

## Solid Carbide

- Milling Cutters
- Step Drills

Leistriz is supplying solid carbide end mills and solid carbide drills with the usual excellent grinding properties.

## Application Areas

- Automotive industry
- CNC milling companies
- General mechanics
- Fittings industry
- Mould die industry
- CNC Turning ccompanies
- Lathe parts industry
- Turbine blade manufacturing

## Product Range

- Form end mills
- Ball Cutters
- Thread Cutting Tap
- Countersink
- Die-sinking Cuttters
- Toroid Cutters
- Multicut Drills
- Step Drills
- Flat Drills



## Grinding Center

The application technology at Leistriz can supply the appropriate tool for all customer projects; in accordance with customer samples and technical drawings.

### ■ New production

The implementation to the latest CNC controlled multiple shaft grinding machines enables Leistriz to supply highest precision to technical specifications.

### ■ Regrinding

The LEISTRITZ REGRIND-SERVICE can resharpen customer tools in a very short delivery time to uphold the production.

### ■ Coating

For a better tool lifetime solid carbide tools can also be coated with all available Coating -types..

### ■ Quality

Leistriz can guarantee high degree precision, item for item, with EDP supported measuring techniques. Leistriz can provide ongoing quality by means of its quality control management functions.



## Manufacturing

The heart of the process is a modern machinery park with the latest CNC controlled multiple shaft grinding machines. The quality and precision of the machinery at Leistritz is the basis for customer's productivity.



Extract of the machinery park at the grinding center



Multiple shaft grinding machine

## Measurement

The optimum working area

	Dimensions
Shaft Ø	6 mm - 32 mm
Tool Ø	Up to 200 mm
Tool length	Up to 400 mm



Pallet for series production

Modern control systems and software enables us to grind and regrind in the highest precision.

### ■ Repeatability

The up-to-date grinding- and measuring techniques renders the best service for you new or re-grinding projects.

## Measuring Techniques

To meet the current demands on productivity and capability requires many years of experience in the production of precision tools.



*Measuring machine*



*Measuring a countersinking miller*



*Incident light measuring*

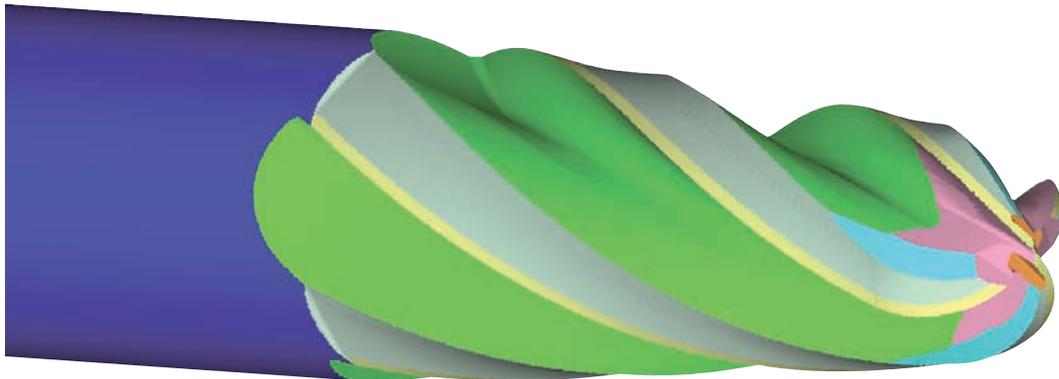
### ■ Touchless measuring

The drilling and milling tools get measured in a separate room which is temperature controlled. The best guarantee for piece by piece quality!



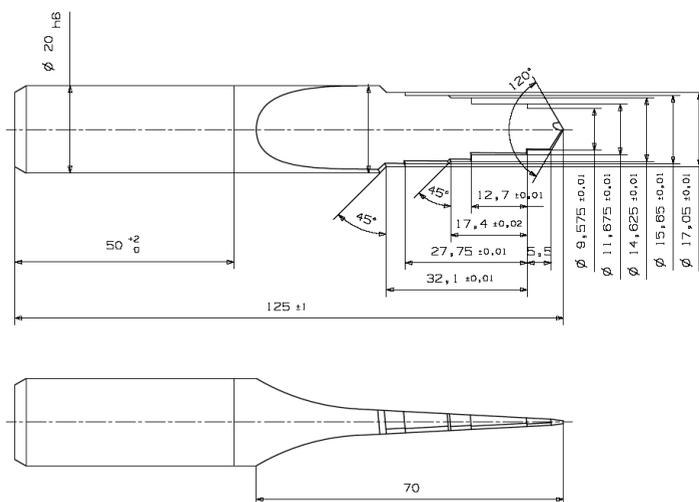
Bloomed lenses, fixed focus and firm enlargements relay the image of the tool cutter edge to high definition digital cameras. The image of the cutting edge is displayed on a screen particularly sharp and without flickering.

## New Design



Simulation of a new tool (countersink)

We also design your tools with the assistance of modern software according to your specifications, technical drawings or on the basis of a provided work piece.



### ■ Laser labelling

All necessary details can be lasered onto the tool (for e.g. tool and processing no.)



Based on the Leistritz strategy we find the right solution for your work task.  
LEISTRITZ stands for EFFICIENCY, PROFITABILITY and ECONOMY!

## Data Sheet For Step Drills

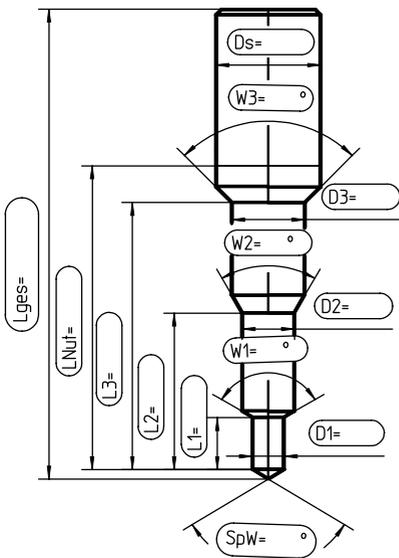
**Fax Inquiry: +49 911/4306 300**

To: LEISTRITZ PRODUKTIONSTECHNIK GMBH Phone: +49 911/4306-350 Attn.

<b>Customer details</b>		Date:
Company:	Contact person:	
Street::	E-Mail:	
ZIP-Code:	Place:	
Phone::	Fax:	

Inquiry <input type="checkbox"/>	Due-date requirement _____
Order <input type="checkbox"/>	Quantity _____

Single-stage <input type="checkbox"/>	Multi-stage <input type="checkbox"/>
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Dimensions with tolerances
<b>Ds</b> = _____
<b>SpW</b> = _____
<b>D1</b> = _____
<b>L1</b> = _____
<b>W1</b> = _____
<b>D2</b> = _____

Dimensions with tolerances
<b>L2</b> = _____
<b>W2</b> = _____
<b>D3</b> = _____
<b>L2</b> = _____
<b>W3</b> = _____

Sundries \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

<b>Shaft design:</b>	DIN 6535 Form HA (zyl) <input type="checkbox"/>	Form DIN 6535 HB (w. surface) <input type="checkbox"/>
	DIN 6535 HB (inclined surface) <input type="checkbox"/>	Other standard <input type="checkbox"/>

<b>Processing material</b> _____	<b>Machine</b> _____
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Internal cooling <input type="checkbox"/> Yes <input type="checkbox"/> No	Coating <input type="checkbox"/> Yes <input type="checkbox"/> No
Pre-drilling existent <input type="checkbox"/> Yes <input type="checkbox"/> No	Cutting direction <input type="checkbox"/> Right <input type="checkbox"/> Left
Spiral <input type="checkbox"/> straight <input type="checkbox"/> Spiraled	Work piece drawing* <input type="checkbox"/> Yes <input type="checkbox"/> No
Single-stage drill <input type="checkbox"/> Yes <input type="checkbox"/> No	Multi-stage drill <input type="checkbox"/> Yes <input type="checkbox"/> No

\* with marked processing job

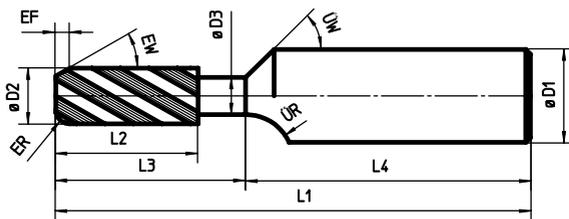
**Data Sheet For Solid Carbide Milling Cutters**

**Fax Inquiry: +49 911/4306 300**

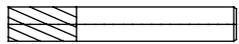
An: LEISTRITZ PRODUKTIONSTECHNIK GMBH Tel.: 0911/4306-350 Attn.

<b>Customer details</b>	Date:
Company:	Contact Person:
Street::	E-Mail:
ZIP-Code::	Place:
Phone::	Fax:

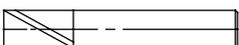
## Milling Type



Schaft miller



Straight flute miller



Toroid miller



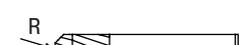
ø \_\_\_\_\_  
W \_\_\_\_\_

Countersuk



R \_\_\_\_\_  
W \_\_\_\_\_

Radius miller



R \_\_\_\_\_

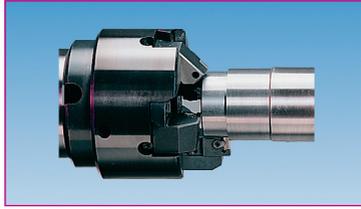
Form miller  
Contour to drawing

Sundries \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Shaft - ø	<b>D1</b> _____ [mm]		
DIN 6535 Form HA (cyl.)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
DIN 6535 HB (incl. clamping surface)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
DIN 6535 HB (surface inclined)	<input type="checkbox"/> Yes	<input type="checkbox"/> No	
Others			
Cutting - ø	<b>D2</b> _____ [mm]		
Aproved - ø	<b>D3</b> _____ [mm]		
Total length	<b>L1</b> _____ [mm]		
Cutting length	<b>L2</b> _____ [mm]		
Shaft end	<b>L3</b> _____ [mm]		
Shaft length	<b>L4</b> _____ [mm]		
Corner radius	<b>ER</b> _____ [°]		
Corner chamfer angle	<b>EW</b> _____ [mm]		
Shaft opening radius	<b>EF</b> _____ [mm]		
Shaft opening angle	<b>ÜR</b> _____ [°]		
Transition radius	<b>ÜF</b> _____ [mm]		
Plunging	_____ <input type="checkbox"/> Yes	<input type="checkbox"/> No	
Coating	_____ <input type="checkbox"/> Yes	<input type="checkbox"/> No	
Cutting direction	_____ <input type="checkbox"/> Right	<input type="checkbox"/> Left	
Helix angle	_____ [°]		
Rough working	_____ <input type="checkbox"/> Yes	<input type="checkbox"/> No	
Finishing	_____ <input type="checkbox"/> Yes	<input type="checkbox"/> No	
Number of cogs	_____		
Work piece material	_____		
Customer drawing existent	<input type="checkbox"/> Yes	<input type="checkbox"/> No	

\* with marked processing job

## Product Range



### End Finishing Tools

- Up to 5 Working Operations In Only one Working Cycle
- Modular Construction System
- Large Variety of Stock Articles
- Facing, Chamfering, Longitudinal Turning, Boring, Centering, Convex Turning of Face



### Flat Form Tools

- Structural Dimensions Various Types from Stock
- Flatform Change Insert
  - non Profiled
  - Profiled According to Customer's Specification
- For all Single- and Multi-Spindle Automatics
- Grinded Insert Seat
- Turning Tools
- Cutoff Tools



### Supporting Bars

- For all Centerless Circular Grinding Machines
- Grooving Rails
- Dressing Templates
- Thread Roll Supports
- Support Rails for Throughfeed Grinding
- Prism Rails
- Guide Plates
- Special Cutters
- Paper Cutter

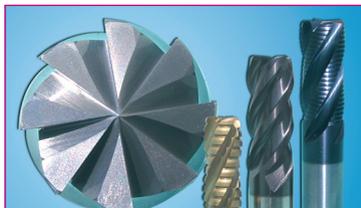


### Turning Tools

- Turning Chisel/ Boring Bars
- Thread Turning Tools
- Copy-Turning Tools
- Special Turning Tools acc. to Customer's Specification

### Cutoff Tools

- Grooving
- Parting



### Carbide Drills and Milling Cutters

- Drills
- Profile Cutter
- Flat Drill
- Finishing Cutter
- Ball End Mill
- Roughing Cutter
- Stepped Tools / Countersink
  - Coated /Uncoated
  - Carbide or HSS



### Leistritz-Profil-Center

- We Design Flatform Tools with Profiled Indexable Cutting Inserts
- Highest Precision and Quality
- Fast and Economic
- E-Mail: [profil-center@leistritz.com](mailto:profil-center@leistritz.com)

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