



Scan Me



# ORS KOREA

“The world rotates with us”



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ORSKOREA's pursuit is to take the next step in the development of smart machines by combining Korea's Mechanical Engineering skills and Turkey's Bearing Manufacturing know-hows.

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## ORSKOREA's next step for the next generation of Smart Machines.

With the constant development of Korea's technology, ORSKOREA has been manufacturing grinding machines that are of the highest standard by working together with Korea's automobile and electronics industries. With nearly two decades of experience manufacturing grinding machines and spindles, the new beginning of ORSKOREA starts with its new name.

At ORSKOREA  
we build  
our reputation and  
trust with quality  
and results.

#### Palman Daejanggyeong (Tripitaka Koreana)

Carved during the Goryeo Dynasty and today officially designated Korea's National Treasure No. 32, the wooden printing blocks of the Tripitaka Koreana are stored at Haein Temple in South Gyeongsang Province. These 81,258 woodblocks contain the world's oldest existing and most complete version of the Buddhist canon. The Tripitaka Koreana is also highly valued artistically for the beautifully carved rendering of the more than 52 million characters that it comprises. In 1995 the Tripitaka Koreana was officially registered by UNESCO as a World Cultural Property.

### Company history

2000. 08	Founded (ZIMECS CO.)
2002. 06	Developed High Frequency Spindle 10,000~120,000 rpm Developed Taper Roller Back-face Grinder
2004. 10	Developed Hydro-Static Spindle
12	Developed Built-in type Air Spindle
2005. 12	Developed BRG. Grinder (Race, Rib, External, Centerless, Lapping)
2006. 08	Developed Orbital Forming Machine (Hub Bearing for Automobile)
2009. 07	Developed Super Finishing Machine for Taper Roller BRG.
2010. 02	Developed Face Grinding Machines for Engine Valve Developed Hydro-Static Guide Way Developed Bearing Grinding Spindle for wind power generation Developed Taper BRG. Race Grinding Machine
2011. 05	Renamed to SMSB Co., Ltd.
08	Acquired ISO 9001 certification
12	Started exporting Grinding Machines for bearing First meeting of ORS & SMSB
2013. 08	Developed Double disc grinder & Thrust Bearing Race grinder
11	Participated at MATOF 2013 (SGI120 & HF SPINDLES) as an exhibitor
12	Acquired CE & KCS Mark Certifications
2015. 12	Developed Large size Centerless Grinder (SGC 500)
2016. 12	Developed 5-axis Screw Grinder
2018. 02	Participated at GrindTec as an exhibitor
2019. 05	ORSKOREA LLC is established. (Joint venture: ORS BEARINGS + SMSB)
2020. 01	Developed the Crack Tester
2021. 08	Developed the Internal & External Simultaneous Grinding Machine
2021. 10	Participated at EMO Milano as an exhibitor
2021. 11	Participated at BUMATECH Turkey as an exhibitor
2022. 01	Acquired R&D Technology Venture Company certification



# ORS

ORSKOREA is the first local branch of ORS in Korea. ORS is located in Ankara, the capital of Turkey. Since its establishment in 1982, ORS is now one of the top manufacturers and suppliers to the European global carmakers.



Real solutions  
for real  
challenges.



# KOREA

We design our products with our clients in mind. Our user-friendly interface and design provide easy and intuitive operation of the machine. We are currently manufacturing and developing machines that are self-controlled and operated.



 Main Clients



At ORSKOREA,  
our product  
quality and  
performance are  
our core value.  
Strong,  
high speed  
and high precision.

The quality and performance of our products are ORSKOREA's core value. Strong, high speed and high precision. With creative idea implementation and user-oriented design, ORSKOREA will become a leading company in grinding machine and spindle manufacturing industry. Our ultimate goal is to work with our clients for their constant growth and development. Let us show you the new possibilities.

## Certifications & Patents



# Grinding Machines

Are you looking for a grinding machine for precision parts and bearings?

ORSKOREA has been developing and manufacturing cutting-edge products and machine tools to become a global leader in the machine industry with uncompromising quality, performance, and price. ORSKOREA, as a joint venture between Korea and Turkey, has been raising our competitiveness in the world market by localizing ultra-precision high-speed grinding machines. Also, we combined innovative new mechanisms, smart AI, and IT technologies together to make user-friendly machine tools even for beginners. ORSKOREA's machine series were designed by our senior R&D and technical team to ensure the quality is strictly under control. Our ultimate goal is to become a leading company in unmanned autonomous machine tools in the near future through full R&D.





## Internal Grinding Machine SGI 40

### Specifications

Part	Description
Grinding Type	NC oscillation or Plunge
Workpiece Mounting	Two Roll & One Shoe (or Air Chuck)
Machining Dia. Range	8 to 40
Machining Width Range	5 to 40
Machining Bore Range	5 to 30
LOADER	Flow Pusher Type
DRESS Type	Up-down Type Rotary Dresser
W/H Rotating Angle	± 1 °
Spindle Height	About FL 950
Work Spindle RPM	220 to 2,000 rpm
Hydraulic TANK Capacity	40 Liter
Outer Dimension	1600 × 1400 × 1800 H (mm)
Weight	3.0 Ton

### Motor

Part	Description
Cross Slide	AC Servo 1.5 kW
G.W Table	AC Servo 1.5 kW
W/H Drive	0.2 kW × 4P
Dresser	H/F Spindle (BMR:GER)
G/W	ORSKOREA H/F Spindles
Oil Lubrication	0.7 kW (Willy-Vogel)

Grinding Type



## Internal Grinding Machine SGI 150

### Specifications

Part	Description
Grinding Type	NC oscillation or Plunge
Workpiece Mounting	Two Shoe & Magnetic Chucking
Machining Dia. Range	12 to 150
Machining Width Range	5 to 60
Machining Bore Range	5 to 30
LOADER	Flow Pusher Type or Cassette Type
DRESS Type	Up-down Rotary Dresser or Point Dresser
W/H Rotating Angle	0° to 30°
Spindle Height	About FL 1050
Work Spindle RPM	400 to 3,600 rpm
Hydraulic TANK Capacity	40 Liter
Outer Dimension	2000 × 1875 × 1650 H (mm)
Weight	4.0 Ton

### Motor

Part	Description
Cross Slide	AC Servo 1.5 kW
G.W Table	AC Servo 1.5 kW
W/H Drive	1.5 kW 4P AV Motor
Dresser	Hydraulic Motor
G/W	ORSKOREA H/F Spindles
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## Internal Grinding Machine SGI 120

### Specifications

Part	Description
Grinding Type	NC oscillation or Plunge
Workpiece Mounting	Two Shoe & Magnet Chucking
Machining Dia. Range	20 to 120
Machining Width Range	5 to 40
Machining Bore Range	12 to 100
LOADER	Flow Type or Cassette Type
DRESS Type	Up-down Type Point (rotary) Diamond Dresser
W/H Rotating Angle	± 1 ° /-2 to +30 °
Spindle Height	About FL 1050
Work Spindle RPM	220 to 800 rpm/500 to 2,000 rpm (Two Speed)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	2100 × 1900 × 1950 H (mm)
Weight	3.8 Ton

### Motor

Part	Description
Cross Slide	AC Servo 1.5 kW
G.W Table	AC Servo 1.5 kW
Spindle Drive	1.5 kW 2P AC Motor
G.W	ORSKOREA H/F Spindles
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## Internal Grinding Machine SGI 250/300

### Specifications

Part	Description
Grinding Type	NC oscillation or Plunge
Workpiece Mounting	Two Shoe & Magnet Chucking
Machining Dia. Range	90 to 220
Machining Width Range	20 to 80
Machining Bore Range	60 to 200
LOADER	Cassette Type or ETC
DRESS Type	Up-down Type Point (rotary) Diamond Dresser
Spindle Rotating Angle	(OPTION : -2 to +30 degree)
Spindle Height	About FL 1050
Work Spindle RPM	220 to 800 rpm/500 to 2,000 rpm (Two Speed)
Cross Slide Stroke	230 mm
Hydraulic TANK Capacity	40 Liter
Outer Dimension	2100 × 1900 × 1950 H (mm)
Weight	5.0 Ton

### Motor

Part	Description
Cross Slide	AC Servo 1.5 kW
G.W Table	AC Servo 3.0 kW
Work Spindle	1.5 kW 4P AC Motor
G.W	ORSKOREA H/F Spindles
Hydraulic	1.5 kW 4P AC Motor

Grinding Type







## Internal Grinding Machine SGI 200(W)

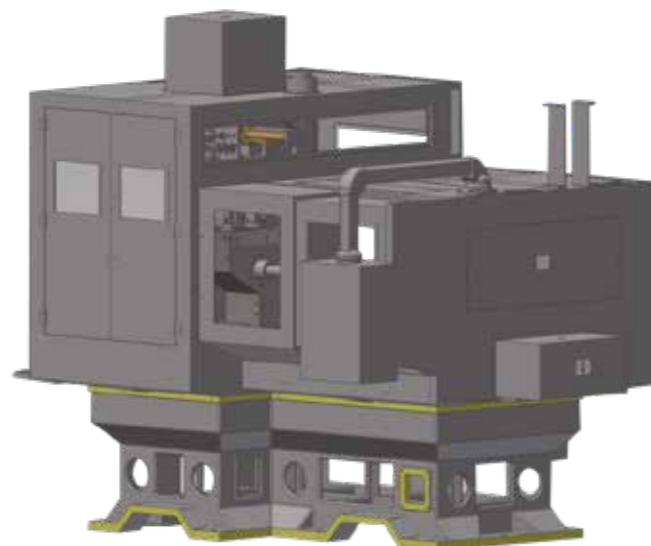
### Specifications

Part	Description
Grinding Type	NC oscillation or Plunge
Workpiece Mounting	Diaphragm Chucking(HYD' Chuck)
Machining Dia. Range	90 to 220
Machining Width Range	20 to 80
Machining Bore Range	60 to 200
LOADER	Double Arm Type (Servo)
DRESS TYPE	Fixed Type Rotary Form Dresser (HYD)
Spindle Rotating Angle	± 1 ° (OPTION : -2 to +30 degree)
Spindle Height	About FL 1200 (1000)
Work Spindle RPM	Max 4,000 rpm (Servo)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	2100 × 1900 × 1950 H (mm)
Weight	5.5 Ton

### Motor

Part	Description
Cross Slide	AC Servo 3.5 kW
G.W Table	AC Servo 3.5 kW
Work Spindle	AC Servo 7.0 kW
G.W	ORSKOREA H/F Spindles
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## External Grinding Machine SGE 500

### Specifications

Part	Description
Grinding Type	NC controlled Plunge
Workpiece Mounting	Two Shoe & Magnet Chuck
Machining Dia. Range	20 to 100
Machining Width Range	10 to 50
Loader	Single or Double Arm Type
Dresser	Forming Dresser Spindle
Spindle Angle Range	OPTION -6 to +35degree
Grinding Spindle	Hydro-Static or Rolling Bearing Type
Spindle Height	About FL 1150
Work Spindle RPM	150 to 1800 rpm
Grinding Wheel Spindle RPM	Max. 2,200 rpm (3,000m/min)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	2100 × 1900 × 1950 H (mm)
Weight	5.5 Ton

### G.W

Part	Description
Dia.	510 mm
Width	50 mm
Bore	304.8 mm

### Motor

Part	Description
G.W Table	AC Servo 3.0 kW
Dress Table	AC Servo 1.5 kW
Spindle Drive	1.5 kW 4P AC Motor
G.W(Belt Drive)	11 kW 4P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## External Grinding Machine SGE 400

### Specifications

Part	Description
Grinding Type	NC controlled Plunge
Workpiece Mounting	Two Shoe & Magnet Chuck
Machining Dia. Range	10 to 65
Machining Width Range	6 to 50
Loader	Single or Double Arm Type
Dresser	Forming Dresser Spindle
Spindle Angle Range	OPTION -6 to +35degree
Grinding Spindle	Hydro-Static or Rolling Bearing Type
Spindle Height	About FL 1150
Work Spindle RPM	150 to 1800 rpm
Grinding Wheel Spindle RPM	Max 2,500 rpm
Hydraulic TANK Capacity	40 Liter
Outer Dimension	2100 × 1900 × 1950 H (mm)
Weight	4.3 Ton

### G.W

Part	Description
Dia.	510 (450) mm
Width	50 mm
Bore	304.8 mm

### Motor

Part	Description
G.W Table	AC Servo 1.5 kW
Dress Table	AC Servo 1.5 kW
Spindle Drive	1.5 kW 4P AC Motor
G.W(Belt Drive)	7.5 kW 4P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## External Grinding Machine SGE 600(W)

### Specifications

Part	Description
Grinding Type	NC controlled Plunge
Workpiece Mounting	Two Shoe & Magnetic Chucking
Machining Dia. Range	80 to 150
Machining Width Range	10 to 80
Loader	Double Arm Type
Dresser	Forming Dresser Spindle
Spindle Angle Range	OPTION -6 to +35degree
Grinding Spindle	Rolling Bearing Type
Spindle Height	About FL 1115
Work Spindle RPM	Max 1200 rpm
Grinding Wheel Spindle RPM	Max 3,100 rpm
Hydraulic TANK Capacity	80 Liter
Outer Dimension	4000 × 3500 × 1950 H (mm)
Weight	7.0 Ton

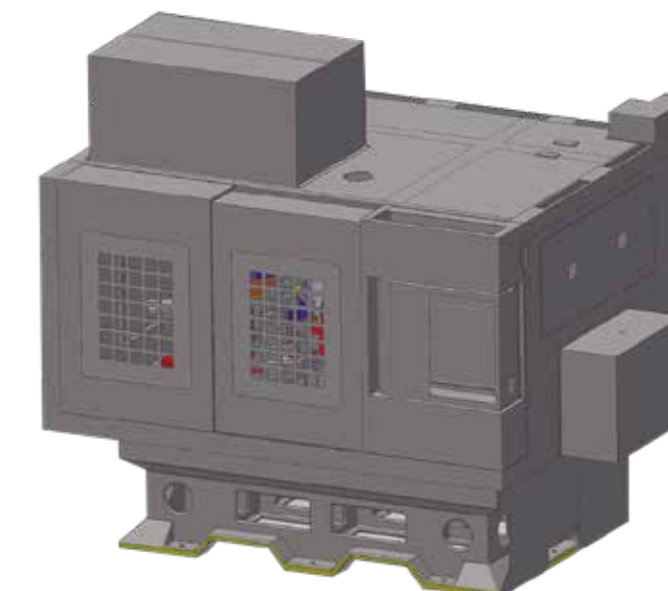
### G.W

Part	Description
Dia.	610 mm
Width	50 mm
Bore	304.8 mm

### Motor

Part	Description
G.W Table(X,Z)	AC Servo 3.5 kW × 2 axes
Dress Table	AC Servo 2.0 kW
Work Spindle Drive	AC Servo 7.0 kW
Loading (Stroke)	AC Servo 1.4 kW
Loading (Swing)	AC Servo 1.6 kW
G.W(Belt Drive)	37(22) kW 4P AC Motor
ROLL Dresser	0.75 kW 2P AC Motor

Grinding Type





## Centerless Grinding Machine SGC 200

### Specifications

Part	Description
Grinding Type	Centerless Through Feed or Infeed
Workpiece Mounting	Workrest Support
Machining Dia. Range	2 to 120
Max. Machining Length	Max 200 mm
LOADING	Through Feeding or Infeed
DRESS Type	Traverse Type Point Diamond Dresser
Hydraulic TANK Capacity	60 Liter
Outer Dimension	2000 × 1600 × 1600 H (mm)
Weight	4.0Ton

### G.W

Part	Description
Dia.	510 mm
Width	255 mm
Bore	304.8 mm

### R.W

Part	Description
Dia.	305 mm
Width	255 mm
Bore	177.8 mm

### Motor

Part	Description
G.W Dresser (Traverse)	AC Servo 0.4 kW
G.W Dresser (Feed)	AC Servo 0.4 kW
G/W Drive	1.5 kW 4P
R/W Drive	1.5 kW 4P
R/W Table	AC Servo 2.0 kW

Grinding Type



## Centerless Grinding Machine SGC 500

### Specifications

Part	Description
Grinding Type	Centerless Through Feed (or Infeed)
Workpiece Mounting	Workrest Support
Machining Dia. Range	10 to 150
Max. Machining Length	Max 500 mm
LOADING	Through Feeding (or Infeed)
DRESS Type	Traverse Type Point (Multi) Dia' Dresser
Hydraulic TANK Capacity	80 Liter
Outer Dimension	3500 × 2500 × 1800 H (mm)
Weight	11 Ton

### G.W

Part	Description
Dia.	610 mm
Width	510 mm
Bore	304.8 mm

### R.W

Part	Description
Dia.	380 mm
Width	510 mm
Bore	254 mm

### Motor

Part	Description
G.W Drive	45(37) kW 4P AC Motor
R.W Drive	3.7 kW 4P (Gear Reducer Type)
Oil Pressure	0.1 kW
G/W SLIDE FEED	3.5 kW AC Servo
R/W SLIDE FEED	0.75 kW AC Servo
G.W Dresser (Traverse)	0.75 kW AC Servo
G.W Dresser (Feed)	0.75 kW AC Servo
R.W Dresser (Traverse)	0.75 kW AC Servo

Grinding Type



## Centerless Grinding Machine SGC 300

### Specifications

Part	Description
Grinding Type	Centerless Through Feed or Infeed
Workpiece Mounting	Workrest Support
Machining Dia. Range	4 to 120
Max. Machining Length	Max 300 mm
LOADING	Through Feeding or Infeed
DRESS Type	Traverse Type Point Diamond Dresser
Hydraulic TANK Capacity	60 Liter
Outer Dimension	2500 × 2000 × 1700 H (mm)
Weight	5.5 Ton

### G.W

Part	Description
Dia.	610 mm
Width	305 mm
Bore	304.8 mm

### R.W

Part	Description
Dia.	330 mm
Width	305 mm
Bore	203.2 mm

### Motor

Part	Description
R.W Table	AC Servo 3.5 kW
G.W Drive	22 kW 4P AC Motor
R.W Drive	2.2 kW 4P (Gear Reducer Type)
Hydraulic	1.5 kW 4P AC Motor
G.W Dresser (Traverse)	AC Servo 0.75 kW
G.W Dresser (Feed)	AC Servo 0.75 kW

Grinding Type



## Centerless Grinding Machine SGC 500C

### Specifications

Part	Description
Grinding Type	Centerless Through Feed (or Infeed)
Workpiece Mounting	Workrest Support
Machining Dia. Range	10 to 150
Max. Machining Length	Max 500 mm
LOADING	Through Feeding (or Infeed)
DRESS Type	Traverse Type Point (Multi) Dia' Dresser
Hydraulic TANK Capacity	80 Liter
Outer Dimension	3500 × 2500 × 1800 H (mm)
Weight	11 Ton

### G.W

Part	Description
Dia.	610 mm
Width	510 mm
Bore	304.8 mm

### R.W

Part	Description
Dia.	380 mm
Width	510 mm
Bore	254 mm

### Motor

Part	Description
G.W Drive	45(37) kW 4P AC Motor
R.W Drive	5.5 kW 4P (Gear Reducer Type)
Oil Pressure	0.1 kW
G/W SLIDE FEED	3.5 kW AC Servo
R/W SLIDE FEED	0.75 kW AC Servo
G.W Dresser (Traverse)	0.75 kW AC Servo
G.W Dresser (Feed)	0.75 kW AC Servo
R.W Dresser (Traverse)	0.75 kW AC Servo

Grinding Type





## Centerless Grinding Machine SGC 500K

### Specifications

Part	Description
Grinding Type	Centerless Through Feed (or Infeed)
Workpiece Mounting	Workrest Support
Machining Dia. Range	10 to 150
Max. Machining Length	Max 500 mm
LOADING	Through Feeding (or Infeed)
DRESS Type	Traverse Type Point (Multi) Dia' Dresser
Hydraulic TANK Capacity	None
Outer Dimension	3500 x 2600 x 1800 H (mm)
Weight	11 Ton

### G.W

Part	Description
Dia.	610 mm
Width	510 mm
Bore	304.8 mm

### R.W

Part	Description
Dia.	380 mm
Width	510 mm
Bore	254 mm

### Motor

Part	Description
R.W Table(Lower)	AC Servo 2.0 kW
R.W Table(Upper)	AC Servo 0.75 kW
G.W Drive	45 kW (37 kW) 4P AC Motor
R.W Drive	5.5 (3.7) kW 4P (Gear Reducer Type)
G.W Dresser (Feed)	AC Servo 0.75 kW
G.W Dresser (Traverse)	AC Servo 0.75 kW
R.W Dresser (Traverse)	AC Servo 0.75 kW

Grinding Type



## Super Finishing Machine SSF 85(D)/150

### Specifications

Part	Description
Machining Type	2 Head Type Stone Oscillating
Workpiece Mounting	Arbor (Socket Ring) + Pressure Roller
Machining Dia. Range	25 to 85 (Outer Race) 15 to 60 (Inner Race)
Machining Width Range	6 to 40 (over ID PHI 10)
Loader	Index Type
Oscillating Unit	LM Bearing Slide
Oscillating Stroke	0~18° / 0~8 mm
Oscillating Speed	50 to 2,500 fpm
Spindle RPM	Max 3,000 rpm (Outer Race) Max 2,500 rpm (Inner Race)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	1100 x 1200 x 2000 H (mm)
Weight	2.0 Ton

### Motor

Part	Description
Oscillation Drive	0.37 kW 2P AC Motor (R 0.8 kW Servo)
Spindle Drive	2.2 kW 2P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## Super Finishing Machine SSF 80RD

### Specifications

Part	Description
Machining Type	2 Head Type Stone Oscillating
Workpiece Mounting	Two Shoe + Pressure Roller
Machining Dia. Range	O.D PHI 10 to 80 (Bore) Inner Ring ID 10 to 50
Machining Width Range	8 to 40
Loader	Cassette Type
Oscillating Unit	LM Bearing Slide
Oscillating Stroke	0.5, 1.0, 1.5, 2.0, 2.5
Oscillating Speed	150 to 1800 cpm
Spindle RPM	Max 3,000 rpm (Outer Race) Max 2,200 rpm (Inner Race)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	1800 x 1000 x 1800 H (mm)
Weight	2.5 Ton

### Motor

Part	Description
Oscillation Drive	0.4 kW AC Servo
Spindle Drive	0.75 kW 4P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## Super Finishing Machine SSF 110

### Specifications

Part	Description
Machining Type	2 Head Type Stone Oscillating
Workpiece Mounting	Arbor (Socket Ring) + Pressure Roller
Machining Dia. Range	28 to 110 (Outer Ring) 17 to 90 (Inner Ring)
Machining Width Range	Max 50
Loader	CLAW Type 2 Direction Traverse
Oscillating Unit	LM Bearing Slide
Oscillating Stroke	10° to 35°
Oscillating Speed	60 to 500 cpm
Spindle RPM	500 to 5000 rpm (Outer Race) 900 to 9000 rpm (Inner Race)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	1800 x 1760 x 2200 H (mm)
Weight	3.5 Ton

### Motor

Part	Description
Oscillation Drive	0.4 kW AC Motor
Spindle Drive	0.75 kW 4P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type





## Super Finishing Machine SSF 120

### Specifications

Part	Description
Machining Type	Oscillating
Workpiece Mounting	Arbor (Socket Ring) / Pressure Roller & 2 Shoe
Machining Dia. Range	15 to 110
	15 to 90
Machining Width Range	6 to 65 (Cover ID PHI 10)
Loader	Cassette Type
Oscillating Unit	Air Bearing Slide
Oscillating Stroke	0.5, 1, 1.5, 2, 2.5
Oscillating Speed	300 to 2000 cpm
Spindle RPM	Max 3000 rpm (Outer Race)
	Max 2200 rpm (Inner Race)
Hydraulic TANK Capacity	40 Liter
Outer Dimension	1800 × 1000 × 1800 H (mm)
Weight	2.5 Ton

### Motor

Part	Description
Oscillation Drive	0.4 kW AC Servo
Spindle Drive	1.5 kW 4P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## Super Finishing Machine SLR 650(500)

### Specifications

Part	Description
Machining Type	Thru-feed fully automatic
Workpiece Mounting	Support roll & feed roll
	(phi 152 × 650L)
Machining Dia. Range	4.5 to 60
Machining Length Range	Max 1000
Oscillation	Air Bearing Slide
Oscillation Stroke	0.5, 1.0, 1.5, 2.0, 2.5
Oscillation Speed	700 to 2,500 fpm
Stone Head Unit	Air cylinder Pressurizing type 6~8sets
S/H Pressure	1.0 to 4.0 kgf/cm <sup>2</sup>
Tilting Angle	± 5°
Swivel Angle	± 2°
Up-Down Stroke	90 mm
Outer Dimension	1600 × 900 × 2100 H (mm)
Weight	2.5 Ton

### Motor

Part	Description
Oscillation	0.6 kW 4P AC Motor
Roll Drive	3.7 kW 4P AC Motor

Grinding Type



## Super Finishing Machine SSF 150(V)

### Specifications

Part	Description
Machining Type	2 Head Type Stone Oscillating
Workpiece Mounting	Arbor(Socket Ring) + Pressure Roller
Machining Dia. Range	85 to 200 (Outer Race)
	70 to 150 (Inner Race)
Machining Width Range	20 to 80
Loader	CLAW Type 2 Direction Traverse
Oscillating Unit	LM Bearing Slide
Oscillating Stroke	0~18° / 0~8 mm
Oscillating Speed	60 to 500 spm
Spindle RPM	Max 3,000 rpm (Outer Race)
	Max 2,500 rpm (Inner Race)
Hydraulic TANK Capacity	20 Liter
Outer Dimension	2000 × 2300 × 2100 H (mm)
Weight	3.5 Ton

### Motor

Part	Description
Oscillation Drive	1.5 kW Servo
Spindle Drive	1.5 kW 2P AC Motor
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## T/R Back Face Grinding Machine SGRB 350(250)

### Specifications

Part	Description
Machining Type	Pressing Upper Ring + Lower Ring
	Idle carrier
Machining Dia. Range	Max 25 (15)
Machining Length Range	Max 40 (30)
R Range	Max R350 (R230)
Speed Control	Differential Drive Gear
Main Spindle	100 ~ 400 rpm
Lower Spindle	100 ~ 400 rpm
Hydraulic TANK Capacity	60 Liter
Outer Dimension	1200 × 1200 × 1800 H (mm)
Weight	2.5 Ton

### Motor

Part	Description
Main	11 kW 6P AC Motor
Differential	0.4 kW 4P Stepless
Hydraulic	1.5 kW 4P AC Motor

Grinding Type





## Horizontal Type Double Disc Grinding M/C SGDH 585

### Specifications

Part	Description
Grinding Type	Thru Feed (or Rotary Carrier)
Machining Dia. Range	Max 135
Machining Width Range	Max 50
Grinding Wheel	O.D 585 × 10 × 75 W
Wheel Speed	Max 900 rpm
Carrier Size	Max 1,050
Carrier Speed	0.5 ~ 3 rpm
Space between L/R Wheels	130
Dresser	Swing Arm type Point Dresser
Outer Dimension	3000 × 2800 × 1750 H (mm)
Weight	7.5 Ton

### Motor

Part	Description
G.W Motor	22 kW 4P
Carrier	0.75 kW 4P
Dresser	0.1 kW 4P (Speed Control)
G. W Feed	0.5 kW AC Servo

Grinding Type



## Vertical Type Double Disc Grinding M/C SGDV 360

### Specifications

Part	Description
Grinding Type	IN-FEED
Machining Dia. Range	Max 50
Machining Width Range	Max 40
Grinding Wheel	O.D 355(305) × 205 × 50T(CBN:3T)
Wheel Speed	Max 1800rpm (INVERTER C.W/C.C.W)
Loading	Swing Arm
Space between UP/Dn Wheel	100
Dresser	Rotary Dresser
Outer Dimension	1500 × 1800 × 2500 H (mm)
Weight	4.5 Ton

### Motor

Part	Description
G.W Motor	7.5 kW 4P × 2 SETS
R/D Rotating	0.9 kW Speed Variable
Index Carrier	1.0 kW AC Servo
Work Drive	0.4 kW AC Servo × 2 SETS
G. W Feed	0.4 kW AC Servo × 2 SETS
Loading	0.5 kW AC Servo

Grinding Type



## Horizontal Type Double Disc Grinding M/C SGDH 760

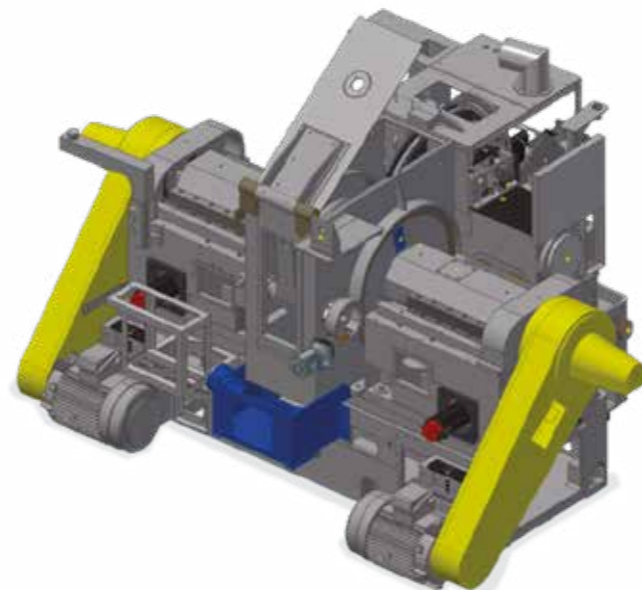
### Specifications

Part	Description
Grinding Type	Rotary Carrier or Thru Feed
Machining Dia. Range	Max 180
Machining Width Range	Max 70
Grinding Wheel	O.D 760 × 80 × 270
Wheel Speed	Max 700 rpm
Carrier Size	Max 1,050
Carrier Speed	0.5 ~ 3 rpm
Space between L/R Wheels	130
Dresser	Swing Arm type Point Dresser
Outer Dimension	3000 × 4000 × 1850 H (mm)
Weight	12 Ton

### Motor

Part	Description
G.W Motor	30 kW 4P
Carrier	0.75 kW 4P
Dresser	0.1 kW 4P (Speed Control)
G. W Feed	1.0 kW AC Servo
G.W Cover	0.1 kW 4P

Grinding Type



## Vertical Type Double Disc Grinding M/C SGDV 510

### Specifications

Part	Description
Grinding Type	Thru feed (Carrier)
Machining Dia. Range	Max 60
Machining Width Range	Max 15
Grinding Wheel	O.D 510 × 205 × 50 T
Wheel Speed	Max 1040 rpm (INVERTER C.W/C.C.W)
Loading	Carrier (O.D 670)
Carrier Speed	4000 rpm
Space between L/R Wheel	70
Dresser	Swing Arm Type Point Dresser
Outer Dimension	1555 × 1625 × 2200 H (mm)
Weight	7.5 Ton

### Motor

Part	Description
G.W Motor	11 kW 4P × 2 SETS
R/D Rotating	0.9 kW Speed Variable
Index Carrier	1.0 kW AC Servo
G. W Feed	0.4 kW AC Servo × 2 SETS

Grinding Type





## Vertical Type Double Disc Grinding M/C SGDV 585

### Specifications

Part	Description
Grinding Type	Rotary Carrier
Machining Dia. Range	Max 135
Machining Width Range	Max 50
Grinding Wheel	O.D 585 × 75 × 195
Wheel Speed	300 ~ 900 rpm
Carrier Size	O.D 820
Carrier Speed	0 ~ 10 rpm (0 ~ 28.3m/min)
Space between UP/Dn Wheel	80
Dresser	Swing Arm type Point Dresser
Hydraulic TANK Capacity	60 Liter
Outer Dimension	3500 × 2400 × 2990 H (mm)
Weight	8.5 Ton

### Motor

Part	Description
G.W Motor	22 kW 4P
Carrier	Hydraulic Motor
G. W Feed	2.0 kW AC Servo
Hydraulic	None

Grinding Type



## Vertical Type Double Disc Grinding M/C SGDV 760

### Specifications

Part	Description
Grinding Type	Rotary Carrier
Machining Dia. Range	Max 150 PHI
Machining Width Range	15 to 50
Grinding Wheel	O.D 750 × 75 × 300
Wheel Speed	300 to 700 rpm
Carrier Size	1020 PHI
Carrier Speed	0 ~ 10 rpm (0 ~ 28.3m/min)
Space between UP/Dn Wheel	80
Dresser	Swing Arm type Point Dresser
Hydraulic TANK Capacity	40 Liters
Outer Dimension	3200 × 3500 × 4200 H (mm)
Weight	15 Tons

### Motor

Part	Description
G.W Motor	37 kW 4P AC Motor
Carrier	1.5 kW AC Servo
G. W Feed	2.0 kW AC Servo
Hydraulic	1.5 kW 4P AC Motor

Grinding Type



## Vertical Type Double Disc Grinding M/C SGDV 585i

### Specifications

Part	Description
Grinding Type	Rotary Carrier
Machining Dia. Range	30 to 100 PHI
Machining Width Range	15 to 50
Grinding Wheel	O.D 585 × 75 × 195
Wheel Speed	300 to 1000 rpm
Carrier Size	OD 840
Carrier Speed	0 ~ 10 rpm (0 ~ 28.3m/min)
Space between UP/Dn Wheel	80
Dresser	Swing Arm type Point Dresser
Hydraulic TANK Capacity	None
Outer Dimension	2600 × 2200 × 3200 H (mm)
Weight	8.5 Ton

### Motor

Part	Description
G.W Motor	22 kW 4P AC Motor
Carrier	0.85 AC Servo
G. W Feed	2.0 kW AC Servo
Hydraulic	None

Grinding Type



## Screw Grinding Machine SGS 1000

### Specifications

Part	Description
Machining Type	Plunge
Workpiece Mounting	Center (BRG. Housing support)
Machining Dia. Range	Max 350
Machining Length Range	Max 950 (G/W Thickness. 50mm)
Distance between length	Max 1,150
Machining OD Pitch	0 to 360
Loading	Manual
Dress	2-axis Point (rotary) Diamond Dresser
G/W Tilting	± 40 °
Diameter of G/W	O.D Ø500 I.D Ø203 (Max 50W)
Work spindle speed	0.2 to 100 rpm
Dress Feed Slide Stroke	80 mm
Outer Dimension	6000 × 3100 × 2000 H (mm)
Weight	9.5 Ton

### Motor

Part	Description
Work Slide	AC Servo 2.0 kW
G.W Table	AC Servo 1.5 kW
Work Spindle	AC Servo 3.5 kW
Dress Feed	AC Servo 0.5 kW
Dress Traverse	AC Servo 0.5 kW
G/W Tilting	AC Servo 0.5 kW
G.W Drive	7.5 kW 2P AC Motor

Grinding Type





## Window Cage Grinding Machine SGCW 100

### Specifications

Part	Description
Machining Type	Plunge
Workpiece Mounting	WIDTH CLAMP (PNEU)
Machining Dia. Range	PHI 43~100
Machining Length Range	Max 55
Work Slide Stroke	60
G/W Slide Stroke	70
Loading	Gantry Type
Dresser	Rotary Dresser on the Work Spindle
Outer Dimension	2200 x 2100 x 1900 H (mm)
Weight	4.5 TON

### Motor

Part	Description
Work Slide	AC Servo 2.0 kW
Work spindle	AC Servo 1.5 kW
G/W Spindle (R)	AC Servo 3.5 kW
G/W Spindle (L)	AC Servo 0.5 kW
Loading	AC Servo 0.5 kW

Grinding Type



## Hydraulic Single Spindle Turning M/C SLB 80(120)

### Specifications

Part	Description
Machining Dia. Range	Max 60 (90)
Machining Width Range	Max 40
Center Height	F.L 1,010 mm
Control	PLC
Hydraulic Chuck Size	6", 8", 9" (Collet or Mandrel)
Spindle Dia.	80 (120)
Slide	#1, #2
Work Spindle Speed	Max 2,000 rpm
Slide Size	250 W
Outer Dimension	1200 x 2200 x 1700 H (mm)
Weight	3 Ton

### Motor

Part	Description
W.H	7.5 kW 8P
HYD	2.2 kW 4P



## C.V.J Inner Ring Ball Track Grinder SGBT 100

### Specifications

Part	Description
Machining Type	2 Head Arc
Workpiece Mounting	Hydraulic
Machining Dia. Range	Max 80 (Min 50)
G/W (Speed)	Max 200 Phi
	H.F SPINDLE 8,000 rpm/17 kW x 2 SETS
Center Height	Max 1,150
Index	6 HYD' Index (8 Servo)
Loading	Gantry or Robot
DRESS	Rotary Form Dresser (phi 125)
DRESS Speed	Max 3,000 rpm
Work Slide Stroke	350 mm
G/W Slide Stroke	475 mm
Outer Dimension	2700 x 1900 x 2200 H (mm)
Weight	6.5 Ton

### Motor

Part	Description
Work Slide	AC Servo 2.4 kW x 2 HEAD
G.W Table	AC Servo 2.4 kW x 2 HEAD (Brake)
Loader	AC Servo 1.0 x 2 HEAD
Dress Feed	Installed by Work Slide
Dress Rotate	0.75 kW 2P AC Motor
HYD	3.7 kW 4P AC Motor
LUB	0.7 kW Willy Vogel

Grinding Type



## CNC Single Spindle Turning M/C SLB 80(120)CNC

### Specifications

Part	Description
Machining Dia. Range	Max 60 (90)
Machining Width Range	Max 40
Center Height	F.L 1,010 mm
Control	CNC (Mitsubishi, Fanuc)
Hydraulic Chuck Size	6", 8", 9" (Collet or Mandrel)
Spindle Dia.	80 (120)
Slide	#1 or #2
Work Spindle Speed	Max 2,000 rpm
Slide Size	300 W
Outer Dimension	1200 x 2000 x 1700 H (mm)
Weight	3 Ton

### Motor

Part	Description
W.H	11 kW 6P
HYD	2.2 kW 4P





# Automation System

- Eddy Current Crack Testing M/C
- Post Process Gauge M/C
- Automatic Assembly M/C
- Ultrasonic Washing M/C
- Workpiece Inspection M/C
- Combining M/C
- Cage Assembly M/C
- Demagnetizing M/C
- Conservation Oil & Visual Inspection M/C
- Radial Clearance Inspection M/C
- Noise & Vibration Tester M/C
- Centrifugal Drying M/C
- Laser Marking M/C
- Greasing & Shielding M/C
- Auto Conveyor Loading System & Line System
- Cup Type Washing + Drying + Sensitivity Checking

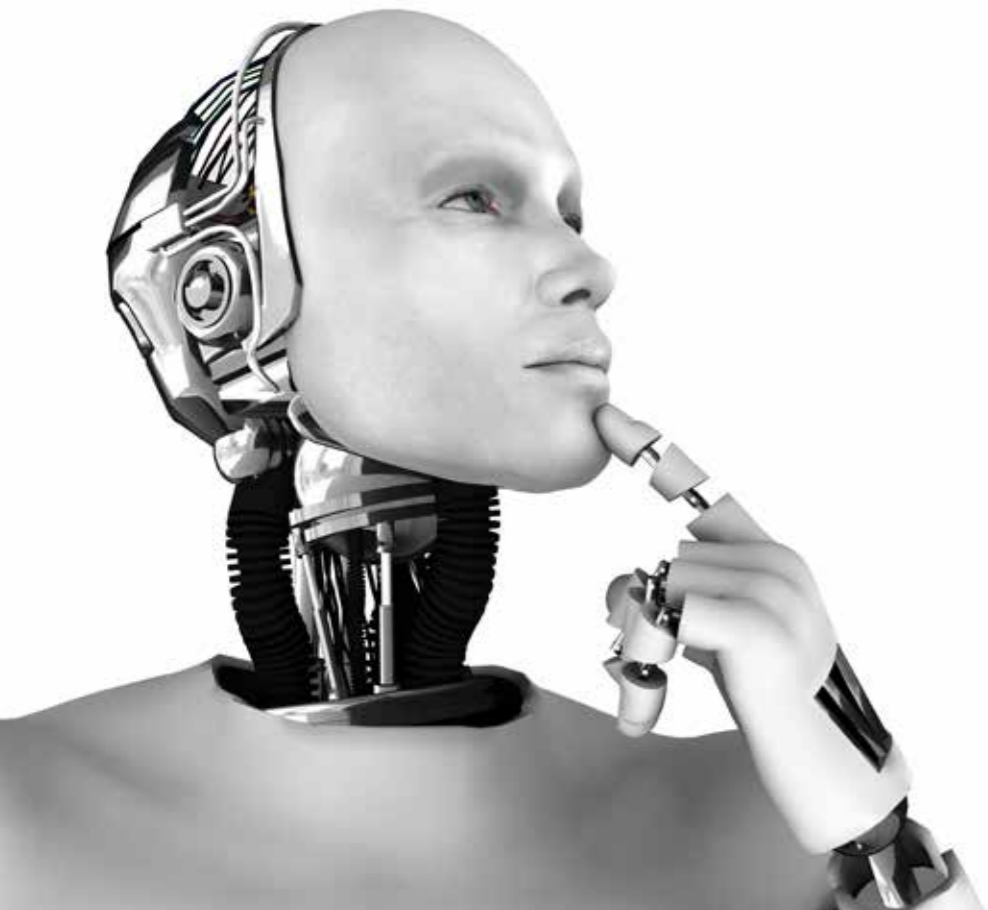




# High Precision Spindles

Developing high precision and high frequency spindle is not possible without the highest quality bearings. ORSKOREA applies unique mechanisms and the highest quality bearings to manufacture our high frequency spindles. Our spindles reach speed up to 120,000 rpm. We are proud to say that this is the Highest Speed Spindle that is manufactured in Korea.

Belt design precision spindles and high frequency spindles can operate at high speed and different speed settings. ORS BEARINGS, with over 30 years of experience in the bearing industry, has combined with ORSKOREA'S experience of machine and spindle manufacturing for nearly 3 decades. We guarantee you the high-quality grinding machines and spindles.



ORSKOREA offers a variety of customized solutions for spindles from the standard products. **We promise to supply you with the best quality and the best price at any time.**



## ORSKOREA's Spindles

# ORSKOREA is the best choice for spindles.

### 01 / High Speed

ORSKOREA leads the spindles manufacturing technology in Korea. Our high frequency spindles reach speed up to 120,000 rpm, which is the highest speed spindle manufactured in Korea.

### 03 / High Stiffness

In order to ensure the highest output and durability, ORSKOREA uses hybrid ceramic angular bearings from German. We always provide our clients with the highest DMN standard products.

### 05 / Balancing

To reduce vibration, ORSKOREA engineered and built our spindles with VPT (Vibration Prevention Technology) to prevent unbalancing. This process is done by Static and Dynamic Balancing.

### 07 / Patents

ORSKOREA is a holder of a diverse spindle patent portfolio. We currently have five patents for high-frequency motor spindles and apply them to our products every year.

### 09 / Customization

Our comprehensive design and manufacturing capabilities can accommodate different needs of our clients. Our product scope of spindles ranges from 10,000 rpm to 120,000 rpm.

### 02 / Technological Partnership

We are the only company in Korea that has a technological partnership with ORS Inc. by combining the know-hows of machine and spindle manufacturing with precision bearing manufacturing and production. We understand the machine operators and engineers needs and seek for better solution for them.

### 04 / Precision Bearing

We use ultra-precision bearings (ISOP2) for our spindles. For top quality spindles this is the industry standard which ORSKOREA abides.

### 06 / Quality Parts

ORSKOREA's spindles are manufactured with the highest quality parts. This allows our spindles to operate at the highest level of accuracy and precision.

### 08 / Originality

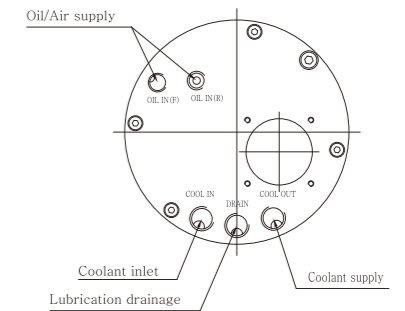
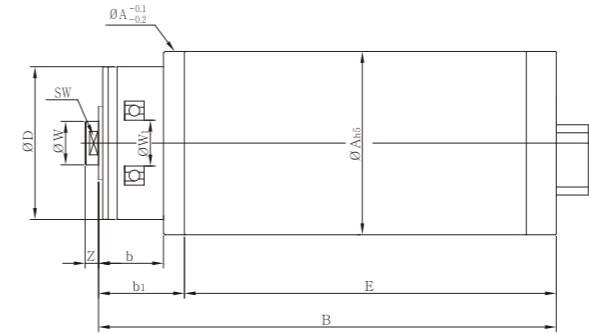
Applying extensive innovative ideas came from our extensive experience in spindles manufacturing, we continuously invest in research and development to expand our knowledge.

### 10 / Reliable Partner

ORSKOREA is a reliable partner. From Built-in (HF) motor spindles, Hydro-Static/ Dynamic spindles to Belt-Driven spindles and more. ORSKOREA will always provide you the best spindle solution.

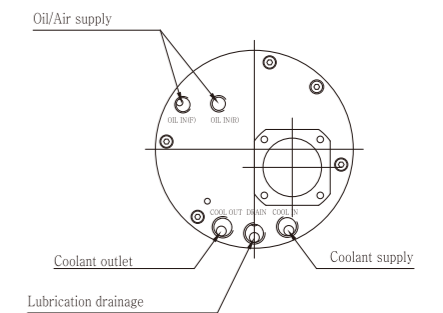
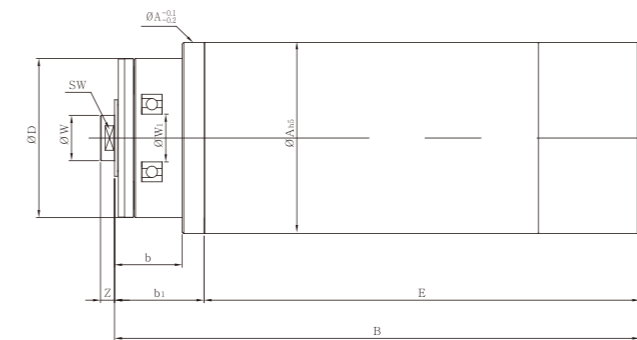


## High Frequency Spindle Model : SHS



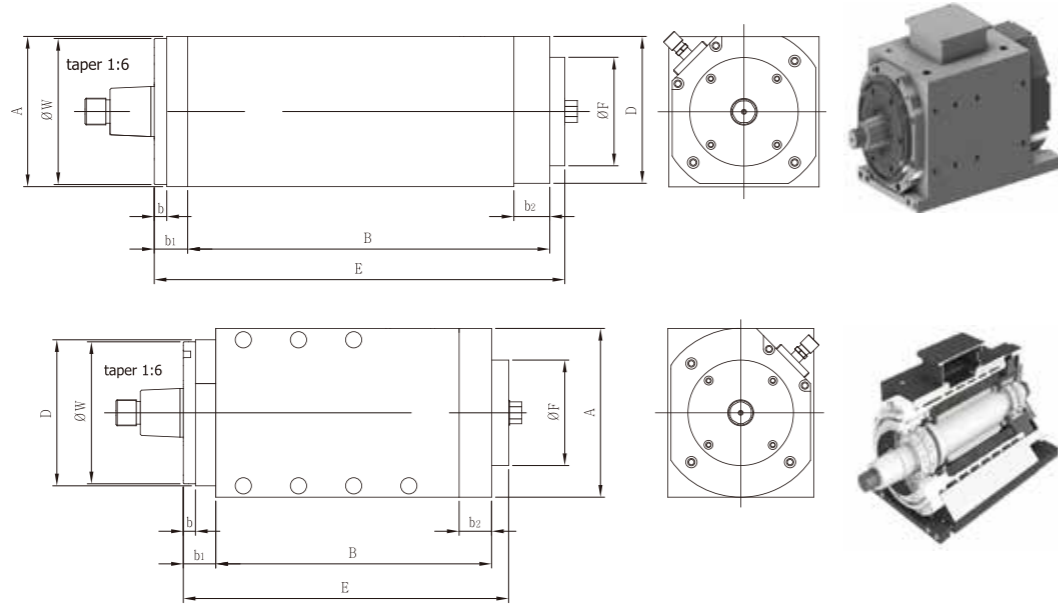
Model	SPEED MAX. [RPM]	POWER SPECIFICATIONS						DIMENSION										Without flange E
		Torque M <sub>s6</sub> [NM]	Output S6-60% at speed		Voltage at frequency between			A	B	b	D	W	W1	Z	SW	b1		
			P <sub>s6</sub> [kW]	n [RPM]	V [V]	f <sub>k</sub> [Hz]	f <sub>max</sub> [Hz]											
SHS150-018/17	18000	14.8	17	11000	350/(220)	367	600	130	380.5	63.5	150	63.5	65	16	55	80.5	280	
SHS150-030/16	30000	8.5	16	18000	350/(220)	600	1000	150	378.5	61.5	130	53	55	14	48	78.5	280	
SHS150-030/23	30000	12.2	23	18000	350/(220)	600	1000	150	378.5	61.5	130	53	55	14	48	78.5	280	
SHS120-042/12.5	42000	4.0	12.5	30000	350/(220)	1200	1400	120	314	51	100	38.5	40	11	32	65	229	
SHS120-051/12.5	51000	4.0	12.5	30000	350/(220)	1200	1700	120	306.5	43.5	100	28.5	30	9	24	57.5	229	
SHS120-060/7	60000	1.1	7	60000	350/(220)	1000		120	262	38	90	23.5	25	9	20	52	190	
SHS100-075/5	75000	0.6	5	75000	350/(220)	1250		100	227	38	80	18.5	20	8	16	52	155	
SHS100-090/3	90000	0.3	3	90000	350/(220)	1500		100	242.5	36.5	80	18.5	20	8	16	48.5	154.5	

## High Frequency Spindle Model : SHX(New Model)



Model	SPEED MAX. [RPM]	POWER SPECIFICATIONS						DIMENSION										Without flange E
		Torque M <sub>s6</sub> [NM]	Output S6-60% at speed		Voltage at frequency between			A	B	b	D	W	W1	Z	SW	b1		
			P <sub>s6</sub> [kW]	n [RPM]	V [V]	f <sub>k</sub> [Hz]	f <sub>max</sub> [Hz]											
SHX150-030/9	30000	2.7	9	30000	350/(220)	500	1000	150	341.5	47.5	100	33.5	35	9.3	30	61.5	235	
SHX120-030/11.5	3000	4.6	11.5	24000	350/(220)	800	1000	120	388.5	55	119.8	53.5	55	14	48	70.5	253	
SHX120-045/18	45000	5.7	18	30000	350/(220)	1000	1500	120	370	54.5	120	43	45	12.5	38	70	235	
SHX120-060/12	60000	2.2	12	51000	350/(220)	850	1000	120	337.5	43.5	100	28.5	30	9	24	57.5	215	
SHX120-075/7	75000	0.9	7	75000	350/(220)	1250		120	300	38	90	23.5	25	9	20	52	183	
SHX120-090/3	90000	0.3	3	90000	350/(220)	1500		120	324.5	27.5	70	16	17	6.5	14	42.5	14.5	
SHX100-105/2	105000	0.2	2	105000	350/(220)	1750		100	201.5	23.5	80	16	17	6	14	31.5	145	
SHX100-120/1.2	120000	0.1	1.2	120000	350/(220)	2000		100	191.5	23.5	80	11	12	6	8	31.5	135	

## Built in Motor Spindles



Model	SPEED MAX. N <sub>max</sub> [RPM]	POWER SPECIFICATIONS					DIMENSION								
		Torque		Voltage at frequency			A	B	b	b <sub>1</sub>	b <sub>2</sub>	D	E	F	W
		M <sub>s6</sub> [NM]	P <sub>s6</sub> [kW]	n	V	f <sub>max</sub> [Hz]									
SRG500-2X	2000	38.2	8	2000	350/(220)	1200	180	434	15	40	43	176	492	130	175
SRG500-2YZ							208	340	15	40	40	180	401	130	175

## Hydro-Static / Dynamic Spindles

- Designing and manufacturing Hydro Dynamic / Static Grinding Spindles.
- Repairing and/or modifying Hydro-Dynamic / Static Spindles of the leading brands. This includes TOYO, KOYO, ISMUI, OKUMA, LIDKOPING and many more for the domestic market.
- ORSKOREA is the holders of patents on Air-Floating High-Frequency Spindle. (A joint ownership with Schaeffler Korea)
- OEM/ODM partnership with machine manufacturers.



## Rolling Bearing Type Spindles

- Repairing and manufacturing all types of high-end spindles.
- Designing and manufacturing of centerless grinding spindles equipped with high-precision bearings.
- Repairing and refurbishing various types of machine and high-precision spindles.
- Designing and developing customized spindles.
- OEM/ODM partnership with machine manufactures.



## Repair Service

### Check & Disassemble

- Check for internal and external damages that occurred from use
- Disassembly - each step is photographed and analyzed in detail
- Each part is inspected and analyzed to determine if a replacement is needed or if it can be repaired
- Quotation will be provided for the client's approval



### Repair Service

- Cleaning the disassembled parts (by hand with ultrasonic wave and anti-rust chemicals)
- Purchasing of parts (bearings and/or other necessary parts)
- Refurbishing and/or other required process
- Design and manufacture damaged parts (Done by qualified ORSKOREA's members from design and manufacturing team)
- Balancing of the parts including the shaft (balancing grade 1G or below based on ISO standard)
- Equipment used in the process: SCHENCK & SHIMATSU B.M brands
- Assembly and inspection (bearing is assembled according to appropriate preload level)



### Precision Test & Trial

- Accuracy test and test run are performed before delivery
- Static precision test (run-out check)
- No-load test (minimum of 6 hours)
- Test run (check for bearings noise level and vibration using German SCHENCK equipment)
- Additional processing if balancing operation is needed
- Test run report will be provided including all data and work history
- Anti-rust control and air sealed packaging for delivery



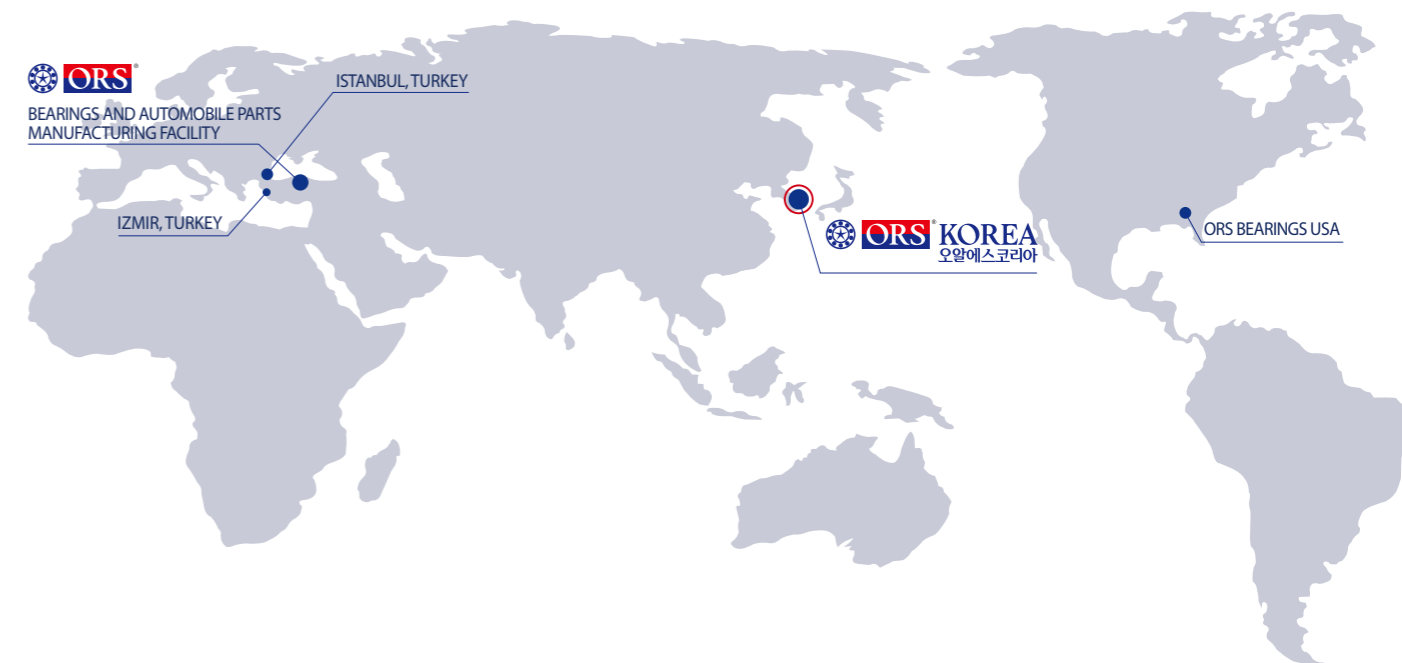


## Service and Support

### After-sales & Service

After-sales service is considered with utmost importance and priority. Immediate attention is therefore given to all requests for service and spare parts. With our network of logistics partners located all around the globe, the parts will be delivered in the shortest time possible. If service is needed, our service engineers are sent out on request to operating sites around the globe. All inquiries will be responded within 24 hours and a schedule will be made for needed service.

ORSKOREA  
understands  
the importance of  
quality service.  
Wherever you are,  
we will be there.



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