

VORTEX: THE ART OF COOKING



TECNA

Tecnologie alimentari S.r.l.

WHY CHOOSE VORTEX

VORTEX is the most efficient solution to get a **perfectly cooked and chilled** product, guaranteeing **lower management costs** compared to any other system.

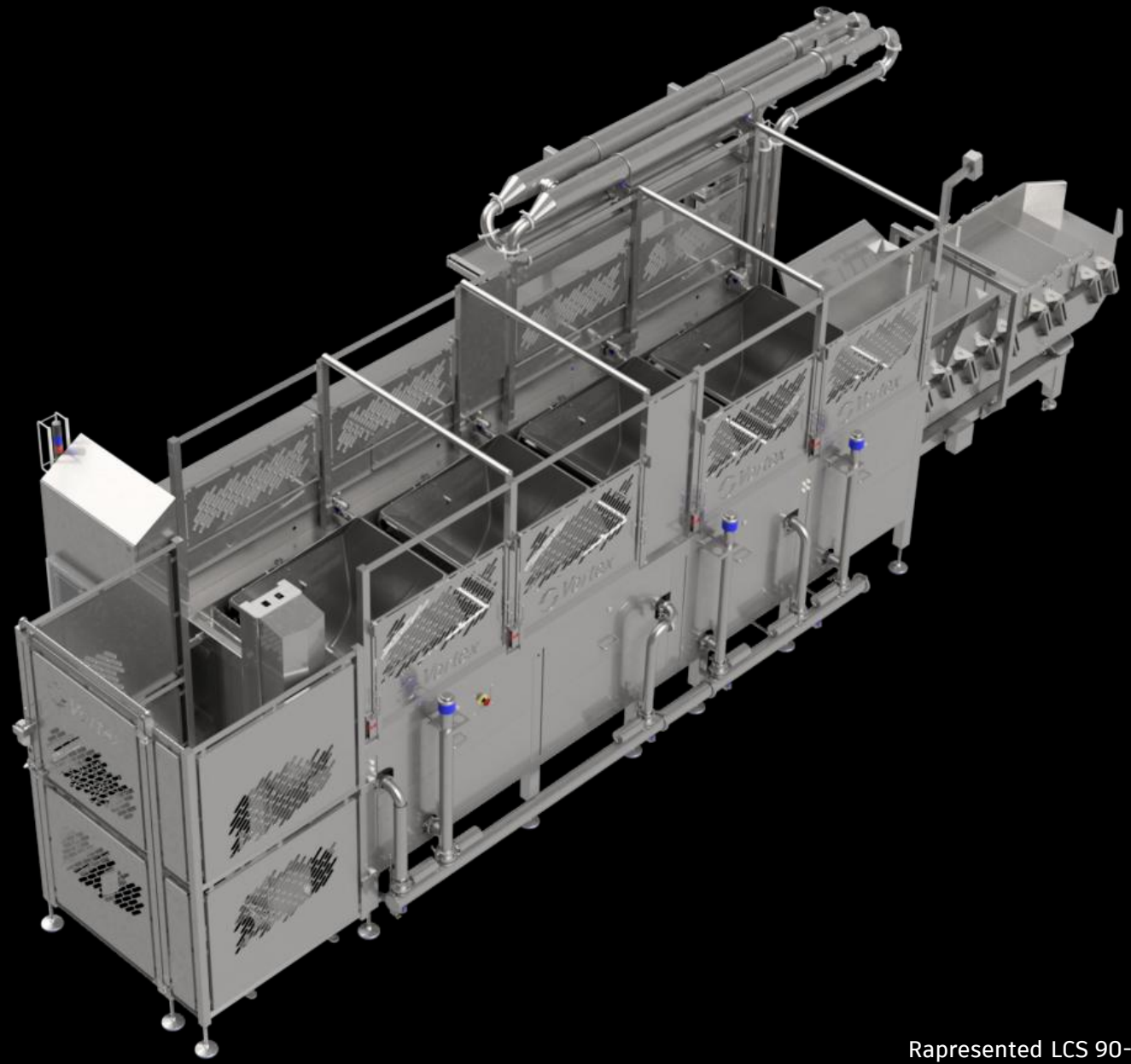
The **innovative design**, the components and the **high-quality** construction guarantee **reliability** and low operating costs.

VORTEX allows a **great saving** of water, glycol, steam, electricity and air compared to any other system.

Designed and built to **optimise production**, it boasts **24/7** operation for 365 days a year.

The **wide range** of machines and accessories satisfies the most varied needs.

The stainless-steel structure and the IP67 protection degree give **high performance** and **longevity** to the machine.



Represented LCS 90-4

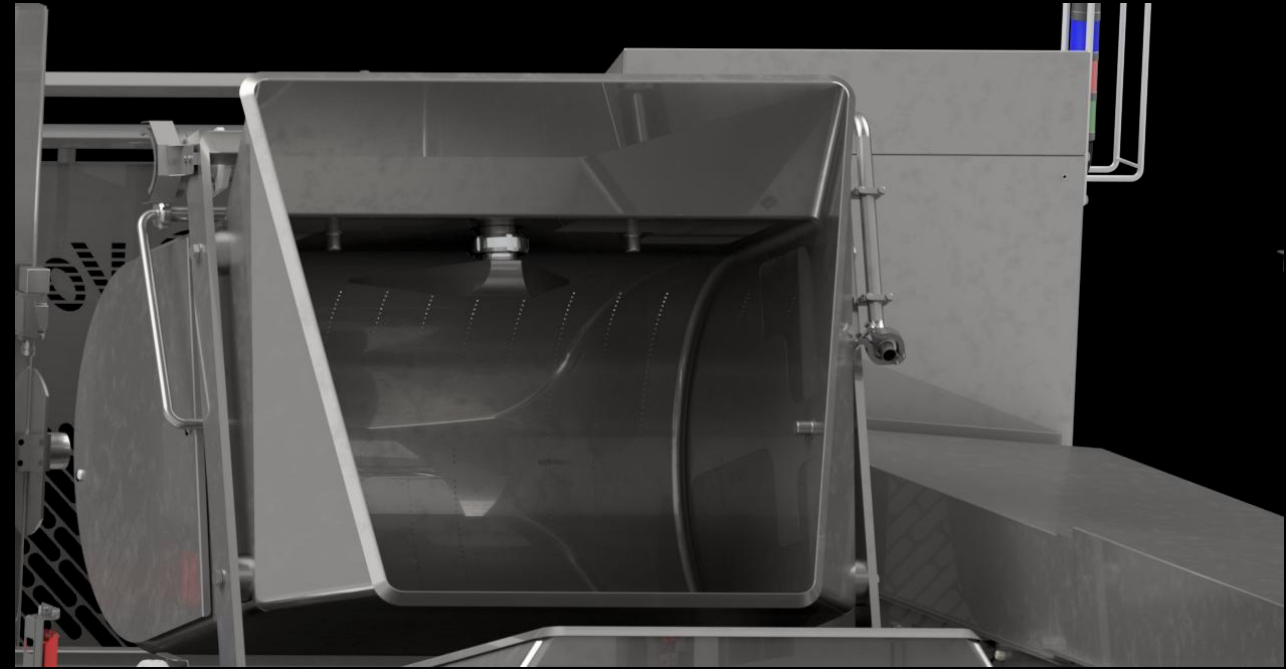
PRODUCTS AND PERFORMANCES

A revolutionary machine, which takes its name from the **flow of water** generated, this guarantees the **uniformity** of the process in every part of the product and ensures its **separation**.

VORTEX **cooks, quenches and chills** up to 1.25 tons of product simultaneously in a cycle, it is also able to **blanch**, defrost and cook **multiple products** sequentially.

Designed to **overcome** the limitations of previous systems, it boasts extreme **versatility** in the products it can process (pasta, rice, potatoes, legumes, vegetables, seafood, etc.) and the **high quality** of the process.

Also equipped with a **large capacity**, it is suitable for covering various production needs up to **4000 Kg/h**.



QUALITY & VERSATILITY

The Vortex was expressly developed to **overcome the previous capacity and quality limitations** of continuous belt and screw type systems associated with the cooking and chilling of short and long pasta, noodles and rice.



Grains



Peanuts



Lentils



Rice



Beans



Potatoes

QUALITY

The revolutionary Vortex guarantees every piece of product in evenly cooked, quenched and chilled for consistent high quality with zero clumping, no damage and therefore maximum yield.

VERSATILE

In achieving this, the highly versatile Vortex is equally suitable for numerous other products such as potatoes, pulses, vegetables and seafood.

CAPACITY

An extensive range of systems for all output requirements up to 4000 Kg and more.

PROVEN

With many multiple installations throughout the UK and further afield, our results on all these products are proven. The output figures shown on the throughput data sheets are actual, not theoretical, results realised by our customers every day.

Long pasta



Short pasta



Noodles



Diced potato

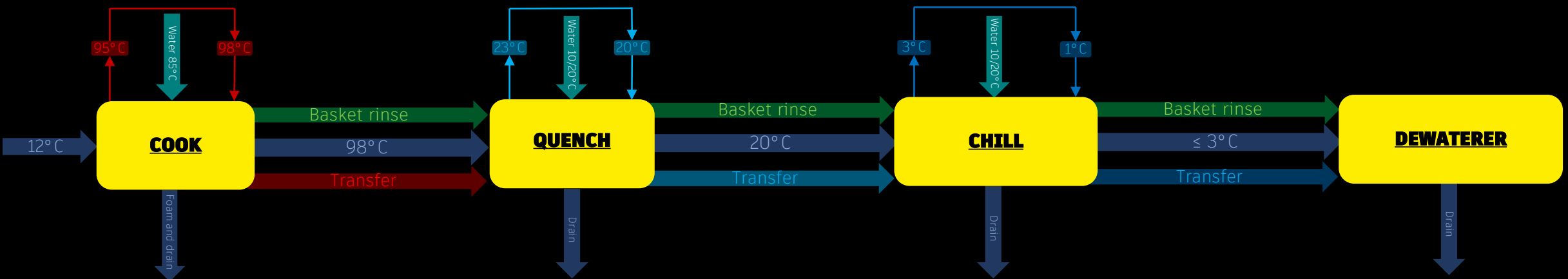
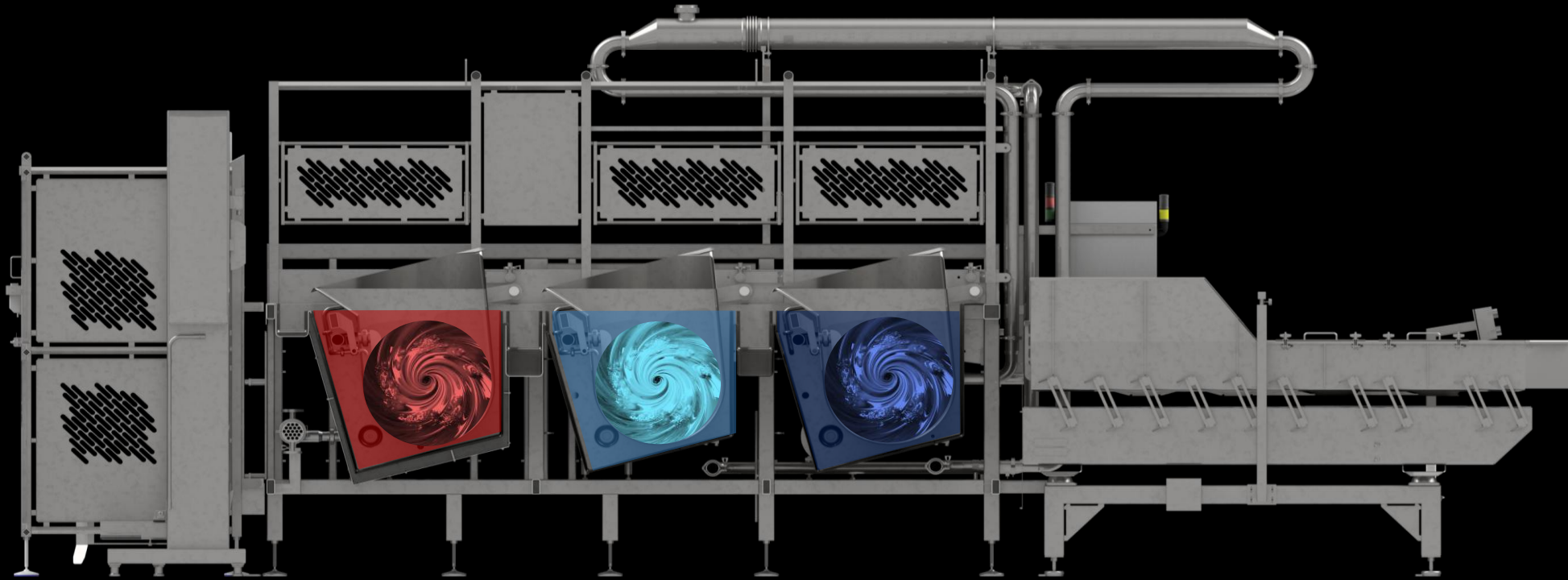


Broccoli



Cauliflower





Represented LCS 90-3

OPTIMIZING WATER CONSUMPTION

Cook water fully utilised

Whilst cooking, at the optimum water to product ratio, the Vortex ensures that the quality of cook water does not become overly starch loaded and therefore **minimizes water replacement frequency**.

Cook water change minimised

Overflow weirs with programmable settings enable adjustment of the surface starch to be skimmed to suit the product. This maintains **water purity in the cook tank**.

Controlled water levels

Complete controllability on our water levels ensure our system **monitors every drop**.

For example the Vortex cook tank only calls for water once the basket is down and product is loaded.

Zero water loss

The robust and powerful hydraulic basket lifting system with programmable variable speed drive gives **smooth and controllable action** to ensure **zero water loss** during the lifting and return cycles of the baskets and product transfer.

Fresh water rinse

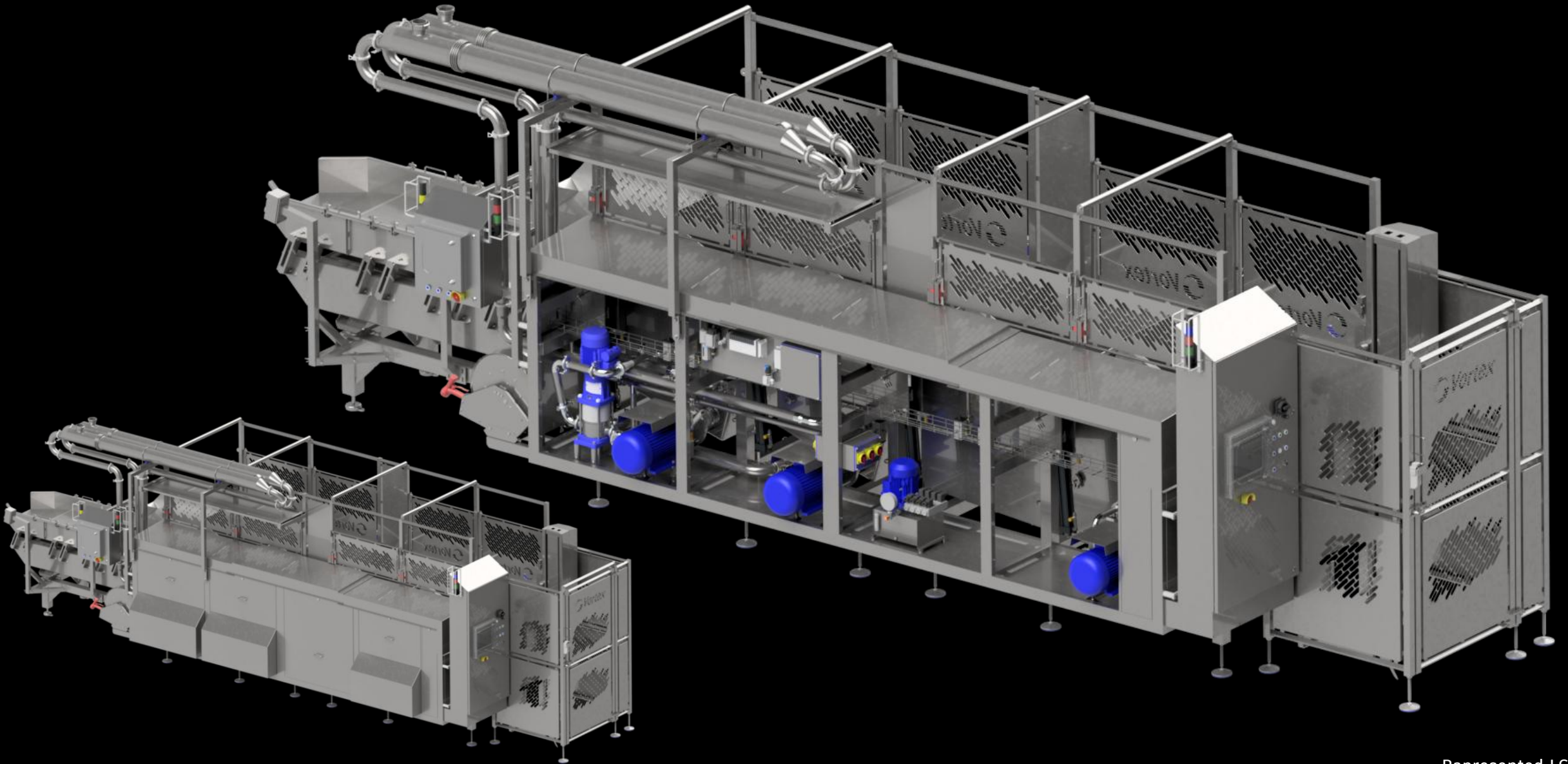
The programmable rinse uses fresh, not starch loaded, water.

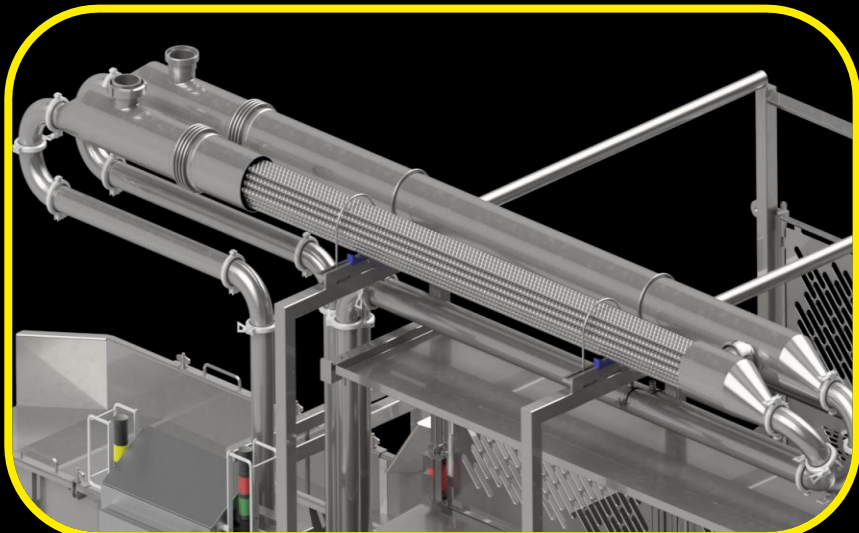
Therefore from cook to quench, and quench to chill, we recycle clean water, **never compromising on product quality**.

Quench managed starch removal

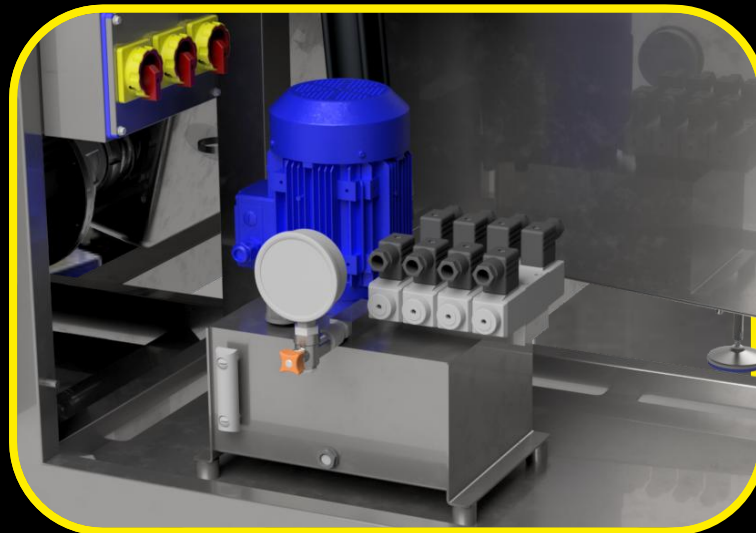
Programmable time and strength of vorticity allow for the **removal of the preferred level of surface starch** for product application and/or filling line requirements.

TECHNICAL ADVANTAGES

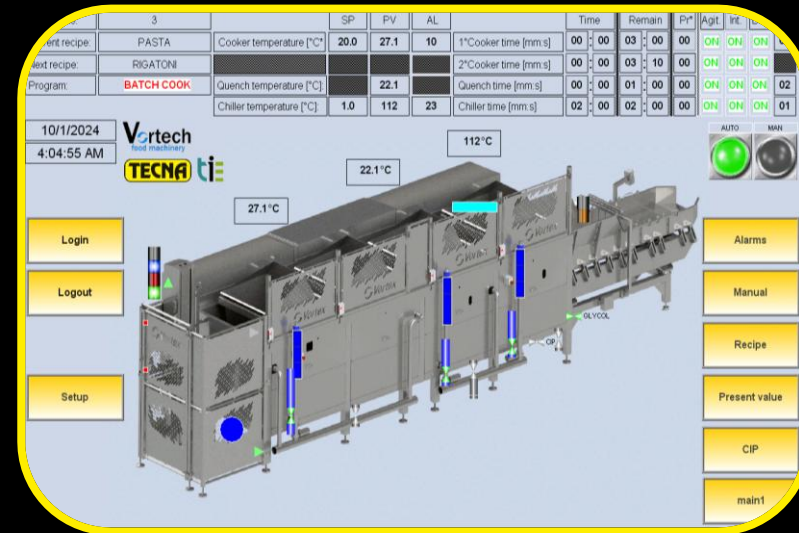




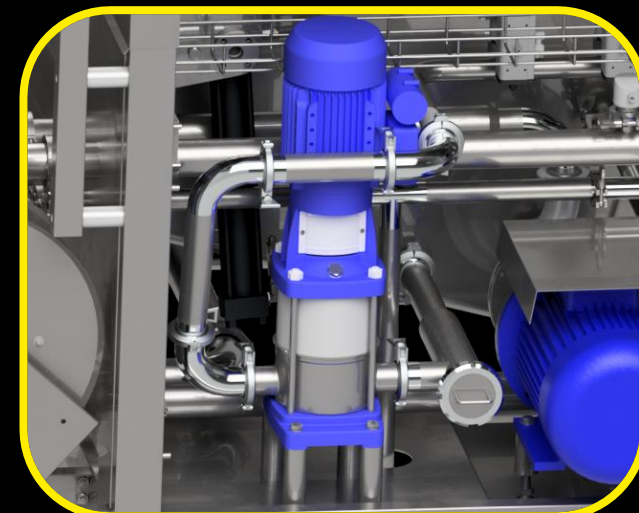
Shell and tube exchangers allow the product to be chilled below 5°C.



Hydraulic basket lifting system for smooth movement.

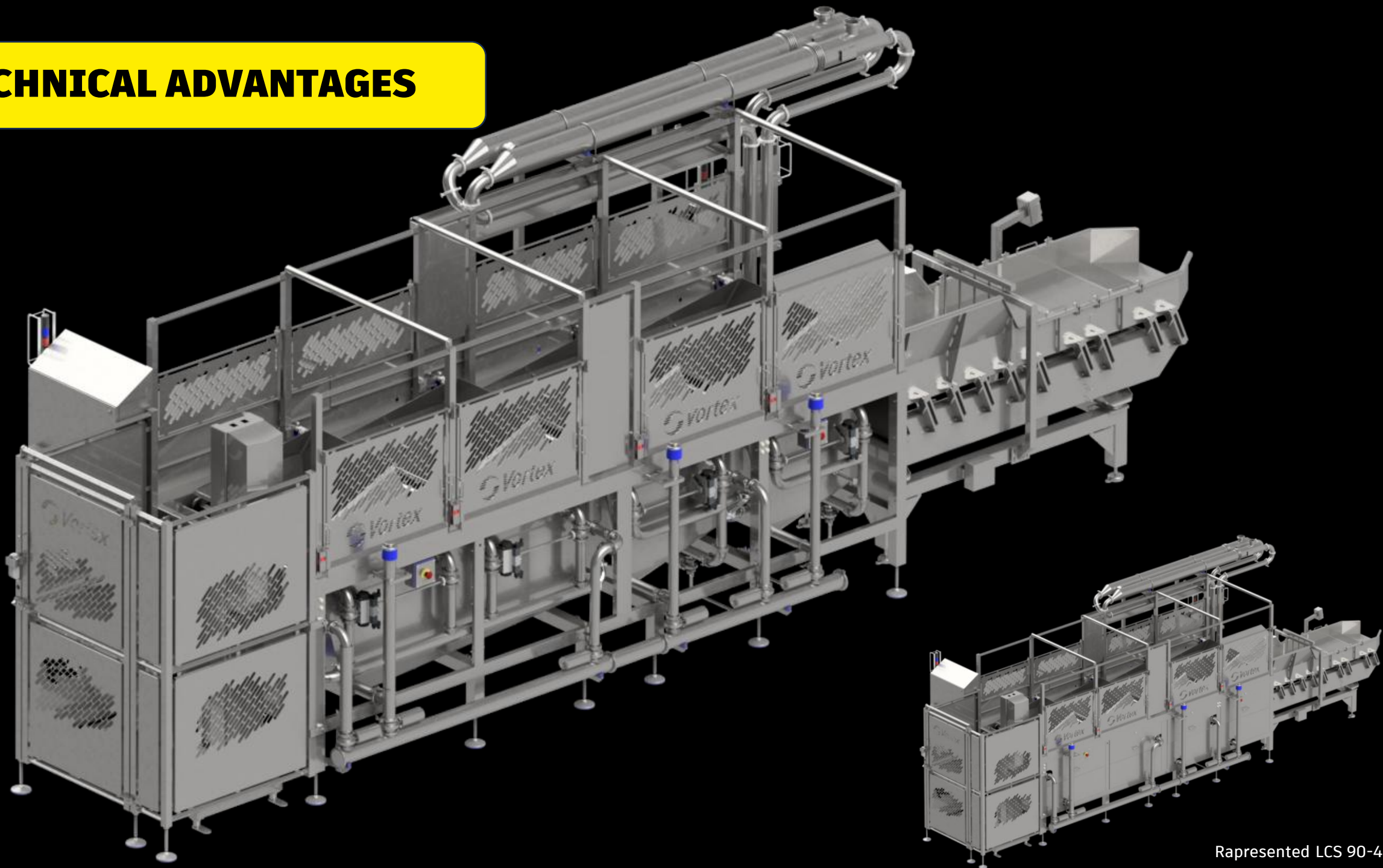


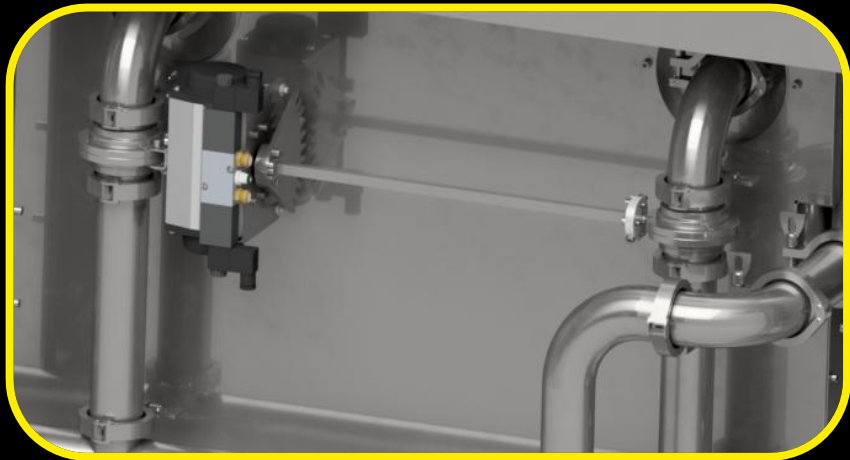
Touch screen panel.



Polished baskets in rigid sheet metal with programmable and timed rinsing system.

TECHNICAL ADVANTAGES





The programmable Vortex water flow ensures uniform cooking & product separation.



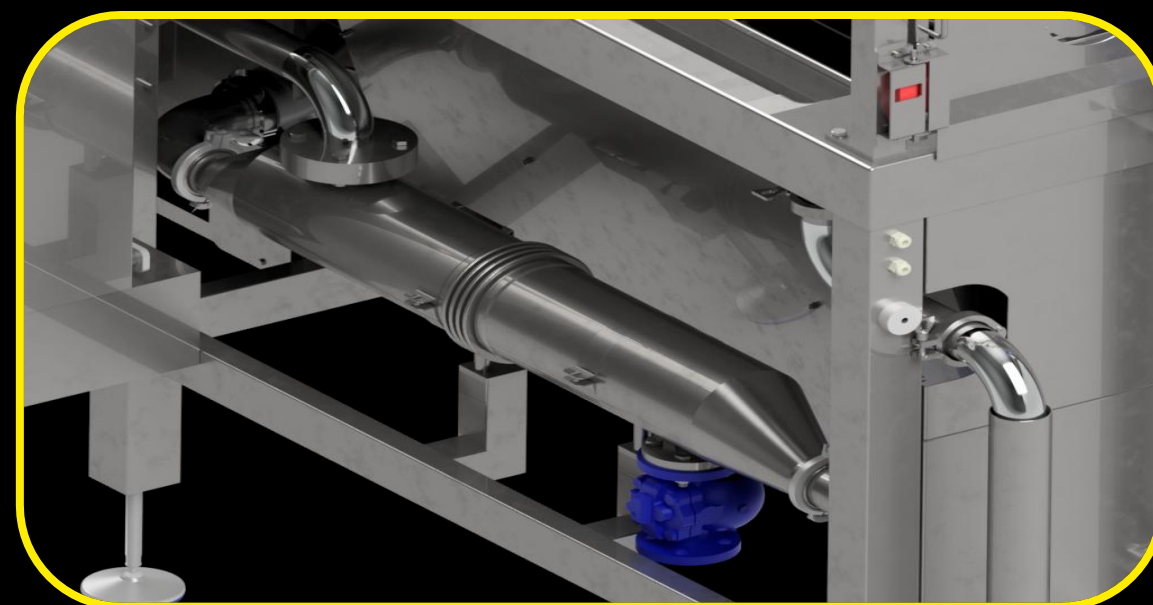
Fully demountable pipework with SMS & Tri Clover fittings.



Stainless steel and IP67 protection allow for.

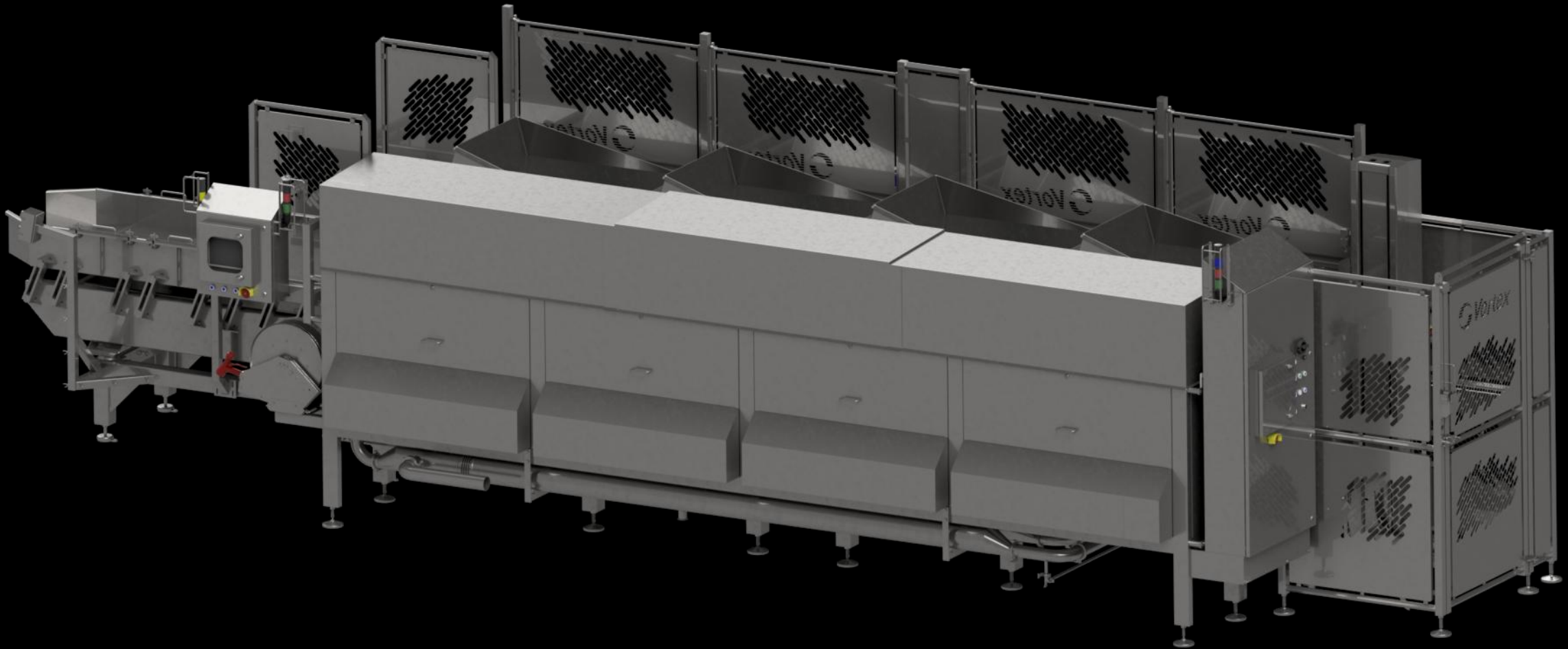


Fully automatic CIP cycle.



Corrugated tube heat exchanger integrated into the cooking section.

VORTEX D1 MONO



Represented LCS 135-4

Fully automatic system, equipped with 3 operating sectors, mounted on a single structure designed to allow the division between high and low risk.

Available with 3 stations (cook-quench-chill or cook-cook-cook) and 4 stations (cook-cook-quench-chill or cook-cook-cook-cook).

The capacity of the baskets can be 40 Kg, 90Kg or 135 Kg of dry product.

VORTEX D1 MONO: DIMENSIONS



Model	400-3	900-3	900-4	1350-4
Typical line length (mm)	5600	6100	7486	11400
Height (mm)	2850	2900	2900	2900
Width (mm)	2100	2345	2345	2450

VORTEX D1 MONO: PRODUCTION DATA

Production example	Cooking time	Transfer time	Cycle duration	No. cycles 400-3 stations	No. cycles 900-3 stations	No. Cycles 900/1350 – 4 stations	Weight increase	Basket capacity 400	Basket capacity 900	Basket capacity 1350	Output 400-3 stations	Output 900-3 stations	Output 900-4 stations	Output 1350-4 stations
	Min	Min	Min	/h	/h	/h		Kg	Kg	Kg	Kg/h	Kg/h	Kg/h	Kg/h
Dry short pasta	7	1	8	7,50	7,50	15,00	1,8	40	90	135	540	1215	2430	3645
Dry long pasta	7	1	8	7,50	7,50	15,00	1,8	35	80	122	472	1080	2160	3294
Dry tagliatelle	4	1	5	12,00	12,00	15,00	2,5	30	63	95	900	1890	2360	3562
Rice	18	2	20	3,00	3,00	6,00	2,5	35	80	120	263	600	1200	1800
Potatoes-25 mm cubes	19	2	21	2,86	2,86	5,72	1,0	65	150	225	186	429	857	1287
Broccoletti	6	1,5	7,5	8,00	8,00	16,00	1,0	40	90	135	320	720	1440	2160
Red lentils	17	1,5	18,5	3,24	3,24	6,48	2,5	30	70	105	243	568	1135	1701
Quinoa	15	1,5	16,5	3,64	3,64	7,28	3,0	30	70	105	327	764	1528	2293

* Cycles per hour are determined by the chilling time

VORTEX D3 MINI

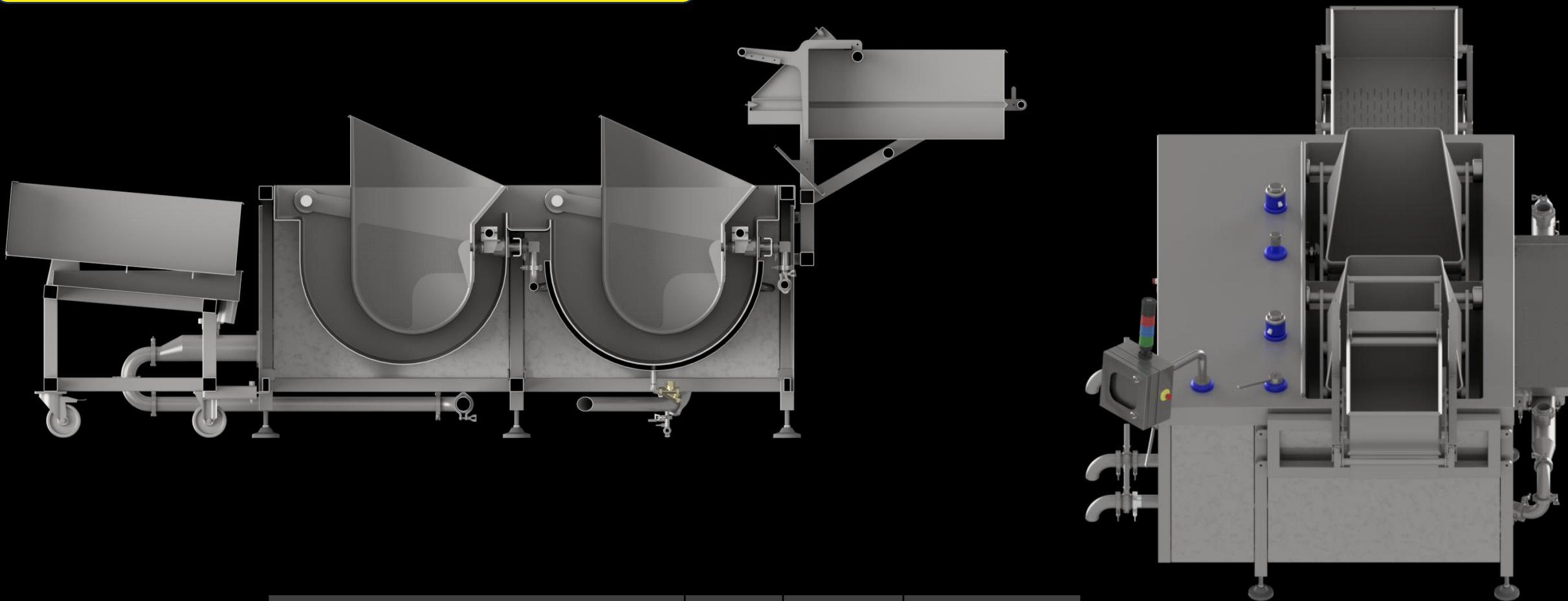


Represented 400-2

Versatile and compact semi-automatic cooker suitable for smaller volumes and frequent product changeover.

Available with 1 station (cook), or 2 stations (cook-quench/chill).

VORTEX D3 MINI: DIMENSIONS



Model	400-1	400-2	400-2 Line
Typical line length (mm)	1,200	2,350	3,465
Height (mm)	1,730	1,730	1,730
Width (mm)	1,983	1,983	1,983

VORTEX D3 MINI: PRODUCTION DATA

Production example	Cooking time	Transfer time	Quenching/ Chilling	No. Cycles-2 stations	Weight increase	Basket capacity	Output (2 stations)
	Min	Min	Min	/h		Kg	Kg
Dry short pasta	7	2	12	4,28	1,8	30	231
Dry long pasta	7	2	12	4,28	1,8	30	231
Dry tagliatelle	4	2	12	4,28	2,5	25	268
Rice	18	2	16	3,33	2,5	30	250
Potatoes-25 mm cubes	19	2	17	3,16	1,0	60	190
Broccoletti	6	2	12	4,28	1,0	40	171
Red lentils	17	2	15	3,53	2,5	30	265
Quinoa	15	2	15	3,53	3,0	25	265

* Cycles per hour are determined by the chilling time

THEY HAVE ALREADY CHOSEN VORTEX

