Heavy Duty encoders and resolvers are designed to survive some of the toughest environments. Paper and steel mills, aerospace applications, and food and beverage processing machinery are all areas that benefit from heavy duty encoders. Using magnetic, inductive, or specially designed optical technology, their tight sealing, heavy-duty bearings (where applicable), and high temperature range all suit them for use in harsh environments.

HEAVY DUTY ENCODER GENERAL PERFORMANCE DATA

<table>
<thead>
<tr>
<th></th>
<th>GOOD</th>
<th>BETTER</th>
<th>BEST</th>
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<tr>
<td>SPEED</td>
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<td>SEALING</td>
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<td>TEMPERATURE</td>
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<td>SHOCK/VIBRATION</td>
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RIMTach 8500 Pictures
A mill-duty encoder that keeps you ahead of the curve

Same mill-duty rugged design your applications demand:
- Ductile "fully coated" Cast Iron Housings
- Stainless Steel Replaceable Sensor Modules
- Fully Encapsulated Electronics
- Best In Class Durable Wheel Options

Redesigned With:
- The Most Rugged Magnetic Technology Available Today
- Largest Non-Contact Sensing Gap Available On The Market
- Higher Resolutions to 2048 PPR and (4096 COMING SOON)
- Active LED Indicator With Diagnostics

NorthStar – Pioneers of proven magnetic digital tachometers, remains committed to developing new and reliable products, delivering quality, and outstanding service to our industrial customers.
The next generation of RIM Tach encoders has arrived

NorthStar RIM Tach 8500®
NexGen’s curved sensor head features the largest gap on the market

The RIM Tach product line was specifically designed over 20 years ago to provide high performance velocity and position feedback for AC and DC motor and drive control systems. The demands today require more forgiving installation to accommodate for variations in shaft concentricities, C-face bracket fits, and higher resolutions to meet the demands of today's high performance drives. The result is the NorthStar RIM Tach 8500 NexGen encoder.

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>Largest non-contact sensing gap (70 thousandths) available on the market.</td>
<td>Quick easy installation on vector motors. No precision tools or measurements required. More generous axial play (up to 1/2&quot;) when aligning wheel to sensor. More forgiving in tough applications where brakes and dynamic shaft deflections typically cause wheel to sensor strikes.</td>
</tr>
<tr>
<td>Higher resolutions to 2048 and (4096 COMING SOON) with strong clear signal output.</td>
<td>More reliable signal for demanding applications and higher performance drives.</td>
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<td>Active LED with troubleshooting diagnostics.</td>
<td>Precise troubleshooting during installation and operation, preventing unscheduled downtime.</td>
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<td>NEW wheel lock design.</td>
<td>Industry leading wheel design positively locks to the shaft without damaging the shaft.</td>
</tr>
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<td>Protective magnetic wheel edge guard.</td>
<td>Protects magnetic surface on the wheel from rough handling.</td>
</tr>
<tr>
<td>NexGen RIM Tach sensor module and wheel are reverse compatible with previous generations RIM Tach series.</td>
<td>Take advantage of today's new technology and benefits and upgrade existing installations by just replacing the sensor module and wheel. Saves money by not having to replace old housings and hardware.</td>
</tr>
</tbody>
</table>

DYNAPAR
US Headquarters
1675 Delany Road • Gurnee, IL 60031-1282 USA • Toll-Free: 800-873-8731 • Phone: 847-662-2666 • Fax: 847-662-6633 • www.dynapar.com
The New and Improved
SLIM Tach ST56 Encoder

Largest Non-Contact Sensing Gap on the Market

Dynapar’s NorthStar SLIM Tach ST56 is enhanced with more rugged features and added value than ever before! This easy-to-install digital tachometer is designed for Vector Motor applications and ideal for motors that require encoders to be sandwiched between the motor and the brake.

**Feature:** Larger non-contact sensing gap on the market

**Benefit:** More generous axial play when aligning wheel to sensor; more forgiving in tough applications where brakes and dynamic shaft deflections typically cause wheel-to-sensor strikes.

**Feature:** Increased Resolutions up to 2048

**Benefit:** More reliable signal for demanding applications and higher performance drives.

**Feature:** Active LED for troubleshooting and diagnostics

**Benefit:** Troubleshooting during installation and operation preventing unscheduled downtime.

**Feature:** Improved concentric shaft clamping design

**Benefit:** Industry leading wheel design positively locks with greater force to the shaft without damaging it.

**Feature:** Standard double C-face housing

**Benefit:** Easy mounting between motor and brake.

Dynapar • 1675 N. Delany Rd. • Gurnee, IL 60031 • P: 800.873.8731
E: custserv@dynapar.com • www.dynapar.com
SLIM Tach ST67 Encoder

Feature: Largest non-contact sensing gap on the market
Benefit: Wide air gap of 0.060”. More generous axial play when aligning wheel to sensor; more forgiving in tough applications where brakes and dynamic shaft deflections typically cause wheel-to-sensor strikes.

Feature: Available dual isolated outputs
Benefit: Redundancy for critical applications

Feature: Diagnostic LED for convenient visual indication of encoder functionality
Benefit: Troubleshooting during installation and operation, preventing unscheduled downtime

Feature: Improved concentric shaft clamping design
Benefit: Industry leading wheel design positively locks with greater force to the shaft without damaging it

Feature: High temperature option of 120°C available
Benefit: Reliable design for extreme temperature applications

Our NorthStar SLIM Tach ST67 digital tachometer combines our proven rugged NorthStar construction with upgraded advanced magnetic technology, providing the most reliable 6.75” fit and 56/140 C-Face motor feedback on the market.

This product is an upgrade to the NorthStar SLIM Tach RL67
SLIM Tach ST85 Encoder

Feature: Largest non-contact sensing gap on the market
Benefit: Wide air gap of 0.060”. More generous axial play when aligning wheel to sensor; more forgiving in tough applications where brakes and dynamic shaft deflections typically cause wheel-to-sensor strikes.

Feature: More reliable signal for demanding applications and higher performance drives
Benefit: Less machine downtime

Feature: Diagnostic LED for convenient visual indication of encoder functionality
Benefit: Troubleshooting during installation and operation, preventing unscheduled downtime

Feature: Improved concentric shaft clamping design
Benefit: Industry leading wheel design positively locks with greater force to the shaft without damaging it

Feature: Standard double C-face housing
Benefit: Easy mounting between motor and brake

Our NorthStar SLIM Tach ST85 digital tachometer combines our proven rugged NorthStar construction with upgraded advanced magnetic technology to provide our customers with reliable mill duty feedback while eliminating encoder related downtime.

This product is an upgrade to the NorthStar SLIM Tach SL85