

Dornow Peeling Technology

DORNOW Mechanical Peeling Machines

Working without waste water in nearly all ranges of application.

for peeling potatoes, carrots, celery roots, beetroot (cooked and uncooked), onions and other tubers and root vegetables, partly also of fruit and subtropical and tropical fruit, too.

Our broad range of products comprises:

1. <u>DORNOW roller peeling machines of the R-OW-series</u>

Continuously working, without waste water (in nearly all ranges of application), with the strong DORNOW-technology, suitable for **the peeling**, **pre-peeling and re- peeling of tubers and root vegetables** as well as for the peeling of some **tropical and subtropical fruit**. The peeling rollers are coated with carborundum granulation. "Micro-fine grain peeling" possible. Available in all sizes.

Machines of the R-OW-series with peeling rollers approx. 3 m in length (0151 et segg., 0160):

| 1.1.1 | R-OW-Mini-A | Inner diameter 500 mm, smaller capacity | Artno. 0160 |
|--------|-------------|--|-------------|
| 1.1.2 | R-OW- 60-A | Inner diameter 600 mm, small to medium capacity | Artno. 0151 |
| 1.1.3 | R-OW- 90-A | Inner diameter 900 mm, small to medium capacity | Artno. 0152 |
| 1.1.4 | R-OW-110-A | Inner diameter 1100 mm, medium to large capacity | Artno. 0153 |
| 1.1.5 | R-OW-130-A | Inner diameter 1300 mm, large capacity | Artno. 0154 |
| 1.1.6 | R-OW-150-A | Inner diameter 1500 mm, very large capacity | Artno. 0155 |
| 1.1.7 | R-OW-170-A | Inner-diameter 1700 mm, very large capacity | Artno. 0156 |
| 1.1.8 | R-OW-190-A | Inner-diameter 1900 mm, very large capacity | Artno. 0157 |
| 1.1.9 | R-OW-220-A | Inner-diameter 2200 mm, very large capacity | Artno. 0158 |
| 1.1.10 | R-OW-250-A | Inner-diameter 2500 mm, very large capacity | Artno. 0159 |



Machines of the R-OW-series with peeling rollers approx. 4 m in length (8265 et seqq.):

| 1.1.11 | R-OW-Mini-A1 | Inner diameter 500 mm | Artno. 8265 |
|--------|--------------|------------------------|-------------|
| 1.1.12 | R-OW- 60-A1 | Inner diameter 600 mm | Artno. 8266 |
| 1.1.13 | R-OW- 90-A 1 | Inner diameter 900 mm | Artno. 8267 |
| 1.1.14 | R-OW-110-A1 | Inner diameter 1100 mm | Artno. 8268 |
| 1.1.15 | R-OW-130-A1 | Inner diameter 1300 mm | Artno. 8269 |
| 1.1.16 | R-OW-150-A1 | Inner diameter 1500 mm | Artno. 8270 |
| 1.1.17 | R-OW-170-A1 | Inner-diameter 1700 mm | Artno. 8271 |
| 1.1.18 | R-OW-190-A1 | Inner-diameter 1900 mm | Artno. 8272 |
| 1.1.19 | R-OW-220-A1 | Inner-diameter 2200 mm | Artno. 8273 |
| 1.1.20 | R-OW-250-A1 | Inner-diameter 2500 mm | Artno. 8274 |

Machines of the R-OW-series with peeling rollers approx. 2 m in length, also suitable as pre-peelers for blade-type peeling machines (8050 et segg.):

| 1. | .1.21 | R-OW-500-B | Inner diameter 500 mm, smaller capacity | Artno. 8050 |
|----|-------|------------|---|-------------|
| 1. | .1.22 | R-OW-600-B | Inner diameter 600 mm, small to medium capacity | Artno. 8051 |
| 1. | .1.23 | R-OW-900-B | Inner diameter 900 mm, medium capacity | Artno. 8052 |



2. Dornow - roller peeling machines "100" series

We also construct roller peeling machines with a roller diameter (= diameter peeling rollers) approx. 100mm.

These machines are available in different versions and sizes:

Types:

| DORNOW type - | Item no. | Length of roller in m, approx. | Screw conveyor di- ameter, in mm, approx. | Capacity |
|------------------|----------|--------------------------------|---|------------|
| | | | | |
| R503-100KK-S50 | 8200 | 3 | 500 | small |
| R603-100KK-S60 | 8201 | 3 | 600 | small |
| R803-100KK-S80 | 8202 | 3 | 800 | small |
| R903-100KK-S90 | 8203 | 3 | 900 | medium |
| R3008-100KK-S100 | 8204 | 3 | 1000 | large |
| R3010-100KK-S120 | 8205 | 3 | 1200 | large |
| R3012-100KK-S120 | 8206 | 3 | 1200 | large |
| R3014-100KK-S130 | 8207 | 3 | 1300 | very large |
| R3014-100KK-S150 | 8208 | 3 | 1500 | very large |
| R3016-100KK-S170 | 8209 | 3 | 1700 | very large |
| R3016-100KK-S190 | 8210 | 3 | 1900 | very large |
| R3018-100KK-S220 | 8211 | 3 | 2200 | very large |
| R3018-100KK-S250 | 8212 | 3 | 2500 | very large |
| | | | | |
| R504-100KK-S50 | 8280 | 4 | 500 | small |
| R604-100KK-S60 | 8281 | 4 | 600 | small |
| R804-100KK-S80 | 8282 | 4 | 800 | small |
| R904-100KK-S90 | 8283 | 4 | 900 | medium |
| R4008-100KK-S100 | 8284 | 4 | 1000 | large |
| R4010-100KK-S120 | 8285 | 4 | 1200 | large |
| R4012-100KK-S120 | 8286 | 4 | 1200 | large |
| R4014-100KK-S130 | 8287 | 4 | 1300 | large |
| R4014-100KK-S150 | 8288 | 4 | 1500 | very large |
| R4016-100KK-S170 | 8289 | 4 | 1700 | very large |
| R4016-100KK-S190 | 8290 | 4 | 1900 | very large |
| R4018-100KK-S220 | 8291 | 4 | 2200 | very large |
| R4018-100KK-S250 | 8292 | 4 | 2500 | very large |
| R502-100KK-S50 | 8215 | 2 | 500 | small |
| R602-100KK-S60 | 8216 | 2 | 600 | small |
| R802-100KK-S80 | 8217 | 2 | 800 | small |
| R902-100KK-S90 | 8218 | 2 | 900 | small |
| | | | | |



3. Continuous multi disc peeling machines "MSS"

Construction: arrangement of many small peeling discs (blade or carborundum peeling discs) on an horizontal area with a conveying device moving over this area. Very smooth peeling results are possible! – With the necessary additional equipment the machines can peel, in nearly all ranges of application, without producing waste water. – For the peeling or re-peeling of nearly all tubers and root vegetables, partly of fruit, too. Soft peeling process!

The machines are available as different models:

3.1 as Blade Peeling Machines

- 3.1.1 Series AM, with one peeling unit (movable, on wheels)
- 3.1.2 Series BM, with two peeling units (movable, on wheels)
- 3.1.3 Series CM, with tree peeling units (movable, on wheels)

3.2 <u>as Carborundum Peeling Machines</u>

- 3.2.1 Series AK, with one peeling unit (movable, on wheels)
- 3.2.2 Series BK, with two peeling units (movable, on wheels)
- 3.2.3 Series CK, with three peeling units (movable, on wheels)

3.3 as Combined Carborundum / Blade Peeling Machines

- 3.3.1 Series AKM, with one peeling unit (movable, on wheels)
- 3.3.2 Series BKM, with two peeling units (movable, on wheels)
- 3.3.3 Series CKM, with three peeling units (movable, on wheels)

3.4 as Special Peeling Machines

The throughput capacities to be achieved are very different. If one feeds pre-peeled goods into the machines, the capacity will be much higher.

A series of peeling discs is available, also peeling discs used especially for the peeling of celery roots, as well as other special discs.



4. <u>DORNOW SBS - KM Combined Carborundum/</u> <u>Blade Peeling Lines</u>

"Batch peelers" working in steps, automatically, without water or with water mist (atomised water). Peeling without waste water possible. Suitable for smaller factories, but: they can later be retooled into pure blade peeling lines for re-peeling larger quantities of potatoes that have been pre-peeled by means of carborundum! Peeling discs \varnothing : approx. 500 mm.

- 4.1 SBS-KM-II, consisting of one carborundum unit and one blade peeling unit
- 4.2 SBS-KM-III, consisting of one carborundum unit and two blade peeling units (or of two carborundum units and one blade peeling unit)

5. DORNOW SBS - M Blade Peeling Lines

"Batch peelers" working automatically <u>without water or with water mist</u> (atomised water). <u>Peeling without waste water is possible!</u>

- a. suitable for blade re-peeling of potatoes already pre-peeled with carborundum,
- b. can also be used as independent blade peeling lines. Peeling disc \emptyset : approx. 500 mm
- 5.1 SBS-M-I blade peeling line, consisting of one blade peeling unit
- 5.2 SBS-M-II blade peeling line, consisting of two blade peeling units

Capacities:

high throughputs, provided the lines serve to re-peel potatoes that have been pre-peeled by means of carborundum. - Small or medium capacities if the potatoes are not pre-peeled.

6. Onion Peeling Machines and Lines for the Quality steps "A" and "B", and Lines for the Peeling of Silver Onions



7. DORNOW Concentric Running "Batch Peelers"

Carborundum and blade type, fully automatic, semi-automatic and non-automatic versions available, discontinuous, working without water or with atomised water. Peeling without waste water possible!

Extract from the production program:

7.1 Potato peeling machine 20 M-HB, blade peeling,

Peeling discs - Ø: approx. 500 mm

Carborundum peeling possible, door opening and shutting manually. Can later be integrated in the lines cited under 4. and 5.

7.2 Potato peeling machine 20 K-HB, carborundum peeling,

Peeling discs - Ø: approx. 500 mm

Blade peeling possible, door opening and shutting manually. Can later be integrated in the lines cited under 4. and 5.

7.3 The machines mentioned under 6.1 and 6.2 can also be supplied in semiautomatic or automatic construction as:

| 20 | M-HT | semi-automatic door mechanism |
|----|---------|--|
| 20 | M-AT-OS | (automatic door mechanism, without switch box) |
| 20 | M-AT-MS | (automatic door mechanism, with switch box) |
| 20 | K-HT | (semi-automatic door mechanism) |
| 20 | K-AT-OS | (automatic door mechanism, without switch box) |
| 20 | K-AT-MS | (automatic door mechanism, with switch box) |

7.4 Suitable for industrial production are the following carborundum automats:

30K-OA-Automatic, peeling discs - \varnothing : approx. 600 mm, with switch cabinet for medium capacities

and

60K-OA-Automatic, peeling discs - \varnothing : approx. 800 mm with switch cabinet for high capacities.

8. <u>DORNOW Radical Roller Peeling Machines R-RAD-60-A to</u> R-RAD-250-A, and other

working continuously.

1. for the fast re-peeling of steam-peeled or mechanically peeled potatoes etc., 2. for the fast <u>down-peeling</u> (peeling down to smaller sizes) of steam-peeled or mechanically peeled potatoes (e. g. from sorting size of approx. 45 mm down to abt. 35 mm).

Available in nearly all sizes (see under 1.)



9. <u>DORNOW Universal Skin Remover (SR) Machines R-SR-60-A to</u> R-SR-250-A, and other

working continuously.

1. for the skin removing after steam peeling (steaming container),

2. at the same time as possible supporting peeler after steam peeling by means of carborundum-coated peeling rollers (partly or entirely coated), 3. as possible re-washing line for the skinned tubers/root vegetables on the last meter of the 3-m-long peeling rollers, 4. as separately working carborundum roller peeling machine, if the machine is, for instance, to work without previous steam peeling.

The peeling of half-steamed products requires the addition of some water.

Available in sizes/dimensions like under item 1.

10. DORNOW SBS-BK Re-Peeling Plant

fully automatic, working discontinuously, especially suitable for very small potatoes and Paris carrots. Re-peeling of steam-peeled or mechanically peeled potatoes/ Paris carrots.

The peeling of half-steamed products requires the addition of some water.

Available as lines of one up to three peeling units.

11. <u>DORNOW Special Peeling Machines</u>

In the course of time DORNOW has built and marketed many special peeling plants which cannot be cited here. Please ask for information material if you need peeling machines for special purposes.

Notes:

- A. Which machine(s) should be used for what purpose, depends on several factors. We will be glad to advise you.
- B. The peeling tools of some of the carborundum peeling machines can be coated with a "micro fine grain coating". Thus, the surface of the goods to be peeled will be very smooth!
- C. We supply chemicals and granulations for the re-coating of worn carborundum peeling utensils. Or: We carry out the re-coating for you at our workshop.



- D. If the products are required to be of top hygienic quality, peeling can be carried out in "pure air".
- E. <u>As for the history of DORNOW peeling technology:</u>
 We designed the first continuously working carborundum roller peeling machines in Europe and the first water-free carborundum and blade peeling machines worldwide!

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!

This paper contains non-committal notes. We do not lay claim to completeness. Alterations reserved. Our order confirmation, accepted by our customers, is in effect upon delivery. - The presentation of a new edition of this treatise will substitute for any previous versions.

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