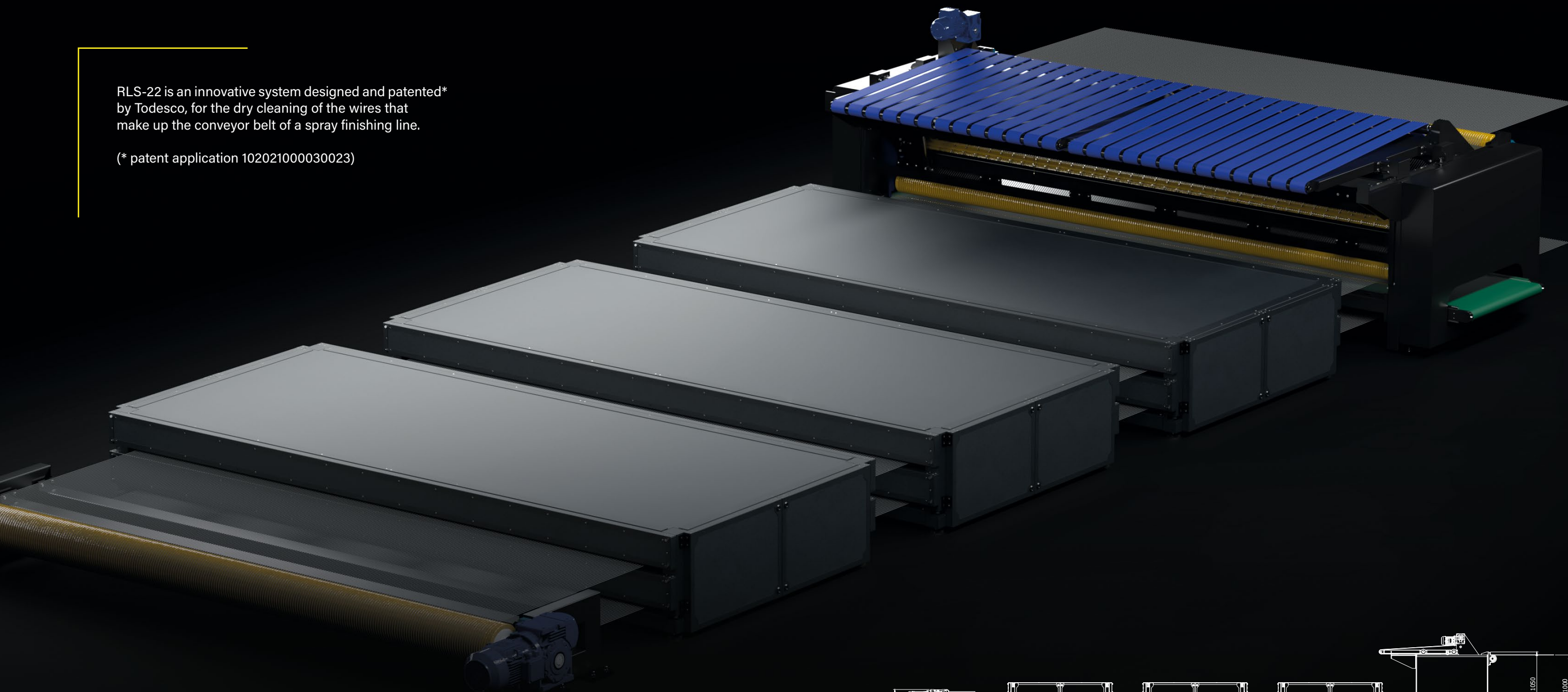


RLS-22

RLS-22 is an innovative system designed and patented* by Todesco, for the dry cleaning of the wires that make up the conveyor belt of a spray finishing line.

(* patent application 102021000030023)

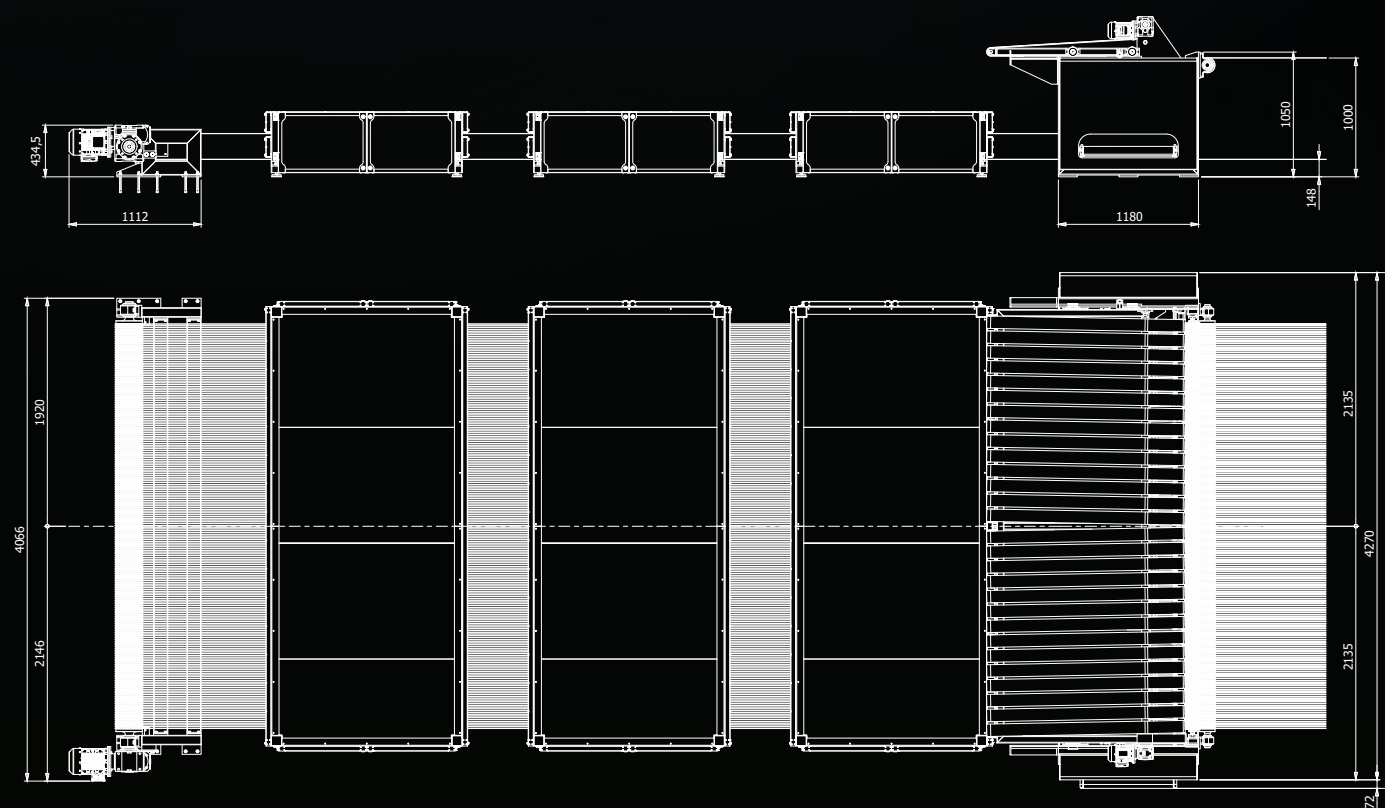


Application fields

RLS-22 can be applied in all finishing lines where the belt that carries the hides through the drying tunnel is separated from the belt that carries the hides through the spray booth.

Typically RLS-22 finds natural application in transfer paper release lines, lines with IR, or radiofrequency drying tunnels.

RLS-22 stands out because it does not require the use of water and, thanks to the technology applied, it minimizes the risk of contamination of the hides due to dust and color residues.





Cleaning unit

It is placed between the spray booth and the drying tunnel. The principle on which the cleaning process unit is based is that during the finishing process the wires become painted and return to the cabin inlet head, colored and dried.

The painted wires do not generate critical issues: the chemical products for leather finishing, in fact, are typically designed to adhere tenaciously to surfaces and grant mechanical resistance to abrasions and bending. For this reason, during the finishing process, the risk of detachment of color elements from the wires is minimal, and the risk that these elements settle on the wet hides is minimal.

The cleaning unit consists of a wire scraping system made with harmonic steel blades that are activated only in the absence of hides and more generally out of the finishing process. The scraping blades, through mechanical stress on the wires, eliminate the color, which is externally conveyed via a special conveyor belt.

The cleaning unit is carefully insulated and isolated from the finishing line and is designed for the connection of a suction unit thus preventing the escape of volatile elements.



Wires drying unit

During the finishing process, the wires that make up the conveyor belt through the spray booth, pass through the cleaning system with no cleaning treatment and enter into a series of drying elements outside the tunnel dedicated to the hides.

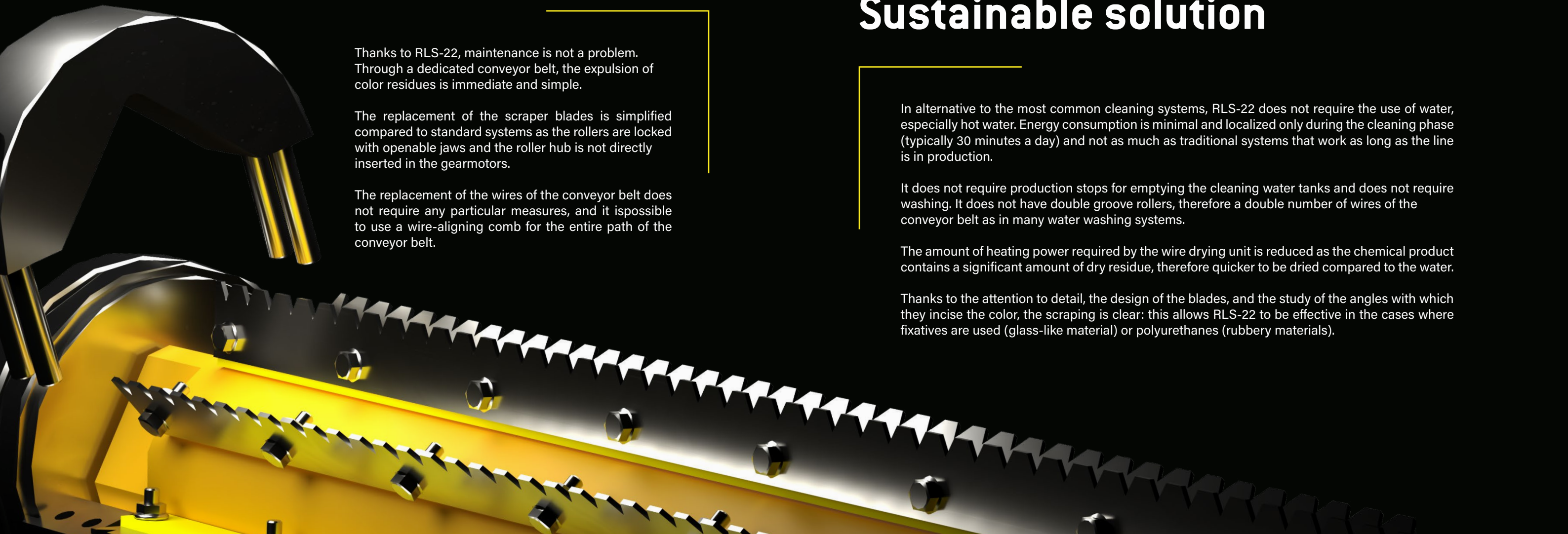
The drying of the wires can be carried out by recovering hot air from the heat exhausters of the tunnel dedicated to the hides, or through a series of IR lamps.

Maintenance

Thanks to RLS-22, maintenance is not a problem. Through a dedicated conveyor belt, the expulsion of color residues is immediate and simple.

The replacement of the scraper blades is simplified compared to standard systems as the rollers are locked with openable jaws and the roller hub is not directly inserted in the gearmotors.

The replacement of the wires of the conveyor belt does not require any particular measures, and it is possible to use a wire-aligning comb for the entire path of the conveyor belt.



Technical Data

	Conveyor belt width	
	2.200 mm	3.400 mm
Cleaning unit		
Conveyor belt width (mm)	2.200	3.400
Maximum overall dimensions (width x depth x height) (mm)	2.931 x 1.931 x 1.444	4.352 x 1.931 x 1.444
with extended connection belt (mm)	2.931 x 1.931 x 2.339	4.352 x 1.931 x 2.339
Maximum required power (kW)	5.5	5.5
N° scraper blades	16	16
Electric driver and positioning of the electric blades	electric	electric
Type of belt connection belt	band conveyor	band conveyor
Drying unit		
Maximum power required (if foreseen)* (kW)	15-45	25-65
Drying unit insulation	polyurethane - air	polyurethane - air

** variable on depending the speed of the conveyor belt*

Sustainable solution

In alternative to the most common cleaning systems, RLS-22 does not require the use of water, especially hot water. Energy consumption is minimal and localized only during the cleaning phase (typically 30 minutes a day) and not as much as traditional systems that work as long as the line is in production.

It does not require production stops for emptying the cleaning water tanks and does not require washing. It does not have double groove rollers, therefore a double number of wires of the conveyor belt as in many water washing systems.

The amount of heating power required by the wire drying unit is reduced as the chemical product contains a significant amount of dry residue, therefore quicker to be dried compared to the water.

Thanks to the attention to detail, the design of the blades, and the study of the angles with which they incise the color, the scraping is clear: this allows RLS-22 to be effective in the cases where fixatives are used (glass-like material) or polyurethanes (rubbery materials).



Todesco S.r.l.
Via Pasubio, 60 - 36051 Creazzo (Vi) - Italy
todescosrl.com • info@todescosrl.com