

Wall Plenums are fume extraction devices that are custom-built to meet the customer's needs. The installation may be for a laboratory, but could be in any warehouse, plant, or industrial setting where fumes need to be removed.

While the exhaust fan, stack, and ductwork are similar to that for any fume cupboard, there is no cabinet-like enclosure in the room. Instead, the typical wall plenum is long in width, flat or wedge-shaped, against a wall, and with multiple elongated-slot type inlets. The inlets can often be selectively opened and closed to suit conditions, and manual dampers in the ducting may also be utilised to enable/disable sections of the plenum.

The wall plenum is typically installed flush to a wall (as the name implies) and at or above bench height; however, it may be designed for a different type of location.

One application required a wall plenum adjacent to a drum-opening station in a factory: when drums were wheeled in on a dolly, the fumes from the opened drums were exhausted from the space through the wall plenum. Inlet vents could be opened and closed to suit the various drum sizes.

A single-speed exhaust fan can be used, but the usual recommendation is to design for the operator's ability to adjust the airflow to suit his needs. Therefore, the standard specification includes a speed drive for the exhaust fan.

Specifications

Electrical	230V AC, single-phase or three-phase
Standard Material, plenum	5 or 6mm uPVC carcass, usually with stainless steel mesh screen over inlet openings.
Standard Material, Ductwork and Stack	Conventional PVC components
Exhaust Fan	Single-phase/three-phase direct-drive motor with polypropylene, injection-moulded, Brinkmann® fan rotor
Speed Control	Teco brand, or similar

Options

- ▶ Include dampers in ductwork to allow closing off plenum sections not in use.
- ▶ Place fan speed drive control in a user-accessible location so exhaust flow can be adjusted by user.

