



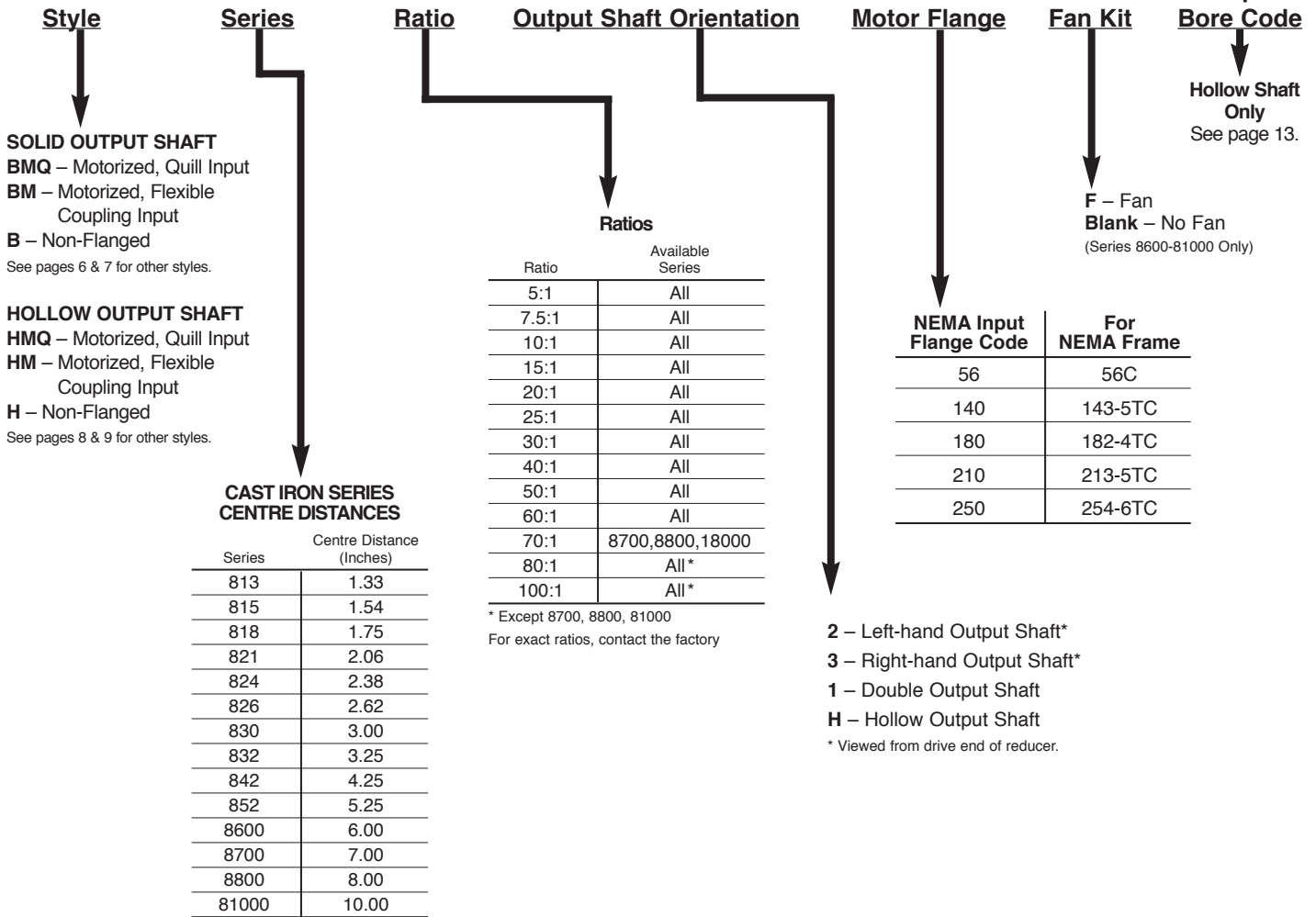
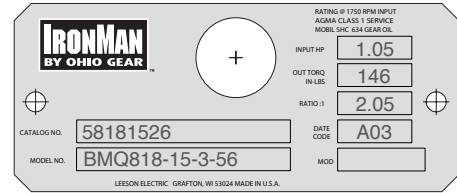
SINGLE REDUCTION MODEL NUMBER SYSTEM

LEESON CANADA Gear Reducer Model Number System

All stock and custom reducers are identified by a model number. The model number appears on the nameplate and describes pertinent features of the reducer. An example follows, along with a listing of the various letters and positions used.

Note: When ordering a double input shaft for single reduction units, include the letter "A" added to the output shaft orientation number in the unit description (e.g.: BMQ 826-30-2A-56). When requesting a double input shaft for double and triple reduction units, contact the factory. For availability of vertical double input shafts, consult the factory.

TYPICAL NAMEPLATE



Sample Model Number

Solid Shaft

Motorized Quill Input, Single Reduction Reducer, 1.75" Centre Distance, 15:1 Ratio, Left Hand Output Shaft, and 5/8" Input Bore with NEMA 56C Flange.

BMQ **818** **15** **2** **56**
 Style Series Ratio Mounting Assembly Motor Input Flange

Hollow Shaft

Motorized Quill Input, Single Reduction Reducer, 1.75" Centre Distance, 15:1 Ratio, 1.00" Hollow Output Shaft, and 5/8" Input Bore with NEMA 56C Flange.

HMQ **818** **15** **H** **56** **16**
 Style Series Ratio Mounting Assembly Motor Input Flange Output Bore Code

1. Pick a mounting style - Pages 6-9

2. Determine the Service Factor - Page 92



Duration of Service (Hours per day)	Uniform Load	Moderate Shock	Heavy Shock
Occasional 1-2 Hour	...*	...*	1.0
Less than 3 Hours	1.00	1.00	1.0
3 - 10 Hours	1.00	1.25	1.0
Over 10 Hours	1.25	1.50	1.0

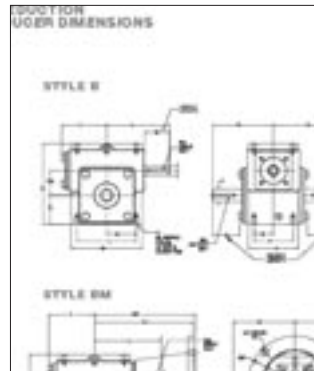
* Unspecified service factors should be 1.00 or as agreed upon by the user.

3. Match Input HP to Service Factor or Multiply Input HP by Service Factor - Page 12

4. Select Series - Pages 14-17

5. Check Thrust and Overhung Load Capacities - Page 93

6. Verify Dimensions - Pages 18-39





SINGLE REDUCTION QUICK SELECTION TABLES

How to Use

Based on required output RPM and input motor horsepower, read across chart for the appropriate 800 Series model. As a rule of thumb, use 1.00 service factor chart for applications having uniform loads with up to 10 hours service duration per day. Use 1.25 service factor chart for longer service or shock loading. These charts are to be considered as guides only. Typically double reduction reducers are selected based on application torque, not necessarily HP. Refer to page 172 or your LEESON CANADA representative with specific application information.

Series numbers correspond to center distances of secondary stage reducer, as shown in the chart below.

1.00 SERVICE FACTOR • SINGLE REDUCTION

Reduc. Ratio	Output RPM	INPUT HORSEPOWER @ 1750 RPM																			
		1/6	1/4	1/3	1/2	3/4	1	1½	2	3	5	7½	10	15	20	25	30	40	50	60	75
5	350	813	813	813	813	813	813	815	821	824	830	832	842	852	852	8600	8700	8700	8800	81000	8100
7.5	233	813	813	813	813	813	815	818	821	824	830	832	842	852	852	8600	8700	8700	8800	81000	81000
10	175	813	813	813	813	813	815	821	821	824	830	842	842	852	8600	8700	8700	8800	81000	81000	
15	117	813	813	813	813	815	818	821	824	830	832	842	852	8600	8700	8700	8800	81000	81000		
20	87.5	813	813	813	815	818	821	824	826	830	842	842	852	8700	8700	8800	81000	81000			
25	70.0	813	813	813	815	821	821	824	830	832	842	852	8600	8700	8800	81000	81000				
30	58.3	813	813	813	818	821	824	826	830	832	842	852	8700	8800	81000	81000					
40	43.8	813	813	815	821	824	824	830	832	842	852	8600	8700	81000	81000						
50	35	813	815	815	821	824	826	830	842	842	852	8700	8800	81000							
60	29.2	813	815	821	824	826	830	832	842	852	8600	8800	81000								
70	25.0	NA	NA	NA	NA	NA	NA	NA	NA	8700	8800	81000									
80	21.9	815	821	824	826	830	832	842	852	8600											
100	17.5	821	824	826	830	842	842	852	852												

NOTE: This chart is meant only as a guide. For actual ratings see pages 14 – 17.

1.25 SERVICE FACTOR • SINGLE REDUCTION

Reduc. Ratio	Output RPM	INPUT HORSEPOWER @ 1750 RPM																			
		1/6	1/4	1/3	1/2	3/4	1	1½	2	3	5	7½	10	15	20	25	30	40	50	60	75
5	350	813	813	813	813	813	815	821	821	824	830	842	842	852	852	8600	8700	8700	8800	81000	81000
7.5	233	813	813	813	813	815	815	821	824	826	832	842	842	852	8600	8700	8700	8800	81000	81000	
10	175	813	813	813	813	815	818	821	824	826	832	842	842	852	8700	8700	8800	81000	81000		
15	117	813	813	813	815	818	821	824	826	830	842	842	852	8700	8700	8800	81000	81000			
20	87.5	813	813	813	815	821	821	824	830	832	842	842	8600	8700	8800	81000	81000				
25	70	813	813	815	818	821	824	826	830	842	842	852	8700	8800	81000	81000					
30	58.3	813	813	815	821	824	824	830	832	842	852	852	8700	81000	81000						
40	43.8	813	815	818	821	824	826	832	842	842	852	8600	8800	81000							
50	35	813	815	821	824	826	830	832	842	852	8600	8700	81000								
60	29.2	815	818	821	824	830	830	832	842	852	8700	8800	81000								
70	25	NA	NA	NA	NA	NA	NA	8700	8700	8800	81000										
80	21.9	815	821	824	830	832	842	852	852	8600											
100	17.5	821	824	830	832	842	852	852	8600												

NOTE: This chart is meant only as a guide. For actual ratings see pages 14 – 17.

Series Key	
Series Number	Centre Distance (In.)
813	1.33
815	1.54
818	1.75
821	2.06
824	2.38
826	2.62
830	3.00
832	3.25
842	4.25
852	5.25
8600	6.00
8700	7.00
8800	8.00
81000	10.00

See page 90 for shipping weight information.

HOLLOW SHAFT BORE SIZES (Inches)*

Fraction Size	Decimal Size	Output Bore Code	813	815	818	821	824	826	830	832	842	852	8600	8700	8800	81000	Keyway**
5/8	0.625	10	■	■	■												3/16 x 3/32
11/16	0.688	11			■												3/16 x 3/32
3/4	0.750	12			■												3/16 x 3/32
7/8	0.875	14			■												3/16 x 3/32
1	1.000	16			■	■	■	■									1/4 x 1/8
1-1/8	1.125	18				■	■	■									1/4 x 1/8
1-3/16	1.188	19				■	■	■	■	■							1/4 x 1/8
1-1/4	1.250	20				■	■	■	■	■							1/4 x 1/8
1-7/16	1.438	23				■	■	■	■	■	■						3/8 x 3/16
1-1/2	1.500	24							■	■	■						3/8 x 3/16
1-5/8	1.625	26							■	■	■						3/8 x 3/16
1-11/16	1.688	27							■	■	■						3/8 x 3/16
1-3/4	1.750	28							■	■	■						3/8 x 3/16
1-7/8	1.875	30									■						1/2 x 1/4
1-15/16	1.938	31							■	■	■						1/2 x 1/4
2	2.000	32									■	■	■				1/2 x 1/4
2-3/16	2.188	35										■	■	■			1/2 x 1/4
2-1/4	2.250	36										■	■				1/2 x 1/4
2-7/16	2.438	39										■	■	■			5/8 x 5/16
2-1/2	2.500	40										■	■	■			5/8 x 5/16
2-11/16	2.688	43										■	■	■			5/8 x 5/16
2-15/16	2.938	47										■	■	■			3/4 x 3/8
3	3.000	48										■	■	■			3/4 x 3/8
3-3/16	3.188	51										■	■				3/4 x 3/8
3-7/16	3.438	55										■	■	■	■	■	7/8 x 7/16
3-15/16	3.937	63												■	■	■	1 x 1/2
4-3/16	4.187	67													■		1 x 1/2
4-7/16	4.437	71													■	■	1 x 1/2
4-15/16	4.937	79														■	1-1/4 x 5/8
5-7/16	5.437	87														■	1-1/4 x 5/8

■ Stock Bore Sizes.

* Other bore sizes are available. Contact LEESON for sizes and availability.

** Dimensions refer to customer driven shaft.

NOTE: Specify the required bore size when ordering. The suffix "XX" can be substituted with the bore code from table above. Refer to page 10 for complete model number description.