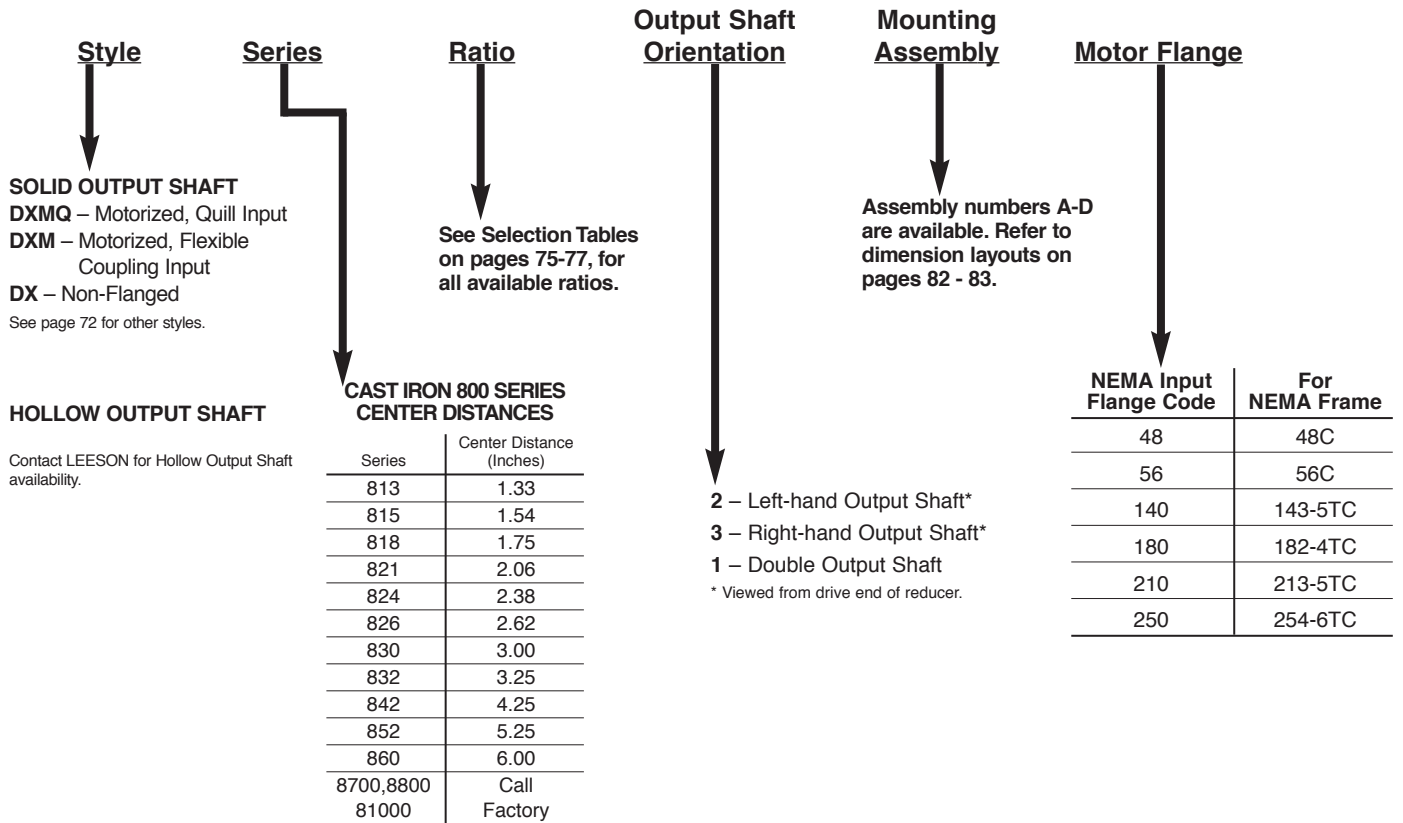
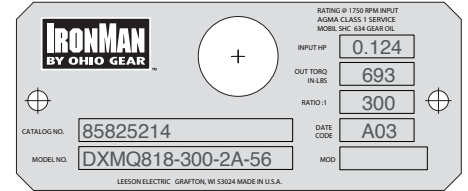


LEESON 800 Series Gear Reducer Model Number Nomenclature

All stock and custom 800 series reducers are identified by a model number. The model number appears on the nameplate and describes pertinent features of the reducer. An example follows, along with a listing of the various letters and positions used.

NOTE: All reducers also have a catalog number—for example 85825214. Reducers and renewal parts should be ordered by catalog number. If a stock reducer has been factory modified by the addition of an optional base for example, the modification number T818, for example, is stamped in the blank column of the nameplate. Accessories that are field installed will not be noted on the nameplate.

TYPICAL NAMEPLATE



Sample Model Number

Solid Shaft

Motorized Quill Input, Double Reduction Reducer, 1.75" Center Distance, 300:1 Ratio, Left Hand Output Shaft, Right Angle Input & Output Shafts and 5/8" Input Bore with NEMA 56C Flange.

DXMQ 818 300 2 A 56
 Style Series Ratio Output Shaft Mounting Assembly Motor Input Flange



DOUBLE REDUCTION • HELICAL / WORM "HOW TO USE" MAXIMUM RATING TABLES

How To Use Maximum Rating Tables

Maximum Rating Tables for Double Reduction Gear Reducers are shown on pages 75-77. Selection of the appropriate gear reducer can be made using these tables or the Quick Selection Tables (page 78).

BEFORE YOU START:

Identify the Service Factor of the application (see page 92).

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 page 72.

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

1 Locate the Input RPM and Output RPM columns in the charts beginning on page 75. Scroll down the Input RPM column to locate a listing where the desired input speed corresponds to the output speed required in your application. This will establish your overall gear ratio. (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.)



821 Series • 1.0 S.F.

	813 Series				815 Series				818 Series				821 Series					
	Input RPM	Output RPM	Output TC (Rev)	Feed Rate	Input HP	Output HP	Output TC (Rev)	Feed Rate	Input HP	Output HP	Output TC (Rev)	Feed Rate	Input HP	Output HP	Output TC (Rev)	Feed Rate		
10	1750	175	0.800	0.390	312	10.29	1.120	0.250	347	10.29	1.360	1.350	409	10.29	1.790	1.340	574	10.29
15	1750	117	0.540	0.460	348	15.42	0.850	0.710	385	15.42	1.200	1.200	542	14.84	1.810	1.410	762	15.42
20	1750	88	0.480	0.380	372	20.56	0.710	0.580	406	20.56	0.940	0.790	570	20.00	1.360	1.190	847	20.56
25	1750	70	0.320	0.270	391	25.56	0.550	0.450	409	25.56	0.750	0.640	588	25.56	0.910	0.750	689	25.56
30	1750	66	0.300	0.270	390	30.83	0.550	0.400	432	30.83	0.670	0.570	578	30.83	1.000	0.840	911	29.29
40	1750	44	0.280	0.210	397	40.30	0.430	0.320	462	40.30	0.490	0.410						
45	1750	38	0.280	0.190	307	43.83	0.420	0.290	471	43.83	0.490	0.380						
50	1750	36	0.216	0.168	302	51.11	0.300	0.260	474	51.11	0.400	0.300						
60	1750	29	0.202	0.146	318	60.00	0.230	0.230	491	60.00	0.390	0.300						
75	1750	23.33	0.186	0.118	321	76.67	0.280	0.190	504	76.67	0.320	0.240						

2 Move across the table to the Input HP columns 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.).

3 Identify the model number of the reducer by consulting page 73.

125	1750	14.00	0.118	0.075	329	127.78	0.200	0.110	518	127.78	0.200	0.140	629	127.78	0.310	0.220	1004	127.78
150	1750	11.67	0.108	0.081	329	153.33	0.180	0.096	518	153.33	0.198	0.124	667	153.33	0.290	0.200	1063	153.33
200	1750	8.75	0.084	0.044	318	204.44	0.138	0.071	514	204.44	0.151	0.088	641	204.44	0.240	0.150	1041	204.44
250	1750	7.00	0.068	0.033	339	255.56	0.134	0.060	498	255.56	0.122	0.067	603	255.56	0.198	0.107	964	255.56
			0.027	0.017	298.66		0.118	0.049	521	298.66	0.108	0.061	616	298.66	0.172	0.100	1069	298.66
			0.016	0.008	413.33		0.117	0.044	472	413.33	0.068	0.031	401	413.33	0.100	0.048	710	413.33
			0.010	0.005	516.67		0.083	0.017	308	516.67	0.046	0.019	348	516.67	0.081	0.032	590	516.67
			0.011	0.002	596.82		0.065	0.019	403	596.82	0.049	0.021	409	596.82	0.073	0.034	734	596.82

4 Check load capacities against the needs of your application. Do not exceed the overhung load (OHL) capacity or the thrust load (TL). Detailed instructions for calculating the actual overhung load are shown on page 93. If overhung and thrust loads will be applied simultaneously or if the load exceeds listed capacities, contact LEESON.

5 Verify physical dimensions using the dimensional drawings shown on pages 80-83.