

## Example 4

Locate the centroid of the cross-sectional area

$$\bar{x} = \frac{\sum \tilde{x}A}{\sum A}$$
  $\bar{y} = \frac{\sum \tilde{y}A}{\sum A}$ 

$$\overline{y} = \frac{Lyt}{\sum A}$$

$\widetilde{\mathbf{y}} A$	$150 \times 15,000 = 2250000$	$325 \times 15000 = 4875000$	7125000
$\widetilde{x}A$	0	0	0
A	$300 \times 50 = 15000$	$300 \times 50 = 15000$	30000
$\widetilde{\mathcal{S}}$	150	325	$\sim$
iκ	0	0	
	Н	7	

	87				Ĭ		п
<i>y</i> -	nm 150 mm					1	25 mm 25 mm
	150 mm	-	<u> </u> 	300 mm	-	č	25
		50 m		(a)			

$$\overline{y} = \frac{7125000}{30000} = 237.5mm$$