

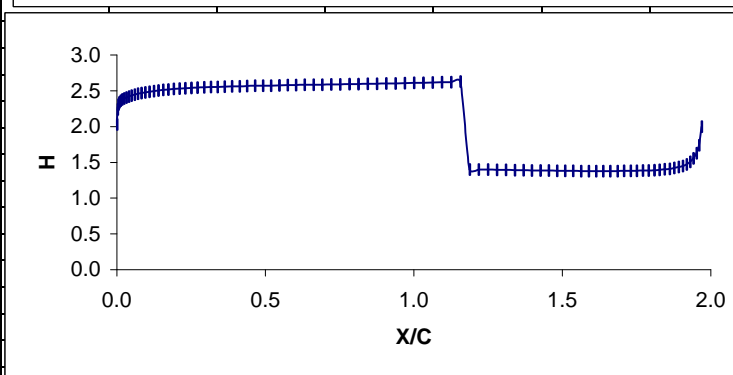
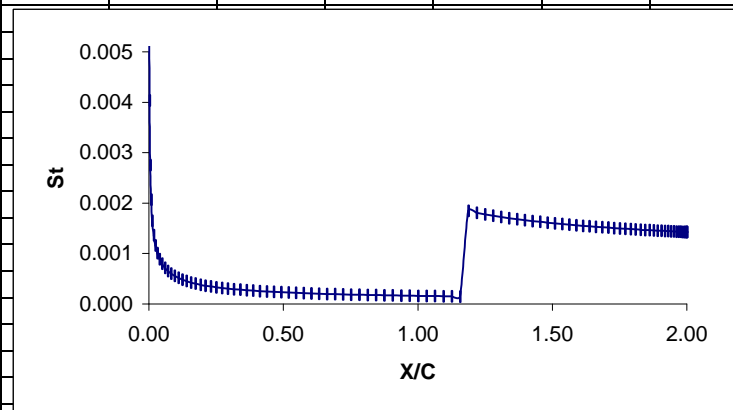
### Example 11.9 Test 3

I	X/C	S/C	RS	UE	DELST	THETA	H	CF	RTHETA		
1	0.00E+00	0.00E+00	0.00E+00	1.00E-05	6.12E-05	2.59E-05	2.36E+00	0.00E+00	4.86E-05		
2	4.90E-04	7.87E-03	6.90E+03	4.68E+00	9.13E-05	4.49E-05	2.03E+00	2.45E-02	3.94E+01		
3	1.97E-03	1.59E-02	2.72E+04	9.15E+00	7.50E-05	3.35E-05	2.24E+00	1.32E-02	5.74E+01		
4	4.44E-03	2.41E-02	5.98E+04	1.33E+01	7.23E-05	3.13E-05	2.31E+00	8.97E-03	7.79E+01		
5	7.89E-03	3.26E-02	1.03E+05	1.69E+01	7.45E-05	3.18E-05	2.34E+00	6.65E-03	1.01E+02		
6	1.23E-02	4.15E-02	1.56E+05	2.01E+01	7.92E-05	3.35E-05	2.36E+00	5.18E-03	1.26E+02		
7	1.77E-02	5.10E-02	2.17E+05	2.28E+01	8.55E-05	3.60E-05	2.38E+00	4.17E-03	1.54E+02		
8	2.41E-02	6.10E-02	2.86E+05	2.50E+01	9.31E-05	3.89E-05	2.39E+00	3.43E-03	1.82E+02		
9	3.14E-02	7.16E-02	3.61E+05	2.69E+01	1.02E-04	4.22E-05	2.41E+00	2.88E-03	2.13E+02		
10	3.97E-02	8.28E-02	4.41E+05	2.84E+01	1.11E-04	4.59E-05	2.42E+00	2.46E-03	2.45E+02		
11	4.89E-02	9.47E-02	5.28E+05	2.97E+01	1.21E-04	4.98E-05	2.43E+00	2.13E-03	2.77E+02		
12	5.91E-02	1.07E-01	6.20E+05	3.08E+01	1.32E-04	5.38E-05	2.45E+00	1.86E-03	3.11E+02		
13	7.02E-02	1.21E-01	7.17E+05	3.17E+01	1.43E-04	5.81E-05	2.46E+00	1.65E-03	3.45E+02		
14	8.23E-02	1.35E-01	8.20E+05	3.25E+01	1.54E-04	6.25E-05	2.47E+00	1.47E-03	3.81E+02		
15	9.52E-02	1.49E-01	9.28E+05	3.31E+01	1.66E-04	6.70E-05	2.48E+00	1.32E-03	4.16E+02		
16	1.09E-01	1.65E-01	1.04E+06	3.37E+01	1.78E-04	7.16E-05	2.49E+00	1.20E-03	4.52E+02		
17	1.24E-01	1.81E-01	1.16E+06	3.41E+01	1.91E-04	7.63E-05	2.50E+00	1.10E-03	4.89E+02		
18	1.39E-01	1.98E-01	1.28E+06	3.45E+01	2.03E-04	8.11E-05	2.50E+00	1.01E-03	5.25E+02		
19	1.56E-01	2.16E-01	1.41E+06	3.49E+01	2.16E-04	8.59E-05	2.51E+00	9.31E-04	5.62E+02		
20	1.73E-01	2.34E-01	1.55E+06	3.52E+01	2.29E-04	9.08E-05	2.52E+00	8.64E-04	5.99E+02		
21	1.91E-01	2.54E-01	1.69E+06	3.55E+01	2.41E-04	9.57E-05	2.52E+00	8.06E-04	6.36E+02		
22	2.10E-01	2.73E-01	1.83E+06	3.57E+01	2.54E-04	1.01E-04	2.53E+00	7.55E-04	6.73E+02		
23	2.30E-01	2.94E-01	1.98E+06	3.59E+01	2.67E-04	1.06E-04	2.53E+00	7.09E-04	7.10E+02		
24	2.50E-01	3.15E-01	2.13E+06	3.61E+01	2.80E-04	1.10E-04	2.54E+00	6.69E-04	7.47E+02		
25	2.71E-01	3.37E-01	2.29E+06	3.62E+01	2.93E-04	1.15E-04	2.54E+00	6.33E-04	7.84E+02		
26	2.93E-01	3.60E-01	2.45E+06	3.64E+01	3.07E-04	1.20E-04	2.55E+00	6.00E-04	8.21E+02		
27	3.16E-01	3.83E-01	2.62E+06	3.65E+01	3.20E-04	1.25E-04	2.55E+00	5.71E-04	8.57E+02		
28	3.39E-01	4.07E-01	2.79E+06	3.66E+01	3.33E-04	1.30E-04	2.55E+00	5.45E-04	8.94E+02		
29	3.63E-01	4.31E-01	2.97E+06	3.67E+01	3.46E-04	1.35E-04	2.56E+00	5.20E-04	9.30E+02		
30	3.87E-01	4.56E-01	3.15E+06	3.68E+01	3.59E-04	1.40E-04	2.56E+00	4.98E-04	9.66E+02		
31	4.12E-01	4.82E-01	3.33E+06	3.69E+01	3.71E-04	1.45E-04	2.56E+00	4.78E-04	1.00E+03		
32	4.38E-01	5.08E-01	3.52E+06	3.70E+01	3.84E-04	1.50E-04	2.57E+00	4.59E-04	1.04E+03		
33	4.64E-01	5.35E-01	3.71E+06	3.70E+01	3.97E-04	1.55E-04	2.57E+00	4.42E-04	1.07E+03		
34	4.91E-01	5.62E-01	3.91E+06	3.71E+01	4.10E-04	1.59E-04	2.57E+00	4.26E-04	1.11E+03		
35	5.18E-01	5.89E-01	4.10E+06	3.72E+01	4.23E-04	1.64E-04	2.57E+00	4.12E-04	1.14E+03		
36	5.46E-01	6.17E-01	4.31E+06	3.72E+01	4.35E-04	1.69E-04	2.58E+00	3.98E-04	1.18E+03		
37	5.74E-01	6.46E-01	4.51E+06	3.72E+01	4.48E-04	1.74E-04	2.58E+00	3.85E-04	1.21E+03		
38	6.03E-01	6.74E-01	4.71E+06	3.73E+01	4.60E-04	1.79E-04	2.58E+00	3.73E-04	1.25E+03		
39	6.32E-01	7.04E-01	4.92E+06	3.73E+01	4.73E-04	1.83E-04	2.58E+00	3.62E-04	1.28E+03		
40	6.61E-01	7.33E-01	5.13E+06	3.74E+01	4.85E-04	1.88E-04	2.58E+00	3.51E-04	1.32E+03		
41	6.91E-01	7.63E-01	5.35E+06	3.74E+01	4.98E-04	1.92E-04	2.59E+00	3.41E-04	1.35E+03		
42	7.21E-01	7.93E-01	5.56E+06	3.74E+01	5.10E-04	1.97E-04	2.59E+00	3.32E-04	1.38E+03		
43	7.51E-01	8.23E-01	5.78E+06	3.74E+01	5.22E-04	2.02E-04	2.59E+00	3.23E-04	1.41E+03		
44	7.82E-01	8.54E-01	6.00E+06	3.74E+01	5.34E-04	2.06E-04	2.59E+00	3.15E-04	1.45E+03		
45	8.13E-01	8.85E-01	6.21E+06	3.75E+01	5.46E-04	2.11E-04	2.59E+00	3.07E-04	1.48E+03		
46	8.44E-01	9.16E-01	6.43E+06	3.75E+01	5.58E-04	2.15E-04	2.60E+00	2.99E-04	1.51E+03		
47	8.75E-01	9.47E-01	6.66E+06	3.75E+01	5.70E-04	2.19E-04	2.60E+00	2.92E-04	1.54E+03		
48	9.06E-01	9.78E-01	6.88E+06	3.75E+01	5.82E-04	2.24E-04	2.60E+00	2.85E-04	1.57E+03		
49	9.37E-01	1.01E+00	7.10E+06	3.75E+01	5.94E-04	2.28E-04	2.60E+00	2.78E-04	1.60E+03		
50	9.69E-01	1.04E+00	7.32E+06	3.75E+01	6.06E-04	2.32E-04	2.61E+00	2.72E-04	1.63E+03		
51	1.00E+00	1.07E+00	7.54E+06	3.75E+01	6.17E-04	2.37E-04	2.61E+00	2.65E-04	1.66E+03		
52	1.03E+00	1.10E+00	7.76E+06	3.75E+01	6.29E-04	2.41E-04	2.61E+00	2.59E-04	1.69E+03		
53	1.06E+00	1.14E+00	7.98E+06	3.75E+01	6.41E-04	2.45E-04	2.62E+00	2.53E-04	1.72E+03		
54	1.09E+00	1.17E+00	8.20E+06	3.75E+01	6.53E-04	2.49E-04	2.62E+00	2.47E-04	1.75E+03		
55	1.13E+00	1.20E+00	8.42E+06	3.75E+01	6.64E-04	2.53E-04	2.62E+00	2.42E-04	1.78E+03		
56	1.16E+00	1.23E+00	8.63E+06	3.75E+01	6.76E-04	2.58E-04	2.63E+00	2.36E-04	1.81E+03		
57	1.19E+00	1.26E+00	8.85E+06	3.75E+01	6.86E-04	2.62E-04	1.40E+00	3.69E-03	1.84E+03		
58	1.22E+00	1.29E+00	9.06E+06	3.74E+01	6.95E-04	3.17E-04	1.40E+00	3.50E-03	2.23E+03		
59	1.25E+00	1.32E+00	9.27E+06	3.74E+01	7.04E-04	3.70E-04	1.40E+00	3.36E-03	2.60E+03		
60	1.28E+00	1.35E+00	9.48E+06	3.74E+01	7.13E-04	4.21E-04	1.40E+00	3.26E-03	2.96E+03		
61	1.31E+00	1.38E+00	9.68E+06	3.74E+01	7.22E-04	4.71E-04	1.39E+00	3.18E-03	3.30E+03		
62	1.34E+00	1.41E+00	9.88E+06	3.74E+01	7.31E-04	5.19E-04	1.39E+00	3.11E-03	3.63E+03		

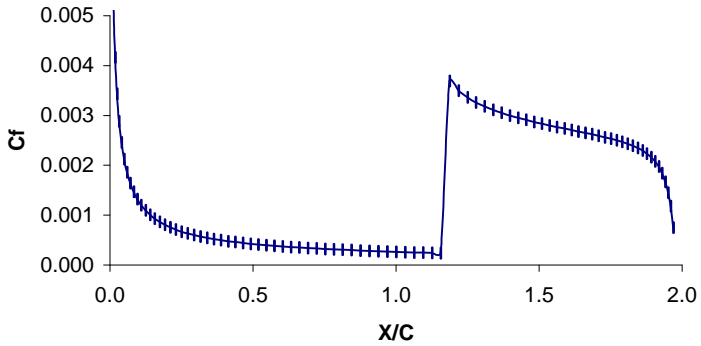
63	1.37E+00	1.44E+00	1.01E+07	3.73E+01	7.86E-04	5.66E-04	1.39E+00	3.05E-03	3.96E+03		
64	1.40E+00	1.47E+00	1.03E+07	3.73E+01	8.49E-04	6.12E-04	1.39E+00	3.00E-03	4.28E+03		
65	1.43E+00	1.50E+00	1.05E+07	3.72E+01	9.11E-04	6.57E-04	1.39E+00	2.95E-03	4.59E+03		
66	1.45E+00	1.53E+00	1.07E+07	3.72E+01	9.71E-04	7.02E-04	1.38E+00	2.91E-03	4.89E+03		
67	1.48E+00	1.56E+00	1.08E+07	3.72E+01	1.03E-03	7.45E-04	1.38E+00	2.87E-03	5.19E+03		
68	1.51E+00	1.58E+00	1.10E+07	3.71E+01	1.09E-03	7.88E-04	1.38E+00	2.84E-03	5.48E+03		
69	1.54E+00	1.61E+00	1.12E+07	3.70E+01	1.15E-03	8.31E-04	1.38E+00	2.80E-03	5.77E+03		
70	1.56E+00	1.64E+00	1.13E+07	3.70E+01	1.20E-03	8.73E-04	1.38E+00	2.77E-03	6.05E+03		
71	1.59E+00	1.66E+00	1.15E+07	3.69E+01	1.26E-03	9.15E-04	1.38E+00	2.74E-03	6.33E+03		
72	1.61E+00	1.69E+00	1.17E+07	3.68E+01	1.32E-03	9.57E-04	1.38E+00	2.71E-03	6.61E+03		
73	1.64E+00	1.71E+00	1.18E+07	3.67E+01	1.38E-03	9.99E-04	1.38E+00	2.68E-03	6.88E+03		
74	1.66E+00	1.74E+00	1.19E+07	3.66E+01	1.44E-03	1.04E-03	1.38E+00	2.65E-03	7.15E+03		
75	1.69E+00	1.76E+00	1.21E+07	3.65E+01	1.50E-03	1.08E-03	1.38E+00	2.62E-03	7.42E+03		
76	1.71E+00	1.79E+00	1.22E+07	3.64E+01	1.56E-03	1.13E-03	1.38E+00	2.59E-03	7.69E+03		
77	1.73E+00	1.81E+00	1.23E+07	3.62E+01	1.62E-03	1.17E-03	1.38E+00	2.56E-03	7.96E+03		
78	1.75E+00	1.83E+00	1.24E+07	3.61E+01	1.68E-03	1.22E-03	1.38E+00	2.53E-03	8.24E+03		
79	1.77E+00	1.85E+00	1.25E+07	3.59E+01	1.75E-03	1.27E-03	1.39E+00	2.50E-03	8.52E+03		
80	1.79E+00	1.87E+00	1.25E+07	3.57E+01	1.83E-03	1.32E-03	1.39E+00	2.47E-03	8.81E+03		
81	1.81E+00	1.89E+00	1.26E+07	3.55E+01	1.91E-03	1.37E-03	1.39E+00	2.43E-03	9.12E+03		
82	1.83E+00	1.91E+00	1.26E+07	3.52E+01	2.00E-03	1.43E-03	1.40E+00	2.39E-03	9.44E+03		
83	1.84E+00	1.93E+00	1.26E+07	3.49E+01	2.10E-03	1.50E-03	1.40E+00	2.35E-03	9.79E+03		
84	1.86E+00	1.95E+00	1.26E+07	3.45E+01	2.21E-03	1.57E-03	1.41E+00	2.30E-03	1.02E+04		
85	1.88E+00	1.96E+00	1.26E+07	3.41E+01	2.35E-03	1.66E-03	1.42E+00	2.24E-03	1.06E+04		
86	1.89E+00	1.98E+00	1.25E+07	3.37E+01	2.51E-03	1.76E-03	1.43E+00	2.17E-03	1.11E+04		
87	1.91E+00	2.00E+00	1.24E+07	3.31E+01	2.72E-03	1.88E-03	1.45E+00	2.08E-03	1.17E+04		
88	1.92E+00	2.01E+00	1.22E+07	3.25E+01	2.98E-03	2.03E-03	1.47E+00	1.98E-03	1.23E+04		
89	1.93E+00	2.02E+00	1.20E+07	3.17E+01	3.34E-03	2.22E-03	1.51E+00	1.84E-03	1.32E+04		
90	1.94E+00	2.04E+00	1.18E+07	3.08E+01	3.85E-03	2.47E-03	1.56E+00	1.67E-03	1.43E+04		
91	1.95E+00	2.05E+00	1.14E+07	2.97E+01	4.61E-03	2.83E-03	1.63E+00	1.45E-03	1.58E+04		
92	1.96E+00	2.06E+00	1.10E+07	2.84E+01	5.84E-03	3.35E-03	1.74E+00	1.18E-03	1.79E+04		
93	1.97E+00	2.07E+00	1.04E+07	2.69E+01	8.38E-03	4.19E-03	2.00E+00	7.51E-04	2.11E+04		

Smith-Spalding method and Ambrok method

I	X/C	S/C	UE	ST
1	0.00E+00	0.00E+00	1.00E-05	0.00E+00
2	4.90E-04	7.87E-03	4.68E+00	7.12E-03
3	1.97E-03	1.59E-02	9.15E+00	4.04E-03
4	4.44E-03	2.41E-02	1.33E+01	2.75E-03
5	7.89E-03	3.26E-02	1.69E+01	2.07E-03
6	1.23E-02	4.15E-02	2.01E+01	1.65E-03
7	1.77E-02	5.10E-02	2.27E+01	1.37E-03
8	2.41E-02	6.10E-02	2.50E+01	1.16E-03
9	3.14E-02	7.16E-02	2.69E+01	1.01E-03
10	3.97E-02	8.28E-02	2.84E+01	8.91E-04
11	4.89E-02	9.47E-02	2.97E+01	7.97E-04
12	5.91E-02	1.07E-01	3.08E+01	7.20E-04
13	7.02E-02	1.21E-01	3.17E+01	6.56E-04
14	8.23E-02	1.35E-01	3.25E+01	6.02E-04
15	9.52E-02	1.49E-01	3.31E+01	5.57E-04
16	1.09E-01	1.65E-01	3.37E+01	5.18E-04
17	1.24E-01	1.81E-01	3.41E+01	4.84E-04
18	1.39E-01	1.98E-01	3.45E+01	4.54E-04
19	1.56E-01	2.16E-01	3.49E+01	4.28E-04
20	1.73E-01	2.34E-01	3.52E+01	4.04E-04
21	1.91E-01	2.54E-01	3.55E+01	3.83E-04
22	2.10E-01	2.73E-01	3.57E+01	3.65E-04
23	2.29E-01	2.94E-01	3.59E+01	3.48E-04
24	2.50E-01	3.15E-01	3.61E+01	3.32E-04
25	2.71E-01	3.37E-01	3.62E+01	3.18E-04
26	2.93E-01	3.60E-01	3.64E+01	3.06E-04
27	3.15E-01	3.83E-01	3.65E+01	2.94E-04
28	3.39E-01	4.07E-01	3.66E+01	2.83E-04
29	3.63E-01	4.31E-01	3.67E+01	2.73E-04
30	3.87E-01	4.56E-01	3.68E+01	2.64E-04



31	4.12E-01	4.82E-01	3.69E+01	2.55E-04								
32	4.38E-01	5.08E-01	3.70E+01	2.47E-04								
33	4.64E-01	5.34E-01	3.70E+01	2.40E-04								
34	4.91E-01	5.62E-01	3.71E+01	2.33E-04								
35	5.18E-01	5.89E-01	3.72E+01	2.26E-04								
36	5.46E-01	6.17E-01	3.72E+01	2.20E-04								
37	5.74E-01	6.46E-01	3.72E+01	2.15E-04								
38	6.03E-01	6.74E-01	3.73E+01	2.09E-04								
39	6.32E-01	7.04E-01	3.73E+01	2.04E-04								
40	6.61E-01	7.33E-01	3.73E+01	1.99E-04								
41	6.91E-01	7.63E-01	3.74E+01	1.95E-04								
42	7.21E-01	7.93E-01	3.74E+01	1.91E-04								
43	7.51E-01	8.23E-01	3.74E+01	1.86E-04								
44	7.82E-01	8.54E-01	3.74E+01	1.83E-04								
45	8.13E-01	8.85E-01	3.75E+01	1.79E-04								
46	8.44E-01	9.16E-01	3.75E+01	1.76E-04								
47	8.75E-01	9.47E-01	3.75E+01	1.72E-04								
48	9.06E-01	9.78E-01	3.75E+01	1.69E-04								
49	9.37E-01	1.01E+00	3.75E+01	1.66E-04								
50	9.69E-01	1.04E+00	3.75E+01	1.63E-04								
51	1.00E+00	1.07E+00	3.75E+01	1.61E-04								
52	1.03E+00	1.10E+00	3.75E+01	1.58E-04								
53	1.06E+00	1.14E+00	3.75E+01	1.56E-04								
54	1.09E+00	1.17E+00	3.75E+01	1.53E-04								
55	1.13E+00	1.20E+00	3.75E+01	1.51E-04								
56	1.16E+00	1.23E+00	3.75E+01	1.49E-04								
57	1.19E+00	1.26E+00	3.75E+01	1.84E-03								
58	1.22E+00	1.29E+00	3.74E+01	1.81E-03								
59	1.25E+00	1.32E+00	3.74E+01	1.78E-03								
60	1.28E+00	1.35E+00	3.74E+01	1.75E-03								
61	1.31E+00	1.38E+00	3.74E+01	1.73E-03								
62	1.34E+00	1.41E+00	3.73E+01	1.70E-03								
63	1.37E+00	1.44E+00	3.73E+01	1.68E-03								
64	1.40E+00	1.47E+00	3.73E+01	1.66E-03								
65	1.43E+00	1.50E+00	3.72E+01	1.65E-03								
66	1.45E+00	1.53E+00	3.72E+01	1.63E-03								
67	1.48E+00	1.56E+00	3.72E+01	1.61E-03								
68	1.51E+00	1.58E+00	3.71E+01	1.60E-03								
69	1.54E+00	1.61E+00	3.70E+01	1.59E-03								
70	1.56E+00	1.64E+00	3.70E+01	1.57E-03								
71	1.59E+00	1.66E+00	3.69E+01	1.56E-03								
72	1.61E+00	1.69E+00	3.68E+01	1.55E-03								
73	1.64E+00	1.71E+00	3.67E+01	1.54E-03								
74	1.66E+00	1.74E+00	3.66E+01	1.53E-03								
75	1.68E+00	1.76E+00	3.65E+01	1.52E-03								
76	1.71E+00	1.78E+00	3.64E+01	1.51E-03								
77	1.73E+00	1.81E+00	3.62E+01	1.51E-03								
78	1.75E+00	1.83E+00	3.61E+01	1.50E-03								
79	1.77E+00	1.85E+00	3.59E+01	1.49E-03								
80	1.79E+00	1.87E+00	3.57E+01	1.49E-03								
81	1.81E+00	1.89E+00	3.55E+01	1.48E-03								
82	1.83E+00	1.91E+00	3.52E+01	1.47E-03								
83	1.84E+00	1.93E+00	3.49E+01	1.47E-03								
84	1.86E+00	1.95E+00	3.45E+01	1.46E-03								
85	1.88E+00	1.96E+00	3.41E+01	1.46E-03								
86	1.89E+00	1.98E+00	3.37E+01	1.45E-03								
87	1.90E+00	2.00E+00	3.31E+01	1.45E-03								
88	1.92E+00	2.01E+00	3.25E+01	1.45E-03								
89	1.93E+00	2.02E+00	3.17E+01	1.44E-03								
90	1.94E+00	2.04E+00	3.08E+01	1.44E-03								
91	1.95E+00	2.05E+00	2.97E+01	1.44E-03								
92	1.96E+00	2.06E+00	2.84E+01	1.44E-03								
93	1.97E+00	2.07E+00	2.69E+01	1.43E-03								
94	1.98E+00	2.08E+00	2.50E+01	1.43E-03								



[illegible]