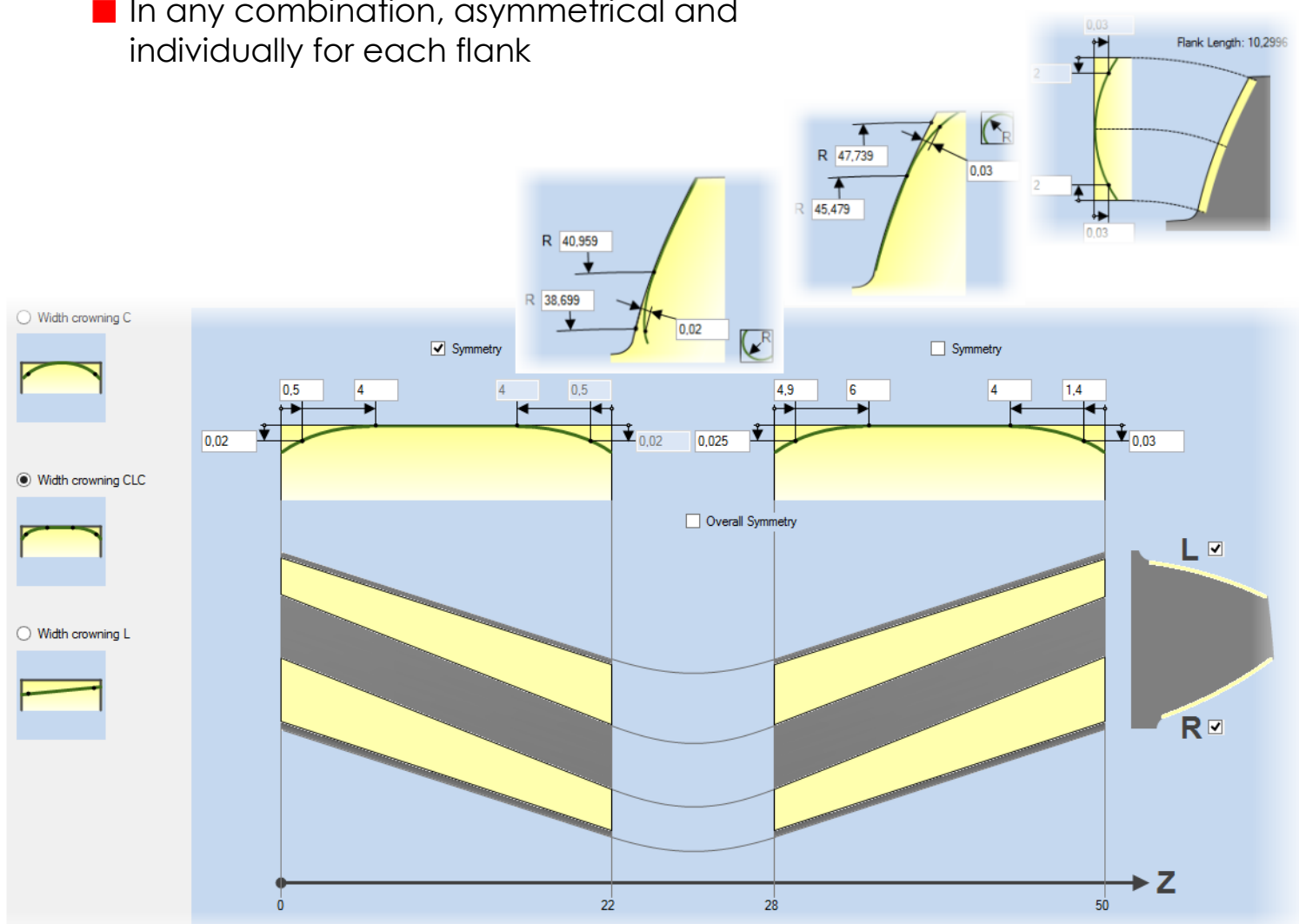


Uncompromising Accuracy

Flexible and Efficient

- Software option for extensive flank corrections on spur gears
- Width crowning, height crowning, tip and root relief
- In any combination, asymmetrical and individually for each flank



The Best Way ...

- for spur gears with flank corrections
- for straight, helical and double-helical spur gears as well as herringbone gears
- to reduce noise emission from the gearing
- to optimize forces under load

Flank Corrections within **EUKLID GearCAM** is a software option, which allows to modify the flank geometry by using high precision corrections. These corrections can cause reduced noise emissions and a better spreading of forces under load.



Source: Reiden AG, Switzerland

These corrections are added to the tooth geometry as a number of overlays. According to the milling tolerances, they influence the calculation of the milling paths. Machining of gears with **Flank Corrections** requires either a 4- or 5-axis machining center, depending on the selected milling strategy.

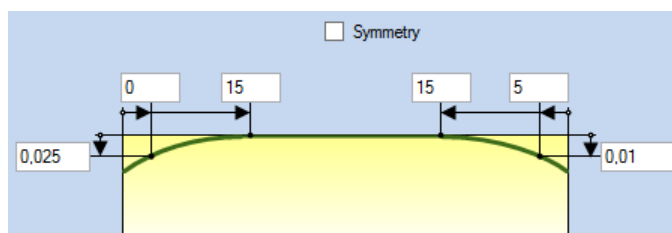


Fig. 1: Asymmetrical width crowning via arc, line, arc

The following modifications are provided:

- width or height crowning, via
 - arc
 - arc, line, arc
 - line
- tip or root relief, via
 - arc
 - parabola
 - involute

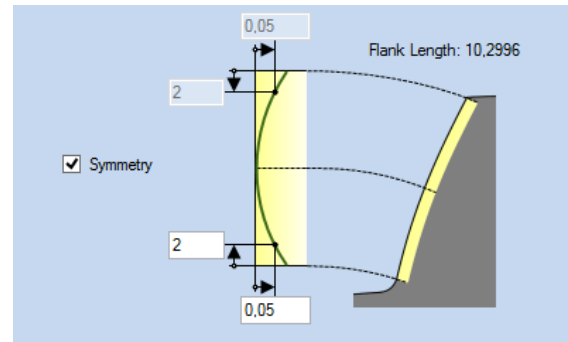


Fig. 2: Symmetrical height crowning via arc

The setup is done very quickly by a minimal number of values for all flanks. Or, if necessary, switch of symmetry and define individual crowning for each flank or even a partial flank.

Typ	Name	Links	Rechts
	Höhenballigkeit	✓	✓
	Breitenballigkeit	✓	✗
	Höhenballigkeit 2	✓	✓

By any combination of **Flank Corrections** even complex modifications are possible as well.

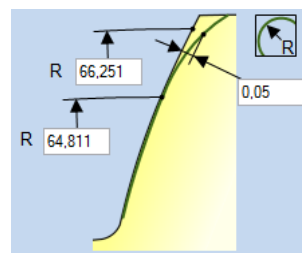


Fig. 3: Tip relief

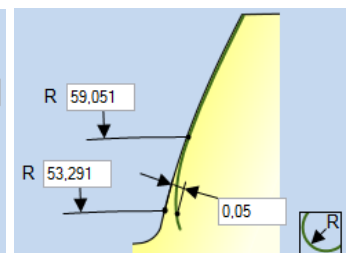


Fig. 4: Root relief

The integrated 3D simulation of **EUKLID GearCAM** allows simulating and displaying the corrections, in order to check it before machining starts.

Another option is offered by the rolling motion of the gears in CAD (see fig. on the right). Corrections and the resulting contact with the mating gear can be visualized here.

