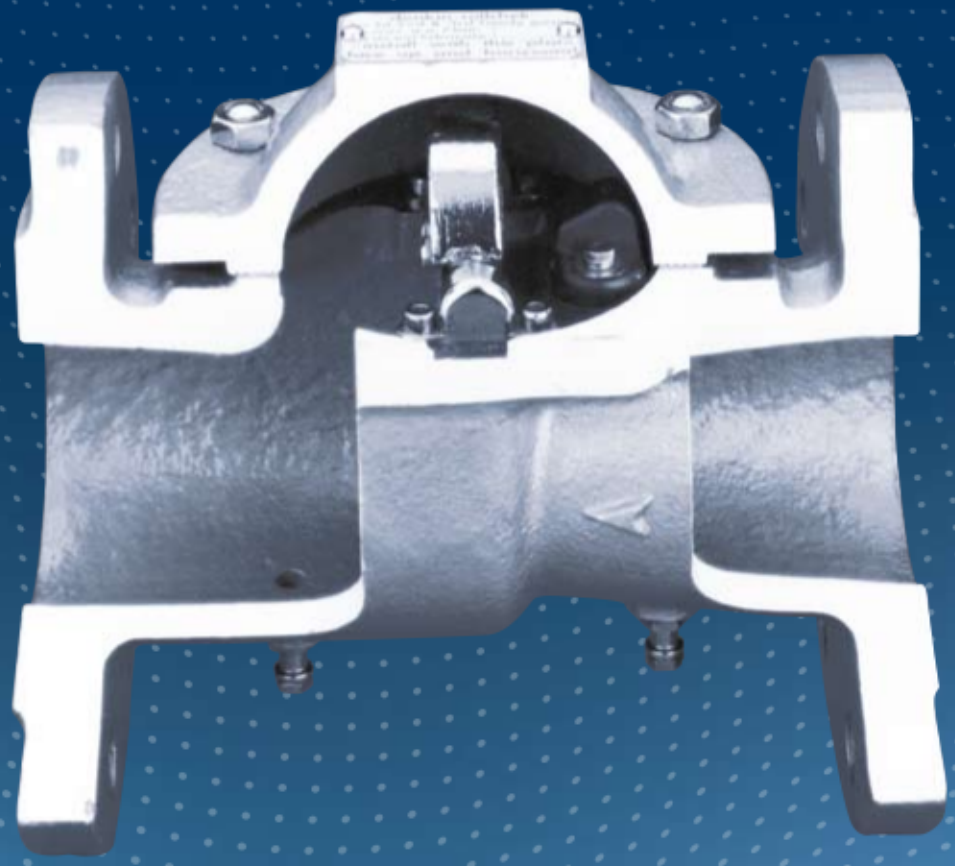
Non Return Valves Series 590 Rollchek

CONTROLS SUPPLY CHAIN
VALVES ACTUATORS INSTRUMENTATIONS



PRODUCT INFORMATION

Serving the Gas Industry Worldwide

NON RETURN VALVES SERIES 590 ROLLCHEK

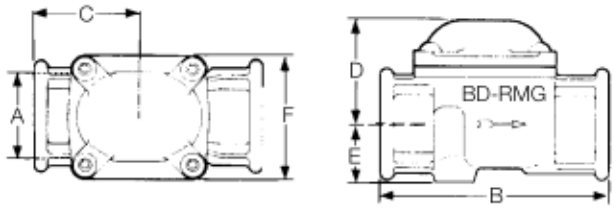
Application

- Non-return valves are a means of preventing a reverse flow and must be fitted (Gas Act 1972) in the gas line where air at higher pressure is mixed with fuel gas prior to combustion and many types of industrial burners. Non-return valves should also be fitted in the corresponding air line where there is a possibility of the pressure falling below that of the gas, a condition frequently encountered when starting up. Larger sizes of non-return valves can be fitted on the outlet side of the gas meter to give general protection and smaller sizes should be fitted on the inlet pipe to any appliance where gas and air are mixed.
- Failure to fit non-return valves in these circumstances can result in an explosive gas/air mixture being formed within the pipework. Bryan Donkin RMG non-return valves, which give a positive seal under all conditions of reverse pressure up to 7 barg, provide complete protection from such explosions.
- The Series 590 is designed to meet the Standard for non-return valves IM/14.

Features

- Easy Fitting - Compact design for horizontal fitting only, valve is supplied complete with inlet strainer, inlet and outlet pressure test points as standard.
- Easy Maintenance - Lubricationless design is fully serviceable in situ.
- Top Performance - Valve has high throughput capacities and gives positive seal under all conditions of reverse pressure up to 7 Barg (100 psig), and minimal forward pressure loss up to a maximum working pressure of 7 Barg (100 psig).

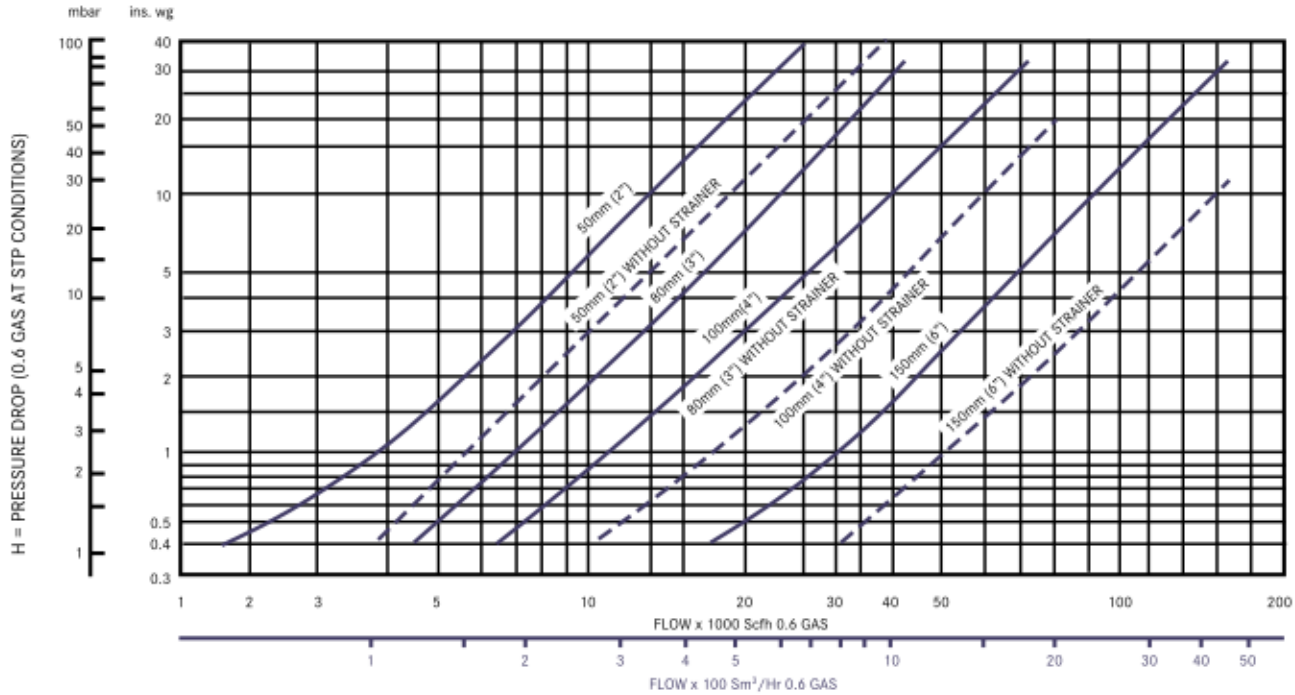
SERVICE CONDITIONS	
Size Range:	Screwed: 2" & 3" to BS 21 Rc
	Flanged: DN 80, DN 100 & DN 150 to PN16:BS EN 1092-2:1997
Maximum Inlet Pressure and Maximum Reverse Pressure:	7 Barg (100 psig)
Temperature Range:	-10°C to +60°C
Flow Medium:	Natural Gas and non-aggressive gases.



Note: for simplicity, only the screwed version is shown.

DIMENSIONS & WEIGHTS						
A	**B**	**C**	**D**	**E**	**F**	**Wt**
2" screwed	195mm	90mm	111mm	53mm	165mm	8.7kg
3" screwed	200mm	90mm	111mm	53mm	165mm	13kg
DN 80 FL	241mm	120mm	111mm	-	165mm	16kg
DN 100 FL	292mm	146mm	134mm	-	188mm	23kg
DN 150 FL	356mm	178mm	192mm	-	235mm	43kg

Performance



Valve Maximum Capacity Gas Velocity based on nominal pipe sizes, must not exceed 75m/s (245 ft/s).
At S.T.P. Conditions the pressure drop may be obtained directly from the graph.
For other pressure conditions the following formulae apply:

$$\textbf{Pressure Drop} = H\ (\text{mbar}) \times \frac{\textbf{1.013}}{\textbf{Pu (bar abs)}} \quad \text{mbar}$$

or

$$\textbf{Pressure Drop} = H\ (\text{in. WG.}) \times \frac{\textbf{14.7}}{\textbf{Pu (psi abs)}} \quad \text{in WG.}$$

Where: **H = Pressure Drop from Graph.**
Pu = Absolute Upstream Pressure.