

IDA-C

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

Dumoulin





IDA-C

FULL AUTOMATIC
INSTALLATION
FOR CHOCOLATE
COATING
AND VARNISHING

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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

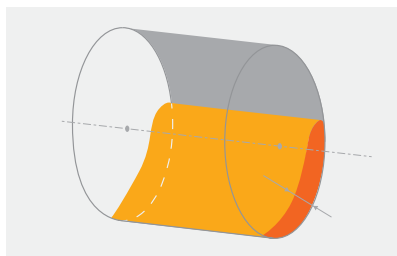
A wide range of coatings

- 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

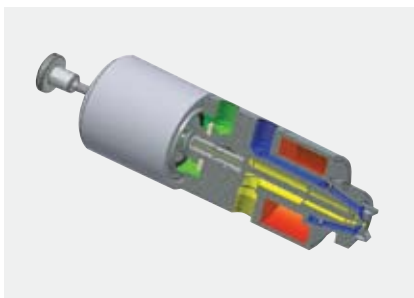
Chocolate dosing and spraying

- 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

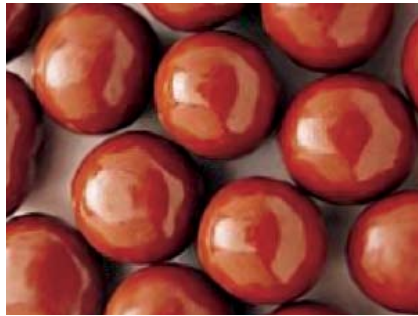
For aqueous and alcoholic solution

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

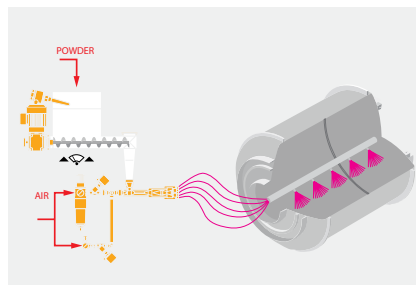
solid ingredients like nut bits, expanded balls...

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

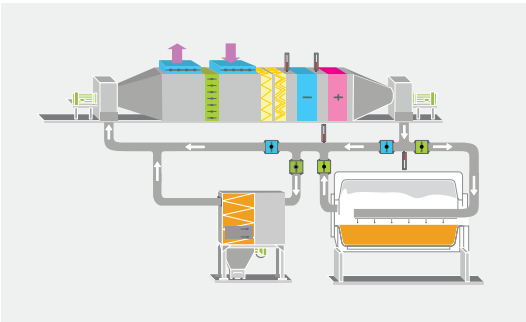
Machine type	502CV	1002CV	2002CV	3002CV
Airflow (m3/h)	3000	6000	12000	18000

Exhaust Air

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

Closed system for energy saving

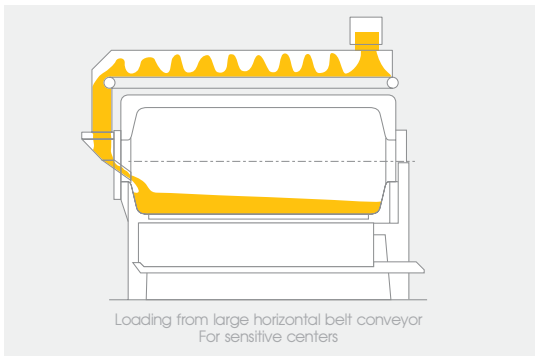
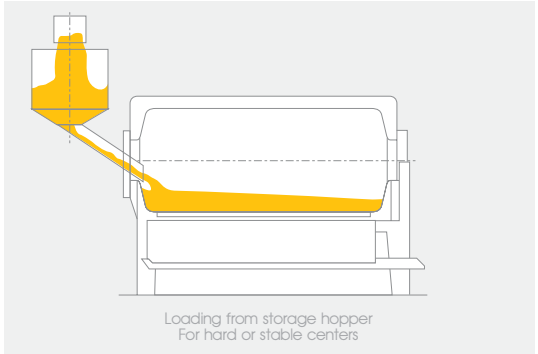
- Recirculation during chocolate coating (cool air) and fresh air intake during varnishing



LOADING SYSTEM

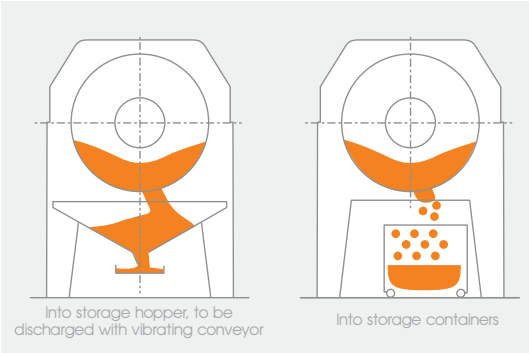
Custom design solutions

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



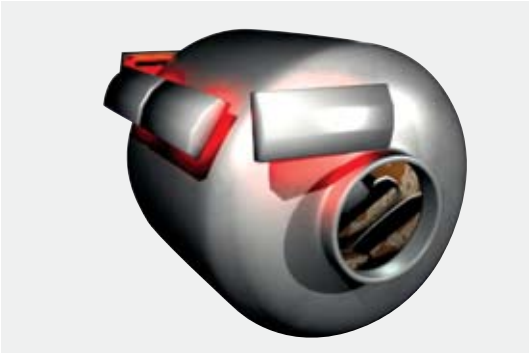
UNLOADING SYSTEM

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

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