



1.00 SERVICE FACTOR • DOUBLE REDUCTION • WORM / WORM

Overall Ratio	Nominal Output RPM	INPUT HORSEPOWER @ 1750 RPM											
		1/8	1/6	1/4	1/3	1/2	3/4	1	1-1/2	2	3	5	7-1/2
75	23.3		813	815	818	821	824	826	830	842	852	860	860
100	17.5		815	815	821	824	826	830	832	842	852	860	860
150	11.7		815	821	824	826	830	832	842	842	852	860	
200	8.75		821	821	824	826	830	832	842	842	852		
250	7.00		821	824	826	830	832	842	842	852	852		
300	5.83		821	824	826	830	832	842	852	852	860		
400	4.38		824	826	830	832	842	842	852	852			
600	2.92		824	830	830	832	842	852	852	860			
900	1.94		830	830	832	842	852	852	860				
1200	1.46		830	832	832	842	852	852					
1500	1.17		830	832	842	852	852	860					
1800	0.972		830	832	842	852	852	860					
2400	0.729		832	842	842	852	860						
3000	0.583		832	842	852	852							
3600	0.486		842	852	852	852							

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 173 or your LEESON representative with specific application information.

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

Double Reduction Worm/Worm Gear Reducers

1.25 SERVICE FACTOR • DOUBLE REDUCTION • WORM / WORM

Overall Ratio	Nominal Output RPM	INPUT HORSEPOWER @ 1750 RPM										
		1/8	1/6	1/4	1/3	1/2	3/4	1	1-1/2	2	3	5
75	23.3	813	815	818	821	824	826	830	842	842	852	860
100	17.5	815	815	821	821	824	830	830	842	842	852	860
150	11.7	815	821	821	824	826	830	832	842	852	852	
200	8.75	818	821	824	826	830	832	842	842	852	860	
250	7.00	821	824	824	830	830	842	842	852	852	860	
300	5.83	821	824	826	830	832	842	842	852	852		
400	4.38	824	824	830	830	832	842	852	852	860		
600	2.92	824	826	830	832	842	852	852	860			
900	1.94	826	830	832	842	842	852	852				
1200	1.46	830	830	832	842	852	852	860				
1500	1.17	830	830	842	842	852	860					
1800	0.972	830	832	842	842	852	860					
2400	0.729	830	832	842	852	852						
3000	0.583	832	842	852	852	860						
3600	0.486	842	842	852	852	860						

800 SERIES REDUCER CENTER DISTANCES

Series	Center Distance (Inch)
813	1.33
815	1.50
818	1.75
821	2.06
824	2.38
826	2.62
830	3.00
832	3.25
842	4.25
852	5.25
860	6.00

DOUBLE REDUCTION • WORM / WORM EXACT RATIO COMBINATIONS

Total Ratio	GEAR REDUCER SIZE																							
	813		815		818		821		824		826		830		832		842		852		860			
	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S	P	S		
75	813	813	813	815	813	813	815	813	813	821	813	824	813	826	815	830	815	832	821	842	826	852	832	860
100	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5	15	5.17	15	5.17	15
150	5	20	5	20	5	20	5	20	5	20	5	20	5	20	5	20	5	20	5	20	5.17	20	5.17	20
200	10	15	7.5	20	10	15	10	15	10	15	10	15	7.5	20	10	15	5	30	7.5	20	7.5	20	10	15
250	10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20	10	20
300	10	25	10	25	10	25	10	25	10	25	10	25	10	25	10	25	10	25	10	25	10	25	10	25
400	10	30	15	20	10	30	15	20	15	20	15	20	20	15	10	30	15	20	15	20	15	20	15	20
600	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
900	20	30	30	20	20	30	30	20	20	30	30	20	30	30	20	30	30	20	30	20	30	20	30	20
1200	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	60	15
1500	40	30	60	20	40	30	40	30	40	30	60	20	40	30	40	30	40	30	40	30	40	30	60	20
1800	60	25	60	25	50	30	50	30	50	30	60	25	60	25	50	30	50	30	60	25	60	25	60	25
2400	60	30	60	30	60	30	60	30	60	30	60	30	60	30	60	30	60	30	60	30	60	30	60	30
3000	60	40	60	40	60	40	60	40	60	40	60	40	60	40	60	40	60	40	60	40	60	40	60	40
3600	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50	60	50
3600	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60

Note: Exact ratios are listed. P = Primary stage reducer ratio S = Secondary stage reducer ratio