



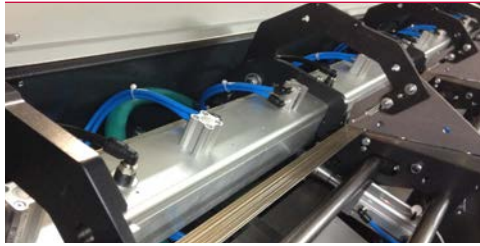
HYDROBAR EXPRESS 220 S2 BARFEED

AUTOMATIC MAGAZINE BAR FEEDER FOR
FIXED OR SLIDING HEADSTOCK LATHES

Diameter range: .079" to .787" (2 mm - 20 mm)
1.02" (26 mm) max with
bar preparation



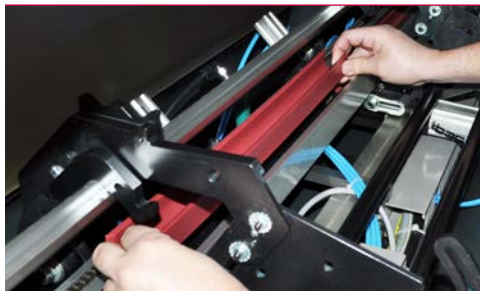
YOUR "ONE-STOP-SHOP"
FOR MACHINE-TOOL PERIPHERALS



Steering Your Investments Safely

The LNS Hydrobar Express 220 S2 provides an unequalled combination of automated productivity and safety benefits. It incorporates all of the field-tested advantages of the Express family while adding new features that keep pace with evolving machine tool technology.

Hydrobar Express 220 S2 and other models of the Express family share the same controls and guide channels, so operators will immediately become comfortable and productive. And, like previous Express models, Hydrobar Express 220 S2 is available for fixed or sliding headstock turning machines, including right or left hand headstock models with front or rear load.



Two-Minute Partial or Eight Minute Complete Changeovers

A change in diameter and part length is a factor in production cost that must be closely monitored. The fully automatic Hydrobar Express 220 S2 permits two-minutes for partial changeover or less than eight-minutes for complete changeover.

After changing the collet size to the new bar diameter for partial changeover, simply enter the shape, bar diameter, part length, and guiding channel ID from the remote HMI. No mechanical adjustment is required.

- The hydrostatic outboard stabilizer, bar selection fingers of the magazine tray, speed and torque automatically adjust to the new setup. No manual adjustment is required.



State of The Art Controls

Combined with a Servo Motor and latest PLC technology, fully automatic Hydrobar Express 220 S2 provides "State of the Art" bar feeding solutions.

Added connectivity (Ethernet, USB) for interface communication with advanced CNC controls.

User Friendly Hand Held Remote Control Station

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 run safely and efficiently.

Parts Library

For added flexibility and faster production changeovers, the "Parts Library" allows the user to store specific parameter configurations that are unique to a machining program. After all the parameters have been entered the first time, the configuration is saved as a unique number that will be associated to a specific machining program.

The "Parts Library" is a standard benefit and can be used with a Standard or Ethernet interface.



Loading Capacity

At a depth of 240 mm, the enclosed loading ramp allows a large number of bars to be prepared. An optional 100 mm internal extension for bars from 4 to 12 mm provides up to 340 mm capacity of extended production runs.

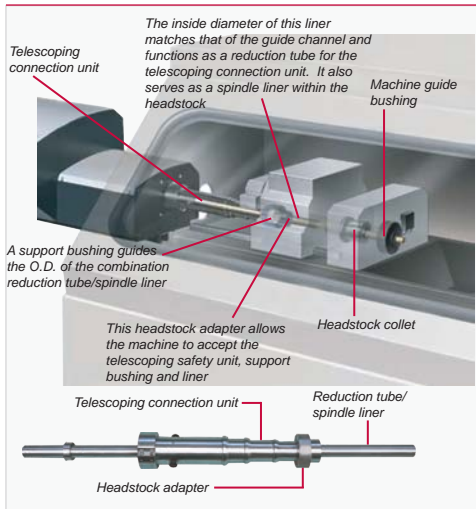




Precise High Speed 3-S Headstock Synchronization System

The patented 3-S electronic headstock synchronization system is directly connected to the servo drive eliminating transmission delay and guarantees perfect synchronization between the pusher and the headstock.

Its design provides optimum synchronization for high-speed sliding headstock machines and small diameter bars (2 to 5 mm), and when running special materials, such as titanium providing safe and reliable performance.



Optimum RPM & Operator Safety

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 safe and continuous connection between the Hydrobar Express 220 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, Hydrobar Express 220 S2 includes an assortment of reduction tubes to use within the Swiss safety connection and the lathe headstock eliminating the need of spindle reduction tubes. The inside diameters of these reduction tubes match those of the bar feed's guiding channels providing additional support as the pusher exits the bar feeder. The result is reduced vibration and bar oscillation within a critical and traditionally under-supported area. This Hydrobar Express 220 S2 feature improves part diameter tolerances, increases RPM, enhances surface finish, and extends tool life.



Greater Bar Stock Stability & Less Oscillation

The LNS patented, V- guide hydrostatic outboard uses its full 6" length to provide superior bar support for unmatched stability within the .393" (10 mm) guide channel range. Automatically adjusts for new bar and pusher diameter. Troublesome bar vibrations are eliminated at the source and stopped from transferring to the machining area.



Exceptional Productivity

- Optional Z-axis barfeed retraction system with a safety switch provides full access to the machine for easy machine maintenance.
- An adjustable bar feed 2-position with dual safety switches to accommodate non-guide bushing applications is also available.

Specifications subject to change without notice



HYDROBAR EXPRESS 220 S2 BARFEED

TECHNICAL SPECIFICATIONS

Capacity

Diameter	mm	2 - 20 (26 max. with bar prep.)
Bar Length (2m, 3m, 12', 4m)	mm	1000 to 2200/3200/3800/4200
Loading System		Lateral Gravity Magazine, Enclosed
Loading Capacity	mm	240*
Loading Side		Right or Left
Shipping Weight	lbs	1,870

Applications

Type of Headstock		Fixed or Sliding, Right or Left Configuration
Remnant Length	mm	Min. 70 / Max. 400 (300 for 2M unit)
Headstock Synchronization		Electronic "3S", High Speed
Controls		Hand Held, Touch Screen with Parts Library (500 Parts)

Changeovers

Partial changeover	min	2 within the range of guide channel
Complete changeover	min	8 or Less

Driving Systems and Bar Support

Motor		Servo
Drive		Chain
Guiding Channel		Polyurethane, Quick Change, 2-Layer Active Cover
ISO 100 oil	gal	8

Options

- * 100 mm internal extension of the magazine for bars from 4 to 12 mm
- 450 mm Z-axis retraction systems.
- Adjustable longitudinal 2-position for non-guide bushing applications.
- Ethernet interface (CNC capable).

Guiding Channel Selection Chart

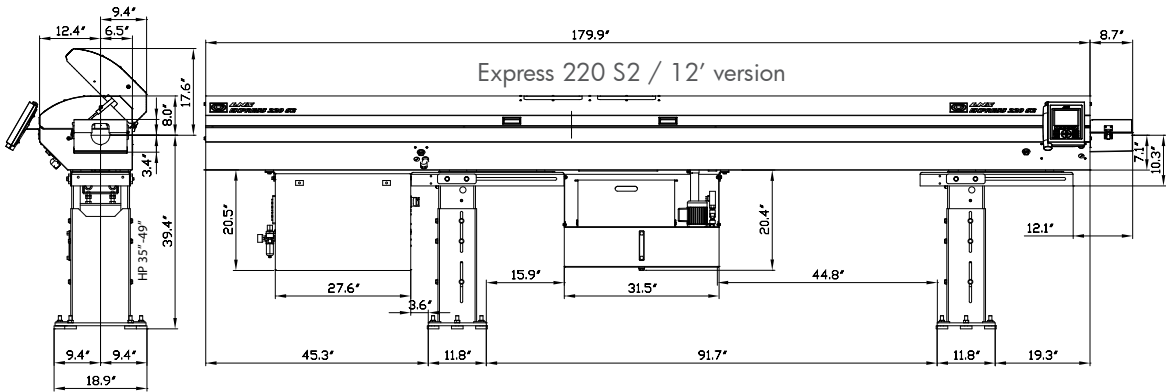
Guiding Channel Diameter	27	23	21	19
Bar Stock Diameter Range without Bar Preparation	17-24	13-20	11-18	9-16
Bar Stock Diameter Range with Bar Preparation	17-26	13-22	11-20	9-18

Guiding Channel Diameter	17	14	11	8
Bar Stock Diameter Range without Bar Preparation	7-14	4-11	3-8	2-5
Bar Stock Diameter Range with Bar Preparation	7-16	4-13	3-10	2-7

Bar Stock Diameter Range without Bar Preparation	7-14	4-11	3-8	2-5
Bar Stock Diameter Range with Bar Preparation	7-16	4-13	3-10	2-7

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

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

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