

Salt and Pepper, Manchester extract flow rate - thermal convection method

Large canopy

No	Description	size	Power	Area	Coefficient	Flow Rate m ³ /s
1.25	twin fryer	0.81m x 0.45m	electric	0.365m ²	0.45	0.164
1.12	salamander (notional)	0.9m x 0.45m	electric	0.405m ²	0.55	0.223
1.14	griddle	0.6m x 0.6m	electric	0.36m ²	0.25	0.09
1.18	table top induction hob	0.44m x 0.34m	electric	0.15m ²	0.2	0.03
1.21	single fryer	0.326m x 0.265m	electric	0.086m ²	0.45	0.039
1.21	single fryer	0.326m x 0.265m	electric	0.086m ²	0.45	0.039
1.23	twin fryer	0.81m x 0.4m	electric	0.324m ²	0.45	0.146
1.24	twin fryer	0.81m x 0.4m	electric	0.324m ²	0.45	0.146
1.25	twin fryer	0.81m x 0.45m	electric	0.365m ²	0.45	0.164
	free area of bench			2.49m ²	0.03	0.075
						1.116
						x1.25
						1.395
						theoretical extract volume required
						canopy factor - wall open both ends
						specific extract flow rate required

Small canopy

1.30	table top induction hob	0.44m x 0.34m	electric	0.15m ²	0.2	0.03
1.30	table top induction hob	0.44m x 0.34m	electric	0.15m ²	0.2	0.03
1.30	table top induction hob	0.44m x 0.34m	electric	0.15m ²	0.2	0.03
1.30	table top induction hob	0.44m x 0.34m	electric	0.15m ²	0.2	0.03
1.34	rice cooker	0.4m dia	electric	0.126m ²	0.2	0.025
1.34	rice cooker	0.4m dia	electric	0.126m ²	0.2	0.025
	free area of bench			1.7m ²	0.03	0.051
						0.221
						x1.25
						0.276
						theoretical extract volume required
						canopy factor - wall open both ends
						specific extract flow rate required

total extract flow rate required from both canopies

1.671m³/s