



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

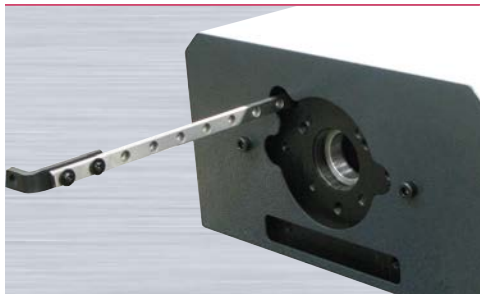


Changeover Simplicity

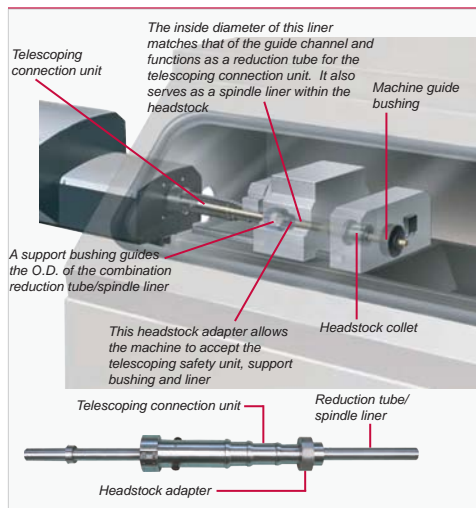
Changeover of bar diameter on magazine tray is performed by a simple manual adjustment via the changeover gage, no tool required. A three position scale allows you to visually see where your new adjustment is aligned for accuracy and quick selection.

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

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.



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.



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.



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TECHNICAL SPECIFICATIONS

Specifications subject to change without notice

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

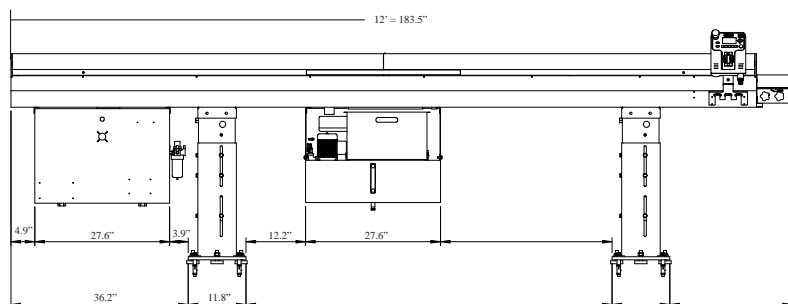
| | | |
|-----------------|--|--------------------------|
| Front Rest | | Manual |
| Bar Selection | | Automatic |
| Motor | | Servo |
| Drive | | Chain |
| Guiding Channel | | Hydrodynamic / U-Channel |

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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