



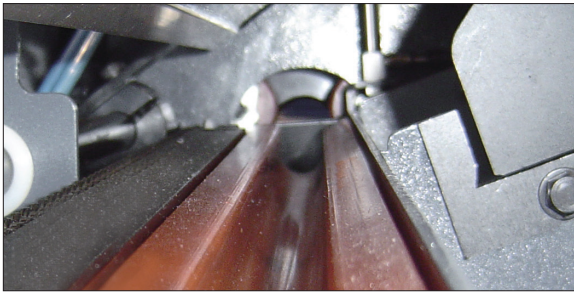
## ALPHA 320 S3

AUTOMATIC BAR FEEDING SYSTEM FOR FIX  
AND SLIDING HEADSTOCK LATHES

Diameter range: 3 mm to 23 mm



YOUR ONE-STOP-SHOP  
FOR MACHINE-TOOL PERIPHERALS



## INCREASE YOUR PRODUCTIVITY

With the Alpha 320 S3, LNS is offering a cost-effective solution for feeding bar material for fix and sliding headstock. The Alpha 320 S3 is designed to withstand any production process at optimum speeds. High-quality guidance, low noise emissions and effective vibration dampening are ensured by wear-resistant guide channels. In terms of its price-performance ratio, the Alpha 320 S3 is an ideal bar feeding system for the diameter range from 3 mm to 23 mm.



## MOBILE REMOTE CONTROL WITH TOUCHSCREEN

The remote control with a colour, operator-friendly touchscreen (HMI) allows an easy setting and interface via menu-controlled icons, the bar feeder and the lathe. This ensures that the production process can be performed reliably and efficiently.

The HMI is impressive due to its simple layout and ease of operation. It displays setting parameters, alarm descriptions and operating faults.

Settings can be easily configured in less than one minute.

The operator simply enters the parameters for the material into the HMI:

- Bar diameter
- Size of guide channel
- Feeding length

The HMI automatically sets the following parameters:

- Feed force
- Feed rate
- Feeding length



## SIMPLE AND RAPID CONVERSION

Bar diameters on the side load rack of the bar feeder are changed over by a centrally controlled, manual setting using an adjusting lever.

A position scale enables clear visualisation of the setting and prevents setting errors.

- Two minutes for a diameter changeover in the area of the guide channels
- Ten minutes for a diameter changeover of all guiding elements

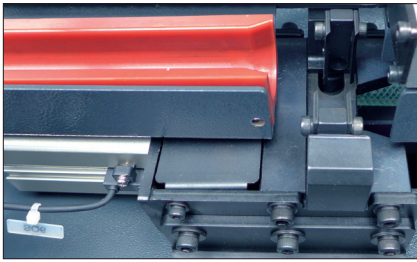


## PERFECT BAR GUIDANCE

The guide channels made from cast polyurethane are essential components for achieving optimum performance and withstanding the highest loads.

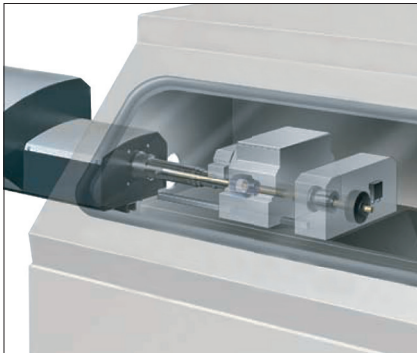
The housings for the Alpha 320 S3's guide channels consist of a solid steel structure in order to dampen vibrations during the production processes. Combined with the servo-controlled drive, the bar material is guided through the entire machining process accurately and reliably.

The quick-change guiding elements are secured in place by fixing pins. For a full diameter changeover, the elements can be replaced quickly and easily without needing to use any tools. The pusher can be released simply and quickly by unlocking the manual levers.



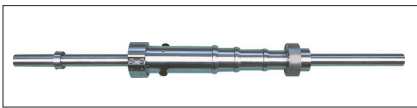
## POWERFUL REMNANT EXTRACTION SYSTEM WITH SELF-CENTRING CLAMPING JAWS

The sturdy design of the system not only provides enough force to insert and remove the material, but also ensures that the material can be reliably detected thanks to the monitoring system. This prevents failure during insertion or when the remnant is withdrawn. To optimally clamp bars with smaller diameters, soft materials or thin-walled tubes, the clamping force of the self-centring clamping jaws can be set using a pressure regulator.



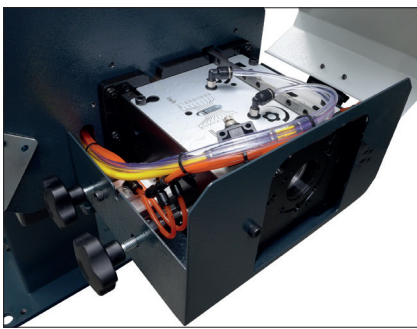
## INCREASED RELIABILITY DURING OPERATION AT OPTIMUM SPEEDS

The tried-and-tested LNS connection with telescopic tube ensures improved bar guidance in the area between the bar feeder and the lathe's spindle entry point. This connection can be used to move the headstock forward to finish parts without the risk of the bar being able to swing out freely. The system is designed such that corresponding reduction tubes can be inserted into the telescopic tube. These tubes are used as spindle reduction tubes at the same time. The inside diameters of the reduction tubes are adapted to the diameter of the bar feeder's guide channels. Vibrations and oscillations of the bar are reduced in the critical area and for the area where there is usually no guidance. This allows the system to run at optimum speeds for improving tolerances, enables the surface quality to be improved and the life time of the tools to be extended.



## FRONT REST

Pneumatically actuated, the oil-flooded, two-position front rest with V-shaped guiding elements dampens the residual vibrations of the rotating bar material. When closed, the front rest remains at the bar itself. When open, the front rest holds the pusher when plunging into the lathe's spindle. The blow-off ring supplied eliminates the residual oil on the bars.



## MAXIMUM CONVENIENCE

As standard, the Alpha 320 S3 is equipped with a longitudinal movement system which is monitored by a safety switch. This device facilitates access to the lathe for maintenance or repair work. For the lathes which operate with /without guide bush, an adjustable two-positions movement system can optionally be supplied.



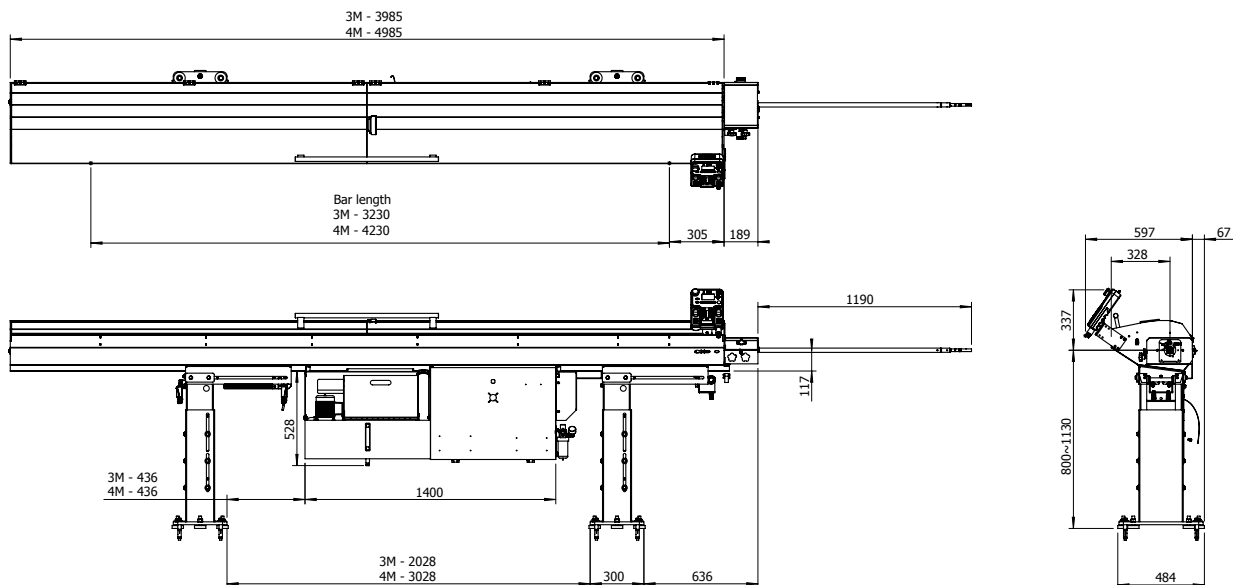
## FEATURES AND BENEFITS

- Hydrobar® technology, hydrodynamic guidance of the bar material
- Two minutes for a diameter changeover in the area of the guide channels
- Ten minutes for a full guiding element changeover
- Guide channels and pusher with quick-change system
- Ergonomic control panel with colour touchscreen for ease of operation
- Capacity: Side load rack, 270 mm
- Compact, sturdy design
- Actuated via servomotor
- Automatic setting of the feed force and speed when the material diameter is input
- Automatic, oil-flooded, two-position front rest
- Remnant ejection system
- Simple manual diameter setting for the bar selection
- Tried-and-tested LNS connection with telescopic tube for machines with sliding headstock
- Can be fitted to the right or left-hand side depending on the lathe model
- Longitudinal movement system, 430 mm
- The following are available as an option for lathes which operate with or without guide bush
  - 2-Positions longitudinal movement, adjustable up to 270 mm
  - 2-Positions longitudinal movement 350 mm

## YOUR ONE-STOP-SHOP FOR MACHINE-TOOL PERIPHERALS

LNS provides a full range of bar feeders, chip conveyors, coolant management systems and air filtration systems which is second to none on the market. We are known in the industry for the solid expertise we have gained over several decades in an exceptionally wide range of applications, our excellent customer service and technical support. This support is ensured by highly qualified technicians who are available at key locations throughout Europe.

Capacity		Alpha 320 S3
Diameter	mm	Diameters 3 – 23
Bar length 3 m/4 m	mm	3200 / 4200
Loading system		Side load rack
Loading capacity	mm	270
Loading side		Right/left
Application		
Headstock		Fixed/sliding
Remnant length	mm	Min. 90/max. 400
Synchronisation		PLC/servomotor
Remote control		Colour touchscreen
Longitudinal movement	mm	430
Changeover		
Diameter changeover	mins	2 (in the area of the guide channels)
Full diameter changeover	mins	10 (for all guiding elements)
Driving system		
Motor		Servo
Drive		Chain
Guide		Guiding channel
Oil		30L, ISO VG 100
Options		
2-Positions longitudinal movement, adjustable up to 270 mm		
2-Positions longitudinal movement 350 mm		



LNS SA  
Route de Frinwillier  
2534 Orvin  
Switzerland

+41 32 358 02 00  
LNS@LNS-europe.com  
www.LNS-europe.com