



## ALPHA ST212 S2 BARFEED

AUTOMATIC MAGAZINE BAR FEEDER FOR  
SLIDING HEADSTOCK LATHES

Diameter range: .078" TO .47" (2 mm to 12 mm)

Bar length: 3.25' to 12' 6"



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



### Guiding Your Productivity

The LNS low cost solution to load small diameter bar stock primarily for sliding headstock machines. The Alpha ST212 S2 is a heavy duty design to withstand production processes running at optimum RPMs. The Alpha ST212 S2 offers a remarkable number of unique features. Small diameter bar stock presents a challenge for any magazine barfeeder. Flexible bar material and hard to load small diameters often result in multiple or no bar loading. The Alpha ST212 S2 is a highly productive and very economical automatic bar feed system for round bar stock diameters as small as .078" to .47" (2mm to 12mm).



### 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 ST212 S2's guide channel housing is a one piece extruded 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:

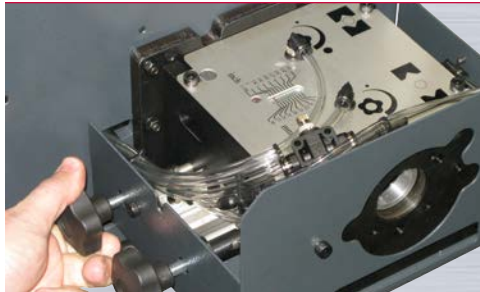
- Pushing torque
- Forward speed
- Feeding length



### Simplicity in Loading Bar Stock

Sophisticated and more technologically advanced barfeeders may not be necessary for entry-level sliding headstock machines.

The Alpha ST212 S2 compliments the entry-level machine with a reliable screw type loading mechanism. Guaranteed 100% performance while loading small diameter barstock without failure. 10.6" wide magazine tray with dual directional screw type loading mechanism loads a capacity of 15 bars independently of the diameter. No adjustment required. Bars are separated when loading the magazine.

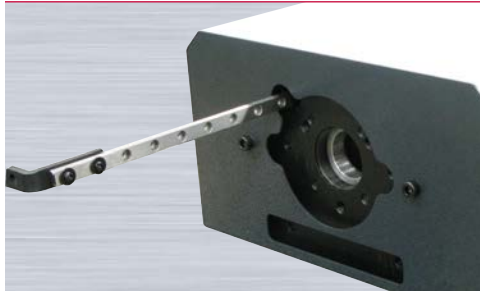


### Greater Bar Stock Stability and Less Oscillation Inside the Lathe

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

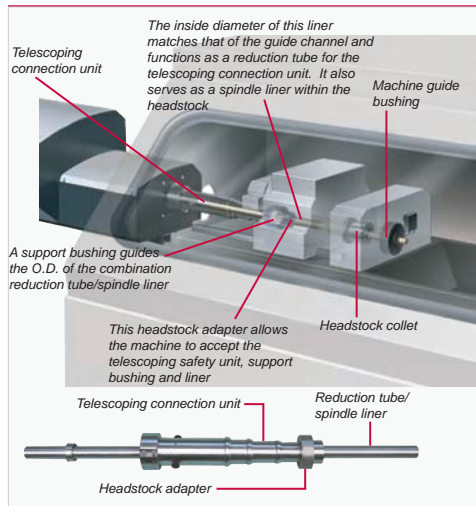
The two-position hydrostatic front stabilizer with v-shaped guiding elements dampens residual vibration between the front of the bar feeder and the back of the spindle preventing troublesome bar vibrations from transferring to the machine cutting area. Air blast included to eliminate residual oil from 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 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 ST212 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 ST212 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 ST212 S2 feature improves part diameter tolerances, increases RPM, enhances surface finish and extends tool life.



# ALPHA ST212 S2 BARFEED

## TECHNICAL SPECIFICATIONS

Specifications subject to change without notice

### Capacity

Diameter	mm	2 - 12
Bar Length (3.25' to 12'6")	mm	3658
Loading System		Lateral / Screw
Loading Capacity	mm	270 (15 bars)
Loading		Front / Rear Load
Shipping Weight	lbs	1,160

### Applications

Type of Headstock		Sliding
Synchronization		PLC / Servo-motor
Max. Remnant Length	mm	400

### Changeovers

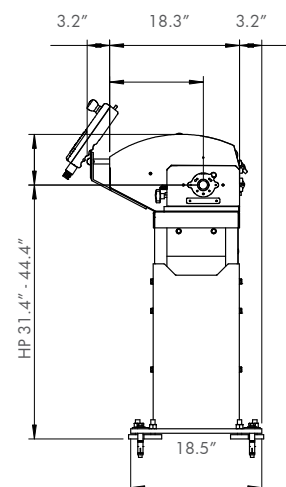
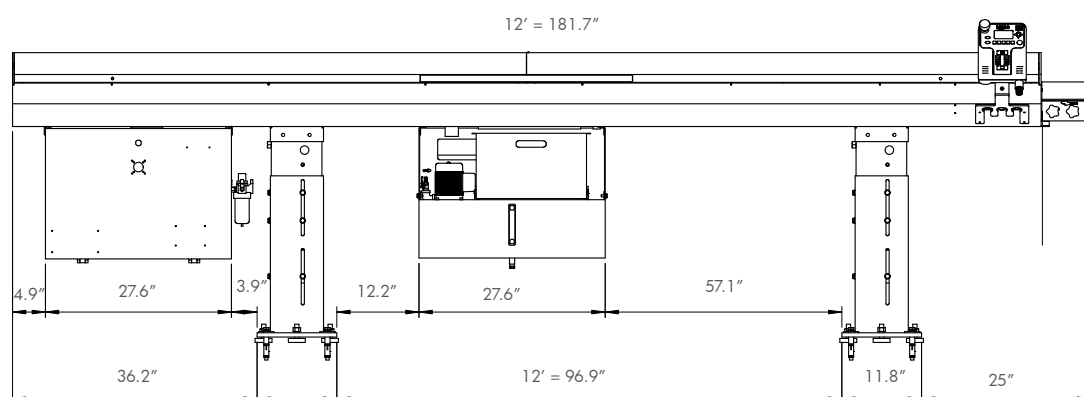
Partial changeover	min	2 (in the same channels)
Complete changeover	min	8 or Less

### Driving Systems and Bar Support

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

### 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.



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

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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Facilities covered by this mark have been evaluated to international quality assurance standards by UL DQS Inc.

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