re-peeling of
potatoes, a.s.o.

Manual Reworking or Re-Peeling of Mechanically Peeled Potatoes for the Catering Sector?
Re-Peeling in Batch Type Peelers, Roller Peeling Machines or Multi-Disc-Peeling-Machines (MSS)?

1. The manual reworking of potatoes, already peeled mechanically, for the catering sector requires many personnel, above all if the inspection of the peeled material is done on conveyor belt inspection benches. Here, the potato lies statically on the belt, and it is impossible for the human eye to ascertain whether there are damages or foul spots at its lower (hidden) side. To make sure this is not the case the staff have to pick up every potato. - If manual reworking is carried out on roller inspection benches, it'll take slightly less time to do the job: You need not pick up every potato. The peeled potatoes pass the personnel in constant rotation: The "good" potatoes keep moving on immediately and are not touched anymore by hand.

2. Still, the performance of the personnel appears to be insufficient if after a first peeling process at e.g. a waste percentage of 20 to 25 per cent, when peeling medium-sized or large products, eyes and other foul spots must be removed by hand.

3. You can achieve an hourly capacity of approximately 40 to 60 kg per person, at a total waste rate of about 30 per cent (if West European continental potatoes are used). This is true if the potatoes are to be peeled in an absolutely accurate way – as it is usual for the catering industry - .

4. Due to high labour costs and normally low potato prices in this regions (in the European Community), the industrial peeling factories have been opting for longer peeling times at higher waste rates.

5. Moreover, it is now common in such factories to dispense with manual "reworking". Potatoes with dark spots or other damages are sorted out by the personnel at the roller inspection bench and put on conveyor belts via feeding chutes. These conveyor belts take the potatoes back to the peeling machine for re-peeling…

6. Thus, the waste rate will be higher, i. e. between 5 and 20 per cent more. But: a good worker at the roller inspection bench will now have an average output capacity of about 120 to 250 kg/hr, in case of very big potatoes still more... Compare the throughput capacity under item 3.

Dornow food technology GmbH, Willstätterstr. 12, 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

7. The sorting and re-peeling (at higher waste rates) has, therefore, proven successful in the EU.

8. The more so since the DORNOW peeling machines peel without water, and the peeling waste produced can be used for fodder, particularly since it consists at 100 per cent of potato parts.

9. The method of re-peeling has, however, proved successful in DORNOW roller peeling machines and in our multi-disc peeling machines as carborundum or blade version. Reason: See items 10 to 13.

10. In batch peelers with bottom and side peeling you will frequently find "flat" peeling. Due to the centrifugal forces the potatoes move along the inner wall and are often peeled "flat" this way after some time. Thus, waste peel is produced in places where it should not be produced...

11. In the aforementioned DORNOW peeling machines this does not occur. Here, potatoes are peeled largely regularly.

12. Further reasons that suggest not to carry out the after-peeling in carborundum batch peeling machines (with peeling segments at the bottom and at the sides):

a. In machines with bottom discs >600 mm the potato is liable to getting inner damages which may result in colouring and a "second skin".

b. Most batch peelers must be coated with a more rough granulation. A fine graining gets choked too fast so that the peeling capacity falls off drastically.

c. Peeling elements coated with a rough graining lead to a product with a rough surface structure which is not very favourable for the catering industry.

13. Further reasons in favour of after-peeling in DORNOW peeling machines:

a. The first part of the peeling segments can be coated with rough granulation; here, you remove, fast and thoroughly and without flat peeling, those layers of the potatoes that have to be removed!

b. The second part of the peeling segment is coated with a coarser granulation. Smooth potatoes leave the re-peeling machine.- The fine granulation doesn't get choked (see above): the peeling segments clean themselves. The following is true of MSS machines: the machine’s operation prouces atomised water at most. This low amont of water need not cause any waste water. The consumer will enjoy smoothly and accurately peeled potatoes thanks to the micro fine-grain peeling method which can be applied here!

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14. The above observations are grounded on many years of experience. Their publication is non-committal for us.

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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