Building Control

LINCS BUILDING CONSULTANCY

Guidance Note No. 24

Height & Stability of Chimneys for Solid Fuel Appliances

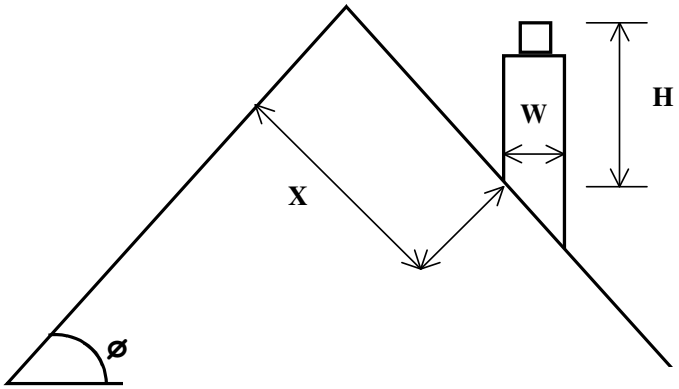
East Lindsey DISTRICT COUNCIL

Introduction

Chimneys have to be a certain height in order to safely discharge the products of combustion to outside air.

In addition, as the chimney height increases, the width must also increase to ensure stability.

Definition of measurements



Ø = Angle of Roof

H = Height of Chimney

X = Distance from ridge to chimney's intersection with the pitched roof

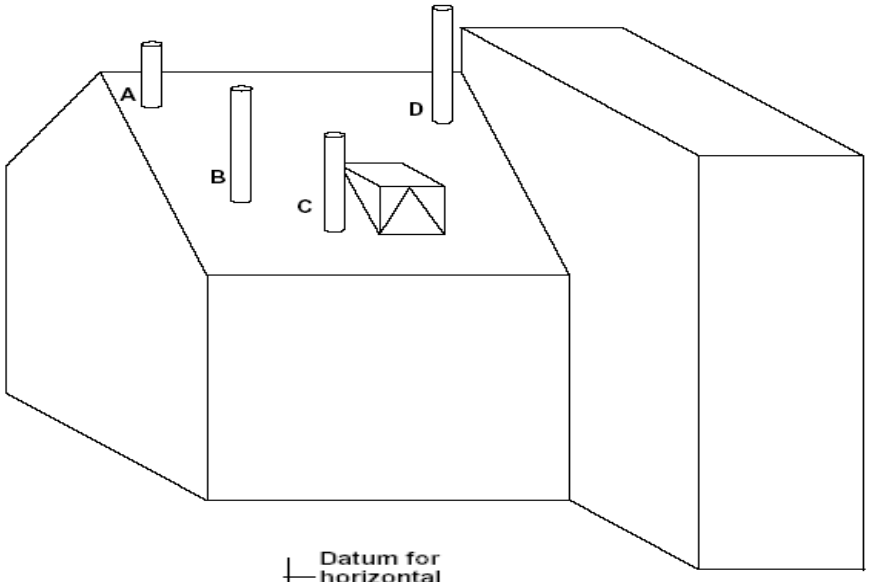
W = Minimum width of Chimney

Meeting Performance

a) All roofs.
Chimneys must be 1m above openable roof lights. The height of a chimney **H**, should not exceed **4.5** times its minimum width **W** (*see table 2 overleaf*)

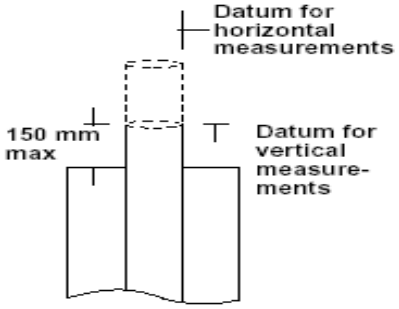
b) **Pitched Roofs over 10 degrees**
The pitch of a roof, and the distance from the ridge to the chimneys intersection with the pitched roof (*see overleaf*). The height of the chimney is then determined by the requirements of Diagram 2.1.

Diagram 2.1



Point where flue passes through weather surface (Notes 1, 2)		Clearances to flue outlet
A	at or within 600mm of the ridge.	at least 600mm above the ridge.
B	elsewhere on a roof (whether pitched or flat)	at least 2300mm horizontally from the nearest point on the weather surface and: a) at least 1000mm above the highest point of intersection of the chimney and the weather surface; or b) at least as high as the ridge.
C	below (on a pitched roof) or within 2300mm horizontally to an openable rooflight, dormer window or other opening. (Note 3)	at least 1000mm above the top of the opening.
D	within 2300mm of an adjoining or adjacent building, whether or not beyond the boundary. (Note 3)	at least 600mm above the adjacent building.

Notes
1) The weather surface is the building external surface, such as its roof, tiles or external walls
2) A flat roof has a pitch less than 10°
3) The clearances given for A or B, as appropriate, will also apply.



The datum for vertical measurements is the point of discharge of the flue, or 150 mm above the insulation, whichever is the lower

Height of Chimneys in Meters for Pitched Roofs Greater than 10 degrees

Pitch of Roof in Degrees	Distance of Ridge to Chimneys Intersection with Pitch Line of Roof in Meters (X)																		
	0.00	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50
55 ^{0}	0.60	0.80	1.01	1.21	1.42	1.62	1.83	2.03	2.24	2.44	2.65	2.85	3.06	3.26	3.28	3.28	3.28	3.28	3.28
52$^1/_2{}^0$	0.60	0.80	1.00	1.20	1.39	1.59	1.79	1.99	2.19	2.39	2.58	2.78	2.98	3.00	3.00	3.00	3.00	3.00	3.00
50 ^{0}	0.60	0.79	0.98	1.17	1.37	1.56	1.75	1.94	2.13	2.32	2.52	2.71	2.74	2.74	2.74	2.74	2.74	2.74	2.74
47$^1/_2{}^0$	0.60	0.78	0.97	1.15	1.34	1.52	1.71	1.89	2.07	2.26	2.44	2.51	2.51	2.51	2.51	2.51	2.51	2.51	2.51
45 ^{0}	0.60	0.78	0.95	1.13	1.31	1.48	1.66	1.84	2.01	2.19	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30	2.30
42$^1/_2{}^0$	0.60	0.77	0.94	1.11	1.28	1.44	1.61	1.78	1.95	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11	2.11
40 ^{0}	0.60	0.76	0.92	1.08	1.24	1.40	1.56	1.72	1.89	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93	1.93
37$^1/_2{}^0$	0.60	0.75	0.90	1.06	1.21	1.36	1.51	1.67	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76	1.76
35 ^{0}	0.60	0.74	0.89	1.03	1.17	1.32	1.46	1.60	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61	1.61
32$^1/_2{}^0$	0.60	0.73	0.87	1.00	1.14	1.27	1.41	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47
30 ^{0}	0.60	0.73	0.85	0.98	1.10	1.23	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
27$^1/_2{}^0$	0.60	0.72	0.83	0.95	1.06	1.18	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
25 ^{0}	0.60	0.71	0.81	0.92	1.02	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
22$^1/_2{}^0$	0.60	0.70	0.79	0.89	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
20 ^{0}	0.60	0.69	0.77	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
17$^1/_2{}^0$	0.60	0.68	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
15 ^{0}	0.60	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
12$^1/_2{}^0$	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
10 ^{0}	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60

Table 1

Width of chimney for Stability

Height of Chimney in Meters	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00	3.25	3.50	3.75	4.00	4.25	4.50
Minimum width in Meters	0.44	0.44	0.44	0.44	0.44	0.50	0.55	0.61	0.67	0.72	0.78	0.83	0.89	0.94	1
Practical Construction in Brick Lengths	2	2	2	2	2	2$^1/_2$	2$^1/_2$	3	3	3$^1/_2$	3$^1/_2$	4	4	4$^1/_2$	4$^1/_2$

Table 2

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