

CROSS SECTION: PETERSEN: 1346

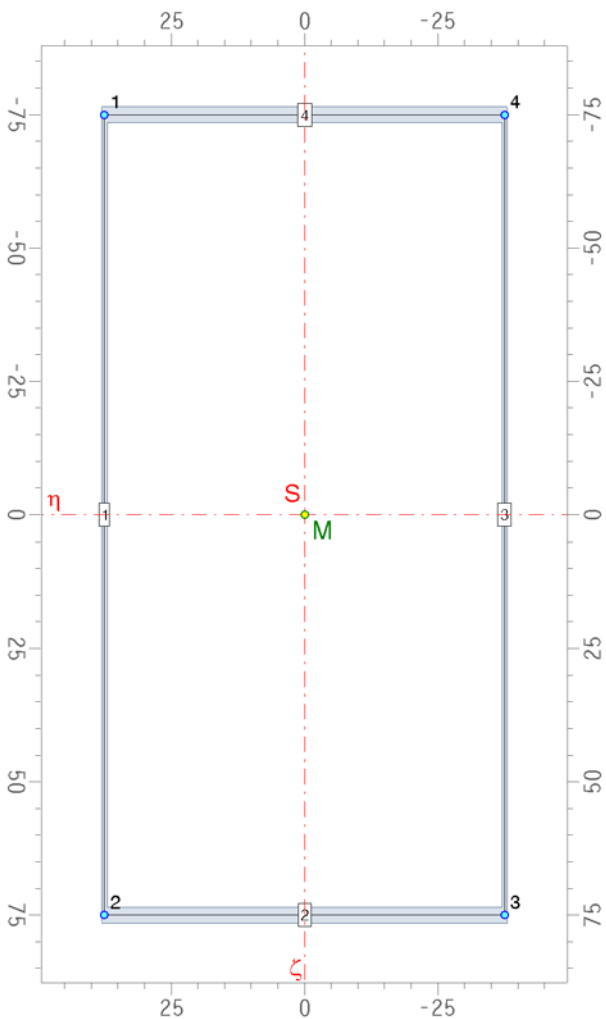
nodes

nodes	y cm	z cm
1	37.50	-75.00
2	37.50	75.00
3	-37.50	75.00
4	-37.50	-75.00

lines

line	from	to	thickn.A cm	thickn.E cm	arch rise cm	r _{ar} cm	r _{al} cm	r _{er} cm	r _{el} cm	Φ _a °	Φ _e °
1	1	2	1.00	1.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
2	2	3	3.00	3.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
3	3	4	1.00	1.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
4	4	1	3.00	3.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00

plotting



characteristic values

area, centroid and angle of principal axis

A =	750.00 cm ²	e _y =	0.00 cm	e _z =	0.00 cm	α =	0.00 °
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spread

y _{max} =	38.00 cm	y _{min} =	-38.00 cm	b =	76.00 cm	U _a =	458.00 cm
z _{max} =	76.50 cm	z _{min} =	-76.50 cm	h =	153.00 cm	U _i =	442.00 cm
						U =	900.00 cm

Imn-system: moments of inertia and section moduli, clearances and radii of gyration

(Imn = ξηζ)

I _m =	3094762.50 cm ⁴	W _{m+} =	40454.41 cm ³	h _{m+} =	38.00 cm	i _m =	64.24 cm
I _n =	632950.00 cm ⁴	W _{m-} =	40454.41 cm ³	h _{m-} =	-38.00 cm	i _n =	29.05 cm
I _p =	3727712.50 cm ⁴	W _{n+} =	16656.58 cm ³	h _{n+} =	76.50 cm	i _p =	70.50 cm
		W _{n-} =	16656.58 cm ³	h _{n-} =	-76.50 cm		

shear centre

y _M =	0.00 cm	y _{SM} =	0.00 cm	η _M =	0.00 cm
z _M =	0.00 cm	z _{SM} =	0.00 cm	ζ _M =	0.00 cm

shear area coefficient

κ _m =	3.19 -	A _m =	235.47 cm ²	κ _η =	3.19 -	A _η =	235.47 cm ²
κ _n =	2.61 -	A _n =	287.41 cm ²	κ _ζ =	2.61 -	A _ζ =	287.41 cm ²

torsion + warping

I _T =	1447878.57 cm ⁴	I _W =	1008948501.28 cm ⁶	R _{Sy} =	0.00 cm ⁵	R _{Sz} =	0.00 cm ⁵
C _s =	1008948501.28 cm ⁶	I _{pM} =	3727712.50 cm ⁴	i _{ωM} =	16.45 cm		
ω _{M+} =	2008.93 cm ²	ω _{M-} =	-2008.93 cm ²	W _{ω+} =	502232.14 cm ⁴	W _{ω-} =	502232.14 cm ⁴

section lines

i _m =	70.50 cm	r _η =	0.00 cm	r _ζ =	0.00 cm	r _ω =	0.00 cm
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plastic characteristic values

W _{ply,max} =	44999.76 cm ³	W _{plz,max} =	19685.83 cm ³	W _{plη,max} =	44999.76 cm ³	W _{plζ,max} =	19685.83 cm ³
W _{ply,red} =	44999.76 cm ³	W _{plz,red} =	19685.83 cm ³	W _{plη,red} =	44999.76 cm ³	W _{plζ,red} =	19685.83 cm ³