



Scan Me



“The world rotates with us”



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High Precision Spindles



ORS
KOREA

Greetings

ORSKOREA is a specialist of high-precision and high speed spindles who is leading the Korean market with extensive experience and knowledge in machining technology.

Contents

- 04 Greeting
- 06 Introduction
- 08 Spindles
- 24 Service & Support





Customized solutions for 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



Reliable service

Knowing that spindles operate at the highest speed and require the highest precision among all the various kinds of spindles, ORSKOREA ceaselessly challenges itself and makes our utmost efforts to achieve a higher maximum speed and zero-error precision. Because we use advanced bearing products for the most important parts of high-speed spindles such as bearing and high-frequency motor.

We always put our customers' reliable service and great satisfaction as a priority.

Spindle technology is one of the core values of machine tool technology. Our achievement of developing 120,000 RPM spindle, currently the highest speed in Korea, proves that we have up-to-date spindle technology in the domestic market.

By using quality parts and pursuing continuous development in design and technology, we can confidently say that ORSKOREA will be your best choice for 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.

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.

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.

04 Precision Bearing

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

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.

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.

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.

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.

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.

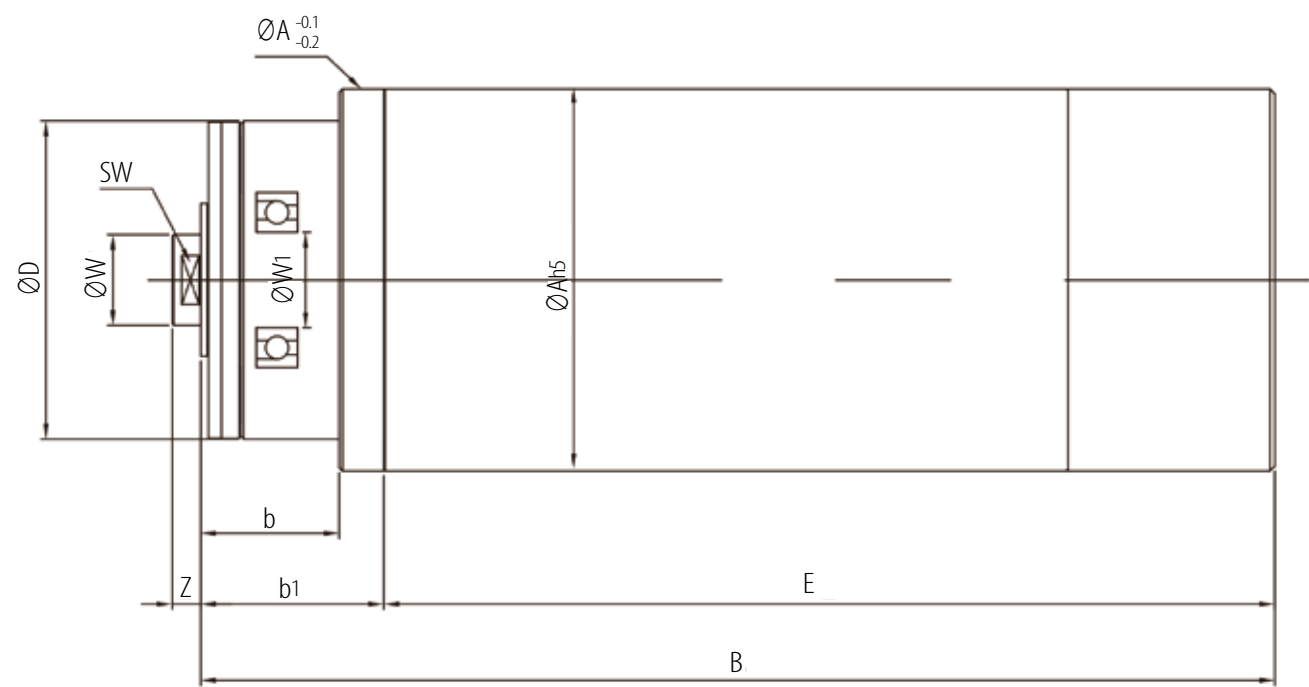
10 Reliable Partner

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.

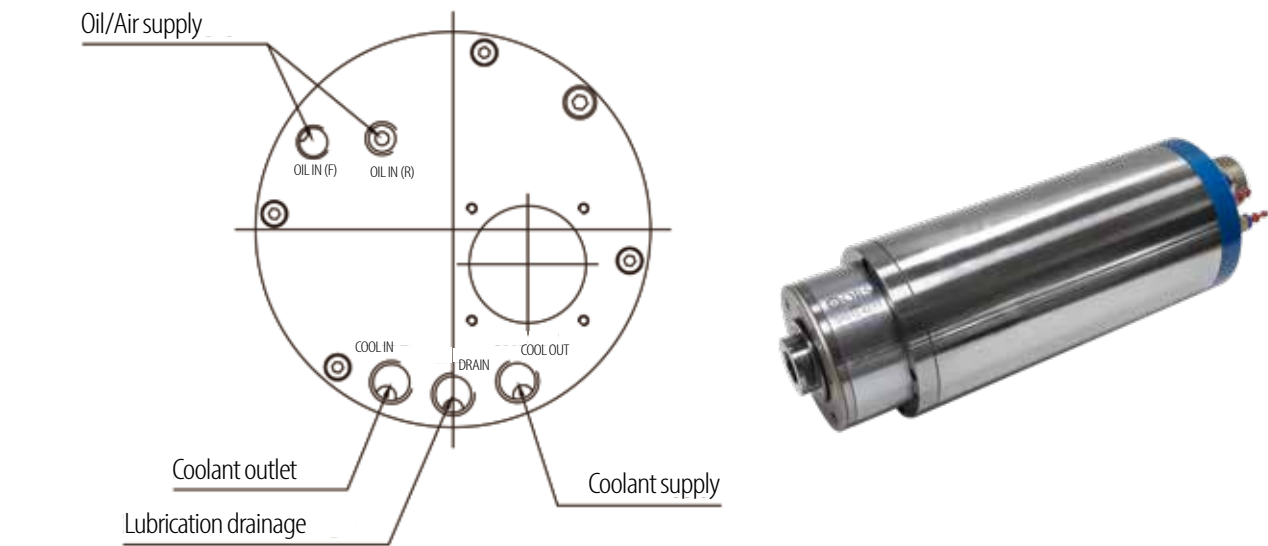


Spindle

HIGH FREQUENCY SPINDLE
MODEL : SHX(NEW MODEL)



MODEL	SPEED MAX. nmax [RPM]	POWER SPECIFICATIONS NORMAL RATING					
		Torque	Output S6-60% at speed		Voltage at frequency between		
		Ms6 [NM]	Ps6 [kW]	n [RPM]	V [V]	fk [Hz]	f max [Hz]
SHX150-030/9	30000	2.7	9	30000	350/(220)	500	1000
SHX120-030/11.5	30000	4.6	11.5	24000	350/(220)	800	1000
SHX120-045/18	45000	5.7	18	30000	350/(220)	1000	1500
SHX120-060/12	60000	2.2	12	51000	350/(220)	850	1000
SHX120-075/7	75000	0.9	7	75000	350/(220)	1250	
SHX120-090/3	90000	0.3	3	90000	350/(220)	1500	
SHX100-105/2	105000	0.2	2	105000	350/(220)	1750	
SHX100-120/1.2	120000	0.1	1.2	120000	350/(220)	2000	

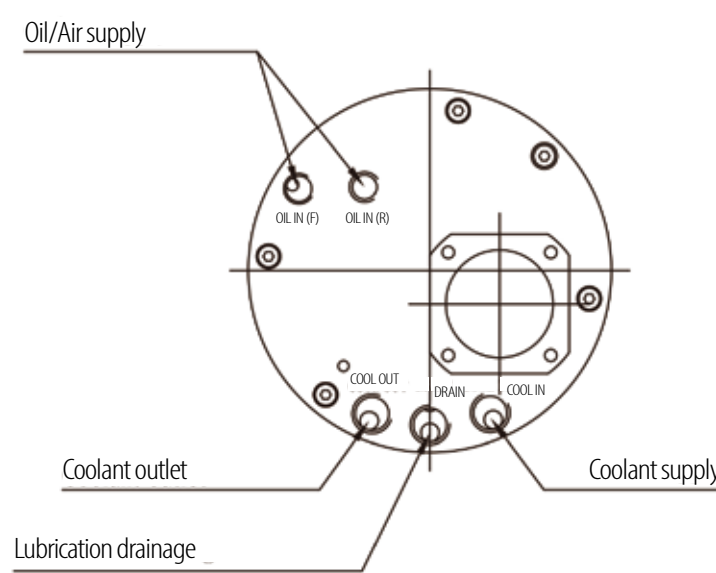
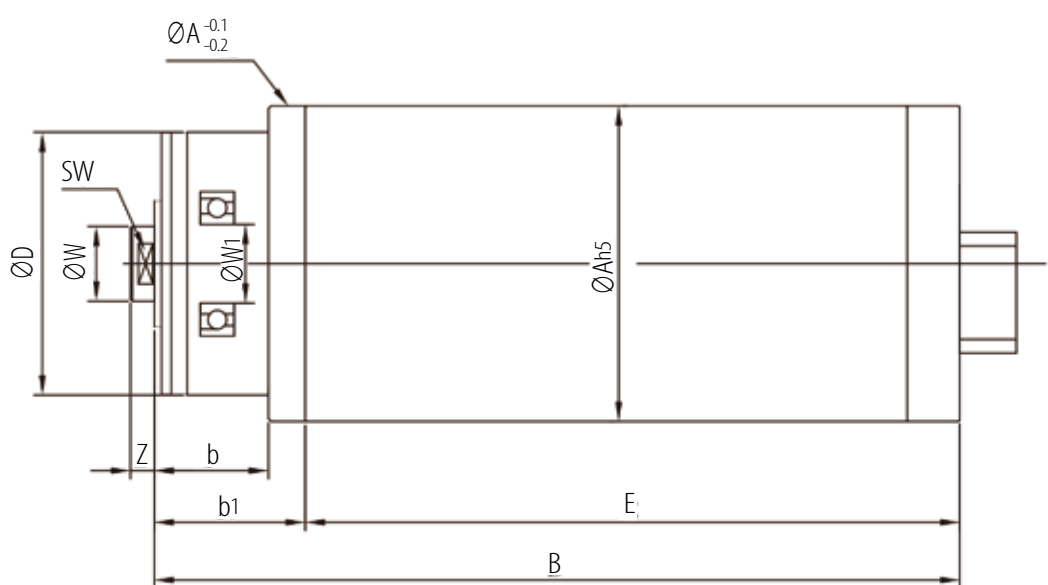


DIMENSION									
Without flange									
A	B	b	D	W	W1	Z	SW	b1	E
150	341.5	47.5	100	33.5	35	9.3	30	61.5	235
120	388.5	55	119.8	53.5	55	14	48	70.5	253
120	370	54.5	120	43	45	12.5	38	70	235
120	337.5	43.5	100	28.5	30	9	24	57.5	215
120	300	38	90	23.5	25	9	20	52	183
120	324.5	27.5	70	16	17	6.5	14	42.5	14.5
100	201.5	23.5	80	16	17	6	14	31.5	145
100	191.5	23.5	80	11	12	6	8	31.5	135



Spindle

HIGH FREQUENCY SPINDLE
MODEL : SHS



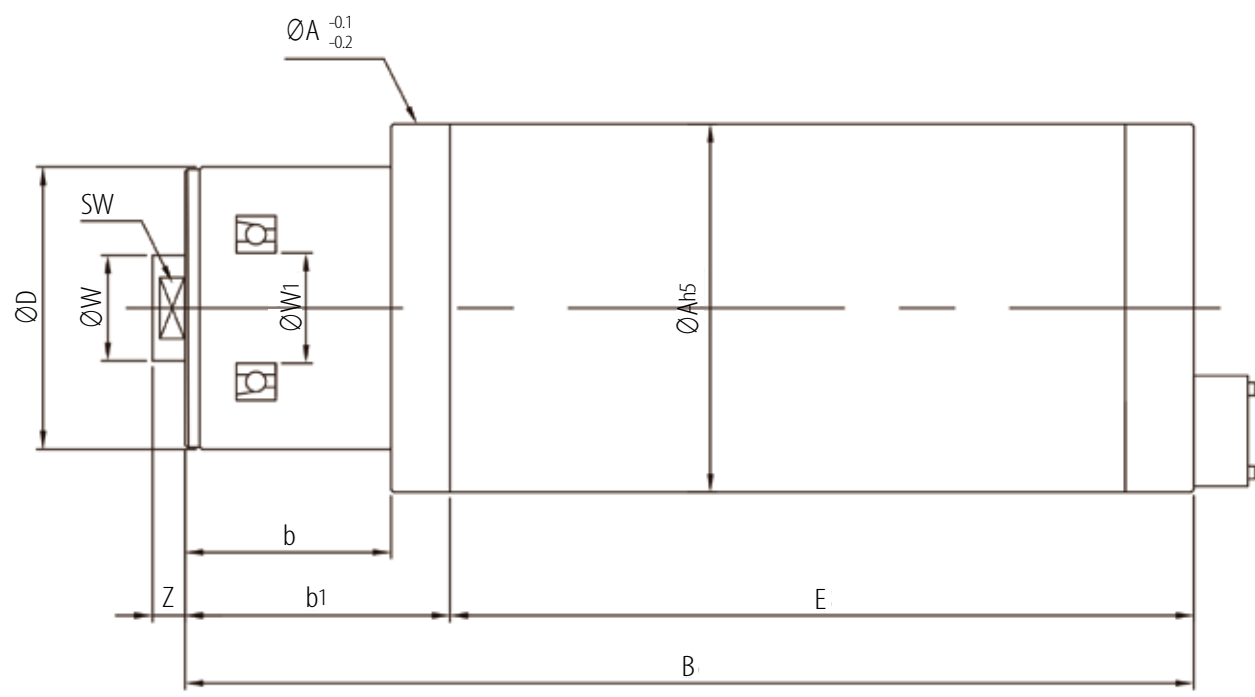
MODEL	SPEED MAX.	POWER SPECIFICATIONS NORMAL RATING					
		Torque	Output S6-60% at speed		Voltage at frequency between		
	nmax [RPM]	Ms6 [NM]	Ps6 [kW]	n [RPM]	V [V]	fk [Hz]	f max [Hz]
SHS150-018/17	18000	14.8	17	11000	350/(220)	367	600
SHS150-030/16	30000	8.5	16	18000	350/(220)	600	1000
SHS150-030/23	30000	12.2	23	18000	350/(220)	600	1000
SHS120-042/12.5	42000	4.0	12.5	30000	350/(220)	1200	1400
SHS120-051/12.5	51000	4.0	12.5	30000	350/(220)	1200	1700
SHS120-060/7	60000	1.1	7	60000	350/(220)	1000	
SHS100-075/5	75000	0.6	5	75000	350/(220)	1250	
SHS100-090/3	90000	0.3	3	90000	350/(220)	1500	

DIMENSION									
Without flange									
A	B	b	D	W	W1	Z	SW	b1	E
150	380.5	63.5	130	63.5	65	16	55	80.5	280
150	378.5	61.5	130	53	55	14	48	78.5	280
150	378.5	61.5	130	53	55	14	48	78.5	280
120	314	51	100	38.5	40	11	32	65	229
120	306.5	43.5	100	28.5	30	9	24	57.5	229
120	262	38	90	23.5	25	9	20	52	190
100	227	38	80	18.5	20	8	16	52	155
100	242.5	36.5	80	18.5	20	8	16	48.5	154.5

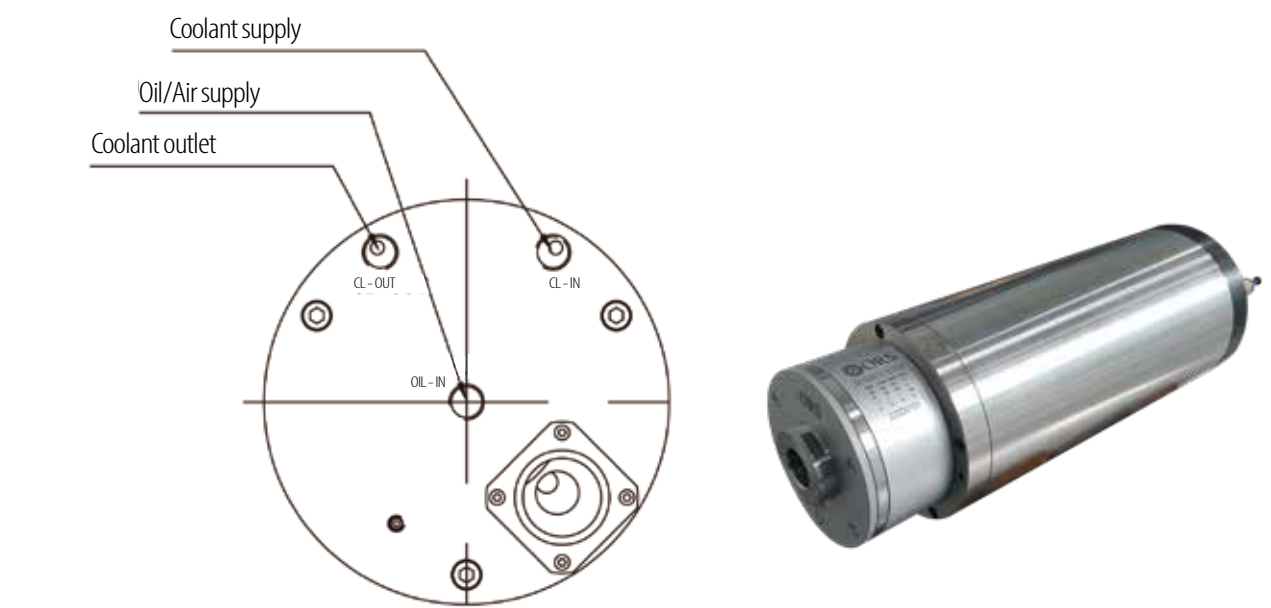


Spindle

HIGH FREQUENCY SPINDLE
MODEL : SHF



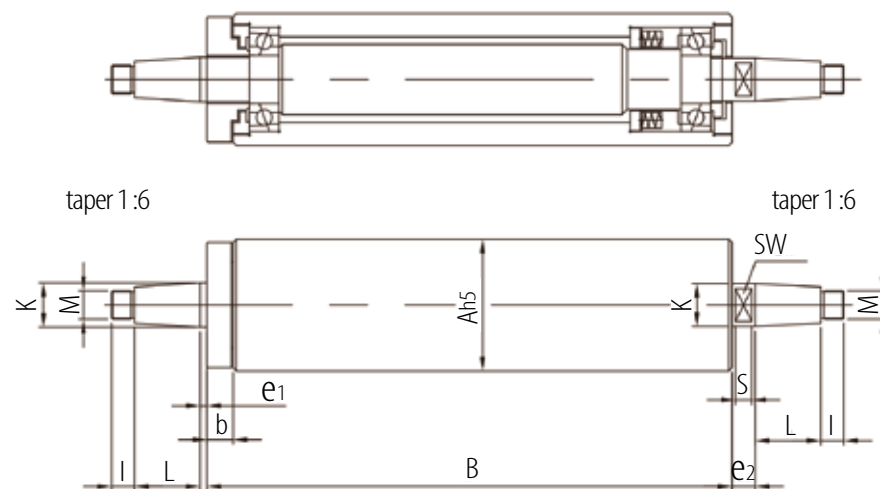
MODEL	SPEED MAX.	POWER SPECIFICATIONS NORMAL RATING					
		Torque	Output S6-60% at speed		Voltage at frequency between		
	nmax [RPM]	Ms6 [NM]	Ps6 [kW]	n [RPM]	V [V]	fk [Hz]	f max [Hz]
SHF150-015/16	15000	10.2	16	15000	350/(220)	500	
SHF150-015/15	18000	8.0	15	18000	350/(220)	600	
SHF120-024/8	24000	3.2	8	24000	350/(220)	400	
SHF120-030/7.5	30000	2.4	7.5	30000	350/(220)	500	
SHF120-036/7	36000	1.9	7	36000	350/(220)	600	
SHF120-042/6	42000	1.4	6	42000	350/(220)	700	
SHF120-051/7	51000	1.3	7	51000	350/(220)	850	
SHX120-060/4	60000	0.6	4	60000	350/(220)	1000	
SHX120-075/3	75000	0.4	3	75000	350/(220)	1250	



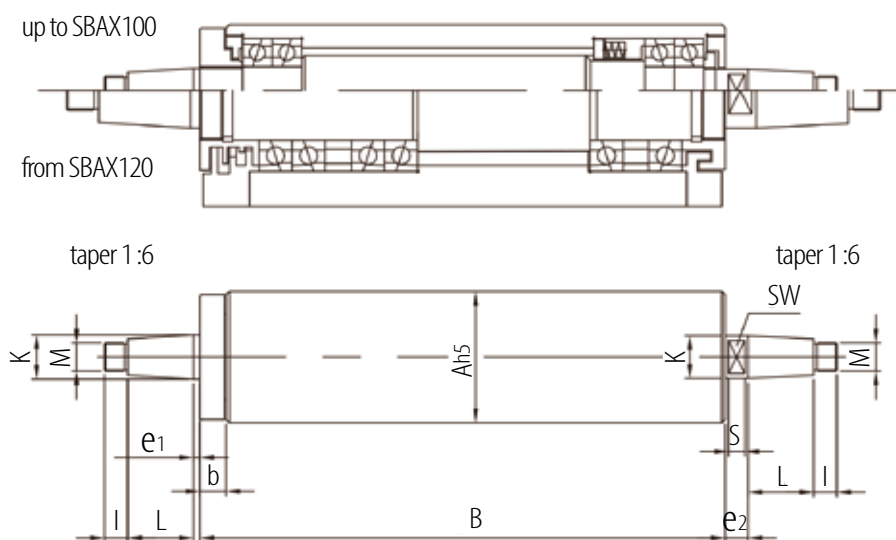
DIMENSION									
Without flange									
A	B	b	D	W	W1	Z	SW	b1	E
150	411	84	115	43	45	13.218	36	108	275
150	411	84	115	43	45	13.218	36	108	275
120	351.5	89.5	100	38	40	11.5	32	102.5	227
120	313	70	100	28	30	10	24	84	207
120	304.5	52	84.5	23	25	9.5	19	74.5	208
120	281	52	85	23	25	9	19	66	193
120	247	52	80	18	20	8	15	62	158
120	242.2	42	75	16	17	7.5	14	52	159.2
120	212.2	35	75	14	15	7.22	13	49	132.2

Spindle

BELT SPINDLE
MODEL : SBA



BELT SPINDLE
MODEL : SBAX



SBA

GRINDING SPINDLE	SPEED	DIMENSION								
		K	I	e1	e2	b	M	I	SW	S
A × B	max min-1	mm								
SBA40x	160									
	200	13	20	2	7	7	M8x1	7	11	6
	250									
SBA50x	160									
	200	15.5	24	2	8	8	M10x1	8	13	6
	250									
SBA60x	200									
	250	22	34	2.5	10	8	M12x1	10	19	8
	315									
SBA70x	200									
	250	28	42	2.5	13	9	M15x1	11	24	10
	315									
SBA80x	200									
	250	33	48	3.2	16	10	M20x1	12	27	12
	315									

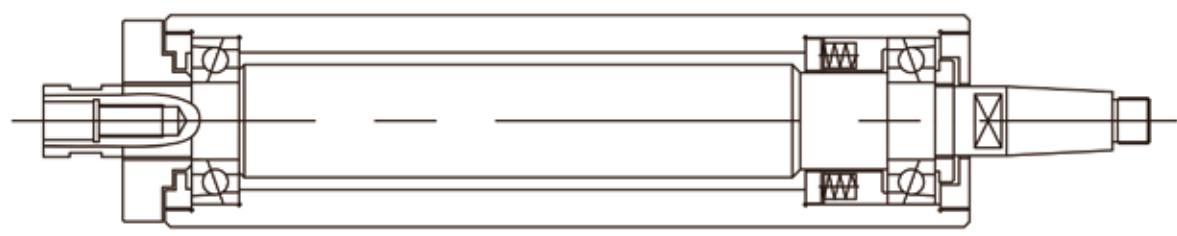
SBAX

GRINDING SPINDLE	SPEED	DIMENSION								
		K	I	e1	e2	b	M	I	SW	S
A × B	max min-1	mm								
SBAX60x	110									
	200									
	250									
	315									
	400									
	500									
SBAX70x	200									
	250									
	315									
	400									
	500									
	18000									
SBAX80x	200									
	250									
	315									
	400									
	500									
	15000									
SBAX100x	250									
	315									
	400									
	500									
	630									
	12500									
SBAX120x	315									
	400									
	500									
	630									
	800									
	10000									
SBAX140x	400									
	500									
	630									
	800									
	9000									
	8000									
SBAX160x	400									
	500									
	630									
	7000									
	6000									
	5000									
SBAX200x	500									
	630									

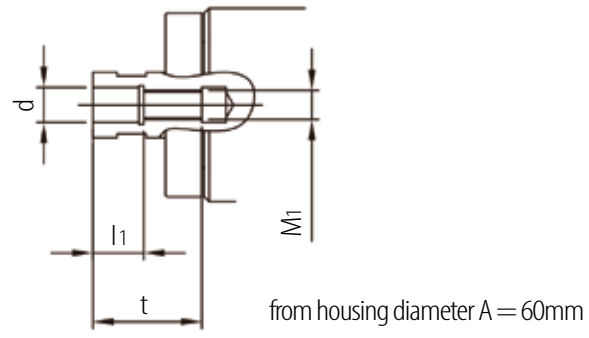
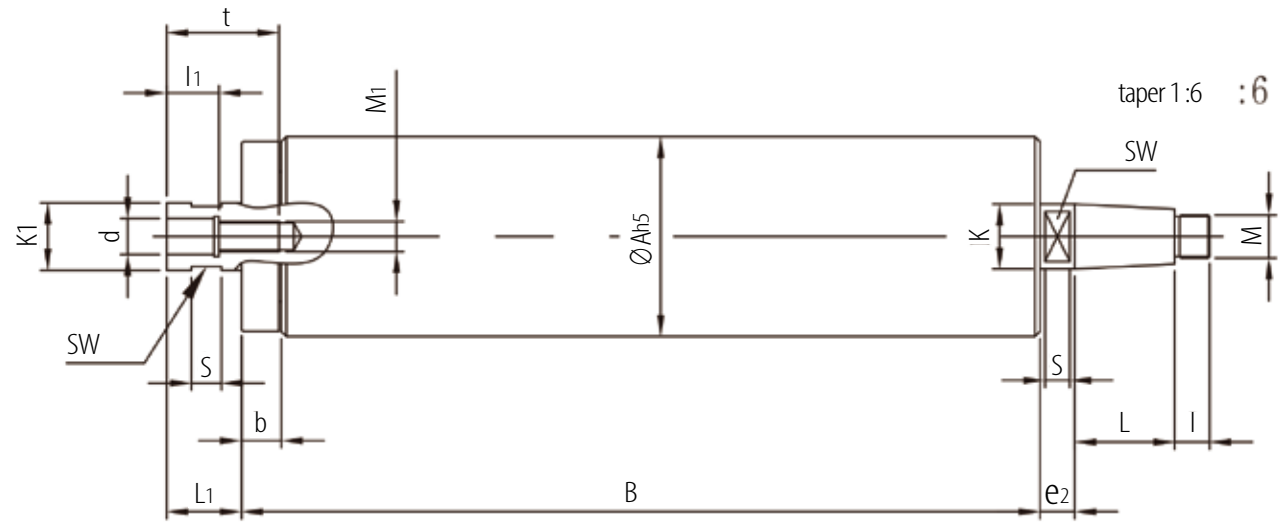


Spindle

BELT SPINDLE
MODEL : SBI

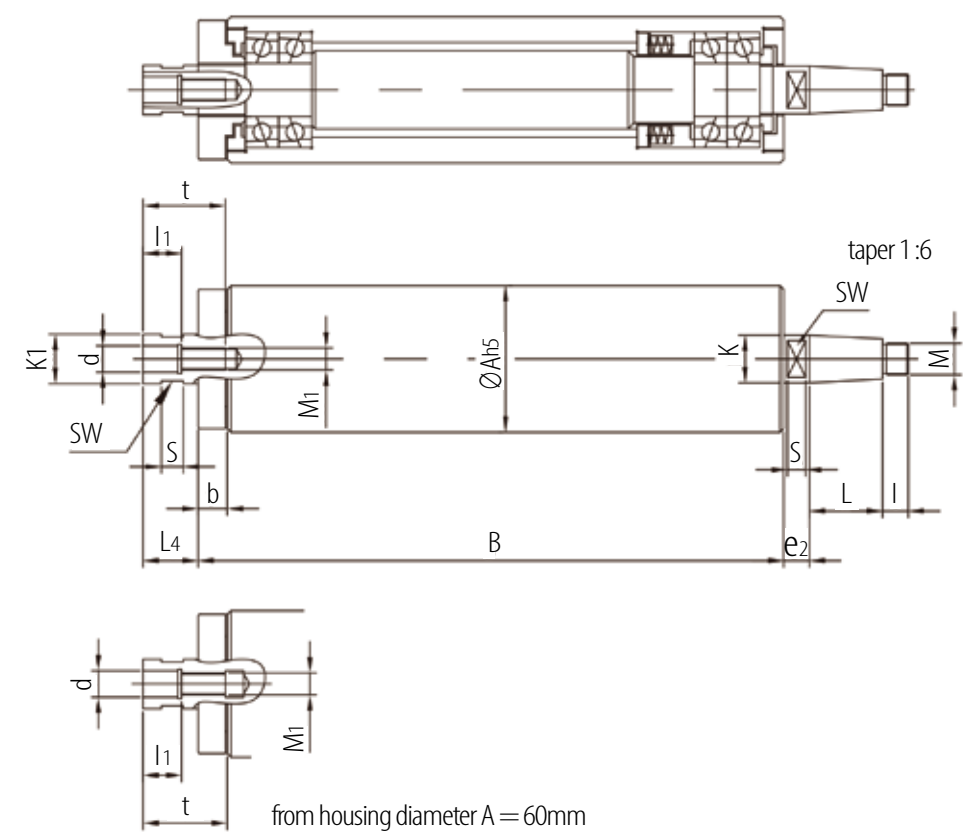


GRINDING SPINDLE		SPEED	DIMENSION													
A × B		max	K	L	K1	L2	e2	b	M	I	d	h	M1	t	SW	S
		min-1	mm													
SBI40x	160	35000	13	20	13.5	12	7	7	M8x1	7	7.2 + 0.004 0	10.5	M6	22	11	6
	200															
	250															
SBI50x	160	29000	15.5	24	15.5	12	7	8	M10x1	7	8.2 + 0.004 0	12	M8	24	13	6
	200															
	250															
SBI60x	200	22000	23	34	23	16	10	8	M12x1	10	13.2 + 0.004 0	13	M6	26	19	8
	250															
	315															
SBI70x	200	18000	28	42	28	20	13	9	M15x1	11	16.2 + 0.006 0	16	M8	30	24	10
	250															
	315															
SBI80x	200	17000	33	48	33	25	14	10	M20x1	12	18.2 + 0.006 0	18	M10	34	27	12
	250															



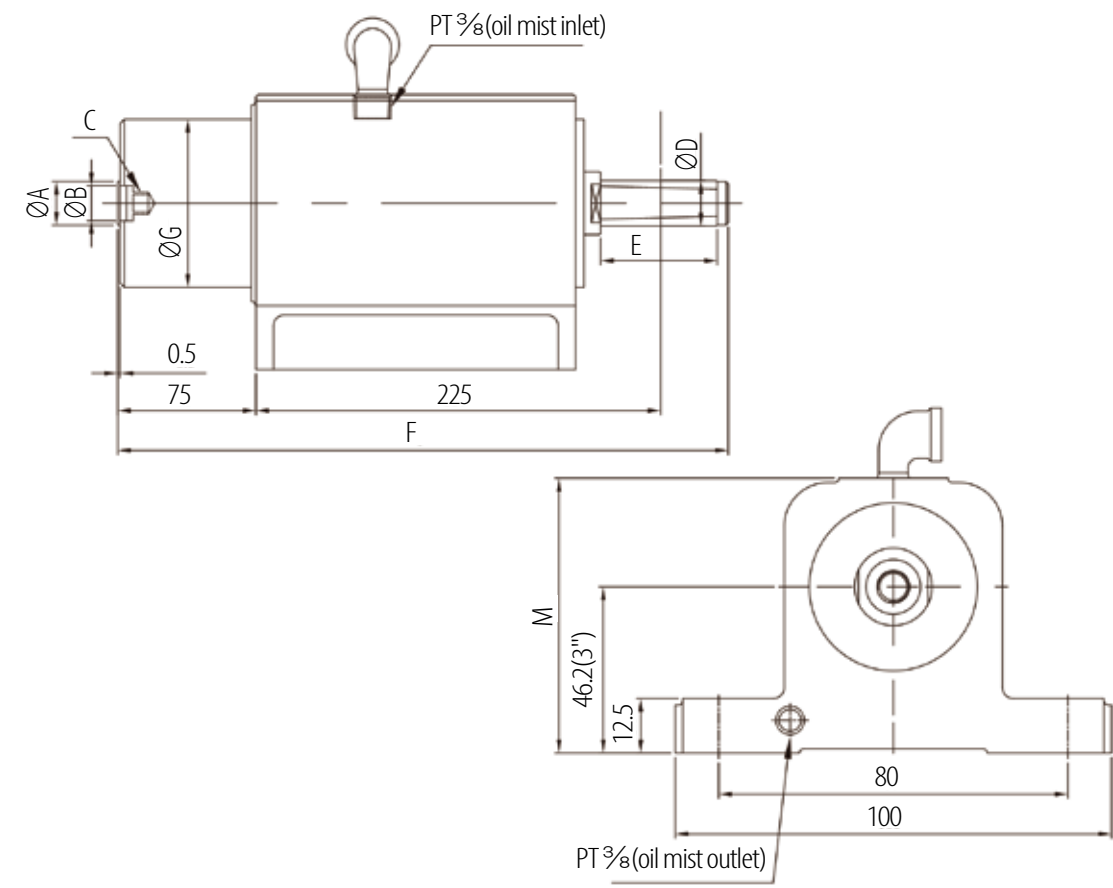
Spindle

BELT SPINDLE
MODEL : SBIX



GRINDING SPINDLE		SPEED	DIMENSION													
A × B		max	K	L	K1	L2	e2	b	M	I	d	h	M1	t	SW	S
		min-1	mm													
SBIX60x	200	22000	23	34	23	16	10	8	M12x1	10	13.2 + 0.004 0	13	M6	26	19	8
	250															
	315															
	400	20000														
SBIX70x	250	18000	28	42	28	20	13	9	M15x1	11	16.2 + 0.006 0	16	M8	30	24	10
	315															
SBIX80x	250	17000	33	48	33	25	14	10	M20x1	12	18.2 + 0.006 0	18	M10	34	27	12
	315															
	400	14500														
SBIX100x	315	13000	43	63	43	28	16	10	M25x1	14	24 + 0.006 0	24	M12	42	36	14
	400															
	500															

BELT SPINDLE
MODEL : SBM



MODEL	SPEED	DIMENSION										
	min-1	Ø A	Ø B×Depth	C×Pitch×Depth	Ø D(min)	E(max)	F	Ø G	L	M	Motor pulley	
		mm									50Hz	60Hz
SBM-018	18000	73.1	36x30.5	M30x1.5x75.5	55.7	100	357	125	135	143.7	Ø346.3	Ø288.6
SBM-024	24000	56.6	28x22.5	M24x1.5x63.5	43.3	100	356	108	120	136.2		
SBM-030	30000	47	22x18.5	M20x1.5x54.5	36	80	345	97	120	136.2		
SBM-040	40000	35.5	18x13.5	M16x1.5x43.5	26	70	340	80	100	126.2		
SBM-050	50000	30.5	16x12.5	M14x1.5x36.5	20.8	60	334.5	77	100	126.2		
SBM-060	60000	25.5	10x9.5	M10x1.25x25.5	17.3	45	327	71	100	126.2		

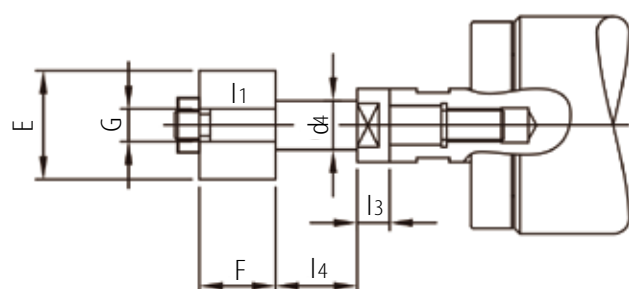


Spindle

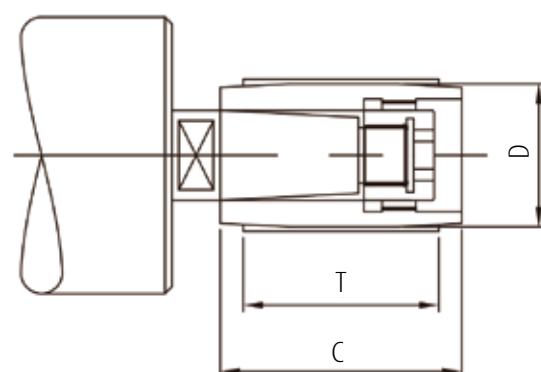
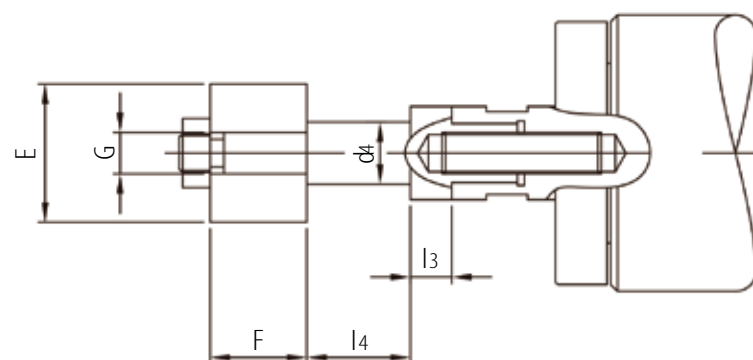
Accessories for SBI/SBIX series

ORS

up to housing outside diameter 60mm(SZ)



from housing outside diameter 60mm(SZV)



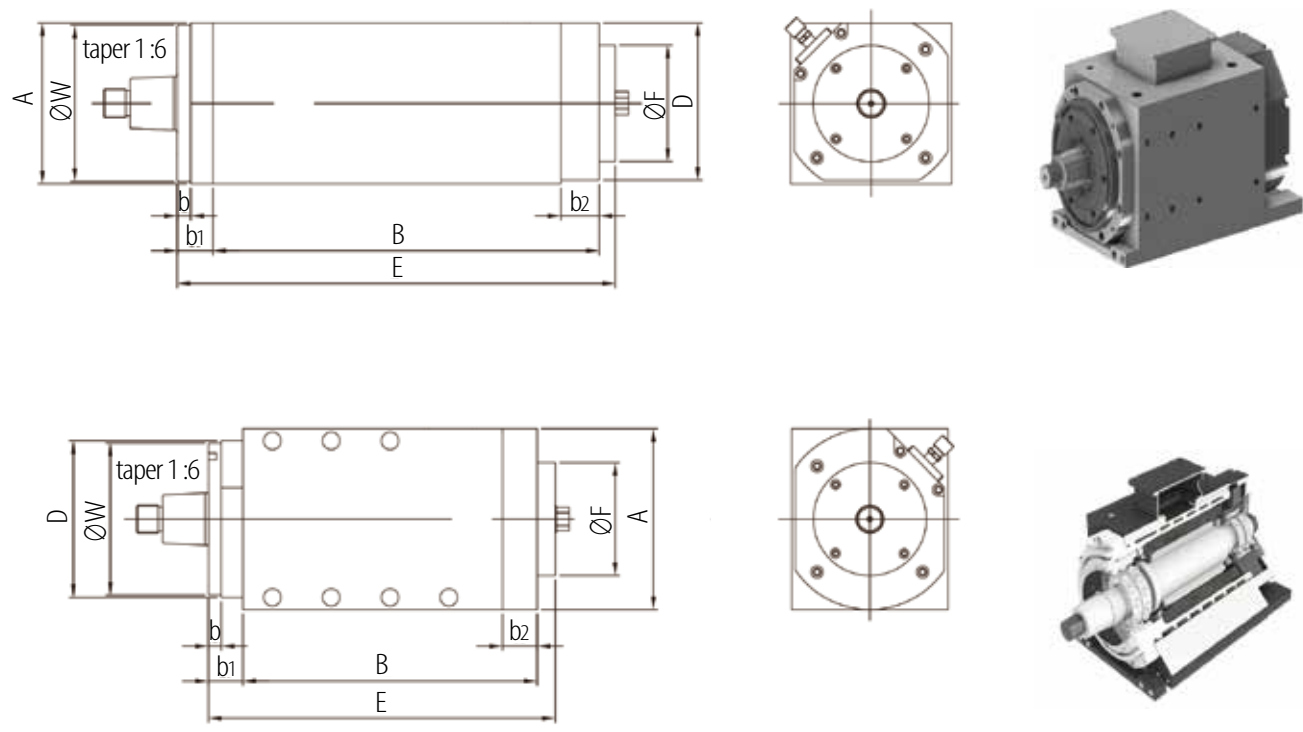
SPINDLE UNIT	SCREW-IN MANDREL				GRINDING WHEEL			RANGE OF APPLICATION		BELT PULLEY				
	Designation	d4 mm	I4	I3	E	F	G	Bore	Depth	Designation	D	C	T	Speed min-1
SBI40	SZK02-6x16	6	16	8	13	13	4	20	25	R02-28x40	28	40	32	30000
	SZ02-9x10	9	10		16	16	6	24	20					
	SZ02-9x25		25						35					25000
	SZ02-13x16	13	16	1)	20	20	6	30	34					
	SZ02-13x32		32	1)					50					
SBI50	SZ03-9x10	9	10	9	16	16	6	24	20	R02-28x50	28	50	40	25000
	SZ03-9x20		20						30					
	SZ03-12x16	12	16		20	20	6	30	40					
	SZ03-15x32		32						46					
	SZ03-15x20	15	20	1)	25	25	8	38	42					18000
SBI60 SBIX60	SZ03-15x40		40	1)					62					
	SZV05-13x16	13	16	10	25	25			32	R05-40x63	40	63	50	18000
	SZV05-13x32		32						48					
	SZV05-18x20	18	20		32	32			40					
	SZV05-18x40		40						60					
SBI70 SBIX70	SZV05-23x32	23	32	1)	40	40	13	60	68					14500
	SZV05-23x50		50	1)					86					
	SZV06-18x20	18	20	10	32	32	10	48	40	R06-45x71	45	71	60	14500
	SZV06-18x40		40						60					
	SZV06-22x32		32						54					
SBI80 SBIX80	SZV06-22x50		50						72					
	SZV06-28x40	28	40	1)	40	40	16	68	78					12500
	SZV06-28x63		63	1)					100					
	SZV07-22x32	22	32	12	40	32	13	60	54	R07-50x80	50	80	60	14000
	SZV07-22x50		50						72					
SBI90 SBIX90	SZV07-28x40	28	40		50	40	16		68					12500
	SZV07-28x63		63						90					
	SZV07-33x50	33	50	1)	50	50	20	75	95					11000
	SZV07-33x80		80	1)					125					
	SZV09-28x40	28	40	15	50	40	16	68	68					10400
SBIX100	SZV09-28x63		63						90					
	SZV09-33x50	33	50		50	50	20	75	95					
	SZV09-33x80		80						125					
	SZV09-43x63	43	63	1)	63	63	25	85	120					
	SZV09-43x100		100	1)					160					

1)These screw-in mandrels are not stepped

Drive : Motor speed 2860 min-1
Motor belt pulley Ø 220mm



BUILT IN
MOTOR SPINDLES



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.



MODEL	SPEED MAX	POWER SPECIFICATIONS					DIMENSION								
		Torque			voltage at frequency										
	nmax	Ms6	Ps6	n	V	f max	A	B	b	b1	b2	D	E	F	W
	[RPM]	[NM]	[kW]	[RPM]	[V]	[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

Service & Support

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 Operation

- 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



High Precision Spindles

Service & Support

Support

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

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.



GRINDING MACHINES AND SPINDLE MANUFACTURING FACILITY

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(1st and 2nd floor) 51340, REPUBLIC OF KOREA

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