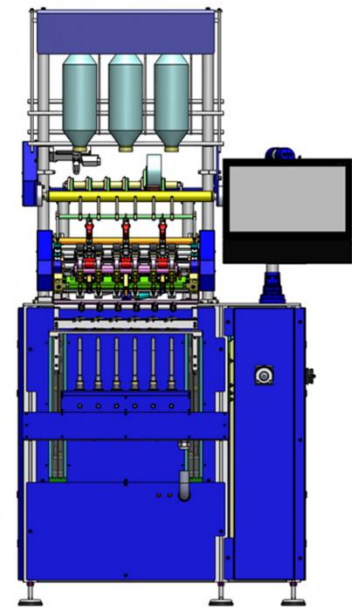


Lab Spinning Unit LSE 2000-2

... the flexible lab spinner for

- Yarn manufacturer
- Machine producer
- Component manufacturer
- Research institutions
- Educational and teaching institutions

Description / Technical data



What can the LSE 2000-2 do?

- Flexible laboratory spinning unit for short, medium and long stacks (basic version cotton)
- Processing of staple fibres made of cotton, wool, man-made fibres and their blends
- Production of classic yarns or compact yarns
- Processing of inelastic to highly elastic core threads
- Creation of near-twist structures (Siro) with different yarn constructions (Siro/Core/Compact as well as their combinations)
- Production of programmable fancy yarns (length, thickness, spacing)
- Production of S and Z yarn

Basic machine:

- 3-roll short-stack drafting system (Süssen) or
- 3-roll long-stack drafting system (Süssen)
- Creels for flyer and finisseur reels
- Fixed spindle bearing plate with 6 individually motor-driven spindles
- Moving ring rail
- Production of S and Z yarns possible
- Fancy yarn production (programmable via software)
- Integrated thread breakage suction
- Integrated control cabinet
- Rotatable and tiltable, large 22" touch panel
- Clear calculation and user interface
- Ring runner set (basic equipment)
- Tool set
- Extensive documentation

Optional additional modules:

- 4-roller short-staple drafting system (1 and 2 apron zones) for sliver spinning (incl. infeed creel)
- Core yarn device for elastic core material
- Core yarn device for inelastic core material (wire)
- Compact yarn device for 3-roller short-staple drafting system
- Compact yarn device for 3-roller long-staple drafting system
- Components for siro yarn production
- Remote diagnosis unit

Advantages of the LSE 2000-2

- Highest flexibility through modular design
 - Basic configuration is expandable with various assemblies
 - Drafting systems are interchangeable
- Compact design (integrated control cabinet)
- No additional compressed air connection required (integrated compressor)
- Variable spinning geometry: adjustable drafting system inclination (30° to 90° - up to 45° for compact yarn production) and spinning angle
- Height-adjustable rails for balloon control rings and thread guides
- Infinitely adjustable drafting due to individual drives of the drafting system rollers
- Same spindle speeds at all working points due to 6 individual synchronous motors
- Simple operation and monitoring via control panel
- Highest flexibility for the most diverse yarn constructions
- Installation of spinning agents from a wide range of manufacturers possible
- Optional remote diagnosis

Services provided by Cetex:

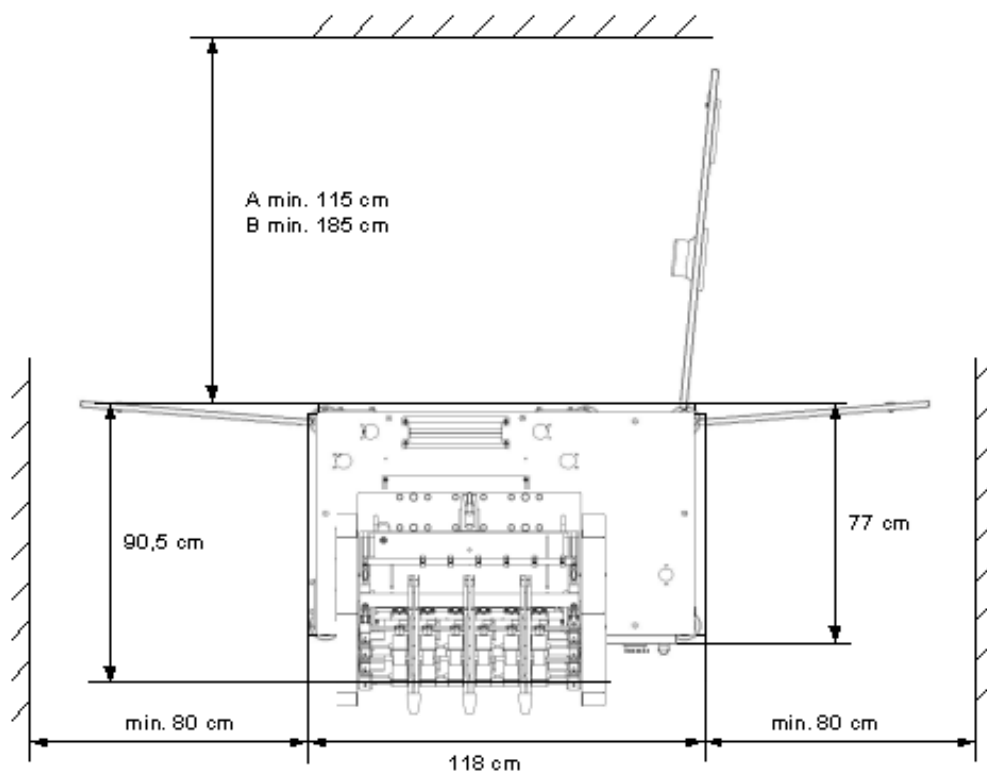
- On-site commissioning with training for operating personnel
- Sample spinning and material tests in the institute's own textile laboratory (e.g. tensile test, hairiness measurement, yarn test (USTER TESTER)).
- Technical assistance via remote diagnosis unit

Technical data

Spinning positions:	6
Spindle gauge:	75 mm
Spindle speed:	3,000 - 30,000 rpm
Spindle drive:	Single motor, frequency-controlled synchronous drives, with electric braking device
Drafting systems:	3-roll short-staple drafting system 3-roll long-stack drafting system 4-roll short-staple drafting system
Compacting unit:	based on Süssen EliteCompactSet (for 3-roll short-stack drafting system)
Load-bearer:	Süssen 3-roll short-staple drafting system Süssen 3-roll long-stack drafting system Süssen 4-roll short-staple drafting system
Draft:	up to 150-fold with 3-roll drafting system up to 350-fold with 4 roller drafting system
Bottom rollers:	3 - 4, single motor driven
Spinning rings/travellers:	according to customer requirements
Sleeve length:	180 - 200 mm
Ring bank drive:	single motor
Angle of inclination drafting system:	30° to 90° without compacting unit 30° to 45° with compacting unit
Yarn twist:	120 to 3,000 T/m (S and Z)
Yarn count:	4 - 200 tex
Fancy yarn:	Settings via control terminal / software
Siro yarn:	optional
Core yarn elastic:	optional
Core yarn wire:	optional
Creel:	roving frame or finisseur bobbin feed, optional creel for sliver spinning (max. can diameter 600 mm)
Thread breakage suction:	integrated
Suction power:	max. 78 m ³ /h
Control cabinet:	integrated
Machine control:	Siemens SIMATIC Drive Controller
Control terminal:	Siemens SIMATIC touch panel 22", Rotatable and swivelling
Remote diagnosis:	Siemens SINEMA Remote Connect (optional)
Total electrical power:	7 kW
Mains connection:	400 V AC TN-S (3-ph + N + PE) 60 Hz

feed with back-up fuse provided by customer:	32 A
Control voltage:	24 V DC
Degree of protection:	IP 54
Compressed air connection:	not required
Operating temperature range:	from 15 °C to 32 °C
Humidity:	max. 80 %, non-condensing
Total length:	1,370 mm
Width:	960 mm
Height:	2,570 mm
Total weight:	approx. 750 kg

Installation plan



For flyer or finisseur spools, dimension A applies,
when spinning can sliver with inlet creel, dimension B applies.



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