

SYMBOLS FOR RULES & FORMULAS

a Addendum	t_r Tooth Thickness Tolerance
ac Chordal Addendum	t_t Transverse Circular Thickness
anc Normal Chordal Addendum	t_x Axial Thickness
B Backlash	V_{ap} Total Accumulated Pitch Variation
b Dedendum	V_{apk} Total Accumulated Pitch Variation within a sector of k Pitches
C Center Distance	V_{cq} Total Composite Variation (double flank)
c Clearance	V_{cqT} Total Composite Tolerance (double flank)
D Reference Standard Pitch Diameter	V_p Pitch Variation
D_b Base Diameter	V_{pA} Allowable Pitch Variation
D_c Datum Circle	V_{pn} Normal Pitch Variation
D_i Internal Diameter	V_q Tooth-to-Tooth Composite Variation (double flank)
D_R Root Diameter	V_{qT} Tooth-to-Tooth Composite Tolerance (double flank)
D_t Throat Diameter	V_r Radial Runout
D_o Out side diameter	V_{rT} Radial Runout Tolerance
dp Operating Pitch Diameter	
F Face Width	
Fe Effective or Active Face Width	

F_t	Total Face Width	V_s	Spacing Variation
hk	Working Depth	V_x	Index Variation
ht	Whole Depth(tooth depth)	V_φ	Profile Variation
L	Lead	V_{φT}	Profile Tolerance
m	Module	V_ψ	Tooth Alignment Variation
mc	Contact Ratio	V_{ψT}	Tooth Alignment Tolerance
m_F	Face Contact Ratio	Z	Length of Action
m_G	Gear Ratio	α	Addendum Angle
m_n	Normal Module	Γ	Pitch Angle
m_o	Modified Contact Ratio	Γ_R	Root Angle
m_p	Transverse Contact Ratio	Σ	Shaft Angle
mt	Total Contact Ratio	ε	Involute Roll Angle
N	Number of teeth or threads	θ	Involute Polar Angle
N_e	Equivalent Number of teeth	θ_N	Angular Pitch
P_d	Diametral Pitch (transverse)	λ	Lead Angle
P_{nd}	Normal Diametral Pitch	λ_b	Base Lead Angle
P	Circular Pitch	λ_o	Outside Lead Angle
P_b	Base Pitch	λ_p	Pitch Lead Angle
P_m	True Position Pitch	p	Profile Radius of Curvature
P_n	Normal Circular Pitch	φ	Pressure Angle
P_N	Normal Base Pitch	φ_n	Normal Pressure Angle
P_t	Transverse Circular Pitch	φ_t	Transverse Pressure Angle

P_x Axial Pitch	Φ_x Axial Pressure Angle
P_X Axial Base Pitch	Ψ Helix Angle, Spiral Angle
Q Quality Number	Ψ_b Base Helix Angle
Q_a Arc of Approach	-----
Q_r Arc of Recess	
Q_t Arc of Action	A Allowable Variation
R_r Test Radius	G Features on a gear
r_f Fillet Radius, (when constant)	k A Variable
r_t Throat-form Radius	n Normal plane
rr Tip or Edge Radius of Tool	P Features on a Pinion
t Circular Tooth Thickness	T Tolerance
tb Base Circular Thickness	t Transverse Plane
t_c Chordal Thickness	W Features on a Worm
t_n Normal Circular Thickness	
t_{nc} Normal Chordal Thickness	

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