

Micro-perforated duct for HVAC & SEFFC

DESCRIPTION:

In this data sheet there is an example of MICRO FIRE's application in a shopping centre with air treatment machines with ducts.

The requirement is to have a single duct, due to layout constraints, for both HVAC systems (Air Treatment - Heating/Cooling) and for use in case of smoke extraction - UNI 9494-2 (free smoke layer 2,50 m)

QUICK SIZING:

- 21.000 m³/h required airflow for HVAC
- 45.000 m³/h airflow for SEFFC smoke extraction

QUICK SELECTION FOR AIR TREATMENT:

- Double throw: approx. 240-260 m³ per linear meter
- Single throw: approx. 120-130 m³ per linear meter

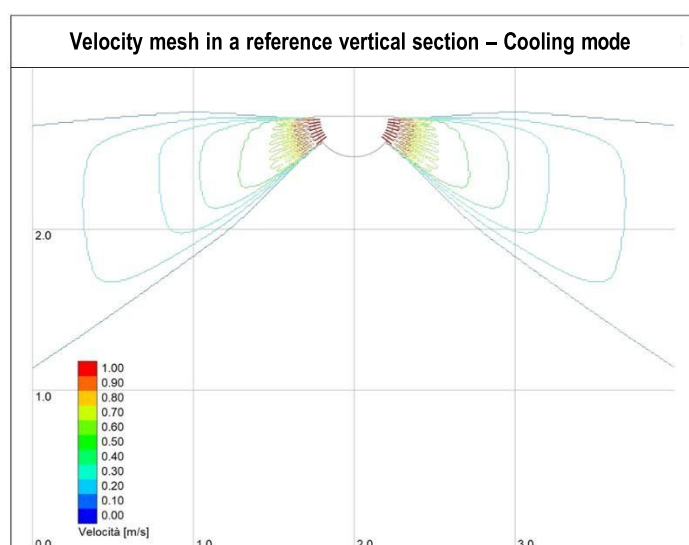
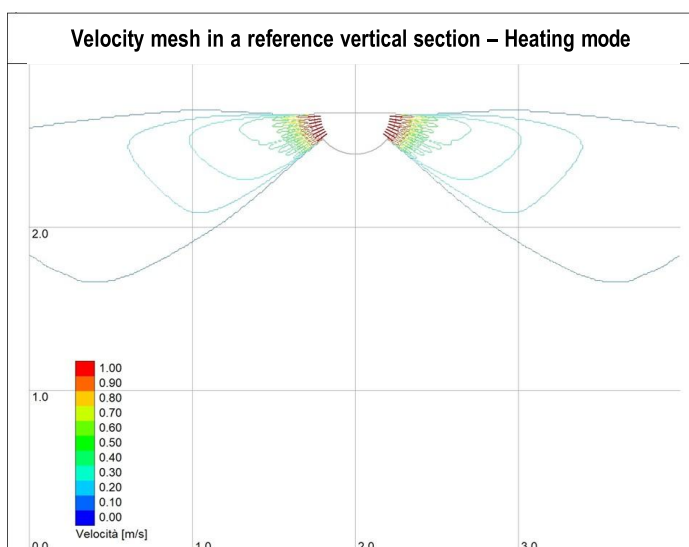
Diametro	PORTATA Max. Trattamento HVAC	PORTATA Max. Estrazione Fumi
mm	m ³ /h	m ³ /h
350	1.100 - 1.471	2.596 - 3.635
400	1.582 - 1.922	3.391 - 4.748
450	2.000 - 2.432	4.292 - 6.009
500	2.472 - 3.003	5.299 - 7.418
550	3.000 - 3.633	6.411 - 8.976
600	3.560 - 4.324	7.630 - 10.682
650	4.180 - 5.074	8.955 - 12.537
700	4.847 - 5.885	10.386 - 14.540
750	5.560 - 6.756	11.922 - 16.691
800	6.330 - 7.687	13.565 - 18.991
850	7.150 - 8.678	15.313 - 21.439
900	8.000 - 9.729	17.168 - 24.035
950	9.000 - 10.839	19.128 - 26.780
1000	9.890 - 12.011	21.195 - 29.673

Select n.6 micro-perforated ducts with an airflow capacity of 3.000 m³/h (HVAC) and 7.500 m³/h (Smoke extraction).

Micro-perforated duct for HVAC & SEFFC

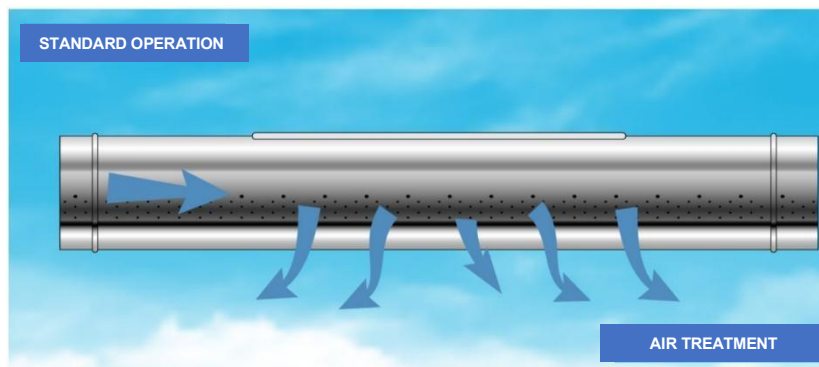
SIZING OF THE MICRO-PERFORATED DUCT FOR HVAC:

Air distribution in the environment is more uniform compared to traditional systems with diffusers or grilles. Moreover, by drastically reducing stratification, the system's startup and operating times are significantly decreased. **The diffusers do not require insulation.**



Micro-perforated duct for HVAC & SEFFC

TECHNICAL DRAWING - HVAC



Micro-perforated duct for HVAC & SEFFC

TECHNICAL DRAWING - SMOKE EXTRACTION

