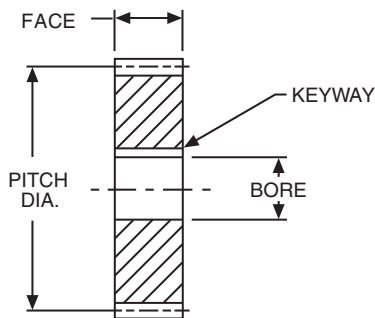


# HELICAL GEARS

**24 THROUGH 10 TRANSVERSE DIAMETRAL PITCH  
STEEL—HARDENED**

**14½° NORMAL PRESSURE ANGLE  
45° HELIX ANGLE**



These gears are hardened all over, except as noted. Teeth on all steel gears are polished.

ALL DIMENSIONS IN INCHES  
ORDER BY CATALOG NUMBER OR ITEM CODE

No. of Teeth	Pitch Dia.	Bore	Keyway	Style See Page 150	RIGHT HAND		LEFT HAND				
					Catalog Number	Item Code	Catalog Number	Item Code			
<b>24 TRANSVERSE DIAMETRAL PITCH</b>					Face: 8-15 Teeth = .375" 18-72 Teeth = .250"						
8	.333	.1875	*	A	H2408R	18268	H2408L	18270			
10	.417	.250	**		H2410R	18272	H2410L	18274			
12	.500				H2412R	18276	H2412L	18278			
15	.625	.375			H2415R	18280	H2415L	18282			
18	.750				H2418R	18284	H2418L	18286			
20	.833	.500			H2420R	18288	H2420L	18290			
24	1.000				H2424R	18292	H2424L	18294			
30	1.250	.625	1/8 x 1/16		H2430R	18296	H2430L	18298			
36	1.500				H2436R†	18300	H2436L†	18302			
48	2.000				H2448R†	18304	H2448L†	18306			
60	2.500				H2460R†	18308	H2460L†	18310			
72	3.000				H2472R†	18312	H2472L†	18314			
<b>20 TRANSVERSE DIAMETRAL PITCH</b>					Face: 8-15 Teeth = .563" 18-72 Teeth = .375"						
8	.400			.250	**	A	H2008R	18228	H2008L	18230	
10	.500			.3125			H2010R	18232	H2010L	18234	
12	.600	.375		H2012R	18236		H2012L	18238			
15	.750	.4375		H2015R	18240		H2015L	18242			
20	1.000	.500	1/8 x 1/16	H2020R	18244		H2020L	18246			
25	1.250	.625	3/16 x 3/32	H2025R	18248		H2025L	18250			
30	1.500	.750		H2030R†	18252		H2030L†	18254			
40	2.000			H2040R†	18256		H2040L†	18258			
50	2.500			H2050R†	18260		H2050L†	18262			
60	3.000			H2060R†	18264		H2060L†	18266			
<b>16 TRANSVERSE DIAMETRAL PITCH</b>					Face = .500"						
12	.750		.375	1/16 x 1/32	A		H1612R	18200	H1612L	18202	
16	1.000	.500	1/8 x 1/16	H1616R		18204	H1616L	18206			
20	1.250			H1620R		18208	H1620L	18210			
24	1.500			H1624R†		18212	H1624L†	18214			
32	2.000			H1632R†		18216	H1632L†	18218			
40	2.500			H1640R†		18220	H1640L†	18222			
48	3.000			H1648R†		18224	H1648L†	18226			
<b>12 TRANSVERSE DIAMETRAL PITCH</b>						Face = .750"					
12	1.000			.625	1/8 x 1/16	A	H1212R	18170	H1212L	18168	
15	1.250	H1215R	18174				H1215L	18172			
18	1.500	H1218R†	18178				H1218L†	18176			
24	2.000	H1224R†	18182				H1224L†	18180			
30	2.500	H1230R†	18186				H1230L†	18184			
36	3.000	H1236R†	18190				H1236L†	18188			
<b>10 TRANSVERSE DIAMETRAL PITCH</b>							Face = .875"				
8	.800	.375	1/16 x 1/32				A	H1008R	18130	H1008L	18128
10	1.000	.500	1/8 x 1/16	H1010R	18134	H1010L		18132			
12	1.200	.625		H1012R	18138	H1012L		18136			
15	1.500	.750	3/16 x 3/32	H1015R†	18142	H1015L†		18140			
20	2.000			H1020R†	18146	H1020L†		18144			
25	2.500			H1025R†	18148	H1025L†		18150			
30	3.000			H1030R†	18154	H1030L†		18152			
40	4.000			H1040R†	18158	H1040L†		18156			

### STANDARD TOLERANCES

DIMENSION		TOLERANCE
BORE	All	±.0005

### REFERENCE PAGES

Alterations — 149  
Horsepower Ratings — 55  
Lubrication — 149  
Materials — 150  
Selection Procedure — 54

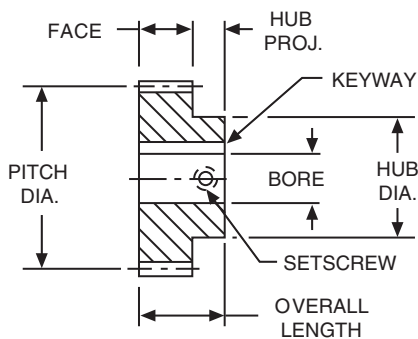
NOTE: Normal Diametral Pitch is equal to the Transverse Diametral Pitch divided by the cosine of the Helix Angle.

\*1/16" wide x .04" deep slot cut on end of gear for drive pin, not key.  
\*\*3/32" wide x .06" deep slot cut on end of gear for drive pin, not key.  
†Teeth only hardened.

# HELICAL GEARS

**8 AND 6 TRANSVERSE DIAMETRAL PITCH  
BRONZE AND STEEL—HARDENED**

**14½° NORMAL PRESSURE ANGLE  
45° HELIX ANGLE**



**STANDARD TOLERANCES**

DIMENSION		TOLERANCE
BORE	All	±.0005

**REFERENCE PAGES**

- Alterations — 149
- Horsepower Ratings — 55, 56
- Lubrication — 149
- Materials — 150
- Selection Procedure — 54

NOTE: Normal Diametral Pitch is equal to the Transverse Diametral Pitch divided by the cosine of the Helix Angle.

All gears with hubs have setscrew at 90° to keyway. Steel gears have teeth only hardened, except as noted. Teeth on all steel gears are polished.

ALL DIMENSIONS IN INCHES  
ORDER BY CATALOG NUMBER OR ITEM CODE

No. of Teeth	Pitch Dia.	Bore	Hub		Keyway	Style See Page 150	RIGHT HAND		LEFT HAND	
			Dia.	Proj.			Catalog Number	Item Code	Catalog Number	Item Code
<b>8 TRANSVERSE DIAMETRAL PITCH</b>										
							Face without Hubs = 1.000" -with Hubs = .750" Overall Length = Face + Hub Proj.			
<b>STEEL—HARDENED</b>										
8	1.000	.500	—	—	1/8 x 1/16	A	H808R*	18066	H808L*	18064
10	1.250	.625	—	—	3/16 x 3/32		H810R*	18070	H810L*	18068
12	1.500	.750	—	—			H812R	18074	H812L	18072
16	2.000	.875	—	—	3/16 x 3/32	A	H816R	18078	H816L	18076
20	2.500						H820R	18082	H820L	18080
24	3.000						H824R	18086	H824L	18084
32	4.000						H832R	18090	H832L	18088
32	4.000						H832R	18090	H832L	18088
8	1.000	.500	.75	.50	1/8 x 1/16	A	HS808R*	18092	HS808L*	18094
10	1.250	.625	1.00	.50	3/16 x 3/32		HS810R*	18096	HS810L*	18098
12	1.500	.750	1.25	.50			HS812R*	18100	HS812L*	18102
16	2.000	1.000	2.00	1.62	1/4 x 1/8	A	HS816R	18104	HS816L	18106
20	2.500			HS820R			18108	HS820L	18110	
24	3.000			HS824R			18112	HS824L	18114	
32	4.000			HS832R			18116	HS832L	18118	
40	5.000			HS840R			18120	HS840L	18122	
48	6.000		2.25		HS848R	18124	HS848L	18126		
<b>BRONZE</b>										
8	1.000	.500	.75	.50	1/8 x 1/16	A	HB808R	18356	HB808L	18358
10	1.250	.625	1.00	.50	3/16 x 3/32		HB810R	18360	HB810L	18362
12	1.500	.750	1.24	.50			HB812R	18364	HB812L	18366
16	2.000	1.000	2.00	1.62	1/4 x 1/8	B	HB816R	18368	HB816L	18370
20	2.500			HB820R			18372	HB820L	18374	
24	3.000			HB824R			18376	HB824L	18378	
32	4.000			HB832R			18380	HB832L	18382	
40	5.000			HB840R			18384	HB840L	18386	
48	6.000		2.25		HB848R	18388	HB848L	18390		
<b>6 TRANSVERSE DIAMETRAL PITCH</b>										
							Face without Hubs = 1.250" -with Hubs = 1.000" Overall Length = Face + Hub Proj.			
<b>STEEL—HARDENED</b>										
8	1.333	.625	—	—	1/8 x 1/16	A	H608R	18000	H608L	18002
10	1.667	.750	—	—	3/16 x 3/32		H610R	18004	H610L	18006
12	2.000	1.000	—	—	1/4 x 1/8		H612R	18010	H612L	18008
15	2.500					H615R	18014	H615L	18012	
18	3.000					H618R	18018	H618L	18016	
24	4.000					H624R	18022	H624L	18020	
24	4.000					H624R	18022	H624L	18020	
8	1.333	.625	1.00	.75	1/8 x 1/16	A	HS608R	18024	HS608L	18026
9	1.500	.750	1.18	.75	3/16 x 3/32		HS609R	18028	HS609L	18030
10	1.667	.750	1.34	.75	HS610R		18032	HS610L	18034	
12	2.000	1.000	1.62	.75	1/4 x 1/8	A	HS612R	18036	HS612L	18038
15	2.500	1.250	2.00	.75	5/16 x 5/32		HS615R	18040	HS615L	18042
18	3.000						HS618R	18044	HS618L	18046
20	3.333					HS620R	18048	HS620L	18050	
24	4.000					HS624R	18052	HS624L	18054	
30	5.000					HS630R	18056	HS630L	18058	
36	6.000		2.50		HS636R	18060	HS636L	18062		
<b>BRONZE</b>										
12	2.000	1.000	1.62	.75	1/4 x 1/8	A	HB612R	18328	HB612L	18330
15	2.500	1.250	2.00	.75	5/16 x 5/32		HB615R	18332	HB615L	18334
18	3.000						HB618R	18336	HB618L	18338
20	3.333					HB620R	18340	HB620L	18342	
24	4.000					HB624R	18344	HB624L	18346	
30	5.000					HB630R	18348	HB630L	18350	
36	6.000		2.50		HB636R	18352	HB636L	18354		

\*Hardened all over.