

**800 Series Gear Reducer Model Number Nomenclature**

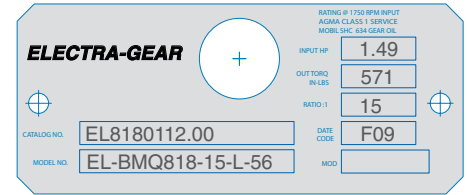
All new stock and custom 800 Series Grove Gear and Electra-Gear worm gear reducers are identified by a model number. The model number appears on the nameplate and describes pertinent features of the reducer. An example follows, along with a listing of the various letters and positions used.

NOTE: All reducers also have a catalog number—for example EL8130001 and GR8130001. Reducers and renewal parts should be ordered by catalog number. If a stock reducer has been Factory modified by the addition of an optional base for example, the modification number T818EL is stamped in the blank column of the nameplate. Accessories that are field installed will not be noted on the nameplate.

Catalog numbers 3000 and higher (for example, GR8133000 and NH8133000) are WASHGUARD® reducers for washdown service.

Catalog numbers 5000 and higher (for example, GR8135000 and EL8135000) are custom reducers manufactured for a specific application. The machinery or equipment manufacturer should be contacted for replacement reducers. Renewal parts can be ordered by catalog number.

**TYPICAL NAMEPLATE**  
(Electra-Gear shown)



Series Code	Style	Size	Ratio	Output Shaft Orientation	Motor Flange	Output Bore Code																																																																																						
<p><b>GR</b> - Grove Gear IRONMAN Cast Iron Reducers</p> <p><b>NH</b> - Grove Gear IRONMAN Narrow Housing Cast Iron Reducers</p> <p><b>EL</b> - Electra-Gear Aluminum Reducers</p> <p><b>GRG</b> - Grove Gear Flexaline Interchange (Sizes 821, 826, 832)</p> <p><b>GRL</b> - Leeson IRONMAN Interchange (Sizes 821, 826, 832)</p>	<p><b>SOLID OUTPUT SHAFT</b></p> <p><b>BMQ</b> – Motorized, Quill Input</p> <p><b>BM</b> – Motorized, Flexible Coupling Input</p> <p><b>B</b> – Non-Flanged</p> <p>See pages 10, 11, 14, 15 for other styles</p> <p><b>HOLLOW OUTPUT SHAFT</b></p> <p><b>HMQ</b> – Motorized, Quill Input</p> <p><b>HM</b> – Motorized, Flexible Coupling Input</p> <p><b>H</b> – Non-Flanged</p> <p>See pages 12, 13, 16, 17 for other styles.</p> <p><b>WASHGUARD STYLES</b></p> <p><b>W</b> prefix; i.e. WBMQ denotes WASHDOWN Reducer</p> <p><b>S</b> prefix; i.e. SHMQ denotes All-Stainless Steel Reducer</p>	<p>See Selection Tables on pages 22-48, for all available ratios.</p>	<p><b>800 SERIES CENTER DISTANCES</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Size</th> <th>Center Distance (Inches)</th> </tr> </thead> <tbody> <tr><td>813</td><td>1.33</td></tr> <tr><td>815**</td><td>1.54</td></tr> <tr><td>818</td><td>1.75</td></tr> <tr><td>821</td><td>2.06</td></tr> <tr><td>824</td><td>2.38</td></tr> <tr><td>826</td><td>2.62</td></tr> <tr><td>830</td><td>3.00</td></tr> <tr><td>832</td><td>3.25</td></tr> <tr><td>842</td><td>4.25</td></tr> <tr><td>852</td><td>5.25</td></tr> <tr><td>860</td><td>6.00</td></tr> <tr><td>870*</td><td>7.00</td></tr> <tr><td>880*</td><td>8.00</td></tr> <tr><td>8100*</td><td>10.00</td></tr> </tbody> </table> <p>* GR Series only ** Not available in EL Series</p>	Size	Center Distance (Inches)	813	1.33	815**	1.54	818	1.75	821	2.06	824	2.38	826	2.62	830	3.00	832	3.25	842	4.25	852	5.25	860	6.00	870*	7.00	880*	8.00	8100*	10.00	<p><b>L</b> – Left-hand Output Shaft*</p> <p><b>R</b> – Right-hand Output Shaft*</p> <p><b>D</b> – Double Output Shaft</p> <p><b>H</b> – Hollow Output Shaft</p> <p>* Viewed from drive end of reducer.</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Input Code</th> <th colspan="2">For Input Type</th> </tr> <tr> <th>Single Input</th> <th>Dual Input</th> <th colspan="2"></th> </tr> </thead> <tbody> <tr> <td>blank</td> <td>A</td> <td colspan="2">non-motorized</td> </tr> <tr> <td>48**</td> <td>48A</td> <td colspan="2">48CZ</td> </tr> <tr> <td>56</td> <td>56A</td> <td colspan="2">56C</td> </tr> <tr> <td>140</td> <td>140A</td> <td colspan="2">143-5TC</td> </tr> <tr> <td>180</td> <td>180A</td> <td colspan="2">182-4TC</td> </tr> <tr> <td>210</td> <td>210A</td> <td colspan="2">213-5TC</td> </tr> <tr> <td>250</td> <td>250A</td> <td colspan="2">254-6TC</td> </tr> <tr> <td>63</td> <td rowspan="5" style="text-align: center;">Contact Factory</td> <td colspan="2">D63D B5</td> </tr> <tr> <td>71</td> <td colspan="2">D71D B5</td> </tr> <tr> <td>80</td> <td colspan="2">D80D B5</td> </tr> <tr> <td>90</td> <td colspan="2">D90D B5</td> </tr> <tr> <td>110</td> <td colspan="2">D100LD/D112MD B5</td> </tr> <tr> <td>132</td> <td></td> <td colspan="2">D132D</td> </tr> </tbody> </table> <p>** Not available in EL Series</p>	Input Code		For Input Type		Single Input	Dual Input			blank	A	non-motorized		48**	48A	48CZ		56	56A	56C		140	140A	143-5TC		180	180A	182-4TC		210	210A	213-5TC		250	250A	254-6TC		63	Contact Factory	D63D B5		71	D71D B5		80	D80D B5		90	D90D B5		110	D100LD/D112MD B5		132		D132D		<p><b>Hollow Shaft Only</b></p> <p>See bottom right hand pages of Max Ratings Tables starting on page 27.</p>
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**Sample Model Numbers**

**Solid Output Shaft - GR Series**

Cast iron, single reduction, 2.38" reducer with 56C motorized quill input, left-hand output shaft, 30:1 ratio.

**GR - BMQ 824 - 30 - L - 56**  
Series Style Size Ratio Shaft Orientation Input Type

**Hollow Output Shaft - EL Series**

Aluminum, single reduction, 1.75" reducer with 56C motorized quill input, 1.00" hollow output bore, 10:1 ratio.

**EL - HMQ 818 - 10 - H - 56 - 16**  
Series Style Size Ratio Shaft Orientation Input Type Output Bore Code



# WASHGUARD® Gear Reducers Designed For Washdown Duty

## WASHGUARD® REDUCER FEATURES

Grove Gear WASHGUARD® gear reducers are designed and built to withstand the rigors of high-pressure washdowns in nearly any severe environment, including: food service, chemical and poultry processing, car washes and more. Built on the foundation of Grove Gear's industrial-duty Grove Gear Ironman™ line, these reducers add exclusive WASHGUARD® All-Stainless features to ensure trouble-free operation.

Combine the gear reducer with a LEESON WASHGUARD® epoxy painted or All-Stainless motor for a Gear+Motor™ that boasts an unmatched ability to thrive under conditions that would quickly destroy most other motors and gear reducers.

### WASHGUARD® housing options

- Premium 316 grade stainless steel
- Polished aluminum
- Epoxy painted cast iron

### O-ring on input flange

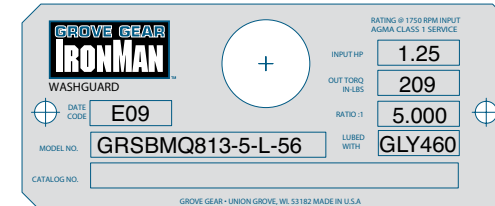
provides a positive seal against moisture intrusion.

All features are found on All-Stainless Steel, PLATINUM aluminum and epoxy painted cast iron gear reducers.

Stainless steel assembly hardware resists corrosion from moisture and chemicals.

**Vent free design** – The Enviro-Seal operates in any mounting position and is standard in all stock WASHGUARD® reducers to create a "Sealed For Life" design. There's no need to install a vent.

Stainless steel nameplate, riveted to housing and adhesive backed to eliminate particle entrapment.



(Grove Gear All-Stainless nameplate shown)

**Food-Grade Synthetic Oil** Mobil Glygoyle PAG 460 meets USDA Class H1 standards while providing superior mechanical/thermal performance and extended life.

**O-ring seals on input and output covers** eliminate gaskets, sealants and leaks.

**Viton® double-lip seals** and **Viton® double-lip seals** are up to five times more durable than nitrile seals and provide superior resistance to chemical corrosion in severe applications. (Stainless case output seals standard on All-Stainless reducers only.)

**303 stainless steel output shaft** is corrosion resistant for long life and ease of servicing (stainless steel hollow bores are standard for sizes 813-832 and available as an option for sizes 842-860).

**Non-compressible stainless steel shims** keep factory bearing settings constant.



WASHGUARD®

Combine WASHGUARD® white epoxy gear reducers and WASHGUARD® white epoxy motors.

Enhanced performance in wet, humid areas.



PLATINUM WASHGUARD® with STAINLESS FRAME MOTOR

Combine PLATINUM polished aluminum reducers and paint-free stainless motors.

Superior, extended life in severe environments.



PREMIUM WASHGUARD® ALL-STAINLESS

Combine all-stainless reducers and motors to create a package suitable for nearly any severe duty application.

Maximum service in critically clean or corrosive environments.

### Additional WASHGUARD® Products Available

- Ratio Multipliers
- Double reduction worm reducers
- Size 842-8100 worm reducers
- High efficiency products

