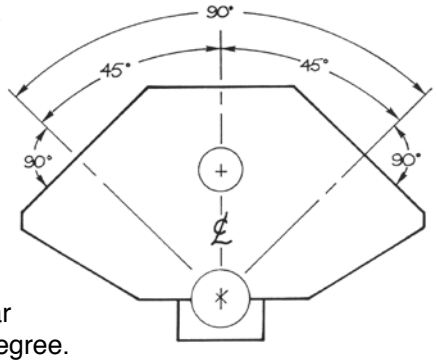
Blok-Tru



BHJ's Blok-Tru engine block Blueprinting Fixture corrects improperly machined deck surfaces, commonly caused by factory machine tolerances and production line inaccuracies. This precision-machined Fixture has a true 45-degree angle machined at each side of its own centerline. The Blok-Tru Index Plate, when installed on the cam-crank centerline of the block, is then referenced to roll over and correctly index the block into position for the resurfacing operation. An optional upgrade allows the Blok-Tru to also work with Ford's Triton/Modular blocks, which lack a cam tunnel by design.

When the Blok-Tru is set-up and used in the prescribed manner, all angular dimensions shown in the illustration can be held within five minutes of one degree. Top engine builders across the country rely on the Blok-Tru to provide the level of accuracy necessary for today's performance requirements.

Common issues improved after using the Blok-Tru include:

Twisted Blocks: On a twisted block, it is necessary to choose a point on the deck surface to use as a reference point for set-up. As a result, you may be compounding the out-of-square condition.

Uneven Deck Clearance: Deck clearance often varies between the top and bottom edges of the piston due to the deck surface not being at 90 degrees to the bore. On race engines where deck clearances are held on the verge of piston to head contact, any discrepancy in deck angle means lost compression.

Bores Not At 90 Degrees: Since most production lines use the pan rails as the reference point, it is common to find the bores at angles other than the intended 45 degrees when referenced from the cam-crank centerline.

Cam and Ignition Timing Variations: If you have run into cam timing variations between cylinders on opposite banks, it may not be the fault of the camshaft. Again, since most blocks are machined from the pan rails, the cylinder "V" may not be at 45 degrees when referenced from each side of the cam-crank centerline.

O-Ring Groove Variations: If you are cutting O-Ring grooves on a boring stand which references from the pan rails, it is not uncommon to have drastic depth variations.

Poor Intake Manifold Fit: This condition is usually blamed on the intake manifold. However, if the included angle of the deck surfaces is not 90 degrees or if the top of the block has the incorrect angle, the manifold may not be at fault.

Block Deck-Height Measurements: The Blok-Tru is marked with the height from the crankshaft centerline to index surface. A simple measurement from the block deck surface to the index surface of the Blok-Tru plate, added to the Plate's marked dimension gives you the deck height. This measurement can be easily made using our Deck Height Micrometer, shown on page 8.

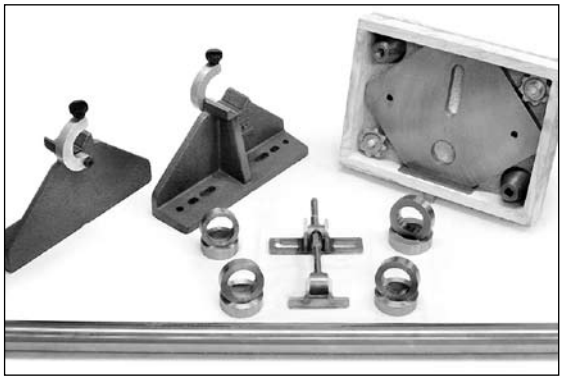
The Blok-Tru can be tailored to fit virtually all automotive resurfacing machines, as well as conventional vertical and horizontal milling machines. The Blok-Tru is offered in Kit form to fit several of the more popular resurfacers, or can be put together with the individual components necessary to suit your application.

Blok-Tru Basic Kit

The Blok-Tru Basic Kit is the necessary starting point for tailoring the Blok-Tru to fit resurfacing machines supplied with a 2" diameter support bar from the manufacturer. The Blok-Tru Basic Kit consists of a precision-machined Index Plate, Cam Tunnel Alignment Cones, Cam Tunnel Clamping Hardware and accommodations for optional hardware to allow machining the Ford Triton/Modular O.H.C. blocks.

Use of the Blok-Tru Basic Kit requires the 2" Precision Support Bar and Main Bearing Bore Adapter Rings, which are sold separately and shown on page 5. Existing Blok-Tru Index Plates may also be upgraded to work with the Ford Triton/Modular, by sending the plate to BHJ for machining and parts.

Blok-Tru Fixed Stand Kit



BHJ's Blok-Tru Stand Kit fits a broad range of overhead resurfacing machines with a traversing table or head. All necessary parts are supplied for block set-up and indexing from the table-up. The Blok-Tru Stand Kit includes all parts in the Blok-Tru Basic Kit, with the addition of our 2" Precision Support Bar, four pairs of Main Bearing Bore Adapter Rings to fit the customer's choice of engine applications, one pair of heavy duty, cast iron Fixed Support Stands for block support, a Roll Over Lock to control block indexing and, when necessary, a machine-specific Table Extension Bar (specify machine when ordering).

The Support Stands are machined to accommodate T-slots in overhead resurfacing machine tables, as well as conventional vertical milling machines with tables measuring 9" x 42" or larger. Each Stand includes a hinged Latch which, when rotated over the 2" Precision Support Bar, holds the Bar firmly in place with a Clamping Knob during the set-up operation.

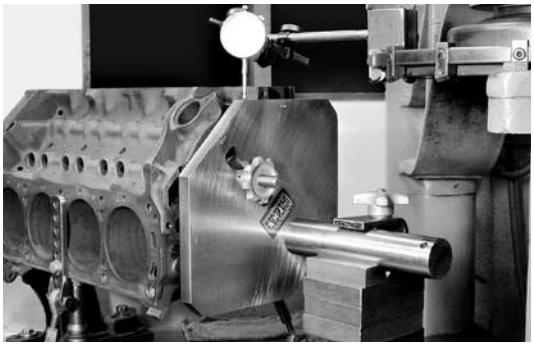
This Kit may also be ordered with optional hardware to allow machining Ford Triton/Modular O.H.C. blocks.

Blok-Tru SV Kit

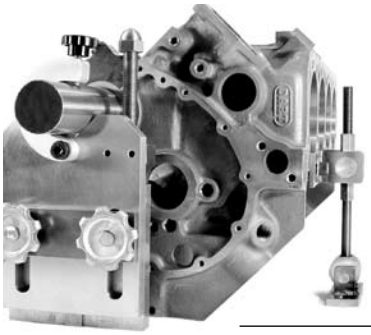
The Blok-Tru SV Kit contains all of the parts necessary to install the Blok-Tru on a Storm Vulcan Blockmaster 85B, 85C, 85EL and 85N.

The Blok-Tru SV Kit includes all parts in the Blok-Tru Basic Kit, with the addition of BHJ's 2" Precision Support Bar, four pairs of Main Bearing Bore Adapter Rings to fit the customer's choice of engine applications and a pair of V-Blocks which mount on top of the existing Storm Vulcan stacking blocks to cradle the 2" Bar.

This Kit may also be ordered with optional hardware to allow machining Ford Triton/Modular O.H.C. blocks.



Blok-Tru Winona Van Norman 570 Kit



The Blok-Tru WV570 Kit works with Winona Van Norman's 570 Rotary Broach. The kit includes all parts in the Blok-Tru Basic Kit, with the addition of a 2" Precision Support Bar, four pairs of Main Bearing Bore Adapter Rings to fit the customer's choice of engine applications. One pair of Adjustable Stands for block support, which bolt to the machine's bolster plates and a Roll Over Lock to control block indexing are also included.

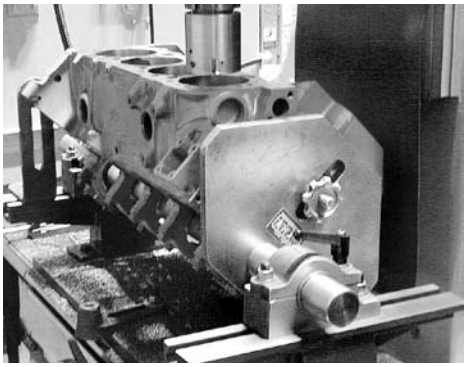
This Kit may also be ordered with optional hardware to allow machining Ford Triton/Modular O.H.C. blocks.

Blok-Tru Winona Van Norman 2.250 Kit

BHJ's BLOK-TRU WV2250 Kit fits Winona Van Norman's "M", "MG", "SM", "VB" and "VM" series, as well as all machines equipped with 2.25" diameter main support bars.

The kit includes all parts in the Blok-Tru Basic Kit, with the addition of a 2" Precision Support Bar, four pairs of Main Bearing Bore Adapter Rings to fit the customers choice of engine applications and one pair of bronze WV Adapter Sleeves to up-size each end of the 2" Precision Support Bar for proper fit into the 2.250" factory stands.

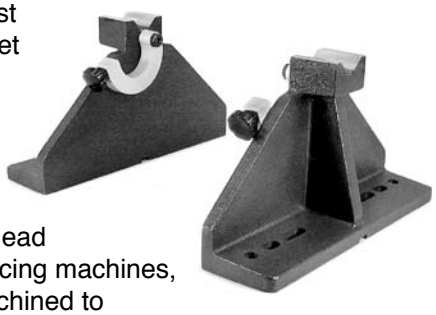
This Kit may also be ordered with optional hardware to allow machining Ford Triton/Modular O.H.C. blocks.



Blok-Tru 60-Degree V-6 Adapter

Use of the Blok-Tru 60-Degree Angle Adapter in conjunction with the Blok-Tru plate will allow the machinist to accurately correct the deck surfaces of a 60-degree, V-6 block to the proper angles. The adapter magnetically adheres to the index surface of the Blok-Tru plate, allowing a V6 block to be indicated in flat or parallel from the top surface of the adapter.

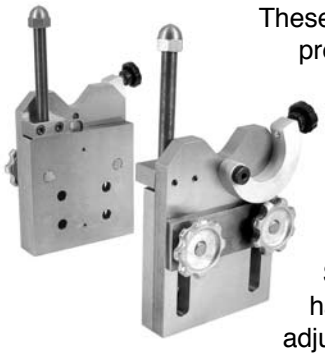
Blok-Tru Fixed Stand Set



BHJ's massive, cast iron Fixed Stand Set provides level, rigid support of the 2" Precision Support Bar. Ideal on all conventional overhead automotive resurfacing machines, the Stands are machined to accommodate T-slots in overhead resurfacing machine tables, as well as conventional vertical milling machines with tables measuring 9" x 42" or larger. A column riser will be necessary in most Bridgeport-type applications.

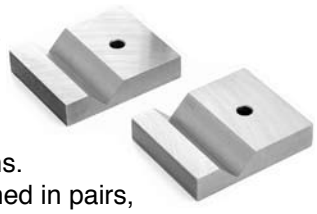
Sold in pairs, each Stand has a hinged latch which, when rotated over the 2" Precision Support Bar, holds the Bar firmly in place with a clamping knob during the set-up operation.

Blok-Tru Adjustable Stand Set



These adjustable Stands are precision-machined to bolt directly onto the bolster plates of the Winona Van Norman 570 and 530 Rotary Broach resurfacers. Sold in pairs, the stands cradle and firmly clamp the 2" Precision Support Bar in place and have independent height adjustment so the main bearing centerline of the block can be adjusted absolutely parallel to the cutter head of the machine.

Blok-Tru V-Blocks



Precision-machined V-Blocks are supplied as standard equipment with the Blok-Tru SV Kit, but will also work in a number of other applications. Precision-ground and machined in pairs, they measure 4" x 5" x 1" thick and have a through-hole drilled to accept a 1/ 2" stud or bolt for clamping. These dimensions are the same as the stacking blocks used on the Storm Vulcan Block Master. The V-Blocks are installed on top of the stacking blocks and cradle the 2" Precision Support Bar.

V-Block sets are also available with Hinged C-Clamps with Tightening Knobs. The Clamps are rotated over the 2" Precision Support Bar and tightened, to hold it securely in place during setup. Block thickness is increased to 2", with all other dimensions remaining the same.

Rollover Lock

BHJ's Rollover Lock, normally included in the Blok-Tru WV570 and Stand Kits, is also available separately to control block indexing on many other machine applications.

One end bolts to the block at the motor mount and the opposite end bolts to the machine table. The Jack Screw allows precise adjustment and locks to prevent movement during machining.

Deck Height Micrometer

BHJ's Deck Height Micrometer incorporates an oversize, heavy-duty base, which allows the attached measuring spindle to easily reach from the edge of the deck surface out and down to the Blok-Tru Plate. Actual deck height is determined by adding the measured distance to the Blok-Tru center distance, which is machined on the face of the Blok-Tru Plate.

Winona 2.250 Adapter Sleeves

This pair of precision-machined, bronze Sleeves is installed over each end of BHJ's standard 2" Precision Support Bar to accurately up-size the ends for use in Winona Van Norman equipment which originally came with a 2.250" diameter support bar from the factory. 2" Support Bar not included.