



# SKF Machine Tool Precision Services

Improving overall equipment effectiveness for machine tool users



The Power of Knowledge Engineering

Need to maximize asset availability, production rates, and quality?



BEVOLVER A 1 SPINDEL

MYKOPROGRAM (BEVOLVER A)      MYKOPROG. (BEVOLVER B) (6/3)

MELSP G140 (Querschnittsbohrung) SK:12  
2779 (seesaw)  
M00A 190  
M1 DEF WORK  
M3 P1 G1 [-311.0], [511.130], [511.14  
ANGP 310014)  
M5 P5 G1 [-311.0], [143.331], [143.34  
ANGP DIA 33 FRAM BAK KANT)  
M7 P5 G1 [-314.0], [64.461], [134.45

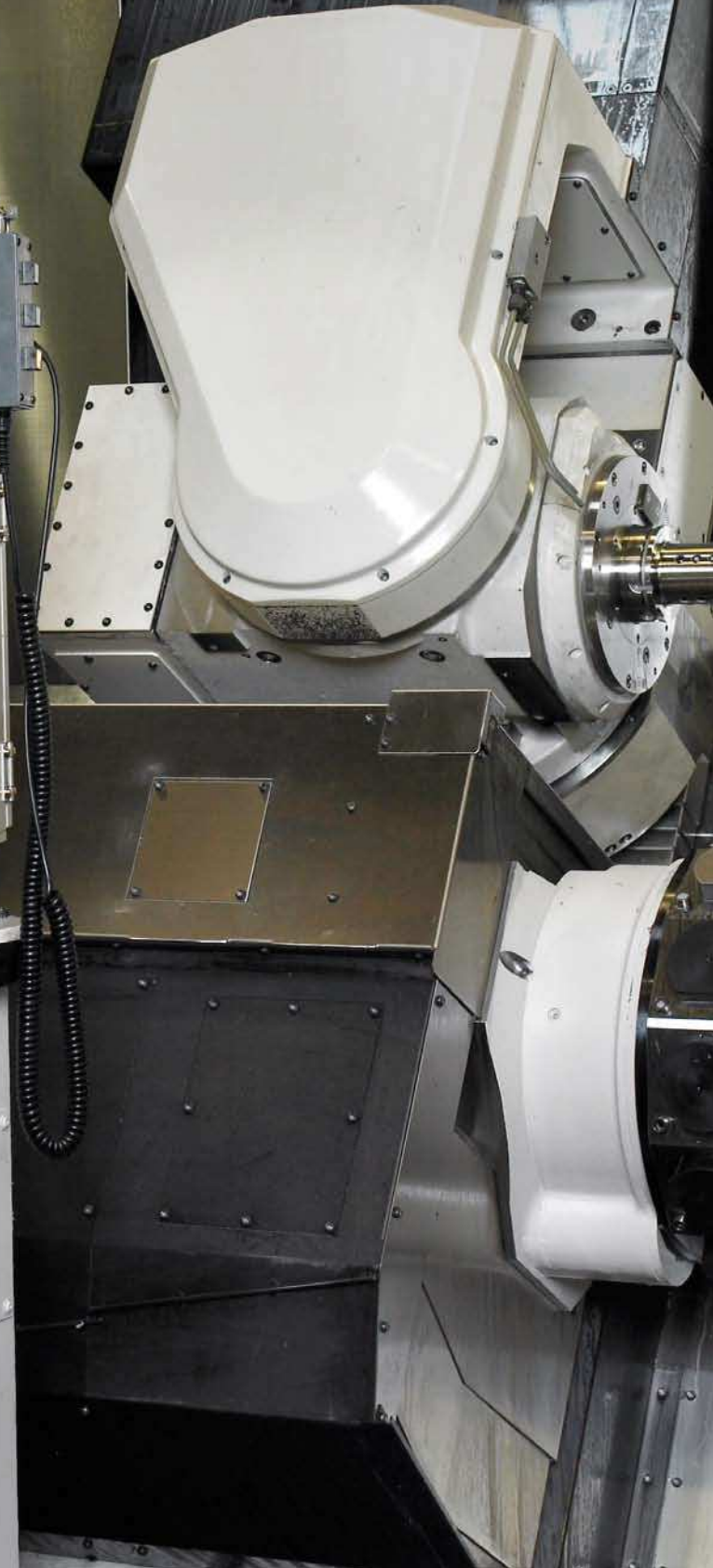
MELSP G140  
M1 DSTL-20.4 (Avstånd vanster chuck  
doplin--omliggningssplan)  
M2 DSTM-24 (Avstånd hoger chuck)  
M3 DSTL-20.4 (omliggningssplan)  
M4 ARSH-5 (Arbetstid for tempo 2  
S3)  
M00X 050 51500

MIT LAGE	AVSTAND	MAL	MIT LAGE	AVSTAND	MAL
LA	224.100	0.000	224.100	0.000	0.000
ZA	289.239	0.000	289.239	0.000	61.148
CA	315.730	0.000	315.730	0.000	147.000
MA	2172.927	0.000	2172.927	0.000	147.000

(O2) K03

CLART1    MANDR1    ARDMA    M1BA30    CANT1  
M1L1    M1L2    M1L3    M1L4    M1L5    M1L6    M1L7    M1L8    M1L9    M1L10

C- C+ Y1  
W- W+ Y1  
B- B+



# Talk to the experts

As a manufacturer, you rely on having your valuable machine tool assets running in peak condition - delivering a high level of production and quality, with maximum availability. At the heart of your machine tool is the spindle. It determines the quality of the final product produced and influences the overall productivity and efficiency of the machine tool itself.

That is why it's so important to develop a service programme that effectively manages this most critical plant asset.

## A unique combination of knowledge

SKF is the world's largest provider of spindle reconditioning services. With over 100 years of rotating machinery knowledge, SKF knows your assets from the inside out.

So, when it comes to optimizing, maintaining and reconditioning your machine tool spindle, SKF can offer you a breadth of in-house capabilities, technology, and global support that is unmatched in industry. The high degree of accuracy and repeatability required by machine tool applications demand that highly skilled technicians with in-depth knowledge perform reconditioning or upgrades. As a result, many facilities benefit from outsourcing the service of these critical pieces of equipment.



## SKF can help

SKF provides a wide range of highly specialized expert services – from engineering upgrades to spindle analysis, reconditioning, and replacement. In addition to professional spindle services, SKF can provide expert consultancy and

asset management services to optimize Overall Equipment Effectiveness. Capabilities include advanced condition monitoring technologies, predictive maintenance programmes, and hands-on maintenance training. Working with SKF gives you access to on- and off-site services based on a global network of dedicated service centres

and a reliability engineering force, with the latest knowledge, technologies and equipment to assist you with the best possible support.

## Benefits in brief:

- Extended operating life cycle of your machine tool
- Lower overall maintenance cost
- Reduced life cycle cost
- Enhanced reliability for maximum production uptime and productivity
- Improved product throughput quality
- Reduced likelihood of failures
- Improved overall asset reliability



# A comprehensive programme of service

When it comes to selecting and implementing the best machine tool and spindle service programme for your business, SKF has a range of precision maintenance service solutions to ensure you get it right the first time.

SKF Spindle Service Centres are your one-stop shop for services and support that can help to keep your machine tool assets performing at their best.

## Spindle reconditioning

Thanks to our extensive knowledge of super-precision bearing technology and spindle engineering, SKF has developed the expertise for reconditioning machine tool spindles of all brands and designs used in a wide range of applications. Our global network of Spindle Service Centres recondition and upgrade a large number of spindles yearly.

These state of the art service centres are staffed by experienced personnel with specialist equipment including advanced vibration equipment, all operating in a controlled atmosphere.

Here, spindles go through a total condition and functional review following a thoroughly developed and mandatory reconditioning process, shared across our network. This will ensure consistent quality and results – wherever you are.

The reconditioning process includes damage identification and estimated cause of spindle failure. When necessary, we provide proposals for modification and upgrading to enhance your spindle.

Finally, the reconditioning is concluded by a comprehensive test prior to delivery together with test reports.



Spindle reconditioning

## Spindle hotel

You need rapid access to your replacement spindles during periods of maintenance or refurbishment, and confidence that they will be ready to use. So they need to be stored under the proper conditions.

The Spindle Hotel provides you with:

- Secured storage with scheduled test runs
- Guaranteed readiness and instant shipment
- Availability of extended warranty

## On-site services

SKF offers an on-site spindle condition check that includes suggestions to help you improve your Overall Equipment Effectiveness.

Our experts use sophisticated condition monitoring equipment to assess and identify developing problems with your spindles.



As a result, costly unplanned shutdowns can be avoided and optimum reliability of your assets can be achieved.

Using SKF expertise provides you with a total on-site spindle check and adjustment service that can include:

- Vibration check for spindle status condition
- Imbalance check and fine balancing
- Tool nose taper run-out check and regrinding
- Pull force check and adjustment



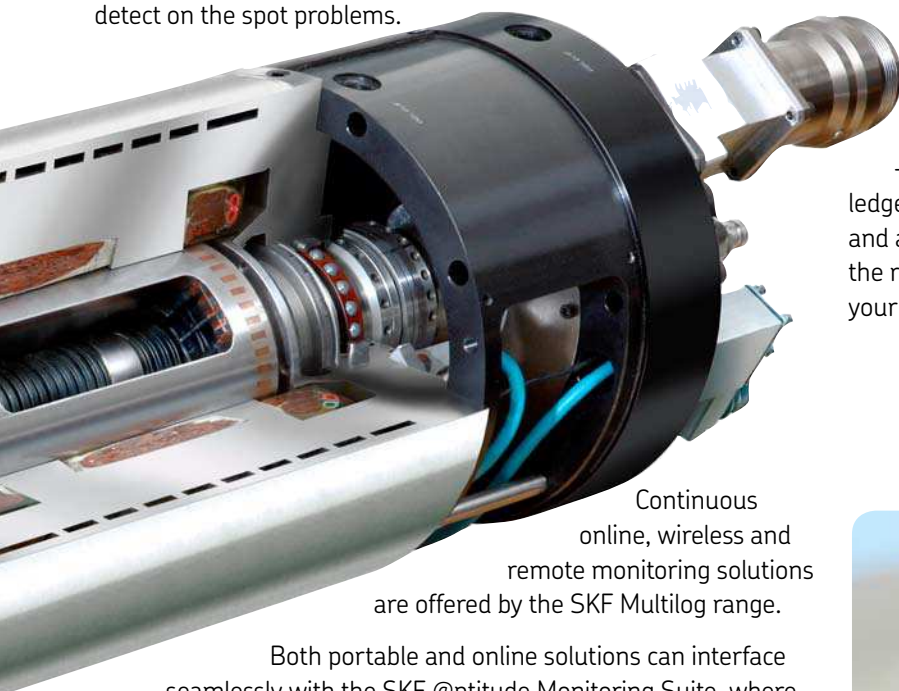
# es and support

## Predictive maintenance solutions

SKF can help you implement a predictive maintenance programme to monitor your spindles, allowing you to schedule maintenance and downtime based on the condition of your spindle.

By offering a completely integrated monitoring solution, SKF gives you access to a range of leading hardware and software products developed through years of customer input.

Periodic inspection can be carried out by maintenance personnel using SKF Microlog handheld data collectors. These rugged and lightweight instruments can measure vibration levels and help to detect on the spot problems.



Continuous online, wireless and remote monitoring solutions are offered by the SKF Multilog range.

Both portable and online solutions can interface seamlessly with the SKF @ptitude Monitoring Suite, where data is compiled and complex machine condition prognostics can be carried out.

SKF can also provide lubricant monitoring. A compact oil streak sensor monitors oil flow and guards the spindle from lubrication flow errors.

## Asset management services

SKF can extend your asset management and maintenance programme beyond machine tools, to identify plant-wide improvement opportunities, and develop strategies and programmes to achieve bottom-line results.

SKF Client Needs Analysis – Asset Management is an assessment tool that provides a snapshot of your current maintenance efficiency. Using this we help you measure your performance against benchmarks, identify and develop continuous improvement options.

## Spare and replacement parts management

An effective spare parts programme is essential to keep your machine tool assets running effectively.

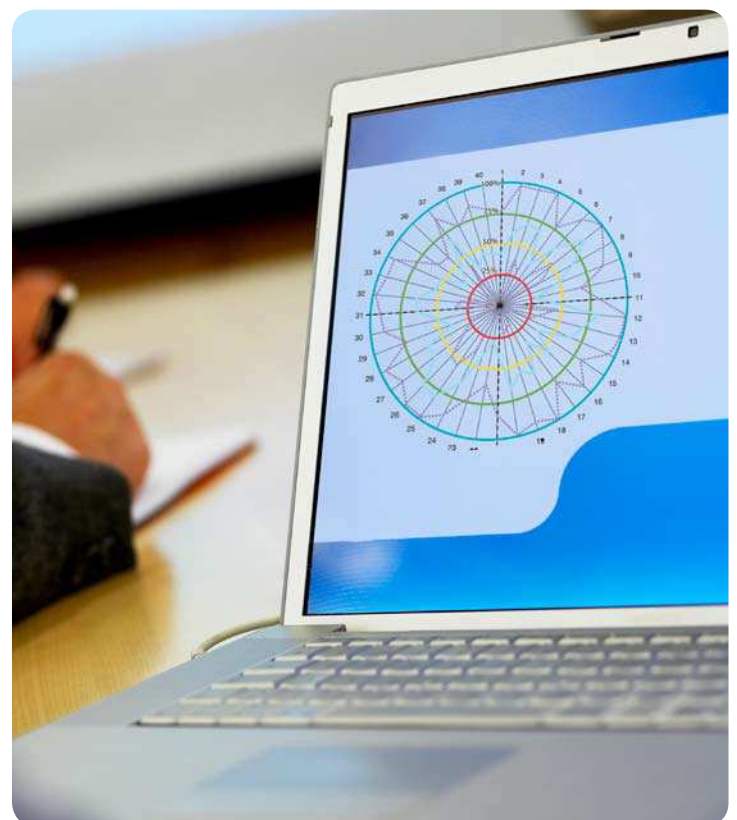
SKF can provide you with a range of essential spares such as super-precision bearings, ball screws, guides, and lubrication units.

SKF's worldwide network of authorized distributors ensures that you get delivery of the parts when you need them, with the minimum lead time and administration.

## Training

Investing in people can be as important as investing in your assets.

SKF provides specific training for increased awareness and knowledge related to the most vital part in the machine tool – the spindle. The training can provide you with basic knowledge regarding super-precision bearings, vibration measuring and analysis. All of this helpful in keeping your asset running under the right conditions, with the right performance and supporting your maintenance programme.



SKF Client Needs Analysis



# Local presence in a global market

SKF Machine Tool Precision Service network is the largest world-wide service centre network for maintaining, reconditioning, and upgrading of all brands and models of spindles.

All SKF service centres and representatives are organized in highly trained teams with special competencies. Operating as a global network, they share knowledge and capability development to benefit our customers.

As a result, they offer the agility and flexibility of a small company, but with the capacity, core competence, and peace of mind achieved through working with an industry leader. The industry adapted business interface and service oriented culture makes it easy and comfortable to benefit from SKF's services.

## A global network

With SKF you can rely on support that only a dedicated global leader can provide. The service network is present in most parts of the world and is continuously expanding with new service centres.



*Austria – Steyr*

*France – Ozoir-La-Ferrière*

*India – Pune*

*Mexico – Puebla*

*United Kingdom – Luton*

*Brazil – Cajamar*

*Germany – Schweinfurt*

*Japan – Chino*

*Russia – Moscow*

*Sweden – Gothenburg*

*China – Shanghai, Tianjin*

*Italy – Torino*

*Malaysia – Nilai*

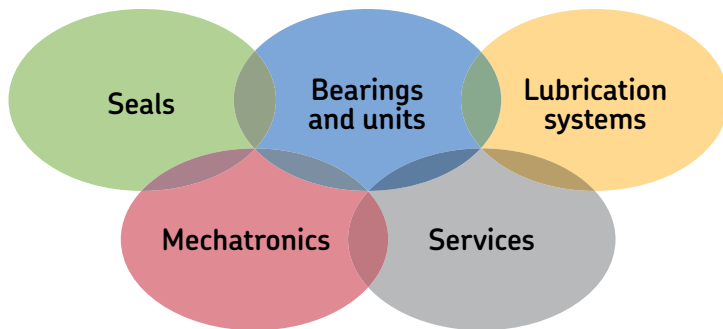
*USA – Mentor OH, Duluth GA*

Please ask your SKF contact for latest network update.

*See inserts for more details about  
SKF Machine Tool Precision Services  
offering to the industry.*

The Power of Knowledge Engineering





### The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management services. A global presence provides SKF customers uniform quality standards and worldwide product availability.

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