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GEAR TOOTH VERNIERS

The gear tooth vernier is made to measure the Chordal thickness of the gear teeth at the pitch line. Allowance may be made for any error in blank size by adjusting the height vernier.

Chart for obtaining correct addendum "B", and chordal thickness "T". This chart is based on 1 D.P.; for any other D.P. divide these values by the desired D.P. (for circular pitch multiply by C.P. over π)

Key	
A = Addendum	
C= Correction	
B= Corrected Addendum	
T= Chordal Thickness	

Example	
Height Setting	= Addendum of gear + Correction(C) = Addendum of gear + .0294/4 = Addendum of gear + .007

Thickness Setting	= T/ Diametral Pitch = 1.5694/4 = .392
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Height setting for internal gear (of low pressure angle) = addendum of gear.

Height setting for internal slotting cutter = dedendum of gear.

Height setting for rotary spur cutter = dedendum of gear- correction

Height setting for end milling cutter = dedendum of gear- correction.

Height setting for hob and fly hob = dedendum of gear + correction.

Height setting for gear shaper cutter = dedendum of gear + correction.

Height setting for rack type generating cutter = dedendum of gear.

# of Teeth	Thickness	Correction	# of Teeth	Thickness	Correction
6	1.533	0.1022	28	1.57	0.0220
7	1.5568	0.0873	29	1.57	0.0213
8	1.5607	0.0769	30	1.5701	0.0208
9	1.5628	0.0684	32	1.5702	0.0193
10	1.5643	0.0616	34	1.5702	0.0181
11	1.5654	0.0559	36	1.5703	0.0171
12	1.5663	0.0514	38	1.5704	0.0162
13	1.567	0.0474	40	1.5704	0.0154
14	1.5675	0.0440	43	1.5702	0.0143
15	1.5679	0.0411	46	1.5705	0.0134
16	1.5683	0.0385	50	1.5706	0.0123
17	1.5686	0.0362	55	1.5706	0.0112
18	1.5688	0.0342	60	1.5707	0.0102
19	1.569	0.0324	68	1.5707	0.0091
20	1.5692	0.0308	75	1.5707	0.0083
21	1.5694	0.0294	86	1.5707	0.0072
22	1.5695	0.0281	100	1.5707	0.0061
23	1.5696	0.0268	125	1.5707	0.0049
24	1.5697	0.0257	150	1.5708	0.0045
25	1.5698	0.0247	200	1.5708	0.0035
26	1.5698	0.0237	250	1.5708	0.0025
27	1.5699	0.0228	RACK	1.5708	0.0000