

# "How To Use" Maximum Rating Tables

## How To Use Maximum Rating Tables

Maximum Rating Tables for Single Reduction Gear Reducers are shown on pages 32-58.

### BEFORE YOU START:

Identify the **Service Factor** of the application (see page 644).

Determine the **actual input horsepower** of the motor by multiplying the motor's nameplate horsepower by the Service Factor.

Determine the **output speed (RPM)** required at output shaft of reducer.

Identify the **mounting style** required by your application from the style charts shown on pages 20-27. Note the basic mounting style (BMQ, BM, etc.).

To select the proper gear reducer, use the Maximum Rating Tables as shown:

Single Reduction Worm Gear Reducers

### Maximum Rating Tables

Size 813 • GR, NH, EL Series

**1 Find the appropriate Maximum Rating Tables pages** for your basic mounting style. The tables begin on page 32.

**4 Select motor frame size.**

**5 Identify the model number and catalog number** of the basic reducer by continuing to the right. See page 19 for detailed information on building an exact model number.

Ratio	Style B			Style H			Style BM			
	Input RPM	Output RPM	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	NEMA C Input Flange	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.
5	2500	500	1,528	1,429	180					
	1750	350	1,248	1,158	209					
	1170	234	0,952	0,872	235	8130001	8130013	8130025	8130501.1	
7.5	2500	333	1,281	1,178	223					
	1750	233	1,025	0,933	252	8130002	8130014	8130026	8130502.1	
	1170	156	0,727	0,669	278					

**2 Locate the Input RPM and Output RPM columns** on the left side of the table. Scroll down the Input RPM column to locate a listing where the desired input speed corresponds to the output speed required in your application. (Input RPM listings are rounded to the nearest hundred. Your actual input speed of 1750 can be correlated to 1800 with no material change in performance.)

**3 Move across the table to the Input HP column** until you find a rating that is equal to or greater than the actual input horsepower required. Once located, check the top of the table to identify the correct gear reducer size (818, 821, 824, etc.).

**6 Verify physical dimensions** using the dimensional drawings shown on pages 62-121.

**3** Move across the table to the Input HP column until you find a rating that is equal to or greater than the actual input horsepower required. Once located, check the top of the table to identify the correct gear reducer size (818, 821, 824, etc.).

**6** Verify physical dimensions using the dimensional drawings shown on pages 62-121.

Single Reduction Worm Gear Reducers  
 Double Reduction Worm - Worm Gear Reducers  
 Double Reduction Helical - Worm Gear Reducers  
 WASHGUARD® Reducers and GEAR+MOTOR™  
 Ratio Multipliers  
 Accessories and Additional Capabilities

# Maximum Rating Tables

Size 813 • GR, NH, EL Series



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



**Size 813**

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.
5	2500	500	1.528	1.429	180	_8130001	_8130013	_8130025	_8130501.10
	1750	350	1.248	1.158	209				
	1170	234	0.952	0.872	235				
	100	20	0.140	0.095	298				
7.5	2500	333	1.281	1.178	223	_8130002	_8130014	_8130026	_8130502.10
	1750	233	1.025	0.933	252				
	1170	156	0.770	0.689	278				
	100	13	0.118	0.072	339				
10	2500	250	1.016	0.912	230	_8130003	_8130015	_8130027	_8130503.10
	1750	175	0.823	0.729	263				
	1170	117	0.626	0.543	293				
	100	10	0.103	0.058	363				
15	2500	166	0.790	0.678	257	_8130004	_8130016	_8130028	_8130504.10
	1750	116	0.642	0.541	292				
	1170	78	0.491	0.402	325				
	100	6.7	0.090	0.042	401				
20	2500	125	0.681	0.562	283	_8130005	_8130017	_8130029	_8130505.10
	1750	87	0.551	0.445	320				
	1170	58	0.422	0.328	354				
	100	5.0	0.084	0.034	431				
25	2500	100	0.544	0.431	272	_8130006	_8130018	_8130030	_8130506.10
	1750	70	0.445	0.344	309				
	1170	46	0.344	0.255	344				
	100	4.0	0.074	0.027	423				
30	2500	83	0.481	0.364	276	_8130007	_8130019	_8130031	_8130507.10
	1750	58	0.395	0.290	314				
	1170	39	0.308	0.215	348				
	100	3.3	0.071	0.023	429				
40	2500	62	0.400	0.283	285	_8130008	_8130020	_8130032	_8130508.10
	1750	43	0.329	0.223	322				
	1170	29	0.258	0.165	355				
	100	2.5	0.066	0.017	432				
50	2500	50	0.346	0.232	292	_8130009	_8130021	_8130033	_8130509.10
	1750	35	0.285	0.182	327				
	1170	23	0.224	0.133	359				
	100	2.0	0.061	0.014	431				
60	2500	41	0.297	0.184	279	_8130010	_8130022	_8130034	_8130510.10
	1750	29	0.246	0.145	313				
	1170	19	0.195	0.107	345				
	100	1.7	0.058	0.011	415				
80	2500	31	0.144	0.081	163	_8130011	_8130023	_8130035	_8130511.10
	1750	21	0.121	0.064	183				
	1170	14	0.096	0.047	201				
	100	1.3	0.014	0.005	237				
100	2500	25	0.100	0.051	128	_8130012	_8130024	_8130036	_8130512.10
	1750	17	0.084	0.040	143				
	1170	11	0.067	0.029	156				
	100	1.0	0.010	0.003	184				

**How To Build a Part Number For Size GR813, NH813, EL813**

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, NH, EL)

**Example:**

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
GR-B813-5-L  
GR8130001

Single Reduction  
Worm Gear Reducers





Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

	Style BM			Style HM	Style BMQ			Style HMQ	
									
NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.	Ratio
48CZ 56C	__8130109 __8130037	__8130121 __8130049	__8130133 __8130061	__8130537.10 __8130513.10	__8130181 __8130073	__8130193 __8130085	__8130205 __8130097	__8130561.10 __8130525.10	<b>5</b>
48CZ 56C	__8130110 __8130038	__8130122 __8130050	__8130134 __8130062	__8130538.10 __8130514.10	__8130182 __8130074	__8130194 __8130086	__8130206 __8130098	__8130562.10 __8130526.10	<b>7.5</b>
48CZ 56C	__8130111 __8130039	__8130123 __8130051	__8130135 __8130063	__8130539.10 __8130515.10	__8130183 __8130075	__8130195 __8130087	__8130207 __8130099	__8130563.10 __8130527.10	<b>10</b>
48CZ 56C	__8130112 __8130040	__8130124 __8130052	__8130136 __8130064	__8130540.10 __8130516.10	__8130184 __8130076	__8130196 __8130088	__8130208 __8130100	__8130564.10 __8130528.10	<b>15</b>
48CZ 56C	__8130113 __8130041	__8130125 __8130053	__8130137 __8130065	__8130541.10 __8130517.10	__8130185 __8130077	__8130197 __8130089	__8130209 __8130101	__8130565.10 __8130529.10	<b>20</b>
48CZ 56C	__8130114 __8130042	__8130126 __8130054	__8130138 __8130066	__8130542.10 __8130518.10	__8130186 __8130078	__8130198 __8130090	__8130210 __8130102	__8130566.10 __8130530.10	<b>25</b>
48CZ 56C	__8130115 __8130043	__8130127 __8130055	__8130139 __8130067	__8130543.10 __8130519.10	__8130187 __8130079	__8130199 __8130091	__8130211 __8130103	__8130567.10 __8130531.10	<b>30</b>
48CZ 56C	__8130116 __8130044	__8130128 __8130056	__8130140 __8130068	__8130544.10 __8130520.10	__8130188 __8130080	__8130200 __8130092	__8130212 __8130104	__8130568.10 __8130532.10	<b>40</b>
48CZ 56C	__8130117 __8130045	__8130129 __8130057	__8130141 __8130069	__8130545.10 __8130521.10	__8130189 __8130081	__8130201 __8130093	__8130213 __8130105	__8130569.10 __8130533.10	<b>50</b>
48CZ 56C	__8130118 __8130046	__8130130 __8130058	__8130142 __8130070	__8130546.10 __8130522.10	__8130190 __8130082	__8130202 __8130094	__8130214 __8130106	__8130570.10 __8130534.10	<b>60</b>
48CZ 56C	__8130119 __8130047	__8130131 __8130059	__8130143 __8130071	__8130547.10 __8130523.10	__8130191 __8130083	__8130203 __8130095	__8130215 __8130107	__8130571.10 __8130535.10	<b>80</b>
48CZ 56C	__8130120 __8130048	__8130132 __8130060	__8130144 __8130072	__8130548.10 __8130524.10	__8130192 __8130084	__8130204 __8130096	__8130216 __8130108	__8130572.10 __8130536.10	<b>100</b>

▲ Consult Factory for other motor flanges available.

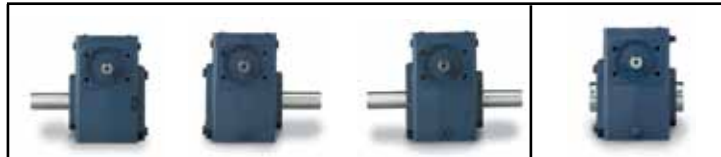
# Maximum Rating Tables

Size 815 • GR, NH Series



Style B

Style H



## Size 815

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
<b>5</b>	2500	500	2.310	2.151	271	__8150001	__8150013	__8150025	__8150501.10
	1750	350	1.939	1.794	323				
	1170	234	1.537	1.408	379				
<b>7.5</b>	100	20	0.235	0.167	526	__8150002	__8150014	__8150026	__8150502.10
	2500	333	1.785	1.619	306				
	1750	233	1.522	1.368	370				
<b>10</b>	1170	156	1.205	1.068	431	__8150003	__8150015	__8150027	__8150503.10
	100	13	0.196	0.125	591				
	2500	250	1.500	1.324	334				
<b>15</b>	1750	175	1.279	1.116	402	__8150004	__8150016	__8150028	__8150504.10
	1170	117	1.014	0.869	468				
	100	10	0.176	0.101	639				
<b>20</b>	2500	166	1.174	0.982	371	__8150005	__8150017	__8150029	__8150505.10
	1750	116	1.003	0.826	446				
	100	6.7	0.155	0.075	706				
<b>25</b>	2500	125	1.077	0.860	434	__8150006	__8150018	__8150030	__8150506.10
	1750	87	0.919	0.719	518				
	1170	58	0.734	0.557	600				
<b>30</b>	100	5.0	0.155	0.064	807	__8150007	__8150019	__8150031	__8150507.10
	2500	100	0.881	0.670	422				
	1750	70	0.752	0.559	503				
<b>40</b>	1170	46	0.602	0.431	580	__8150008	__8150020	__8150032	__8150508.10
	100	4.0	0.137	0.049	775				
	2500	83	0.729	0.526	398				
<b>50</b>	1170	39	0.510	0.344	555	__8150009	__8150021	__8150033	__8150509.10
	100	3.3	0.124	0.040	754				
	2500	62	0.649	0.432	435				
<b>60</b>	1750	43	0.560	0.361	520	__8150010	__8150022	__8150034	__8150510.10
	1170	29	0.456	0.279	601				
	100	2.5	0.122	0.032	808				
<b>80</b>	2500	50	0.536	0.329	415	__8150011	__8150023	__8150035	__8150511.10
	1750	35	0.464	0.274	494				
	1170	23	0.379	0.211	569				
<b>100</b>	100	2.0	0.110	0.024	760	__8150012	__8150024	__8150036	__8150512.10
	2500	41	0.451	0.257	389				
	1750	29	0.391	0.214	462				
	1170	19	0.321	0.165	532				
	100	1.7	0.099	0.019	707				
	2500	31	0.219	0.109	220				
	1750	21	0.204	0.093	269				
	1170	14	0.176	0.073	314				
	100	1.3	0.032	0.008	418				
	2500	25	0.155	0.069	175				
	1750	17	0.145	0.059	213				
	1170	11	0.126	0.046	248				
	100	1.0	0.024	0.005	328				

### How To Build a Part Number For Size GR815 & NH815

1. Select partial catalog number from the selection table
2. Replace leading “\_\_” with series code (GR, NH)

**Example:**

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
 GR-B815-5-L  
 GR8150001

Single Reduction  
Worm Gear Reducers





Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

	Style BM			Style HM	Style BMQ			Style HMQ	
									
NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.	Ratio
56C 143-5TC	<u>8150073</u> <u>8150109</u>	<u>8150085</u> <u>8150121</u>	<u>8150097</u> <u>8150133</u>	<u>8150525.10</u> <u>8150537.10</u>	<u>8150181</u> <u>8150217</u>	<u>8150193</u> <u>8150229</u>	<u>8150205</u> <u>8150241</u>	<u>8150561.10</u> <u>8150573.10</u>	<b>5</b>
56C 143-5TC	<u>8150074</u> <u>8150110</u>	<u>8150086</u> <u>8150122</u>	<u>8150098</u> <u>8150134</u>	<u>8150526.10</u> <u>8150538.10</u>	<u>8150182</u> <u>8150218</u>	<u>8150194</u> <u>8150230</u>	<u>8150206</u> <u>8150242</u>	<u>8150562.10</u> <u>8150574.10</u>	<b>7.5</b>
56C 143-5TC	<u>8150075</u> <u>8150111</u>	<u>8150087</u> <u>8150123</u>	<u>8150099</u> <u>8150135</u>	<u>8150527.10</u> <u>8150539.10</u>	<u>8150183</u> <u>8150219</u>	<u>8150195</u> <u>8150231</u>	<u>8150207</u> <u>8150243</u>	<u>8150563.10</u> <u>8150575.10</u>	<b>10</b>
56C 143-5TC	<u>8150076</u> <u>8150112</u>	<u>8150088</u> <u>8150124</u>	<u>8150100</u> <u>8150136</u>	<u>8150528.10</u> <u>8150540.10</u>	<u>8150184</u> <u>8150220</u>	<u>8150196</u> <u>8150232</u>	<u>8150208</u> <u>8150244</u>	<u>8150564.10</u> <u>8150576.10</u>	<b>15</b>
56C 143-5TC	<u>8150077</u> <u>8150113</u>	<u>8150089</u> <u>8150125</u>	<u>8150101</u> <u>8150137</u>	<u>8150529.10</u> <u>8150541.10</u>	<u>8150185</u> <u>8150221</u>	<u>8150197</u> <u>8150233</u>	<u>8150209</u> <u>8150245</u>	<u>8150565.10</u> <u>8150577.10</u>	<b>20</b>
56C	<u>8150078</u>	<u>8150090</u>	<u>8150102</u>	<u>8150530.10</u>	<u>8150186</u>	<u>8150198</u>	<u>8150210</u>	<u>8150566.10</u>	<b>25</b>
48CZ 56C	<u>8150043</u> <u>8150079</u>	<u>8150055</u> <u>8150091</u>	<u>8150067</u> <u>8150103</u>	<u>8150519.10</u> <u>8150531.10</u>	<u>8150151</u> <u>8150187</u>	<u>8150163</u> <u>8150199</u>	<u>8150175</u> <u>8150211</u>	<u>8150555.10</u> <u>8150567.10</u>	<b>30</b>
48CZ 56C	<u>8150044</u> <u>8150080</u>	<u>8150056</u> <u>8150092</u>	<u>8150068</u> <u>8150104</u>	<u>8150520.10</u> <u>8150532.10</u>	<u>8150152</u> <u>8150188</u>	<u>8150164</u> <u>8150200</u>	<u>8150176</u> <u>8150212</u>	<u>8150556.10</u> <u>8150568.10</u>	<b>40</b>
48CZ 56C	<u>8150045</u> <u>8150081</u>	<u>8150057</u> <u>8150093</u>	<u>8150069</u> <u>8150105</u>	<u>8150521.10</u> <u>8150533.10</u>	<u>8150153</u> <u>8150189</u>	<u>8150165</u> <u>8150201</u>	<u>8150177</u> <u>8150213</u>	<u>8150557.10</u> <u>8150569.10</u>	<b>50</b>
48CZ 56C	<u>8150046</u> <u>8150082</u>	<u>8150058</u> <u>8150094</u>	<u>8150070</u> <u>8150106</u>	<u>8150522.10</u> <u>8150534.10</u>	<u>8150154</u> <u>8150190</u>	<u>8150166</u> <u>8150202</u>	<u>8150178</u> <u>8150214</u>	<u>8150558.10</u> <u>8150570.10</u>	<b>60</b>
48CZ 56C	<u>8150047</u> <u>8150083</u>	<u>8150059</u> <u>8150095</u>	<u>8150071</u> <u>8150107</u>	<u>8150523.10</u> <u>8150535.10</u>	<u>8150155</u> <u>8150191</u>	<u>8150167</u> <u>8150203</u>	<u>8150179</u> <u>8150215</u>	<u>8150559.10</u> <u>8150571.10</u>	<b>80</b>
48CZ 56C	<u>8150048</u> <u>8150084</u>	<u>8150060</u> <u>8150096</u>	<u>8150072</u> <u>8150108</u>	<u>8150524.10</u> <u>8150536.10</u>	<u>8150156</u> <u>8150192</u>	<u>8150168</u> <u>8150204</u>	<u>8150180</u> <u>8150216</u>	<u>8150560.10</u> <u>8150572.10</u>	<b>100</b>

▲ Consult Factory for other motor flanges available.



# Maximum Rating Tables

Size 818 • GR, NH, EL Series



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



**Size 818**

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
<b>5</b>	2500	500	3.095	2.900	366	__8180001	__8180013	__8180025	__8180501.XX
	1750	350	2.600	2.422	436				
	1170	234	2.066	1.906	513				
<b>7.5</b>	100	20	0.312	0.228	717	__8180002	__8180014	__8180026	__8180502.XX
	2500	333	2.307	2.127	402				
	1750	233	1.909	1.745	471				
<b>10</b>	1170	156	1.473	1.328	537	__8180003	__8180015	__8180027	__8180503.XX
	100	13	0.227	0.147	697				
	2500	250	1.996	1.820	459				
<b>15</b>	1750	175	1.625	1.466	528	__8180004	__8180016	__8180028	__8180504.XX
	1170	117	1.239	1.099	592				
	100	10	0.196	0.118	744				
<b>20</b>	2500	166	1.485	1.301	492	__8180005	__8180017	__8180029	__8180505.XX
	1750	116	1.224	1.058	571				
	100	6.7	0.165	0.087	823				
<b>25</b>	2500	125	1.283	1.093	551	__8180006	__8180018	__8180030	__8180506.XX
	1750	87	1.046	0.875	630				
	1170	58	0.803	0.652	702				
<b>30</b>	100	5.0	0.150	0.069	872	__8180007	__8180019	__8180031	__8180507.XX
	2500	100	1.088	0.900	567				
	1750	70	0.884	0.715	644				
<b>40</b>	1170	46	0.678	0.530	713	__8180008	__8180020	__8180032	__8180508.XX
	100	4.0	0.135	0.055	874				
	2500	83	0.892	0.702	531				
<b>50</b>	1750	58	0.741	0.569	614	__8180009	__8180021	__8180033	__8180509.XX
	1170	39	0.580	0.428	692				
	100	3.3	0.126	0.047	880				
<b>60</b>	2500	62	0.739	0.551	556	__8180010	__8180022	__8180034	__8180510.XX
	1750	43	0.609	0.440	634				
	1170	29	0.476	0.328	706				
<b>80</b>	100	2.5	0.113	0.035	874	__8180011	__8180023	__8180035	__8180511.XX
	2500	50	0.625	0.444	559				
	1750	35	0.515	0.352	634				
<b>100</b>	1170	23	0.404	0.260	701	__8180012	__8180024	__8180036	__8180512.XX
	100	2.0	0.103	0.027	857				
	2500	41	0.542	0.363	550				
<b>100</b>	1750	29	0.449	0.288	623	__8180012	__8180024	__8180036	__8180512.XX
	1170	19	0.354	0.213	689				
	100	1.7	0.097	0.022	842				
<b>100</b>	2500	31	0.247	0.156	314	__8180011	__8180023	__8180035	__8180511.XX
	1750	21	0.208	0.124	356				
	1170	14	0.164	0.091	392				
<b>100</b>	100	1.3	0.023	0.009	470	__8180012	__8180024	__8180036	__8180512.XX
	2500	25	0.167	0.097	245				
	1750	17	0.141	0.077	277				
<b>100</b>	1170	11	0.111	0.057	304	__8180012	__8180024	__8180036	__8180512.XX
	100	1.0	0.016	0.006	362				

**How To Build a Part Number For Size GR818, NH818 & EL818**

1. Select partial catalog number from the selection table
2. Replace leading “\_\_” with series code (GR, NH, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

**Example:**

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
 GR-B818-5-L  
 GR8180001



# Maximum Rating Tables

Size 818 • GR, NH, EL Series

	Style BM			Style HM	Style BMQ			Style HMQ	
NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Ratio
56C 143-5TC	8180037 8180073	8180049 8180085	8180061 8180097	8180513.XX 8180525.XX	8180109 8180145	8180121 8180157	8180133 8180169	8180537.XX 8180549.XX	5
56C 143-5TC	8180038 8180074	8180050 8180086	8180062 8180098	8180514.XX 8180526.XX	8180110 8180146	8180122 8180158	8180134 8180170	8180538.XX 8180550.XX	7.5
56C 143-5TC	8180039 8180075	8180051 8180087	8180063 8180099	8180515.XX 8180527.XX	8180111 8180147	8180123 8180159	8180135 8180171	8180539.XX 8180551.XX	10
56C 143-5TC	8180040 8180076	8180052 8180088	8180064 8180100	8180516.XX 8180528.XX	8180112 8180148	8180124 8180160	8180136 8180172	8180540.XX 8180552.XX	15
56C 143-5TC	8180041 8180077	8180053 8180089	8180065 8180101	8180517.XX 8180529.XX	8180113 8180149	8180125 8180161	8180137 8180173	8180541.XX 8180553.XX	20
56C 143-5TC	8180042 8180078	8180054 8180090	8180066 8180102	8180518.XX 8180530.XX	8180114 8180150	8180126 8180162	8180138 8180174	8180542.XX 8180554.XX	25
56C 143-5TC	8180043 8180079	8180055 8180091	8180067 8180103	8180519.XX 8180531.XX	8180115 8180151	8180127 8180163	8180139 8180175	8180543.XX 8180555.XX	30
48CZ 56C 143-5TC	8180188 8180044 8180080	8180200 8180056 8180092	8180212 8180068 8180104	8180568.XX 8180520.XX 8180532.XX	8180224 8180116 8180152	8180236 8180128 8180164	8180248 8180140 8180176	8180580.XX 8180544.XX 8180556.XX	40
48CZ 56C 143-5TC	8180189 8180045 8180081	8180201 8180057 8180093	8180213 8180069 8180105	8180569.XX 8180521.XX 8180533.XX	8180225 8180117 8180153	8180237 8180129 8180165	8180249 8180141 8180177	8180581.XX 8180545.XX 8180557.XX	50
48CZ 56C 143-5TC	8180190 8180046 8180082	8180202 8180058 8180094	8180214 8180070 8180106	8180570.XX 8180522.XX 8180534.XX	8180226 8180118 8180154	8180238 8180130 8180166	8180250 8180142 8180178	8180582.XX 8180546.XX 8180558.XX	60
48CZ 56C	8180191 8180047	8180203 8180059	8180215 8180071	8180571.XX 8180523.XX	8180227 8180119	8180239 8180131	8180251 8180143	8180583.XX 8180547.XX	80
48CZ 56C	8180192 8180048	8180204 8180060	8180216 8180072	8180572.XX 8180524.XX	8180228 8180120	8180240 8180132	8180252 8180144	8180584.XX 8180548.XX	100

▲ Consult Factory for other motor flanges available.

\* Catalog numbers are for hollow output shaft reducers.

When ordering, substitute the XX suffix with the required output bore code.

### Available bore codes

Fraction Size	5/8"	11/16"	3/4"	7/8"	1"
Decimal Size	0.625	0.688	0.750	0.875	1.000
Output Bore Code	10	11	12	14	16

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

# Maximum Rating Tables

Size 821 • GR, NH, EL Series



Style B

Style H



## Size 821

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	4.305	4.043	510	_8210001	_8210013	_8210025	_8210501.XX
	1750	350	3.653	3.410	614				
	1170	234	2.873	2.657	716				
7.5	100	20	0.433	0.310	977	_8210002	_8210014	_8210026	_8210502.XX
	2500	333	3.300	3.051	577				
	1750	233	2.793	2.562	692				
10	1170	156	2.194	1.989	804	_8210003	_8210015	_8210027	_8210503.XX
	100	13	0.341	0.230	1089				
	2500	250	2.973	2.722	686				
15	1750	175	2.464	2.235	805	_8210004	_8210016	_8210028	_8210504.XX
	1170	117	1.905	1.702	917				
	100	10	0.300	0.189	1192				
20	2500	166	2.284	2.035	769	_8210005	_8210017	_8210029	_8210505.XX
	1750	116	1.887	1.661	897				
	1170	78	1.459	1.259	1017				
25	100	6.7	0.245	0.138	1309	_8210006	_8210018	_8210030	_8210506.XX
	2500	125	1.914	1.642	828				
	1750	87	1.584	1.338	964				
30	1170	58	1.229	1.012	1090	_8210007	_8210019	_8210031	_8210507.XX
	100	5.0	0.226	0.111	1397				
	2500	100	1.623	1.359	857				
40	1750	70	1.333	1.094	985	_8210008	_8210020	_8210032	_8210508.XX
	1170	46	1.030	0.820	1104				
	100	4.0	0.200	0.088	1386				
50	2500	83	1.359	1.102	833	_8210009	_8210021	_8210033	_8210509.XX
	1750	58	1.129	0.896	968				
	1170	39	0.882	0.677	1095				
60	100	3.3	0.181	0.074	1399	_8210010	_8210022	_8210034	_8210510.XX
	2500	62	1.096	0.829	836				
	1750	43	0.916	0.674	971				
80	1170	29	0.722	0.509	1097	_8210011	_8210023	_8210035	_8210511.XX
	100	2.5	0.167	0.056	1401				
	2500	50	0.925	0.670	845				
100	1750	35	0.769	0.539	970	_8210012	_8210024	_8210036	_8210512.XX
	1170	23	0.606	0.403	1086				
	100	2.0	0.149	0.043	1359				
100	2500	41	0.799	0.535	809	_8210011	_8210023	_8210035	_8210511.XX
	1750	29	0.674	0.435	940				
	1170	19	0.539	0.328	1061				
100	100	1.7	0.145	0.036	1354	_8210012	_8210024	_8210036	_8210512.XX
	2500	31	0.357	0.236	476				
	1750	21	0.304	0.190	547				
100	1170	14	0.241	0.141	609	_8210012	_8210024	_8210036	_8210512.XX
	100	1.3	0.034	0.015	743				
	2500	25	0.251	0.150	379				
100	1750	17	0.217	0.122	439	_8210012	_8210024	_8210036	_8210512.XX
	1170	11	0.175	0.091	491				
	100	1.0	0.026	0.010	605				

### How To Build a Part Number For Size GRG821, GRL821, NH821, EL821

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GRG, GRL, NH, EL) (see next page for codes)
3. For hollow output, replace “XX” suffix with bore code

#### Example:

Direct replacement to LEESON IRONMAN, style B, 5:1 ratio, left hand output  
 GRL-B821-5-L  
 GRL8210001

GRG = **GROVE GEAR**

- Direct replacement to Grove Gear Flexaline
- Mounting footprint 3.00" x 4.75"
- See pages 62-83 for dimensions

GRL = **IRONMAN** Interchange

- Direct replacement to LEESON IRONMAN & major brands.
- Mounting footprint 2.88" x 5.00"
- See pages 62-83 for dimensions







# Maximum Rating Tables

Size 821 • GR, NH, EL Series

	Style BM			Style HM	Style BMQ			Style HMQ	
NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Ratio
56C 143-5TC	<u>8210037</u> <u>8210073</u>	<u>8210049</u> <u>8210085</u>	<u>8210061</u> <u>8210097</u>	<u>8210513.XX</u> <u>8210525.XX</u>	<u>8210109</u> <u>8210145</u>	<u>8210121</u> <u>8210157</u>	<u>8210133</u> <u>8210169</u>	<u>8210537.XX</u> <u>8210549.XX</u>	<b>5</b>
56C 143-5TC	<u>8210038</u> <u>8210074</u>	<u>8210050</u> <u>8210086</u>	<u>8210062</u> <u>8210098</u>	<u>8210514.XX</u> <u>8210526.XX</u>	<u>8210110</u> <u>8210146</u>	<u>8210122</u> <u>8210158</u>	<u>8210134</u> <u>8210170</u>	<u>8210538.XX</u> <u>8210550.XX</u>	<b>7.5</b>
56C 143-5TC	<u>8210039</u> <u>8210075</u>	<u>8210051</u> <u>8210087</u>	<u>8210063</u> <u>8210099</u>	<u>8210515.XX</u> <u>8210527.XX</u>	<u>8210111</u> <u>8210147</u>	<u>8210123</u> <u>8210159</u>	<u>8210135</u> <u>8210171</u>	<u>8210539.XX</u> <u>8210551.XX</u>	<b>10</b>
56C 143-5TC	<u>8210040</u> <u>8210076</u>	<u>8210052</u> <u>8210088</u>	<u>8210064</u> <u>8210100</u>	<u>8210516.XX</u> <u>8210528.XX</u>	<u>8210112</u> <u>8210148</u>	<u>8210124</u> <u>8210160</u>	<u>8210136</u> <u>8210172</u>	<u>8210540.XX</u> <u>8210552.XX</u>	<b>15</b>
56C 143-5TC	<u>8210041</u> <u>8210077</u>	<u>8210053</u> <u>8210089</u>	<u>8210065</u> <u>8210101</u>	<u>8210517.XX</u> <u>8210529.XX</u>	<u>8210113</u> <u>8210149</u>	<u>8210125</u> <u>8210161</u>	<u>8210137</u> <u>8210173</u>	<u>8210541.XX</u> <u>8210553.XX</u>	<b>20</b>
56C 143-5TC	<u>8210042</u> <u>8210078</u>	<u>8210054</u> <u>8210090</u>	<u>8210066</u> <u>8210102</u>	<u>8210518.XX</u> <u>8210530.XX</u>	<u>8210114</u> <u>8210150</u>	<u>8210126</u> <u>8210162</u>	<u>8210138</u> <u>8210174</u>	<u>8210542.XX</u> <u>8210554.XX</u>	<b>25</b>
56C 143-5TC	<u>8210043</u> <u>8210079</u>	<u>8210055</u> <u>8210091</u>	<u>8210067</u> <u>8210103</u>	<u>8210519.XX</u> <u>8210531.XX</u>	<u>8210115</u> <u>8210151</u>	<u>8210127</u> <u>8210163</u>	<u>8210139</u> <u>8210175</u>	<u>8210543.XX</u> <u>8210555.XX</u>	<b>30</b>
56C 143-5TC	<u>8210044</u> <u>8210080</u>	<u>8210056</u> <u>8210092</u>	<u>8210068</u> <u>8210104</u>	<u>8210520.XX</u> <u>8210532.XX</u>	<u>8210116</u> <u>8210152</u>	<u>8210128</u> <u>8210164</u>	<u>8210140</u> <u>8210176</u>	<u>8210544.XX</u> <u>8210556.XX</u>	<b>40</b>
56C 143-5TC	<u>8210045</u> <u>8210081</u>	<u>8210057</u> <u>8210093</u>	<u>8210069</u> <u>8210105</u>	<u>8210521.XX</u> <u>8210533.XX</u>	<u>8210117</u> <u>8210153</u>	<u>8210129</u> <u>8210165</u>	<u>8210141</u> <u>8210177</u>	<u>8210545.XX</u> <u>8210557.XX</u>	<b>50</b>
48CZ 56C 143-5TC	<u>8210190</u> <u>8210046</u> <u>8210082</u>	<u>8210202</u> <u>8210058</u> <u>8210094</u>	<u>8210214</u> <u>8210070</u> <u>8210106</u>	<u>8210570.XX</u> <u>8210522.XX</u> <u>8210534.XX</u>	<u>8210226</u> <u>8210118</u> <u>8210154</u>	<u>8210238</u> <u>8210130</u> <u>8210166</u>	<u>8210250</u> <u>8210142</u> <u>8210178</u>	<u>8210582.XX</u> <u>8210546.XX</u> <u>8210558.XX</u>	<b>60</b>
48CZ 56C	<u>8210191</u> <u>8210047</u>	<u>8210203</u> <u>8210059</u>	<u>8210215</u> <u>8210071</u>	<u>8210571.XX</u> <u>8210523.XX</u>	<u>8210227</u> <u>8210119</u>	<u>8210239</u> <u>8210131</u>	<u>8210251</u> <u>8210143</u>	<u>8210583.XX</u> <u>8210547.XX</u>	<b>80</b>
48CZ 56C	<u>8210192</u> <u>8210048</u>	<u>8210204</u> <u>8210060</u>	<u>8210216</u> <u>8210072</u>	<u>8210572.XX</u> <u>8210524.XX</u>	<u>8210228</u> <u>8210120</u>	<u>8210240</u> <u>8210132</u>	<u>8210252</u> <u>8210144</u>	<u>8210584.XX</u> <u>8210548.XX</u>	<b>100</b>

▲ Consult Factory for other motor flanges available.

\* Catalog numbers are for hollow output shaft reducers.

When ordering, substitute the XX suffix with the required output bore code.

### Available bore codes

Fraction Size	1"	1-1/8"	1-3/16"	1-1/4"	1-7/16"	1-1/2"
Decimal Size	1.000	1.125	1.188	1.250	1.438	1.500
Output Bore Code	16	18	19	20	23	24

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

# Maximum Rating Tables

Size 824 • GR, NH, EL Series



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



## Size 824

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500.0	6.322	5.950	750	_8240001	_8240013	_8240025	_8240501.XX
	1750	350.0	5.323	4.985	898				
	1170	234.0	4.280	3.976	1071				
7.5	100	20.0	0.655	0.489	1540	_8240002	_8240014	_8240026	_8240502.XX
	2500	333.3	4.739	4.401	832				
	1750	233.3	3.992	3.685	995				
10	1170	156.0	3.204	2.929	1183	_8240003	_8240015	_8240027	_8240503.XX
	100	13.3	0.502	0.357	1689				
	2500	250.0	4.199	3.862	974				
15	1750	175.0	3.564	3.253	1172	_8240004	_8240016	_8240028	_8240504.XX
	1170	117.0	2.808	2.531	1364				
	100	10.0	0.442	0.295	1857				
20	2500	166.7	3.268	2.913	1102	_8240005	_8240017	_8240029	_8240505.XX
	1750	116.7	2.765	2.439	1318				
	1170	78.0	2.178	1.888	1526				
25	100	6.7	0.369	0.217	2056	_8240006	_8240018	_8240030	_8240506.XX
	2500	125.0	2.750	2.365	1192				
	1750	87.5	2.326	1.972	1421				
30	1170	58.5	1.835	1.522	1640	_8240007	_8240019	_8240031	_8240507.XX
	100	5.0	0.337	0.174	2193				
	2500	100.0	2.335	1.949	1228				
40	1750	70.0	1.967	1.615	1454	_8240008	_8240020	_8240032	_8240508.XX
	1170	46.8	1.551	1.239	1669				
	100	4.0	0.302	0.140	2205				
50	2500	83.3	1.945	1.579	1194	_8240009	_8240021	_8240033	_8240509.XX
	1750	58.3	1.653	1.317	1423				
	1170	39.0	1.314	1.016	1642				
60	100	3.3	0.270	0.116	2197	_8240010	_8240022	_8240034	_8240510.XX
	2500	62.5	1.574	1.195	1205				
	1750	43.8	1.342	0.994	1433				
80	1170	29.3	1.074	0.766	1650	_8240011	_8240023	_8240035	_8240511.XX
	100	2.5	0.245	0.087	2198				
	2500	50.0	1.335	0.961	1211				
100	1750	35.0	1.137	0.795	1432	_8240012	_8240024	_8240036	_8240512.XX
	1170	23.4	0.911	0.609	1641				
	100	2.0	0.224	0.069	2163				
	2500	41.7	1.149	0.806	1219				
	1750	29.2	0.967	0.656	1418				
	1170	19.5	0.770	0.496	1604				
	100	1.7	0.197	0.054	2054				
	2500	31.3	0.520	0.348	701				
	1750	21.9	0.455	0.288	830				
	1170	14.6	0.370	0.219	946				
	100	1.3	0.056	0.024	1202				
	2500	25.0	0.351	0.219	551				
	1750	17.5	0.307	0.180	648				
	1170	11.7	0.251	0.136	735				
	100	1.0	0.039	0.015	926				

### How To Build a Part Number For Size GR824, NH824, EL824

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, NH, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

**Example:**

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
 GR-B824-5-L  
 GR8240001

**Style BM**

**Style HM**

**Style BMQ**

**Style HMQ**



NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Ratio
143-5TC 182-4TC	8240073 8240109	8240085 8240121	8240097 8240133	8240525.XX 8240537.XX	8240181 8240217	8240193 8240229	8240205 8240241	8240561.XX 8240573.XX	5
143-5TC 182-4TC	8240074 8240110	8240086 8240122	8240098 8240134	8240526.XX 8240538.XX	8240182 8240218	8240194 8240230	8240206 8240242	8240562.XX 8240574.XX	7.5
143-5TC 182-4TC	8240075 8240111	8240087 8240123	8240099 8240135	8240527.XX 8240539.XX	8240183 8240219	8240195 8240231	8240207 8240243	8240563.XX 8240575.XX	10
56C 143-5TC	8240040 8240076	8240052 8240088	8240064 8240100	8240516.XX 8240528.XX	8240148 8240184	8240160 8240196	8240172 8240208	8240552.XX 8240564.XX	15
56C 143-5TC	8240041 8240077	8240053 8240089	8240065 8240101	8240517.XX 8240529.XX	8240149 8240185	8240161 8240197	8240173 8240209	8240553.XX 8240565.XX	20
56C 143-5TC	8240042 8240078	8240054 8240090	8240066 8240102	8240518.XX 8240530.XX	8240150 8240186	8240162 8240198	8240174 8240210	8240554.XX 8240566.XX	25
56C 143-5TC	8240043 8240079	8240055 8240091	8240067 8240103	8240519.XX 8240531.XX	8240151 8240187	8240163 8240199	8240175 8240211	8240555.XX 8240567.XX	30
56C 143-5TC	8240044 8240080	8240056 8240092	8240068 8240104	8240520.XX 8240532.XX	8240152 8240188	8240164 8240200	8240176 8240212	8240556.XX 8240568.XX	40
56C 143-5TC	8240045 8240081	8240057 8240093	8240069 8240105	8240521.XX 8240533.XX	8240153 8240189	8240165 8240201	8240177 8240213	8240557.XX 8240569.XX	50
56C 143-5TC	8240046 8240082	8240058 8240094	8240070 8240106	8240522.XX 8240534.XX	8240154 8240190	8240166 8240202	8240178 8240214	8240558.XX 8240570.XX	60
56C	8240047	8240059	8240071	8240523.XX	8240155	8240167	8240179	8240559.XX	80
56C	8240048	8240060	8240072	8240524.XX	8240156	8240168	8240180	8240560.XX	100

▲ Consult Factory for other motor flanges available.  
\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	1"	1-1/8"	1-3/16"	1-1/4"	1-7/16"	1-1/2"
Decimal Size	1.000	1.125	1.188	1.250	1.438	1.500
Output Bore Code	16	18	19	20	23	24

# Maximum Rating Tables

Size 826 • GR, NH, EL Series



Style B

Style H



## Size 826

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	7.946	7.486	944	_ 8260001	_ 8260013	_ 8260025	_ 8260501.XX
	1750	350	6.693	6.276	1130				
	1170	234	5.439	5.061	1363				
	100	20	0.844	0.638	2010				
7.5	2500	333	5.877	5.453	1031	_ 8260002	_ 8260014	_ 8260026	_ 8260502.XX
	1750	233	4.956	4.571	1235				
	1170	156	4.018	3.671	1483				
	100	13	0.640	0.458	2166				
10	2500	250	5.338	4.904	1236	_ 8260003	_ 8260015	_ 8260027	_ 8260503.XX
	1750	175	4.492	4.097	1475				
	1170	117	3.579	3.226	1738				
	100	10	0.572	0.386	2431				
15	2500	166	4.316	3.881	1468	_ 8260004	_ 8260016	_ 8260028	_ 8260504.XX
	1750	116	3.614	3.216	1737				
	1170	78	2.821	2.468	1994				
	100	6.7	0.467	0.279	2637				
20	2500	125	3.503	3.050	1538	_ 8260005	_ 8260017	_ 8260029	_ 8260505.XX
	1750	87	2.965	2.549	1836				
	1170	58	2.339	1.970	2123				
	100	5.0	0.419	0.226	2849				
25	2500	100	2.955	2.505	1579	_ 8260006	_ 8260018	_ 8260030	_ 8260506.XX
	1750	70	2.487	2.076	1869				
	1170	46	1.957	1.594	2146				
	100	4.0	0.370	0.180	2837				
30	2500	83	2.556	2.115	1600	_ 8260007	_ 8260019	_ 8260031	_ 8260507.XX
	1750	58	2.145	1.743	1883				
	1170	39	1.687	1.332	2152				
	100	3.3	0.335	0.149	2816				
40	2500	62	1.989	1.545	1558	_ 8260008	_ 8260020	_ 8260032	_ 8260508.XX
	1750	43	1.695	1.287	1854				
	1170	29	1.354	0.993	2139				
	100	2.5	0.299	0.113	2857				
50	2500	50	1.672	1.237	1560	_ 8260009	_ 8260021	_ 8260033	_ 8260509.XX
	1750	35	1.420	1.023	1843				
	1170	23	1.135	0.784	2112				
	100	2.0	0.269	0.088	2783				
60	2500	41	1.433	1.015	1536	_ 8260010	_ 8260022	_ 8260034	_ 8260510.XX
	1750	29	1.216	0.835	1805				
	1170	19	0.973	0.637	2060				
	100	1.7	0.245	0.071	2689				
80	2500	31	0.659	0.456	919	_ 8260011	_ 8260023	_ 8260035	_ 8260511.XX
	1750	21	0.577	0.379	1092				
	1170	14	0.469	0.289	1247				
	100	1.3	0.070	0.032	1593				
100	2500	25	0.441	0.286	721	_ 8260012	_ 8260024	_ 8260036	_ 8260512.XX
	1750	17	0.386	0.236	851				
	1170	11	0.314	0.179	966				
	100	1.0	0.048	0.019	1222				

### How To Build a Part Number For Size GR826, GRG826, GRL826, NH826, EL826

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, GRG, GRL, NH, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

#### Example:

Grove Gear IRONMAN, hollow output shaft, 5:1 ratio, 180TC coupling input  
 GR-HMQ826-5-180TC-19  
 GR8260537.19

GRG = **GROVE GEAR**

- Direct replacement to Grove Gear Flexaline
- 1-1/4” solid output shaft diameter
- For hollow bores, specify GRL Interchange
- Solid output shaft only



GRL = **IRONMAN** Interchange

- Direct replacement to LEESON IRONMAN & major brands.
- Hollow shaft option available
- 1-1/8” solid output shaft diameter



# Maximum Rating Tables

Size 826 • GR, NH, EL Series

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

NEMA C Input Flange ▲	Style BM			Style HM	Style BMQ			Style HMQ	Ratio
	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	
143-5TC 182-4TC	8260073 8260109	8260085 8260121	8260097 8260133	8260525.XX 8260537.XX	8260181 8260217	8260193 8260229	8260205 8260241	8260561.XX 8260573.XX	5
143-5TC 182-4TC	8260074 8260110	8260086 8260122	8260098 8260134	8260526.XX 8260538.XX	8260182 8260218	8260194 8260230	8260206 8260242	8260562.XX 8260574.XX	7.5
143-5TC 182-4TC	8260075 8260111	8260087 8260123	8260099 8260135	8260527.XX 8260539.XX	8260183 8260219	8260195 8260231	8260207 8260243	8260563.XX 8260575.XX	10
143-5TC 182-4TC	8260076 8260112	8260088 8260124	8260100 8260136	8260528.XX 8260540.XX	8260184 8260220	8260196 8260232	8260208 8260244	8260564.XX 8260576.XX	15
56C 143-5TC 182-4TC	8260041 8260077 8260113	8260053 8260089 8260125	8260065 8260101 8260137	8260517.XX 8260529.XX 8260541.XX	8260149 8260185 8260221	8260161 8260197 8260233	8260173 8260209 8260245	8260553.XX 8260565.XX 8260577.XX	20
56C 143-5TC	8260042 8260078	8260054 8260090	8260066 8260102	8260518.XX 8260530.XX	8260150 8260186	8260162 8260198	8260174 8260210	8260554.XX 8260566.XX	25
56C 143-5TC	8260043 8260079	8260055 8260091	8260067 8260103	8260519.XX 8260531.XX	8260151 8260187	8260163 8260199	8260175 8260211	8260555.XX 8260567.XX	30
56C 143-5TC	8260044 8260080	8260056 8260092	8260068 8260104	8260520.XX 8260532.XX	8260152 8260188	8260164 8260200	8260176 8260212	8260556.XX 8260568.XX	40
56C 143-5TC	8260045 8260081	8260057 8260093	8260069 8260105	8260521.XX 8260533.XX	8260153 8260189	8260165 8260201	8260177 8260213	8260557.XX 8260569.XX	50
56C 143-5TC	8260046 8260082	8260058 8260094	8260070 8260106	8260522.XX 8260534.XX	8260154 8260190	8260166 8260202	8260178 8260214	8260558.XX 8260570.XX	60
56C 143-5TC	8260047 8260083	8260059 8260095	8260071 8260107	8260523.XX 8260535.XX	8260155 8260191	8260167 8260203	8260179 8260215	8260559.XX 8260571.XX	80
56C	8260048	8260060	8260072	8260524.XX	8260156	8260168	8260180	8260560.XX	100

▲ Consult Factory for other motor flanges available.

\* Catalog numbers are for hollow output shaft reducers.

When ordering, substitute the XX suffix with the required output bore code.

### Available bore codes

Fraction Size	1"	1-1/8"	1-3/16"	1-1/4"	1-7/16"	1-1/2"
Decimal Size	1.000	1.125	1.188	1.250	1.438	1.500
Output Bore Code	16	18	19	20	23	24



# Maximum Rating Tables

## Size 830 • GR & EL Series



For NH series reducers refer to pages 36-37.

Style B

Style H



### Size 830

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	10.661	10.091	1272	_8300001	_8300013	_8300025	_8300501.XX
	1750	350	9.093	8.573	1544				
	1170	234	7.434	6.966	1876				
	100	20	1.177	0.928	2925				
7.5	2500	333	8.178	7.669	1450	_8300002	_8300014	_8300026	_8300502.XX
	1750	233	6.879	6.421	1734				
	1170	156	5.668	5.251	2122				
	100	13	0.898	0.683	3228				
10	2500	250	7.293	6.745	1701	_8300003	_8300015	_8300027	_8300503.XX
	1750	175	6.151	5.655	2037				
	1170	117	4.989	4.541	2446				
	100	10	0.799	0.567	3573				
15	2500	166	5.734	5.149	1947	_8300004	_8300016	_8300028	_8300504.XX
	1750	116	4.843	4.311	2329				
	1170	78	3.903	3.426	2768				
	100	6.7	0.663	0.418	3949				
20	2500	125	4.662	4.067	2051	_8300005	_8300017	_8300029	_8300505.XX
	1750	87	3.947	3.407	2454				
	1170	58	3.198	2.713	2923				
	100	5.0	0.579	0.332	4189				
25	2500	100	3.957	3.355	2114	_8300006	_8300018	_8300030	_8300506.XX
	1750	70	3.355	2.807	2527				
	1170	46	2.713	2.223	2993				
	100	4.0	0.519	0.269	4238				
30	2500	83	3.389	2.787	2108	_8300007	_8300019	_8300031	_8300507.XX
	1750	58	2.879	2.332	2519				
	1170	39	2.335	1.845	2982				
	100	3.3	0.472	0.223	4217				
40	2500	62	2.639	2.054	2071	_8300008	_8300020	_8300032	_8300508.XX
	1750	43	2.251	1.720	2477				
	1170	29	1.843	1.366	2944				
	100	2.5	0.407	0.167	4200				
50	2500	50	2.238	1.654	2084	_8300009	_8300021	_8300033	_8300509.XX
	1750	35	1.915	1.383	2490				
	1170	23	1.569	1.094	2945				
	100	2.0	0.372	0.132	4156				
60	2500	41	1.907	1.336	2020	_8300010	_8300022	_8300034	_8300510.XX
	1750	29	1.637	1.117	2413				
	1170	19	1.348	0.883	2854				
	100	1.7	0.341	0.106	4026				
80	2500	31	0.972	0.671	1352	_8300011	_8300023	_8300035	_8300511.XX
	1750	21	0.895	0.585	1684				
	1170	14	0.757	0.463	1996				
	100	1.3	0.126	0.054	2731				
100	2500	25	0.656	0.424	1069	_8300012	_8300024	_8300036	_8300512.XX
	1750	17	0.603	0.367	1321				
	1170	11	0.511	0.289	1554				
	100	1.0	0.087	0.033	2100				

### How To Build a Part Number For Size GR830 & EL830

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

#### Example:

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
 GR-B830-5-L  
 GR8300001

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Single Reduction  
Worm Gear Reducers









Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

	Style BM			Style HM	Style BMQ			Style HMQ	
									
NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Ratio
182-4TC 213-5TC	8300109 8300145	8300121 8300157	8300133 8300169	8300537.XX 8300549.XX	8300253 8300289	8300265 8300301	8300277 8300313	8300585.XX 8300597.XX	5
182-4TC	8300110	8300122	8300134	8300538.XX	8300254	8300266	8300278	8300586.XX	7.5
143-5TC 182-4TC	8300075 8300111	8300087 8300123	8300099 8300135	8300527.XX 8300539.XX	8300219 8300255	8300231 8300267	8300243 8300279	8300575.XX 8300587.XX	10
143-5TC 182-4TC	8300076 8300112	8300088 8300124	8300100 8300136	8300528.XX 8300540.XX	8300220 8300256	8300232 8300268	8300244 8300280	8300576.XX 8300588.XX	15
143-5TC 182-4TC	8300077 8300113	8300089 8300125	8300101 8300137	8300529.XX 8300541.XX	8300221 8300257	8300233 8300269	8300245 8300281	8300577.XX 8300589.XX	20
143-5TC 182-4TC	8300078 8300114	8300090 8300126	8300102 8300138	8300530.XX 8300542.XX	8300222 8300258	8300234 8300270	8300246 8300282	8300578.XX 8300590.XX	25
143-5TC 182-4TC	8300079 8300115	8300091 8300127	8300103 8300139	8300531.XX 8300543.XX	8300223 8300259	8300235 8300271	8300247 8300283	8300579.XX 8300591.XX	30
56C 143-5TC	8300044 8300080	8300056 8300092	8300068 8300104	8300520.XX 8300532.XX	8300188 8300224	8300200 8300236	8300212 8300248	8300568.XX 8300580.XX	40
56C 143-5TC	8300045 8300081	8300057 8300093	8300069 8300105	8300521.XX 8300533.XX	8300189 8300225	8300201 8300237	8300213 8300249	8300569.XX 8300581.XX	50
56C 143-5TC	8300046 8300082	8300058 8300094	8300070 8300106	8300522.XX 8300534.XX	8300190 8300226	8300202 8300238	8300214 8300250	8300570.XX 8300582.XX	60
56C 143-5TC	8300047 8300083	8300059 8300095	8300071 8300107	8300523.XX 8300535.XX	8300191 8300227	8300203 8300239	8300215 8300251	8300571.XX 8300583.XX	80
56C 143-5TC	8300048 8300084	8300060 8300096	8300072 8300108	8300524.XX 8300536.XX	8300192 8300228	8300204 8300240	8300216 8300252	8300572.XX 8300584.XX	100

▲ Consult Factory for other motor flanges available.  
\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	1-3/16"	1-1/4"	1-7/16"	1-1/2"	1-5/8"	1-11/16"	1-3/4"	1-7/8"	1-15/16"	2"	2-3/16"
Decimal Size	1.188	1.250	1.438	1.500	1.625	1.688	1.750	1.875	1.938	2.000	2.188
Output Bore Code	19	20	23	24	26	27	28	30	31	32	35

# Maximum Rating Tables

## Size 830 • NH Series

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

**Style B**

**Style H**



**Size 830**

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
<b>5</b>	2500	500	7.726	7.325	923	<b>NH8300001</b>	<b>NH8300013</b>	<b>NH8300025</b>	<b>NH8300501.XX</b>
	1750	350	6.683	6.285	1131				
	1170	234	5.645	5.249	1413				
	100	20	0.918	0.779	2454				
<b>7.5</b>	2500	333	7.145	6.713	1269	<b>NH8300002</b>	<b>NH8300014</b>	<b>NH8300026</b>	<b>NH8300502.XX</b>
	1750	233	6.049	5.624	1519				
	1170	156	5.210	4.779	1930				
	100	13	0.765	0.636	3003				
<b>10</b>	2500	250	6.344	5.897	1486	<b>NH8300003</b>	<b>NH8300015</b>	<b>NH8300027</b>	<b>NH8300503.XX</b>
	1750	175	5.450	5.005	1802				
	1170	117	4.586	4.144	2232				
	100	10	0.649	0.526	3312				
<b>15</b>	2500	166	4.858	4.404	1665	<b>NH8300004</b>	<b>NH8300016</b>	<b>NH8300028</b>	<b>NH8300504.XX</b>
	1750	116	4.207	3.751	2026				
	1170	78	3.507	3.062	2473				
	100	6.7	0.498	0.378	3573				
<b>20</b>	2500	125	3.720	3.288	1657	<b>NH8300005</b>	<b>NH8300017</b>	<b>NH8300029</b>	<b>NH8300505.XX</b>
	1750	87	3.233	2.799	2015				
	1170	58	2.717	2.291	2467				
	100	5.0	0.400	0.284	3584				
<b>25</b>	2500	100	3.170	2.737	1724	<b>NH8300006</b>	<b>NH8300018</b>	<b>NH8300030</b>	<b>NH8300506.XX</b>
	1750	70	2.768	2.332	2099				
	1170	46	2.319	1.895	2551				
	100	4.0	0.345	0.232	3653				
<b>30</b>	2500	83	2.717	2.287	1729	<b>NH8300007</b>	<b>NH8300019</b>	<b>NH8300031</b>	<b>NH8300507.XX</b>
	1750	58	2.382	1.949	2105				
	1170	39	2.004	1.582	2556				
	100	3.3	0.305	0.193	3656				
<b>40</b>	2500	62	2.063	1.645	1659	<b>NH8300008</b>	<b>NH8300020</b>	<b>NH8300032</b>	<b>NH8300508.XX</b>
	1750	43	1.822	1.402	2018				
	1170	29	1.557	1.144	2464				
	100	2.5	0.252	0.141	3559				
<b>50</b>	2500	50	1.727	1.320	1663	<b>NH8300009</b>	<b>NH8300021</b>	<b>NH8300033</b>	<b>NH8300509.XX</b>
	1750	35	1.535	1.125	2026				
	1170	23	1.312	0.912	2456				
	100	2.0	0.217	0.111	3505				
<b>60</b>	2500	41	1.430	1.045	1580	<b>NH8300010</b>	<b>NH8300022</b>	<b>NH8300034</b>	<b>NH8300510.XX</b>
	1750	29	1.279	0.891	1924				
	1170	19	1.100	0.722	2332				
	100	1.7	0.188	0.088	3327				
<b>80</b>	2500	31	0.972	0.671	1352	<b>NH8300011</b>	<b>NH8300023</b>	<b>NH8300035</b>	<b>NH8300511.XX</b>
	1750	21	0.895	0.585	1684				
	1170	14	0.757	0.463	1996				
	100	1.3	0.126	0.054	2731				
<b>100</b>	2500	25	0.656	0.424	1069	<b>NH8300012</b>	<b>NH8300024</b>	<b>NH8300036</b>	<b>NH8300512.XX</b>
	1750	17	0.603	0.367	1321				
	1170	11	0.511	0.289	1554				
	100	1.0	0.087	0.033	2100				

**How To Build a Part Number For Size NH830**

1. Select catalog number from the selection table
2. For hollow output, replace "XX" suffix with bore code (see next page for codes)

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

NEMA C Input Flange ▲	Style BM			Style HM	Style BMQ			Style HMQ	Ratio
	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	
182-4TC 213-5TC	NH8300109 NH8300145	NH8300121 NH8300157	NH8300133 NH8300169	NH8300537.XX NH8300549.XX	NH8300253 NH8300289	NH8300265 NH8300301	NH8300277 NH8300313	NH8300585.XX NH8300597.XX	5
182-4TC	NH8300110	NH8300122	NH8300134	NH8300538.XX	NH8300254	NH8300266	NH8300278	NH8300586.XX	7.5
143-5TC 182-4TC	NH8300075 NH8300111	NH8300087 NH8300123	NH8300099 NH8300135	NH8300527.XX NH8300539.XX	NH8300219 NH8300255	NH8300231 NH8300267	NH8300243 NH8300279	NH8300575.XX NH8300587.XX	10
143-5TC 182-4TC	NH8300076 NH8300112	NH8300088 NH8300124	NH8300100 NH8300136	NH8300528.XX NH8300540.XX	NH8300220 NH8300256	NH8300232 NH8300268	NH8300244 NH8300280	NH8300576.XX NH8300588.XX	15
143-5TC 182-4TC	NH8300077 NH8300113	NH8300089 NH8300125	NH8300101 NH8300137	NH8300529.XX NH8300541.XX	NH8300221 NH8300257	NH8300233 NH8300269	NH8300245 NH8300281	NH8300577.XX NH8300589.XX	20
143-5TC 182-4TC	NH8300078 NH8300114	NH8300090 NH8300126	NH8300102 NH8300138	NH8300530.XX NH8300542.XX	NH8300222 NH8300258	NH8300234 NH8300270	NH8300246 NH8300282	NH8300578.XX NH8300590.XX	25
143-5TC 182-4TC	NH8300079 NH8300115	NH8300091 NH8300127	NH8300103 NH8300139	NH8300531.XX NH8300543.XX	NH8300223 NH8300259	NH8300235 NH8300271	NH8300247 NH8300283	NH8300579.XX NH8300591.XX	30
56C 143-5TC	NH8300044 NH8300080	NH8300056 NH8300092	NH8300068 NH8300104	NH8300520.XX NH8300532.XX	NH8300188 NH8300224	NH8300200 NH8300236	NH8300212 NH8300248	NH8300568.XX NH8300580.XX	40
56C 143-5TC	NH8300045 NH8300081	NH8300057 NH8300093	NH8300069 NH8300105	NH8300521.XX NH8300533.XX	NH8300189 NH8300225	NH8300201 NH8300237	NH8300213 NH8300249	NH8300569.XX NH8300581.XX	50
56C 143-5TC	NH8300046 NH8300082	NH8300058 NH8300094	NH8300070 NH8300106	NH8300522.XX NH8300534.XX	NH8300190 NH8300226	NH8300202 NH8300238	NH8300214 NH8300250	NH8300570.XX NH8300582.XX	60
56C 143-5TC	NH8300047 NH8300083	NH8300059 NH8300095	NH8300071 NH8300107	NH8300523.XX NH8300535.XX	NH8300191 NH8300227	NH8300203 NH8300239	NH8300215 NH8300251	NH8300571.XX NH8300583.XX	80
56C 143-5TC	NH8300048 NH8300084	NH8300060 NH8300096	NH8300072 NH8300108	NH8300524.XX NH8300536.XX	NH8300192 NH8300228	NH8300204 NH8300240	NH8300216 NH8300252	NH8300572.XX NH8300584.XX	100

▲ Consult Factory for other motor flanges available.  
\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	1-3/16"	1-1/4"	1-7/16"	1-1/2"	1-5/8"	1-11/16"	1-3/4"	1-7/8"	1-15/16"	2"	2-3/16"
Decimal Size	1.188	1.250	1.438	1.500	1.625	1.688	1.750	1.875	1.938	2.000	2.188
Output Bore Code	19	20	23	24	26	27	28	30	31	32	35

# Maximum Rating Tables

## Size 832 • GR & EL Series



Style B

Style H



### Size 832

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	13.94	13.24	1669	8320097	8320101	8320105	8320557.XX
	1750	350	11.92	11.29	2033				
	1170	234	9.790	9.220	2483				
	100	20	1.567	1.267	3994				
7.5	2500	333	10.36	9.695	1833	8320098	8320102	8320106	8320558.XX
	1750	233	8.863	8.264	2232				
	1170	156	7.286	6.747	2726				
	100	13	1.201	0.926	4375				
10	2500	250	9.601	8.943	2254	8320001	8320009	8320017	8320501.XX
	1750	175	8.092	7.497	2700				
	1170	117	6.604	6.066	3268				
	100	10	1.048	0.770	4853				
15	2500	166	7.258	6.582	2489	8320002	8320010	8320018	8320502.XX
	1750	116	6.127	5.516	2980				
	1170	78	5.031	4.478	3618				
	100	6.7	0.853	0.573	5413				
20	2500	125	6.122	5.412	2729	8320003	8320011	8320019	8320503.XX
	1750	87	5.180	4.536	3267				
	1170	58	4.215	3.636	3917				
	100	5.0	0.746	0.452	5695				
25	2500	100	5.162	4.457	2809	8320004	8320012	8320020	8320504.XX
	1750	70	4.373	3.732	3360				
	1170	46	3.543	2.968	3996				
	100	4.0	0.655	0.362	5710				
30	2500	83	4.262	3.562	2694	8320005	8320013	8320021	8320505.XX
	1750	58	3.619	2.986	3226				
	1170	39	2.987	2.415	3902				
	100	3.3	0.593	0.306	5787				
40	2500	62	3.434	2.736	2759	8320006	8320014	8320022	8320506.XX
	1750	43	2.926	2.293	3303				
	1170	29	2.402	1.833	3950				
	100	2.5	0.513	0.227	5710				
50	2500	50	2.883	2.199	2772	8320007	8320015	8320023	8320507.XX
	1750	35	2.462	1.841	3315				
	1170	23	2.018	1.461	3935				
	100	2.0	0.458	0.178	5601				
60	2500	41	2.471	1.812	2741	8320008	8320016	8320024	8320508.XX
	1750	29	2.114	1.515	3274				
	1170	19	1.733	1.197	3869				
	100	1.7	0.414	0.144	5448				
80	2500	31	1.122	0.796	1605	8320099	8320103	8320107	8320559.XX
	1750	21	1.030	0.695	2000				
	1170	14	0.869	0.551	2371				
	100	1.3	0.143	0.064	3246				
100	2500	25	0.754	0.503	1268	8320100	8320104	8320108	8320560.XX
	1750	17	0.691	0.435	1567				
	100	1.0	0.097	0.040	2496				

### How To Build a Part Number For Size GR832, GRG832, GRL832, EL832

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, GRG, GRL, EL) (see next page for codes)
3. For hollow output, replace “XX” suffix with bore code

#### Example:

Grove Gear IRONMAN, hollow output shaft, 5:1 ratio, 180TC coupling input  
 GR-HM832-5-H-180TC-19  
 GR8320569.19

### GRG = GROVE GEAR









- Direct replacement to Grove Gear Flexaline
- 1-1/2" solid output shaft diameter
- For hollow bores, specify GRL Interchange
- Solid output shaft only



### GRL = IRONMAN Interchange

- Direct replacement to LEESON IRONMAN & major brands.
- Hollow shaft option available
- 1-3/8" solid output shaft diameter



	Style BM			Style HM	Style BMQ			Style HMQ	
									
NEMA C Input Flange▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Ratio
182-4TC 213-5TC	8320205 8320217	8320209 8320229	8320213 8320241	8320569.XX 8320573.XX	8320277 8320289	8320281 8320301	8320285 8320313	8320593.XX 8320597.XX	5
182-4TC 213-5TC	8320206 8320218	8320210 8320230	8320214 8320242	8320570.XX 8320574.XX	8320278 8320290	8320282 8320302	8320286 8320314	8320594.XX 8320598.XX	7.5
143-5TC 182-4TC 213-5TC	8320049 8320073 8320219	8320057 8320081 8320231	8320065 8320089 8320243	8320517.XX 8320525.XX 8320575.XX	8320145 8320169 8320291	8320153 8320177 8320303	8320161 8320185 8320315	8320541.XX 8320549.XX 8320599.XX	10
143-5TC 182-4TC	8320050 8320074	8320058 8320082	8320066 8320090	8320518.XX 8320526.XX	8320146 8320170	8320154 8320178	8320162 8320186	8320542.XX 8320550.XX	15
143-5TC 182-4TC	8320051 8320075	8320059 8320083	8320067 8320091	8320519.XX 8320527.XX	8320147 8320171	8320155 8320179	8320163 8320187	8320543.XX 8320551.XX	20
143-5TC 182-4TC	8320052 8320076	8320060 8320084	8320068 8320092	8320520.XX 8320528.XX	8320148 8320172	8320156 8320180	8320164 8320188	8320544.XX 8320552.XX	25
143-5TC 182-4TC	8320053 8320077	8320061 8320085	8320069 8320093	8320521.XX 8320529.XX	8320149 8320173	8320157 8320181	8320165 8320189	8320545.XX 8320553.XX	30
56C 143-5TC 182-4TC	8320030 8320054 8320078	8320038 8320062 8320086	8320046 8320070 8320094	8320514.XX 8320522.XX 8320530.XX	8320126 8320150 8320174	8320134 8320158 8320182	8320142 8320166 8320190	8320538.XX 8320546.XX 8320554.XX	40
56C 143-5TC 182-4TC	8320031 8320055 8320079	8320039 8320063 8320087	8320047 8320071 8320095	8320515.XX 8320523.XX 8320531.XX	8320127 8320151 8320175	8320135 8320159 8320183	8320143 8320167 8320191	8320539.XX 8320547.XX 8320555.XX	50
56C 143-5TC 182-4TC	8320032 8320056 8320080	8320040 8320064 8320088	8320048 8320072 8320096	8320516.XX 8320524.XX 8320532.XX	8320128 8320152 8320176	8320136 8320160 8320184	8320144 8320168 8320192	8320540.XX 8320548.XX 8320556.XX	60
56C 143-5TC	8320111 8320195	8320115 8320199	8320119 8320203	8320563.XX 8320567.XX	8320255 8320267	8320259 8320271	8320263 8320275	8320587.XX 8320591.XX	80
56C	8320112	8320116	8320120	8320564.XX	8320256	8320260	8320264	8320588.XX	100

▲ Consult Factory for other motor flanges available.  
\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	1-3/16"	1-1/4"	1-7/16"	1-1/2"	1-5/8"	1-11/16"	1-3/4"	1-7/8"	1-15/16"	2"	2-3/16"
Decimal Size	1.188	1.250	1.438	1.500	1.625	1.688	1.750	1.875	1.938	2.000	2.188
Output Bore Code	19	20	23	24	26	27	28	30	31	32	35

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

# Maximum Rating Tables

## Size 832 • NH Series

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



**Size 832**

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
<b>5</b>	2500	500	10.56	10.03	1306	<b>NH8320097</b>	<b>NH8320101</b>	<b>NH8320105</b>	<b>NH8320557.XX</b>
	1750	350	9.135	8.611	1602				
	1170	234	7.694	7.172	1995				
	100	20	1.289	1.097	3571				
<b>7.5</b>	2500	333	9.053	8.527	1612	<b>NH8320098</b>	<b>NH8320102</b>	<b>NH8320106</b>	<b>NH8320558.XX</b>
	1750	233	7.844	7.317	1976				
	1170	156	6.642	6.114	2469				
	100	13	1.136	0.949	4075				
<b>10</b>	2500	250	8.232	7.701	1941	<b>NH8320001</b>	<b>NH8320009</b>	<b>NH8320017</b>	<b>NH8320501.XX</b>
	1750	175	7.034	6.507	2343				
	1170	117	5.974	5.446	2932				
	100	10	0.857	0.704	4437				
<b>15</b>	2500	166	6.161	5.603	2118	<b>NH8320002</b>	<b>NH8320010</b>	<b>NH8320018</b>	<b>NH8320502.XX</b>
	1750	116	5.277	4.724	2551				
	1170	78	4.531	3.971	3207				
	100	6.7	0.682	0.518	4895				
<b>20</b>	2500	125	4.836	4.306	2170	<b>NH8320003</b>	<b>NH8320011</b>	<b>NH8320019</b>	<b>NH8320503.XX</b>
	1750	87	4.188	3.658	2633				
	1170	58	3.547	3.020	3253				
	100	5.0	0.528	0.381	4802				
<b>25</b>	2500	100	3.977	3.468	2185	<b>NH8320004</b>	<b>NH8320012</b>	<b>NH8320020</b>	<b>NH8320504.XX</b>
	1750	70	3.465	2.953	2658				
	1170	46	2.914	2.413	3248				
	100	4.0	0.434	0.298	4701				
<b>30</b>	2500	83	3.452	2.903	2195	<b>NH8320005</b>	<b>NH8320013</b>	<b>NH8320021</b>	<b>NH8320505.XX</b>
	1750	58	3.003	2.454	2651				
	1170	39	2.604	2.052	3315				
	100	3.3	0.425	0.265	5007				
<b>40</b>	2500	62	2.669	2.157	2174	<b>NH8320006</b>	<b>NH8320014</b>	<b>NH8320022</b>	<b>NH8320506.XX</b>
	1750	43	2.348	1.834	2641				
	1170	29	2.019	1.509	3251				
	100	2.5	0.330	0.189	4769				
<b>50</b>	2500	50	2.152	1.674	2110	<b>NH8320007</b>	<b>NH8320015</b>	<b>NH8320023</b>	<b>NH8320507.XX</b>
	1750	35	1.907	1.426	2568				
	1170	23	1.634	1.163	3130				
	100	2.0	0.270	0.143	4510				
<b>60</b>	2500	41	1.764	1.323	2001	<b>NH8320008</b>	<b>NH8320016</b>	<b>NH8320024</b>	<b>NH8320508.XX</b>
	1750	29	1.573	1.128	2437				
	1170	19	1.346	0.913	2951				
	100	1.7	0.225	0.111	4201				
<b>80</b>	2500	31	1.122	0.796	1605	<b>NH8320099</b>	<b>NH8320103</b>	<b>NH8320107</b>	<b>NH8320559.XX</b>
	1750	21	1.030	0.695	2000				
	1170	14	0.869	0.551	2371				
	100	1.3	0.143	0.064	3246				
<b>100</b>	2500	25	0.754	0.503	1268	<b>NH8320100</b>	<b>NH8320104</b>	<b>NH8320108</b>	<b>NH8320560.XX</b>
	1750	17	0.691	0.435	1567				
	1170	11	0.584	0.343	1846				
	100	1.0	0.097	0.040	2496				

**How To Build a Part Number For Size NH832**

1. Select catalog number from the selection table
2. For hollow output, replace "XX" suffix with bore code (see next page for codes)

NEMA C Input Flange ▲	Style BM			Style HM	Style BMQ			Style HMQ	Ratio
	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	
182-4TC 213-5TC	NH8320205 NH8320217	NH8320209 NH8320229	NH8320213 NH8320241	NH8320569.XX NH8320573.XX	NH8320277 NH8320289	NH8320281 NH8320301	NH8320285 NH8320313	NH8320593.XX NH8320597.XX	5
182-4TC 213-5TC	NH8320206 NH8320218	NH8320210 NH8320230	NH8320214 NH8320242	NH8320570.XX NH8320574.XX	NH8320278 NH8320290	NH8320282 NH8320302	NH8320286 NH8320314	NH8320594.XX NH8320598.XX	7.5
143-5TC 182-4TC 213-5TC	NH8320049 NH8320073 NH8320219	NH8320057 NH8320081 NH8320231	NH8320065 NH8320089 NH8320243	NH8320517.XX NH8320525.XX NH8320575.XX	NH8320145 NH8320169 NH8320291	NH8320153 NH8320177 NH8320303	NH8320161 NH8320185 NH8320315	NH8320541.XX NH8320549.XX NH8320599.XX	10
143-5TC 182-4TC	NH8320050 NH8320074	NH8320058 NH8320082	NH8320066 NH8320090	NH8320518.XX NH8320526.XX	NH8320146 NH8320170	NH8320154 NH8320178	NH8320162 NH8320186	NH8320542.XX NH8320550.XX	15
143-5TC 182-4TC	NH8320051 NH8320075	NH8320059 NH8320083	NH8320067 NH8320091	NH8320519.XX NH8320527.XX	NH8320147 NH8320171	NH8320155 NH8320179	NH8320163 NH8320187	NH8320543.XX NH8320551.XX	20
143-5TC 182-4TC	NH8320052 NH8320076	NH8320060 NH8320084	NH8320068 NH8320092	NH8320520.XX NH8320528.XX	NH8320148 NH8320172	NH8320156 NH8320180	NH8320164 NH8320188	NH8320544.XX NH8320552.XX	25
143-5TC 182-4TC	NH8320053 NH8320077	NH8320061 NH8320085	NH8320069 NH8320093	NH8320521.XX NH8320529.XX	NH8320149 NH8320173	NH8320157 NH8320181	NH8320165 NH8320189	NH8320545.XX NH8320553.XX	30
56C 143-5TC 182-4TC	NH8320030 NH8320054 NH8320078	NH8320038 NH8320062 NH8320086	NH8320046 NH8320070 NH8320094	NH8320514.XX NH8320522.XX NH8320530.XX	NH8320126 NH8320150 NH8320174	NH8320134 NH8320158 NH8320182	NH8320142 NH8320166 NH8320190	NH8320538.XX NH8320546.XX NH8320554.XX	40
56C 143-5TC 182-4TC	NH8320031 NH8320055 NH8320079	NH8320039 NH8320063 NH8320087	NH8320047 NH8320071 NH8320095	NH8320515.XX NH8320523.XX NH8320531.XX	NH8320127 NH8320151 NH8320175	NH8320135 NH8320159 NH8320183	NH8320143 NH8320167 NH8320191	NH8320539.XX NH8320547.XX NH8320555.XX	50
56C 143-5TC 182-4TC	NH8320032 NH8320056 NH8320080	NH8320040 NH8320064 NH8320088	NH8320048 NH8320072 NH8320096	NH8320516.XX NH8320524.XX NH8320532.XX	NH8320128 NH8320152 NH8320176	NH8320136 NH8320160 NH8320184	NH8320144 NH8320168 NH8320192	NH8320540.XX NH8320548.XX NH8320556.XX	60
56C 143-5TC	NH8320111 NH8320195	NH8320115 NH8320199	NH8320119 NH8320203	NH8320563.XX NH8320567.XX	NH8320255 NH8320267	NH8320259 NH8320271	NH8320263 NH8320275	NH8320587.XX NH8320591.XX	80
56C	NH8320112	NH8320116	NH8320120	NH8320564.XX	NH8320256	NH8320260	NH8320264	NH8320588.XX	100

▲ Consult Factory for other motor flanges available.

\* Catalog numbers are for hollow output shaft reducers.

When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	1-3/16"	1-1/4"	1-7/16"	1-1/2"	1-5/8"	1-11/16"	1-3/4"	1-7/8"	1-15/16"	2"	2-3/16"
Decimal Size	1.188	1.250	1.438	1.500	1.625	1.688	1.750	1.875	1.938	2.000	2.188
Output Bore Code	19	20	23	24	26	27	28	30	31	32	35

# Maximum Rating Tables

## Size 842 • GR, NH & EL Series



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



### Size 842





Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	20.79	19.87	2589	_8420001	_8420013	_8420025	_8420501.XX
	1750	350	18.08	17.25	3209				
	1170	234	15.18	14.43	4016				
7.5	100	20	2.751	2.376	7738	_8420002	_8420014	_8420026	_8420502.XX
	2500	333	18.84	17.83	3372				
	1750	233	16.27	15.36	4148				
10	1170	156	13.42	12.61	5094	_8420003	_8420015	_8420027	_8420503.XX
	100	13	2.342	1.931	9126				
	2500	250	17.39	16.37	4127				
15	1750	175	14.93	14.00	5042	_8420004	_8420016	_8420028	_8420504.XX
	1170	117	12.31	11.47	6180				
	100	10	2.051	1.629	10629				
20	2500	166	12.94	11.92	4507	_8420005	_8420017	_8420029	_8420505.XX
	1750	116	11.13	10.20	5508				
	1170	78	9.193	8.357	6752				
25	100	6.7	1.608	1.190	11245	_8420006	_8420018	_8420030	_8420506.XX
	2500	125	11.02	9.91	4999				
	1750	87	9.462	8.458	6092				
30	1170	58	7.816	6.913	7447	_8420007	_8420019	_8420031	_8420507.XX
	100	5.0	1.407	0.956	12056				
	2500	100	9.256	8.164	5145				
40	1750	70	7.940	6.946	6254	_8420008	_8420020	_8420032	_8420508.XX
	1170	46	6.551	5.658	7619				
	100	4.0	1.210	0.764	12038				
50	2500	83	7.517	6.455	4882	_8420009	_8420021	_8420033	_8420509.XX
	1750	58	6.481	5.517	5960				
	1170	39	5.384	4.518	7300				
60	100	3.3	1.066	0.636	12026	_8420010	_8420022	_8420034	_8420510.XX
	2500	62	6.101	5.013	5055				
	1750	43	5.262	4.274	6156				
80	1170	29	4.379	3.490	7520	_8420011	_8420023	_8420035	_8420511.XX
	100	2.5	0.920	0.480	12090				
	2500	50	5.088	4.029	5078				
100	1750	35	4.389	3.426	6170	_8420012	_8420024	_8420036	_8420512.XX
	1170	23	3.655	2.788	7510				
	100	2.0	0.804	0.375	11809				
	2500	41	4.333	3.317	5017				
	1750	29	3.681	2.772	5989				
	1170	19	3.116	2.285	7386				
	100	1.7	0.715	0.302	11439				
	2500	31	2.019	1.486	2995				
	1750	21	1.760	1.257	3620				
	100	1.3	0.290	0.135	6804				
	2500	25	1.341	0.933	2351				
	1750	17	1.201	0.792	2852				
	1170	11	1.062	0.655	3527				
	100	1.0	0.197	0.083	5219				

### How To Build a Part Number For Size GR842, NH842, EL842

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, NH, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

#### Example:

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
GR-B842-5-L  
GR8420001

	Style BM			Style HM	Style BMQ			Style HMQ	
									
NEMA C Input Flange ▲	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Ratio
182-4TC	8420109	8420121	8420133	8420537.XX	8420289	8420301	8420313	8420597.XX	5
213-5TC	8420145	8420157	8420169	8420549.XX	8420325	8420337	8420349	8420609.XX	
254-6TC	8420181	8420193	8420205	8420561.XX	8420361	8420373	8420385	8420621.XX	
182-4TC	8420110	8420122	8420134	8420538.XX	8420290	8420302	8420314	8420598.XX	7.5
213-5TC	8420146	8420158	8420170	8420550.XX	8420326	8420338	8420350	8420610.XX	
254-6TC	8420182	8420194	8420206	8420562.XX	8420362	8420374	8420386	8420622.XX	
182-4TC	8420111	8420123	8420135	8420539.XX	8420291	8420303	8420315	8420599.XX	10
213-5TC	8420147	8420159	8420171	8420551.XX	8420327	8420339	8420351	8420611.XX	
254-6TC	8420183	8420195	8420207	8420563.XX	8420363	8420375	8420387	8420623.XX	
182-4TC	8420112	8420124	8420136	8420540.XX	8420292	8420304	8420316	8420600.XX	15
213-5TC	8420148	8420160	8420172	8420552.XX	8420328	8420340	8420352	8420612.XX	
182-4TC	8420113	8420125	8420137	8420541.XX	8420293	8420305	8420317	8420601.XX	20
213-5TC	8420149	8420161	8420173	8420553.XX	8420329	8420341	8420353	8420613.XX	
143-5TC	8420078	8420090	8420102	8420530.XX	8420258	8420270	8420282	8420590.XX	25
182-4TC	8420114	8420126	8420138	8420542.XX	8420294	8420306	8420318	8420602.XX	
213-5TC	8420150	8420162	8420174	8420554.XX	8420330	8420342	8420354	8420614.XX	
143-5TC	8420079	8420091	8420103	8420531.XX	8420259	8420271	8420283	8420591.XX	30
182-4TC	8420115	8420127	8420139	8420543.XX	8420295	8420307	8420319	8420603.XX	
143-5TC	8420080	8420092	8420104	8420532.XX	8420260	8420272	8420284	8420592.XX	40
182-4TC	8420116	8420128	8420140	8420544.XX	8420296	8420308	8420320	8420604.XX	
143-5TC	8420081	8420093	8420105	8420533.XX	8420261	8420273	8420285	8420593.XX	50
182-4TC	8420117	8420129	8420141	8420545.XX	8420297	8420309	8420321	8420605.XX	
56C	8420046	8420058	8420070	8420522.XX	8420226	8420238	8420250	8420582.XX	60
143-5TC	8420082	8420094	8420106	8420534.XX	8420262	8420274	8420286	8420594.XX	
182-4TC	8420118	8420130	8420142	8420546.XX	8420298	8420310	8420322	8420606.XX	
56C	8420047	8420059	8420071	8420523.XX	8420227	8420239	8420251	8420583.XX	80
143-5TC	8420083	8420095	8420107	8420535.XX	8420263	8420275	8420287	8420595.XX	
56C	8420048	8420060	8420072	8420524.XX	8420228	8420240	8420252	8420584.XX	100
143-5TC	8420084	8420096	8420108	8420536.XX	8420264	8420276	8420288	8420596.XX	

▲ Consult Factory for other motor flanges available.  
\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	1-7/16"	1-1/2"	1-5/8"	1-11/16"	1-3/4"	1-7/8"	1-15/16"	2"	2-3/16"
Decimal Size	1.438	1.500	1.625	1.688	1.750	1.875	1.938	2.000	2.188
Output Bore Code	23	24	26	27	28	30	31	32	35



# Maximum Rating Tables

## Size 852 • GR, NH & EL Series



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



### Size 852

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	37.08	35.61	4601	_8520085	_8520090	_8520095	_8520501.XX
	1750	350	32.51	31.17	5753				
	1170	234	27.55	26.35	7276				
	100	20	5.390	4.794	15484				
7.5	2500	333	32.21	30.68	5800	_8520086	_8520091	_8520096	_8520502.XX
	1750	233	28.10	26.70	7213				
	1170	156	23.67	22.42	9058				
	100	13	4.442	3.821	18062				
10	2500	250	26.55	24.99	6300	_8520001	_8520008	_8520015	_8520503.XX
	1750	175	23.15	21.73	7827				
	1170	117	19.50	18.23	9818				
	100	10	3.701	3.073	19367				
15	2500	166	20.77	19.05	7204	_8520002	_8520009	_8520016	_8520504.XX
	1750	116	18.11	16.55	8941				
	1170	78	15.26	13.86	11201				
	100	6.7	2.997	2.309	21826				
20	2500	125	16.69	14.95	7538	_8520003	_8520010	_8520017	_8520505.XX
	1750	87	14.56	12.98	9351				
	1170	58	12.29	10.87	11709				
	100	5.0	2.499	1.802	22716				
25	2500	100	13.95	12.18	7674	_8520087	_8520092	_8520097	_8520506.XX
	1750	70	12.19	10.57	9517				
	1170	46	10.298	8.848	11915				
	100	4.0	2.176	1.464	23068				
30	2500	83	12.056	10.264	7763	_8520004	_8520011	_8520018	_8520507.XX
	1750	58	10.538	8.910	9627				
	1170	39	8.918	7.457	12051				
	100	3.3	1.949	1.233	23305				
40	2500	62	9.258	7.533	7596	_8520005	_8520012	_8520019	_8520508.XX
	1750	43	8.105	6.538	9419				
	1170	29	6.878	5.471	11789				
	100	2.5	1.592	0.903	22772				
50	2500	50	7.727	5.990	7550	_8520006	_8520013	_8520020	_8520509.XX
	1750	35	6.777	5.199	9362				
	1170	23	5.766	4.350	11717				
	100	2.0	1.411	0.718	22622				
60	2500	41	6.621	4.912	7429	_8520007	_8520014	_8520021	_8520510.XX
	1750	29	5.816	4.263	9212				
	1170	19	4.961	3.567	11528				
	100	1.7	1.270	0.588	22251				
80	2500	31	3.226	2.217	4469	_8520088	_8520093	_8520098	_8520511.XX
	1750	21	2.906	1.902	5478				
	1170	14	2.618	1.600	6894				
	100	1.3	0.744	0.280	14089				
100	2500	25	2.285	1.504	3790	_8520089	_8520094	_8520099	_8520512.XX
	1750	17	2.072	1.291	4646				
	1170	11	1.820	1.052	5663				
	100	1.0	0.515	0.180	11331				

### How To Build a Part Number For Size GR852, NH852, EL852

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, NH, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

#### Example:

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
GR-B852-5-L  
GR8520085

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

NEMA C Input Flange ▲	Style BM			Style HM	Style BMQ			Style HMQ	Ratio
	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	
213-5TC 254-6TC	8520187 8520202	8520192 8520207	8520197 8520212	8520549.XX 8520561.XX	8520325 8520361	8520337 8520373	8520349 8520385	8520609.XX 8520621.XX	5
213-5TC 254-6TC	8520188 8520203	8520193 8520208	8520198 8520213	8520550.XX 8520562.XX	8520326 8520362	8520338 8520374	8520350 8520386	8520610.XX 8520622.XX	7.5
213-5TC 254-6TC	8520043 8520064	8520050 8520071	8520057 8520078	8520551.XX 8520563.XX	8520327 8520363	8520339 8520375	8520351 8520387	8520611.XX 8520623.XX	10
213-5TC 254-6TC	8520044 8520065	8520051 8520072	8520058 8520079	8520552.XX 8520564.XX	8520328 8520364	8520340 8520376	8520352 8520388	8520612.XX 8520624.XX	15
182-4TC 213-5TC 254-6TC	8520024 8520045 8520066	8520031 8520052 8520073	8520038 8520059 8520080	8520541.XX 8520553.XX 8520565.XX	8520293 8520329 8520365	8520305 8520341 8520377	8520317 8520353 8520389	8520601.XX 8520613.XX 8520625.XX	20
182-4TC 213-5TC	8520174 8520189	8520179 8520194	8520184 8520199	8520542.XX 8520554.XX	8520294 8520330	8520306 8520342	8520318 8520354	8520602.XX 8520614.XX	25
182-4TC 213-5TC	8520025 8520046	8520032 8520053	8520039 8520060	8520543.XX 8520555.XX	8520295 8520331	8520307 8520343	8520319 8520355	8520603.XX 8520615.XX	30
143-5TC 182-4TC 213-5TC	8520143 8520026 8520047	8520155 8520033 8520054	8520167 8520040 8520061	8520532.XX 8520544.XX 8520556.XX	8520260 8520296 8520332	8520272 8520308 8520344	8520284 8520320 8520356	8520592.XX 8520604.XX 8520616.XX	40
143-5TC 182-4TC	8520144 8520027	8520156 8520034	8520168 8520041	8520533.XX 8520545.XX	8520261 8520297	8520273 8520309	8520285 8520321	8520593.XX 8520605.XX	50
143-5TC 182-4TC	8520145 8520028	8520157 8520035	8520169 8520042	8520534.XX 8520546.XX	8520262 8520298	8520274 8520310	8520286 8520322	8520594.XX 8520606.XX	60
143-5TC 182-4TC	8520146 8520175	8520158 8520180	8520170 8520185	8520535.XX 8520547.XX	8520263 8520299	8520275 8520311	8520287 8520323	8520595.XX 8520607.XX	80
143-5TC	8520147	8520159	8520171	8520536.XX	8520264	8520276	8520288	8520596.XX	100

▲ Consult Factory for other motor flanges available.  
\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

**Available bore codes**

Fraction Size	2"	2-3/16"	2-1/4"	2-7/16"	2-1/2"	2-11/16"	2-15/16"	3"	3-3/16"	3-7/16"
Decimal Size	2.000	2.188	2.250	2.438	2.500	2.688	2.938	3.000	3.188	3.438
Output Bore Code	32	35	36	39	40	43	47	48	51	55

# Maximum Rating Tables

## Size 860 • GR & EL Series



Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

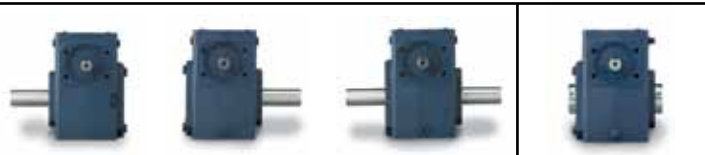
WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

Style B

Style H



### Size 860

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*
5	2500	500	39.83	38.29	4827	_8600085	_8600090	_8600095	_8600501.XX
	1750	350	35.10	33.70	6068				
	1170	234	29.94	28.69	7726				
7.5	100	20	6.203	5.581	17587	_8600086	_8600091	_8600096	_8600502.XX
	2500	333	34.20	32.60	6163				
	1750	233	29.98	28.52	7704				
10	1170	156	25.41	24.11	9740	_8600001	_8600008	_8600015	_8600503.XX
	100	13	5.018	4.371	20662				
	2500	250	28.53	26.90	6782				
15	1750	175	24.99	23.51	8467	_8600002	_8600009	_8600016	_8600504.XX
	1170	117	21.17	19.84	10687				
	100	10	4.198	3.542	22324				
20	2500	166	21.95	20.17	7628	_8600003	_8600010	_8600017	_8600505.XX
	1750	116	19.23	17.61	9515				
	1170	78	16.30	14.85	11996				
25	100	6.7	3.337	2.623	24797	_8600004	_8600011	_8600018	_8600507.XX
	2500	125	17.93	16.11	8123				
	1750	87	15.71	14.06	10127				
30	1170	58	13.32	11.84	12758	_8600005	_8600012	_8600019	_8600508.XX
	100	5.0	2.805	2.078	26194				
	2500	100	14.89	13.04	8219				
40	1750	70	13.06	11.378	10245	_8600006	_8600013	_8600020	_8600509.XX
	1170	46	11.094	9.582	12903				
	100	4.0	2.418	1.678	26436				
50	2500	83	12.73	10.87	8222	_8600007	_8600014	_8600021	_8600510.XX
	1750	58	11.177	9.486	10249				
	1170	39	9.507	7.989	12911				
60	100	3.3	2.143	1.400	26480	_8600008	_8600093	_8600098	_8600511.XX
	2500	62	9.922	8.119	8187				
	1750	43	8.722	7.083	10203				
80	1170	29	7.433	5.963	12848	_8600009	_8600094	_8600099	_8600512.XX
	100	2.5	1.761	1.042	26260				
	2500	50	8.226	6.417	8088				
100	1750	35	7.242	5.597	10079	_8600089	_8600094	_8600099	_8600512.XX
	1170	23	6.188	4.712	12691				
	100	2.0	1.544	0.823	25925				
100	2500	41	6.977	5.202	7869	_8600088	_8600093	_8600098	_8600511.XX
	1750	29	6.152	4.539	9808				
	1170	19	5.269	3.822	12352				
100	100	1.7	1.376	0.669	25283	_8600088	_8600093	_8600098	_8600511.XX
	2500	31	4.130	2.939	5962				
	1750	21	3.702	2.522	7264				
100	1170	14	3.315	2.122	9142	_8600089	_8600094	_8600099	_8600512.XX
	100	1.3	0.950	0.382	19249				
	2500	25	2.849	1.905	4802				
100	1750	17	2.571	1.635	5886	_8600089	_8600094	_8600099	_8600512.XX
	1170	11	2.323	1.376	7408				
	100	1.0	0.686	0.244	15389				

### How To Build a Part Number For Size GR860, EL860

1. Select partial catalog number from the selection table
2. Replace leading “\_” with series code (GR, EL)
3. For hollow output, replace “XX” suffix with bore code (see next page for codes)

#### Example:

Grove Gear IRONMAN, style B, 5:1 ratio, left hand output  
 GR-B860-5-L  
 GR8600085



# Maximum Rating Tables

Size 860 • GR & EL Series

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR+MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

NEMA C Input Flange ▲	Style BM			Style HM	Style BMQ			Style HMQ	Ratio
	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	Left Hand Catalog No.	Right Hand Catalog No.	Double Extension Catalog No.	Hollow Output Catalog No.*	
254-6TC	8600130	8600135	8600140	8600537.XX	8600289	8600301	8600313	8600597.XX	5
254-6TC	8600131	8600136	8600141	8600538.XX	8600290	8600302	8600314	8600598.XX	7.5
213-5TC 254-6TC	8600043 8600064	8600050 8600071	8600057 8600078	8600527.XX 8600539.XX	8600255 8600291	8600267 8600303	8600279 8600315	8600587.XX 8600599.XX	10
213-5TC 254-6TC	8600044 8600065	8600051 8600072	8600058 8600079	8600528.XX 8600540.XX	8600256 8600292	8600268 8600304	8600280 8600316	8600588.XX 8600600.XX	15
182-4TC 213-5TC	8600024 8600045	8600031 8600052	8600038 8600059	8600517.XX 8600529.XX	8600221 8600257	8600233 8600269	8600245 8600281	8600577.XX 8600589.XX	20
182-4TC 213-5TC	8600102 8600117	8600107 8600122	8600112 8600127	8600518.XX 8600530.XX	8600222 8600258	8600234 8600270	8600246 8600282	8600578.XX 8600590.XX	25
182-4TC 213-5TC	8600025 8600046	8600032 8600053	8600039 8600060	8600519.XX 8600531.XX	8600223 8600259	8600235 8600271	8600247 8600283	8600579.XX 8600591.XX	30
182-4TC 213-5TC	8600026 8600047	8600033 8600054	8600040 8600061	8600520.XX 8600532.XX	8600224 8600260	8600236 8600272	8600248 8600284	8600580.XX 8600592.XX	40
182-4TC	8600027	8600034	8600041	8600521.XX	8600225	8600237	8600249	8600581.XX	50
143-5TC 182-4TC	8600028	8600035	8600042	8600522.XX	8600190 8600226	8600202 8600238	8600214 8600250	8600570.XX 8600582.XX	60
143-5TC 182-4TC	8600103	8600108	8600113	8600523.XX	8600191 8600227	8600203 8600239	8600215 8600251	8600571.XX 8600583.XX	80
143-5TC 182-4TC	8600104	8600109	8600114	8600524.XX	8600192 8600228	8600204 8600240	8600216 8600252	8600572.XX 8600584.XX	100

▲ Consult Factory for other motor flanges available.

\* Catalog numbers are for hollow output shaft reducers.  
When ordering, substitute the XX suffix with the required output bore code.

### Available bore codes

Fraction Size	2"	2-3/16"	2-1/4"	2-7/16"	2-1/2"	2-11/16"	2-15/16"	3"	3-3/16"	3-7/16"
Decimal Size	2.000	2.188	2.250	2.438	2.500	2.688	2.938	3.000	3.188	3.438
Output Bore Code	32	35	36	39	40	43	47	48	51	55

# Maximum Rating Tables

## Size 870, 880, 8100 • GR Series

Single Reduction  
Worm Gear Reducers

Double Reduction  
Worm - Worm Gear Reducers

Double Reduction  
Helical - Worm Gear Reducers

WASHGUARD® Reducers  
and GEAR-MOTOR™

Ratio Multipliers

Accessories and  
Additional Capabilities

### Size 870, 880, 8100

Ratio	Input RPM	Output RPM	Input HP	Output HP	Output Torque (lb-in)	Input HP	Output HP	Output Torque (lb-in)	Input HP	Output HP	Output Torque (lb-in)
<b>5</b>	1750	350	51.1	49.1	9062	66.8	64.3	11866	104.6	100.9	18619
	1170	234	43.3	41.3	11404	56.6	54.1	14932	88.5	84.9	23431
	(5.13 actual) 100	20	9.2	8.18	26416	13.9	12.4	36447	22.1	19.8	63935
<b>7.5</b>	1750	233	41.5	39.6	10572	54.3	52.0	13867	84.4	81.1	21413
	1170	156	35.2	33.3	13304	46.0	43.8	17451	71.4	68.2	26947
	(7.33 actual) 100	13	6.97	6.09	28388	9.72	8.54	39793	16.5	14.6	67727
<b>10</b>	1750	175	35.7	33.8	11893	43.3	41.1	14447	67.1	64.0	22466
	1170	117	30.3	28.5	14967	36.7	34.6	18181	56.8	53.8	28273
	(9.75 actual) 100	10	6.15	5.26	32282	7.96	6.83	41958	13.6	11.8	72712
<b>15</b>	1750	116	25.9	24.2	12827	33.8	31.7	16766	52.7	49.8	26308
	1170	78	22.1	20.4	16143	28.7	26.7	21099	44.8	41.9	33107
	(14.67 actual) 100	6.7	4.16	3.44	31744	5.75	6.82	44195	9.95	8.37	77295
<b>20</b>	1750	87	19.9	18.2	13431	25.9	23.8	17575	40.4	37.3	27597
	1170	58	17.0	15.3	16903	22.1	20.0	22118	34.4	31.4	34730
	(20.50 actual) 100	5.0	3.35	2.60	33520	4.63	3.62	46792	8.01	6.35	82011
<b>25</b>	1750	70	16.9	15.2	13462	21.9	19.9	17578	34.2	31.3	27618
	1170	46	14.0	12.4	16417	18.7	16.7	22122	29.2	26.3	34756
	(24.50 actual) 100	4.0	2.82	2.12	32790	3.86	2.94	45421	6.70	5.18	79871
<b>30</b>	1750	58	14.1	12.5	13356	17.9	16.1	17166	28.5	25.8	27433
	1170	39	11.9	10.3	16491	14.9	13.2	21058	24.4	21.7	34523
	(29.50 actual) 100	3.3	2.30	1.68	31233	2.94	2.21	41088	5.49	4.12	76598
<b>40</b>	1750	43	10.8	9.31	13399	14.0	12.1	17507	21.8	19.0	27471
	1170	29	9.18	7.62	16416	12.1	10.2	22032	18.8	16.0	34571
	100	2.5	1.94	1.28	32194	2.64	1.77	44687	4.54	3.11	78246
<b>50</b>	1750	35	8.74	7.23	13011	11.3	9.46	17028	17.4	14.8	26703
	1170	23	7.43	5.93	15966	9.84	7.96	21429	15.1	12.4	33605
	100	2.0	1.62	0.99	31109	2.22	1.38	43469	3.79	2.41	75935
<b>60</b>	1750	29	7.00	5.66	12220	9.05	7.40	15982	13.9	11.6	25107
	1170	19	6.03	4.69	15143	7.63	6.01	19430	12.1	9.78	31597
	100	1.7	1.27	0.74	28131	1.75	1.04	39244	3.01	1.83	69119
<b>70</b>	1750	21	5.74	4.48	11300	7.37	5.85	14743	11.4	9.22	23235
	1170	14	4.96	3.71	13979	6.24	4.76	17921	9.98	7.76	29240
	100	1.3	1.09	0.60	26222	1.48	0.82	36215	2.59	1.46	64584

Specify model number when ordering reducer size 870, 880 or 8100. Refer to page 19 for how to build a model number.

#### Available bore codes - Size 870

Fraction Size	2-7/16"	2-1/2"	2-11/16"	2-15/16"	3"	3-7/16"	3-15/16"
Decimal Size	2.438	2.500	2.688	2.938	3.000	3.438	3.938
Output Bore Code	39	40	43	47	48	55	63

#### Available bore codes - Size 880

Fraction Size	3-7/16"	3-15/16"	4-3/16"	4-7/16"
Decimal Size	3.438	3.938	4.188	4.438
Output Bore Code	55	63	67	71

#### Available bore codes - Size 8100

Fraction Size	3-7/16"	3-15/16"	4-7/16"	4-15/16"	5-7/16"
Decimal Size	3.438	3.938	4.438	4.938	5.438
Output Bore Code	55	63	71	79	87