

Insomec ***Optical Technologies***

LENS RELEASER AND PLASTIC FILM EXTRACTOR



Insomec OT, S.L.

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Group: ***Insomec Integra Soluciones SLL***

Manufacturing: ***Rafer& Project, S.L.***

Output:

❑ The DL80 leaves the lens totally free of plastics and “Alloy” and pre-washes the lenses leaving them ready for the washing before the hard coating phase. The lenses will be neither totally dry nor clean.

Functions:

- ❑ Automatic loading/unloading of the lenses from/to the transport tray.
- ❑ Pre-cleaning station in order to assure the cleanliness of the back surface before the film releasing operation.
- ❑ Automatic releasing of the lens from the metal support by means of a system based on two progressive cams and clamps. - the “Alloy” stays in solid state -
- ❑ Two unique “pressurized turbo injectors” which efficiently extract the protective film from the lens. This system only uses water in order to do the operation.
- ❑ The “flip-over” station unloads the lenses from the machine with the front surface on the top to their corresponding tray.
- ❑ The lenses are blown (using compressed air) before each transport operation. The system for conveying the parts between the different phases of the machine is specifically designed to prevent possible damage to the lens during the operations.
- ❑ Drawer for collecting the protective films.
- ❑ The metal support (“alloy + ring block”) get out the machine through an outlet ramp. The metal support will be collected in a small tank.

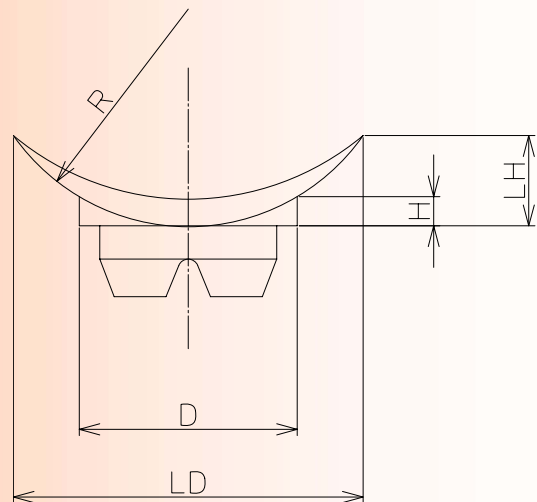
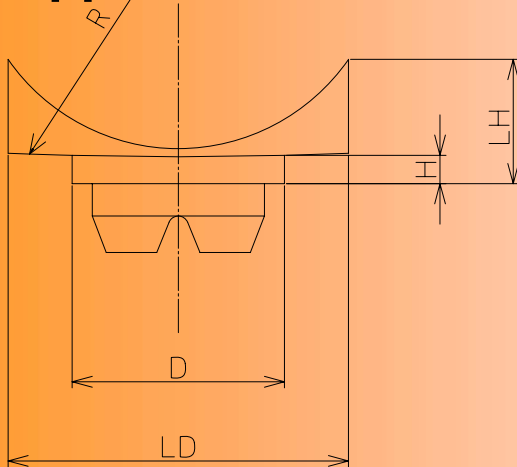
General Features

- ❑ Compact and small.
- ❑ Easily fitted to the process line. The tray conveyor belt located at the front of the machine allows being intercalated into the client’s linear conveyors.
- ❑ Easy-to-install. It only needs water and electricity.
- ❑ It can produce a tray of lenses every 30 seconds.
- ❑ CE certified and/or UL conformity machine
- ❑ Built entirely out of high-quality stainless materials.

Benefits:

- ❑ Productivity improving. Completely automatic process.
- ❑ Lead time process reduction. It allows the lean flow. It keeps the lens paired up with its respective transport tray during the entire process.
- ❑ Quality improving.
 - ❑ The operations are not depending on materials or shapes of the lenses, which mean that the process is quite robust.
 - ❑ It reduce the risk of scratching the lens during the cleaning before hard coating, because the lens has less quantity of polishing fluid on its surface.
- ❑ It's not pollutant.
 - ❑ First machine in the world that suddenly and automatically releases the lens without heating it and without contaminating.
 - ❑ It is the first machine in the world that can remove the plastic film without using aggressive applications and without heating the lens.
 - ❑ It only uses water in a closed circuit with no added products.

Functional Requirements for the lens and metal support:



- | | |
|--|---------------------|
| ❑ Lens diameter: | LD= 50.... 85 mm. |
| ❑ Front curve: | R= 1046....52 mm. |
| ❑ Rear curve: | R= 1046....52 mm.. |
| ❑ Thickness in the center of the lens: | 1.3..... 10 mm. |
| ❑ Thickness at the edge of the lens: | 0.3.....20 mm. |
| ❑ "Alloy" diameter: | D= 50....68 mm. |
| ❑ "Alloy" height: | H= 7...13 mm. |
| ❑ Material of the lenses: | CR, HL, Trivex, PC. |

Material to be released:

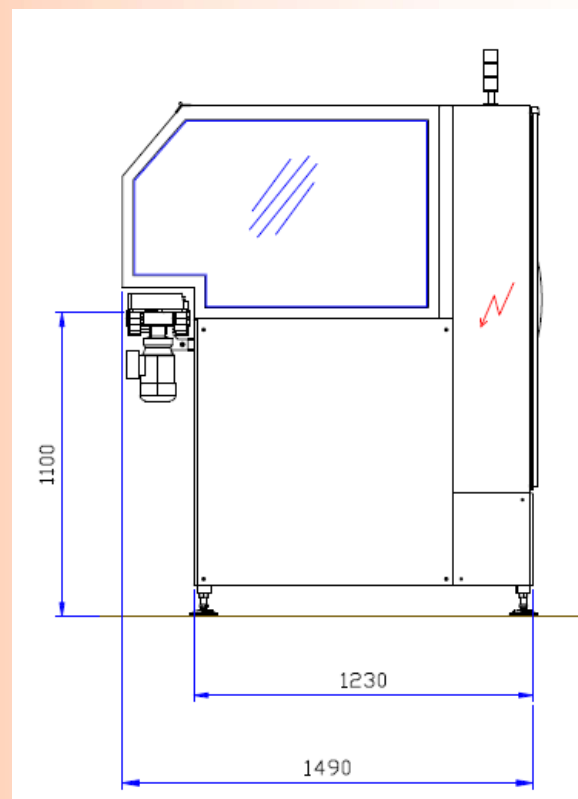
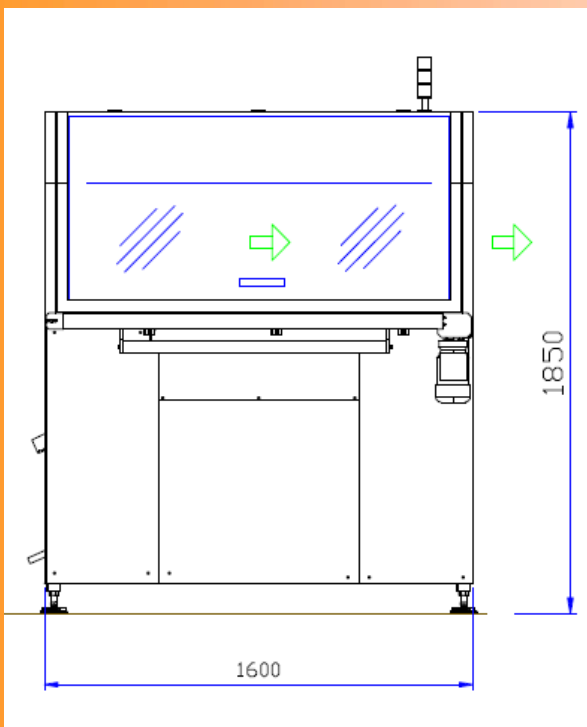
- | | |
|--|----------------------------------|
| <input type="checkbox"/> “Alloy” metal flux: | 47°C (117F) |
| <input type="checkbox"/> “Alloy” metal flux: | 52°C (126F) |
| <input type="checkbox"/> “Alloy” metal flux: | 60°C (145F) |
| <input type="checkbox"/> Plastic film: | MP Superstick and/or equivalents |

Capacity

- | | |
|--|-----------------|
| <input type="checkbox"/> One tray every: | 30 seconds |
| <input type="checkbox"/> Maximum production: | 240 lenses/hour |

Dimensions

- | | |
|--|--------------------|
| <input type="checkbox"/> Length: | 1.600 mm. |
| <input type="checkbox"/> Width: | 1.490 mm. |
| <input type="checkbox"/> Height: | 1.850 mm. |
| <input type="checkbox"/> Working plane height: | 1.100 mm. \pm 50 |
| <input type="checkbox"/> Tank capacity: | 40 litres. |



Power

<input type="checkbox"/> Voltage:	50 Hz/400 V – 60 Hz/208 V
<input type="checkbox"/> Installed capacity:	12 Kw.
<input type="checkbox"/> Average consumption:	6 Kw
<input type="checkbox"/> Compressed air:	6 bar
<input type="checkbox"/> Tap water:	3 bar
<input type="checkbox"/> Average water consumption:	5 liters/hour
<input type="checkbox"/> Type of water:	low hardness.
<input type="checkbox"/> Noise:	< 80 dB.

Main Components and Materials

- Six pneumatic manipulators to move the parts inside the machine, having special suction cups made of a synthetic material for holding the lenses.
- Two high-pressure water pumps.
- A water recirculation pump with a 10 micron filtration system.
- Two unique “Injet – Turbo”-type nozzles.
- Two sets of progressive cams and clamps.
- Machine built entirely out of high-quality stainless materials.
- Pneumatic material: Festo/SMC.
- Vacuum system: Piab/AR.
- PLC automata: Siemens/Omrom
- Frequency shifters: Siemens/Omrom/LS
- Electrical board: Rittal/Himmel
- Other electrical components: Siemes/Omrom/LS
Merlin Gerín/ other brands recognized in the EU.

Delivery Term:

- 3 months.

Guarantees:

- The warranty covers the value of the spare parts for 12 months after the billing date. Any breakdowns due to misuse of the machine or the actions of others who are not authorized by INSOMECA OT. are specifically excluded from the warranty, and in such case the warranty will be specifically annulled.
- No charges or claims due to a lack of continuous use by the buyer will be allowed.
- The instructions described in the machine's manual must be followed for the correct use and maintenance of the machine.

Financial Assessment:

This financial proposal includes:

- Commissioning and validation
- Service manual with CE certification.
- Training.

The estimated price for the described machine is:

- Ninety - six thousand euros (96.000 €)
- Tax not included.
- Shipping not included. FOB Merchandise, Barcelona (Spain).

Further Information:

- This offer is valid during 2009.
- The machine is prepared for information and marking in:
Spanish, French or English
- To better understand the machine operation please see the video enclosed in this CD.
- Customer service:

Spanish/French/Italian:

+ 34 607 20 78 85

English

+ 34 618 61 69 48