



MODERATOR

AUTOMATIC DRAUGHT STABILISERS DOMESTIC AND INDUSTRIAL APPLICATIONS

- **INCREASES PERFORMANCE** which means a saving in fuel which can be considerable depending on the excess draught corrected.
- **ACTS AS A SAFETY VALVE IN CASE OF EXPLOSION.**
- **ATEX**

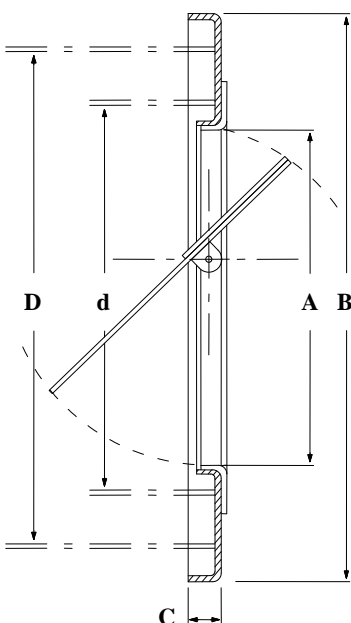
The draught of a chimney depends not only on fixed factors such as its height, section, design etc. but also on variable factors : temperature of the smoke, atmospheric temperature, direction and force of the wind (...), and it follows that this draught changes during operation due to changes in the rate of heating or changes in atmospheric conditions.

Ideal heating is therefore achieved by automatic control of the draught which must be kept at the right value even if rapid changes occur (gusts of wind).

Without this automatic control, a coal, oil-fired, wood-burning or even gas boiler (or cooker or stove), depending on the fuel, is subject to racing, over-fast combustion, going out prematurely, the formation of clinker, early destruction of grilles or brickwork, the formation of unburnt matter (the source of nuisance to neighbours), roaring, flames (...) and can damage paintwork around chimneys carrying excessively hot gases and even cause chimney fires.

"MODERATOR type "B" – for domestic use

- **CLEARLY READABLE SCALE** in mm of Column. An outstanding advantage in equipment of this kind. Therefore, perfect and immediate adjustment without any measuring instrument.
- **MAXIMUM OPENING OF THE SHUTTER**, wider than in any other known equipment.
- **NO KNOB**, very wide setting, flexible and very easy, even in operation, by turning the shutter.
- **AUTOMATIC CENTERING AND POSITIONING** thanks to an original and very easy fixing arrangement (patented) on the flue.
- **SAFETY IN CASE OF EXPLOSION** since the efficient anti-overpressure fixing arrangement uncovers a large dispersal area.
- **REALLY QUIET** due to the mechanical shutter stops and with safety stops if there is overpressure.
- **Stainless steel EXTERNAL SHUTTER SHAFTS AND BEARINGS**, not in contact with smoke.
- **ALL METAL**, no rubber or moulded parts.
- **INDIVIDUALLY PACKED** with very clear and simple fitting instructions printed on a white background on the packaging.
- **FLAT SUPPORTING FACE** prevents the shutter being pressed into the flue and a **CLEVERLY DESIGNED VACUUM-OPENING** curve ensures that the shutter is very stable.



MOUNTING

- Drill two 4mm diameter holes on the horizontal diameter of the flue which is to take MODERATOR B, at the distance from the edge given in the fitting instructions printed on the packaging of each unit.
- Engage one end of the spring in one hole.
- Engage the other end in the second hole.
- Move slightly to facilitate centering.

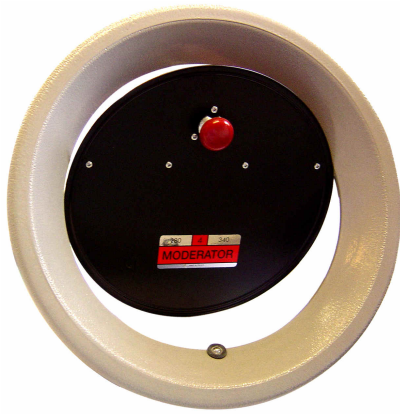
SETTING

- To be done when the draught is clearly established, i.e. after 1 or 2 hours in operation.
- Once the vacuum (or draught) which is suitable for the heating equipment in question is known (consult the manufacturer or the installer), set the shutter indicator to the relevant graduation.

	A	B	C	d	D	Net Weight in gr	Setting (mm WC)	
							From	To
Type B1 Ø 100 to 140 mm	90	154	9	100	140	160	0.60	2.80
Type B2 Ø 140 to 200 mm	128	218	12	140	200	425	0.80	4.00
Type B3 Ø 200 to 280 mm	182	308	17	200	280	1250	1.40	5.60

FC-MO-EN 29-08-2006
Subject to modifications due to technical advances / Soucieux d'améliorer nos produits, nous nous réservons le droit de réviser sans préavis les caractéristiques de nos produits

"MODERATOR" type "M" - for industrial applications

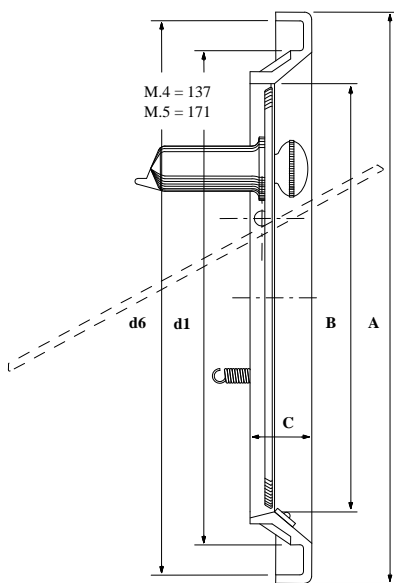


DESIGN AND MANUFACTURE

- Stainless steel shutter shaft.
- Stainless steel shutter shaft bearings in the form of an anti-crush cup.
- Rigid cast aluminium steady, stoved epoxy paint.
- Stainless steel fixing springs.
- Treated steel shutter, stove enamelled.
- Adjustment knob in insulating material.

TYPE	A	B	C	FLUE DIAMETER d1 = mini . ID d6 = max. O.D.	DRAUGHT FOUND mm COLUMN		WEIGHT	
					Min setting	Max setting	Net	Packed
M4	360	260	52	All Ø from = 280 to 344	0.4	5.6	2.8	3.3
M5	470	340	60	All Ø from = 400 to 448	1	8	5.9	7

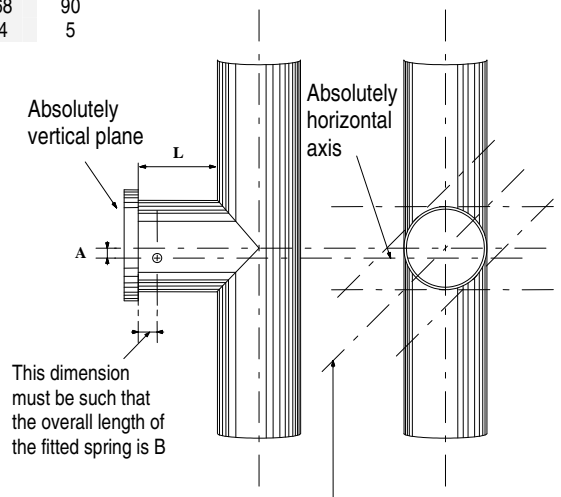
INSTALLATION (also applicable to Range "B")



	B1	B2	B3	M4	M5
L Min. allowed	110	140	180	300	400
L Recommended	200	250	300	480	600
A	17	18	23	36	46
B	48	50	52	68	90
Dia. of holes for hooking	4	4	4	4	5

TYPE M4 – M5 To change the setting :

- Untighten the knob.
- Pull the cap to reduce the vacuum (more sensitive shutter).
- Push in the cap to increase the vacuum (less sensitive shutter).
- Retighten the knob.



The smoke duct centreline inclined at any angle but the **Moderator** centreline must always be absolutely horizontal.

Fully comprehensive tests have been carried out by a qualified laboratory on an NF.UF.ASD stamped stove and these are summarised and commented upon below :

ON LONG DURATION NORMAL OPERATION:

WITHOUT A MODERATOR

The smoke temperature varied between 250 and 500°C and the stove goes out after 16 hours operation, stifled by the clinker although the reserve fuel was not exhausted. Combustion was very irregular throughout the whole test. A recording analyser showed great variations in the composition of the smoke.
- The vacuum varied between 1.9 and 2.6 mm column.

WITH A MODERATOR

The smoke temperature kept between 120 and 130°C and the stove was still operating under these conditions at the end of 24 hours. Combustion was very regular throughout the whole test and no clinker was formed.
- The vacuum kept almost strictly to a 1.2 mm column.

The average hourly consumption over 15 hours was :

1.350 kg without Moderator
0.872 kg WITH Moderator

➔ **35% SAVING IN FUEL UNDER TEST CONDITIONS !**