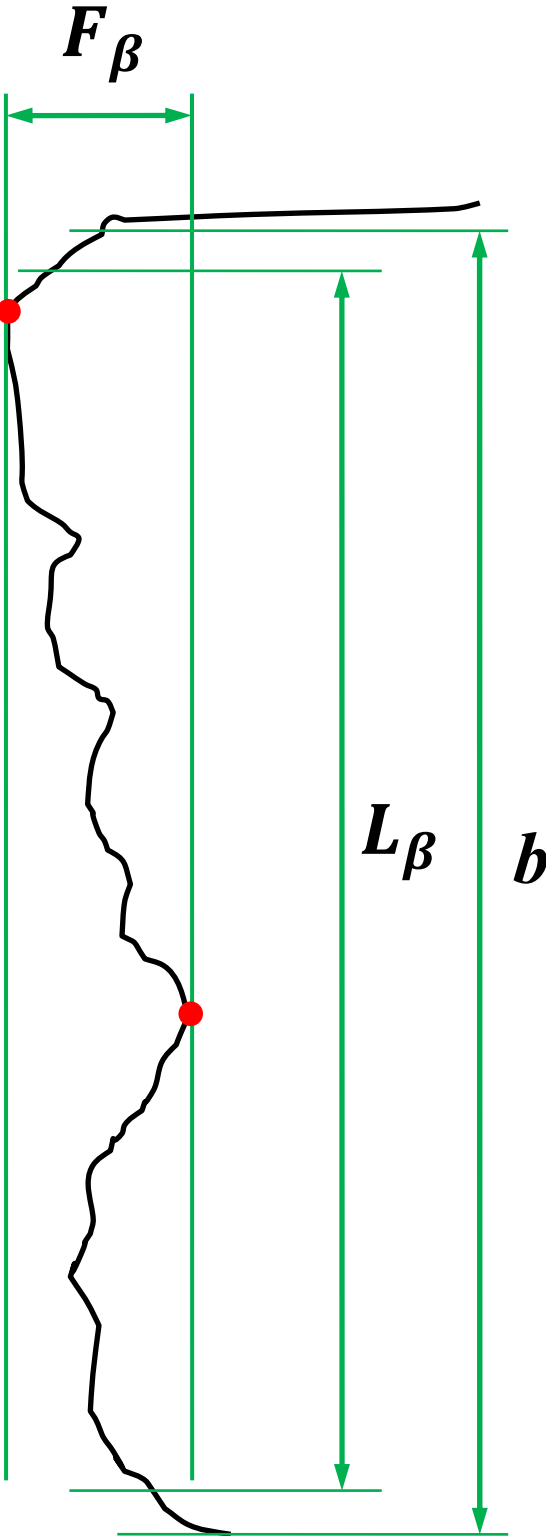


Symbol	AGMA nomenclature	Other names	Definition
	Pitch deviations		
F_p	Total cumulative pitch deviation	Total index variation Total index tolerance Index deviations	Difference between the most positive and the most negative index value for all teeth
f_p, f_{pt}	Single pitch deviation	Tooth to tooth spacing Tooth to tooth index error Pitch variation Adjacent pitch error	Difference between two adjacent teeth index values (+, -)
$f_{p max.}$	Max. single pitch deviation		Max. difference between two adjacent teeth index values (+, -)
f_u	Difference between adjacent pitches		Difference between actual dimensions of two successive right or left flank transverse pitches
$f_{u max.}$	Max. difference between adjacent pitches		Max. difference between actual dimensions of two successive right or left flank transverse pitches
	Profile deviations (involute)		
$L_\alpha, L_{\alpha c}$	Profile evaluation range	Profile test range	
F_α	Total profile deviation	Profile total error	Distance between two nominal profiles enclosed within the profile test range
$f_{f\alpha}$	Profile form deviation	Profile form error	Distance between two involutes of the actual base circle, that enclose the actual involute profile within the profile inspection range

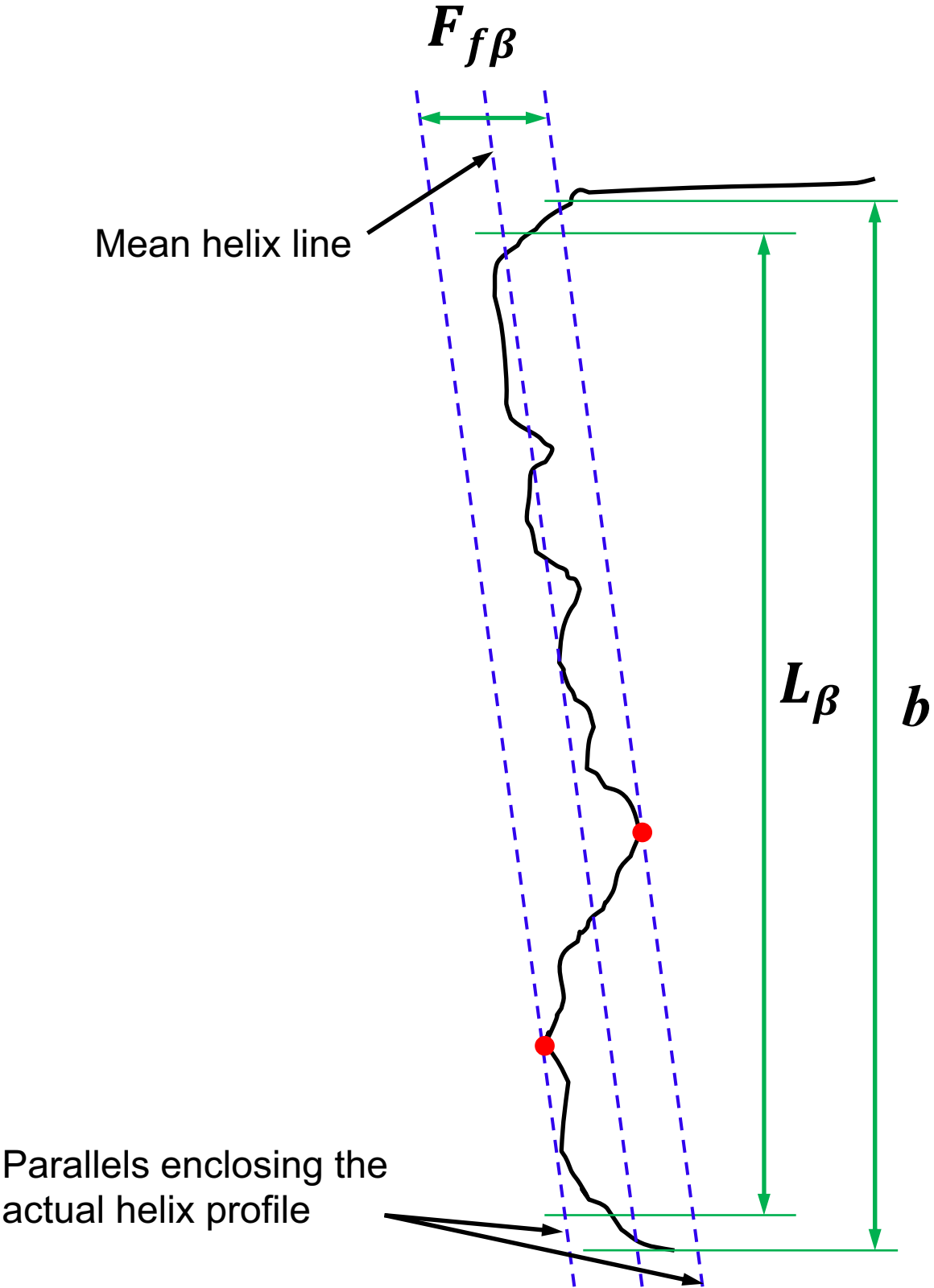
$f_{H\alpha}$	Profile slope deviation	Profile angular error	Distance between two nominal profiles that intersect the average profile at start and end points of the profile range
$f_{H\alpha m}$	Mean profile slope deviation		Arithmetic mean of the profile slope deviations of three or more equally spaced tooth flanks around the gear's circumference.
	Helix deviation (lead)		
L_{β}	Helix evaluation range	Evaluation range	
b	Face width (less chamfers)		
F_{β}	Total helix deviation	Lead total error	Distance between the two nominal leads enclosed within the lead inspection range
$f_{f\beta}$	Helix form deviation	Lead form error	Distance between two helical lines that enclose the actual lead within the lead inspection range
$f_{H\beta}$	Helix slope deviation	Tooth alignment tolerance Lead parallelism Lead angle error	Distance (in transverse plane) between two nominal leads that intersect the average lead (helix) at start and end points of the lead inspection range
$f_{H\beta m}$	Mean helix slope deviation		Arithmetic mean of the helix slope deviations of three or more equally spaced tooth flanks around the gear's circumference.

Other parameters			
R_s		Variation of tooth thickness	Difference between the largest and the smallest tooth thickness of a gear
R_p		Range of pitch error Pitch variation	Difference between the largest and the smallest actual size of the transverse pitches of a given flank
F_r		Pitch line run-out	Radial position difference of a probe contacting all teeth at measuring diameter (pitch diameter). It combines tooth eccentricity in relation to the datum axis and the tooth spacing error.

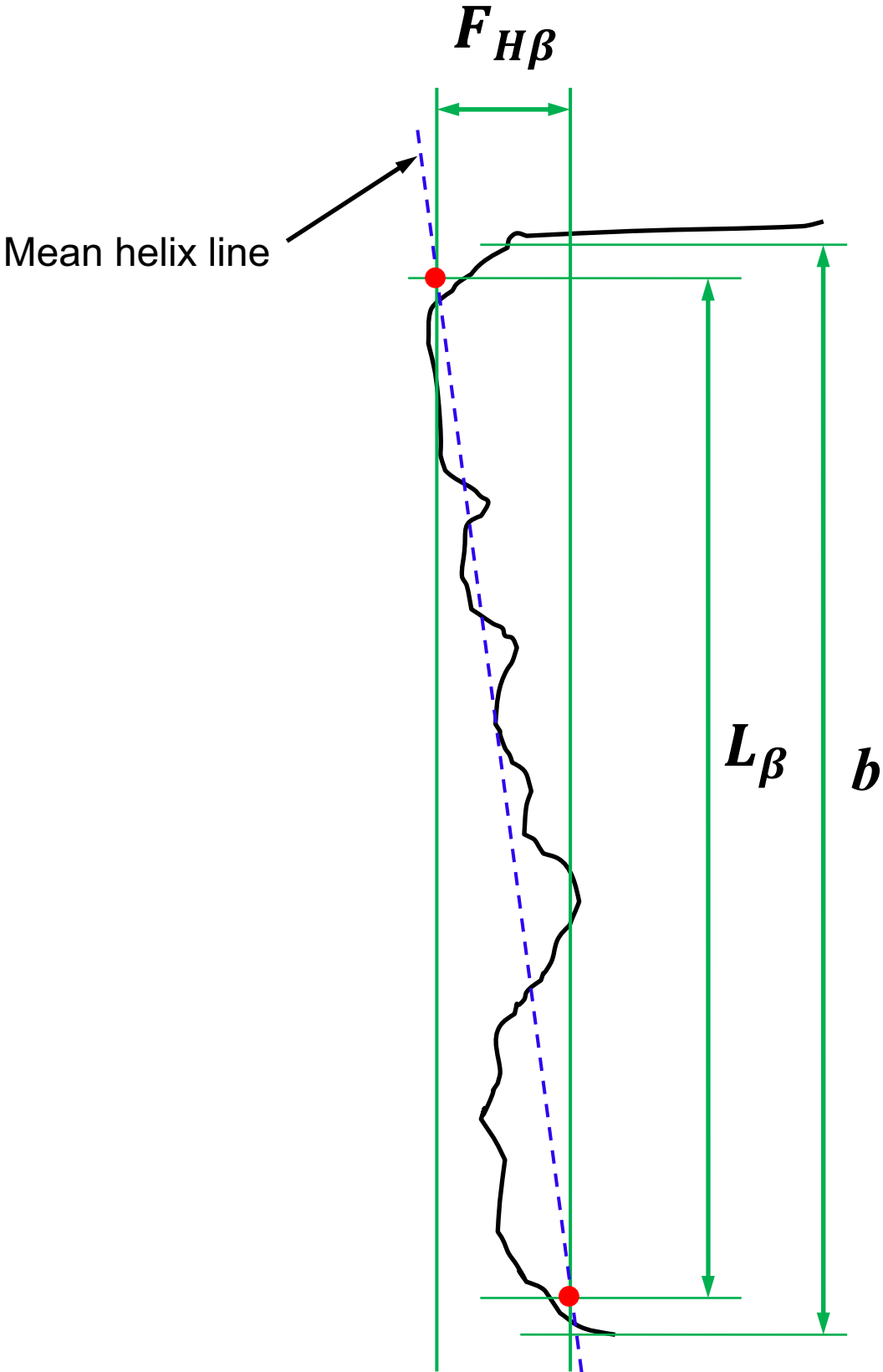
Helix deviation (lead):
Total helix deviation



Helix form deviation

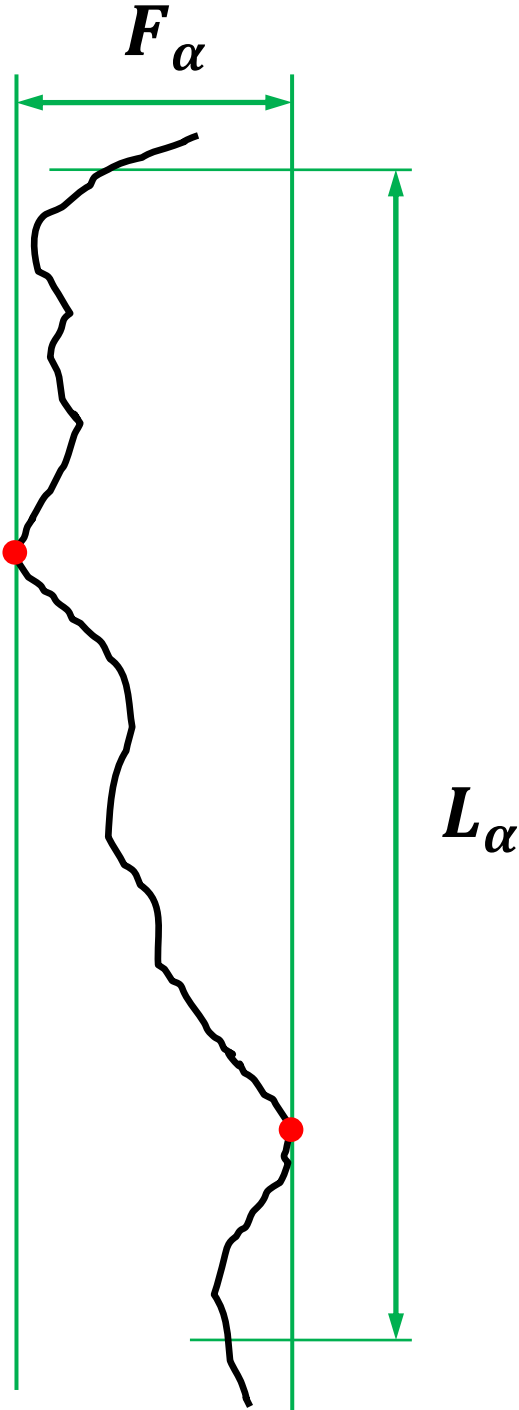


Helix slope deviation

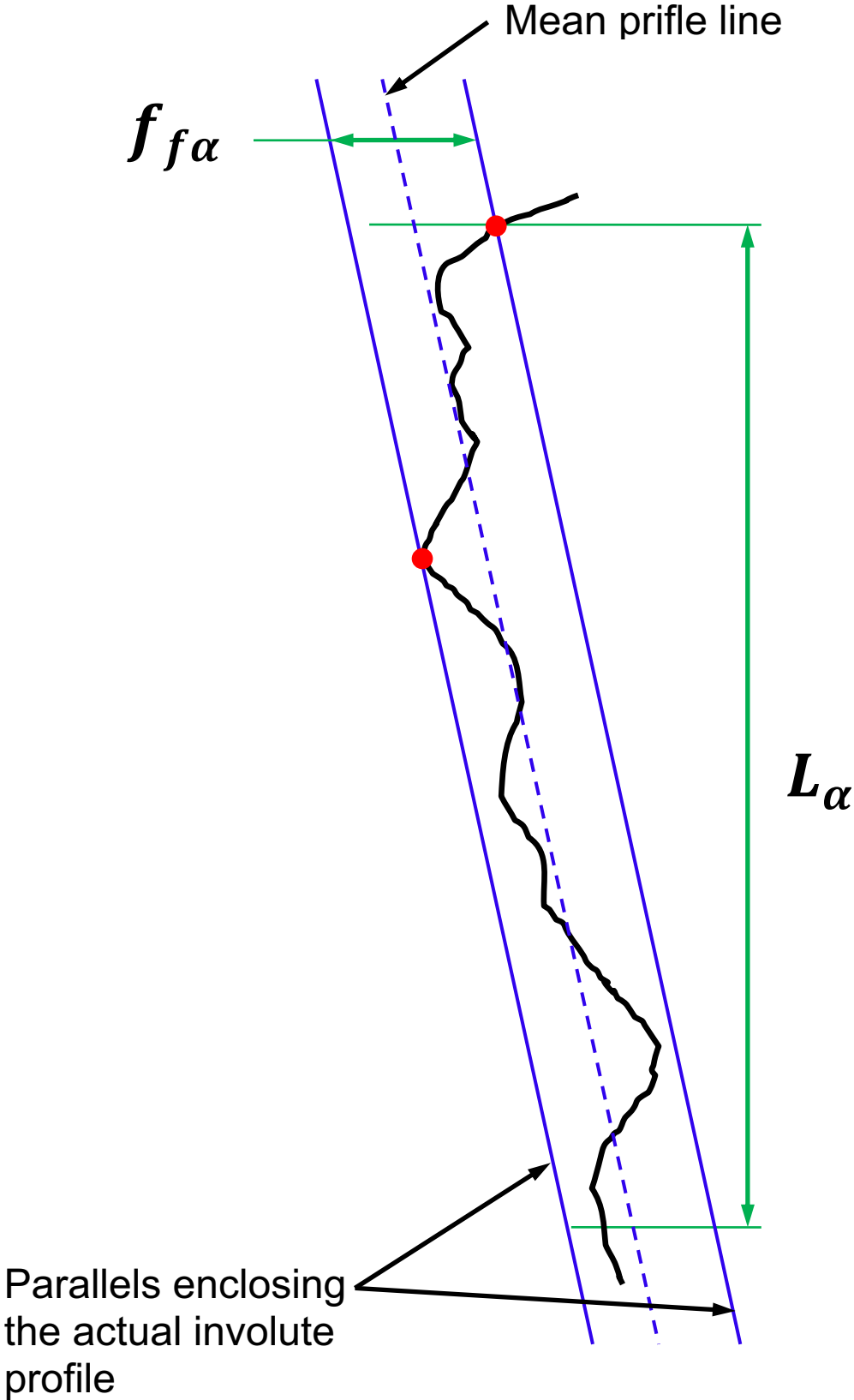


References: AGMA915-1-A02

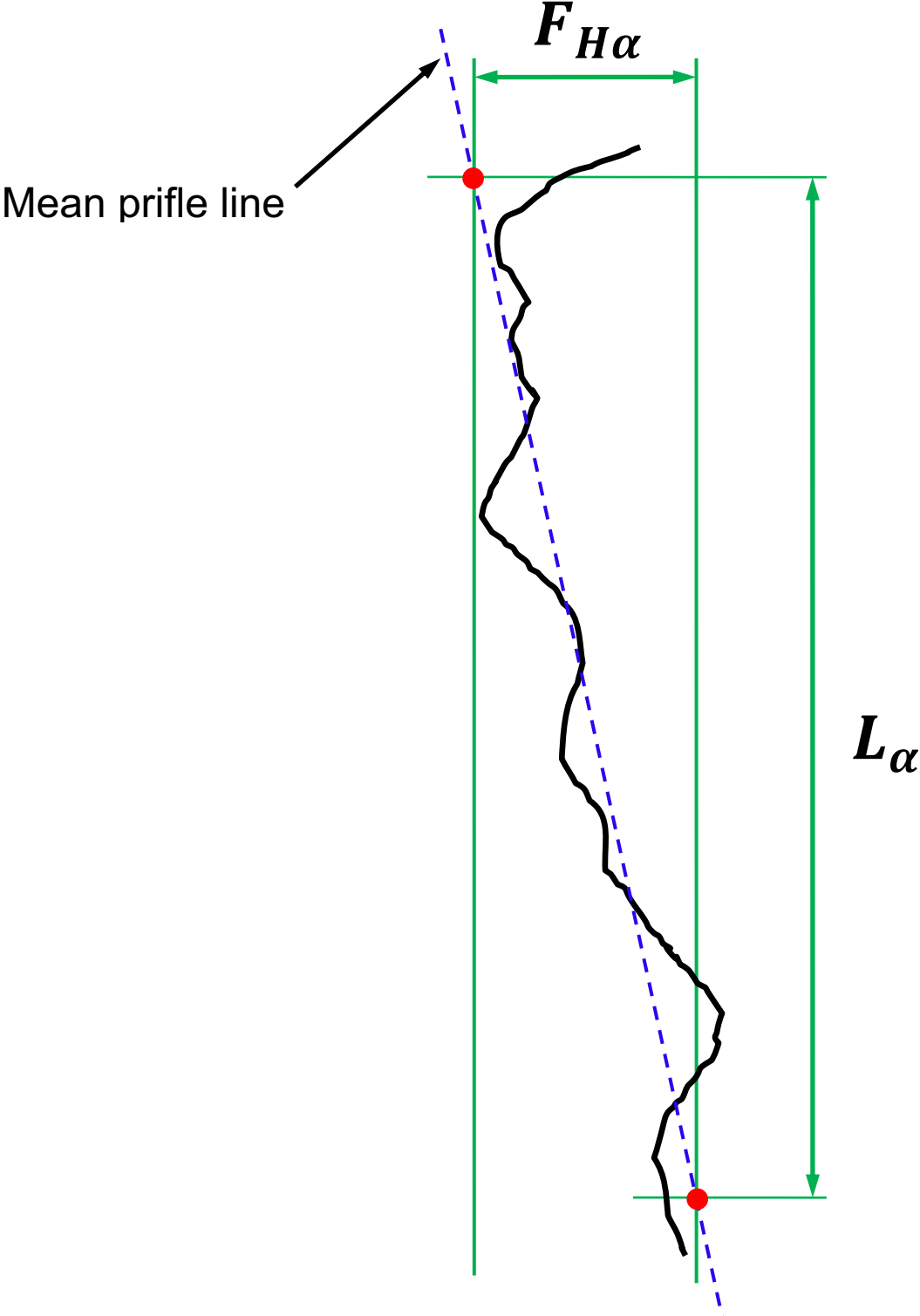
Pitch deviations:
Total profile deviation



Profile form deviation

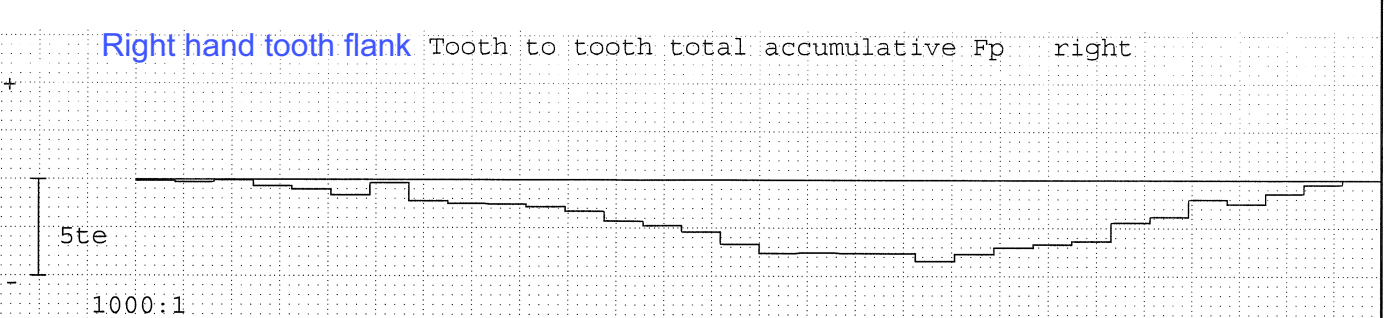
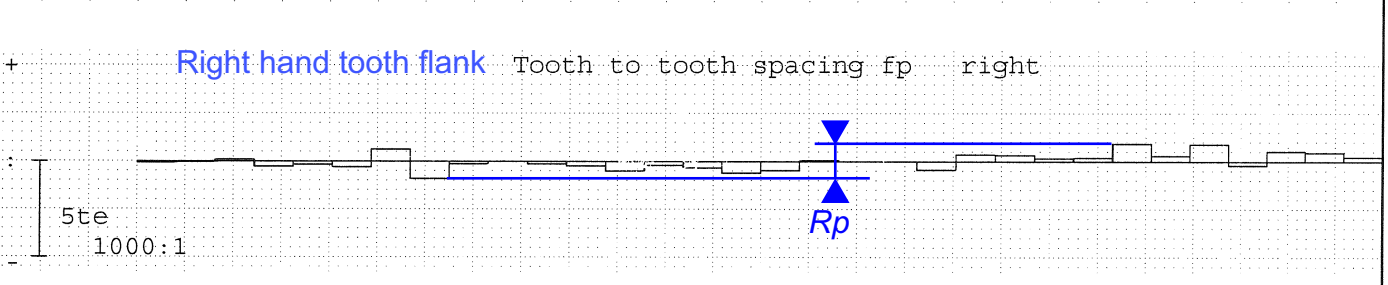
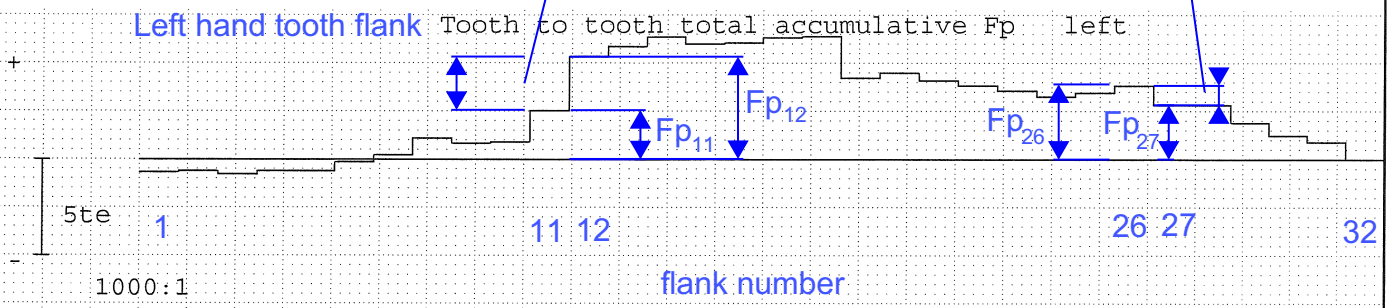
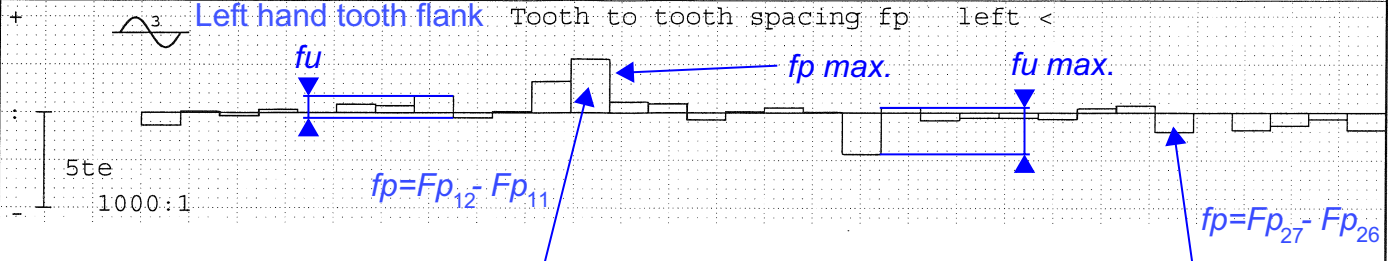


Profile slope deviation

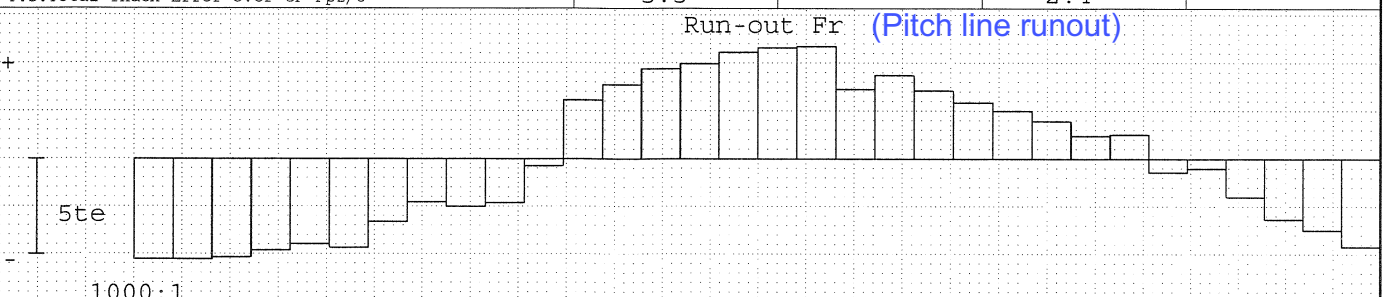


Gear Spacing

Prog.No.:	Operator:	Date:
Type:	No. of teeth	Pressure angle
Drawing No.:	Diam. pitch DP	Helix angle
Order No.:	Loc. of check:	
Cust./Mach. No.:		



		left-hand flank				right-hand flank			
		Act.value	Qual.	Nom.value	Qual.	Act.value	Qual.	Nom.value	Qual.
Max. T.S. Index Error	$f_p \text{ max}$	2.8	X	2.0		0.9		2.0	
Max. Tooth Spacing Error	$f_u \text{ max}$	2.5				1.6			
Range of Pitch Error	R_p	5.0				1.9			
T.S. Total Index Error	F_p	7.3	X	6.0		4.3		6.0	
T.S.Total Index Error over CF $Fp_z/8$		5.5				2.4			



Pitch Line Runout	F_r	11.3		
Variation of tooth thickness	R_s			

