			B30LZS	B30LZ
Technical data	Height of centres	mm	120	120
	Maximum distance between centres	mm	560	560
Principal dimensions	Length of bed slides	mm	950	950
	Spindle nose, normal	mm	DIN 800 - M 52	DIN 800 - M 52
	Spindle bore	mm	30 H5	30 H5
	Maximum collet capacity (through)	mm	24	24
	Maximum collet capacity (not through	gh) mm	27	27
	Maximum swing over bed	mm	250	250
	Maximum swing over cross-slide	mm	154	154
	Floor area required	approx. m	$1,7 \times 0,48$	1,7×0,48
	Over-all height	mm	1150	1150
Slides	Maximum travel of carriage	mm	540	540
	Maximum travel of cross slide	mm	145	145
	Maximum travel of top slide	mm	150	150
	Clearance spindle axis to top slide support surface:			
	a) Top section for clamping turning	too mm	12	12
	b) Top section, universal	mm	24	24
	Turning tool shank section			
	a) In quick-change tool holder	mm	16	16
Tailstock	b) In 4-way tool holder	mm	12	12
	c) In normal tool post	mm	12	12
	Spindle travel	mm	90	90
	Internal Taper		MT. 3	MT. 3
	Step-up ratio		Variable	1,41
Spindle	Range	RPM	30 ÷ 3000	47 ÷ 2100
speeds	Motor, speed change		2-speed	3-speed
_	Motor speeds	RPM	700 / 1400	700 / 1400 / 2800
Drive	Motor power	kW	1,5 / 2,2	0,8 / 1,2 / 1,8
	available from quick change gear box, with 20 geometric steps in each feed range			
Feeds	a) Sliding feeds	mm/rev.	0,017 ÷ 0,60	$0,017 \div 0,60$
-	b) Surfacing feeds	mm/rev.	0,008 ÷ 0,30	0,008 ÷ 0,30
Screw- cutting	Pitch of Leadscrew	mm/rev.	5	5
	34 available Metric-pitch threads	mm/rev.	0,25 ÷ 4,5	0,25 ÷ 4,5
	25 available Inch-pitch threads	T.P.I.	5 ÷ 144	5 ÷ 144
	24 available Module-pitch threads	mod.	0,10 ÷ 2,25	0,10 ÷ 2,25
Weight of the Lathe in basic form		approx. kp	800	800
		approx. kp	1080	1080
	in Sea-worthy packing	approx. kp	1100	1100
_	Packing and dimensions	ca. m	1,85×1,1×1,75	1,85×1,1×1,75
y <u></u>	Paint and finish, normal		Green-Ral 6011	Green-Ral 6011

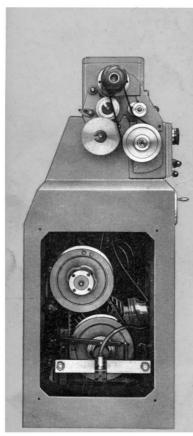
LORCH, SCHMIDT & Co, GmbH - Machine Tool Factory · 6 Frankfurt/M.
Hanauer Landstrasse 137 · West Germany · Telephone (0611) 439714 · Telex 412999 furst

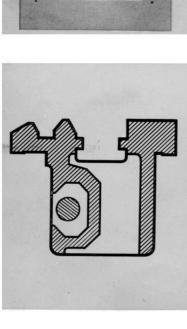
### Lathe bed

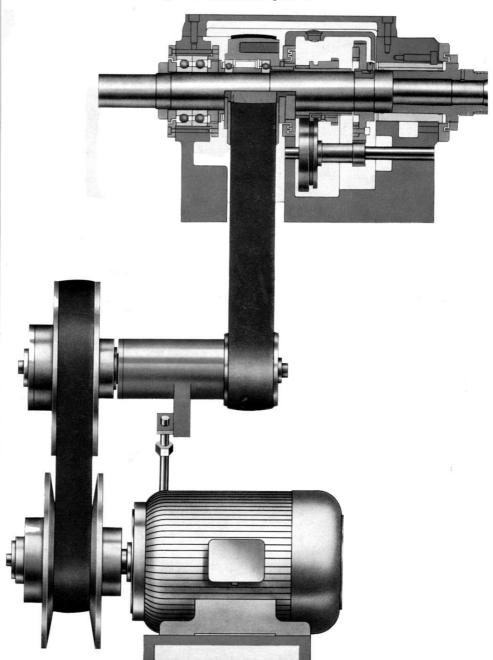
# Headstock spindle and drive

The heavy single-piece cast-iron cabinet base, plus the strongly braced lathe bed, form an important basis for vibration-free running of the headstock spindle and also for high spindle speeds. The bed slideways, as would be expected, are hardened and ground.

The spindle is mounted at the front in adjustable super-precision multi-surface plain bearings, and at the rear in selected pre-loaded angular contact ball bearings. Labyrinth seals prevent the entry of swarf and coolant liquid into these bearings. In the higher spindle speed range, the hardened and ground headstock gears are not engaged. Power transmission to the spindle is by flat-belts. The B 30 LZS is equipped with an infinitely variable spindle speed drive unit. This employs a wide vee-belt cone pulley system, using an enclosed hydraulic system with handwheel to vary the speeds. The B 30 LZ employs an intermediate integral countershaft and speed to the ratio of 1:2:4 are obtained via a 3-speed motor switch. Alternative spindle speeds are selected by the simple change-over of the lower flat belt or by the headstock gears.









## Characteristics

## ■ Highest accuracy

Extra large feedscrew drums graduated to 0,01 mm, facilitating setting of the turned diameters.

Exceptionally high disengaging accuracy of the longitudinal and transverse powered feeds.

Top and bottom support slides hand-scraped with 6 load-bearing surfaces.

High-precision leadscrew, completely protected from swarf.

#### Finest surface finish

Super-precision adjustable multi-surface plain headstock bearings.

Extremely high spindle speed range.

Optimum cutting speeds by infinitely variable drive unit (B 30 LZS).

Vibration-free rotation of headstock spindle by flat-belt drive.

## Adaptability

Versatile accessories, interchangeable with those of our Type B range.

Accepts all normally used quick-change toolholders.

Simple adaption for differing manufacturing needs.

Efficient for individual and small series production.

## Short production times

Handy grouping of the control elements, simple to operate.

No alteration of change wheels for all metric and inch pitch threads.

Engagement of the powered feed drive whilst the machine is running.

Quick actuation of the feeds and direction of spindle rotation by push-buttons on the carriage apron.

