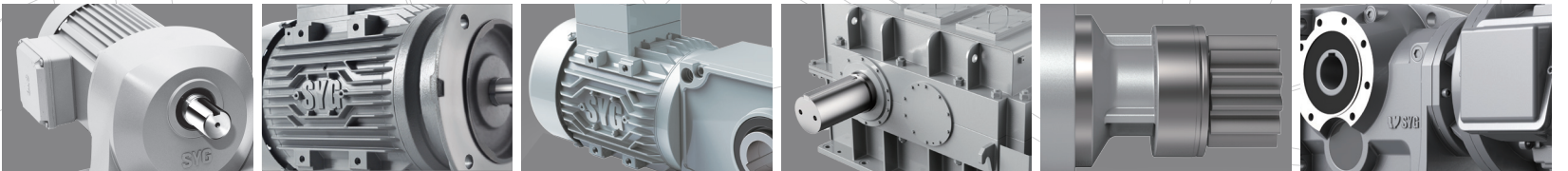
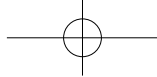


The World Best Gear Units
Nara Samyang

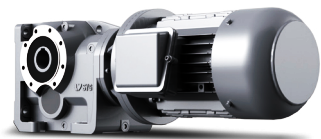
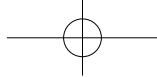




Since the company's establishment in 1967, Nara Samyang Reduction Gear has contributed to the nation's industrial prosperities. Through localizing reduction gear and development, we could successfully lead ahead from the competitors and improve Korean standard to the global level. Currently we are expanding our business areas into high-end products such as mechatronics, electric vehicles and defense industries. Customer satisfaction is our primary goal. We will continuously promote innovative activities such as 'Zero defect program' and 'Always on time delivery'. World class company, Nara Samyang.

Best quality & technology

- 
- 1967 Worm reducer production
Company Establishment
Foundation of Samyang Machine - localization of worm reduction gear
 - 1987 High efficiency helical reduction gear -
Development of max geared motor
Geared motor 'MAX' Series
 - 1994 Company name change to Samyang Reduction Gear and converted to a corporation
 - 1996 Development of heavy load high efficiency gear reduction gear - super-max geared motor
 - 1998 Export of reduction gear (to US and 8 Asian nations)
 - 1999 Development of small sized geared motor SYM motor
Development of elevator traction machine reduction gear
 - 2001 Worm series / helical worm reduction gear
Release of MTW series / vehicle worm reduction gear
 - 2004 Established 'Edison Lab'
 - 2007 Hypoid Geared Motor 'HM'
 - 2008 5 kinds of New Products Released
 - 2009 Renewable Energy Expert Co. by Korean Gov.
 - 2010 High Efficiency Motor Production
 - 2011 IEC Type Motor Production
 - 2013 Helical Bevel Reducer Development
 - 2015 Selected as a world top product (next generation, hypoid reduction gear)
 - 2016 Completion of office building renovation



Helical Bevel Geared Motor

Helical Bevel geared motor has wide range of choice for Power (0.2kW~55kW) and reduction gear ratio (1/5~1/175), and can be installed in various forms such as vertically or horizontally to satisfy diverse customer requirements. Also, this has more than 90% high efficiency and long lifetime allowing easy maintenance, and is able to make high torque if high durability gear is applied, and is an economical product with high abrasion-resistance.

Main Features

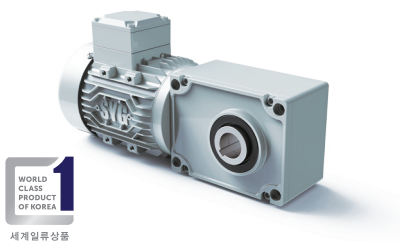
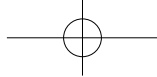
- Optimized design : Simple, smooth and polished design
- Low Noise, Low Vibration, High Efficiency: Low noise, low vibration and high efficiency with optimized design using proven program
- Variety of installation applications: Practical design that can accommodate various customer needs such as horizontal, vertical, hollow, flange type.

Model No.	HB100, HB112, HB132, HB140, HB180, HB212, HB265, HB315, HB375
Power	0.2kW ~ 55kW (1/4HP ~ 75HP)

Reduction ratio	1/5 ~ 1/175
Usage	Conveyor automation, machine tool, chip conveyor, agitator, switch, elevator, airport / port logistics system

Torque(N·m)

HB100	181
HB112	308
HB132	568
HB140	722
HB180	1239
HB212	2489
HB265	3510
HB315	6968
HB375	11706



세계일류상품

Hypo MAX[®] Geared Motor

Hypo MAX[®] is an economical reduction gear with improved parts, durability and lifetime. This was achieved through standardization of all parts based on the newest technology. Weight reduction was achieved through case optimization. Performance of parts was improved so that it can deliver high load. Also, it is possible to respond immediately to any requirement of customers without newly designing by using standardized parts.

Main Features

- High efficiency : 25% more efficient than worm gear, more than 85% average
- Low noise, low vibration : vibration reduction compared to bevel gear, noise average 52 ~ 65dB (A)
- High strength, long life : Improved lifetime by using special steel carburizing heat treatment

Model No.	HM25, HM30, HM35, HM45, HM52
Power	0.2kW ~ 2.2kW (1/4HP ~ 3HP)

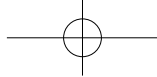
Reduction ratio	1/5 ~ 1/60
Usage	Screen door, transfer device, precision control robot, food processing machine, automatic transportation vehicle, etc.

Torque(N·m)

HM25	67
HM30	134
HM35	252
HM45	504
HM52	739

Overhung Load(O.H.L) (N)

HM25	1765
HM30	2943
HM35	4316
HM45	6229
HM52	6229



MAX[®] Geared Motor

Strong and compact series of reduction gear covering up to the output range of 0.2kW ~ 15kW and the reduction gear ratio range of 1/5 ~ 1/120. This is assembled on the basis of the latest technology and know-how, as each part is standardized, the lifetime is semipermanent and this product is economical. This outstanding product is supplied in a low price as all parts are produced by the mass production system.

Main Features

- Small, medium-sized geared motors available in various types of horizontal, vertical and line power types
- Helical gears are highly heat treated and polished for long life, low noise and high efficiency

Model No.	MG88 ~ MG270
Power	0.2kW ~ 15kW (1/4HP ~ 20HP)

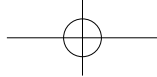
Reduction ratio	1/5 ~ 1/600 (High rate order available)
Usage	Conveyor automation, machine tool, chip conveyor, agitator, switch, elevator, etc.

Torque(N·m)

MG88	57
MG105	114
MG135	114
MG153	225
MG172	380
MG181	571
MG205	951
MG235	1143
MG270	1904

Overhung Load(O.H.L) (N)

MG88	2156
MG105	2744
MG135	2989
MG153	3234
MG172	6664
MG181	8820
MG205	14700
MG235	18326
MG270	23520



MAX2[®] Geared Motor

As all parts are standardized and made into components, required parts are quickly assembled and supplied without any new design. Latest precision machines such as shaving and grinding were introduced for manufacturing, high trust is kept for high precision and high efficiency. MAX2[®] series have low noise and light weight and deliver high load due to special heat treatment and tooth form grinding.

Main Features

- Selection of the best case according to the strong geared motor and the use of cargo gear with AGMA safety factor
- High-quality geared motors: quiet operation due to the upgrading of gears and parts
- Connectivity with existing products: Existing max geared motors and mounting dimensions shared

Model No.	M288 ~ M2172
Power	0.2kW ~ 3.7kW (1/4HP ~ 5HP)

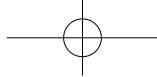
Reduction ratio	1/5 ~ 1/200(0.2 ~ 1.5kW), 1/5 ~ 1/75(2.2 ~ 3.7kW)
Usage	Conveyor automation, machine tool, chip conveyor, agitator, switch, elevator, etc.

Torque(N·m)

M288	74
M2105	191
M2135	310
M2153	588
M2172	1342

Overhung Load(O.H.L) (N)

M288	2548
M2105	3430
M2135	5880
M2153	7056
M2172	98000



Super MAX[®] Geared Motor

Compared to the previous reduction gears, vibration and noise is reduced significantly. Materials used for making gears are SCM 420 and SM45C. Also carburizing, high frequency heat treatment and polishing are performed to improve precision. Due to spray lubrication, oil amount is reduced by 10% and installation inclination angle up to 20° is possible.

Main Features

- Optimized design : Simple, smooth and polished design
- Low Noise, Low Vibration, High Efficiency: Low noise, low vibration and high efficiency with optimized design using proven program
- Variety of installation applications: Practical design that can accommodate various customer needs such as horizontal, vertical, hollow, flange type.

Model No.	SM#165 ~ SM#520
Power	1.5kW ~ 75kW (2HP ~ 100HP)

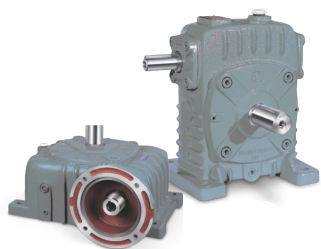
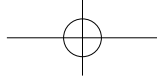
Reduction ratio	1/5 ~ 1/90
Usage	Conveyor automation (mine, large logistics, etc.), crusher (rock, ore), large crane transfer device, stirrer, etc.

Torque(N·m)

SM2165	230
SM3165	462
SM2200	338
SM3200	677
SM2225	572
SM3225	1020
SM2255	1157
SM3255	2309
SM2300	2580
SM3300	4424
SM2350	3345
SM3350	5699
SM2420	3834
SM3420	10163
SM2480	7710
SM3480	22710
SM2520	9250
SM3520	34060

Overhung Load(O.H.L) (N)

SM2165	4316
SM3165	5640
SM2200	4905
SM3200	7406
SM2225	4316
SM3225	10398
SM2255	12556
SM3255	16480
SM2300	20012
SM3300	26241
SM2350	20012
SM3350	31784
SM2420	36885
SM3420	50521
SM2480	41692
SM3480	55917
SM2520	83973
SM3520	83973



MAX21[®] Worm Reducer

MAX21[®] worm reduction gear has wide range of choices for power (0.2kW~75kW) and reduction gear ratio (1/10~1/3600), and having diverse product types including upper Type, Bottom Type, Vertical Type and 2 Stage Type, it can satisfy diverse customer requirements. Also, this product ground precisely the worm tooth sides using profile grinder to improve the gear contact efficiency.

Main Features

- Newly upgraded design and production technology based on the equipment that invested heavily
- High precision, high efficiency, high rigidity
- Various shapes and sizes such as horizontal, horizontal, vertical

Model No.	MX50, MX60, MX70, MX80, MX100, MX120, MX135, MX155, MX175, MX200, MX225, MX250, MX300, MX350, MX400, MX450, MX500
Power	0.2kW ~ 75kW (1/4HP ~ 100HP)

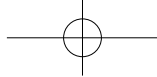
Reduction ratio	1/10 ~ 1/3600, large (400 ~) limit input rotation speed (1500rpm or less)
Usage	Parking machine, agitator, rolling machine, molding machine, etc.

Torque(N·m)

MX50	53
MX60	113
MX70	245
MX80	343
MX100	490
MX120	823
MX135	1372
MX155	2371
MX175	3381
MX200	4782
MX225	6762
MX250	8330
MX300	11760
MX350	17640
MX400	25284
MX450	31654
MX500	56644

Overhung Load(O.H.L) (N)

MX50	1127
MX60	1960
MX70	2940
MX80	3920
MX100	6370
MX120	9800
MX135	11760
MX155	14700
MX175	17640
MX200	21560
MX225	24500
MX250	26460
MX300	37240
MX350	49980
MX400	68600
MX450	98000
MX500	127400



Screw Jack

This is composed of high precision wormgear and trapezoid screw shaft, and this can prevent reversal at any location of a cycle. The reduction gear part adopts the grease lubrication as standard and realizes long lifetime in smooth motion. There are many optional functions such as cover protecting the screw shaft (Bellows), Hand Wheel and Trunion Base.

Main Features

- High and low reduction gear ratio
- Revolution preventive key attached
- Shaft protection cover attached
- User selectable screw nut attached

Traveling Shaft Type	SJ32 ~ SJ190
Traveling Nut Type	SJ32 ~ SJ95

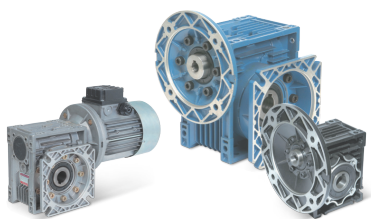
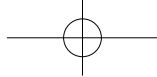
Speed	High speed, Low speed
Usage	Steel and steel making facilities, stage equipment, boarding school, lifts for heavy and heavy loads

Capacity (ton)

SJ32	1
SJ44	2.5
SJ56	5
SJ66	10
SJ66S	15
SJ73	20
SJ95	30
SJ135	50
SJ155	75
SJ190	100

Lifting Screw Diameter (mm)

SJ32	Ø20
SJ44	Ø25
SJ56	Ø40
SJ66	Ø50
SJ66S	Ø55
SJ73	Ø63
SJ95	Ø85
SJ135	Ø118
SJ155	Ø132
SJ190	Ø150

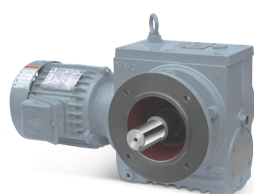


MTW, CTW Worm Reducer

Mighty worm reduction gear is a small and medium sized worm reduction gear that realized light weight and high efficiency. Output hollow shaft is the basic type, and various types of input shaft and output shaft can be chosen. CTW worm reduction gear is a small and medium sized worm reduction gear with best Chinese OEM product made to satisfy Samyang standards.

Model No.	MTW25, MTW30, MTW40, MTW50, MTW63, MTW75, MTW100, MTW120, MTW135, MTW155
Power	0.04kW ~ 7.5kW (1/20HP ~ 10HP)

Reduction ratio	1/10 ~ 1/60 (Double : 1/100 ~ 1/3600)
Usage	Application: Semiconductor device, automation machine, automatic door, lift, etc.

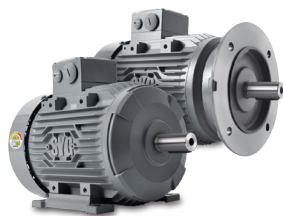
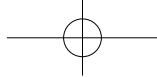


Helical Worm Reducer

W series are a combination of helical and worm gear, benefitting in high efficiency, compact size, economical, low noise and high ratio. Compared to the previous 2 stage type worm reduction gear, this has more than 1.5 times better efficiency.

Model No.	HW20, HW25, HW30, HW35, HW45, HW60, HW70
Power	0.2KW~7.5KW (1/4HP ~ 10HP)

Reduction ratio	1/10 ~ 1/180
Usage	Parking machines Textile machines Others Automation main equipment



Samyang Motor

Samyang Motor Series comply with the IEC international standards and satisfy the domestic standards for the lowest efficiency, IE2 rank, and as it has aluminum frame structure. SK Series are widely used for general industrial machines, conveyors, pumps and air blowers. IE2 rank (below 37kW) and IE3 rank (below 37kW), secures high reliability through optimal design and strict quality control.

Single Phase Induction Motors / Standard Specifications

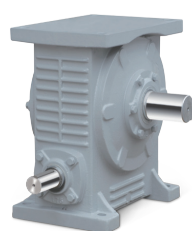
Out Put Power(kW)	Voltage(V)	Frequency(Hz)	Pole
0.2 ~ 1.5	Below 220	60	4

Three Phase Induction Motors / SK Motor Standard Specifications

Out Put Power(kW)	Voltage(V)	Frequency(Hz)	Pole
0.2 ~ 1.5	Below 500	50, 60	2, 4, 6

Three Phase Induction Motors / SC Motor Standard Specifications

Out Put Power(kW)	Voltage(V)	Frequency(Hz)	Pole
0.2 ~ 375	Below 500	50, 60	2, 4, 6, 8

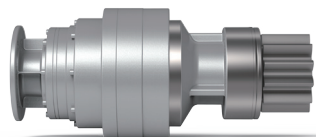
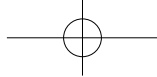


Stage Worm Reducer

Purpose of this reduction gear is for stage lifting and lowering, adjusting stage curtains and lightings. As this is used in performance halls, noise should be minimized. Shafts should come out in one or both directions, and the length should be adjusted arbitrarily, and mutual direct connection should be possible between reduction gears.

Model No.	SR88, SR96, SR120, SR125, SR140, SR155, SR175
Power	1.4kW ~ 30kW (2HP ~ 40HP)

Reduction ratio	1/10 ~ 1/60
Usage	For stage



Planetary Gear Reducer

Planetary gear reducer is composed of Sun, Planetary and Ring gears. It can deliver more power than any of the same sized standard gear reducers, due to its' high power transmission rate. It is possible to make input shaft and output shaft have the same center. This reducer has wide range of reduction gear ratio and high power transmission efficiency values.

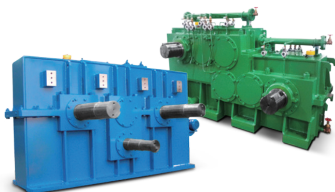
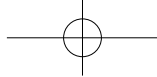
Model	2 Stage, 3 Stage, 4 Stage, Multi-stage
Gear ratio	Wide range of Gear ratio values is possible
Power	7.5 kW, 8.4kW, 9 kW
Torque	7,500 ~ 11,000 Nm



SYG Geared Motor

As all small sized geared motors are in the modular system, Customers can buy motor and gear head, separately, and assemble with ease. This product has been standardized through long-term accumulated technology and know-how. While the strength of body and gear is raised sufficiently, weight and size are minimized by optimal design to accomplish downsizing and light weight.

Model No.	K Series, G Series
Reduction ratio	1/3 ~ 1/200
Usage	K Series, G Series



Gear Box

As a standardized power-transmission reduction gear, this was developed on the basis of the newest design and analysis technique. This precise and reliable product is widely used in industrial fields for transmitting power in various facilities such as steelwork, power plant, chemical plant, cement, rubber and paper manufacturing plants. There is a specially designed form depending upon facility features and there are reduction gears of various forms. Nara Samyang Reduction Gear has much experience, data and design capability.

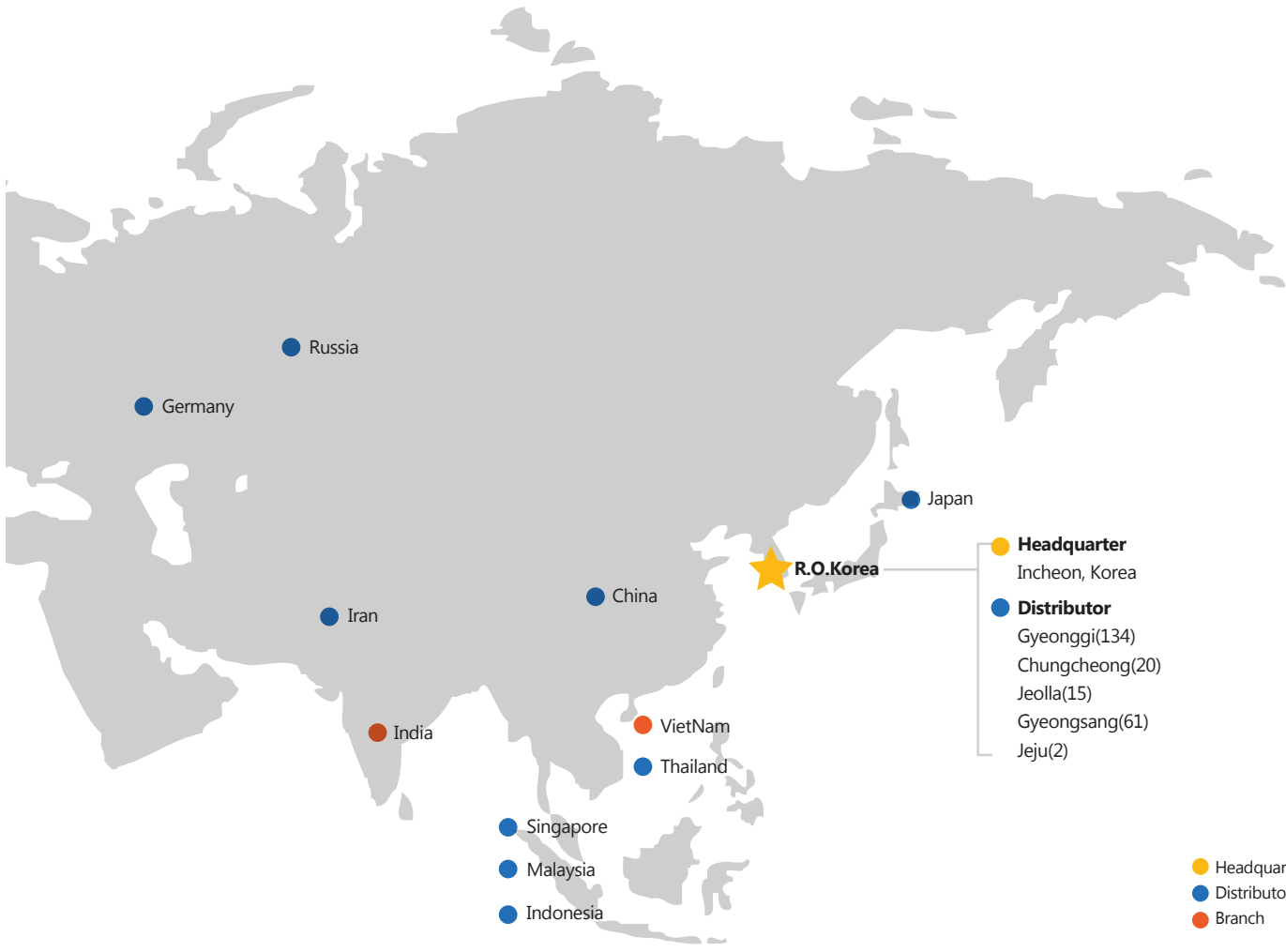
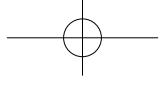
Power	1 ~ 5,000 kW
Reduction ratio	1/1 ~ 1/∞
Usage	Ship, steel making equipment, industrial equipment, automation main equipment, chemical equipment, etc

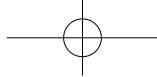


Worm Gear for Elevator

Gears used for elevators require highly precise design and process. Studies and improvements are made so that tooth form can be optimized by using CNC hobbing, CNC worm cutter and CNC grinder, and gears are manufactured after data is accumulated for each type. Wormgears with capacity up to 37 kW are produced. Not only the K, I, N, A and C type tooth forms but also arbitrary tooth form can be processed.

Speed	30 ~ 120 m/min
Usage	Elevator, Escalator





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