



Cleveland Gear

HAMPTON WG SPEED REDUCERS



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Single Reduction Reducers Horsepower and Torque Ratings

The horsepower/torque rating values shown apply to all Single Reduction series regardless of model. The values are all published at AGMA service factor 1.0 but may be modified from time to time by the use of a different service factor. Listed here are the maximum torque in inch/pounds and output horsepower values for all standard ratios at se-

lected input speeds.

The effective service factor of any unit selected is the product of the rated gearbox input horsepower divided by the horsepower rating of the motor used.

The efficiency of the unit is the product of the output horsepower divided by the input horsepower. We conservatively derate calculated gearset losses by 10% to

approximate other friction losses. Other manufacturers do not derate this much, if at all, so use caution in comparisons.

The actual horsepower or torque at the output shaft for any specific application is the product of the motor horsepower or torque demanded by the load multiplied by reducer efficiency.

The horsepower value of

the electric motor used should never exceed the published input horsepower in the following tables unless a service factor less than 1.0 is appropriate (very light duty applications).

When table output torque ratings are the same for different input RPM's, the output shaft torque limitations have been reached. To stay within design limitations, torque becomes a constant and input horsepower must be reduced as RPM is lowered.

Size 34 U models, 1 1/8 inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1500 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
10	.62	.48	169	.57	.43	181	.48	.36	189	.38	.29	201	.32	.24	256	.17	.13	265
15	.50	.39	209	.45	.34	215	.39	.30	234	.31	.23	246	.26	.20	312	.14	.11	340
20	.36	.23	168	.32	.21	174	.27	.18	189	.22	.14	201	.19	.13	265	.09	.06	265
25	Available. Contact CGC for ratings, price and delivery.																	
30	.27	.16	175	.24	.14	161	.21	.13	198	.17	.11	227	.14	.09	284	.07	.05	284
40	.22	.14	194	.20	.13	212	.17	.11	227	.14	.08	227	.12	.07	302	.03	.04	302
50	.18	.11	194	.16	.10	208	.14	.09	237	.12	.07	252	.10	.06	312	.05	.04	312
60	.15	.08	174	.14	.07	181	.12	.06	159	.09	.05	189	.08	.05	284	.04	.02	227

Size 45 U models, 1 3/4 inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1500 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for ratings, price and delivery.																	
10	1.08	.88	318	.98	.80	337	.87	.71	373	.67	.54	378	.44	.35	369	.23	.19	397
15	.81	.62	336	.74	.57	358	.62	.48	248	.49	.37	388	.32	.24	383	.17	.13	397
20	.60	.42	303	.54	.38	326	.47	.32	352	.40	.27	387	.30	.21	450	.15	.11	454
25	Available. Contact CGC for ratings, price and delivery.																	
30	.51	.36	389	.45	.32	397	.39	.27	425	.28	.20	416	.21	.14	454	.12	.09	567
40	.33	.22	311	.30	.19	318	.27	.17	359	.21	.14	378	.14	.09	378	.08	.05	454
50	.30	.18	324	.27	.16	340	.24	.14	378	.19	.11	378	.24	.14	321	.14	.07	425
60	.23	.14	291	.21	.12	294	.18	.10	312	.16	.09	378	.11	.05	340	.06	.04	454

Size 50 All single reduction models, 1 31/32 inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10	1.48	1.19	410	1.21	.943	490	.936	.719	500	.638	.479	500	.332	.240	500	.117	.080	500
15	1.11	.85	440	.87	.639	500	.664	.479	500	.456	.319	500	.240	.160	500	.086	.053	500
20	.66	.50	350	.53	.382	400	.432	.308	430	.312	.219	460	.177	.116	490	.065	.040	500
25	.76	.49	430	.63	.383	500	.493	.288	500	.344	.192	500	.189	.096	500	.072	.032	500
30	.70	.47	490	.51	.319	500	.393	.240	500	.276	.160	500	.150	.080	500	.056	.027	500
40	.45	.29	410	.37	.227	480	.303	.180	500	.212	.120	500	.115	.060	500	.043	.020	500
50	.40	.23	400	.34	.178	460	.306	.143	500	.204	.096	500	.113	.048	500	.044	.016	500
60	.33	.19	400	.27	.146	460	.223	.117	490	.161	.079	500	.088	.040	500	.033	.013	500
70	.23	.11	260	.20	.084	310	.182	.070	340	.148	.053	390	.093	.029	420	.040	.010	440

Size 60 All single reduction models, 2 $\frac{3}{8}$ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10	2.46	1.98	690	2.06	1.62	850	1.75	1.35	950	1.33	1.01	1060	.723	.528	1110	.257	.176	1110
15	1.84	1.42	750	1.54	1.15	910	1.32	.96	1010	.99	.71	1110	.522	.353	1110	.189	.117	1110
20	1.26	.93	650	1.05	.74	780	.91	.63	880	.70	.47	980	.410	.257	1080	.155	.088	1110
25	1.22	.85	740	1.05	.70	910	.91	.58	1020	.69	.42	1110	.372	.212	1110	.140	.071	1110
30	1.15	.78	820	.98	.63	990	.85	.52	1100	.59	.35	1110	.322	.176	1110	.121	.059	1110
40	.85	.54	760	.74	.43	910	.64	.36	1010	.49	.26	1110	.273	.132	1110	.105	.044	1110
50	.77	.48	850	.63	.37	980	.53	.31	1070	.39	.21	1110	.211	.106	1110	.079	.035	1110
60	.65	.39	820	.53	.30	960	.45	.25	1040	.34	.18	1110	.187	.088	1110	.070	.029	1110
70	.33	.18	471	.28	.17	550	.25	.11	610	.19	.08	660	.116	.044	710	.048	.016	740

Size 70 All single reduction models, 2 $\frac{3}{4}$ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10*	3.63	2.95	1030	3.09	2.46	1290	2.68	2.09	1460	2.07	1.59	1670	1.21	.894	1880	.462	.319	2010
15	2.52	1.96	1030	2.16	1.64	1290	1.87	1.38	1450	1.45	1.05	1650	.86	.589	1860	.333	.210	1980
20	1.92	1.47	1030	1.62	1.19	1250	1.38	.98	1380	1.05	.74	1550	.61	.407	1710	.236	.143	1810
25	1.82	1.27	1110	1.60	1.08	1410	1.42	.91	1590	1.15	.70	1840	.71	.402	2110	.287	.143	2250
30	1.77	1.22	1280	1.54	1.01	1600	1.35	.85	1790	1.07	.65	2050	.64	.358	2250	.243	.119	2250
40	1.28	.85	1200	1.09	.68	1440	.95	.57	1600	.74	.43	1790	.44	.234	1970	.178	.083	2080
50	1.11	.71	1250	.94	.56	1470	.81	.47	1630	.63	.34	1800	.37	.186	1950	.150	.065	2060
60	.96	.57	1210	.81	.45	1410	.70	.37	1560	.54	.27	1700	.32	.145	1830	.129	.051	1910
70	.72	.40	1010	.63	.32	1210	.56	.26	1340	.44	.20	1520	.27	.108	1650	.113	.038	1730

*WTC for 182/4 not available.

Size 80 All single reduction models, 3 $\frac{5}{8}$ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10	4.95	4.03	1410	4.24	3.41	1790	3.70	2.91	2040	2.93	2.26	2370	1.75	1.30	2730	.672	.468	2950
15	3.68	2.88	1510	3.17	2.43	1920	2.77	2.07	2170	2.20	1.59	2510	1.33	.92	2890	.520	.331	3130
20	2.73	2.05	1440	2.37	1.74	1830	2.09	1.48	2070	1.67	1.14	2390	1.01	.65	2740	.403	.235	2960
25	2.59	1.92	1680	2.24	1.60	2100	1.95	1.35	2360	1.53	1.02	2690	.92	.57	3020	.361	.204	3210
30	2.38	1.66	1740	2.08	1.40	2210	1.85	1.19	2490	1.50	.92	2890	.90	.51	3210	.340	.170	3210
40	1.75	1.14	1590	1.55	.96	2030	1.38	.81	2280	1.13	.63	2630	.72	.36	3020	.293	.127	3210
50	1.60	1.01	1770	1.42	.84	2220	1.25	.71	2470	1.01	.54	2840	.62	.30	3180	.244	.102	3210
60	1.30	.79	1670	1.14	.65	2040	1.00	.54	2260	.80	.41	2590	.49	.26	2850	.203	.080	3030
70	.94	.53	1320	.85	.44	1640	.76	.37	1840	.62	.28	2100	.39	.16	2360	.166	.056	2530

All ratings per AGMA standards.

The values used in the table are at AGMA service factor 1.0
Gearbox sizes are the center distance between input and output shafts in millimeters

Horsepower and Torque Ratings, Continued

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Size 100 All single reduction models, 3¹⁵/₁₆ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10	9.09	7.47	2610	7.53	6.09	3200	6.79	5.43	3810	5.57	4.34	4560	3.02	2.27	4770	1.07	.76	4770
15	6.40	5.09	2670	5.40	4.18	3290	4.85	3.70	3890	3.97	2.92	4600	2.16	1.51	4770	.78	.50	4770
20	5.21	4.09	2860	4.49	3.45	3620	3.93	2.93	4110	3.12	2.26	4750	1.69	1.14	4770	.60	.38	4770
25	4.01	3.07	2690	3.47	2.59	3400	3.04	2.20	3850	2.41	1.69	4440	1.37	.91	4770	.50	.30	4770
30	4.33	3.10	3260	3.73	2.56	4030	3.39	2.27	4740	2.42	1.51	4770	1.31	.76	4770	.49	.25	4770
40	3.25	2.27	3170	2.84	1.92	4030	2.52	1.62	4540	1.86	1.14	4770	1.01	.59	4770	.38	.19	4770
50	2.46	1.64	2880	2.19	1.38	3630	1.91	1.16	4080	1.54	.89	4690	.86	.45	4770	.33	.15	4770
60	2.05	1.33	2790	1.81	1.11	3490	1.59	.93	3890	1.27	.71	4460	.75	.38	4770	.29	.13	4770
70	1.92	1.21	2790	1.69	1.01	3490	1.49	.84	3890	1.20	.64	4460	.71	.34	4770	.27	.11	4770

Size 120 All single reduction models, 4²³/₃₂ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10	14.00	11.60	4050	11.60	9.49	4980	10.40	8.39	5880	8.71	6.89	7200	4.89	3.71	7810	1.74	1.24	7810
15	10.30	8.26	4340	8.66	6.67	5340	7.80	6.01	6320	6.53	4.87	7670	3.48	2.48	7810	1.26	.83	7810
20	7.36	5.69	3990	6.18	4.64	4880	5.60	4.14	5800	4.73	3.35	7040	2.78	1.86	7810	1.03	.62	7810
25	6.70	5.40	4730	5.93	4.56	5990	5.20	3.88	6790	4.12	2.98	7810	2.16	1.49	7810	.78	.50	7810
30	6.90	5.00	5250	5.86	4.08	6248	5.33	3.62	7600	3.86	2.48	7810	2.09	1.24	7810	.79	.41	7810
40	4.60	3.14	4390	3.94	2.56	5380	3.64	2.29	6410	3.12	1.83	7680	1.74	.93	7810	.67	.31	7810
50	4.09	2.85	4990	3.58	2.41	6340	3.18	2.02	7143	2.43	1.49	7810	1.32	.74	7810	.50	.25	7810
60	2.88	1.88	3950	2.53	1.58	4970	2.29	1.35	5690	1.90	1.05	6630	1.23	.62	7790	.47	.21	7810
70	2.83	1.84	4310	2.51	1.56	5490	2.24	1.31	6160	1.83	1.01	7140	1.10	.55	7810	.42	.18	7810

Size 135 All single reduction models, 5⁵/₁₆ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10*	19.90	16.60	5830	16.50	13.60	7170	14.70	11.80	8250	12.30	9.84	10300	7.72	5.99	12600	2.73	2.00	12600
15*	14.60	11.90	6240	12.20	9.72	7650	10.90	8.60	9030	9.19	7.01	11000	5.45	3.99	12600	1.96	1.33	12600
20	11.30	9.07	6350	9.52	7.46	7840	8.57	6.63	9280	6.98	5.22	11000	4.20	3.00	12600	1.51	1.00	12600
25	9.15	7.22	6320	7.85	6.05	7940	6.95	5.24	9180	5.60	4.09	10700	3.45	2.40	12600	1.24	.80	12600
30	9.64	7.18	7550	8.19	5.90	9300	7.43	5.23	11000	5.99	3.99	12600	3.20	2.00	12600	1.20	.66	12600
40	6.91	5.03	7050	5.94	4.16	8730	5.37	3.66	10200	4.44	2.86	12000	2.50	1.50	12600	.93	.50	12600
50	5.15	3.64	6370	4.47	3.04	7980	4.01	2.48	8700	3.28	2.03	10700 *	2.09	1.19	12500	.79	.40	12600
60	3.82	2.58	5430	3.33	2.16	6800	3.00	1.86	7820	2.47	1.44	9080	1.59	.85	10700	.66	.31	11700

*WTC for 254/6 not available.

NOMINAL RATIOS. Some ratios are nominal, consult CGC for exact ratio.

All ratings per AGMA standards.

The values used in the table are at AGMA service factor 1.0

Gearbox sizes are the center distance between input and output shafts in millimeters

Size 155 All single reduction models, 6 $\frac{3}{32}$ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
5	Available. Contact CGC for price and delivery.																	
10*	32.90	27.30	9110	26.40	21.70	9890	22.30	18.10	12060	17.80	14.30	14320	11.70	8.99	17960	5.53	4.00	20830
15	22.90	18.50	9200	18.10	14.40	9890	15.40	12.00	12060	12.10	9.31	13970	8.06	5.84	17530	3.82	2.55	20830
20	14.90	11.80	8200	11.90	9.29	8850	10.00	7.70	10580	8.01	5.94	12230	5.18	3.65	15100	2.45	1.58	19610
25	12.00	9.41	8120	9.54	7.28	8680	8.05	6.04	10410	6.39	4.61	11890	4.09	2.80	14490	1.93	1.20	18570
30	13.30	9.78	9720	10.40	7.55	10580	9.08	6.32	12670	7.24	4.87	14582	4.77	2.92	17530	2.35	1.26	20830
40	9.32	6.67	9200	7.40	5.11	9720	6.28	4.22	11630	5.02	3.19	13190	3.25	1.91	15790	1.60	.81	20220
50	7.13	4.97	8580	5.76	3.84	9110	4.89	3.17	10930	3.90	2.37	12230	2.53	1.41	14582	1.23	.59	18400
60	5.85	3.99	8270	4.72	3.05	8850	3.94	2.48	10240	3.20	1.87	11540	2.10	1.12	13880	1.01	.46	17360

*WTC for 284/6 not available.

Size 175 All single reduction models, 6 $\frac{7}{8}$ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
10*	46.80	39.10	13020	37.70	31.30	15620	31.70	26.00	17360	25.20	20.40	20390	16.60	12.90	25770	7.83	5.75	29510
15*	33.00	26.70	13360	25.90	20.80	15620	22.10	17.50	17530	17.30	13.40	20220	11.40	8.44	25340	5.44	3.70	29510
20	22.80	18.20	12230	18.00	14.20	14320	15.20	11.70	15790	12.10	9.15	18400	7.87	5.62	22650	3.71	2.43	29420
25	16.30	12.70	10936	12.80	9.89	12750	10.80	8.18	14060	8.66	6.31	16310	5.57	3.82	19790	2.64	1.64	25510
30	19.00	14.10	14140	15.00	11.00	16490	12.90	9.20	18400	10.20	7.04	21090	6.37	4.23	25430	3.30	1.84	29510
40	13.20	9.60	12930	10.40	7.36	14840	8.96	6.12	16490	7.10	4.65	18740	4.69	2.80	22650	2.29	1.19	28900
50	9.78	6.81	11710	7.98	5.37	13880	6.64	4.32	14840	5.28	3.25	16830	3.46	1.94	20050	1.70	.82	25430
60	8.23	5.74	11450	6.62	4.41	13190	5.56	3.60	14400	4.45	2.70	16230	2.90	1.62	19440	1.40	.67	24300

*WTC for 284/6 not available.

Size 200 All single reduction models, 7 $\frac{1}{8}$ inch center distance. Torque in Inch/Pounds

RATIO	1800 RPM INPUT SPEED			1200 RPM INPUT SPEED			900 RPM INPUT SPEED			600 RPM INPUT SPEED			300 RPM INPUT SPEED			MAXIMUM TORQUE 100 RPM INPUT		
	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE	In. HP	Out. HP	OUTPUT TORQUE
10	52.60	44.00	15710	41.80	34.80	18660	35.60	29.30	20910	28.00	22.80	24390	18.50	14.40	30900	8.69	6.43	41310
15	39.50	32.10	17180	30.90	25.00	20050	26.30	21.00	22480	20.60	16.10	25860	13.60	10.00	32370	6.42	4.43	42530
20	30.20	24.30	16750	23.80	18.90	19610	20.10	15.70	21700	15.90	12.10	25250	10.30	7.48	30980	4.85	3.23	40180
25	23.30	18.50	15970	18.40	14.30	18570	15.50	11.90	20570	12.40	9.24	23870	7.97	5.59	28900	3.76	2.40	37410
30	25.10	18.80	20130	19.80	14.60	23430	16.90	12.10	26040	13.30	9.32	29940	8.78	5.60	35930	4.29	2.44	42530
40	18.20	13.30	18480	14.30	10.30	21430	12.30	8.62	23780	9.56	6.43	26640	6.44	3.94	32630	3.12	1.67	41660
50	13.80	9.84	16920	11.20	7.76	20050	9.29	6.21	21430	7.33	4.69	24300	4.83	2.80	28990	2.35	1.18	36800
60	11.50	8.01	16310	9.64	6.49	19790	7.76	5.05	20570	6.12	3.77	23000	4.03	2.26	27600	1.97	.94	34720

NOMINAL RATIOS. Some ratios are nominal, consult CGC for exact ratio.

Size 225 is a stock item.
Consult Cleveland Gear
for ratings.

All ratings per AGMA standards.

The values used in the table are at AGMA service factor 1.0
Gearbox sizes are the center distance between input and output shafts in millimeters

Dimensions and Weights All Single Reduction Units

6

SIZE	CD	A			B			C			D		E		F	G	
		U WT/ WB K	WTC WBC UC	WTCHS UCHS	U WT/ WB K	WTC WBC UC	WTCHS UCHS	WT WTC WTCHS	WB WBC	U UCHS	All Footed	U-style	All Footed	U-style	All Footed	WTCHS WT/WB WTC	U UCHS
34 ¹	1 ¹ / ₃	6 ¹ / ₃₂		6 ³ / ₁₆	3 ²⁹ / ₃₂		3 ¹⁹ / ₃₂	—	—	3 ¹ / ₁₆	—	3 ¹ / ₄	—	4 ¹ / ₄	—	—	4 ²¹ / ₃₂
45 ¹	1 ³ / ₄	7 ¹ / ₁₆		6 ⁵ / ₈	4 ¹⁵ / ₃₂		3 ²³ / ₃₂	—	—	3 ¹³ / ₁₆	—	4 ³ / ₁₆	—	4 ¹³ / ₁₆	—	—	5 ³ / ₄
50	1 ³¹ / ₃₂	6 ⁷ / ₈	9 ¹ / ₈	6 ¹ / ₈	4 ¹ / ₈	6 ³ / ₈	3 ¹¹ / ₃₂	5 ¹ / ₈	1 ³¹ / ₃₂	4 ¹⁷ / ₃₂	4 ⁵ / ₁₆	3 ¹⁷ / ₃₂	5 ¹ / ₂	4 ¹⁷ / ₃₂	1 ⁹ / ₃₂	7 ³ / ₃₂	5 ²⁹ / ₃₂
60	2 ³ / ₈	7 ¹¹ / ₁₆	9 ¹⁵ / ₁₆	6 ³¹ / ₃₂	4 ²³ / ₃₂	6 ³¹ / ₃₂	4 ¹ / ₃₂	5 ²⁹ / ₃₂	2 ³ / ₈	5 ⁵ / ₁₆	4 ²³ / ₃₂	3 ¹⁵ / ₁₆	5 ²⁹ / ₃₂	5	2 ³ / ₃₂	8 ⁹ / ₃₂	6 ³¹ / ₃₂
70	2 ³ / ₄	9 ⁷ / ₃₂	11 ¹⁵ / ₃₂	8 ⁵ / ₁₆	5 ¹ / ₂	7 ³ / ₄	4 ⁵ / ₈	6 ⁷ / ₈	2 ³ / ₄	6 ¹ / ₈	5 ²⁹ / ₃₂	4 ¹⁵ / ₁₆	7 ¹ / ₂	6 ⁵ / ₃₂	2 ⁵ / ₃₂	9 ⁹ / ₁₆	8 ¹ / ₁₆
80	3 ⁵ / ₃₂	10 ¹³ / ₃₂	12 ²¹ / ₃₂	9 ³ / ₁₆	6 ⁵ / ₁₆	8 ⁹ / ₁₆	5 ³ / ₃₂	7 ⁷ / ₈	3 ⁵ / ₃₂	6 ²⁵ / ₃₂	7 ³ / ₃₂	5 ²³ / ₃₂	8 ²¹ / ₃₂	6 ¹⁵ / ₁₆	1 ⁵ / ₁₆	10 ⁵ / ₈	9 ⁵ / ₃₂
100	3 ¹⁵ / ₁₆	12 ¹¹ / ₁₆	15 ⁹ / ₁₆	11 ¹ / ₂	7 ¹ / ₂	10 ³ / ₈	6 ⁵ / ₁₆	9 ²⁷ / ₃₂	3 ¹⁵ / ₁₆	8 ¹⁵ / ₃₂	8 ²¹ / ₃₂	7 ⁹ / ₃₂	10 ⁵ / ₈	8 ¹⁵ / ₁₆	1	13 ³ / ₃₂	11 ¹³ / ₃₂
120	4 ²³ / ₃₂	15 ⁵ / ₃₂	18 ¹ / ₃₂	—	9 ¹ / ₁₆	11 ¹⁵ / ₁₆	—	11 ¹³ / ₁₆	4 ²³ / ₃₂	—	10 ¹ / ₄	—	12 ¹⁹ / ₃₂	—	1 ³ / ₁₆	15 ¹⁵ / ₁₆	—
135	5 ⁵ / ₁₆	17 ¹ / ₈	20	—	10 ¹ / ₄	13 ¹ / ₈	—	13 ²⁵ / ₃₂	5 ⁵ / ₁₆	—	11 ¹³ / ₃₂	—	13 ²⁵ / ₃₂	—	1 ³ / ₁₆	17 ²⁹ / ₃₂	—
155	6 ³ / ₃₂	19 ¹ / ₂	22 ⁷ / ₈	—	11 ²⁹ / ₃₂	15 ⁹ / ₃₂	—	15 ¹¹ / ₃₂	5 ⁵ / ₁₆	—	12 ¹⁹ / ₃₂	—	15 ¹¹ / ₃₂	—	1 ³ / ₈	19 ⁵ / ₁₆	—
175	6 ⁷ / ₈	21 ²¹ / ₃₂	24 ²¹ / ₃₂	—	12 ¹³ / ₁₆	16 ⁷ / ₁₆	—	17 ¹ / ₈	6 ⁵ / ₁₆	—	13 ²⁵ / ₃₂	—	16 ¹⁷ / ₃₂	—	1 ¹⁹ / ₃₂	22 ¹ / ₄	—
200	7 ⁷ / ₈	23 ⁵ / ₁₆	—	—	13 ⁷ / ₈	—	—	—	6 ⁵ / ₁₆	—	13 ²⁵ / ₃₂	—	16 ⁵ / ₃₂	—	1 ¹⁹ / ₃₂	25 ¹⁹ / ₃₂	—
225	8 ²⁷ / ₃₂	25 ¹³ / ₃₂	—	—	14 ²⁵ / ₃₂	—	—	—	7 ³ / ₃₂	—	15 ¹¹ / ₃₂	—	18 ¹ / ₂	—	1 ¹⁹ / ₃₂	27 ³ / ₄	—

Notes

- Sizes 34 and 45 are equivalent to Boston 713 and 718.
- Dimension ZZ for Universal units indicate tapped holes. Sizes 34 and 45 diameters are inch; Sizes 50 to 100 are metric. First number is diameter, second is depth.

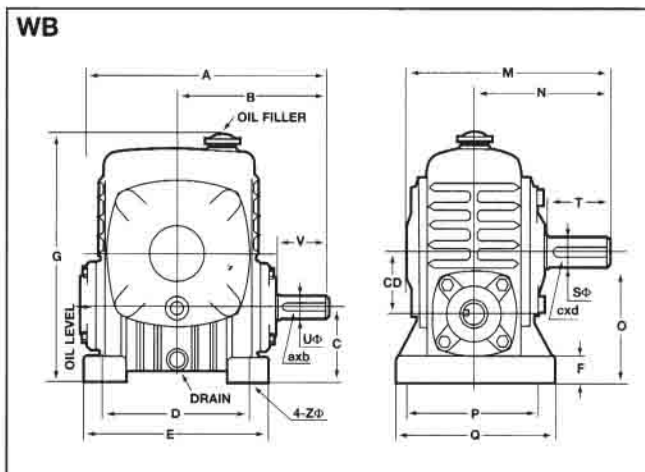
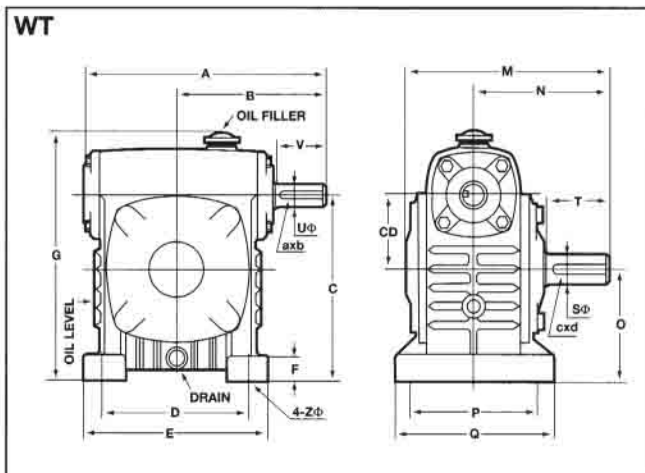
General Notes

- Dimensions are in inches (except metric bolt sizes ZZ above). Standard assembly bolts for footed units, sizes 50 to 135, are metric high strength socket-head cap screws, counterbored into covers. Other sizes and styles use metric hex head cap screws.

Weights in pounds without oil

Size	Style								
	WT	WB	WTC	WTCHS	U	UCHS	DW	DWCHS	K
34	—	—	—	—	9	12	—	—	—
45	—	—	—	—	14	16	—	—	—
50	13	13	18	16	11	13	—	—	13
60	20	20	27	21	17	18	—	28	21
70	31	32	39	34	31	34	—	43	34
80	47	44	51	52	43	47*	53	55	44
100	82	75	89	91	77	89**	91	93	84
120	124	117	132	—	—	—	142	145	126
135	168	168	184	—	—	—	205	209	177
155	287	287	303	—	—	—	—	—	287
175	365	365	385	—	—	—	—	—	365
200	—	529	—	—	—	—	—	—	508
225	—	619	—	—	—	—	—	—	—

Shipping weights are shown. For weight-critical applications, consult Cleveland Gear for precise net weight of unit. *Weight for 7/8" bore shaft; units with 1 1/8" bore shafts weigh 49 lb. **Weight for 7/8" bore shaft; units with 1 1/8" bore shafts weigh 90 lb.



M		N	O			P		Q		Z	ZZ ²	High Speed Shaft			Low Speed Shaft			SIZE
U WT/ WB	UC UCHS WBC WTCHS		WT WTC WTCHS	WB WBC	U UCHS	All Footed	Univ	All Footed	Univ	All Footed	Univ	U	V	a × b	S	T	c × d	
6 ¹ / ₃₂	7 ¹ / ₄	4	—	—	1 ²³ / ₃₂	—	2	—	2 ⁷ / ₈	—	5 ¹ / ₁₆ × 18	1 ¹ / ₂	1 ⁵ / ₁₆	1 ¹ / ₈ × 1 ¹ / ₁₆	5 ⁷ / ₈	2	3 ¹ / ₁₆ × 3 ³ / ₃₂	34
6 ¹ / ₈	7 ³ / ₁₆	3 ¹⁵ / ₁₆	—	—	2 ¹ / ₁₆	—	2 ³ / ₄	—	3 ¹ / ₃₂	—	5 ¹ / ₁₆ × 16	5 ⁷ / ₈	1 ³ / ₁₆	3 ¹ / ₁₆ × 3 ³ / ₃₂	7 ⁷ / ₈	1 ¹⁹ / ₃₂	3 ¹ / ₁₆ × 3 ³ / ₃₂	45
5 ²³ / ₃₂	6 ²⁷ / ₃₂	3 ³ / ₄	3 ⁵ / ₃₂	3 ¹⁵ / ₁₆	2 ⁹ / ₁₆	3 ³ / ₄	1 ³¹ / ₃₂	4 ²³ / ₃₂	2 ¹¹ / ₁₆	7 ¹ / ₁₆	8 × 16	5 ⁷ / ₈	1 ³ / ₁₆	3 ¹ / ₁₆ × 3 ³ / ₃₂	3 ³ / ₄	1 ¹⁹ / ₃₂	3 ¹ / ₁₆ × 3 ³ / ₃₂	50
6 ¹ / ₂	7 ⁹ / ₁₆	4 ⁵ / ₁₆	3 ¹⁷ / ₃₂	4 ³ / ₄	2 ³¹ / ₃₂	4 ¹ / ₈	2 ¹ / ₈	5 ¹ / ₈	3 ³ / ₃₂	7 ¹ / ₁₆	10 × 20	3 ³ / ₄	1 ¹⁹ / ₃₂	3 ¹ / ₁₆ × 3 ³ / ₃₂	1	1 ³¹ / ₃₂	1 ¹ / ₄ × 1 ¹ / ₈	60
7 ¹¹ / ₁₆	8 ³ / ₈	5 ¹ / ₈	4 ¹ / ₈	5 ¹ / ₂	3 ¹¹ / ₃₂	4 ¹⁷ / ₃₂	2 ¹⁹ / ₃₂	5 ²⁹ / ₃₂	3 ⁵ / ₃₂	1 ⁹ / ₃₂	10 × 20	7 ⁷ / ₈	1 ¹⁹ / ₃₂	3 ¹ / ₁₆ × 3 ³ / ₃₂	1 ¹ / ₈	2 ³ / ₈	1 ¹ / ₄ × 1 ¹ / ₈	70
8 ⁹ / ₃₂	8 ³ / ₄	5 ¹ / ₂	4 ²³ / ₃₂	6 ⁵ / ₁₆	3 ⁵ / ₈	5 ⁵ / ₁₆	2 ³¹ / ₃₂	6 ¹¹ / ₁₆	3 ³¹ / ₃₂	1 ⁹ / ₃₂	10 × 20	1 ¹ / ₈	1 ³¹ / ₃₂	1 ¹ / ₄ × 1 ¹ / ₈	1 ³ / ₈	2 ⁹ / ₁₆	5 ¹ / ₁₆ × 5 ³ / ₃₂	80
10 ¹ / ₄	11 ³ / ₁₆	6 ¹¹ / ₁₆	5 ²⁹ / ₃₂	7 ⁷ / ₈	4 ¹⁷ / ₃₂	6 ¹ / ₈	3 ¹¹ / ₃₂	7 ¹ / ₂	4 ¹⁷ / ₃₂	1 ⁹ / ₃₂	12 × 24	1 ³ / ₈	1 ³¹ / ₃₂	5 ¹ / ₁₆ × 5 ³ / ₃₂	1 ¹ / ₂	2 ³¹ / ₃₂	3 ³ / ₈ × 3 ¹ / ₁₆	100
11 ¹³ / ₃₂	12	7 ¹ / ₂	7 ³ / ₃₂	9 ⁷ / ₁₆	—	7 ³ / ₃₂	—	9 ¹ / ₁₆	—	2 ³ / ₃₂	—	1 ¹ / ₂	2 ⁹ / ₁₆	3 ³ / ₈ × 3 ¹ / ₁₆	1 ³ / ₄	3 ¹¹ / ₃₂	3 ³ / ₈ × 3 ¹ / ₁₆	120
12 ¹⁹ / ₃₂	12 ²⁵ / ₃₂	8 ⁹ / ₃₂	8 ¹⁵ / ₃₂	10 ⁵ / ₈	—	7 ⁷ / ₈	—	9 ²⁷ / ₃₂	—	2 ³ / ₃₂	—	1 ⁵ / ₈	2 ²¹ / ₃₂	3 ³ / ₈ × 3 ¹ / ₁₆	2 ¹ / ₄	3 ⁹ / ₁₆	1 ¹ / ₂ × 1 ¹ / ₄	135
15 ¹ / ₄	14 ⁷ / ₁₆	9 ¹⁵ / ₁₆	9 ¹ / ₄	11 ¹³ / ₃₂	—	8 ²¹ / ₃₂	—	11 ¹ / ₃₂	—	2 ⁵ / ₃₂	—	1 ⁵ / ₈	3 ¹¹ / ₃₂	3 ³ / ₈ × 3 ¹ / ₁₆	2 ¹ / ₂	4 ¹¹ / ₃₂	5 ⁵ / ₈ × 5 ¹ / ₁₆	155
16 ¹ / ₃₂	14 ¹³ / ₁₆	10 ⁵ / ₁₆	10 ¹ / ₄	13 ³ / ₁₆	—	9 ²⁷ / ₃₂	—	12 ⁷ / ₃₂	—	2 ⁵ / ₃₂	—	1 ⁷ / ₈	3 ¹¹ / ₃₂	1 ¹ / ₂ × 1 ¹ / ₄	2 ³ / ₄	4 ¹¹ / ₃₂	5 ⁵ / ₈ × 5 ¹ / ₁₆	175
19 ¹ / ₂	—	12 ¹¹ / ₃₂	—	14 ³ / ₁₆	—	11 ¹³ / ₃₂	—	14 ³ / ₁₆	—	7 ⁷ / ₈	—	1 ⁷ / ₈	3 ¹ / ₄	1 ¹ / ₂ × 1 ¹ / ₄	2 ³ / ₄	4 ¹⁵ / ₁₆	5 ⁵ / ₈ × 5 ¹ / ₁₆	200
20 ¹⁵ / ₃₂	—	13 ³ / ₁₆	—	15 ¹⁵ / ₁₆	—	13	—	16 ⁵ / ₃₂	—	1 ¹ / ₁₆	—	2 ¹ / ₈	3 ¹ / ₄	1 ¹ / ₂ × 1 ¹ / ₄	3 ¹ / ₄	5 ¹⁷ / ₃₂	3 ³ / ₄ × 3 ³ / ₈	225

Motor Frame/Coupling Half, Keyway Dimensions

Motor Frame	AJ	AK	BD	BF	Motor Coupling Half	
					U	a × b
56	5 ⁷ / ₈	4 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₁₆	5 ⁷ / ₈	3 ¹ / ₁₆ × 3 ³ / ₃₂
143TC, 145TC	5 ⁷ / ₈	4 ¹ / ₂	6 ¹ / ₂	7 ¹ / ₁₆	7 ⁷ / ₈	3 ¹ / ₁₆ × 3 ³ / ₃₂
182TC, 184TC	7 ¹ / ₄	8 ¹ / ₂	9	9 ¹ / ₁₆	1 ¹ / ₈	1 ¹ / ₄ × 1 ¹ / ₈
213TC, 215TC	7 ¹ / ₄	8 ¹ / ₂	9	9 ¹ / ₁₆	1 ³ / ₈	5 ¹ / ₁₆ × 5 ³ / ₃₂

Note on WTC Flange Couplings - WTC style units, motor flanges are available as follows. Specify at time of order.

Motor Frames 56/143/145

Motor Frames 182/184

Motor Frames 213/215

Reducer size options: 50 to 120

Reducer size options: 80 to 135

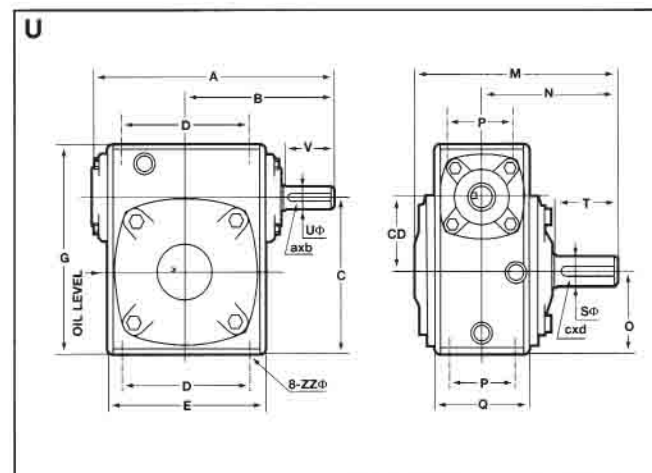
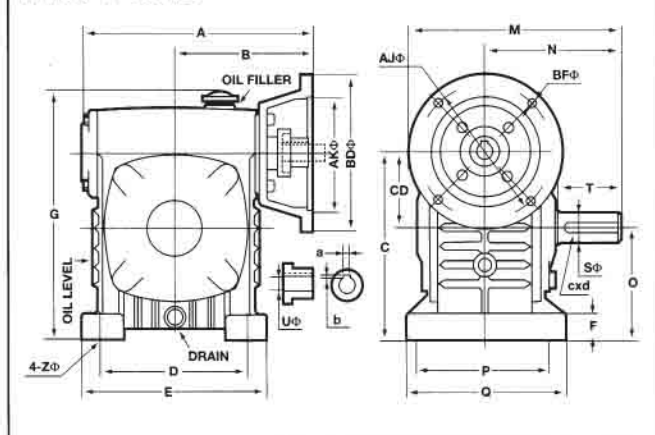
Reducer size options: 80 to 155

Motor Selection, WTCHS/UCHS Units

Size	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1
34	5/8" bore							
45								
50								
60	7/8" bore							
70								
80	1 1/8" bore		7/8 or 1 1/8"		7/8" bore			
100	1 1/8" bore						7/8" bore	

Bushings to change 7⁷/₈" bore to 5⁷/₈" bore are in stock but must be ordered separately.

WTC / WTCHS



Double Reduction (DW) Worm/worm Units

Designed to provide high reduction ratios in an integral unit, the Hampton DW series is based on standard gearing components from Hampton single reduction units.

Configurations. This design allows some flexibility in input/output shaft orientation. The handing of the high speed worm can easily be changed to allow straight-through or same side input/output. The high speed (primary) gearcase can also be mounted shaft up, which requires a permanently sealed bearing to be installed on the top bearing.

Secondary case options. The slow speed gearbox is usually based on a Worm Bottom (WB) style. A Worm Top (WT) unit can also be used. We can also produce units with a Universal secondary case mounted Worm Bottom or Worm Top.

Mounting positions.

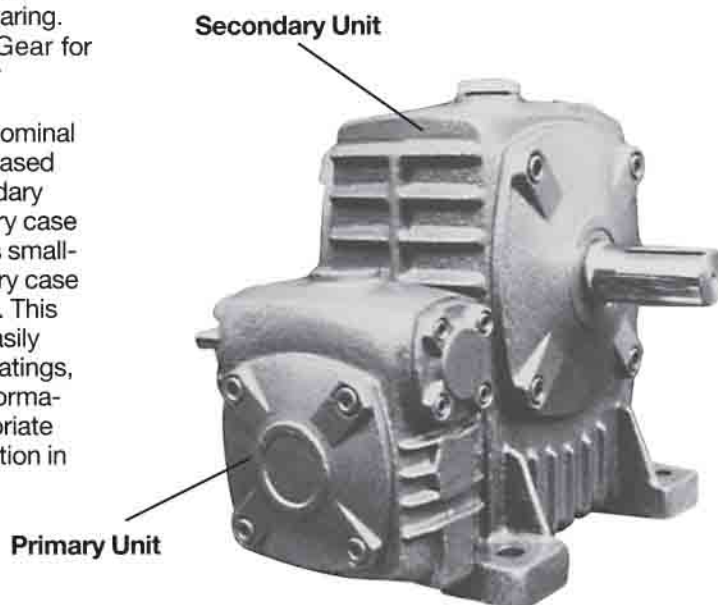
There is a seal between the gearcases and each case has an independent oil supply, which allows some flexibility in mounting positions. When sidewall mounting with the output shaft up is desired, the mounting position must be specified with the order so we can install a permanently sealed top bearing. Consult Cleveland Gear for information on other mounting positions.

Case sizes. The nominal size of DW units is based on the larger, secondary case, and the primary case is always three sizes smaller than the secondary case (for example, 50/80). This fact allows you to easily find overhung load ratings, bearing and seal information from the appropriate single reduction section in this catalog.

Direction of rotation.

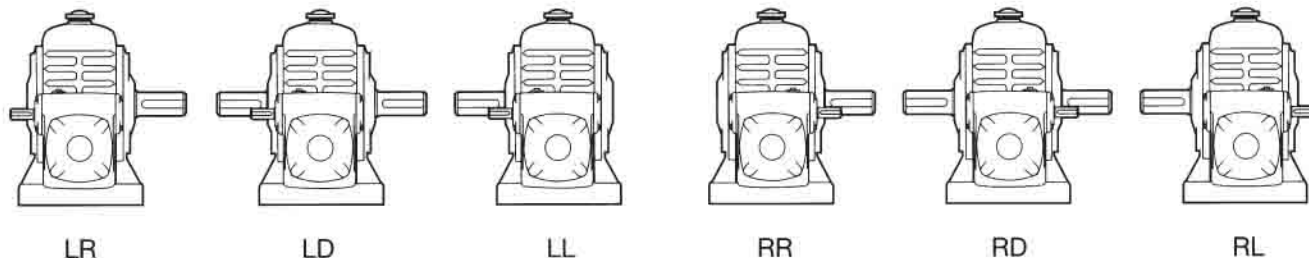
Using a worm bottom unit for the low speed gearcase, the direction of shaft rotation will be the same for both input and output shafts, when viewed facing the input shaft.

C-face available. Double reduction units are available in C-Face Hollow Shaft and Coupling styles. When ordering C-face LD, RD, LL and RR models, stipulate that a spacer is required between the primary and secondary gearcase to provide adequate clearance.



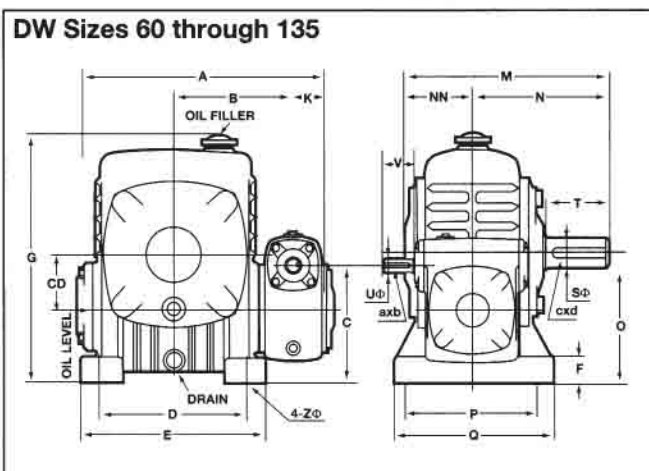
Double Worm Styles

Standard Mounting Positions



DW Double Reduction Dimensions

9



DW Dimensions

Size	High Speed Shaft			Low Speed Shaft		
	U	V	a × b	S	T	c × d
60	1/2	1 1/8	1/8 × 1/16	1	1 31/32	1/4 × 1/8
70	1/2	1 1/8	1/8 × 1/16	1 1/8	2 3/8	1/4 × 1/8
80	5/8	1 3/16	3/16 × 3/32	1 3/8	2 9/16	5/16 × 5/32
100	3/4	1 19/32	3/16 × 3/32	1 1/2	2 31/32	3/8 × 3/16
120	7/8	1 19/32	3/16 × 3/32	1 3/4	3 11/32	3/8 × 3/16
135	1 1/8	1 31/32	1/4 × 1/8	2 1/4	3 9/16	1/2 × 1/4

DW Dimensions

Size	CD	A	B	C	D	E	F	G	K	M	N	NN	O	P	Q	Z
60	2 3/8	8 19/32	3 15/16	3 23/32	4 3/4	5 29/32	2 3/32	8 9/32	1 11/16	7 13/16	4 11/32	3 15/32	4 3/4	4 1/8	5 1/8	7/16
70	2 3/4	10 9/32	4 25/32	4 5/16	5 7/8	7 1/2	2 5/32	9 15/32	1 13/16	8 29/32	5 1/8	3 25/32	5 1/2	4 1/2	5 29/32	1 9/32
80	3 5/32	11 3/16	5 1/8	5 1/8	7 1/16	8 21/32	1 5/16	10 5/8	1 31/32	9 21/32	5 17/32	4 1/8	6 5/16	5 5/16	6 11/16	1 9/32
100	3 15/16	13 7/8	6 1/2	6 5/16	8 11/16	10 5/8	1	13 13/32	2 5/32	11 7/16	6 11/16	4 23/32	7 7/8	6 1/8	7 1/2	1 9/32
120	4 23/32	16 11/32	7 11/16	7 1/2	10 1/4	12 19/32	1 3/16	15 15/16	2 3/16	13	7 1/2	5 17/32	9 7/16	7 1/16	9 1/16	2 3/32
135	5 5/16	18 5/16	8 21/32	8 15/32	11 7/16	13 25/32	1 3/16	17 29/32	2 3/4	14 9/16	8 9/32	6 5/16	10 5/8	7 7/8	9 27/32	2 3/32

DW units may also be specified with a WT or Universal secondary (low speed) case. Secondary case dimensions are the same as a Single Reduction unit of the same size. For dimensions, see pages 18 and 19.

For dimensions of C-face and C-face Hollow Shaft primary (high speed) cases, refer to pages 18-19. The primary case is three sizes smaller than the secondary case.

Double Reduction Horsepower and Torque Ratings

1800 RPM Input Speed DW Style Rating Table

	SIZE 60		SIZE 70		SIZE 80		SIZE 100		SIZE 120		SIZE 135	
	MAX. OUTPUT TORQUE 1010 IN-LB		MAX. OUTPUT TORQUE 2170 IN-LB		MAX. OUTPUT TORQUE 3040 IN-LB		MAX. OUTPUT TORQUE 4340 IN-LB		MAX. OUTPUT TORQUE 7290 IN-LB		MAX. OUTPUT TORQUE 12150 IN-LB	
RATIO	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP
100	.54	.28	1.13	.62	1.50	.87	2.10	1.23	3.47	2.08	5.60	3.45
150	.39	.19	.81	.42	1.09	.58	1.51	.83	2.49	1.38	4.00	2.29
200	.32	.14	.63	.31	.90	.42	1.17	.62	2.04	1.05	3.13	1.75
225	.28	.13*	.58	.28*	.78	.39	1.09	.55	1.80	.92	2.85	1.54
250	.26	.12	.55	.24	.76	.35	1.03	.50	1.70	.83	2.61	1.38
300	.23	.09	.44	.20	.64	.29	.84	.41	1.47	.70	2.24	1.17
375	.20	.08*	.42	.16*	.56	.23	.75	.34	1.25	.55	1.88	.92
400	.19	.07	.37	.15	.54	.21	.67	.31	1.15	.52	1.77	.87
450	.17	.07	.35	.13	.47	.19	.66	.28	1.07	.46	1.69	.76
500	.17	.05	.31	.12	.44	.17	.58	.25	1.03	.42	1.47	.70
600	.14	.04	.26	.10	.39	.14	.50	.20	.88	.35	1.31	.88
625	.13	.04*	.29	.09*	.38	.13	.48	.20	.76	.35	1.21	.55
750	.12	.04	.25	.08	.34	.12	.48	.16	.79	.28	1.15	.46
800	.13	.03	.25	.07	.46	.10	.52	.15	.94	.26	1.35	.43
900	.11	.03	.22	.06	.30	.09	.42	.13	.69	.23	1.06	.39
1000	.09	.03	.21	.07	.28	.08	.36	.13	.66	.21	.88	.35
1200	.08	.03	.20	.05	.23	.07	.28	.11	.51	.17	.76	.29
1250	.08	.03*	.19	.05*	.23	.07	.31	.09	.48	.16	.72	.28
1500	.08	.01	.16	.04	.21	.05	.31	.08	.52	.13	.72	.23
1600	Consult CGC		Consult CGC		.21	.05	.27	.08	.47	.13	.68	.21
1800	Consult CGC		Consult CGC		.19	.05	.24	.07	.40	.12	.63	.19
2000	Consult CGC		Consult CGC		.19	.04	.24	.07	.44	.11	.56	.17
2400	Consult CGC		Consult CGC		.16	.04	.19	.05	.35	.08	.50	.15
2500	Consult CGC		Consult CGC		.16	.04	.20	.05	.32	.08	.47	.13
3000	Consult CGC		Consult CGC		.13	.03	.16	.04	.24	.07	.42	.12
3600	Consult CGC		Consult CGC		.12	.03	.15	.04	.24	.05	.38	.09

*Special Order Ratio

DW Unit Size Primary Size

60	34
70	40
80	50
100	60
120	70
135	80

NOMINAL RATIOS. Some ratios are nominal, consult CGC for exact ratios.

Double Reduction Horsepower and Torque Ratings, Continued

11

1200 RPM Input Speed DW Style Rating Table

	SIZE 60		SIZE 70		SIZE 80		SIZE 100		SIZE 120		SIZE 135	
	MAX. OUTPUT TORQUE 1010 IN-LB		MAX. OUTPUT TORQUE 2170 IN-LB		MAX. OUTPUT TORQUE 3040 IN-LB		MAX. OUTPUT TORQUE 4340 IN-LB		MAX. OUTPUT TORQUE 7290 IN-LB		MAX. OUTPUT TORQUE 12150 IN-LB	
RATIO	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP	INPUT HP	OUTPUT HP
100	.38	.19	.79	.42	1.05	.58	1.47	.83	2.41	1.38	3.88	2.29
150	.27	.13	.58	.28	.76	.39	1.07	.55	1.75	.92	2.77	1.54
200	.22	.09	.42	.20	.54	.29	.77	.41	1.44	.70	2.17	1.17
225	.20	.08*	.40	.19*	.56	.25	.77	.36	1.26	.62	2.00	1.03
250	.19	.08	.39	.16	.55	.23	.74	.34	1.21	.55	1.84	.92
300	.16	.06	.29	.13	.38	.19	.54	.27	1.02	.46	1.56	.78
375	.15	.05*	.29	.11*	.40	.15	.54	.21	.89	.38	1.34	.62
400	.13	.04	.25	.10	.29	.14	.41	.20	.82	.35	1.23	.58
450	.12	.04	.25	.09	.33	.13	.47	.19	.76	.31	1.19	.51
500	.12	.03	.21	.08	.24	.11	.35	.16	.73	.28	1.02	.46
600	.10	.03	.15	.06	.21	.09	.31	.13	.62	.23	.92	.39
625	.09	.03*	.21	.07*	.27	.09	.35	.13	.54	.23	.84	.38
750	.08	.03	.19	.05	.24	.08	.35	.11	.56	.19	.82	.31
800	.09	.02	.17	.05	.23	.07	.32	.10	.67	.07	.96	.29
900	.08	.02	.13	.04	.17	.06	.27	.09	.47	.15	.73	.25
1000	.07	.01	.16	.04	.20	.05	.27	.08	.47	.13	.63	.23
1200	.07	.01	.15	.04	.16	.05	.20	.07	.38	.12	.55	.19
1250	.07	.01*	.13	.03*	.17	.04	.23	.07	.35	.11	.52	.19
1500	.05	.01	.12	.03	.16	.04	.23	.05	.38	.09	.52	.15
1600	Consult CGC		Consult CGC		.15	.04	.19	.05	.35	.08	.48	.15
1800	.05	.01	.11	.03	.13	.03	.17	.04	.29	.08	.45	.13
2000	Consult CGC		Consult CGC		.15	.03	.17	.04	.32	.07	.40	.12
2400	Consult CGC		Consult CGC		.12	.03	.13	.04	.25	.05	.36	.09
2500	Consult CGC		Consult CGC		.12	.03	.15	.03	.23	.05	.34	.09
3000	Consult CGC		Consult CGC		.09	.01	.12	.03	.19	.04	.29	.08
3600	Consult CGC		Consult CGC		.07	.01	.11	.03	.17	.04	.28	.07

*Special Order Ratio

DW Unit Size Primary Size

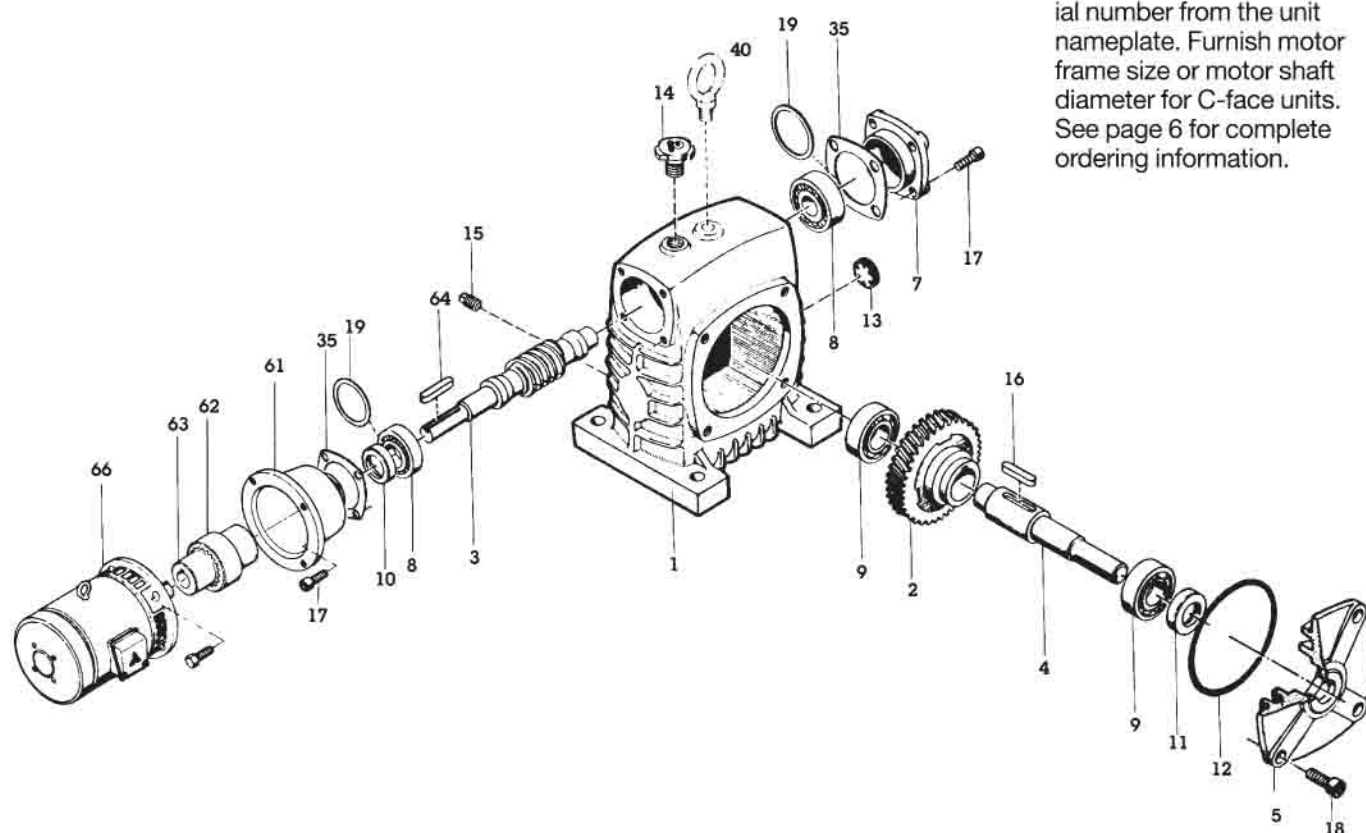
60	34
70	40
80	50
100	60
120	70
135	80

NOMINAL RATIOS. Some ratios are nominal, consult CGC for exact ratios.

Parts List and Exploded Drawings

12

Worm Top



To order parts: Please furnish complete model description, ratio and unit serial number from the unit nameplate. Furnish motor frame size or motor shaft diameter for C-face units. See page 6 for complete ordering information.

Parts List

Standard Reducer

No. Part Descriptions

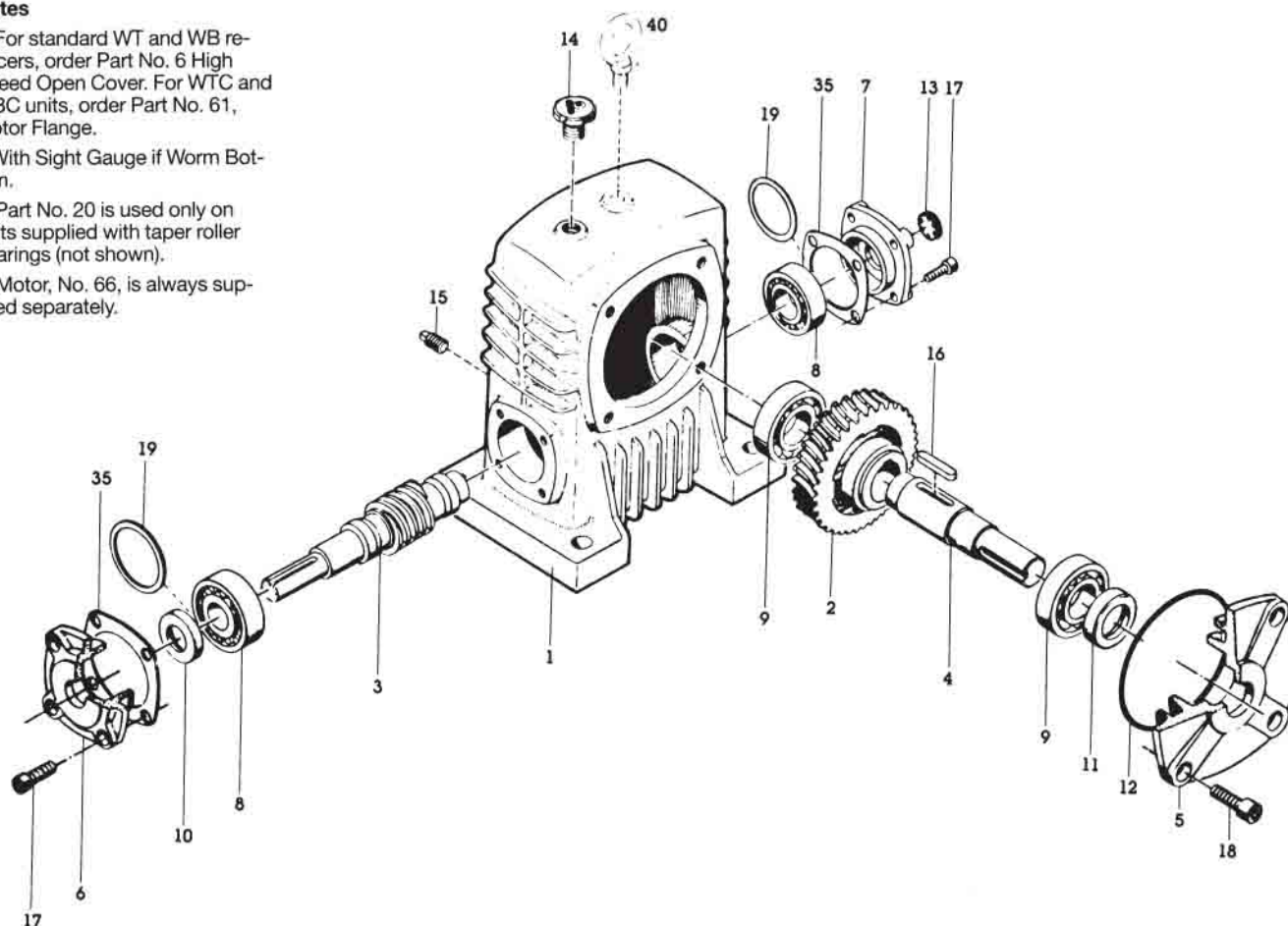
1. Housing
2. Gear, Worm or Worm Wheel
3. Wormshaft
4. Shaft, Output
5. Cover, Low Speed
6. Cover, High Speed, Open¹
7. Cover, High Speed, Closed²
8. Bearing, High Speed
9. Bearing, Low Speed
10. Oil Seal, High Speed
11. Oil Seal, Low Speed
12. O-ring
13. Gauge, Oil Level
14. Plug, Oil Fill

15. Plug, Drain
16. Key, Worm Gear & Shaft
17. Cap Screw, High Speed Cover
18. Cap Screw, Low Speed Cover
19. Shim, High Speed Bearing
20. Shim, Low Speed Bearing³
21. High Speed Cover, WTCHS
35. Gasket, High Speed Cover
40. Eye Bolt (Sizes 100 to 225 only)
50. Retaining Ring, Gearcase, WTCHS
61. Flange, Motor Mounting Adapter¹
62. Reducer Coupling Half
63. Motor Coupling Half
64. Key (WTC, WBC only)
66. Motor⁴
68. Retaining Ring, Worm Shaft, WTCHS

Worm Bottom

Notes

1. For standard WT and WB reducers, order Part No. 6 High Speed Open Cover. For WTC and WBC units, order Part No. 61, Motor Flange.
2. With Sight Gauge if Worm Bottom.
3. Part No. 20 is used only on units supplied with taper roller bearings (not shown).
4. Motor, No. 66, is always supplied separately.



Parts List

Standard Reducer

No. Part Descriptions

1. Housing
2. Gear, Worm or Worm Wheel
3. Wormshaft
4. Shaft, Output
5. Cover, Low Speed
6. Cover, High Speed, Open¹
7. Cover, High Speed, Closed²
8. Bearing, High Speed
9. Bearing, Low Speed
10. Oil Seal, High Speed
11. Oil Seal, Low Speed
12. O-ring
13. Gauge, Oil Level
14. Plug, Oil Fill

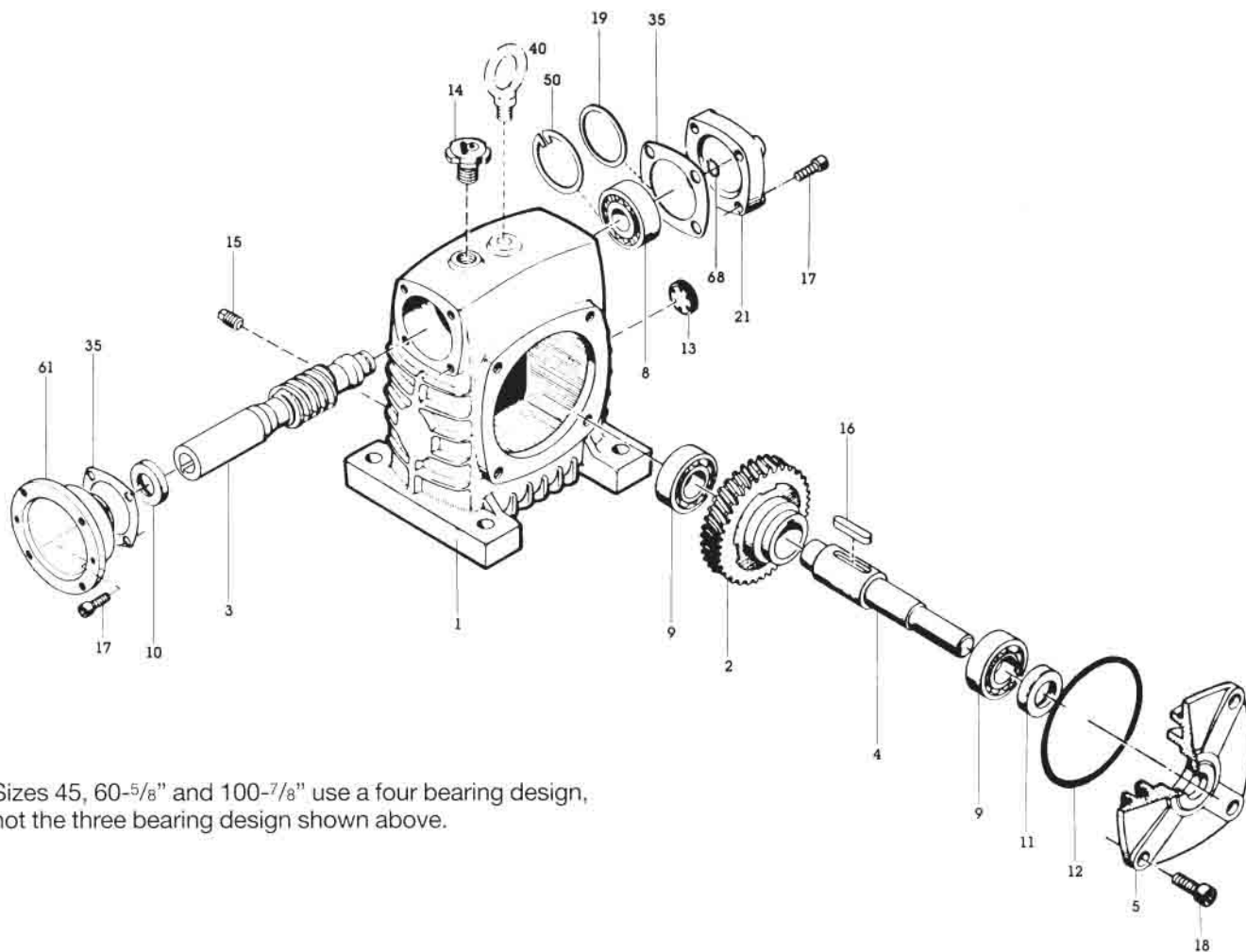
15. Plug, Drain
16. Key, Worm Gear & Shaft
17. Cap Screw, High Speed Cover
18. Cap Screw, Low Speed Cover
19. Shim, High Speed Bearing
20. Shim, Low Speed Bearing³
21. High Speed Cover, WTCHS
35. Gasket, High Speed Cover
40. Eye Bolt (Sizes 100 to 225 only)
50. Retaining Ring, Gearcase, WTCHS
61. Flange, Motor Mounting Adapter¹
62. Reducer Coupling Half
63. Motor Coupling Half
64. Key (WTC, WBC only)
66. Motor⁴
68. Retaining Ring, Worm Shaft, WTCHS

(Sizes 155-225 WB units are provided with grease fittings, not shown, for low speed bearings.)

Parts List and Exploded Drawings, Continued

14

Worm Top Hollow Shaft



Sizes 45, 60-5/8" and 100-7/8" use a four bearing design, not the three bearing design shown above.

Parts List

Standard Reducer

No. Part Descriptions

1. Housing
2. Gear, Worm or Worm Wheel
3. Wormshaft
4. Shaft, Output
5. Cover, Low Speed
6. Cover, High Speed, Open¹
7. Cover, High Speed, Closed²
8. Bearing, High Speed
9. Bearing, Low Speed
10. Oil Seal, High Speed
11. Oil Seal, Low Speed
12. O-ring
13. Gauge, Oil Level
14. Plug, Oil Fill

15. Plug, Drain
16. Key, Worm Gear & Shaft
17. Cap Screw, High Speed Cover
18. Cap Screw, Low Speed Cover
19. Shim, High Speed Bearing
20. Shim, Low Speed Bearing³
21. High Speed Cover, WTCHS
35. Gasket, High Speed Cover
40. Eye Bolt (Sizes 100 to 225 only)
50. Retaining Ring, Gearcase, WTCHS
61. Flange, Motor Mounting Adapter¹
62. Reducer Coupling Half
63. Motor Coupling Half
64. Key (WTC, WBC only)
66. Motor⁴
68. Retaining Ring, Worm Shaft, WTCHS

Oil capacities. When standard units with oil level sight gauges are installed in standard mounting positions, the user needs simply to add lubricant to the center of the sight gauge red dot before operation—while the unit is not rotating. These units must be operated with the vented filler caps provided.

Oil capacities will vary when units are placed in special mounting positions. For planning purposes, use the table at left to find approximate capacities.

Lubricating procedures: We recommend the following procedures:

1. Fill. The unit should be filled with appropriate oil to the center of the sight gauge **before operating. Do not overfill.** Excessive oil levels result in higher operating temperatures and are as undesirable as using too little oil. If a fitting is present, grease it before operation.

2. 85 hour flush. After approximately 85 hours of operation, the reducer must be drained, flushed thoroughly with a light oil, and refilled with fresh recommended oil.

3. 2500 hour flush. This flushing and refilling should be repeated every 2500 hours.

Single Reduction Oil Capacities, Approximate, for Various Mounting Positions

Size	Horizontal Mount							
	WT, WTCHS (& WB Ceiling Mount)		WB (& WT, WTCHS Ceiling Mount)		U & UCHS		K & KCHS	
34	—	—	—	—	4 oz.	.11 ltr	—	—
45	—	—	—	—	6 oz.	.18 ltr	—	—
50	7 oz.	.21 ltr	6 oz.	.19 ltr	7 oz.	.21 ltr	1 pt. 1 oz.	.50 ltr
60	9 oz.	.27 ltr	10 oz.	.31 ltr	11 oz.	.33 ltr	1 pt. 5 oz.	.62 ltr
70	1 pt. 4 oz.	.59 ltr	1 pt. 1 oz.	.50 ltr	1 pt. 7 oz.	.68 ltr	2 pt. 8 oz.	1.19 ltr
80	2 pt. 6 oz.	1.12 ltr	1 pt. 11 oz.	.81 ltr	2 pt. 8 oz.	1.15 ltr	3 pt. 3 oz.	1.50 ltr
100	5 pt. 5 oz.	2.25 ltr	2 pt. 15 oz.	1.38 ltr	4 pt.	1.90 ltr	6 pt. 10 oz.	3.12 ltr
120	6 pt. 10 oz.	3.13 ltr	4 pt. 12 oz.	2.25 ltr	—	—	8 pt. 11 oz.	4.12 ltr
135	9 pt.	4.25 ltr	6 pt. 10 oz.	3.12 ltr	—	—	14 pt. 8 oz.	6.87 ltr
155	14 pt. 13 oz.	7 ltr	8 pt. 12 oz.	4.13 ltr	—	—	16 pt. 11 oz.	7.88 ltr
175	21 pt. 12 oz.	10 ltr	11 pt. 14 oz.	5.63 ltr	—	—	29 pt. 1 oz.	13.75 ltr
200	—	—	16 pt. 11 oz.	7.88 ltr	—	—	35 pt. 11 oz.	16.88 ltr
225	—	—	19 pt. 13 oz.	9.38 ltr	—	—	35 pt. 15 oz.	17.0 ltr

Double Reduction Oil Capacities, Approximate

Size	DW & DWCHS				DU & DUCHS			
	Primary		Secondary		Primary		Secondary	
60	5 oz.	.16 ltr	11 oz.	.33 ltr	5 oz.	.16 ltr	15 oz.	.44 ltr
70	6 oz.	.17 ltr	1 pt. 1 oz.	.50 ltr	6 oz.	.17 ltr	1 pt. 8 oz.	.70 ltr
80	10 oz.	.31 ltr	1 pt. 10 oz.	.77 ltr	10 oz.	.31 ltr	2 pt. 2 oz.	1.0 ltr
100	15 oz.	.44 ltr	3 pt. 3 oz.	1.5 ltr	15 oz.	.44 ltr	4 pt.	1.9 ltr
120	1 pt. 8 oz.	.70 ltr	5 pt.	2.35 ltr	1 pt. 8 oz.	.70 ltr	8 pt. 11 oz.	4.1 ltr
135	2 pt. 2 oz.	1.0 ltr	6 pt. 12 oz.	3.2 ltr	2 pt. 2 oz.	1.0 ltr	9 pt. 5 oz.	4.4 ltr
155	4 pt.	1.9 ltr	8 pt. 7 oz.	4.0 ltr	—	—	—	—
175	8 pt. 11 oz.	4.1 ltr	12 pt.	5.7 ltr	—	—	—	—
200	9 pt. 5 oz.	4.4 ltr	16 pt. 11 oz.	7.9 ltr	—	—	—	—
225	9 pt. 5 oz.	4.4 ltr	19 pt. 14 oz.	9.4 ltr	—	—	—	—

Note: Both primary and secondary units must be filled with oil before placing in operation.

Recommended lubricants must meet or exceed these standards:

15° to 60° F AGMA 7 cSt@104F(40C):**414-506**
(-9° to 16° C)

50° to 125° F AGMA 8 cSt@104F(40C):**612-748**
(10° to 52° C)

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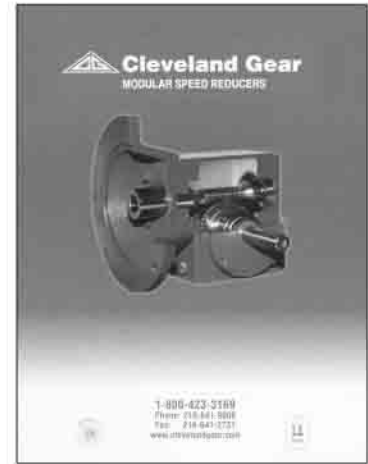
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