

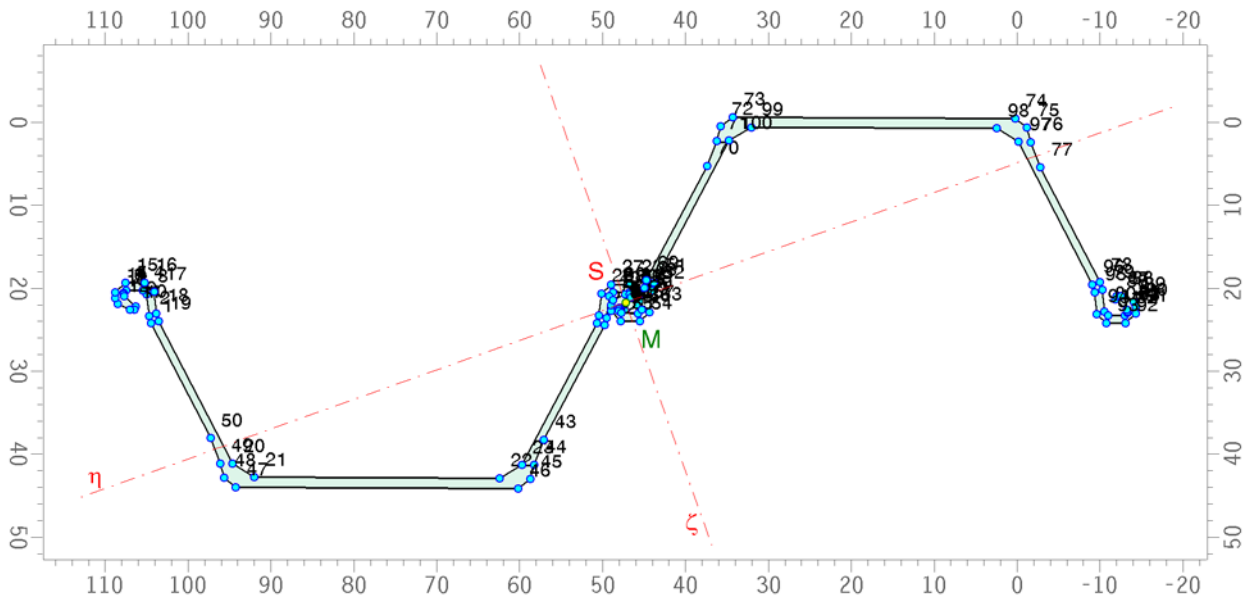
CROSS SECTION: SPBOHLE

polygonal chains

[y,z]: node coordinates [s]: arc rise of the line to the following node (positive to left side)

nodes	y	z	s	nodes	y	z	s
-	m	m	m	-	m	m	m
1. created manually (+)				2. created manually (+)			
1	1.04	0.24	0.000	51	0.44	0.19	0.000
2	1.05	0.23	0.000	52	0.44	0.20	0.000
3	1.05	0.21	0.000	53	0.44	0.23	0.000
4	1.05	0.20	0.000	54	0.46	0.24	0.000
5	1.08	0.20	0.000	55	0.48	0.24	0.000
6	1.08	0.21	0.000	56	0.49	0.23	0.000
7	1.08	0.21	0.000	57	0.49	0.22	0.000
8	1.08	0.21	0.000	58	0.49	0.21	0.000
9	1.06	0.22	0.000	59	0.47	0.21	0.000
10	1.06	0.23	0.000	60	0.47	0.21	0.000
11	1.07	0.23	0.000	61	0.47	0.21	0.000
12	1.09	0.22	0.000	62	0.48	0.22	0.000
13	1.09	0.21	0.000	63	0.48	0.23	0.000
14	1.09	0.21	0.000	64	0.48	0.23	0.000
15	1.08	0.19	0.000	65	0.48	0.23	0.000
16	1.05	0.19	0.000	66	0.46	0.23	0.000
17	1.04	0.20	0.000	67	0.45	0.23	0.000
18	1.04	0.23	0.000	68	0.45	0.20	0.000
19	1.04	0.24	0.000	69	0.45	0.19	0.000
20	0.95	0.41	0.000	70	0.37	0.05	0.000
21	0.92	0.43	0.000	71	0.36	0.02	0.000
22	0.62	0.43	0.000	72	0.36	0.00	0.000
23	0.60	0.41	0.000	73	0.34	-0.01	0.000
24	0.51	0.24	0.000	74	0.00	0.00	0.000
25	0.50	0.23	0.000	75	-0.01	0.01	0.000
26	0.50	0.21	0.000	76	-0.02	0.02	0.000
27	0.49	0.20	0.000	77	-0.03	0.05	0.000
28	0.47	0.20	0.000	78	-0.10	0.19	0.000
29	0.45	0.21	0.000	79	-0.10	0.20	0.000
30	0.45	0.21	0.000	80	-0.10	0.23	0.000
31	0.46	0.22	0.000	81	-0.11	0.23	0.000
32	0.47	0.23	0.000	82	-0.13	0.23	0.000
33	0.48	0.23	0.000	83	-0.13	0.23	0.000
34	0.48	0.22	0.000	84	-0.13	0.23	0.000
35	0.47	0.21	0.000	85	-0.13	0.23	0.000
36	0.46	0.21	0.000	86	-0.12	0.21	0.000
37	0.46	0.21	0.000	87	-0.12	0.21	0.000
38	0.47	0.21	0.000	88	-0.13	0.21	0.000
39	0.49	0.21	0.000	89	-0.14	0.22	0.000
40	0.49	0.21	0.000	90	-0.14	0.22	0.000
41	0.50	0.24	0.000	91	-0.14	0.23	0.000
42	0.50	0.24	0.000	92	-0.13	0.24	0.000
43	0.57	0.38	0.000	93	-0.11	0.24	0.000
44	0.58	0.41	0.000	94	-0.10	0.23	0.000
45	0.59	0.43	0.000	95	-0.09	0.20	0.000
46	0.60	0.44	0.000	96	-0.09	0.20	0.000
47	0.94	0.44	0.000	97	0.00	0.02	0.000
48	0.96	0.43	0.000	98	0.02	0.01	0.000
49	0.96	0.41	0.000	99	0.32	0.01	0.000
50	0.97	0.38	0.000	100	0.35	0.02	0.000

plotting



gross characteristic values

area, centroid and angle of principal axis

A =	216.95 cm ²	e _y =	47.22 cm	e _z =	21.74 cm	α =	19.65 °
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spread

y _{max} =	108.76 cm	y _{min} =	-14.27 cm	b =	123.04 cm	U =	395.47 cm
Z _{max} =	44.10 cm	Z _{min} =	-0.60 cm	h =	44.70 cm		

I_{mn}-system: moments of inertia and section moduli, clearances and radii of gyration

I _m =	58661.74 cm ⁴	W _{m+} =	2622.89 cm ³	h _{m+} =	61.54 cm	i _m =	16.44 cm
I _n =	279240.91 cm ⁴	W _{m-} =	2625.94 cm ³	h _{m-} =	-61.49 cm	i _n =	35.88 cm
I _{mn} =	90291.13 cm ⁴	W _{n+} =	4537.22 cm ³	h _{n+} =	22.37 cm		
		W _{n-} =	4541.10 cm ³	h _{n-} =	-22.34 cm		

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

I _η =	26416.13 cm ⁴	W _{η+} =	1169.36 cm ³	h _{η+} =	57.78 cm	i _η =	11.03 cm
I _ζ =	311486.51 cm ⁴	W _{η-} =	1169.91 cm ³	h _{η-} =	-57.72 cm	i _ζ =	37.89 cm
I _p =	337902.64 cm ⁴	W _{ζ+} =	5391.17 cm ³	h _{ζ+} =	22.59 cm	i _p =	39.47 cm
		W _{ζ-} =	5396.61 cm ³	h _{ζ-} =	-22.58 cm		

shear centre

y _M =	47.21 cm	y _{SM} =	-0.01 cm	η _M =	-0.01 cm
Z _M =	21.75 cm	Z _{SM} =	0.01 cm	ζ _M =	0.01 cm

shear area coefficient

κ _m =	2.08 -	A _m =	104.18 cm ²	κ _η =	2.20 -	A _η =	98.70 cm ²
κ _n =	3.09 -	A _n =	70.26 cm ²	κ _ζ =	2.97 -	A _ζ =	73.00 cm ²

torsion + warping

I _T =	104.08 cm ⁴	I _w =	273436528.00 cm ⁶	R _{Sy} =	-1384.14 cm ⁵	R _{Sz} =	-3151.05 cm ⁵
C _s =	273436568.00 cm ⁶	I _{pM} =	337902.69 cm ⁴	i _{ωM} =	28.45 cm		
ω _{M+} =	624.21 cm ²	ω _{M-} =	-1527.14 cm ²	W _{ω+} =	438055.11 cm ⁴	W _{ω-} =	179051.93 cm ⁴

section lines

i _m =	39.47 cm	r _η =	0.07 cm	r _ζ =	0.02 cm	r _ω =	-0.58 cm
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