SHEAR CENTRE

SHEAR CENTRE: It's point at which external loads are applied so that no twisting occurs in the member:

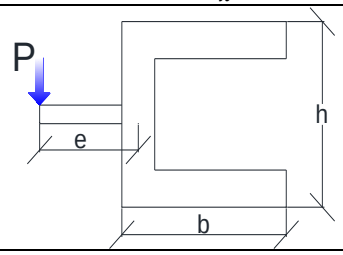
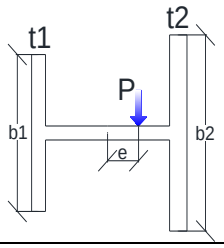
$Torque, T = 0$	But B.M., V Can be developed

CASE-I: If cross section symmetric about X & Y Axis, centroid & shear centre coincides.

CASE-II: If cross section is not symmetric about X & Y Axis, centroid & shear centre doesn't coincide. E.g. C-channel.

SHEAR FLOW: It's shear force per unit length.

For thin walled member shear flow is like water flow.	Shear flow $= \tau b = VQ/I$

$e = \dfrac{b^2h^2t}{4I_x}$	$\dfrac{a}{b} = \dfrac{I_2}{I_1} = \dfrac{t_2b_2^3}{t_1b_1^3}$
	
$e = \dfrac{2R(\sin\alpha - \alpha\cos\alpha)}{\alpha - \sin\alpha\cos\alpha}$	$e = 2R$