



# HCM Series

Hard Coating Machines for All Size Of Labs

- Product design and the technical features may change without notice.

**Yiğın Global / Isomaksan**  
**Machinery Industry & Trade Co. Ltd.**

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# HCM 400

## Design

Heavy duty design for mid/large size labs or stock lens manufacturing plants

IN and OUT conveyors for fast and clean operation

## Interior

Separate zones (chambers) for cleaning & coating processes. Faster operation thanks to two handling robots in both chambers, less contamination.

## Facility

Auto refill of detergent, alcohol and varnish

→ No process break

## Upgrading

Remote control for diagnose and upgrade. Network cable and an internet connection needed.

## Interface

Two HMI Screen - Ease of Use - Operator friendly



\*Optional Stripping Machine

## Technical Details

### MAIN FEATURES

- Chillers for the varnish +5 → +20°C
- Auto osmosis water filtration system for ultra pure water
- Ultrasonic stripping/cleaning: Manual load or Automatic (\*optional)
- Coating chamber Air Conditioner
- Holds 24 / 32 lenses per tank
- In & Out conveyors

### PRODUCTION CAPACITY

- Process Cycle Duration: 5 minutes
- 24 to 32 lenses per cycle (depending on the clip used)
- 240 to 320 lenses per hour (depending on the recipe)
- All materials from 40 to 80 mm diameter

### TECHNICAL DATA

- Detachable 2 parts
- 7000 x 1200 x 2000 mm
- ~ 2500 kg
- 25 kW / 400 V (3 phase + Neutral + Ground)
- Can be selected during the order: L2R or R2L
- CE Mark

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# HCM 160

## Design

Compact design for mid size labs

## Interior

Single zone for cleaning and coating (ISO6 Chamber)

## Facility

Auto refill of detergent, alcohol and varnish

→ No process break

## Upgrading

Remote control for diagnose and upgrade. Network cable and an internet connection needed.

## Interface

HMI Screen - Ease of Use - Operator friendly

## Technical Details

### MAIN FEATURES

- Chillers for the varnish +5 → +20°C
- Auto osmosis water filtration system for ultra pure water
- Ultrasonic stripping/cleaning: Manual load or Automatic (\*optional)
- Coating chamber Air Conditioner (\*optional)
- Holds 12 / 16 lenses per tank

### PRODUCTION CAPACITY

- Process Cycle Duration: 5 to 6 minutes
- 12 to 16 lenses per cycle (depending on the clip used)
- 120 to 160 lenses per hour (depending on the recipe)
- All materials from 40 to 80 mm diameter

### TECHNICAL DATA

- Uniform single body
- 4100 x 1000 x 2000 mm
- ~ 1000 kg
- 16 kW / 400 V (3 phase + Neutral + Ground)
- Can be selected during the order: L2R or R2L
- CE Mark



\*Optional Stripping Machine

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# HCM 80

## Design

Compact design for small and mid size labs

## Interior

Single zone for cleaning and coating (ISO6 Chamber)

## Facility

Auto refill of detergent and alcohol.

Optional varnish refill

→ No process break

## Upgrading

Remote control for diagnose and upgrade. Network cable and an internet connection needed.

## Interface

HMI Screen - Ease of Use - Operator friendly



\*Optional Stripping Machine

## Technical Details

### MAIN FEATURES

- Chillers for the varnish +5 → +20°C
- Auto osmosis water filtration system for ultra pure water
- Ultrasonic stripping/cleaning: Manual load or Automatic (\*optional)
- Coating chamber Air Conditioner (\*optional)
- Holds 6 / 8 lenses per tank

### PRODUCTION CAPACITY

- Process Cycle Duration: 5 to 6 minutes
- 6 to 8 lenses per cycle (depending on the clip used)
- 60 to 80 lenses per hour (depending on the recipe)
- All materials from 40 to 80 mm diameter

### TECHNICAL DATA

- Uniform single body
- 3500 x 1000 x 2000 mm
- ~ 800 kg
- 12 kW / 400 V (3 phase + Neutral + Ground)
- Can be selected during the order: L2R or R2L
- CE Mark



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# HCM 60

## Design

Compact design for small and mid size labs

## Interior

Single zone for cleaning and coating (ISO6 Chamber)

## Facility

Auto refill of detergent, alcohol  
Optional varnish refill

→ No process break

## Upgrading

Remote control for diagnose and upgrade. Network cable and an internet connection needed.

## Interface

HMI Screen - Ease of Use - Operator friendly



\*Optional Stripping Machine

## Technical Details

### MAIN FEATURES

- Chillers for the varnish +5 → +20°C
- Auto osmosis water filtration system for ultra pure water
- Ultrasonic stripping/cleaning: Manual load or Automatic (\*optional)
- Coating chamber Air Conditioner (\*optional)
- Holds 4 - 6 lenses per tank

### PRODUCTION CAPACITY

- Process Cycle Duration: 5 to 6 minutes
- 4 - 6 lenses per cycle (depending on the clip used)
- 40 to 60 lenses per hour (depending on the recipe)
- All materials from 40 to 80 mm diameter

### TECHNICAL DATA

- Uniform single body
- 3500 x 1000 x 2000 mm
- ~ 750 kg
- 10 kW / 400 V (3 phase + Neutral + Ground)
- Can be selected during the order: L2R or R2L
- CE Mark



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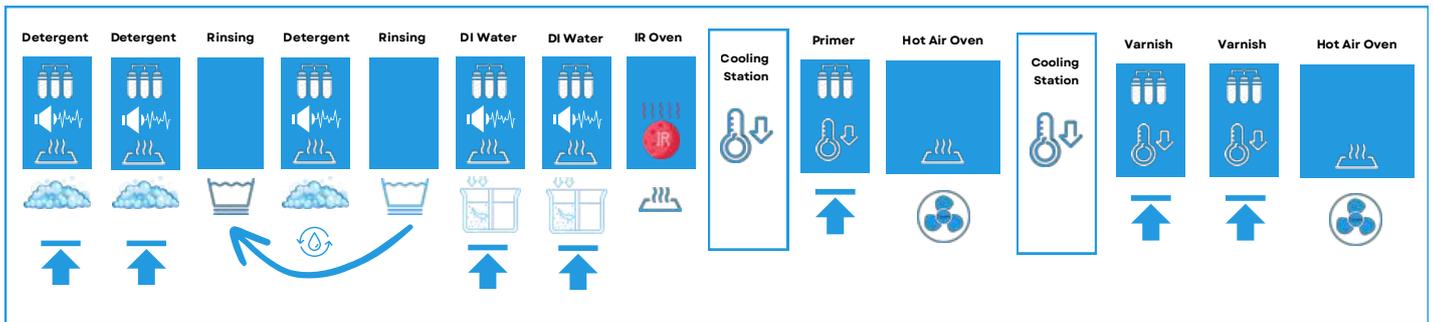
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# FEATURES & NOTES

Common features are stated below. Kindly find the unique properties of each machine, in the brochures.

- Cleaning/Detergent/Rinsing Tanks, Primer Tank, Varnish Tanks, two steps IR Ceramic drying and hot air circulation drying tanks
- Agitation system allowing oscillation movement on the lenses for detergent, rinsing and Di water tanks
- Automatic detergent and water refilling system with a loop filtering mechanism between tanks 3 & 5. Optional: Varnish refill on some models
- Programmable lift speeds of the varnish tanks for waveless coating with desired thickness
- Sensitive dipping mechanism for successful coating results
- Two axes robot arm for a flawless manipulation of the racks
- Excellent polymerization results thanks to two chamber IR drying station
- Laminar flow fan or an air dryer (optional) depending on the climate of the setup place
- Covers over the varnish tanks and surrounded double skinned cooling system by chillers to avoid evaporation & keep the temperature -as a result viscosity- at a constant level
- Deionized distilled water filtration for the last rinse
- Chemical vapor extraction system and leak sensor for safety
- Easy programming, user friendly HMI Screen for the operators
- Water saving cycle thanks to 5th tank to 3rd tank cascade system with filters
- Minor customizations can be done upon request

## MACHINE DIAGRAM



Detergent Wash	Detergent Wash	Rinsing	Detergent Wash	Rinsing	Di Water Rinsing	Di Water Rinsing	Drying lenses with IR Heating	Cooling Rest	Primer Coating	Curing Oven	Cooling Rest	Varnish Coating	Varnish Coating	Curing Oven
Filter Ultrasonic Heating Auto Top Up	Filter Ultrasonic Heating Auto Top Up	City water from the tank 5	Filter Ultrasonic Heating Auto Top Up	City water to the tank 3	Deionization Filter Ultrasonic Heating Auto Top Up	Deionization Filter Ultrasonic Heating Auto Top Up	Water Resistant Ceramic Infrared	Cooling Dock	Filter Chiller Auto Top Up* * Optional	Two steps heating resistance with air fan	Cooling Dock	Filter Chiller Auto Top Up* * Optional	Filter Chiller Auto Top Up* * Optional	Two steps heating resistance with air fan

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# FEATURES & NOTES

## Common notes for all models:

- Training and first start after installation. (6 days) Travel expenses to be invoiced separately.
- Once the machine is delivered and put into the right place, installation will be planned depending on the schedule of the available technician.
- Software programming, daily and preventive maintenance instructions' training and setup actions will be taken.
- One set of all needed filters for 1 month usage included
- Working flow of the machine can be selected. (R2L or L2R)
- All models are equipped with laminar flow air HEPA filtration.
- Appropriate number of clips included. (Listed below)
- All models have vapor extraction unit.
- User friendly HMI Screen for the ease of use
- Electrical supply:  
400 Volts (3 Phases + Neutral + Ground) 50/60 Hz
- City or Softened water required: 400 L/h
- Optional flowmeters for detergent and water
- Optional heater for the water inlet
- Optional drying unit for the chamber
- Optional Control Cabinet (shown on the pictures, standing next to the machine)
- Optional camera for the live stream of the coating chamber
- Crate packing for shipping nearby or overseas
- Manual in English
- 1 year warranty for the parts and labor

Quantities included to the standard purchase	HCM 60	HCM 80	HCM 160	HCM 400
16 Lens Holder Rod	30	30	30	60
Lens Holder (60 - 80 mm)	126	168	336	672
Lens Holder (50 - 60 mm)	36	48	96	192
Lens Holder (40 - 50 mm)	18	24	48	96

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# COMPARISON CHART

	HCM 60	HCM 80	HCM 160	HCM 400
Good for Labs	Small	Small/Mid	Mid	Large/Mass
Chamber	1	1	1	2
Auto Refill	Detergent+Alcohol+ Varnish (o)	Detergent+Alcohol+ Varnish (o)	Detergent+Alcohol+ Varnish	Detergent+Alcohol+ Varnish
Remote Service Connection	✓	✓	✓	✓
HMI Screen	✓	✓	✓	✓
In / Out Conveyor	○	○	○	✓
Water Saving	✓	✓	✓	✓
Filtration for deionized water	✓	✓	✓	✓
US Stripping and Cleaning	○	○	○	○
A/C	○	○	○	✓
Tank Capacity (Lenses)	4/6	6/8	12/16	24/32
Lenses per hour	40 to 60	60 to 80	120 to 160	240 to 320
Lens Types	All (40 - 80 mm)	All (40 - 80 mm)	All (40 - 80 mm)	All (40 - 80 mm)
Electric Consumption	10 kW	12 kW	16 kW	25 kW
Weight	~ 750 kg	~ 800 kg	~ 1000 kg	~ 2500 kg
Dimensions (wxdxh)	3500 x 1000 x 2000 mm	3500 x 1000 x 2000 mm	4100 x 1000 x 2000 mm	7000 x 1200 x 2000 mm

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