

# CONTENT

## GAS PRESSURE REGULATORS

RVLM Series – Rubber Seat Poppet Design .....	2
RV Series – Straight-Thru-Flow Design .....	4
325 Series – Lever Acting Design .....	6
R/RS Series – Balanced Valve Design .....	8
210 Series – Balanced Valve Design .....	10
RZ and 210Z Series – Zero Governor Design .....	12

## SPRING SELECTION

Spring Selection Chart .....	15
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## ACCESSORIES

Vent Limiting Device: $\nabla$ Limiter .....	16
Pressure Tap .....	16
Dust Cap .....	16
Tamper Proof Seals .....	16

## SIZING A REGULATOR

System Requirements .....	17
---------------------------	----

## FLOW CHARTS GAS PRESSURE REGULATORS

RVLM Series – Rubber Seat Poppet Design .....	18
RV Series – Straight-Thru-Flow Design .....	19
325 Series – Lever Acting Design .....	20
RS/RZ Series – Balanced Valve and Zero Governor Design .....	21
210/210Z Series – Balanced Valve and Zero Governor Design .....	22

## DEFINITIONS

Definitions .....	23
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## GAS & AIR FILTERS

HF2000 Series .....	24
GF1000 Series .....	26

## FLOW CHARTS GAS & AIR FILTERS

HF2000 Series .....	28
GF1000 Series .....	29

# RVLM SERIES

## RUBBER SEAT POPPET DESIGN

The compact RV poppet regulators are designed primarily for main burner and pilot load applications. Typical applications include residential and commercial cooking appliances, barbecues, hearth products, and pilot lines. Maxitrol rubber seat poppet models offer the ultimate in design features and performance capabilities to meet your specific appliance or utility requirements.

### Specifications

- **Pipe Sizes:** Rp 1/8 to Rp 3/8 threaded connections according to ISO 7-1/EN10226-1
- **Housing Material:** Aluminum
- **Internal Components Material:** Steel, aluminum, elastomer
- **Mounting:** Suitable for multi-positional mounting. Other than upright position will result in a slight difference in outlet pressure. Install with gas flowing as indicated by the arrow on bottom casting.
- **Construction and Design/Certifications:** According to the Gas Appliances Regulation (EU) 2016/426 and EN 88-1
- **Fuel Gases:** Suitable for gases of EN 437
- **Maximum Inlet Pressure:** 10 kPa
- **Ambient Temperature Range:** -15 °C to 80 °C
- **Capacities:** See flow chart, page 18

### Model Designations

Models having a suffix letter or a combination of suffix letters listed below indicates the design modifications described.

- **C.....** Convertible regulators\*; preset to deliver outlet pressures for either natural or LP gases (RV20, RV47, RV48).
- **L .....** Integral vent limiting orifice as the breather hole – with dust cap.
- **M ...** “Rp” parallel thread conforms to ISO 7-1/EN10226-1, where pressure tight joints are made on the threads.
- **SR...** Side pressure tap; right side\*\* 1/8 NPT (RV20, RV47, RV48).
- **S .....** Side pressure tap; left side\*\* 1/8 NPT (RV20, RV47, RV48).
- **V.....** Threaded vent connector, 5/16-24 for Rp 1/8 tubing connection (RV20) – with dust cap.

\* Convertible regulators are designed to deliver either of two fixed outlet pressures for natural or LP gases.  
RV20C: 1.0 kPa (NG); 2.5 kPa (LP)  
RV47C, RV48C: 1.0 or 1.25 or 1.5 kPa (NG); 2.5 or 2.75 kPa (LP)

\*\* Left and right is determined when viewing regulator from outlet side with stack up.

# HF2000 SERIES

## GAS & AIR FILTERS

Gas and air filters protect downstream controls (regulators, automatic shut-off valves) from particulate contamination. Recommended for use upstream of fittings, regulators, and controls. Applications for the residential, commercial cooking, process heating, and industrial burner industries.

### Specifications

- **Pipe Sizes:**
  - Rp ½ to Rp 2 threaded connections according to ISO 7-1/EN10226-1
  - DN25 to DN150 flanged connections according to ISO 7005-2, PN 16
- **Housing Material:** Aluminum
- **Internal Components Material:** Aluminium, elastomer, galvanized wire mesh
- **Filter Insert:** Filter mat material will not allow particle infiltration equal or exceeding 50 µm (0.05 mm)
- **Filter Mat Material:** Polypropylene fleece
- **Mounting:** Suitable for multi-positional mounting, preferably with lid facing down or to the side to facilitate removal of debris during maintenance.
- **Construction and Design/Certifications:** Function according to DIN 3386, Gas Appliances Regulation (EU) 2016/426 and Pressure Equipment Directive 2014/68/EU
- **Fuel Gases:** Suitable for gases of EN 437
- **Maximum Inlet Pressure:**
  - Threaded models: 100 kPa, 400 kPa
  - Flanged models: 100 kPa, 400 kPa, 600 kPa
- **Ambient Temperature Range:** -20 to 80 °C
- **Pressure Tap:** optional (depending on selected model)

### Gas Filter Service Kit

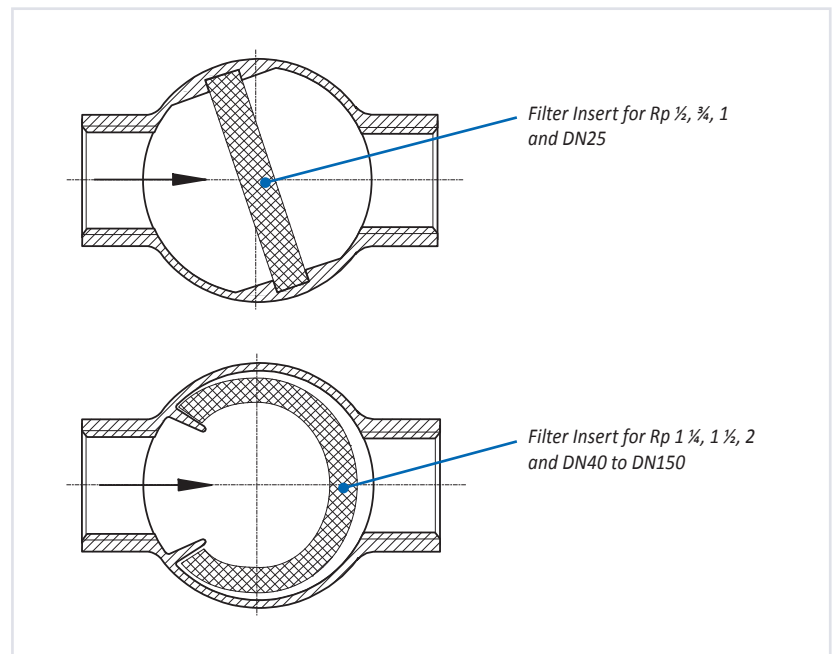
(incl. Insert, Gasket, and Screws)

Model	Service Kit Number	Min. Order Quantity
GF40M-44...	KIT-GF40M	10
GF60M-66...	KIT-GF60M	
GF60M-88...		
GF80M-1010...	KIT-GF80M	
GF80M-1212...		
GF80M-1616...		
GF25MF-88...	KIT-GF60M	

HF2000F80...	KIT-GF80MF*	5
HF2000F100...	KIT-GF100MF*	3
GF125MF-4040...	KIT-GF125MF*	2
GF150MF-4848...	KIT-GF150MF*	

\* Screws not included

### Filter Inserts



## Dimensions

Model	Connection	Pipe Size	Space for filter mat replacement S	Dimensions			
				A	B	C	D (flanged)
GF40M-44...	Thread	Rp ½	60 mm	53 mm	69 mm	58 mm	-
GF60M-66...		Rp ¾	100 mm	94 mm	110 mm	94 mm	-
GF60M-88...		Rp 1	100 mm	94 mm	110 mm	94 mm	-
GF80M-1010...		Rp 1 ¼	150 mm	126 mm	157 mm	160 mm	-
GF80M-1212...		Rp 1 ½	150 mm	126 mm	157 mm	160 mm	-
GF80M-1616...		Rp 2	150 mm	126 mm	157 mm	160 mm	-
GF25MF-88...	Flange	DN25	100 mm	115 mm	165 mm	115 mm	14 mm
HF2000F80...		DN80	200 mm	204 mm	284 mm	215 mm	18 mm
HF2000F100...		DN100	220 mm	225 mm	339 mm	270 mm	18 mm
GF125MF-4040...		DN125	270 mm	268 mm	400 mm	323 mm	18 mm
GF150MF-4848...		DN150	310 mm	308 mm	448 mm	363 mm	22 mm



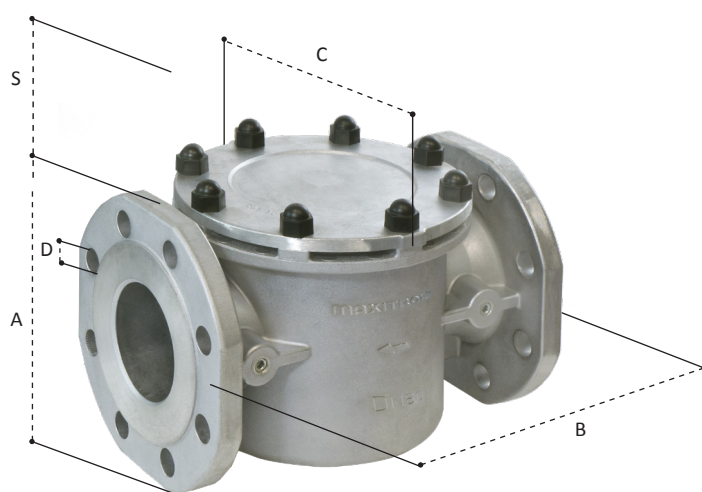
▲ GF40M...



▲ GF60M...



▲ GF80M...

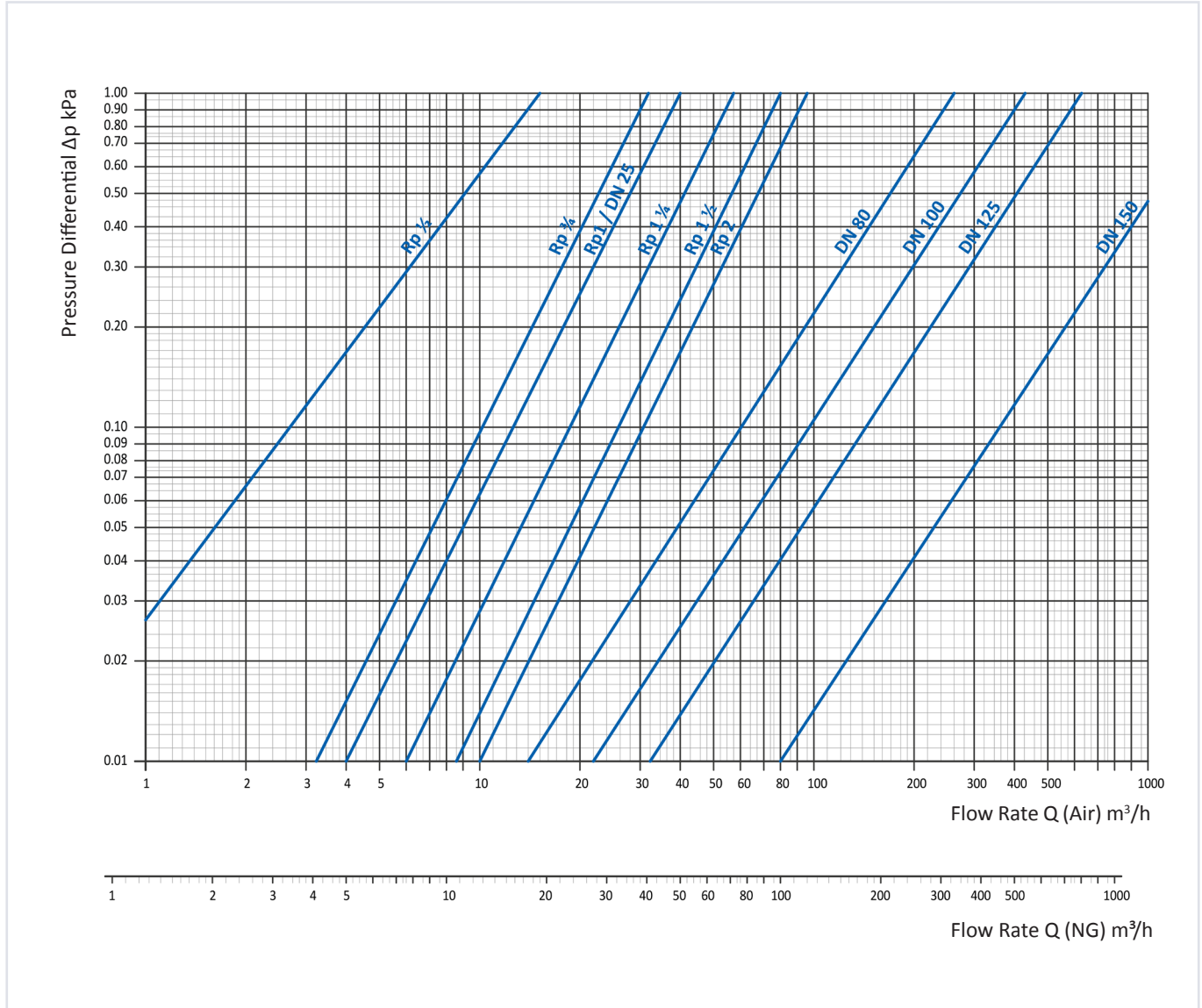


▲ HF2000F80..., HF2000F100..., GF125MF..., GF150MF...

**NOTE:** Dimensions are maximums and to be used only as an aid in designing clearance for the filter. Actual production dimensions may vary somewhat from those shown.

# FLOW CHARTS GAS & AIR FILTERS

## HF2000 Series



### LEGEND FOR FLOW CHARTS

- Δp = Pressure Differential in kPa
- Q = Flow Rate in m³/h
- dv = Volumetric Rate of Flow
- f = Friction Factor
- ρ = Density

Pressure Units: 1 kPa = 10 mbar = 10 hPa  
 Air: dv = 1.00 f = 1.00  
 Natural Gas (NG): dv = 0.64 f = 1.24  
 Liquid petroleum gas (LPG): dv = 1.56 f = 0.80

$$dv = \frac{\rho_{\text{gas}}}{\rho_{\text{air}}}$$

$$f = \sqrt{\frac{\rho_{\text{air}}}{\rho_{\text{gas}}}}$$

$$\dot{V}_{\text{gas}} = f \cdot \dot{V}_{\text{air}}$$

**NOTE:** The given flow rates are approximate values. Actual flow rates may vary somewhat from those shown.

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