

Destoning  
Washing  
Peeling  
Cutting  
Blanching  
Cooking  
Drying  
Forming  
Frying  
Cooling  
Freezing  
Pasteurising  
Sorting  
Packaging  
Handling

## The most flexible processing line worldwide for potato flakes

High flexibility is what makes the Kiremko potato flake lines stand out. Together with its partner Idaho Steel Products, Kiremko designs, produces and installs complete potato flake lines all over the world. Combining the latest technologies, constant innovation and experience within this partnership, we provide a tailor made potato flake line, able to process all different kinds of potato sizes of varying qualities. This highly flexible line makes potato flakes in the most cost efficient way. We are your partner when it comes to potato flake lines, stand alone or combined with your French fry line.

Potato flakes are processed into a food ingredient of massive importance and countless applications and are nowadays an extremely cost efficient part of recipes for end products such as stackable chips, extruded snacks, baby food, bread and pancake mixes, formed meat products, and even as non-food applications such as plastics. Kiremko potato flake lines offer maximum efficiency, cleanliness and durability.

Potato flake lines are usually set up in one of two ways; the first is a stand-alone line, the second being a line that uses

reject potatoes from another primary process line such as a French fry line.

The first set up is designed to convert usually lower quality potatoes that have been specifically sourced for manufacturing flakes. In this case, potatoes are washed and stones are automatically removed before the product is peeled, by steam or abrasive peeling, using the most suitable technique depending on capacity. The product is then size reduced using custom built cutters before it goes on to the thermal part of the potato flake process.



The second set up is usually installed alongside a French fry line. The rejects from the French fry line, typically off-grade potatoes, slivers, nubbins and strips with colour defects, are used as a raw material to convert the product into a specific quality of flakes. This method is a very good way of improving the overall yield of the processing facility in terms of potato usage. Previously what would have been discarded as waste, is now converted into a product. The cut product or rejects from another process line is either blanched, cooled and cooked or simply just cooked depending on the type of flake required. The cooked potato is converted to a mash which is transported to and evenly distributed over the flake drum.

Applicator rollers on the drum allow the mash to be spread evenly over the hot surface of the drum where the moisture from the potato is quickly and efficiently driven off leaving an almost dry sheet of flake. The moisture is carried away as vapour by extraction fans whilst the flake is pre-broken into transportable pieces and conveyed to the packing area. The flake is milled down to the correct size for the end-user's needs before it is packed in a number of different ways, once again depending on the end user's requirements. Kiremko supplies individual components to enhance existing lines or complete state of the art new lines to meet the challenges of this market place.



The drum dryers, which are at the heart of this process, are a well proven design manufactured by Idaho Steel Products in the USA for more than 30 years. As a unique feature they are equipped with a stainless steel surface which has brought an essential improvement to industry standards. These 'Super Drums' have been installed in many flake plants in North America and the rest of the world.

Available in sizes 1500 mm x 4880 mm, 1830 mm x 6100 mm, 2200 mm x 7500 mm and 2440 mm x 6400 mm and with approximate capacity ranges of 350 kg per hour up to 1.100 kg per hour of finished product.

Idaho Steel and Kiremko work closely together, creating one of the only partnerships in the world capable of designing, manufacturing and installation of complete potato flake processing lines. ■



## Processing line for potato flakes





**Cyclone destoner**

The cyclone destoner removes stones and clay shells. The gradient of the funnel and the variable water flow determine the optimum result.



**STRATA Invicta®**

The STRATA Invicta® steam peeler sets the new standard in steam peeling systems, offering the highest yield at the shortest possible cycle times. It peels potatoes thinner than any machine, removing only the skin with a minimum of cooking ring.



**WeighGuard®**

The WeighGuard® is an advanced system that ensures the accurate and controlled dosing of the flow of sliced potatoes into the thermal part of the potato flake line.



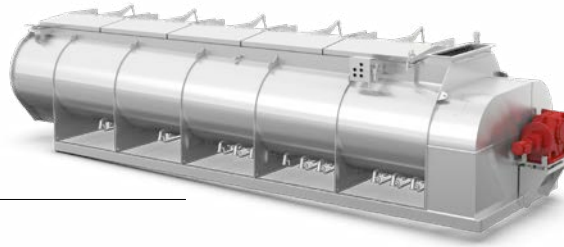
**Screw type blancher**

The screw type blancher can be installed in French fry, potato flakes and potato mash production lines. The intensive pump systems ensure an equal distribution of temperature.



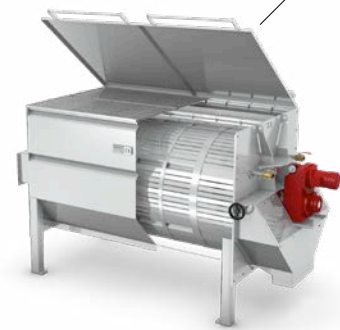
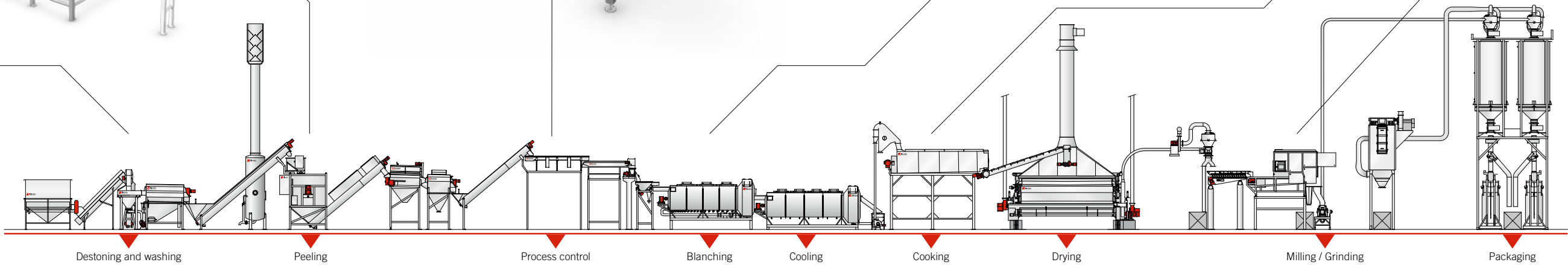
**Steam cooker**

The steam cooker is one of the most versatile and time-tested components in the potato flake line and provides high volume and an even cook for a high quality finished product. The cooker can be equipped with a single or double internal transport screw.



**Visionair®**

The Visionair® optical sorter will sort the flow of potato products on the basis of visual deviations.



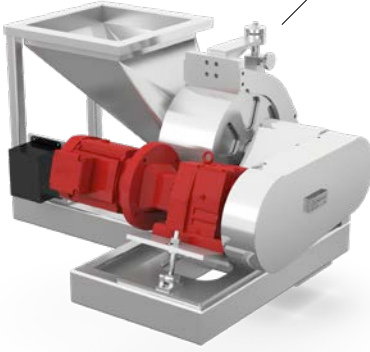
**Drum washer**

Based on mutual friction, the drum washer will remove clay, sand and soil from the potatoes.



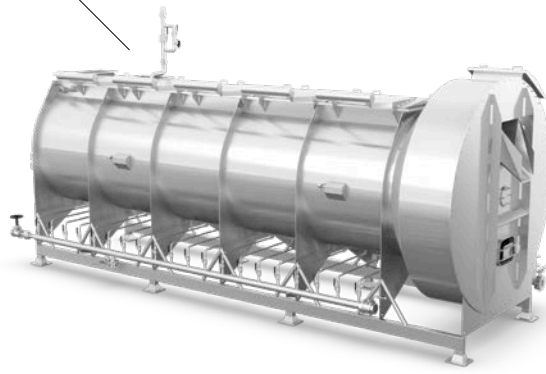
**Dry brush machine**

The dry brush machine will remove the peel after the steam peeling process. Rotating brushes will make sure the peeled potato remains smooth, while the peel remnants are removed.



**Slicer**

A slicer is a versatile machine, specially designed to cut a wide range of potato sizes into an easily adjustable thickness, required to obtain a homogeneous cooking process. The machine is unique for its high throughput capacity and robust build.



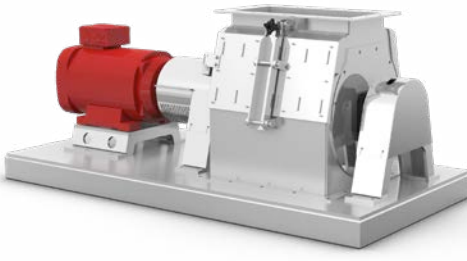
**Screw type cooler**

The screw type cooler cools the product down to a desired temperature to avoid retro-gradation at an adjustable rate depending on process specifications.



**Drum dryer**

The drum dryer has been meticulously designed and developed over years of experience specifically for drying potatoes. Drying mashed potatoes to obtain potato flakes is an often used application of the drum dryer.



**Flake mill / Grinder**

The last step in the flake process is to mill the product to obtain its final properties. The machine is designed for high throughput and is extremely flexible, milling potato flakes into sizes ranging from 1,6 mm x 1,6 mm to 20 mm x 20 mm.