Micron Accurate Automatic Wireless Adjustment on Large Diameter Finish Boring - Modular Solution

Rigibore® The Most Accurately Adjustable Boring Tools in the World
Welcome to Rigibore®
Manufacturers of high quality tooling for precision hole boring

Rigibore’s use of technology in manufacturing means we deliver our products, even complex multi-edge cutting tools, quicker than the competition.

We pride ourselves on our enquiry response time, our attention to detail, product quality and our commitment to customer satisfaction.

Our bespoke design and manufacturing system delivers high quality boring tools in the shortest delivery times.

Rigibore® is an award winning company recognised for its use of technology and commitment to customer focus.

What our customers say about us...

“Rigibore’s quality and on-time delivery performance is outstanding and considered to be Best-in-Class.”

“The product, coupled with their knowledge of difficult boring applications has proven to be the perfect partner for a world class metalworking solutions provider.”

“Rigibore® has customised their software and manufacturing services to fit our every need (and more importantly our customer’s needs). Their flexibility is unparalleled.”

Experience Matters
Our design experience guarantees that we can offer you the best tool solution for your boring application

Hayle, UK

Mukwonago, USA

Bangalore, India

Innovation, technology and quality in design and manufacture
Rigibore’s ActiveEdge Nexus provides precision performance wireless cutting edge adjustments on large diameter boring requirements from ø 275 mm (10.8268”) – ø 1020 (40.15748”).

**Tomorrow’s Solution, Today**

Rigibore’s ActiveEdge Nexus revolutionises large diameter finish boring operations, affording organisations a solution to replace manually adjusted tools and harvesting the most productive and efficient manufacturing process.

This modular solution added to standard flanges is adjusted via wireless transmission from accurate measurement data (either remotely or automatically), providing precision finishing and micron-accurate adjustment capabilities.

**Nexus Benefits**

- **Precision Performance** - Micron accurate adjustment, removing errors that exist in manual systems.
- **Reduced Downtime** - Wireless adjustment capabilities minimise non-productive time and accelerate productivity.
- **Improved Health and Safety** - Adjustments are made from outside the machine, removing the risk of operator injury.
- **Simplicity In Adjustment** - Precision tolerances can be easily met and maintained by operators of all skill and experience levels.
- **Automated Capabilities** - Nexus can deliver an automated ‘two-cut finish process’, taking a first and final finish cut to ensure precision bores.
A) ActiveEdge Nexus

B) ActiveEdge Cartridge

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Insert</th>
<th>Insert Screw</th>
<th>Datum Radius</th>
<th>Approach *</th>
<th>Fine Adjustment Range Ø (mm)</th>
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</thead>
<tbody>
<tr>
<td>AEF110390</td>
<td>TC..110304</td>
<td>RS2560</td>
<td>0.4</td>
<td>90°</td>
<td>0.6</td>
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<tr>
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<td>RS4084</td>
<td>0.4</td>
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</tbody>
</table>

*Other approach angles and insert geometries are available

C) Wireless and Control Hardware

D) Battery Compartment

ActiveEdge Nexus - Connecting Innovation

Rigibore's ActiveEdge Nexus provides precision performance wireless cutting edge adjustments on large diameter boring requirements from Ø 275 mm (10.8268") – Ø 1020 (40.15748").

The ActiveEdge Nexus enables both coarse adjustment (set manually in the toolroom) and fine setting capabilities, in addition to the capability for automatic cutting-edge compensation in the machine tool.

The Nexus is a self-contained module that can be added to standard flanges. The module comprises a wireless transceiver, battery and supports a micron adjustable ActiveEdge cartridge. ActiveEdge cartridges can be adjusted in the following ways:

1. Manual Adjustment (ActiveEdge Remote Control) – Simple, fast, and micron accurate wireless adjustments are made at the push of a button. This method removes the need for the operator to enter the machine envelope to physically adjust the tool.

2. Automatic Adjustment (Rigibore’s Zenith Solution) – This closed-loop manufacturing solution uses in-process measurement data to automatically adjust for temperature change, insert wear and material inconsistency. Precision cutting edge changes are made with no operator intervention, allowing productivity to be maximised whilst removing the risk of scrap.
Boring and Overturning Capabilities

Rigibore’s ActiveEdge Nexus is flexible, offering the same precision performance capabilities for overturning operations as it does on standard boring.

Please see the below technical information on our boring and overturning capabilities with Rigibore's ActiveEdge Nexus.

### Boring

<table>
<thead>
<tr>
<th>Cutting Range (mm)</th>
<th>(1) Nexus Module</th>
<th>(2) Balance Block</th>
<th>(3) Wohlhaupter Flange</th>
<th>(4) Flange Adapter</th>
<th>X1 (mm)</th>
<th>d5 (mm)</th>
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<tr>
<td>275 - 355</td>
<td>AE-NXF1..</td>
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<tr>
<td>350 - 430</td>
<td>AE-NXF1..</td>
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<td>465 - 745</td>
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<td>AE-NX-BB</td>
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<td>740 - 1020</td>
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<td>AE-NX-BB</td>
<td>349 006</td>
<td>AE-NX-FA</td>
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<td>D60</td>
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</table>

### Overturning

<table>
<thead>
<tr>
<th>Cutting Range (mm)</th>
<th>(1) Nexus Module</th>
<th>(2) Balance Block</th>
<th>(3) Wohlhaupter Flange</th>
<th>(4) Flange Adapter</th>
<th>X2 (mm)*</th>
<th>d5 (mm)</th>
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<tr>
<td>Note 1</td>
<td>AE-NXF1..</td>
<td>AE-NX-BB</td>
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<td>93.5</td>
<td>D60</td>
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</table>

Note 1: Please contact Rigibore for more information.

*Cutting length can be increased with custom spacers. Please contact Rigibore for more details.

### Shank Adaptor

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<th>Shank Type</th>
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<td>349 003/4/5/6</td>
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<tr>
<td>MVS100</td>
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<td>349 002/3/4/5/6</td>
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</tbody>
</table>

Other shank types are available. Please contact Rigibore.

### Remote Adjustment

AE-RC-...
How to Contact Us

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