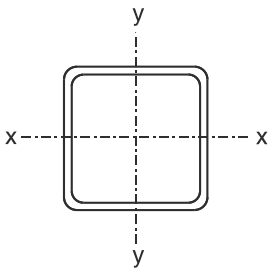
TABLE 3.2-5(2)

SQUARE HOLLOW SECTIONS
GRADE C350

SHS C350

FIRE ENGINEERING DESIGN
EXPOSED SURFACE AREA TO MASS RATIO (m^2/tonne)
about x- and y-axis



1 = TOTAL PERIMETER, PROFILE-PROTECTED
2 = TOTAL PERIMETER, BOX-PROTECTED, NO GAP
3 = TOTAL PERIMETER, BOX-PROTECTED, 25 mm GAP
4 = TOP FLANGE EXCLUDED, PROFILE-PROTECTED
5 = TOP FLANGE EXCLUDED, BOX-PROTECTED, NO GAP
6 = TOP FLANGE EXCLUDED, BOX-PROTECTED, 25mm GAP

Designation d b t	Mass per m	1	2	3	4	5	6
mm mm mm	kg/m						
65 x 65 x 6.0 SHS	10.1	23.1	25.6	45.3	19.6	19.2	29.1
5.0 SHS	8.75	27.3	29.7	52.6	22.7	22.3	33.7
4.0 SHS	7.23	33.6	36.0	63.6	27.4	27.0	40.8
3.0 SHS	5.66	44.1	45.9	81.3	34.8	34.5	52.1
2.5 SHS	4.78	52.6	54.4	96.2	41.1	40.8	61.7
2.0 SHS	3.88	65.3	67.1	119	50.6	50.3	76.1
1.6 SHS	3.13	81.2	83.0	147	62.5	62.2	94.1
64 x 64 x 6.0 SHS	9.96	23.1	25.7	45.8	19.7	19.3	29.3
51.5 x 51.5 x 4.0 SHS	5.53	34.1	37.2	73.4	28.4	27.9	46.0
50 x 50 x 5.0 SHS	6.39	27.9	31.3	62.6	24.0	23.5	39.1
4.0 SHS	5.35	34.2	37.4	74.8	28.6	28.1	46.8
3.0 SHS	4.25	44.7	47.1	94.2	35.7	35.3	58.9
2.5 SHS	3.60	53.1	55.5	111	42.0	41.6	69.4
2.0 SHS	2.93	65.8	68.2	136	51.5	51.1	85.2
1.6 SHS	2.38	81.7	84.0	168	63.4	63.0	105
40 x 40 x 4.0 SHS	4.09	34.9	39.1	88.0	30.0	29.3	53.8
3.0 SHS	3.30	45.3	48.4	109	36.8	36.3	66.6
2.5 SHS	2.82	53.7	56.8	128	43.1	42.6	78.1
2.0 SHS	2.31	66.4	69.4	156	52.5	52.0	95.4
1.6 SHS	1.88	82.3	85.2	192	64.4	63.9	117
35 x 35 x 3.0 SHS	2.83	45.8	49.4	120	37.7	37.1	72.4
2.5 SHS	2.42	54.2	57.7	140	43.9	43.3	84.5
2.0 SHS	1.99	66.8	70.3	171	53.3	52.7	103
1.6 SHS	1.63	82.7	86.1	209	65.1	64.6	126
30 x 30 x 3.0 SHS	2.36	46.5	50.8	136	38.8	38.1	80.5
2.5 SHS	2.03	54.8	59.0	157	45.0	44.3	93.5
2.0 SHS	1.68	67.4	71.5	191	54.3	53.7	113
1.6 SHS	1.38	83.3	87.3	233	66.1	65.5	138
25 x 25 x 3.0 SHS	1.89	47.4	52.9	159	40.6	39.7	92.6
2.5 SHS	1.64	55.7	61.0	183	46.6	45.7	107
2.0 SHS	1.36	68.3	73.3	220	55.8	55.0	128
1.6 SHS	1.12	84.1	89.0	267	67.5	66.7	156
20 x 20 x 2.0 SHS	1.05	69.7	76.2	267	58.2	57.2	152
1.6 SHS	0.873	85.4	91.7	321	69.8	68.8	183

See page 3-6 for details on cases of fire exposure considered.

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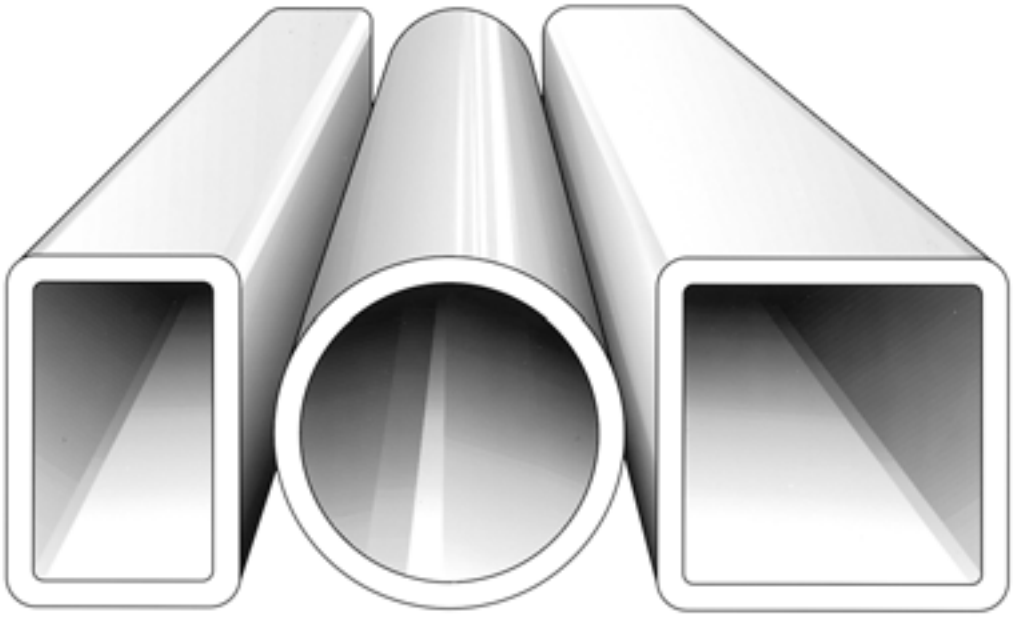
design capacity tables for structural steel



Volume 2: Hollow Sections

second edition

CHS - Grade C250/C350 (to AS 1163)

RHS - Grade C350/C450 (to AS 1163)

SHS - Grade C350/C450 (to AS 1163)

LIMIT STATES EDITION TO AS 4100-1998

$S^* \leq \phi R_u$

design capacity tables for structural steel

Volume 2: Hollow Sections

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PART 3 SECTION PROPERTIES

TABLES

NOTE: SEE SECTION 2.1 FOR THE SPECIFIC MATERAL STANDARD (AS 1163) REFERRED TO BY THE SECTION TYPE AND STEEL GRADE IN THESE TABLES