



# Labyrinth Mk1/Mk2

## Sound attenuated natural ventilator

### Data Sheet

Labyrinth is a natural louvred inlet and extract ventilator designed especially for industries which produce large quantities of heat such as steel works, rolling mills, foundries and power stations. It has aerodynamically designed louvres to provide continuous weatherproof ventilation.

Labyrinth is compact, for either roof or wall installation. Its aerodynamically designed louvres provide continuous weatherproof ventilation. Rainwater is collected within the ventilator and drained away via side channels.

#### VERSIONS

- Labyrinth /1S is constructed for optimum sound attenuation
- Labyrinth /2S is constructed for optimum ventilation capacity

The body of the ventilator contains a series of louvres which create a series of labyrinthine channels which prevent rain entry and reflect noise, whilst permitting weatherproof ventilation.



#### FURTHER OPTIONS

- Shutter section - to prevent unnecessary loss of heat and to regulate the air capacity. This is either pneumatically or electrically operated
- Brush seals - fitted to shutter sections to increase airtightness when closed
- Sound absorbing material – fitted to the louvres
- Sound absorbers – fitted underneath the louvres

#### DIMENSIONS

The length and width of the Labyrinth are practically unlimited. The length is divided into pitches:

- Labyrinth /1S - 400mm (200mm + 200mm)
- Labyrinth /2S - 250mm (100mm + 150mm)

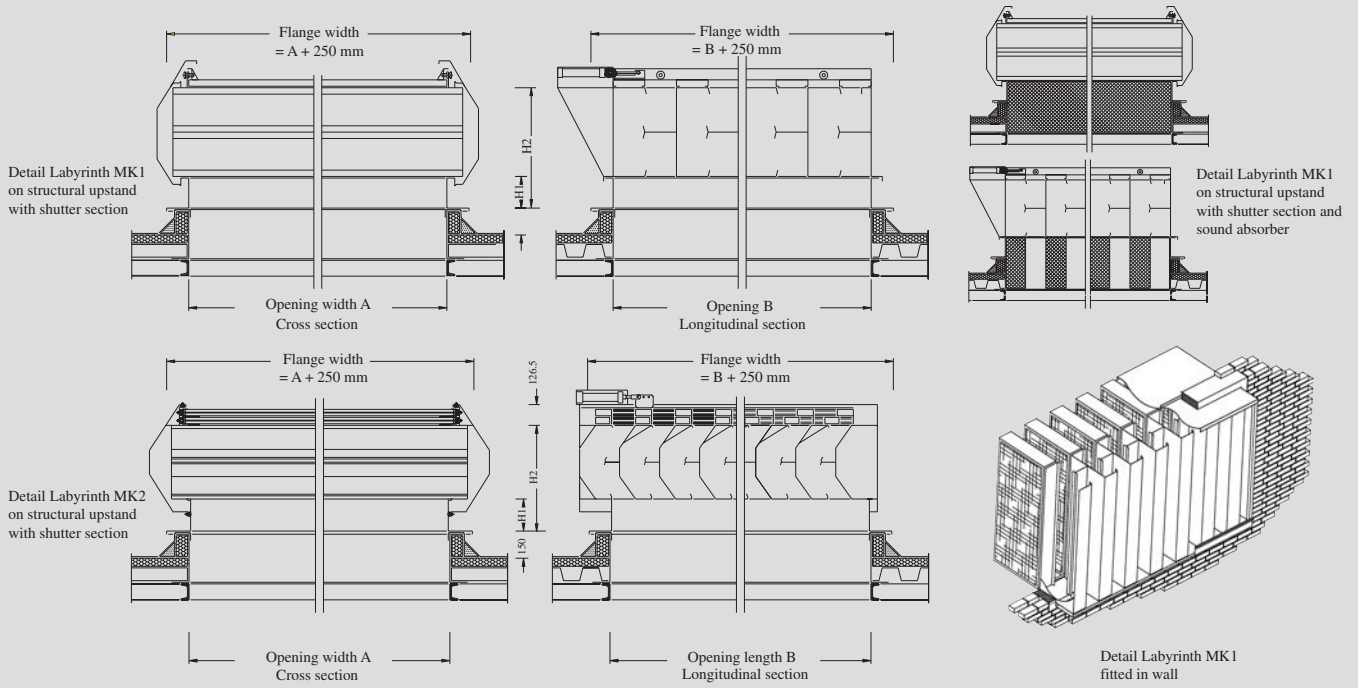
#### FINISHES

Labyrinth is available as mill finish, with a polyester powder coated to a RAL colour, or to a special finish.

#### FEATURES AND BENEFITS

- Lightweight – good for hoisting and installation
- Low profile – lessens impact of the wind on the roof
- High levels of attenuation
- Speedy installation
- Suitable for either inlet or extraction





TYPE	DIMENSIONS (mm)						WEIGHTS (kg/m <sup>2</sup> )		
	Opening width	Opening length	Base height	Structural height	Width	Length	With sound absorbers	Without sound absorbers	Shutter section
MK1	A	B	H1	H2	E	F			
200	minimum	number	200	790		number	-	26	6.5 x geometric area
200A	500	of spaces	200	790	A	of spaces	-	28	
500	to			550	1140		+		
750	maximum	X	800	1390	490	X	65	32	
1000	3800	400	1050	1640		400	75	34	
MK2									
200	from	number	200	785			-	29	10.9 x geometric area
500	750	of spaces	500	1085			61	34	
750	to	X	750	1325			72	36	
1000	3750	250	1000	1585			84	38	

Please note that these are averages

TYPE	OCTAVE BAND CENTRE FREQUENCY (Hz)					
	125	250	500	1000	2000	4000
MK1						
200	2.0	3.0	6.0	9.0	9.0	9.0
200A	3.0	3.5	13.5	21.0	19.0	19.5
500	4.0	9.0	16.0	23.0	20.0	16.0
750	5.0	11.0	21.0	28.0	24.0	18.0
1000	6.0	14.0	25.0	33.0	28.0	20.0
MK2						
200	0.0	2.0	6.0	6.0	5.0	6.0
500	1.0	5.0	14.0	22.0	18.0	15.0
750	2.0	7.0	17.0	27.0	22.0	18.0
1000	2.0	9.0	18.0	30.0	27.0	18.0

\* typical values. More exact values can be provided. These depend upon the type of sound absorbers fitted.



- Natural extract ventilator for heavy industry
- Lightweight and low profile - ideal for retrofits
- Continuous weatherproof ventilation for continuous extraction
- Suitable for either inlet or extract
- No operating costs
- Durable aluminium

#### Options

- Shutter to reduce heat losses or to regulate airflow
- Sound baffles to reduce noise

*Labyrinth is a ventilator especially suited to natural ventilation of industries where high volumes of heat are produced.*

*Labyrinth provides continuous extract ventilation for most kinds of industrial buildings, providing high volume ventilation. It has aerodynamically designed louvres to provide continuous weatherproof ventilation. The unit can be used for air extract and air inflow and can be adapted to accept sound absorbers.*

*Where a tulip-style ventilator is required, we recommend the Colt MoffittVent as an alternative.*



## FEATURES AND BENEFITS

### Efficient and weather resistant

Labyrinth is efficient in operation and provides continuous ventilation in all weather.

### Various fixing options

Labyrinth can be installed onto a roof to provide high level extract, or into a wall to provide inlet ventilation.

### Easy to install

Labyrinth is delivered to site in breakdown form or completely assembled for easy local assembly.

**Low weight** – Very well suited for retrofit (since the weight of the roofing panels removed can be around the same as the weight of the ventilator). Also suitable for places where there are strong winds.

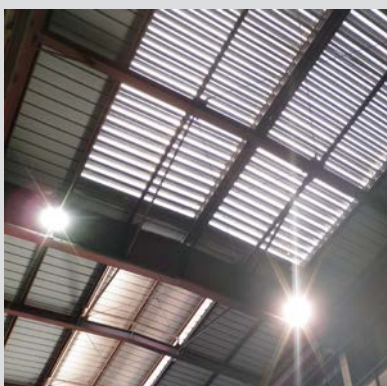
**Excellent light entry** – view of the sky visible through the blades

**Durable** - Labyrinth is manufactured from tough, corrosion resistant aluminium.

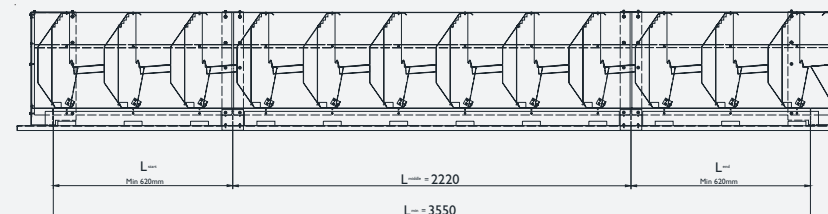
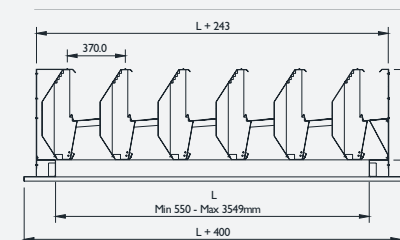
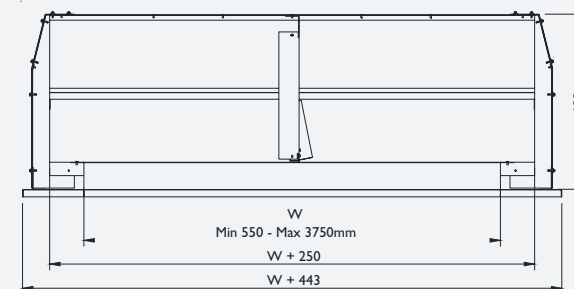
**Exhaustively tested** – Labyrinth has undergone extensive testing for airflow performance and weather tightness.

**Motorised louvre option** - An optional shutter version is operated either pneumatically or electrically, and ensures that air leakage is kept to a minimum when ventilation is not required.

**Design service** - Colt provides a pre-order design service. Please contact Colt for more information relating to the application, specification, installation or servicing of Labyrinth.



## DIMENSIONAL INFORMATION - LABYRINTH 5S



<b>Opening width W:</b>	min. 550mm – max 3750mm
<b>Opening length L:</b>	min. 550mm – no maximum
<b>Unit height:</b>	632mm
<b>Body width:</b>	W + 250mm
<b>Overall width:</b>	W + 443mm
<b>Body length:</b>	L + 243mm
<b>Overall length:</b>	W + 400mm
<b>Weight:</b>	20-30 kg/m <sup>2</sup>