

AMProse

Chocolate Chip Depositor



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A Chocolate chip depositor designed to make chips of 0.05gm to 2.0gm @20strokes/minute, with a maximum output of 250 kg/hour.

The body of the depositor has twin jacketed hoppers manufactured in 316 stainless steel. The depositor is a twin rotary valve with horizontal piston design. Each chocolate piston drive shaft assembly is driven by an inline planetary gearbox and servo motor. The maximum stroke of the piston drive bar is 70mm.

Chocolate deposit and suction strokes are adjusted directly from a suitable PLC unit. Piston suck back can be adjusted for speed and stroke or can be eliminated altogether. 96 pistons are mounted on two drive bars (48 on each) and retained by two keep plates. Pistons can be disconnected and easily removed for cleaning by lifting the keep plates and extracting them through the drive bar. Each drive bar is supported on bearings by two shafts to ensure a horizontal movement throughout the piston stroke.

The depositor head will oscillate from left to right during the chocolate deposit stroke synchronised with the conveyor speed and then return to its park position. The head is mounted on linear bearings and driven by a servo motor.

The nozzle plate assembly is easily removable for cleaning or changing the deposit pattern and weight of the finished product. All contact parts are 316 stainless steel, with an anodized aluminium nozzle plate assembly. The twin hopper design allows different product material to be deposited simultaneously and each hopper has an individual stirrer for good mixing and circulation of the product. The hoppers are individually heated by a temperature controlled water jacket.

All areas of the machine are guarded and interlocked to international standards CE marking is available if required.



Technical Specification

Maximum output	250 kg/hr
Chip weight range	0.05gm - 2.0gm
Hoppers	316 stainless steel
Main frame	304 stainless steel or mild steel/paint finish
Nozzle plate assembly	Aluminium Alloy Hp30
Left side pistons	48 off at 15mm diameter 316 stainless steel
Left side pistons stroke	70mm maximum
Right side pistons	48 off at 15mm diameter 316 stainless steel
Right side piston stroke	70mm maximum
Rotary valves	2 off at 80mm diameter 316 stainless steel
Depositor speed	20 piston strokes per minute maximum
Depositor head oscillating stroke	200mm maximum
Capacity per piston	15gms chocolate @ 1.24gms /cc
Left /right piston drives	Servo motor with planetary Gearboxes
Depositor head oscillating drives	Servo motor
Rotary valve drives x 2	Each rotary valve is driven by a pneumatic cylinder, operated by a 5/2 single solenoid spring return valve
Hopper paddle drives x2	Each hopper paddle is driven by a pneumatic cylinder operated by a 5/2 single solenoid spring return valve and sequenced by a timer.
Belt Lift	The belt lift mechanism is driven by 4 pneumatic cylinders operated by a 5/2 single solenoid spring return valve
Low air pressure	A pressure switch is pre-set to ensure a minimum air pressure in the system. In the event of low air pressure, emergency stop conditions apply
Mains	415v, 50Hz, 3ph
Control	Solenoid valves 24c DC
Air	6 Bar - 1/2 inch BSP feed
Water In/Out	15mm copper pipe
Hopper Water Pressure	2 Bar Max.

Cooling Tunnel

A 21 Meter cooling tunnel is provided as standard length can be varied if required.

Technical Specification

- 800mm wide PU belt
- Electricity: 400V 3-phase, 230V 1 -phase, 50HZ
- 2 x 15 H.P "Copeland" cooling compressors using R22 refrigerant with 2 water cooling condensers
- Rollers under belt using Ss304
- 50mm insulation pre-painted mild steel sheet sandwich panels.
- Hoods to be hinged and supported by gas struts with handles
- Cylinder tracking device and tensioners
- Speed variable via motor/gear box and AC variable frequency inverter
- Belt drive motor 3kw.



Chocolate/Fat Melters

The chocolate melters were designed to continuously melt chocolate, compound, butter and fat, whether in chip/button or block form.

They have a holding unit, which enables you to draw from the tank whilst still melting the product. The chocolate melters have large melting grills for high melt rates, yet it still does not produce lumps, or change the viscosity and temperature.

The design of the melters have been manufactured with safety in mind, as they have a low loading height, of 1100mm, which means there is not a need for stairs or gantries.

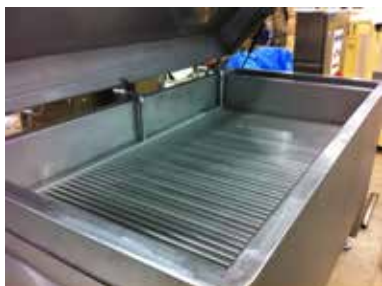
Features

- Integral heating system and control panel
- Stainless steel construction, with all contact parts 316 stainless steel
- The holding tank can stir for chocolate and not for fat
- Option for 2 heating systems, so you can have one temperature for melting and another for holding, if required
- Option for chocolate/fat pump and jacketed pipeline

Capacity

- 100kg/hr melt rate with holding capacity of 200kg
- 250kg/hr melt rate with holding capacity of 500kg
- 375kg/hr melt rate with holding capacity of 750kg
- 500kg/hr melt rate with holding capacity of 1000kg

....other sizes on request.



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