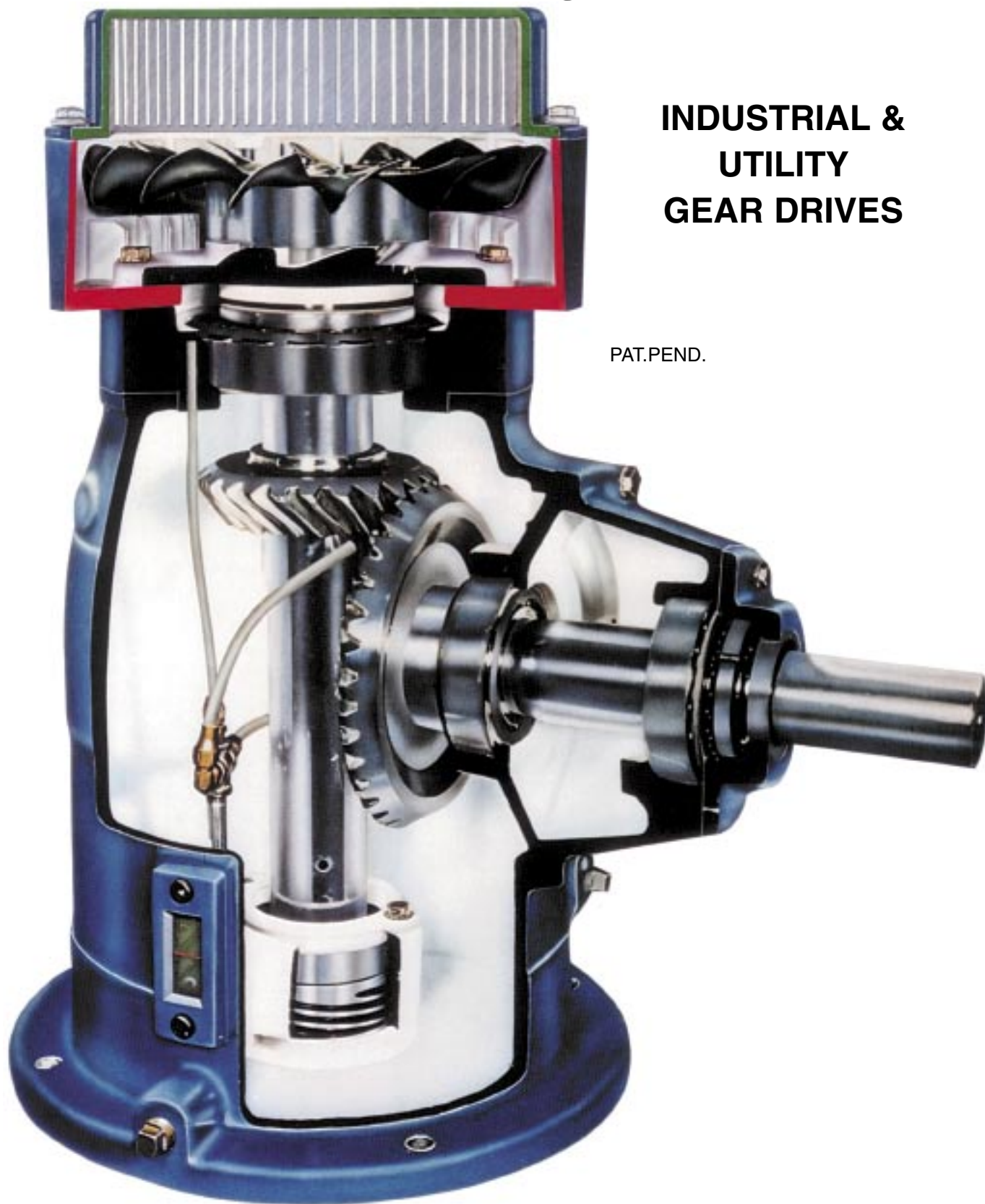


DE'RAND



**INDUSTRIAL &
UTILITY
GEAR DRIVES**

PAT.PEND.

DE'RAND GEAR, INC.
A DON RANDOLPH COMPANY

Telephone 806-746-6926
Fax 806-746-6518

PRODUCT CATALOG PC-C5

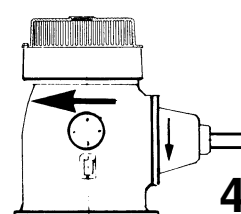
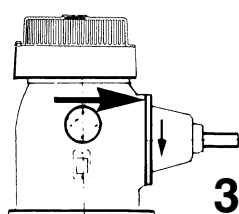
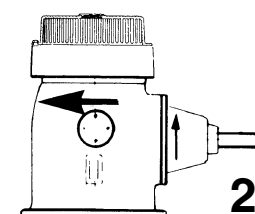
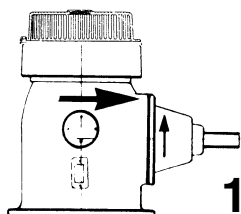
GEAR DRIVE SELECTION

THE FOLLOWING INFORMATION SHOULD BE SUPPLIED WHEN ORDERING GEAR DRIVES:

Series Number, Ratio (input to output speed), Thrust Requirements, Rotation, Horsepower Requirements, Pump Head Shaft Size. (We define the ratio as the ratio of the horizontal input RPM to the vertical output RPM.)
 EXAMPLE: A 2:3 ratio gear drive operating at 1760 RPM output would have 1173 RPM input.

ROTATION: Shown below are four possible rotations. Number 1 is considered standard. Numbers 2, 3 and 4 are special rotations and are manufactured when specifically requested.

ROTATIONS



1
HORIZONTAL - CW
VERTICAL - CCW

2
HORIZONTAL - CW
VERTICAL - CW

3
HORIZONTAL - CCW
VERTICAL - CCW

4
HORIZONTAL - CCW
VERTICAL - CW

MINIMUM THRUST REQUIREMENTS

For the Following Gear Drives (No. 1 Rotation) EXCEPT THOSE WITH NO MINIMUM:										Example: Model G80, 5:6 Ratio, 72 HP, 1800 RPM Pump Speed:						
Minimum Downthrust = $\frac{\text{Constant} \times \text{Horsepower}}{\text{Pump Speed}}$										$\frac{19,518 \times 72}{1800} = 781 \text{ Lbs. Min.}$						
ALL COMBINATION MOTOR STAND OR SOLID SHAFT GEAR DRIVES										NO MINIMUM DOWNTHRUST						
J20 J30	J40 J60	J80 J60	NO MINIMUM DOWNTHRUST													
RATIO		1:2	4:7	2:3	3:4	4:5	5:6	10:11	1:1	11:10	6:5	5:4	4:3	3:2	7:4	2:1
G40A G60A G80A	G100A G125A J150	25,643	23,390	20,486	20,434	20,381	19,518	19,589	18,462	0	17,565	17,442	17,428	15,330	13,605	13,253
G150A G200B G250A		18,636	16,386	17,424	15,558	14,502	15,224	14,907	13,130	0	0	0	0	0	528	1,074
G300A G350A G400A G450A	F500A F590A F750A F1000A	NO MINIMUM DOWNTHRUST														
RATIO		2:1	5:2	3:1												
80P*		-	-	-												
200P*		1,074	2,059	3,080												
M16AH M20A	M22A M26A	NO MINIMUM DOWNTHRUST														
M30A to M52A																

NOTE: FOR ROTATION NO'S. 2, 3, & 4 CONTACT FACTORY
 OPPOSED THRUST BEARINGS ARE AVAILABLE FOR ZERO DOWNTHRUST


Industrial and Utility Gear Drives

MEMBER OF



TURBINE PUMP DRIVES HORSEPOWER RATINGS - TABLE 1 AGMA SERVICE FACTOR OF 1.5

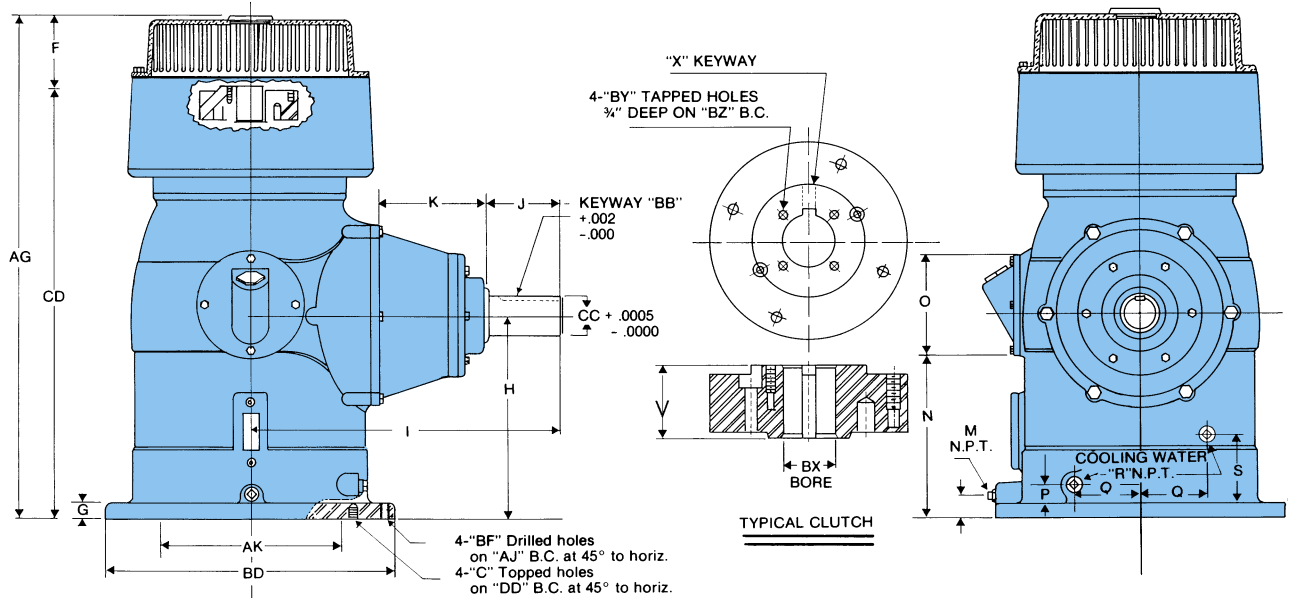
MODEL	OUT-PUT SPEED	HP	THRUST CAPACITY			RATIO AND INPUT SPEED															
			STD	E.H.T.	S.S. & M.S.	1:2	4:7	2:3	3:4	4:5	5:6	10:11	1:1	11:10	6:5	5:4	4:3	3:2	7:4	2:1	
J20	1160	15	2300	3450	2300	580		773	870		974		1160		1381		1547	1740		2320	
	1460	18	2120	3180	2120	730		973	1095		1226		1460		1738		1947	2190		2920	
	1760	20	2000	3000	2000	880		1173	1320		1478		1760		2095		2347	2640		3520	
	2400	24	1800	2700	1800	1200		1600	1800		2016		2400		2857		3200				
	2900	26	1720	2580	1720	1450		1933	2175		2436		2900		3452						
	3460	30	1600	2400	1600	1730		2307	2595		2906		3460								
J30	1160	20	3450		3450	580		773	870		974		1160		1381		1547	1740		2320	
	1460	25	3180		3180	730		973	1095		1226		1460		1738		1947	2190		2920	
	1760	30	3000	NA	3000	880		1173	1320		1478		1760		2095		2347	2640		3520	
	2400	35	2700		2700	1200		1600	1800		2016		2400		2857		3200				
	2900	45	2580		2580	1450		1933	2175		2436		2900		3452						
	3460	50	2400		2400	1730		2307	2595		2906		3460								
J40	960	26	3660	6100	3660	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	30	3450	5750	3450	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	35	3180	5300	3180	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	40	3000	5000	3000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	42	2880	4800	2880	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	44	2790	4650	2790	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
J60	960	40	4880	7320	3660	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	45	4600	6900	3450	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	53	4240	6360	3180	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	60	4000	6000	3000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	63	3840	5760	2880	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	67	3720	5580	2790	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
J80	960	53	6100	8540	4880	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	60	5750	8050	4600	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	70	5300	7420	4240	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	80	5000	7000	4000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	84	4800	6720	3840	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	89	4650	6510	3720	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
G40A	960	26	3660	6100	3660	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	30	3450	5750	3450	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	35	3180	5300	3180	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	40	3000	5000	3000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	42	2880	4800	2880	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	44	2790	4650	2790	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
G60A	960	40	4880	7320	3660	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	45	4600	6900	3450	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	53	4240	6360	3180	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	60	4000	6000	3000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	63	3840	5760	2880	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	67	3720	5580	2790	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
G80A	960	53	6100	8540	4880	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	60	5750	8050	4600	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	70	5300	7420	4240	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	80	5000	7000	4000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	84	4800	6720	3840	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	89	4650	6510	3720	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
G100A	960	66	7320	10370	6100	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	75	6900	9775	5750	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	88	6360	9010	5300	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	100	6000	8500	5000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	105	5760	8160	4800	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	111	5580	7905	4650	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
G125A	960	83	7320	10370	6100	491	545	640	720	768	800	861	960	1071	1152	1200	1280	1440	1670	1920	
	1160	94	6900	9775	5750	593	659	773	870	928	967	1040	1160	1294	1392	1450	1547	1740	2017	2320	
	1460	110	6360	9010	5300	746	830	973	1095	1168	1217	1309	1460	1628	1752	1825	1947	2190	2539	2920	
	1760	125	6000	8500	5000	900	1000	1173	1320	1408	1467	1578	1760	1963	2112	2200	2347	2640	3061	3520	
	2000	131	5760	8160	4800	1022	1136	1333	1500	1600	1667	1793	2000	2231	2400	2500	2667	3000	3478		
	2200	139	5580	7905	4650	1124	1250	1467	1650	1760	1833	1972	2200	2454	2640	2750	2933	3300			
J150	960	98	8820	10370				640	713	762	815	862	960	1070	1131	1209	1292				
	1160	111	8540	9775	CF	CF	CF	773	862	921	984	1041	1160	1293	1367	1461	1562	NA	NA	NA	
	1460	134	8050	9010				973	1085	1159	1239	1310	1460	1627	1721	1839	1965				
	1760	150	7000	8500				1173	1307	1398	1493	1579	1760	1961	2074	2216	2369				

 = FACTORY MUTUAL APPROVED MODEL AVAILABLE
SS = VERTICAL SOLID SHAFT AVAILABLE
MS = COMBINATION MOTOR STAND AVAILABLE



TURBINE PUMP DRIVES HORSEPOWER RATINGS - TABLE 2 AGMA SERVICE FACTOR OF 1.5

MODEL	OUT-PUT SPEED	HP	THRUST CAPACITY			RATIO AND INPUT SPEED															
			STD	E.H.T.	S.S. & M.S.	1:2	4:7	2:3	3:4	4:5	5:6	10:11	1:1	11:10	6:5	5:4	4:3	3:2	7:4	2:1	
FM G150A	720	81	9380	14740	9380	360	411	486	535	572	611	646	720	802	849	907	969	1068	1260	1412	
	870	92	8820	13860	8820	435	497	587	646	691	738	781	870	969	1025	1096	1171	1290	1523	1707	
	960	98	8540	13420	8540	480	549	647	713	762	815	862	960	1070	1131	1209	1292	1423	1680	1883	
	1160	111	8050	12850	8050	580	663	782	862	921	984	1041	1160	1293	1367	1461	1562	1720	2030	2275	
	1460	134	7490	11770	7490	730	834	985	1085	1159	1239	1310	1460	1627	1721	1839	1965	2165	2555	2864	
	1760	150	7000	10000	7000	880	1006	1187	1307	1398	1493	1579	1760	1961	2074	2216	2369	2610	3080	3452	
FM G200B	720	108	12150	17550	9380	360	411	486	535	572	611	646	720	802	849	907	969	1068	1260	1412	
	870	122	11340	16380	8820	435	497	587	646	691	738	781	870	969	1025	1096	1171	1290	1523	1707	
	960	130	10980	15860	8540	480	549	647	713	762	815	862	960	1070	1131	1209	1292	1423	1680	1883	
	1160	150	10350	14950	8050	580	663	782	862	921	984	1041	1160	1293	1367	1461	1562	1720	2030	2275	
	1460	176	10200	13780	7490	730	834	985	1085	1159	1239	1310	1460	1627	1721	1839	1965	2165	2555	2864	
	1760	200	10000	13000	7000	880	1006	1187	1307	1398	1493	1579	1760	1961	2074	2216	2369	2610	3080	3452	
FM G250A	720	135	17550	21600	12150	360	411	486	535	572	611	646	720	802	849	907	969	1068	1260	1412	
	870	153	16380	20160	11340	435	497	587	646	691	738	781	870	969	1025	1096	1171	1290	1523	1707	
	960	165	15860	19520	10980	480	549	647	713	762	815	862	960	1070	1131	1209	1292	1423	1680	1883	
	1160	188	14950	18400	10350	580	663	782	862	921	984	1041	1160	1293	1367	1461	1562	1720	2030	2275	
	1460	220	13780	16960	9540	730	834	985	1085	1159	1239	1310	1460	1627	1721	1839	1965	2165	2555	2864	
	1760	250	13000	16000	9000	880	1006	1187	1307	1398	1493	1579	1760	1961	2074	2216	2369	2610	3080	3452	
FM G300A	720	162	27000	NA	27000	360	411	486	535	572	611	646	720	802	849	907	969	1068	1260	1412	
	870	183	25200	NA	25200	435	497	587	646	691	738	781	870	969	1025	1096	1171	1290	1523	1707	
	960	198	24400	NA	24400	480	549	647	713	762	815	862	960	1070	1131	1209	1292	1423	1680	1883	
	1160	225	23000	NA	23000	580	663	782	862	921	984	1041	1160	1293	1367	1461	1562	1720	2030	2275	
	1460	262	21200	NA	21200	730	834	985	1085	1159	1239	1310	1460	1627	1721	1839	1965	2165	2555	2864	
	1760	300	20000	NA	20000	880	1006	1187	1307	1398	1493	1579	1760	1961	2074	2216	2369	2610	3080	3452	
FM G350A	720	189	27000	NA	27000			486	535	572	611	646	720	802	849	907	969	1068			
	870	213	25200	NA	25200	**	**	587	646	691	738	781	870	969	1025	1096	1171	1290	**	**	
	960	228	24400	NA	24400			647	713	762	815	862	960	1070	1131	1209	1292	1423			
	1160	259	23000	NA	23000			782	862	921	984	1041	1160	1293	1367	1461	1562	1720			
	1460	311	21200	NA	21200			985	1085	1159	1239	1310	1460	1627	1721	1839	1965	2165			
	1760	350	20000	NA	20000			1187	1307	1398	1493	1579	1760	1961	2074	2216	2369	2610			
FM G400A	720	216	27000	NA	27000			480	544	576	591	654	720	792	878	900	953	1080			
	870	244	25200	NA	25200			580	657	696	714	791	870	957	1060	1088	1151	1305			
	960	260	24400	NA	24400			640	720	768	788	873	960	1056	1170	1200	1271	1440			
	1160	296	23000	NA	23000			773	870	928	952	1055	1160	1276	1414	1450	1535	1740			
	1460	356	21200	NA	21200			973	1095	1168	1198	1327	1460	1606	1779	1825	1932	2190			
	1760	400	20000	NA	20000			1173	1320	1408	1444	1600	1760	1936	2145	2200	2329	2640			
FM G450A	720	243	27000	NA	27000			480	544	576	591	654	720	792	878	900	953	1080			
	870	275	25200	NA	25200			580	657	696	714	791	870	957	1060	1088	1151	1305			
	960	292	24400	NA	24400			640	720	768	788	873	960	1056	1170	1200	1271	1440			
	1160	333	23000	NA	23000			773	870	928	952	1055	1160	1276	1414	1450	1535	1740			
	1460	400	21200	NA	21200			973	1095	1168	1198	1327	1460	1606	1779	1825	1932	2190			
	1760	450	20000	NA	20000			1173	1320	1408	1444	1600	1760	1936	2145	2200	2329	2640			
FM F500A	720	230	29700	43500	29700	367	417	480	540	576	600	648	720	800	864	900	960	1080			
	870	270	27720	40500	27720	443	504	580	653	696	725	783	870	967	1044	1088	1160	1305			
	960	300	26840	37800	26840	480	548	640	720	768	800	872	960	1056	1152	1200	1280	1440			
	1160	375	25300	34500	25300	591	672	773	870	928	967	1044	1160	1289	1392	1450	1547	1740			
	1460	440	23320	32100	23320	744	845	973	1095	1168	1217	1314	1460	1622	1752	1825	1947	2190			
	1760	500	22000	30000	22000	897	1019	1173	1320	1408	1467	1584	1760	1956	2112	2200	2347	2640			
FM F590A	720	276	43500	NA	43500	367	417	480	540	576	600	648	720	800	864	900	960	1080			
	870	324	40500	NA	40500	443	504	580	653	696	725	783	870	967	1044	1088	1160	1305			
	960	366	37800	NA	37800	480	548	640	720	768	800	872	960	1056	1152	1200	1280	1440			
	1160	444	34500	NA	34500	591	672	773	870	928	967	1044	1160	1289	1392	1450	1547	1740			
	1460	534	32100	NA	32100	744	845	973	1095	1168	1217	1314	1460	1622	1752	1825	1947	2190			
	1760	600	30000	NA	30000	897	1019	1173	1320	1408	1467	1584	1760	1956	2112	2200	2347	2640			
FM F750A	720	345	43500	NA	43500	367	417	480	540	576	600	648	720	800	864	900	960	1080			
	870	405	40500	NA	40500	443	504	580	653	696	725	783	870	967	1044	1088	1160	1305			
	960	458	37800	NA	37800	480	548	640	720	768	800	872	960	1056	1152	1200	1280	1440			
	1160	555	34500	NA	34500	591	672	773	870	928	967	1044	1160	1289	1392	1450	1547	1740			
	1460	688	32100	NA	32100	744	845	973	1095	1168	1217	1314	1460	1622	1752	1825	1947	2190			
	1760	750	30000	NA	30000	897	1019	1173	1320	1408	1467	1584	1760	1956	2112	2200	2347	2640			
<FM> F1000A	720	540	43500	CF	43500	367	417	480	540	576	600	648	720	800	864	900	960	1080			
	870	610	40500	CF	40500	443	504	580	653	696	725	783	870	967	1044	1088	1160	1305			
	960	650	37800	CF	37800	480	548	640	720	768	800	872	960	1056	1152	1200	1280	1440			
	1160	740	34500	CF	34500	591	672	773	870	928	967	1044	1160	1289	1392	1450	1547	1740			
	1460	890	32100	CF	32100	744	845	973	1095	1168	1217	1314	1460	1622	1752	1825	1947	2190			
	1760	1000	30000	CF	30000	897	1019	1173	1320	1408	1467	1584	1760	1956	2112	2200	2347	2640			
<FM> F1200A	720	648	43500	CF	43500			417	480	540	576	600	648	720	800	864	900	960	1080		
	870	732	40500	CF	40500			504	580	653	696	725	783	870	967	1044	1088	1160	1305		
	960	760	37800	CF	37800			548	640	720	768	800	872								



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TURBINE PUMP DRIVE DIMENSIONS

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MODEL	J20 J30	J40 J60	J80	G40A G60A	G80A	G100A	G125A J150	G150A	G200B	G250A	G300A G350A	G400A G450A	F500A	F590A	F750A	F1000A	F1200A
AG	17.37	22.12	22.12	26.62	26.62	26.62	26.62	33.88	33.88	33.88	35.62	35.62	45.12	45.12	45.12	^	^
AJ	9.12	14.75	14.75	14.75	14.75	14.75	14.75	18.25	18.25	18.25	18.25	18.25	23.00	23.00	23.00	^	^
AK +005 -000	8.251	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	13.501	^	^
BB +.002 -000	.313	.375	.375	.375	.375	.625	.625	.625	.625	.750	.750	.750	.875	.875	.875	^	^
BD	10.00	16.50	16.50	16.50	16.50	16.50	16.50	20.00	20.00	20.00	20.00	20.00	24.50	24.50	24.50	^	^
BF	.40	.68	.68	.68	.68	.68	.68	.68	.68	.68	.68	.68	.81	.81	.81	^	^
BX max	1.001	1.251	1.251	1.501	1.501	1.501	1.501	1.938	1.938	1.938	1.938	2.189	2.939	2.939	2.939	^	^
C tap								.62-11	.62-11	.62-11	.62-11	.62-11	.62-11	.62-11			
CC +0005 -0000	1.249	1.499	1.499	1.874	1.874	2.249	2.249	2.436	2.436	2.937	2.937	2.937	3.749	3.749	3.749		
CD	14.75	18.0	18.0	22.56	22.56	22.56	22.56	29.19	29.19	29.19	31.00	31.50	40.87	40.87	40.87		
DD								14.75	14.75	14.75	14.75	14.75	14.75	14.75	14.75		
F	2.62	4.125	4.125	4.06	4.06	4.06	4.06	4.62	4.62	4.62	4.50	4.00	4.25	4.25	4.25		
G	.37	.87	.87	.87	.87	.87	.87	1.12	1.12	1.12	1.12	1.12	1.75	1.75	1.75		
H	7.25	8.5	8.5	11.43	11.43	11.43	11.43	13.75	13.75	13.75	13.75	13.75	18.0	18.0	18.0		
I	12.31	16.0	16.0	18.00	18.00	17.93	17.93	20.87	20.87	21.75	21.75	21.75	28.00	28.00	28.00		
J	2.87	4.0	4.0	4.25	4.25	4.50	4.50	4.00	4.00	4.81	4.81	4.81	6.87	6.87	6.87		
K	4.50	6.0	6.0	6.50	6.50	6.12	6.12	8.37	8.37	8.37	8.37	8.37	8.62	8.62	8.62		
L	2.00	1.50	1.50	1.50	1.50	1.50	1.50	1.75	1.75	1.75	1.75	1.75	1.00	1.00	1.37		
Mnpt	.25	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50		
N	4.00	5.75	5.75	9.12	9.12	9.12	9.12	12.37	12.37	12.37	12.37	12.37	20.00	20.00	20.00		
O	2.87	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	5.75	7.50	7.50		
P		.75	.75	1.00	1.00	1.00	1.00	1.50	1.50	1.50	1.50	1.50	1.00	1.00	1.37		
Q		3.5	3.5	3.75	3.75	3.75	3.75	4.50	4.50	4.50	4.50	4.50	2.81	2.81	3.93		
Rnpt		.375	.375	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50		
S		2.5	2.5	3.75	3.75	3.75	3.75	5.00	5.00	5.00	5.00	5.00	1.00	1.00	1.37		
V	1.12	2.00	2.00	2.00	2.00	2.00	2.00	2.50	2.50	2.50	2.50	3.00	4.00	4.00	4.00		
Net Wt. Lbs.	120	225	225	320	320	335	335	680	680	710	725	725	1550	1890	1900		
Domestic Wt. Lbs.	150	250	250	340	340	355	355	710	710	740	750	750	1600	1990	2090		
Export Wt. Lbs.	160	300	300	420	420	435	435	820	820	850	865	865	2005	2110	2210		
Export Cubic	2.8	7.5	7.5	9.0	9.0	9.0	9.0	17.0	17.0	17.0	17.0	17.0	47.5	47.5	47.5		
Oil Cap Qts.	1.5	5.0	5.0	7.0	7.0	7.0	7.0	13.0	13.0	13.0	13.0	13.0	24.0	24.0	24.0		

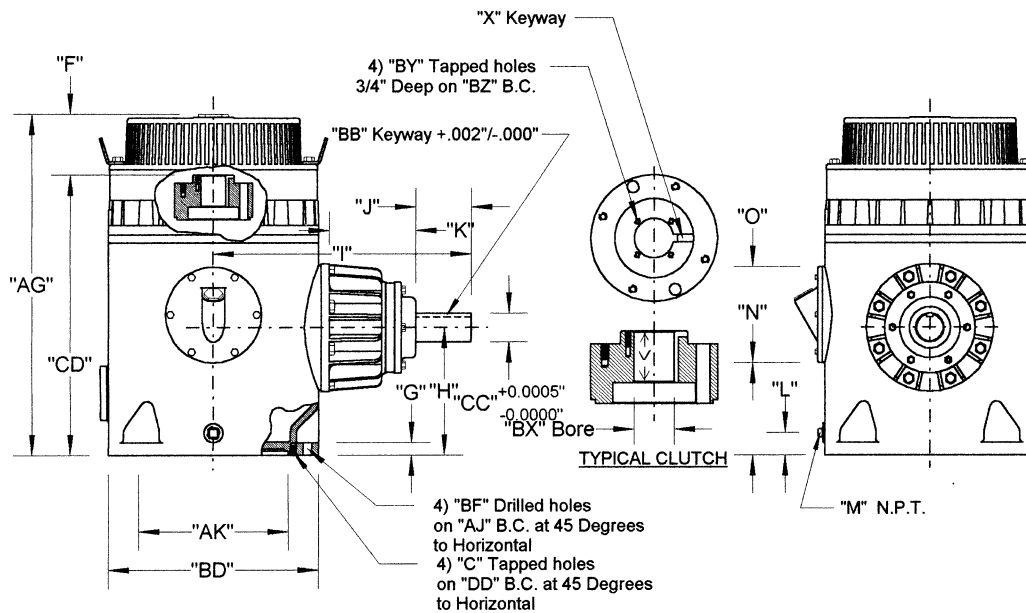


PROPELLER PUMP DRIVES

TABLE 3

AGMA SERVICE FACTOR OF 1.5

MODEL	PUMP RPM	THRUST CAPACITY	HORSEPOWER AND ENGINE SPEED																	
			2:1		5:2		3:1		7:2		4:1		9:2		5:1		11:2		6:1	
			HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM	HP	RPM
M80P	340	10350	35	663	33	860	31	1020												
	430	9600	44	839	40	1088	36	1290												
	500	9100	50	796	46	1265	42	1500												
	580	8600	57	1132	53	1467	50	1740												
	720	8100	69	1406	65	1821	60	2160												
	870	7600	84	1699	80	2200	75	2610												
	960	7300	91	1874	85	2428	80	2880												
M200P	580	9300	96	1138	95	1464	85	1740												
	720	8800	116	1413	112	1817	104	2160												
	870	8300	136	1708	134	2195	124	2610												
	960	8000	150	1884	145	2423	134	2880												
M16AH	340	11000	100	666	120	874	112	1020	100	1171	80	1360	75	1530	70	1700				
	430	10250	129	843	142	1106	139	1290	115	1481	90	1720	85	1935	80	2150				
	500	9800	150	980	149	1286	147	1500	125	1722	100	2000	95	2250	85	2500				
	580	9300	174	1137	173	1491	171	1740	140	1998	110	2320	105	2610						
	720	8800	211	1411	204	1851	199	2160	165	2480										
	870	8300	242	1705	233	2237	227	2610	190	2997										
	960	8000	260	1882	250	2469	244	2880												
M20A	340	13000	212	641	217	842	192	1001	181	1180	174	1339	160	1519	157	1679	150	1859	149	2015
	430	12200	270	810	260	1065	245	1266	230	1492	222	1693	204	1921	200	2123	191	2351	190	2549
	500	11700	315	942	302	1238	285	1472	267	1735	258	1969	237	2233	225	2469	218	2733	217	2964
	580	11200	355	1093	340	1436	321	1708	302	2013	291	2284	268	2591	262	2864				
	720	10500	430	1357	412	1783	390	2120	367	2499	353	2835	326	3216						
	870	9900	500	1637	489	2154	460	2414	434	3019										
	960	9500	555	1809	528	2377	504	2827												
M22A	340	17000	265	680	260	857	255	1039	250	1211	250	1337	240	1519	210	1676	200	1870	200	2012
	430	15900	330	860	320	1084	315	1314	310	1532	310	1691	300	1921	260	2119	260	2365	250	2544
	500	15000	375	1000	365	1261	360	1527	355	1781	355	1967	340	2233	300	2464				
	580	14500	430	1160	420	1463	415	1772	410	2066										
	720	13600	520	1440	510	1816	505	2200												
	870	12800	620	1740	600	2194														
	960	12000	675	1920	655	2421														
M26A	250	36000	360	491	330	615	318	750	312	875	295	1000	287	1125	282	1250				
	340	33000	462	668	420	836	409	1020	402	1190	375	1360	370	1530	363	1700				
	430	30000	554	845	510	1057	494	1290	485	1505	450	1720	446	1935	438	2150				
	500	29000	622	983	670	1229	553	1500	544	1750	510	2000	500	2250	491	2500				
	580	28000	700	1140	700	1426	625	1740	615	2030	575	2320								
	720	26000	828	1415	775	1770	737	2160	725	2520										
	870	25000	987	1710	925	2139														
M30A	250	43000	769	500	689	625	629	750	572	875	564	1000	521	1125	482	1250	440	1375	408	1500
	340	39000	1046	680	937	850	856	1020	778	1190	767	1360	709	1530	655	1700	599	1870	556	2040
	430	36000	1324	860	1185	1075	1082	1290	978	1505	970	1720	897	1935	828	2150	758	2365	703	2580
	500	35000	1539	1000	1378	1250	1258	1500	1144	1750	1128	2000	1043	2250	963	2500	881	2750	817	3000
	580	33000	1785	1160	1598	1450	1460	1740	1327	2030	1308	2320	1210	2610	1118	2900	1022	3190	948	3480
	720	31000	2216	1440	1984	1800	1812	2160	1647	2520										
M32A	250	43000	1134	500	1025	625	908	750	812	875	769	1000	762	1125	710	1250	662	1375	600	1500
	300	41000	1360	600	1230	750	1090	900	974	1050	923	1200	914	1350	852	1500	795	1650	721	1800
	340	39000	1542	680	1394	850	1236	1020	1104	1190	1046	1360	1036	1530	966	1700	900	1870	817	2040
	430	36000	1951	860	1763	1075	1563	1290	1396	1505	1324	1720	1311	1935	1222	2150	1139	2365	1034	2580
	500	35000	2268	1000	2050	1250	1818	1500	1623	1750	1538	2000	1524	2250	1420	2500	1324	2750	1200	3000
	580	33000	2631	1160	2378	1450	2108	1740	1833	2030	1785	2320	1768	2610	1648	2900	1536	3190	1394	3480
	720	31000	3266	1440	2952	1800	2617	2160	2338	2520										
860	28000	3902	1440	3526	1800	3126	2160													
M34A	250	43000	1382	500	1213	625	1075	750	961	875	911	1000	902	1125	841	1250	778	1375	719	1500
	300	41000	1658	600	1456	750	1290	900	1153	1050	1094	1200	1082	1350	1009	1500	934	1650	864	1800
	340	39000	1880	680	1650	850	1462	1020	1307	1190	1240	1360	1227	1530	1144	1700	1058	1870	979	2040
	430	36000	2378	860	2087	1075	1849	1290	1654	1505	1568	1720	1552	1935	1447	2150	1338	2365	1238	2580
	500	35000	2765	1000	2427	1250	2151	1500	1922	1750	1823	2000	1805	2250	1687	2500	1556	2750	1439	3000
	580	33000	3207	1160	2816	1450	2495	1740	2205	2030	2102	2320	2094	2610	1951	2900	1805	3190		
	720	31000	3982	1440	3495	1800	3087	2160	2769	2520										
M36A	250	43000	1631	500	1402	625	1242	750	1111	875	1054	1000	1043	1125	972	1250	894	1375	839	1500
	300	41000	1957	600	1682	750	1490	900	1333	1050	1265	1200	1251	1350	1166	1500	1073	1650	1007	1800
	340	39000	2218	680	1907	850	1689	1020	1511	1190	1434	1360	1418	1530	1322	1700	1216	1870	1141	2040
	430	36000	2806	860	2412	1075	2136	1290	1912	1505	1813	1720	1749	1935	1672	2150	1538	2365	1443	2580
	500	35000	3262	1000	2805	1250	2484	1500	2222	1750	2108	2000	2086	2250	1944	2500	1788	2750	1678	3000
	580	33000	3784	1160	3254	1450	2882	1740	2578	2030	2446	2320	2420	2610	2255	2900	2075	3190		
	720	31000	4698	1440	4039	1800	3577	2160	3200	2520										
M40A	250	43000	2064	500	1867	625	1728	750	1653	875	1572	1000	1456	1125	1343	1250	1232	1375	1148	1500
	340	39000	2807	680	2539	850	2350	1020	2248	1190	2138	1360	1980	1530	1827	1700	1676	1870	1562	2040
	430	36000	3550	860	3211	1075	2972	1290	2844	1505	2704	1720	2504	1935	2311	2150	2120	2365	1975	2580
	580	33000	4788	1160	4332	1450	4008	1740	3836	2030	3649	2320	3377	2610	3117	2900	2860	3190		
	720	31000	5944	1440	5337	1800	4976	2160												
M44A	250	43000	2639	500	2371	625	2226	750	2120	875	2000	1000	1778	1125	1732	1250	1600	1375	1493	1500
	340	39000	3589	680	3224	850	3027	1020	2883	1190	2722	1360	2419	1530	2356	1700	2177	1870	2031	2040
	430	36000	4539	860	4078	1075	3828	1290	3646	1505	3442	1720	3060	1935	2979	2150	2754	2365	2569	2580
	580	33000	6122	1160																



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MODEL	M80P	M200P	M16AH	M20A	M22A	M26A	M30A	M32A	M34A	M36A	M40A	M44A	M48A	M52A
AG	26.62	33.88	26.69	32.25	36.0	41.0	46.125	58	58	58	60	60	^	^
AJ	14.75	18.25	14.75	18.25	23.00	23.00	28.75	37.5	37.5	37.5	47	47	^	^
AK +005 -000	13.501	13.501	13.501	13.501	13.501	13.501	22.002	32.001	32.001	32.001	32.001	32.001	^	^
BB +.002 -000	.375	.625	.625	.750	.750	.875	.875	.875	.875	.875	.875	.875	^	^
BD	16.50	20.00	16.50	20.00	24.50	24.50	30.50	40	40	40	50	50	^	^
BF	.68	.68	.68	.68	.81	.81	.81	1.31	1.31	1.31	1.31	1.31	^	^
BX max	1.501	1.938	1.938	3.001	3.251	3.750	5.001	5.001	5.001	5.001	7.001	7.001	^	^
C tap		.62-11		.625-11	.625-11	.625-11	.75-10						FACTORY	FACTORY
CC +0005 -0000	1.874	2.436	2.249	2.937	2.937	3.749	3.749	3.749	3.749	3.749	3.749	3.749		
CD	22.56	29.19	22.00	24.5	31.0	35.0	37.75	48	48	48	56	56		
DD		14.75		14.75	14.75	14.75	26.00							
F	4.06	4.62	4.68	4.5	5.00	6.00	8.37	10	10	10	10	10		
G	.87	1.12	.87	1.12	1.25	1.50	1.75	2	2	2	2	2		
H	11.43	13.75	10.00	12.37	15.0	16.00	16.00	21	21	21	25	25		
I	18.00	20.87	20.25	24.8	27.0	31.0	34.00	42	42	42	43.5	43.5		
J	4.25	4.00	4.50	4.00	5.25	5.75	6.12	6.5	6.5	6.5	7	7		
K	6.50	8.37	6.62	7.62		12.0	8.50	19.5	19.5	19.5	17	17		
L	1.50	1.75	1.50	1.75	1.75	2.25	2.31							
Mnpt	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50	.50		
N	9.12	12.37	7.12	9.6	11.25	14.5	13.00							
O	5.75	5.75	7.75	7.50	7.50	7.50	10.00	10	10	10	12	12		
P	1.00	1.50												
Q	3.75	4.50												
Rnpt	.50	.50												
S	3.75	3.75												
V	2.00	2.50	2.50	3.00	3.75	4.25	5.00							
Net Wt. Lbs.	320	645	520	825	1185	1766	2860	5000	5000	5000	8000	8000	V	V
Domestic Wt. Lbs.	340	675	550	860	1225	1826	2960	5300	5300	5300	8500	8500	V	V
Export Wt. Lbs.	420	785	660	985	1770	1920	3110	5500	5500	5500	9000	9000	V	V
Export Cubic	9.0	17.0	14.0	20.5	44.0	37.3	55.0	96	96	96	126	126	V	V
Oil Cap Qts.	7.0	13.0	9.0	24.0	24.0	44.0	80.0	48	48	48	60	60	V	V

DE'RAN GEAR, INC.

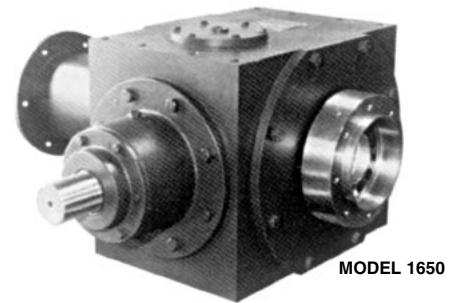
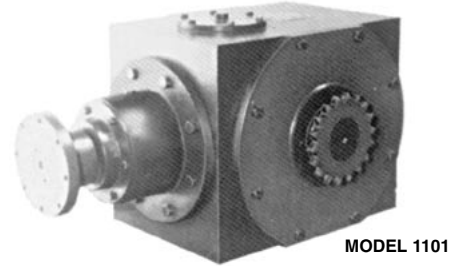
Over fifty years of experience in designing and building in excess of 140,000 heavy-duty gear drives, operating on six continents, is a part of every box we build.

We design and build both custom and standard production Spiral Bevel, Helical, and Spur gear boxes for our customers' need in our modern 43,000-square-foot facility.

All DE'RAN gear drives are manufactured and assembled in the U.S.A.

**TABLE 6
HORIZONTAL DRIVE GEAR BOXES SERVICE FACTOR 1.0**

MODEL	RATIO	1800 RPM HP	1500 RPM HP	1200 RPM HP	900 RPM HP	MAXIMUM OUTPUT TORQUE FT. LBS.
700	1:1	100	80	65	50	960 FT#
800	1:1	150	120	96	70	1200 FT#
900	1:1	200	170	135	100	1583 FT#
1000	1:1	300	250	200	150	2036 FT#
1100	1:1	400	335	270	200	2950 FT#
1200	1:1	500	415	335	250	3200 FT#
1400	1:1	750	625	500	375	6000 FT#
1075	2:1	185	155	125	95	1700 FT#
	5:2	185	155	125	95	1700 FT#
	3:1	185	155	125	95	1700 FT#
1350	2:1	275	250	210	170	3000 FT#
	5:2	275	250	210	170	3000 FT#
	3:1	275	250	210	170	3000 FT#
1650	2:1	500	450	375	300	5100 FT#
	5:2	500	450	375	300	5100 FT#
	3:1	500	450	375	300	5100 FT#
2200	2:1	900	800	650	500	11000 FT#
	5:2	900	800	650	500	11000 FT#
	3:1	900	800	650	500	11000 FT#



FOR RATIOS NOT LISTED, CONTACT FACTORY
SPECIAL DRIVES QUOTED ON REQUEST

**TABLE 4
HORSEPOWER AND THRUST BEARING RATINGS**

VERTICAL RPM	340	430	580	690	720	870	960	1160	1460	1760	2000	2200	2400	2600	2800	3000	3460	3600
PERCENT OF HP AT 1760 RPM	33	38	46	53	54	61	65	74	89	100	105	111	116	122	*128	*133	*146	*150
PERCENT OF THRUST	170	160	145	137	135	126	122	115	106	100	96	93	90	88	86	84	82	80

To obtain horsepower and thrust bearing ratings for the speeds listed, multiply the horsepower and thrust bearing rating at 1760 RPM by the percentage in Table 2

*Contact Factory

LUBRICANTS

AGMA LUBRICANT NUMBER	3 EP	4 EP	5 EP
Viscosity Range, SSU at 100° F	417-510	626-765	918-1122
cSt at 40° C	90-110	135-165	198-242
Celsius	-12/15	-1/16	10/52
Ambient Temperature F°	10° - 40°	30° - 60°	50° - 125°
ISO Grade	100	150	220

DE'RAN GEAR, INC.

9405 North Quaker Ave.
Rt. 2 Box 140
Lubbock, Texas 79415

Fax (806) 746-6518
Phone (806) 746-6926

www.derangear.com
e-mail: info@derangear.com
sales@derangear.com