Superior performance and reliability.

Eaton Xcel Series
Low-Speed High-Torque Motors
Where superior performance and reliability meet exceptional value.

In order to manage costs while optimizing machine life, mobile OEMs must specify a motor that matches the duty cycle of the work circuit to the machine’s performance requirements. For light- and medium-duty applications, there’s no better solution than Eaton Xcel Series Low-Speed High-Torque motors.

3-zone architecture at a 2-zone price point

Competitive light- and medium-duty motors are designed with two zones (A and B ports) and no case drain. The problem with these 2-zone designs is that in applications requiring bi-directional rotation, the shaft seals are vulnerable to B-port pressure spikes – which can damage the motor and cause premature failure. Xcel Series motors feature a 3-zone architecture, which dampens pressure spikes in both directions, even without a case drain hose – helping extend shaft seal life and enhance overall reliability.

Plus, Eaton’s 3-zone motors use a “same speed” disc valve that rotates with the output shaft, improving mechanical and volumetric efficiency. Competitive 2-zone motors have high-speed valves that spin 6X faster than the output shaft, requiring extra horsepower which raises the system’s operating temperature and wastes energy.

Ideal applications

- Salt and sand spinners
- Street cleaner brushes
- Car washes
- Combine reel drives
- Feed-grinding augers
- Auger swing drives
- Stake-down motors
- Post-hole drives

In a brush cutter comparison test, the Xcel Series motor was 40% more efficient than competitive 2-zone motors.

The Xcel Series is available at a comparable price point to competitive 2-zone motors, making it easier than ever to make the switch.
Xcel Series motors vs. offshore competitors: the difference is clear.

In accelerated life tests (continuous operation at maximum intermittent pressure and maximum continuous flow), Eaton Xcel Series motors exponentially exceeded the performance of competitive motors.

**Accelerated life test: XLH vs Competition at 200cc**

- **Eaton XLH**
  - Sample 1: 665 hours
  - Sample 2: 290 hours
  - Sample 3: 290 hours

- **Competition**
  - Sample 1: 51 hours
  - Sample 2: 22 hours
  - Sample 3: 60 hours

**Competitive failure modes:**
- Volumetric efficiency drop >10%
- Shaft seal leakage

*No failure. Testing stopped per TR-019493A.

**Accelerated life test: XL2 vs Competition**

- **Eaton XL2**
  - Sample 1: 200 hours
  - Sample 2: 200 hours
  - Sample 3: 200 hours

- **Competition**
  - Sample 1: 21 hours
  - Sample 2: 30 hours
  - Sample 3: 30 hours

**Competitive failure modes:**
- Spline stripping (shaft and star)
- Drive torsional failures
- Severe Geroler® wear

*Test goal met at 200 hours per TR-017903A.
Which Xcel Series motor is right for your application?

**Eaton XLH**
Uses Eaton’s proven Gerotor motor design and offers a simple, reliable, effective solution for the widest variety of applications. Supported by hydrodynamic bearings, the spool valve design is available with the most popular output shafts, mounts and displacements.

**Eaton XLS**
Leveraging the compact size of the XLH, the XLS incorporates Eaton Geroler technology to further reduce internal friction and provide added longevity for applications needing higher-than-normal performance.

**Eaton XL2, XL4 and XL6**
Featuring Eaton’s highly reliable Geroler design, the XL2, XL4 and XL6 motors include a tapered bearing set to support high sideloads plus a rear disc valve to help maintain high efficiency at high pressures and high torque.

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<table>
<thead>
<tr>
<th>Motor</th>
<th>Max Speed</th>
<th>Torque Nm (in-lbs.)*</th>
<th>Flow lpm (gpm)*</th>
<th>Δ Pressure bar (psi)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>XLS</td>
<td>875</td>
<td>512 [4530]</td>
<td>68 [17.6]</td>
<td>155 [2250]</td>
</tr>
<tr>
<td>XL4</td>
<td>868</td>
<td>1185 [10470]</td>
<td>150 [40]</td>
<td>310 [4500]</td>
</tr>
<tr>
<td>XL6</td>
<td>866</td>
<td>1898 [16800]</td>
<td>225 [60]</td>
<td>310 [4500]</td>
</tr>
</tbody>
</table>

*Intermittent ratings based on 10% of every minute

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Request an Xcel Series prototype today
Contact your local Eaton distributor to request an Xcel Series prototype.

Please visit [Eaton.com/Xcelmotors](Eaton.com/Xcelmotors) for more information.
A better solution for your toughest light-duty motor challenges.

**Challenge:** High-performance motors work well but cost too much because they’re over-specified for the application.

**Xcel Series solution:** Engineered specifically for light- and medium-duty applications, the Xcel Series offers the Eaton reliability you depend on at a more attractive price point – helping you meet both your machine performance and cost goals.

**Challenge:** Low-cost motors meet your price point but may be prone to premature failure.

**Xcel Series solution:** Compared to competitive 2-zone motor designs, Xcel Series motors feature a 3-zone architecture that helps extend shaft seal life and enhance overall motor reliability – giving you the durability your application needs at the price point your machine can support.

**Challenge:** Low-cost motor failure can damage your company’s reputation due to poor quality, limited life and increased warranty claims.

**Xcel Series solution:** When you choose an Xcel Series motor, you’re choosing the same quality and reliability that comes standard with all Eaton products. Xcel Series motors are backed with a 2-year warranty, giving you complete confidence and peace of mind – and helping protect your reputation.
At Eaton, we believe that power is a fundamental part of just about everything people do. Technology, transportation, energy and infrastructure—these are things the world relies on every day. That’s why Eaton is dedicated to helping our customers find new ways to manage electrical, hydraulic and mechanical power more efficiently, safely and sustainably. To improve people’s lives, the communities where we live and work, and the planet our future generations depend upon. Because that’s what really matters. And we’re here to make sure it works.

See more at Eaton.com/whatmatters