DORNOW
food technology

The DORNOW Blade Peeling Technology
Various Options for Planning the Plant

1. The continuous "multiple-blade-disc peeling machines (MSS)". Construction: Arrangement of many small blade peeling discs on an horizontal surface with a conveying device moving over this surface.

2. The continuous blade peeling lines SBS-M ("step-by-step" blade peeling plants), working in steps.

3. The carrousel blade peeling plants.

4. The tandem arrangement of conventional blade peeling machines mounted beside one another (plants with components connected in series)

5. Direct connection of blade peeling units to carborundum roller peeling machines

Which of the plants, and under which conditions, can be used in the most economic and efficient way depends on several different factors, among other things also on the availabe space, the required capacity etc.

Further below we are going to deal with the various options:

As for 1: The continuous "multiple-blade-disc peeling machines (MSS)".

The special features of the plant:

- Arrangement of many small fast-rotating (adjustable) blade peeling discs on an horizontal surface.
- A conveying device moves the potatoes over these rotating blade discs.
- The filling of the machines is to be adjustable.
- The speed of both the blade peeling discs and the conveying device are adjustable.
- The machines are available in three sizes. The capacities are, when feeding potatoes already pre-peeled with carborundum, between 600 and 1500 kg/h (depending on the size of machines).
- The blade discs can be moved out of the machine by means of an assembly on wheels. They can be quickly mounted and dismantled.
- The peeling is carried out in a very careful and gentle way which improves the keeping quality of the peeled potatoes (longer durability) .

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As for 2: The continuously working blade peeling lines SBS-M ("step-by-step" blade peeling plants), working in steps

Here are some of the special features of the plant:

- Uncomplicated technical construction, thus very low maintenance costs
- Low investment costs, resulting from plain design and technique
- Modular connection of components possible; the capacity of the blade peeling line can be enhanced by the addition of further components
- Throughputs of 500 kg up to max. 800 kg/h with potatoes pre-peeled by means of carborundum
- Throughputs of 400 kg up to 700 kg/h if raw potatoes are fed in
- The blade peeling line can also be supplied/retooled as combined carborundum blade peeling line (SBS-KM)
- It can work without water/waste water

As for 3: Carrousel blade peeling plants

The DORNOW carrousel blade peeling plant works as follows:
Four containers fixed on a central axle move the potatoes, in cycles, over the stationary mounted rotating blade peeling or carborundum discs. The application of both pure blade peeling and combined carborundum blade peeling is possible.
- The plant can work on its own or be used as blade re-peeling system after previous carborundum peeling. In the latter case the throughput will amount to some 1.2 tons/h.

As for 4: The tandem arrangement of conventional blade peeling machines mounted beside one another (machines connected in series)

The conventional blade peeling machines have a high throughput if they are fed with material that has already been pre-peeled by means of carborundum peeling machines - which is the case as a rule. If, for instance, three machines from a series production, mounted beside one another, are automated, they can reach a throughput of 1 to 1.2 tons/h. In this way it is possible to automate 2 to 5 or more machines.

As for 5: Direct connection of blade peeling units to roller peeling machines

In case of capacities of up to 750 kg/h it is possible to place blade peeling units directly behind roller peeling machines.

Final note:

Which solution you are going to opt for will depend on the situation in the factory and other factors.

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Relevant treatises:

Q 02: "The big program **DORNOW Mechanical Peeling Machines** "

Q 05: "**An Approach to Building a** Modern and Efficient **Peeling System** for Potatoes and other Tubers and Roots in a Potato Peeling Factory"

Q 15: "An **Invitation to Visit** various Peeling Plants"

Q 19: "The Fully Automatic DORNOW 'Step-by-Step' **Blade Peeling System SBS-M**"

Q 23: "The Combined DORNOW 'Step-by-Step' **Carborundum Blade Peeling Systems SBS-KM**"

Q 26: "The DORNOW **Roller Peeling Machines** of the **R-OW Series** in Industrial Peeling Plants and in the Potato Processing Industry"

Q 28: "**Blade Peeling in Industrial Potato Peeling Factories** - Necessity or Luxury?"

Q 34: "**Continuously Working Blade Peeling Lines**"

Q 63: "What is the Meaning of '**Peeling without Water and Waste Water**' (on Mechanical Peeling Machines)?"

Q 72: "**Micro Fine Grain Peeling**, especially in Potato Processing Plants"

Q 73: "The 'Slot' Batch **Automatic Carborundum Peeling Machines '30K-OA-Automatic' and '60K-OA-Automatic'** - Circular Peeling Machines Without Waste Water"

Q105: "The Continuous "**Multiple-blade-disc Peeling Machines (MSS)**", Production Series AM, BM and CM

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A list of interesting articles and essays regarding the topics of the preparation and processing of tubers and vegetables and associated specialist areas can be found at our Internet site at www.dornow.de, Treatises.

Review of your current peeling results or before the purchase of a peeling machine or system:

Realistic test peelings with the most diverse peeling systems, with the most diverse tubers and root vegetables, some fruit, with your raw produce are possible in our Peeling Test Center!

For more information: www.dornow.de

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