



ALPHA 538 / 552 BARFEED

AUTOMATIC MAGAZINE BAR FEEDER FOR
FIXED OR SLIDING HEADSTOCK LATHES

Diameter range:

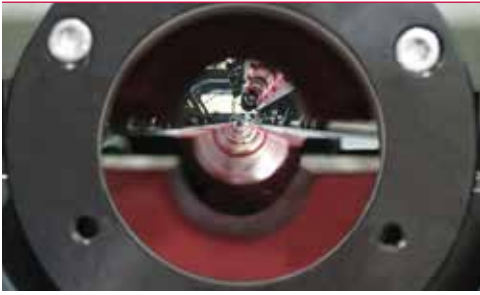
Alpha 538: .20" to 1.65" (5 to 42 mm)

Alpha 552: .20" to 1.875" (5 mm to 47.6 mm)
2.047" (52 mm) max. with bar prep

Bar length: 39" - 12'6" (1000 mm - 3810 mm)



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



Accelerating Productivity at an Affordable Price

The LNS highly affordable solution to automatically load long bars from 5 mm to 42 mm or 5 mm to 52 mm into fixed and sliding headstock turning machines. The Alpha 538/552 is a heavy duty design to withstand production processes running at optimum RPMs. High guiding quality, low noise and effective vibration-dampening are guaranteed from start to finish.

The Alpha 538/552 keeps you ahead of the competition at an affordable price.



Easy to Use Remote Control (HMI)

The user friendly touch screen HMI with prompting menu screens ensures the interaction between the bar feeder and the lathe, and therefore the production process can be run safely and efficiently.

The remote control 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
- Guiding Elements Diameter
- Bar Diameter
- Feed Out Length

This automatically sets:

- Pushing Torque
- Forward Speed
- Feeding Length



Changeover Simplicity

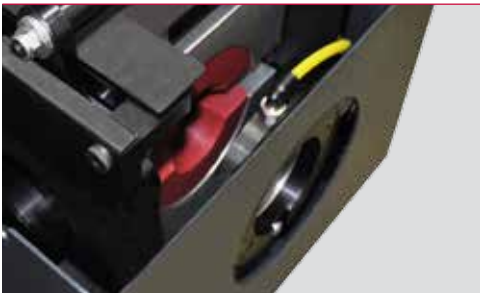
Changeover of bar diameter on magazine tray is performed by a simple manual adjustment via the changeover lever, no tool required. A three position scale allows you to visually see where your new adjustment is aligned for accuracy and quick selection.

- 3 minutes or less for partial changeover
- 8 minutes or less for complete diameter changeover

For complete diameter changeover, the guiding elements can easily and quickly be replaced. No tool required with this simple and reliable design. Just a press on the tip of the pin located on top of the upper guiding element, the guiding element is released.

The pusher support sleeves are simply released by unlocking the quick turn hand levers.

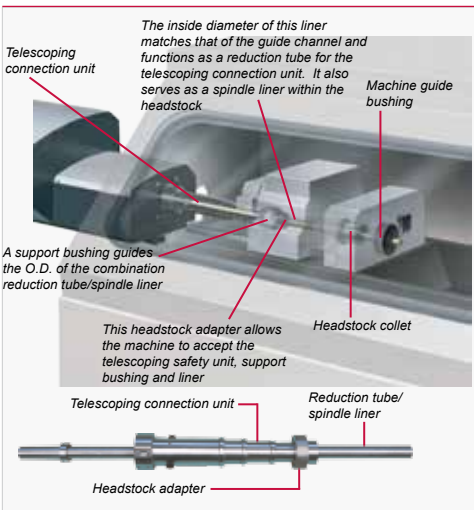




Greater Bar Stock Stability and Less Oscillation Inside the Lathe

The 2-position hydrostatic front stabilizer is set to the bar diameter and automatically opens to the pusher diameter as it feeds through to provide hydrostatic support from start to finish. It is especially adapted for profiled material (hex) where the guiding element diameter is critical for best performance.

The pneumatically actuated opening and closing of the front stabilizer is mechanically locked providing safe and secure guiding of the bar in rotation.



Safer Operation and Optimum RPM with Sliding Headstock Machines

The LNS Swiss safety connection for sliding headstock machines 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 538 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 538 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 538 feature improves part diameter tolerances, increases RPM, enhances surface finish and extends tool life.



"3-S" Optional High Speed Headstock Synchronization System

The headstock is directly connected to the servo drive eliminating transmission delay with sliding headstock machines and guarantees perfect synchronization between the pusher and the headstock with added safety. The 3-S synchronization is standard with the Alpha 538 equipped with sliding headstock machines up to 38 mm bar capacity.



More Robust for Exceptional Productivity

The Alpha 538/552 is designed with an extra wide heavy duty front leg supporting the critical components of the bar feeder providing maximum rigidity and vibration dampening.

Routine maintenance on the lathe should be conducted in a timely and efficient manner to have your production back on line with minimal loss of time.

A unique Z-axis retract system on the Alpha 538/552 allows the bar feed to be moved back 14 inches (350 mm) from the machine spindle. This feature allows easier access for routine machine maintenance reducing production downtime. Simplified design for improved serviceability with easy access to all components.



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TECHNICAL SPECIFICATIONS

Capacity

Diameter	mm	5 - 42 5 - 47.6 (52 max with bar prep)
Bar Length (12')	mm	3658
Loading System		Lateral
Loading Capacity	mm	300
Loading Side		Front / Rear, Left or Right
Shipping Weight	lbs	2,680

Applications

Type of Headstock		Fixed or Sliding, Right or Left Configuration
Retraction Z	mm	350
Remnant Length	mm	450 (max.)
Front Rest		Manual
Bar Selection		Manual
Controls		Hand Held, Touch Screen

Changeovers

Partial changeover	min	3 (in the same channels)
Complete changeover	min	8 (for all guiding elements)

Driving Systems and Bar Support

Motor		Servo
Drive		Chain
Guiding Channel		Hydrodynamic / Bearings
ISO 100 oil	gal	14

Options

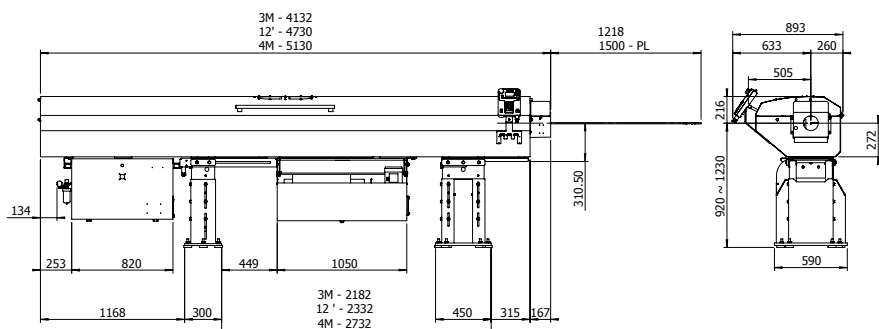
- Swiss safety connection with Telescopic tube and T-Tube liners
- Patented "3-S" direct electronic headstock synchronization system
- Long pusher extension (depending on machine configuration)

Guiding Channel Selection Chart

Guiding Channel Diameter	11	13	15	17	19	20	21	23	26	27	29	31
Bar Stock Diameter Range with Bar Preparation	5-10	5-12	5-14	7-16	9-18	10-19	11-20	13-22	16-25	17-26	19-28	21-30
Bar Stock Diameter Range without Bar Preparation	5-9	5-11	5-13	7-15	9-17	10-16.8	11-19.05	13-20.8	16-23.5	17-24	19-26.5	21-28.2

Guiding Channel Selection Chart

Guiding Channel Diameter	33	35	37	39	41	43	46	49	51	53
Bar Stock Diameter Range with Bar Preparation	23-32	25-34	27-36	29-38	31-40	33-42	36-45	39-48	41-50	43-52
Bar Stock Diameter Range without Bar Preparation	23-30.3	25-32.3	27-34.5	29-36.5	31-37	33-39	36-42.5	39-44	41-46	43-47.6



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.



LNS America
4621 East Tech Drive
Cincinnati, Ohio 45245

513-528-5674
Sales@LNS-america.com
www.LNS-america.com



LNS America, Inc.
ISO 9001-10013185
LNS Turbo
ISO 9001-10000276
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