

technical specification:

SG Series Spray Valves

system description:

The Kaymich SG Spray Valve Assemblies are designed to spray atomised aqueous dispersion adhesive onto paper or board substrates. Adhesive is supplied to the adhesive chamber in the valve from a pressurised tank or pump. When the piston air solenoid opens, the valve needle is drawn open against the force of the spring allowing the adhesive to flow. This process takes 15 ms. At the same time as the adhesive is jetting out of the nozzle, spray air is supplied to the air cap via porting in the adhesive chamber. After entering the valve the air passes through a swirl ring which creates a vortex of air over the nozzle within the air cap. This vortex then atomises the adhesive as it leaves the nozzle in a conical formation. The closing process is initiated by the control system of the parent machine and takes 15ms.

services required:

Dry, filtered, non-lubricated compressed air, 60 to 100 psi/4 to 7 bar.

Air Consumption: Piston = 0.001 litres/cycle:

Spray Air = 0.002 litres/ms.

Electrical voltage: 12 or 24 Vdc.

Electrical power: 4 watts..

adhesive recommendations:

End user must supply an adhesive tank to contain and supply the adhesive. (Available from Kaymich upon request).

Type - Synthetic resin emulsion.

Viscosity - 150 to 1200 centipoise.

Solids content - 45% to 55%.

Supply pressure - 20 to 60 psi/1.5 to 4 bar.

Supply condition - Filtered, typical mesh 760µm (0.03 inch).

For adhesive grade recommendations please contact your normal supplier.

performance characteristics:

Valve reaction - 15 ms open, 15 ms closed.

Cleaning duration - 35 to 50 ms.

Frequency of application - up to 1,500 cycles per minute maximum.

technical specification:

MV Series Minaturised Spray Valves

system description:

The MV series Miniaturised Spray Valve retains many of the features of the original SG valve but offers a higher operating speed, greater versatility and cleaner running. Smaller by design, the MV valve is capable of cycling at upto 4,000 cycles per minute.

adhesive recommendations:

Type: PVA or EVA emulsion.

Viscosity: 150 to 1200 centipoise.

Solids content: 45% to 55%.

Supply pressure: 1.5 to 4 bar / 20 to 60 psi.

Note: End user must supply an adhesive tank to contain and supply the adhesive (available from Kaymich on request).

services required:

Dry, filtered, non-lubricated compressed air 4 to 7 bar / 60 to 100 psi.

Air consumption: Piston = 0.0005 litres/cycle

Spray air = 0.002 litres/ms

Electrical voltage: 24 Vdc.

Electrical power: 8 watts.

performance characteristics:

Valve reaction: 6 ms. open 6 ms. closed

Cleaning duration: 35 to 50 ms.

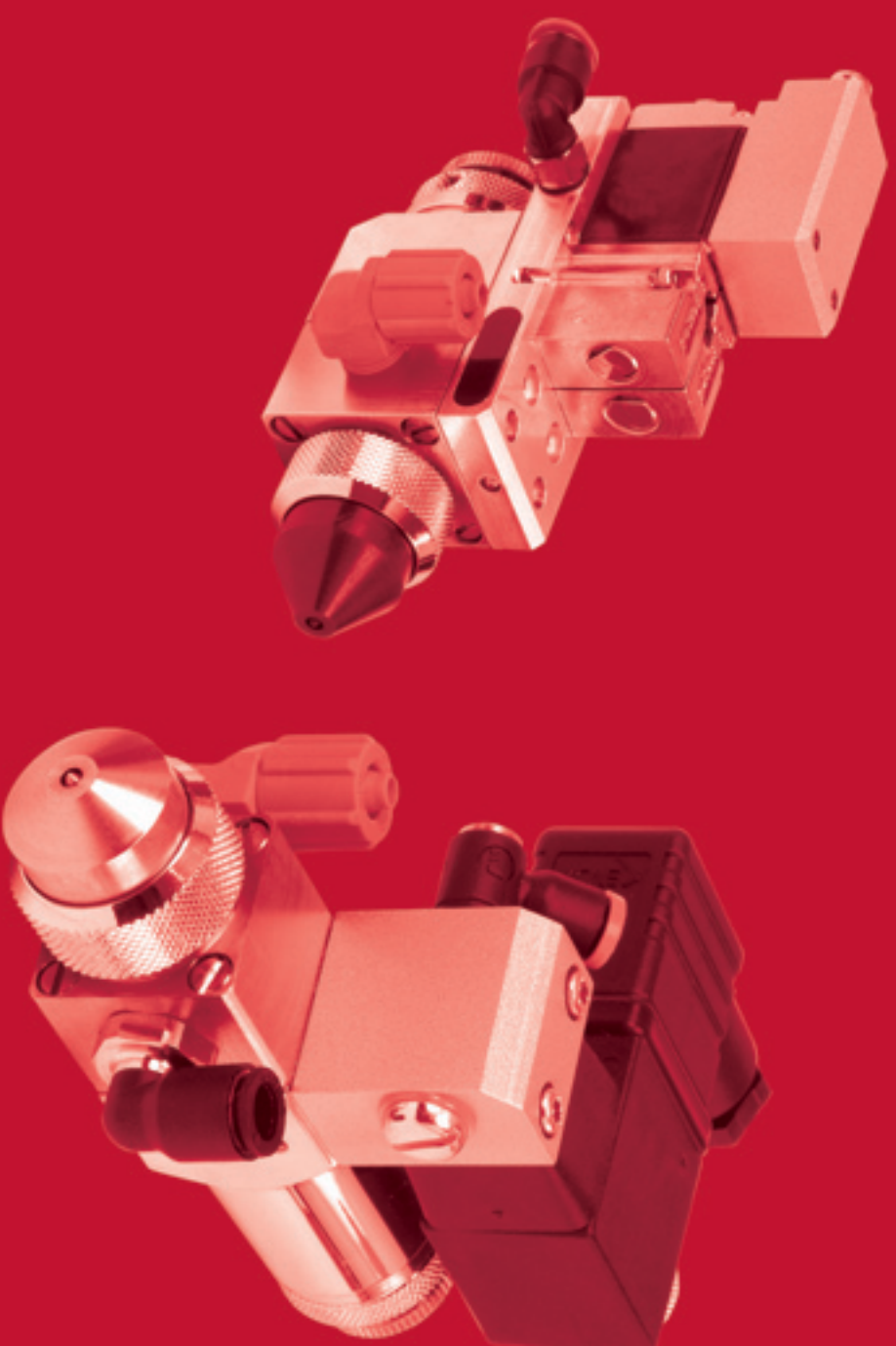
Frequency of application - up to 4000 cycles per minute maximum.



The Kaymich

SG & MV

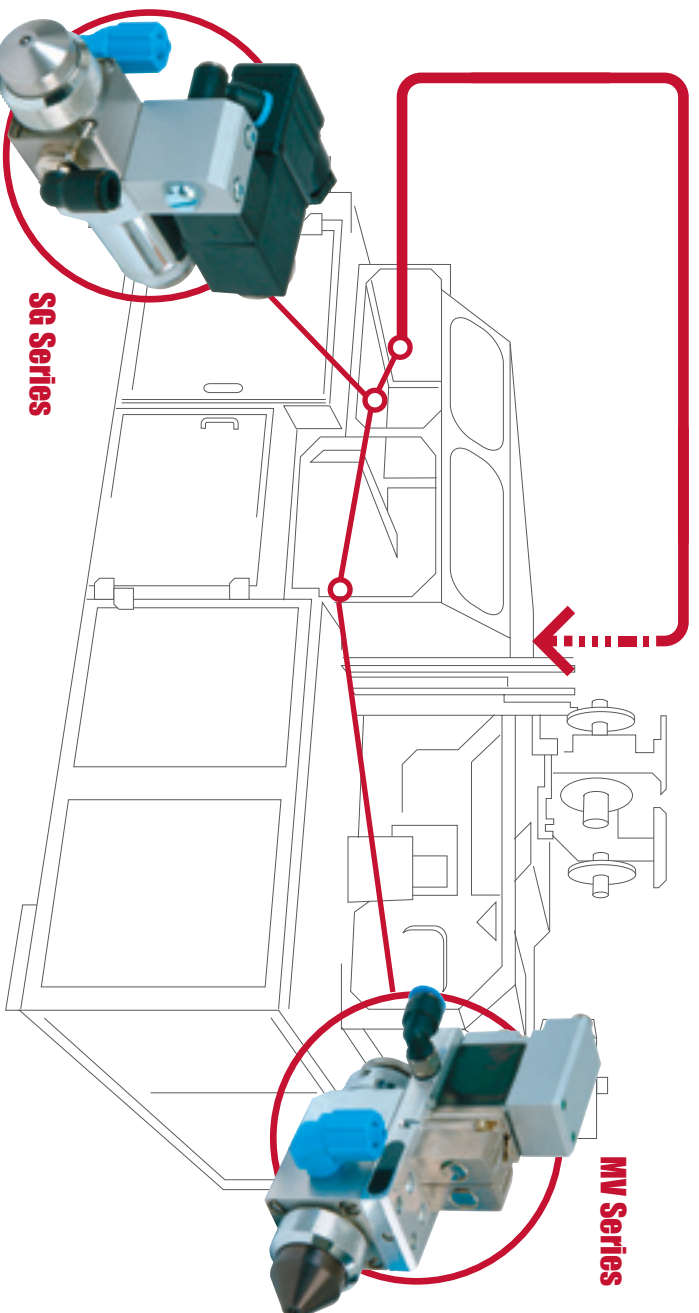
Spray Valve Series



The Kaymich SG & MV Spray Valve Series

Introduction

Kaymich Spray Valves are specifically designed to spray aqueous based adhesives. Their unique design has eliminated the problems of poor response and dirty running. A self cleaning feature obtained by creating a vortex swirl at the nozzle ensures clean, repeatable and accurate application. Actuation is by a built-in air cylinder. The MV series miniaturised spray valve was developed in response to the industry requirements for greater operating speeds, whilst retaining many of the features that ensured the success of the original Kaymich SG spray valve.



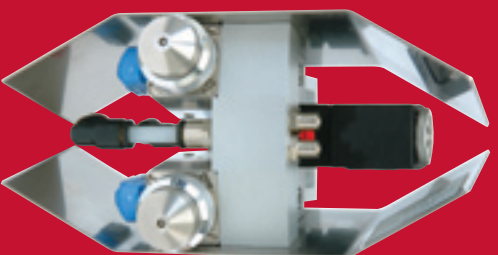
The Kaymich SG Spray Valves are fitted as standard by many of the leading manufacturers of packing machinery. Operating at 1,500 cycles per minute, the SG valve is clean, reliable and efficient.

SG Series Features

- Flexible diaphragm eliminates sliding seals.
- Response - 1,500 cycles per minute.
- Variable spot or width application.
- Ratchet style adjuster.

SG Series Benefits

- Self cleaning and reliable
- Accurate application.
- Efficient use of adhesive, atomised on application producing a fast, efficient bond.



The MV Series Miniaturised Spray Valve retains many of the features of the original SG Spray Valve but offers a higher operating speed, greater versatility and cleaner running.

MV Series Features

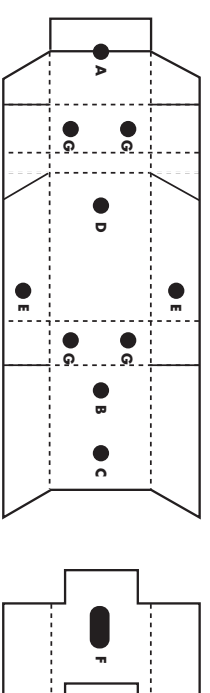
- Multiple port facility for adhesive and air feed options.
- Flexible diaphragm eliminates sliding seals.
- Response - 4,000 cycles per minute.
- Variable spot or width application.
- Ratchet style adjuster.
- LED indicators confirm operation.
- Low friction coating to spray cap and components improves ease of cleaning.

MV Series Benefits

- Increased productivity - operates reliably up to 4,000 cycles per minute.
- Improved response time.
- Cleaner operation - eliminates virtually all traces of over-spray, reducing machine contamination.
- Greater versatility of application including, significantly narrower spray bandwidth.
- Sealed housing to single plug eliminates ingress of dust and moisture, improving reliability.
- Single air feed, single electrical connector.
- Easier to operate - no requirements for tools.

Adhesive Dot Requirements

Kaymich adhesive application equipment is capable of accurately applying adhesive at any of the points indicated below.



Standard Hinge Lid Blank

- A. = Top Flap
- B. = Bundle to Lower Front Panel
- C. = Inner Frame to Front Panel
- D. = Bundle to Rear Panel
- E. = Bundle or Inner Frame to Sides
- F. = Bundle to Inner Frame
- G. = Dust Flaps to Pack