

**SWSS**  
SIEMENS WEISS  
SPINDLE SERVICE



**SWSS** | SIEMENS WEISS SPINDLE SERVICE

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WORLDWIDE SPINDLESERVICE  
AT FAIR PRICES



# SWSS

„REDUCE IDLE PERIODS  
THROUGH INDIVIDUAL  
SERVICE CONCEPTS“

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# WHAT DOES **SWSS** STAND FOR?

# SWSS

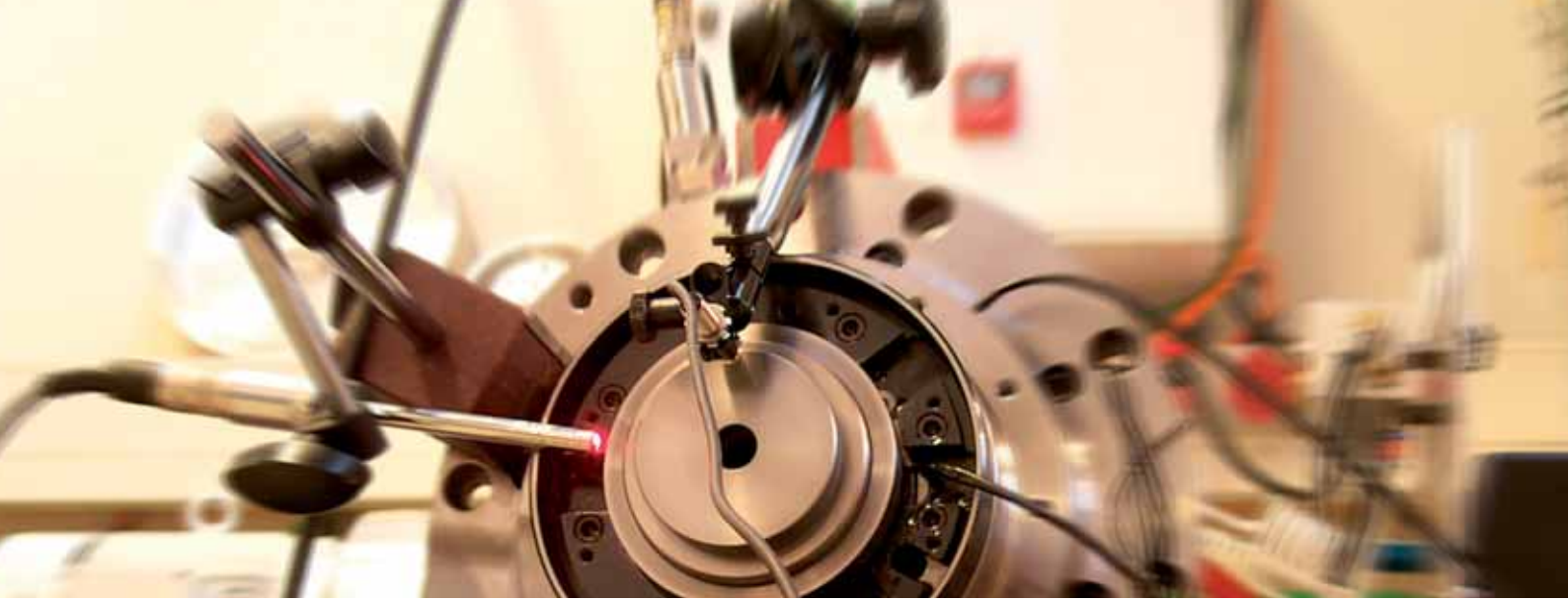
## Worldwide Spindle Service

SWSS is the short form of "Siemens Weiss Spindle Service" and refers to a service concept unmatched elsewhere in the global machine tool industry. The SWSS concept bases itself on two pillars: a worldwide service network and a comprehensive, individually combinable palette of service offerings. Drawing on the successful collaboration between WEISS and Siemens, each individual service concept is created to address one central goal: **Increased availability of machines for customers within strict adherence to economic concerns.**



### References (extract):

Airbus	EuroSourceLine Deutschland	KS Kolbenschmidt
Alstom	Ex-Cell-O	LIEBHERR-VERZAHNTECHNIK
ALZMETALL	Excentra	LIECHTI
Audi	FAG	LuK Fahrzeug-Hydraulik
Berthold Hermle	FESTO	Mahle
BMW	FIAT AUTOMOVEIS S.A.	Miba Automation
Boehringer	GROB-WERKE	RENAULT
Boeing	Gebr. Brinkmann	Robert Bosch
British Aerospace	General Motors	Scherer Feinbau
Buderus Schleiftechnik	Georg Fischer +GF+	SCHOTT GLAS
Carl Benzinger	Gleason-Pfauter	SCHUSTER - Präzision
Chiron Werke	Goertz & Schiele	SEAT
Cincinnati	GUEHRING	SKODA
DaimlerChrysler	Hamül	Siemens
Deckel Maho	Hedelius-Maschinenfabrik	Starrag Heckert
DEPO	Hessapp	STERLING SIHI
DS Technologie	Honsberg	Volkswagen
EADS Deutschland	Hueller Hille	VOLVO
ELB-SCHLIFF	INDEX-Werke	Witzig & Frank
EMAG Maschinenfabrik	KAPP	ZF Sachs



## SIEMENS WEISS SPINDLE SERVICE

### **SWSS stands for manpower.**

Almost 100 employees in 5 SWSS branches throughout the world currently coordinate service cases worldwide. In addition, several hundred Siemens employees assume direct customer care duties in the actual location.

### **SWSS stands for experience.**

Over 3,000 spindle repairs per year, on-site service contracts and an order volume well in excess of 15 million Euro document the experience and the wide acceptance of the SWSS concept. It is par for the course that our customers profit from this experience.

### **SWSS stands for synergies.**

The combination of WEISS expertise and the Siemens network creates synergies which we then exploit for our customers. The successful realisation of technical and economical advantages is the guarantee of success – yours and ours.

**SWSS stands for customer proximity and a global presence.**

**SWSS stands for over 30 years' successful spindle service.**

**SWSS exploits economical and technical synergies.**

### **SWSS stands for routine.**

You – the customer – and we – the service provider – have neither time nor money to waste. Over the years, various service processes have thus been structured and continually optimised with regard to the customer's requirements and economicalness.

### **SWSS stands for flexibility.**

Standard processes are not always the most economical solution. Particularly when things have to move quickly, the SWSS concept offers the opportunities to guarantee fast, prioritised handling in the customer's interests.

### **SWSS stands for satisfied customers.**

Just as the service network continually grows, the SWSS clientele also continually expands. We currently have in excess of 500 satisfied companies from all fields of application who entrust their spindles to our service every year.

**SWSS stands for fast, economical processes in the customer's proximity.**

**SWSS stands for dependability – even when the deadline is tight.**

**SWSS stands for over 500 satisfied customers – worldwide.**

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# THE SWSS SERVICE CORNERSTONES

# SWSS

## 1 SPECIALIST CONSULTING

Spindle technology has advanced and developed quickly in recent years. Where once there was only one option, solutions based on another company's drives, high-precision spindle units with direct drive have now taken over the scene. The wave of the future is clearly heading toward more and more complex technologically enhanced spindle solutions that provide even better surface performance with even shorter processing times.

To keep you constantly up to date and to leave no technical question unanswered, SWSS is prepared to stand by your side with its vast trove of specialised knowledge.

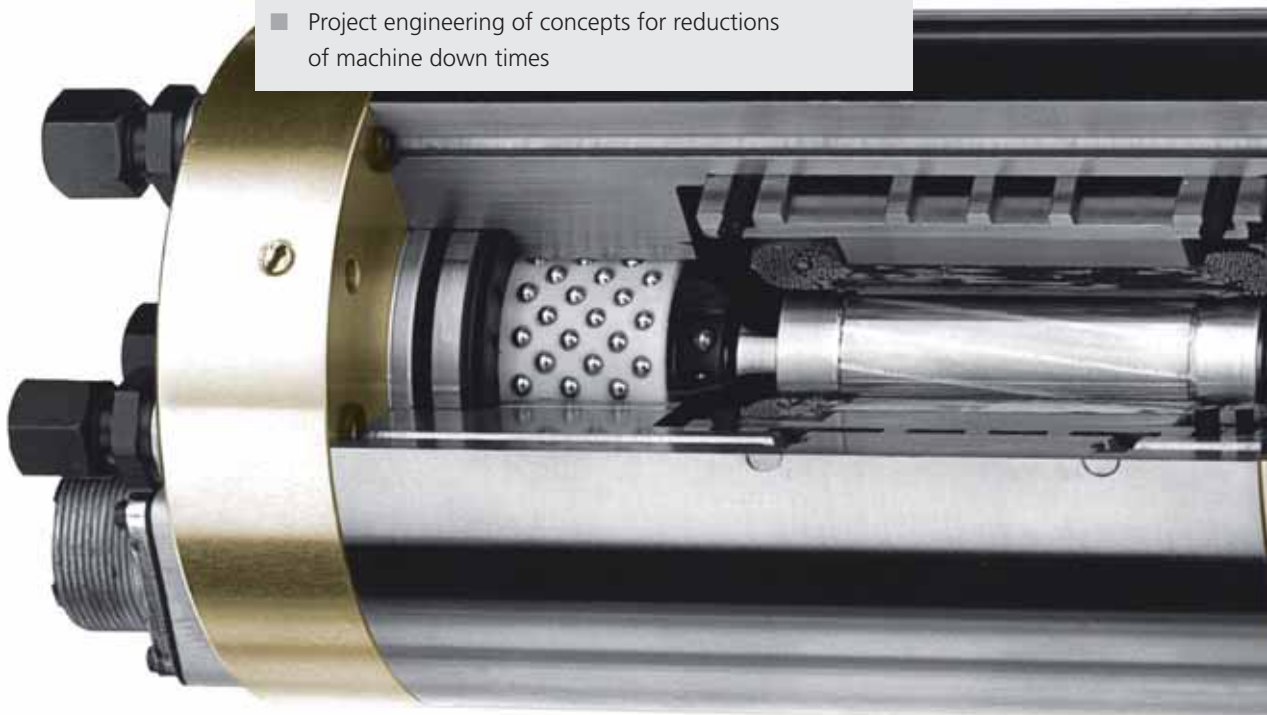
You can access our competent, qualified employees in the SWSS centres around the world, using their know-how of the cutting edge of technology to find quick and certain answers to your questions.

SWSS would be pleased to work together with you to solve even your most complex problems and to provide objective advice on how to reduce down time for your machines as effectively and affordably as possible.

**For more details, see:**  
[www.weissgmbh.de/consulting](http://www.weissgmbh.de/consulting)

### HIGHLIGHTS

- technical consulting worldwide
- Consulting for installation, handling, and operation for the entire life cycle of the machine
- Remote diagnosis and problem resolution strategies
- Project engineering of concepts for reductions of machine down times





## 2 REPLACEMENT PARTS

All SWSS Service Centres stock an inventory of replacement parts for WEISS standard spindles. Beyond this contingent, SWSS also offers price-effective storage of replacement parts for individual needs to insure that these are on hand in the event that they are needed.

Synergies are created by offering external replacement parts through pooled buying. These purchasing savings are passed on to the customer.

The availability of replacement parts is a crucial element in getting machines avail-

able again quickly and price-efficient. A reliable partner on your side helps insure that your service department can act quickly and efficiently.

**For more details, see:**  
[www.weissgmbh.de/replacements\\_parts](http://www.weissgmbh.de/replacements_parts)

### HIGHLIGHTS

- large replacement parts inventory in all SWSS Service Centres
- Procurement of external replacement parts in large quantities
- Spindle accessories
- reduced processing times
- individual agreements for replacement parts packages possible



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## 3 REPAIRS | UPGRADES

### WEISS spindles

Many of our customers already use and value SWSS's repair capacity, available worldwide in uniform, competent quality. We pursue a simple but high standard: to provide service everywhere where our spindles are put to work. With over 3,000 spindles repaired each year, we have standardised our processes as far as is possible, allowing us to share economical and technically advanced routine processes with our customers.

### Third party spindles

The SWSS repair palette applies for all common spindle types found on the world market. As experienced, leading service providers in the area of spindle service, we gladly fulfill our customers' desires to receive one-stop-service. Co-operation and successful teamwork have allowed us in recent years to collect experience and routine processes for the repair of spindles from all leading manufacturers and to put this experience to work for our clients. We have long stopped differentiating between the processing of our own and third-party spindles, such that all spindles are subjected to the same standardised repair cycle.

### Upgrades

Should technological advances make it possible to upgrade your spindle to a newer level of technology, then we would gladly propose an individualised offer for such work. Maintenance and repair cycles are particularly suitable for the conversion and upgrading of spindles, since they have already been extracted from their settings. In many cases we can increase the effectiveness and/or life expectancy of the spindles significantly through targeted replacements.

## HIGHLIGHTS

- Know-how from more than 3,000 repairs annually
- constantly trained assembly personnel
- optimised and proven repair procedures
- explanatory report upon return, including indication of failure cause
- systematic localisation and remedy of spindle failure
- Use of specially developed Installation and de-installation tools
- Reduction of repair times through stocked replacement parts
- Modification to state-of-art technical condition
- multiple test runs and final inspection
- Warrantee for repaired and technologically updated spindle units
- Predictable, hence budget-ready set prices for wear-related repairs
- predictable repair costs
- predictable repair times
- all service from one source
- Transmission of WEISS's leading spindle know-hows

For more details, see: [www.weissgmbh.de/repairs](http://www.weissgmbh.de/repairs)



## 4 ON-SITE-SERVICE

Should problems arise during the life cycle of a WEISS (or third-party) spindle unit, or if you need help with commissioning or handling, then it's important for us to provide help quickly and competently.

Siemens and WEISS offer you worldwide on-site service through the SWSS Service Centres and local partners. Wherever you operate your machines – SWSS is there when you need help.

Simply turn to a SWSS branch in your area for competent and fairly priced on-site service.

**For more details, see:**  
[www.weissgmbh.de/on-site-service](http://www.weissgmbh.de/on-site-service)

### HIGHLIGHTS

- Commissioning of spindle units in the machine
- Failure diagnosis on main spindle units
- preventative maintenance, determination of rolling bearing condition, creation of failure diagnosis
- Determination of the dynamic behaviour of main spindle unit in the machine
- dynamic balancing of drives, rotating systems and spindle units and balance optimisation of spindle unit in the machine environment
- Maintenance and service of spindle components (See also: maintenance cornerstone)
- technical consulting and problem-solving
- On-site training of OEM and user personal (See also: training cornerstone)



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## 5 PREVENTATIVE MAINTENANCE

### Longer service lives through competent maintenance

Particularly when every minute of machine downtime counts, preventative maintenance is crucial. Regular inspection of your spindle units insures not only the highest possible availability

of your machines, but also significantly extends the service-life of your spindles. The SWSS cornerstone of preventative maintenance helps you through four steps for higher machine availability,

reduced production stoppages, and hence improved economy:

- 1. Analysis of actual condition:** The execution of an analysis of the actual spindle condition is used to create benchmark values. These are drawn upon to build threshold values for judging the wear state of the spindle unit.
- 2. Roller bearing condition:** SWSS offers measurements to analyze roller bearings at regular intervals – semi-annually or, where agreed, more frequently – as well as a vibration analysis where needed. The mechanical characteristics are also checked.
- 3. Downtime forecast:** On the basis of taken measurements, SWSS creates a prediction of failure using rolling bearing values typical for spindles and trend methods. A spindle protocol reflects the measurement values.
- 4. Initiation of repairs:** Ignited by significant deviations of measurement values a repair approach is suggested to the customer.

### HIGHLIGHTS

- highest possible machine availability
- Extension of spindle service life
- calculable cost
- Prevention of consequential damage to spindle and components
- Reduction of unplanned machine downtime

For more details, see: [www.weissgmbh.de/maintenance](http://www.weissgmbh.de/maintenance)



## 6 TRAINING

Uncertainty during operation and experimentation during fault resolution costs not only time, but money as well. Effective training is therefore not only advisable for operators, technicians, and service personnel, but ultimately for the entire company.

In addition to proven basis programmes, SWSS offers custom training sessions specially tailored to the customer's desires for installation, commissioning, handling, and maintenance.

These training sessions provide detailed, practice-oriented knowledge that you can use on your own to introduce and implement targeted steps to reduce downtimes. Even error diagnosis and small repairs can become an in-house matter.

**For more details, see:**  
[www.weissgmbh.de/training](http://www.weissgmbh.de/training)

### EXAMPLE: BASIS TRAINING MOTOR SPINDLE TECHNOLOGY

**Programme:**

**Duration:**

**Contents:**

(for 5 days)

#### Inspection and maintenance of motor spindle units

3 – 5 days

- Short introduction to WEISS Spindeltechnologie GmbH and to the SWSS concept
- Technical explanations of spindle units using drawings
- Presentation of the necessary devices/investments that are required for spindle inspection and maintenance
- Connection requirements and what to check for
- Installation and commissioning at the machine
- Inspection of spindle units:
  - Measurement of pull-in force
  - Measurement of axial and radial runout values at the tool interface
  - Test run checking for balance quality, bearing temperature and evaluation of running noise
- Maintenance of spindle units (clamping unit, rotary union, etc.)
- Explanation of monitoring the clamping state and the speed encoder system
- Troubleshooting of spindle units, technical documentation

### HIGHLIGHTS

- experienced trainers
- proven, internally certified programme sequences
- custom made programme
- qualified certification for participants

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## 7 REPLACEMENT SPINDLE POOL

In order to recover machine availability in repair or maintenance cases as quickly as possible, SWSS Service Centres can optionally keep complete replace spindle units in stock. These can be lent to the customer if needed. The stocking of complete spindle units is one of the most effective options for minimising downtimes for your machines.

The collective storage in a spindle pool at the respective SWSS service centre significantly improves the economy of this service-corner stone. While WEISS standard spindles are already stocked within the pools and are available at any time, SWSS is also happy to make special arrangements to store individual spindles that meet your requirements.

### HIGHLIGHTS

- existing pools of WEISS standard spindles, worldwide
- available at short notice
- Increased economy by reduction of your storage costs
- Storage of individual spindles as per agreement

For more details, see: [www.weissgmbh.de/spindle-pool](http://www.weissgmbh.de/spindle-pool)

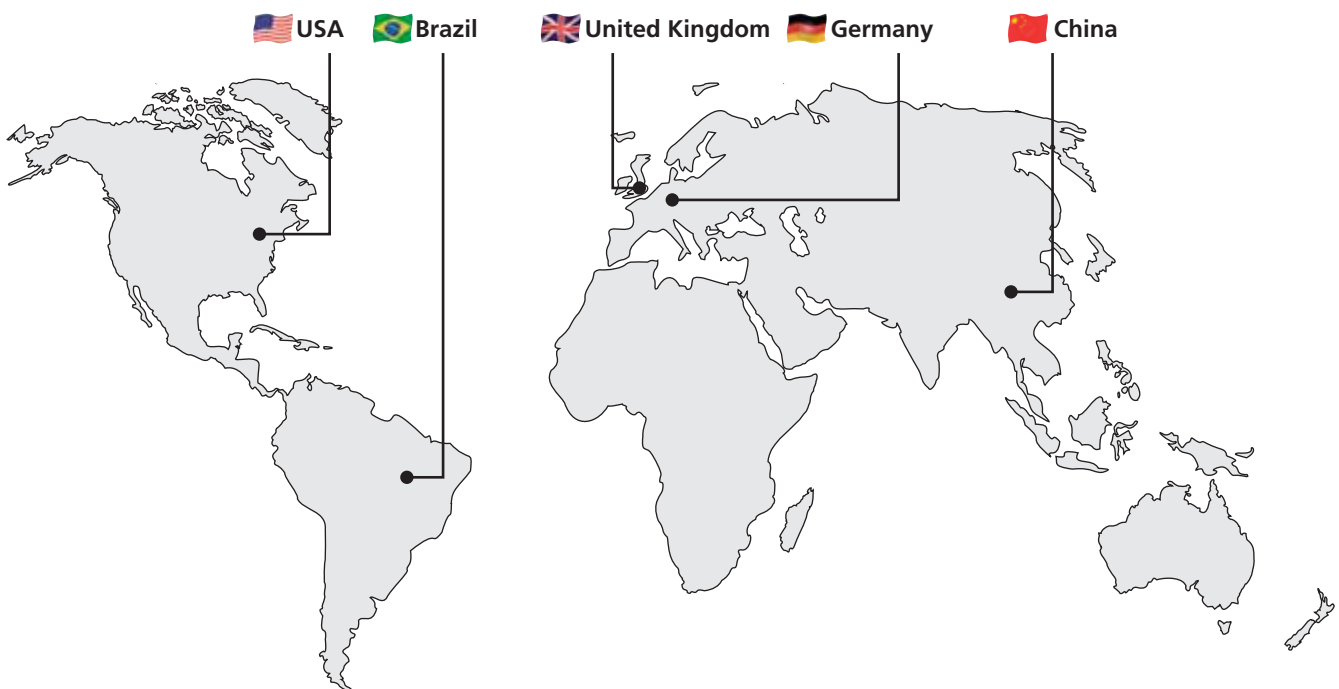


# THE SWSS SERVICE CENTRES

# SWSS

## HOW CAN YOU REACH SWSS?

There are currently 5 SWSS branches coordinating the global spindle services of Siemens / WEISS. With more than 500 clients in more than 30 countries (and growing), the SWSS concept reinforces our claim to be close to our clients, wherever they might be.



INTERNATIONAL 24-HOUR SERVICE HOTLINE:

**+49 (0) 9532 9229 347**

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## EUROPE – GERMANY

### SWSS Germany

The SWSS service centre in Maroldsweisach/Germany is not just the figurehead of WEISS GmbH, but also a global benchmark for all matters surrounding the service of spindles. The modern facilities in the north of Bavaria currently employ around 200 employees, roughly a third dedicated to the SWSS operations.

SWSS Germany is not just your first contact point for service jobs in Europe, but also houses the SWSS central offices with coordination of all SWSS branches working worldwide for you.

Regardless of where in Europe you are, and where to use SWSS services, in the SWSS Germany branch, you have a competent partner. Your consultant will help you resolve problems quickly and without complication, or he can help you put together an individualised service concept.

**For more details, see:**  
[www.weissgmbh.de/swss\\_ger](http://www.weissgmbh.de/swss_ger)



**Fred Elflein,**  
**SWSS Germany**



„Der Anspruch weltweit nahe beim Kunden zu sein ist für uns mehr als eine Vision. Zusammen mit Siemens bieten wir Ihnen kompetenten Service vor Ort.“

“Our striving to be close to our customers worldwide is more than just a vision to us. Together with Siemens, we offer you competent, on-site service.”

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## EUROPE – UNITED KINGDOM

### SWSS United Kingdom

This location has been active since 1974, and has been an official SWSS service centre since April 2002. In addition to handling all domestic service requests, SWSS U.K. works together with SWSS Germany to coordinate all service requests from throughout Europe.

The modern and clean workshop (700 m<sup>2</sup> of working space) underscores in particular SWSS U.K.'s commitment to high quality and professional service. Both, spindles from WEISS and third party manufacturers are repaired and serviced here by qualified personnel.

Our English office houses more than 10 employees eager to help you with any service needs in all matters related to spindles.

They would also be happy to help create an individual service concept to reduce downtimes in the most economical way possible.

### For more details, see:

[www.weissgmbh.de/swss\\_uk](http://www.weissgmbh.de/swss_uk)



**Dave Ellis,  
SWSS U. K.**

"We endeavour to be the centre of excellence in the UK for spindle repairs, providing a fast, quality service to all our customers."

### Contact:

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## NORTH AMERICA – USA

### SWSS USA (WEISS Inc.)

This service centre was founded in the USA in 1996 and is considered one of the most experienced of any of the SWSS branch locations. The generously laid out facilities offers more than 600 m<sup>2</sup> of working space and have everything that a qualified service centre should offer.

At around 10 employees, the service centre offers a complete spectrum of services and would be glad to provide advice on the creation of an individual service concept.

SWSS USA coordinates all service deployments for countries in Central and North America. All 7 service cornerstones from this brochure are offered on site.

Second only to SWSS Germany in terms of customer base, SWSS USA offers outstanding knowledge of the repair of third-party spindle units as well.

**For more details, see:**  
[www.weissgmbh.de/swss\\_usa](http://www.weissgmbh.de/swss_usa)



**Jürgen Beck,  
SWSS USA**

“Our goal at Weiss USA is to provide the best possible service for our customers in the USA, Canada, Mexico and Australia. We have all the required capabilities and motivations to satisfy you with our quality product and workmanship.”

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## SOUTH AMERICA – BRAZIL

### SWSS Brazil

Siemens and WEISS opened the SWSS Brazil branch in 2004 as a central hub for spindle services in South America. Our modern outfitted facility features everything that a high-class service branch needs to offer.

The SWSS employees in Brazil have gone through an intensive training programme at the SWSS head offices in Maroldsweisach and in Schweinfurt, Germany. Qualification and continuing training take top priority in Brazil, as with all SWSS Service Centres.

SWSS Brazil offers the complete spectrum of SWSS cornerstones for all countries in South America and would be glad to consult with you on the creation of your individualised service concept.

**For more details, see:**

**[www.weissgmbh.de/swss\\_br](http://www.weissgmbh.de/swss_br)**



**Philipp Hager,  
SWSS Brazil**

"Nossa motivação é a satisfação de nossos clientes, por isso trabalhamos juntos para alcançarmos nosso objetivo oferecendo a melhor solução e garantia."

"Our motivation is the satisfaction of our customers, we work together to reach our objective by offering the best solution and guarantee."

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#### Business Manager:

Philipp Hager

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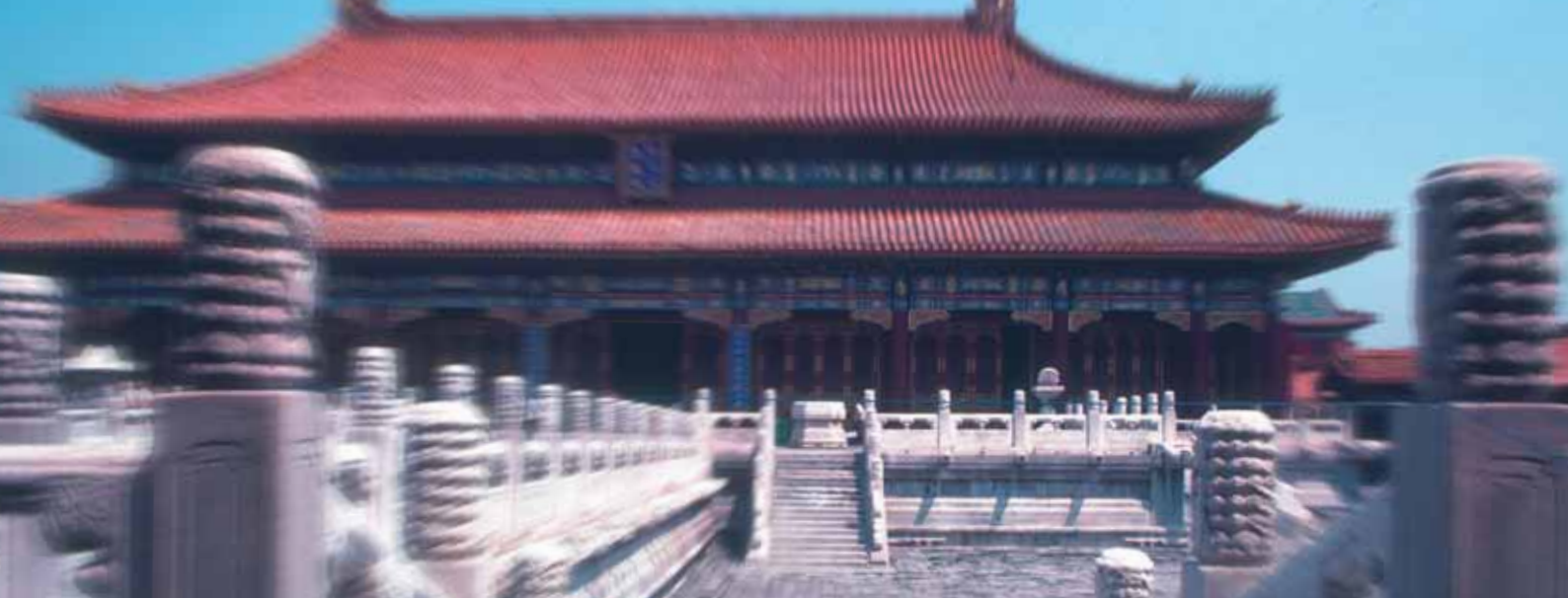
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## ASIA – CHINA

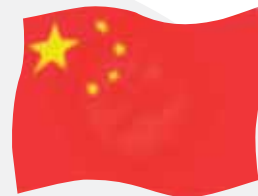
### Asia: SWSS China

SWSS China is the newest service centre in the worldwide SWSS network. Officially opened in October 2005, the service point coordinates service deployments for all of Asia.

On the basis of expected high contract volumes in coming years, the Chinese facilities have been generously equipped with cutting edge technology. The first framework agreements with big name customers (both machine makers and users) have already been reached. It's already clear that many companies from China, Taiwan, South Korea and other countries will be trusting their spindles to this SWSS service centre for the long term.

The SWSS employees in China would also be glad to help create an individual offer to cover your spindle service needs.

**For more details, see:**  
[www.weissgmbh.de/swss\\_cn](http://www.weissgmbh.de/swss_cn)



**Zhou Xiangjun,**  
SWSS China

# "卓越服务,无处不在"

"If you need any help, Service & Support is always there."

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## ENQUIRY FORM

Company \_\_\_\_\_

Contact Person \_\_\_\_\_

Address \_\_\_\_\_

Country \_\_\_\_\_

Telephone \_\_\_\_\_

Fax \_\_\_\_\_

E-Mail \_\_\_\_\_

Please send me the following information:

- WEISS – The Company** (Brochure) – from June 2006
- WEISS – The Company** (Film) – from October 2005
  
- GSS – Global Spindle Solutions** (Overview – Product catalogue)
- SWSS – Siemens WEISS Spindle Services** (Overview – Service catalogue)
  
- Product catalogue **TURNING**
- Product catalogue **MILLING**
- Product catalogue **GRINDING**
- Product catalogue **SPECIAL APPLICATIONS** – from March 2006
- Product catalogue **HEAVY CHIP REMOVAL**

- Language **GERMAN**
- Language **ENGLISH**

Please phone me back regarding ...

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

All brochures and catalogues are also available on the Internet for downloading: [www.weissgmbh.de/downloads](http://www.weissgmbh.de/downloads)

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