ACCESSORIES AND ATTACHMENTS
for all types of
Gilbert
HORIZONTAL BORING, DRILLING
AND MILLING MACHINES

BRYANT
Machinery & Engineering
Company

GILBERT COMPOUND RECTANGULAR TABLE TYPE HORIZONTAL
BORING, DRILLING AND MILLING MACHINE EQUIPPED WITH TWO-
WAY FEED FACING HEAD WITH EXTENSION TOOL • UNIVERSAL
TILTING AND ROTARY TABLE • MIDGET TYPE BORING BAR SUPPORT
PRECISION DIAL AND END MEASURING INSTRUMENT

This instrument can be applied to the GILBERT Compound Rectangular and Rotary Table Types Horizontal Boring, Drilling and Milling Machine. It is normally furnished for the vertical travel of the spindle head, Fig. 2 and the cross travel of the table, Fig. 1. However, if desired, it can also be furnished for the vertical travel of the Bar Support Bearing.

Each instrument consists of:

- **Inch System** — Dial indicator reading to .001"; inside micrometer reading to .001"; end measures 1", 2", 3", and 6" and sufficient 12" end measures to equal the travel of the unit to which it is applied.

- **Metric System** — Dial indicator reading to 1/100 m/m; inside micrometer reading to 1/100 m/m; end measures 25 m/m; 50 m/m, 75 m/m, 150 m/m and sufficient 300 m/m end measures to equal the travel of the unit to which it is applied.

This instrument can also be furnished on Floor Type Horizontal Boring, Drilling and Milling Machines for the vertical travel of spindle heads.

A combination dial and end measuring instrument and vernier attachment can be furnished for the vertical travel of spindle head, cross travel of table and vertical travel of bar support. Consult office.
TWO WAY FEED FACING HEAD

The use of this head does not interfere with the use of the spindle when the head is mounted on the face plate.

The 12'' diameter head is equipped with a No. 5 Morse Taper Shank for the spindle nose.

The 16'' and 20'' diameter heads are fastened to the face plate. The feed is effected by inserting a rod into one of the holes in the feed ring. The rod is held in a bracket bolted to the spindle head thus operating the feed screw.

When the facing heads are mounted in the spindle or on a boring bar, the feed is effected by holding by hand the rod inserted in the feed ring.

The feed changes are controlled by 4 pull pins located on the rear of the head.

The feed is reversed by a small lever. The tool bit is quickly returned to its starting point by turning the feed screw backwards with a key crank.

SPECIFICATIONS

<table>
<thead>
<tr>
<th></th>
<th>12''</th>
<th>16''</th>
<th>20''</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will face—Min. diameter</td>
<td>3''</td>
<td>3 3/8''</td>
<td>3 5/8''</td>
</tr>
<tr>
<td>Will face—Max. Diameter</td>
<td>12''</td>
<td>16''</td>
<td>20''</td>
</tr>
<tr>
<td>Length of head</td>
<td>5 1/2''</td>
<td>8''</td>
<td>10''</td>
</tr>
<tr>
<td>Bore (Standard)</td>
<td>3''</td>
<td>3 3/8''</td>
<td>3 5/8''</td>
</tr>
<tr>
<td>Number of feeds</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Rate of feed—per rev. of head</td>
<td>.0104</td>
<td>.0069</td>
<td>.0104</td>
</tr>
<tr>
<td></td>
<td>.0208</td>
<td>.0138</td>
<td>.0208</td>
</tr>
<tr>
<td></td>
<td>.0312</td>
<td>.0207</td>
<td>.0312</td>
</tr>
<tr>
<td></td>
<td>.0416</td>
<td>.0276</td>
<td>.0416</td>
</tr>
<tr>
<td>Adjustment to tool holder</td>
<td>1/2''</td>
<td>1''</td>
<td>1''</td>
</tr>
<tr>
<td>Size of square tool bit</td>
<td>1/2''</td>
<td>3/8''</td>
<td>3/4''</td>
</tr>
<tr>
<td>Weights</td>
<td>75 lbs.</td>
<td>175 lbs.</td>
<td>350 lbs.</td>
</tr>
<tr>
<td>Standard Equipment</td>
<td>1 tool bit, necessary cranks and wrenches.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTE: For use on a Boring Bar, these heads can be furnished with maximum bores as follows — 12'' head, 3'' bore; 16'' head, 4'' bore; 20'' head, 4'' bore. In this case the minimum facing diameters would be 12'' head, 3''; 16'' head, 6 1/4''; 20'' head, 6 1/4''.

The 8'' telescopic tool equipped with straight and right angle holder is well adapted for boring, grooving, recessing, back facing and similar operations. The tool holder has 1 1/2'' adjustment. The tool holder bar has 2 3/8'' adjustment. The device is bolted to the facing head tool slide.

FULL UNIVERSAL MILLING ATTACHMENT

Fastened to front face of spindle head and driven by the machine spindle, Fig. 5 and Fig. 6.

Reach from spindle head — 15'' or 20''.

Spindle carrier revolves 360°.

Swivel revolves 360°.

Gear ratio with machine spindle 1 to 1.

Spindle nose has No. 50 National Standard Taper.

Distance from center of machine spindle to center of cutter spindle — 7 3/4''.

Distance from center of cutter spindle to top of swivel — 15 1/2''.

Length of cutter spindle — 14 1/2''.

Net weight — 515 lbs.
SEMI-UNIVERSAL MILLING ATTACHMENT
Fastened to front face of head and driven by the machine spindle.
Reach from spindle head — 15” or 20”.
Spindle carrier revolves 360°.
Gear ratio with machine spindle 1 to 1.
Spindle nose has No. 50 National Standard Taper.
Distance from center of machine spindle to cutter spindle nose — 6 3/8”.
Length of cutter spindle carrier — 18 1/2”.
Net weight — 400 lbs.

UNIVERSAL TILTING AND ROTARY TABLE
Five sides of a cube can be machined at one setting of the work piece.
For use on Radial Drills and Horizontal Boring, Drilling and Milling Machines, all types.
Table top revolves by hand on flat bearings. It is graduated to read 1/2° and will revolve 360°. It is clamped to the tilting member by four bolts. It contains planed tee slots and a center locating hole.
The tilting member is graduated in degrees and is clamped to the base by 2 bolts. The tilting mechanism consists of a non-reversible worm and wormwheel and reduction gearing mounted on ball bearings. When the top is in its horizontal position it rests on solid scraped bearings.

<table>
<thead>
<tr>
<th>Style No. 1</th>
<th>Style No. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size of top</td>
<td>22” x 22”</td>
</tr>
<tr>
<td>Diameter across corners</td>
<td>28”</td>
</tr>
<tr>
<td>Diameter of center hole</td>
<td>2”</td>
</tr>
<tr>
<td>Height of table</td>
<td>22”</td>
</tr>
<tr>
<td>Distance to center of table when tilted to 90°</td>
<td>18 3/4”</td>
</tr>
<tr>
<td>Size of tee slots</td>
<td>1/8”</td>
</tr>
<tr>
<td>Net weight</td>
<td>1100 lbs.</td>
</tr>
</tbody>
</table>
PLAIN BOX TABLES
For use on Table Type and Floor Type Horizontal Boring, Drilling and Milling Machine.

The tables are made of semi-steel. They are machined top and bottom with tee slots planed from the solid. A squaring strip is machined on all four sides. Locating keys are furnished for locating the tables on machine tables or bed plates.

The following sizes are available:
- 31" wide x 60" long x 35" high
- 36" wide x 60" long x 35" high
- 36" wide x 84" long x 35" high
- 48" wide x 72" long x 24" high
- 48" wide x 96" long x 24" high
- 60" wide x 96" long x 36" high
- 72" wide x 96" long x 30" high

AUXILIARY TABLE
Size available — 8" wide x 84" long.
It is guided on the bed by the center guide and is equipped with a taper gib.
It contains one tee slot planed from the solid.
It can be clamped securely to the bed.

SPINDLE TO FACE PLATE CLAMP
This attachment binds the spindle firmly to the face plate. It is valuable when milling cutters are inserted in the spindle nose. Overall length—4½"; 6"; 9"; 12" or 18".

BORING BARS
Boring Bars are made of heat treated alloy steel, ground to size. They have a standard Morse Taper Shank, (drive key for bars 3" dia. and over) and draw back slot. They can be equipped with tool slots for standard cutters or block type cutters.

Boring Bars can be furnished hardened and ground.
Please specify diameter and working length of bars, type and number of cutter slots when inquiring for prices.

Various types of Cutter Heads, Block Cutters, Milling Cutters, Angle Blades and Special Tools are available.
**MIDGET TYPE OPENSIDE BORING BAR SUPPORT**

Used on Compound Table Type and Floor Type (with Adjustable or Stationary Tables) Horizontal Boring Drilling and Milling Machine.

<table>
<thead>
<tr>
<th></th>
<th>Plain Type</th>
<th>Adjustable Column Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical travel of bar bearing</td>
<td>36&quot; or 940 m/m</td>
<td>35&quot; or 900 m/m</td>
</tr>
<tr>
<td>Bore of Bar Bearing</td>
<td>41/4&quot;</td>
<td>41/4&quot;</td>
</tr>
<tr>
<td>Minimum distance Bar Bearing to Table</td>
<td>41/4&quot;</td>
<td>63/4&quot;</td>
</tr>
<tr>
<td>Horizontal travel of column</td>
<td>None</td>
<td>24&quot; or 640 m/m</td>
</tr>
<tr>
<td>Net weight</td>
<td>550 lbs.</td>
<td>1150 lbs.</td>
</tr>
</tbody>
</table>

Both types — Hand adjustment to movable units which are equipped with vernier and vernier scales reading to .001" or 1/50 m/m.