



caleva

TECHNICAL SPECIFICATIONS

PRODUCTION

CALEVA

# 100 KG PER HOUR EXTRUSION AND SPHERONIZATION SYSTEM

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## TECHNICAL SPECIFICATION



## THE 100 KG PER HOUR EXTRUSION AND SPHERONIZATION SYSTEM

The Caleva 100 kg per hour extrusion and spheronization system consists of a production screen Extruder 35 and a Caleva production Spheronizer 500

### THE CALEVA PRODUCTION SCREEN EXTRUDER 35

#### ✓ DESCRIPTION

The Caleva Extruder 35 is a cost effective screen extruder ideal for many pharmaceutical and other industrial formulations. It is designed to produce low pressure extrudate at high capacity. It is suitable for product development, pilot plant and full scale production.

#### ✓ EXTRUDER CAPACITY

The extruder has a measured operating capacity of up to 3kg per minute, (product dependent), with a minimum batch size of approximately 500g. Product capacity is dependent on both operational parameters and the characteristics of the formulation being extruded. The figure quoted may be exceeded or not reached.

#### ✓ STANDARD CONFIGURATION

##### ○ Mechanical

Size: Approximately 900 mm d x 700 mm w x 1150 mm h  
Weight: Approximately 150 kg  
Cabinet: Brushed Type 304 Stainless Steel  
Product Contact Parts: 316 Stainless Steel and polycarbonate

#### ✓ SUPPLIED AS STANDARD

○ **Extrusion Screen:** Full height, 150 mm inside diameter by 65 mm height by 1 mm thick and with 1.0 mm diameter holes, stainless steel. It is possible to supply extrusion screens with hole diameters other than those listed. Please contact Caleva to discuss your specific requirement. Screen hole diameters are available range from 0.5mm diameter up to 2.0 mm diameter.

○ **Product Feed:** Manual, loaded through top loading aperture placed at a convenient height for manual loading.

○ **Water jacket for cooling:** The rear plate of the spheronization chamber contains connections to allow a flow of cooling water to be run across the back plate to removes some of the heat generate by the extrusion process.

○ **Temperature Measurement:** The temperature of the extrudate is measured as it comes through the extrusion screen by an infrared detector located on the safety



cover. An instantaneous and continuous reading is given.

- **Power measurement:** A reading of power usage by the extruder during operation is displayed on the control screen

### ✓ ELECTRICAL AND CONTROL

- **Motor Power:** 2.2 KwAC
- **Electrical Supply:** 400 460 Volts, 3 Phase
- **Front panel mounted controls comprising:** Stop, start, emergency stop, power connected indicator, motor running indicator, variable speed control with a digital display of rotation speed, product temperature, amperes used.
- **The Extruder 35 is supplied fully functional no additional options are required.**



## THE CALEVA PRODUCTION & PILOT-SCALE SPHERONIZER 500

### ✓ DESCRIPTION

- Designed for pilot scale and production spheronization. A floor standing, robust, production spheronizer with a production rate of up to about 100 kg per hour. Production rates are product and process dependent and may exceed or not reach this figure.

### ✓ OPERATING CAPACITY

About 100 kg per hour (product dependant)

### ✓ MIN/MAX BATCH SIZE

**Minimum:** 2 kg. **Maximum:** Up to 8 kg (product dependent). A batch size of 4 to 6 kg is considered normal.

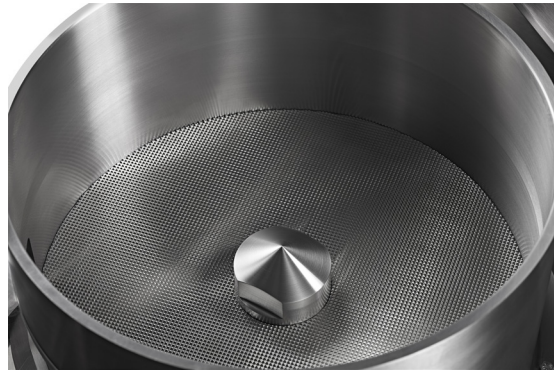
### ✓ MECHANICAL:

- **Size:** Approximately 1250w x 800d x 1300 mm
- **Weight:** Approximately 320 Kg
- **Cabinet:** Brushed Type 304 Stainless Steel
- **Product Contact Parts:** 316 stainless steel and polycarbonate
- **Standard disc supplied:** One 3mm cross hatch pattern spheronizer disc supplied as standard Other disc patterns are available.
- **Product feed:** Manual
- **Product discharge:** Automatic. An "air blast" gun is included in the standard

# CALEVA 100 KG PER HOUR SYSTEM

machine to assist in the cleaning of the discharge door and thus throughput rates. This can be particularly useful with products known to be sticky.

- **Product contact parts:**
  - 316 Stainless Steel:
    - Spheronizing Drum
    - Standard Disc 500 mm Dia.
    - 3mmx3mm square pitch
    - Discharge door
    - Discharge chute
  - Transparent polycarbonate
    - Drum lid and chute cover



## ✓ ELECTRICAL CONTROL

- **Motor Power:** 4.0 kW AC motor. Motor speed infinitely variable
- **Electrical Supply:** 400 VAC, 50 Hz or 460 VAC, 60 Hz 3 ph 5.5 A
- **Front panel mounted controls comprising:** Stop, start, emergency stop, power connected indicator, motor running indicator, variable speed control with a digital display of rotationspeed, rpm indicator with digital read out, automatic electric run timer control showing run time remaining.



## ✓ OTHER TECHNICAL DATA

- Standard 3x3 mm cross hatch pattern disc
- Fully safety interlocked for your protection. Safety interlocks on drum lid, product discharge chute and cover
- Infinitely variable speed between approximately 300 to 800 rpm
- Speed control Inverter Integrated speed display
- Pneumatically operated product door
- Water jacket (as standard)
- Automatic timer (as standard)

## TALK TO US

Please call us without obligation

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Cert No. 1503  
ISO 9001