

IDA-C
Chocolate coating
and varnishing



IDA-C
FULL AUTOMATIC
INSTALLATION
FOR CHOCOLATE
COATING
AND VARNISHING

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

Conception : Iceberg

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Dumoulin

IDA-C

FULL AUTOMATIC INSTALLATION FOR CHOCOLATE COATING AND VARNISHING

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

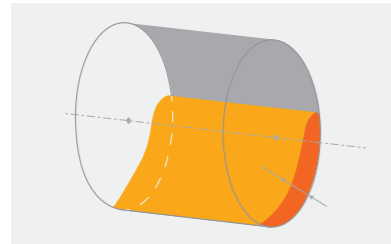
PRODUCTS RANGE

- 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

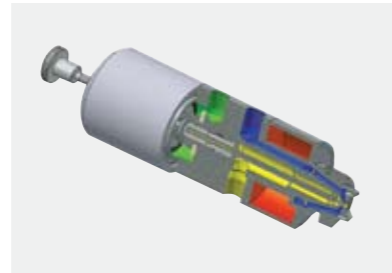
- Chocolate storage**
- Modular custom design
 - Double jacketed tanks with stirrer and level control
 - Use of melted chocolate, no need to temper

- 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

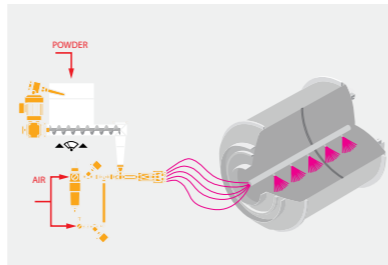
- Varnishing solution tanks**
For aqueous and alcoholic solution
- Varnish dosing systems**
for controlled steps
- Varnish spraying systems in the pan**
with airless spray guns



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

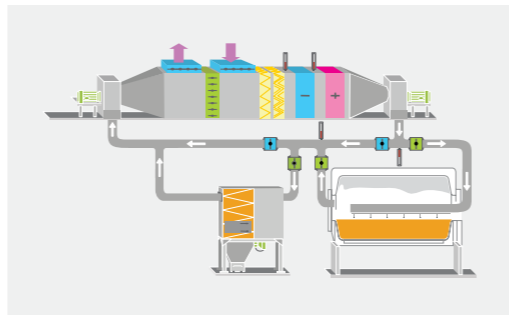
Machine type	502CV	1002CV	2002CV	3002CV
Airflow (m3/h)	3000	6000	12000	18000

Exhaust Air

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

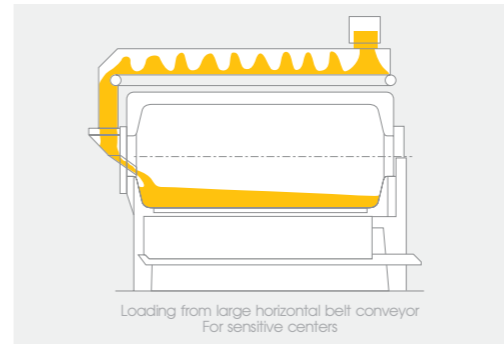
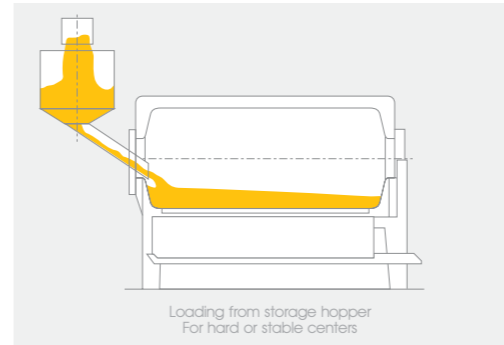
Closed system for energy saving

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



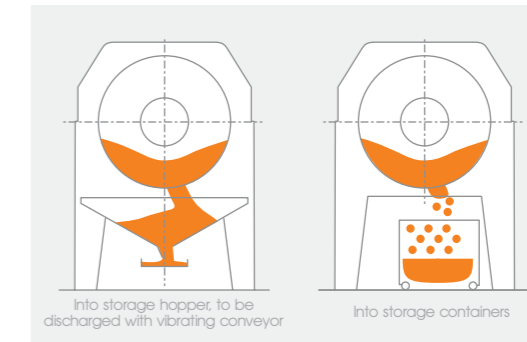
LOADING SYSTEM

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



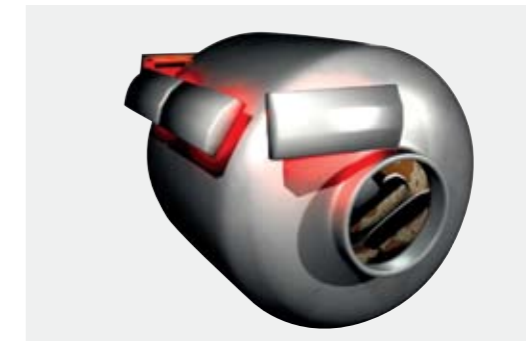
UNLOADING SYSTEM

- 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