

Chimney Height Calculation Clean Air Act Memorandum

Project:- 5U Calculation

Customer:-

Engineer:-

Cal.Ref.:- Ideal Imax Xtra 2 80Kw

Cal. By:- Joe C

Quote.Ref.:-

Date.:- 14/02/2023

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Appliance Input Details:-

Qty	Description	Output	%Eff kW Gross	%Eff kW Nett	Input kW Nett	Fuel m3/hr	Input kW Gross	Total Input kW Gross
3	Ideal Imax Xtra 2 80						88.8	266
							Total	266

Fuel type	Nat.Gas	
Cv	38.50	Mj/M3
Su	0.0	%
Total Input Rating	266	kW (Gross)
District Ref.	N/A	
Uncorrected Height	0.61	M
Radius of Concern (5U)	3.1	M
No. of Buildings Considered	1	
Max Hm	8.0	M
Max Tm	> Ht	M
Corrected chimney Height	8.4	M
Chimney Efflux Velocity	0.0	m/s
Target Efflux Velocity	6.0	m/s
Adjustment Discharge Height by	0.0	M

FINAL CHIMNEY HEIGHT **8** **M**
(Above ground Level.)

Comments:

** The final chimney height of all chimneys must be approved by the Local Environmental Health Department who may specify a further adjustment in overall height in light of particular local circumstances.

**The exit velocity of the chimney is less than the minimum value specified in Introduction Note 7 of the CAAM. It is important that the target value is achieved, by using a reduced diameter exit cone if necessary, as this will prevent the plume of exhaust gas flowing down the outside of the chimney and thus reducing the chimney effective discharge height.
This may not be possible with small heating boilers and common chimneys serving multiple boilers. In such cases increasing the discharge height by 0.5 to 2m (depending on the difference between the target and actual velocity) will, to some extent, compensate for the low exit velocity.

