

# IDA-C

Chocolate coating  
and varnishing



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AUTOMATIC CHOCOLATE  
COATING INSTALLATION:  
THE PERFECT COMBINATION  
OF DESIGN AND KNOW-HOW  
FOR THE BEST  
QUALITY PRODUCTS

IMPROVED PRODUCTIVITY,  
FLEXIBILITY AND CONSISTANCY  
WITH LOWER LABOUR AND  
ENERGY COSTS

**Dumoulin**





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FULL AUTOMATIC  
INSTALLATION  
FOR CHOCOLATE  
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Machine type	502CV	1002CV	2002CV	3002CV
Useful volume (liters)	650	1300	2600	3900
Batch size (kg)	250-500	500-1000	1000-2000	2000-3000
Drum diameter (mm)	1600	1600	1800	1900
Drum length (mm)	1600	2900	4200	5600
Bed depth (mm)	450	450	540	630

## PRODUCTS RANGE

### A wide range of centers

- Dried fruits, seeds, nuts...
- Toffees, caramels, liquorices...
- Biscuits, extruded products
- Fondants

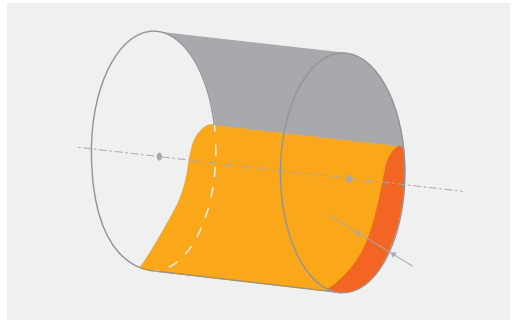
### A wide range of coatings

- Any type of chocolate, plain, milk, white
- Compounds and yogurt
- Equipment designed to work with a wide range of temperatures, fat concentrations and viscosities
- Same equipment will allow chocolate coating and varnishing during one batch

## DRUM DESIGN

### Shallow bed depth

- Elongated drum shape for lower bed depth
- Careful handling of fragile products
- Better mixing
- Better exposure to ventilation and spraying



## CHOCOLATE SPRAYING

### Chocolate storage

- Modular custom design
- Double jacketed tanks with stirrer and level control
- Use of melted chocolate, no need to temper

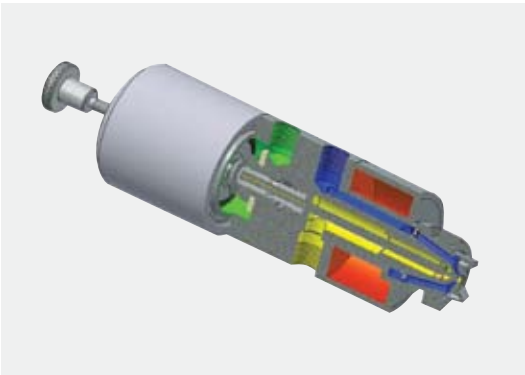
### Chocolate dosing and spraying

- High accuracy and consistency, with pressure pump and optional massic flowmeter
- Motorized filter
- Double jacketed networks
- Spraybar extraction for easy maintenance



### Chocolate spray guns

- Hot jacket water and air spray system to give fine droplets
- Over-wetting at end of the process for smoothing



Green : command air  
Blue : atomization air  
Red : hot water circulation  
Yellow : chocolate

## VARNISHING

### Varnishing solution tanks

For aqueous and alcoholic solution

### Varnish dosing systems

for controlled steps

**Varnish spraying systems in the pan**  
with airless spray guns



Varnishing of chocolate coated products will usually consist in 1 to 3 layers of aqueous varnish and layer of shellac

**Varnishing takes place after chocolate coating in the same batch**

## POWDER DISTRIBUTION

### To include into the chocolate coating

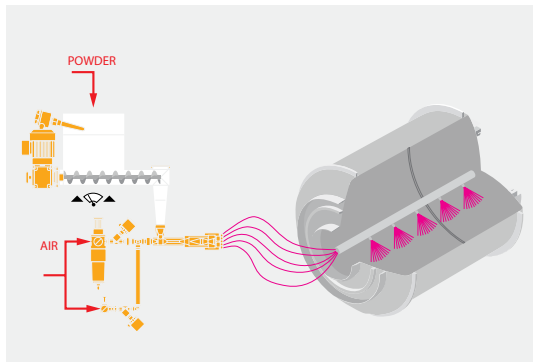
solid ingredients like nut bits, expanded balls...

### To cover finished products

with cocoa powder, icing sugar...

### Accurate system

with powder dosing / weighing and compressed air powder transport



## AIR TREATMENT GROUP

### Process Air

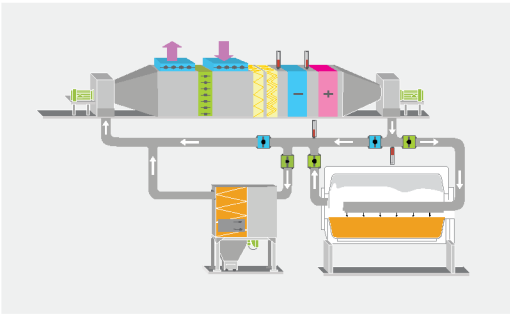
- Airflow, temperature and humidity control
- Perfect repeatability

### Exhaust Air

- Negative pressure inside pan
- Optional for dusty centers :  
Filter with pneumatic cleaning  
and dust collection

### Closed system for energy saving

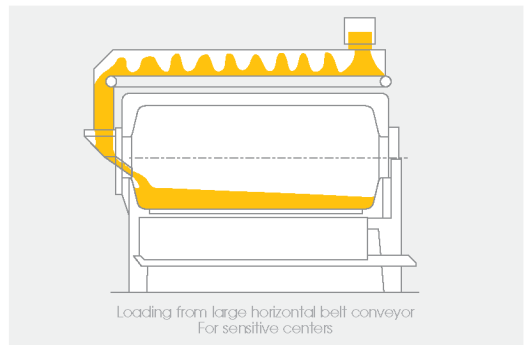
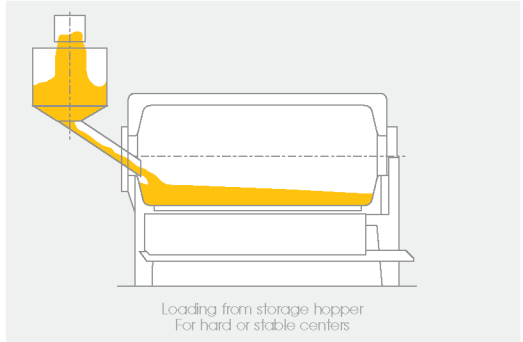
- Recirculation during chocolate coating (cool air) and fresh air intake during varnishing



## LOADING SYSTEM

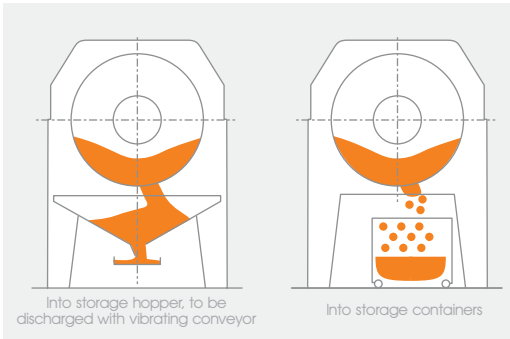
### Custom design solutions

- According to products fragility
- Adapted to batch size and facility layout
- Wide range of dosing conveyors, elevators, belts



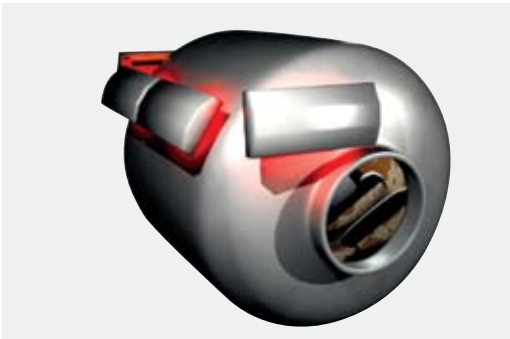
## UNLOADING SYSTEM

**Fast unloading system by traps** allowing to start next batch very quickly



## INFRARED CLEANING SYSTEM

- Used to melt down chocolate from previous batch, thus building first layers of new batch
- Less cleaning, more chocolate recovered



## DEVELOPMENT AND ASSISTANCE

### Industrial scale laboratory

Equipped with 250kg and 500kg coating machines  
Recipe development with your products

### On-site assistance

Operators and maintenance staff training  
Process development and improvement



## AUTOMATION

### Effective control of the coating process with different possibilities

#### IDA PROG3

The basic solution for quality coatings with simple machine handling

- Automatic coating cycle according to programmed recipes.
- Semi automatic controls for loading, unloading and washing functions.

#### IDA PROG4

Fully automated system allowing to customize all machine parameters

- Automatic coating cycle according to user-friendly recipe building module
- All functions run from operator terminal including programmable sequences
- Overview screens for installation status
- Possibility to network with other machines and supervision system

#### IDA PROG5

The ultimate process, production and quality control. Supervisory Control and Data Acquisition (SCADA)

- Batch data recording and displaying
- Historical trends and fault reports
- Recipes download to IDA coaters
- Real-time overview of networked coaters



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