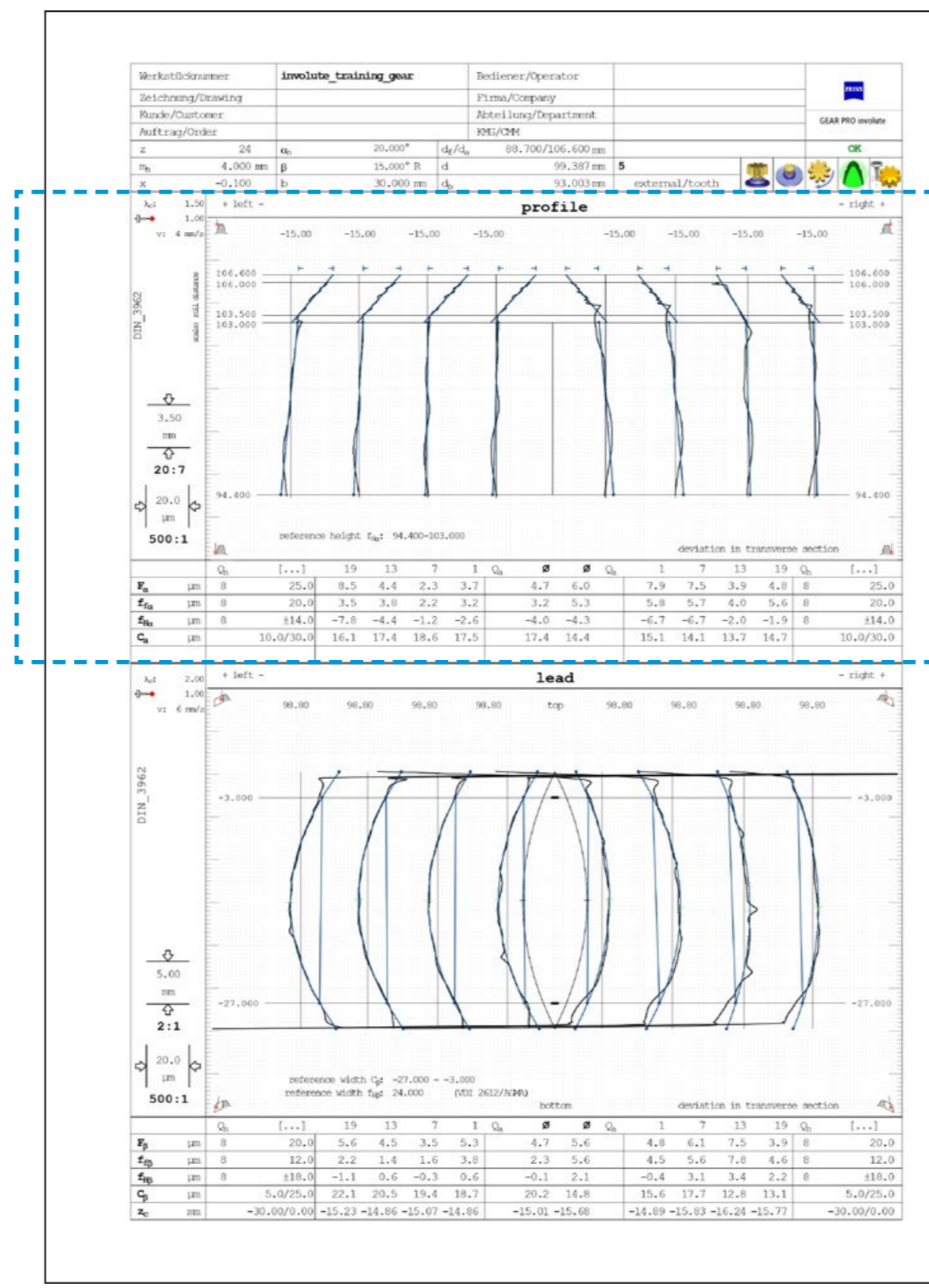
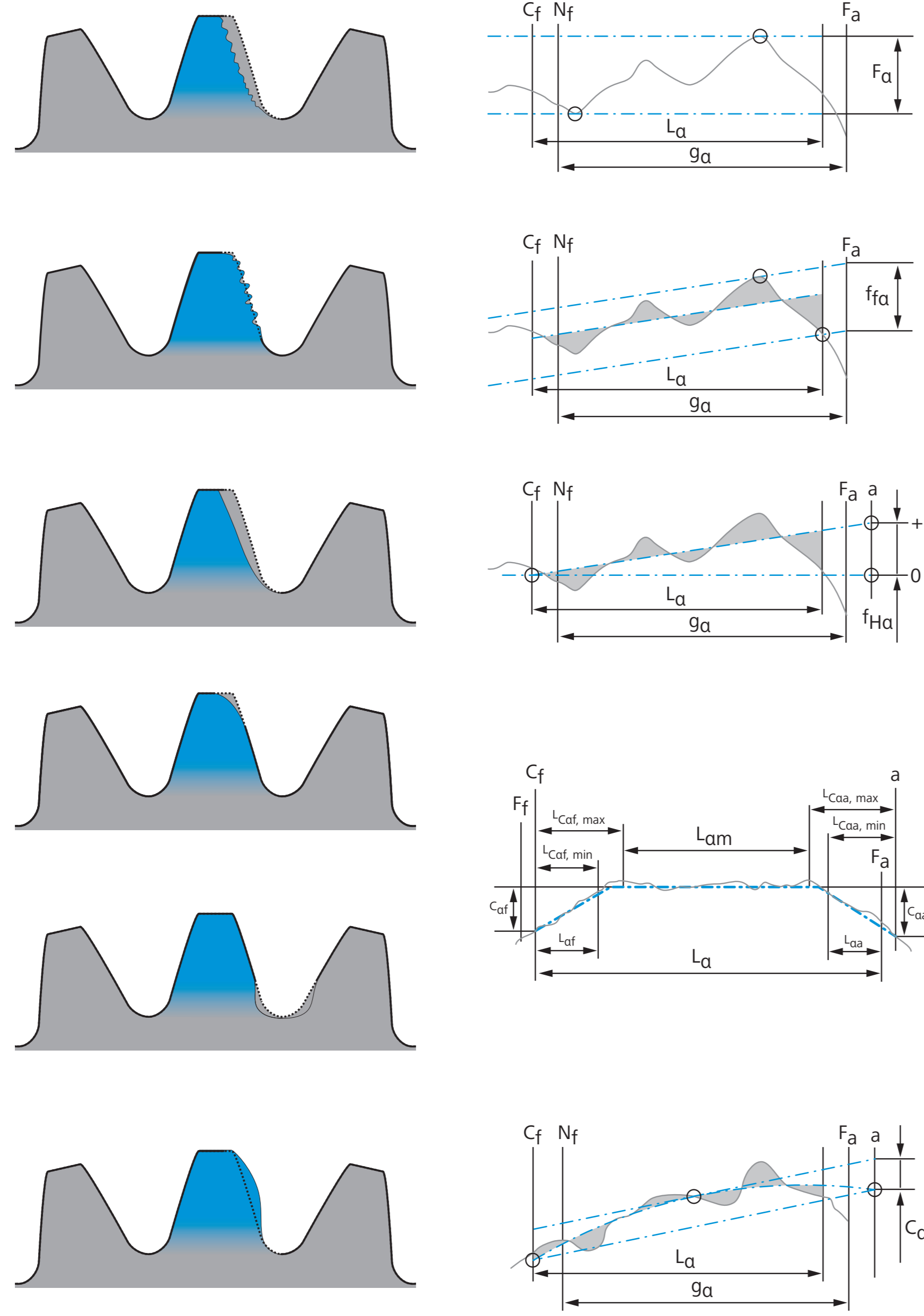


Profile

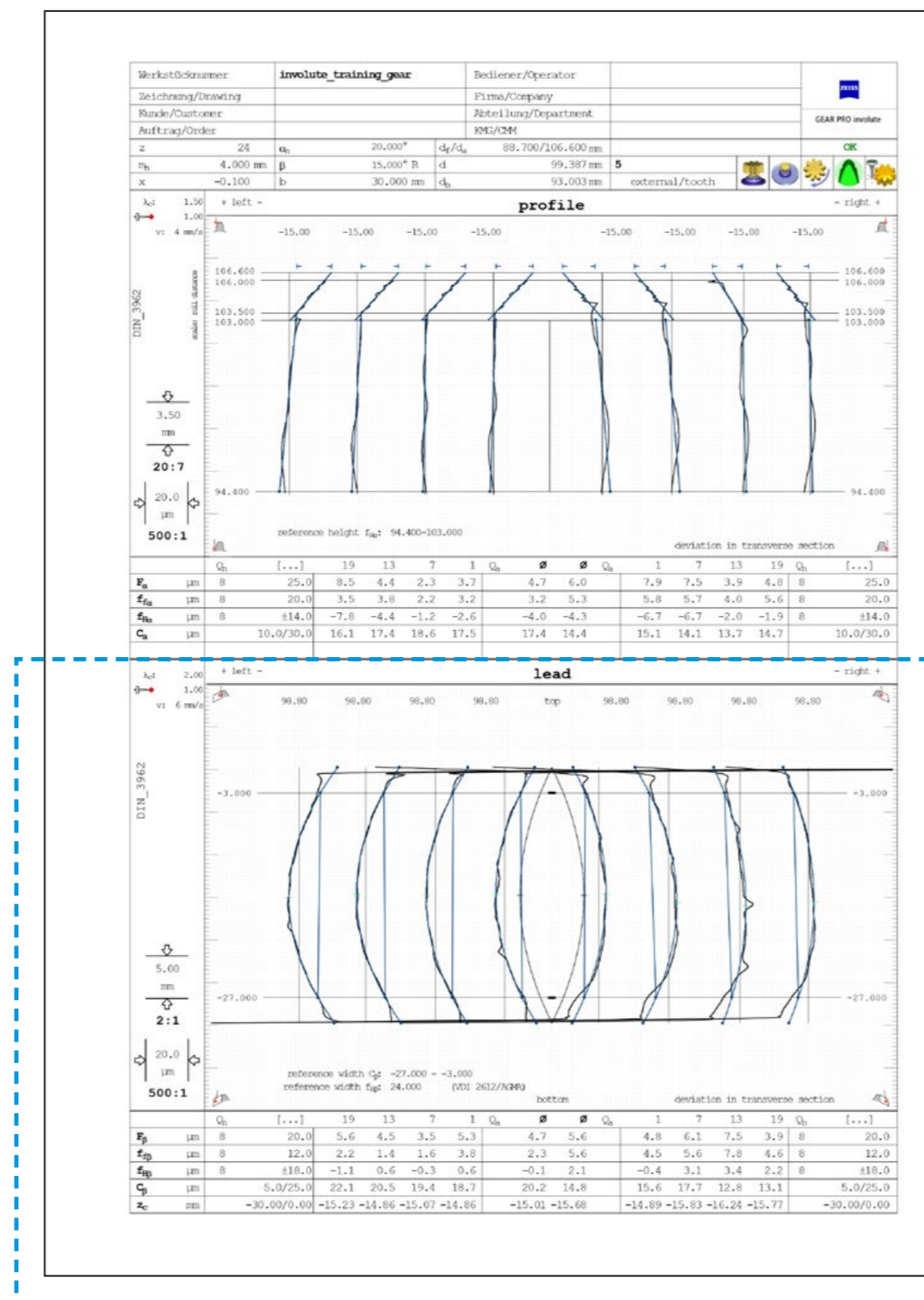
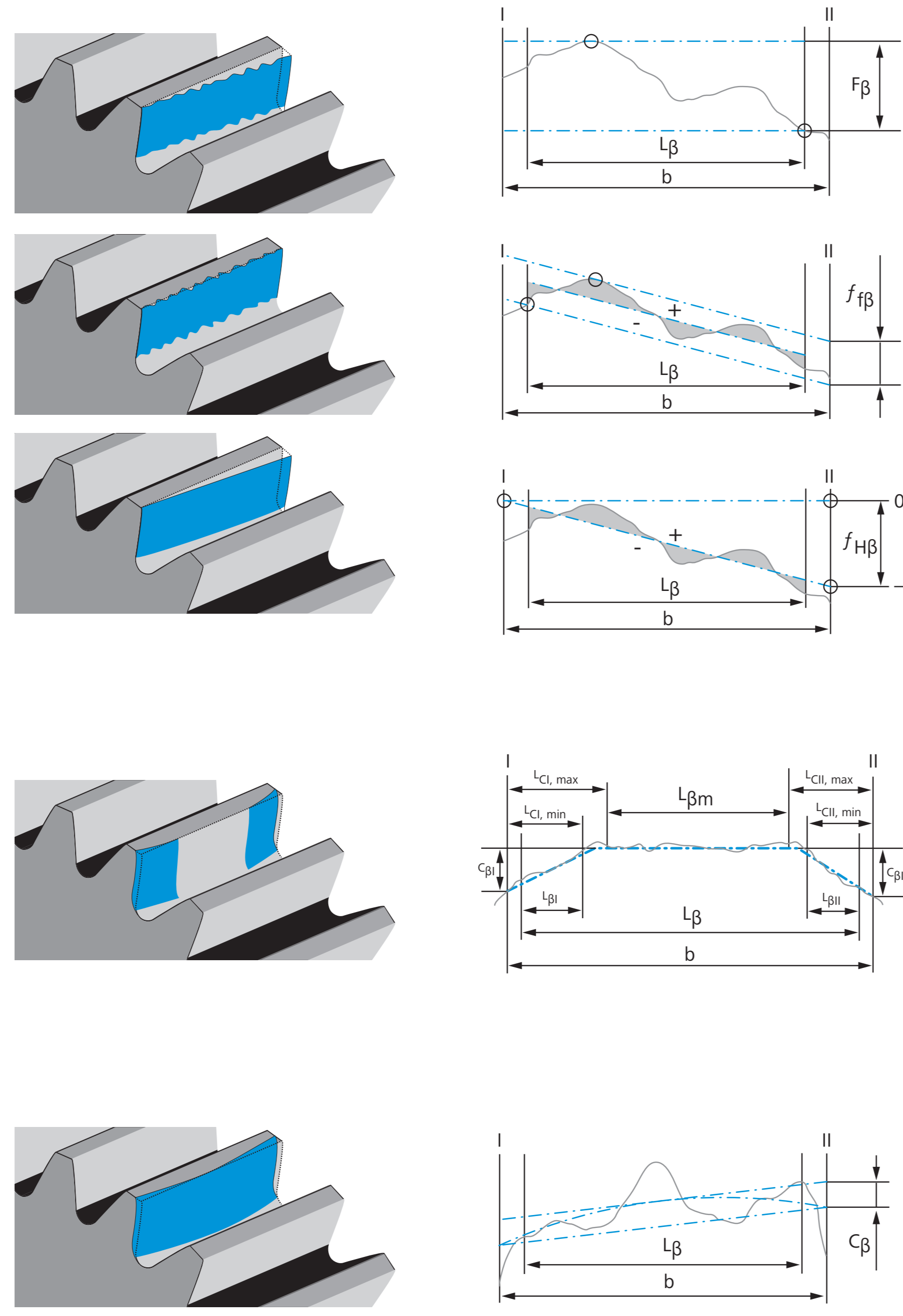
- F_a** **Profile deviation, total**
Overlay of profile form deviation and profile slope deviation.
- f_{fa}** **Profile form deviation**
Form deviation of the profile without consideration of the slope deviation.
- f_{H_a}** **Profile slope deviation**
Slope deviation of the profile without consideration of the form deviation.
- C_{aa}** **Profile tip relief**
Correction of the profile through material removal on the tooth tip. Avoids jamming with the mating gear under load.
- C_{af}** **Profile root relief**
Correction of the profile through material removal on the tooth root. Avoids jamming with the mating gear under load.
- C_a** **Profile crowning**
Correction of the profile through convex curvature over a defined range of the tooth height. Compensates for elastic deformations of the tooth under load.



- F_f** Root form circle
- C_f** Start of profile evaluation
- N_f** Start of active profile
- F_a** Tip form circle
- a** Tip
- g_a** Length of path of contact
- L_a** Profile evaluation length
- L_{af}** Profile root relief zone
- L_{Caf}** Length of profile root relief
- L_{am}** Middle profile zone of unmodified profile
- L_{aa}** Profile tip relief zone
- L_{Caa}** Length of profile tip relief

Helix

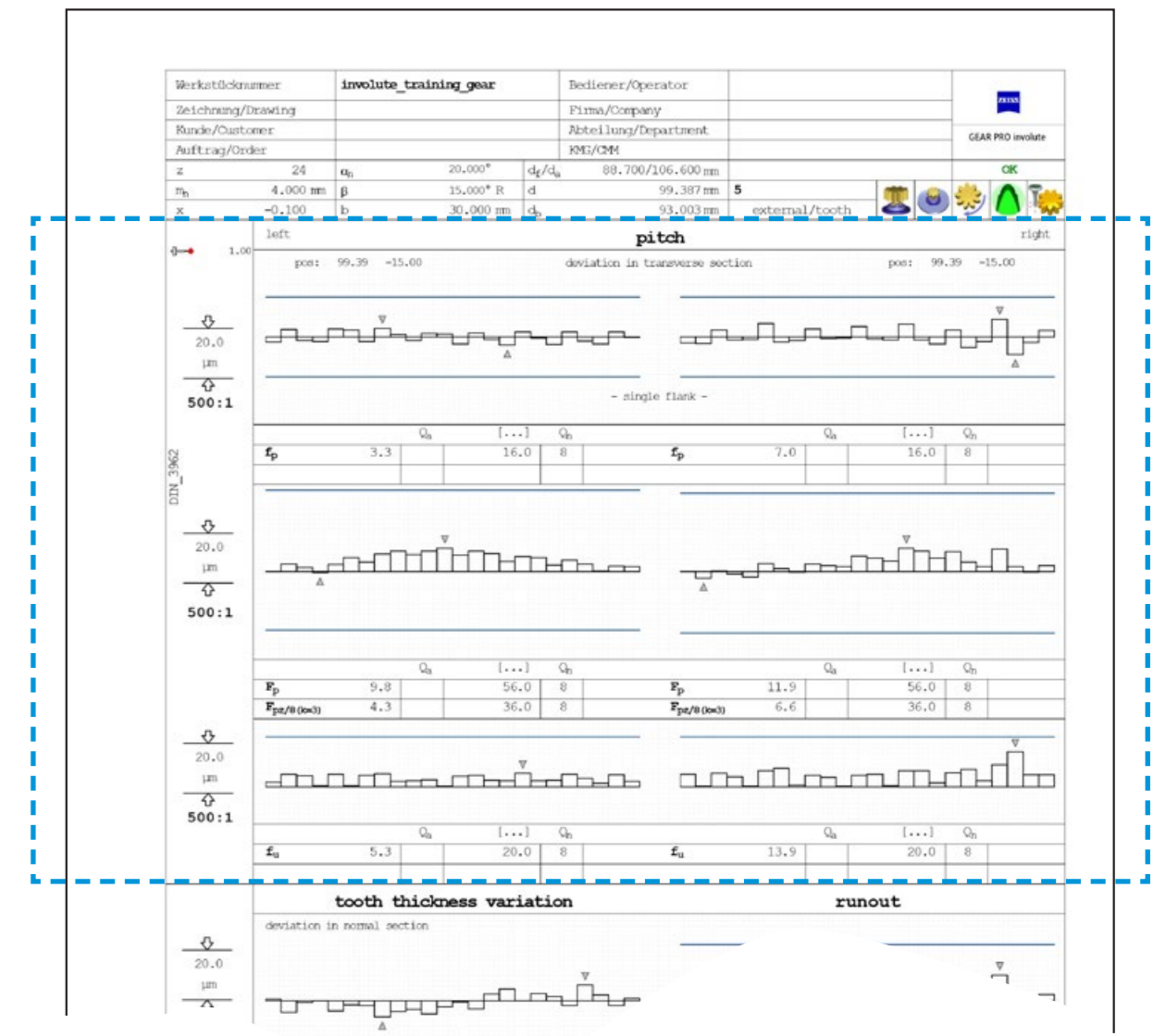
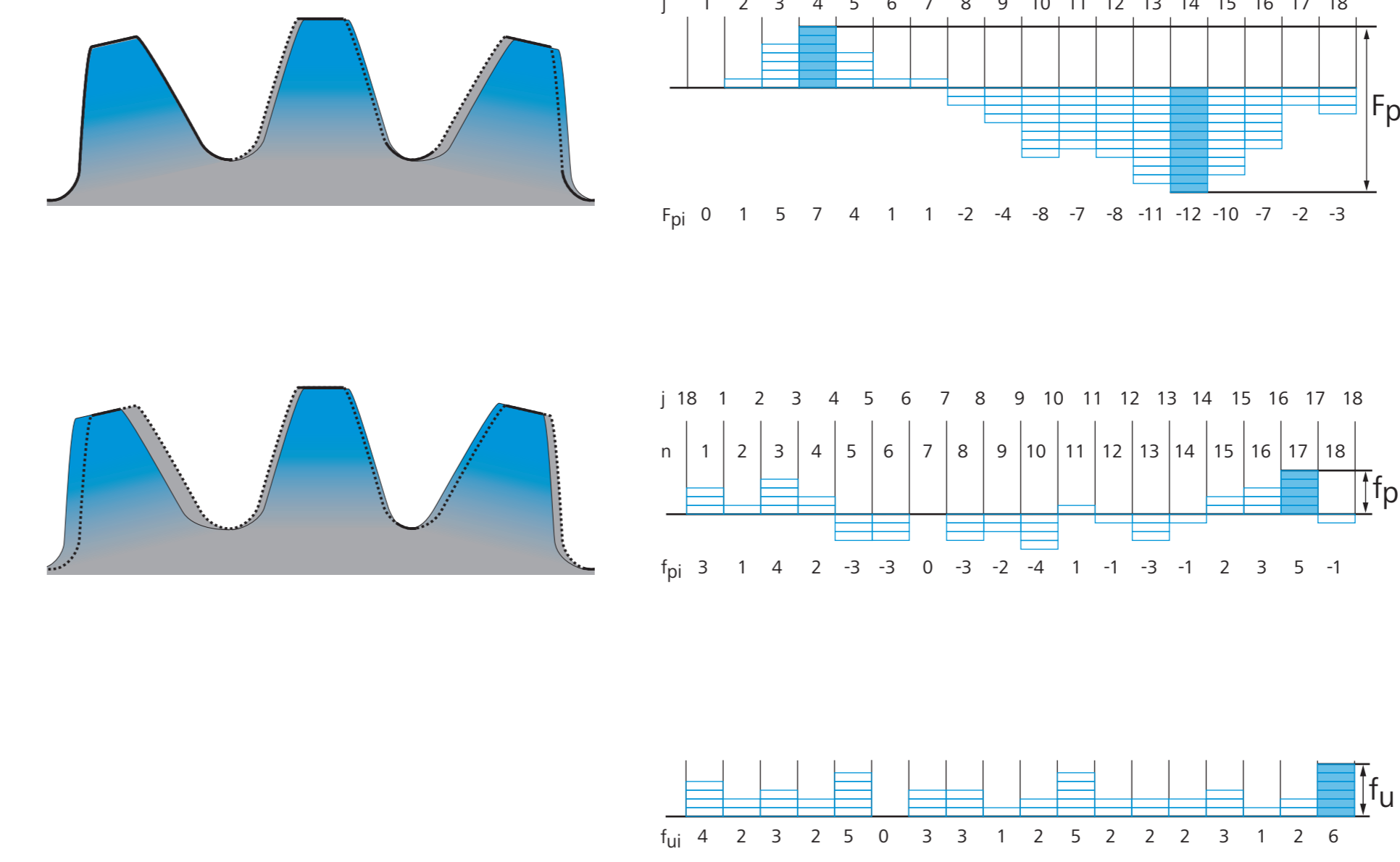
- F_β** **Helix deviation, total**
Overlay of helix form deviation and helix slope deviation.
- f_{ffβ}** **Helix form deviation**
Form deviation of the helix without consideration of the slope deviation.
- f_{Hβ}** **Helix slope deviation**
Slope deviation of the helix without consideration of the form deviation.
- C_{βI}** **Helix end relief at datum face**
Correction of the helix through material removal on the flank ends of the datum face. Avoids jamming with the mating gear under load.
- C_{βII}** **Helix end relief at non-datum face**
Correction of the helix through material removal on the flank ends of the non-datum face. Avoids jamming with the mating gear under load.
- C_β** **Helix crowning**
Correction of the helix through convex curvature over the face width. Compensates for elastic deformations of the tooth under load.



- I** Datum face
- II** Non-datum face
- b** Face width
- L_β** Helix evaluation length
- L_{βI}** Helix end relief zone (datum face)
- L_{CβI}** Length of helix end relief (datum face)
- L_{βm}** Middle helix zone of unmodified helix
- L_{βII}** Helix end relief zone (non-datum face)
- L_{CβII}** Length of helix end relief (non-datum face)

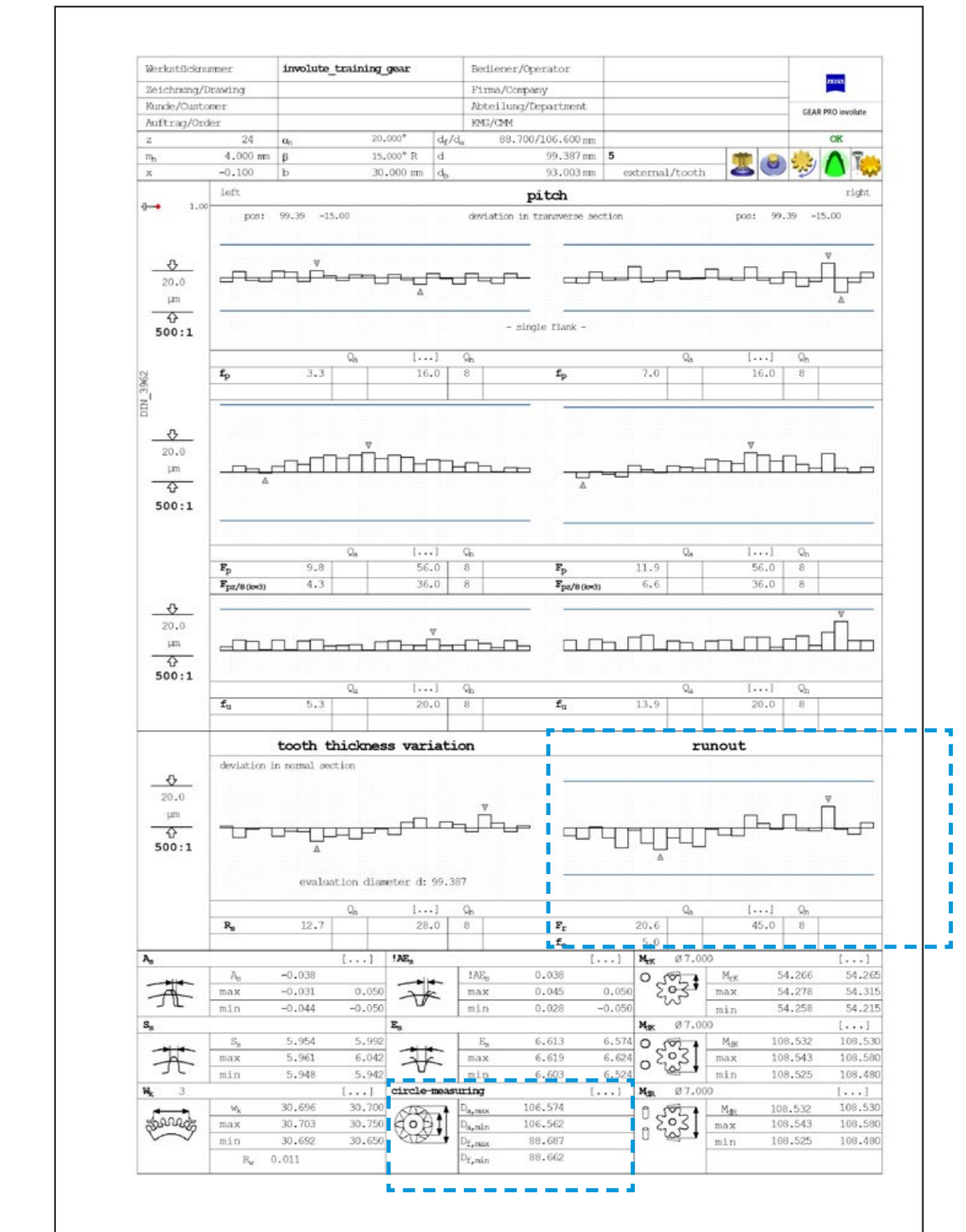
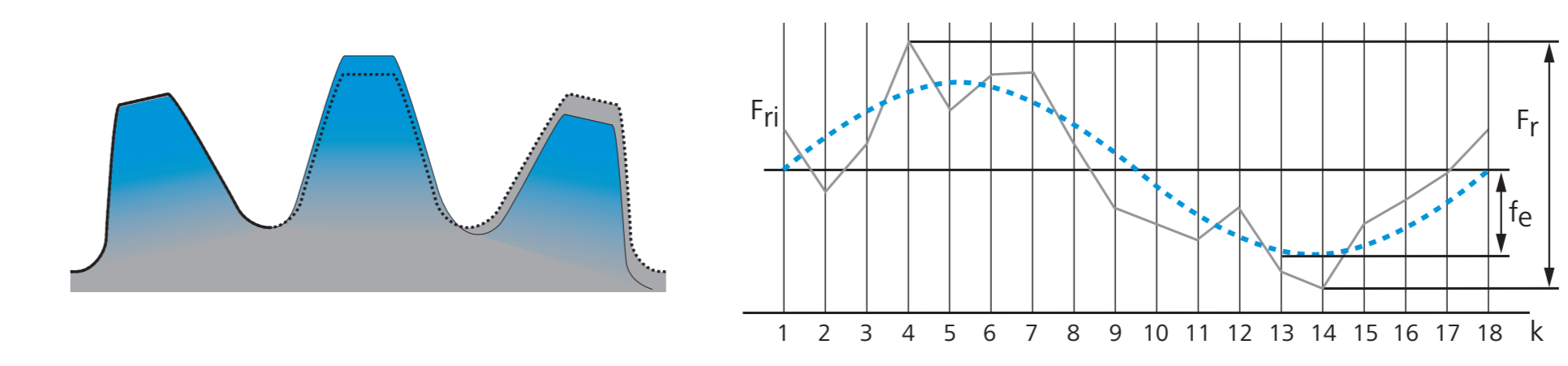
Pitch

- F_p** **Cumulative pitch deviation, total**
Range of the positional deviation of all right (left) flanks to the nominal position, with the flanks being analyzed independently.
- f_p** **Single pitch deviation**
Greatest unsigned positional deviation of all individual right (left) flanks to the preceding right (left) flank.
- f_u** **Adjacent pitch difference**
Greatest unsigned difference of all individual single pitch deviations of all right (left) flanks.



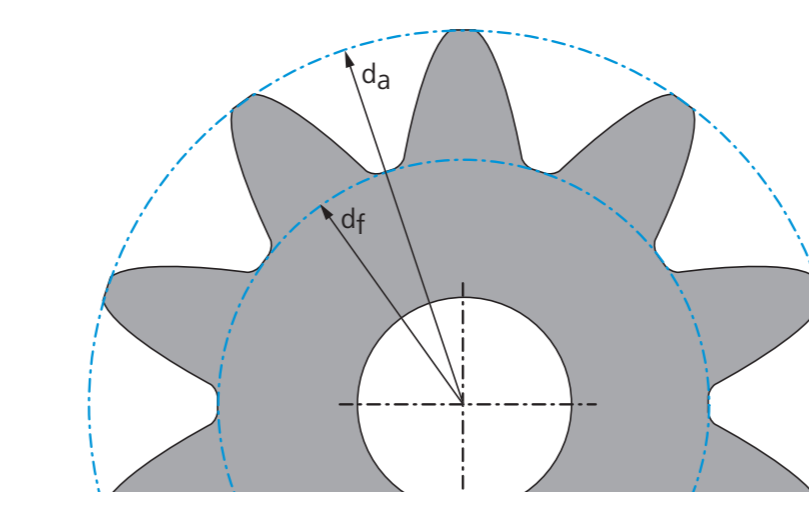
Radial runout

- F_r** **Radial runout deviation**
Range of the radial positional deviation of all gaps. Measured by placing a measuring sphere on both flanks of all gaps.
- f_e** **Eccentricity**
Eccentricity of the gearing to the reference system axis (bore/shaft).



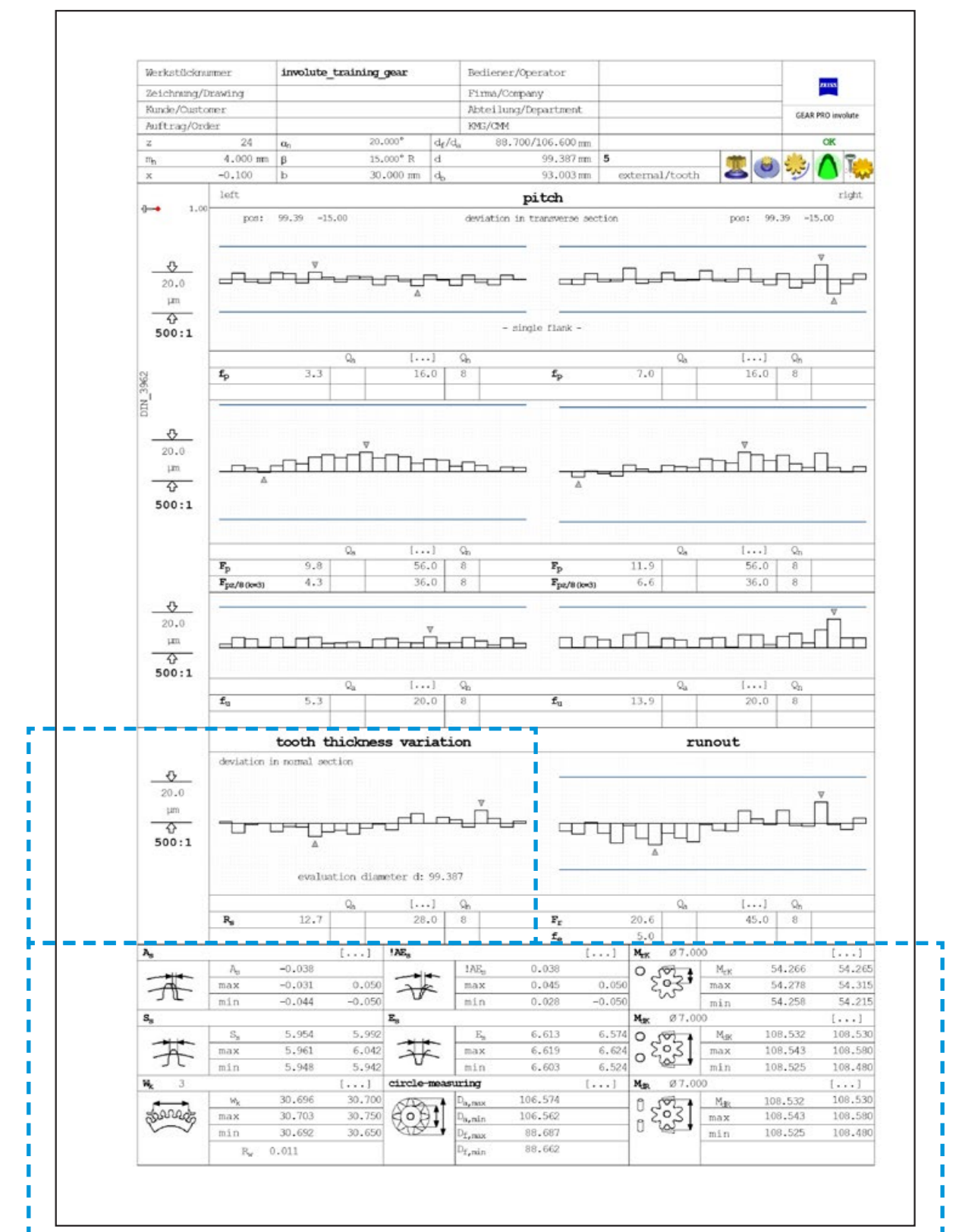
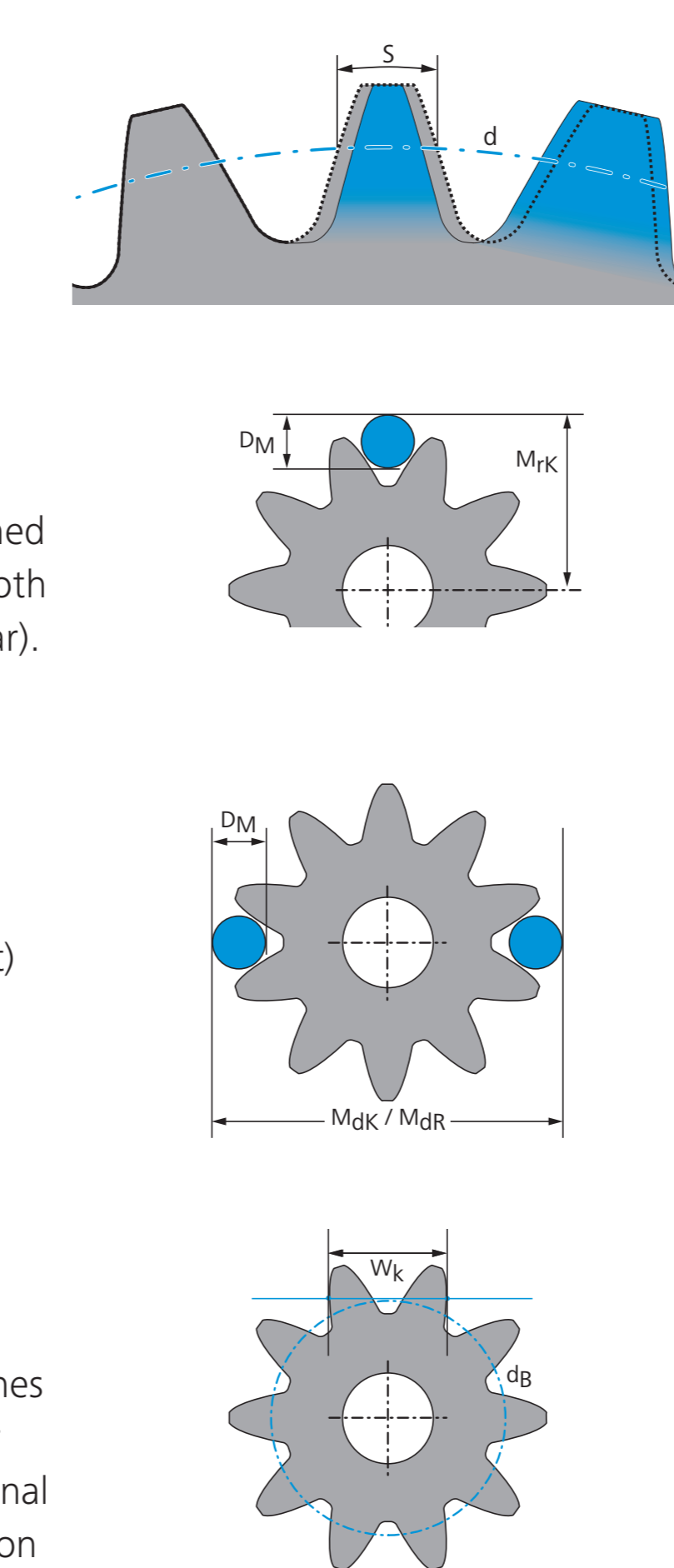
Diameter

- d_a** **Tip circle diameter**
Greatest (smallest) diameter of an external gear (internal gear) at the tooth tip.
- d_f** **Root circle diameter**
Smallest (greatest) diameter of an external gear (internal gear) at the tooth root.



Tooth thickness

- S** **Tooth thickness**
Arc length of the distance of a right to a left flank in a transverse section plane on the reference section.
- M_{rK}** **Radial dimension over/between one ball**
Radial distance of the gear axis to the outermost (innermost) point of a defined measuring sphere fitted in a gap on both flanks of an external gear (internal gear).
- M_{dK}** **Diametral dimension over/between two balls**
Diametral dimension over/between two pins
Greatest outermost (smallest innermost) distance of two defined measuring spheres/pins (cylinder) fitted in two opposing gaps on both flanks of an external gear (internal gear).
- W_k** **Base tangent length over k teeth (gaps)**
Distance of two parallel measuring planes that intersect a right and left flank over k teeth (gaps) of an external gear (internal gear) and also lie in a tangential plane on the base circle.



- i** Individual value
- j** Flank number
- k** Tooth/gap number
- n** Pitch number
- d** Reference diameter
- d_b Base diameter**
- D_M** Diameter of the measuring ball/pin (cylinder)