

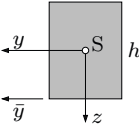
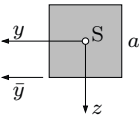
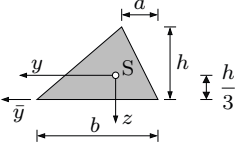
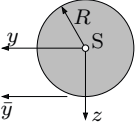
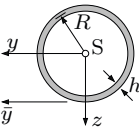
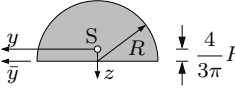
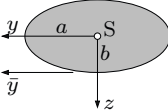
<p>Rechteck</p> 	$A = bh$	$I_y = \frac{bh^3}{12}$ $I_z = \frac{hb^3}{12}$ $I_{yz} = 0$ $I_{\bar{y}} = \frac{bh^3}{3}$	$I_P = \frac{bh}{12}(h^2 + b^2)$
<p>Quadrat</p> 	$A = a^2$	$I_y = I_z = \frac{a^4}{12}$ $I_{yz} = 0$ $I_{\bar{y}} = \frac{a^4}{3}$	$I_P = \frac{a^4}{6}$ $I_T = 0.140a^4$ $W_T = 0.208a^3$
<p>Dreieck</p> 	$A = \frac{bh}{2}$	$I_y = \frac{bh^3}{36}$ $I_z = \frac{bh}{36}(b^2 - ba + a^2)$ $I_{yz} = \frac{bh^2}{72}(b - 2a)$ $I_{\bar{y}} = \frac{bh^3}{12}$	$I_P = \frac{bh}{36}(h^2 + b^2 - ba + a^2)$
<p>Kreis</p> 	$A = \pi R^2$	$I_y = I_z = \frac{\pi R^4}{4}$ $I_{yz} = 0$ $I_{\bar{y}} = \frac{5\pi R^4}{4}$	$I_P = I_T = \frac{\pi R^4}{2}$ $W_T = \frac{\pi R^3}{2}$
<p>dünner Kreisring $h \ll R$</p> 	$A = 2\pi R h$	$I_y = I_z = \pi R^3 h$ $I_{yz} = 0$ $I_{\bar{y}} = 3\pi R^3 h$	$I_P = I_T = 2\pi R^3 h$ $W_T = 2\pi R^2 h$
<p>Halbkreis</p> 	$A = \frac{\pi R^2}{2}$	$I_y = \frac{R^4}{72\pi}(9\pi^2 - 64)$ $I_z = I_{\bar{y}} = \frac{\pi R^4}{8}$ $I_{yz} = 0$	$I_P = \frac{\pi R^4}{36\pi}(9\pi^2 - 32)$
<p>Ellipse</p> 	$A = \pi ab$	$I_y = \frac{\pi}{4} ab^3$ $I_z = \frac{\pi}{4} ba^3$ $I_{yz} = 0$ $I_{\bar{y}} = \frac{5\pi}{4} ab^3$	$I_P = \frac{\pi ab}{4}(a^2 + b^2)$ $I_T = \pi \frac{a^3 b^3}{a^2 + b^2}$ $W_T = \frac{a^2 b}{2} \quad (a > b)$

Tabelle B.5 Flächenmaße einfacher Geometrien