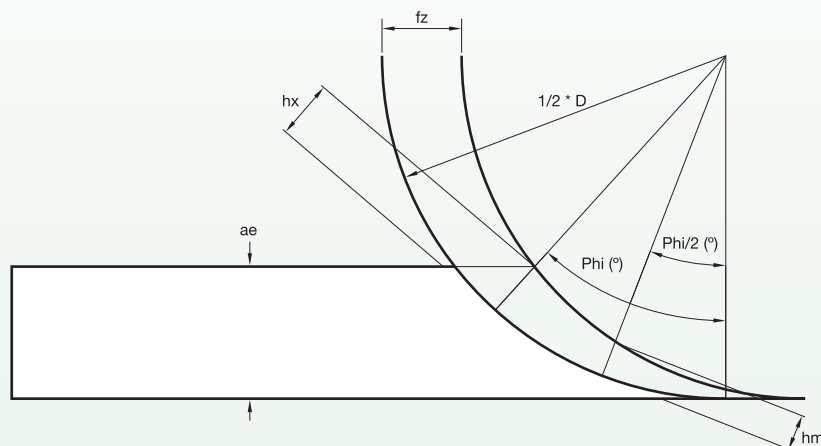


■ Differences between hm and hx

In conventional milling, it makes sense to calculate the load to the cutting edge through hm. With reducing the ae to very low values, you can calculate with the maximum chip thickness hx to make sure that the feed per tooth is set up correctly.



Conventional

$$hm = 360^\circ / \pi \cdot \phi_s \cdot ae / D \cdot fz \cdot \sin x$$

hm [mm]	=	average chip thickness
fs [°]	=	engagement angle
ae [mm]	=	width of engagement
D1 [mm]	=	outer diameter tool
fz [mm]	=	feed per tooth
χ [°]	=	lead angle
λ [°]	=	helix angle *

Smart Machining

$$hx = 360^\circ / \pi \cdot \phi_s \cdot 2 \cdot ae / D \cdot fz \cdot \sin x$$

hx [mm]	=	maximum chip thickness
fs [°]	=	engagement angle
ae [mm]	=	width of engagement
D1 [mm]	=	outer diameter tool
fz [mm]	=	feed per tooth
χ [°]	=	lead angle
λ [°]	=	helix angle *

* Solid End Mills: $\chi = 90^\circ - \lambda$

Trochoidal Milling can be performed with solid or indexable milling tools.