DORNOW
food technology

Blade Peeling Plants

Continuously Working Blade Peeling Lines

1. Drum blade peeling machines,

2. Continuous "multi-blade-disc peeling plants (MSS)",

3. DORNOW SBS "step-by-step" blade peeling plants, working in steps

As a leading enterprise in the field of mechanical peeling technology DORNOW has been working constantly on new developments. In this connection we have examined, during the last few years, many practicable designs of continuously working blade peeling lines.

As to 1. One might think, for instance, of rotating blade drums (with "blade walls") in which the potatoes to be peeled are fed. We dismissed this constructional possibility because it cannot be guaranteed that the potatoes are accurately peeled. Uncontrolled and irregular peeling results in unnecessarily high waste rates.

Practical work has shown that the potatoes have to be left for a relatively long time in a drum-type blade peeling machine, with a waste peel rate of at least 30 per cent, in order that the blades reach every point of the potatoes pre-peeled by means of carborundum. Thus it becomes evident that the peeling process is irregular and uncontrolled which brings about a higher waste rate than necessary.

As to 2. Special features of "multi-blade disc peeling machines" ("MMS" as a blade model):

- Arrangement of many small fast-rotating 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 carried out continuously and adjustably.
- 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 approx. 600 and approx. 1500 kg/h (depending on the size of machines).

Dornow food technology GmbH, Schiess-Str. 62, D-40549 Düsseldorf - Germany, USt-Id.-Nr. DE119264470
Telefon++49(0)211-527060, Mobiltelefon ++49(0)172-2614932, Fax ++49(0)211-596883, E-mail office@dornow.de, Internet: www.dornow.de,
Commerzbank AG, Konto-Nr. 1452333, BLZ 300 400 00, Geschäftsführer Karl-Dietrich Dornow, Amtsgericht Düsseldorf, HRB 22597

- 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 machines can peel without producing waste water by means of an additional equipment.

As to 3. <u>Capacities of the SBS-M-(Messer = blade) system (in kg/h of finished products, approximate values):</u>

(When using potatoes neatly pre-peeled by means of carborundum from medium to big sorting sizes)

SBS-M-I: 500 - 600, with 1 x peeling unit 20 M-AT,
SBS-M II: 700 - 800, with 2 x 20 M-AT,

You can find an illustration of a SBS - II - peeling system in our prospectus 108, page 5, picture 16.

- The "step-by-step" blade peeling system may consist of one peeling unit or of two peeling units of the type "20 M-AT"
  Throughputs: as cited above in kg/hr of finished produce, when using potatoes relatively well pre-peeled by carborundum.

- The peeling can be carried out either totally dry or in atomised water. This way of processing does not necessarily produce waste water. The quantity of water produced by the process of atomising is very small and will "disappear" with the waste peel.

- The "step-by-step" blade peeling plant can easily be connected to a carborundum roller peeling system, i. e. to a pre-peeling system.

- The peeling units are constructed in a way that guarantees a **smooth and uniform** peeling. That is why there will not be much waste. The blade peeling units will normally account for 10 to 15 per cent of the total peeling capacity, while the pre-connected and separately working carborundum pre-peeler accounts for some 85 to 90 per cent.

- The construction is very sturdy and permits easy maintenance. Few spare parts required. Simple technology. The peeling elements can, if necessary, be exchanged in a short time.

- The plant includes a precisely working weighing and dosing device. This has to be purchased only once, even if further peeling units will be added later.

Dornow food technology GmbH, Schiess-Str. 62, D-40549 Düsseldorf - Germany, USt-Id.-Nr. DE119264470
Telefon++49(0)211-527060, Mobiltelefon ++49(0)172-2614932, Fax ++49(0)211-596883, E-mail office@dornow.de, Internet: www.dornow.de,
Commerzbank AG, Konto-Nr. 1452333, BLZ 300 400 00, Geschäftsführer Karl-Dietrich Dornow, Amtsgericht Düsseldorf, HRB 22597

DORNOW
food technology

Please read also the following papers:

Q 19 "The fully automatic DORNOW step-by-step" **blade peeling system SBS-M**"

Q26 "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 72 "**Micro fine-grain peeling**, especially in potato processing plants"

Q 92 "The **DORNOW blade peeling technology** - various options for planning the plant"

Q 104 "**Steam peeling** - Mechanical peeling in small-scale, medium-sized and large-scale industrial enterprises - Where to apply which peeling methods?"

Q 105 "The continuous **'multiple-blade-disc peeling machines (MSS)**', series AM, BM and CM"

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

Dornow food technology GmbH, Schiess-Str. 62, D-40549 Düsseldorf - Germany, USt-Id.-Nr. DE119264470
Telefon++49(0)211-527060, Mobiltelefon ++49(0)172-2614932, Fax ++49(0)211-596883, E-mail office@dornow.de, Internet: www.dornow.de,
Commerzbank AG, Konto-Nr. 1452333, BLZ 300 400 00, Geschäftsführer Karl-Dietrich Dornow, Amtsgericht Düsseldorf, HRB 22597