



CATALOG NUMBERS / DIMENSIONS.....	86-95
SELECTION PROCEDURE.....	96
HORSEPOWER & TORQUE RATINGS.....	97-98
CENTER DISTANCES & RATIOS AVAILABLE.....	98
STOCK ALTERED / CUSTOM WORM AND WORM GEARS.....	3-5
WORM/WORM GEAR ENGINEERING INFORMATION	318-319

Worms & Worm Gears

48 Diametral Pitch (Bronze Worm Gears, Steel Worms – Unhardened & Hardened, Acetal Worm Gears & Worms)

Pressure Angle – Single thread 14-1/2° – Double thread 20° – Quad thread 25°



RATIO = Gear Teeth ÷ Worm Threads

All Worms and Worm Gears stocked RIGHT HAND ONLY.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

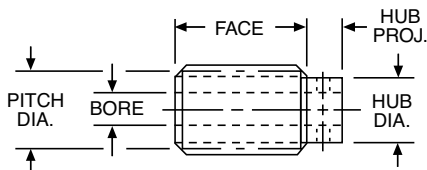
48						WORM GEARS		FACE = .156" *CENTER LINE WORM TO FLUSH END = .078"				
DIAMETRAL PITCH						Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread	
No. of Teeth	Pitch Dia.	Bore	Hub		Catalog Number		Item Code	Catalog Number	Item Code	Catalog Number	Item Code	
			Dia.	Proj.								
ACETAL**												
20	.417	.187	.34	.19	B	GP1018	54106	-	-	-	-	
30	.625		.44	.25		GP1019	54107	-	-	-	-	
40	.833		.50			GP1020	54108	-	-	-	-	
50	1.042					GP1021	54109	-	-	-	-	
ACETAL WITH BRASS INSERTS**												
20	.417	.125	.34	.19	B	GP1018-1/8	54118	-	-	-	-	
30	.625	.125	.44	.25		GP1019-1/8	54119	-	-	-	-	
		GP1019-3/16				54120	-	-	-	-		
40	.833	.188	.50	.25		GP1020-3/16	54121	-	-	-	-	
		GP1020-1/4				54122	-	-	-	-		
50	1.042	.188	.50	.25		GP1021-3/16	54123	-	-	-	-	
		GP1021-1/4			54124	-	-	-	-			
BRONZE												
20	.417	.1875	.34	.19	A	G1018	13564	D1118	13488	Q1318	13440	
30	.625		.44	.25		G1019	13566	D1119	13490	Q1319	13442	
40	.833		.50			G1020	13568	D1120	13492	Q1320	13444	
50	1.042		.50			G1021	13570	D1121	13494	Q1321	13446	
60	1.250		.62			G1024	13572	D1124	13500	Q1324	13452	
80	1.667	.62	.31	B	G1022	13574	D1122	13496	Q1322	13448		
100	2.083	.69			G1023	13576	D1123	13498	Q1323	13450		

STANDARD TOLERANCES

DIMENSION			TOLERANCE
BORE	Bronze and Steel	All	±.0005
	Acetal	All	+.001 –.002
	Acetal with Brass Insert	All	+.001 –.000

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.0654"	.1309"	.2618"
LEAD ANGLE	3°35'	7°7'	14°2'



REFERENCE PAGES

Alterations — 322
Lubrication — 322
Materials — 323

48											
DIAMETRAL PITCH											
WORMS FOR ABOVE GEARS											
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread		
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code	
ACETAL											
.333	.562	.187	.26	.19	LSHP	54141	-	-	-	-	
UNHARDENED – STEEL											
.333	.562	.1875	.26	.19	LSH-1	12920	DSH-1	12928	QSH-1	12934	
HARDENED – STEEL											
.333	.562	.1875	.26	.19	HLSH-1 GLSH-1	13026 12952	HDSH-1 GDSH-1	13052 13036	HQSH-1 GQSH-1	13062 13042	

All Steel worms have .0625 drilled hole in hub.
Hxxx worms have polished threads.
Gxxx worms have ground and polished threads.

Worms & Worm Gears

32 Diametral Pitch (Bronze Worm Gears, Steel Worms – Unhardened & Hardened, Acetal Worm Gears & Worms)

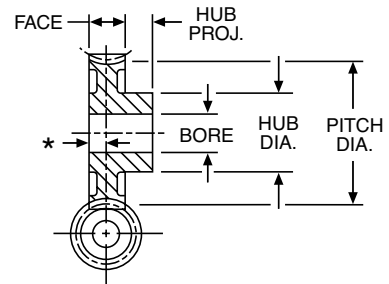
Pressure Angle – Single thread 14-1/2° – Double thread 20° – Quad thread 25°

RATIO = Gear Teeth ÷ Worm Threads

All Worms and Worm Gears stocked RIGHT HAND ONLY.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

32 DIAMETRAL PITCH						WORM GEARS		FACE = .219" *CENTER LINE WORM TO FLUSH END = .109"				
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread		
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code	
ACETAL**												
20 30	.625 .938	.187	.50 .63	.25	B	GP1026 GP1027	54110 54111	- -	- -	- -	- -	
40 50	1.250 1.562	.250	.63 .63	.31		GP1028 GP1029	54112 54113	- -	- -	- -	- -	
ACETAL WITH BRASS INSERTS**												
20 30	.625 .938	.188 .250	.50 .63	.25	B	GP1026-3/16 GP1026-1/4	54125 54126	- -	- -	- -	- -	
40	1.250	.250 .313	.63	.31		GP1027-3/16 GP1027-1/4	54127 54128	- -	- -	- -	- -	
50	1.562	.250 .3125	.63	.31		GP1028-1/4 GP1028-5/16	54129 54130	- -	- -	- -	- -	
						GP1029-1/4 GP1029-5/16	54131 54132	- -	- -	- -	- -	
BRONZE												
20 30	.625 .938	.1875	.50 .62	.25	A	G1026 G1027	13578 13580	D1126 D1127	13502 13504	Q1326 Q1327	13454 13456	
40 50 60	1.250 1.562 1.875	.250	.62 .69	.31		G1028 G1029 G1032	13582 13584 13586	D1128 D1129 D1132	13506 13508 13514	Q1328 Q1329 Q1332	13458 13460 13466	
80 96 100	2.500 3.000 3.125	.3125	.69	.31		D	G1030 G1031 G1033	13588 13590 13592	D1130 - D1133	13510 - 13516	Q1330 Q1331 -	13462 13464 -

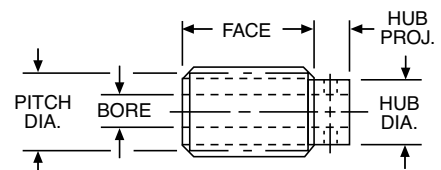


STANDARD TOLERANCES

DIMENSION			TOLERANCE
BORE	Bronze and Steel	All	±.0005
	Acetal	All	+.001 –.002
	Acetal with Brass Insert	All	+.001 –.000

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.0982"	.1963"	.3927"
LEAD ANGLE	4°5'	8°8'	15°57'



32										
DIAMETRAL PITCH										
WORMS FOR ABOVE GEARS										
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread	
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code
ACETAL										
.438	.641	.187	.32	.19	LTHBP	54142	—	—	—	—
UNHARDENED – STEEL										
.438	.688	.1875	.32	.19	LTHB-1	12922	DTH-1	12930	QTH-1	12936
HARDENED – STEEL										
.438	.688	.2187	.32	.19	HLTH-1	13028	HDTH-1	13054	HQTH-1	13064
					GLTH-1	12954	GDTH-1	13038	GQTH-1	13044

All Steel worms have .0625 drilled hole in hub.

Hxxx worms have polished threads.

Gxxx worms have ground and polished threads.

**These are in effect Helical Gears with a Helix Angle compatible with the worms. When in mesh they operate as a worm pair at right angles. Face Width is 3/16".

REFERENCE PAGES

Alterations — 322

Lubrication — 322

Materials — 323

Worms & Worm Gears

24 Diametral Pitch (Bronze Worm Gears, Steel Worms – Unhardened & Hardened, Minlon® Worm Gears – Nylon Worms)

Pressure Angle – Single thread 14-1/2° – Double thread 20° – Quad thread 25°



RATIO = Gear Teeth ÷ Worm Threads

All Worms and Worm Gears stocked RIGHT HAND ONLY.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

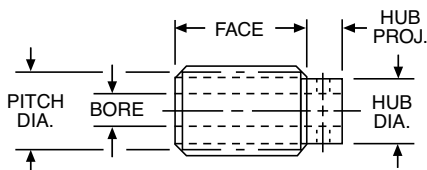
24 DIAMETRAL PITCH						WORM GEARS		FACE = .250" *CENTER LINE WORM TO FLUSH END = .125"					
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread			
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code		
MINLON**													
20	.833	.187	.63	.31	B	GP1034	54114	-	-	-	-		
30	1.250					GP1035	54115	-	-	-	-		
40	1.667	.3125	.75			GP1036	54116	-	-	-	-		
50	2.083					GP1037	54117	-	-	-	-		
MINLON WITH BRASS INSERTS**													
20	.833	.1875 .250	.63	.31	B	GP1034-3/16	54133	-	-	-	-		
						GP1034-1/4	54134	-	-	-	-		
30	1.250	.1875 .250				GP1035-3/16	54135	-	-	-	-		
						GP1035-1/4	54136	-	-	-	-		
40	1.667	.250 .3125	.75			GP1036-1/4	54137	-	-	-	-		
						GP1036-5/16	54138	-	-	-	-		
						GP1037-1/4	54139	-	-	-	-		
50	2.083	.250 .3125				GP1037-5/16	54140	-	-	-	-		
BRONZE													
20	.833	.1875	.62	.31	A	G1034	13594	D1134	13518	Q1334	13470		
30	1.250	.250	.62	.31		G1035	13596	D1135	13520	Q1335	13472		
40	1.667	.3125	.75	.31		G1036	13598	D1136	13522	Q1336	13474		
50	2.083	.3125	.75	.31	B	G1037	13600	D1137	13524	Q1337	13476		
60	2.500				C	G1040	13602	D1140	13530	Q1340	13482		
72	3.000				G1038	13604	D1138	13526	Q1338	13478			
80	3.333					.88	.38	D	G1041	13606	D1141	13532	Q1341
96	4.000	.375	.88	.38		G1039	13608	D1139	13528	-	-		
100	4.167					G1049	13610	D1149	13534	-	-		

STANDARD TOLERANCES

DIMENSION			TOLERANCE
BORE	Bronze and Steel	All	±.0005
	Minlon/Nylon	All	+.001 -.002
	Minlon/Nylon w/Brass Insert	All	+.001 -.000

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.1309"	.2618"	.5236"
LEAD ANGLE	4°46'	9°28'	18°26'



REFERENCE PAGES

Alterations — 322
Lubrication — 322
Materials — 323

24 DIAMETRAL PITCH					WORMS FOR ABOVE GEARS									
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread					
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code				
NYLON														
.500	.643	.187	.38	.25	LUHBP	54143	—	—	—	—				
UNHARDENED – STEEL														
.500	.812	.1875	.38	.25	LUHB	12924	DUH	12932	QUH	12938				
HARDENED – STEEL														
.500	.812	.25	.38	.25	HLUH GLUH	13030 12956	HDUH GDUH	13056 13040	HQUH GQUH	13066 13060				

All Steel worms have .0938 drilled hole in hub.

Hxxx worms have polished threads.

Gxxx worms have ground and polished threads.

MINLON® is a registered trademark of E.I. DuPont.

** These are in effect Helical Gears with a Helix Angle compatible with the worms. When in mesh they operate as a worm pair at right angles.

Worms & Worm Gears

16 Diametral Pitch (Bronze & Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

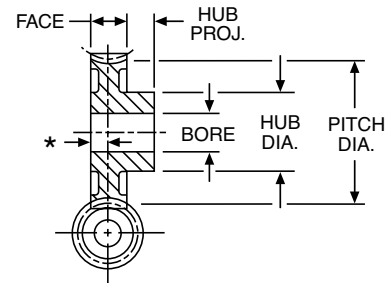
Pressure Angle – Single thread 14-1/2° – Double thread 14-1/2° – Quad thread 25°

RATIO = Gear Teeth ÷ Worm Threads

All Worms and Worm Gears stocked RIGHT HAND ONLY.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

16 DIAMETRAL PITCH						WORM GEARS		FACE = .313" *CENTER LINE WORM TO FLUSH END = .156"						
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread				
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code			
BRONZE														
20	1.250	.250	.62	.31	A	G1042	13612	D1142	13700	Q1342	13536			
30	1.875	.3125	.75	.38	B	G1043	13614	D1143	13702	Q1343	13538			
40	2.500				C	G1044	13616	D1144	13704	Q1344	13540			
50	3.125				D	G1045	13618	D1145	13706	Q1345	13542			
60	3.750					.375	.88	.44	G1048	13620	D1148	13708	Q1348	13544
80	5.000	G1046	13622	—					—	Q1346	13546			
100	6.250	1.00	.50	G1047					13624	—	—	—	—	
CAST IRON														
20	1.250	.250	.62	.31	A	CG1042	63506	CD1142	63513	CQ1342	63518			
30	1.875	.3125	.75	.38	B	CG1043	63507	CD1143	63514	CQ1343	63519			
40	2.500				C	CG1044	63508	CD1144	63515	CQ1344	63520			
50	3.125					.375	.88	.44	CG1045	63509	CD1145	63516	CQ1345	63521
60	3.750								CG1048	63510	CD1148	63517	CQ1348	63522
80	5.000	CG1046	63511	—					—	CQ1346	63523			
100	6.250	1.00	.50	CG1047	63512				—	—	—	—		



STANDARD TOLERANCES

DIMENSION	TOLERANCE
BORE	All ±.0005

WORM LEAD and LEAD ANGLE

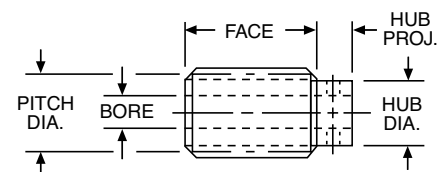
	SINGLE	DOUBLE	QUAD
LEAD	.1963"	.3927"	.7854"
LEAD ANGLE	5°43'	11°19'	21°48'

16										
DIAMETRAL PITCH										
WORMS FOR ABOVE GEARS										
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread	
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code
UNHARDENED – STEEL										
.625	1.00	.250	.44	.25	LVHB-1	12926	DVH-1	12862	QVH-1	12940
HARDENED – STEEL										
.625	1.00	.3125	.44	.25	HLVH-1	13032	HDVH-1	13004	HQVH-1	13058
					GLVH-1	12958	GDVH-1	12950	GQVH-1	13046

All worms have .0938 drilled hole in hub.

Hxxx worms have polished threads.

Gxxx worms have ground and polished threads.



REFERENCE PAGES

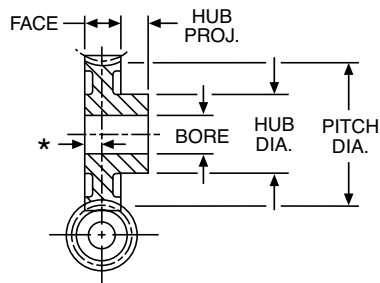
Alterations – 322
Lubrication – 322
Materials – 323

Worms & Worm Gears

12 Diametral Pitch (Bronze & Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

Pressure Angle – 14-1/2°

RATIO = Gear Teeth ÷ Worm Threads
RH = RIGHT HAND — LH = LEFT HAND
All others stocked RIGHT HAND ONLY.

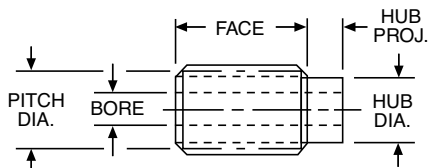


STANDARD TOLERANCES

DIMENSION	TOLERANCE
BORE	All
	±.0005

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.2618"	.5236"	1.0472"
LEAD ANGLE	4°46'	9°28'	18°26'



REFERENCE PAGES

Alterations — 322
Horsepower Ratings — 97, 98
Lubrication — 322
Materials — 323
Selection Procedure — 96

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

12						WORM GEARS		FACE = .500" *CENTER LINE WORM TO FLUSH END = .250"					
DIAMETRAL PITCH													
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread			
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code		
BRONZE													
12	1.000	.5625	1.00	.62	A	—	—	—	—	QB1212†	13762		
16	1.333	.6875	1.25	.62		—	—	—	—	QB1216†	13764		
20	1.667	.500	1.25	.50		GB1050A	13626	DB1400	13714	DB1600	13766		
30	2.500	.500	1.19	.62	B	GB1051	13628	—	—	—	—		
		.750		.62		—	—	DB1401A	13716	DB1601A	13768		
40	3.333	.625	1.44	.62		GB1052A	13630	—	—	—	—		
		.750		.62		—	—	DB1402A	13718	DB1602A	13770		
50	4.167	.625	1.44	.62		GB1053A	13632	—	—	—	—		
		.750		.62		—	—	DB1403A	13720	DB1603A	13772		
60	5.000	.625	1.69	.62	C	GB1260A	13634	—	—	—	—		
		.750		.62		—	—	DB1260A	13722	QB1260A	13774		
80	6.667	.625	1.94	.75		GB1054	13636	—	—	—	—		
100	8.333	.750	1.94	.75		GB1055	13638	—	—	—	—		
CAST IRON													
20	1.667	.500	1.25	.50	A	G1050ARH G1050ALH	13110 13112	D1400RH D1400LH	13260 13262	D1600	13352		
30	2.500	.500	1.19	.62	B	G1051RH G1051LH	13114 13116	—	—	—	—		
		—				—	D1401ARH D1401ALH	13264 13266	D1601A	13354			
.625	1.44	.62	G1052ARH G1052ALH	13118 13120		—	—	—	—				
.750			—	—		D1402ARH D1402ALH	13268 13270	D1602A	13356				
40	3.333	.625	1.44	.62		G1053ARH G1053ALH	13122 13124	—	—	—	—		
	.750	—				—	D1403ARH D1403ALH	13272 13274	D1603A	13358			
50	4.167	.625				G1260RH G1260LH	13126 13128	—	—	—	—		
		.750	1.69	.75		—	—	D1260A	13276	Q1260A	13360		
80	6.667	.625	1.94	.75		G1054	13130	—	—	—	—		
		.750				—	—	D1404	13278	—	—		
100	8.333	.750	1.94	.75	C	G1055	13134	—	—	—	—		

12 DIAMETRAL PITCH					WORMS FOR ABOVE GEARS					
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread	
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code
UNHARDENED – STEEL										
1.000	1.125	.625	–	–	–	–	D1407KRH‡ D1407KLH‡	12806 12808	D1607KRH‡ D1607KLH‡	12822 12824
	1.625	.625	–	–	–	–	L1407‡	12912	–	–
		.500	–	–	L1056‡	12900	–	–	–	–
	1.125	.500	.75	.38	GH1056RH GH1056LH	12884 12886	DH1407RH DH1407LH	12838 12840	DH1607 –	12854 –
HARDENED – STEEL										
1.000	1.125	.625	–	–	–	–	H1407RH‡ H1407LH‡	12980 12982	H1607‡	12996
	1.625	.625	–	–	–	–	HL1407‡	13018	–	–
		.500	–	–	HL1056‡	13006	–	–	–	–
	1.125	.500	–	–	H1056RH‡ H1056LH‡	12962 12960	– –	– –	– –	– –

‡.750" Face, Center Line Worm to Flush End = .375"
‡Furnished with .125" Keyway.
Hardened Worms have ground and polished threads.

Worms & Worm Gears

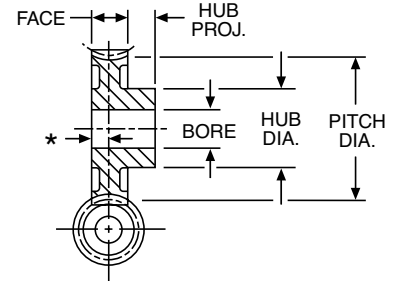
10 Diametral Pitch (Bronze & Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

Pressure Angle – 14-1/2°

RATIO = Gear Teeth ÷ Worm Threads
RH = RIGHT HAND — LH = LEFT HAND
All others stocked RIGHT HAND ONLY.

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

10 DIAMETRAL PITCH						WORM GEARS		FACE = .625" *CENTER LINE WORM TO FLUSH END = .312"			
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread	
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code
BRONZE											
16	1.600	.750	1.50	.75	A	—	—	—	—	QB1016†	13780
20	2.000	.500 .875	1.25 1.62	.62		GB1060A	13640	—	—	—	—
						—	—	DB1410	13728	DB1610	13782
30	3.000	.625 .875	1.69	.62	B	GB1061A	13648	—	—	—	—
						—	—	DB1411	13736	DB1611	13788
40	4.000	.625 .875	1.69	.62		GB1062A	13642	—	—	—	—
						—	—	DB1412	13730	DB1612	13784
50	5.000	.750 .875	1.94	.75		GB1063	13644	—	—	—	—
						—	—	DB1413A	13732	DB1613A	13786
60	6.000	.750 .875	1.94	.75	C	GB1064	13646	—	—	—	—
						—	—	DB1414A	13734	—	—
80	8.000	.750	1.94	.75		GB1067	13650	—	—	—	—
100	10.000	.750	2.00	.75		GB1065	13652	—	—	—	—
CAST IRON											
20	2.000	.500	1.25	.62	A	G1060ARH	13136	—	—	—	—
		G1060ALH	13138			—	—	—	—		
		.875	1.62			—	—	D1410RH D1410LH	13282 13284	D1610	13366
30	3.000	.625	1.69	.62		G1061ARH G1061ALH	13142 13140	—	—	—	—
						.875	1.69			D1411RH D1411LH	13286 13288
40	4.000	.625	1.69	.62	B	G1062ARH G1062ALH	13144 13146	—	—	—	—
						.875	1.69			D1412RH D1412LH	13290 13292
50	5.000	.750	1.94	.75		G1063RH G1063LH	13148 13150	—	—	—	—
						.875	1.94			D1413ARH D1413ALH	13294 13296
60	6.000	.750	1.94	.75		G1064RH G1064LH	13152 13154	—	—	—	—
						.875	1.94			D1414A	13298
80	8.000	.750 .875	1.94 1.94	.75	C	G1067RH	13156	—	—	—	—
						—	—	D1080A	13300	Q1080A	13376
100	10.000	.750 .875	1.94 1.94	.75		G1065	13158	—	—	—	—
						—	—	D1415A	13302	—	—

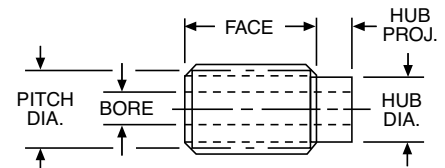


STANDARD TOLERANCES

DIMENSION	TOLERANCE
BORE	All ±.0005

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.3142"	.6283"	1.2566"
LEAD ANGLE	4°34'	9°5'	17°45'



REFERENCE PAGES

Alterations — 322
Horsepower Ratings — 97, 98
Lubrication — 322
Materials — 323
Selection Procedure — 96

10 DIAMETRAL PITCH											WORMS FOR ABOVE GEARS			
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread					
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code				
					UNHARDENED – STEEL									
1.250	1.375	.750	–	–	–	–	D1418KRH‡ D1418KLH‡	12810 12812	D1618KRH‡ D1618KLH‡	12826 12828				
	2.000	.750	–	–	–	–	L1418‡	12914	–	–				
		.625	–	–	L1066‡	12902	–	–	–	–				
	1.375	.625	–	–	G1066KRH‡ G1066KLH‡	12864 12866	–	–	–	–				
			.97	.50	GH1066RH GH1066LH	12888 12890	DH1418RH DH1418LH	12842 12844	DH1618 –	12856 –				
					HARDENED STEEL									
1.250	1.375	.750	–	–	–	–	H1418RH‡ H1418LH‡	12986 12984	H1618‡	12998				
	2.000	.750	–	–	–	–	HL1418‡	13020	–	–				
		.625	–	–	HL1066‡	13008	–	–	–	–				
	1.375	.625	–	–	H1066RH‡ H1066LH‡	12966 12964	–	–	–	–				

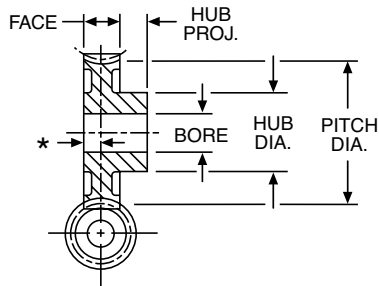
‡.875" Face, Center Line Worm to Flush End = .438"
‡Furnished with 3/16" Keyway.
Hardened Worms have ground and polished threads.

Worms & Worm Gears

8 Diametral Pitch (Bronze & Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

Pressure Angle – 14-1/2°

RATIO = Gear Teeth ÷ Worm Threads
RH = RIGHT HAND — LH = LEFT HAND
All others stocked RIGHT HAND ONLY.

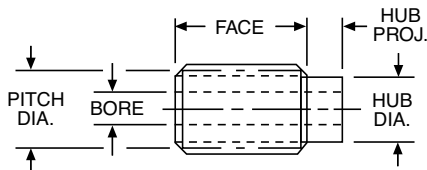


STANDARD TOLERANCES

DIMENSION	TOLERANCE
BORE	All
	±.0005

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.3927"	.7854"	1.5708"
LEAD ANGLE	4°46'	9°28'	18°26'



REFERENCE PAGES

Alterations — 322
Horsepower Ratings — 97, 98
Lubrication — 322
Materials — 323
Selection Procedure — 96

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

8 DIAMETRAL PITCH WORM GEARS										FACE = .750" *CENTER LINE WORM TO FLUSH END = .375"	
No. of Teeth	Pitch Dia.	Bore	Hub Dia.	Proj.	Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread	
						Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code
BRONZE											
8	1.000	.500	1.12	.88	A	—	—	—	—	QB808†	13790
12	1.500	.750	1.50	.88		—	—	—	—	QB812†	13792
16	2.000	1.000	2.00	.88		—	—	—	—	QB816†	13794
20	2.500	.750	1.75	.75	B	GB1070	13654	—	—	—	—
		1.000	1.75	.75		—	—	DB1420A	13740	DB1620A	13796
30	3.750	.750	1.69	.75		GB1071	13656	—	—	—	—
40	5.000	1.000	2.19	.75	C	—	—	DB1421A	13742	DB1621A	13798
48	6.000	1.000	2.38	.88		GB1072A	13658	DB1422	13744	DB1622	13800
50	6.250	1.000	2.31	.88		GB1073	13660	—	—	—	—
60	7.500	1.000	2.44	.88	D	GB850	13662	DB1423A	13746	DB1623A	13802
80	10.000	1.250	2.75	.88		GB860	13664	DB860A	13748	—	—
100	12.500	1.250	3.00	1.00		GB1074A	13666	—	—	—	—
					C	GB8100	13668	—	—	—	—
CAST IRON											
20	2.500	.750	1.75	.75	A	G1070RH	13160	—	—	—	—
		1.000	1.75	.75		G1070LH	13162	—	—	—	—
						—	—	D1420ARH	13304	D1620A	13380
30	3.750	.750	1.69	.75	B	G1071RH	13164	—	—	—	—
		1.000	1.69	.75		G1071LH	13166	—	—	—	—
						—	—	D1421ARH	13308	D1621A	13382
40	5.000	1.000	1.69	.75	C	G1072ARH	13168	D1422ARH	13312	D1622A	13384
						G1072ALH	13170	D1422ALH	13314	—	—
48	6.000	1.000	2.38	.88		G1073RH	13174	—	—	—	—
50	6.250	1.000	2.31	.88	D	G1073LH	13172	—	—	—	—
						G850RH	13176	D1423A	13316	D1623A	13386
						G850LH	13178	—	—	—	—
60	7.500	1.000	2.44	.88	C	G860	13180	D860A	13320	Q860A	13388
80	10.000	1.000	2.69	.88		—	—	D1424A	13322	D1624A	13390
		1.250	2.69	.88		G1074ARH	13182	—	—	—	—
96	12.000	1.250	3.00	1.00	C	G1075	13186	—	—	—	—
100	12.500	1.250	2.69	1.00		G8100A	13188	—	—	—	—

8					WORMS FOR ABOVE GEARS						
DIAMETRAL PITCH											
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread		
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code	
UNHARDENED – STEEL											
1.500	1.750	.875	–	–	–	–	D1427KRH‡ D1427KLH‡	12814 12816	D1627KRH‡ D1627KLH‡	12830 12832	
	2.500	.875	–	–	–	–	L1427‡	12916	–	–	
		.750	–	–	L1076‡	12904	–	–	–	–	
	1.750	.750	–	–	G1076KRH‡ G1076KLH‡	12868 12870	–	–	–	–	
		.750	1.18	.62	GH1076RH GH1076LH	12892 12894	DH1427RH DH1427LH	12846 12848	DH1627	12858	
	HARDENED STEEL										
1.500	1.750	.875	–	–	–	–	H1427RH‡ H1427LH‡	12990 12988	H1627‡	13000	
	2.500	.875	–	–	–	–	HL1427‡	13022	–	–	
		.750	–	–	HL1076‡	13010	–	–	–	–	
	1.750	.750	–	–	H1076RH‡ H1076LH‡	12970 12968	–	–	–	–	

†1.000" Face, Center Line Worm to Flush End = .500"
‡Furnished with .188" Keyway.
Hardened Worms have ground and polished threads.

Worms & Worm Gears

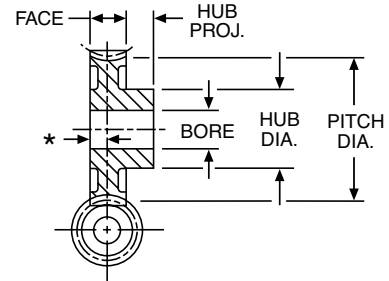
6 Diametral Pitch (Bronze & Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

Pressure Angle – 14-1/2°

ALL DIMENSIONS IN INCHES

ORDER BY CATALOG NUMBER OR ITEM CODE

6						WORM GEARS		FACE = 1.000" *CENTER LINE WORM TO FLUSH END = .500"					
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 323	SINGLE Thread		DOUBLE Thread		QUAD Thread			
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code		
BRONZE													
16	2.667	1.250	2.38	1.00	A	—	—	—	—	QB616**	13804		
20	3.333	.750	2.00	.88		GB1077A	13670	—	—	—	—		
		1.000	2.00			—	—	DB620A	13752	—	—		
		1.250	2.00		—	—	—	—	QB620A	13806			
24	4.000	.750	1.94	.88	B	GB1080A	13672	—	—	—	—		
30	5.000	1.250	2.19	.88		—	—	DB1430A	13754	DB1630A	13808		
		.875	2.19			GB1081	13674	—	—	—	—		
		1.250	2.19		—	—	DB1431A	13756	DB1631A	13810			
36	6.000	1.000	2.50	.88	B	GB1082	13676	—	—	—	—		
40	6.667	1.000	2.44	.88		GB1078	13678	—	—	—	—		
		1.250	2.44			—	—	DB1432A	13758	DB1632A	13812		
48	8.000	1.250	2.75	1.00	C	GB1083	13680	—	—	—	—		
50	8.333	1.250	2.69	1.00		GB1079	13682	—	—	—	—		
60	10.000	1.250	3.00	1.00		GB1087	13684	—	—	—	—		
72	12.000	1.250	3.00	1.25		GB1084	13686	—	—	—	—		
CAST IRON													
20	3.333	.750	1.81	.88	B	G1077RH	13190	—	—	—	—		
		G1077LH				13192	—	—	—	—			
24	4.000	1.000	1.94	.88		—	—	D620ARH	13326	Q620A	13394		
							D620ALH	13328					
		.750				2.19	.88	G1080ARH	13194	—	—	—	—
		1.250						G1080ALH	13196	—	—	—	—
30	5.000	.875	2.19	.88		G1081RH	13198	—	—	—	—		
		1.250				G1081LH	13200	—	—	—	—		
36	6.000	1.000	2.50	.88		—	—	D1431ARH	13334	D1631A	13398		
							D1431ALH	13336					
40	6.667	1.000	2.44	.88		G1082RH	13202	—	—	—	—		
							G1082LH	13204	—	—	—	—	
						G1078RH	13206	—	—	—	—		
		1.250			G1078LH	13208	—	—	—	—			
48	8.000	1.250	2.75	1.00	—	—	D1432ARH	13338	D1632A	13400			
						D1432ALH	13340						
50	8.333	1.250	2.69	1.00	B	G1083RH	13212	—	—	—	—		
						G1083LH	13210	—	—	—	—		
60	10.000	1.250	2.69	1.00	C	G1079RH	13214	D1433	13342	D1633	13402		
72	12.000	1.250	2.94	1.00		G1087ARH	13218	D660	13344	Q660	13404		
80	13.333	1.250	3.00	1.00		G1084ARH	13220	D1434	13346	D1634	13406		
96	16.000	1.375	3.00	1.00		G1088ARH	13224	—	—	—	—		
100	16.667	1.375	3.00	1.00	D	G1085ARH	13226	—	—	—	—		
		1.375	3.00	1.00		G1089ARH	13228	—	—	—	—		

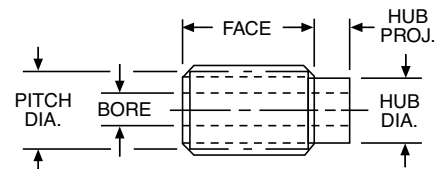


STANDARD TOLERANCES

DIMENSION	TOLERANCE
BORE	All ±.0005

WORM LEAD and LEAD ANGLE

	SINGLE	DOUBLE	QUAD
LEAD	.5236"	1.0472"	2.0944"
LEAD ANGLE	4°46'	9°28'	18°26'



REFERENCE PAGES

Alterations — 322
Horsepower Ratings — 97, 98
Lubrication — 322
Materials — 323
Selection Procedure — 96

RATIO = Gear Teeth ÷ Worm Threads
RH = RIGHT HAND — LH = LEFT HAND
All others stocked RIGHT HAND ONLY.

**1.250" Face, Center Line Worm to Flush End = .625"
‡Furnished with .188" Keyway.
†Furnished with .250" Keyway.
Hardened Worms have ground and polished threads.

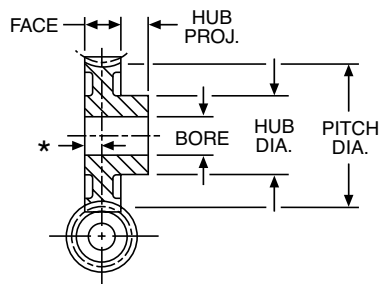
6 DIAMETRAL PITCH											WORMS FOR ABOVE GEARS			
Pitch Dia.	Face	Bore	Hub		SINGLE Thread		DOUBLE Thread		QUAD Thread					
			Dia.	Proj.	Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code				
UNHARDENED – STEEL														
2.000	2.500	1.000	–	–	–	–	D1438KRH† D1438KLH†	12818 12820	D1638KRH† D1638KLH†	12834 12836				
	3.500	1.000	–	–	–	–	L1438	12918	–	–				
		.875	–	–	L1086‡	12906	–	–	–	–				
	2.500	.875	–	–	G1086KRH† G1086KLH†	12872 12874	–	–	–	–				
		.875	1.56	.75	GH1086RH GH1086LH	12896 12898	DH1438RH DH1438LH	12850 12852	DH1638	12860				
	HARDENED STEEL													
2.000	2.500	1.000	–	–	–	–	H1438RH† H1438LH‡	12994 12992	H1638† –	13002 –				
	3.500	1.000	–	–	–	–	HL1438†	13024	–	–				
		.875	–	–	HL1086‡	13012	–	–	–	–				
	2.500	.875	–	–	H1086RH† H1086LH†	12974 12972	–	–	–	–				

Worms & Worm Gears

4 Diametral Pitch (Bronze & Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

Pressure Angle – 14-1/2°

RATIO = Gear Teeth ÷ Worm Threads
RH = RIGHT HAND — LH = LEFT HAND
All others stocked RIGHT HAND ONLY.

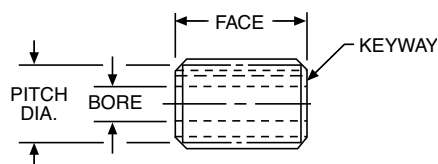


STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

WORM LEAD and LEAD ANGLE

LEAD	.7854
LEAD ANGLE	4°46'



REFERENCE PAGES

Alterations — 322
Horsepower Ratings — 97, 98
Lubrication — 322
Materials — 323
Selection Procedure — 96

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

4 DIAMETRAL PITCH WORM GEARS							
		FACE = 1.500"		*CENTER LINE WORM TO FLUSH END = .750"			
No. of Teeth	Pitch Dia.	Bore	Hub Dia.	Proj.	Style See Page 323	SINGLE Thread Catalog Number	Item Code
BRONZE							
20	5.000	1.000	2.50	1.25	B	GB1100	13688
24	6.000					GB1101	13690
CAST IRON							
20	5.000	1.000	2.50	1.25	B	G1100RH	13230
						G1100LH	13232
24	6.000				B	G1101RH	13234
						G1101LH	13236
32	8.000	1.250	3.00			G1102RH	13238
40	10.000					G1102LH	13240
48	12.000	1.500	3.50			G1103RH	13242
64	16.000				D	G1104RH	13244
						G1105RH	13246

4 DIAMETRAL PITCH WORMS FOR ABOVE GEARS						
Pitch Dia.	Face	Bore	Hub Dia.	Proj.	SINGLE Thread Catalog Number*	Item Code
UNHARDENED – STEEL						
3.000	3.500	1.250	–	–	G1106KRH	12876
	4.500	1.250	–	–	G1106KLH	12878
					L1106	12908
HARDENED STEEL						
3.000	3.500	1.250	–	–	H1106	12976
	4.500	1.250	–	–	HL1106	13014
	5.750				HP1106	13034

*All worms furnished with .313 keyway.
Hardened Worms have ground and polished threads.

Worms & Worm Gears

3 Diametral Pitch (Cast Iron Worm Gears, Steel Worms – Unhardened & Hardened)

Pressure Angle – 14-1/2°

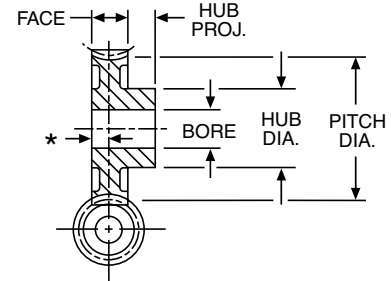
RATIO = Gear Teeth ÷ Worm Threads

All Worm and Worm Gears stocked RIGHT HAND ONLY.



ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

3 DIAMETRAL PITCH WORM GEARS						
FACE = 2.000" *CENTER LINE WORM TO FLUSH END = 1.000"						
No. of Teeth	Pitch Dia.	Bore	Hub Dia.	Proj.	Style See Page 323	SINGLE Thread Catalog Number Item Code
18	6.000	1.000	3.00	1.50	B	G1110 13248
24	8.000					G1111 13250
30	10.000		3.50			G1112 13252
36	12.000	1.500		1.50		G1113 13254
48	16.000		4.00		C	G1114 13256
54	18.000				D	G1115 13258



STANDARD TOLERANCES

DIMENSION	TOLERANCE
BORE	All ±.0005

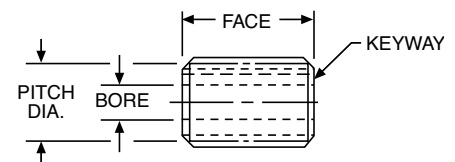
3 WORMS FOR ABOVE GEARS† DIAMETRAL PITCH						
Pitch Dia.	Face	Bore	Hub Dia.	Proj.	SINGLE Thread Catalog Number	Item Code
UNHARDENED – STEEL						
4.000	4.000	1.500	–	–	G1116KRH	12880
	5.500				L1116	12910
HARDENED STEEL						
4.000	4.000	1.500	–	–	H1116	12978
	5.500				HL1116	13016

†All worms furnished with .375" keyway.

Hardened Worms have ground and polished threads.

WORM LEAD and LEAD ANGLE

LEAD	1.0472"
LEAD ANGLE	4°46'



REFERENCE PAGES

Alterations — 322
Horsepower Ratings — 97, 98
Lubrication — 322
Materials — 323
Selection Procedure — 96

Worms & Worm Gears



Boston worms and worm gears provide an effective answer for such power transmission applications as high-ratio speed reduction, limited space, right-angle shafts and non-intersecting shafts. When properly applied, they are the smoothest and quietest form of gearing. Steel worms and cast iron or bronze worm gears are available in single, double or quadruple threads, 48 to 3 diametral pitch.

Acetal worms and worm gears are available in single thread, 48 to 24 diametral pitch.

Selection Procedure

Approximate input horsepower and output torque ratings for Boston stock worm and worm gear combinations from 12 to 3 DP are listed on Pages 97, 98. These ratings are for hardened, ground and polished worms operating with bronze worm gears. For other combinations multiply the listed ratings by the following percentages:

Hardened, ground and polished steel worms with cast iron gears 50%. Unhardened steel worms with cast iron gears 25%.

These ratings are listed at selected worm speeds. Ratings for intermediate speeds can be interpolated from the values indicated.

These ratings are based on gears operating with a Service Factor of 1.0, properly mounted in accordance with good design practice and continuously lubricated with a sufficient supply of oil.

1. Determine service factor.
 - a. Using Application Classification Chart I, pages 331, 332, determine service factor or
 - b. With knowledge of operating conditions and load classification, select service factor from Table 1.

2. Determine Design Horsepower.

Design HP = Application Load x Service Factor (Table 1)

3. Select worm gear set with horsepower capacity equal to [or greater than] design horsepower determined in Step 2.

TABLE 1

Service Factor	Operating Conditions
0.8	Uniform—not more than 15 minutes in 2 hours.
1.0	Moderate Shock—not more than 15 minutes in 2 hours. Uniform—not more than 10 hours per day.
1.25	Moderate Shock—not more than 10 hours per day. Uniform—more than 10 hours per day.
1.50	Heavy Shock—not more than 15 minutes in 2 hours. Moderate Shock—more than 10 hours per day.
1.75	Heavy Shock—not more than 10 hours per day.
2.0	Heavy Shock—more than 10 hours per day.

Heavy shock loads and/or severe wear conditions may require the use of higher service factors. Consultation with factory is recommended in these applications.

Worms & Worm Gears

Steel-Hardened, Ground & Polished Worms Bronze Worm Gears

Approximate Horsepower and Torque* Ratings
For Class I Service (Service Factor = 1.0)

Worm RPM		1800		600		100		Worm Cat. No.	Gear Cat. No.	DP
Ratio	Center Distance	Input HP	Output Torque	Input HP	Output Torque	Input HP	Output Torque			
3	1.000	.52	50	.27	72	.06	83	H1607	QB1212	12
	1.500	1.19	109	.66	183	.15	227	H1627	QB812	8
4	1.167	.78	99	.40	143	.08	166	H1607	QB1216	12
	1.425	1.11	142	.61	223	.13	267	H1618	QB1016	10
	1.750	1.77	216	.98	361	.22	454	H1627	QB816	8
	2.333	3.01	392	1.84	689	.45	933	H1638	QB616	6
5	1.333	.68	109	.34	158	.07	180	H1607	DB1600	12
	1.625	1.03	165	.57	257	.12	309	H1618	DB1610	10
	2.000	1.73	264	.96	441	.22	551	H1627	DB1620A	8
	2.667	3.92	639	2.40	1124	.59	1512	H1638	QB620A	6
6	3.000	3.82	746	2.34	1317	.57	1777	H1638	DB1630A	6
7.5	1.750	1.04	247	.53	355	.11	411	H1607	DB1601A	12
	2.125	1.59	381	.87	599	.19	714	H1618	DB1611	10
	2.625	2.65	607	1.47	1016	.33	1276	H1627	DB1621A	8
	3.500	4.80	1174	2.94	2064	.72	2789	H1638	DB1631A	6
10	1.333	.44	130	.23	189	.05	208	H1407	DB1400	12
	1.625	.67	196	.38	305	.09	366	H1418	DB1410	10
	2.000	1.05	318	.63	525	.15	649	H1427	DB1420A	8
	2.167	1.39	441	.71	641	.15	756	H1607	DB1602A	12
	2.667	2.01	616	1.26	1071	.32	1450	H1438	DB620A	6
	2.625	2.11	672	1.16	1061	.25	1267	H1618	DB1612	10
	3.250	3.54	1082	1.96	1806	.44	2270	H1627	DB1622	8
	4.333	6.43	2094	3.94	3685	.96	4980	H1638	DB1632A	6
12	3.000	2.39	882	1.50	1537	.38	2042	H1438	DB1430A	6
12.5	2.583	1.72	683	.87	985	.18	1134	H1607	DB1603A	12
	3.125	2.61	1042	1.44	1641	.31	1961	H1618	DB1613A	10
	3.875	4.40	1681	2.44	2810	.55	3466	H1627	DB1623A	8
15	1.750	.64	284	.33	410	.07	463	H1407	DB1401A	12
	2.125	.98	436	.55	678	.13	804	H1418	DB1411	10
	2.625	1.54	699	.92	1150	.22	1428	H1427	DB1421A	8
	3.000	2.04	966	1.03	1402	.22	1617	H1607	QB1260A	12
	3.500	2.94	1355	1.84	2364	.47	3120	H1438	DB1431A	6
18	5.000†	2.27	1308	1.38	2373	.41	4198	H1116	G1110†	3
20	1.333	.28	140	.15	210	.04	227	H1056	GB1050A	12
	1.625	.42	217	.25	336	.06	391	H1066	GB1060A	10
	2.000	.65	343	.41	567	.10	706	H1076	GB1070	8
	2.167	.83	483	.43	693	.09	794	H1407	DB1402A	12
	2.667	1.22	665	.80	1156	.22	1550	H1086	GB1077A	6
	2.625	1.25	742	.71	1156	.16	1374	H1418	DB1412	10
	3.250	1.98	1191	1.18	1974	.28	2433	H1427	DB1422	8
	4.000	2.92	1667	1.99	3025	.64	4663	H1106	GB1100	4
24	4.333	3.77	2318	2.36	4034	.60	5420	H1438	DB1432A	6
	3.000	1.42	933	.93	1613	.26	2163	H1086	GB1080A	6
	6.000†	3.23	2218	1.81	4020	.53	7109	H1116	G1111†	3
25	4.500	3.41	2336	2.32	4235	.75	6504	H1106	GB1101	4
	2.583	.99	726	.52	1048	.11	1197	H1407	DB1403A	12
	3.125	1.50	1112	.85	1730	.19	2048	H1418	DB1413A	10
	3.875	2.39	1794	1.43	2962	.34	3671	H1427	DB1423A	8
30	5.167	2.27	1738	1.42	3028	.36	4018	H1438	D1433†	6
	1.750	.40	294	.21	410	.05	473	H1056	GB1051	12
	2.125	.59	452	.35	693	.09	831	H1066	GB1061A	10
	2.625	.90	725	.57	1197	.13	1286	H1076	GB1071	8
	3.000	1.15	1008	.60	1450	.13	1663	H1407	DB1260A	12
	3.500	1.69	1386	1.12	2426	.31	3233	H1086	GB1081A	6
	3.625	1.74	1544	.98	2395	.22	2836	H1418	DB1414A	10
	4.500	2.75	2489	1.65	4128	.39	5105	H1427	DB860A	8
32	7.000†	4.23	3326	2.53	6002	.76	10683	H1116	G1112†	3
	5.500	2.13	1955	1.46	3546	.47	5445	H1106	G1102†	4
36	4.000	1.95	1915	1.29	3366	.36	4470	H1086	GB1082A	6
	8.000†	3.87	3990	1.33	4130	.68	12816	H1116	G1113†	3

*Torque in Lb. Ins.

†Cast Iron Gear Rating with Hardened Worm shown.

All Worm and Worm Gear Ratings are based on a Hardened Steel Worm used with a Bronze Worm Gear.

1. For a Hardened Steel Worm used with a Cast Iron Gear, multiply the listed Rating by .50.
2. For an Unhardened Steel Worm used with a Cast Iron Gear, multiply the listed Rating by .25.

Worms & Worm Gears

Steel-Hardened, Ground & Polished Worms Bronze Worm Gears

Approximate Horsepower and Torque* Ratings
For Class I Service (Service Factor = 1.0)

Worm RPM		1800		600		100		Worm Cat. No.	Gear Cat. No.	DP
Ratio	Center Distance	Input HP	Output Torque	Input HP	Output Torque	Input HP	Output Torque			
40	2.167	.48	490	.26	672	.06	782	H1056	GB1052A	12
	2.625	.72	742	.43	1134	.11	1361	H1066	GB1062A	10
	3.250	1.12	1190	.71	1974	.18	2420	H1076	GB1072A	8
	4.333	2.11	2310	1.39	4034	.38	5345	H1086	GB1078	6
48	3.750	1.26	1614	.79	2622	.20	3267	H1076	GB1073	8
	5.000	2.37	3110	1.56	5445	.43	7260	H1086	GB1083	6
	10.000†	4.06	5320	1.68	6608	.72	17088	H1116	G1114†	3
50	2.583	.55	700	.30	998	.07	1134	H1056	GB1053A	12
	3.125	.83	1068	.51	1733	.12	1954	H1066	GB1063	10
	3.875	1.30	1716	.82	2836	.21	3498	H1076	GB850	8
	5.167	2.43	3327	1.60	5777	.44	7563	H1086	GB1079	6
54	11.000†	4.34	5985	1.79	7434	.77	19224	H1116	G1115†	3
60	3.000	.60	924	.33	1323	.08	1664	H1056	GB1260A	12
	3.625	.91	1408	.54	2142	.13	2571	H1066	GB1064	10
	4.500	1.42	2269	.89	3718	.23	4538	H1076	GB860	8
	6.000	2.66	4370	1.75	7625	.49	10210	H1086	GB1087	6
72	7.000	2.79	5521	1.84	9605	.51	12705	H1086	GB1084	6
80	3.833	.64	1288	.35	1849	.08	2118	H1056	GB1054	12
	4.625	.96	1961	.57	3042	.14	3630	H1066	GB1067	10
	5.750	1.49	3165	.94	5210	.24	6555	H1076	GB1074A	8
100	4.667	.60	1505	.33	2206	.08	2458	H1056	GB1055	12
	5.625	.90	2310	.54	3571	.13	4223	H1066	GB1065	10
	7.000	1.40	3711	.88	6092	.22	7563	H1076	GB8100	8

*Torque in Lb. Ins.

†Cast Iron Gear Rating with Hardened Worm shown.

All Worm and Worm Gear Ratings are based on a Hardened Steel Worm used with a Bronze Worm Gear.

1. For a Hardened Steel Worm used with a Cast Iron Gear, multiply the listed Rating by .50.
2. For an Unhardened Steel Worm used with a Cast Iron Gear, multiply the listed Rating by .25.
3. For an Unhardened Steel Worm used with a Bronze Gear, multiply the listed Rating by .35.

CENTER DISTANCES AND RATIOS AVAILABLE WITH STOCK WORM GEARING

Center Distance (inches)	Pitch	No. of Teeth in Gear	Worm Thread			Center Distance (inches)	Pitch	No. of Teeth in Gear	Worm Thread			Center Distance (inches)	Pitch	No. of Teeth in Gear	Worm Thread		
			Single	Double	Quad				Single	Double	Quad				Single	Double	Quad
			Ratio						Ratio						Ratio		
.375	48	20	20	10	5	1.781	32	100	100	50	25	4.333	6	40	40	20	10
.479	48	30	30	15	7.5	1.875	16	50	50	25	12.5	4.500	8	60	60	30	15
.531	32	20	20	10	5	1.917	24	80	80	40	20	4.500	4	24	24	—	—
.583	48	40	40	20	10	2.000	8	20	20	10	5	4.625	10	80	80	40	20
.666	24	20	20	10	5	2.125	10	30	30	15	7.5	4.667	12	100	100	—	—
.688	48	50	50	25	12.5	2.167	12	40	40	20	10	5.000	6	48	48	—	—
.688	32	30	30	15	7.5	2.188	16	60	60	30	15	5.000	3	18	18	—	—
.792	48	60	60	30	15	2.250	24	96	96	48	24	5.167	6	50	50	25	12.5
.844	32	40	40	20	10	2.333	24	100	100	50	25	5.500	4	32	32	—	—
.875	24	30	30	15	7.5	2.583	12	50	50	25	12.5	5.625	10	100	100	50	—
.938	16	20	20	10	5	2.625	10	40	40	20	10	5.750	8	80	80	—	—
1.000	48	80	80	40	20	2.625	8	30	30	15	7.5	6.000	6	60	60	30	15
1.000	32	50	50	25	12.5	2.667	6	20	20	10	5	6.000	3	24	24	—	—
1.083	24	40	40	20	10	2.812	16	80	80	—	20	6.500	4	40	40	—	—
1.156	32	60	60	30	15	3.000	12	60	60	30	15	6.750	8	96	96	—	—
1.208	48	100	100	50	25	3.000	6	24	24	12	6	7.000	8	100	100	—	—
1.250	16	30	30	15	7.5	3.125	10	50	50	25	12.5	7.000	6	72	72	36	18
1.292	24	50	50	25	12.5	3.250	8	40	40	20	10	7.000	3	30	30	—	—
1.333	12	20	20	10	5	3.438	16	100	100	—	—	7.500	4	48	48	—	—
1.469	32	80	80	40	20	3.500	6	30	30	15	7.5	7.667	6	80	80	—	—
1.500	24	60	60	30	15	3.625	10	60	60	30	15	8.000	3	36	36	—	—
1.562	16	40	40	20	10	3.750	8	48	48	—	—	9.000	6	96	96	—	—
1.625	10	20	20	10	5	3.833	12	80	80	40	—	9.333	6	100	100	—	—
1.719	32	96	96	48	24	3.875	8	50	50	25	12.5	9.500	4	64	64	—	—
1.750	24	72	72	36	18	4.000	6	36	36	—	—	10.000	3	48	48	—	—
1.750	12	30	30	15	7.5	4.000	4	20	20	—	—	11.000	3	54	54	—	—

Example: Given a center distance of 2.625", Table lists Worm and Worm Gear Ratios available:

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|--------------------------------------|-------------------------------------|
| 10 Pitch, 40 tooth, single = 40 to 1 | 8 Pitch, 30 tooth, single = 30 to 1 |
| 10 Pitch, 40 tooth, double = 20 to 1 | 8 Pitch, 30 tooth, double = 15 to 1 |
| 10 Pitch, 40 tooth, quad = 10 to 1 | 8 Pitch, 30 tooth, quad = 7.5 to 1 |