

**HIGHEST PRECISION,
RELIABLE SPINNING
TECHNOLOGY**



LEIFELD METAL SPINNING AG

Long Term and Trustful Cooperation

- ▶ The confidentiality of our clients plans and data is most critical. Leifeld rigorously applies organizational separation of teams working for competitors as well as several other rules **to protect the confidentiality of all client information.**
- ▶ Similarly, our industry is very competitive and we regard our approaches and insights as proprietary. Therefore, we look to our clients **to protect Leifelds interests in our presentations, methodologies and techniques. Under no circumstances** should this material be shared with any third party, including competitors, **without the written consent of Leifeld Metal Spinning.**

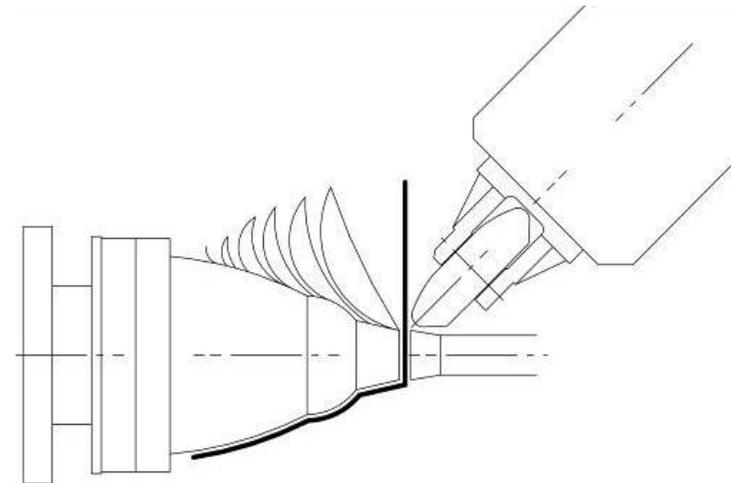


CHIPLESS SPINNING TECHNOLOGY

Spinning – Stepwise Forming

TECHNOLOGY

- ▶ Preform: Disk blank, tube, preform
- ▶ The principle of spinning:
 - ▶ Clamped preform between spinning chuck and tailstock
 - ▶ Main spindle turns preform
 - ▶ Step-by-step adaption of material to the spinning chuck by describing an alternating curved motion to the circle border
 - ▶ A finishing run finally produces the desired surface quality of the workpiece
- ▶ Processing equipment:
 - ▶ Trimming blade, cutting rolls, and trimming steel

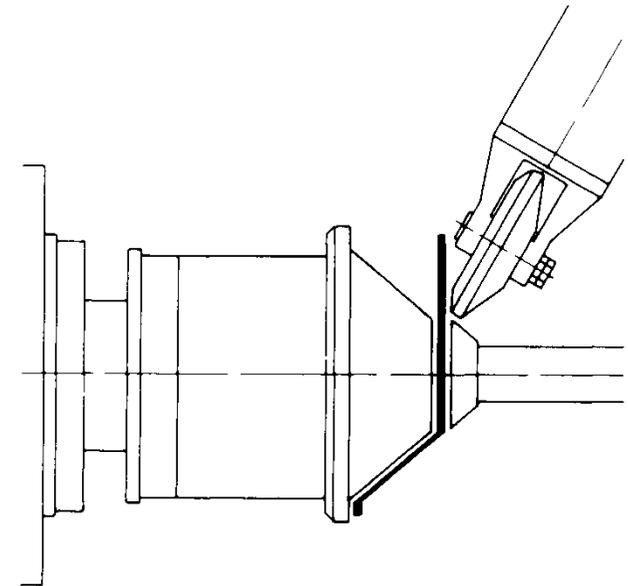


CHIPLESS SPINNING TECHNOLOGY

Shear Forming – Forming in a Spill

TECHNOLOGY

- ▶ Preform: Disk blank, preform
- ▶ The principle of shear forming:
 - ▶ Clamped preform between spinning chuck and tailstock
 - ▶ Main spindle turns preform
 - ▶ The shear forming roller works the contour once in order to form the workpiece in one pass



SC SERIES

Highest Precision, Reliable Spinning Technology

PERFORMANCE FEATURES

- ▶ Manufacturing of rotationally symmetrical hollow shapes from circular blanks, tube or preform
- ▶ Advanced CNC and playback controls
- ▶ Complex geometries producible
- ▶ Extremely low-friction guides for stick-slip-free feeding
- ▶ Closest tolerances and tailor-made surfaces



SC SERIES

Highest Precision, Reliable Spinning Technology

PERFORMANCE FEATURES

- ▶ Casted headstock and (cross) slide
- ▶ Consistent, high quality in production
- ▶ Wide range of applications
- ▶ Optimized tool turret (roller holder without a stop)



SC SERIES

Highest Precision, Reliable Spinning Technology

BENEFITS

- ▶ Universal, flexible applicability
- ▶ Swift, efficient programming
- ▶ Fast, flexible retooling
- ▶ Low tooling and set-up costs
- ▶ Low operating expenses
- ▶ Long service life
- ▶ Low maintenance requirements



SC SPINNING MACHINE SERIES

The Brand-New Leifeld Program

	Modell	205	310	310 S	312	312 S	216	216 S	220	220 S	225	235	250
		Oscillating Elements				Dowels for good bearing floors						Foundation	
Blank diameter	mm	500	1000	1000	1200	1200	1600	1600	2000	2000	2500	3500	5000
Distance between centres	mm	700	1200	1300	1500	1900	1700	1700	1700	2000	2000	2500 (1300)	3000 (1700)
Longitudinal slide stroke	mm	300	500	600	800	1000	1000	1000	1000	1200	1400	1600	2600
Transverse slide stroke	mm	250	300	350	400	500	500	500	500	600	500	700	900
Longitudinal slide thrust	kN	22	30	50	70	100	70	100	70	200	100	220	300
Transverse slide thrust	kN	20	30	50	70	140	70	140	70	200	140	250	400
Main spindle drive rating	kW	11	22	28	37	60	40	60	60	100	71	100	132
Hydraulic	kW	7,5	11	11	18,5	22	18,5	22	18,5	30	22	37	45
Spindle-tool mounting / DIN 55027	size	6	8	8	11	11	11	11	11	15	15	15	20
Roller diameter	size	16	16	20	24	32	24	32	24	40	32	40	50
Weight, approx.	kg	3,000	8,500	10,000	15,000	25,000	18,000	22,000	22,000	45,000	35,000	65,000	75,000
Wall thicknesses													
Max. So - Alu, ca.	mm	3	6	8	10	15	10	15	10	20	15	20	25
Max. So - St, ca.	mm	2	5	6	8	12	8	12	8	15	12	15	20
Max. So - Niro, ca.	mm	1,5	3	4	6	8	6	8	6	10	8	10	15

SC 200 SERIES

Well-Proven Machine Concept with Sophisticated Technology

TOP MARKS FOR LONG-TERM QUALITY

- ▶ Medium to large quantities
- ▶ Easy, manual machine operation
- ▶ Large, sturdy machine bed layout
- ▶ Low transport costs due to “One-hook” machine design in all types up to SC 220
- ▶ Compact on central ground plate in all types up to SC 225
- ▶ Vibration-reducing trueing parts in all types up to SC 220
 - ▶ No need for fixing on floor
 - ▶ No foundation required



SC 300 SERIES

Fast and Versatile

TAILORED TO COMPANIES WITH

- ▶ Frequently changing product portfolio
- ▶ Small production batches
- ▶ Low quantities
- ▶ Barely need for warehouse
- ▶ Just-in-time production



SC 300 SERIES

Fast and Versatile

COMPLEX AND FLEXIBLE PROGRAMMING

- ▶ Programmable additional units
- ▶ Swift, repeatable production adjustments
- ▶ Programmable in position and feeds
- ▶ Retrievable as often as required
- ▶ Extremely short set-up times
- ▶ Tool holder with quick clamping elements





SC SERIES – SC 300



SC 300 SERIES

Fast and Versatile

BENEFITS

- ▶ Compact machine design on central ground plate
- ▶ Standard six-fold tool turret
- ▶ Easy accessibility to all machine elements
- ▶ Housing on ground plate, protective fence no longer necessary

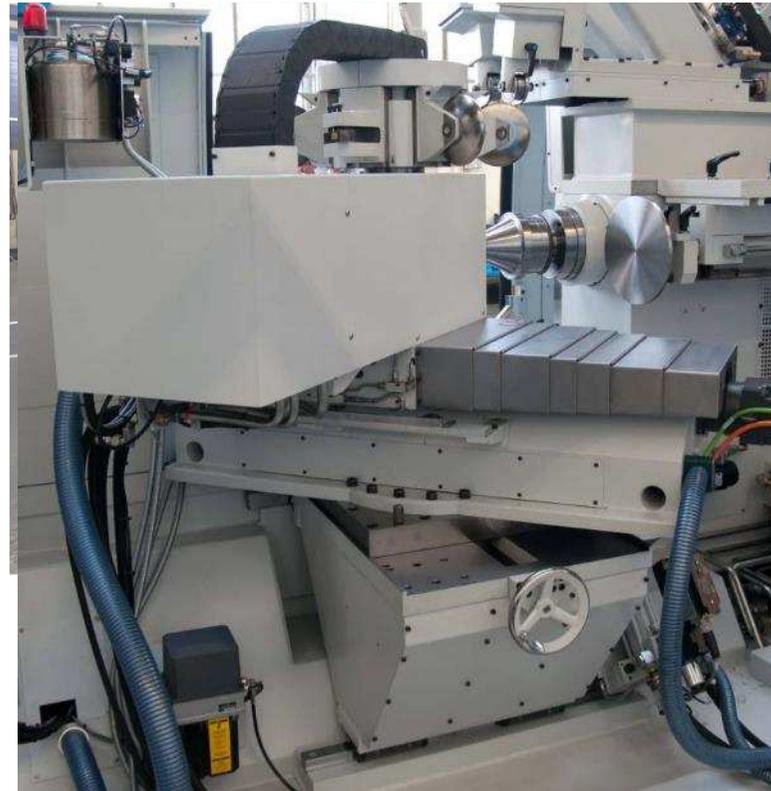


SC 300 SERIES

Fast and Versatile

BENEFITS

- ▶ Low transport costs due to „One-hook“ machine construction
- ▶ Vibration-reducing trueing parts in all types up to SC 312
 - ▶ No need for fixing on floor
 - ▶ No foundation required



SC SERIES

Leifeld's New Combined SC/CNC Control

BENEFITS

- ▶ New combined playback CNC-control
- ▶ Quick navigation due to touchscreen
- ▶ Position-controlled external or auxiliary axes
- ▶ Enhanced online error diagnosis



APPLICATIONS OF SC MACHINES

From Household Appliances to Wind Generators

PRODUCTS

- ▶ Reflectors
- ▶ Ventilation components
- ▶ Pots, pans
- ▶ Separator components
- ▶ Wind generator caps
- ▶ Air inlet ring
- ▶ Propeller hoods
- ▶ Multi-parts aluminum wheels
- ▶ Brass instrument, Cymbals
- ▶ Tank bottoms
- ▶ Parabolic mirrors
- ▶ Seamless funnel and cones



APPLICATIONS OF SC MACHINES

From Household Appliances to Wind Generators

BRANCHES

- ▶ Lighting equipment
- ▶ Engineering
- ▶ Household appliances
- ▶ Chemical Industry
- ▶ Stainless steel machining
- ▶ Communication technology
- ▶ Musical instrument building
- ▶ Air-conditioning technology
- ▶ Wind energy
- ▶ Automotive industry
- ▶ Aircraft and Aero-Space industry
- ▶ Food processing machinery



SC SERIES – SC 310



SC SERIES

SC 310



SC SERIES

Machine Equipment

Lubricant spraying unit



Hydraulic station with
air heat exchanger

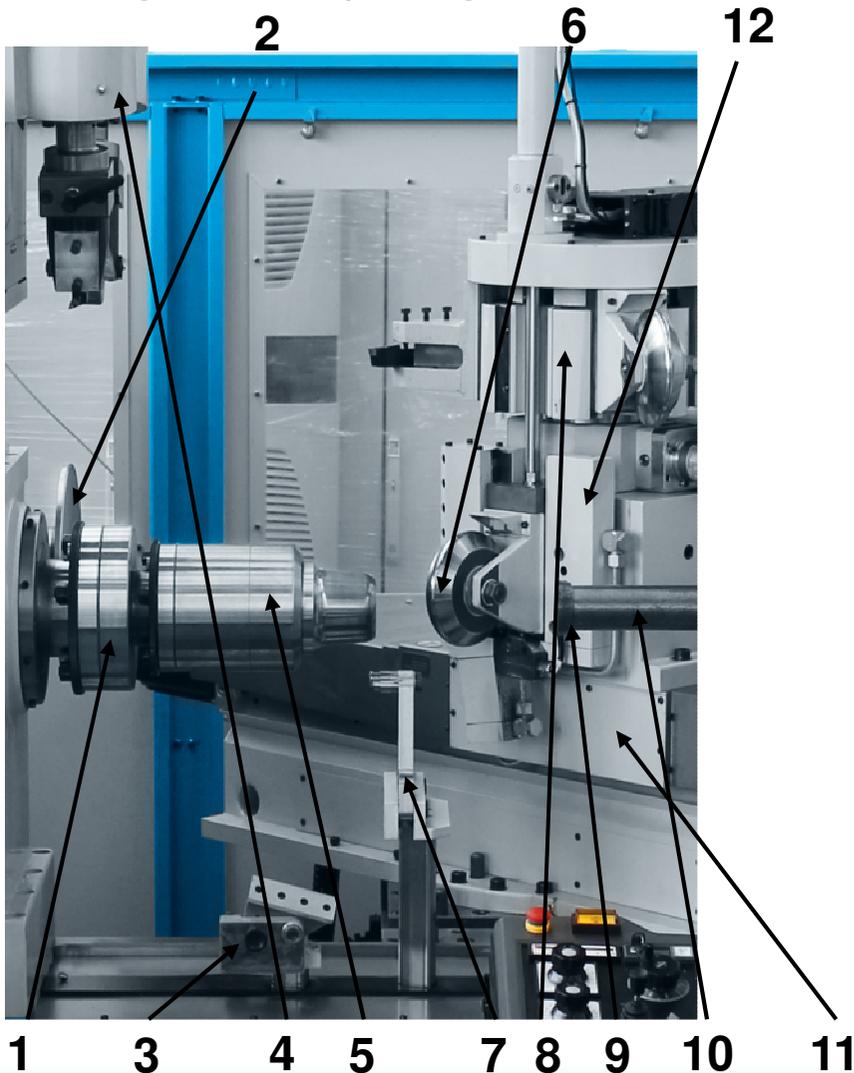


Switch cabinet with
air conditioning



SC SERIES

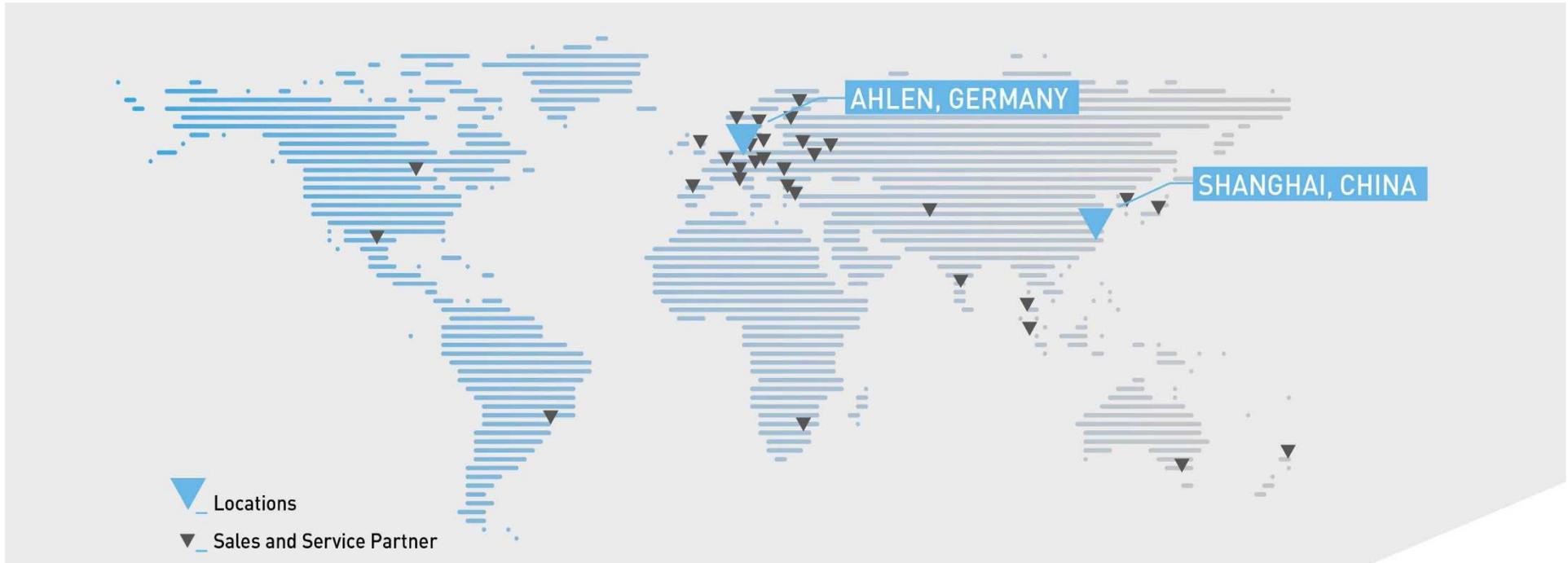
Working Area of Spinning Tool



EQUIPMENT:

- 1) Tool mounting
- 2) Blank counter holder
- 3) Trimming blade
- 4) Shaping unit (BAE)
- 5) Mandrel
- 6) Spinning roller
- 7) Blank centerring unit
- 8) Tool turret
- 9) Pressure plate
- 10) Pressure lengthening
- 11) Compound rest
- 12) Clamping unit

YOUR CONTACT TO LEIFELD METAL SPINNING AG



DISTRIBUTEUR EXCLUSIF EN FRANCE, ALGERIE, MAROC ET TUNISIE POUR :

