

# ***L*Lexair, Inc.**

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Lexair is a privately held, American owned corporation established in 1977 committed to the design and manufacturing of industrial products. We are a world class manufacturer of fluid power products, valves, and machine tool accessories.

# Machine Tool Accessories

## Hydrodynamic Style Barfeed Systems



Multi Mini®

Rhinobar®

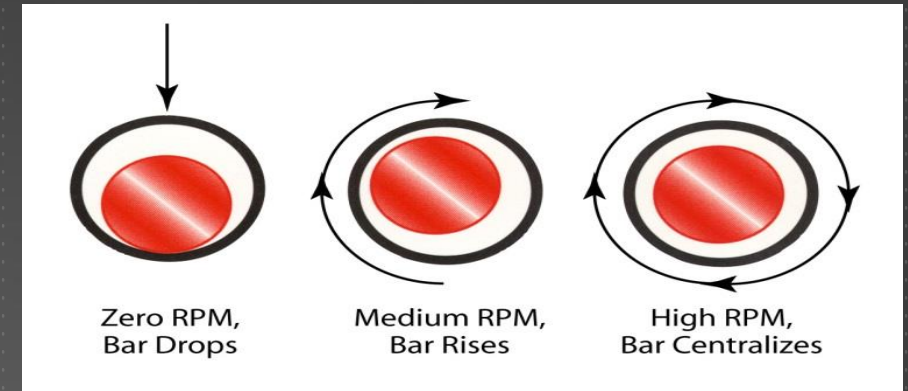
Mini Rhinobar®





# Rhinobar<sup>®</sup> Hydrodynamic Barfeed

- Designed for use with all types of CNC lathes
- Operates on the hydrodynamic principal to support the bar stock
- Single tube barfeed
- Lexair valve to control pressure and flow
- Bearing mounted pusher cone
- Mobile pendant to control barfeed
- Automatic pusher return at end of bar signal
- Support bushings mounted to face of oil recuperator



# Rhinobar®

- Designed for use with all types of CNC lathes
- RB 2.5 diameter range 1/4" to 2 1/2"
- RB 3.0 diameter range 1/2" to 3"
- Feed tubes come in 1/4 increments
- 12 ft. max barstock length
- Overall Length 18 ft.
- Supplied with your choice of 3 feed tubes



# Mini Rhinobar

- Engineered for swiss-style and small headstock CNC lathes
- Feed tube size from 1/8" to 1 5/8"
- 1/8 inch increments in feed tubes
- Capable of feeding wire gauge material
- Max 12 ft. barstock
- Overall 17ft
- Supplied with your choice of 3 feed tubes



# MULTI MINI RHINOBAR



- Three tube gatlin gun style bar feed designed for Swiss machines
- 1 to 20 mm capacity

- Indexable cartridge
- Standard cartridges
  - 1/4" 3/8" 1/2"
  - 1/4" 1/2" 3/4"
  - 3/8" 3/8" 5/8"





# Collet Chucks

Lexair offers precision collet chucks ranging from self-contained mechanical grip/air released fixed-length versions to pull-back drawtube actuated models and wrench operated units for applications where no drawtube is available. Our chucks can accommodate parts up to 5-1/2 inches in diameter.

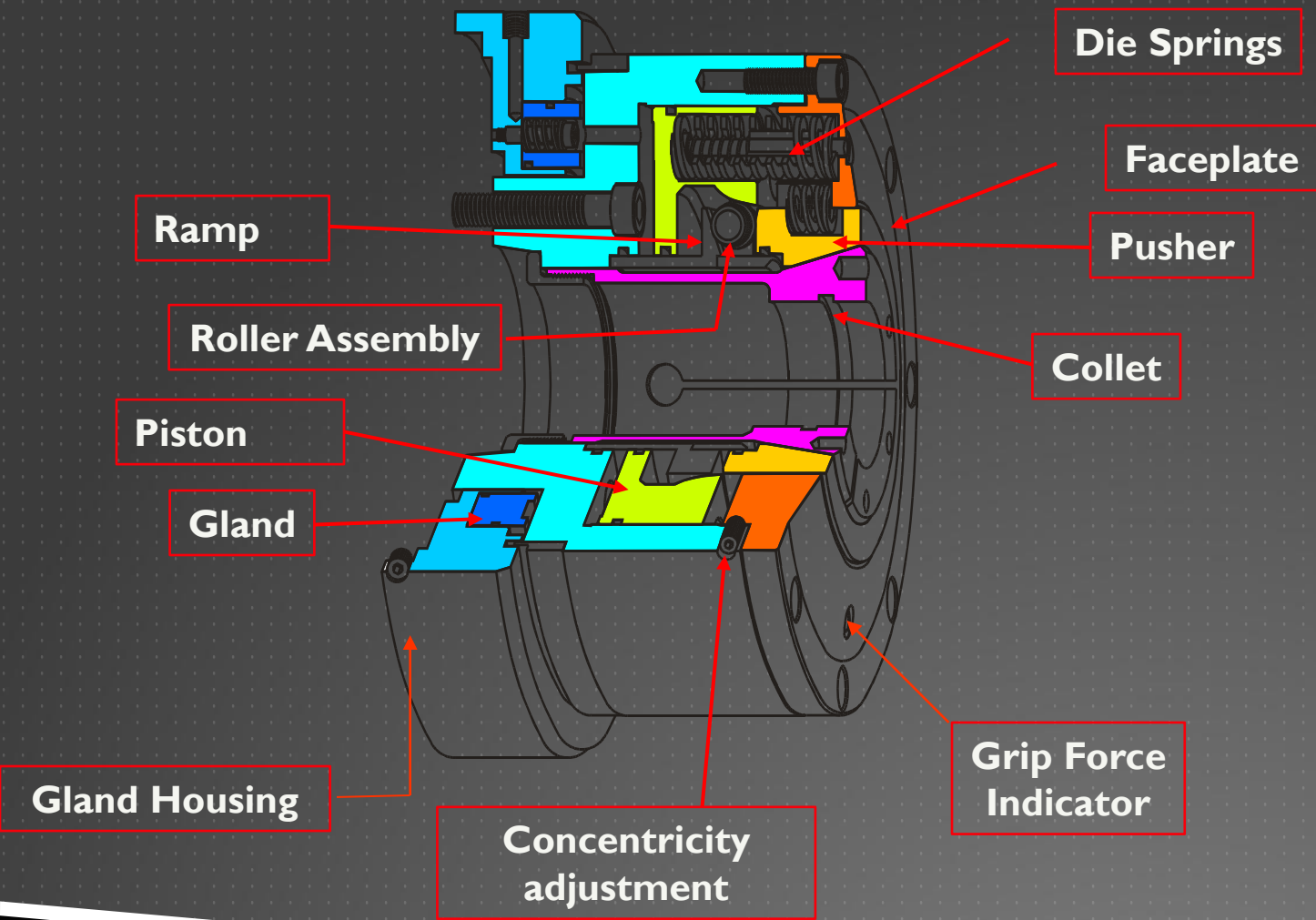


Wrench Operated



Full Bore®

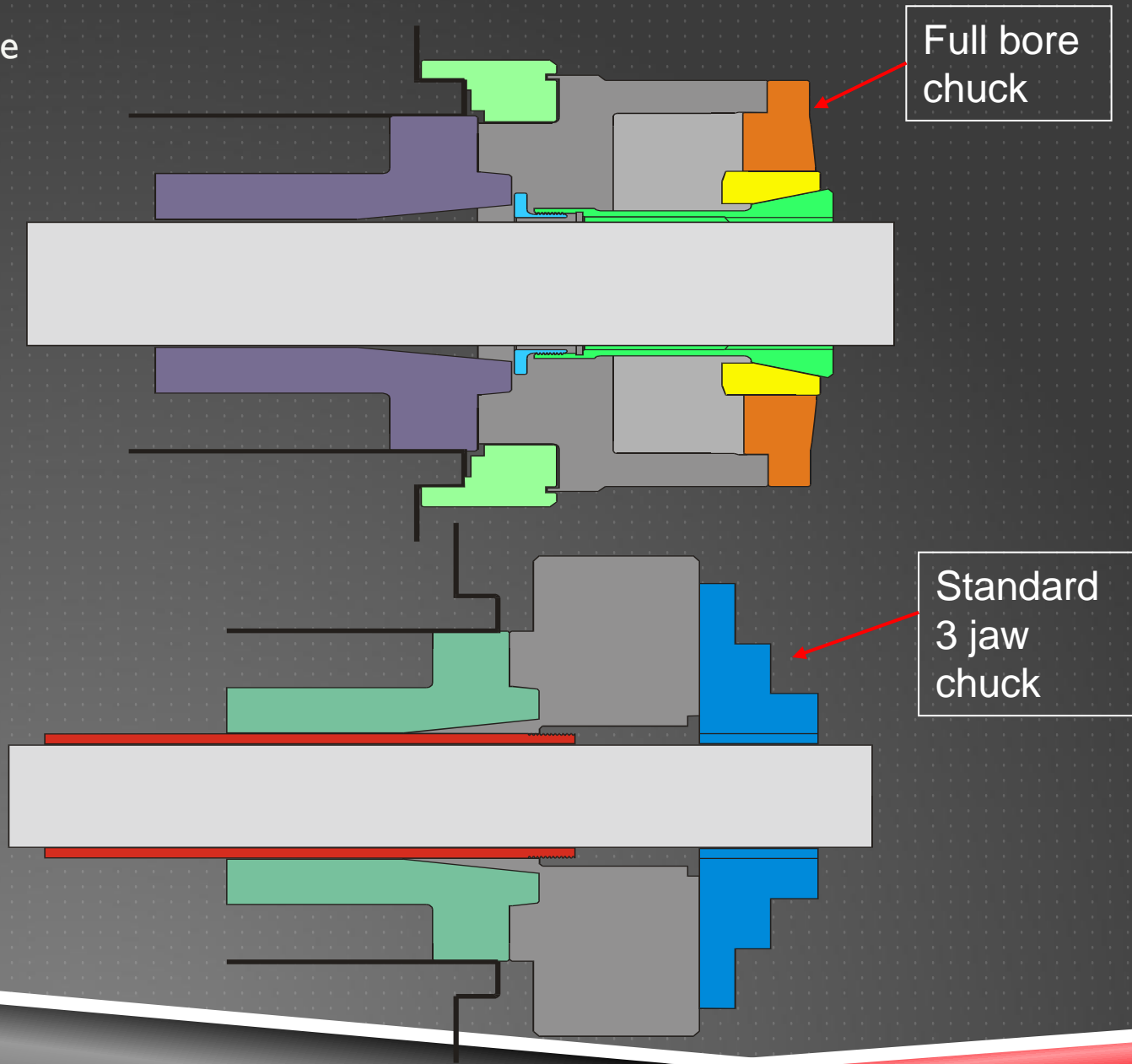
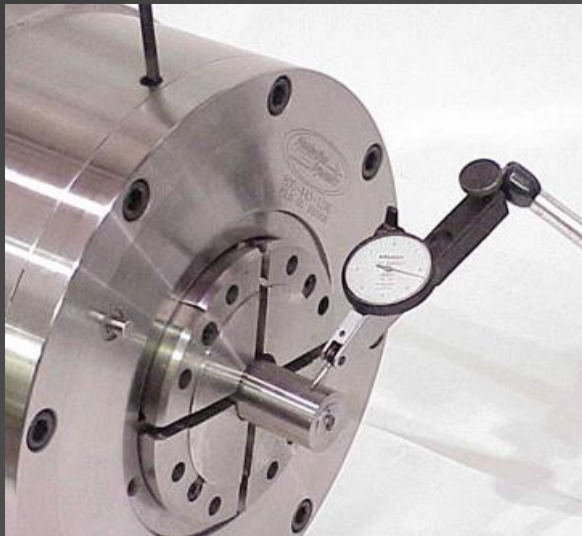




- Fixed Length collet chuck
- Fully self contained
- Spring clamp, Air unclamp
- Constant grip force at all RPMs
- Suitable for main and sub Spindle
- Direct mount
- Includes Master collet
  - Uses S style pads
- Types of material
  - Thin wall tubing
  - Solid bar stock
  - Hex bar stock
  - Square bar stock

# Full Bore<sup>®</sup> Chuck

- Eliminates the need for draw tube to increase your spindle and sub spindle thru diameter up to 35%
- Shorter body for tool clearance issues
  - Standard concentricity adjustments



- Adjustable clamp force
  - Spanner wrench
  - Removing or changing internal die springs
- Spring close air open for fail safe operation
- Clamp and unclamp operation in less than one second, suitable for high volume applications
- No loss in clamp pressure due to centrifugal force

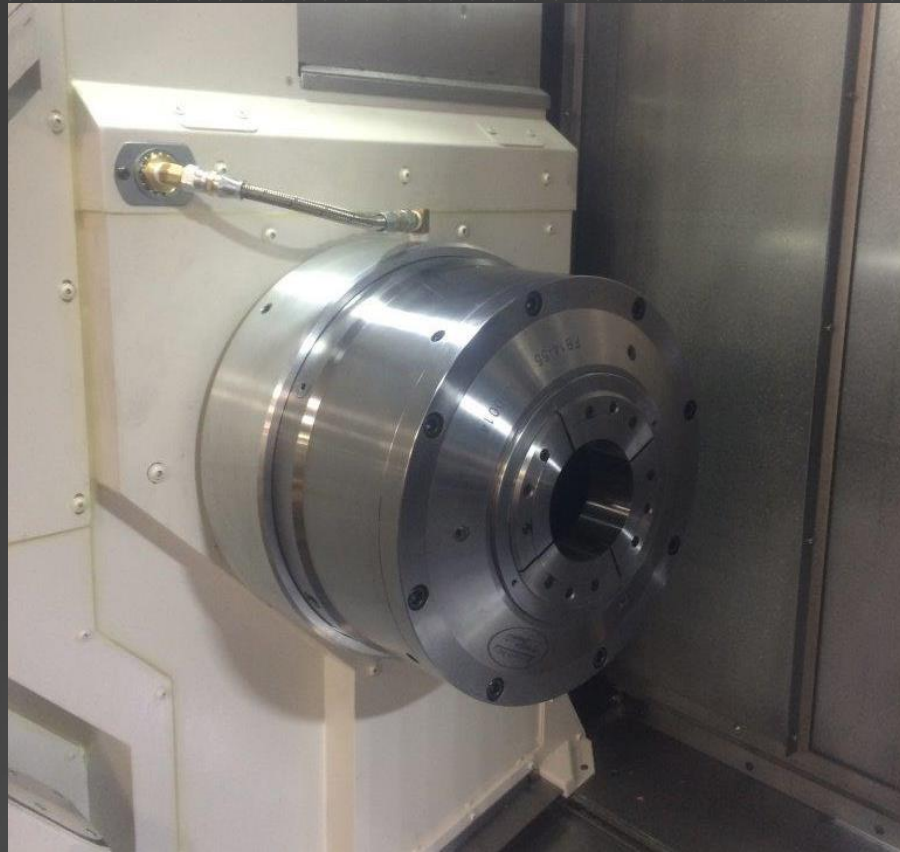




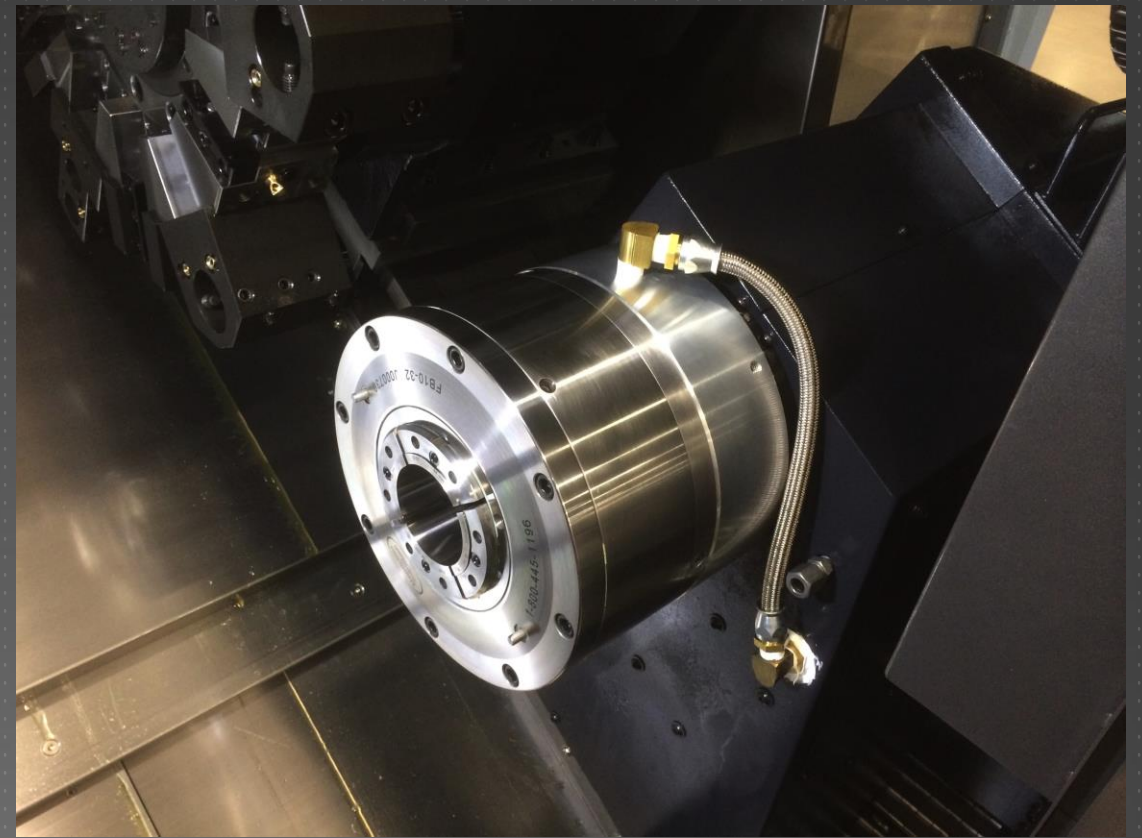


Model Number	Chuck Diameter	Master Collet (Pad Style)	Capacity Using Pads	Capacity Using Solid Collets	ASA Spindle	Weight (LBS)	Grip Force (LBF)
FB6-20	6.75	S20	1/4 to 2	1/4 to 2	A2-5	35	15,000
FB6-20 B60	6.75	S20	1/4 to 2	1/4 to 2-3/8	A2-5	35	15,000
FB8-27	8	S26	1/4 to 2-5/8	1/4 to 2-3/4	A2-6	49	17,000
FB10-32A	10	S30	1/4 to 3	1/4 to 3-1/4	A2-6	85	20,000
FB10-32B	10	S30	1/4 to 3	1/4 to 3-1/4	A2-8	85	20,000
FB11-40	11	S35	1/4 to 3-1/2	1/4 to 4	A2-8	130	30,000
FB14-55	14	S50	1 to 5	1 to 5-1/2	A2-11	235	35,000

\* Adaptor plates can be made for a different Spindle nose



Main Spindle



Sub Spindle

Full Bore Applications

# Wrench Operated Collet Chuck

- Features manual actuation via a standard chuck key – no drawtube or closer is required
- Incorporates a flat back design which can easily be used in any application on lathes, mills, grinders, etc for all your machining needs
- Can be directly bolted to the table for applications involving mills, machining centers or drill presses
- Lathes, indexers and other rotating spindle equipment will require an adapter plate which we can provide from an extensive line covering a broad range of brands and types
- Concentricity adjustment is standard – allows the operator to obtain the best possible part accuracy
- Ideal for use on the new hybrid CNC/manual lathes
- Accepts 5C, 16C, 3J and 22J collets





# Collet Closers



- Complete family of stationary collet workholding components that can be utilized individually or grouped together to form a system
- Double acting pneumatic or hydraulic models are available in fixed-length and pull-back versions

# Low Pressure Pneumatic Collet Closers

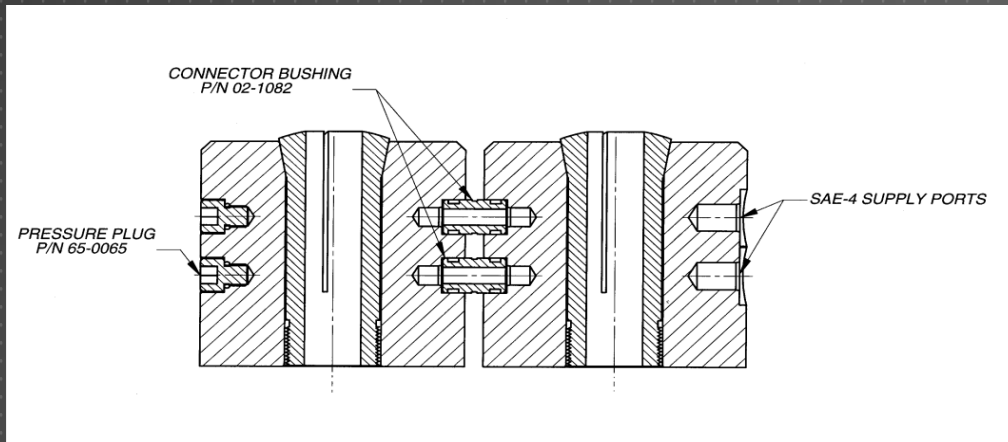


- Double acting, pull-back operation
- Designed for use with 5C collets
- Drawtube force generated is 7.5 times the inlet pressure applied
- Maximum working pressure is 150 PSI
- Supplied with a 5C collet wrench



# Pneumatic/Low Pressure Hydraulic Collet Closers

- Double acting, fixed-length operation
- 1C, 3C, 5C or 16C collets
- Patented “Top Lock” collet locking screw
- Ability to connect multiple closers via bushings
- Drawtube force generated ranges from 0.7 (1C) to 7.5 (5C) times the inlet pressure applied
- Through hole design for long parts





# High Pressure Hydraulic Collet Closers



- Double acting, fixed-length operation
- 5C, 16C, 3J, 22J or 35J collets
- All steel construction
- Drawtube force is 1.9 times line pressure
- Ability to connect multiple closers via bushings
- Hydraulic pressure up to 5000 PSI



# High Pressure Hydraulic Tri-Grip Collet Closers

- Double acting, fixed-length operation
- Compact design features three 5C collet closers in one body
- Ability to be combined into multiple configurations by use of connector bushings – eliminates the external plumbing between units
- Patented “accessible-from-the-top” collet locking screw – allows quick and easy collet or part orientation in infinite positions
- Drawtube force generated is 1.1 times the inlet pressure applied
- Hydraulic working pressure to 2800 PSI
- All units are supplied with a matching 5C collet wrench



# Pneumatic/Hydraulic Step Chuck Collet Closers

## 16C and 5C Step Collet



## 5C Details

- Double acting, pull-back operation
- All steel construction
- Holds standard collets
- Step chucks and closers
- Expanding collets for I.D. holding of parts up to 6" in diameter



# Collet Wrenches

- Complete line of high quality, light-weight, aluminum collet wrenches
- Anodized red with our logo and collet size laser engraved – assures that markings will not wear off
- Available in sizes that fit our wide range of collet closers – including 1C, 3C, 5C, 16C, 3J, 22J and 35J sizes
- One of our durable units is supplied in the correct size with any collet closer that we manufacture



# Collets

Lexair offers a complete line of collets available in all sizes and types to fit our entire line of collet closers and chucks. Please consult the factory for assistance and further information for all your collet applications.



# Disconnect Handles

- Patented disconnect handle quickly and conveniently allows for connection/disconnection of hydraulic lines to/from machine tool pallets or in other hydraulic applications
- Designed for use in double acting applications
- The unit automatically latches when pressure above 2500 PSI is present on either hose preventing accidental disconnects
- Ergonomic design helps minimize operator hand fatigue
- Can be integrated with all Lexair hydraulic collet closers
- To be used in conjunction with a matching Lexair manifold. If used with the manifold that features the integrated check valve, a momentary hydraulic pump or a 4-way, 3-position, exhaust open center valve must be used – please contact the factory to get the correct plumbing arrangement for your application





# Custom fixture Plates



- Complete custom solution for your workholding application
- Pneumatic or hydraulic actuation
- In house design and engineering team
- Standard aluminum fixture plate
- Steel plates can be use in heavy duty applications

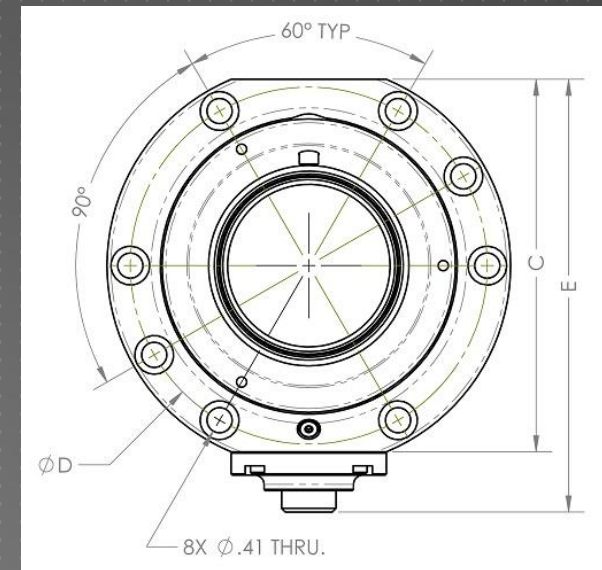




# FLEX GRIP COLLET CLOSER



- 65 & 80 mm capacity
- Manual or hydraulic actuation.
- Can mount on machine table or rotary table
- Adjustable part stop



# Additional clamping configurations



- Flex C collet for quick change capability
  - +/- 0.020 range
- 5c and 16c collet
- Step chuck to 7in capacity
- ID mandrel
- Hydraulic clamp capable

# Flex Grip on 5 axis application



# Pneumatic/Hydraulic Step Chuck Collet Closers

## 16C Details

- Double acting, pull-back operation
- Aircraft aluminum body with hardened steel bushings for long, trouble free life
- A2-5 spindle nose accepts 16C collets to 1-5/8" or 16C step chucks up to 6" in diameter plus expanding nose collets for I.D. holding of parts





# Pneumatic/Hydraulic Step Chuck Collet Closers

## 16C Details

- Double acting, pull-back operation
- Aircraft aluminum body with hardened steel bushings for long, trouble free life
- A2-5 spindle nose accepts 16C collets to 1-5/8" or 16C step chucks up to 6" in diameter plus expanding nose collets for I.D. holding of parts
- Drawtube force generated is 22.5 times the inlet pressure applied
- Pneumatic working pressures to 250 PSI, hydraulic pressures to 400 PSI
- Supplied with a 16C collet wrench



# Machine Tool Accessories

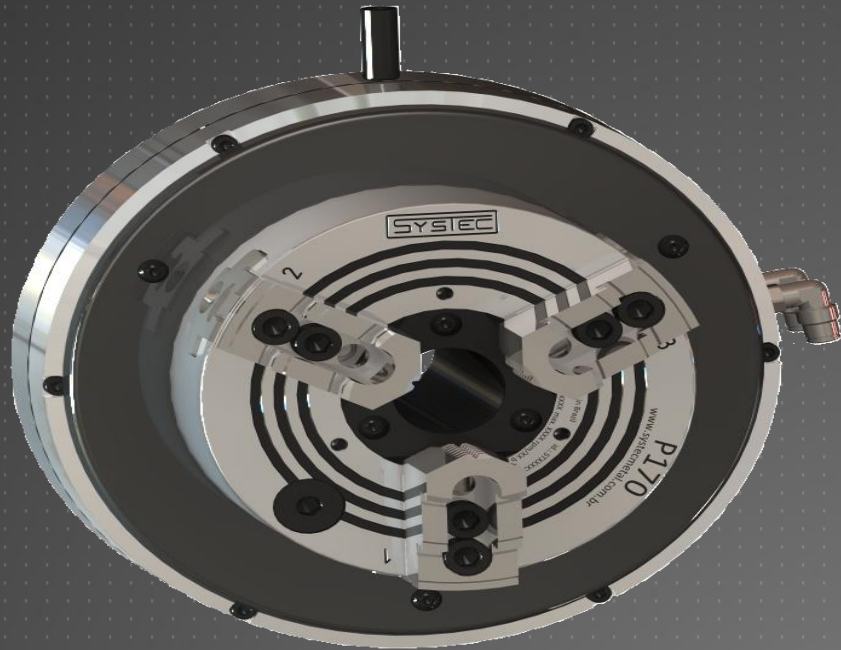
## Applications and Industries Serviced by Our Collet Closers

- Part holding for assembly applications
- Part holding for machining or grinding applications
- Part holding for inspection and test procedures
- High force units can be used for crimping operations
- Models available are excellent for tool room and production environments
- Modular units are easily combined into fixtures - We can design and manufacture custom turnkey solutions to meet the demands of all your workholding requirements

### Industries served include:

- Electronics
- Dental
- Heavy Equipment
- Automotive
- Aerospace
- Power and Hand Tools
- Medical
- Machine Tool
- General Industrial

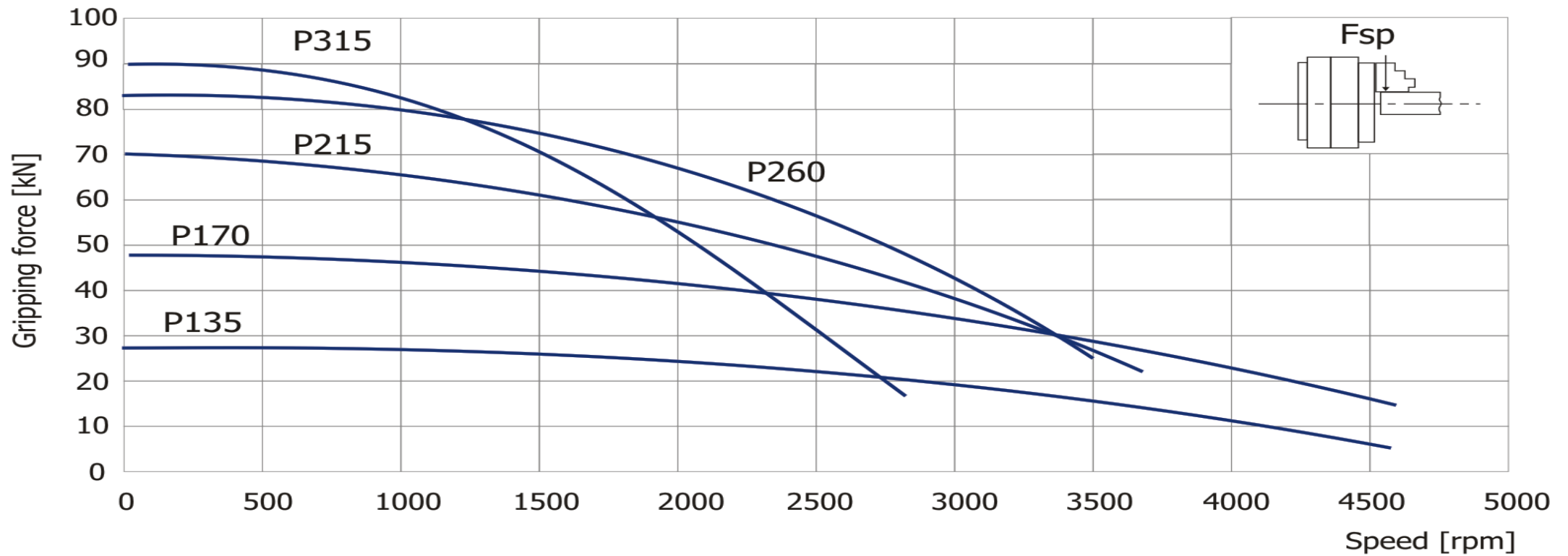
# SYSTEC Self Contained Pneumatic Power Chucks



- Greater rigidity and durability
- No adjustment of Teflon elements is necessary
- 15 % Higher RPM capability than previous models
- 45 % More gripping force than previous models
- Fast clamp and unclamp times
- Environmentally friendly
- Available in 2, 3, and 4 jaw versions
- All sizes available in inch or metric serrations
- Bodies are hardened to 62 Hrc and precision ground
- Internal safety valves prevent loss of air pressure and gripping force
- Five sizes are available up to 12" diameter to meet your application requirements

# SYSTEC Self Contained Pneumatic Power Chucks

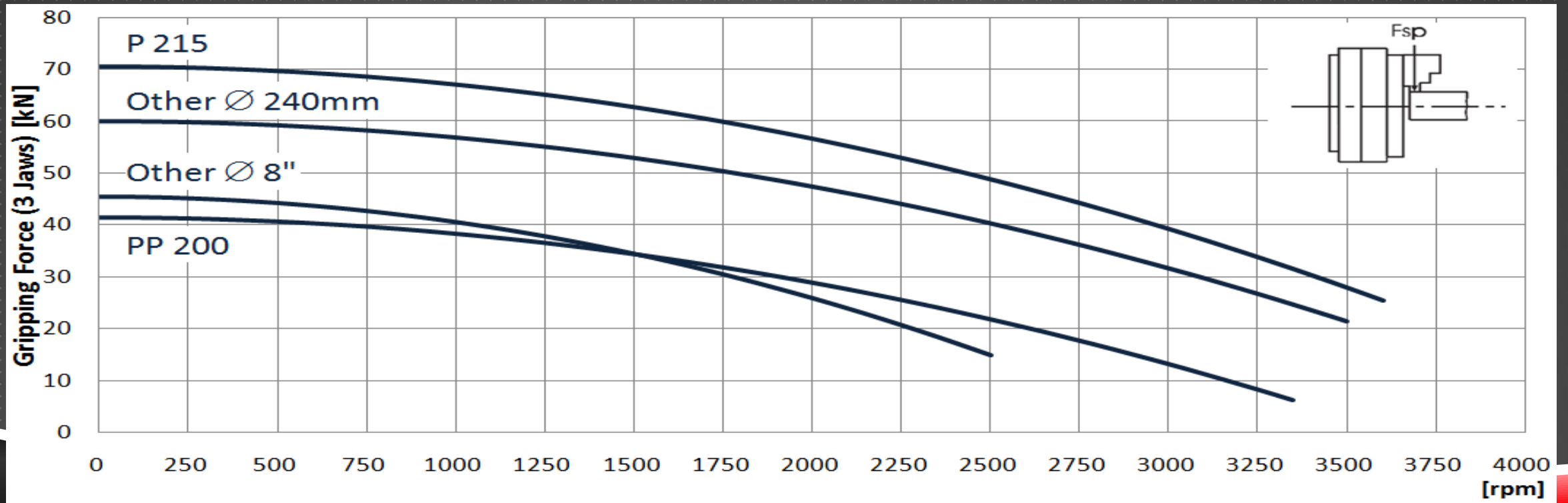
Gripping force while actuated at 87 PSI (6 bar)





# SYSTEC Self Contained Pneumatic Power Chucks

Gripping force comparison with other typical manufacturers





- ▶ Europe's premier manufacturer of lathe automation
- ▶ Large diameter and long bar loading/unloading automation systems
- ▶ Work piece loading/unloading automation systems

BREUNING IRCO

# PROFimat

- ▶ 0.196" (5mm) to 5.125" (130mm) Diameter range
- ▶ 6 or 8 channels
- ▶ Up to 6m standard, longer lengths upon request
- ▶ Allows quick change between bar stock sizes automatically
- ▶ Moves one meter back for spindle liner change
- ▶ Decreases total change over time to 5 to 10 minutes
- ▶ Suitable for short and long run applications





**BREUNING** 

**POWER**TURNING



PROFImat Application





PROFImat Loader  
SiMag ERV Unloader

# SiMag

- ▶ 0.196" (5mm) to 5.125" (130mm) diameter range
- ▶ One channel included
  - ▶ Can purchase additional channel sets
- ▶ 10 ft. (3000mm), 13 ft. (4000mm), or 20 ft. (6000mm)
  - ▶ Other lengths upon request
- ▶ Moves one meter back for spindle liner change
- ▶ Ability to attach bundle loader to barfeed



# SiMag Application

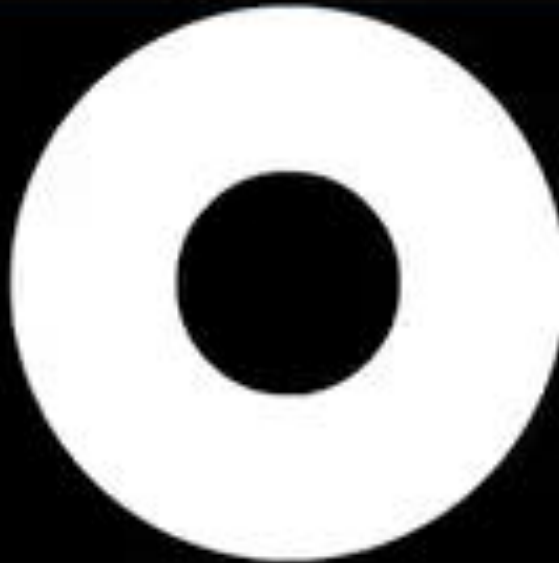


# ILS-RBL / TBL

- ▶ Loading for semi-finished parts
- ▶ RBL - Tray table loading for parts
- ▶ TBL - Index conveyor for loading delicate or non rolling parts
- ▶ Max diameter to be loaded is 3.194" (80mm) or 4.724 (120mm)
- ▶ Max length is 31" (800mm) or 47" (1200mm)
- ▶ Collet loading for precision parts



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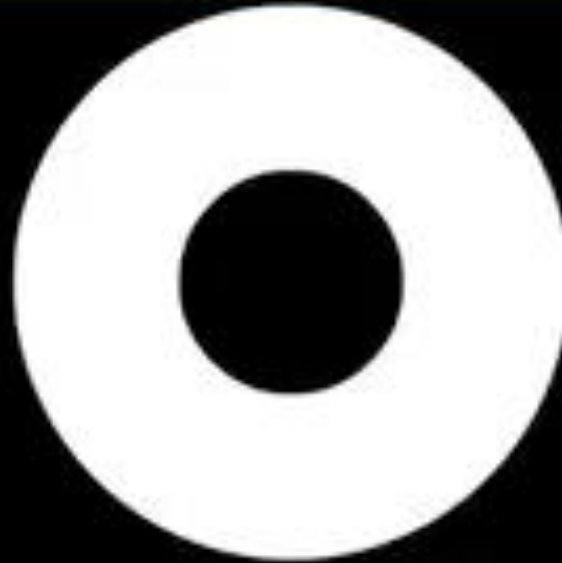
# ILS-REX/TEX

- ▶ Unloading for finished parts
- ▶ REX - Tray table unloading for parts
- ▶ TEX - Index conveyor for unloading delicate or non rolling parts
- ▶ Max diameter to be unloaded is 3.194" (80mm) or 4.724 (120mm)
- ▶ Max length is 31" (800mm) or 47" (1200mm)
- ▶ ID and OD collet unloading for parts
- ▶ For delicate parts a pusher tube with bushings protects part during unloading





BREUNING *Handwritten signature*



**POWER**TURNING