pinions, gears and worn shafts; high quality bronze worm gearing; bearing housings integrally cast in case to assure proper alignment; unique c-face bushing system prevents fretting and corrosion of motor shaft



### Speed-Trol® Mechanical Variable Speed Drives

**HP:** 0.50-50

**Speed Variation:** Up to 10:1

**Power Supply:** 3 phase, 60 Hz, standard 230/460 or 575 VAC; wide variety of special voltages and frequencies available

**Enclosures:** ODP, TEFC, Explosion Proof and Sterli-Seal® (Washdown Duty)

**Nema Designs:** B, C, D and special designs for specific applications

**Standard Variations:** Available with T or U-frame motors; variety of assembly positions; with or without reducers (helical and right angle); can be supplied with modular, C-face input and output to accept any type of motor or reducer

**Outstanding Features:** Lube-Free® (no grease) design of pulleys and shafts; positive speed control over stepless range; heavy duty belt with large thermal capacity to ensure long, cool-running operation; full length cover plates on both sides of transmission provide easy access to internal parts; various means available for changing speed (manual, electric or pneumatic); tachometer speed read-out; modular design provides the ultimate in flexibility and ease of service; automatic belt tensioning ensures the smooth transmission of power and prevents excess belt wear; can provide extra high starting torque

### Application Specific Motors & Drives

- Designed to meet customer's mechanical and/or electrical requirements

Example:

- High and low temperature applications
- Multi-speeds and voltages
- Special shafts and flanges
- Quick lead-times from design to production
- Large and small quantities
- Modified stock specials and complete custom design and manufacture



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# Product Line Card

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