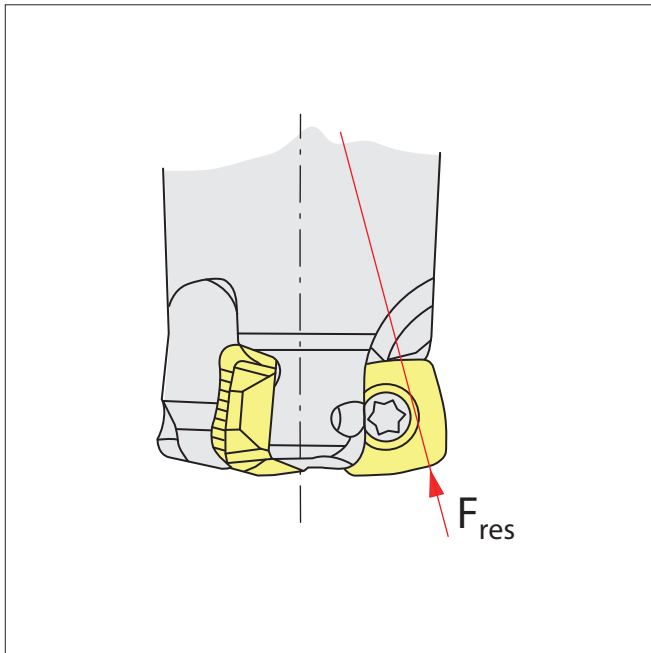


Minimum vibration

The light cutting geometry and the very positive angle allow for reduced vibration of the milling system. The cutting forces are mainly in axial direction. Even with long tool overhangs the stress on the machine spindle is minimised.



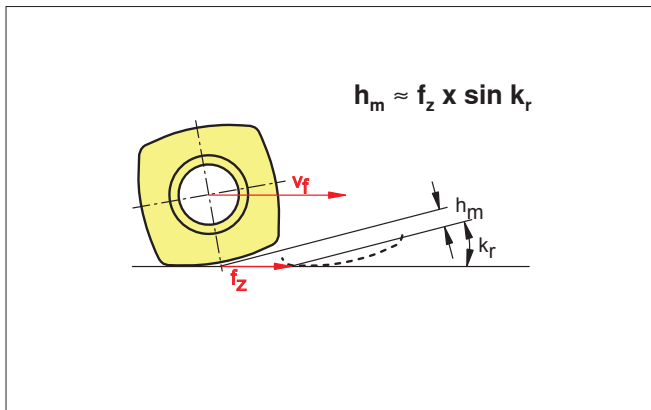
Systems for high feed rates with approach angle $k_r = 15^\circ$
The axial forces produced are directed towards the machine spindle:

$$F_r \ll F_a$$

F_a = axial force on the spindle

F_r = radial force on the spindle

F_{res} = resulting force on the spindle



○ Small approach angle k_r

k_r between 15 and 20°!

○ Low to medium chip thickness h_m

The smaller the approach angle, the lower the medium chip thickness.

○ High feed rate per tooth f_z

In order to reach a regular medium chip thickness, the feed rate per tooth has to be increased.

Thanks to the small approach angle reducing chip thickness, high feed per tooth and high metal removal rates are possible, even with small depths of cut.