



# Fusar Bassini Astorre e C. Snc

## AIR GAS RATIO MODULATOR RR SERIES



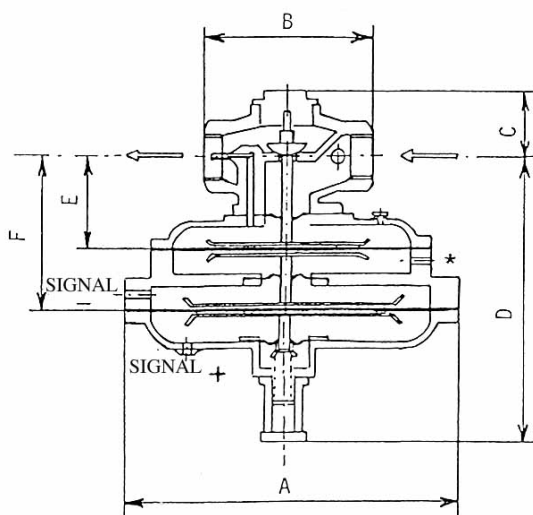
### GENERAL DESCRIPTION

The ratio modulator maintain the air-gas ratio constant to the burners of the combustion systems with preheated air.

With the aid of a calibrated orifice for the measure of the cold air flow a signal is transmitted to the ratio modulator that is linked to the temperature of the hot air that feeds the burners and of the pressure of the combustion air: so the gas flow is self-regulated of the combustion air.

The ratio modulator can connected at signal to the variation of the pressure in the combustion chamber of the oven.

The outlet pressure of the gas throught the RR modulator with a ratio multiplication of approximately 1.5 - 1,7 the signal in differential pressure from the calibrated orifice on the cold pipe of the combustion air.



\* FREE BREATHER TO THE ATMOSPHERE OR COMBUSTION CHAMBER REFERENCE

### TECHNICAL DATA

Housing : Aluminium

Inside components : Aluminium, Brass, Stainless steel

Diaphragm : synthetic rubber

Flanged connections

### FEATURES

- Temperature range from -10° C to 60° C
- Max pressure inlet 700 mm H<sub>2</sub>O
- Mounting horizontal with the spring revolt down (see diagram)

### DIMENSIONS

TYPE	DN	RATIO MULTIPLICATION	DIMENSIONS (mm)						WEIGHT(Kg)
			A	B	C	D	E	F	
RR 25	1"	1,5	305	150	65	340	90	150	13,8
RR 40	1"1/2	1,7	405	180	75	350	100	165	24

**CAUTION:** The combustion system must be designed and installed meeting the law regulations in force. If the installation, the use and the maintenance are not carried out correctly, severe damages to things or persons might occur.

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GAS BURNERS AND COMPONENTS FOR COMBUSTION SYSTEMS

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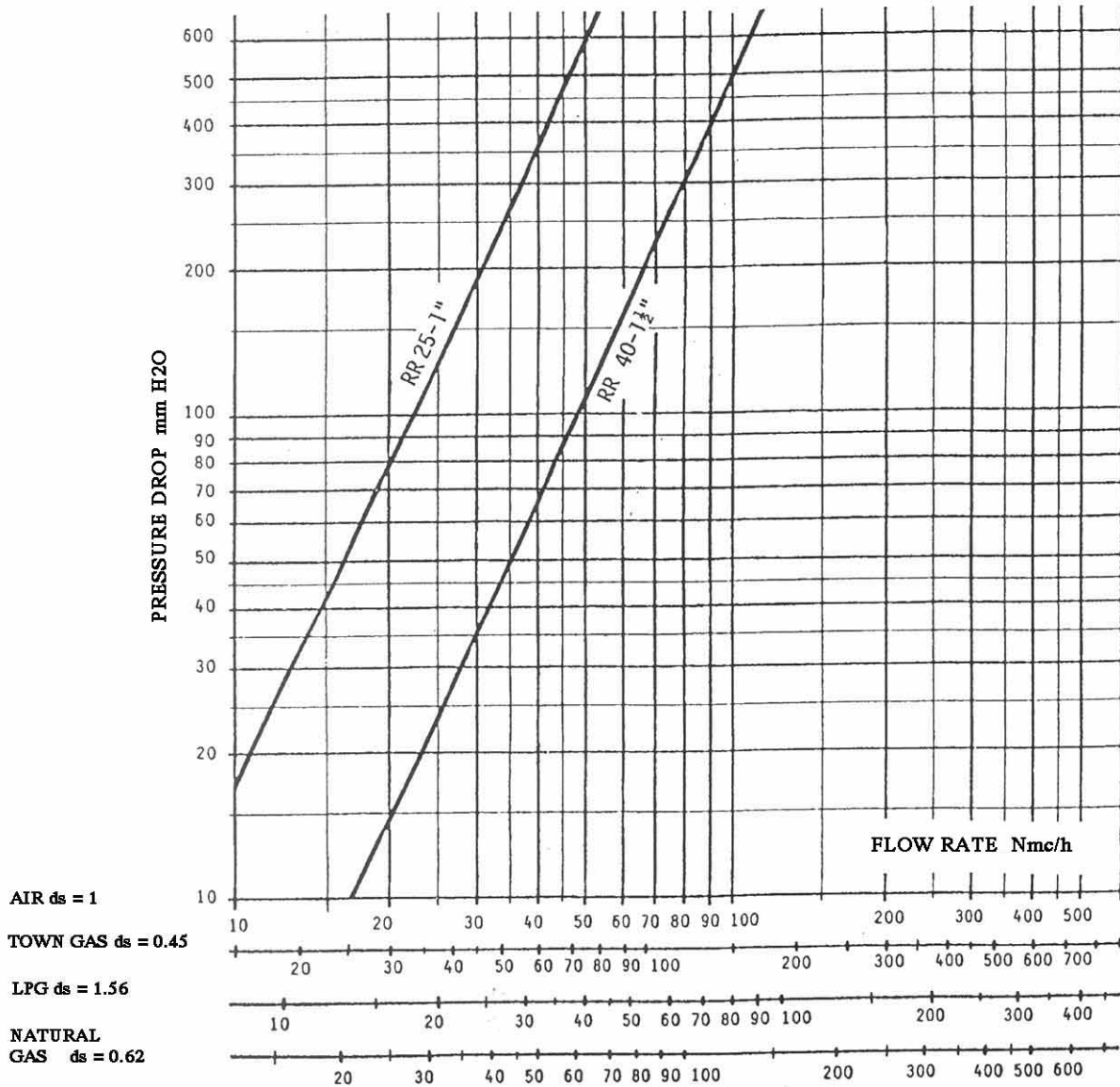


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### INSTALLATION

The installation must be carried out on a stretch of the horizontal pipe so that the vibrating diaphragm is parallel to the pipe, the spring facing downwards and the arrow facing in the direction of flow. All equipment is tested before shipment.



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### CALIBRATION

#### ADJUSTMENT

The initial adjustment system must be performed when the burner's air capacity is required. The light device shall be adjusted so that the line impulse to point A has a value of 1.6 times the differential pressure value of the calibrated orifice. To get a good controller of potential burner should exploit the calibrated orifice air worth DELTAPI 250 mm H<sub>2</sub>O.

#### CHOICE OF FAN

For the choice of prevalence fan must be given the pressure drop through the calibrated flange boost air, modulating valve control air, the heat exchanger, the burner, pipes etc....

**CAUTION:** the flow of fan must be obtained at the connection with maximum burner start-ups with cold air.

### OPERATION FOR HOT AIR WITH MORE BURNERS

#### ADJUSTMENT CENTRALISED

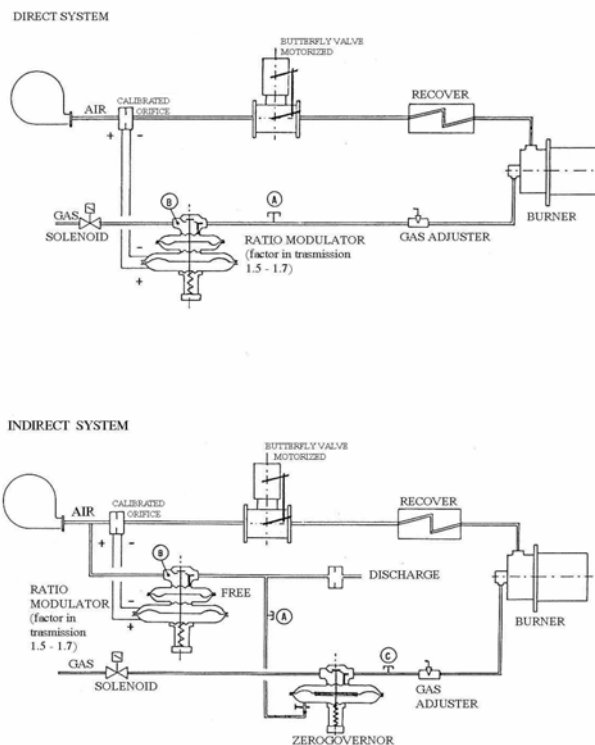
The burner's power should not be intercepted individually downstream calibrated orifice as the ratio of combustion burners lit to be amended.

#### SINGLE ADJUSTMENT

If there is the need to intercept the individual burners should be allowed the use of a ratio modulator for each burner.

**CAUTION:** air/gas pressure at the entrance to the ratio modulator in Section B must be equal to:  $(1.6 \times \text{DELTAPI on calibrated flange air} + 100) \text{ mm H}_2\text{O}$

**RATIO MODULATOR SCHEDULE OF APPLICATION ON COMBUSTION SYSTEMS WITH PREHEATED AIR COMBUSTION**



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