

### Onion Peeling Machines

#### **DORNOW Roller Peeling Machines in comparison with fine-mechanically complicated blade compressed air peeling plants and other blade peeling plants of different designs, working as onion peeling machines in drying lines and other processing lines**

In onion drying plants it is possible to use, in addition to DORNOW roller peeling machines, blade peeling systems which can also remove, if properly equipped, "top and tail".

These plants that can also cut top and tail have many advantages. They deliver a neat product, which looks similar to a hand peeled product, after an inspection to be carried out by the personnel.

However, the investment sum is high. The technology to be applied is a fine-mechanical one; this requires an expensive maintenance. It will often occur that one plant is not enough to reach the throughput capacity required in a drying works.

Besides, in many cases compressed air is used to blow off the skins. The generation of compressed air is an expensive procedure. The purchase of a compressor required for that is another financial burden. It must be considered that the skins of every individual onion have to be blown away at a high pressure. It appears to be necessary to calculate the costs for the generation of such a big quantity of compressed air and the maintenance costs for e. g. one year, before taking any decision for or against the purchase of such a plant.

In addition, there are blade peeling systems of traditional type, which are to remove the skins from the tubers themselves by means of blades arranged on discs.

The result leaves to be desired. Top and tail are not cut automatically and are only insufficiently reached and attacked by the blades (blade adjustment normally between 0.4 and 0.8 mm).

As an alternative to the above mentioned machine systems there are the DORNOW roller peeling machines which are produced in many different sizes (with the inner diameter of the 3-m-long peeling chamber ranging from 500 to 2.500 mm. Moreover smaller machines with 2-m long peeling units and bigger ones with 4-m long peeling units are supplied, too.

These machines have a very sturdy construction and a simple but effective technique.

The profiles (sections) on the peeling rollers also attack top and tail, normally without, however, removing them totally. Finishing by the staff is indispensable.

The desired degree of cleanness determines the number of personnel to be employed. Most of the onion drying plants apply electronic sorting devices to control the dried finished product and separate dark particles. Such devices should be used, at any rate, in those cases where first-class products are to be turned out. The sorting devices nowadays in use can work very reliably and can be supplied by us.

If such a sorting device is available, one can, in many cases, dispense with complicated and expensive peeling technology and with the employment of many personnel for the inspection and finishing of the peeled onions.

The peeling rollers of the DORNOW roller peeling machines are coated on their first section with a rough granulation. Here, the skins are scratched. They will then come off more easily by the effect of the profiles. Towards the other end of the peeling rollers the granulation of the coating is getting more and more fine so as to avoid unnecessary peeling losses.

The DORNOW roller peeling machines can, as a rule, work without producing waste water. When peeling onions, it is common to add water, in order to make the skins somewhat heavier, so that they can be more easily removed from the peeling zone. This does not necessarily produce waste water. The roller peeling machines also allow the peeling, without waste water, of other fruit like potatoes, carrots, celery roots as well as other root vegetables and tubers.

Worm conveyors (augers) or other conveying devices as well as pumps can provide for the removal of skins.

The onions to be peeled should be dry, so the skins come off easier. You should use onions that have been well stored and whose skins are not leathery and stick too much to the flesh of the onions.

**Pictures and further information:** on the web: [dornow.de](http://dornow.de) / Peeling Machines / A.-1.1 and A.1-32.

**Important information:** We will soon launch onto the market a machine that can cut off the roots and leaf nodes of the onions. An automatic onion-peeling line is planned. The preliminary work has already been completed. Onions can also be peeled using our MSS machines.

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](http://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!**

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