

technical specification:

# CSS1000

## Cigarette Side Seam Adhesive Application System

### Gravity Feed System

**system description:** The CSS1000 is specifically designed for filament to cigarette making machines for applying the side seam adhesive line.

The system incorporates the well-proven Kaymich gravity nozzle applicator, having a diaphragm seal, eliminating adhesive entering the working parts of the applicator. This nozzle applicator is usually mounted on an automatic retracting stand, which moves the nozzle away from the garniture when the parent machine is not making cigarettes. The retracting stand also controls the valve opening sequence and offers micro adjustment of the nozzle position.

The nozzle is fed with adhesive from an "easy clean" gravity fed header tank, incorporating sight windows to view the adhesive level.

A "vacuum effect" caused by the cigarette paper travelling over the nozzle at relatively high linear speed draws adhesive through the system. As a consequence, adhesive flow rises as paper speed increases. It has been demonstrated that the "vacuum effect" has greater influence over the eventual flow rate than the gravitational head produced by the tank, within the range of working speed of the system.

**suitable machines:** Decoufle: LOF, LOG, LOGA, 3D

Hauri: Garant 1, Garant 4, all versions of the Protos up to the Protos 80

Molins: All Molins machines up to the Passim 80

Sasib: CS2, CS5, CS6, CS8, CS9, Sigma 1, Sigma 2

Skoda: C8, C9, C11

When ordering please ensure the make and model of the machine is quoted. For all other machines please contact Kaymich.

**services required:** Dry, filtered, non lubricated compressed air, 60 to 100psi/4 to 7 bar.

Electrical voltage – 24 Vdc, 110 Vac, 120 Vdc/240 Vac

(Please specify required voltage at time of order placement)

**wetted parts:** Stainless steel and EPDM.

**speed of operation:** Up to 8,000 cpm. For higher production speeds please use pump feed system.

**nozzle specifications:** Stainless steel with carbide coated tip, 1.00 mm or 1.5mm diameter standard. Other diameters can be supplied on request.

**adhesive tank capacity:** 5 litres standard. 15 litres can be supplied on request.

Tank height should nominally be 300 mm above the applicator depending on adhesive viscosity.

Adhesive outlet – 13 mm internal diameter.

**adhesive recommendations:**

Type – Synthetic resin emulsion.

Viscosity range – 150 to 1500 centipoise.

Solids content – 45% to 55%

For adhesive grade recommendations please contact your regular supplier.

### Positive Pump Feed

**system description:** The Kaymich Positive Pump Feed System has been developed to provide precise control for aqueous dispersion adhesive or natural liquid starch adhesive application on high speed production units. Over recent years, making machine speeds have increased dramatically and the necessity for precise, adjustable adhesive control has become increasingly important.

The Positive Pump Feed System incorporates a number of special features and is capable of applying a wide range of adhesives with both low and high viscosities. Adhesive flow is proportional to machine speed and displayed, easy adjustment providing the facility to match adhesives to machine performance and paper specifications. These features eliminate gluing problems and enhance performance at production speeds up to 14,000 cpm single track.

At the heart of the system is a precision micro-miniature stainless steel pump, driven by an infinitely variable stepper motor. This pump gives greater resolution than alternative conventional pumps.

A magnetic coupling between motor and pump eliminates the requirement for seals, thus ensuring trouble free operation at all times, with the minimum of maintenance and spare parts.

Adhesive is applied by the well proven Kaymich nozzle applicator, having a diaphragm seal eliminating adhesive entering the working parts of the applicator. This nozzle applicator is mounted on an automatic retracting stand which moves the nozzle away from the garniture when the parent machine is not producing cigarettes. The retracting stand also controls the valve opening sequence and offers micro-adjustment of the nozzle position.

**suitable machines:** Decoufle: LOF, LOG, LOGA, 3D.

Hauri: All of the versions of the Protos up to the Protos 1000

Molins: All Molins Machines.

All systems are designed specifically for the host machine.

To retrofit the Positive Pump Feed System to an existing gravity Kaymich installation please contact Kaymich.

For all other machines please contact Kaymich.

**services required:** Dry, filtered, non lubricated compressed air, 60 psi to 100 psi/4 to 7 bar. Air inlet 6,00 mm.

Electrical voltage – 110/240 Vac

Electrical power – 125 watts.

**performance characteristics:**

Speed – up to 14,000 cpm single track.

Adhesive dosage: maximum 4.99 cc/1000 cigarettes but typically in the range 1.0 to 1.5 cc/1000 cigarettes.

Tank capacity – 5 litres standard.

15 litres can be supplied on request.

**adhesive recommendations:**

Type – Synthetic resin emulsion.

Adhesive viscosity – 150 to 12,000 centipoise.

A heated applicator manifold is available if running natural liquid starch.

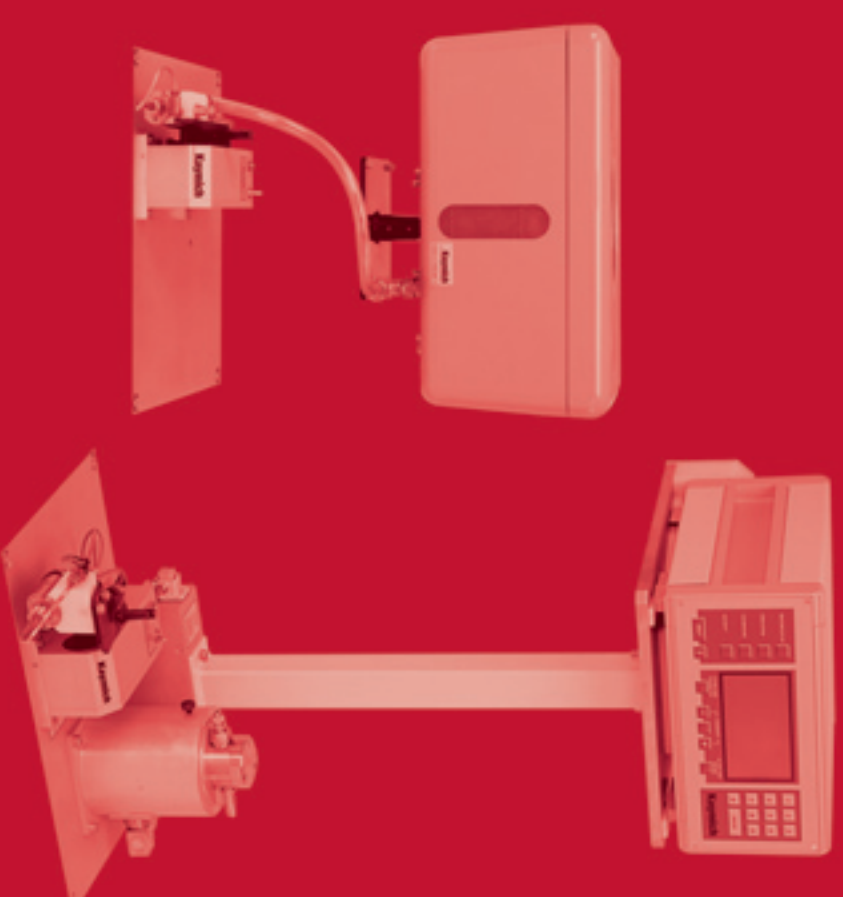


# The Kaymich

# CSS1000

## Cigarette Side Seam

## Adhesive Application Systems



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# Kaymich

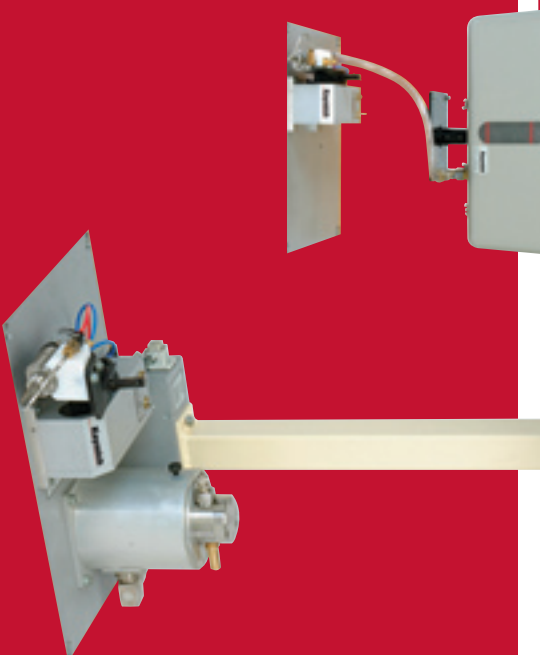
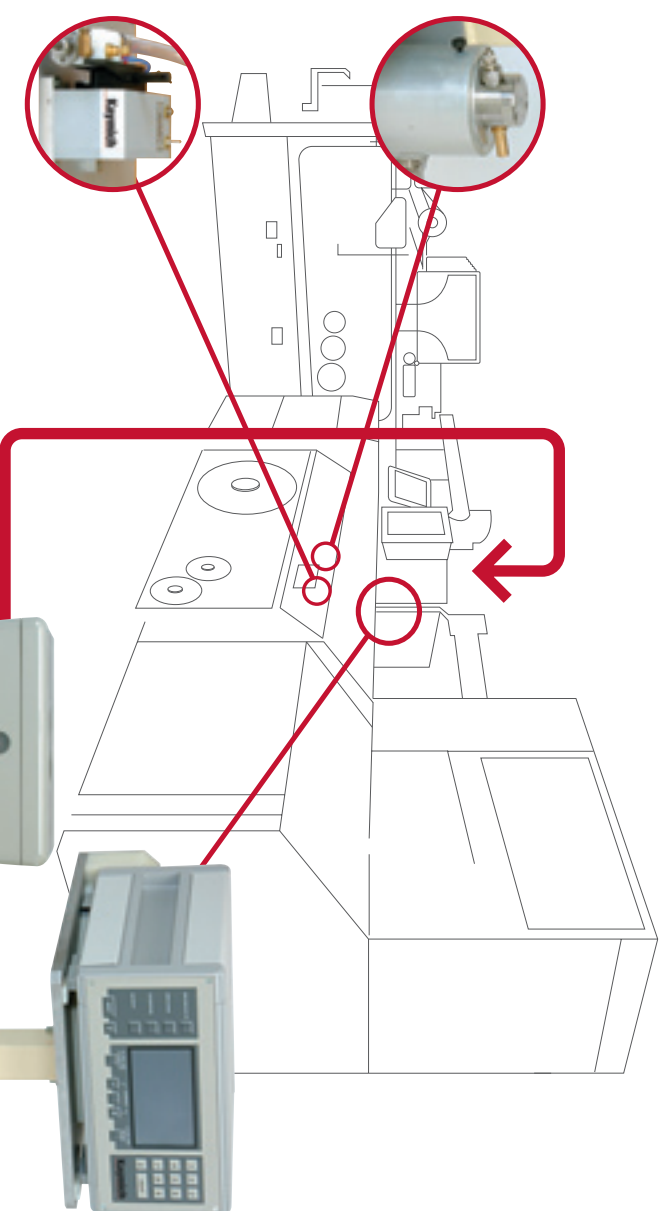
# The Kaymich

# CSS1000

## Cigarette Side Seam Adhesive Application Systems

### Introduction

The CSS1000 Gravity feed system was originally developed to apply synthetic resin emulsion based adhesive, replacing the wheel and starch based system. Kaymich pioneered this movement and today an estimated 90% of the world's cigarettes are manufactured using Kaymich technology.



To cover all requirements and extend the versatility of the system, Kaymich now provide the CSS1000 in both Gravity feed and Pump feed variants. The Pump feed system was designed for the latest high-speed machinery typically operating at speeds beyond 8000 cpm, the point at which traditional gravity feed systems can begin to lose their effectiveness.

The Pump Feed System also allows cigarette manufacturers greater flexibility in choice of materials including liquid natural starch adhesives.



### Gravity Feed System

#### Features

- Horizontal and vertical micro adjustment for easy setting.
- Forward travel is complete before the adhesive is applied.
- Applicator immediately closes and the stand retracts in an upward sweeping arc on machine shut down.
- Manual override for easy flow checks and setting.
- Integral shorts blower removes tobacco shorts from seam of rod prior to the application of adhesive.

#### Benefits

- Improves quality. Accurate application of the adhesive, proportional to machine speed, ensures a clean lap with the minimum of adhesive.
- Reduces costs. Lower heater bar settings and more effective use of adhesive means that production costs are reduced.
- Increases productivity. No moving parts whilst operational means that the CSS1000 requires little maintenance.
- Carbide coated nozzle. Provides a longer working life.
- Versatile. Ability to be fitted to all types of making machines to handle most types of cigarette paper and adhesive without any reduction in machine speed.

### Positive Pump Feed System

#### Features

- Positive feed of adhesive via a non re-circulating surge free pump.
- Adhesive application directly proportional to machine speed.
- Facility to increase/decrease adhesive flow whilst operational.
- Independent electronic control module featuring latest LCD display technology.

#### Benefits

- Increased productivity. Consistent, accurate application means fewer rod break outs – even at very high speed.
- Reliable, magnetically coupled surge free pump requires little maintenance.
- The fully enclosed system can also be left overnight – without requiring daily cleaning or wasting unused adhesive.
- Reduces costs. Accurate control ensures lap security is consistently achieved with the minimum amount of adhesive.
- Reduce costs due to minimised adhesive consumption.
- Improves quality. Total control over adhesive application ensures a top quality seam – regardless of speed.
- Greater versatility in types of adhesive used, including liquid starch.