

SM

Inlet shutters



Photo shows various sizes of SMT motorised inlet shutters.

SM inlet shutters are suitable for use in the poultry and greenhouse industries as well as traditional industries. In order to obtain a quick and responsive control over the fresh-air intake into a house, a SM inlet shutter can be utilized. Air is sucked into the house structure through an open SM inlet shutter by means of exhaust fans, placed in the exterior walls of the structure, or by our EMT range of jet fans utilised to blend fresh-air with internal house air.

To improve aerodynamic efficiency and reduce pressure losses the shutter design has been developed in Munters euroemme's R&D lab. The test chamber has been built according to ANSI/AMCA 210-85 Figure 15 specifications. Construction details and airtightness have been verified by personnel of the BESS Lab at the Agricultural Engineering Dept, University of Illinois – USA.

SMT, SMC, SMA shutter options

SMT Version – Motorised

The inlet shutter is opened by means of a strong and durable drive-motor which opens the louvers of the shutter via a reduction gearbox. The limit position, open or closed is controlled by an electromechanical limit switch, to ensure a fully-open aperture or a completely sealed and closed shutter. This allows trouble free-automation of the air-inlet requirement process via a specialized climate controller.

SMA Version – Manual Operation

This inlet shutter does not come equipped with a drive motor for the function of opening and closing the shutter. The process of opening and closing the shutter must be done manually.

SMC Version – Retrofit Kit

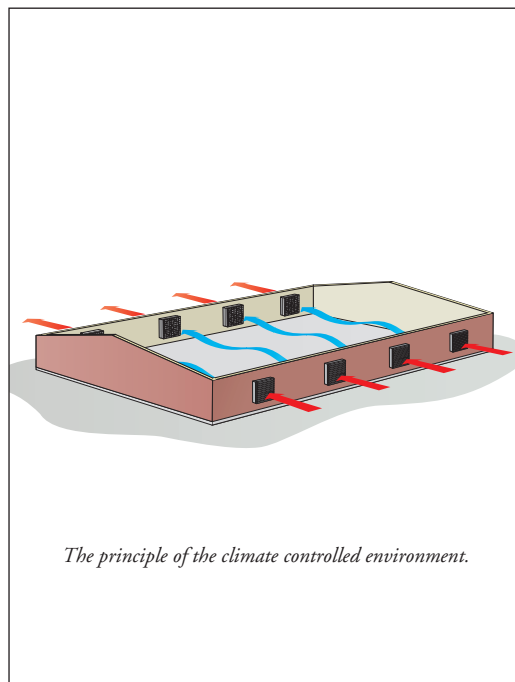
The SMC version has been designed specifically to be used as a retrofit exhaust shutter system for existing circulation fans that need to be converted to exhaust fans. This option allows the simple coupling of an SMC shutter onto the EMS series Euroemme® circulation fans, transforming them into exhaust fans.

All the models of shutter systems are available in knock-down form for reduction in shipping volumes.

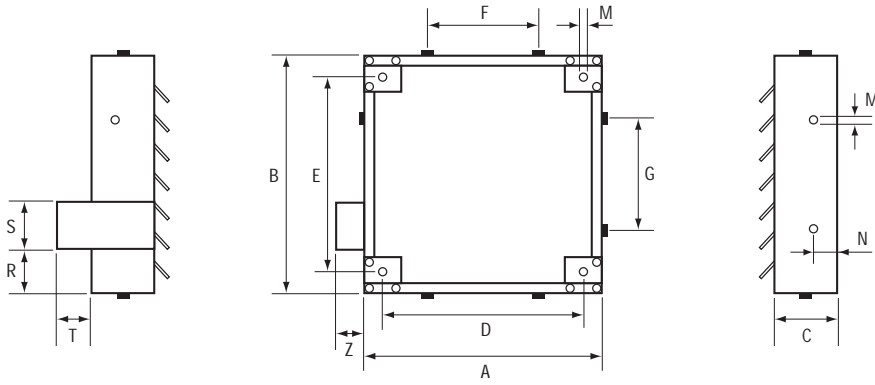
EQUIPMENT

SM

- Housing frame made of strong pre-coated and galvanised sheet-steel
- Shutters are made of pressed galvanised steel in order to ensure highest strength
- Shutter bearing and seals made of high resistance acetalic plastic with UV protection, and are maintenance-free
- Shutter systems have been designed to be matched and balanced in a size ratio with the Euroemme range of exhaust fans, for energy and pressure drop efficiency
- SMC shutter systems are specially designed to transform circulation fans to exhaust fans
- SMT motorized version allows simplicity with automation of ventilation inlet requirements
- Shutter opening is not affected by the weight of dust deposited on the shutter blades
- Simple and easy installation
- Each motor and shutter system is individually tested for 100% quality control and performance



The principle of the climate controlled environment.



SM code	Dimensions [mm]													
	A	B	C	D	E	F	G	M	N	P	R	S	T	Z
24	745	745	130	645	645	475	610	M8	45	65	175	125	70	80
30	950	985	130	845	895	475	415	M8	45	50	175	125	70	80
36	1,090	1,090	130	985	985	600	600	M8	45	50	175	125	70	80
50	1,380	1,380	130	1,280	1,280	800	800	M8	45	50	175	125	70	80
60	1,380	475	130	1,280	380	800	-	M8	-	50	175	125	70	80

Technical specifications

SM code (size)		24	30	36	50	60
Weight (with motor actuator)	[kg]	10.5	15.0	17.5	25.0	13.0
Number of shutter blades		5	7	8	10	3
Inlet opening	[m ²]	0.44	0.79	1.01	1.69	0.51

Damper actuator technical specifications (valid for SMT only)

Code	230	24	24SR
Power supply	AC 230 V, 50/60 Hz single phase	AC 24 V, 50/60 Hz or DC 24 V	AC 24 V, 50/60 Hz
Regulation signal			DC 0-10 V
Power consumption	2 W	2 W	1.3 W
For wire sizing	18 VA	3.5 VA	3 VA
Direction of rotation	Selected with L/R switch		
IEC protective class of electric motor	IP54		
Ambient temperature range	-20 +50 °C		
Ambient humidity	According to EN 60335-1		

N.B. Airflow data are measured at standard condition (20 °C, 1013 hPa).

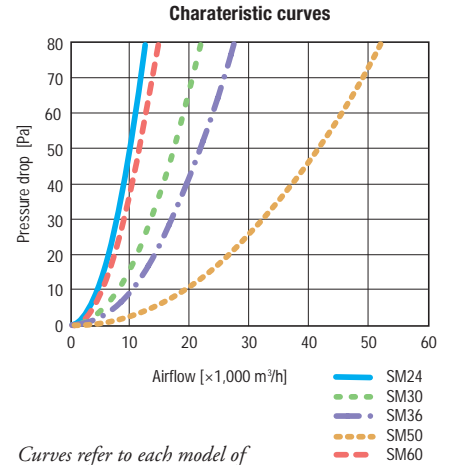
SM is developed and produced by Munters Italy S.p.A.



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Curves refer to each model of shutter for airflow vs pressure drop.

Order information

SM-X-Y-Z e.g., SM-T-50-24SR

Type of shutter.

T = Motoried

A = Manual

C = Retrofit

Code for the type of shutter according to the dimensions table.

Code for the type of damper actuator.