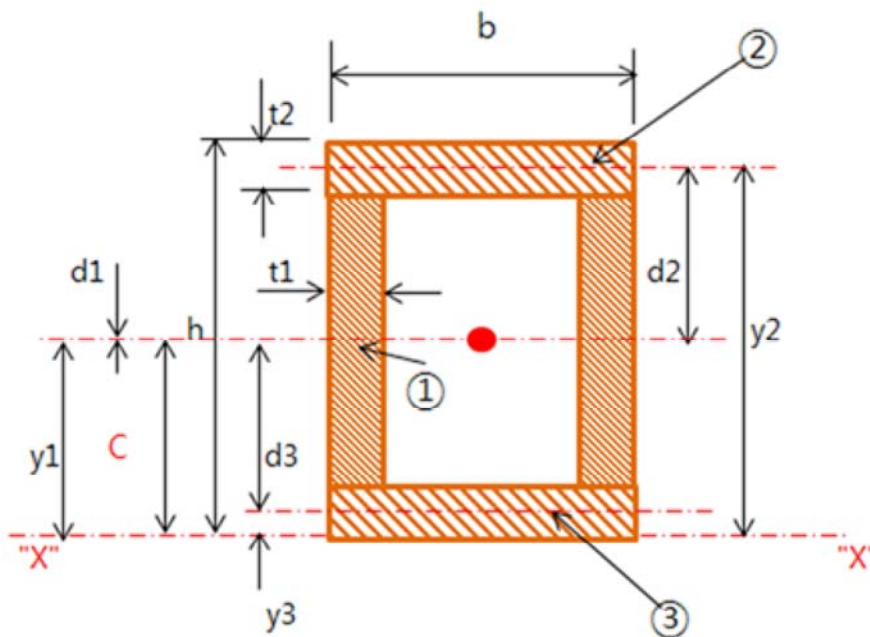


PROPERTIES OF STIFFENER

SQUARE BAR-SECTIONAL PROPERTIES

INPUT DATA 계산실행 **V1.0** By Ryu-ChangMyong/P.E

* Item Name	E1004	* Description	PES
* Dim. t1	0.5 cm	* Dim. h	10 cm
* Dim. t2	0.5 cm	* Dim. b	10 cm



RESULT OF CALCULATION

* Actual moment of inertia

Mark	A(cm ²)	y(cm)	A*y(cm ³)	d(cm)	lg1=b*h ³ /12 (cm ⁴)	lg2=A*d ² (cm ⁴)
1	9.0	5.00	45.0	0.00	60.8	0.0
2	5.0	9.75	48.8	4.75	0.1	112.8
3	5.0	0.25	1.3	-4.75	0.1	112.8
TOTAL	19.0		95.0		61.0	225.6
c = ΣA*y / ΣA	5.00				Actual lg = (lg1+lg2)	286.6
			Sectional Modulus, Zx=lg/c	57.3		

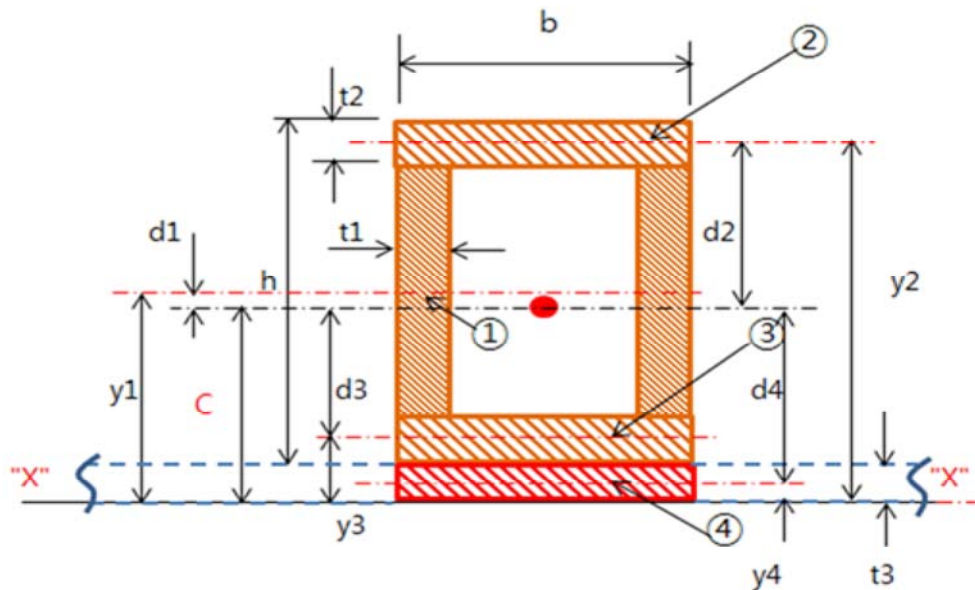
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PROPERTIES OF STIFFENER

SQUARE BAR STIFFENER-SECTIONAL PROPERTIES

INPUT DATA 계산실행 V1.0 By Ryu-ChangMyong/P.E

* Item Name	E1004	* Description	PES
* Dim. t1	0.5 cm	* Dim. h	10 cm
* Dim. t2	0.5 cm	* Dim. b	10 cm
* Dim. t3	0.5 cm		



RESULT OF CALCULATION

* Actual moment of inertia

Mark	A(cm ²)	y(cm)	A*y(cm ³)	d(cm)	lg1=b*h ³ /12 (cm ⁴)	lg2=A*d ² (cm ⁴)
1	9.0	5.50	49.5	1.09	60.8	10.8
2	5.0	10.25	51.3	5.84	0.1	170.7
3	5.0	0.75	3.8	-3.66	0.1	66.8
4	5.0	0.25	1.3	-4.16	0.1	86.4
TOTAL	24.0		105.8		61.1	334.7
c = $\Sigma A*y / \Sigma A$	4.41					
			Sectional Modulus, Zx=lg/c	89.8	Actual lg = (lg1+lg2)	395.8

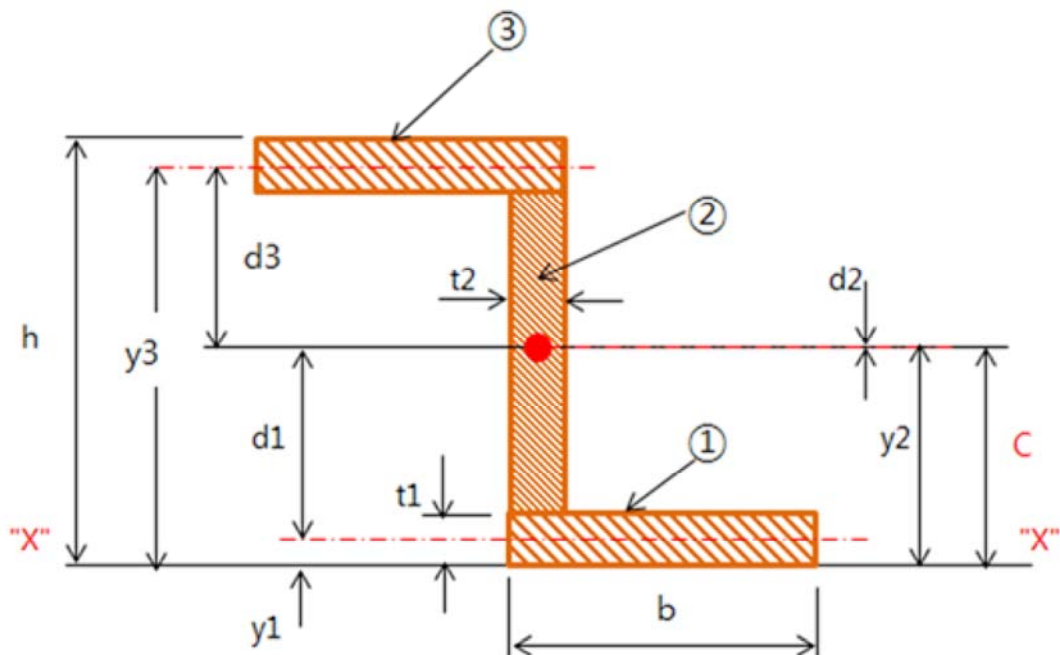
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PROPERTIES OF STIFFENER

Z-BAR-SECTIONAL PROPERTIES

INPUT DATA 계산실행 **V1.0** By Ryu-ChangMyong/P.E

* Item Name	E1004	* Description	PES
* Dim. t1	0.5 cm	* Dim. h	10 cm
* Dim. t2	0.5 cm	* Dim. b	10 cm



RESULT OF CALCULATION

* Actual moment of inertia

Mark	A(cm ²)	y(cm)	A*y(cm ³)	d(cm)	lg1=b*h ³ /12 (cm ⁴)	lg2=A*d ² (cm ⁴)
1	5.0	0.25	1.3	-4.75	0.1	112.8
2	4.5	5.00	22.5	0.00	30.4	0.0
3	5.0	9.75	48.8	4.75	0.1	112.8
TOTAL	14.5		72.5		30.6	225.6
c = $\Sigma A*y / \Sigma A$	5.00		Sectional Modulus, $Z_x = I_g / c$	51.2	Actual $I_g = (I_{g1} + I_{g2})$	256.2

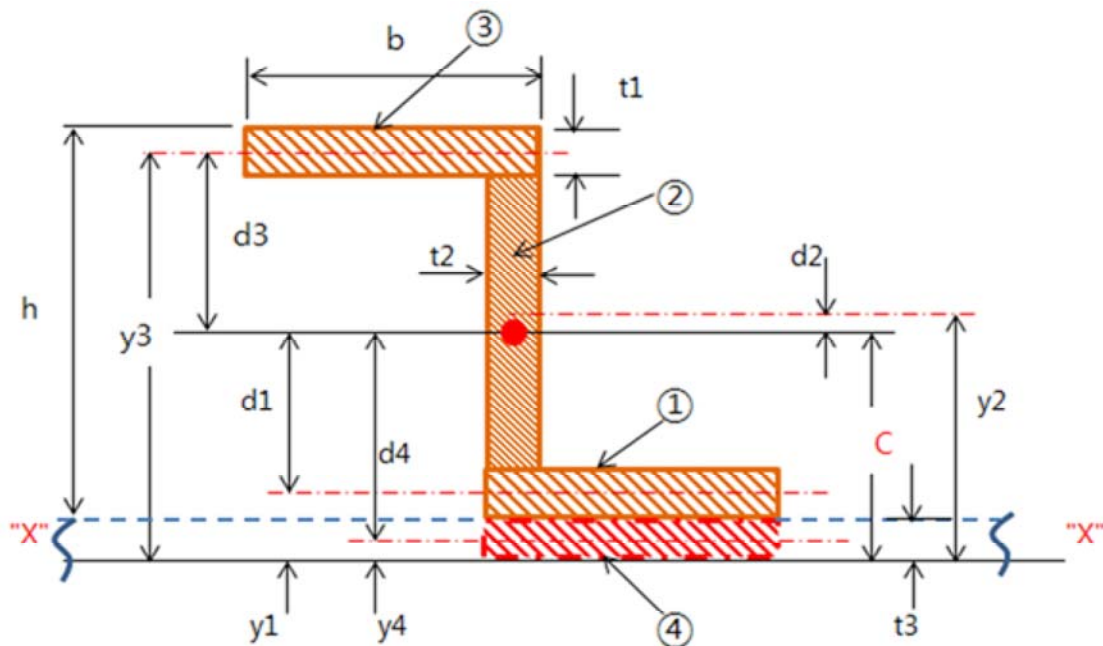
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PROPERTIES OF STIFFENER

Z-BAR STIFFENER-SECTIONAL PROPERTIES

INPUT DATA 계산실행 **V1.0 By Ryu-ChangMyong/P.E**

* Item Name	E1004	* Description	PES
* Dim. t1	0.5 cm	* Dim. h	10 cm
* Dim. t2	0.5 cm	* Dim. b	10 cm
* Dim. t3	0.5 cm		



RESULT OF CALCULATION

* Actual moment of inertia

Mark	A(cm ²)	y(cm)	A*y(cm ³)	d(cm)	lg1=b*h ³ /12 (cm ⁴)	lg2=A*d ² (cm ⁴)
1	5.0	0.75	3.8	-3.40	0.1	57.9
2	4.5	5.50	24.8	1.35	30.4	8.2
3	5.0	10.25	51.3	6.10	0.1	185.8
4	5.0	0.25	1.3	-3.90	0.1	76.2
TOTAL	19.5		81.0		30.7	328.1
c = $\Sigma A*y / \Sigma A$	4.15		Sectional Modulus, Zx=lg/c	86.4	Actual lg = (lg1+lg2)	358.8

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