

HCC

HARD COATING

Ultrasonic Cleaning & DIP HARD COATING



Optical machines
and equipments



MODELS	HCC - 60	HCC - 100	HCC - 120
Capacity per hour	60 Lenses	100 Lenses	120 Lenses
Tanks Dimensions	120 x 160 x 220 (h) mm	120 x 550 x 140 (h) mm	120 x 550 x 140 (h) mm
Tanks Volume	4.2 Lt.	6 Lt.	6 Lt.
Tanks Material	Electropolished Tanks and transfer areas AISI 316L-20/10 stainless steel	Electropolished Tanks and transfer areas AISI 316L-20/10 stainless steel	Electropolished Tanks and transfer areas AISI 316L-20/10 stainless steel
Lens box Capacity	6 lenses/box	10 lenses/box	10 lenses/box
Machine Dimension	280 x 100 x 205 (h) cm.	520 x 145 x 205 (h) cm.	550 x 145 x 205 (h) cm.
Working Positions	16	18	19

Machine production station and steps:

POSITION	C	1	2	3	4	5	6	7	8
Function	Loading	Wash	Wash	Rinsing	Wash	Rinsing	Rinsing	Rinsing	Drying
Product	-	H ₂ O + Detergent	H ₂ O + Detergent	H ₂ O	H ₂ O + Detergent	H ₂ O	H ₂ O Demi	H ₂ O Demi	-
Ultrasonic		220V/40Hz 150 W	220V/40Hz 150 W	220V/40Hz 150 W	220V/40Hz 150 W	220V/40Hz 150 W	220V/40Hz 150 W	220V/40Hz 150 W	
Heating			●	●	●	●	●	●	
Filtration		●	●	●	●	●	●	●	
Conductivity Control								●	
Agitation		●	●	●	●	●	●	●	
Level control		●	●	●	●	●	●	●	
Temperature control		●	●	●	●	●	●	●	●
Lift-out								●	
IR heating									●

POSITION	9	10	11	12	13	14	15	16	17	S
Function	Cooling	Primer	Drying	Drying	Cooling	Laquering	Laquering	Drying	Drying	Unload
Function	-	Primer	-	-	-	Laquer	Laquer	-	-	-
Filtration		●			●					●
Level control		●			●					
Temperature control		●	●	●	●	●	●	●	●	●
Cooling system		●			●					
Lift-out		●			●					
IR heating			●	●				●	●	●

Full automatic systems for Lens Ultrasonic Cleaning & Dip applied Coating.
Three production phases integrated in a single line for the best industrial Dip Hard Coating technology.
Optical and solar lenses: ultrasonic cleaning, dipping coating with tintable lacquers, final drying process.

Technical Description

1 - CLEANING - MODULE:

stations from "C" to "8"

2 - APPLIED COATING - MODULE:

stations from "9" to "15"

3 - DRYING - MODULE:

stations from "16" to "S"

HCC Devices are composed by 3 modules:

Washing tank + Rising tank + Rising Demis.

- › U.s. emitter 40 kHz, 200 W effective in all washing and rinsing tanks of module 1
- › All washing and rinsing tanks have external electric heating
- › Vertical agitation common to tanks 1-2-3-4-5-6
- › Bath filtration
- › Level control for the protection of resistors and US transducers
- › Electromagnetic filling valve
- › Ball valve for emptying.

Primer & Laquering tanks Overflow on all four sides Demis.

- › Temperature regulation from 10 to 20 ° C.
 - › Pneumatically operated lid, controlled by the robot, to reduce solvent loss and increase lacquer Life.
 - › Lift-out with adjustable speed in mm / s and settable according to the program required by the type of lenses.
 - › Lacquer recirculation and filtration by means of magnetic drive centrifugal pump with frequency converter and disposable filtration cartridge (1µm).
 - › The immersion coating tank is connected to a refrigeration unit to ensure the optimal lacquer temperature. A thermostatic valve allows the temperature to be set from 10 to 20 ° C. A bypass allows the tanks to be transformed into storage containers so that the lacquer can be stored at a low temperature.
- Any type of polymer lacquer with a solid component up to 40% and a viscosity of 1 to 10 mPa * s can be used.

**Infrared drying oven with automatic lid IR drying to reduce heat losses.
Cooling positions at room temperature**

IR drying position of coated lenses

- › The power of the IR elements can be adjusted through the choice of program.
- › Unloading position with sensors for basket recognition.

General features

- › Plant equipped with a free programmable automatic conveyer
- › The working environment of HCC Devices corresponds to Clean Room Class 5 according to DIN EN ISO 14644-1 (corresponds to Class 100).
- › Upper fairing in aluminum and glass profiles with sliding doors on the front; lower fairing with stainless steel panels
- › Suction system and HEPA filter

System installation environment: Clean Room

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Accessories, products and service for lens cleaning and hard coatings technologies:

- › Detergents and degreasers for ultrasonic baths
- › Products for the removal of cerium and aluminium oxide
- › Tintable and not tintable laquers
- › High index laquers

Process Know-how and technical support



A full range of Measuring and Test equipments for Hard Coating Process and Lens Inspection

Consumables available in stok

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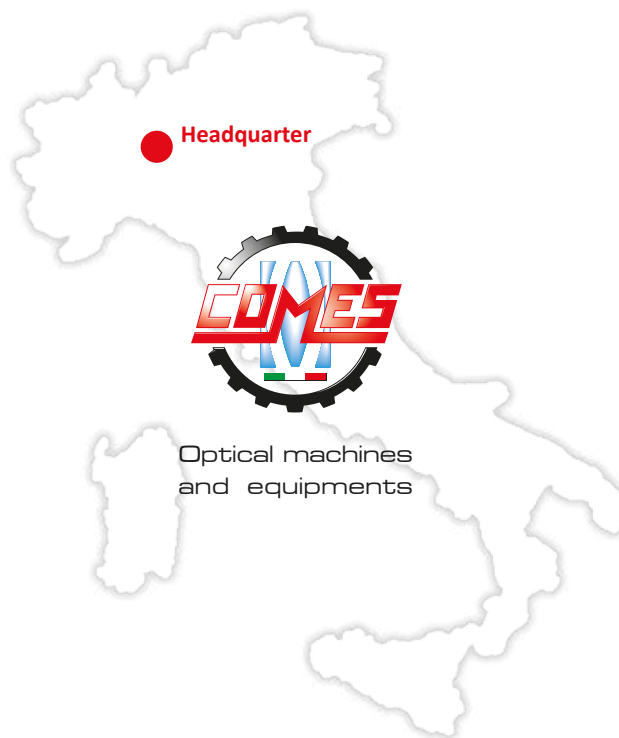


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Optical machines
and equipments

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