

# Zoneflow Dampers

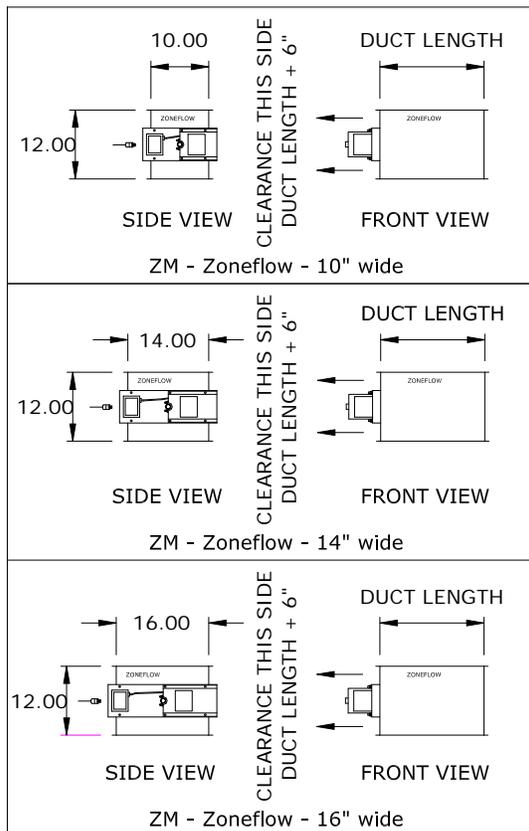
## Exhaust Volume Control Dampers

# Zoneflow ZM & ZH

### General Description

#### ZM Zoneflow Series:

The Spring Air Systems ZM ZoneFlow is designed to be installed in a commercial kitchen NFPA-96 exhaust duct to automatically modulate or balance the exhaust air volume between multiple hoods connected to a common fan.



The ZM ZoneFlow is UL/ULC listed and can be supplied loose or welded to the exhaust duct collar of any Spring Air Systems hood. The ZM Zoneflow provides automatic modulation of the commercial kitchen hood exhaust volume. The ZM Zoneflow is powered by either 24VDC or 24VAC and controlled using a 4-20 milliamp signal. The ZM Zoneflow damper position is modulated to balance a series of individual hoods connected to one exhaust fan or to provide demand ventilation control of a series of hoods connected to one exhaust fan using the Spring Air Truflow system.

The ZM ZoneFlow is 12" deep in the direct of exhaust air flow and matches the length and width dimensions of the hood exhaust duct collar. The inlet and outlet of the ZM ZoneFlow has a 1" perimeter flange. The ZM

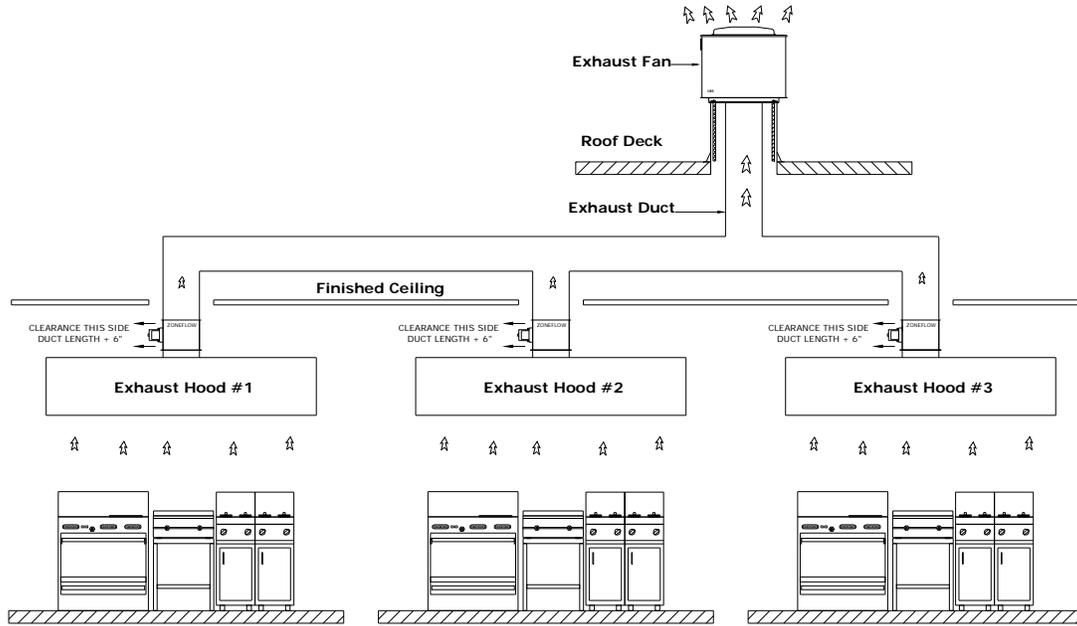


ZoneFlow assembly includes a removable, bolted, carbon steel, access door sealed with high temperature gasket. The access door is removable for inspection and cleaning of the internal control damper and interior duct. Mounted on the access door is a modulating motor U bolted to the internal control damper shaft. The modulating motor is provided with a protective, painted, steel shield. The modulating motor is factory wired to a J-Box also mounted on the access door. Power and control signal are provided through a CAT5 plug on the J-box. The modulating motor requires 24VDC or 24VAC power and a 4-20 milliamp control signal.

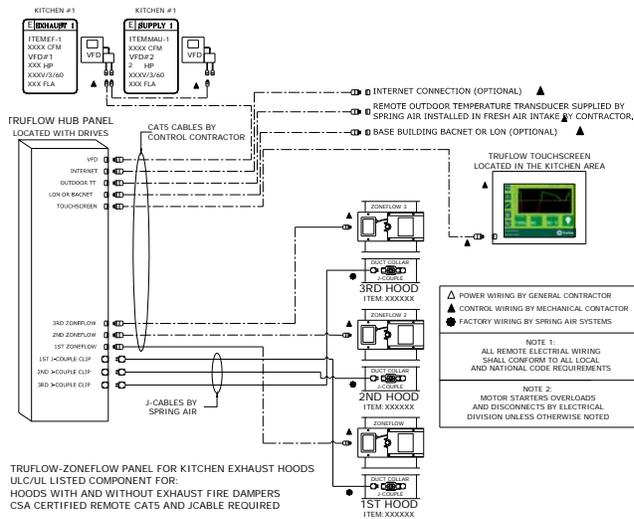
#### ZH Zoneflow Series:

The Spring Air Systems ZH ZoneFlow is designed to be installed in a commercial kitchen NFPA-96 exhaust duct to manually balance the exhaust air volume between multiple hoods connected to a common fan. The ZH ZoneFlow is UL/ULC listed and can be supplied loose or welded to the exhaust duct collar of any Spring Air Systems hood. The ZH Zoneflow damper position is manually adjusted to balance a series of individual hoods connected to one exhaust fan

The ZH ZoneFlow is 12" deep in the direct of exhaust air flow and matches the length and width dimensions of the hood exhaust duct collar. The inlet and outlet of the ZH ZoneFlow has a 1" perimeter flange. The ZH ZoneFlow assembly includes a removable, bolted, carbon steel, access door sealed with high temperature gasket. The access door is removable for inspection and cleaning of the internal control damper and interior duct. Mounted on the access door is a locking quadrant to manually adjust the control damper.



**ONE EXHAUST FAN/THREE HOODS WITH ZM ZONEFLOW**



TRUFLOW-ZONEFLOW PANEL FOR KITCHEN EXHAUST HOODS  
ULC/UL LISTED COMPONENT FOR:  
HOODS WITH AND WITHOUT EXHAUST FIRE DAMPERS  
CSA CERTIFIED REMOTE CAT5 AND J-CABLE REQUIRED

**Truflow-Zoneflow**

The ZM Zoneflow can be connected to a Truflow-Zoneflow Demand Ventilation control panel. Each ZM Zoneflow is individually modulated to match the exhaust volume required with the amount of cooking under the hood. As the control damper within the ZM Zoneflow opens and closes the Truflow-Zoneflow panel modulates the exhaust fan variable speed drive to match the total exhaust volume required for each hood. Refer to the Zoneflow Engineering Manual for additional information covering the Truflow-Zoneflow Demand control system.

**ZH Zoneflow Manual Series Specification**

The Spring Air Systems UL/ULC listed hood shall be supplied with a UL/ULC listed ZH ZoneFlow Manual damper. The ZH ZoneFlow shall be supplied loose or mounted to the hood duct collar. The ZH ZoneFlow shall be 12” deep in the direct of air flow and match the length and

width dimensions of the hood exhaust duct collar. The inlet and out of the ZH ZoneFlow damper shall have a 1” perimeter flange. The ZH ZoneFlow assembly shall include a bolted access door with high temperature gasket. The access door is easily removable for inspection and cleaning of the ZH ZoneFlow damper and duct interior. The access door shall include a locking quadrant for fixing the ZH ZoneFlow balancing damper position.

**Engineering Data**

Item Number: \_\_\_\_\_  
 Model Number: ZH-\_\_\_\_\_  
 Exhaust Volume: \_\_\_\_\_  
 No of Exhaust Duct Collars: \_\_\_\_\_  
 Size of Exhaust Duct collar: \_\_\_\_\_  
 Zoneflow Type: Manual with locking quadrant

**ZM Zoneflow Automatic Series Specification**

The Spring Air Systems UL/ULC listed hood shall be supplied with a UL/ULC listed ZM ZoneFlow Modulating damper. The ZM ZoneFlow shall be supplied loose or mounted to the hood duct collar. The ZM ZoneFlow shall be 12” deep in the direct of air flow and match the length and width dimensions of the hood exhaust duct collar. The inlet and out of the ZM ZoneFlow shall have a 1” perimeter flange. The ZM ZoneFlow assembly shall include a bolted access door with high temperature gasket. The access door is easily removable for inspection and cleaning of the ZM ZoneFlow damper and duct interior. The access door shall include a modulating damper motor connected to a junction box with a CAT5 connection. The modulating damper motor requires 24VDC power and a 4-24millamp control signal. The hood shall have 3 incandescent lights evenly spaced along the length of the hood. All lights common to one section of the hood to be inter-wired by Spring Air Systems.

**Engineering Data**

Item Number: \_\_\_\_\_  
 Model Number: ZM-\_\_\_\_\_  
 Exhaust Volume: \_\_\_\_\_  
 No of Exhaust Duct Collars: \_\_\_\_\_  
 Size of Exhaust Duct collar: \_\_\_\_\_  
 Zoneflow Type: Modulating with modulating motor