



falma machines

ec/ec2: electrostatic coating machine



montena
falma machines



Turning darkness into light

Montena machinery develops, builds and commissions machines and production lines for the manufacture of all kinds of light sources: incandescent or economical, traditional or the latest generation.

Working in close cooperation with montena lighting, montena machinery has acquired complete mastery over all the phases of lamp production. This synergy effect brings high benefits: for example, it enables montena machinery to make an objective and well-formed assessment of production tool quality.

Montena's foremost aim is to give you comprehensive service, dedicated to your satisfaction and success. Our customer advice focuses on research, development and engineering; we also provide on-site after-sales service, maintenance and monitoring of installations.

Montena summarises its objectives in a single declaration of intent: we can do it!

We will be happy to give you further information. Just contact us!



ec / ec 2

**electrostatic coating machine
for the coating of bulbs or reflector lamps**

**Fully automatic electrostatic coating machine
for bulbs. 2 machine types available (EC and EC2)**

- ❑ The EC is a fully automatic machine
- ❑ Can be integrated in a production line
- ❑ Flexible system (very short change-over time
from one lamp type to the other)
- ❑ High efficiency and high quality
- ❑ High technology
- ❑ 3 shift operation possible Minimal floor space
- ❑ Easy control system of the machine



technology - products

Know how

The machines have been designed for internal frosting or colour coating of glass bulbs. The powder supply unit is mobile and can be replaced easily for colour change. Both types of machines can be installed as stand alone units or integrated in a production line.

The glass bulbs are loaded on the machine.



With the electrostatic coating machine EC montena machinery delivers as well the know-how and the technology how to coat bulbs with a high efficiency, assuring a high product quality. Every single step from the beginning to the end is important and that's how we teach your personnel to solve daily problems and how to reduce raw material costs to a minimum and how to increase the overall efficiency. To ensure the quality and the high efficiency of the installation, the operators of the machine follow a specific training program. Along with our detailed documentation they will soon be able to handle the machine by their own. If later on, during operation of our installation, you have questions and problems to be solved and answered, we will help you as well with our support at any time.



The coating powder is applied by electrostatic process. The colored bulbs are conveyed to the production line. One corona dispersion head is introduced in each bulb.

machine layouts

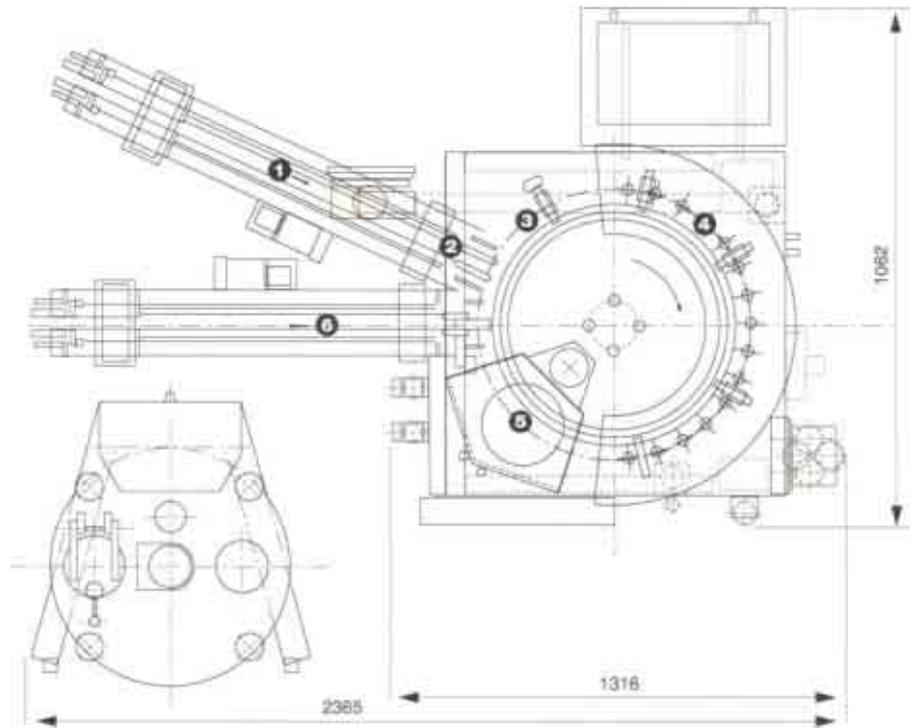
The EC/EC2 machines seen from above

- 1 Loading of the bulbs
- 2 Loading on to the turret
- 3 Turret with 30 positions

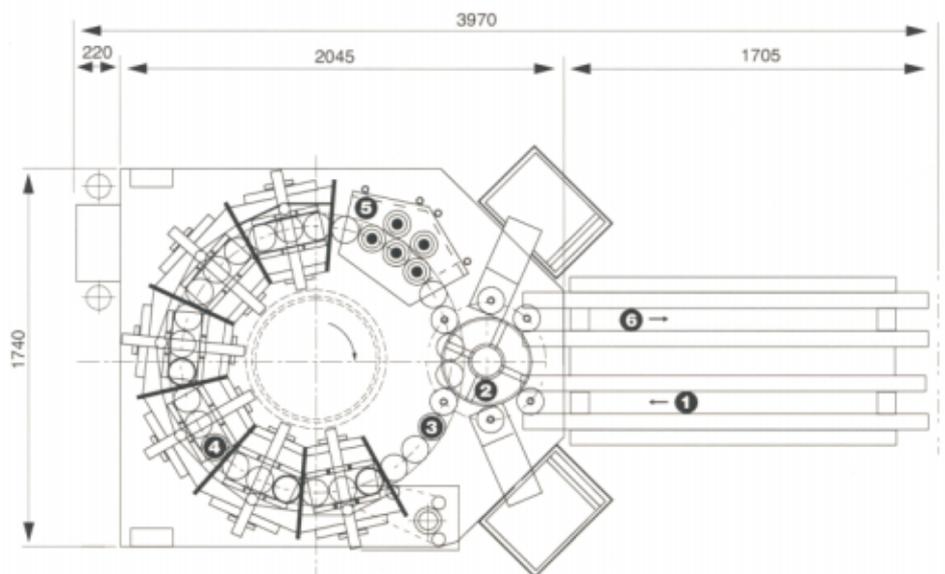
- 4 Preheating area
- 5 Coating positions
- 6 Unloading on the exit chain

EC

Powder supply system used with both types of machines



EC2



concept EC

Electrostatic powder coating machine EC

Accessories

- ❑ Dust filter for collection of the powder removed by the neck wipe operation.

Options

- ❑ Change parts for different bulb types.
- ❑ Furnace to bake the bulbs after coating

This "free standing" rotary indexing machine has been specially designed for the internal coating of glass bulbs. Any soft tone colour, including white and frosted, can be applied.

Technical features

- ❑ The machine turret has 30 positions on which the bulbs are preheated and coated.
- ❑ Loading and unloading is performed by means of belt conveyors, to facilitate simple connections to existing bulb loading machine and bulb conveyor to the sealex machine.
- ❑ The oven unit is an insulated open ended box section with gas heating built onto the rotary machine.

- ❑ The applicator gun consists of a hollow insulated tube, fitted with a corona style dispersion head. There are two gun assembly positions available to accommodate variations in time, envelope size shape and colour density requirements. The up stroking gun assembly enters the bulb envelope diameter in the stationary index period dispensing the powder coating onto the bulb envelope interior and retracting before index.
- ❑ The neck wipe assembly consists of a head with felt disc and air blow jets to provide a clean horizontal "cut-off" line, the setting height of the up stroking unit is adjustable to suit individual requirements.
- ❑ The powder supply system can be supplied based on the fluid bed or high speed stirrer system. it is firmly mounted on a free standing support frame with hose service outlets to the gun assembly on the machine.
- ❑ The dry powder is carried by low pressure dried air to the coating heads and is controlled for dosing regulation through the electrical control panel.
- ❑ By means of change parts the machine can be adapted to different bulb types.



concept EC2

Electrostatic powder coating machine EC2

This machine has been specially designed for:

- ❑ Coating of bulbs up to (dia 125 mm)
- ❑ Special coating requirements High speed loading and unloading of special bulb shapes (bulbs for reflector lamps)

Technical features

- ❑ The machine can be operated as stand alone unit or integrated into a production line. For quality reasons we recommend to use coated bulbs immediately.
- ❑ The powder container can be easily connected onto the machine, this allows continuous operation of the machine.
- ❑ The machine is designed to handle bulbs up to 0 125 mm. To achieve this the following measures have been taken:
- ❑ The machine is equipped with 30 positions. The bulbs are transferred into and out of the machine by means of a suction turret.
- ❑ The bulb holders are rotating in the oven and in the coating positions.

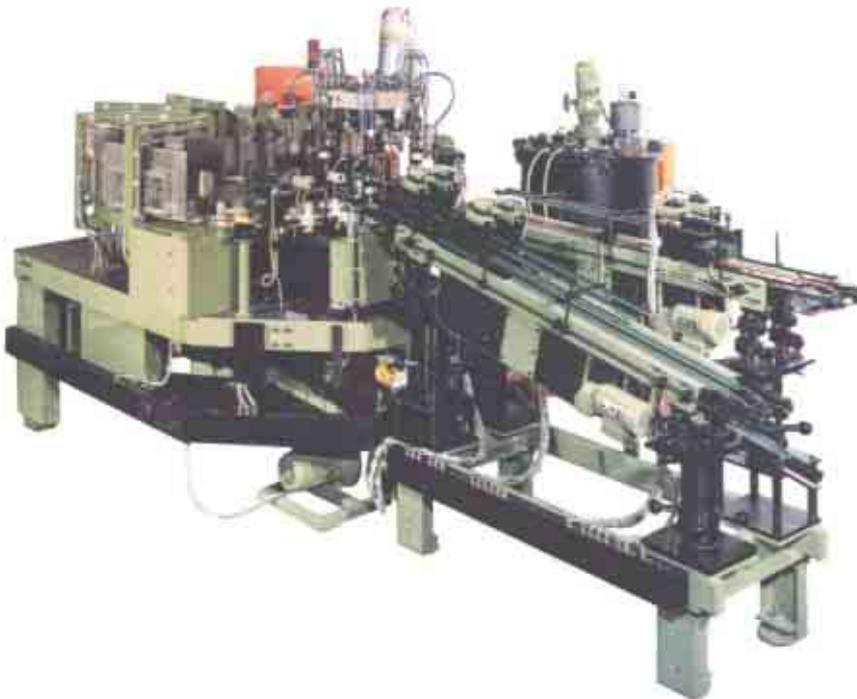
- ❑ The oven is gas heated on 3 sections. The temperature can be adapted according to the needs of the bulb type.
- ❑ The machine is equipped with 3 coating positions. They can be operated individually, according to the needs.
- ❑ The powder supply system can be supplied based on the fluid bed or high speed stirrer system. It is firmly mounted on a free standing support frame with hose service outlets to the gun assembly on the machine.
- ❑ The machine is equipped with a variable drive unit to adapt index speed to the bulb type, the coating and the needs of the production line. The maximum index speed is 5500/h.
- ❑ A flexible electronic control unit allows the adaptation of the machine parameters for a certain bulb type and/or a certain coating type.

Accessories

- ❑ Dust filter for collection of the powder removed by the neck wipe operation.

Options

- ❑ Change parts for different bulb types.
- ❑ Furnace to bake the bulbs after coating.



technical features of the EC

Technical specifications	<input type="checkbox"/> Lamp sizes:	diameter 35-80 mm
	<input type="checkbox"/> Capacity	4000/h
	<input type="checkbox"/> Machine dimensions:	1500 x 2330 x 2060 mm
	<input type="checkbox"/> Weight of machine	1200 kg (without optional equipment)
Energy consumptions	<input type="checkbox"/> Gas (propane):	2 kg/h 2 bar
	<input type="checkbox"/> Oxygen:	2 Nm ³ /h 2 bar
	<input type="checkbox"/> High pressure air:	20 Nm ³ /h 6 bar
	<input type="checkbox"/> Operating voltage:	3 x 400/230 V; 50 or 60 Hz
	<input type="checkbox"/> Power:	2KVA

technical features of the EC2

Technical specifications	<input type="checkbox"/> Lamp sizes:	diameter 35-125 mm
	<input type="checkbox"/> Capacity	max 5500/h
	<input type="checkbox"/> Machine dimensions:	3900x2050x1900 mm
	<input type="checkbox"/> Weight of machine	3800 kg (without optional equipment)
Energy consumptions	<input type="checkbox"/> Gas (propane):	2 kg/h 2 bar
	<input type="checkbox"/> Oxygen:	2 Nm ³ /h 2 bar
	<input type="checkbox"/> High pressure air:	20 Nm ³ /h 6 bar
	<input type="checkbox"/> Operating voltage:	3 x 400/230 V; 50 or 60 Hz
	<input type="checkbox"/> Power:	3kVA