The Kaymich SG Series Spray Valves

Technical Specification:

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 the end user’s adhesive tank. The adhesive is supplied at a supply pressure of 20 to 60 psi/1.5 to 4 bar. Supply condition is filtered, typical mesh 760µm (0.03 inch). The adhesive spray air is divided between the two valves, 50% to 50%. The adhesive chamber is mounted on the valve housing and applies the adhesive on the surface of the paper or board substrates 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

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

The Kaymich MV Series Minaturised Spray Valves

Technical Specification:

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 up to 4,000 cycles per minute.

Adhesive recommendations:
Type: PVA or EVA emulsion
Viscosity: 150 to 1200 centipoise
Solids content: 45% to 55%
Supply pressure: 20 to 60 psi/1.5 to 4 bar

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
**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 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.

**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.
- LED indicators confirm operation.
- Accurate valve operation.
- Flawless airflow delivery.
- Reagent feed or air feed option.
- Fitted standard air and electrical manifolds.

**MV Series Benefits**

- Increased productivity - operates reliably up to 4,000 cycles per minute.
- Improved response time.
- Cleaner operation - eliminates virtually all traces of overspray, 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.

- A
- B
- C
- D
- E
- F
- G

**Standard Hinge Lid Blank**

- Top Flap
- Bundle to Lower Front Panel
- Inner Frame to Front Panel
- Bundle to Rear Panel
- Bundle or Inner Frame to Sides
- Bundle to Inner Frame
- Dust Flaps to Pack

Kaymich Spray Valves are specifically designed to apply aerosol based adhesives. Their unique design, reliability and ease of operation have made them a favourite of many of the leading manufacturers of packing machinery.

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**Introduction**

The Kaymich Spray Valve Series introduces a new generation of spray valves designed to address the needs of modern packaging and manufacturing industries. Developed in response to the industry requirements for faster operating speeds, while maintaining high accuracy and precision, the Kaymich Spray Valve Series offers a range of features to meet the specific needs of various applications, from adhesive dispensing to aerosol dispensing. These valves are engineered to ensure consistent output and reliability, making them a preferred choice for many packaging manufacturers.