



# OHIO GEAR™

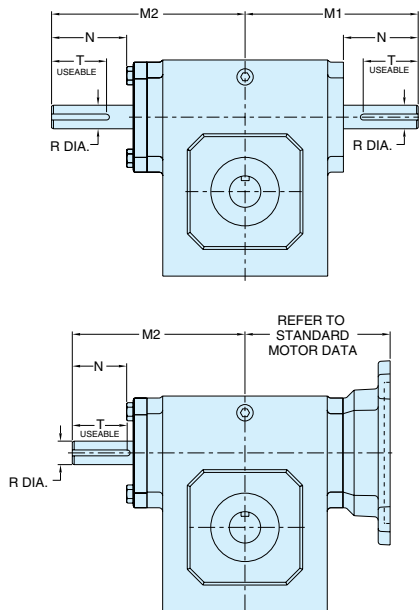
## ADDITIONAL CAPABILITIES



In addition to the thousands of stock/standard IRONMAN BY OHIO GEAR™ products available from LEESON, there are also many special reducer configurations possible. Some of the special features available are listed below.

Contact LEESON with engineering requirements.

- Special Paint
- Custom Mounting Brackets/Bases
- Longer/Shorter Shaft Extensions
- Special Shaft Extension Diameters
- Cross-drilled Holes on Shafts
- Custom Ratios
- Stainless-Steel Hollow Output Shafts
- Reduced Backlash Designs
- Dual Input Shaft Extensions (Detailed Below)



### TYPICAL DUAL INPUT EXTENSION DIMENSIONS AVAILABLE FROM LEESON

Unit	M1	M2	N	R	T**
813	3.82	4.37	1.76	.500	1/8 x 1.44
815	4.35	4.90	1.76	.625	3/16 x 1.50
818	4.45	5.00	1.76	.625	3/16 x 1.50
821	4.82	5.37	1.76	.625	3/16 x 1.50
824	5.51	6.15	2.38	.750	3/16 x 1.50
826	6.07	6.72	2.38	.750	3/16 x 1.50
830	6.57	7.22	2.38	.875	3/16 x 1.50
832	6.76	7.40	2.38	.875	3/16 x 1.50
842	9.57	9.57	3.47	1.250	1/4 x 2.88
852	10.88	10.88	3.38	1.250	1/4 x 3.00
860	11.78	14.55	3.41	1.500	3/8 x 3.00

\*\*Keyway width by length

## PRODUCT LITERATURE

In addition to the information in this catalog, your LEESON distributor or local District Sales Office can provide additional literature, product support or application assistance.



### Bravo® Aluminum Worm Gear Reducers (Bulletin 5050)

Compact, high-performance gear reducers designed as cost-effective drive solutions for OEM's. Variety of output drive mountings available. Bravo® reducers team easily with LEESON motors.



### LeCENTRIC™ Aluminum Inline Gear Reducers (Bulletin 7050)

Light weight, industrial-duty gear reducers, designed for high performance applications. Variety of base and flange mountings available.



### Sub-FHP Gearmotors (Bulletin 1830)

Range of sub-fractional HP AC and DC Gearmotors is reviewed. Both right-angle and parallel shaft models, 5 through 1112 in-lbs torque.

Ratio Multipliers



## MODIFIED STOCK GEAR REDUCERS



## OHIO GEAR™

Quick shipment is standard on all LEESON IRONMAN BY OHIO GEAR™ stock and modified stock gear reducers. A wide range of mounting styles are offered and are listed on the accompanying chart. Start with one of the stock reducer styles shown—add an accessory—and create a new mounting style.

### STYLE T OR U HORIZONTAL BASE



### STYLE J VERTICAL INPUT SHAFT BASE



### STYLE VL OR VH VERTICAL OUTPUT SHAFT BASE



### MOTORIZED C FLANGE QUILL INPUT



(Style BMQ Shown)

### MOTORIZED C FLANGE FLEXIBLE COUPLING INPUT



(Style BM Shown)

### NON-FLANGED



(Style B Shown)

Ratio Multipliers

Type	Stock Reducer Style	T Base Worm Over	U Base Worm Over	J Base	VL Low Base	VH High Base
Single Reduction Solid Shaft	<b>BMQ</b>	<b>TMQ</b>	<b>UMQ *</b>	<b>JMQ</b>	<b>VLMQ</b>	<b>VHMQ</b>
Single Reduction Hollow Shaft	<b>HMQ</b>	—	—	<b>JHMQ</b>	<b>VLHMQ</b>	<b>VHHMQ</b>
Double Reduction Solid Shaft	<b>DMQ</b>	<b>DTMQ</b>	<b>DUMQ *</b>	<b>DJMQ</b>	<b>DVLMQ</b>	<b>DVHMQ</b>
Double Reduction Hollow Shaft	<b>DHMQ</b>	—	—	<b>DJHMQ</b>	<b>DVLHMQ</b>	<b>DVHHMQ</b>
Single Reduction Solid Shaft	<b>BM</b>	<b>TM</b>	<b>UM *</b>	<b>JM</b>	<b>VLM</b>	<b>VHM</b>
Single Reduction Hollow Shaft	<b>HM</b>	—	—	<b>JHM</b>	<b>VLHM</b>	<b>VHHM</b>
Double Reduction Solid Shaft	<b>DM</b>	<b>DTM</b>	<b>DUM *</b>	<b>DJM</b>	<b>DVLM</b>	<b>DVHM</b>
Double Reduction Hollow Shaft	<b>DHM</b>	—	—	<b>DJHM</b>	<b>DVLHM</b>	<b>DVHHM</b>
Single Reduction Solid Shaft	<b>B</b>	<b>T</b>	<b>U *</b>	<b>J</b>	<b>VL</b>	<b>VH</b>
Single Reduction Hollow Shaft	<b>H</b>	—	—	<b>JH</b>	<b>VLH</b>	<b>VHH</b>
Double Reduction Solid Shaft	<b>D</b>	<b>DT</b>	<b>DU *</b>	<b>DJ</b>	<b>DVL</b>	<b>DVH</b>
Double Reduction Hollow Shaft	<b>DH</b>	—	—	<b>DJH</b>	<b>DVLH</b>	<b>DVHH</b>

\* Not a recommended mounting style. Consult LEESON for selection assistance.

For information on WASHGUARD® modifications and accessories, see page 153.

**STYLE F  
OUTPUT  
FLANGE**



**STYLE BF  
OUTPUT  
FLANGE**



**STYLE R  
RISER  
BLOCK**



## Free Mod-Squad™ Service Or Assemble It Yourself!



Any of the modified stock gear reducers shown are available on a quick-shipment basis, factory assembled by the **LEESON Gear Mod-Squad**—at no charge for the labor! Just pay for the accessory item. To order, specify the stock reducer and the Gear Mod-Squad Service Number (see below).

Or **assemble it yourself** by ordering the appropriate stock reducer and accessory kit (see below).

Before ordering, check the dimensional information available in this catalog.

**More LEESON IRONMAN BY OHIO GEAR™ accessories, options and assembly services are available. See next page.**

F Output Flange	BF Output Flange	R Output Flange
<b>FMQ</b>	<b>BFMQ</b>	<b>RMQ</b>
<b>FHMQ</b>	<b>BFHMQ</b>	—
<b>DFMQ</b>	<b>DBFMQ</b>	—
<b>DFHMQ</b>	<b>DBFHMQ</b>	—
<b>FM</b>	<b>BFM</b>	<b>RM</b>
<b>FHM</b>	<b>BFHM</b>	—
<b>DFM</b>	<b>DBFM</b>	—
<b>DFHM</b>	<b>DBFHM</b>	—
<b>F</b>	<b>BF</b>	<b>R</b>
<b>FH</b>	<b>BFH</b>	—
<b>DF</b>	<b>DBF</b>	—
<b>DFH</b>	<b>DBFH</b>	—

Reaction Rod Kit for hollow shaft models and additional accessories and options shown on following page.

See page 169 for accessory weights.

## Ordering Information

### Style T or U Horizontal Base

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style T	Style U	
813	<b>G185000</b>	<b>T813</b>	<b>U813</b>	3
815	<b>G185120</b>	<b>T815</b>	<b>U815</b>	3
818	<b>G185005</b>	<b>T818</b>	<b>U818</b>	3
821	<b>G185010</b>	<b>T821</b>	<b>U821</b>	3
824	<b>G185015</b>	<b>T824</b>	<b>U824</b>	8
826	<b>G185020</b>	<b>T826</b>	<b>U826</b>	10
830	<b>G185121</b>	<b>T830</b>	<b>U830</b>	16
832	<b>G185025</b>	<b>T832</b>	<b>U832</b>	16
842	<b>G185030</b>	<b>T842</b>	<b>U842</b>	18
852	<b>G185035</b>	<b>T852</b>	<b>U852</b>	22
860	<b>G185040</b>	<b>T860</b>	<b>U860</b>	31

### Style J Vertical Input Base

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style J	Style J	
813	<b>G185001</b>	<b>J813</b>	<b>J813</b>	1
815	<b>G185122</b>	<b>J815</b>	<b>J815</b>	2
818	<b>G185006</b>	<b>J818</b>	<b>J818</b>	2
821	<b>G185011</b>	<b>J821</b>	<b>J821</b>	3
824	<b>G185016</b>	<b>J824</b>	<b>J824</b>	3
826	<b>G185021</b>	<b>J826</b>	<b>J826</b>	4
830	<b>G185123</b>	<b>J830</b>	<b>J830</b>	6
832	<b>G185124</b>	<b>J832</b>	<b>J832</b>	6
842	<b>G185125</b>	<b>J842</b>	<b>J842</b>	11
852	<b>G185126</b>	<b>J852</b>	<b>J852</b>	18

### Style VL Vertical Output Shaft Base

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style VL	Style VL	
813	<b>G185002</b>	<b>VL813</b>	<b>VL813</b>	4
815	<b>G185127</b>	<b>VL815</b>	<b>VL815</b>	4
818	<b>G185007</b>	<b>VL818</b>	<b>VL818</b>	4
821	<b>G185012</b>	<b>VL821</b>	<b>VL821</b>	8
824	<b>G185017</b>	<b>VL824</b>	<b>VL824</b>	8
826	<b>G185022</b>	<b>VL826</b>	<b>VL826</b>	11
830	<b>G185128</b>	<b>VL830</b>	<b>VL830</b>	14
832	<b>G185027</b>	<b>VL832</b>	<b>VL832</b>	14
842	<b>G185032</b>	<b>VL842</b>	<b>VL842</b>	28
852	<b>G185037</b>	<b>VL852</b>	<b>VL852</b>	36
860	<b>G185042</b>	<b>VL860</b>	<b>VL860</b>	36

### Style VH Vertical Output Shaft Base

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style VH	Style VH	
813	<b>G185002</b>	<b>VH813</b>	<b>VH813</b>	4
815	<b>G185127</b>	<b>VH815</b>	<b>VH815</b>	4
818	<b>G185007</b>	<b>VH818</b>	<b>VH818</b>	4
821	<b>G185012</b>	<b>VH821</b>	<b>VH821</b>	8
824	<b>G185017</b>	<b>VH824</b>	<b>VH824</b>	8
826	<b>G185022</b>	<b>VH826</b>	<b>VH826</b>	11
830	<b>G185128</b>	<b>VH830</b>	<b>VH830</b>	14
832	<b>G185027</b>	<b>VH832</b>	<b>VH832</b>	14
842	<b>G185032</b>	<b>VH842</b>	<b>VH842</b>	28
852	<b>G185037</b>	<b>VH852</b>	<b>VH852</b>	36
860	<b>G185042</b>	<b>VH860</b>	<b>VH860</b>	36

### Style F Output Flange - Cast Iron

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style F	Style F	
813	<b>G185130</b>	<b>F813</b>	<b>F813</b>	1
815	<b>G185131</b>	<b>F815</b>	<b>F815</b>	2
818	<b>G185132</b>	<b>F818</b>	<b>F818</b>	3
821	<b>G185133</b>	<b>F821</b>	<b>F821</b>	4
824▼	<b>G185134</b>	<b>F824</b>	<b>F824</b>	5
826▼	<b>G185135</b>	<b>F826</b>	<b>F826</b>	5
830▼	<b>G185136</b>	<b>F830</b>	<b>F830</b>	16
832▼	<b>G185137</b>	<b>F832</b>	<b>F832</b>	16
842▼	<b>G185138</b>	<b>F842</b>	<b>F842</b>	12
852▼	<b>G185139</b>	<b>F852</b>	<b>F852</b>	28
860▼	<b>G185140</b>	<b>F860</b>	<b>F860</b>	12

### Style R Riser Block

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style R	Style R	
815	<b>G185141</b>	<b>R815</b>	<b>R815</b>	7
818	<b>G185142</b>	<b>R818</b>	<b>R818</b>	7
821	<b>G185143</b>	<b>R821</b>	<b>R821</b>	9
824	<b>G185144</b>	<b>R824</b>	<b>R824</b>	9
826	<b>G185145</b>	<b>R826</b>	<b>R826</b>	17
830	<b>G185146</b>	<b>R830</b>	<b>R830</b>	15
832	<b>G185147</b>	<b>R832</b>	<b>R832</b>	31
842	<b>G185148</b>	<b>R842</b>	<b>R842</b>	24
852	<b>G185149</b>	<b>R852</b>	<b>R852</b>	15

▼ Flanges for sizes 824 - 860 with solid output shafts must be assembled at LEESON.



## MODIFIED STOCK GEAR REDUCERS



# OHIO GEAR™

### BM STYLE INPUT FLANGE KITS\*\*



Series		48CZ	56C	143-5TC	182-4TC	213-5TC	254-6TC
813	Catalog No.	<b>G185161</b>	<b>G185090</b>	--	--	--	--
	Weight (lbs)	7	7	--	--	--	--
815	Catalog No.	<b>G185162</b>	<b>G185163</b>	<b>G185164</b>	--	--	--
	Weight (lbs)	7	7	7	--	--	--
818	Catalog No.	<b>G185165</b>	<b>G185091</b>	<b>G185092</b>	--	--	--
	Weight (lbs)	7	7	7	--	--	--
821	Catalog No.	<b>G185166</b>	<b>G185093</b>	<b>G185094</b>	--	--	--
	Weight (lbs)	7	7	7	--	--	--
824	Catalog No.	--	<b>G185095</b>	<b>G185096</b>	<b>G185097</b>	--	--
	Weight (lbs)	--	8	8	11	--	--
826	Catalog No.	--	<b>G185098</b>	<b>G185099</b>	<b>G185100</b>	--	--
	Weight (lbs)	--	8	8	11	--	--
830	Catalog No.	--	<b>G185167</b>	<b>G185168</b>	<b>G185169</b>	--	--
	Weight (lbs)	--	11	11	11	--	--
832	Catalog No.	--	<b>G185101</b>	<b>G185102</b>	<b>G185103</b>	<b>G185170</b>	--
	Weight (lbs)	--	11	11	11	11	--
842	Catalog No.	--	<b>G185171</b>	<b>G185104</b>	<b>G185105</b>	<b>G185106</b>	<b>G185172</b>
	Weight (lbs)	--	14	14	16	16	30
852	Catalog No.	--	--	<b>G185173</b>	<b>G185107</b>	<b>G185108</b>	<b>G185109</b>
	Weight (lbs)	--	--	16	18	18	30
860	Catalog No.	--	--	--	<b>G185174</b>	<b>G185110</b>	<b>G185111</b>
	Weight (lbs)	--	--	--	22	22	32

\*\* All kits include flexible coupling.

### DOUBLE REDUCTION ADAPTOR KITS



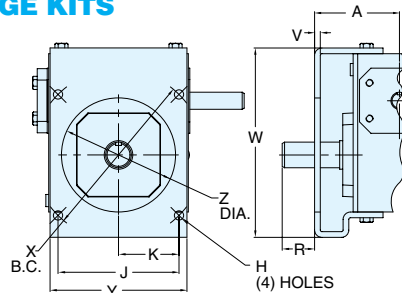
Series	Accessory Kit Only Catalog #	Primary Unit Size	Secondary Unit Quill Size	Weight (lbs.)
813 - 821	<b>G185150</b>	<b>813</b>	56C	3
824	<b>G185151</b>	<b>813</b>	56C	3

### REACTION ROD KITS



Series	Accessory Kit Only Catalog #	Weight (lbs.)
813 - 842	<b>G185152</b>	5
852 - 860	<b>G185153</b>	5

### BF STYLE OUTPUT FLANGE KITS



#### Style BF Output Flange - Steel

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number Style BF	Weight (lbs)
813	<b>G185004</b>	<b>BF813</b>	6
818	<b>G185009</b>	<b>BF818</b>	6
821	<b>G185014</b>	<b>BF821</b>	10
824	<b>G185019</b>	<b>BF824</b>	10
826	<b>G185024</b>	<b>BF826</b>	13

#### Style BF Output Flange Kits

Series	A	H	J	K	R	V	W	X	Y	Z
<b>813</b>	3.00	0.34	3.54	1.77	1.00	0.19	5.55	5.00	4.25	3.62
<b>818</b>	3.50	0.34	4.16	2.08	0.81	0.19	6.66	5.88	4.81	4.06
<b>821</b>	3.75	0.41	4.60	2.30	0.93	0.19	7.47	6.50	5.75	4.50
<b>824</b>	3.72	0.41	5.30	2.65	1.37	0.25	8.30	7.50	6.00	5.00
<b>826</b>	4.06	0.41	5.66	2.83	1.57	0.25	9.25	8.00	7.18	6.00



Ratio Multipliers

**WASHGUARD® • STYLE T OR U**



**Style T or U Horizontal Base**

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style T	Style U	
813	<b>G185045</b>	<b>WT813</b>	<b>WU813</b>	3
815	<b>G185180</b>	<b>WT815</b>	<b>WU815</b>	3
818	<b>G185046</b>	<b>WT818</b>	<b>WU818</b>	3
821	<b>G185047</b>	<b>WT821</b>	<b>WU821</b>	3
824	<b>G185048</b>	<b>WT824</b>	<b>WU824</b>	8
826	<b>G185049</b>	<b>WT826</b>	<b>WU826</b>	10
830	<b>G185181</b>	<b>WT830</b>	<b>WU830</b>	16
832	<b>G185182</b>	<b>WT832</b>	<b>WU832</b>	16

**WASHGUARD® • STYLE J**



**Style J Vertical Input Base**

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style J	Style J	
813	<b>G185054</b>	<b>WJ813</b>	<b>WJ813</b>	1
815	<b>G185183</b>	<b>WJ815</b>	<b>WJ815</b>	2
818	<b>G185055</b>	<b>WJ818</b>	<b>WJ818</b>	2
821	<b>G185056</b>	<b>WJ821</b>	<b>WJ821</b>	3
824	<b>G185057</b>	<b>WJ824</b>	<b>WJ824</b>	3
826	<b>G185058</b>	<b>WJ826</b>	<b>WJ826</b>	4
830	<b>G185184</b>	<b>WJ830</b>	<b>WJ830</b>	6
832	<b>G185185</b>	<b>WJ832</b>	<b>WJ832</b>	6

**WASHGUARD® • STYLE VL AND VH**



**Style VL & VH Vertical Output Base\***

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style VL	Style VH	
813	<b>G185063</b>	<b>WVL813</b>	<b>WVH813</b>	4
815	<b>G185186</b>	<b>WVL815</b>	<b>WVH815</b>	4
818	<b>G185064</b>	<b>WVL818</b>	<b>WVH818</b>	4
821	<b>G185065</b>	<b>WVL821</b>	<b>WVH821</b>	8
824	<b>G185066</b>	<b>WVL824</b>	<b>WVH824</b>	8
826	<b>G185067</b>	<b>WVL826</b>	<b>WVH826</b>	11
830	<b>G185187</b>	<b>WVL830</b>	<b>WVH830</b>	14
832	<b>G185188</b>	<b>WVL832</b>	<b>WVH832</b>	14

\* Style VL and VH mountings use the same base with a different assembly position.

**WASHGUARD® • STYLE F**



**Style BF Output Flange - Steel**

Series	Accessory Kit Only Catalog No.	Mod-Squad™ Service Number		Weight (lbs)
		Style BF	Style BF	
813	<b>G185081</b>	<b>WBF813</b>	<b>WBF813</b>	6
818	<b>G185082</b>	<b>WBF818</b>	<b>WBF818</b>	6
821	<b>G185083</b>	<b>WBF821</b>	<b>WBF821</b>	10
824	<b>G185084</b>	<b>WBF824</b>	<b>WBF824</b>	10
826	<b>G185085</b>	<b>WBF826</b>	<b>WBF826</b>	13