

A man wearing safety glasses and a dark green shirt is operating a lathe in a workshop. The lathe is a large, complex machine with various components like the headstock, tailstock, and carriage. The man is looking intently at the workpiece. The background shows a typical workshop environment with tools and equipment.

J E T®

J E T®

ZH SERIES LATHES

EMPOWERING SHOP PERFORMANCE

JETTOOLS.COM

The JET logo consists of a red horizontal bar above the word "JET" in a bold, black, sans-serif font. A small registered trademark symbol (®) is located to the right of the letter "T".

J E T

ZH SERIES LATHES

Introducing NEW ZH Geared Head Large Spindle Bore Lathes

The new JET ZH lathes combine the best features of our top line manual lathes with many new features and benefits. The ZH lathe has a 4-1/8" spindle bore.

Clutch-operated headstock with all gears hardened and ground to provide the operator the ability to stop and start the lathe while the motor continues to run. This eliminates additional wear and tear on the motor.

Applying the clutch also gives you the ability to reduce the torque output on the spindle and to slip the clutch for jogging the spindle.

The headstock gearbox is designed for quick setup of threading without changing gears. All adjustments are done using the dials conveniently located on the front of the lathe.

The rapid power traverse on the cross slide and carriage is a great addition to these lathes and provides easy access to your work piece.

The one piece casting on GH-2680ZH allows for heavy cuts while eliminating flexing.

THIS IS THE PERFECT LATHE FOR PRODUCTION USE

THE ADVANTAGE

DEPTH AND BREADTH OF LINE



- JET Offers a range of manual Belt Drive, Geared Head bench, Engine and Large Spindle Bore and CNC Lathes.
- JET will customize your lathe installing DRO's, collet closers, and taper attachments or any combination to suit your production needs.

QUALITY



JET lathes are built and tested in our factories to deliver consistent quality and tolerances.

INNOVATIVE PRODUCTS



- JET is committed to ongoing innovation.
- JET continues to research the needs of marketplace and bringing new products that meet those needs demonstrated with the new ZH Lathes.

PROFESSIONAL MANUALS



JET manuals are professionally written by engineers for ease of use. All manuals come complete with parts breakdown and electrical drawings.

INDUSTRY LEADING WARRANTY



JET offers a 2 Year Warranty; the longest warranty in the industry, confirming our confidence in the quality of our design and workmanship.



RELIABILITY

- U.S. Customer Service
- Industry Leading Warranties



EXPERTISE

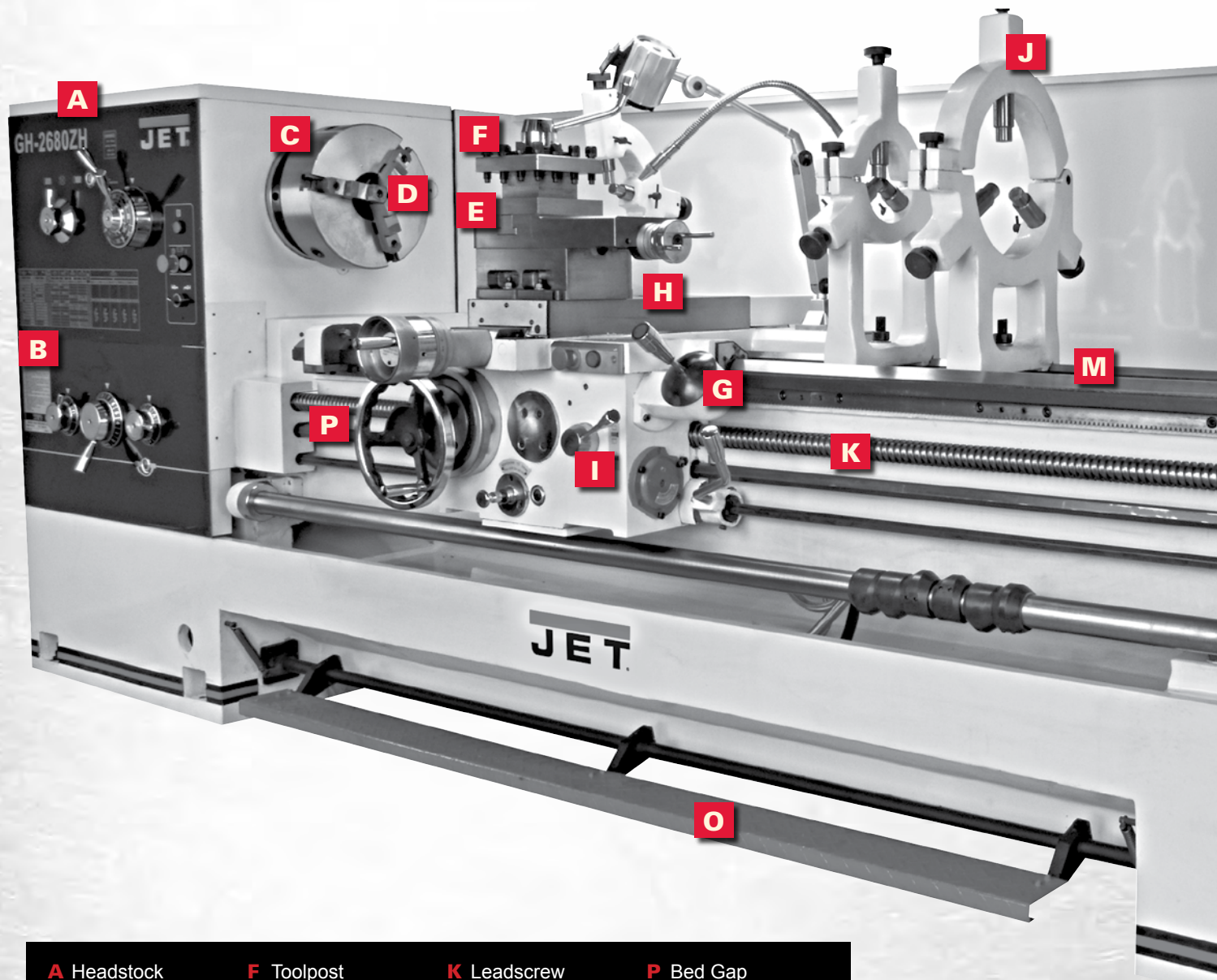
- U.S. Tech Support
- Authorized Service Centers In All 50 States



DEPENDABILITY

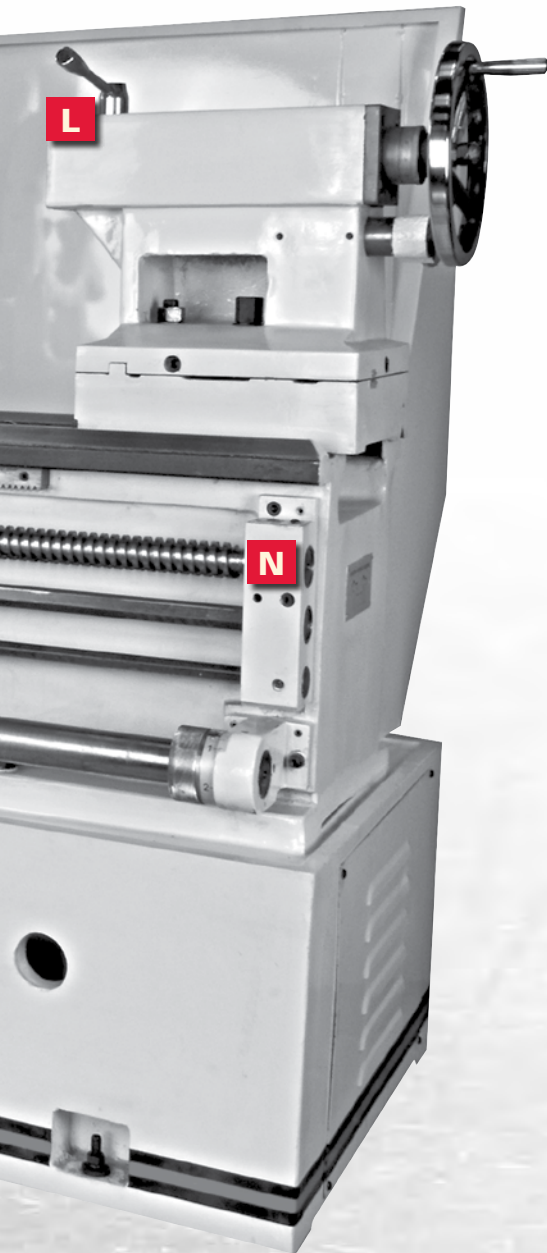
- Extensive Online Resources
- 40,000+ Unique Parts In Stock

TURNING OVERVIEW



- | | | | |
|------------------------|--------------------------|---------------------|------------------|
| A Headstock | F Toolpost | K Leadscrew | P Bed Gap |
| B Gearbox | G Powerfeed Lever | L Tailstock | |
| C Spindle | H Carriage | M Bed | |
| D Chuck | I Threading Dial | N Feed Rod | |
| E Compound Rest | J Steadyrest | O Foot Brake | |

JET



JET STRIVES TO MAKE YOUR JOB EASIER, BY PROVIDING YOU WITH SOME BASIC AND HELPFUL INFORMATION ON ALL OF OUR TURNING PRODUCTS.

ENGINE LATHES

The size of an engine lathe is determined by the largest piece of stock that can be machined. Before machining a workpiece, the following measurements must be considered: the diameter of the work that will swing over the bed and the length between lathe centers.

Engine lathes all have the same general functional parts; the bed is the foundation of the working parts of the lathe. The main feature of its construction is the ways which are formed on its upper surface and run the full length of the bed. Ways provide the means for holding the **tailstock** and **carriage**, which slide along the ways, in alignment with the permanently attached **headstock**.

The **headstock** is located on the operator's left end of the lathe bed. It contains the main spindle and oil reservoir and the gearing mechanism for obtaining various spindle speeds and for transmitting power to the feeding and threading mechanism. The headstock is driven by an electric motor connected either to a belt, pulley or geared system. The spindle has a hole through its entire length to accommodate long workpieces.

The **tailstock** is located on the opposite end of the lathe from the headstock. It supports one end of the workpiece when machining between centers, supports long pieces held in the chuck, and holds various forms of cutting tools such as drills, reamers and taps.

The **carriage** includes the apron, saddle, compound rest, cross slide, **tool post** and the cutting tool. It sits across the ways and in front of the bed. The function of the carriage is to carry and move the cutting tool. It can be moved by hand or power and can be clamped into position with a locking nut. The saddle carries the cross slide and the compound rest. The cross

QH-2680ZH FEATURES

FEATURES

- Clutch operated headstock with all headstock gears hardened and ground
- Rapid power traverse on cross slide and carriage
- Headstock-gearbox designed for quick setup of thread turning operation without changing gears.
- Bed ways are induction hardened and ground for durability
- Heavy-duty tailstock and quill
- One piece heavy-duty cast iron base and bed

STANDARD EQUIPMENT

- Drive Plate
- 12" 3-jaw direct mount scroll chuck with top reversing jaws
- 16" 4-jaw chuck
- Face Plate
- 2 Steady Rests
- Follow Rest
- 4 Way tool post
- Coolant System
- Full length splash guard
- Halogen work lamp



QH-2680ZH SPECIFICATIONS



STOCK NUMBER	321860
Max. swing over bed (in.)	26
Max. swing over cross slide (in.)	16.5
Swing Through Gap (in.)	34
Length of Gap (in.)	8
Distance between Centers (in.)	80
Hole Through Spindle (in.)	4-1/8
Spindle Mount	D1-8
Spindle Taper	MT-5
Number of Spindle Speeds	12
Range of Spindle Speeds (RPM)	36-1,600
Number of Longitudinal Feeds (in.)	65
Range of Longitudinal Feeds (Inch/rev)	.023-.937
Number of Cross Feeds	63
Range of Cross Feeds (Inch/rev)	.0010-.0404
Number of Inch Threads	48
Range of Inch Threads	2-30
Number of Metric Threads	22
Range of Metric Threads (mm)	1-14
Number of D.P Threads	24
Range of D.P Threads	4-56
Number of Module Threads	18
Range of Module Threads (mm)	0.5-7
Max.Tool Size	1-1/4 x 1-1/4
Max. Compound Slide Travel (in.)	5-1/2
Max.Cross Slide Travel (in.)	12-3/32
Max. Carriage Travel (in.)	72-1/2
Tailstock Spindle Travel (in.)	6
Taper in Tailstock Spindle	MT-5
Follow Rest Capacity	25/32 - 3-15/16
Steady Rest Capacity -Small	25/32 - 4-29/32
Steady Rest Capacity -Large	3-15/16 - 9-7/16
Width of Bed (in.)	16
Coolant Pump System	1/8HP
Main Motor	10HP, 230/460V, 3Ph
Prewired	230V
Net Weight (lbs)	8514
Overall Dimensions (LxWxH/Inch)	138 x 43 x 57

TURNING

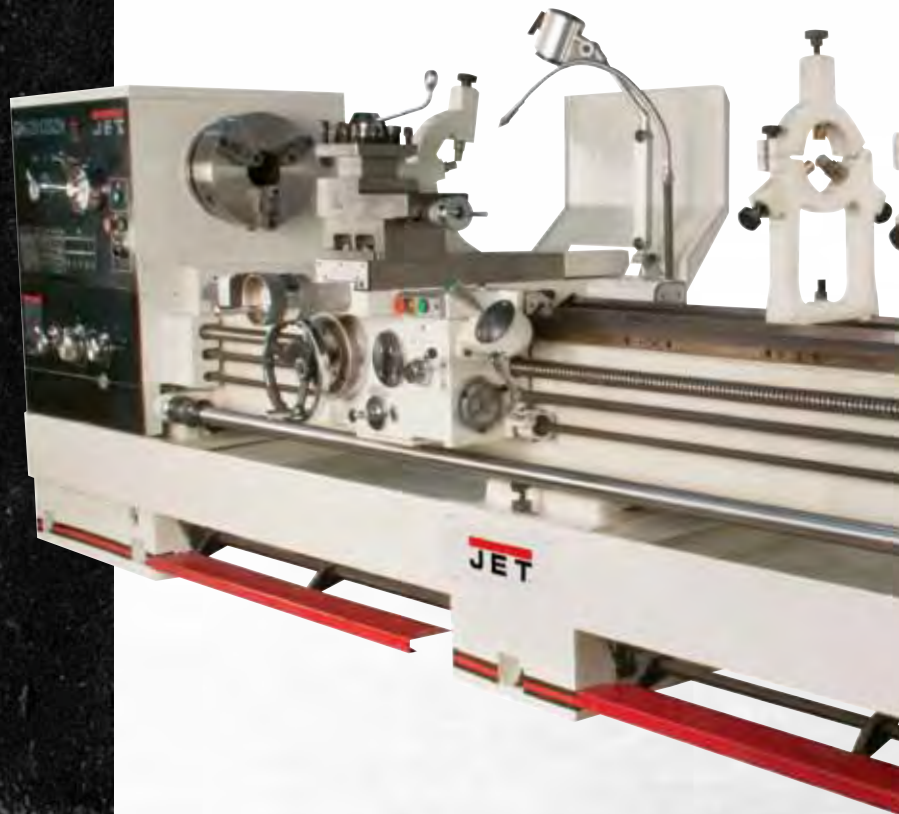
QH-26120ZH FEATURES

FEATURES

- Clutch operated headstock with all headstock gears hardened and ground
- Rapid power traverse on cross slide and carriage
- Headstock-gearbox designed for quick setup of thread turning operation without changing gears.
- Bed ways are induction hardened and ground for durability
- Heavy-duty tailstock and quill

STANDARD EQUIPMENT

- Drive Plate
- 12" 3-jaw direct mount scroll chuck with top reversing jaws
- 16" 4-jaw chuck
- Face Plate
- 2 Steady Rests
- Follow Rest
- 4 Way tool post
- Coolant System
- Traveling splash guard
- Halogen work lamp



QH-26I20ZH SPECIFICATIONS



STOCK NUMBER	321890
Max. swing over bed (in.)	26
Max. swing over cross slide (in.)	16.5
Swing Through Gap (in.)	34
Length of Gap (in.)	8
Distance between Centers (in.)	120
Hole Through Spindle (in.)	4-1/8
Spindle Mount	D1-8
Spindle Taper	MT-5
Number of Spindle Speeds	12
Range of Spindle Speeds (RPM)	36-1,600
Number of Longitudinal Feeds (in.)	65
Range of Longitudinal Feeds (Inch/rev)	.023-.937
Number of Cross Feeds	63
Range of Cross Feeds (Inch/rev)	.0040-.0404
Number of Inch Threads	48
Range of Inch Threads	2-30
Number of Metric Threads	22
Range of Metric Threads (mm)	1-14
Number of D.P Threads	24
Range of D.P Threads	4-56 DPI
Number of Module Threads	18
Range of Module Threads (mm)	0.5-7
Max.Tool Size	1-1/4 x 1-1/4
Max. Compound Slide Travel (in.)	5-1/2
Max.Cross Slide Travel (in.)	12-3/32
Max. Carriage Travel (in.)	108-1/4
Tailstock Spindle Travel (in.)	6
Taper in Tailstock Spindle	MT-5
Follow Rest Capacity	25/32 - 3-15/16
Steady Rest Capacity -Small	25/32 - 4-29/32
Steady Rest Capacity -Large	3-15/16 - 9-7/16
Width of Bed (in.)	16
Coolant Pump System	1/8HP
Main Motor	10HP, 230/460V, 3Ph
Prewired	230V
Net Weight (lbs)	9362
Overall Dimensions (LxWxH/Inch)	178 x 43 x 57

TURNING

COMMON LATHE FEATURES

With a tradition of innovation and quality, JET has maintained the confidence of our customers for over 50 years. Whether a Fortune 500 manufacturer or small machine shop, we drive to develop machines that are more efficient, last longer and increase productivity.



Attractive control levers, dials and knobs



3-Jaw Scroll Chuck mounted for ease of use



Carriage features One-shot lubrication and Turcite B on slide surfaces



Every JET lathe complete with a 4-way toolpost



Easy to read Threading Dial



Extra large 4-1/8" Spindle Bore



LED Work Lamp



Easy to use foot brake



Joy stick design on the rapid power traverse on the cross slide and carriage makes it easier to use and comfortable in your hand.

ACCESSORIES: DIGITAL READOUTS



JET will install the DRO of your choice. You can add a 2-Axis DRO from either Acu-Rite or Newall. We can also install a taper attachment! Add a set of 5-C collets to make your turning job easier.

Taper attachment 321393 available for installation Max. taper length that can be cut is 180mm (approx. 7-1/16"). Max. half angle of the taper that can be cut is 10°.

200S

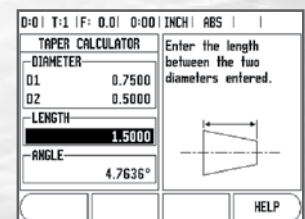
As the industry standard in digital readout systems, the Acu-Rite 200S offers state-of-the-art features for milling, turning and grinding applications.

Common Features

- 2 or 3 axis 5.7" Transmissive LCD display
- Job Clock
- Feed Rate Display
- Multiple Language Support
- Absolute/Incremental
- Near-Zero Warning
- Help Function
- 16 Tool Offsets/Diameter
- Preset and zero reset
- 4 Function Calculator/Trig Calculator
- Instant Inch/mm conversion
- Position-Trac™ Home Reference

Turning Specific Features

- Lock axis feature
- Instant radius/diameter conversion
- Taper Calculator
- CSS (option)



ACCESSORIES: DIGITAL READOUTS

300S

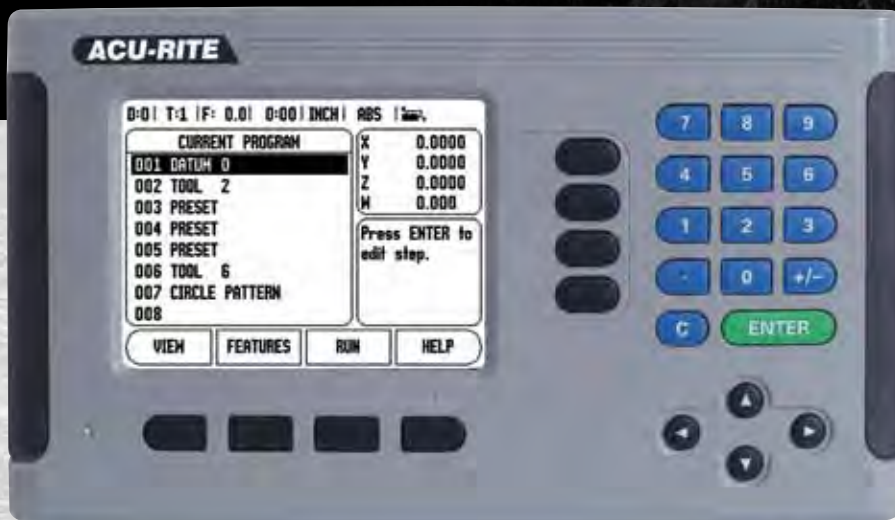
The Acu-Rite 300S is a fully programmable 4 axis readout system, now available with a full color display. With the capability to store and create a library of programs the 300S is everything you need to create, edit and execute programs on your manual machine tool.

Common Features

- 2, 3 or 4 axis 5.7" Full Color Display
- Multiple program names with numerous steps
- Multiple display views
- Job Clock
- Feed Rate Display
- Multiple Language Support
- Absolute/Incremental
- Near-Zero Warning
- Help Function
- 16 Tool Offsets/Diameter
- Preset and zero reset
- 4 Function Calculator/Trig Calculator
- Instant Inch/mm conversion
- Position-Trac™ Home Reference

Turning Specific Features

- Lock axis feature
- Instant radius/diameter conversion
- Taper Calculator



DP700

The DP700 is the latest in Newall's line of a powerful and intuitive DROs. The unit is housed in a rugged, ergonomically designed casting. The DRO features all of the essential functions for milling, boring, turning, grinding, and general machining operations.

Common Features

- Clean, Crisp, Easy to Read, LEDs
- Intuitive Message Window
- Long Life Membrane Keypad
- Solid cast construction
- Safe, Low Voltage Power Supply (UL)
- Panel Mount Version Available
- Feed Rate Display
- Bolt Hole Circle Routine
- Line Hole Routine
- Arc Contouring
- Programmable Memory/Teach
- Polar Coordinates
- Line Hole Calculator
- Tool Offsets
- Taper Calculations
- Axis Vectoring/Summing
- Linear and Segmented Error Comp.
- Undo
- RS232 Output
- Languages: English, French, German, Spanish, Italian, Turkish, Czech, Russian, Portuguese, Danish

The DP700 is compatible with Newall's Spherosyn and Microsyn encoders which withstand the harshest shop conditions.

DP900

Setting new performance standards, the DP900 integrates the latest innovations in electronic design, housed in a rugged die-cast chassis. The feather-touch keypad ensures long life and stability throughout the rugged shop environment. The DRO offers flexible features tailored for milling or turning applications. Plus, with the use of a touch probe, part inspection calculations can be performed without removing the part from the machine.

Common Features

- Rugged Die-Cast Chassis
- Feather-Touch, Cap-Sense Keypad
- 5.7" QVGA Blue STN with CCFL Backlight
- 2, 3, or 4 Axis with Optional Rotary Axis
- Graphical Tool Path Verification
- Customized Canned Cycles
- Remote Storage via USB Port
- CMM / Inspection Functions with Probe Capabilities
- Feed Rate Display
- Polar Co-ordinate Readings
- Touch Probe Input
- Teach Mode with Graphics

Turning Specific Features

- Taper Calculation
- Vectoring
- Tool Offsets (99)
- Axis Summing
- Radius / Diameter Readings

NEWALL



TURNING

ACCESSORIES: TAPER ATTACHMENT & 5-C COLLET SETS & RACKS

TAPER ATTACHMENT

- Specially designed for each model
- 10° inclusive cutting capacity
- Mounts to predrilled and tapped holes
- Factory installation available



STOCK NUMBER	MODEL NUMBER	MAX. TAPER LENGTH (IN.) AT 10° ANGLE
321393	ZH	7-1/16

5-C COLLET SETS & RACKS

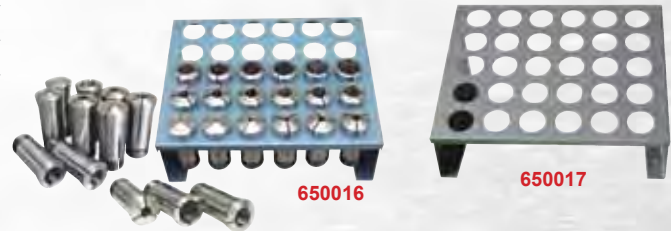
- Precision hardened and ground
- C Collets for use on lathes
- Premium collets with 0.0005mm T.I.R.

STOCK NUMBER	DESCRIPTION
650014	CS-5C 16 pcs 5-C collet set 1/8" to 1 1/16" by 1/16th
650015	18 pc Premium 5C collet set 1/16" to 1-1/8" by 16th with Metal Rack
650016	35 pc Premium 5C collet set 1/16" to 1-1/8" by 32nds with Metal Rack
650017	Metal collet rack holds 30 5C collets
650018	Metal collet rack holds 72 5C collets



650014

650015



650016

650017

MARKET SEGMENTS - KEY END USERS



Tool and Die Shops



Maintenance Operations



Machine Shops



Production Floor



Petro Chemical Plants

Machine Specifiers

The following are the key buying contacts of standard machine tools.

- Company management/owners
- Plant & production management
- Design & research engineering
- Tool room manager/foreman
- Maintenance & facility management
- Production / Industrial engineering Purchasing
- Quality control management
- Tool crib

JET Lathes are designed, engineered and built with our customers in mind. With increased productivity, efficiency and reliability, you will see a quick return on your investment.

TURNING



Stock No. 904306

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Walter Meier (Manufacturing) Inc.

Lavergne, TN 37086 U.S.A.

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