

BLOUNT MACHINES SINCE 1888

VOCATIONAL and INDUSTRIAL LATHES & GRINDERS

BLOUNT machines combine safety and efficiency features that have created national demand among leading Vocational Schools and Industries for over 75 years!

From Maine to California, Blount Lathes and Wet Tool Grinders are operating in some of the finest school systems in the land. Since 1888, more Blount machines are being operated by students than all other makes combined sure proof of Blount quality and superiority of manufacture. Blount has pioneered in the safety design of their wood turning and light metal spinning lathes. Engineered for rugged use, Blount Lathes operate efficiently year after year for these vital training courses. No finer machine for the money has ever been made. Manual training teachers agree Blount machines stand up; are safer to use when instructing; are easier to maintain in operating condition because of their rugged construction.

Investigate the Blount line of machines and compare. Here are but a few places Blount machines have been operating in colleges and schools: in New York: Brooklyn, Buffalo, Syracuse and New York City; in Maine: Orono; in Massachusetts: Boston, Cambridge, Newton, Worcester; in Pennsylvania: Philadelphia, Pittsburgh; in California: Los Angeles, San Francisco; in Illinois: Chicago; in Washington: Seattle, Tacoma; in Ohio: Cleveland; in Michigan: Detroit; in Wisconsin: Milwaukee; in Alabama: Birmingham.

Blount Grinders are used extensively in industry where small tools require sharpening.

Space requirements for Blount grinders are small; a most important feature to the small toolroom, shop, trade school, or institution. You can be sure you get a machine with long life and slow depreciation when you buy Blount backed by over 75 years of real New England skill and craftsmanship in manufacture.



Williams & Hussey Machine Corp., with the J. G. Blount Co. Division, Home of Blount machines in Milford, New Hampshire, is a 12 acre area shared with The O.K. Tool Company, Inc. with modern common management.

The O. K. Tool Company, Inc. of Milford, N. H. along with its affiliates in England, West Germany and Canada, is the largest maker of Inserted Blade Cutters, Multiple Tooling and Tooling for Transfer and automation machines.



BLOUNT Model F.T.C. 20" WET TOOL GRINDER

This Blount Wet Tool Grinder is especially designed for fast rough grinding of Tungsten Carbide Tipped tools. Method of grinding is free-hand and the tool is held against a protractor guide and directed at the proper angle against the grinding wheel. Feature of the Model F.T.C. is the Adjustable Table for accuracy of angles and rapid clearances on tools. With adjustment in all three planes, the grinding of all possible angles can be accomplished. The angular adjustment can be set up to 35° in all planes. The table may be raised or lowered approximately 2" from the wheel center. Two angle adjustment is obtained in the table while the third angle with respect to the wheel face is obtained with the sliding protractor guide. This Model can be equipped with special grinding wheels for high speed, or special alloy steel tools.

GENERAL CASTING CONSTRUCTION OFFERS INCREASED RIGIDITY with strong webbed, heavy cross-sections, and smooth round corners of castings provide for rigid and vibrationless grinding operations. The hood or wheel guard is of cast steel with removable cover enclosing the grinding wheel. This hood carries an adjustable nose piece. The entire casting assembly is smooth, symmetrical, and free of protruding nut and bolt heads. The whole machine has a "streamline" appearance. It is easy to keep clean and safe to operate.

Speed in wheel change is made possible by merely removing the cover on the wheel side, unscrewing a single nut and removing loose flange. Change takes less than a quarter the time needed on other grinders of similar design.

The main oversize spindle shaft turns effortlessly in Timken tapered roller bearings, mounted in a specially designed pillow block. This long life bearing can always be kept in adjustment by simply taking up on a lock nut at pulley end of spindle.

No oil can leak out and no abrasive sift in, as Garlock oil seals are located on inside of each bearing cap. As a further safeguard, labyrinth grooved seals are provided in the tight flange hub and inside the V-pulley.

WHEEL AND SHAFT ARE ADJUSTABLE FOR BALANCE and the spindle, tight and loose flanges, are machined all over. Two balance weights are provided in the loose flange which is keyed to the spindle, and those are adjustable for keeping the wheel in balance.

Located just inside the rear ventilated base door, is the centrifugal water pump. From this pump the coolant is drawn from the tank above and forced directly through a control valve up to the grinding wheel. At this point a cleaning action to the wheel is obtained, because the water is ejected directly against it and onto the material being ground. The remote control can be quickly adjusted by the operator to supply just the right amount of coolant required.



SPECIFICATIONS & DIMENSIONS

2 HP 1800 RPM 220/440 volt motor drive with regular magnetic starter Spindle RPM - 1000 - optional Pump RPM - 1000 Height floor to center of spindle - 363/4" Height floor to top edge of pan -341/2''Height bottom of pan to center of wheel -10''Pan -37'' long, $22^{1/2}''$ wide and 6'' deep Adjustable Table of hardened steel and ground. Spindle diameter in bearing -2''Timken bearing Pillow Block with 1-455 cone; 1 - 467 cone; 2 - 453a cups Dimensions of Base $-28'' \ge 271/2''$ Distance from wheel to outside front edge of pan - 15" Grinding wheel diameter and size: 20" x 21/2" x 9" No. A-68 three V-belts for spindle drive. No. 3380 V-belt for pump drive. Grinding wheel for carbide tools No. 3C-543-H12V-32



SPECIFICATIONS & DIMENSIONS

2 HP 1800 RPM 220/440 Volt motor drive with regular magnetic starter. Spindle RPM-1000 Pump RPM-1000 Combination Tool Rest & Wheel Dresser Height floor to center of spindle $-363/_4$ " Height floor to top edge of pan $-34^{1/2}$ " Height bottom of pan to center of wheel -10''Pan -37'' long, 221/2'' wide and 6'' deep Spindle bearing diameter -2''Timken bearing pillow block with 1 No. 455 cone; 1 No. 467 cone and 2 No. 453a cups Base dimensions - 28" x 271/2" Grinding wheel dimensions $-20'' \ge 21/2'' \ge 9''$ Grinding Wheel No. A46-M5-V22 Distance from wheel to outside edge of pan - 15''Three V-belts for spindle drive - No. A-68 One V-belt for pump drive - No. 3380 **OPTIONAL EQUIPMENT: A 6"x 10" adjustable metal** Tilting Table can be furnished at an additional cost.

BLOUNT Model F 20" WET TOOL GRINDER

Designed for modern high speed production, the Model F 20" Wet Tool Grinder can be used to sharpen all hard metal tools of High Speed Steel, Steel Alloys and with a wheel change, tungsten carbide steel tools. Like all Blount grinders, Model F is ruggedly constructed and built to give years of service with a minimum of maintenance. Users like The Ford Motor Company have been grinding their tools on Blount Grinders for many years.

GENERAL CASTING CONSTRUCTION OFFERS INCREASED RIGIDITY with strong webbed, heavy cross-sections, and smooth round corners of castings for rigid and vibrationless grinding operations. The hood or wheel guard is of heavy cast iron with removable cover enclosing the grinding wheel. This hood carries an adjustable nose piece. The entire casting assembly is smooth, symmetrical, and free of protruding nut and bolt heads. The whole machine has a "streamline" appearance. It is easy to keep clean and safe to work about.

Wheel change is made possible by merely removing the cover on the wheel side, unscrewing a single nut and removing loose flange. Change takes less than a quarter the time needed on other grinders of similar design.

The main oversize spindle shaft turns effortlessly in Timken tapered roller bearings, mounted in a specially designed pillow block. This long life bearing can always be kept in adjustment by simply taking up on a lock nut at pulley end of spindle.

No oil can leak out and no abrasive sift in, as Garlock oil seals are located on inside of each bearing cap. As a further safeguard, labyrinth grooved seals are provided in the tight flange hub and inside the V-pulley.

WHEEL AND SHAFT ARE ADJUSTABLE FOR BALANCE and the spindle, tight and loose flanges, are machined all over. Two balance weights are provided in the loose flange which is keyed to the spindle, and those are adjustable for keping the wheel in balance.

Located just inside the rear ventilated base door, is the centrifugal water pump. From this pump the coolant is drawn from the tank above and forced directly through a control valve up to the grinding wheel. At this point a cleaning action to the wheel is obtained, because the water is ejected directly against it and onto the material being ground. The remote control can be quickly adjusted by the operator to supply just the right amount of coolant required.

BLOUNT Model G combination 2-wheel 12" WET and DRY GRINDER

For the Shop or School that sharpens tools both wet and dry, this Model G Combination Grinder provides a "two in one" set-up. Edged tools can be ground wet and general purpose tools can be ground on the dry wheel. Space saving, the combination makes an ideal machine wherever space is at a premium. Tool Rests are adjustable. The motor is totally enclosed with the ball bearing spindle. Pump is also motor driven.

Model G with Detachable Twist Drill Grinding Attachment

Here is the Model G Combination Wet and Dry Two Wheel Grinder with a Detachable Twist Drill Grinding Attachment. This Attachment is placed on the right side of the Grinder to be used with a cup wheel and has a tool diameter capacity of from $\frac{1}{8}$ " to $\frac{1}{2}$ ", or $\frac{1}{4}$ " to $\frac{2}{2}$ ". The Grinder dimensions and specifications are the same as given above.



SPECIFICATIONS & DIMENSIONS

BLOUNT

3 HP 1750 RPM 220/440 Volt motor drive with regular magnetic starter

Spindle speed - 1750 RPM

Grinding wheels 12" x 2" x 1¹/₄": 1 Medium and 1 Coarse Vitrified (specify)

Base of Column $-22'' \ge 19^{1/2}''$

Height base to spindle -371/2''

Height base to pan $-32^{1/2}$ "

Bearings, deep groove, No. 308

Spindle arbor $-1\frac{1}{4}''$

Width between wheels $-22^{1}/_{4}''$

Pan width - 153/4"

Pan depth -41/2''

BLOUNT Model J 12" TWO WHEEL WET TOOL GRINDER

The plant that has a lot of tool grinding can double their tool grinding output and cut grinding time in half because two men can sharpen tools at the same time with this Two Wheel Wet Tool Grinder. The Grinder is basically the same design as Model G, except for the addition of a second wet tool setup for grinding edged tools and the piping necessary for its operation. A Foot Treadle can be added to this model (as illustrated, if desired) for a small additional cost.

SPECIFICATION & DIMENSIONS

3 HP 1750 RPM 220/440 motor drive, pump motor drive and two regular magnetic starters. Motor totally enclosed type. Two $12'' \ge 2'' \ge 1\frac{1}{4}''$ grinding wheels for wet grinding edged tools. **Adjustable Tool Rests** Spindle Arbor, 11/4" Spindle Speed, 1750 RPM Base of Column, 22" x 191/2" Height base to pan, $32^{1/2}$ " Height bottom of pan to top of Rest, 91/2" Outside to outside of pan, 41" Foot Treadle optional at extra cost. Removable clean-out pan Pan width, 153/4"; depth, 41/2" 221/4" between Wheels Height base to spindle, 371/2''Deep Groove bearings No. 308 Approx. Gross weight, 1,000 lbs.





BLOUNT Pattern Makers

2HP MOTOR HEADSTOCK LATHE

4 SPEED WITH 8 FOOT BED 8 SPEED WITH 8 FOOT BED

The Blount 2 HP Motor Headstock Pattern Maker's Lathe shows economies in power and up-keep and meets the exacting requirements of the modern pattern shop for motorized equipment.

This Blount Lathe is provided with a 2 HP multi-speed ball-bearing motor headstock which is fully enclosed and completely dust-proof. Main and jack spindles are of high carbon steel and turn in heavy duty deep-groove-type ball bearings. Spindle is bored throughout ³/₄" and fitted with Morse No. 3 taper in nose. Main spindle speeds are: 575-1160-1725-3450 R.P.M. The jack spindle through a gear reduction has one-half these speeds. The reduced speeds make possible the turning of large diameter work on rear faceplate. Quietly and smoothly running in oil the gears can be disengaged when rear faceplate is not in use. A special spindle lock is provided for quick and easy removal of faceplate. Heavy motor end brackets have special provision against entrance of dust and dirt.

Speed variation is obtained through a drum type controller which is fully enclosed and mounted on the outside of the headstock leg.

Where full electrical protection for motor is desired, a magnetic starter is furnished with overload and low voltage protection.

The hand feed carriage, compound rest and full set-over swivel tailstock are of rugged sturdy design with ample bearing surfaces carefully gibbed and fitted preventing vibration and providing adjustment for wear. The compound rest and set-over swivel tailstock have a full 360° swing, graduated so that any degree of taper may be bored.

The bed has three V ways, is of heavy construction of fine grain gray cast iron, cross braced like engine lathe beds to prevent warping and assure alignment.

Regular equipment on each lathe includes: 10" outside faceplate, 8" inside faceplate, 4½" screw chuck, cup and spur centers, rest holder, two tee rests 8" and 15" long, and right-angled rest.

SPECIFICATIONS & DIMENSIONS

Single Voltage Motors for Alternating Current only, 3 phase, 60 cycle 220, 440 or 500 volts.

Main Spindle Speeds: 575, 1160, 1725 and 3450 RPM Rear Spindle Speeds: 280, 580, 863 and 1725 RPM

SIZES	16" x 6'	16″ x 8′	$16^{\prime\prime} \ge 10^{\prime}$
Distance between centers in inches	3 9 ″	63″	87"
Spindle bore, inches	3/4"	3/4"	3/4"
Net weight in pounds	970	1070	1350
Approximate Shipping weight in pounds	1060	1180	1470
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Also available in 18" swing and 6' bed length; Prices on application.

BLOUNT Headstock LATHES

... designed especially for VOCATIONAL and INDUSTRIAL use

Maximum safety with maximum performance makes one of these Blount Lathes the ideal lathe for vocational school shops, colleges, and industrial institutions where training courses are held. Extensively used by the New York Board of Education, Blount Lathes are unexcelled for the job they have been designed to do. They are produced by skilled craftsmen and backed by 75 years of engineering know-how in the field of lathe making to bring you the most efficient lathe for the money it is possible to produce today. No sacrifice has been made to either the quality of materials used, or the devices believed to improve its safety features. Proof of Blount superiority is quickly found in the great number of Blount Lathes still in tip-top operating condition after many continued years of hard use. Blount Lathes are solid; made heavier to stand up under severest use with an ease of operation in both wood turning and light metal spinning that pleases both teacher and operator, or the man in the machine shop whose living is dependent on producing good work from such a machine.

SPECIFICATIONS STANDARD ON BLOUNT LATHES 4SIC - VS61 - 4SPC

CAPACITY: Swing 12" over main part of bed, 16" over gap in bed with $4^{1}/_{2}$ " wide work space. Standard bed length 65" with 40" between centers.

BED: One piece gray iron casting of box type construction with cross ribs normalized to relieve all stresses, ground with frosted working surface. Height floor to center of spindle 42''. Floor to top of bed $353_4''$. Width, $63_4''$. Depth, $61_4''$. Other lengths furnished at additional cost.

TOOL SHELF: 3/4" plywood 113/4" wide.

TAILSTOCK COLUMN: Provides storage space for lathe equipment, with shelf and hinged door.

HEADSTOCK: Exclusive Blount design. Spindle is mounted on two No. 208 grease-sealed ball bearings, non-lubricating type and spring loaded for longer life and smooth, quiet operation. It has a 9/16" hole through spindle with Morse No. 2 taper for center. Thread on spindle nose $1^{1}/8''-12$ N.F. right hand and same, at rear end of spindle, left hand, for rear faceplate. A plunger type spring loaded spindle lock is located on the front side of Headstock and secures the spindle when removing faceplates, etc.

TAILSTOCK: Heavy gray iron body casting of open side design secured to bed with clamping bolt and lever type wrench. Ground spindle has positive wedge type lock and No. 2 Morse per bore for self ejecting center.

Large feed screw handwheel.

TOOL REST: Front operated cam type. FLOOR SPACE: 70" x 18". NET WEIGHT: 600 lbs. GROSS WEIGHT: 700 lbs.

STANDARD EQUIPMENT: 6" and 12" tool rests; 6" diameter front faceplate; 8" diameter rear faceplate; 3" diameter screw chuck; 1" spur and $\frac{3}{4}$ " cup centers; spanner wrench and center knockout rod.



Model 4SIC

1/2 HP SINGLE VOLTAGE — 3 PHASE — CONTINUOUS DUTY 600-1200-1800-3600 RPM

MODEL 4SIC has been especially designed and is recommended for use in schools and colleges, and assures maximum safety with maximum performance. Speed control is obtained through a four speed Drum Controller with interlock and mounted in the bed under the Headstock. A Start/Stop Pushbutton is conveniently mounted beneath the Controller and wired to the magnetic starter at the rear of the Headstock.

An electrically operated shoe-type Brake automatically locks the spindle when the Lathe is stopped. Motor can only be started in the LOW speed. In case of power failure, control must be returned to the "OFF" position before starting.

ALL BLOUNT LATHES CARRY A ONE YEAR FACTORY UNCONDITIONAL GUARANTEE

Model 4SPC MOTOR HEADSTOCK LATHE

 $\frac{1}{2}$ HP, single voltage, 3 phase continuous duty motor drive.

This Model 4SPC is identical to Model 4SIC except that it does not have as many safety features in order to keep the price down. Speed control is obtained through a standard four speed drum controller mounted in the bed under the Headstock for regular spindle speeds of 600-1200-1800-3600 RPM. A magnetic starter with pushbutton control is optional at extra cost.





Model VS61 VARIABLE SPEED LATHE

This Blount Variable Speed Lathe is furnished with a ³/₄ HP open type ball bearing, 1750 RPM, 3 phase, 60 cycle 220, 440 or 550 volt motor drive with magnetic starter mounted on an adjustable plate in the Headstock column. Motor drives the spindle with "B" section V-belts through a variable speed pulley arrangement for spindle speeds of 600 to 2800 RPM. A 1 HP motor drive can be furnished as optional at extra cost. The Speed Control handle is located on the end of the Headstock column, Spindle speeds can be easily changed by moving the control handle to the required speed and locking it in position with a slight turn of the wrist. When the control lever is in the "OFF" position, all current is cut off from the magnetic starter and motor. Motor cannot be started again until control handle is raised to Low Speed and Starter Button is pressed. Thus motor cannot be started except in Low Speed. With power failure, control handle must be returned to "OFF" position before starting — another Blount safety feature.



BLOUNT CHUCKING LATHES

Blount pedestal type variable speed Headstock Chucking Lathes are designed to finish small parts quickly, particularly parts with varied tolerances such as are found in aircraft and automobile engines. Requiring but little floor space, several of these versatile Chucking Lathes can be grouped together in the same space formerly occupied by a larger machine and produce considerably more finished parts per hour. Three models comprise this type of Lathe to meet the demand for 6" and 8" chucks, 10" and 12" chucks and for power air chucks and expanding mandrels. Lever-draw-in collets can be furnished as optional equipment at extra cost where required. An electric built-in shoe type brake is also available at additional cost. These chucking Lathes can also be furnished with 2 and 3 HP motor drives and will be priced on application.

SPECIFICATIONS & DIMENSIONS

Height from floor to center of spindle -43''

Length of base (parallel to spindle) -26''

Width of base (right angle to spindle) $-15\frac{1}{2}$ "

Work Table dimension - 12" long and 10" wide

Net weight of above - 675 lbs.

Gross crated weight of above - 750 lbs.

1 HP Motor 1200 RPM Ball Bearing standard type

Spindle speeds regularly supplied are 75 to 600 RPM.

Other spindle speed ranges available, to suit requirements, on application.

MODELS PW-25, PW-25A and PW-25B

The standard PW-25, PW-25A and PW-25B Chucking Lathes are furnished for spindle speeds of 75 to 600 RPM approx., with 1200 RPM motor enclosed in machine base with an 8" spring loaded type 8-1-M "V" sheave pulley, and belted to an 8" 8-1-C Controllable sheave pulley on speed reducer. The opposite side of the gear reducer has a 5.4 P.D. 4B V pulley and this is belted to main spindle of headstock having a 6.6 P.D. 4B V pulley. Machine is furnished with ball bearing standard motor mounted in base and V belted to a 25 H-4 Helical gear reducer on one side and on the other side to main spindle of headstock.

The speed control hand wheel is located at the left of the operator on the side of pedestal. Rotating hand wheel clockwise increases the speed (RPM) of headstock spindle and counter-clockwise reduces the speed.

The headstock is mounted on top of the pedestal. The Model PW-25 is furnished with two (2) No. 210 SR bearings and the

PW-25A has one (1) No. 210 and one (1) No. 212 SR bearing. Nose end of spindle on PW-25 is threaded 1⁵/₈"-10 U.S.S. thread and 1³/4"-8 on the PW-25A model. Model 25B is furnished with two (2) No. 212 SR bearings and special spindle for air chucks, expanding arbors, or mandrels. A stop pin is provided for holding spindle when removing chuck. When used exclusively with chucks a solid spindle is furnished and the nose end is drilled and tapped for a safety screw, which secures chuck and chuck plate to threaded spindle nose. BEFORE REMOV-ING CHUCK REMOVE THIS SAFETY SCREW.

Generally an ELECTRIC SOLENOID brake is mounted on the rear of spindle for quick stopping, providing a minimum loss of time required in loading and unloading parts. Also, machine can be furnished with magnetic starter and remote push button and reversing drum switch if desired.

W & H Molder-Planers

FOR PRECISION PLANNING AND PATTERN WORK

Capable of molding, planing, jointing and edging, the W & H Molder-Planers are the safest, most economical, most versatile machines in their price range. Only machines costing thousands of dollars can possibly compare with the W & H.

Both Hand Feed or Power Feed bench models are available, and the hand feed unit may be converted to a power in-feed machine.

By utilizing waste and rough-sawn stock with the easy-to-operate W & H, the machine quickly pays for itself. Warped boards can be planed to even thicknesses. Chips and sawdust are ejected through the head away from material and machine.

The W & H unit, equipped with $7\frac{1}{6}$ " heavy duty planing knives, will plane stock up to 14" width by reversing materials. Minimum thickness to which stock may be planed is $\frac{1}{6}$ ". In a single pass a $\frac{1}{4}$ " cut may be planed off. Molding cuts up to $\frac{3}{4}$ " in a single pass are common. Over 1000 different molding pattern knives available. Simple micrometer adjustments, requiring only one crank arm setting, speed set-up to a matter of minutes.

Output capacity is 15 feet per minute with Power Feed. Using multiple cavity cutters, for example, processing solid stock with a 4-cavity cutter will produce 4 quarter rounds in one pass or 60 feet per minute.

The W & H Molder-Planer is absolutely safe to operate, with knives recessed in head. Knives are protected by chip deflector which forms a pressure bar in back of the cutting head.

Built with a minimum of moving parts, the W & H requires only two minutes to change over from molding to planing or change molding or pattern cutters. The shoulder guide for mounting assures positive cutter alignment. The two-knife cutter head operates at 7000 r.p.m. head speed producing a finish comparable to a sanded surface.

The unique design of the chip deflector casting mounted on an axis pin is so balanced that it acts as a down-pressure bar on stock feed into the machine.

The outfeed pressure roll and balanced self-adjusting combination chip ejector guard and hold-down pressure bar eliminates kick-back, wave and chatter marks.

FREE

SEND FOR COMPLETE BROCHURE DESCRIBING 4 HAND FEED AND POWER MACHINES WITH ACCESSORIES INCLUDING OVER 1000 DIFFERENT MOLDING KNIVES.



SPECIFICATIONS & DIMENSIONS

OVERALL DIMENSIONS: 171/4" Height 14" Front to rear 147/8" Left to right CAPACITY - PLANING: 71/8" 14" Width of planing knives. Maximum width of stock (by reversing) 8¹/4" 1/8" 6" Maximum thickness of stock Minimum thickness of stock Minimum length of stock (unbutted) 15' Linear feet per minute Maximum depth of planing cut 1/4" CAPACITY - MOLDING: 71/8" Maximum width of knives Maximum width of stock Any width Note: Open side machine permits processing stock regardless of width. 81/4" Maximum thickness of stock 1/8" 6" Minimum thickness of stock Minimum length of stock (unbutted). 15' Linear feet per minute Note: Linear feet per minute may be increased by mounting two or more sets of knives on cutting head or by using multiple cavity knives. Maximum molding cut 24" x 24" FLOOR SPACE REOUIRED:

BLOUNT

MACHINES SINCE 1888



VOCATIONAL and INDUSTRIAL

LATHES & GRINDERS

MANUFACTURED BY

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