

#### Introduction

# Sumitomo Drive Technologies

Today, business environments around the world change rapidly and market competition is fierce. Yet, the idea of business globalization and borderless economies is becoming a commonplace. Sumitomo Drive Technologies moves forward as a unified and global group, constantly adapting to these changes.

We promise our customers to uphold our values as a "dependable partner with reliable products" and to deliver "dynamic, timely support and services."

Our brand expresses our commitment to our customers.

Sumitomo Drive Technologies' brand guarantees innovative, top quality products and services developed by the most advanced technologies. From steel production and cargo cranes to food processing and healthcare, we offer products and services worldwide that improve mankind's quality of life.

## **BRAND STATEMENT**

We are always moving forward in pursuit of new ideas that inspire our partners to create new values that will change the world.

Each of our skilled, knowledgeable, creative employees

contributes to the creation of unique technologies and innovative

solutions that meet and exceed our partners' expectations.

Our global network facilitates premier support of our partners' needs.

We stand poised to meet the challenges of today and tomorrow, so that our partners may walk with confidence as industry leaders.

#### Always on the Move

Sumitomo Drive Technologies: A dependable partner, creating unprecedented change and opening up unseen worlds.

That is who we are.

**Sumitomo** Drive Technologies

#### History

# 400 Years of Sumitomo Group History

A history of the Sumitomo Group started more than 400 years ago when Masatomo Sumitomo opened a book and a pharmacy store in the city of Kyoto, Japan. Over the next 100 years, the Sumitomo family developed its leading presence in copper refining, which led to the family opening the Besshi copper mine. The Sumitomo Group has continued to grow and diversify its business to become one of the largest corporate groups in the world.

After 400 years, "Business Spirit" of the Sumitomo family continues to live in each Sumitomo Group Company. The core of the Sumitomo Group, listed below, consists of 20 companies who share the Sumitomo Emblem as well as many common values and ideals.





Map of the Besshi Copper Mine

Flactronics and alactric are duete

#### The core twenty companies of Sumitomo Group

Sumitomo Chemical Co., Ltd Chemicals
· Sumitomo Heavy Industries, Ltd. ······ Machinery and shipbuilding
Sumitomo Mitsui Banking Corporation Finance
Sumitomo Metal Industries, Ltd.
Sumitomo Metal Mining Co., Ltd.
Sumitomo Corporation Integrated trading company
· The Sumitomo Trust & Banking Co., Ltd. · · · · Finance
Sumitomo Life Insurance Co Insurance
· Sumitomo Coal Mining Co., Ltd. ······ Mining
The Sumitomo Warehouse Co., Ltd.

Sumitomo Electric Industries, Ltd Electronics and electric particles.	products
Mitsui Sumitomo Insurance Co., Ltd. · Insurance	
Nippon Sheet Glass Co., Ltd Glass	
• NEC Corporation Electronics and electric p	oroducts
- Sumitomo Realty & Development Co., Ltd. · · · Real estate	
- Sumitomo Osaka Cement Co., Ltd. ····· Cement	
- Sumitomo Light Metal Industries, Ltd. · · · · Nonferrous metals	
- Sumitomo Mitsui Construction Co., Ltd. ····· Construction	
Sumitomo Bakelite Co., Ltd Chemicals	
Sumitomo Forestry Co., Ltd Lumber and housing	

Cumitama Flactric Industrias Ital

#### Sumitomo Heavy Industries, Ltd.

In 1888, the company was formed to provide equipment repair services to the Besshi copper mine.

Nearly 50 years later in 1934, the company incorporated as Sumitomo Machinery Co., Ltd. and manufactured machineries for steel, material handling, chemical industries, and plant construction, which were the driving forces behind Japan's high economic growth.

In 1969, Sumitomo Machinery Co., Ltd. merged with Uraga Heavy Industries Co., Ltd. and was renamed as Sumitomo Heavy Industries Co., Ltd. The company continues to innovate and expand a business to fulfill the demands of new market frontiers. Today, Sumitomo Heavy Industries Co., Ltd. manufactures injection molding machines, laser systems, semiconductor machinery, and liquid crystal production.









ET

Ultra-precise injection molding machines

UV laser drilling machine for printed circuit board processing

#### History

# More than 70 Years in Drive Technologies

#### Sumitomo Drive Technologies of Sumitomo Heavy Industries, Ltd.

The first manufacturing of electric motors and speed reducers in Sumitomo Heavy Industries, Ltd. was begun in the early 20th Century.

In 1911, Sumitomo Machinery Co., Ltd. began manufacturing direct-current electric motors (3.7kW) for the Besshi copper mine. In the late 1930s, the company formed a technical cooperation agreement with CYCLO Getriebebau Lorenz Braren KG of Germany. In 1939, Sumitomo Drive Technologies was born when Sumitomo Heavy Industries, Ltd. began to manufacture CYCLO® DRIVES. In 2003, Sumitomo Drive Technologies was implemented as a global group brand to bind all power transmission businesses of the world.

For more than 70 years, Sumitomo Drive Technologies continues to lead the world with knowledge and innovation in power transmission and control devices. Sumitomo Drive Technologies strives to be the "dependable partner" for our customers.



The inventor of CYCLO® DRIVE Mr. Lorenz Braren



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# Sumitomo Drive Technologies and its Products

Sumitomo Heavy Industries, ltd.

#### IN LINE

■ CYCLO® DRIVE TECHNOLOGY

CYCLO® DRIVE (GEAR MOTOR, SPEED REDUCER)

CYCLO® DRIVE FOR PRECISION CONTROL F SERIES

CYCLO® DRIVE WITH TORQUE LIMITER, CYCLO® WHEEL, CYCLO® MOTOR PULLEY, ALTAX® GEARMOTOR

■ PLANETARY GEAR TECHNOLOGY

CYCLO® DRIVE FOR SERVO MOTOR IB SERIES

#### PARALLEL

■ HELICAL GEAR TECHNOLOGY

PARAMAX<sup>®</sup> 9000 SERIES (LARGE HELICAL REDUCERS), PREST<sup>®</sup> NEO GEARMOTOR, ASTERO<sup>®</sup> GEARMOTOR, HELICAL BUDDYBOX<sup>®</sup> (SHAFT MOUNTED GEARMOTOR) HMS SHAFT MOUNT SPEED REDUCER SKK GEARMOTOR (MFG 500 SERIES, A SERIES)

#### RIGHT ANGLE

■ BEVEL GEAR TECHNOLOGY

PARAMAX<sup>®</sup> 9000 Series (Large Helical Bevel Reducers) Rhytax<sup>®</sup> Gearmotor (Middle Helical Bevel Gearmotor) Bevel Buddybox<sup>®</sup> (Cyclo Drive and Bevel Gear)

- HYPOID GEAR TECHNOLOGY

  HYPONIC GEARMOTOR® (SMALL RIGHT ANGLE GEARMOTOR)
- WORM GEAR TECHNOLOGY
  HEDCON® WORMGEAR SPEED REDUCER

#### VARIABLE SPEED TECHNOLOGY

■ AC INVERTER

SF320 $\alpha$ , HF320 $\alpha$ , HF430 (SENSORLESS VECTOR CONTROL)

■ SPEED CONTROLLER

CONTROLLER SMALL SINGLE PHASE MOTOR (ASTERO®)

■ MECHANICAL SPEED VARIATOR

BEIER VARIATOR
BEIER CYCLO VARIATOR

#### **MOTOR TECHNOLOGY**

■ MOTORS FOR SPEED REDUCERS

INDUCTION MOTOR THREE PHASE, SINGLE PHASE.
WITH BRAKE, EXPLOSION PROOF, SAFETY INCREASED,
MOTOR FOR AF INVERTER, MOTOR FOR VECTOR CONTROL,
SERVO MOTOR, REVERSIBLE MOTOR, MOTOR FOR SPEED CONTROL
WATER PROOF, HIGH EFFICIENCY THREE PHASE MOTOR,
MOTOR FOR GLOBAL STANDARD

# **Sumitomo** Drive Technologies *Always on the Move*

ECHNOLO

#### SEISA SEISA Gear, Ltd.

■ PLANETARY GEAR REDUCER SP SERIES, PC SERIES, AN SERIES

■ HELICAL GEAR SPEED REDUCER AF SERIES, SF SERIES

■ WORM GEAR SPEED REDUCER HF SERIES

■ COUPLING GC COUPLING, DC COUPLING, SF COUPLING

■ SPEED REDUCER FOR INDUSTRIAL MACHINERY

SPEED REDUCER AND INCREASER

FOR MILL, FOR RUBBER AND PLASTIC MACHINES, FOR STEEL PLANT, FOR WIND TURBINE, FOR PAPER MACHINES, FOR SUGAR PLANT

■ HIGH SPEED GEARS

FOR COMPRESSOR, FOR PUMP, FOR BLOWER, FOR GENERATOR HIGH SPEED SHN SERIES, HIGH SPEED DHN SERIES

■ REDUCER FOR PUMP

BEVEL GEAR, PLANETARY GEAR, PARALLEL SHAFT WITH CLUTCH, WITH FLUID COUPLING

■ SPEED REDUCER FOR SHIP

■ SPEED REDUCER FOR CONSTRUCTION MACHINE

# U.S.A. Argentina Brazil Chile Mexico

Americas

Sumitomo Machinery Corporation of America

SM-Cyclo de Argentina S.A.

SM-Cyclo Redutores do Brasil, Com. Ltda. Sumitomo Indústrias Pesadas do Brasil Ltda.

e SM-Cyclo de Chile, Ltda.

MexicoSM-Cyclo de Mexico, S.A. de C.V.CanadaSM-Cyclo of Canada, Ltd.

Europe

Germany Sumitomo (SHI) Cyclo Drive Germany GmbH

AustriaSCG Branch Austria OfficeBeneluxSCG Branch Benelux OfficeFranceSM-Cyclo France SASItalySM-Cyclo Italy SrlSpainSM-Cyclo Iberia, S.L.SwedenSM-Cyclo Scandinavia AB

UK SM-Cyclo UK Ltd.

Asia + Oceania P26-27

China Sumitomo (SHI) Cyclo Drive China, Ltd.
Sumitomo (SHI) Cyclo Drive Logistics, Ltd.

Sumitomo Heavy Industries (Tangshan), Ltd.

**Hong Kong** SM-Cyclo of Hong Kong Co., Ltd.

**Korea** Sumitomo (SHI) Cyclo Drive Korea, Ltd.

**Taiwan** Tatung SM-Cyclo Co., Ltd.

Singapore Sumitomo (SHI) Cyclo Drive Asia Pacific Pte. Ltd.

Philippines SCA Branch Office in Philippines

Sumi-Cyclo Drive India Private Limited

Philippines SCA Branch Office in Philippines

Vietnam Sumitomo Heavy Industries (Vietnam) Co., Ltd.

Malaysia SM-Cyclo (Malaysia) Sdn. Bhd.
Thailand SM-Cyclo (Thailand) Co., Ltd.
Australia SM Cyclo (Australia) Pty.. Ltd.

Japan Sumitomo Heavy Industries, Ltd.

Sumitomo Heavy Industries PTC Sales Co., Ltd.

SEISA Gear, Ltd.

# Sumitomo Drive Technologies Timeline

Speed Control C Drives Inverter			HF320 $\alpha$ CAI Series GF30 $\alpha$	STACOC HF430	SF320 HF320	AF-3100 <i>c</i> 2 AF-3200(mini)	AB3000 AB100	\$\$6100P servo \$\$6100 servo	\$56000 servo \$51700 servo \$51700 servo	AF310 AF300 AF300	AF500 series S5-1000 servo drive ACS-30 servo drive	AF1600 Vector Inverter AF200K	eries DC motor (300-400kW)	D51200 AC200 S servo	Series DC motor AF100GII TD-100	DS-108 AF-200 AF-200E	series DC Motor  0	DS-70R	DS-100FA DS-300			AT series DC motor	Chiba plant 10,DS-10A,DS-10 55200R,DS-600	Jrive system co.	Al series DC, motor ical agreement with GE																	Motor (3.7kW)
Mechanical Motor & Sp. Speed Control Induction DC D	V series motor	Vietnam plant		RB Brake motor High efficiency motor		IV-drive motor with inverter	New FB brake motor yclo Variator Fseries sincle phase motor	F series motor (40-90W) F series motor (0.1-0.4kW)	ies Beier Fseries motor (7.5-11kW) Fseries AF motor	F series motor (3.7-5.5kW)  F series motor (0.75-2.2kW)  2 p c s	(Widerange) peed setter	FB Brake motor Synchronous servo motor Vector motor	Induction servo motor  4P Cs Large DC motor	Motors for #200 series Cyclo	ZP B s ier les Beier	AF motor series for AC Inverter	Motorfor AC Inverter Milito 4P B s 6 series motor (0.1kW-2.2kW) DS-700	DS-11		G series motor (TLKW-250KW)	to 150kW	ed setter 4P	Sa	Explosion proof motor D Pole change motor Technic	CMB brake motor Techni Motor for Grane	Motor plant in Nagoya rr-Variator Eseries motor	r A series		e type Beier	Name & Columb	New Motors for cyclo	mote Control	Variator yclo Variator	ier Variator		Induction Motor series for Cyclo		Induction Motor for Cyclo		 Eve Indivision Mater (3 7kW)	TIST III GUCGOI MOOOI (SS. NW)	First DC1
ine PLANETARY		Servo Gear Head IB series P1 type		Servo Gear Head IB series	ow reduction ratio in Cyclo casing st Gyclo		E series Beier-C	Compower compact type	Ese		De Cyclo New D type Beier New Sp	s Gyclo Lohman GP series Compower CP series	n AGV		N ser	r Cyclo Connower SP series	COMPOWER STREET		Lohman IP series	ary gear for construction machinery	Large capacity Beier up	Spe				Canstan	Beie	or foller	Wide rang			Beier-Cyclo Variator with Re	orpully Beier-C	Technical agreement on B.			cal Cyclo					
CYCLO Applic		Altax NEO series		Altax cz series ies Gyclo 6000 series	Le New Center po	ker les	ne AUAX	s Okayama GM Plant LB series Cyclo for servo motor			Component typi	uder 17V, 18V series FA FR series for robot	Cyclo Wheel for	Large 200# Series F series for robot	Cyclo Drive / th (Small 2004) Series)	Torque Limiter (vclo Drive 6th Series (#79.#93)	Come of selections (a) and of selections (a)		Plant in Brazil	Planeta				Cydo Drive 5th Series (#49-#53)		mo Machinery Corp. of America (vclo	Cyclo Drive 4th (New E series)	Cyclo Moco	Nagoya Plant	Cyclo Drive 3rd (E series)	Cyclo Drive 2nd (L. series)	Gurlo Drim det estina un O conjaci	Cyclo prince 1st family up to series)  (yelo mote		Cyclo Drive C series itomo original development.)	e B series ( size #17 #18#,19,#20)	Vertice A series	Cyclo Gmb H. And Sumitomo	Cyclo Drive Invented by Mr.L. Braren (West Germany)			
Parallel HELICAL	Small Large			Astero gear motor Paramax 9000 ser duction ratio E series CMCR chaft Mann	Okayama GB Plant Paramax very large siz	Helical Bubby Bo SEB series for extrud Paramax 8000 ser	Gear box for flood gar  Prest-C for car parking Gear box for Cran Prest -D compact type Gear box for eleva	Paramax T serie: Paramax M serie				SAE series for extra				HPP series					HP II series					Sumiton									uns)	Cyclo Drive						
Right Angle Worm Gear	Beve	ar Head	Rhytax	Paramax 9000 series Low re	Rhytax Large series	ST-Worm Bevel Buddy Box Paramax 8000 series	Rhyfax Gearmotor					SC Worm SAF series for Cooling fan		Large capacity HEDCON		con CD100-CD250 HPP series	Speed Reducer		manufactured		HP II series																					
Group Hypoid Gear 1		Hyponic (size #1634) Astero Right Angle Ge		Hyponic High reduction ratio	Hyponic 40-90W series		Hyponic Large Size Hyponic compact series				Hypanic Drive			Large ca		Недсол	Hedon Worm S		SM-Worm test manufar																							
Tecl	Year 2009 2008	2007 2006 2005	2004	2002	1998	1996	1994	1000	1991	1990	1988	1987	1986	1985	1082	1982	1981	1979	1977	1975	1973	1972	1970	1969	1968	1967	1965	1963	1961	1959	1958	1956 1955	1954	1952	1950	1948	1940	1939	1926	6161	1913	1911

#### **Global Mission**

# **Global Web**

Sumitomo Drive Technologies began to develop a global presence in response to the challenges of the company mission to facilitate premier support of our partners' needs that lead to the development of operations located around the world.

In 1966, Sumitomo Drive Technologies established Sumitomo Machinery Corporation of America, the very first overseas manufacturing plant, in the United States to support the Western Hemisphere. In 1974, we signed a capital sharing agreement with CYCLO Getriebebau Lorenz Braren KG of Germany to bring further innovation to the Cyclo technology through technical collaboration of both companies. Eventually, the partnership formed Sumitomo (SHI) Cyclo Drive Germany GmbH.

The global Sumitomo Drive Technologies web extends to 50 countries with 8 main hubs, 8 manufacturing plants, 25 assembly plants, and 250 sales offices. Through this extensive web, we provide the world with high performance, reliable, and premium quality products and services. Our global web links the resources for marketing, procurement, production, and distribution to support customers at a world-class level for speed and accuracy.



# Research and Development

# **Answering Customer's Voices**

In striving to satisfy customers without compromising on the goals of innovation and reliability, Sumitomo Drive Technologies aggressively invests in Research and Development. As technology changes and improves, the power transmission and controls systems must also change and improve.

To challenge the technical horizons of mechanical and electrical components, Sumitomo Drive Technologies relies on research to uncover new levels of performance, reliability, and quality. From these "seeds" of research come the technologies of the future and the creation of new products to better serve customer needs.

The strength of our Research and Development efforts is in the ability to generate original concepts that transform into unique, customer focused products. Sumitomo Drive Technologies Research and Development believes that "what was not possible before is now possible." Meet and exceed customers' expectation, that is our passion.

#### Nagoya Works



This leading-edge facility conducts the Research and Development for the Cyclo product family, the high precision products and electric motors as well as the next-generation actuator products. The facility capabilities include an extensive product performance -testing laboratory.

#### Okayama Works



The CYCLO®DRIVE is one example of world

FEM strength analysis results on power transmission shafts are used to show stress distribution and displacement simultaneously. The Sumitomo research and development stance of "no compromise on reliability" is evident in all the components that make up Sumitomo Drive Technologies products.

FEM Strength and Rigidity Analysis

-class Research and Development efforts in Sumitomo DriveTechnologies. This product offers strength and reliability for unparalleled performance in operation. The Research and Development team created new internal geometries enabling higher load capabilities that reduced equipment sizes up to 40% and reduced



There are two large factories located on this site The larger building on the right is the factory for the gearbox poducts. This factory houses the design, management, production and after sales support for the gearbox products. All Research and Development for gearbox products takes place at this facility.

The smaller building on the left is the gearmotor product factory. This factory houses the design/ development, management, production and after sales support for the gearmotor products. All Research and Development for gearmotor products is conducted at this facility.



Why Sumitomo?

Why do customers prefer to use Sumitomo Drive Technologies products? The answer is that we offer the broadest range of products that are the most reliable and the highest quality available.

The CYCLO® DRIVE products provide customers with almost limitless flexibility and reliability in their applications. The revolutional Hyponic products give customers high-efficiency performance in a compact design with hypoid gear technology. The Paramax product family provides industrial customers a strong and a reliable gearbox that is designed for years of trouble-free service.

Our development engineers design these products with years of proven expertise in the power transmission industry. The industry recognizes that Sumitomo Drive Technologies products are the most reliable on the market. By using careful planning and verification testing over the entire development process, the engineers insure that these products are the most reliable and the highest quality available.



C.R.M.

# **Knowledge & Communication**

Across Sumitomo Drive Technologies' web, the highly trained sales team works tirelessly to maintain a close relationship with customers. The sales team support comes from the 250 sales offices located in 50 countries around the world. This web of support helps customers to evaluate their unique challenges and select the best available solution from the extensive product portfolio. In this way, our sales support web shares the same challenges and finds solutions together with the customers of the world as "a dependable partner."

Today, the volume of information is exploding at a tremendous rate. To manage this information and service customers more effectively, we have developed a Knowledge Management System. Through this system, sales personnel have expert information readily available that enables them to support the customer better. The optimum solution to a customer's problem is now immediately available to the sales force.

# **Humanity and Environment**

# People Working Together

As the recognized premium, power transmission technology leader in the world, Sumitomo Drive Technologies listens to customers closely to understand their changing needs and expectations. For over 70 years, the employees of our company continually improved the technology, products, and services in response to customer's demands. The "People" of Sumitomo Drive Technologies are the driving force behind these innovative changes.

With a strong emphasis on innovation and invention, each member of the Group is encouraged to contribute and develop their ideas, concepts and originality to support customers. Whether they work in sales, design/development, manufacturing, quality control, or service, this process raises each individual's sensitivity to maximizing customer benefit.

Through activities like our Knowledge Management System, a sharing innovation happens on a global scale, provides a forum to propose, and try new ideas and concepts. Any member of Sumitomo Drive Technologies may access and evaluate new concepts from anywhere in the world. With the Knowledge Management System, our personnel evaluates ideas by two criteria: "Will the idea benefit the customer?" and "Will the idea increase trust between our customers and us?"

#### Sumitomo Drive Technologies respects nature and the individual

Environmental responsibility is a key objective of Sumitomo Drive Technologies. All stakeholders in our group business processes (customers, vendors, employees, and stockholders) expect to live and work in a healthy, safe, and comfortable environment resulting from all our business activities.

In support of this key objective, all our factories are ISO 14001 certified. In addition, each product designed by Sumitomo Drive Technologies maximizes operating efficiencies such as conserving energy and reducing CO<sub>2</sub> emissions from power generating processes. The integration of reusable packaging materials is another key area where we succeed in conserving resources.



#### Products [1]

# **SMALL GEARMOTORS 6W-90W**

Sumitomo Drive Technologies offers a broad range of compact gearmotor products where reliability, efficiency and quiet operation are required.

The ASTERO<sup>®</sup> gearmotor offers a modular system of motors and offset-parallel gear heads that provide customers with the maximum flexibility and interchangeability; thus, giving them a product that is perfectly matched to their application.

The HYPONIC right-angle gearmotor provides the customer with a high efficiency, high torque, quiet running product that is designed for reliable service and maintenance-free operation. The Hypoid gear technology is the key to the product's high performance and compact design.

The heart of the ALTAX<sup>®</sup> in line (concentric) gearmotor is the CYCLO<sup>®</sup> speed reduction concept. The CYCLO<sup>®</sup> concept is respected globally as the best solution to speed reduction applications when customers demand reliability and performance. ALTAX<sup>®</sup> is the best matched product for overload resistance applications.

# GEARMOTORS 0.1-2.2kW

#### IN-LINE



#### ALTAX ® NEO GEARMOTOR

- ●Power ··· 0.1kW~3.7kW
- ■Ratio … 1/3~1/1003
- Motor · · · Induction (Single Phase, Three Phase)
  Brake

Inverter Motor
Outdoor
Safety Increased
For Global Standard

#### **RIGHT ANGLE**



#### HYPONIC GEARMOTOR®

- ■Power · · · 0.1kW~5.5kW
- ●Ratio … 1/5~1/1440
- Motor ··· Induction (Single Phase, Three Phase)
   Brake
   Inverter Motor
   Outdoor
   Safety Increased

For Global Standard

#### PARALLEL



#### PREST® NEO GEARMOTOR

- ●Power ··· 0.1kW~2.2kW
- ●Ratio … 1/3~1/200
- Motor ··· Induction (Three Phase)
  - Brake Outdoor
  - For Global Standard

# PARALLEL / RIGHT ANGLE



#### ASTERO® GEARMOTOR

- ■Power ··· Parallel : 6W~90W
- Right Angle: 25W~90W
- Ratio ··· Parallel : 1/3~1/200
- Right Angle: 1/5~1/240
- Motor ··· Induction (Single Phase, Three Phase) Reversible
  - Revers Brake
  - Speed Control CE UL CCC
  - Inter Decimal Gearhead (1/10)

#### IN-LINE



#### ALTAX® NEO GEARMOTOR

- Power ···40W~90W
- ●Ratio … 1/6~1/51
- Motor ··· Induction (Single Phase, Three Phase)
   Reversible
   Brake

#### RIGHT ANGLE



#### HYPONIC GEARMOTOR®

- ●Power ···15W~90W
- ■Ratio … 1/5~1/1440
- Motor ··· Induction (Single Phase, Three Phase) Reversible
  - Brake IP65

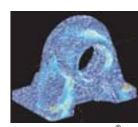
In addition to an extensive range of small gearmotor, Sumitomo Drive Technologies offers a comprehensive range of gearmotor products for larger torque applications.

The excellent reputation of the ALTAX<sup>®</sup>, with the CYCLO<sup>®</sup> speed reduction technology, is known throughout the industry as a highly reliable, in-line gearmotor product for tough applications.

The ALTAX® compact, optimal design results from applying FEM/3D CAD finite element analysis during the product design / development process.

The HYPONIC gives customers a compact, much more efficient alternative to Worm Gear technology. As a right angle drive, the HYPONIC utilizes hypoid gear technology that provides very quiet operation, high efficiencies and smaller mounting "footprint" than other hypoid gear products.

Where in-line speed reducer customers require very low operating and brake noise levels, the PREST®NEO products is applied. The PREST®NEO, originally designed as a simply using parallel gearmotor, and provides a guiet, reliable operation.



Casing Designed for ALTAX <sup>®</sup>NEO

This combines the three-dimensional CAD finite element analysis system with Sumitomo technology. It achieves both strength and compact size.



HYPONIC Hypoid Gear

The hypoid gear is midway between a worm gear and a bevel gear. It is more efficient than a worm gear and much quieter than a bevel gear. It is the optimum gear for use in small right -angle gear motors.

#### Products [2]

# CYCLO® DRIVE 0.1kW-132kW





#### Helical BUDDYBOX®

- ●Power ··· 0.1kW~30kW
- ■Ratio ··· 1/11~1/4365
- Motor ··· Brake

Inverter Motor Safety Increased **Explosion Proof** Outdoor Special Voltage **Special Insulation Class** For Global Standard

#### RIGHT ANGLE



#### Bevel BUDDYBOX®

- ●Power ··· 0.1kW~55kW
- ■Ratio … 1/11~1/10658
- ●Motor ··· Brake

Inverter Motor Safety Increased **Explosion Proof** Outdoor Special Voltage **Special Insulation Class** 

For Global Standard

Ever since it was first introduced in 1939, the CYCLO® DRIVE has been highly evaluated by customers for its strength and reliability. The secret to this product is its unique gear teeth and mechanism.

As a cycloidal tooth profile in the inner gear and an epitrochoidal parallel curve in the outer gear have been adopted, the gear engagement ratio is very high, to eliminate the risk of tooth breakage and greatly raising the reliability of the reducer.

Furthermore, high carbon and chromium bearing steel noted for their heat and fatigue resisting properties have been used. The Sumitomo-unique mechanism offers high reduction ratios of 1/6 to 1/119 for the single stage type and 1/121 to 1/7569 for the double stage type, making the drives much more compact than when typical involute gears are used.

The very high reduction ratio of 1/9251 to 1/658503 for the three-stage type, difficult with the typical involute gears, can be achieved easily with this mechanism.

In addition to the characteristics of the CYCLO® DRIVE mechanism, the greater load capacity of the 6000 Series offers up to 40 percent more size reduction. Elasticity analysis and development of a new tooth profile have helped for further noise reduction.

The BEVEL BUDDY BOX<sup>®</sup>, with right-angle shaft, and HELICAL BUDDY BOX<sup>®</sup>, with parallel shaft, are designed to take advantage of the superior characteristics of this CYCLO® gear mechanism by using bevel gears and helical gears for the output stage. These two product lineups make CYCLO® DRIVES even easier to use.



# **MOTION CONTROL DRIVES**

These are CYCLO® DRIVES used for precision control. They combine the high strength and impact resistance of CYCLO<sup>®</sup> gears with very low backlash design.

Because they are the component type, they are easy to install in customer machines. High precision alignment is made possible when combined with servo motors.

This line is ideal for applications that require higher rigidity and precision stopping. They are used in machine tools, industrial robots and factory automation equipment.

The FC-A, F1C-A, F2C-A, F2C-C, F4C-D and F2C-T Series are available to suit different types of applications.

The STD and LB Series CYCLO® DRIVE can be directly connected to general-purpose servo motors. There are standard backlash models and low 6min backlash models.

The IB Series P1 Type low backlash reduction gears use a Sumitomo-unique planetary gear mechanism.

When combined with servo motors, they can be used in all types of precision alignment applications, such as robots for injection molding machines, machine tools and packaging machines.



F Series





Cyclo LB Series

#### IN-LINE



#### F Series CYCLO® CYCLO® Drive For Precision Control

- <FC-A, F1C-A, F2C-A, F2C-C, F4C-D Series>
- ■Allowable peak torque ··· 336N·m~11036N·m
- ... 1/29~1/119 Ratio
- Lost Motion ··· 1min
- Output shaft ···· FC-A : Standard
- F1C-A: with Cross Roller Bearing
- F2C-A: with Taper Roller Bearing F2C-C: with Taper Roller Bearing Large Diameter Type
- F4C-D: with Angular Contact Ball Bearing
- <F2C-T Series>
- Torque ··· 167N·m~4415N·m ... 1/81~1/171
- Ratio
- ... 0.5min I ost Motion
- Output shaft ··· F2C-T : with Taper Roller Bearing

#### IN-LINE



#### LOW Backlash Servo CYCLO® Reducers LB Series CYCLO®

- Allowable peak torque ··· 30N·m~630N·m
- ··· 1/11~1/29
- Backlash ··· 6min and smaller
- ··· Hollow High Speed Input shaft Shaft for Servo Motors

#### STD Series CYCLO®

- Torque ··· 24N·m~1370N ·m
- Ratio ··· 1/6~1/87
- Backlash ··· 30~120min
- ··· Hollow High Speed Input shaft
  - Shaft for Servo Motors

#### IN-LINE



#### IB Series P1 Type Reducer For Servo Motors

- P1 Type ● Allowable peak torque … 35N·m~380N·m
- ··· 1/3.7~1/81
- Backlash ··· 3min, 15min
- Suitable for the latest Servo motor
- Output Shaft
- Solid(Keyless or Key) Input Shaft
  - ··· Hollow High Speed Shaft
  - for Servo Motors (Keyless)

#### Products [3]

# SPEED REDUCERS

Sumitomo Drive Technologies also provides an extensive line of medium and large-sized speed reducers.

Two types of speed reducers are provided for the PARAMAX® Series. One is a parallel gearbox with helical gears and the other combines helical gears and bevel gears in a right-angle gearbox. Systematic combinations of individual components have led to standardization of almost all gears, shafts and cases. This makes both higher quality and shorter delivery times possible for speed reducers.

Compared with the ordinary pressure angle of 20°, a 25° pressure angle offers tooth form with thicker dedendum. This provides the higher tooth strength rating that is essential for shock load applications.

FEM analysis is used to maximize housing strength and rigidity, thereby ensuring correct gear alignment and noise reduction.

The 9000 series right-angle models allow direct motor mounting. This eliminates the need for coupling and simplifies motor installation, enabling more compact designs.

The HEDCON® worm gear speed reducer is based on the unique double contact theory, which creates a high-efficiency, high-strength worm reduction mechanism. A high-precision series featuring low backlash is also available.



#### PARALLEL / RIGHT ANGLE



#### PARAMAX® 9000 Series

- ●Power ··· 2.6kN·m~552kN·m
- ●Ratio … 1/6.3~1/500
- Motor ··· PARAMAX® applied products SEB Series for Extruder SFC Series for Cooling Tower SCB Series for Crane Hoisting SHC Series for Garbage Crane

SGD Series for Water Gate

WORM GEAR SPEED REDUCER ●Power · · · 589N·m~82,400N·m ■Ratio … 1/5~1/100 Motor ··· Standard

A Series (Precision)

with CYCLO® DRIVE

RIGHT ANGLE

HEDCON®

#### Products [4]

# SPEED CONTROL



BEIER® VARIATOR



#### BEIER CYCLO VARIATOR®

- A Type Power
- ··· 0.2kW~150kW Speed range ··· 1:4
- · · · Intermediate characteristic Torque between torque constant and power constant
- B Type
- ··· 0.2kW~110kW Power
- ●Speed range ··· 1:4
- ··· Power constant Torque
- D Type
- Power ··· 0.4kW~7.5kW
- ●Speed range ··· 1:10
- · · · Intermediate characteristic Torque

#### between torque constant and power constant

#### **ELECTRICAL (AC INVERTER)**



#### **CAI Series**

- ... 25W~100W
- (1 Phase 100V/200V ~3 Phase 200VClass) Speed Control ··· V/f





#### HF320α Series

- ··· 0.2kW~7.5kW Power (3 Phase 200V Class) 0.4kW~7.5kW (3 Phase 400V Class)
  - 0.2kW~2.2kW (1 Phase 200V~3 Phase 200V Class)
- Speed control ··· Sensorless Vector Control High starting
  - torque ··· 200% of rated motor torque

Sumitomo Drive Technologies offers two types of speed control drives. One is a mechanical series, the other an electrical series.

The electrical series includes the AC inverter type that is widely used, an AF motor specifically designed for that AC inverter and an IV-DRIVE, that combines the AC inverter and motor.

Sumitomo Drive Technologies has optimized the inverter and CYCLO<sup>®</sup> gear motor combination by designing the inverter to store motor characteristics when the two are used together. Torque performance, including starting torque, has been improved to create greater operating power.

The BEIER® VARIATOR, with a 50 year history and sales of 700,000 units, is provided as a stepless variable speed reducer. The BEIER CYCLO VARIATOR®, which combines CYCLO® gear, is provided as a variable speed reducer. The key characteristics of this series are a choice of a fixed horsepower or a combination of fixed horsepower and torque, which offers especially high torque in the low-speed range.

#### **ELECTRICAL (AC INVERTER)**



#### SF320α Series

- ··· 0.1kW~2.2kW Power (3 Phase 200V Class)
  - 0.2kW~2.2kW
  - (1 Phase 200V Class) 0.1kW~0.75kW
  - (3 Phase 100V Class)
- Speed Control ·· (with New Vector Control)



#### HF430 Series

- Power ··· 5.5kW~55kW (3 Phase 200V Class)
- 5.5kW~55kW (3 Phase 400V Class) Speed control ··· Sensorless Vector Control
- High starting torque ··· 200% of rated motor torque



# International Operations [1]

# **Americas**



#### U.S.A.

#### Sumitomo Machinery Corporation of America (SMA)

Headquarters: Chesapeake, Virginia Address: 4200 Holland Blvd. Chesapeake, VA 23323, U.S.A. Tel: (1)757-485-3355 Fax: (1)757-485-7490 Time Difference GMT -5

#### O SMA Branch Chicago Facility

Address: 175 West Lake Drive, Glendale Heights, IL 60139, U.S.A. Tel: (1)630-752-0200 Fax: (1)630-752-0208 Time Difference GMT -6

#### SMA Branch Los Angeles Facility

Address: 2375 Railroad St., Corona, CA 92880, U.S.A. Tel: (1)951-340-4100 Fax: (1)951-340-4108 Time Difference GMT -8

#### ○ SMA Branch Louisville Facility

Address: 4601 Commerce Crossing, Suite 200, Louisville, KY 40229, U.S.A. Tel: (1)502-969-0378
Time Difference GMT -5

#### Argentina

#### ○ SM-Cyclo de Argentina S.A. (SMAR)

Headquarters: Buenos Aires Address: Montes de Oca #6719, (B1606BMG)Munro, Buenos Aires, Argentina Tel: (54)11-4765-5332 Fax: (54)11-4765-5517 Time Difference GMT -3

#### Brazil

#### ■ SM-Cyclo Redutores do Brasil, Com. Ltda. (SMBR)

Headquarters: São Paulo

Address: Av. Fagundes Filho, 191 Metrô Sao Judas Edifício - Sala H123 São Paulo-SP Brasil 04304-010 Tel: (55)11-5585-3600 Fax: (55)11-5585-9990 Time Difference GMT -3

#### Sumitomo Indústrias Pesadas do Brasil Ltda. (Start operating in September, 2011)

Plant : São Paulo

Address: Rodovia do Açúcar (SP-075) Km 26 Itu, São Paulo, Brasil Time Difference GMT -3

#### Chile

#### ○ SM-Cyclo de Chile, Ltda. (SMCH)

Headquarters: Santiago

Address: San Pablo N3507, Comuna de Quinta Normal, Santiago, Chile Tel: (56)2-892-7000 Fax: (56)2-892-7001 Time Difference GMT -4

#### **O SMCH Branch Antofagasta Facility**

Address: Calle 8, Manzana2, Sitio 1, La Negra, Antofagasta, Chile Tel: (56)5-556-1611 Fax: (56)5-556-1616 Time Difference GMT -4

#### ○ SMCH Branch Concepción Facility

Address: Camino a Coronel Km10, #5880, Modulo 3-A Comuna: San Pedro de la Paz-Concepción, Chile Tel: (41)246-9806 Fax: (41)246-9808 Time Difference GMT -4

#### Mexico

#### ○ SM-Cyclo de Mexico, S.A. de C.V. (SMME)

Headquarters: Monterrey

Address: Calle "C" No. 506A Parque Industrial Almacentro Apodaca, N. L., Mexico 66600 Tel: (52)81-8144-5130 Fax: (52)81-8369-3699 Time Difference GMT -7

#### **SMME Branch Mexico City Facility**

Address: Privada Ceylan No. 59-B Bis, Colonia Industrial Vallejo Delegacion Azcapotzalco, DF Mexico 02300 Tel: (52)55-5368-7172 Fax: (52)55-5368-6699 Time Difference GMT -6

#### **SMME Branch Guadalajara Facility**

Address: Unidad Privativa No. 4 Alamo Tecno Park Tlaquepaque, JAL CP 44490 Tel: (52)33-3675-4369 Fax: (52)33-3675-4418 Time Difference GMT -6

#### Technical Support

#### U.S.A., Argentina, Brazil, Chile, and Mexico: Sumitomo Machinery Corporation of America (SMA)

Address: 4200 Holland Blvd. Chesapeake, VA 23323, U.S.A. Tel: (1)757-485-3355 Fax: (1)757-487-3193 Time Difference GMT -5

#### Canada

#### **○** SM-Cyclo of Canada, Ltd. (SMC)

Headquarters: Toronto

Address: 1045 South Service Road West, Oakville, Ontario, Canada L6L 6K3 Tel: (1)905-469-1050 Fax: (1)905-469-1055 Time Difference GMT -5

#### SMC Branch Vancouver Facility

Address: 740 Chester Road, Annacis Island, Delta, B.C., Canada V3M 6J1 Tel: (1)604-525-5403 Fax: (1)604-525-0879 Time Difference GMT -8

#### **SMC Branch Montreal Facility**

Address: 2862 Blvd. Daniel-Johnson, Laval, Quebec H7P 5Z7, Canada Tel: (1)450-686-8808 Fax: (1)450-686-8000 Time Difference GMT -5

#### Technical Support

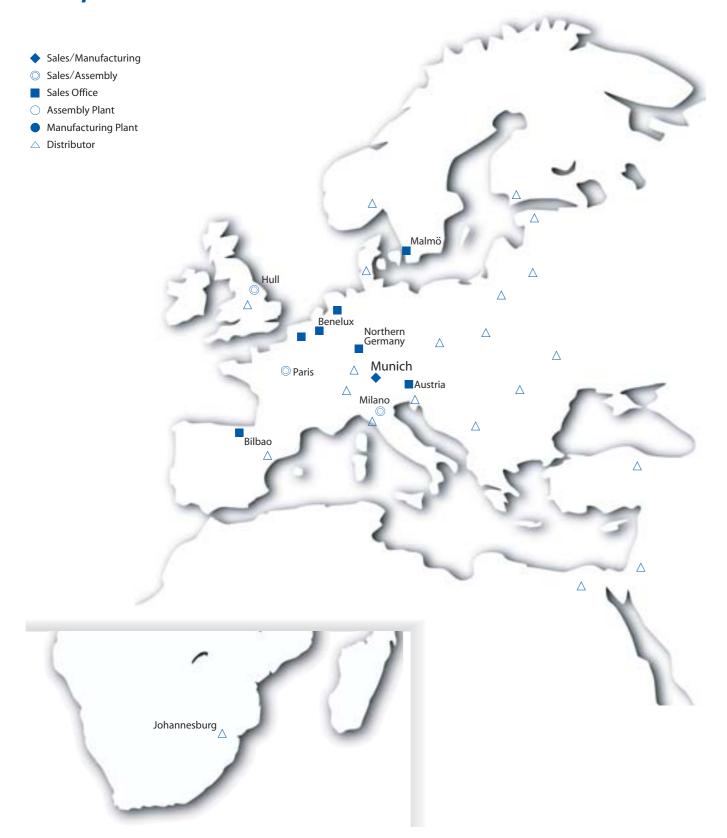
#### Canada:

#### SM-Cyclo of Canada, Ltd. (SMC)

Address: 1045 South Service Road West, Oakville, Ontario, Canada L6L 6K3 Tel: (1)905-469-1050 Fax: (1)905-469-1055 Time Difference GMT -5

# International Operations [2]

# **Europe**



#### Germany

#### ◆ Sumitomo(SHI) Cyclo Drive Germany GmbH (SCG)

Headquarters: Munich

Address: Cyclostraße 92, 85229 Markt Indersdorf, Germany Tel: (49)8136-66-0 Fax: (49)8136-5771 Time Difference GMT +1

#### Austria

#### ■ SCG Branch Austria Office

Address: Gruentalerstraße 30A, 4020 Linz, Austria Tel: (43)732-330958 Fax: (43)732-331978 Time Difference GMT +1

#### Benelux

#### ■ SCG Branch Benelux Office

Address: Office Heikneuterlaan 23, 3010 Kessel-Lo/Leuven, Belgium Tel: (32)16 60 83 11 Fax: (32)16 57 16 39 Time Difference GMT +1

#### France

#### ○ SM-Cyclo France SAS (SMFR)

Headquarters: Paris

Address: 8 Avenue Christian Doppler Arlington Techniparc, 77700 Serris, France Tel: (33)149-929494 Fax: (33)149-929490 Time Difference GMT +1

#### Italy

#### ○ SM-Cyclo Italy Srl (SMIT)

Headquarters: Milano

Address:Via dell' Artigianato 23, 20010 Cornaredo(MI), Italy Tel: (39)02-9356-2121 Fax: (39)02-9356-9893 Time Difference GMT +1

#### Spain

#### ■ SM-Cyclo Iberia, S.L. (SMIB)

Headquarters: Bilbao

Address: Edificio Gobelas, C/Landabarri, n° 4 Escalera 1, 2° Izqda, Leioa 48940 Vizcaya, Spain

Tel: (34)944-805389 Fax: (34)944-801550

Time Difference GMT +1

#### Sweden

#### ■ SM-Cyclo Scandinavia AB (SMSC)

Headquarters: Malmö

Address: Ridbanegatan 4, S-21377 Malmö, Sweden Tel: (46)40220030 Fax: (46)40220035

Time Difference GMT +1

#### ○ SM-Cyclo UK Ltd. (SMUK)

Headquarters: Hull

Address: Unit 29, Bergen Way, Sutton Fields Industrial Estate, Kingston upon Hull, HU7 0YQ, East Yorkshire, United Kingdom Tel: (44)1482-790340 Fax: (44)1482-790321 Time Difference GMT 0

#### Technical Support

Germany, Austria, Benelux, France, Italy, Spain, Sweden, and UK:

Sumitomo(SHI) Cyclo Drive Germany GmbH (SCG)

Address: Cyclostraße 92, 85229 Markt Indersdorf, Germany Tel: (49)8136-66-0 Fax: (49)8136-5771 Time Difference GMT +1

# International Operations [3]

# Asia



#### China

#### ■ Sumitomo(SHI) Cyclo Drive China, Ltd. (SCT)

Sales Headquarters: Shanghai

Address: 13 Floor, No. 1698 Yishan Rd, Shanghai, China 201103

Tel: (86) 21-3462-7877 Fax: (86) 21-3462-7922

Time Difference GMT +8

#### ○ SCT Shanghai Assembly Plant

Address: Block 11, No. 99 Huajia Road, Songjiang Huabin Industrial Zone,

Shanghai, China 201600

Tel: (86) 21-5774-8280 Fax: (86) 21-5774-9428

Time Difference GMT +8

#### SCT Tianjin Manufacturing Plant

Address: No. 7 Sanjing Road, Dongli Economic Development Zone,

Tianjin, China 300300

Tel: (86) 22-2499-3501 Fax: (86) 22-2499-3133

Time Difference GMT +8

#### ■ SCT Branch Beijing Office

Address: Room 1806, Tower C, Triumph Center, No. 170, Beiyuan Road, Chaoyang District, Beijing, China 100101

Tel: (86) 10-8485-4688 Fax: (86) 10-8485-4698

Time Difference GMT +8

#### ■ SCT Branch Guangzhou Office

Address: Room 1208, A Tower, Centre Plaza, No. 161-163, Linhe West Rd,

Guangzhou, China 510620

Tel: (86) 20-3828-8422 Fax: (86) 20-3828-8580

Time Difference GMT +8

#### **O SCT Guangzhou Assembly Plant**

Address: No. 32 Sangtian San Rd, Yonghe Economic Zone, Guangzhou, China 511356 Tel: (86)20-8298-1073 Fax: (86)20-3222-1017

Time Difference GMT +8

#### ○ Sumitomo(SHI) Cyclo Drive Logistics, Ltd. (SCL)

Address: 6#, 309 Lane Nanle Road, Songjiang Export Zone, Shanghai,

China 201600

Tel: (86) 21-5774-8866 Fax: (86) 21-5774-8511

Time Difference GMT +8

#### Sumitomo Heavy Industries(Tangshan), Ltd.

Address: 35 Yuan Qu Road, Modern Equipment Manufacturing Industrial Park,

Kaiping District, Tangshan, Hebei Province, China 063021

Tel: (86)315-3390880 Fax: (86)315-3390936

Time Difference GMT +8

#### Hong Kong

#### ■ SM-Cyclo of Hong Kong Co., Ltd. (SMHK)

Headquarters: Hong Kong

Address: Unit 1802, 18/F, Park Building, 476 Castle Peak Road,

Kowloon, Hong Kong

Tel: (852) 2460-1881 Fax: (852) 2460-1882

Time Difference GMT +8

#### Technical Support

#### China, Hong Kong:

#### Sumitomo(SHI) Cyclo Drive China, Ltd. (SCT)

Address: 13 Floor, No. 1698 Yishan Rd, Shanghai, China 201103 Tel: (86)21-3462-7877 Fax: (86)21-3462-7922

Time Difference GMT +8

# Korea

#### ■ Sumitomo(SHI) Cyclo Drive Korea, Ltd. (SCK)

Headquarters: Seoul

Address: Royal Bldg. 9F Rm. 913, 5 Danju-Dong, Chongro-Gu,

Seoul, Korea 110-721

Tel: (82) 2-730-0151 Fax: (82) 2-730-0156

Time Difference GMT +9

#### ○ SCK Inchon Assembly Plant

Address: 101BL-11Lot Namdong-Gu, Industrial Area 661-10, Gojan-Dong, Namdong-Gu, Inchon-City, Korea 405-818

Tel: (82) 32-819-8915 Fax: (82) 32-819-2484

Time Difference GMT +9

#### ■ SCK Branch Pusan Office

Address: 302-1, Industry Building, 578 Kwae Bop-Dong,

Sasang-Gu, 617-809 Pusan-City, Korea

Tel: (82) 51-319-1547 Fax: (82) 51-319-1587

Time Difference GMT +9

#### ■ SCK Branch Daejeon Office

Address: Room #793, Hansin S-MECA, 1359, Gwampyeong,

Yuseong-Gu, Daejeon, Korea 305-509

Tel: (82) 42-934-0150 Fax: (82) 42-935-0150

Time Difference GMT +9

#### **Technical Support**

#### Sumitomo(SHI) Cyclo Drive Korea, Ltd. (SCK)

Address: 101BL-11Lot Namdong-Gu, Industrial Area 661-10,

Gojan-Dong, Namdong-Gu, Inchon-City, Korea 405-818

Tel: (82) 32-819-8915 Fax: (82) 32-819-2484

Time Difference GMT +9

#### ■ Tatung SM-Cyclo Co., Ltd. (TSC)

Headquarters: Taipei

Address: 22 Chungshan N. Road 3rd., Sec. Taipei, Taiwan 104, R. O. C.

Tel: (886) 2-2595-7275 Fax: (886) 2-2595-5594

Time Difference GMT +8

#### ○ TSC San-Hsia Assembly Plant

Address: 352 Shi-Tong Road., San-Hsia, 237, Taipei County, Taiwan, R. O. C. Tel: (886) 2-8676-1382 Fax: (886) 2-8676-2285

Time Difference GMT +8

# International Operations [4]



#### Singapore

#### ○ Sumitomo(SHI) Cyclo Drive Asia Pacific Pte. Ltd. (SCA)

Headquarters: Singapore

Address: 15 Kwong Min Road, Singapore 628718
Tel: (65)6591-7800 Fax: (65)6863-4238
Time Difference GMT +8

#### Philippines

#### SCA Branch Office in Philippines

Address: B2b Granville Industrial Complex, Governor's Drive, Bo, Bancal, Carmona 4116 Cavite, Philippines
Tel: (63)2-6800-6500 Fax: (63)2-6800-6555
Tel: (63)2-6800-6501 Fax: (63)4-6430-3592
Tel: (63)4-6430-3591
Time Difference GMT +8

#### Vietnam

#### ■ SCA Representative Office in Hanoi

Address: Room 603, 6th Floor Noza Building, 243 Cau Giay Street, Cau Giay District, Hanoi, Vietnam Tel: (84)4-3767-2716 Fax: (84)4-3767-2470 Time Difference GMT +7

#### ■ SCA Representative Office in Ho Chi Minh

Address:7th Floor,301 Tran Hung Dao St., Co Giang Ward, District. 1, HCMC
Tel: (84)8-3920-4539 Fax: (84)8-3920-4540
Time Difference GMT +7

#### Sumitomo Heavy Industries (Vietnam) Co., Ltd.

Address: I-7 Thang Long Industrial Park, Dong Anh District, Hanoi, Vietnam Tel: (84)4-3955-0004 Fax: (84)4-3955-0014 Time Difference GMT +7

#### Malaysia

#### ○ SM-Cyclo(Malaysia) Sdn. Bhd. (SMMA)

#### Headquarters: Kuala Lumpur

Address: No. 2, Jalan BP 4/1, Bandar Bukit Puchong, 47100 Puchong, Selangor Darul Ehsan, Malaysia
Tel: (60)3-8061-2909 Fax: (60)3-8061-3909
Time Difference GMT +8

#### Thailand

#### SM-Cyclo (Thailand) Co., Ltd. (SMTH)

Headquarters: Chonburi

#### O Chonburi Assembly Plant

Address: #700/542 M006 Amatanakom Industrial Estate
Tambol Donhauroh, Muang District, Chonburi 20000, Thailand
Tel: (66)38-454-230 Fax: (66)38-454-235
Time Difference GMT +7

#### ■ SMTH Bangkok Office

Address: 195, Empire Tower 21st Fl., Unit 2103-4, South Sathorn Road, Yannawa Sathorn Bangkok 10120, Thailand Tel: (66)2-670-0998 Fax: (66)2-670-0999 Time Difference GMT +7

#### Australia

#### ○ SM Cyclo (Australia) Pty., Ltd. (SMAU)

Headquarters: Sydney

Address: 9 Holbeche Rd, Arndell Park, NSW, 2148, Australia Tel: (61)2-8811-6555 Fax: (61)2-8811-6500

Time Difference GMT +10

#### ■ SMAU Branch Brisbane Office

Address: UnitC-17 Annie Street Coopers Plains Queensland 4108, Australia Tel: (61)7-3277-8883 Fax: (61)7-3277-8772

Time Difference GMT +10

#### **○ SMAU Branch Melbourne Office**

Address: 61 Lakewood Boulevard Braeside Victoria 3195, Australia Tel: (61)3-9545-9500 Fax: (61)3-9587-5852 Time Difference GMT +10

#### ■ SMAU Branch Perth Office

Address: Unit 1/23 Mordaunt Circuit, Canning Vale, WA 6155, Australia Tel: (61)8-9456-1766 Fax: (61)8-9456-0944
Time Difference GMT +8

#### Technical Support

# Singapore, Philippines, Vietnam, Malaysia, Thailand, Australia:

**Sumitomo(SHI) Cyclo Drive Asia Pacific Pte. Ltd. (SCA)**Address: 15 Kwong Min Road, Singapore 628718

Tel: (65)6591-7800 Fax: (65)6863-4238
Time Difference GMT +8

#### India

#### **○** Sumi-Cyclo Drive India Private Limited

Address: Survey No. 130, Hissa No. 02, Jeevan Nagar,
Off Mumbai-Bangalore bypass, Tathawade, Pune-411 033, India
Tel: (91)20-6674-2900 Fax: (91)20-6674-2901
Time Difference GMT +5.5

#### Technical Support

#### India:

#### **Sumi-Cyclo Drive India Private Limited**

Address: Survey No. 130, Hissa No. 02, Jeevan Nagar,
Off Mumbai-Bangalore bypass, Tathawade, Pune-411 033, India
Tel: (91)20-6674-2900 Fax: (91)20-6674-2901
Time Difference GMT +5.5

## International Operations [5]

# Japan

#### ■ Sumitomo Heavy Industries, Ltd.

#### **Power Transmission & Control Group**

Headquarters: Tokyo

Address: ThinkPark Tower, 1-1, Osaki 2-Chome Shinagawa-Ku,

Tokyo 141-6025, Japan

Tel: (81)3-6737-2511 Fax: (81)3-6866-5160

Time Difference GMT +9

Web Site http://www.shi.co.jp/ptc/

#### Nagoya Plant

Address: 1, Asahi-Machi 6-Chome, Ohbu-Shi, Aichi 474-8501, Japan

Tel: (81)562-48-5243 Fax: (81)562-48-2161

Time Difference GMT +9

Products: CYCLO DRIVE, BEIER VARIATOR, BUDDYBOX, RHYTAX, MCD, Motors, Inverters

#### Okayama Gearbox Plant

Address: 8230, Tamashima-Otoshima, Kurashiki-Shi, Okayama,

713-8501, Japan

Tel: (81)86-525-6820 Fax: (81)86-525-6358

Time Difference GMT +9 Products: PARAMAX, HEDCON

#### Okayama Gearmotor Plant

Address: 8230, Tamashima-Otoshima, Kurashiki-Shi, Okayama,

713-8501, Japan

Tel: (81)86-525-6194 Fax: (81)86-525-6124

Time Difference GMT +9

Products: ALTAX, HYPONIC, PREST NEO, ASTERO, SKK Gearmotor

#### SEISA Gear, Ltd.

Time Difference GMT +9

Web Site http://seisa.co.ip

#### Sumitomo Heavy Industries PTC Sales Co., Ltd.

Tel: (81)3-6737-2520 Fax: (81)3-6866-5171

#### ○ Sales Office

Sendai

Saitama

Chiba

Kanazawa

Nagoya

Yokkaichi

Shiga

Osaka

Address: 16-1, Wakihama 4-Chome, Kaizuka-Shi, Osaka, 597-8555, Japan

Tel: (81)72-431-3021 Fax: (81)72-431-0846

Products: Planetary Gear Reducer, Coupling Worm Reducer, Industrial Machinery Reducer

Headquarters: Tokyo

Address: ThinkPark Tower, 1-1, Osaki 2-Chome Shinagawa-Ku,

Tokyo 141-6025, Japan

Time Difference GMT +9

Web Site http://www.sumiju.co.jp

Sapporo

Yokohama

Toyama

Akashi Kurashiki

Niihama

Kitakyushu Fukuoka

#### **GENERAL INFORMATION**

Company Name

#### SumItomo Heavy Industries, ltd.

Foundation ······ November 20, 1888

■ Establishment · · · November 1, 1934

President ······ Yoshinobu Nakamura

■ Head Office · · · · · ThinkPark Tower, 1-1, Osaki 2-Chome,

Shinagawa-Ku, Tokyo 141-6025, Japan

■ Capital ········ ¥30,871,650,000

■ Employees ······ 15,463 (consolidated)

(as of 31st March, 2010)

■ Net Sales ········ ¥516,165million (consolidated) ■ Web Site ······· http://www.sumitomodrive.com

#### **Subsidiaries of Power Transmission & Controls Group**

U.S.A. **Sumitomo Machinery Corporation of America** US\$7.723 thousand Capital Foundation June 1966 Web Site http://www.smcyclo.com/ Germany Sumitomo(SHI) Cyclo Drive Germany GmbH DM12 million Capital Foundation June 1976

Web Site http://www.sumitomodriveeurope.com China Sumitomo(SHI) Cyclo Drive China, Ltd.

Capital RMB87,000 thousand Foundation December 1994 Web Site http://www.smcyclo.com.cn/

Singapore Sumitomo(SHI) Cyclo Drive Asia Pacific Pte. Ltd. Capital S\$3000 thousand Foundation September 1995

http://www.sumitomodrive.com.sg/ Web Site

Canada SM-Cyclo of Canada, Ltd. Capital CA\$10 thousand Foundation June 1984 Web Site http://www.smcyclo.com

Tatung SM-Cyclo Co., Ltd. Taiwan Capital NT\$75 million Foundation April 1996

Korea Sumitomo(SHI) Cyclo Drive Korea, Ltd. Won1,000 million Capital April 1997

¥841 million

September 1916

Web Site http://www.sck.co.kr/ SEISA Gear, Ltd. Japan

Foundation

Capital Foundation

Web Site http://www.seisa.co.jp Sumiju Tomita Machinery Co., Ltd. Japan

Capital ¥50 million May 1953 Foundation

Japan Sumitomo Heavy Industries PTC Sales Co., Ltd. Capital ¥400 million

Foundation July 1983 Web Site http://www.sumiju.co.jp