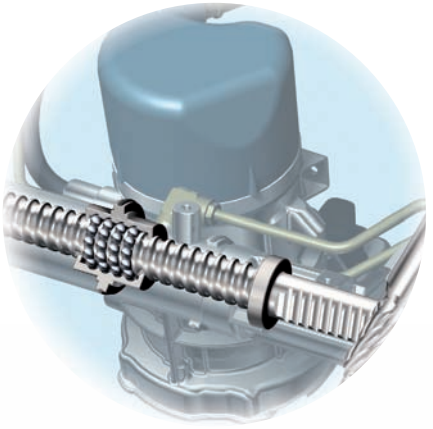
Leistritz

LEISTRITZ PRODUKTIONSTECHNIK GMBH

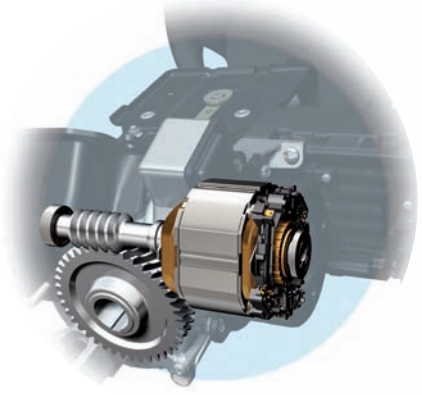
Machine Tools

Automotive-Industry

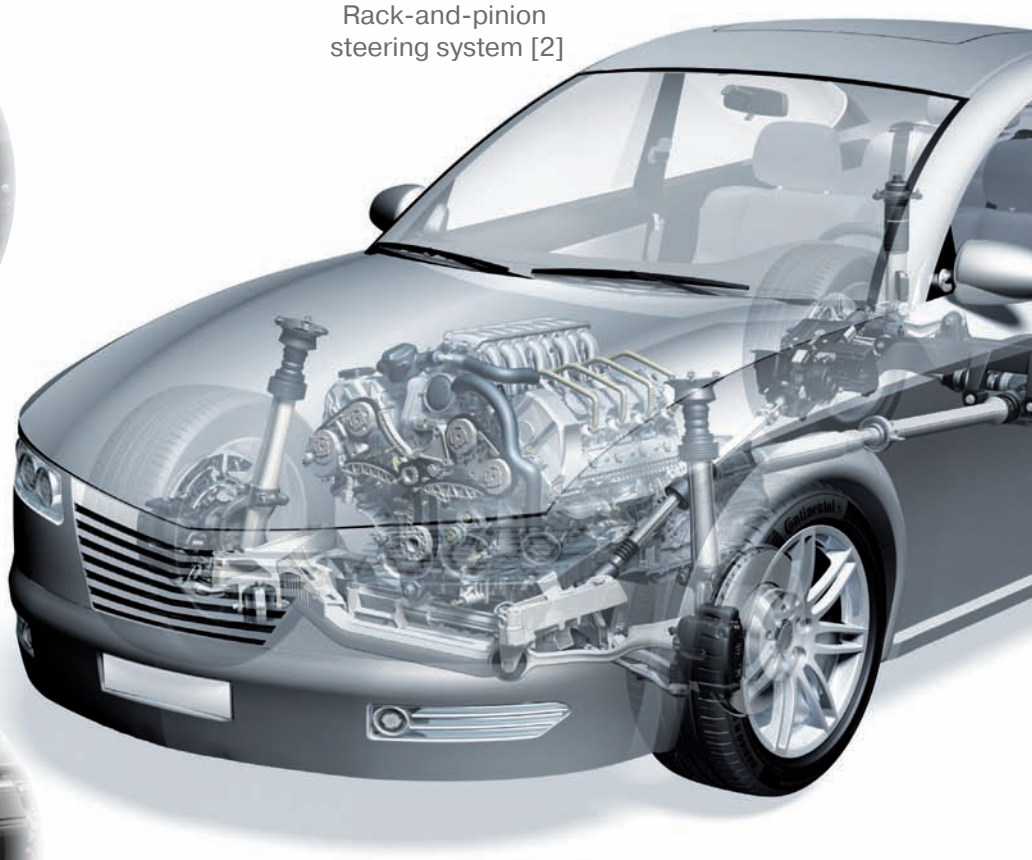
Automotive Applications



Rack-and-pinion
steering system [2]



EPS steering technology [1]



Starter [8]

Seat adjustment [7]

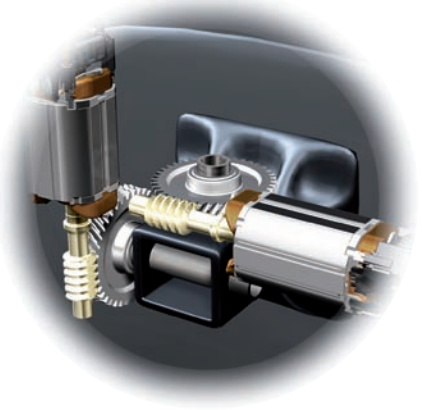
Automotive Applications

Windshield wiper motor [3]

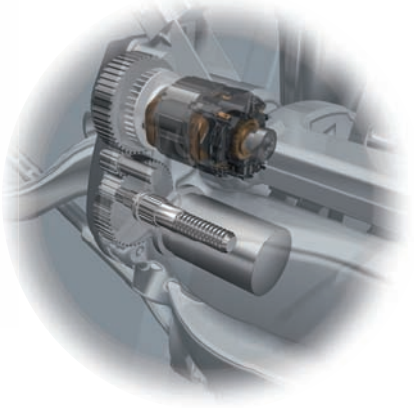
Leistritz Produktionstechnik supplies whirling, key-seating and rolling machines for high-precision wet-, dry- and hard-machining. We can help you enhance your competitiveness with innovative machines, tools and technologies as well as outstanding product quality.

Leistritz Produktionstechnik GmbH is a 100% subsidiary of Leistritz AG, which possesses over 100 years of experience in machine construction. The first whirling machines were manufactured in 1986. In ongoing dialog with its customers, the company develops innovative concepts designed to continuously improve accuracy, availability, safety and overall economic efficiency.

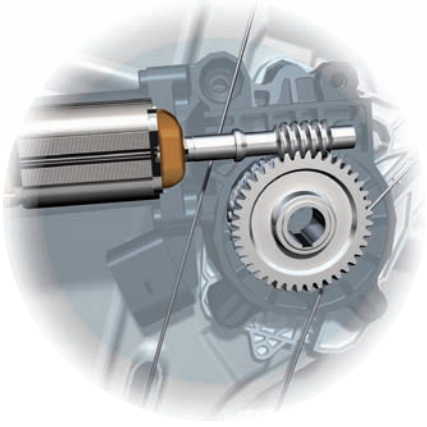
With its efficient sales and service organization, Leistritz Produktionstechnik will continue to consolidate its position as a leading supplier and optimize the services it provides to its customers.



Wing mirror adjustment [4]



Electric handbrake [5]

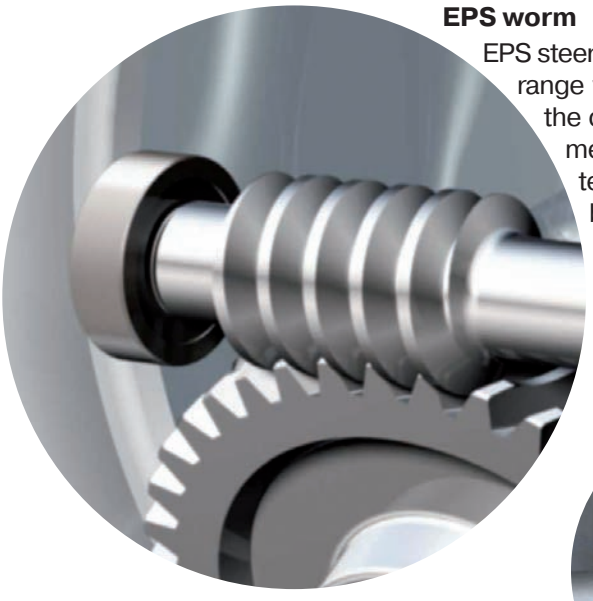


Power windows [6]

Other applications:
[9] Hydraulic steering
[10] Active Roll control

EPS steering

Work piece



EPS worm

EPS steering technology is today applied in high-end and middle-of-the-range vehicles. Highest demands are made on profile precision and the quality of the finish in the production of EPS worms in order to meet the great need for efficiency and smooth running. As a system partner, LEISTRITZ offers one-stop solutions for whirling and burnishing processes.

Processes

External whirling

Rolling

Machines

LWN 120 whirling machine

The LWN 120 external whirling machine is universally applied to meet the highest of demands. Integrated work-piece changing system with pallets for optimized work-piece depositing. The high-speed machine has been designed for high-speed cutting at speeds of up to 4,500 rpm - speeds that are made possible by a newly developed torque motor. This, in conjunction with the fact that the machine is very stiff, creates the optimum precondition for economic use in hard-machining. The large swiveling angle (± 50°) permits almost any kind of thread profile or worm to be realized.

LWN 120 RR rolling machine

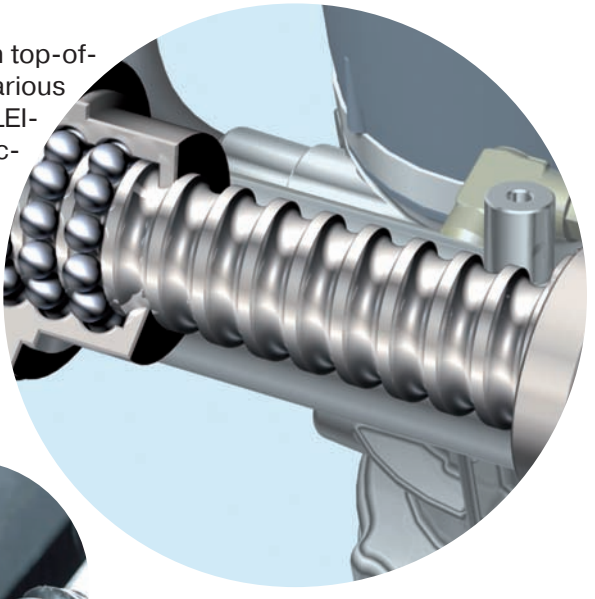
The economic LWN 120 RR profile-rolling machine stands for high outputs. The patented power framework guarantees highest precision and performance. The PLC is equipped a with comfortable user interface.
An automation system specially adapted for all applications guarantees that the machines deliver high outputs.

Rack-and-pinion steering

Work piece

Rack-and-pinion

The R-EPS meets the demand for power steering systems in top-of-the-range vehicles. Simple parameterization allows the various demands made on driving comfort to be met. Hard or soft, LEISTRITZ can deliver the most economical method of production. Customers benefit from low-noise steering.



Processes

External whirling

Hard whirling

Rolling

Machines

LWN 120 whirling machine

The LWN 120 external whirling machine is universally applied to meet the highest of demands. Integrated work-piece changing system with pallets for optimized work-piece depositing. The high-speed machine has been designed for high-speed cutting at speeds of up to 4,500 rpm - speeds that are made possible by a newly developed torque motor. This, in conjunction with the fact that the machine is very stiff, creates the optimum precondition for economic use in hard-machining. The large swiveling angle (± 50°) permits almost any kind of thread profile or worm to be realized.

LWN 400 RT rolling machine

The LWN 400 RT's patented power framework ensures that the machine base remains strain-free so that highest precision and performances can be achieved. The consistent use of high-precision components for the machine guarantees that work pieces are produced to the highest possible levels of accuracy.

Windshield wipers

Work piece

Worm - with different pitch directions

The realization of mass-produced components, e.g. windshield wipers, in particular places high demands on machines and process engineering. High demands that can be met with LEISTRITZ rolling machines. The system with its modular design allows component groups to be perfectly adapted to customers‘ specific requirements.

Process

Rolling

Machine

LWN 170 RT rolling machine

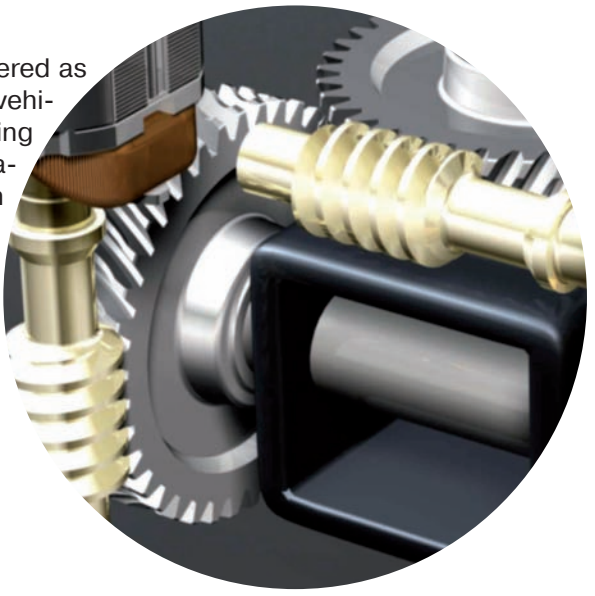
The economic LWN 170 RT profile-rolling machine stands for reliable high outputs. The numerically-controlled servo-hydraulic linear axis operates in the micrometer range and thus ensures the optimum progression of forces. The use of industrial-process controls guarantees that the LWN 170 RT is very user-friendly.

Wing mirrors

Work piece

Small gear worms

More and more components are becoming electrically powered as a result of the increasing demands that are being made on vehicle comfort. A variety of servomotors, for example, allow wing mirrors to be individually adjusted. The LEISTRITZ whirling machines represent an efficient solution for the mass production of the thus necessary brass and steel components.



Process

External whirling

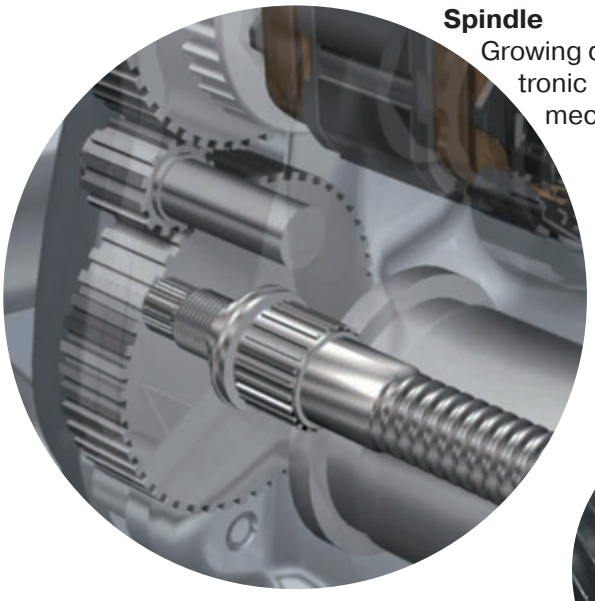
Machine

LWN 65 whirling machine

The LWN 65 external whirling machine has been specially designed for the production of work pieces in large quantities. Long tool live and short tool-changing times minimize machine downtimes. This machine may be equipped with an integrated, work-piece-specific automated loading and unloading system.

Electric handbrake

Work piece



Spindle

Growing demands on passive safety systems in vehicles, e.g. electronic hand brakes, are resulting in the increasing use of electro-mechanical components.

Process

Rolling

Machine

LWN 250 RT rolling machine

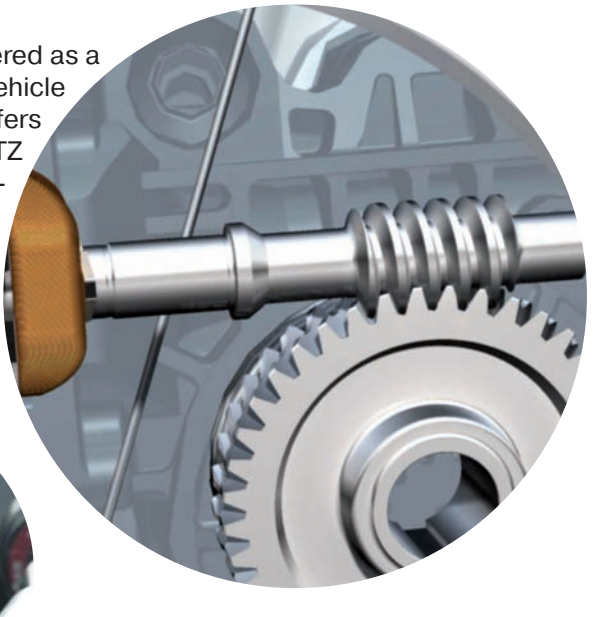
The high-end LWN 250 RT machine has been equipped with the latest generation of computerized numerical controls and a user-friendly Windows-based interface to achieve highest levels of positioning and reproduction accuracy. The patented power framework guarantees highest levels of precision and performance, which ensures best possible work-piece accuracy.

Power windows

Work piece

Small gear worms

More and more components are becoming electrically powered as a result of the increasing demands that are being made on vehicle comfort. The different machine concepts that LEISTRITZ offers allow the various quality requirements to be fulfilled. LEISTRITZ delivers the solution to cutting and forming or the combination of both.



Processes

External whirling

Rolling

Machines

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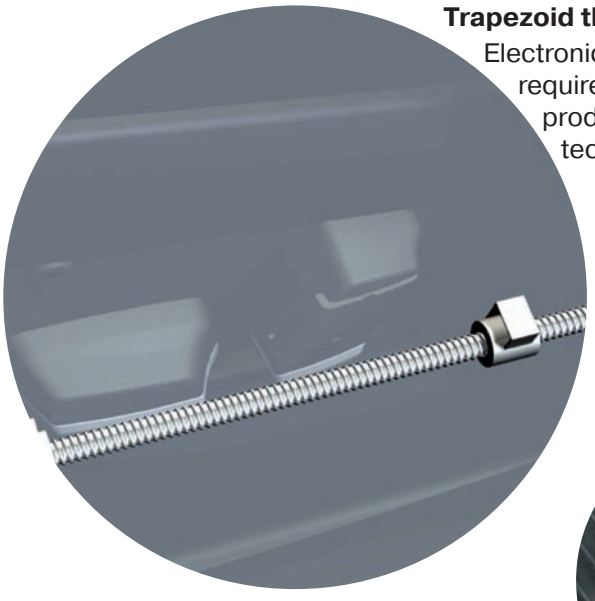
LWN 120 RR rolling machine

The economic LWN 120 RR profile-rolling machine stands for high outputs. The patented power framework guarantees highest precision and performance. The PLC is equipped a with comfortable user interface.
An automation system specially adapted for all applications guarantees that the machines deliver high outputs.

Seat adjustment

Work piece



Trapezoid threaded spindle

Electronic seat adjustment is today standard in almost all cars. The required low-cost production with the simultaneous need for high production quality can be perfectly realized with thread-rolling technology by LEISTRITZ.

Process

Rolling

Machine

LWN 400 RT rolling machine

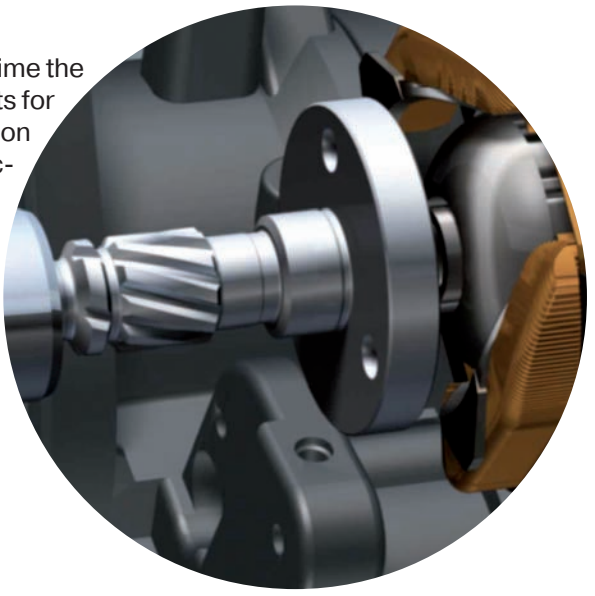
The patented power framework guarantees a machine base that is strain-free to achieve highest levels of precision and performance. The consistent use of high-precision components for the machine guarantees that work pieces are produced to the highest possible levels of accuracy.
The integrated measuring technology guarantees optimum force flow and also ensures long tool lives.

Starters

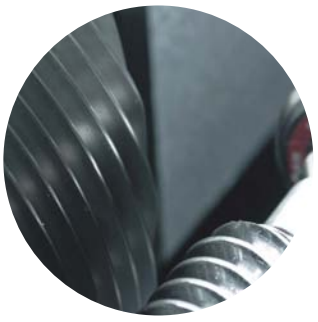
Work piece

Starter pinion

Car production is growing all over the world while at the same time the pressure on the costs for realizing mass-produced components for the automotive industry is also increasing. Reliable production with the use of almost no manpower along with lowest manufacturing costs are the basic requirements that globally operating automotive suppliers must fulfill to remain competitive. With its rolling machines, LEISTRITZ is able to deliver the appropriate solution for economic and highly precise production.



Process



Rolling

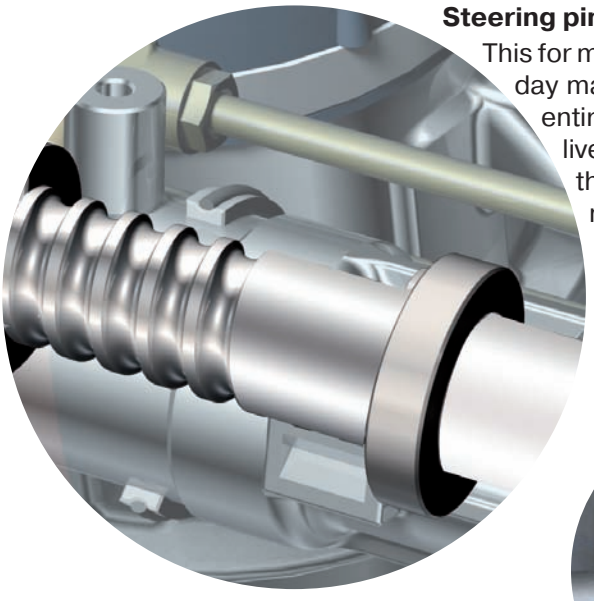
Machine

LWN 120 RT rolling machine

The high-end LWN 120 RT machine has been equipped with the latest generation of computerized numerical controls and easy-to-use Windows-based interface to achieve highest positioning and reproduction accuracy. The patented power framework guarantees highest levels of precision and performance, which ensures best possible work-piece accuracy.

Hydraulic steering

Work piece

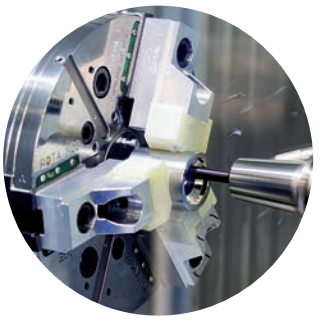


Steering pinion

This for many years tried-and-tested robust steering technology is today mainly used in commercial vehicles – its easy action over the entire steering range has never been surpassed. LEISTRITZ delivers established hard-whirling technology that is able replace the subsequent grinding stages usually required in these manufacturing processes.

Processes

External whirling



Internal whirling

Machines

LWN 90 whirling machine

The LWN 90 external whirling machine with its high profile and pitch accuracy allows work pieces to be finished. Grinding-quality finishes can be achieved with this machine and its patented tool system. An integrated work-piece-specific automatic loading and unloading system may also be considered to complement the production solution in accordance with customer requirements.

LWN 120 IW internal whirling machine

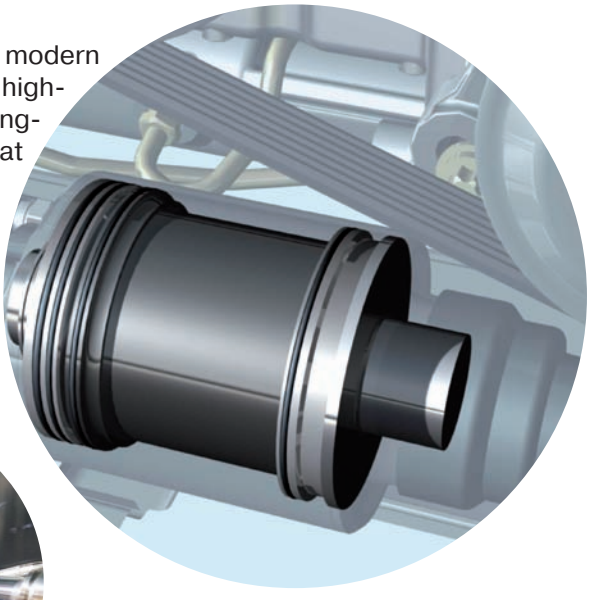
The LWN 120 internal whirling machine is able to completely machine internal profiles. The use of corresponding tools means that both hard- and soft-machining is possible. The machine's stiffness results in highest levels of accuracy.

Active roll

Work piece

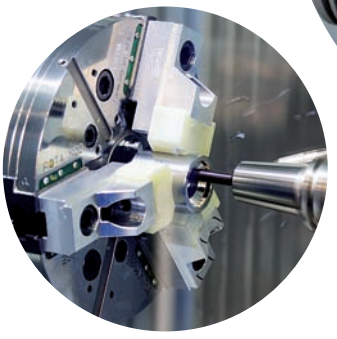
Spindle housing and spindle

Driving comfort, sportiness and economy are combined in modern active roll-control systems which are primarily to be found in high-end SUVs. The mechanical components used in dynamic rolling-control systems demand highest levels of precision – levels that are guaranteed with LEISTRITZ thread-whirling technology.



Processes

Hard whirling



Internal whirling

Machines

LWN 120 whirling machine

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LEISTRITZ PRODUKTIONSTECHNIK

CNC profile-measuring technology

Customer-specific machining solutions

Worldwide service

Tool manufacture

High-performance whirling units

Whirling technology

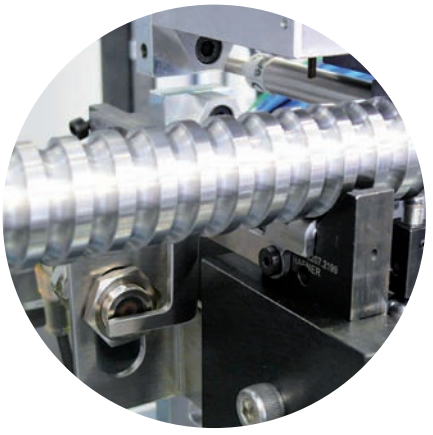
LEISTRITZ Whirling technology

As a systems supplier, LEISTRITZ provides comprehensive solutions - ranging from tools to automation - to its automotive customers.

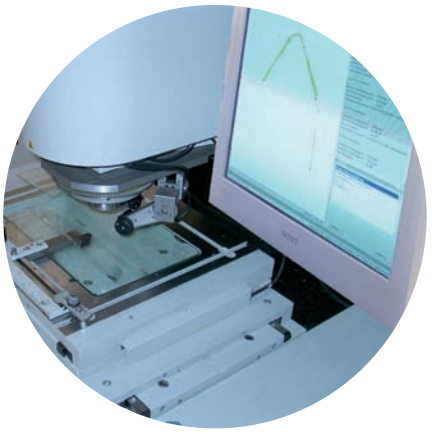
The company‘s own production depth in conjunction with highly modern CNC measuring technologies ensure consistent quality with greatest-possible flexibility.

The consistent further development of LEISTRITZ whirling technology in the field of finishing large- and medium-scale series guarantees the machines‘ process reliability.

A global network of service branches in conjunction with a highly motivated team ensure the economic availability of the machines.



Turnkey solutions



Tool Measuring technology-
quality assurance

Modular automation solutions

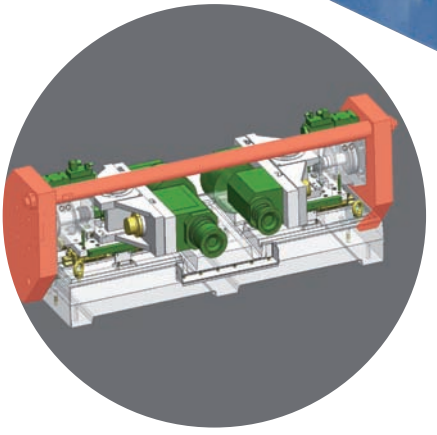
LEISTRITZ PRODUKTIONSTECHNIK

CNC profile-measuring technology

Customer-specific machining solutions

Worldwide service

Tools

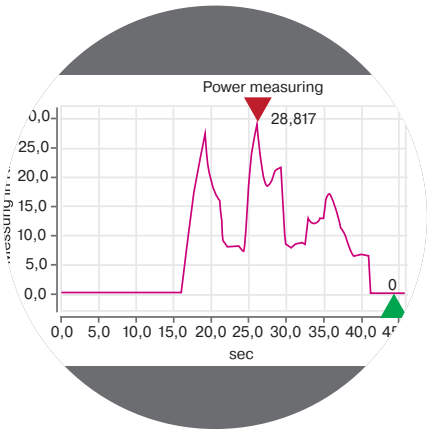


Power framework

Rolling technology

LEISTRITZ profile-rolling machines have been designed for rolling high-precision components

These machines convince with their excellent performance and low work-piece costs. They may be fitted with automatic feeding and discharging units for mass-production requirements. Setting up and operating these machines is extraordinarily comfortable. We deliver intelligent, network-capable Windows-based control systems. Remote diagnoses are also possible in conjunction with a unique process monitoring system.

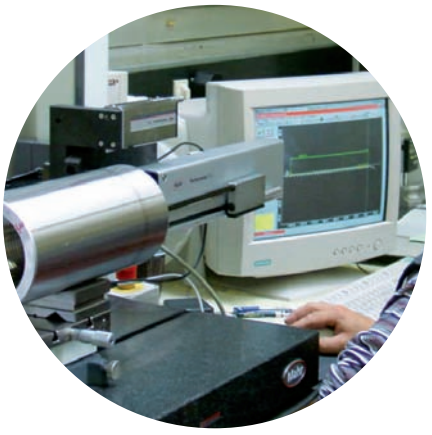


Power measuring

Tool measuring technology-
quality assurance

Modular automation solutions

LEISTRITZ PRODUKTIONSTECHNIK

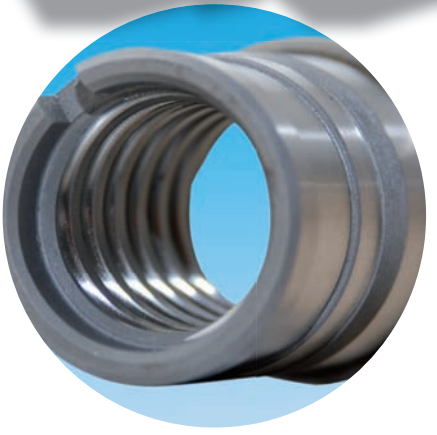


CNC profile-measuring technology

Customer-specific machining solution

Worldwide service

Tool manufacture



Workpiece

Internal profile technology

Leistritz internal profile technology

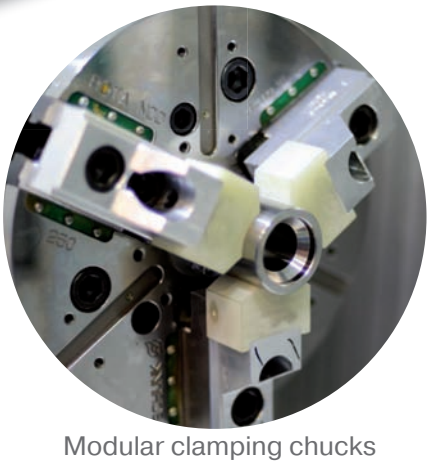
The LEISTRITZ internal profile technology allows the two stages of “soft pre-machining” and “polishing and grinding hardened material” to be replaced with a single process.

This innovation has been made possible by a new drive concept that creates a superimposed rotational and oscillation movement while nearly completely balancing the masses involved and a new flexible tooling system.

An intelligent automation concept complements the machine thus enabling it to meet the demands made on process-reliable mass production.

Modular toolsystem

CNC-Control/Siemens, Fanuc



Modular clamping chucks

Product range

	Machine range																
																	
	Whirling								Rolling							Key-seating	
Work piece:	LWN 65	LWN 90	LWN 120 HP	LWN 120 IW	LWN 160	LWN 190 HP	LWN 300 HP	LWN 300 PM	LWN 70 RT	LWN 120 RR	LWN 120 RT	LWN 170 RT	LWN 250 RT	LWN 400 RT	LWN 630 RT	LWN 800 RT	Polyjmat	Polyjet
Small gear worms	●								●	●	●	●						
Gear worms		●	●		●	●	●						●	●	●			
Steering worms		●	●		●													
Ball screws			●		●	●	●					●	●	●	●	●		
EPS worms		●	●						●	●	●							
Rack-and-pinion spindles			●		●									●				
Eccentric worms		●	●		●		●											
Pump spindles			●		●	●	●											
Charging worms			●		●	●	●											
Rotors								●										
Stators																		●
Threaded nuts				●														
Bone screws	●																	
Splines									●	●	●				●			
Knurls									●	●	●				●	●		
Special/trapezoid threads													●	●	●	●		
Key ways																	●	●
Helical key ways																	●	●
Internal profiles																	●	●
External profiles																	●	●
Keys in conical holes																	●	●
Profile variants																	●	●

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