

**Advantages**

- Compact design
- Proven, simple, reliable design
- Easy, fully automatic operation
- Easy to adjust to varying operating conditions
- Exact retention time control
- Optimum movement of the product
- Quick exchangeable bottom and liner
- Possible to use different grit size for early and late season
- Very low down-time compared to continuous peelers
- Low maintenance costs
- Attractive investment costs
- Sturdy execution suitable for 24/7 operation

**Principle**

The peeler is developed to peel potatoes mechanically by abrasion of the skin especially for potato chips, french fries and flakes. Operation is a batch process, therefore to ensure a continuous flow of peeled potatoes at different capacities to the production line, arrangements from one up to six machines are available.

**Function**

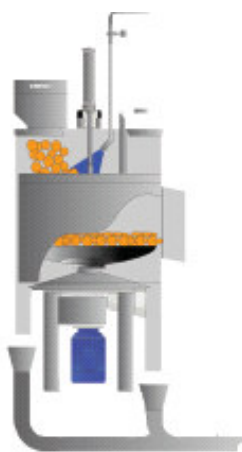
The potatoes are fed into the peeler in batches and are released again before the next batch is introduced. The peeler disc rotates giving the potatoes a centrifugal force which makes them rub against the peeler mantle. As the peeler disc and mantle are covered with carborundum grain, the skin is peeled off. To optimise the peeling process the disc drive is equipped with a frequency controlled drive.

A weigh hopper is installed on top of the peeler arrangement to ensure equal batch weights and short filling time. The batch is prepared in the weigh hopper on top of the peeler, while the peelers are still working on the previous batch. The potatoes are transported to the weigh hopper by means of an infeed belt, screw or vibratory feeder. As soon as the set weight load in the weigh hopper is reached, the PLC stops the infeed. Immediately after discharging the previous batch the door to the peeler opens. The batch is fed to the peeler and the disc rotates at a reduced speed to prevent damage to the potatoes. After the batch has been fed to the peeler, the door closes and the disc speeds up to its set point. The infeed is switched on again until the next batch is reached.

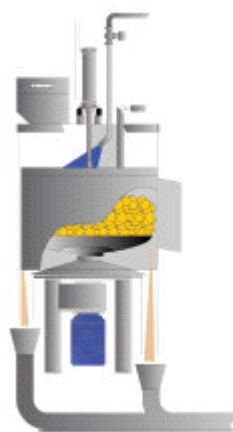
The whole operation of the peeler is controlled by a PLC with integrated weigh processor. The batch weight, batch times and disc speeds during filling, peeling and discharge can be set at the control panel, according to the type and quality of the potatoes (e.g. hard and soft potatoes) and the degree of peeling required.

Cleaning and maintenance require little effort and time.

In case the disc or the mantle is worn they can be changed very quickly, so that the peeler suffers very little downtime. The carborundum grit may be re-placed on site or you can send the worn parts to BMA for repair.



Filling



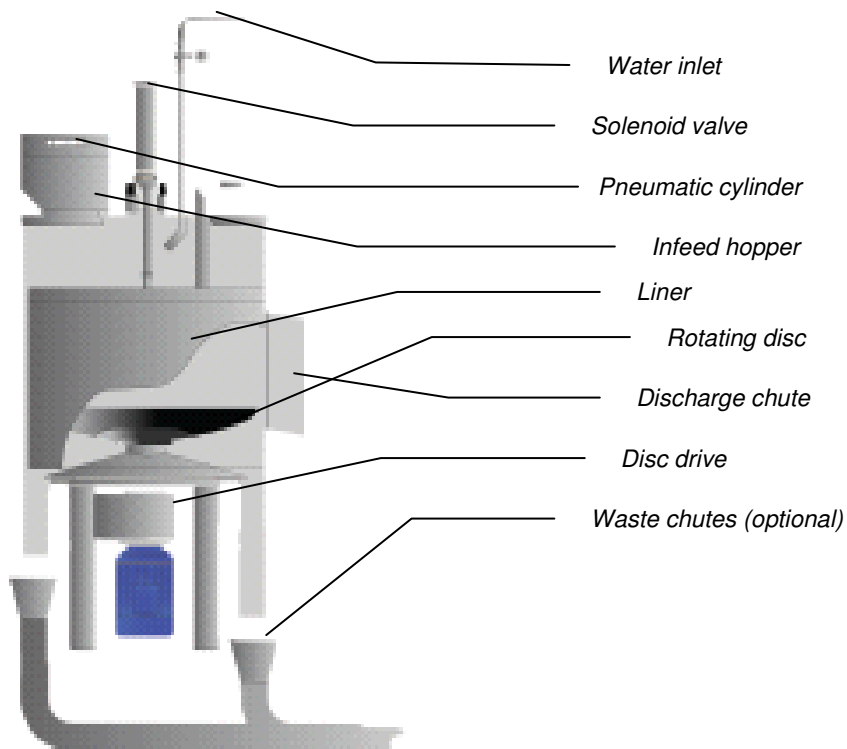
Peeling



Discharge

Typical example of one cycle	
Charge time	5 - 7 seconds
Peeling time	10 - 25 seconds
Discharge time	7 - 10 seconds

Standard technical specifications	
Voltage	230/400/V, 50 Hz
Power consumption	4 kW
Water consumption	0.5m <sup>3</sup> /1000 kg potatoes
Water supply	Min. 3 bar
Compr. Air supply	6 bar Nm (0,5 Nm <sup>3</sup> /hr)
Max load	50kg/charge
Speed of disc	185 rpm
Grit size	16/20/24 per square inch (or Mix)





#### ***Triple execution***

- Single execution: up to 2,500 kg / hr
- Double execution: up to 5,000 kg / hr
- Triple execution: up to 7,500 kg / hr
- 2x Double execution: up to 10,000 kg / hr
- 3x Double execution: up to 15,000 kg / hr

#### **Note:**

Capacities based on peeling time of 40 sec (Cycle time 60 sec). Up to three machines may be arranged in one group and fed by a common weigh hopper. The weighing hopper is equipped with a weigh processor as a standard, except for the single execution which is normally equipped with a counter weight and operator time controlled.

#### ***Additional systems***

Additional to the different peeler arrangements BMA also supplies water recovery systems to reduce water consumption of the peeling process.

This system consists of a rotary screen, a dewatering press and a hydro-cyclone system.





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