ALPHA ST320 S2 BARFEED

AUTOMATIC MAGAZINE BAR FEEDER FOR
SLIDING HEADSTOCK LATHES

Diameter range: 1/8" to .787" (3 mm to 20 mm)
Max. Bar length: 12' 6"

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

Guiding Your Productivity

The LNS entry-level solution to automatically load small diameter bar stock into sliding headstock lathes. The Alpha ST320 S2 is a heavy duty design to withstand production processes running at optimum RPMs. High guiding quality, low noise and effective vibration-dampening are guaranteed through molded polyurethane guiding channels. The Alpha ST320 S2 is a highly productive and price-competitive automatic bar feeding system for bar stock diameters from 1/8" to .787" (3mm – 20mm).

Optimum Guiding

The guiding channels made of molded polyurethane are the essential elements for achieving optimum performance. They have to withstand the highest physical stresses.

The Alpha ST320 S2's guide channel housing is a one piece extruded durable aluminum profile mounted on a solid steel structure integrating the driving chain and the channel cover for precise, vibration dampening production processing. Combined with the servo-controlled drive, the barstock is accurately and safely managed through the entire machining process.

Easy to Use Remote Control (HMI)

The operator-friendly HMI ensures the interaction between the bar feeder and the lathe, and therefore the production process can be run safely and efficiently.

The HMI is ultra light featuring easy set up and operation. It displays alarm description, alarm history of operation errors and position tracking (inch/metric programming).

Easy setup in less than 1 minute. The operator simply inputs bar information into the remote control:

- Shape
- Diameter
- Feed out length

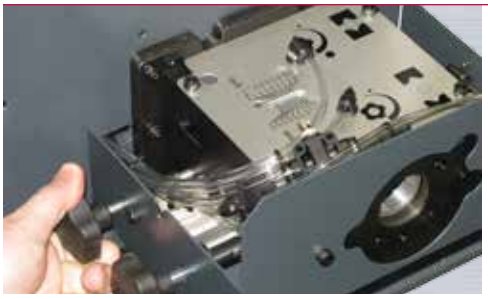
This automatically sets:

- Pushing torque
- Forward speed
- Feeding length

Changeover Simplicity

Changeover of bar diameter on magazine tray is performed by a simple manual adjustment via the changeover gage, no tool required. A three position scale allows you to visually see where your new adjustment is aligned for accuracy and quick selection.

- 2 minutes set up for partial changeover
- 8 minutes or less for complete changeover

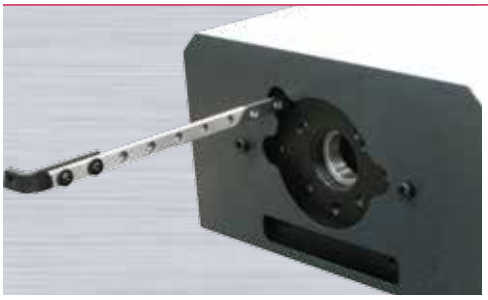


Greater Bar Stock Stability and Less Oscillation Inside the Lathe

Troublesome bar vibrations transferring to the machine cutting area can create poor machining performance and wear on tool life drastically.

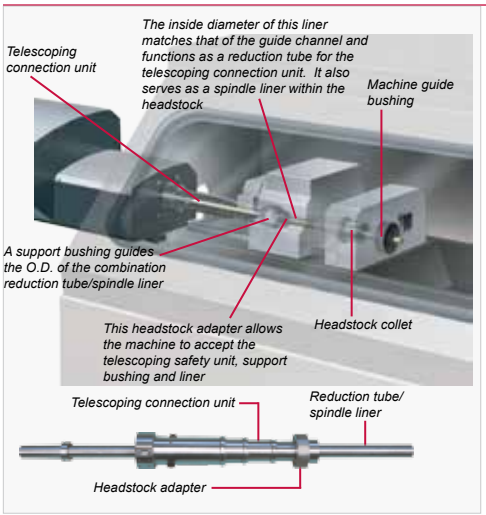
The two-position hydrostatic front stabilizer with v-shaped guiding elements dampens residual vibration between the front of the bar feeder and the back of the spindle preventing troublesome bar vibrations from transferring to the machine cutting area. Air blast included to eliminate residual oil from the bar feeder to the machine.

The two-position stabilizer offers an open position for the pusher and a closed position for the bar stock diameter. With a simple manual adjustment, you can easily and accurately set the diameter changeover by using the scale.



"3-S" High Speed Headstock Synchronization System

The headstock is directly connected to the servo drive eliminating transmission delay and guarantees perfect synchronization between the pusher and the headstock. The 3-S synchronization option is especially recommended for high-speed sliding headstock machines, for small (under 5mm) diameter bars, and when running special materials, such as titanium, brass or aluminum.



Safer Operation and Optimum RPM

The LNS Swiss safety connection eliminates the unsupported area between the bar feed and machine tool to provide greater safety and better bar stock support. It consists of a series of telescoping tubes that extend in sections to maintain a continuous connection between the Alpha ST320 S2 and the machine sliding headstock. This feature allows the headstock to move forward to make parts without the danger of exposed bar stock.

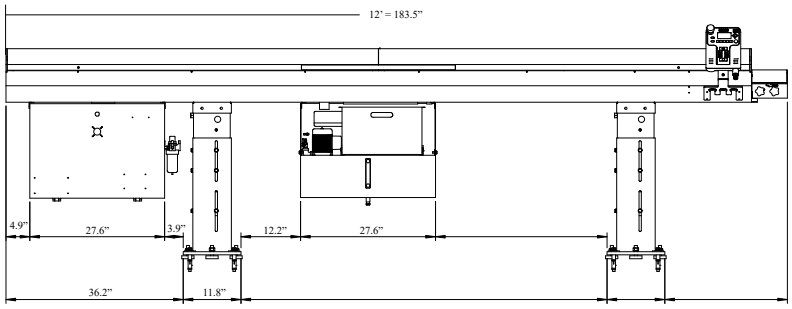
For added flexibility Alpha ST320 S2 includes an assortment of reduction tubes to use within the Swiss safety connection and the lathe headstock. The inside diameters of these reduction tubes match those of the bar feed's guide channels. They act as a combination spindle liner to reduce the gap inside the spindle and additionally the inside diameter of the Swiss safety connection. The result is reduced vibration and bar oscillation within a critical and traditionally under-supported area. This Alpha ST320 S2 feature improves part diameter tolerances, increases RPM, enhances surface finish and extends tool life.

ALPHA ST320 S2 BARFEED
TECHNICAL SPECIFICATIONS

Capacity		
Diameter	mm	3 - 20 (25 max. with bar prep.)
Magazine Tray Holding Capacity		10.6" (270 mm) 20mm: 13 bars 16 mm: 16 bars 12 mm: 22 bars
Min. Bar Length	mm	1000
Max. Bar Length (12')	mm	3810
Loading System		Lateral Gravity Magazine, Enclosed
Loading Capacity	mm	270
Loading Side		Left / Front and Right / Front
Shipping Weight	lbs	1,160
Applications		
Type of Headstock		Sliding
Remnant Length	mm	Max. 400
Synchronization		PLC / Servo Motor
Changeovers		
Partial changeover	min	2 within the range of guide channel
Complete changeover	min	8 or Less
Driving Systems and Bar Support		
Front Rest		Manual
Bar Selection		Manual
Motor		Servo
Drive		Chain
Guiding Channel		Hydrodynamic / U-Channel
Options		
Optional 3S direct spindle synchronization system		

Barstock Straightness Specifications and Performance

For optimum rotational performance speeds, bar stock straightness needs to be .020" per 3.25 feet, non accumulative. Bar stock out of this tolerance will not run at optimum RPM. Other factors such as material type (brass, copper, bronze and other malleable materials), clamping efficiency of the machine workholding, alignment of the bar feed, oil type, bar preparation and spindle liners will affect optimum RPM capability of the system.



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LNS provides a full range of barfeeders, chip conveyors, coolant management systems, air filtration systems, and workholding systems that is second to none on the market. We are known in the industry for the solid experience we have gained over several decades in an exceptionally wide range of applications, our excellent customer service, and our technical support. This support is ensured by highly qualified technicians who are available throughout North America.

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