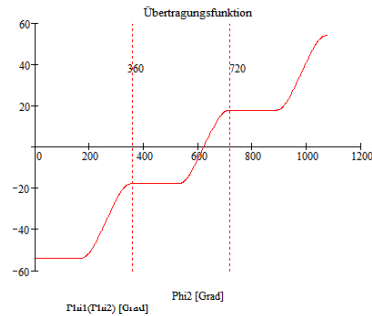


Fräserradius r_{fr}

entspricht Rollenradius r

$r_{fr} < r$

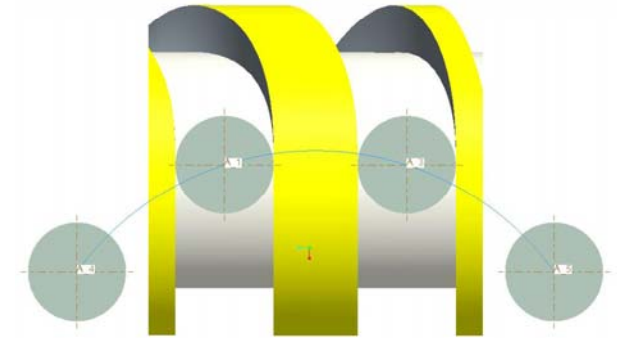
Übertragungsfunktion



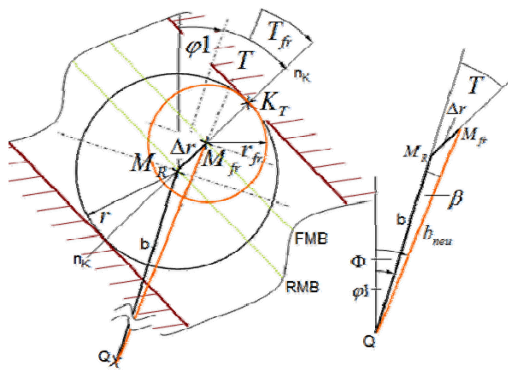
Fräserbahnkoordinaten

$$(x_{fr}, y_{fr}) = (x_{fr}(\varphi 1), y_{fr}(\varphi 1))$$

Fräserbahn = Kreisbogen



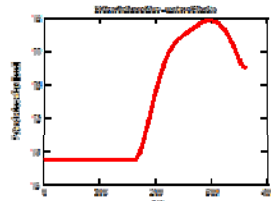
obere Flanke



Ableitung von Korrekturgrößen

Fräserbahnradius

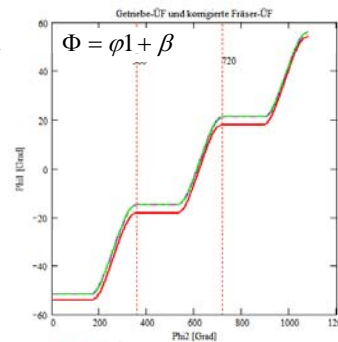
$$b_{neu} = \sqrt{b^2 + \Delta r^2 - 2 \cdot b \cdot \Delta r \cdot \cos(\pi - T)}$$



Korrekturwinkel

$$\beta = \arccos\left(\frac{\Delta r^2 - b^2 - b_{neu}^2}{-2 \cdot b \cdot b_{neu}}\right)$$

Fräserübertragungsfunktion



Fräserbahnkoordinaten

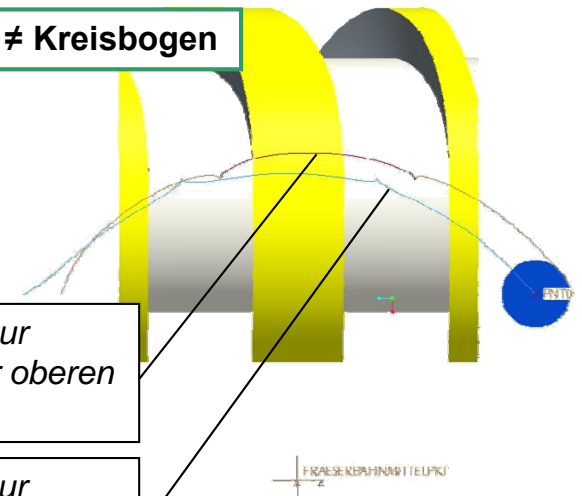
obere Flanke

$$(x_{fr}, y_{fr}) = (x_{fr}(\Phi, b_{neu}), y_{fr}(\Phi, b_{neu}))$$

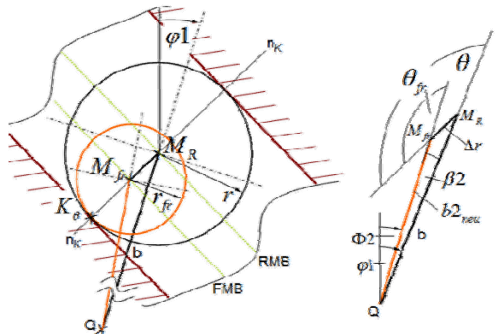
untere Flanke

$$(x_{2fr}, y_{2fr}) = (x_{2fr}(\Phi 2, b_{2neu}), y_{2fr}(\Phi 2, b_{2neu}))$$

Fräserbahn ≠ Kreisbogen

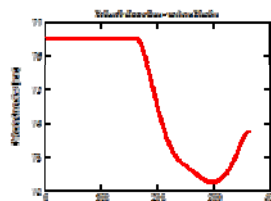


untere Flanke



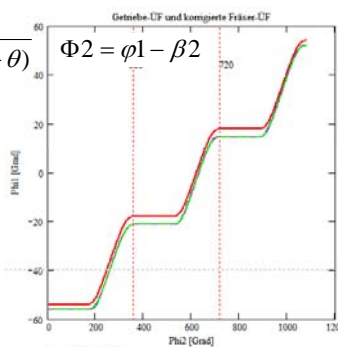
Fräserbahnradius

$$b_{2neu} = \sqrt{b^2 + \Delta r^2 - 2 \cdot b \cdot \Delta r \cdot \cos(\pi - \theta)}$$



Korrekturwinkel

$$\beta 2 = \arccos\left(\frac{\Delta r^2 - b^2 - b_{2neu}^2}{-2 \cdot b \cdot b_{2neu}}\right)$$



Fräserbahn zur Fertigung der oberen Nutflanke

Fräserbahn zur Fertigung der unteren Nutflanke