J-LINE
WOODWORKING MACHINES
FOR SCHOOLS AND INDUSTRY

DISTRIBUTED EXCLUSIVELY TO SCHOOLS BY

BRODHEAD-GARRETT
4560 East 71st Street, Cleveland, Ohio 44105
Western Division: 1233 Broadway, Sacramento, California 95818

"Progress with a meaning"
On the following pages you will see the complete series of J-Line woodworking machines. Each unit has been designed to incorporate modern working features.

Every piece of every machine has been designed to provide years of trouble-free service. It will withstand professional and student use. Each J-Line machine incorporates the latest safety factors for protection of the operator.

These machines are available with a wide range of motors, starters and accessories so that they may be ordered to fit your specific requirement.

For schools or industry, the quality line is J-Line.

**TABLE OF CONTENTS**

<table>
<thead>
<tr>
<th>Machine Type</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>TILTING ARBOR SAW 10&quot; (J-125)</td>
<td>4</td>
</tr>
<tr>
<td>Accessories</td>
<td>5</td>
</tr>
<tr>
<td>JOINTERS 6&quot; (J-136) 8&quot; (J-138)</td>
<td>6</td>
</tr>
<tr>
<td>Accessories</td>
<td>7</td>
</tr>
<tr>
<td>LATHE HEAVY DUTY 12&quot; (J-170)</td>
<td>8</td>
</tr>
<tr>
<td>Accessories</td>
<td>9</td>
</tr>
<tr>
<td>LATHE MEDIUM DUTY, 12&quot; (J-112)</td>
<td>10</td>
</tr>
<tr>
<td>Accessories</td>
<td>11</td>
</tr>
<tr>
<td>BOWL LATHES (J-116)</td>
<td>12</td>
</tr>
<tr>
<td>Machine Data</td>
<td>13</td>
</tr>
<tr>
<td>BAND SAW 14&quot; (J-114)</td>
<td>14</td>
</tr>
<tr>
<td>Accessories</td>
<td>15</td>
</tr>
<tr>
<td>BAND SAW 20&quot; (J-120)</td>
<td>16</td>
</tr>
<tr>
<td>Accessories</td>
<td>17</td>
</tr>
<tr>
<td>SCROLL SAW (J-126)</td>
<td>18</td>
</tr>
<tr>
<td>Accessories</td>
<td>19</td>
</tr>
<tr>
<td>BELT &amp; DISC SANDER (J-110)</td>
<td>20</td>
</tr>
<tr>
<td>Accessories</td>
<td>21</td>
</tr>
<tr>
<td>TILTING DISC SANDER (J-148)</td>
<td>22</td>
</tr>
<tr>
<td>Accessories</td>
<td>23</td>
</tr>
<tr>
<td>SPINDLE SHAPER (J-151)</td>
<td>24</td>
</tr>
<tr>
<td>Accessories</td>
<td>25</td>
</tr>
<tr>
<td>SURFACER 18&quot; x 6&quot; (J-186)</td>
<td>26</td>
</tr>
<tr>
<td>Accessories</td>
<td>27</td>
</tr>
<tr>
<td>SURFACER 23&quot; x 0&quot; (J-225)</td>
<td>28</td>
</tr>
<tr>
<td>Machine Data</td>
<td>29</td>
</tr>
</tbody>
</table>
All machines in this catalog are shipped completely wired and ready to operate. Each machine is run and tested for accuracy at the factory.
The J-Line 10" Tilting Arbor Circular Saw is designed for extreme accuracy and maximum safety, yet ease of operation has been maintained. This combination of features with its power and capacity (up to 3 HP), makes it the outstanding circular saw now available. The J-125, utilizing the full capacity of its 10" blade, works effortlessly, resulting in increased production at lower cost.

The entire saw mechanism is a self contained unit assembly, within the cabinet, carried on a single oversized precision trunnion. There are no separate assemblies to get out of line. This design allows the blade to raise, lower or tilt without binding...giving smooth floating positioning without hesitation.

Durability is increased by the heavily ribbed cast iron table (normalized, close grained). The table surface is fully machined with the right and left sides drilled for mounting of table extensions. The cabinet is of heavy steel construction. Embossed panels and a welded floor increase the rigidity. A removable panel on the top left side provides for inspection of the saw mechanism. A dust removal opening is also provided.

Accuracy is the keynote of the saw arbor. It is made of precision ground alloy steel. The arbor runs on lubricated-for-life bearings...perfectly aligned in a precision bored housing. Oversized double row ball bearings, on the blade side, give the stability required for lasting accuracy.

Smooth and Powerful drive easily transmits the full capacity of a 3 HP motor to the saw. This specially designed drive unit, with two steel cabled V-belts, transmits the full power of the motor evenly with maximum belt life. An added feature is the use of "standard NEMA frame motors of 1 1/2, 2 or 3 HP...no need for special motors."

Convenience and Operation Ease are apparent by the location of all controls close to the operator's position. Both tilt and hoist screws are provided with thrust bearings for ease of operation and full protection from sawdust and other dirt. Strong acme threads transmit the load. The hoist scale on the hoist handwheel allows the positioning of the blade height within thousandths of an inch. The tilt scale is set on a convenient eye angle. The electrical control switch is located on the left front and is fully guarded against accidental engagement or damage.

**SPECIFICATIONS**

- Diameter of Blade: 10"
- Diameter of Arbor at Blade: 7/8"
- Diameter of Arbor at Bearing: 2 3/8"
- Cutter Capacity on Arbor: 1"
- Maximum Depth of Cut at 90°: 3 1/4"
- Maximum Depth of Cut at 45°: 2 3/4"
- Arbor Speed: 4000 RPM
- Table in Front of Blade: 14" x 18 ½"
- Maximum Width of Cut off (1" Stock): 15 ½"
- Maximum Capacity Cross Cut: 24" x 18 ½"
- Miter Gauge Extended: 24" x 18 ½"
- Capacity to Fence—Right (with 22" extension): 29 3/4"
- Capacity to Fence—Left (with 11" extension): 18 ¾"
- Table Size (less extensions): 22" x 28"
- Table Size with Extensions (11" left, 22" right): 66" x 28"
- Tilt of Blade to Right: 45°
- Fence Height: 2 ½"
- Table Height from Floor: 34 ¾"
- Motors—Standard NEMA Frame. Totally Enclosed, Fan-Cooled, 1 1/2, 2 or 3 HP. Shipping Weight with Motor: 470 lbs.

BRODHEAD-GARRETT 4560 East 71st Street, Cleveland, Ohio 44105
CATALOG LISTING

BASIC MACHINE WITH CABINET: 10" circular saw with belts (60W303), rip fence, miter gauge (10W958), splitter and guard (10W976). Withoutifu, controls, extensions and switch.

BASIC MACHINE WITH CABINET: 10" circular saw with belts (60W303), rip fence, miter gauge (10W958). Without motor, controls, splitter, guard, extensions and switch.

CAT. NO. 10W400

MOTORS FOR SINGLE PHASE OPERATION (Specify Operating Voltage)
Motor, 1 1/2 HP, 115V/230V, 60 cy, 3450 rpm, totally enclosed... CAT. NO. 90W171
Motor, 2 HP, 115V/230V, 60 cy, 3450 rpm, totally enclosed... CAT. NO. 90W127

MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage)
Motor, 1 1/2 HP, 208-220/440 V, 60 cy, 3450 rpm, totally enclosed... CAT. NO. 90W129
Motor, 2 HP, 208-220/440 V, 60 cy, 3450 rpm, totally enclosed... CAT. NO. 90W130
Motor, 3 HP, 208-220/440 V, 60 cy, 3450 rpm, totally enclosed... CAT. NO. 90W131

STARTERS FOR SINGLE OR 3-PHASE OPERATION
Series magnetic, complete with low voltage overload protection, motor cord and fittings. Used with single phase, 1 1/2 HP, 230 V and 2 HP, 230 V motors only.

CAT. NO. 90W873

STARTER, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors.

CAT. NO. 90W875

STARTER, manual complete with overload protection, motor cord and fittings. Used with single phase, 1 1/2 HP, 230 V only and 3-phase through 2 HP motors. CAT. NO. 01W049

STARTER, manual complete with overload protection, motor cord and fittings. Used with single phase, 1 1/2 HP, 115 V, 1 1/2 HP & 2 HP, 230 V only and for all 3-phase motors.

CAT. NO. 90W863

Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used with single phase, 1 1/2 HP, 115 V, 1 1/2 HP & 2 HP, 230 V only and 3-phase through 2 HP motors.

CAT. NO. 90W864

Power Cord, 3 wire, 5 foot, complete with twist lock plug and fittings for use with manual switch and manual starters.

CAT. NO. 90W879

ACCESSORIES

Moulding Cutters... CAT. NO. 10W801 thru 10W830
Moulding Cutterhead with wrench... CAT. NO. 10W860
Moulding Cutterhead with wrench... CAT. NO. 10W863
Moulding Cutter Set (Heavy duty steel head with wrench and 3 set of 3 knives... each—10W805, 10W806, 10W810, 10W815)

Dado Head, 10" diameter... CAT. NO. 10W950
Table Insert for dado... CAT. NO. 10W951
Table Insert for moulding cutter... CAT. NO. 10W952
Table Insert for standard saw... CAT. NO. 10W953
Table Extension Arms, left hand with scale and fastener... CAT. NO. 10W954
Miter Gauge with stop rods... CAT. NO. 10W956
Motor Cover with fasteners... CAT. NO. 10W960
Rip Saw Blade, 10" diameter... CAT. NO. 10W961
Combination Rip Cross Cut Blade, 10" diameter... CAT. NO. 10W962
Planer Blade, hollow ground, 10" diameter... CAT. NO. 10W963
Novelty Blade, flat ground, 10" diameter... CAT. NO. 10W964
Solid Table Extension, right hand 22" with 2 miter gauge slots and adjustable post for leveling... CAT. NO. 10W970
Extension Arms, 19 1/4", for use with 22" solid extension... CAT. NO. 10W971
Table Extension Arms, right hand complete with scale and fastener... CAT. NO. 10W972
Solid Table Extension, 11" right hand side with scale, fasteners, 15/16" rip capacity... CAT. NO. 10W974
Solid Table Extension, 11" left hand side with scale, fasteners, 15/16" rip capacity... CAT. NO. 10W975
Solid Table Extension, 11" left hand side with scale, fasteners, 15/16" rip capacity... CAT. NO. 10W976
Cutter Set... CAT. NO. 10W977

The miter gauge has positive adjustable stops at 45°, 90° and 45°, easily and accurately set for repetitive cuttings. Head points full 120°. Miter gauge can be extended over the front edge of the table to give full 24" capacity ahead of blade without falling, as it is secured by lip on table plug. Stop rods for use on either side of blade allow repetitive cutting to the same length. With miter gauge head on table it will cross cut 1" stock 15/16" wide—with miter gauge extended by means of a table plug, 1" stock 25/16" wide can be cross cut. The 6" dado cuts 1 1/2" wide and 1 1/4" deep.

The smooth floating rip fence (patented) moves on ball bearings to exact position. A single cam lock positively locks fence in position both front and rear in one operation. The fence can be removed from the table at any position without need for moving it to the extreme end of the table or guide bars.

The pivot arms on the saw guard ride on ball bearings which allows smooth floating action. Roller bearings guide the guard with relationship to the splitter, eliminating twist and bind. A window allows inspection of cut or scribe mark. Splitter and anti-kickback fingers prevent stock bind and kick-back.

The Single Trunnion is bolted to the heavily ribbed table. This assures perfect saw alignment with the table surface even when the saw base is on an uneven floor. The single trunnion (oversize with large bearing surfaces, accurately machined) eliminates binding giving smooth floating action.
J-Line Jointers are designed to make precision cuts possible, even in the most unusual grained hardwoods...they are sturdy and will give long years of service. These machines are an asset in school shops because of their simplicity and safety features. When used by carpenters, contractors, cabinet shops, pattern shops or other similar operations, they are geared to do quality work on a mass production basis.

One of the most outstanding features of J-Line Jointers is the “shear cutting fence”...a simple adjustment of the Jointer Fence positions it at a 10° angle to the cutterhead to permit movement of the stock at an angle across the head thus reducing impact at the point of cut...this shearing action gives a smoother finish to the stock.

For bevel jointed cuts, the jointer fence can be placed at the required angle. The fence will tilt a full 45° in either direction. Positive stops are provided for 45°, 0° and 45° in the opposite direction.

J-Line Jointer tables are rigid, lengthy and accurately machined. Both front and back tables are equipped with a locking device to securely hold the table in position. The front table can be easily adjusted by a handwheel for proper depth of cut. The rear table has an added safety feature in that a handwheel is not provided for adjustment. Adjustment is made by use of a special wrench under the rear table. This design was used because the rear table needs adjusting only as the knives wear. This adjusting technique makes it impossible for someone to unknowingly move the rear table.

Additional safety features include the conventional swing-type jointer guard which is spring loaded. Where required or requested a special deluxe guard can be provided where the stock will pass under the guard. Another safety feature is the complete rear knife safety guard...this guard comes into use when the fence is brought over to the outside edge of the table for rabbeting purposes. The guard completely covers the rear of the knives.

To the safety, sturdiness and usefulness of the machine is added ease of operation. The operator will find accurate adjustments possible by means of easily read, conveniently located scales. Fence tilting scale, located behind the fence, can be seen from the operator's position...depth of cut indicator scale is found on the rabbeting arm.

The cutterhead is a 3-knife, round, safety-type cutting unit with a 2½" cutting circle. A set of two jack screws for each knife makes possible individual knife adjustments. The cutterhead runs in lubricated-for-life bearings.
CATALOG LISTING

BASIC MACHINE WITH CABINET: 6" Jointer with fence, arbor pulley, swing guard, motor pulley and belt. Without motor and switch ........................................... CAT. NO. 30W300
BASIC MACHINE WITH CABINET: 8" Jointer with fence, arbor pulley, swing guard, motor pulley and belt. Without motor and switch ........................................... CAT. NO. 30W400

MOTORS FOR SINGLE PHASE OPERATION (Specify Operating Voltage)
Motor, 1/2 HP, 115/230 V, 60 cy, 3.450 rpm, open drip-proof, for 6" jointer ........................................... CAT. NO. 90W140
Motor, 1/2 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W142
Motor, 1/2 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W148
Motor, 1/2 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W150
Motor, 1 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, open drip-proof, for 8" jointer ........................................... CAT. NO. 90W157
Motor, 1 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, open drip-proof, for 8" jointer ........................................... CAT. NO. 90W159
Motor, 1/2 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, open drip-proof, for 6" jointer ........................................... CAT. NO. 90W168
Motor, 1/2 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W171

MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage)
Motor, 1/2 HP, 208-220/440 V, 60 cy, 3.450 rpm, open drip-proof, for 6" jointer ........................................... CAT. NO. 90W139
Motor, 1/2 HP, 3 phase, 208-220/440 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W141
Motor, 3/4 HP, 208-220/440 V, 60 cy, 3.450 rpm, open drip-proof, for 8" and 8" jointer ........................................... CAT. NO. 90W143
Motor, 1/2 HP, 3 phase, 208-220/440 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W149
Motor, 1 HP, single phase, 115/230 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W156
Motor, 1 HP, 208-220/440 V, 60 cy, 3.450 rpm, open drip-proof motor, for 8" jointer ........................................... CAT. NO. 90W158
Motor, 1 1/2 HP, 208-220/440 V, 60 cy, 3.450 rpm, open drip-proof, for 8" jointer ........................................... CAT. NO. 90W167
Motor, 1 1/2 HP, 3 phase, 208-220/440 V, 60 cy, 3.450 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W170

STARTERS FOR SINGLE AND 3-PHASE OPERATION
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors. ........................................... CAT. NO. 90W866
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors. ........................................... CAT. NO. 90W865
Starter, manual complete with overload protection, motor cord and fittings. Used with single phase motors thru 1 HP. ........................................... CAT. NO. 90W861
Starter, manual complete with overload protection, motor cord and fittings. Used with single phase motors. ........................................... CAT. NO. 90W862
Starter, manual complete with overload protection, motor cord and fittings. Used with single phase, 1 1/2 HP motors. ........................................... CAT. NO. 90W863
Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used for single and 3-phase motors. ........................................... CAT. NO. 90W864
Power Cord, 3 wire, 8 foot, complete with twist lock and fittings for use with manual starters. ........................................... CAT. NO. 90W879

ACCESSORIES
Cutterhead knives, set of 3 for 6" Jointer ........................................... CAT. NO. 30W858
Cutterhead knives, set of 3 for 8" Jointer ........................................... CAT. NO. 30W859
Caster Set ........................................... CAT. NO. 30W860
Safety Guard, Deluxe for 6" Jointer ........................................... CAT. NO. 30W854
Safety Guard, Deluxe for 8" Jointer ........................................... CAT. NO. 30W855

Wide dust Chute permits free discharge of dust and chips.

Shear-Cutting Fence . . . by a simple adjustment the jointer fence can be positioned at a 10° angle to the cutterhead to permit movement of the stock at an angle to the head. Fence is full 4' high and 34 3/4" long.

The fence base is so designed that when fence is forward for rabbeting it acts as a rear knife guard for added safety to cover the cutterhead completely.

Where requested a deluxe safety Guard can be supplied. Guard is designed for the work to pass completely under the guard. Handle on guard makes it possible to be used as a work holdown.
The J-Line J-170 Lathe, with a full 12" swing, is engineered to assure extreme accuracy, efficiency and safety at a modest cost. This versatile machine can be used to do both wood turning and metal spinning operations.

The variable speed drive allows the operator to select any speed from 630 RPM to 3450 RPM without changing pulleys or belts and with the machine in operation... with work quality improved, by selecting the exact speed needed for the type of operation being performed.

Lubricated-for-life bearings are used throughout to assure true-running of the spindles and to reduce maintenance time and costs.

The machine was designed to make sure that the machine would hold up under the heaviest loads... Note the heavy cast iron bed and headstock.

The focal point of any Lathe is the headstock. We have made every effort to make sure that the Model J-170 Lathe would have the best. The spindle diameter between bearings is 1 1/4" with the diameter at the bearings being 1.378". Two bearings, 1 1/2" on center, supports the spindle. Each bearing is 1.375" wide. With a headstock built around such a heavy spindle, the operator is assured that the machine will have a long life with a minimum of maintenance even under the most adverse conditions. Additional accuracy is further assured by the fully balanced front and rear face plates. Both ends of the spindle are accurately threaded to receive chucks and face plates. The spindle has a standard No. 2 Morse taper for spur centers and is hollow to permit rapid removal of centers. A pin type spindle lock secures the spindle when changing face plates. This lock is designed so that it cannot be engaged when machine is in operation.

A choice of manual switch, manual overload or magnetic starter is offered. On a standard machine, starting and stopping is positively controlled by the operator at any speed. When the Lathe is furnished with a magnetic starter, it will start at low speed only and has a push button for emergency stop at any speed.

**SPECIFICATIONS**

- Swing Over Bed: 12"
- Swing Over Bed Gap: 16 1/2" diameter x 4 1/2" thick
- Distance Between Centers: 39"
- Length of Bed (overall): 67"
- Variable Speed Drive: 630 RPM to 3450 RPM
- Spindle Diameter: 1 1/4"
- Spindle Length (overall): 17 1/2"
- Distance Between Spindle Bearing Centors: 12 1/2"
- Spindle Thread: 1 1/4" - R
- Total Length: 69"
- Total Width: 16 1/2"
- Overall Height: 45 3/4"
- Centerline of Spindle to Floor: 42"
- Shipping weight with motor: 625 lbs.

**BRODHEAD-GARRETT** 4560 East 71st Street, Cleveland, Ohio 44106
WOOD TURNING LATHES: Variable Speed, V-belt Drive, Belts, Motor Pulley including 9" Front Face Plate, 9" Combination Handwheel and Face Plate, Face Plate Wrench, Center Drift Rod, Blueprint Holder, Front Clamping Tool Rest Holder, 6" Tool Rest, 12" Tool Rest, 3/4" Cup Center and 1" Spur Center, Without Motor and Controls.
Gap Bed CAT. NO. 53W302
Solid Bed CAT. NO. 53W303

METAL SPINNING LATHES: Variable Speed, V-belt Drive, Belts, Motor Pulley and including 6" Front Face Plate, 8" Rear Combination Handwheel and Face Plate, Face Plate Wrench, Center Drift Rod, Blueprint Holder, Front Clamping Tool Rest Holder, Metal Spinning Tool Rest, Ball Bearing Tail Center and set of 4 Metal Spinning Tools, Without Motor and Controls.
Gap Bed CAT. NO. 53W304
Solid Bed CAT. NO. 53W305

COMBINATION WOOD TURNING AND METAL SPINNING LATHES: Variable Speed, V-belt Drive, Belts, Motor Pulley and including 6" Front Face Plate, 8" Rear Combination Handwheel and Face Plate, Face Plate Wrench, Center Drift Rod, Blueprint Holder, Front Clamping Tool Rest Holder, 6" Tool Rest, 3/2" Cup Center, 1" Spur Center, Metal Spinning Tool Rest, Ball Bearing Tail Center and set of 4 Metal Spinning Tools, Without Motor and Controls.
Gap Bed CAT. NO. 53W306
Solid Bed CAT. NO. 53W307

MOTORS FOR SINGLE PHASE OPERATION (Specify Operating Voltage)
Motor, 3/4 HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof CAT. NO. 90W146
3/4 HP, 115/230 V, 60 cy, 1725 RPM, totally enclosed fan cooled motor.
Motor, 1 HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof CAT. NO. 90W161
1 HP, 115/230 V, 60 cy, 1725 RPM, totally enclosed fan cooled motor.

MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage)
Motor, 3/4 HP, 208-220/440 V, 60 cy, 1/25 rpm, open drip-proof CAT. NO. 90W145
Motor, 1 HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof CAT. NO. 90W160
1 HP, 208-220/440 V, 60 cy, 1725 RPM, totally enclosed fan cooled motor.

STARTERS FOR SINGLE AND 3-PHASE OPERATION
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors CAT. NO. 90W866
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors CAT. NO. 90W865
Starter, manual complete with overload protection, motor cord and fittings. Used with single phase motors CAT. NO. 90W861
Starter, manual complete with overload protection, motor cord and fittings. Used with 3-phase motors CAT. NO. 90W862
Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used with all single phase and 3-phase motors CAT. NO. 90W864

ACCESSORIES
Tail Center-Ball Bearing (with plug center & ½" cup center) CAT. NO. 53W810
Metal Spinning Tools (set of 4), Flat Tool, Pointed Tool, Flat Ball, Beading Roll CAT. NO. 53W811
Metal Spinning Tool Rest CAT. NO. 53W812
Wood Turning Tools (set of 9), 1/2" Round Point, 1/2" Round Point, 1/2" Square Point, 1/2" Spear Point, 1/2" Parting Tool, 1/2" Skew Chisel, 1" Skew Chisel, 1/4" Gouge, 1/2" Gouge CAT. NO. 53W815
1/2" 3-Jaw Chuck with Arbor for Tall Stock CAT. NO. 53W816
Floor Stand with Offset Rest Holder CAT. NO. 53W817
Spur Center, 1" dia. CAT. NO. 1786PP
Cup Center, 1/4" dia. CAT. NO. 1787PP
Extra Point for Spur Center CAT. NO. 1788PP
2" Screw Center No. 2 MT CAT. NO. 1789PP
Rouette Chuck 3" dia. CAT. NO. 50L267
Hear Combination Handwheel & Face Plate 0" dia. CAT. NO. TR921
Front Face Plate, 4" dia. CAT. NO. TR526
Front Face Plate, 6" dia. CAT. NO. TR527
Front Face Plate, 8" dia. CAT. NO. TR528
Front Face Plate, 10" dia. CAT. NO. TR529
Tool Rest, 4" CAT. NO. TR855
Tool Rest, 5" CAT. NO. TR856
Tool Rest, 12" CAT. NO. TR859
Tool Rest, Right Angle, 6" CAT. NO. 50L851

Note: heavy construction of the headstock with the heavy cast iron bearing support. The wide (12½") centers distance between the bearings assures minimum deflection of the spindle under heaviest loads. See, too, the spindle drive pulley between the bearings which again helps minimize spindle deflection.

The tool rest assembly is quick-locking, with an extra-long base so that the rest can be placed exactly where required. All tool rests are chilli to prevent warping and to reduce wear on the guiding lip. An added feature is a locknut on the tool rest holder to insure positive location even under heaviest work loads.

The tailstock spindle has a standard No. 2 Morse taper for cup centers. It is adjusted by means of a large handwheel with a revolving handle and is positively guided in a straight line to prevent rotation. The tailstock spindle is locked by a double wedge lock actuated by a convenient T-handle, while a slight movement of the index tailstock locking handle instantly locks the entire tailstock securely. At all times there is alignment between the tailstock and headstock centers because the tailstock assembly is accurately keyed to the bed. Tailstock center is self-ejecting.

Litho in U.S.A.
This lathe is ruggedly constructed for professional workmanship and for rigid support with heavy work. It is efficient in the complete range of turning operation in wood, light metals and plastics.

The cast iron bed, the heavy gray iron casting for headstock and tailstock provide the rigid foundation necessary for dependable performance. Bed ways precision ground for accurate alignment of the spindles. The head and tailstock spindles are machined for No. 2 Morse taper centers and adaptors. Two lubricated-for-life ball bearings in the head casting resist radial thrust and thrust loads.

This lathe is available with a stepless drive that permits dialing an infinite number of spindle speeds from 500 to 3300 RPM.

The motor is enclosed in the steel cabinet, and all the belts and pulleys are completely guarded for utmost safety in the school or professional shop.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swing over bed</td>
<td>12&quot;</td>
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<tr>
<td>Distance between centers</td>
<td>36&quot;</td>
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<tr>
<td>Ram travel</td>
<td>2&quot;</td>
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<tr>
<td>Spindle thread FRONT</td>
<td>1&quot; - 14 RH</td>
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<tr>
<td>Hole (complete through spindle)</td>
<td>3/8&quot;</td>
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<td>Spindle reverse threads REAR</td>
<td>1/2&quot; - 14 LH</td>
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<td>Head and tailstock spindle taper</td>
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<tr>
<td>Width</td>
<td>19&quot;</td>
</tr>
<tr>
<td>Variable speed model</td>
<td>500 to 3300 RPM</td>
</tr>
<tr>
<td>4 speed model</td>
<td>930, 1430, 2150, 3300 RPM</td>
</tr>
<tr>
<td>Tool rest length</td>
<td>12&quot;</td>
</tr>
<tr>
<td>Height center line of spindle to floor</td>
<td>42&quot;</td>
</tr>
<tr>
<td>Shipping weight with cabinet</td>
<td>400 lbs.</td>
</tr>
</tbody>
</table>
CATALOG LISTING

Variable speed lathe with cabinet base, tool rest holder, 6" tool rest, 12" tool rest, cup center, spur center, wrenches, V-belts and pulleys, less motor and control. ........................................... CAT. NO. 43W001
4 speed lathe with cabinet base, tool rest holder, 6" tool rest, 12" tool rest, cup center, spur center, wrenches, V-belts and pulleys less motor and control ........................................... CAT. NO. 43W002

MOTORS FOR SINGLE PHASE OPERATION
(Specify Operating Voltage)
1/2 HP, 115/230V, 60 cy, 1725 rpm, open drip-proof ........... CAT. NO. 90W138
1/2 HP, 115/230V, 60 cy, 1725 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W100
1/2 HP, 115/230V, 60 cy, 1725 rpm, open drip-proof ........... CAT. NO. 90W146
1/2 HP, 115/230V, 60 cy, 1725 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W182

MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage)
1/2 HP, 208-220/440V, 60 cy, 1725 rpm, open drip-proof .... CAT. NO. 90W137
1/2 HP, 208-220/440V, 60 cy, 1725 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W181
1/2 HP, 208-220/440V, 60 cy, 1725 rpm, open drip-proof .... CAT. NO. 90W145
1/2 HP, 208-220/440V, 60 cy, 1725 rpm, totally enclosed fan cooled motor ........................................... CAT. NO. 90W183

STARTERS FOR SINGLE AND 3-PHASE OPERATION
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors ........ CAT. NO. 91W666
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors .......... CAT. NO. 91W667
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors .... CAT. NO. 91W668
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors .......... CAT. NO. 91W669

Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used for single and 3-phase motors .... CAT. NO. 91W670

Power Cord, 3 wire, 8 foot, complete with twist lock and fittings for use with manual starters ................................ CAT. NO. 91W671
Slow speed start switch for variable speed models ........... CAT. NO. 91W672

ACCESSORIES

Front Face Plate, 4" ........................................... CAT. NO. 307057
Front Face Plate, 6" ........................................... CAT. NO. 307054
Front Face Plate, 8" ........................................... CAT. NO. 307055
Rear Handwheel and Facesplate 5" ........ CAT. NO. 307065
Tool Rest Holder ........................................... CAT. NO. 43W004
Single Tool Rest, 6" ........................................... CAT. NO. 43W009
Single Tool Rest, 12" ........................................... CAT. NO. 42W010
Double Tool Rest, 24 ........................................... CAT. NO. 42W011
Center for metal spinning, 60" ........................................... CAT. NO. 54W015
Spur Center #2 Morse Taper, 1 ........................................... CAT. NO. 1759PF
Cup Center #2 Morse Taper, 3/4" ........................................... CAT. NO. 1787PF
Screw Center #2 Morse Taper ........................................... CAT. NO. 54W018
Center for Jacobs Chuck with #2 Morse Taper Shank ........................................... CAT. NO. 54W021
Jacobs 3-Jaw Chuck with #2 Morse Taper Shank, 1/2" ........................................... CAT. NO. 54W022
Metal Spinning Tools, (set of 2) flint, pointed tool, flat ball and heading ratchet ........................................... CAT. NO. 43W811
Floor Stand with offset rest holder ........................................... CAT. NO. 43W819
Woodturning Chisels, (set of 9) 1/4", 1/2", 1/8", 1/4", 1/2", & 3/4" gouge, 1/8" parting, 1/2" round nose, 1/2" spear point ........................................... CAT. NO. 53W815
Tail Center-ball bearing (with plug center & 1/4" cup center) ........................................... CAT. NO. 53W810
Metal spinning Tool Rest ........................................... CAT. NO. 43W812

View of tailstock showing heavy duty construction and cam type locking.

Quick-action tool rest and bed looks lever controlled, no wrenches required.

Huaky Headstock turns on lubricated-for-life ball bearings, 60 little indexing mechanism.

Precision-ground bed ways for accurate spindle alignment.

www.OzarkToolManuals.com
The J-Line Bowlathe is designed for face plate turning for the experienced as well as the beginner. This machine can perform all aspects of wood turning which normally requires a larger, more costly lathe.

It features a spindle locking nut, spring loaded shaft lock and fully enclosed belt guard.

**SPECIFICATIONS**
- Height: 11 1/2" Length: 16" Width: 11"
- Capacity: Wood — 16" diameter
- Motor Required: 1/3 or 1/2 HP, 1725 RPM
- Drive: Single V-belt, 3 step cone pulleys
- Shaft speeds in RPM: 800, 1400, 2900
- Bearings: Permanently sealed ball bearings never require lubrication
- Weight: 40 lbs.

**MOTORS AND CONTROLS**
- 90W217 1/3 HP, 1725 RPM, 60 cycle 110 volt split phase, single phase, open drip proof motor.
- 90W218 1/2 HP, 1725 RPM, 60 cycle 110 volt split phase, single phase, open drip proof motor.
- 90W193 1/2 HP, 1725 RPM, 60 cycle 115/230 volt single phase, capacitor motor.
- 90W180 1/2 HP, 1725 RPM, 60 cycle 115/230 volt single phase, capacitor, totally enclosed fan cooled motor.
- 90W181 1/2 HP, 1725 RPM, 208-220/440 volt, 3 phase, totally enclosed fan cooled motor.
- 90W866 Magnetic starter for all single phase motors, complete with heater, motor cords and fittings.
- 90W865 Magnetic starter for all 3 phase motors, complete with heater, motor cord and fittings.
- 6808 Manual switch for all single phase motors with motor cord and fittings.
- 7810 Manual switch for all 3 phase motors with motor cord and fittings.
- 90W879 3 wire 8 ft. power cord complete with plug and fittings for use with above controls.

**ACCESSORIES**
- 1465PP 1/4" round nose tool.
- 2114BL 4" face plate.
- 2117RI 7" face plate.
- 5W200 Steel bench for mounting Bowlathe.
- 5W202 Safety goggles.
- 5W203 Sanding table.
Turning procedures on the Bowlathe are nearly identical to face plate turning on any wood turning lathe, so that if you have had instruction or experience in face plate turning, the same techniques may be used when turning on the Bowlathe. There are several unique developments on the Bowlathe, however, which make turning both safer and easier.

1. PLANNING YOUR DESIGN
Careful preliminary planning is essential to a useful, well designed article. If these plans are not immediately available to you, or you wish to develop your own plan, proceed as follows:

A. Determine the nature of the article to be made (bowl, plate, tray, etc.).
B. Determine the overall dimension (diameter, thickness, depth, etc.).
C. Sketch, in full size, the shape of the article, showing the outside shape, inside shape, and shape of base.

2. SELECTION OF STOCK
Walnut and mahogany are perhaps the most desirable woods to turn due to their even, firm texture and fine finishing qualities. Maple and birch are also good turning woods. Generally, the hardwoods are much better suited to turning than softwoods, which tear easily and are more difficult to finish.

The stock selected should be sound, even textured, free from knots, thoroughly dry, and free from checks (cracks).

3. CUTTING OUT STOCK
After the careful selection of stock, it is necessary to plane one face flat. A band saw should be used to cut out the blank.

4. FASTENING THE BLANK TO THE FACE PLATE
A. First Method: Use screws of adequate length to fasten the face plate to the blank, which will not be encountered when turning out the inside of the project.
B. Second Method: This method is to be used when a shallow base in the turned piece will not allow the screws fastening the face plate to be driven into the blank without interference. This method is also used when the piece to be turned is smaller in diameter than the face plate.

A circular blank is first cut from a piece of ¾” softwood. This piece is now centered on the flat surface of the blank and scribed. A piece of paper (not glazed) is cut slightly larger than the softwood blank. Be sure that both faces to be joined are perfectly flat.

After the article is completed, the softwood blank is removed by striking a broad chisel held between the blank and the base of the article.

5. MOUNTING THE FACE PLATE ON THE BOWLATHE
Place the face plate against the threaded end of the spindle and revolve the spindle towards you.

6. TOOL REST ADJUSTMENT
There should be about ½” clearance between the toolrest and the edge of the stock.

7. SELECTION OF PROPER TURNING SPEED
Always use a slow speed for rough turning and increase speed only after item is perfectly round.

8. SHARP TOOLS ARE SAFE TOOLS
Carefully check all tools so that you are working with safe tools.

9. ROUGH TURNING
Rough turning may be done with a round-nose turning tool which is used for most face plate operations. Keep the tool rest as close to the area being worked as possible.

10. FINISH TURNING
The speed for rough turning, should be slow. After the work is round, the speed may be increased to the next speed. This will give a smoother cut.

11. SANDING ON THE BOWLATHE
Sanding on the Bowlathe can be accomplished by removing the tool rest and forming a pad of four layers of proper sand paper.

12. FINISHING
After all scratches have been removed by fine sanding, the article is ready for finishing. Read application information on the finish to be applied and complete project.
The J-Line 14" Band Saw is built with a sturdy one-piece frame for vibrationless production work. This machine is ideal for vocational training, cabinet shops, pattern shops, production shops and other similar applications. The construction of this machine makes it readily adaptable for use in cutting all types of wood, plastic, cork, rubber, paper products, insulation, Celotex, masonite or other similar non-metallic materials.

The design of the machine is such that safety features have been made an integral part of the machine. The blade is completely guarded above and below the table except at point of cut.

Adjustments can be made quickly, easily and safely from the operator's position. Hinged doors make the upper and lower wheels accessible, making blade changing safe and fast. The wheel tilting and tension adjustments are located on top of the machine. The use of light weight aluminum wheels makes possible quick accelerating action without undue starting strain on the motor.

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Capacity</th>
<th>Blade to frame—13 3/4&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Under Guide—6 1/2&quot;</td>
</tr>
<tr>
<td>Speed</td>
<td>3850 FPM</td>
</tr>
<tr>
<td>Table Size</td>
<td>14&quot; x 14&quot;</td>
</tr>
<tr>
<td>Table height from floor (with cabinet)</td>
<td>43 1/4&quot;</td>
</tr>
<tr>
<td>Table tilt to right</td>
<td>45°</td>
</tr>
<tr>
<td>Table tilt to left</td>
<td>10°</td>
</tr>
<tr>
<td>Maximum blade width</td>
<td>3/4&quot;</td>
</tr>
<tr>
<td>Maximum blade length</td>
<td>92 1/4&quot;</td>
</tr>
<tr>
<td>Minimum blade length</td>
<td>90 1/4&quot;</td>
</tr>
<tr>
<td>Wheel covers</td>
<td>Hinged</td>
</tr>
<tr>
<td>Band saw wheels</td>
<td>Aluminum</td>
</tr>
</tbody>
</table>
| Shipping weight with motor | 330 lbs.

**BRODHEAD-GARRETT** 4560 East 71st Street, Cleveland, Ohio 44105
The blade tensioning adjustment and the wheel tilting control are located at the top of the machine. In addition, a window in the upper wheel cover allows the operator to check the blade tension at any time. Convenience of the controls and ease of access permits proper adjustments from operator's position even when the machine is in operation.

BACKING BEARING LOCK SCREW

The feature assists tracking of the blade and avoids “snaking” under heavy loads.

The table insert (patented) is so designed that when making a circular cut it will not turn and be in contact with the blade.

CATALOG LISTING

BASIC MACHINE: 14” Band Saw with one ¼” general purpose blade (20WB12) and machine pulley. Without cabinet, motor, control, belt and motor pulley .................................................. CAT. NO. 20WZ99

BASIC MACHINE WITH CABINET: 14” Band Saw with motor pulley (60W30R21), belt (60W30T5), one ¼” blade (20WB12). Without motor and control .................................................... CAT. NO. 20W300

CABINET: With motor support and belt guard .................................................. CAT. NO. 20WR50

MOTORS FOR SINGLE PHASE OPERATION (Specify Operating Voltage)
Motor, ½ HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof .................................................. CAT. NO. 90W138
Motor, ½ HP, 115/230 V, 60 cy, 1725 rpm, totally enclosed fan cooled .......................... CAT. NO. 90W180

MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage)
Motor, ½ HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof .................................................. CAT. NO. 90W137
Motor, ½ HP, 208-220/440 V, 60 cy, 1725 rpm, totally enclosed fan cooled .......................... CAT. NO. 90W181

STARTERS FOR SINGLE AND 3-PHASE OPERATION
Starters, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors .................................................. CAT. NO. 90W866
Starters, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors .................................................. CAT. NO. 90W865
Starters, manual complete with overload protection, motor cord and fittings. Used with single phase motors .................................................. CAT. NO. 90W861
Starters, manual complete with overload protection, motor cord and fittings. Used with 3-phase motors .................................................. CAT. NO. 90W862

Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used for single and 3-phase motors CAT. NO. 90W864

Power Cord, 3 wire, 8 foot, complete with twist lock and fittings for use with manual starters CAT. NO. 90W879

ACCESSORIES

Miter Gauge .................................................. CAT. NO. 10W883
Rip Fence with guide rails .................................................. CAT. NO. 20W800
Work Light, 7” cord and plug .................................................. CAT. NO. 21W810

WOOD CUTTING BLADES FOR GENERAL WORK

<table>
<thead>
<tr>
<th>Width</th>
<th>CAT. No.</th>
<th>Width</th>
<th>CAT. No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>¼”</td>
<td>20W810</td>
<td>¼”</td>
<td>20W813</td>
</tr>
<tr>
<td>¼”</td>
<td>20W811</td>
<td>¼”</td>
<td>20W814</td>
</tr>
<tr>
<td>¼”</td>
<td>20W812</td>
<td>¼”</td>
<td>20W815</td>
</tr>
</tbody>
</table>

Double table trunnions give solid support and are clamped with one hand knob from the front of the machine so that the operator can make adjustments at point of operation. A stop pin is used to reset the table tilt of 10° to left or 45° to right without making cumbersome adjustments.

Litho in U. S. A.
The J-Line 20" Band Saw has a fabricated steel base with a plate steel upper frame. The machine is designed with all moving parts completely enclosed for safety. It is well received in schools, cabinet shops, pattern shops and production shops—and is adaptable for use with wood, plastic, cork, paper products, insulation, Celotex, masonite and other non-metallic products.

Lubricated-for-life bearings have been used throughout. The 24" x 24" cast iron table...accurately machined on the top surface and provided with a slot for a miter gauge as well as holes for attaching a rip fence...tilts 45° right and 12° left on double trunnions. Both upper and lower wheels—made of aluminum for quick accelerating action without strain on the motor—are 20" in diameter with a 1 1/2" face. The motor base is adjustable to maintain proper belt tension. A convenient foot actuated brake works on the lower wheel for fast stops when necessary. All of these features combined assure accuracy and high operating efficiency.

**SPECIFICATIONS**

| Stock capacity | Blade to frame—19 1/2" |
| Speed | 4580 FPM |
| Table Size | 24" x 24" |
| Table height from floor | 41 1/2" |
| Table tilt to right | 45° |
| Table tilt to left | 12° |
| Maximum blade width | 1" |
| Maximum blade length | 149 3/8" |
| Minimum blade length | 142 1/4" |
| Wheel covers | Hinged |
| Band saw wheels | Aluminum |
| Shipping weight with motor | 900 lbs. |

**BRODHEAD-GARRETT** 4560 East 71st Street, Cleveland, Ohio 44105
Double table trunnions give solid support and are clamped with two hand clamps from the front of the machine so that the operator can make adjustments at point of operation. The table will tilt 45° right and 12° left.

**CATALOG LISTING**

**BASIC MACHINE:** 20" Band Saw with ¾" general purpose blade (269/1000) and machine pulley. Without motor and control.  **CAT. NO. 21W299**

**MOTOR FOR SINGLE PHASE OPERATION** (Specify Operating Voltage)
Motor, 1 HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof.  **CAT. NO. 90W161**
Motor, 1 HP, 115/230 V, 60 cy, 1725 rpm, totally enclosed.  **CAT. NO. 90W162**

**MOTORS FOR 3-PHASE OPERATION** (Specify Operating Voltage)
Motor, 1 HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof.  **CAT. NO. 90W160**
Motor, 1 HP, 208-220/440 V, 60 cy, 1725 rpm, totally enclosed.  **CAT. NO. 90W132**
Motor, 1½ HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof.  **CAT. NO. 90W164**
Motor, 1½ HP, 208-220/440 V, 60 cy, 1725 rpm, totally enclosed.  **CAT. NO. 90W133**

**STARTERS FOR SINGLE AND 3-PHASE OPERATION**
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors.  **CAT. NO. 90W850**
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors.  **CAT. NO. 90W831**
Starter, manual complete with overload protection, motor cord, mounting plate and fittings. Used with single phase motors.  **CAT. NO. 90W859**
Starter, manual complete with overload protection, motor cord, mounting plate and fittings. Used with 3 phase motors.  **CAT. NO. 90W855**
Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used for single and 3-phase motors.  **CAT. NO. 90W894**
Power Cord, 3 wire, 8 foot, complete with twist lock and fittings for use with toggle switch and manual starters.  **CAT. NO. 90W879**

**ACCESSORIES**

Miter Gauge  **CAT. NO. 10W883**
Rip Fence  **CAT. NO. J120-A**
Work Light, 7" cord and plug  **CAT. NO. 21W810**

**WOOD CUTTING BLADES FOR GENERAL WORK**

12" long, ¾" wide, 25 gauge  **CAT. NO. 268VL**
12½" long, ¾" wide, 25 gauge  **CAT. NO. 269VL**
12" long, ¾" wide, 25 gauge  **CAT. NO. 270VL**
12" long, ¾" wide, 25 gauge  **CAT. NO. 272VL**
12½" long, 1" wide, 25 gauge  **CAT. NO. 274VL**

The blade tensioning adjustment and the wheel tilting control are located on the right side of the machine. In addition a gauge for setting proper blade tension is also located on right side of machine. Convenience of the controls and scales permits proper adjustments from operator's position even when the machine is in operation.

Backing bearing shaft is solidly supported by a heavy steel guide post, as designed that during adjusting it will not drop down and hit the throat plate. The lower backing bearing (not shown) is attached to the cast iron frame.

The upper guide post clamp is adjusted from the operator's position.
Whatever the operation or type of material — wood, metal, plastics, fibre, bone or ivory — this machine will handle it with better finish and greater accuracy.

The secret of its smooth operation is the precision balance of its exclusive drive mechanism. Drive is automotive-type, with each part accurately balanced in relation to the weight of every other part. Drive shaft is solid steel, precision ground for perfect balance. It spins on two large ball bearings — transmits a smooth flow of power to the lower operating shaft through a balanced crank and connecting rod. Crank is hardened oil-impregnated iron, and connecting rod is durable heavy-duty Super Oilite — both are highly resistant to wear. Operating shaft is ground steel, guided and supported by two widely spaced Oilite bronze bearings. Entire mechanism is splash lubricated at each down stroke.

Crank case is cast integrally with base — overarm is easily removed to permit sawing big panels — these heavy castings further contribute to smooth operation.

The 14" x 14" precision-ground table is supported by two large trunnions spaced 6 3/8" apart — tilts 45° to right, 15° to left — swivels 90° to handle angular cutting of long stock.

The universal chucks ... easy-to-adjust blade guide, blade support roller and work hold down ... and continuous-type air blower are exclusive convenience features.

No. 24W001 has four speeds . . . 570, 860, 1220 and 1660 RPM. No. 24W004 is equipped with variable speed drive that provides an infinite variety of speeds between 430 and 1725 RPM. Speeds are available instantly by turning crank at front of saw — speed is indicated on easy-to-read dial.
CATALOG LISTING

BASIC MACHINE: 26" Scroll Saw, one 4-step Machine Pulley, one 4-step Motor Pulley with %" bore, and V-belt. Without Cabinet, Guard, Motor and Switch  

**CAT. NO. 24W001**

BASIC MACHINE WITH CABINET: 26" Scroll Saw with one 4-step Machine Pulley, one 4-step Motor Pulley with %" bore, Guard and V-belt. Without Motor and Switch  

**CAT. NO. 24W002**

BASIC MACHINE WITH CABINET AND VARIABLE SPEED: 26" Scroll Saw, Machine Pulley, Motor Pulley with %" bore, V-Relt, and cabinet Without Motor and Switch  

**CAT. NO. 24W004**

BASIC MACHINE WITH OPEN TYPE STAND: 26" Scroll Saw, one 4-step Machine Pulley, one 4-step Motor Pulley with %" bore, Guard and V-belt. Without Motor and Switch  

**CAT. NO. 24W125**

BASIC MACHINE WITH OPEN STAND, VARIABLE SPEED: 26" Scroll Saw, Machine Pulley, Motor Pulley with %" bore, Guard and V-belt. Without Motor and Switch  

**CAT. NO. 24W126**

MOTORS FOR SINGLE AND 3-PHASE OPERATION (Specify Operating Voltage)

Motor, 1/2 HP, single phase, 115/230 V, 60 cy., 1725 rpm, open drip-proof  

**CAT. NO. 90W201**

Motor, 1/2 HP, single phase, 115/230 V, 60 cy., 1725 rpm, totally enclosed with fan cooled motor  

**CAT. NO. 90W180**

Motor, 1/2 HP, 3-phase, 208-220/440 V, 60 cy., 1725 rpm, open drip-proof  

**CAT. NO. 90W202**

Motor, 1/2 HP, 3-phase, 208-220/440 V, 60 cy., 1725 rpm, totally enclosed with fan cooled motor  

**CAT. NO. 90W181**

STARTERS FOR SINGLE AND 3-PHASE OPERATION

Starters, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors  

**CAT. NO. 90W866**

Starters, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors  

**CAT. NO. 90W865**

Starters, manual complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors  

**CAT. NO. 90W861**

Starters, manual complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors  

**CAT. NO. 90W862**

Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used with single and 3-phase motors  

**CAT. NO. 90W864**

Power Cord, 3 wire, 8 toot, complete with twist lock plug and fittings for use with toggle switch and manual starters  

**CAT. NO. 90W879**

ACCESSORIES

Belt Guard for bench model  

**CAT. NO. 23W003**

Lamp Attachment  

**CAT. NO. 24W040**

JIG SAW BLADES

<table>
<thead>
<tr>
<th>Blade Type</th>
<th>Description</th>
<th>CAT. NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.012 x .023</td>
<td>CAT. NO. 23W010</td>
</tr>
<tr>
<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.012 x .032</td>
<td>CAT. NO. 23W011</td>
</tr>
<tr>
<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.012 x .043</td>
<td>CAT. NO. 23W012</td>
</tr>
<tr>
<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.016 x .035</td>
<td>CAT. NO. 23W013</td>
</tr>
<tr>
<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.020 x .067</td>
<td>CAT. NO. 23W014</td>
</tr>
<tr>
<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.020 x .070</td>
<td>CAT. NO. 23W015</td>
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<td>CAT. NO. 23W017</td>
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<td>.020 x .150</td>
<td>CAT. NO. 23W026</td>
</tr>
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<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.020 x .150</td>
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<td>CAT. NO. 23W028</td>
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<td>.020 x .150</td>
<td>CAT. NO. 23W030</td>
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<td>.020 x .150</td>
<td>CAT. NO. 23W032</td>
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<tr>
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<td>.020 x .150</td>
<td>CAT. NO. 23W034</td>
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<td>5&quot; Fret Saw Blade (Pkg. of 6)</td>
<td>.020 x .150</td>
<td>CAT. NO. 23W035</td>
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</tbody>
</table>
This Disc and Belt Sander is designed for heavy duty, yet versatile work. Its 10" disc and 6" x 48" belt make it applicable to a wide variety of jobs for production sanding of wood, metal or plastic. The ribbed, cast iron construction gives maximum strength and rigidity. The table is changeable and can be used on either the belt or disc. The table tilts a full 45° for angle sanding.

The belt runs over an extra large 6¼" x 17" ground table to provide an accurate, flat, smooth cutting surface even for large sanding jobs. The belt has a uniform cutting speed across its entire face for even finishes. The belt sander features simple one knob tracking with a lock to hold the setting. The guard completely encloses the drums, belt and working mechanism for operator’s safety. The top or out-end guard is removable for finishing contour or odd-shaped pieces.

The outer edges and the back of the disc are completely guarded for the operator’s protection. The disc is carefully machined and balanced for vibration-free performance...surface is absolutely flat to assure good adhesion of the abrasive paper.

The machine is furnished with a completely enclosed cabinet to give the operator added protection from accidents. The motor is kept free from heavy accumulations of dust with a hinged door to provide easy access. Brackets are mounted on the cabinet to bolt the machine securely to the floor.

**SPECIFICATIONS**

- Sanding belt size: 6" x 48"
- Sanding disc size: 10"
- Drums: 3¼" dia.
- Overall length, horizontal: 35"
- Height-belt sander to floor: 35"
- Bearings, lubricated-for-life: 4
- Table surface for belt: 6¼" x 17"
- Auxiliary table for miter gauge: 7 7/8" x 15"
- Auxiliary table tilt: 45°
- Shipping weight: 300 lbs.
Heavy, well-braced construction makes this unit ideal for production as well as intermittent use.

Table unit may be used with either disc or belt, and belt guard and stop are removable for sanding curved pieces on either drum.

Sands plastics and metals as well as wood.

10'' disc is machined and balanced to prevent vibration.

Guard encloses the working mechanism.

Fence, (extra) simplifies edging operations, assures accuracy.

Disc and guards are easily removed for sanding wide boards on belt.

Belt sander is easily adjusted to vertical or horizontal position.

Table tilts full 45% angle.

Fully enclosed dust collection system.

CATALOG LISTING

BASIC MACHINE WITH CABINET:
Combination 6'' belt and 10'' disc sander with one table, miter gauge, machine pulley, one abrasive belt and disc, cabinet. 5/8'' motor pulley and V-belt. Less motor and switch.......CAT. NO. 34W002

MOTORS FOR SINGLE PHASE OPERATION
1/2 HP, 115/230 V, 60 cy, 1725 RPM, open drip-proof........CAT. NO. 90W138
1/2 HP, 115/230 V, 60 cy, 1725 RPM, totally enclosed fan cooled........CAT. NO. 90W180
1/2 HP, 115/230 V, 60 cy, 1725 RPM, open drip-proof........CAT. NO. 90W146
1/2 HP, 115/230 V, 60 cy, 1725 RPM, totally enclosed fan cooled........CAT. NO. 90W182
1 HP, 115/230 V, 60 cy, 1725 RPM, open drip-proof........CAT. NO. 90W161
1 HP, 115/230 V, 60 cy, 1725 RPM, totally enclosed fan cooled........CAT. NO. 90W162

MOTORS FOR 3-PHASE OPERATION
1/2 HP, 208-220/440 V, 60 cy, 1725 RPM, open drip-proof........CAT. NO. 90W137
1/2 HP, 208-220/440 V, 60 cy, 1725 RPM, totally enclosed fan cooled........CAT. NO. 90W181
1/2 HP, 208-220/440 V, 60 cy, 1725 RPM, open drip-proof........CAT. NO. 90W145
1/2 HP, 208-220/440 V, 60 cy, 1725 RPM, totally enclosed fan cooled........CAT. NO. 90W183
1 HP, 208-220/440 V, 60 cy, 1725 RPM, open drip-proof........CAT. NO. 90W160
1 HP, 208-220/440 V, 60 cy, 1725 RPM, totally enclosed fan cooled........CAT. NO. 90W132

STARTERS FOR SINGLE AND 3-PHASE OPERATION
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors...........CAT. NO. 90W866
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors...........CAT. NO. 90W885
Starter, manual complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors...........CAT. NO. 90W881
Starter, manual complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors...........CAT. NO. 90W886
Manual Switch, without overload protection, complete with mounting plate, motor cord and fittings. Used for single and 3-phase motors...........CAT. NO. 90W864
Power Cord, 3 wire, 8 foot, complete with twist lock and fittings for use with manual starters...........CAT. NO. 90W879

ACCESSORIES
Work Table 7½'' x 13½''............CAT. NO. 34W006
Miter Gauge for Work Table........CAT. NO. 34W007
Fence Assembly...........CAT. NO. 34W008
Dust Collector...........CAT. NO. 34W009

SANDING DISCS (Pkgs. of 6)
Alum Oxide for Metal
10'' Fine........CAT. NO. 33W015
10'' Medium........CAT. NO. 33W024
10'' Coarse........CAT. NO. 33W025

Garnet for Wood
10'' Fine........CAT. NO. 33W014
10'' Medium........CAT. NO. 33W022
10'' Coarse........CAT. NO. 33W023

SANDING BELTS 6'' x 48''
Alum Oxide for Metal
Fine........CAT. NO. 33W012
Medium........CAT. NO. 33W018
Coarse........CAT. NO. 33W019

Garnet for Wood
Fine........CAT. NO. 33W013
Medium........CAT. NO. 33W020
Coarse........CAT. NO. 33W021

Litho in U.S.A.
A 14° TILTING DISC SANDER in the price range of most 12° TILTING TABLE machines.

It is no longer necessary to work on a table that is tilted to an awkward angle because the large table, 20¾" x 9½", is stationary as all work tables should be. Large pieces are supported firmly in a flat position at all times, thus offering more safety to the operator. Where material is to be finished at an angle the tilting disc can be adjusted easily and quickly by a handwheel to allow for proper cut.

The stationary work table has a ground surface with a miter gauge slot and extends 3" beyond the edge of the disc on either side, plus a 5¼" x 3¾" surface behind the disc to allow for the finishing of curved or irregular shaped pieces. This quality machine is designed for accurate finishes on metal, plastics and wood for pattern, cabinet, machine shops and school classrooms. It is quiet and vibrationless to assure quality finishes.

The tilting of the disc is easily controlled by a convenient handwheel on the front of the machine. The handwheel has a locking knob to insure accurate tilt settings. The heavy cast iron guard encloses the closely machined disc, but still allows irregular shaped stock to be corner finished.

Machine shops and foundries using this unit appreciate the large flat table to avoid the holding of heavy pieces on an inclined table, which causes the operator to tire and as a result, cut down production. Too, a flat work surface will increase safety because the work piece will not be prone to slide off the table surface.

½ HP - ¾ HP - 1 HP motors are available to provide more than adequate power even for heavy abrasive work on metals.

BRODHEAD-GARRETT 4560 East 71st Street, Cleveland, Ohio 44105

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Floor Space</td>
<td>20¾&quot; x 25¾&quot;</td>
</tr>
<tr>
<td>Height (Floor to Table)</td>
<td>34¼&quot;</td>
</tr>
<tr>
<td>Table Size</td>
<td>20¾&quot; x 9½&quot; from sanding disc with a 5½&quot; x 3¾&quot; lip extending behind disc.</td>
</tr>
<tr>
<td>Sanding Disc</td>
<td>Diameter 14&quot;</td>
</tr>
<tr>
<td>Disc Bore</td>
<td>¾&quot; (½&quot; optional)</td>
</tr>
<tr>
<td>Disc Tilt (Maximum)</td>
<td>45° back and 15° forward</td>
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<tr>
<td>Sanding Disc RPM</td>
<td>1750 RPM</td>
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<tr>
<td>Motors</td>
<td>Single or 3-phase, ½, ¾ or 1 HP</td>
</tr>
<tr>
<td>Shipping weight with motor</td>
<td>270 lbs.</td>
</tr>
</tbody>
</table>
The flat work surface makes it possible to sand heavy awkward pieces quickly and easily. With the work-table always flat and level the operator has an extra safety feature in that one hand can be free to turn the machine "on" and "off" even with the heaviest of work pieces.

The sanding angle on this new machine is made by a hand wheel located at the operator's position. After the angle has been set a locking mechanism maintains the same setting. The heavy cast iron table is an added feature and illustrates the rugged construction of the machine.

CATALOG LISTING

BASIC MACHINE WITH CABINET: 14" diameter Tilting Disc Sander for use with NEMA frame 56 motors with 1/2" diameter shaft. Includes Garnet Abrasive Disc and Disc Adhesive. Without motor & controls ........................................ CAT. NO. 36W300

MOTORS FOR SINGLE PHASE OPERATION (Specify Operating Voltage and Phase)
Motor, 1/2 HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof... CAT. NO. 90W138
Motor, 1/2 HP, 115/230 V, 60 cy, 1725 rpm, fan cooled... CAT. NO. 90W180
Motor, 3/4 HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof... CAT. NO. 90W148
Motor, 3/4 HP, 115/230 V, 60 cy, 1725 rpm, fan cooled... CAT. NO. 90W182
Motor, 1 HP, 115/230 V, 60 cy, 1725 rpm, open drip-proof... CAT. NO. 90W191
Motor, 1 HP, 115/230 V, 60 cy, 1725 rpm, totally enclosed fan cooled motor... CAT. NO. 90W162

MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage and Phase)
Motor, 1/2 HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof... CAT. NO. 90W137
Motor, 1/2 HP, 208-220/440 V, 60 cy, 1725 rpm, fan cooled... CAT. NO. 90W181
Motor, 3/4 HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof... CAT. NO. 90W145
Motor, 3/4 HP, 208-220/440 V, 60 cy, 1725 rpm, fan cooled... CAT. NO. 90W183
Motor, 1 HP, 208-220/440 V, 60 cy, 1725 rpm, open drip-proof... CAT. NO. 90W183
Motor, 1 HP, 208-220/440 V, 60 cy, 1725 rpm, totally enclosed fan cooled motor... CAT. NO. 90W132

STARTERS FOR SINGLE AND 3-PHASE OPERATION
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase motors... CAT. NO. 90W866
Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors... CAT. NO. 90W866
Starter, manual complete with overload protection, motor cord and fittings. Used with single phase motors... CAT. NO. 90W861
Starter, manual complete with overload protection, motor cord and fittings. Used with 3-phase motors... CAT. NO. 90W864
Manual Switch without overload protection, complete with mounting plate, motor cord and fittings. Used for single and 3-phase motors... CAT. NO. 90W862

ACCESSORIES
Caster Set ... CAT. NO. 40W825
Cover Plates for side cabinet openings ... CAT. NO. 36W826
Disc Adhesive, 16 oz. ... CAT. NO. 36W821
Disc Plate, 14" diameter ... CAT. NO. 36W821
Dust Collector, 14 gallon drum, complete with 1/2 HP, single phase motor, 6" hose, plastic nozzle and dust chute (36W827) ... CAT. NO. 36W828
Dust Chute ... CAT. NO. 36W827
Mitre Gauge ... CAT. NO. 10W883

A small dust collector and vacuum, powerful—portable—economical is adaptable to the J-148 Tilting Disc Sander. The unit is ideal for schools, commercial shops and other similar applications, when necessary it can be converted for use on other types of machines. Cat. No. 36W828

SANDING DISCS (Pkg. of 6)
1/80 fine ... CAT. NO. 36W800
1/50 medium ... CAT. NO. 36W801
1/40 coarse ... CAT. NO. 36W802

14" Alum Oxide for Metal
1/100 fine ... CAT. NO. 36W804
1/60 medium ... CAT. NO. 36W805
1/40 coarse ... CAT. NO. 36W806

Litho in U.S.A.
The J-Line Single Spindle Shaper has been designed for precision craftsmanship, safety and ease of operation. Every precaution has been taken to equip the user with a machine which can be depended upon for accuracy and fine production. The J-151 Shaper is widely accepted for use in school shops, pattern shops, cabinet shops, as well as for sash, door and blind manufacture and other industrial production. Wherever intricate work or precision mouldings are required, the J-Line Shaper is ideal since the high spindle speed permits cuts not otherwise possible.

The heart of the machine—the spindle—is positioned with two precision lubricated-for-life pre-loaded ball bearings to eliminate possible end play. The bearings are carefully spaced to hold the spindle rigid at just the right degree. The entire spindle assembly is bolted rigidly in position to the underside of the table. The complete unit, with motor, moves up and down in a straight vertical path on gibbed dovetail ways. The spindle is readily raised and lowered by means of a convenient hoist hand-wheel and can be locked at any setting simply by turning the finger knob on the outside of the handwheel.

Another convenient feature of the J-151 Shaper is its reversible spindle; it can be run clockwise or counterclockwise by means of a reversing switch which is offered as extra equipment.

Drive from the motor spindle is short-coupled to eliminate vibration and to transmit maximum power. This is possible because the motor moves with the spindle. All the power of the motor is delivered directly to the spindle.

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Table Height</th>
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<tr>
<td>Table Size</td>
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<td>Table Size with extensions</td>
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<tr>
<td>Table Opening diameters</td>
<td>3½&quot;, 31½&quot;, 3¼&quot;, 1½&quot;</td>
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<tr>
<td>Spindle diameter at bearings</td>
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<tr>
<td>Spindle diameters furnished</td>
<td>½&quot; and ¼&quot;</td>
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<tr>
<td>Other spindle available</td>
<td>1&quot;</td>
</tr>
<tr>
<td>Capacity of spindles</td>
<td>3½&quot;, 3½&quot;, 3½&quot;, 3½&quot; (under nut)</td>
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<tr>
<td>Spindle Travel</td>
<td>3½&quot;</td>
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<tr>
<td>Spindle Speed</td>
<td>10,000 RPM</td>
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<tr>
<td>Largest opening thru table</td>
<td>6½&quot;</td>
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<tr>
<td>Motor Sizes</td>
<td>1 1½ and 2 HP</td>
</tr>
<tr>
<td>Approximate Shipping Weight</td>
<td>350 lbs</td>
</tr>
</tbody>
</table>

BRODHEAD-GARRETT 4560 East 71st Street, Cleveland, Ohio 44105
3 WING CUTTERS

Precision-made accessories to fit a wide variety of needs in every woodworking shop. 1/2" bore cutters are designed to be resharpened conveniently without losing contour.

![Image of various wing cutters](image)

Throat Plate in position over spindle, with knife blade mounted between knife collars. Throat plate, lying on table top (at left) is turned to show rub ring on under side.

Three reversible cast iron throat plates (6 1/2" - 3 1/2" - 3 1/2" - 3") and 3 - 1/8" diameters) are furnished. Each is designed with a rub ring on the under side that serves as a guide for contour work. The upper edge of each throat plate (or table insert) can be inserted flush with the table top.

**BASIC MACHINE:** Single Spindle Shaper including infeed and outfeed fences, front extension, 3 table inserts, 1/2" and 1/4" spindles, motor pulley, and belt. Without cutters, motor and controls.......................... **CAT. NO. 55W200**

**MOTORS FOR SINGLE PHASE OPERATION (Specify Operating Voltage)**

- Motor, 1 HP, 115/230 V, 60 cy, 3,450 rpm, totally enclosed, fan cooled.......................................................... **CAT. NO. 90W157**
- Motor, 1 1/2 HP, 115-208/230 V, 60 cy, 3,450 rpm, open drip-proof.......................................................... **CAT. NO. 90W159**
- Motor, 2 HP, 115-208/230 V, 60 cy, 3,450 rpm, open drip-proof.......................................................... **CAT. NO. 90W168**

**MOTORS FOR 3-PHASE OPERATION (Specify Operating Voltage)**

- Motor, 1 HP, 208-220/440 V, 60 cy, 3,450 rpm, totally enclosed fan cooled.......................................................... **CAT. NO. 90W156**
- Motor, 1 1/2 HP, 208-220/440 V, 60 cy, 3,450 rpm, open drip-proof.......................................................... **CAT. NO. 90W158**
- Motor, 2 HP, 208-220/440 V, 60 cy, 3,450 rpm, open drip-proof.......................................................... **CAT. NO. 90W167**

**STARTERS FOR SINGLE AND 3-PHASE OPERATION**

- Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with single phase, 1 HP, 115/230 V and 1 1/2 HP, 230 V motors only.......................................................... **CAT. NO. 90W873**
- Starter, magnetic complete with low voltage and overload protection, motor cord and fittings. Used with 3-phase motors.......................................................... **CAT. NO. 90W875**
- Starter, manual complete with overload protection, motor cord and fittings. Used with single phase, 1 HP, 115/230 V motors only.......................................................... **CAT. NO. 90W861**
- Starter, manual complete with overload protection, motor cord and fittings. Used with 3-phase motors.......................................................... **CAT. NO. 90W862**
- Starter, manual complete with overload protection, motor cord and fittings. Used with single phase, 1 1/2 HP, 115/230 V motors only.......................................................... **CAT. NO. 90W863**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W864**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W865**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W866**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W867**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W868**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W869**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W870**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W871**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W872**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W873**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W874**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W875**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W876**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W877**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W878**
- Starter, manual complete with overload protection, motor cord and fittings. Used with all single phase and 3-phase motors.......................................................... **CAT. NO. 90W879**

**ACCESSORIES**

- Miter Gauge, complete with stop rods.......................................................... **CAT. NO. 90W883**
- Spring Hold-downs, pair.......................................................... **CAT. NO. 90W883**
- Shaving Hood.......................................................... **CAT. NO. 90W883**
- Safety Ring Guard & Hold-down.......................................................... **CAT. NO. 90W883**
- Rear Table Extension.......................................................... **CAT. NO. 90W883**
- Spindle Adapter, 3/16" - 3/16" under nut.......................................................... **CAT. NO. 90W883**
- Spindle Adapter, 1/4" - 1/4" under nut.......................................................... **CAT. NO. 90W883**
- Conversion Kit, to 7000 rpm spindle, 3/4" motor shaft.......................................................... **CAT. NO. 90W883**
- Spindle Adapter, 1/2" stub.......................................................... **CAT. NO. 90W883**
- Spindle Adapter, 1/2".......................................................... **CAT. NO. 90W883**
- Spindle Adapter, 1/2".......................................................... **CAT. NO. 90W883**
- Shaper Knives, 1/2" wide, set of 2.......................................................... **CAT. NO. 90W883**
- Shaper Knives, 3/4" wide, set of 2.......................................................... **CAT. NO. 90W883**
- Shaper Knives, 1" wide, set of 2.......................................................... **CAT. NO. 90W883**
- Shaper Knives, 1 1/4" wide, set of 2.......................................................... **CAT. NO. 90W883**
- Shaper Knives, 1 1/2" wide, set of 2.......................................................... **CAT. NO. 90W883**
- Spacing Collars, 1/2" bore, set of 4.......................................................... **CAT. NO. 90W883**
- Knife Collars, 3/4" bore, set of 2.......................................................... **CAT. NO. 90W883**
- Knife Collars, 1" bore, set of 2.......................................................... **CAT. NO. 90W883**
- Moulding Cutterhead, 2/3".......................................................... **CAT. NO. 90W883**

Tu willstand wear both the spindle and spindle extensions are made from heat treated alloy steel. Spindle is ground to size to assure added accuracy. Note extra long taper for positive seating.
In designing the J-188 Surfacer, special attention has been given to every detail which will make it more efficient, safer and easier to operate.

The cutterhead and feed rolls run in lubricated-for-life bearings assuring easy maintenance and a minimum amount of wear. The chipbreaker swings with the cutterhead at all times making it impossible for the chipbreaker to strike the cutterhead knives. All controls and adjustments are easily accessible to the operator.

Any feed speed from 15 to 36 FPM can be obtained by rotating hand wheel. The feed speed you need to get a high quality finish on any type of stock is instantly available. Feed rolls are powered by an independent 1/2 HP feed motor.

Finished in horizon gray, the J-188 Surfacer is one of the most attractive machines on the market today.
**Capacity**
Will surface stock up to 18” wide and from 1/8” to 6” thick. Shortest when butted 3”, not butted 8¼”.

**Base**
One piece casting forms a solid foundation for machine.

**Side Frames and Girts**
Side frames and girts are cast iron, bolted and pinned to the base to form a rigid unit that will not twist or slide out of alignment.

**Bed**
Heavy, one piece casting. Bed is 30” long, strongly ribbed and girted. It raises and lowers on gibbed ways. The bed is adjusted by a large, easily operated handwheel. The slide ways give the bed an extremely rigid support.

**Feed Rolls**
Top infeed roll is solid, corrugated and runs in lubricated-for-life roller bearings. Top outfeed roll is solid. Both top rolls are 2¼” in diameter and have ¼” yield through spring pressure. Bottom rolls are solid, idle, 2¼” in diameter and run in lubricated-for-life ball bearings.

**Feed Works**
Feed is driven by an independent ½ HP motor with a belt through the variable speed drive. The gear speed reducing unit is totally enclosed. A door permits easy access to the feed works. Feed rates of from 15 to 36 feet per minute are available. Feed speed is adjusted by a conveniently located hand wheel.

**Cutterhead Cylinder**
A 3-knife, round, safety-type cutterhead is furnished. The thin, high-speed steel knives are mounted at 30°. Cutting circle is 3½”. Cutterhead runs in lubricated-for-life ball bearings. A deflector for shavings is furnished.

**Chipbreaker**
The solid, steel chipbreaker swings with the cutterhead. The edge of the chipbreaker is always equidistant from the cutting circle and cannot strike the knives.

**Pressure Bar**
The pressure bar is solid and swings with the cutterhead. Adjustment is made by screws located on top of the frame.

**Lubrication**
Feed works grease lubricated. Cutterhead and feed rolls have lubricated-for-life bearings.

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**CATALOG LISTING**

**Basic Machine.** Includes set of 3 cutterhead knives, separate feed motor, feed motor pulley and V-belt, but less drive motor, drive belts, cutterhead pulley, motor pulley, coupling and electrical controls. 1030 lbs.

**DIRECT DRIVE MACHINES**

18” x 6” Wedge Bed Single Surfacar, with ½ HP single phase, 115/230 volt, 60 cycle, 1725 RPM open feed motor, and 3 HP single phase, 3450 RPM, 115/230 volt, 60 cycle open motor, coupling for motor shaft, left hand guard, push button pilot switch and magnetic starter............CAT. NO. 31W005

18” x 6” Wedge Bed Single Surfacar, with ½ HP 3 phase, 208-220/440 volt, 60 cycle, 1725 RPM open feed motor, and 3 HP 3 phase, 208-220/440 volt, 60 cycle 3450 RPM open motor, coupling for motor shaft, left hand guard, push button pilot switch and magnetic starter............CAT. NO. 31W006

18” x 6” Wedge Bed Single Surfacar, with ½ HP 3 phase, 208-220/440 volt, 60 cycle, 1725 RPM open feed motor, and 5 HP 3 phase 208-220/440 volt, 60 cycle, 3450 RPM open motor, coupling for motor shaft, left hand guard, push button pilot switch and magnetic starter............CAT. NO. 31W008

18” x 6” Wedge Bed Single Surfacar, with ½ HP 3 phase, 208-220/440 volt, 60 cycle, 1725 RPM open feed motor, and 7½ HP 3 phase 208-220/440 volt, 60 cycle, 3450 RPM open motor, coupling for motor shaft, left hand guard, push button pilot switch and magnetic starter............CAT. NO. 31W009

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**BELT DRIVE MACHINES**

18” x 6” Wedge Bed Single Surfacar, with ½ HP single phase 115/230 volt, 60 cycle, 1725 RPM open feed motor, and 3 HP single phase, 3450 RPM 115/230 volt, 60 cycle open motor, with head pulley, belts, motor pulley, left hand guard, push button pilot switch and magnetic starter......................CAT. NO. 31W010

18” x 6” Wedge Bed Single Surfacar, with ½ HP 3 phase, 208-220/440 volt, 60 cycle, 1725 RPM open feed motor, and 3 HP, 3 phase, 208-220/440 volt, 60 cycle, 3450 RPM open motor, with head pulley, belts, motor pulley, left hand guard, push button pilot switch and magnetic starter......................CAT. NO. 31W011

18” x 6” Wedge Bed Single Surfacar, with ½ HP single phase, 115/230 volt, 60 cycle, 1725 RPM open feed motor, and 5 HP single phase, 220 volt, 60 cycle, 3450 RPM open motor, with head pulley, belts, motor pulley, left hand guard, push button pilot switch and magnetic starter......................CAT. NO. 31W012

18” x 6” Wedge Bed Single Surfacar, with ½ HP 3 phase, 208-220/440 volt, 60 cycle, 1725 RPM open feed motor, and 5 HP 3 phase, 208-220/440 volt, 60 cycle, 3450 RPM open motor, with head pulley, belts, motor pulley, left hand guard, push button pilot switch and magnetic starter......................CAT. NO. 31W013

18” x 6” Wedge Bed Single Surfacar, with ½ HP 3 phase, 208-220/440 volt, 60 cycle, 1725 RPM open feed motor, and 7½ HP 3 phase, 208-220/440 volt, 60 cycle, 3450 RPM open motor, with head pulley, belts, motor pulley, left hand guard, push button pilot switch and magnetic starter......................CAT. NO. 31W014

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**ACCESSORIES**

Extra set of 3 Knives...........................................CAT. NO. 31W800

Shaving Hood..................................................CAT. NO. 31W801

Knife Grinding and Jointing Attachment.............CAT. NO. 31W802

Fast Lower Feed Roll Height Adjustment..............CAT. NO. 31W803
The J-Line No. J-225 Planer-Surfacer is a precision built machine manufactured from an exacting design utilizing ideas and components to provide the user with a machine to meet the most demanding and varied needs of today's production and vocational woodworking.

Capacity — These machines are designed to plane material 25" wide and from 1/16" to 8 3/4" in thickness. The cutterhead design allows a maximum cut of 1/2". Butted pieces as short as 4" and single pieces 12" may be planed.

A Carefully Engineered Feed Mechanism offers speeds from 20 to 100 lineal feet per minute. Higher or lower speeds are available in the same ratio. For added safety and control the machine is equipped with a conveniently located reversing switch. A positive chain, sprocket drive with a gear reduction is used to alleviate any slipping of the mechanism.

Large Box Type Base — A large box-type three point mounted base of pleasing design insures proper support of all components.

Heavy One-Piece Table — The heavy one-piece table accurately carries all table parts for precision planing and is easily adjustable by a conveniently located hand wheel.

Choice of Drives — The feed mechanism is driven by a 1 1/2 HP totally enclosed fan-cooled motor. This machine is available in either a Direct Motor or VEE-Belt drive with 5, 7 1/2, 10, and 15 HP T.E.F.C. motors. Direct motor drives operate at 3600 RPM and VEE-belt drives operate at 5000 RPM or to customer's orders.

**SPECIFICATIONS**

- Nominal size — 25" x 8"
- Actual capacity — 28" x 8 3/4"
- Cylinder — 4 1/2" cutting circle, 4 knife, high carbon steel, micrometer type knife raising screws
- Drive — Direct motor or Vee-Belt
- Brake — Convenienly located hand brake
- Motors — Cutterhead — 5, 7 1/2, 10, 15 HP T.E.F.C.
- Feed — 1 1/2 HP T.E.F.C.
- RPM — Direct Motor Drive — 3600
- Vee-Belt — 5900 (or to customer's specification)
- Knife Size — 3 1/2" x 1 1/4" x 25" high speed steel
- Lower feed rolls — 4" solid steel, power driven, sealed for life bearings
- Upper feed rolls — infeed — 4" diameter, 1" milled steel sections, 1/4" section yield, 3/4" roll yield, sealed for life ball bearings
- Outfeed — 4" solid steel, power driven sealed for life ball bearings
- Table feed roller adjustment — Single hand lever .001 to .075
- Feed speed — 20 to 100 lineal feet per minute (higher or lower available in same ratio)
- Chipbreaker — Ductile iron, 2" sections, concentric with head
- Pressure bar — easily adjustable, with micrometer type adjusting screws
- Maximum stock width — 25"
- Shortest cut piece — 4"
- Shortest single piece — 12"
- Maximum stock thickness — 8 3/4"
- Minimum stock thickness — 1/2"
- Maximum depth of cut — 1/2"
- Controls — Double magnetic switch, single pushbutton; reversing switch on feed mechanism
- Floor space — 60" x 50"
- Base — large box type, three point mounted
- Net weight — 2400 lbs.
- Domestic shipping weight — 2550 lbs.
- Boxed for export — 2750 lbs.
**Four Knife Cutterhead with Integral Micrometer Type, Knife Raising Screws**

The four knife cutterhead of high carbon steel is 25" long and has a 4½" cutting circle. The ¾" x 1½" x 25" knives are of high speed steel and can be quickly adjusted with the micrometer type knife raising screws machined integral with the cutterhead. The cutterhead can be quickly stopped with a convenient brake.

**Sectional Chipbreaker Mounted Concentrically with Head**

A sectional chipbreaker of 2" ductile iron sections is concentric with the cutterhead and yields to ¾". It rises with the sectional infeed roll on heavy cuts and is fully adjustable.

**Quickly Adjustable Pressure Bar**

A heavy pressure bar is located directly behind the cutterhead. It is quickly adjustable by means of spring loaded micrometer-type adjusting screws at either end of the bar. If necessary, the pressure bar can be easily removed.

**Sectional Upper Infeed Roll**

All four 4" feed rolls are power driven. The upper infeed roll is the sectional type with 1" milled steel sections. Each section yields 5/16" and the entire roll yields ¾" All the other feed rolls are solid steel and easily removable. The feed rolls are mounted with sealed for life ball bearings. To adjust the machine from rough to smooth stock a single hand lever quickly adjusts the table power feed rollers from .001 to .075.

**Electrics**

The machine is delivered to the user completely self contained, wired and ready to attach to main feed lines. A double magnetic switch with single pushbutton control is standard equipment as is the reversing switch for the feed motor. All electrics comply with standard electrical safety codes.

** Extras**

Shavings hood for gravity exhaust system • Shavings hood for connection to blower system • Knife grinder • Jointing attachments (must be used with grinder bar) • Removable center bed plate • Idler rollers for edge of table • Modifications to customer's order.
The name plate that assures you of quality...
GUARANTEE

Every J-Line machine is a precision made tool that is manufactured under exacting quality specifications. The component parts are inspected at each stage of assembly, then a final inspection assures you of a quality engineered product. This fine workmanship stands behind our guarantee.

We will repair or replace any part or parts of J-Line machines which prove to be defective due to faulty material or manufacturing. Part or parts which have been misused, carelessly handled or normally worn will not be covered by this guarantee. Service on all J-Line machines must be arranged directly through authorized distributors or the factory, including pre-payment of shipping expense.

“Progress with a meaning”
BRODHEAD-GARRETT

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