



F103A F104A F105A



OPTIONAL EQUIPMENT CATALOG

MANUFACTURED BY:

ROTTLER MANUFACTURING LLC
8029 South 200th Street
Kent Washington 98032
USA

ORDERING PROCEDURE

Contact your regional Rottler sales rep for assistance in ordering optional equipment, replacement parts, or tooling.

If you are unable to contact your regional Rottler sales rep, call the factory at 253-872-7050 and ask to speak to the parts sales specialist.

Have the following information handy to expedite the ordering process:

1. Your name, business name, and contact number
2. Customer number
3. If you don't have a customer number, your billing address
4. Shipping address if different from billing address
5. Machine model and serial number
6. Part number and description of what you want to order
7. Preferred method of shipment

You may also contact us via e-mail with the above information. Send e-mail requests to:
parts@rottermfg.com

In some cases you may be requested to send a photo of the part you are ordering if it is a replacement part, or doesn't appear in the database.

If you are unsure which part you need to order, contact our service department and ask to speak to one of our service consultants. They will assist you in determining which part you require.

THERE IS A MINIMUM ORDER OF \$25.00



F103A, F104A, F105A OPTIONAL EQUIPMENT CATALOG

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Conversational Touch Screen Software Packages

For Programmable Automated Engine Rebuilding Machine Work

9040 Boring and Sleeving Software

Including: (1) Circular Interpolation Counterbore Finishing for Corner Radius Undercut and Facing Very Wide Counterbores (2) Lower Offset for Boring Larger Diameters Commonly Found When Resleeving Lower Seal Areas of Wet Liner

9041 Surfacing Software

Including Multiple Pass Programmable Depth of Cuts Including Different Settings for Rough and Finish Milling/Surfacing.
Note: Software allows surfaces wider than flycutter to be machined.

9042 Line Boring Software

Including Circular Interpolation for Thrust Facing

9046 Lifter Bore Machining Software

9044 Connecting Rod Boring Software

9063 Software Package For Machining Lower Chamfers And Facing Counter Bores

Requires radial feeding adjustable cutterhead such as 6835 or 6757Z.

Rottler CAM (Computer Aided Manufacturing) Software

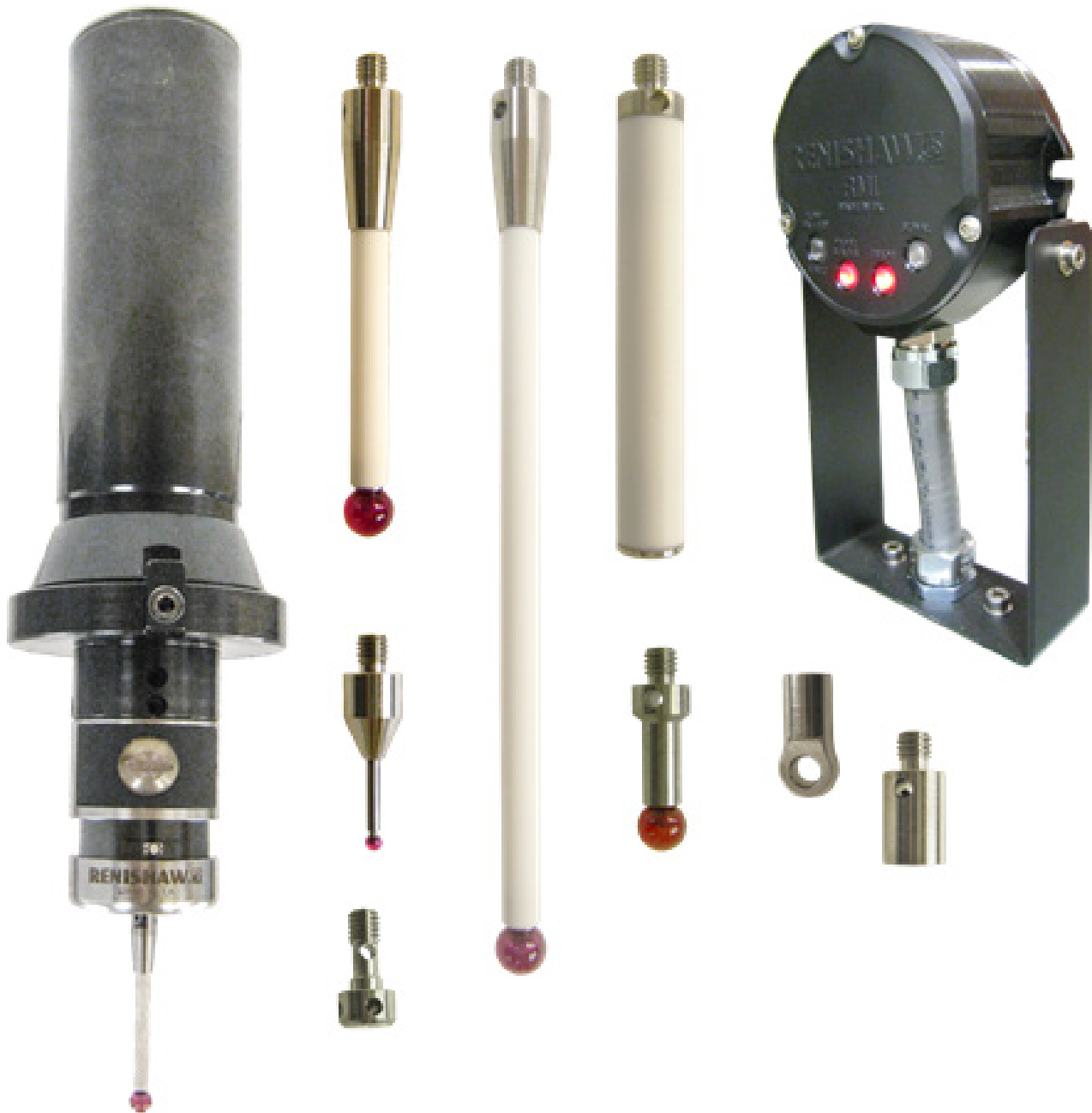
9043 Rottler CAM Software Package.

Wireless Probing System for Automatic Centering and Measuring

650-3-59X Renishaw Wireless Radio Probing System

Including a selection of (6) probes/stylus and Software for (1) Automatic Centering in Cylinder Bores (2) Measuring Cylinder Bore Diameters.

Price Includes Factory Installation During Machine Manufacture, Extra Charge Applies for Field Fitment.



Optional Equipment for Boring and Surfacing

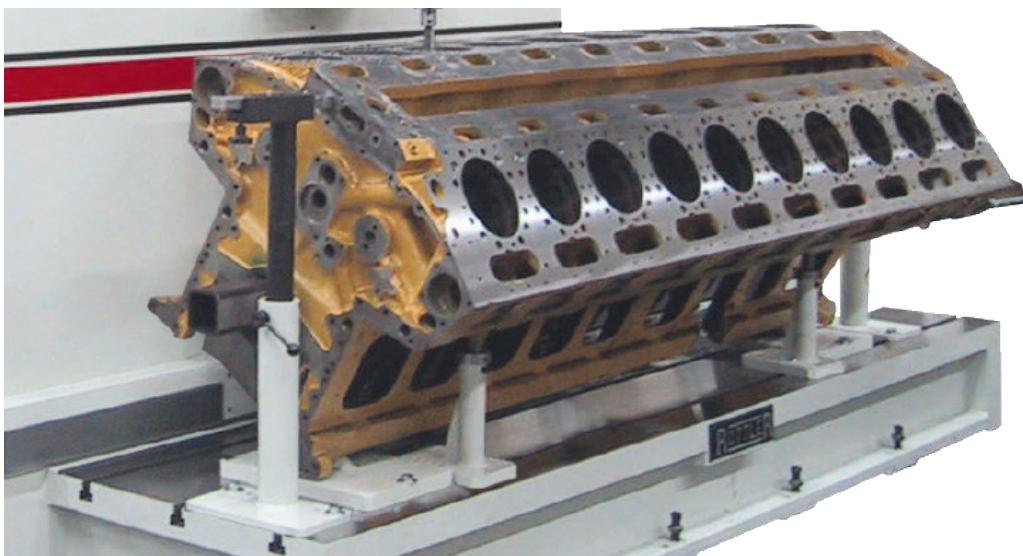
Fixturing for In-Line and V Blocks

6309N Tower Type Block Hold Down Clamps Set Of 2



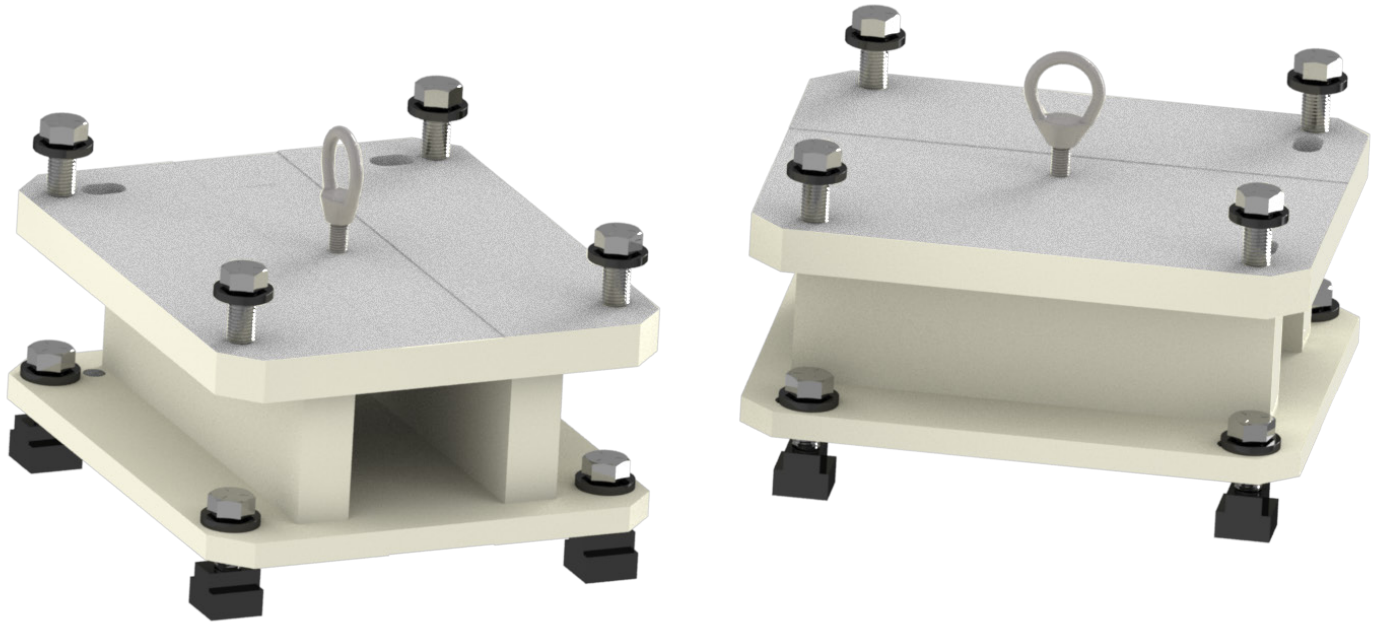
6405F Large V Block Fixture

For Blocks such as CAT 3500/399, Cummins K and QSK, MTU 4000, Waukesha 7042, etc. Requires locators.



6405L 6" (150mm) Parallel Risers

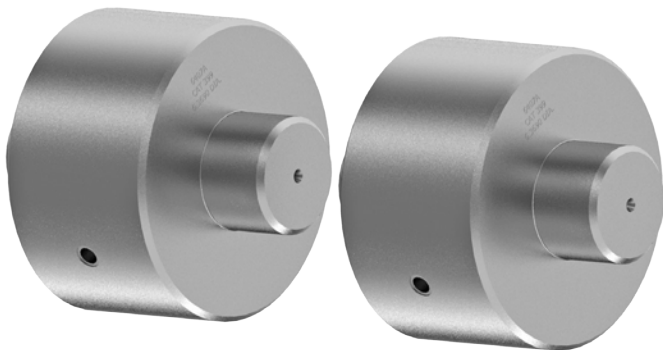
For 6405F Large V Block Fixture for low head gasket fire deck engine blocks such as MTU 4000, Jenbacher 3&4 and Cummins QSK & K50



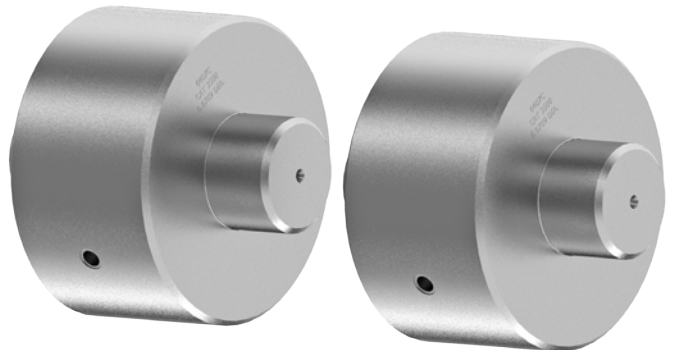
Main Bearing Bore Locator Sets for 6405F Block Fixture

(If Customer Requires Size Other than Available from Stock, Rottler will Manufacture the Required Size.) Customer Must Provide the Size, Including Tolerance of the Main Bearing Bore.

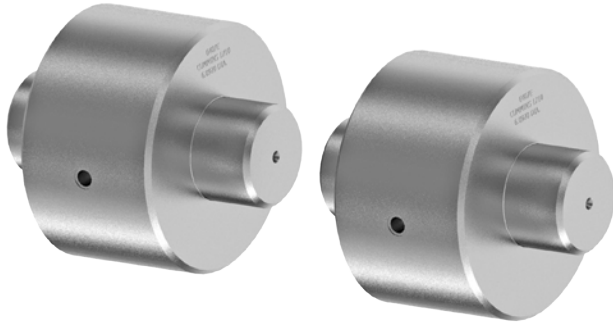
6407A Locator Assembly, Main, CAT 399 / Large V-Block Fixture (Matched Pair)



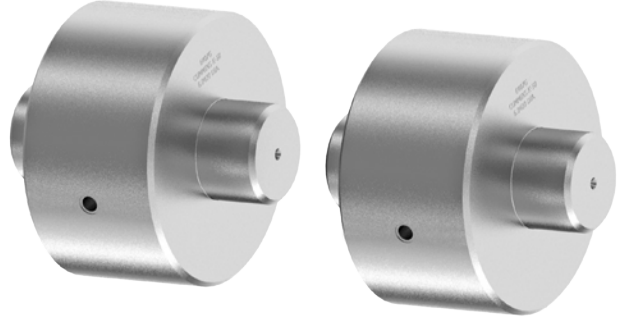
6407C Locator Assembly, Main, CAT 3500 / Large V-Block Fixture (Matched Pair)



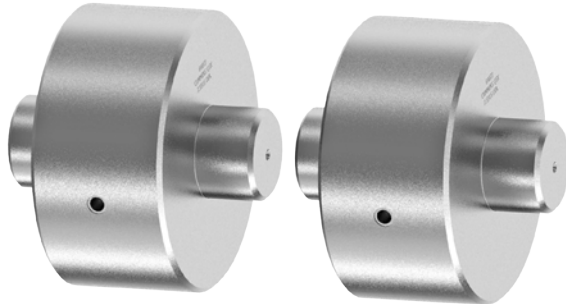
6407E Locator Assembly, Main, Cummins 1710 / Large V-Block Fixture (Matched Pair)



6407G Locator Assembly, Main, Cummins K50 / Large V-Block Fixture (Matched Pair)



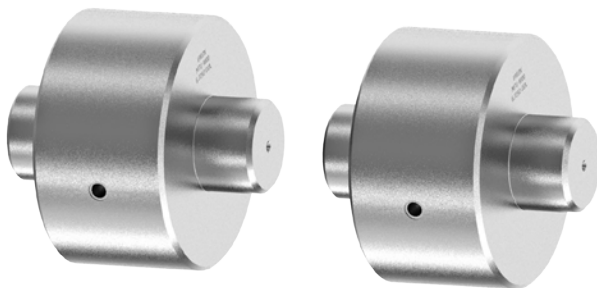
6407J Locator Assembly, Main, Cummins QSK / Large V-Block Fixture (Matched Pair)



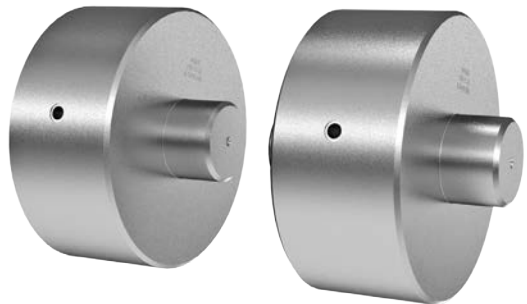
6407L Locator Assembly, Main, Waukesha 7042 / Large V-Block Fixture (Matched Pair)



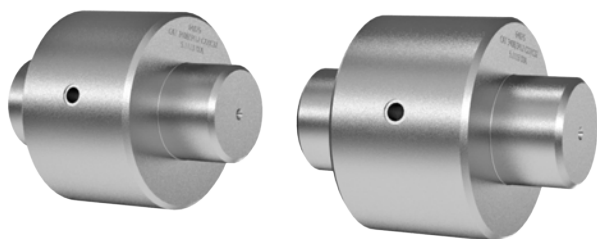
6407N Locator Assembly, Main, MTU 4000 / Large V-Block Fixture (Matched Pair)



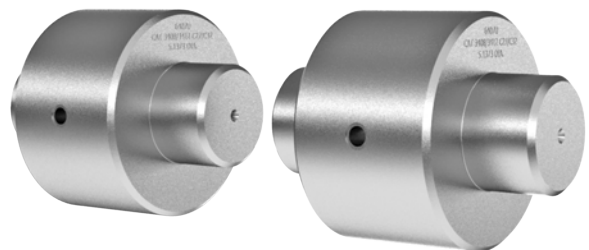
6407Q Locator Assembly, Main, CAT C175 / Large V-Block Fixture (Matched Pair)

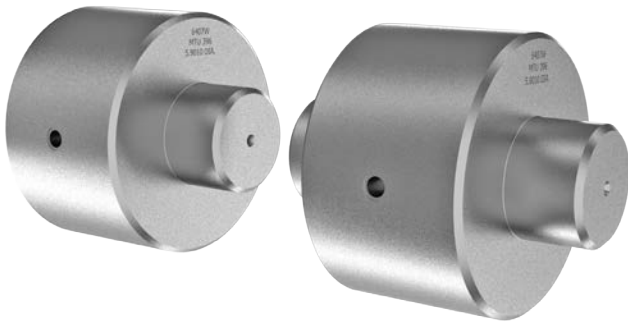


6407S Locator Assembly, Main, 5.1143 diameter bore (Matched Pair)



6407U Locator Assembly, Main, 5.1393 diameter bore (Matched Pair)

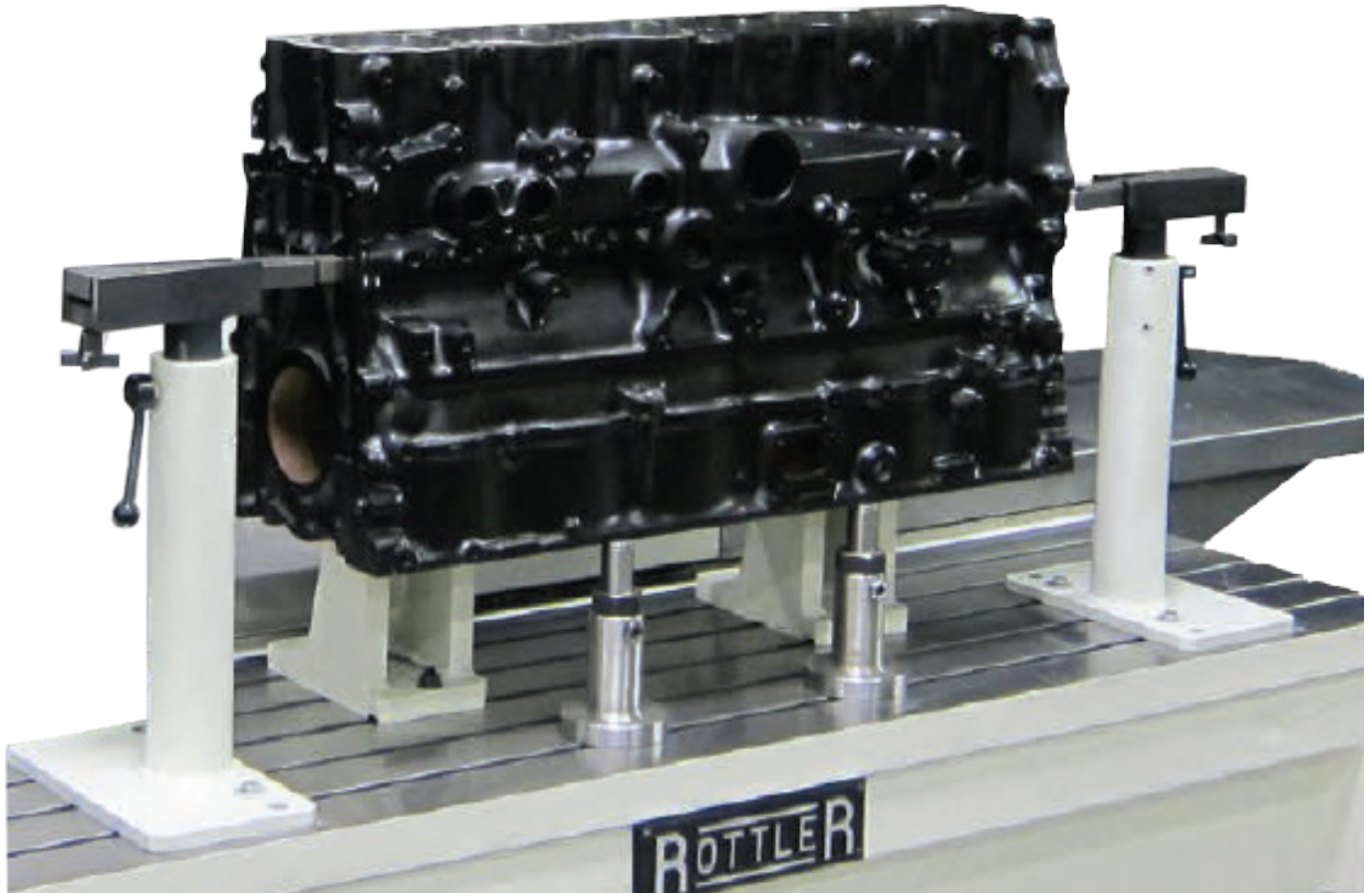


6407W Locator Assembly, Main, MTU 396

6419 Locator, Assembly, Main, Jenbacher 3,4.2095" (106.92mm) (Matched Pair)


6725 Small to Mid-Range In-Line and V Block Fixture

For Blocks Up to V12 Such as CAT C27/32 & 3412, Cummins NV12, Komatsu 170, Etc. Fixture Includes Five Pair Locators to Cover 2.5 - 6.0" (63.5 - 152mm) Main Line Diameter Range. Package includes 2" (50.8mm) bar to support small in-line and V-blocks, selection of locators available for most common blocks. See F60/F70 Locator catalog for listing of available locators.

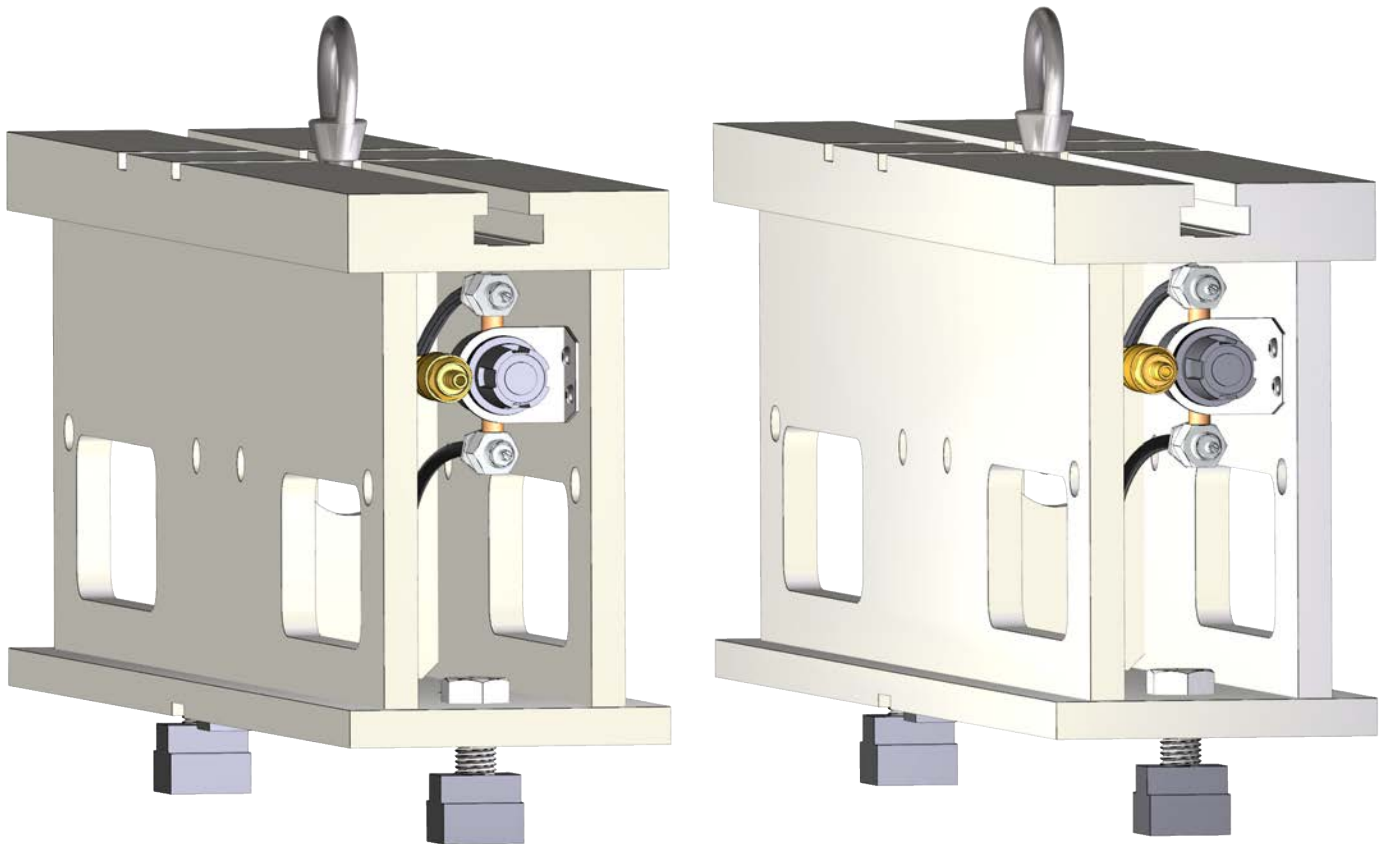
Note: 6725 requires 6370Z 10" (254mm) parallels.



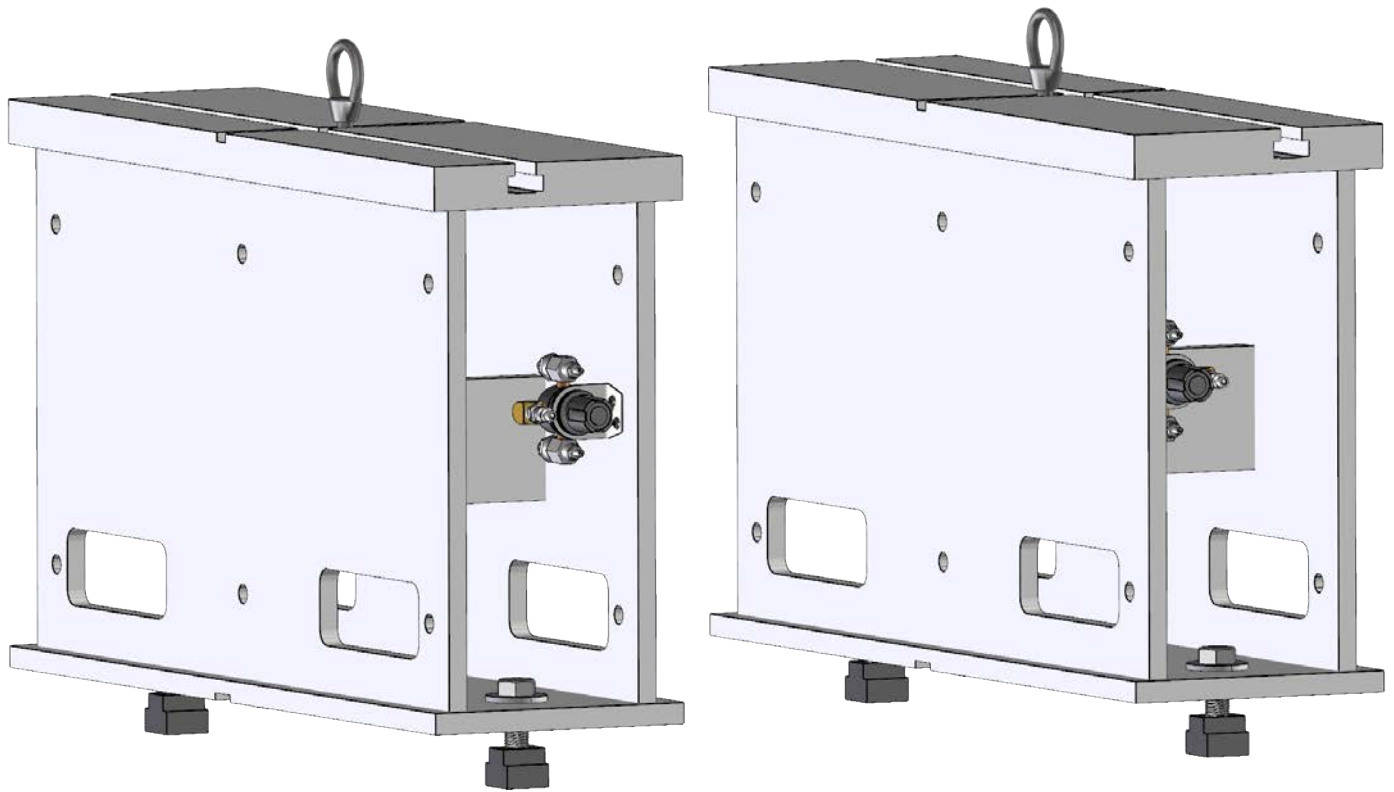
7152A Dual Axis Level Assembly



6370Z 10" (254mm) Parallels With Air Float



6370C 18" (457mm) Parallels With Air Float

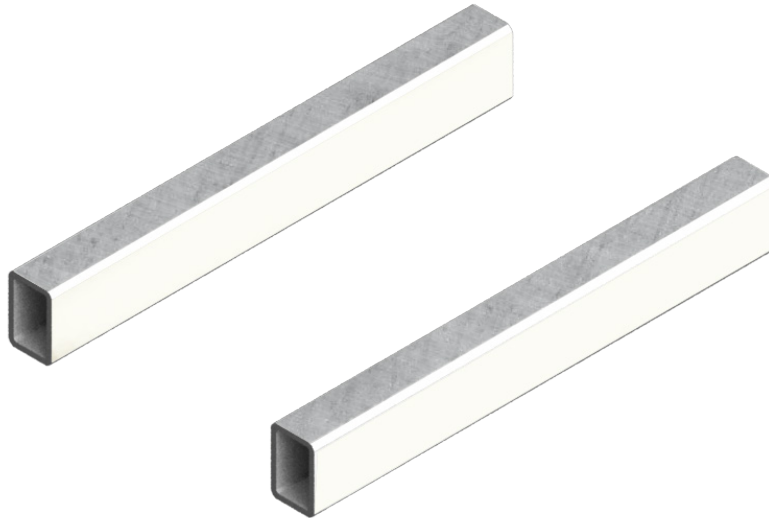


7219W 5.2" (132mm) Heavy Duty T-Slot Universal Parallels
Required when Machining Small In-Line Blocks on their Pan Rails.

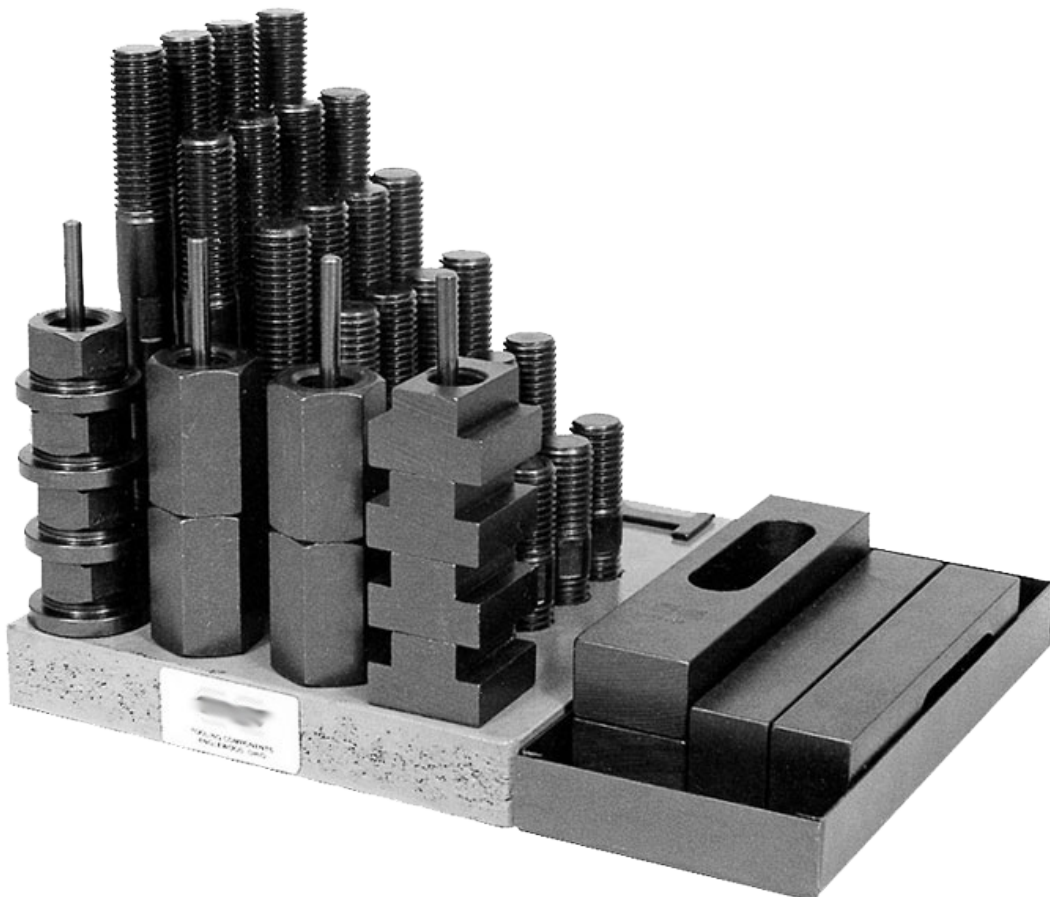


11115 2" (50mm) X 3" (75mm) Parallels

For general purpose machine work such as setting up in-line blocks on the pan or small single cylinders.



6511 3/4" (19.05mm) Clamp Kit



Fixturing for Surfacing Cylinder Heads and Manifolds

7209M Leveling Table with Air Float

Complete with Universal Work Holding System for Surfacing Cylinder Heads and Manifolds. Requires One Set of 6370C Parallels



7209N 2-Piece Vise

For Holding Exhaust Manifolds for Surfacing. Also Used for Surfacing Main Bearing Housing Caps in Preparation for Main Line Boring. Requires 7209M Leveling Table.



Adaptor for F60 Model Fixtures

9111A T-Slot Plate

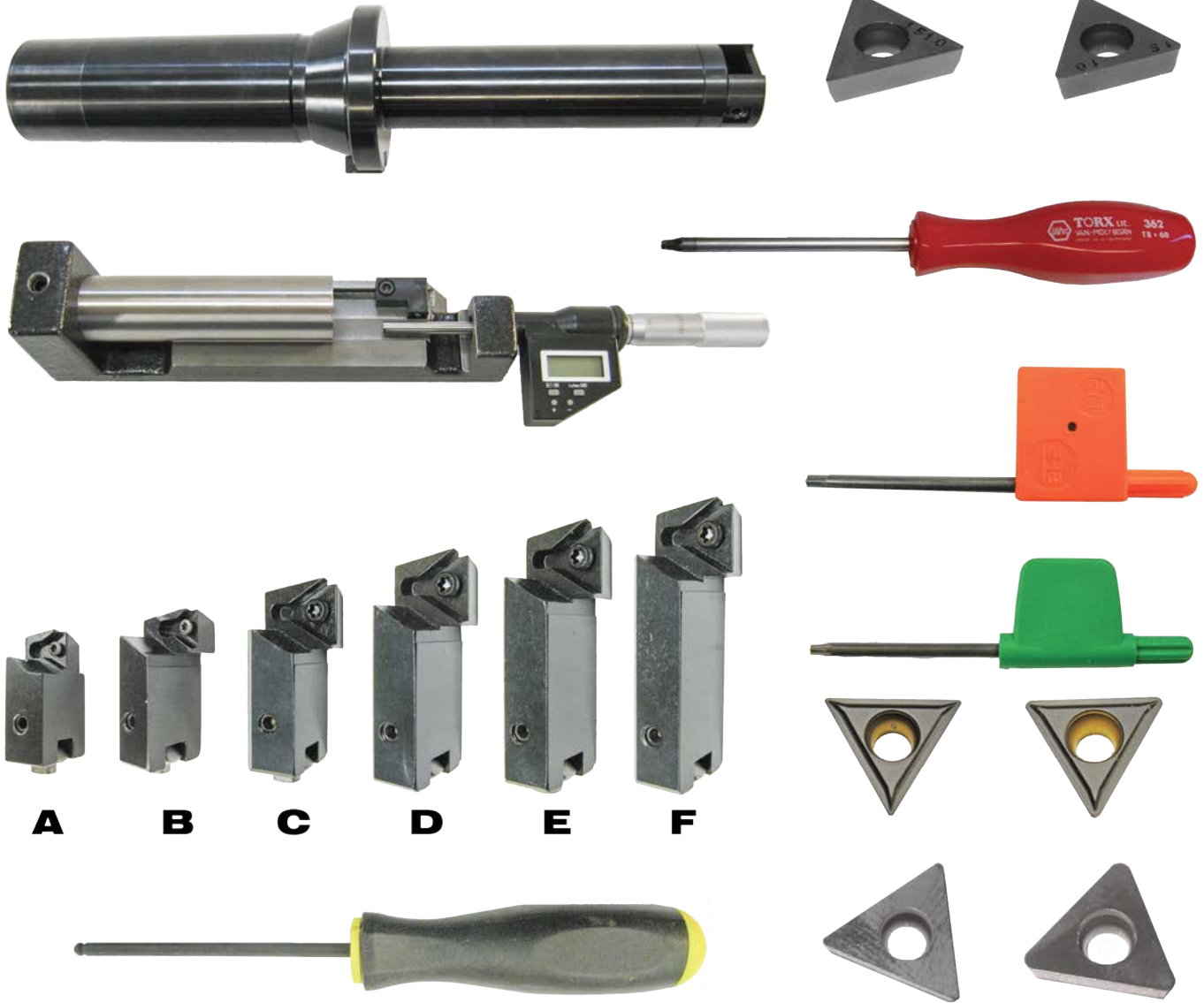
Allows use of F60 Performance Fixture, Pivot Table and Block End Truing Fixtures on F79A & F100 model machines.



Boring and Sleeving Tooling

6516H Blind Hole Stub Cutterhead Package

1.5 - 4.2" (38 - 107mm) diameter x 6.5" (165mm) length complete with tooling and Digital Micrometer



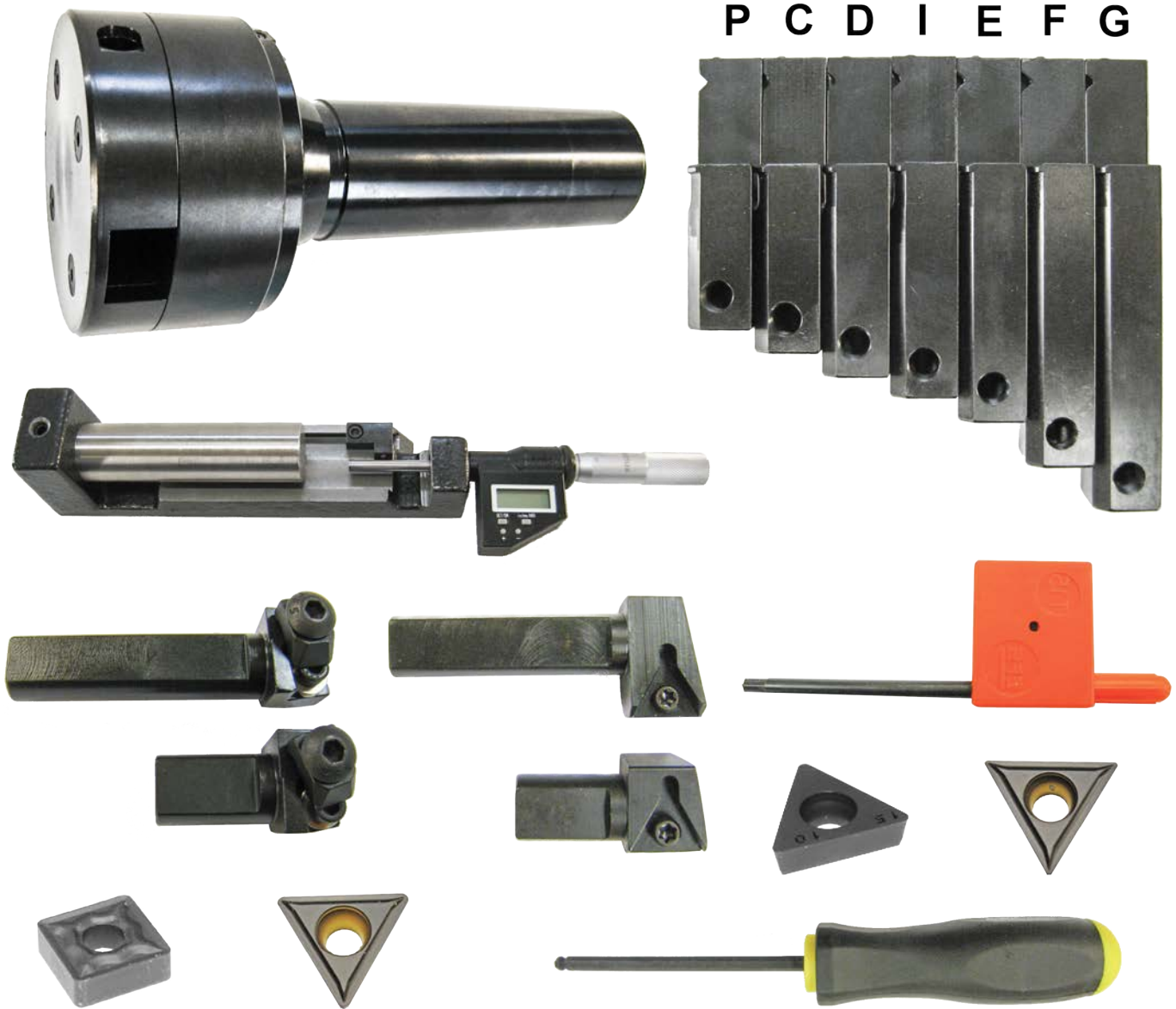
6519Z Blind Hole Stub Cutterhead Package

2.9 - 5.0" (74 - 152mm) diameter X 9.7" (246mm) length Complete With Tooling and Digital Micrometer



6256Q Blind Hole Cutterhead Package

4.5 - 9.0" (114 - 229mm) diameter complete with tooling and Digital Micrometer



6464J Blind Hole Cutterhead Package

8.0 - 14.0" (203 - 360mm) diameter complete with tooling and Digital Micrometer

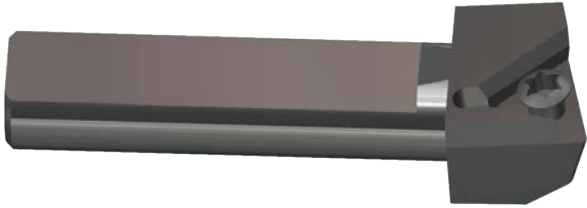


6588 Blind Hole Cutterhead Package

11.75 - 16" (298 - 406mm) diameter - Complete with tooling and Digital Micrometer



6593S Cartridge Assembly
Circular Interpolation Counterbore Facing



6598R Cartridge Assembly, Offset .250 (6.4mm)

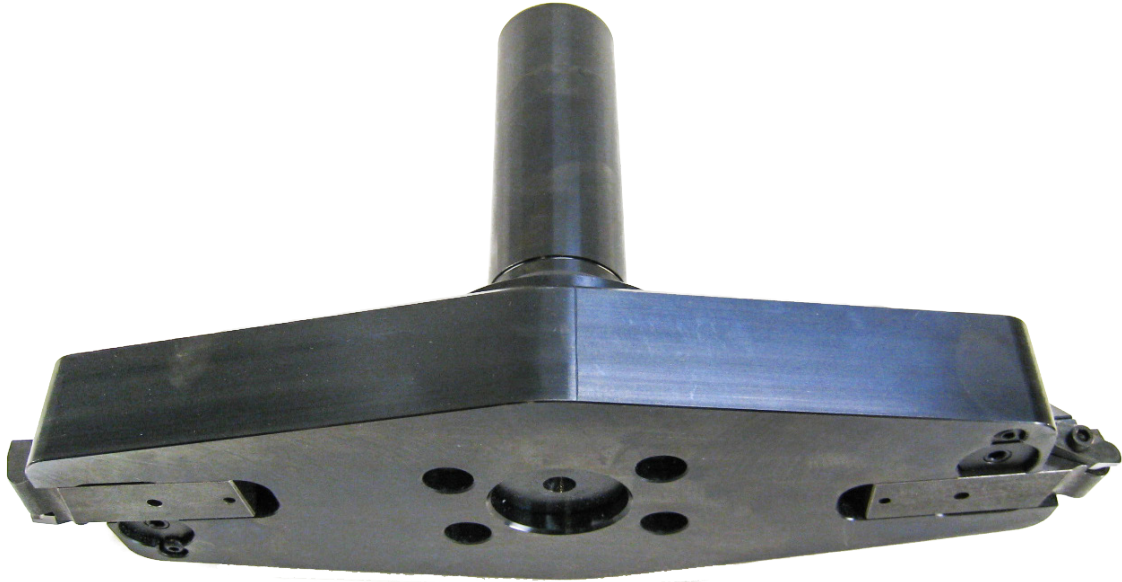


Surfacing Tooling

6294V 10" (250mm) Diameter Surfacing Cutterhead Package



6294U 14" (360mm) Diameter Surfacing Cutterhead Package





6294T 18" (460mm) Diameter Surfacing Cutterhead Package



6294W 22" (560mm) Diameter Surfacing Cutterhead Package



| | |
|--|---|
| <p>6301J CBN Insert, 1/16 Radius for surfacing large blocks</p>  | <p>6303V CBN Insert, Octagonal (16-Cutting Corners) for surfacing large blocks</p>  |
|--|---|

Special Surfacing Tooling for Milling Metal Sprayed Head Gasket Decks

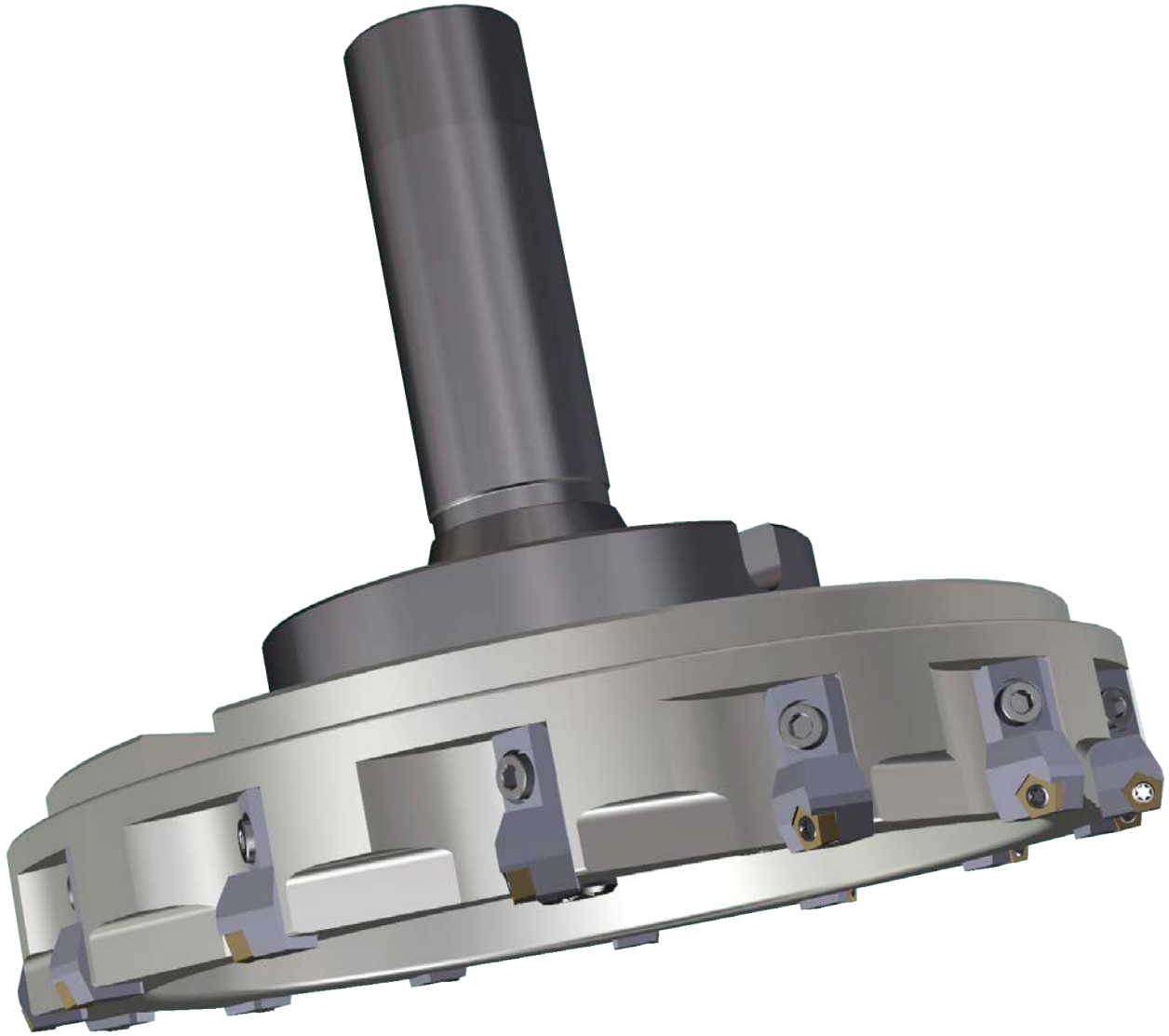
6864 Special 18" (420mm) Diameter Multi Tooth Milling Head

Including 9 Cartridges with 10 cutting edges per insert: Cutting inserts must be ordered separately

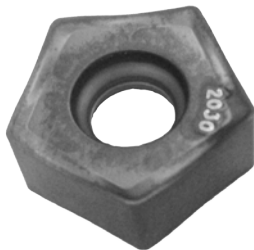


6865 Special 12" (300mm) Diameter Multi Tooth Milling Head

Including 14 Cartridges with 10 cutting edges per insert: Cutting inserts must be ordered separately



**6864E Replacement Insert (10 cutting edges per insert)
for 6864 and 6865 Milling Head**



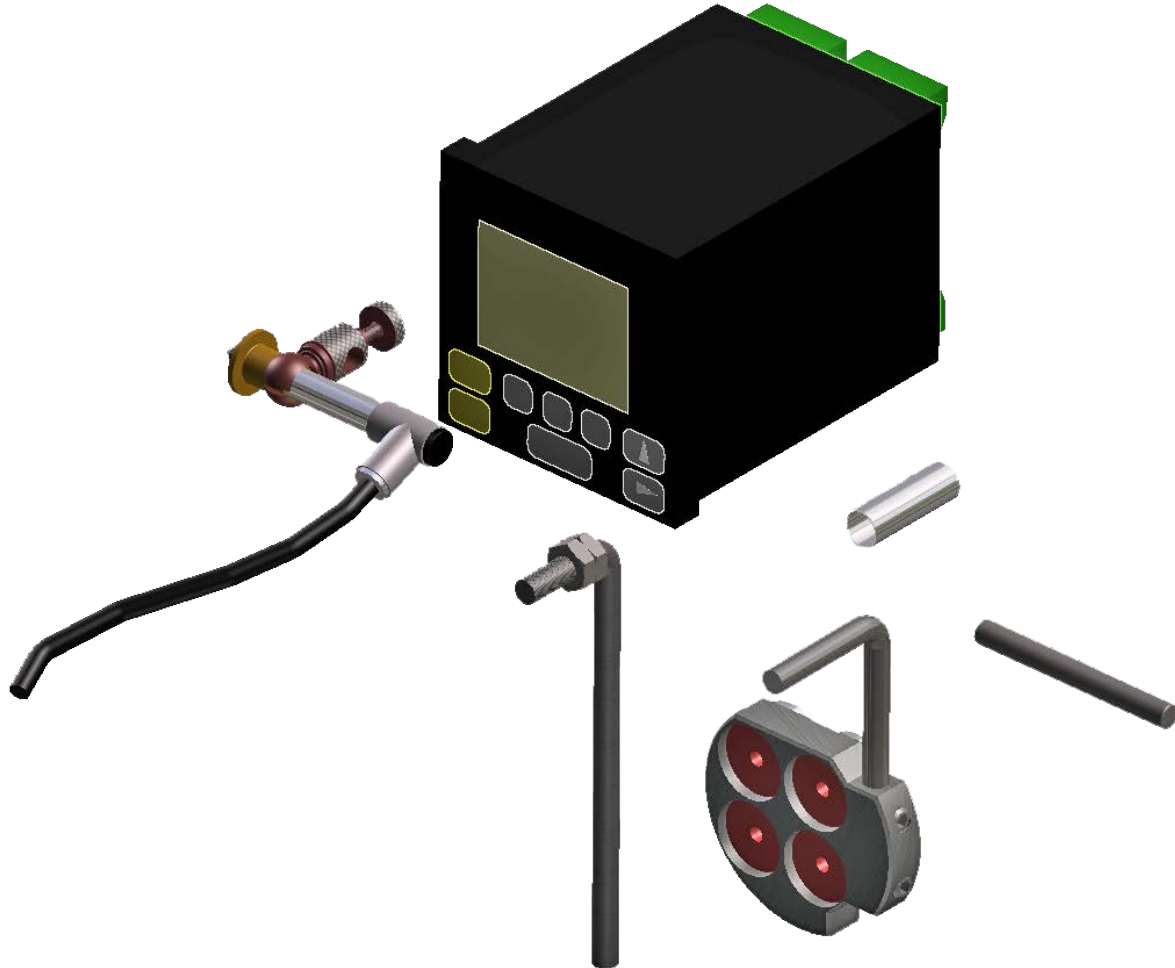
6864D Replacement Cartridge for 6864 Milling Head



General Purpose Accessories

502-12-7B Digital Runout Probe and Readout

Including Magnetic Holder for Block Set Up and Manual Centering of Cylinder Bores and Main Line Bores



General Purpose Tooling

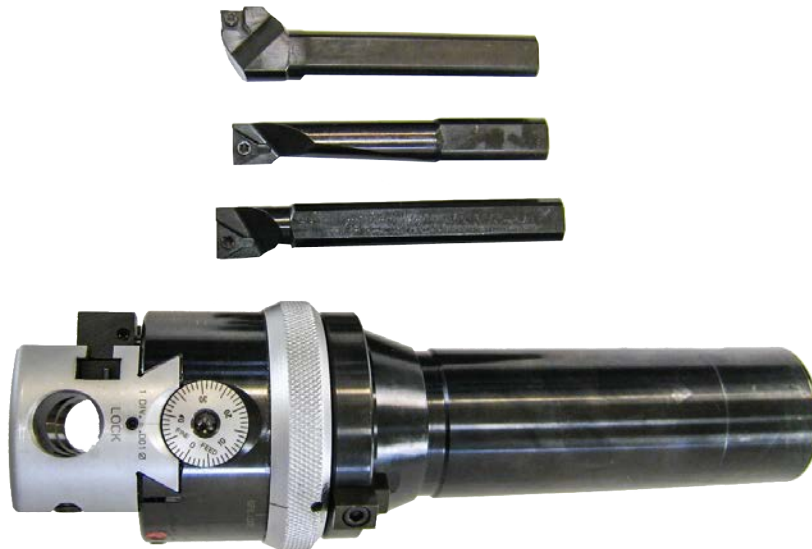
6648 Caterpillar 3400 Series Tappet Bore Repair Tooling Package

Including Digital Indicator and 1" Spindle Adaptor



6835 Small Precision Adjustable Boring Head

Including Spindle Adapter and Digital Indicator for general purpose boring and facing work, boring range 3/4 - 3" (20 - 75mm) and facing range 4.9 - 7" (125 - 180mm)



6757Z Large Heavy Duty Adjustable Boring/Facing Head

Including Spindle Adapter for general purpose boring and facing work, and cutting wide chamfers



6648K Collet kit 1/8 - 1" (3 - 26mm)

23 collets including storage box and wrench. Requires 6170J #40 spindle adapter

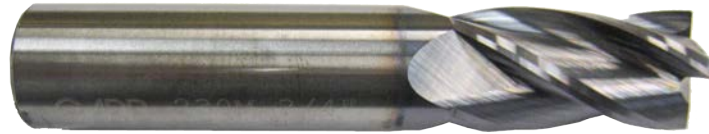


650-2-45G 1" (25.4mm) Diameter Solid Carbide End Mill x 4.00" (101.4mm) Length

Used for machining head gasket fire deck surface for water hole corrosion repairs

**650-2-43F 3/4" (19.05mm) Four Fluted End Mill X 4" (101.4mm) Length**

(.020" corner radius, flat bottom, no dish) Used for Machining Head Gasket Fire Deck Surface for Water Hold Corrosion Repairs

**650-2-3V Cutterhead Assembly Complete with Tooling**

3/4 - 2.0" (19 - 50mm) Diameter X 3.0" (75mm) long. Includes Digital Indicator.



Spindle Adapters for Mounting Universal Tooling

6648M 1" (25.4mm) Spindle Adapter for Driving 1" (25.4mm) Diameter Shank Tooling



6170C Adapter, Blank

Can be Machined by Customer to Suit Special Requirements



6170J #40 Taper Adapter



6170K R8 Taper Adaptor



6514Q #5 Morse Taper Adapter



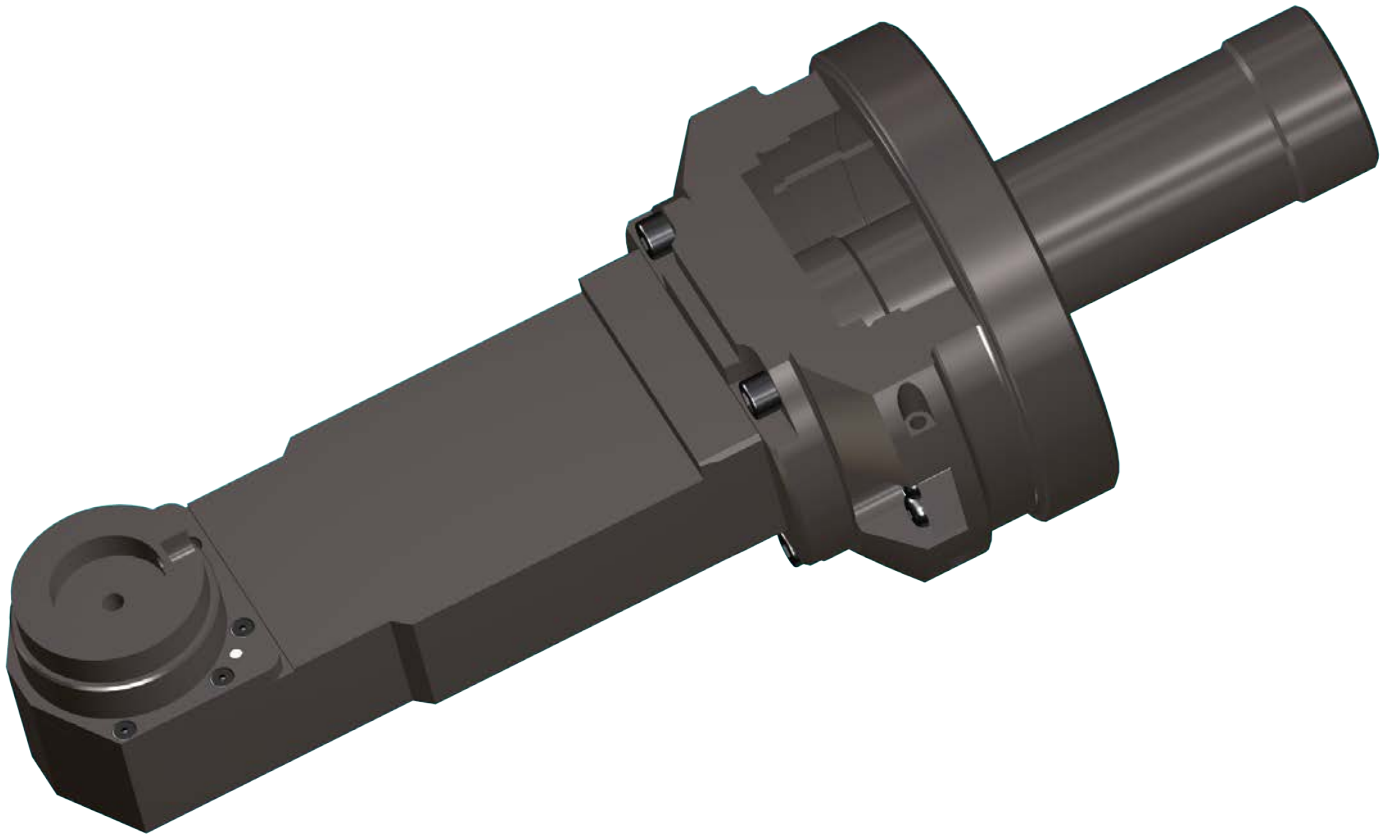
Main Line Bore Equipment

Line Bore Tooling for Small to Large Blocks and Heads

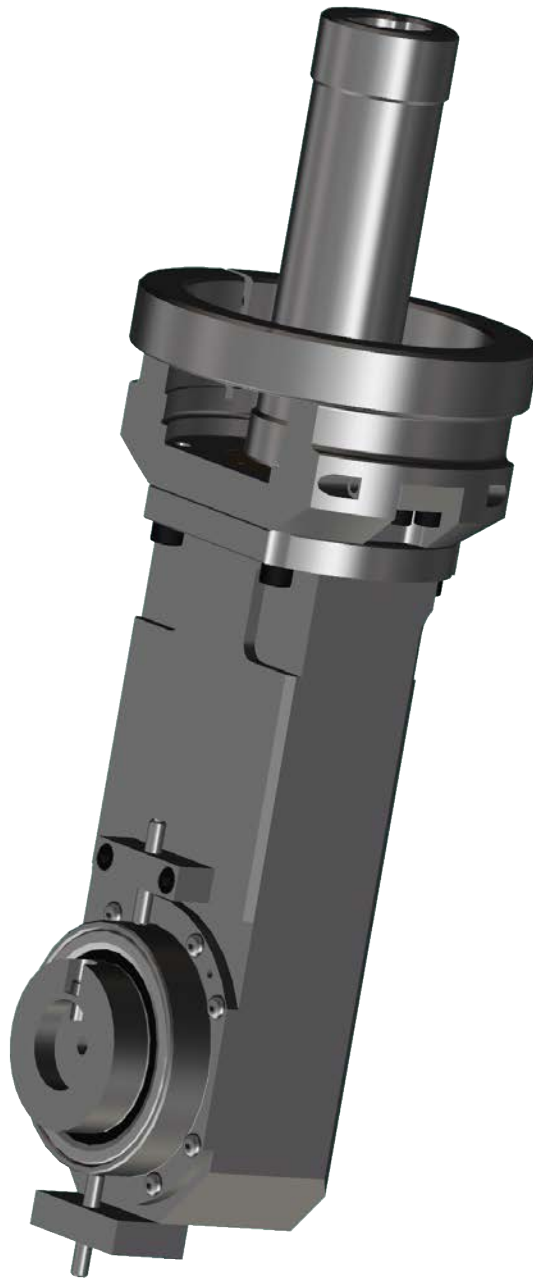
Note: Cutterheads are not Included with Right Angle Drive and Must be Ordered Separately

6753J Straight 90 Degree Right Angle Drive Assembly

For Small to Medium Blocks and Heads.



6856 Straight 90 Degree Right Angle Drive Assembly
For Medium to Large Blocks.



6753L Special Belt Drive 90 Degree Right Angle Drive Assembly

For Limited Clearance Between Bearing Caps.

Note: The Belt Drive Right Angle Drive is Designed for Limited Clearance Between Bearing Caps and it's Cutting Performance will Deteriorate as Larger Diameters are Bored and Extension Spacers are Used.



650-2-39B Cutterhead Assembly Line Boring 1.9 - 4.0" (48.26 - 101.60mm) Diameter

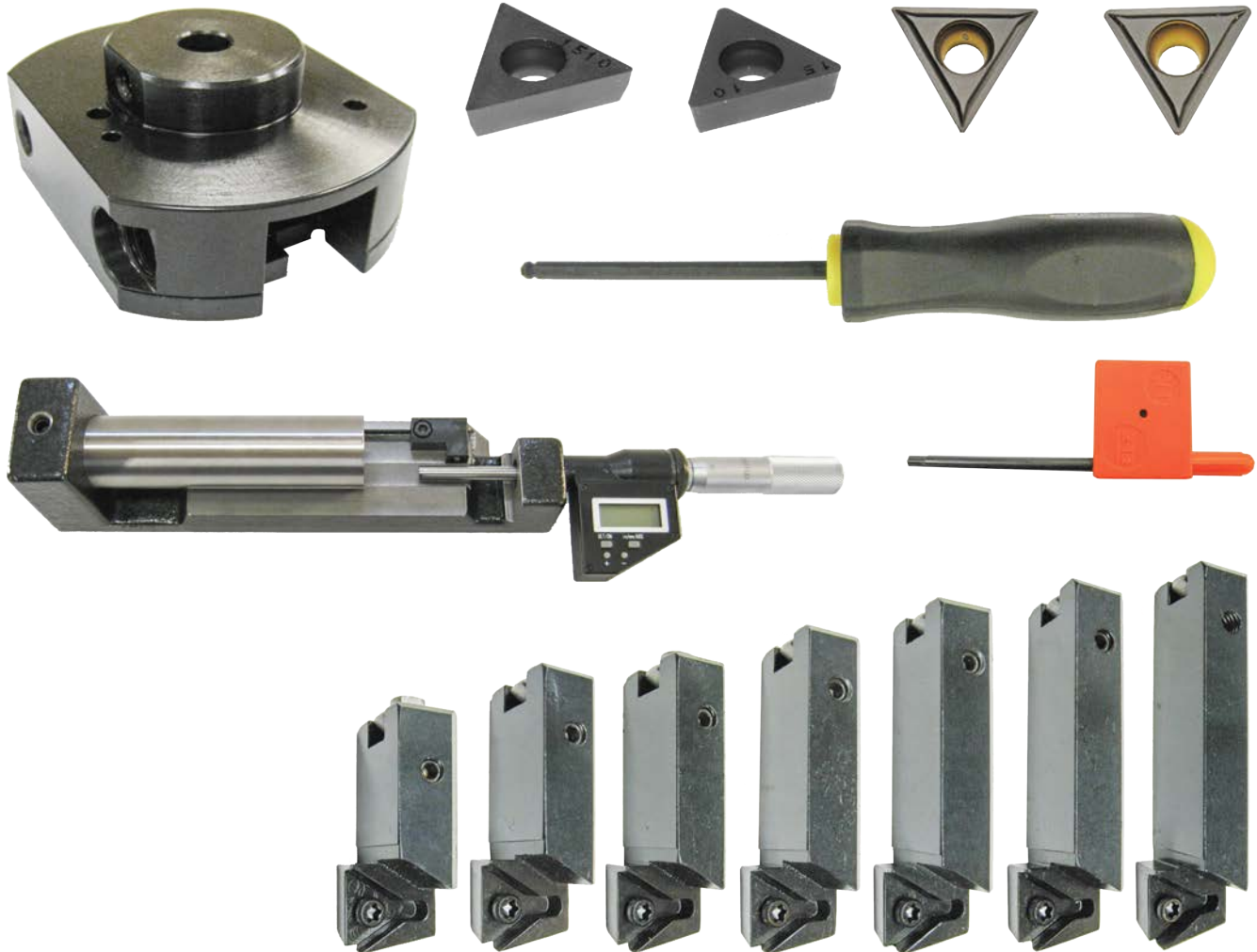
Complete with tooling and Digital Micrometer (When used with 6753J Drive, minimum distance between bearing housings 3.29") (83.6mm)



650-2-39C Cutterhead Assembly Line Boring 2.9 - 5.6" (73.66 - 142.24mm) Diameter

Complete with tooling and Digital Micrometer. When used with 6753J Drive, minimum distance between bearing housings 4.18" (106.2mm)

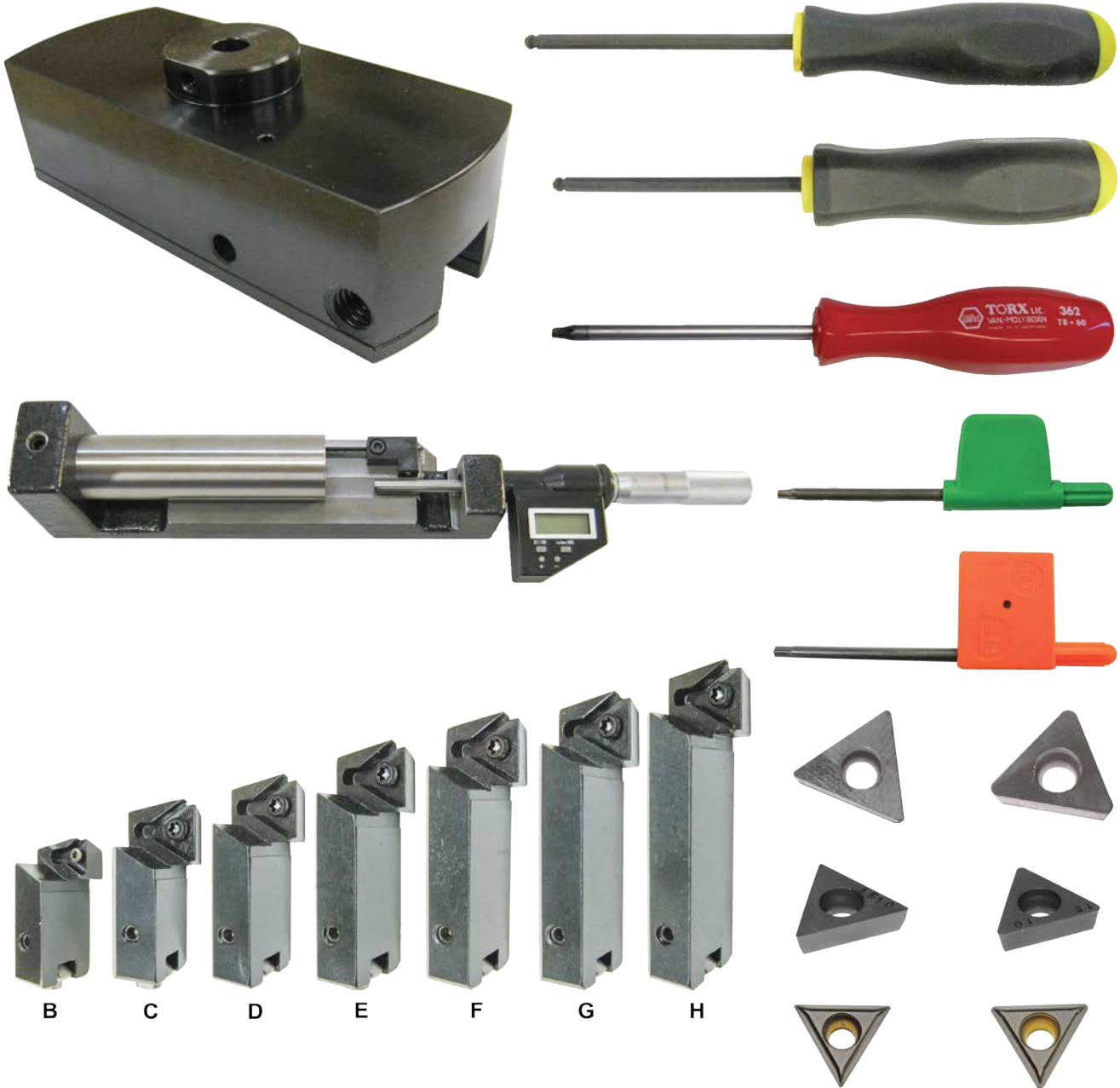
Note: Cutterheads are not included with Right Angle Drive and must be ordered separately



650-2-39A Cutterhead Assembly Line Boring 5.4 - 8.1" (137 - 206mm) Diameter

Complete with tooling and Digital Micrometer. When used with 6753J Drive, minimum distance between bearing housings 4.19" (106.4mm)

Note: Length of Bores can be Increased with Extension Spacers. The Addition of Extension Spacers will Increase the Minimum Distance Between Bearing Housings by the Length of the Spacer. Allow for Some Clearance Either Side of the Assembly for Safety



Line Bore Fixturing for Small to Large Blocks and Heads

650-3-56 Line Bore Pivot Table Fixture

Complete with Universal Work Holding System for Small In Line and 90 Degree V Blocks, Includes 6843 90 Degree V Block Supports. Also Used for Setting Up Cylinder Heads Such as CAT3406E and Detroit 50/60 Series for Camshaft Line Boring.



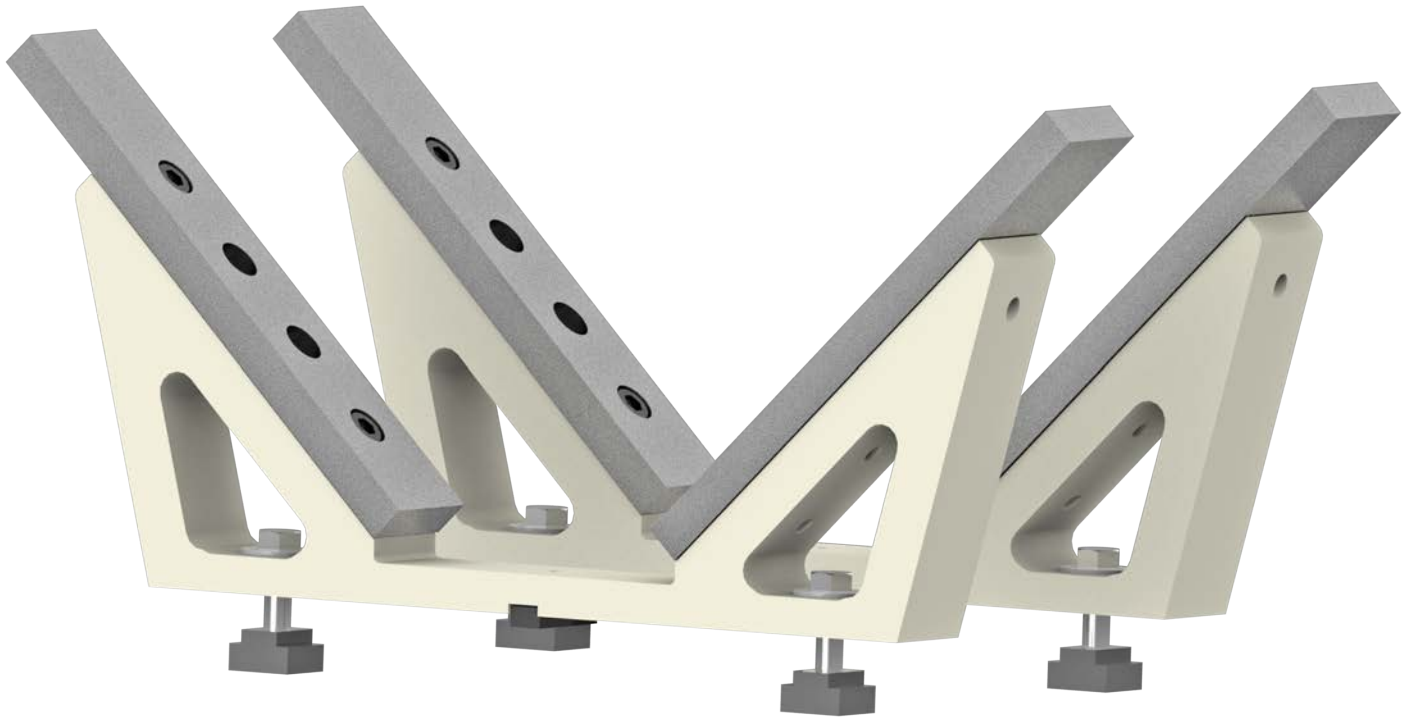
6821 Adjustable Universal Line Boring Fixture Assembly

Includes Locators for In-Line Blocks, Supports for V Blocks Must Be Ordered Separately.



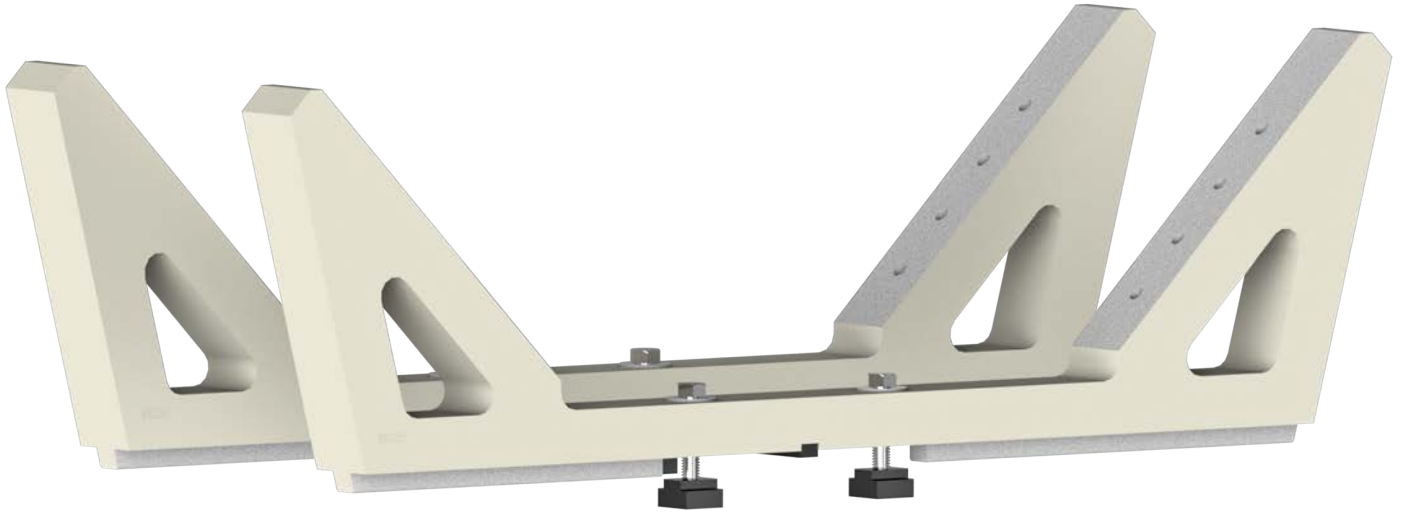
6843 90 Degree V Block Supports

For Small To Mid-Size 90 Degree V Blocks for use on Line Bore Fixtures 6821 and 11113



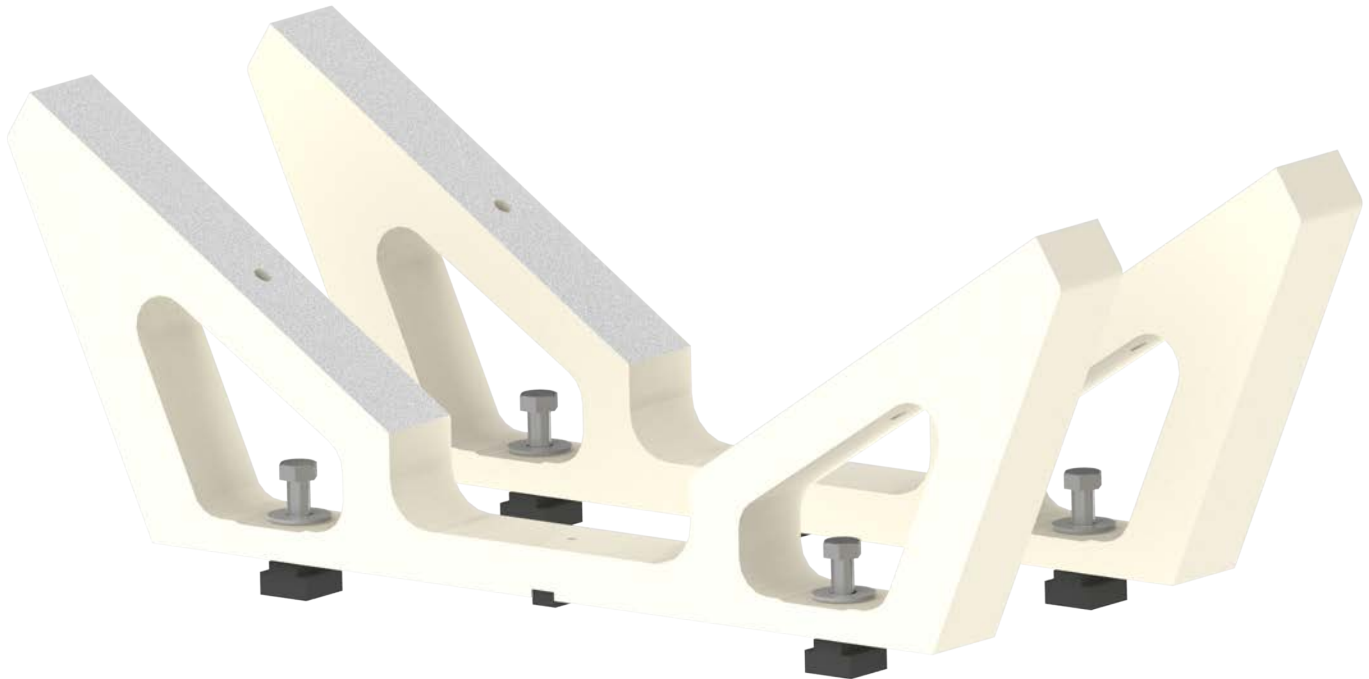
6823E 90 Degree V Block Supports for Large 90 Degree V Blocks

Such as MTU4000 for use on Line Bore Fixture 6821



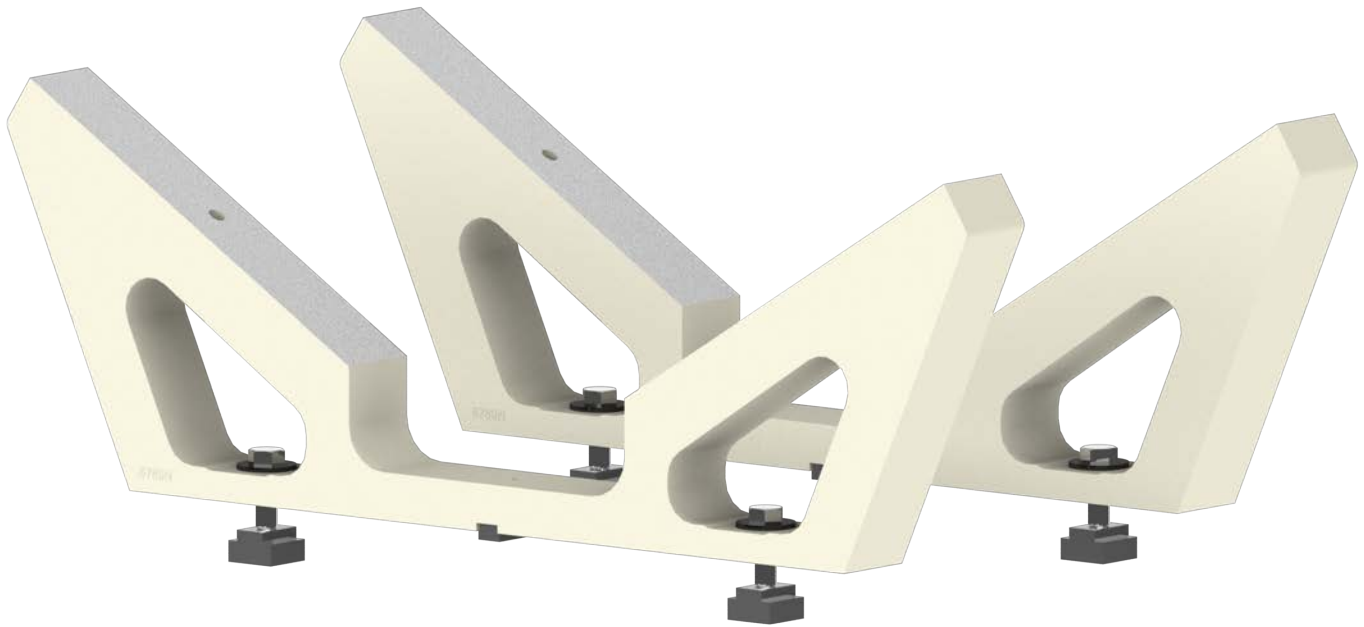
6789L 113 Degree V Block Supports

For Detroit Diesel V53 for use on Line Bore Fixture 6821 and 11113



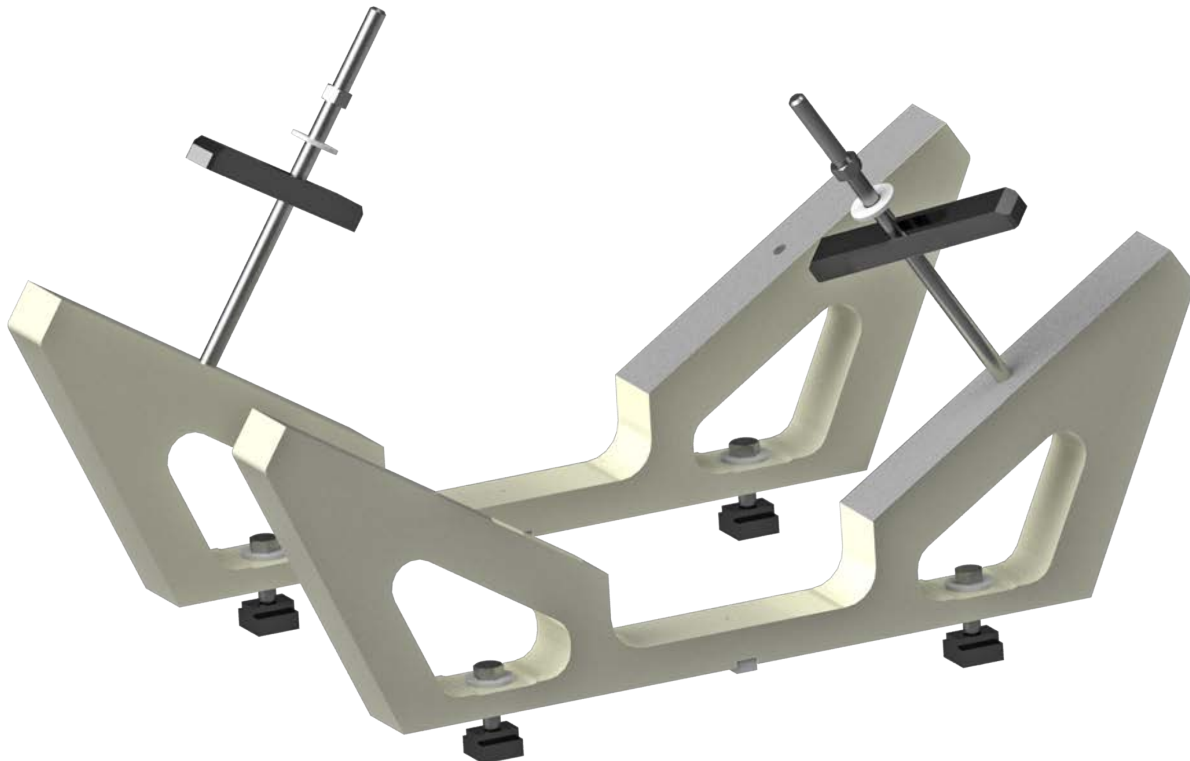
6789N 116 Degree V Block Supports for Detroit Diesel V71 & V92

For use on Line Bore Fixture 6821 and 11113



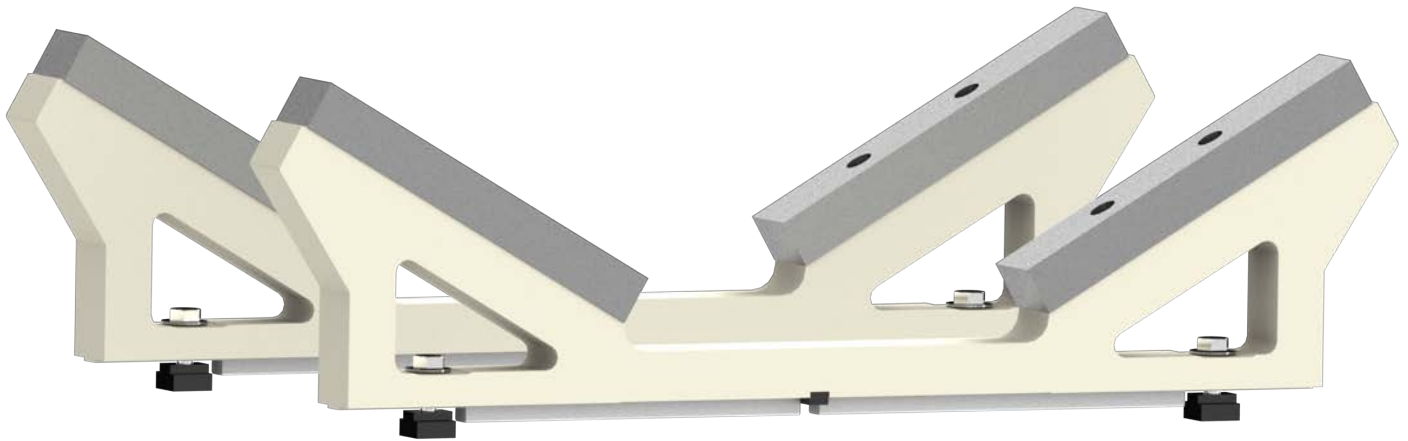
6789E 115 Degree V Block Supports for CAT 3400

For use on Line Bore Fixture 6821 and 11113



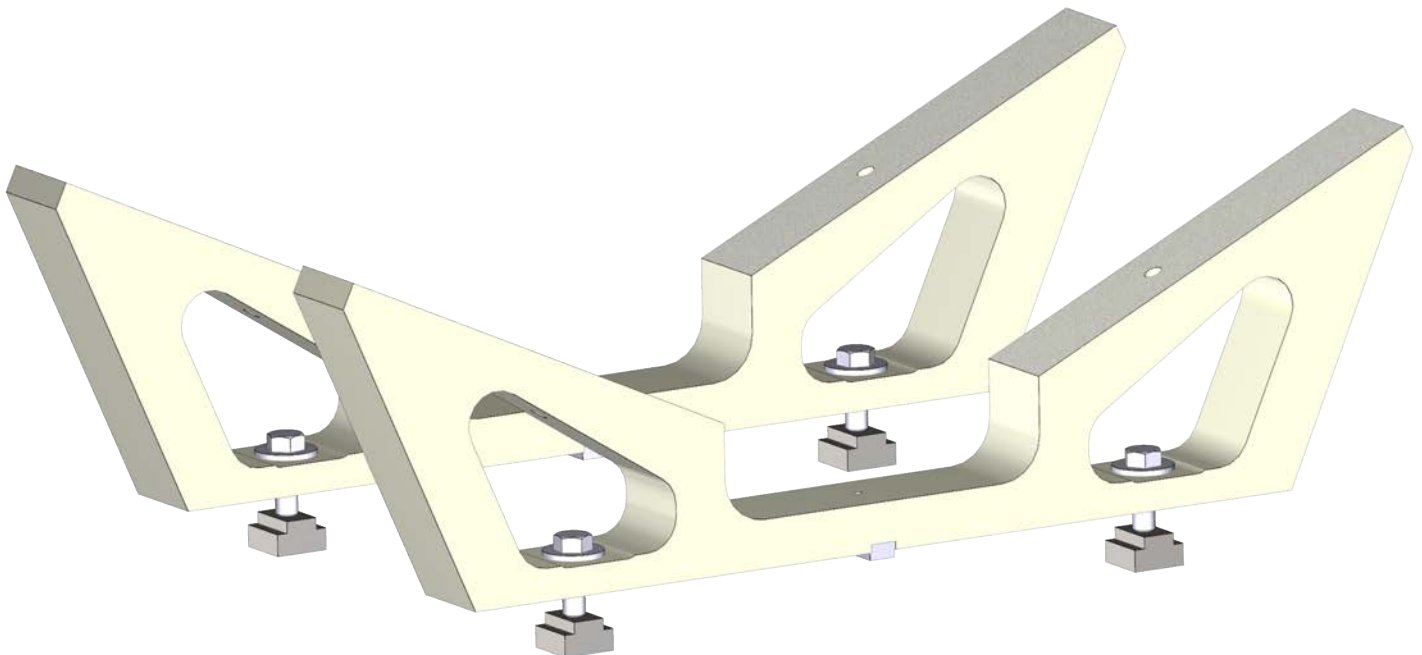
6823B 120 Degree V Block Supports for Large 120 Degree V Blocks

Such as CAT 3500, Cummins K & QSK, Komatsu 170 for use on Line Bore Fixture 6821



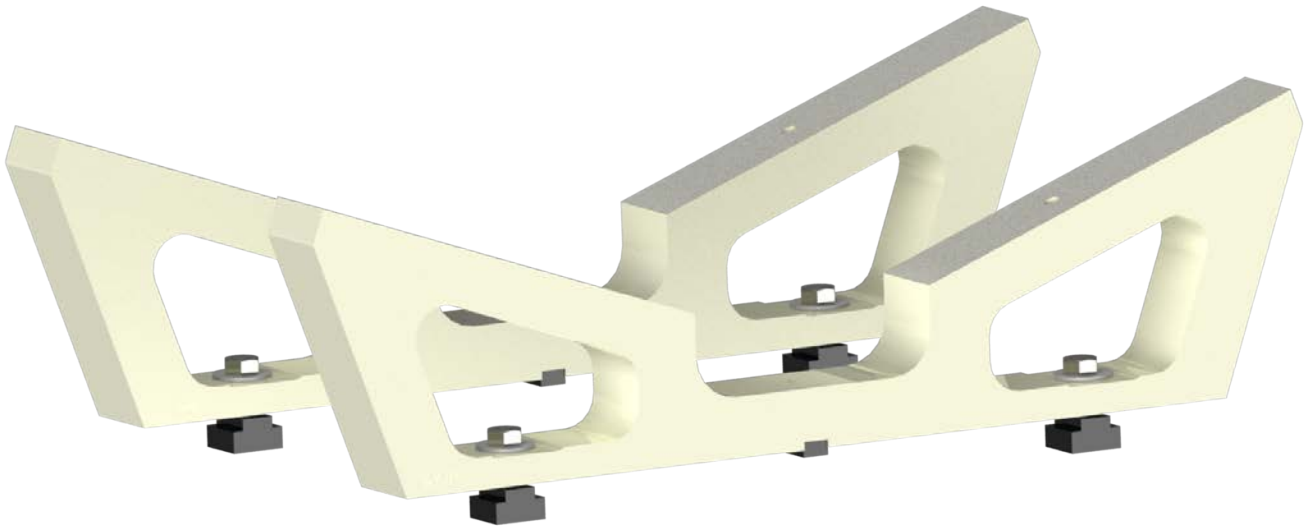
6789K 130 Degree V Block Supports for Komatsu 140

For use on Line Bore Fixture 6821



6789Q 140 Degree V Block Supports for Cummins 1710

For use on Line Bore Fixture 6821



6789T 110 Degree V Block Supports for Jenbacher 3

For use on Line Bore Fixture 6821

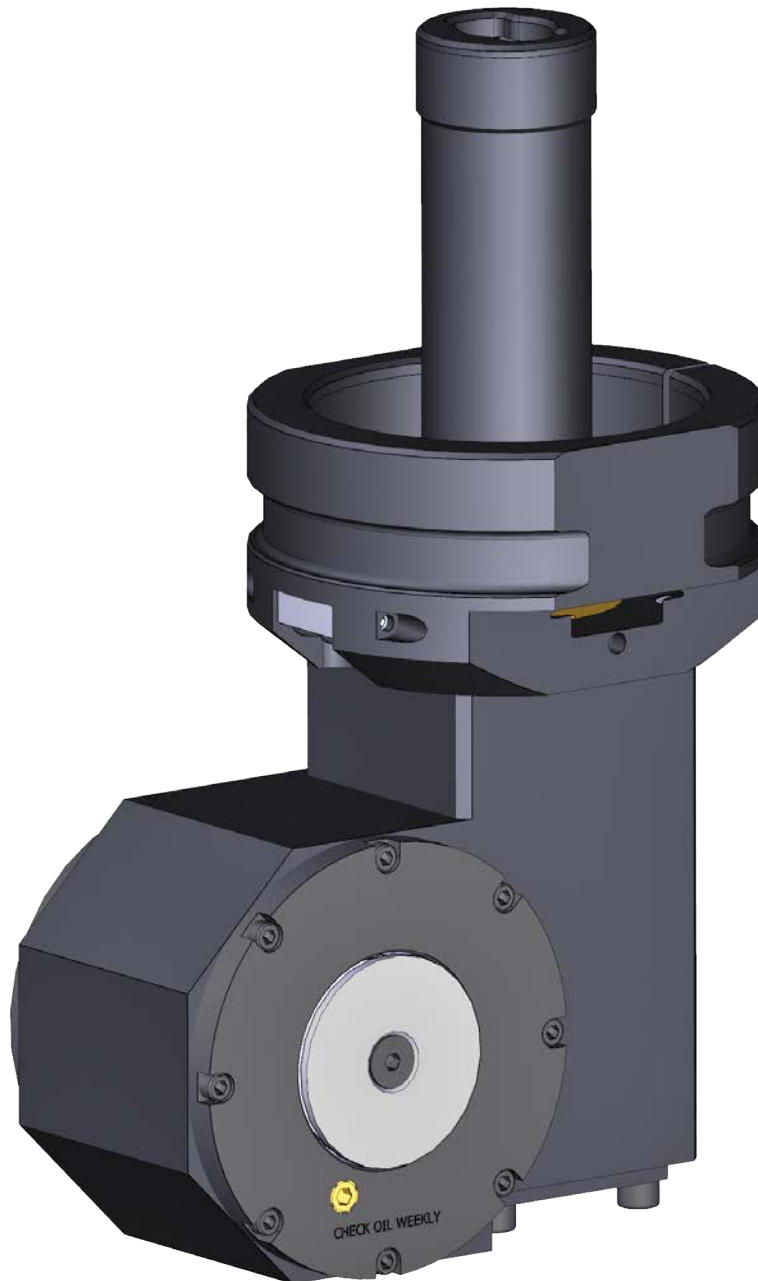


Line Bore Tooling for Extra Large Blocks

Such as CAT C175, 3500 & 399, Waukesha 7042, White Superior 8G825

6773F Heavy Duty Offset 90 Degree Right Angle Drive Assembly Without Tooling

Note: Cutterheads are Not Included with Right Angle Drive and Must be Ordered Separately



6519V Heavy Duty Line Bore Cutterhead Assembly

6.0 - 8.50" (152.40 - 215.90mm) Diameter X 3" (76mm) Length Complete with Tooling and Digital Micrometer. Minimum Distance Between Bearing Housings 7.94" (102mm)



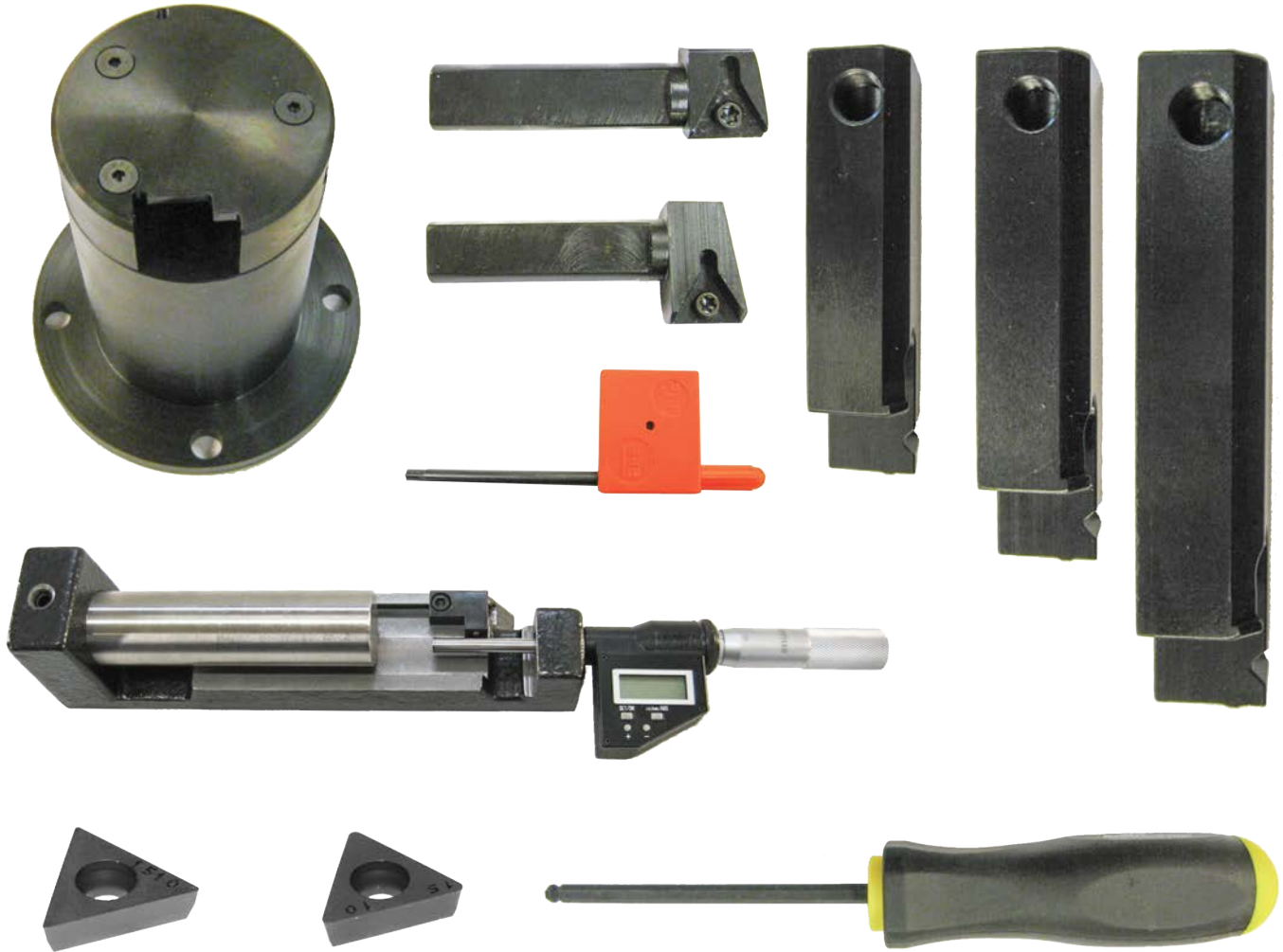
6519P Heavy Duty Line Bore Cutterhead Assembly

6.0 - 8.50" (152.40 - 215.90mm) Diameter X 4.25" (108mm) Length Complete with Tooling and Digital Micrometer.
Minimum Distance Between Bearing Housings 8.94" (227mm)



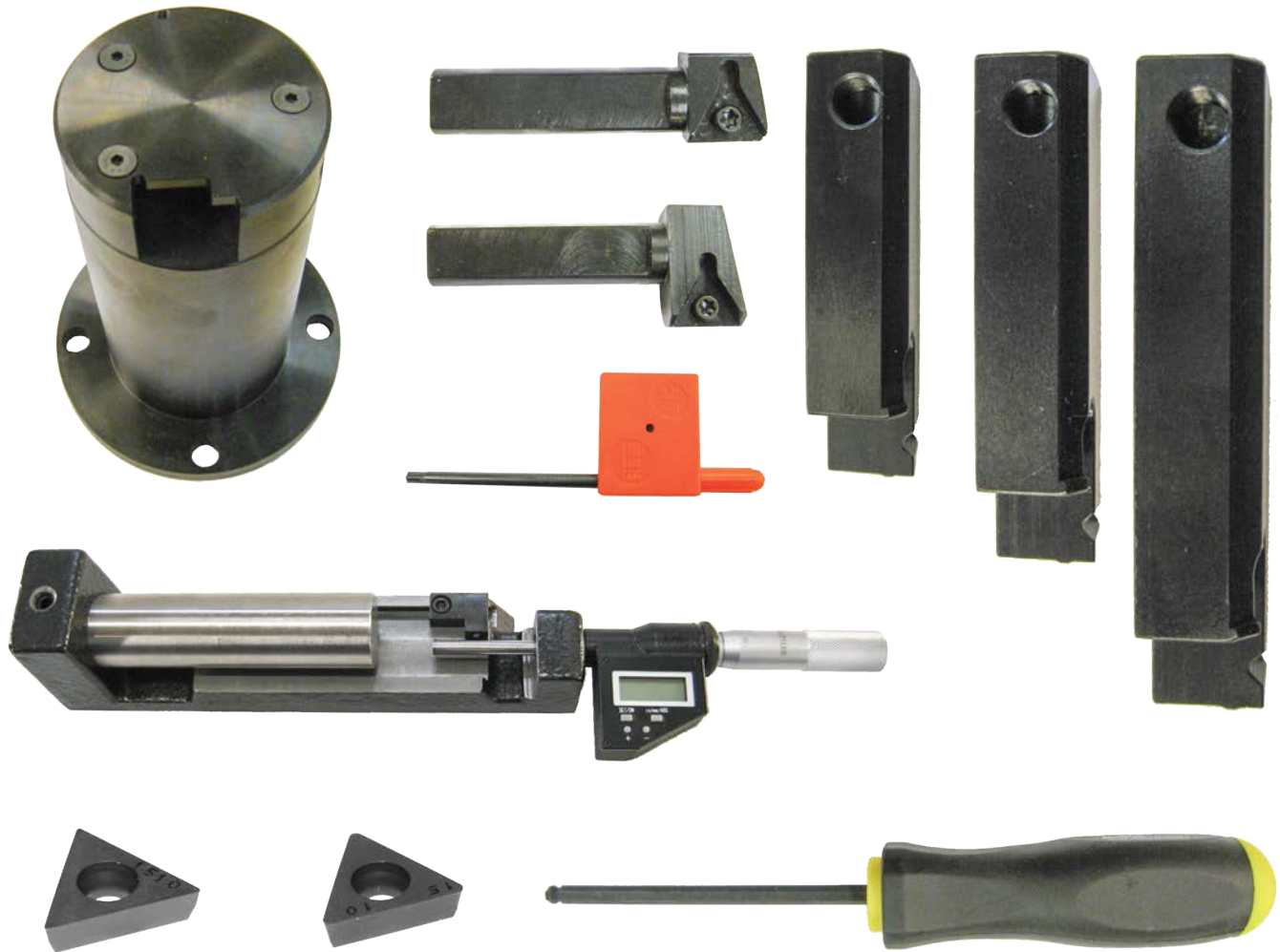
6519M Heavy Duty Line Bore Cutterhead Assembly

6.0 - 8.50" (152.40 - 215.90mm) Diameter X 5.10" (130mm) Length Complete with Tooling and Digital Micrometer.
Minimum Distance Between Bearing Housings 10.04" (255mm)



6519N Heavy Duty Line Bore Cutterhead Assembly

6.0 - 8.50" (152.40 - 215.90mm) Diameter X 6.0" (152mm) Length Complete with Tooling and Digital Micrometer. Minimum Distance Between Bearing Housings 10.94" (278mm)



Line Bore Fixturing for Extra Large Blocks

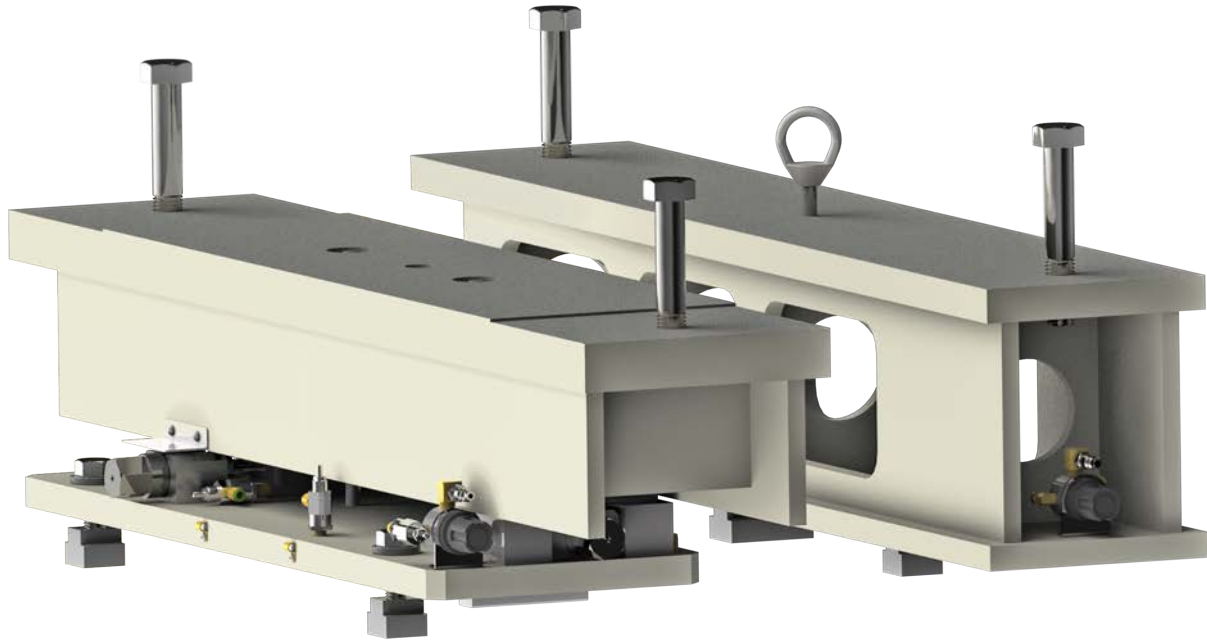
6810 Waukesha 7042, 9390 and CAT 379, 398, 399 Line Boring Fixture



6815 White Superior 8G825 Line Boring Fixture



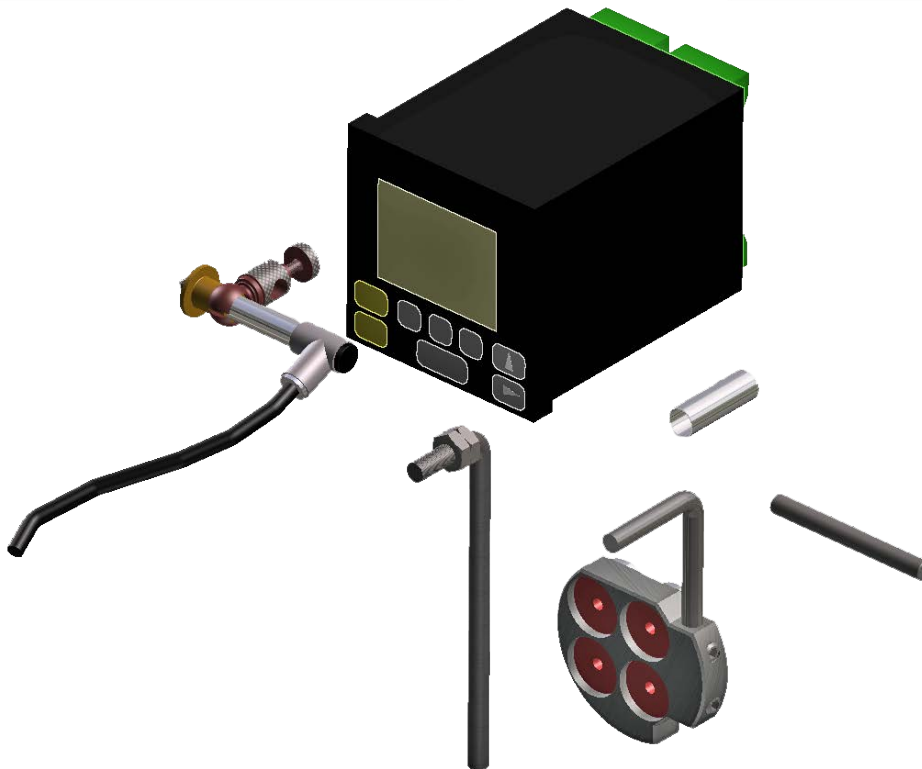
6846 White Superior 12 & 16 G825 Line Boring Fixture



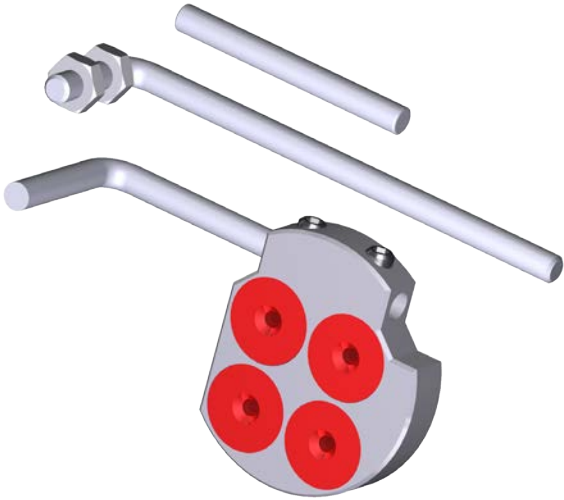
Line Bore Set Up and Alignment Equipment

502-12-7B Digital Runout Probe and Readout

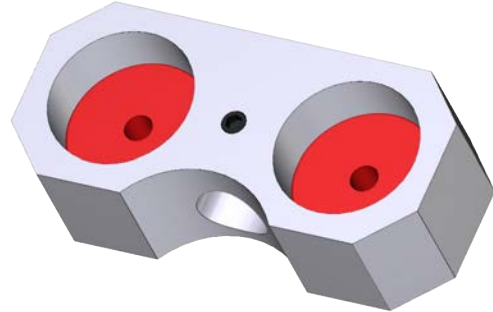
Including Magnetic Holder for Block Set Up and Manual Centering of Cylinder Bores and Main Line Bores



502-12-4 General Purpose Magnetic Indicator Holder
 (Requires #502-9-9A or J Indicator)



502-12-4A Magnetic Indicator Holder
 For 2 - 3" (50 - 75mm) Diameter (Requires 502-9-9A or J Indicator)



502-9-9A Mechanical Run Out Indicator
 General Purpose (.001" Inch Resolution)



502-9-9J Mechanical Run Out Indicator
 General Purpose (.01mm Metric Resolution)



Equipment for Preparing Blocks for Line Boring

7209N 2-Piece Vise

For Surfacing Main Bearing Housing Caps in Preparation for Main Line Boring. Also used for Holding Exhaust Manifolds for Surfacing. Requires 7209M Leveling Table.



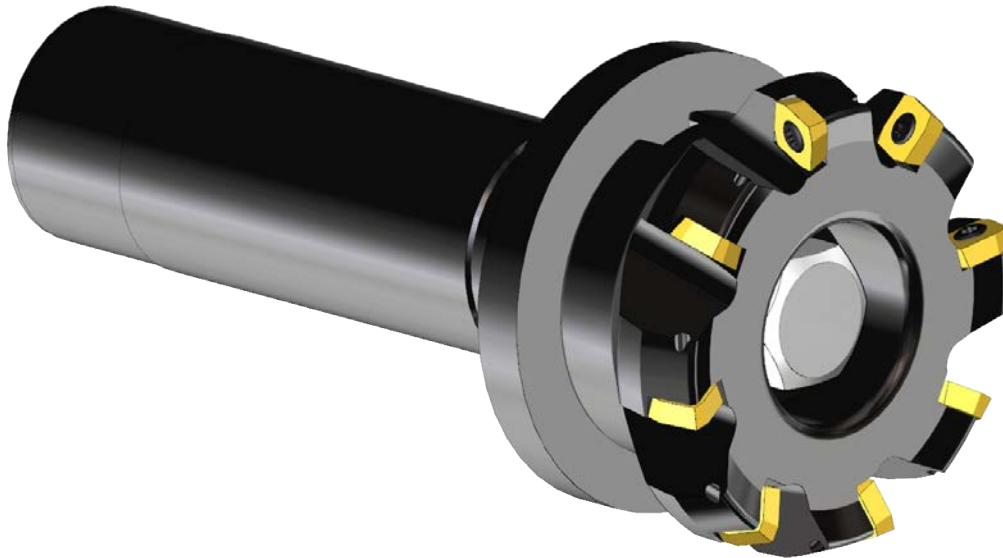
7209M Leveling Table with Air Float

Complete with Universal Work Holding System for Surfacing Cylinder Heads and Manifolds. Requires One Set of 6370C Parallels



6514L Shell Mill 5" (127mm) Diameter

For Surfacing Main Bearing Cap Register Face in Blocks in Preparation for Main Line Boring



6514V Shell Mill 6" (152mm) Diameter

For surfacing main bearing cap register face in blocks in preparation for main line boring

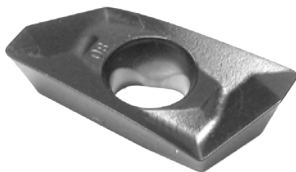


6514W Shell Mill 8" (203mm) Diameter

For surfacing main bearing cap register face in blocks in preparation for main line boring

**6514T Insert**

For 6514L, 6514V & 6514W Shell Mills, .030" (0.8mm)
Corner Radius, different radius available on request

**6514Y Insert**

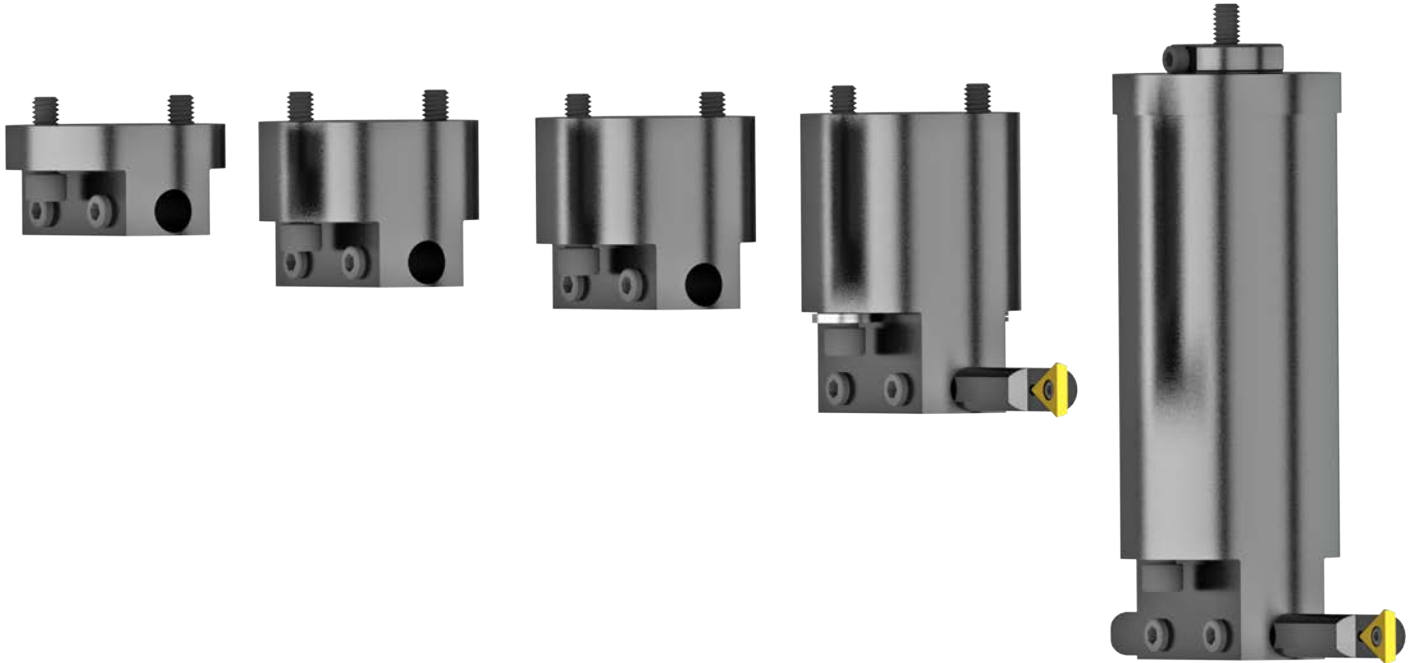
For 6514L, 6514V & 6514W Shell Mills, .125" (3.2mm)
Corner Radius, different radius available on request



Main Line Thrust Facing Utilizing Circular Interpolation

6855C Thrust Facing Tooling Package

For main line bore



Special Tooling for Block End Machining

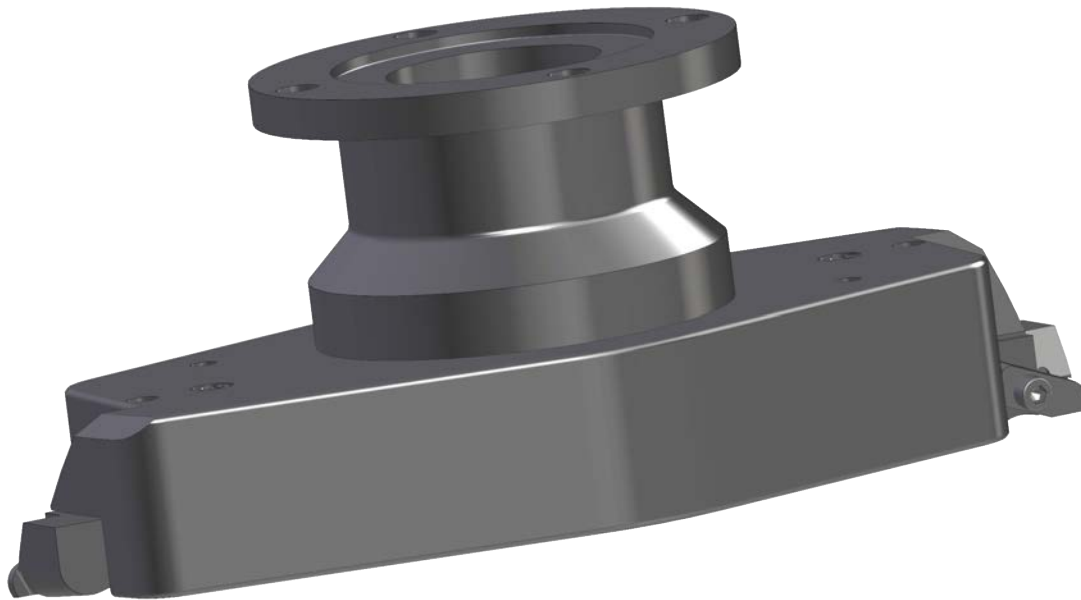
Requires Heavy Duty Right Angle Drive 6773F or 6779K

6779H Adaptor for 40 Taper Tooling such as 6648K Collet Kit



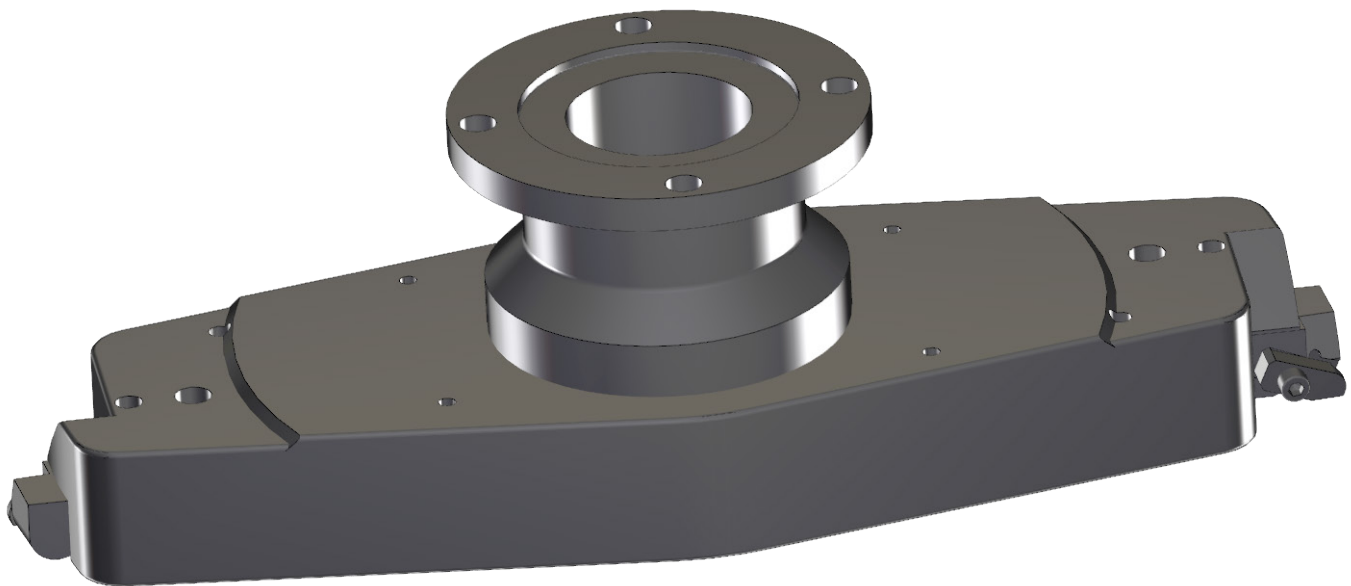
6779L 10" (250mm) Diameter Surfacing Cutterhead Assembly

Complete with Tool holders for .375" (9.52mm) round or square inserts for Block End Surfacing

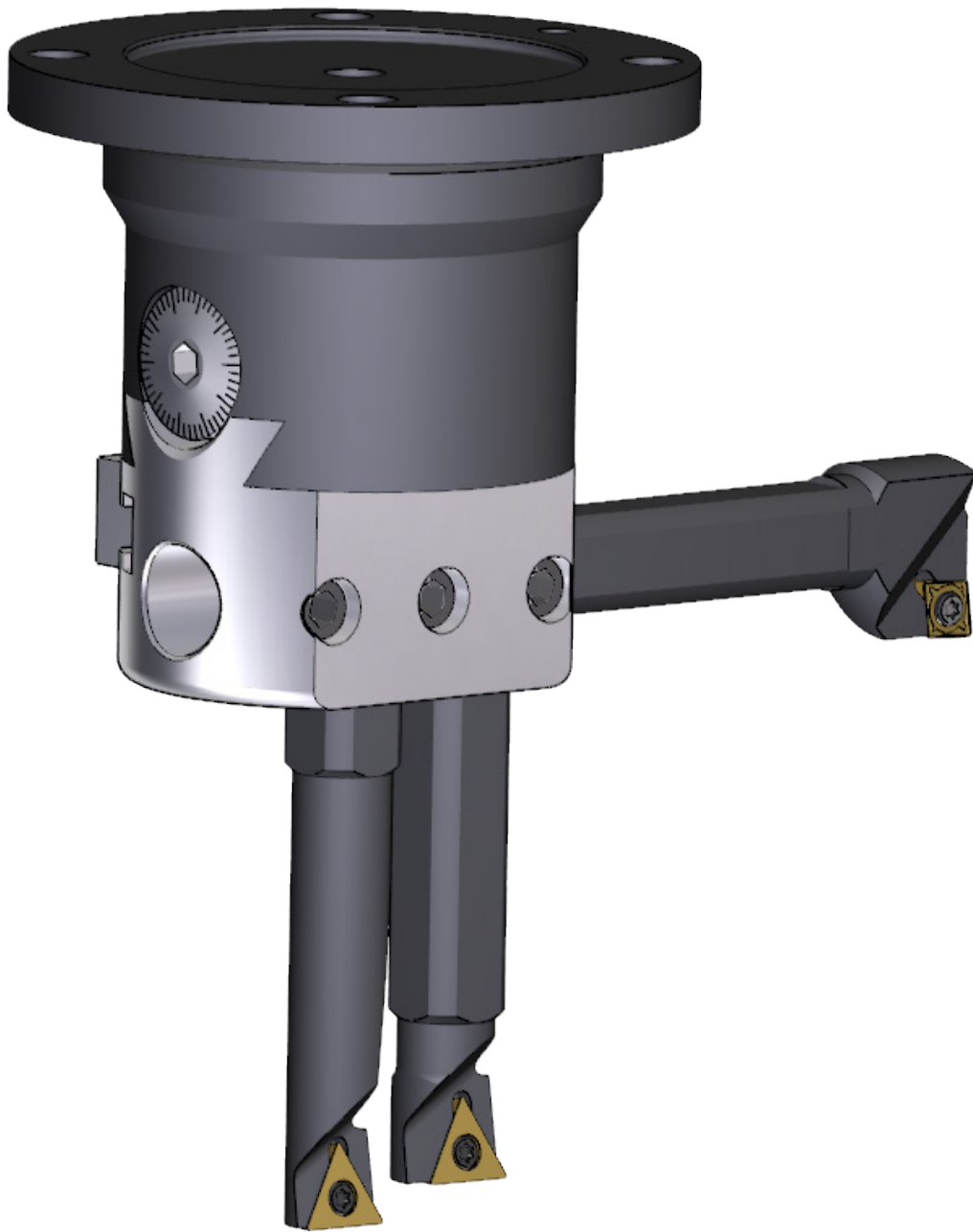


6779M 14" (360mm) Diameter Surfacing Cutterhead Assembly

Complete with Tool holders for .375" (9.52mm) round or square inserts for Block End Surfacing



6779N Crossfeed Head Assembly
Heavy Duty Offset 90 degree right angle drive



Connecting Rod Boring and Surfacing Equipment

650-3-44R Rottler Precision Connecting Rod Boring Fixturing System

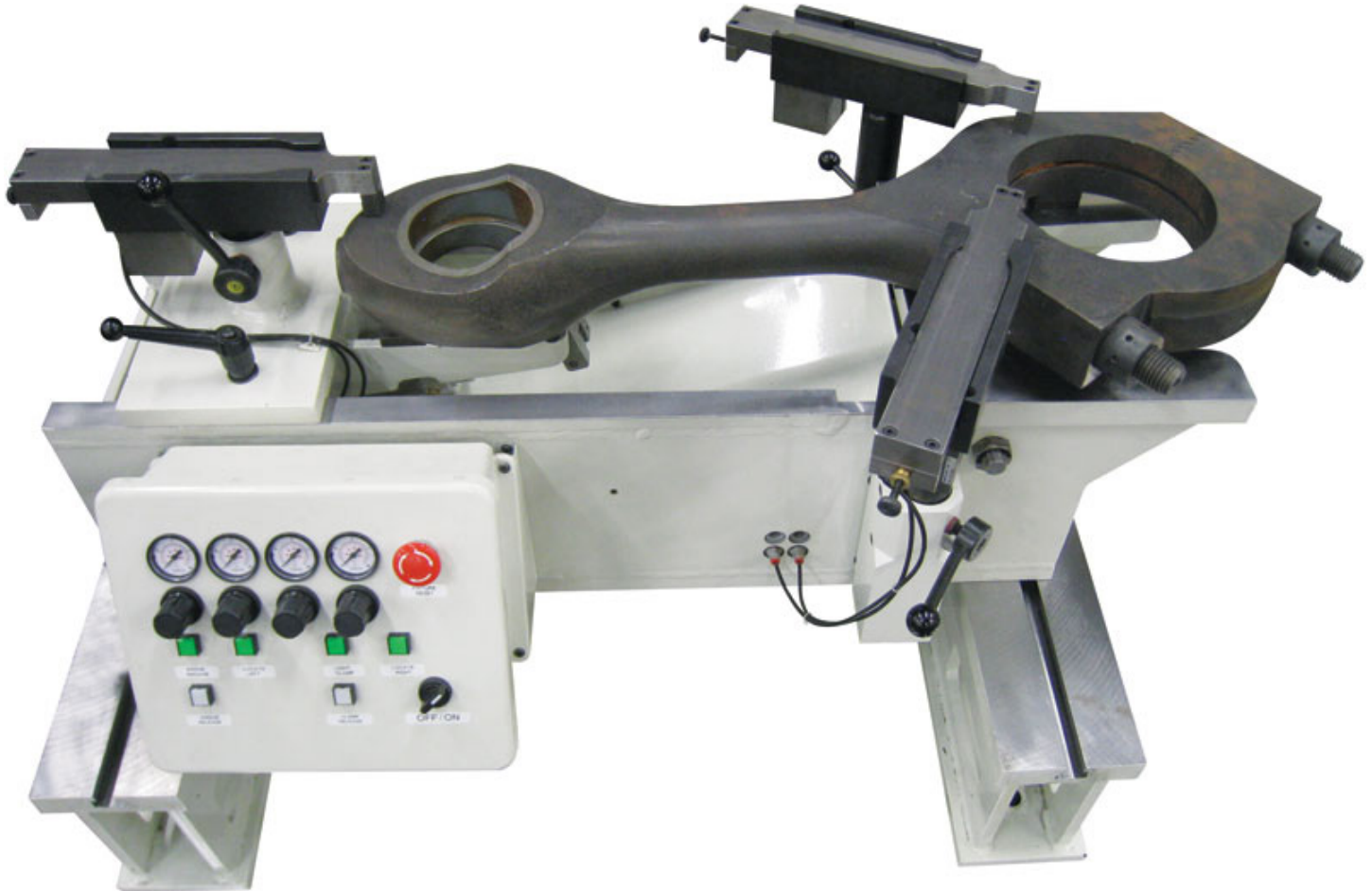
For Connecting Rods Approx 8 - 24" (200 - 600mm) Center to Center Distance - Requires (1) Set of 6370C Parallels



Fixturing & Tooling for Large Engine & Compressor Connecting Rods

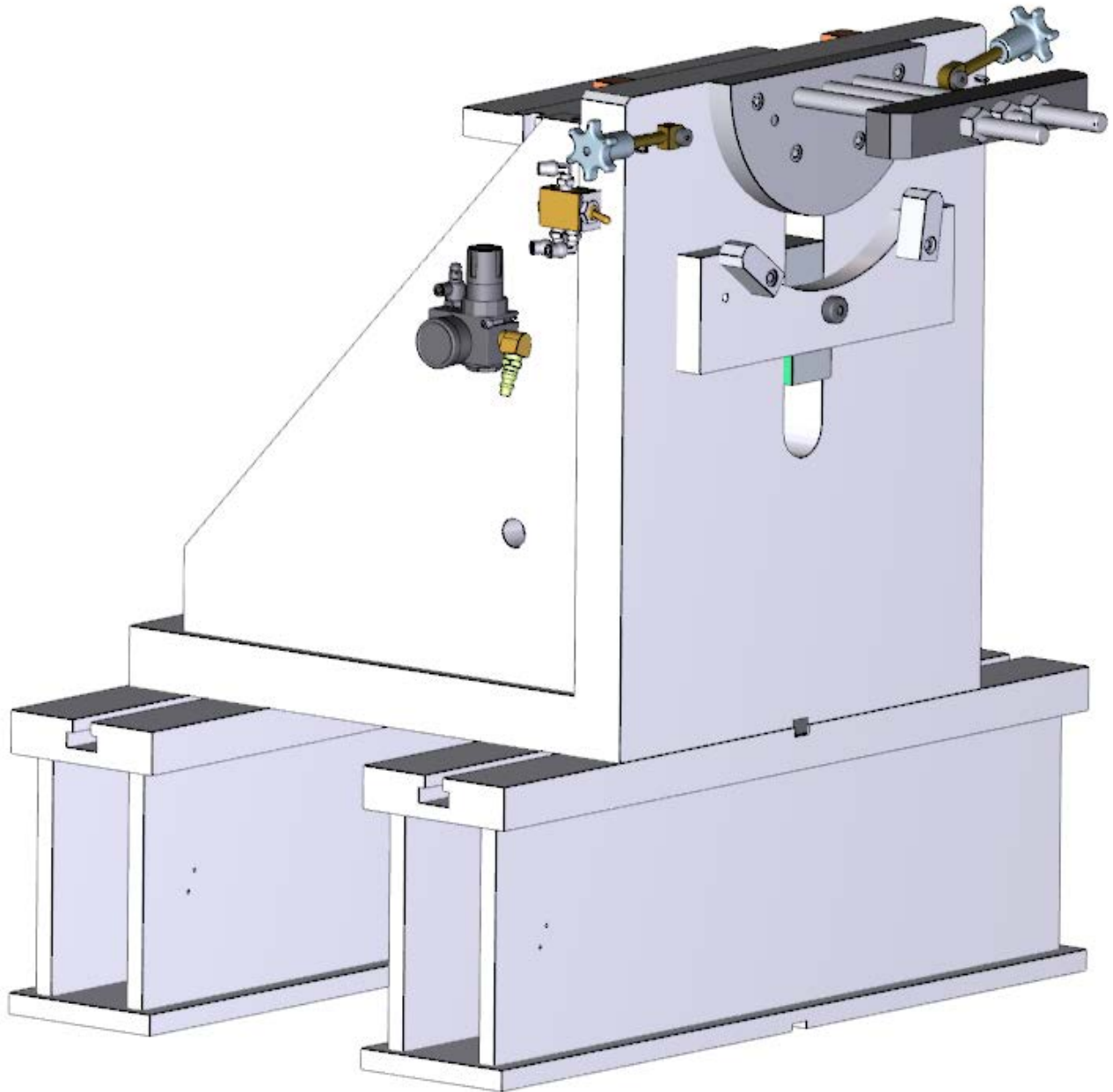
650-3-64 Rottler Precision Connecting Rod Boring Fixturing System

Special Version to Handle Natural Gas Compressor Connecting Rods and Large Engine Connecting Rods Such as Waukesha 7042 and White Superior 825 - Requires (1) Set of 6370C Parallels



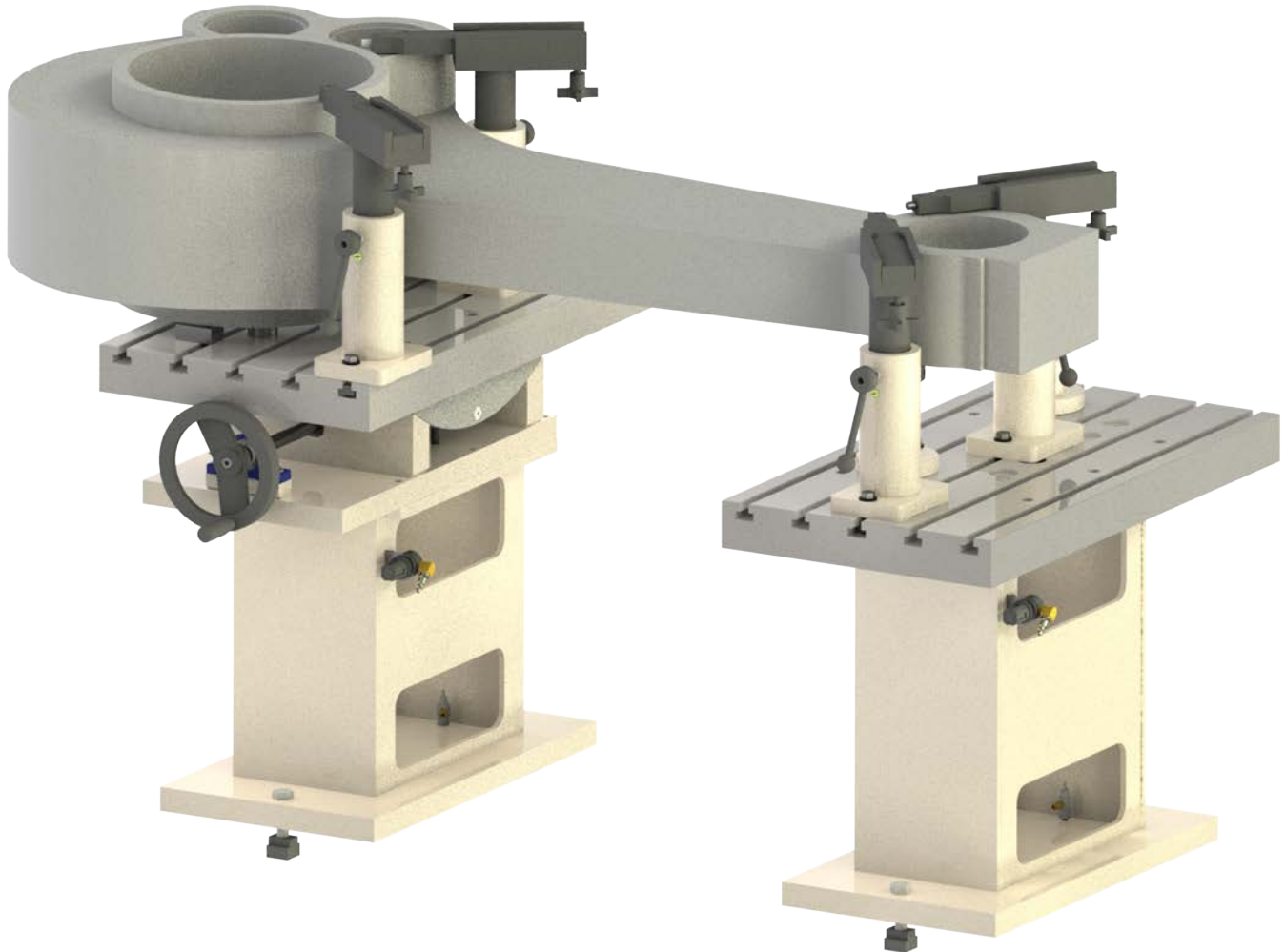
650-3-66 Rottler Precision Compressor Conrod Cap Surfacing Fixture

Requires 1 Set 6370Z Parallels



6870 Rottler Precision Connecting Rod Boring Fixturing System

For extra large and heavy connecting rods such as Ajax integral engine-compressors. Fixture consists of 2 parts mounted on air float supports.



Tooling for Connecting Rod Boring

6516H Blind Hole Cutterhead Package

1.5 - 4.2" (38 - 107mm) diameter X 6.5" (165mm) length complete with tooling and Digital Micrometer



6519 Blind Hole Stub Cutterhead

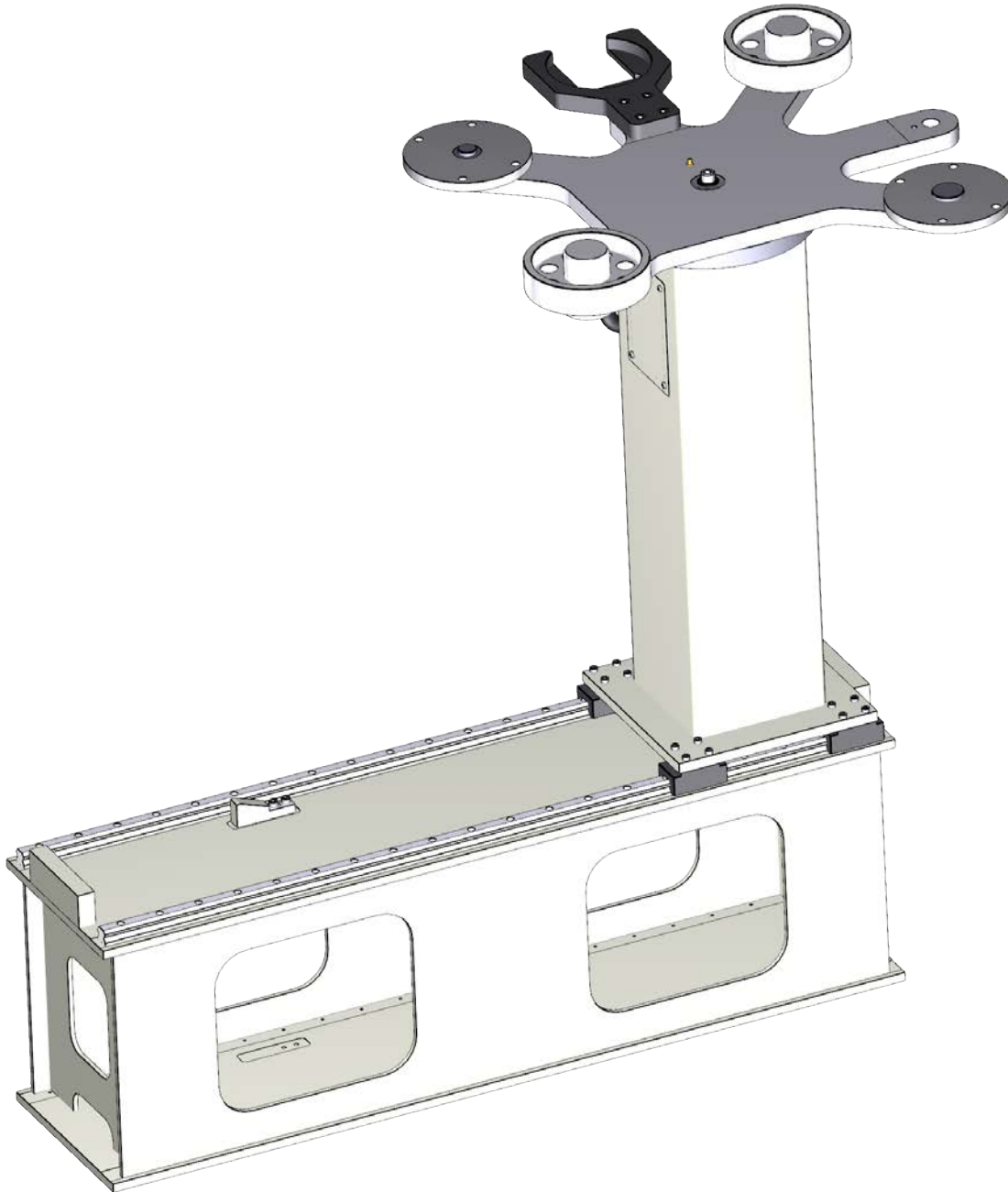
2.9 - 8.0" (74 - 203mm) Diameter X 9.3" (236mm) Length Complete with Tooling and Digital Micrometer



Tool Changing and Storage System for Heavy Tooling

6875 Tool Changing and Storage System

For heavy tooling such as Milling Heads, Flycutters and Right Angle Drives



6761 Transformer

For Supply Voltage 380V, 415V, 440V. For supply voltage above or below this range, special transformer will be quoted.

F100 machines require 210-240 volt 3 phase power supply. If the voltage at place of installation is above or below this range, a transformer is required.

Suggested Hold Down Anchor System

9203T Hold Down Anchor Kit For F103/4/5 Machine Installation

