

**By ASTRA**

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Lemon, orange, grapefruit, pomelo... all these types of citrus not only taste delicious but also smell good. Citrus skins are juicy and contain rich aroma, which can serve different functions such as flavoring drinks, seasoning food, or making fragrances.

The rich aroma is mainly contained in the very surface of the skin (flavedo) and the white part (albedo) often contains bitter taste. In other words, when using the citrus aroma, you only need the very surface of the skin, and the other part distracts the aroma.

An ordinary peeling machine is not very good at peeling the very surface (flavedo). Since it is designed to peel the whole citrus skin, it always peels the whole skin, and the function of adjusting peeling depth is poor. So, most of the people still peel by their hands when they need flavedo.

ASTRA fruit peeling machine is completely different from the ordinary peeling machine. It uses peeler blade to peel, and traces the human hand movement. This makes the machine possible to adjust the peeling depth, as a result it can peel the very surface (flavedo) of the citrus, in great speed and higher quality compared to hand peeling.

## **Same lemon, different peeling depth**

### 1. [Peeling the surface \(flavedo\) Video 00:00~](#)

The surface of a lemon skin is needed in large quantities in the catering sector (e.g., bakeries, cake shops, and juice bars) and distilleries when making liquors such as limoncello and Licor de oro.

In such circumstances, the traditional type of 'round peeler' is usually used in business. However, this type of peeler is not good at adjusting the depth of peeling. The deeper you peel, the wider you peel. This means if you wish to peel only the surface, peeling width will be very narrow and will consume more time, and yield rate will be lowered.

The ASTRA 'blade peeler' can provide a perfect solution. The ASTRA peeler shares similarities with manual peeling. The blade is straight, sharp, and thin. When turning, the blade moves smoothly, while always tightly pressed to the surface of the fruit.

## 2. [Peel whole skin \(flavedo and albedo\) Video 00:08~](#)

Of course, fruit flesh is needed for processing (e.g., in the jam-producing sector and fresh-cut industry). To avoid a bitter taste, there cannot be any pith left on the fruit.

Even in this day and age of technology peeling by hand is almost standard throughout the food processing industry. When evaluating the performance and accuracy of peeling fruit, hand peeling requires more effort and is more meticulous when compared to the Astra peeler. Hand-peeled fruits oftentimes lose their round shape and end up looking like hexagons or bricks with a rough uneven surface.

With the Astra peeler, citrus fruit maintain their shape and freshness longer because of the way our peeler handles the fruit.

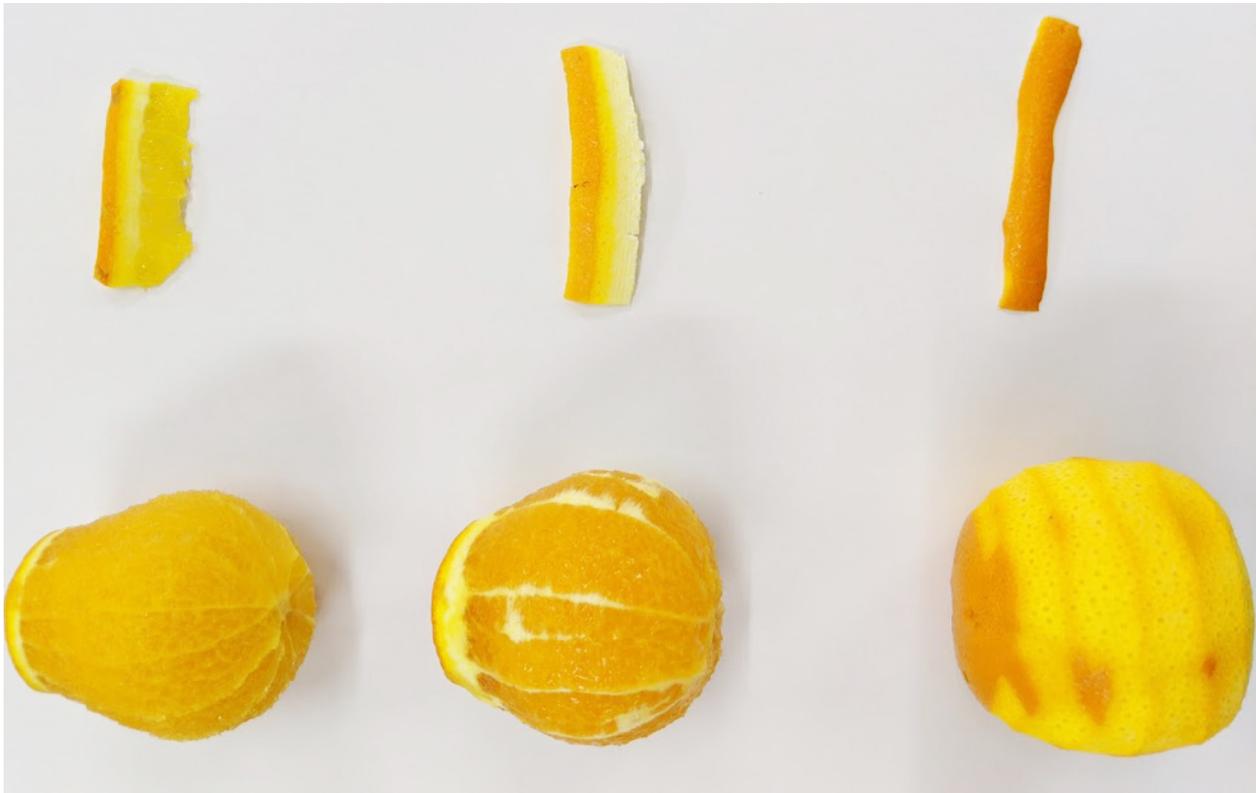
## 3. [Making fresh zest \(chiffonade\) Video 00:22~](#)

Zesting is also possible with using the zester attachment, Z blade.

Generally speaking in the industrial kitchen world a chiffonade is reserved for greens such as basil. Astra saw a need for micro zested citrus in chiffonade strips. These strips are widely used in bakeries, liqueurs, and garnishing. This blade is equipped with a cross-cut set of blades that cuts fruit in a tight, pith free, strip that will consistently impress.

The Z blade by Astra can provide you and your business with the perfect solution for Microzest or chiffonade citrus strips.

Bars will oftentimes peel a small section of a fruit and leave the rest to dry out and be wasted. Using the Astra peeler instead of a hand peeler will not only improve the yield, but also save your bar time and labor. The Astra peeler can zest more than three times faster than a traditional hand peeler.



### **‘Depth adjustable’ is the key**

Talking about the uniqueness of ASTRA peeling machine compared with other models, blade quality and peeling movement are the two most important factors that define a ‘good peeler’. Not only the physical design of the peeler (e.g. length, width, shape), but the material also plays an important role.

To obtain the best blade quality, ASTRA used the top material for the blade for the peeler, and the metal used for some blades can only be produced in Japan.

Besides, in order to have a superior peeling movement, we performed countless tests on the blade moving route, peeling angle, and rotation speed control. So, peeling seems a simple performance, but all these elements need to be balanced and interact with each other.

Though the principle behind the peeler is quite complicated, the machine itself is designed in a very user-friendly way. The machine is pre-programmed, all users need to do is attach the fruit to the peeler, choose a program, and press start. The peeling speed can be up to 400 pieces/hour ( $\approx 9$  seconds/piece). With an adjustable peeling depth, the blade can handle fruit skin from ‘paper-thin’ till ‘iPhone-thick’.

In addition, most peelers in the market require 2 fixing points, meaning both the top and bottom of the fruits are held by the peeler. One remarkable thing about ASTRA peeler is that only 1 side is needed to be attached to the machine. Less damage to the surface results in fewer drippings and the fruit remains more complete.



## **Beyond Lemon**

Besides lemons, ASTRA citrus peeler serves a wide variety of citrus from green lime to pomelo (2.5 diameter- 20 diameter). No matter how small the fruit is, you only need to put it onto the peeler, and let the machine do the work. For larger-size fruits such as the pomelo, the ASTRA peeler blade is tightly pressed on the fruit surface, and as a result the waste rate can be 20% lower compared with a traditional round-type peeler.

Over the past 20 years, ASTRA has been fully dedicated to automatic peeler innovation.

ASTRA peeling machines are certified with CE and NSF markings, and are used in over 20 countries, including fresh-cut fruit factories, dried fruit factories, in-flight meals, distilleries, hospitals, schools, juice bars, luxury cruise ships and restaurants.

As ASTRA Inc. expects the booming opportunity in the overseas markets, the company is now looking for distributors of industrial fruit processing machines in many areas.

*More information:*

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