

WORMS AND WORM GEARS

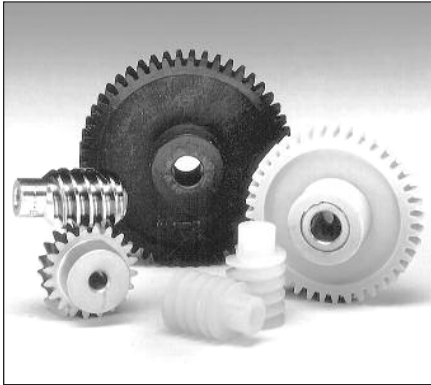
48 DIAMETRAL PITCH

BRONZE WORM GEARS – STEEL WORMS – Unhardened and Hardened DOUBLE THREAD 20°

ACETAL WORM GEARS AND WORMS

PRESSURE ANGLE – SINGLE THREAD 14½°

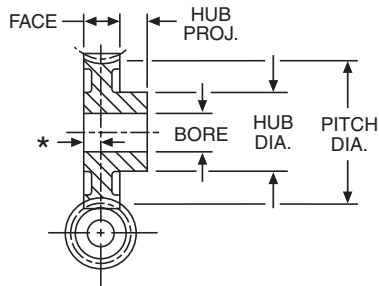
QUAD THREAD 25°



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



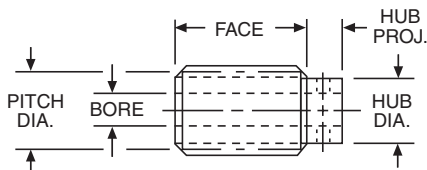
STANDARD TOLERANCES

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

48 DIAMETRAL PITCH		WORM GEARS				FACE = .156" *CENTER LINE WORM TO FLUSH END = .078"					
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	SINGLE Thread		DOUBLE Thread		QUAD Thread	
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code
ACETAL**											
20	.417	.187	.34	.19	B	GP1018	54106	-	-	-	-
30	.625		.44	.25		GP1019	54107	-	-	-	-
40	.833		.50	.25		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	-	-	-	-
		.188	.50	.25		GP1019-3/16	54120	-	-	-	-
40	.833	.188				.50	.25	GP1020-3/16	54121	-	-
		.250	GP1020-1/4	54122	-			-	-	-	
50	1.042	.188	.50	.25	GP1021-3/16	54123	-	-	-	-	
		.250			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	.25		G1020	13568	D1120	13492	Q1320	13444
50	1.042		.50			G1021	13570	D1121	13494	Q1321	13446
60	1.250	.62	.31	B	G1024	13572	D1124	13500	Q1324	13452	
80	1.667	.62			G1022	13574	D1122	13496	Q1322	13448	
100	2.083	.69	G1023	13576	D1123	13498	Q1323	13450			

WORM LEAD and LEAD ANGLE

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



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	13026	HDSH-1	13052	HQSH-1	13062
					GLSH-1	12952	GDSH-1	13036	GQSH-1	13042

REFERENCE PAGES

Alterations — 149
Lubrication — 149
Materials — 150

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

WORMS AND WORM GEARS

32 DIAMETRAL PITCH

BRONZE WORM GEARS – STEEL WORMS – Unhardened and Hardened

ACETAL WORM GEARS AND WORMS

PRESSURE ANGLE – SINGLE THREAD 14½°

DOUBLE THREAD 20°

QUAD THREAD 25°

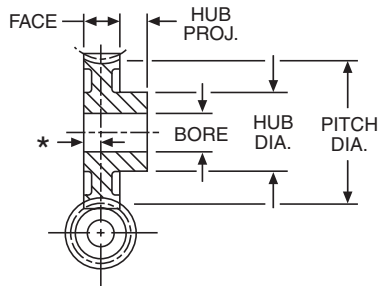


RATIO = Gear Teeth ÷ Worm Threads

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 150	SINGLE Thread		DOUBLE Thread		QUAD Thread		
			Dia.	Proj.		Catalog Number	Item Code	Catalog Number	Item Code	Catalog Number	Item Code	
ACETAL**												
20	.625	.187	.50	.25	B	GP1026	54110	-	-	-	-	
30	.938	.250	.63	.31		GP1027	54111	-	-	-	-	
40	1.250	.250	.63	.31		GP1028	54112	-	-	-	-	
50	1.562	.250	.63	.31		GP1029	54113	-	-	-	-	
ACETAL WITH BRASS INSERTS**												
20	.625	.188 .250	.50	.25	B	GP1026-3/16	54125	-	-	-	-	
						GP1026-1/4	54126	-	-	-	-	
30	.938	.188 .250	.63	.25		GP1027-3/16	54127	-	-	-	-	
						GP1027-1/4	54128	-	-	-	-	
40	1.250	.250 .313	.63	.31		GP1028-1/4	54129	-	-	-	-	
						GP1028-5/16	54130	-	-	-	-	
50	1.562	.250 .3125	.63	.31		GP1029-1/4	54131	-	-	-	-	
						GP1029-5/16	54132	-	-	-	-	
BRONZE												
20	.625	.1875	.50	.25		A	G1026	13578	D1126	13502	Q1326	13454
30	.938	.250	.62	.31	G1027		13580	D1127	13504	Q1327	13456	
40	1.250	.250	.62	.31	G1028		13582	D1128	13506	Q1328	13458	
50	1.562	.250	.62	.31	G1029		13584	D1129	13508	Q1329	13460	
60	1.875	.250	.62	.31	G1032		13586	D1132	13514	Q1332	13466	
80	2.500	.3125	.69	.31	G1030		13588	D1130	13510	Q1330	13462	
96	3.000	.3125	.69	.31	G1031		13590	-	-	Q1331	13464	
100	3.125	.3125	.69	.31	G1033		13592	D1133	13516	-	-	

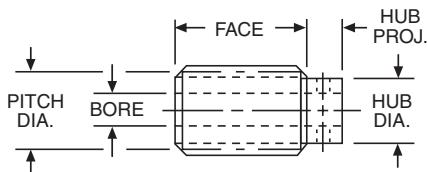


STANDARD TOLERANCES

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'



REFERENCE PAGES

- Alterations — 149
- Lubrication — 149
- Materials — 150

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".

WORMS AND WORM GEARS

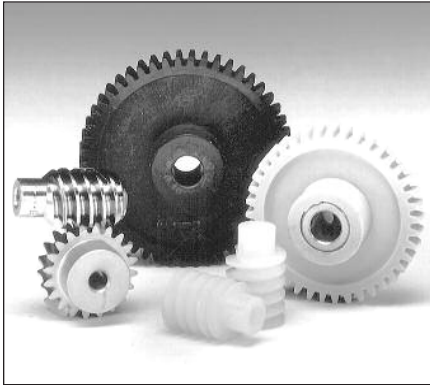
24 DIAMETRAL PITCH

PRESSURE ANGLE – SINGLE THREAD 14½°

BRONZE WORM GEARS – STEEL WORMS – Unhardened and Hardened DOUBLE THREAD 20°

MINLON® WORM GEARS – NYLON WORMS

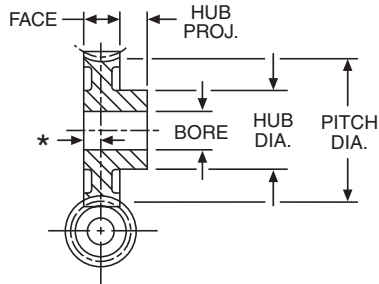
QUAD THREAD 25°



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

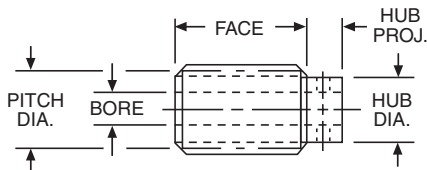


STANDARD TOLERANCES

DIMENSION			TOLERANCE
BORE	Bronze and Steel	All	±.0005
		Minlon/Nylon	+0.001 –.002
	Minlon/Nylon w/Brass Insert	All	+0.001 –.000

WORM LEAD and LEAD ANGLE

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



REFERENCE PAGES

Alterations — 149
Lubrication — 149
Materials — 150

24 DIAMETRAL PITCH		WORM GEARS				FACE = .250" *CENTER LINE WORM TO FLUSH END = .125"							
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	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	.250	.63			GP1035	54115	-	-	-	-		
40	1.667	.3125	.75			GP1036	54116	-	-	-	-		
50	2.083	.3125	.75			GP1037	54117	-	-	-	-		
MINLON WITH BRASS INSERTS**													
20	.833	.1875	.63	.31	B	GP1034-3/16	54133	-	-	-	-		
		.250				GP1034-1/4	54134	-	-	-	-		
30	1.250	.1875	.63			GP1035-3/16	54135	-	-	-	-		
		.250				GP1035-1/4	54136	-	-	-	-		
40	1.667	.250	.75	.31	B	GP1036-1/4	54137	-	-	-	-		
		.3125				GP1036-5/16	54138	-	-	-	-		
		.250				GP1037-1/4	54139	-	-	-	-		
50	2.083	.3125	.75			GP1037-5/16	54140	-	-	-	-		
BRONZE													
20	.833	.1875	.62	.31	A	G1034	13594	D1134	13518	Q1334	13470		
30	1.250	.250	.62			G1035	13596	D1135	13520	Q1335	13472		
40	1.667	.250	.62			G1036	13598	D1136	13522	Q1336	13474		
50	2.083	.3125	.75			.31	B	G1037	13600	D1137	13524	Q1337	13476
60	2.500	.3125	.75	.31	C			G1040	13602	D1140	13530	Q1340	13482
72	3.000	.3125	.75					G1038	13604	D1138	13526	Q1338	13478
80	3.333	.3125	.88	.38	D			G1041	13606	D1141	13532	Q1341	13484
96	4.000	.375	.88			G1039	13608	D1139	13528	-	-		
100	4.167	.375	.88			G1049	13610	D1149	13534	-	-		

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	13030	HDUH	13056	HQUH	13066
					GLUH	12956	GDUH	13040	GQUH	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 AND WORM GEARS

16 DIAMETRAL PITCH
BRONZE AND CAST IRON WORM GEARS
STEEL WORMS – UNHARDENED AND HARDENED

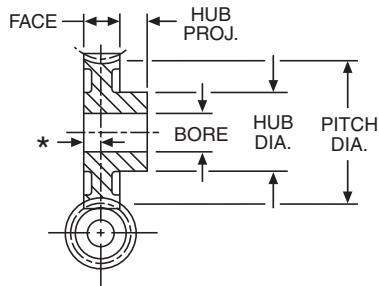
PRESSURE ANGLE – SINGLE THREAD 14½°
DOUBLE THREAD 14½°
QUAD THREAD 20°



RATIO = Gear Teeth ÷ Worm Threads

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ALL DIMENSIONS IN INCHES
 ORDER BY CATALOG NUMBER OR ITEM CODE

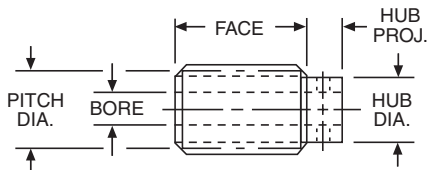


STANDARD TOLERANCES

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'



REFERENCE PAGES

Alterations — 149
 Lubrication — 149
 Materials — 150

16 DIAMETRAL PITCH						WORM GEARS		FACE = .313" *CENTER LINE WORM TO FLUSH END = .156"			
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	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					G1044	13616	D1144	13704	Q1344	13540
50	3.125	.375	.88	.44	D	G1045	13618	D1145	13706	Q1345	13542
60	3.750					G1048	13620	D1148	13708	Q1348	13544
80	5.000					G1046	13622	—	—	Q1346	13546
100	6.250					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					CG1044	63508	CD1144	63515	CQ1344	63520
50	3.125	.375	.88	.44	C	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					CG1047	63512	—	—	—	—

16 DIAMETRAL PITCH						WORMS FOR ABOVE GEARS					
Pitch Dia.	Face	Bore	Hub		Style	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

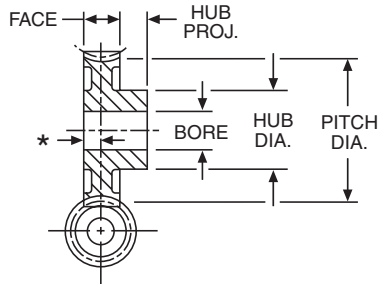
All worms have .0938 drilled hole in hub.
 Hxxx worms have polished threads.
 Gxxx worms have ground and polished threads.

WORMS AND WORM GEARS

12 DIAMETRAL PITCH
BRONZE AND CAST IRON WORM GEARS
STEEL WORMS – UNHARDENED AND HARDENED

PRESSURE ANGLE – 14½°

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

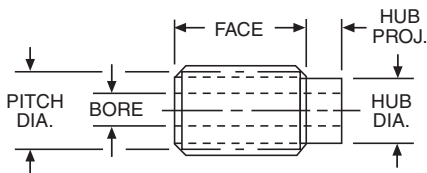


STANDARD TOLERANCES

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 — 149
 Horsepower Ratings — 85, 86
 Lubrication — 149
 Materials — 150
 Selection Procedure — 84

ALL DIMENSIONS IN INCHES
 ORDER BY CATALOG NUMBER OR ITEM CODE

12 DIAMETRAL PITCH		WORM GEARS				FACE = .500" *CENTER LINE WORM TO FLUSH END = .250"					
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	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	B	GB1050A	13626	DB1400	13714	DB1600	13766
30	2.500	.500	1.19	.62		—	—	—	—	—	—
		.750		.62	B	GB1051	13628	—	—	—	—
40	3.333	.625	1.44	.62		—	—	DB1401A	13716	DB1601A	13768
		.750		.62	B	GB1052A	13630	—	—	—	—
50	4.167	.625	1.44	.62		—	—	DB1402A	13718	DB1602A	13770
		.750		.62	B	—	—	—	—	—	—
60	5.000	.625	1.69	.62		GB1053A	13632	—	—	—	—
		.750		.62	B	—	—	DB1403A	13720	DB1603A	13772
80	6.667	.625	1.94	.75		GB1260A	13634	—	—	—	—
		.750		.62	C	—	—	DB1260A	13722	QB1260A	13774
100	8.333	.750	1.94	.75		GB1054	13636	—	—	—	—
					C	GB1055	13638	—	—	—	—
CAST IRON											
20	1.667	.500	1.25	.50	A	G1050ARH	13110	D1400RH	13260	D1600	13352
						G1050ALH	13112	D1400LH	13262	—	—
30	2.500	.500	1.19	.62	B	G1051RH	13114	—	—	—	—
		.750		.62		G1051LH	13116	D1401ARH	13264	D1601A	13354
					B	—	—	D1401ALH	13266	—	—
40	3.333	.625	1.44	.62		G1052ARH	13118	—	—	—	—
		.750		.62	G1052ALH	13120	—	—	—	—	
					B	—	—	D1402ARH	13268	D1602A	13356
						—	—	D1402ALH	13270	—	—
50	4.167	.625	1.44	.62	B	G1053ARH	13122	—	—	—	—
		.750		.62		G1053ALH	13124	—	—	—	—
					B	—	—	D1403ARH	13272	D1603A	13358
						—	—	D1403ALH	13274	—	—
60	5.000	.625	1.69	.75	B	G1260RH	13126	—	—	—	—
		.750		.75		G1260LH	13128	—	—	—	—
					B	—	—	D1260A	13276	Q1260A	13360
						—	—	—	—	—	—
80	6.667	.625	1.94	.75	B	G1054	13130	—	—	—	—
		.750		.75		—	—	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‡	12806	D1607KRH‡	12822	
		.625	—	—	—	—	D1407KLH‡	12808	D1607KLH‡	12824	
	1.625	.500	—	—	—	—	L1407‡	12912	—	—	
	1.125	.500	.75	.38	L1056‡	12900	—	—	—	—	
					GH1056RH	12884	DH1407RH	12838	DH1607	12854	
					GH1056LH	12886	DH1407LH	12840	—	—	
HARDENED – STEEL											
1.000	1.125	.625	—	—	—	—	H1407RH‡	12980	H1607‡	12996	
		.625	—	—	—	—	H1407LH‡	12982	—	—	
	1.625	.500	—	—	—	—	HL1407‡	13018	—	—	
	1.125	.500	—	—	HL1056‡	13006	—	—	—	—	
					H1056RH‡	12962	—	—	—	—	
					H1056LH‡	12960	—	—	—	—	

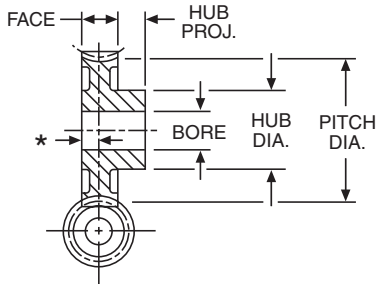
‡.750" Face, Center Line Worm to Flush End = .375"
 ‡Furnished with .125" Keyway.
 Hardened Worms have ground and polished threads.

WORMS AND WORM GEARS

10 DIAMETRAL PITCH
BRONZE AND CAST IRON WORM GEARS
STEEL WORMS – UNHARDENED AND HARDENED

PRESSURE ANGLE – 14½°

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

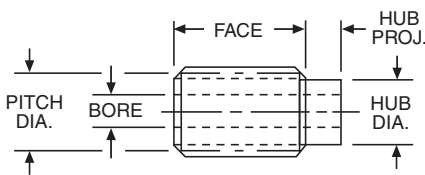


STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

WORM LEAD and LEAD ANGLE

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



REFERENCE PAGES

- Alterations — 149
- Horsepower Ratings — 85, 86
- Lubrication — 149
- Materials — 150
- Selection Procedure — 84

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 150	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	—	—	—	—
30	3.000	.625 .875	1.69	.62	B	GB1061A	13648	—	—	—	—
40	4.000	.625 .875	1.69	.62		—	—	DB1411	13736	DB1611	13788
50	5.000	.750 .875	1.94	.75	C	GB1062A	13642	—	—	—	—
60	6.000	.750 .875	1.94	.75		—	—	DB1412	13730	DB1612	13784
80	8.000	.750	1.94	.75	C	GB1063	13644	—	—	—	—
100	10.000	.750	2.00	.75		—	—	DB1413A	13732	DB1613A	13786
—	—	—	—	—	—	GB1064	13646	—	—	—	—
—	—	—	—	—	—	—	—	DB1414A	13734	—	—
—	—	—	—	—	—	GB1067	13650	—	—	—	—
—	—	—	—	—	—	GB1065	13652	—	—	—	—
CAST IRON											
20	2.000	.500	1.25	.62	A	G1060ARH	13136	—	—	—	—
		.875	1.62			G1060ALH	13138	—	—	—	—
30	3.000	.625	1.69	.62	B	G1061ARH	13142	—	—	—	—
		.875	1.69			G1061ALH	13140	—	—	—	—
40	4.000	.625	1.69	.62	B	—	—	D1411RH	13286	D1611	13368
		.875	1.69			D1411LH	13288	—	—	—	—
50	5.000	.750	1.94	.75	C	G1062ARH	13144	—	—	—	—
		.875	1.94			G1062ALH	13146	—	—	—	—
60	6.000	.750	1.94	.75	C	—	—	D1412RH	13290	D1612	13370
		.875	1.94			D1412LH	13292	—	—	—	—
80	8.000	.750	1.94	.75	C	G1063RH	13148	—	—	—	—
		.875	1.94			G1063LH	13150	—	—	—	—
100	10.000	.750	1.94	.75	C	—	—	D1413ARH	13294	D1613A	13372
		.875	1.94			D1413ALH	13296	—	—	—	—
—	—	—	—	—	—	G1064RH	13152	—	—	—	—
—	—	—	—	—	—	G1064LH	13154	—	—	—	—
—	—	—	—	—	—	—	—	D1414A	13298	D1614A	13374
—	—	—	—	—	—	G1067	13156	—	—	—	—
—	—	—	—	—	—	—	—	D1080A	13300	Q1080A	13376
—	—	—	—	—	—	G1065	13158	—	—	—	—
—	—	—	—	—	—	—	—	D1415A	13302	—	—

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‡	12810	D1618KRH‡	12826	
	—	—	—	—	—	—	D1418KLH‡	12812	D1618KLH‡	12828	
	2.000	.750 .625	—	—	—	—	L1418‡	12914	—	—	
	1.375	.625	—	—	L1066‡	12902	—	—	—	—	
1.250	1.375	.625	.97	.50	G1066KRH‡	12864	—	—	—	—	
					G1066KLH‡	12866	—	—	—	—	
1.250	1.375	.625	.97	.50	GH1066RH	12888	DH1418RH	12842	DH1618	12856	
					GH1066LH	12890	DH1418LH	12844	—	—	
HARDENED STEEL											
1.250	1.375	.750	—	—	—	—	H1418RH‡	12986	H1618‡	12998	
	—	—	—	—	—	—	H1418LH‡	12984	—	—	
	2.000	.750 .625	—	—	—	—	HL1418‡	13020	—	—	
1.250	1.375	.625	—	—	HL1066‡	13008	—	—	—	—	
					H1066RH‡	12966	—	—	—	—	
—	—	—	—	—	H1066LH‡	12964	—	—	—	—	

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

WORMS AND WORM GEARS

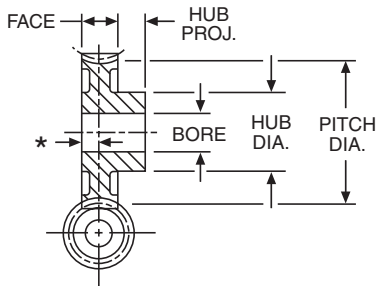
8 DIAMETRAL PITCH

BRONZE AND CAST IRON WORM GEARS

STEEL WORMS – UNHARDENED AND HARDENED

PRESSURE ANGLE – 14½°

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

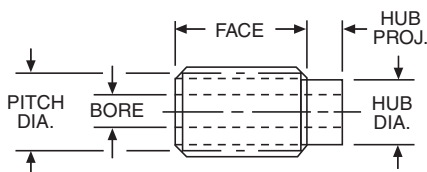


STANDARD TOLERANCES

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 — 149
 Horsepower Ratings — 85, 86
 Lubrication — 149
 Materials — 150
 Selection Procedure — 84

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		Style See Page 150	SINGLE Thread		DOUBLE Thread		QUAD Thread	
			Dia.	Proj.		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
30	3.750	.750	1.69	.75	B	GB1071	13656	—	—	—	—
			1.000	1.69		.75	—	—	DB1421A	13742	DB1621A
40	5.000	1.000	2.19	.75	B	GB1072A	13658	DB1422	13744	DB1622	13800
48	6.000	1.000	2.38	.88		GB1073	13660	—	—	—	—
50	6.250	1.000	2.31	.88	C	GB850RH	13662	DB1423A	13746	DB1623A	13802
60	7.500	1.000	2.44	.88		GB860	13664	DB860A	13748	—	—
80	10.000	1.250	2.75	.88	D	GB1074A	13666	—	—	—	—
100	12.500	1.250	3.00	1.00	C	GB8100	13668	—	—	—	—
CAST IRON											
20	2.500	.750	1.75	.75	A	G1070RH	13160	—	—	—	—
			1.000	1.75		.75	G1070LH	13162	—	—	—
30	3.750	.750	1.69	.75	B	G1071RH	13164	—	—	—	—
			1.000	1.69		.75	G1071LH	13166	—	—	—
40	5.000	1.000	1.69	.75	B	G1072ARH	13168	D1421ARH	13308	D1621A	13382
			1.000	1.69		.75	G1072ALH	13170	D1421ALH	13310	D1621A
48	6.000	1.000	2.38	.88	B	G1072ARH	13168	D1422ARH	13312	D1622A	13384
			1.000	2.38		.88	G1072ALH	13170	D1422ALH	13314	D1622A
50	6.250	1.000	2.31	.88	C	G1073RH	13174	—	—	—	—
			1.000	2.31		.88	G1073LH	13172	—	—	—
60	7.500	1.000	2.44	.88	C	G850RH	13176	D1423A	13316	D1623A	13386
			1.000	2.44		.88	G850LH	13178	—	—	—
80	10.000	1.250	2.69	.88	D	G860	13180	D860A	13320	Q860A	13388
			1.250	2.69		.88	—	—	D1424A	13322	D1624A
96	12.000	1.250	3.00	1.00	C	G1074ARH	13182	—	—	—	—
100	12.500	1.250	2.69	1.00	C	G1075	13186	—	—	—	—
					C	G8100A	13188	—	—	—	—

8 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											
1.500	1.750	.875	—	—	—	—	D1427KRH‡	12814	D1627KRH‡	12830	
	2.500	.875	—	—	—	—	D1427KLH‡	12816	D1627KLH‡	12832	
		.750	—	—	L1427‡	12916	—	—	—	—	
	1.750	.750	—	—	L1076‡	12904	—	—	—	—	
.750		—	—	G1076KRH‡	12868	—	—	—	—		
1.500	1.750	.750	1.18	.62	G1076KLH‡	12870	—	—	—	—	
			.750	1.18	.62	GH1076RH	12892	DH1427RH	12846	DH1627	12858
							GH1076LH	12894	DH1427LH	12848	
HARDENED STEEL											
1.500	1.750	.875	—	—	—	—	H1427RH‡	12990	H1627‡	13000	
	2.500	.875	—	—	—	—	H1427LH‡	12988	—	—	
		.750	—	—	—	—	HL1427‡	13022	—	—	
	1.750	.750	—	—	HL1076‡	13010	—	—	—	—	
.750		—	—	H1076RH‡	12970	—	—	—	—		
							H1076LH‡	12968	—	—	

†1.000" Face, Center Line Worm to Flush End = .500"

‡Furnished with .188" Keyway.

Hardened Worms have ground and polished threads.

WORMS AND WORM GEARS

6 DIAMETRAL PITCH

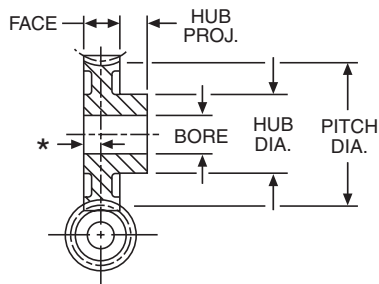
BRONZE AND CAST IRON WORM GEARS

STEEL WORMS – UNHARDENED AND HARDENED

PRESSURE ANGLE – 14½°

ALL DIMENSIONS IN INCHES

ORDER BY CATALOG NUMBER OR ITEM CODE

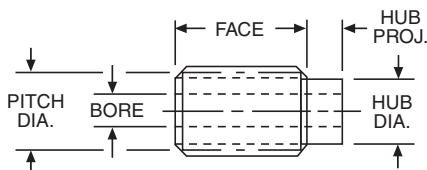


STANDARD TOLERANCES

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 — 149
- Horsepower Ratings — 85, 86
- Lubrication — 149
- Materials — 150
- Selection Procedure — 84

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		WORM GEARS				FACE = 1.000" *CENTER LINE WORM TO FLUSH END = .500"					
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	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		—	—	—	—	—	—
		1.250	2.44			GB1078	13678	—	—	DB1432A	13758
48	8.000	1.250	2.75	1.00	C	—	—	—	—	—	—
50	8.333	1.250	2.69	1.00		GB1083	13680	—	—	—	—
60	10.000	1.250	3.00	1.00		GB1079	13682	—	—	—	—
72	12.000	1.250	3.00	1.25		GB1087	13684	—	—	—	—
						GB1084	13686	—	—	—	—
CAST IRON											
20	3.333	.750	1.81	.88		G1077RH	13190	—	—	—	—
		1.000	1.81	.88		G1077LH	13192	—	—	—	—
							D620ARH	13326	Q620A	13394	
							D620ALH	13328	—	—	
24	4.000	.750	1.94	.88		G1080ARH	13194	—	—	—	—
		1.250	1.94	.88		G1080ALH	13196	—	—	—	—
							D1430ARH	13330	D1630A	13396	
							D1430ALH	13332	—	—	
30	5.000	.875	2.19	.88	B	G1081RH	13198	—	—	—	—
		1.250	2.19	.88		G1081LH	13200	—	—	—	—
							D1431ARH	13334	D1631A	13398	
							D1431ALH	13336	—	—	
36	6.000	1.000	2.50	.88	B	G1082RH	13202	—	—	—	—
40	6.667	1.000	2.44	.88		G1082LH	13204	—	—	—	—
		1.250	2.44			.88	G1078RH	13206	—	—	—
							G1078LH	13208	—	—	
							D1432ARH	13338	D1632A	13400	
							D1432ALH	13340	—	—	
48	8.000	1.250	2.75	1.00	B	G1083RH	13212	—	—	—	—
						G1083LH	13210	—	—	—	—
50	8.333	1.250	2.69	1.00	C	G1079	13214	D1433	13342	D1633	13402
60	10.000	1.250	2.69	1.00		G1087ARH	13218	D660	13344	Q660	13404
72	12.000	1.250	2.94	1.00		G1084ARH	13220	D1434	13346	D1634	13406
80	13.333	1.250	3.00	1.00		G1088A	13224	—	—	—	—
96	16.000	1.375	3.00	1.00	G1085ARH	13226	—	—	—	—	
100	16.667	1.375	3.00	1.00	D	G1089ARH	13228	—	—	—	—

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†	12818	D1638KRH†	12834	
		1.000	—	—	—	—	D1438KLH†	12820	D1638KLH†	12836	
	3.500	1.000	—	—	—	—	L1438	12918	—	—	
		.875	—	—	L1086‡	12906	—	—	—	—	
2.500	.875	—	—	—	—	G1086KRH‡	12872	—	—	—	
		—	—	—	—	G1086KLH‡	12874	—	—	—	
		.875	1.56	.75	GH1086RH	12896	DH1438RH	12850	DH1638	12860	
					GH1086LH	12898	DH1438LH	12852	—	—	
HARDENED STEEL											
2.000	2.500	1.000	—	—	—	—	H1438RH†	12994	H1638†	13002	
		1.000	—	—	—	—	H1438LH†	12992	—	—	
	3.500	1.000	—	—	—	—	HL1438†	13024	—	—	
		.875	—	—	HL1086‡	13012	—	—	—	—	
2.500	.875	—	—	—	—	H1086RH‡	12974	—	—	—	
		—	—	—	—	H1086LH‡	12972	—	—	—	

BOSTON GEAR®

Gear Catalog

WORMS AND WORM GEARS

4 DIAMETRAL PITCH

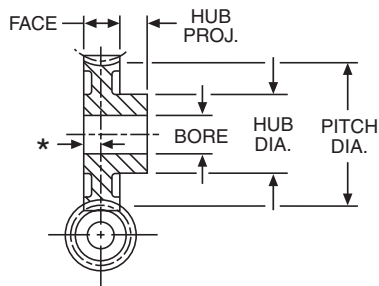
BRONZE AND CAST IRON WORM GEARS

STEEL WORMS – UNHARDENED AND HARDENED

PRESSURE ANGLE – 14½°



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

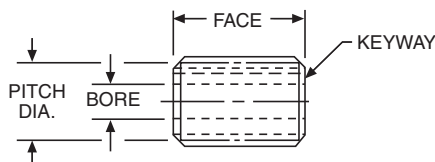


STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

WORM LEAD and LEAD ANGLE

LEAD	.7854
LEAD ANGLE	4°46'



REFERENCE PAGES

Alterations — 149
 Horsepower Ratings — 85, 86
 Lubrication — 149
 Materials — 150
 Selection Procedure — 84

ALL DIMENSIONS IN INCHES
 ORDER BY CATALOG NUMBER OR ITEM CODE

4 DIAMETRAL PITCH		*CENTER LINE WORM TO FLUSH END = .750"					
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	SINGLE Thread	
			Dia.	Proj.		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	G1101RH	13234				
		G1101LH	13236				
32	8.000	1.250	3.00			G1102RH	13238
						G1102LH	13240
40	10.000			G1103	13242		
48	12.000	1.500	3.50	G1104	13244		
64	16.000			D	G1105	13246	

4 DIAMETRAL PITCH		WORMS FOR ABOVE GEARS				
Pitch Dia.	Face	Bore	Hub		SINGLE Thread	
			Dia.	Proj.	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	1.250	–	–	HP1106	13034

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

WORMS AND WORM GEARS

3 DIAMETRAL PITCH

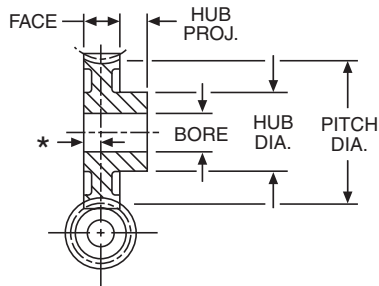
PRESSURE ANGLE – 14½°

CAST IRON WORM GEARS

STEEL WORMS – UNHARDENED AND HARDENED



RATIO = Gear Teeth ÷ Worm Threads
All Worm and Worm Gears stocked RIGHT HAND ONLY.

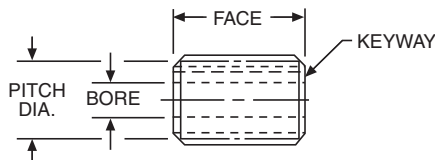


STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

WORM LEAD and LEAD ANGLE

LEAD	1.0472"
LEAD ANGLE	4°46'



REFERENCE PAGES

Alterations — 149
Horsepower Ratings — 85, 86
Lubrication — 149
Materials — 150
Selection Procedure — 84

ALL DIMENSIONS IN INCHES
ORDER BY CATALOG NUMBER OR ITEM CODE

3 DIAMETRAL PITCH WORM GEARS							
No. of Teeth	Pitch Dia.	Bore	Hub		Style See Page 150	SINGLE Thread	
			Dia.	Proj.		Catalog Number	Item Code
18	6.000	1.000	3.00	1.50	B	G1110	13248
24	8.000	1.500	3.50	1.50		G1111	13250
30	10.000					G1112	13252
36	12.000	4.00	4.00	1.50	C	G1113	13254
48	16.000				D	G1114	13256
54	18.000				G1115	13258	

3 WORMS FOR ABOVE GEARS†						
DIAMETRAL PITCH						
Pitch Dia.	Face	Bore	Hub		SINGLE Thread	
			Dia.	Proj.	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.