Chinook®

Active Magnetic Bearing Controller

- Simple and fail-safe integration of the control cabinet with the machine station via the digital output/input from the digital cabinet
- An optimised, automated commissioning and tuning process available to the OEM/end user
- Remote monitoring and adjustment capabilities
- Built-in condition monitoring system provides comprehensive diagnostics
- High processing performance which allows for more complex algorithms that provide higher dynamic efficiency, improved usability and ergonomics, and noise immunity
- The integrity of functional testing, verification and development of new features performed on the world’s biggest super-critical test rig is far superior to simulation testing methods used by others

Features

CONFIGURATION
- 5 axis controller (option for 4 axis control)

INTERFACES
- Door mounted operator panel
- Hardwired discrete DCS interface
- Analogue diagnostic outputs
- PROFIBUS DP slave (option)
- MODBUS RTU or TCP slave (option)
- SOAP slave (option)

CONTROL LAW CAPABILITY
- SISO/MIMO controller with tracking filters
- Multi-coordinate control (MCC)
- Automatic balancing algorithm (ABA)
- Runout compensation
- Synchronous open loop feed forward
- Advanced amplifier algorithm (for canned bearings, software flux feedback)

SENSOR SUPPORT
- Magnetic displacement
- Inductive, eddy current
- Capacitive
- Dual position sensor ring option
- Redundancy
- Flux feedback

DIAGNOSTIC CAPABILITIES
- Web server interface
- High speed capture buffer
- Trend logging
- Event logging
- Automatic clearance check
- Integrated transfer function measurement
- Integrated spectra capability
- Integrated harmonic capture
- 3rd level trip
- Built-in tools show compliance with ISO sensitivity performance criteria

OTHER
- Cabinet comes in dual-bay and space-saving single-bay versions
- Support for purge protected bearings

Certification:
- CE, CB and TR-CU

Support:
- 24-7 on-call service (reply within 1 hour)
- Spares service and extended warranty option
- Comprehensive training programme
# Specification:

<table>
<thead>
<tr>
<th>Features</th>
<th>Single Bay Chinook Bearing Control Cabinet E6260601</th>
<th>Dual Bay Chinook Bearing Control Cabinet E8800601</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cabinet Size &amp; Rating</strong></td>
<td>800(D) x 800(W) x 2000(H) mm; removable top vent box (100mm); plinth (100mm). Cable entry from bottom. IP54 (roof air vent IP33). Forced air cooled.</td>
<td>800(D) x 1600(W) x 1800(H) mm; removable top vent box (100mm); plinth (100mm). Cable entry from bottom. IP54 (roof air vent IP33). Forced air cooled.</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td>Front full length door (lock optional)</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum Case Weight</strong></td>
<td>400 kg</td>
<td>965 kg</td>
</tr>
</tbody>
</table>
| **Input Voltage: Mains Options**| Model Type: D626-1P: 230VAC (50/60Hz) (180VAC to 254VAC)  
Model Type: D626-3P: 400VAC 3Ø+N (50/60Hz); Phase rotation not critical 5kW | Model Type: D880-1P: 230VAC (50/60Hz) 3Ø; 7.5kVA (180VAC to 254VAC)  
Model Type: D880-3P 400VAC 3Ø+N (50/60Hz); 11A 7.5kVA |
| **Input Voltage: DC Option**    | Model Type: D626-DC  
Model Type: D626-DC/1P: 230VAC (50/60Hz); 5A; 1kVA (AC supply required for ancillary options) 48 VDC supply (42VDC to 57VDC) | Model Type: D880-DC  
Model Type: D880-DC/1P: 230VAC (50/60Hz); 5A; 1kVA (AC supply required for ancillary options) 48 VDC supply (42VDC to 57VDC) |
| **Output Power**                | 300V @ 25A per magnet (continuous), 30A (peak)       |                                                  |
| **Operating Temperature Range** | 5°C to 35°C ambient temperature (when levitated)  
5°C to 40°C (de-levitated) |                                                  |
| **Relative Humidity Range**     | 80% max non-condensing                               |                                                  |
| **Transport & Storage Temperature Range** | -40°C to +45°C, humidity 80% max non-condensing |                                                  |
| **Area Classification**         | Non-hazardous                                       |                                                  |
| **Maximum Cable Length Between Cabinet & Bearings** | 150m; consult for extended cable lengths to 500+m |                                                  |
| **Certification**               | CE, CB and TR-CU; contact Waukesha Magnetic Bearings for certificate numbers |                                                  |

Our Promise:
Only Waukesha Bearings® has the culture, commitment and entrepreneurial spirit to drive technological breakthroughs and operational excellence that exceed our customers’ expectations globally.