New Boring Heads with a Digital Display

2µm
ISCAR is expanding the range of BHD MB boring heads with digital display by adding:
- BHD MB32-32-83
- BHD MB40-40-90

ISCAR is expanding the range of digital boring heads with a digital display by extending their connection sizes with MB32 and MB40 to the already available MB50, MB63 and MB80.

### Main Features
- Ø0.002 mm (.0001) high adjusting accuracy
- Clear digital display with a mm/inch value display selection that helps prevent human errors
- Simple adjusting process (pre-loaded)

### Specifications
- 5 mm radial stroke
- Minimum display value/resolution: .002 mm (diametric)
- Waterproof
- Maximum coolant pressure 40 bar • “Hard Touch” highly resistant coating
BHD MB
Fine Boring Heads with Digital 2 µm Direct Adjustment Diametric Display

<table>
<thead>
<tr>
<th>Designation</th>
<th>SS</th>
<th>(d_{min})</th>
<th>(d_{max})</th>
<th>(L)</th>
<th>(L_1)</th>
<th>(L_2)</th>
<th>(d_2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHD MB32-32-83</td>
<td>MB32</td>
<td>35.0</td>
<td>51.0</td>
<td>83.00</td>
<td>71.5</td>
<td>3.00</td>
<td>- 0.41</td>
</tr>
<tr>
<td>BHD MB40-40-90</td>
<td>MB40</td>
<td>48.0</td>
<td>64.0</td>
<td>90.00</td>
<td>76.0</td>
<td>4.00</td>
<td>- 0.73</td>
</tr>
<tr>
<td>BHD MB50-50-60</td>
<td>MB50</td>
<td>2.5</td>
<td>110.0</td>
<td>80.00</td>
<td>61.0</td>
<td>5.00</td>
<td>16.00</td>
</tr>
<tr>
<td>BHD MB63-63-89</td>
<td>MB63</td>
<td>6.0</td>
<td>125.0</td>
<td>88.50</td>
<td>69.5</td>
<td>5.00</td>
<td>16.00</td>
</tr>
<tr>
<td>BHD MB80-80-104</td>
<td>MB80</td>
<td>6.0</td>
<td>200.0</td>
<td>104.00</td>
<td>84.5</td>
<td>5.00</td>
<td>16.00</td>
</tr>
</tbody>
</table>
BHD MB32-32-83
Ø35 ~ 51

BHD MB40-40-90
Ø48 ~ 64
**Digital Fine Boring Head BHD metric/inch**

**Operating Instructions**

**Assembly**
- Before mounting the BHD boring head make sure the expanding pin (2) does not protrude from the cylindrical body part.
- Insert BHD boring head into the shank. **Tighten pin (2) by turning clockwise.**
- Insert pin (5). If it protrudes, the sleeve should be rotated until the screw can enter the recess in the sleeve nut or boring bar.

**Disassembly**
To separate the BHD from the shank, loosen the expansion pin (2) by turning counterclockwise.

**Positioning**
The display (12) shows the value of the adjustment diameter with a 2µm screen resolution.
- Switch on the BHD boring head by pushing the selection button (13). The display (12) will show the value of the previous adjustment. To reset the value displayed press and hold the button (13), after 2 sec the display shows "----", release the button. The display will show the value 0.000. **Loosen screw (4) before making any slide adjustment to the dial (3).**
- Adjust the required diameter by turning the dial (3). Counterclockwise, tool slide (7) allows a 5mm radial adjustment, the display (12) will show the new value in diameter. The absolute value CANNOT be viewed, only the relative value.
- After positioning, lock the tool slide by means of screw (4). See torque recommendation. If unused for more than 30 seconds, the display switches off automatically.

**WARNING**
**DO NOT perform any slide movement when the display is switched off.**
**DO NOT exceed the range marks (10).**

Before carrying out a fine adjustment (described in FIG. 3):
1. Loosen screw (4) of slide adjustment.
2. Adjust dial (3) to required diameter.
3. Tighten screw (4).

**Setting metric/inch**
To change unit readout from metric to inch:
- Press and hold the button (13). The display shows "----", after 10 sec the new unit readout appears on the left of the display.
- Release the button.

---

<table>
<thead>
<tr>
<th>Designation:</th>
<th>(Nm)</th>
<th>(Lbf.ft)</th>
<th>Allen Key(mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BHD MB32-32-83</td>
<td>7.0-8.0</td>
<td>5.16-5.90</td>
<td>4</td>
</tr>
<tr>
<td>BHD MB40-40-90</td>
<td>16.0-18.0</td>
<td>11.80-13.28</td>
<td>5</td>
</tr>
<tr>
<td>BHD MB50-50-60</td>
<td>30.0-35.0</td>
<td>22.13-25.81</td>
<td>6</td>
</tr>
<tr>
<td>BHD MB63-63-89</td>
<td>80.0-90.0</td>
<td>59.0-66.38</td>
<td>8</td>
</tr>
<tr>
<td>BHD MB80-80-104</td>
<td>80.0-90.0</td>
<td>59.0-66.38</td>
<td>8</td>
</tr>
</tbody>
</table>
Battery Replacement

⚠️ When the batteries are low the display will show a warning sign “batt” for a few seconds (FIG.4). It is recommended to replace the batteries as soon as possible.

To replace the batteries (FIG.5):

- Remove the battery compartment cover (b) by unscrewing the 4 screws (a).
- Replace the two batteries using type SR44 1.55V and position them in the correct direction.
- Tighten the 4 screws (a).

Maintenance

Weekly:

- Lubricate through the nipple (8) with ISO UN G220 oil.

Periodically:

- Clean and lubricate the conical and cylindrical matching surfaces.
- Treat Expansion pin (2) with an anti-friction lubricant.
- Clean and lubricate the tool slide guide way.

⚠️ WARNING

- The only maneuvering and adjustment screws to be used are those listed in the components section.
- The screws not listed in the components section should not be touched as to avoid malfunction of the boring bars and heads.
- Bit holders and boring bars should be assembled with the insert turned in the same direction as the screw (4).
- The use of coolant on the BHD boring head double-bit heads should be 40 BAR max.
- The machine tool must be equipped with all of the active and passive safety devices that assure safe use of the BHD boring head.
- ISCAR requires that the machine tools on which the BHD boring head is mounted comply with the provisions of 2006/42/CE directive.

Inserts

We advise you to use the inserts proposed by ISCAR. The use of different inserts can affect ultimate machining results.

Digital Fine Boring Head BHD metric/inch Operating Instructions

Battery Replacement

⚠️ When the batteries are low the display will show a warning sign “batt” for a few seconds (FIG.4). It is recommended to replace the batteries as soon as possible.

To replace the batteries (FIG.5):

- Remove the battery compartment cover (b) by unscrewing the 4 screws (a).
- Replace the two batteries using type SR44 1.55V and position them in the correct direction.
- Tighten the 4 screws (a).

Maintenance

Weekly:

- Lubricate through the nipple (8) with ISO UN G220 oil.

Periodically:

- Clean and lubricate the conical and cylindrical matching surfaces.
- Treat Expansion pin (2) with an anti-friction lubricant.
- Clean and lubricate the tool slide guide way.

⚠️ WARNING

- The only maneuvering and adjustment screws to be used are those listed in the components section.
- The screws not listed in the components section should not be touched as to avoid malfunction of the boring bars and heads.
- Bit holders and boring bars should be assembled with the insert turned in the same direction as the screw (4).
- The use of coolant on the BHD boring head double-bit heads should be 40 BAR max.
- The machine tool must be equipped with all of the active and passive safety devices that assure safe use of the BHD boring head.
- ISCAR requires that the machine tools on which the BHD boring head is mounted comply with the provisions of 2006/42/CE directive.

Inserts

We advise you to use the inserts proposed by ISCAR. The use of different inserts can affect ultimate machining results.

Battery Replacement

⚠️ When the batteries are low the display will show a warning sign “batt” for a few seconds (FIG.4). It is recommended to replace the batteries as soon as possible.

To replace the batteries (FIG.5):

- Remove the battery compartment cover (b) by unscrewing the 4 screws (a).
- Replace the two batteries using type SR44 1.55V and position them in the correct direction.
- Tighten the 4 screws (a).

Maintenance

Weekly:

- Lubricate through the nipple (8) with ISO UN G220 oil.

Periodically:

- Clean and lubricate the conical and cylindrical matching surfaces.
- Treat Expansion pin (2) with an anti-friction lubricant.
- Clean and lubricate the tool slide guide way.

⚠️ WARNING

- The only maneuvering and adjustment screws to be used are those listed in the components section.
- The screws not listed in the components section should not be touched as to avoid malfunction of the boring bars and heads.
- Bit holders and boring bars should be assembled with the insert turned in the same direction as the screw (4).
- The use of coolant on the BHD boring head double-bit heads should be 40 BAR max.
- The machine tool must be equipped with all of the active and passive safety devices that assure safe use of the BHD boring head.
- ISCAR requires that the machine tools on which the BHD boring head is mounted comply with the provisions of 2006/42/CE directive.

Inserts

We advise you to use the inserts proposed by ISCAR. The use of different inserts can affect ultimate machining results.