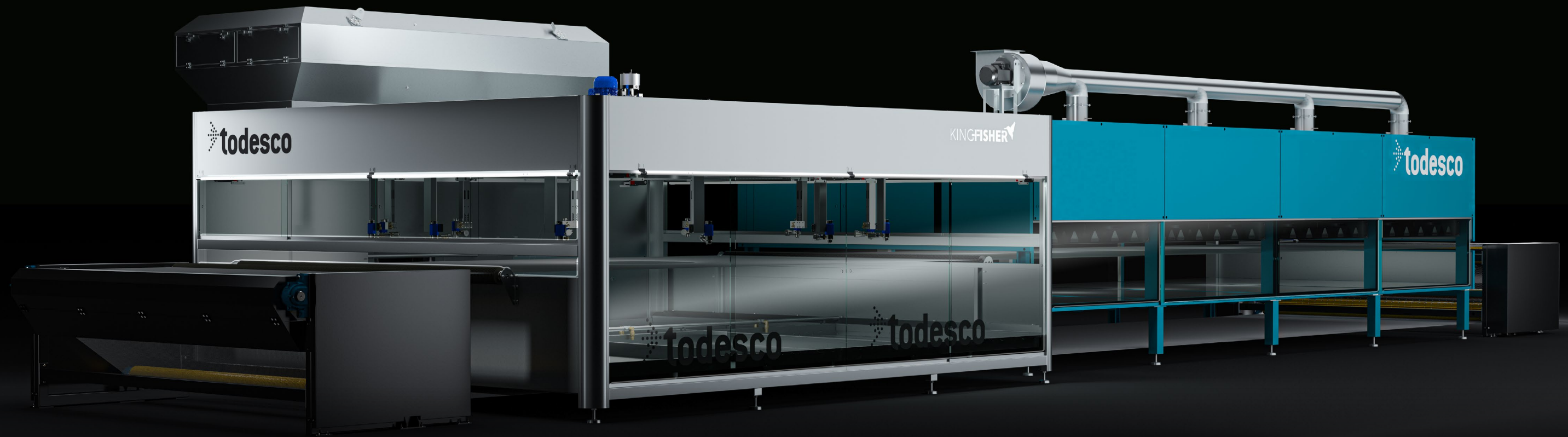


KINGFISHER



KINGFISHER 
light + smart + now

Always on the ball, in all conditions

Kingfisher is the Todesco's product line, which stands out for its functionality and quality far superior to market standard.

Kingfisher is a finishing line for leathers, designed for those who are looking for a system that allows a maximum range of possible processes, ease of use, and minimum maintenance.

Kingfisher is entirely made in Todesco and is the result of many years of experience in the field of leather finishing.



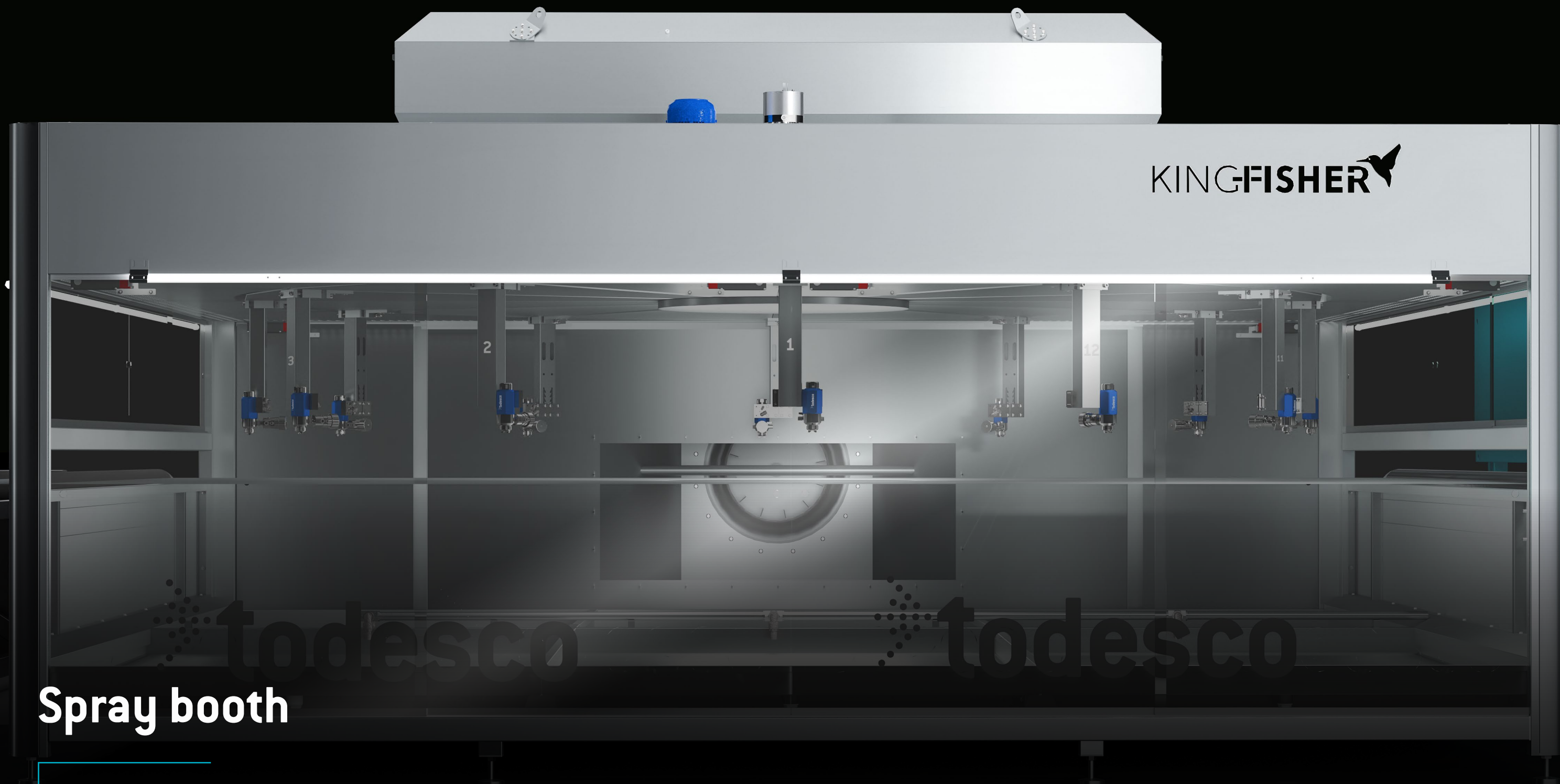
Looking for new ideas where it seems impossible

Kingfisher is available for usable conveyor widths as per 1,800 / 2,200 / 3,000 / 3,400 mm and in configurations with steam, gas, and infrared drying tunnels.

Kingfisher, in its simplicity, is a machine solutions-oriented to reduce the costs of production and a sustainable environmental impact as a result of lower use of water, an high spraying efficiency, and a reduction of over 99% of atmospheric emissions.

Kingfisher has a tidy geometry, easy access to all parts of the machine, and wide visibility of the areas of hides passage.

KINGFISHER 
light + smart + now



Spray booth

It is mainly made of AISI 304 stainless steel. The large and sturdy windows give to the spraying area a great brightness, a sense of clean as well as a pleasant overall aesthetic impact. Furthermore, the operators get a wider and clearer vision of the spraying phase.

The safe access inside the cabin is large and practical thanks to two large sliding doors in the front and in the rear. The front windows are protected from dirt thanks to filtered air blades, installed on the machine.

The floor of the booth, just 30 cm high, makes it easy to access and facilitates the deposit of the color sprayed out of the hides: the color does not bounce and settles much more quickly without being dispersed in the booth.

The water floor is designed to be filled automatically with a minimum quantity of water to maintain fluid the color deposited. Also, it is quick and easy to be washed, thanks to 4" drains for wastewater and specific slopes for optimal outflow.



1

Rotary carousel

Available with 8 and 12 arms versions, the rotary carousel is the beating heart of Kingfisher.

Minimal color overload on the outer sides of the hides

All Todesco rotary carousels have a ratio between carousel diameter and the conveyor belt width of 1.41, a measure that reduces to a negligible value the color overload due to the tracking effect.

Patented design

The spray guns are fixed on special arms: the distance between the guns and the conveyor belt can be varied quickly and easily, thanks to a particular patented design.

The pipes that convey the air and the color to the guns are exposed only in the proximity of the gun in order to avoid deposits of material that could easily fall on the hides, generating contamination.

External rotating joint and absence of internal obstacles

The rotating joint is installed over the spray booth roof instead of inside it, as traditionally placed. A solution that preserves the hides from any contamination (dust, fluids) coming from the rotary joint itself, and its supports that are suited for the passage of the color pipes.

This solution also gives to the spray booth large internal spaces and facilitates the joint maintenance.

The central shaft of the joint is made in stainless steel coated with white chromium plating with a roughness of $< 2 \mu\text{m}$, while the outer rings are in GHA treated aluminum (anodization with silver salts).

Return of chemical for each circuit

All the color circuits are in an open-circuit configuration, an option that allows the return of the product to the drum without discharging the contents directly into the spray booth. This determines an important saving in every color change or color adjustment.

A detailed 3D cutaway rendering of a mechanical transmission system. The image shows a large, dark-colored metal frame supporting a complex internal mechanism. At the top, a silver cylindrical component is visible. Below it, a series of brass-colored fittings are connected to a central shaft. The main part of the mechanism features a large, silver-colored pinion gear meshing with a fifth wheel. The entire assembly is mounted on a dark, circular base. The lighting is dramatic, highlighting the metallic surfaces and the intricate details of the machinery.

Pinion - fifth wheel transmission without chain

The transmission of motion between the engine and the carousel takes place through a system consisting of a pinion and a fifth wheel. This solution is extremely reliable, totally maintenance-free, and gives a precise, fluid and stable movement of the carousel. Fifth wheel and pinion do not require calibration as is the case due to the chain slack, normally used on standard machinery.

Guns

HV-02 is the only gun with a transfer coefficient * greater than 92%, certified by Fraunhofer Institute (Germany).

** percentage that defines the ratio between the chemical product deposited on the hide and the total chemical product delivered by the gun during the spraying process.*

Made in Italy

HV-02 is a gun for leather finishing of any type and purpose of use, the result of over 30 years of Todesco experience.

HV-02 is completely designed, built, and assembled in Italy, and is the result of over 1000 prototypes and an unstoppable research and development activity, confirmed by the presence of 10 patents.

Over the past 30 years, Todesco has installed over 15,000 spray guns in the best tanneries around the world.



Reduction in chemical consumption up to 40% **

The capacity to pulverize the chemical product to be transferred to the hides is excellent, and thanks to its high efficiency, the dispersion of color due to rebound, is minimized.

A finishing of unparalleled quality

The uniformity of the film deposited on the hide, the fineness and the distension of the chemical product, are incredible. Thanks to a special technology that allows the spraying flames to always remain stable and precise, the leather will have no stripes, dots, or any other kind of defect.

Unlimited possibilities

HV-02 is appreciated in the leather goods sector for the delicacy and lightness of the spraying when it comes to effects, in the automotive sector for the absolute precision and constancy of the coating even after many finished hides, and in furnishings for the total flexibility in spraying heavy coatings and foams.

HV-02 works with water-based and solvent-based products, and with viscosity *** from 15 to 120 sec.

*** value calculated versus competitor's spray systems
*** viscosity measured in Ford Cup 4*



Patents



IT1267753



IT1267752



ITVI20020282



ITUB20155039



IT102015000064558



IT102014902224611



ITUB201586517



IT102015000064568



ITVR20120018



ITUB20154903

Regulators

Product regulators

Todesco's product regulators eliminate the need to use the traditional counter click in the gun, which is the source of malfunctions as well as the irregularity of the flames due to the non-axiality between the needle tip and the nozzle orifice.

RPN-12

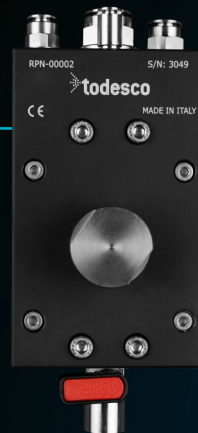
It allows to adjust each single gun by means of an external counter click with a 4 mm diameter shutter. The gun can thus dispense a quantity of product, from a single drop, up to the maximum allowed by the installed nozzle. For this, even without changing nozzle size, it is possible to space from very low quantities (effects and top coating) to heavy coatings (base and top color).



RPN-03

It is an automatic product regulator, which, in addition to the advantages of a manual regulator, allows the calibration of the color flow simultaneously in all the guns, minimizing the setup time.

All product regulators are equipped with 8 mm diameter taps for washing and quickly draining the circuits and the regulator itself, without only passing through the nozzle of the gun.



Air regulators

ARP-03

Applied to each gun, it allows for it maintains the air circuit stable at the typical general air pressure which is then reduced to the minimum value required for the atomization, in the proximity of the gun. This innovation allows a perfect adjustment of the color atomization, simultaneously on all guns, which therefore does not undergo variations in the event of pressure losses in the main air circuit.



Dust abatement device

DEP-04 (or 05 for small cabin sizes) is the most advanced version of the exhausted air purification systems produced in Todesco, with an abatement capacity up to 99,93%.

Entirely made in AISI 304 stainless steel, thanks to the three blast chilling stages, it is one of the most efficient machines actually available on the market.

- 1

Mixing and decanting with water

The contaminated air inside the spray booth is sucked in by the main turbine and is immediately mixed with the water delivered by the spray nozzles. Due to the centrifugal effect, the color / water mixture impacts the walls around the impeller and decays. The high speed of the dry particles and water droplets increases the mixing between the two.
- 2

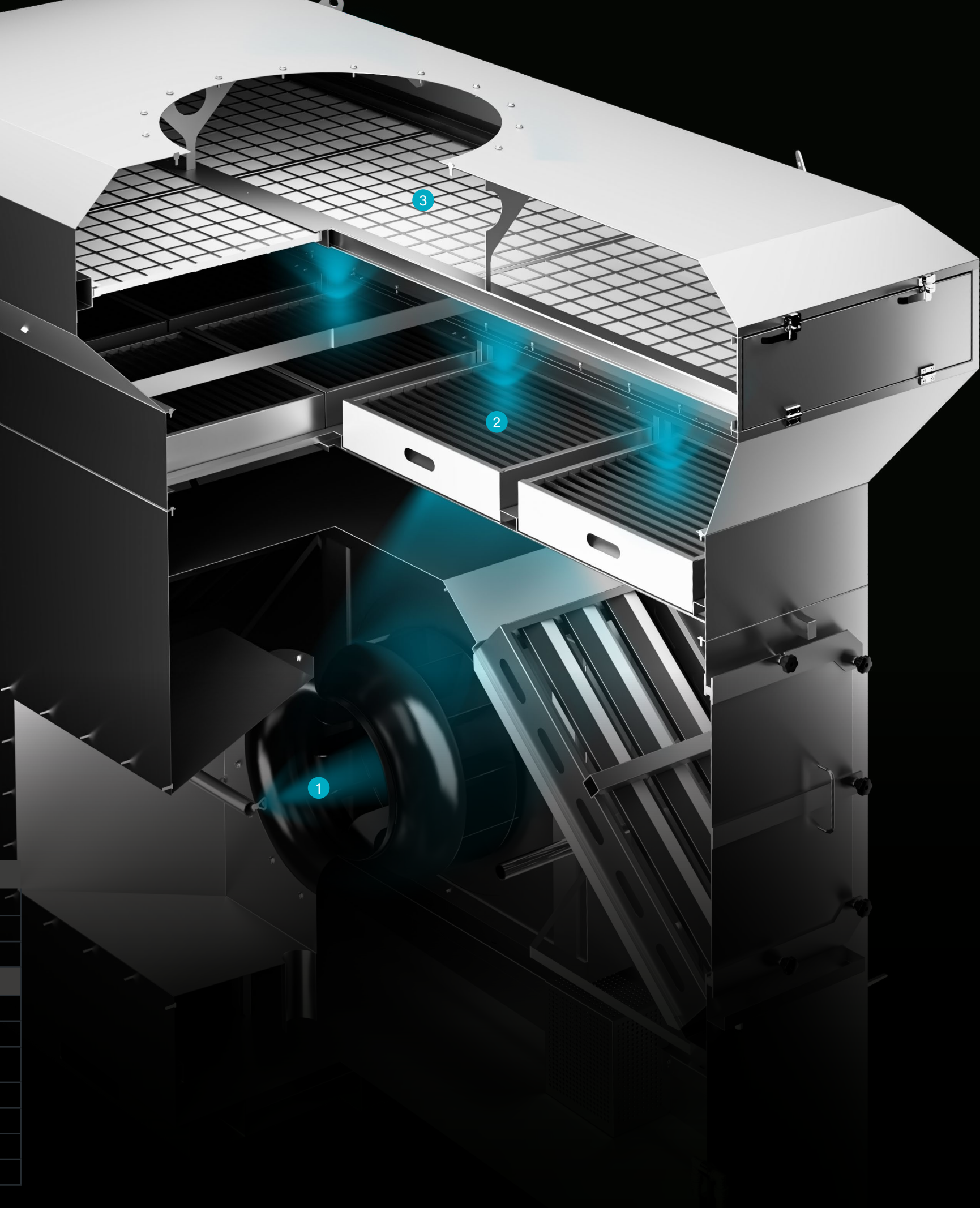
Settling and separation of powders

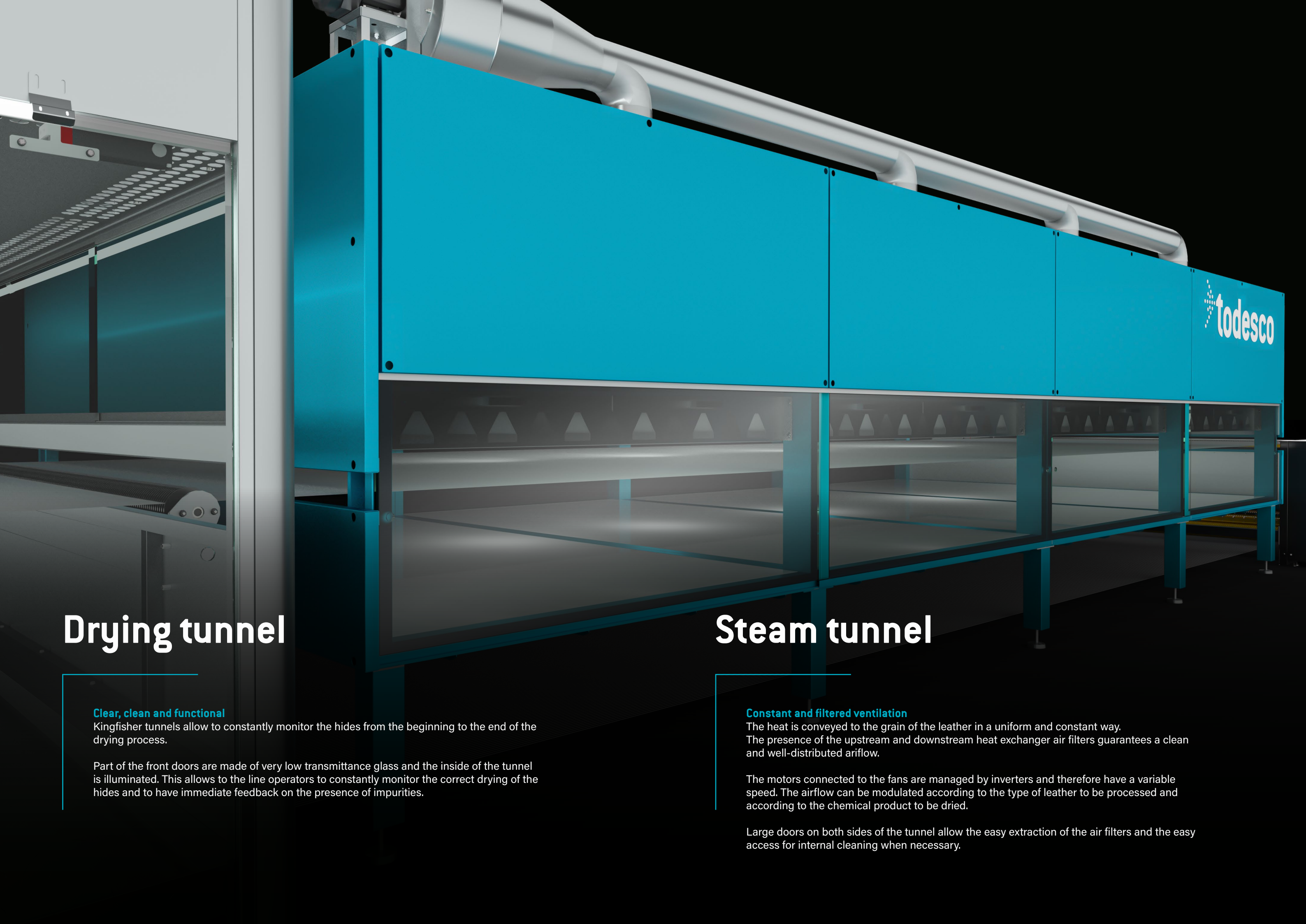
A stage of Ω metal filters retains a high quantity of drops, which fall by gravity into the settling tank. The "S" filters force the continuous change of the direction of the humid air towards the outlet. Passing through the metal circuits, the percentage of water contained in the outlet mixture is less than 1%.
- 3

Final filtering

The last stage of filtration consists of absolute polyester filters that permanently block the dried molecules still present in the outlet air.

Turbine features		
Motor power	15 kW	
Maximum capacity	25000 m³ / h	<i>nominal 18.000 m³ / h</i>
Pressione massima	115 kgf / m²	
Water recirculation pump		
Electric power	1,5 kW	
Maximum flow rate	500 l / min	
Capacity of settling tank	1.700 l	<i>with automatic loading and level control with internal capacity</i>
Fluid discharge size	4"	
Material	AISI 304 stainless steel	
Impeller in steel coated with PTFE treatment		
Abatement capacity	up to 99.93%	





Drying tunnel

Clear, clean and functional

Kingfisher tunnels allow to constantly monitor the hides from the beginning to the end of the drying process.

Part of the front doors are made of very low transmittance glass and the inside of the tunnel is illuminated. This allows to the line operators to constantly monitor the correct drying of the hides and to have immediate feedback on the presence of impurities.

Steam tunnel

Constant and filtered ventilation

The heat is conveyed to the grain of the leather in a uniform and constant way. The presence of the upstream and downstream heat exchanger air filters guarantees a clean and well-distributed airflow.

The motors connected to the fans are managed by inverters and therefore have a variable speed. The airflow can be modulated according to the type of leather to be processed and according to the chemical product to be dried.

Large doors on both sides of the tunnel allow the easy extraction of the air filters and the easy access for internal cleaning when necessary.

IR Tunnel

It is the ideal solution when a steam generator boiler or a dedicated gas line (LPG or methane) is not available and the electricity comes from alternative sources to fossil fuel.

The drying of the hides is monitored in real-time as it is regulated by reading the grain side temperature, detected by special laser sensors. Specific electronic controllers allow a precise modulation of the power of the lamps, variable according to the temperature of the hide surface.

The infrared lamps are made with a double gold coating of the upper part to obtain maximum reflectance and higher energy efficiency.

The air and humidity inside the tunnel are conveyed outside through a dedicated suction system.

Inlet and outlet heads and optional on the line

inlet head

The inlet head, up to 2,500 mm deep, is suitable for spreading whole bovine hides without the risk to be detected by the reading system.

Head with wire scraper

The replacement of the scraper blades is simplified compared to standard systems as the rollers are fixed to the drives with openable jaws and the roller hub is not directly inserted into the gear motors.

Head with brush washing system

Ideal for all processes that use waxes that cannot be easily removed from the threads, through mechanical stress (scrapping). The hot water washing system allows you to melt the wax and clean the wires satisfactorily.

Intermediate wires guide rollers with up/down system

The wire guide rollers between the spray booth and the drying tunnel can be equipped with the automatic raise / lower system. In case of use of waxes or particularly viscous and pasty products, it is practical to temporarily remove the roller so that it does not get too dirty.



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