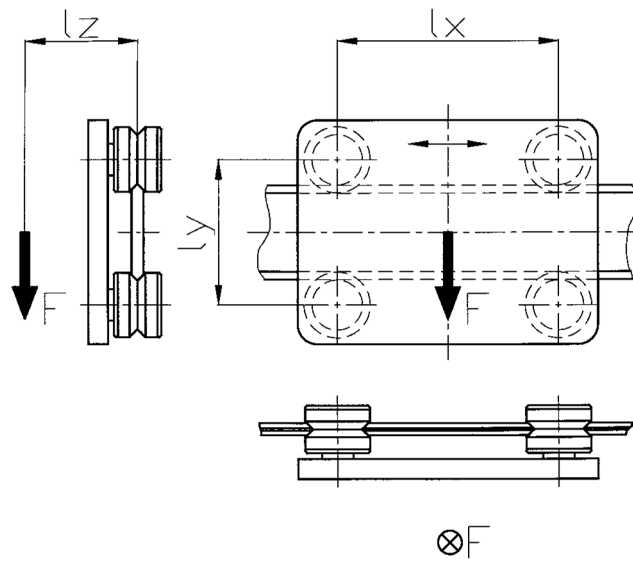


# Formeln

für linear **nicht** veränderliche Belastung

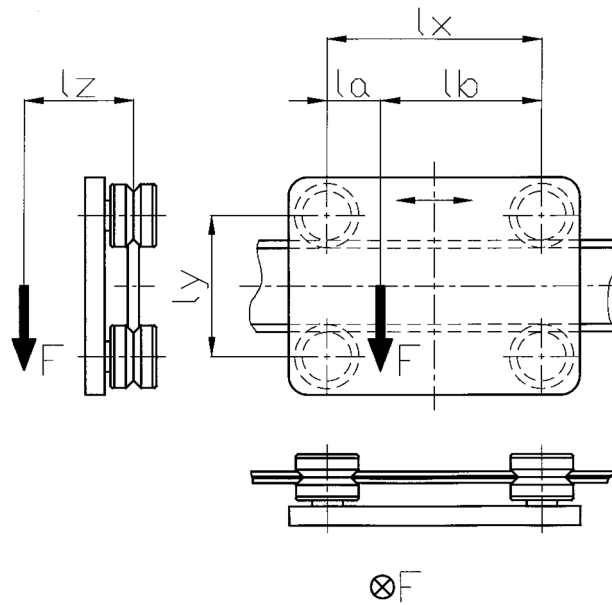
$$PR = \frac{F}{2} + \frac{F \cdot lz \cdot \tan 40^\circ}{2 \cdot (ly - Dm)}$$

$$PA = \frac{F}{4 \cdot \tan 40^\circ} + \frac{F \cdot lz}{2 \cdot (ly - Dm)}$$



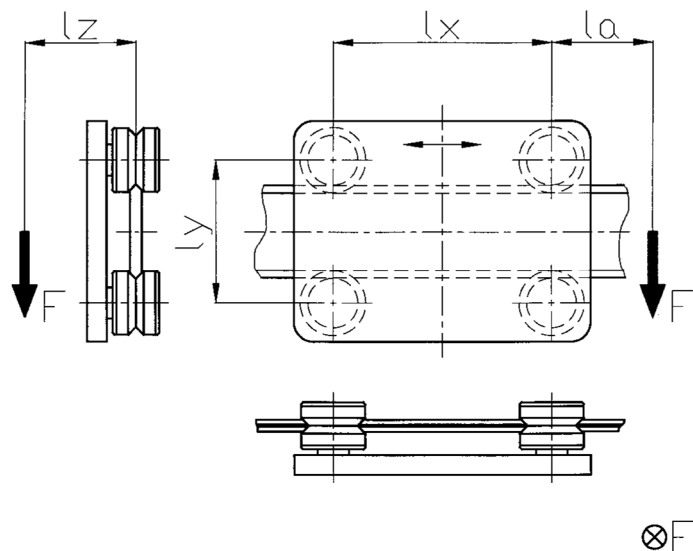
$$PR = \frac{F \cdot lb}{lx} + \frac{F \cdot lz \cdot \tan 40^\circ}{2 \cdot (ly - Dm)}$$

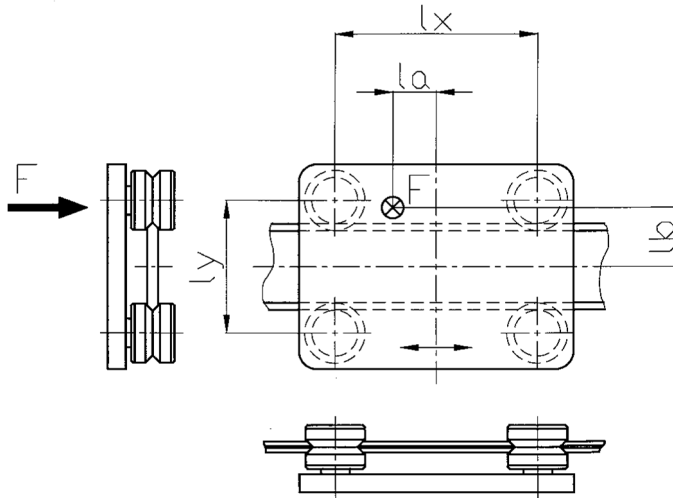
$$PA = \frac{F \cdot lb}{2 \cdot lx \cdot \tan 40^\circ} + \frac{F \cdot lz}{2 \cdot (ly - Dm)}$$



$$PR = \frac{F \cdot (la + lx)}{lx} + \frac{F \cdot lz \cdot \tan 40^\circ}{2 \cdot (ly - Dm)}$$

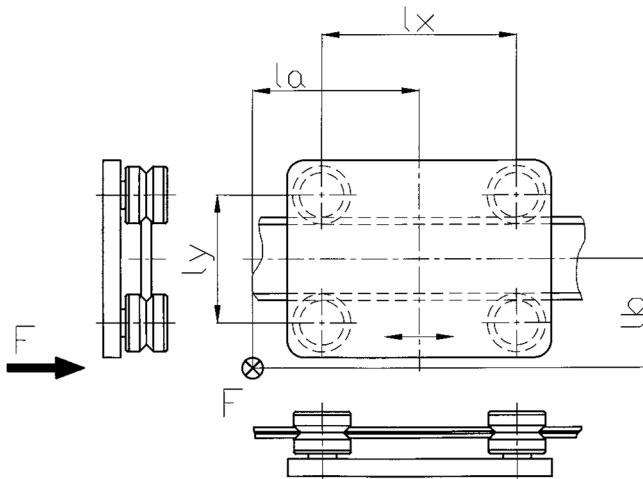
$$PA = \frac{F \cdot (la + lx)}{2 \cdot lx \cdot \tan 40^\circ} + \frac{F \cdot lz}{2 \cdot (ly - Dm)}$$





$$PA = \frac{F}{4} + \frac{F \cdot la}{2 \cdot lx} + \frac{F \cdot lb}{2 \cdot (ly - Dm)}$$

$$PR = \tan 40^\circ \left[ \frac{F}{4} + \frac{F \cdot la}{2 \cdot lx} + \frac{F \cdot lb}{2 \cdot (ly - Dm)} \right]$$



$$PA = \frac{F}{4} + \frac{F \cdot la}{2 \cdot lx} + \frac{F \cdot lb}{2 \cdot (ly - Dm)}$$

$$PR = \tan 40^\circ \left[ \frac{F}{4} + \frac{F \cdot la}{2 \cdot lx} + \frac{F \cdot lb}{2 \cdot (ly - Dm)} \right]$$

$$PA_{\min} = \frac{F \cdot (la + lx)}{2 \cdot lx \cdot \tan 40^\circ}$$

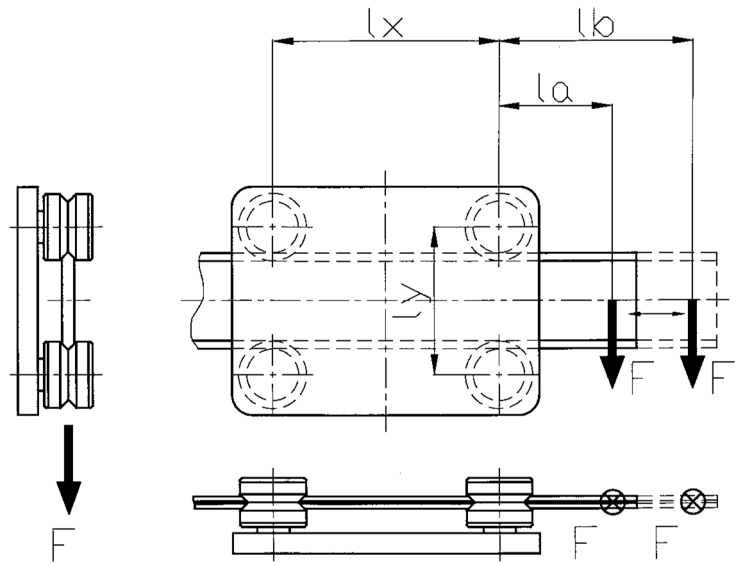
$$PA_{\max} = \frac{F \cdot (lb + lx)}{2 \cdot lx \cdot \tan 40^\circ}$$

$$PR_{\max} = \frac{F \cdot (lb + lx)}{lx}$$

$$PR_{\min} = \frac{F \cdot (la + lx)}{lx}$$

$$PR = \frac{PR_{\min} + 2 \cdot PR_{\max}}{3}$$

$$PA = \frac{PA_{\min} + 2 \cdot PA_{\max}}{3}$$



$$PA_{\min} = \frac{F \cdot (la + lx)}{2 \cdot lx \cdot \tan 40^\circ} + \frac{F \cdot lz}{2 \cdot (ly - Dm)}$$

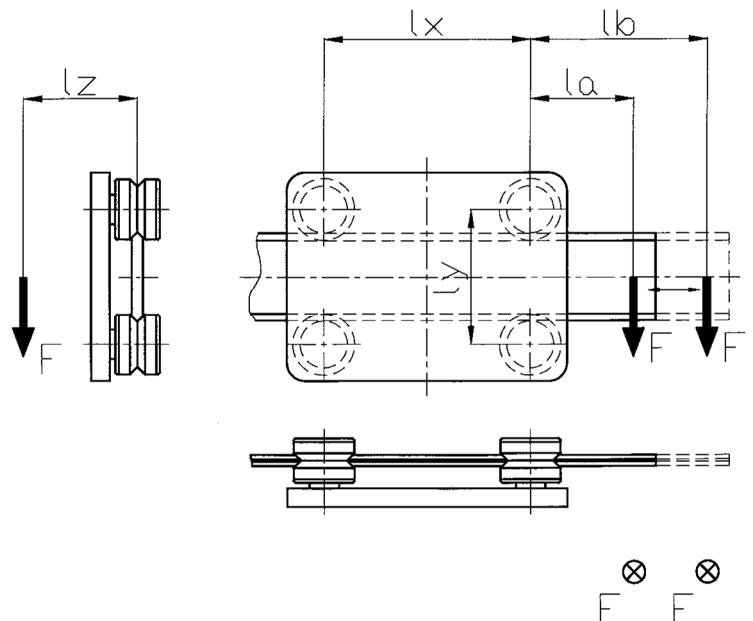
$$PA_{\max} = \frac{F \cdot (lb + lx)}{2 \cdot lx \cdot \tan 40^\circ} + \frac{F \cdot lz}{2 \cdot (ly - Dm)}$$

$$PR_{\min} = \frac{F \cdot (la + lx)}{lx} + \frac{F \cdot lz \cdot \tan 40^\circ}{2 \cdot (ly - Dm)}$$

$$PR_{\max} = \frac{F \cdot (lb + lx)}{lx} + \frac{F \cdot lz \cdot \tan 40^\circ}{2 \cdot (ly - Dm)}$$

$$PR = \frac{PR_{\min} + 2 \cdot PR_{\max}}{3}$$

$$PA = \frac{PA_{\min} + 2 \cdot PA_{\max}}{3}$$



# Formeln

$$PA_{\min} = \frac{F}{4} + \frac{F \cdot (la + lx : 2)}{2 \cdot lx}$$

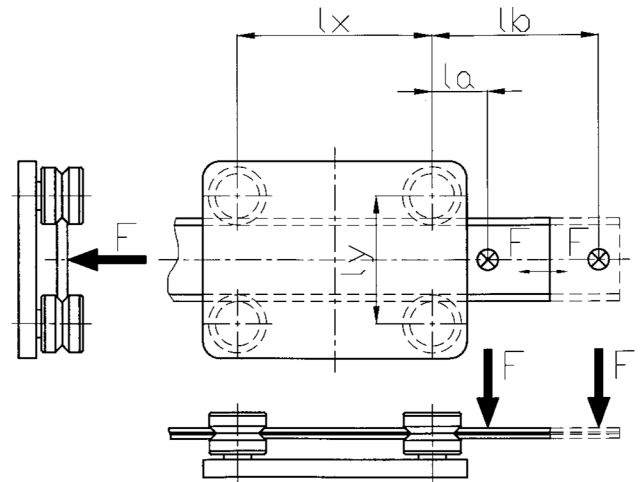
$$PA_{\max} = \frac{F}{4} + \frac{F \cdot (lb + lx : 2)}{2 \cdot lx}$$

$$PR_{\min} = \tan 40^\circ \left[ \frac{F}{4} + \frac{F \cdot (la + lx : 2)}{2 \cdot lx} \right]$$

$$PR_{\max} = \tan 40^\circ \left[ \frac{F}{4} + \frac{F \cdot (lb + lx : 2)}{2 \cdot lx} \right]$$

$$PR = \frac{PR_{\min} + 2 \cdot PR_{\max}}{3}$$

$$PA = \frac{PA_{\min} + 2 \cdot PA_{\max}}{3}$$

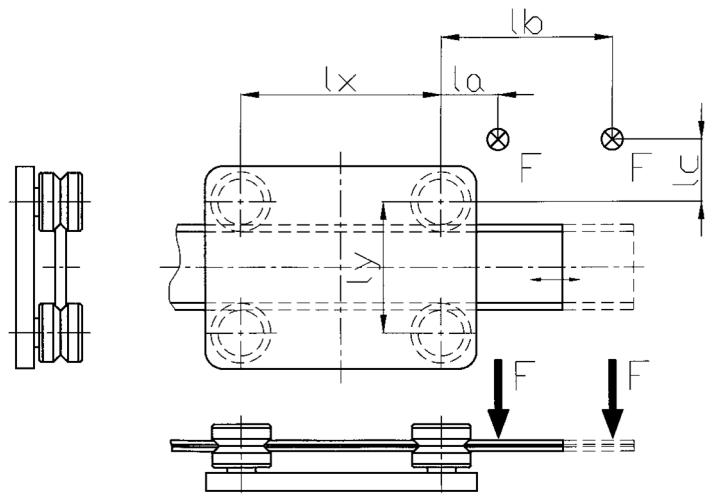


$$PA_{\min} = \frac{F}{4} + \frac{F \cdot (la + lx : 2)}{2 \cdot lx} + \frac{F \cdot (lc + ly : 2)}{2 \cdot (ly - Dm)}$$

$$PA_{\max} = \frac{F}{4} + \frac{F \cdot (lb + lx : 2)}{2 \cdot lx} + \frac{F \cdot (lc + ly : 2)}{2 \cdot (ly - Dm)}$$

$$PR = \frac{PR_{\min} + 2 \cdot PR_{\max}}{3}$$

$$PA = \frac{PA_{\min} + 2 \cdot PA_{\max}}{3}$$



$$PR_{\max} = \tan 40^\circ \left[ \frac{F}{4} + \frac{F \cdot (lb + lx : 2)}{2 \cdot lx} + \frac{F \cdot (lc + ly : 2)}{2 \cdot (ly - Dm)} \right]$$

$$PR_{\min} = \tan 40^\circ \left[ \frac{F}{4} + \frac{F \cdot (la + lx : 2)}{2 \cdot lx} + \frac{F \cdot (lc + ly : 2)}{2 \cdot (ly - Dm)} \right]$$