

# ENVIRONMENT DECLARATION 2016



*“EXCLUSIVITY AND QUALITY CREATED TRUE ENVIRONMENTAL RESPECT AND  
THANKS TO THE EFFORTS THAT EACH OF US PUT IN EVERY SINGLE ACTIVITY”*

Lessona, 29<sup>th</sup> November 2016

Drago Spa, increasingly attentive to the constant evolution of the development process and renovation of all business activities, works to ensure that all the various process steps, both internal and external, are carried out with a view to eco-sustainability in full compliance with environmental respect and of the existing norms, thus achieving excellence through the overcoming of standard values. Drago Spa started with this project in cooperation with some important customers since 2016 in order to develop and implement new programs for environmental safeguard; this will bring inside the Biella Company to a significant evolution reaching very important targets. This project will be supported by the usage of new technologies that can reduce consumes and improve both on a production basis as well as on quality.

CEO  
Paolo Drago

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## History

Drago Spa is a well-established industrial group that takes a leading position in the international textile landscape. Thanks to the entrepreneurship of the founders Umberto and Laura, the Drago family started its business since 1973 in the field of weaving yarns, becoming an partner of excellence of the most important mills in the Biella area. With the introduction of Paolo and Daniela Drago, Umberto and Laura's sons, in the eighties, the activity specializes and expands to foreign markets until the acquisition of the Fintes wool factory in 1993, incorporated in the group in 2001.

The important investments in technology in the last 10 years have made Drago Lanificio in Biella one of the main integrated mill in the Biella area, including the whole production chain from spinning, weaving to finishing, to an efficient sampling and a modern laboratory analysis.

Innovation, efficiency and creativity are the winning weapons that more than 150 people situated in Lessona and Verrone departments, they are doing every day to reach ambitious growth targets that have led the group to export in recent years in 70 countries around the world, among its customers all major international brands in the clothing industry.

The Drago family invests in research and development a significant percentage of its turnover, engaging in product innovation projects and related processes, with a special focus on environmental protection

## Technologies

Drago spa can boast of being an integrated woollen mill, presenting within it the complete production chain, from spinning wool to finishing. In recent years the Drago group has faced significant investments in the development of new technologies and in the purchase of the latest generation machinery, always paying great attention to environmental protection and production performance.

## Laboratory

Drago is extremely attentive to the quality of its products and has a well-equipped internal analysis laboratory, certified since 1990 to Interwoollabs. Within this "department" there is the prior control of the purchase of wool, which in order to be suitable and subsequently acquired must pass the following checks:

Thinness of the Fibers ➡ OFDA100

Height of Fibers ➡ AL 100\_Almeter

Cleanness of the Fibers ➡ Top Tester

These three features are very important for the final fabric, just think that the fineness of the fiber it allows us to know the quality of our final product

These controls are performed ➡ on samples  
➡ on pre-production  
➡ on production

**INTERWOOLLABS**  
International Association of Wool Textile Laboratories

This is to certify that

*Filati Drago S.P.A.*

is an Accredited Member of Interwoollabs and has been granted Interwoollabs Stamp No.113 for

**2016**

for use on Test Certificates issued for measurements of Wool Tops carried out according to the following IWTO Test Methods

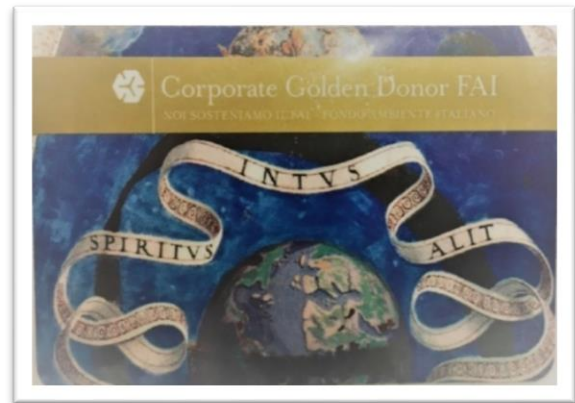
IWTO-17 "Determination of the parameter of wool fibre length distribution with the ALMETER apparatus"  
IWTO-47 "Measurement of the Mean and distribution of fibre Diameter using an OPTICAL FIBRE DIAMETER ANALYSER"

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## FAI

Furthermore, Drago's attention to social issues and the environment is also demonstrated by his participation in the FAI Fondo Ambiente Italiano as a Corporate Golden Donor.



The FAI is an Italian foundation founded in 1975 for non-profit, for the protection, protection and enhancement of the Italian artistic and natural heritage through the restoration and opening to the public of historical, artistic or natural heritage received by donation, inheritance or loan. It promotes education and awareness of the community to the knowledge, respect and care of art and nature and intervention on the territory in defense of the Italian landscape and cultural heritage.

## Department

### Lessona – spinning dept.

- warehouses– Tops & yarns
- Laboratory
- Administration dept.
- Sale dept.
- Marketing & communication dept.
- Bunch & Bespoke dept.

### Verrone – mill

- Warping dept.
- Weaving dept.
- Mending dept.
- Finishing dept.
- Sampling & Shipping dept.
- Style office

## Processes

Drago Spa is a complete mill, from the raw material to the fabric ready to be delivered all around the world. All the processes are performed internally, with some exceptions:

- The first step of industrial preparation: the cleaning of the wool, is done by suppliers. Drago selects and buys directly raw material from Australia, New Zealand (wool), China (cashmere) or other countries (South Africa or South America) after a selection by quality, which is done by the internal laboratory in Lessona plant.
- Dyeing. All dyeing processes are externally done.
- Singeing. The second step in finishing, singeing, is externally done. After preparation and crabbing process, fabrics are sent to a supplier, and then are processed in a piece of machinery that quickly rolls the fabric and rapidly pass it over a controlled flame which burns long hairs and fluffs that protrude from the fabric frame. In that way, fabric acquires smooth and “dry” aspect and it is ready to be clean and to be treated in all the following processes.

## Lessona – The spinning mill

### Blender machine

As written before, Drago buys raw material that is initially processed outside, then, in terms of factory production, the first material that enters the plant of Lessona is represented by tops. Tops are delivered by the supplier and then stocked in the warehouse. Usually, two kinds of tops arrive in the department: dyed and raw, this characteristic will condition the following processes.

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The first operation, when the bales of tops arrive, is to open the bales and insert the tops into a drawing frame and blender machine. This machine has the function of parallelizing and blending staples from different bales, in order to obtain a homogeneous final staple. In this phase a compound of water, oil and antistatic agent is sprayed on the wool, preparing for the next steps.

### **Combing machine**

At this point, wool pass throughout a series of combing machines which have the aim of increasing the quality of the wool, eliminating short fibers, achieving a better parallelism of fibers, eliminating clumps and obtaining the higher level possible of evenness in the sliver.

### **Preparation**

In this phase, slivers are paired. Questa fase serve ad accorpare i nastri di lana e renderli più regolari possibili in termini di peso per lunghezza, anche in funzione del titolo di filo desiderato.

### **Finisher Drawframe**

Wool slivers enter a machine: the finisher drawframe (in italian: “finitore”) which gives a slight twisting to the staples, just to give faint compactness to the product preparing it to the yarning process.



### **Spinning – Steaming – Winding**

In spinning, wool staples, thanks to the twisting and drawing actions, finally become yarns. After this process, yarns are treated in a steam-pressurized chamber in order to fix the twisting. The yarns quality is constantly checked by Husters capacitive sensors, which are able to detect all the slightest change of yarn



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thickness and to eliminate the defective section, all these control and correction processes are automatically done by spinning machines. When the yarn steaming phase ends, yarns are wound up on distaffs. Usually, spinning, steaming and winding are well-separated processes accomplished by specific machines; in our case, instead, these three phases are processed in automatic sequence by machines linked together.

### Twisting

In certain cases, the single yarn wound up on distaff needs to be paired with another single yarn. The process that two yarns are paired together is called “twisting” (“ritorcitura”).



### Rewinding

In the spinning department we can find also a machine used for rewinding (Slaforst X5), this machine can wind up yarns dyed on distaff in order to adjust the product to the distaff quality standard of Drago. This process is also used to recover residual material of the warping phase or for quality control.

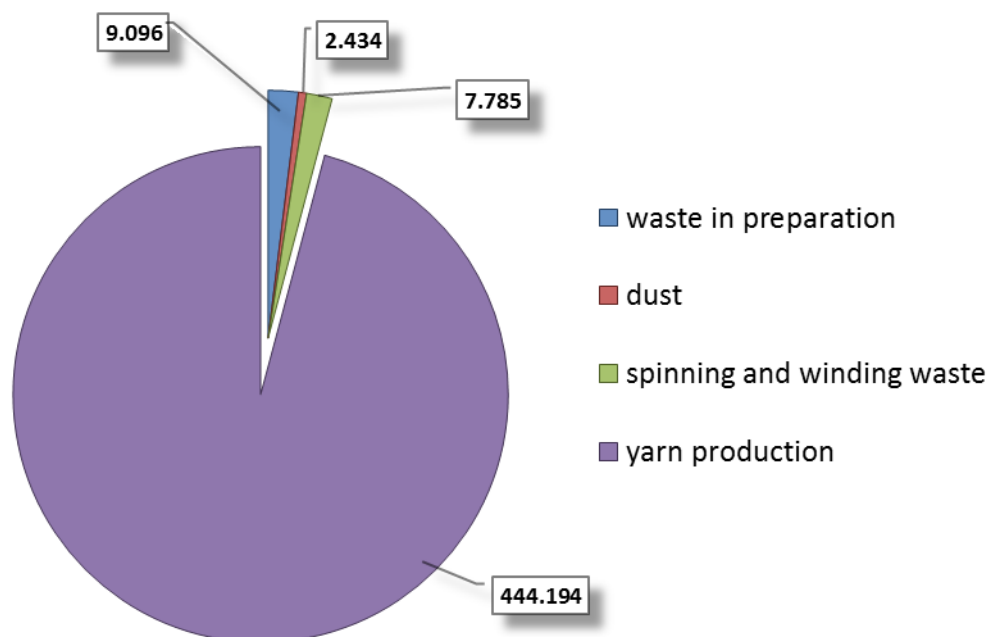
## Spinning waste material

All the processes of spinning mill produce a really low quantity of solid waste, like wool dust and fibres, which are sucked by specific vacuum cleaners that automatically work along the spinning machines. This waste material is sold to recycling specialized companies.

After all the spinning processes, yarns are stoked in the warehouse, waiting to be used for fabric production in Verrone plant.

Shown below, a summary chart that describes by numbers waste material production in spinning phases, in related to the production of yarns. Measurement values are in kilograms.

**WASTE MATERIAL PRODUCTION IN SPINNING -  
IN KILOGRAMS  
2016**



## Warehouses

Drago spa has three warehouses. In Lessona there is the warehouse for raw material and yarns which will be sent, accordingly to the need, to the weaving departments in Verrone or Bacau. In Lessona there is also the warehouse for fabric articles of “bunch”, a daily shipping service that can face our customer requirements.

In the Verrone plant, instead, there is the warehouse of fabrics and samples office, in charge in shipping of collection articles.

## ***Verrone – Wool mill***

### ***Warping***

In warping, yarns are prepared in a frame that represents the warp structure which will be used in weaving. This is a mechanical process and yarns are fixed in the frame as required by the design project.

### ***Drawing-in (Incorsatura)***

Drawing-in is the phase of preparation of yarn for weaving which in our plant is automatically done. This is an operation of insertion of every single warp yarn in a respective heddle in order to obtain the framework of the design.

### ***Weaving***

Weaving is the mechanical process that produces the fabric.

### ***Unrefined fabric control***

After weaving the fabric is finally produced but it is not finished yet. The first step after weaving is the first quality control: every piece of fabric is controlled by specialized workers in order to check and detect possible defects of production. The defects are marked and a first report is printed, then the fabric moves to the next step: patching. In this process, the defects are corrected and, if it is possible, completely removed.

### ***Finishing***

Finishing is the group of labors and processes that are done to the fabric in order to lend specific features, as enhancing the appearance, technical performances, drapery and in general, making the fabric as it has been designed. Finishing is a very complex and varying process that involves multiple passages and types of machinery and that does not follow always the same path, the same procedure; it depends on the fabric, on the final result that we want. Furthermore, considering the same article, with the same drawing and the same colour, it does not mean that we can be sure to follow the same steps. Actually, the finishing treatment can be conditioned by many variables such as wheatear (humidity), water quality/condition, chemical or mechanical differences, etc.

Thus, the operator must be flexible and evaluate carefully the product during the process, in order to be prepared to change or adjust something in the process, before it is too late and the fabric is definitely

ruined. That makes finishing quite a kind of handcraft work. In Drago Spa there are both wet and dry finishing.

## ***Wet Finishing***

### ***Crabbing***

The first treatment is Crabbing, that aims to fix or stabilize the fabric and increase structure regularity. The mechanism uses a combination of temperature and moisture action, while the fabric is flattered and put under pressure in order to give it a permanent set.

### ***Scouring***

Accurate scouring is the premise for a success in all the following processes. Scouring has not only the aim of remove the dirty from the fabric, it has also the purpose of giving to the fabric some features. Scouring result can be mainly affected by five factors:

- Water features
- Washing Agents
- Mechanical actions of the washing machine
- Temperature and pH
- Rinsing

The excellent purity of biellese water gives to our products an unparalleled quality.

### ***Felting***

Felting is one the main features of the wool and it is known from ancient times. Wool shrinking after washing is generally an undesired effect; in factory wool finishing, instead, it is a feature that is used to give to same articles a specific trait. Felting of wool fibres take places as a result of a combination of compression, heat and moisture.

### ***Dry Finishing***

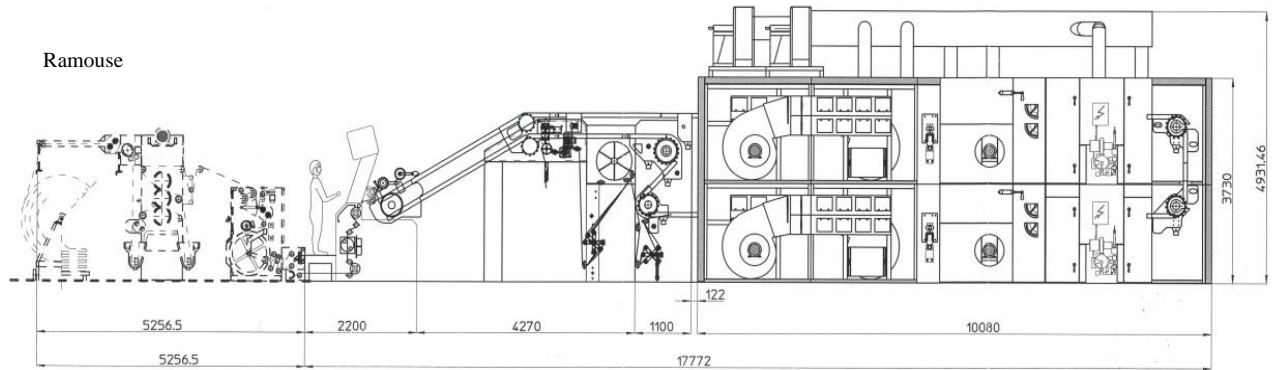
Finishing department is obviously complete with all main dry finishing machines:

Stender Drying is a drying machine and it is used also to do some thermal fixing treatments. The operation system is based on heating of fabric by hot air flows. Stender Drying machine or *Rameuse* is a machine often linked to a pad mangle and a weft strengthener. Pad mangle or *foulard* is a machine that immerses

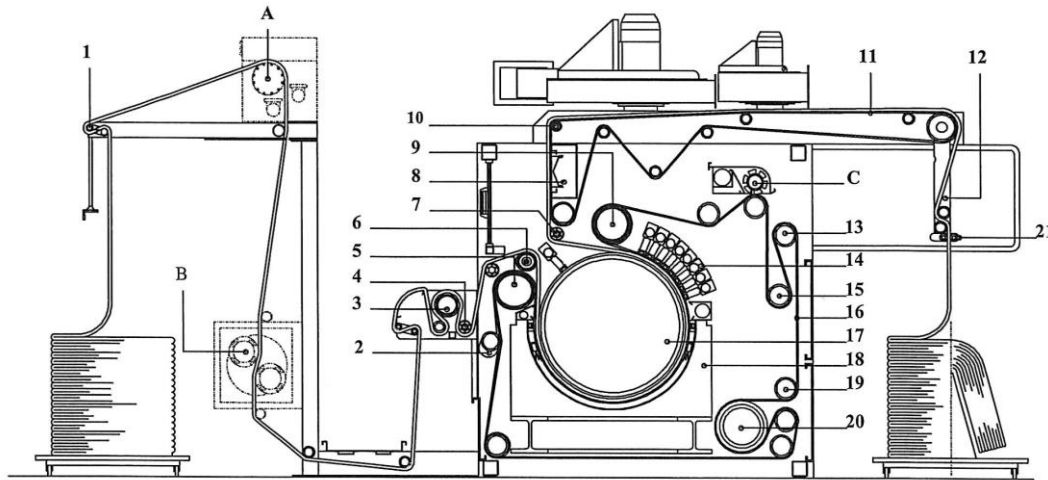
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the fabric in a bath with a solution of water and chemicals chosen for the feature we want to give to the fabric.



Decatizing is an important step in finishing, it aims to reduce fabric thickness and increase the smoothness of the surface, these results are achieved using pressure and steam. In general this is a dry process, but there is also a wet decatizing, in this case, fabric pass through a foulard machine (or pad mangle) and it is immersed in a bath before decatizing. There are different Decatizing machines which give different effect to the fabric; for example, Decatizing “finish” gives to the fabric a “full and woolly hand”, it also favourably influences the crease and shrinking resistance. Autoclave Decatizing, better known as Under-pressure Decatizing or KD (*Kessel Dekatur*), is used to produce permanent effects of shiny to the fabric; this finishing also gives to the fabric steadiness in term of dimensional stability (*Hoffmann* press test) and wetting. KD Decatizing machines consist essentially of two parts: a winding work station where fabric is wound up around a perforated steel cylinder, whose holes are traversed steam flows, and a pressure chamber where fabric is treated with saturated steam.



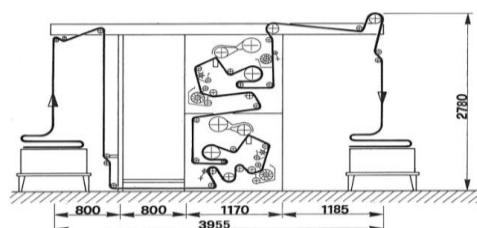
Macchina decatizzo in continuo: Decofast Ultrafinish SP.9.A

*Songing* is a process that aims at reducing fabric tension thanks to the combined effects of pressure and steam. This process makes fabric smooth, soft and shiny.

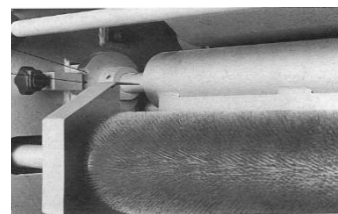
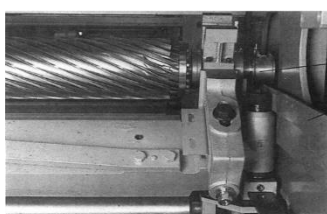
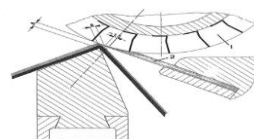
*Cropping* is a mechanical, dry treatment that aims to create an even surface of the fabric by cutting fibres that protrude from the fabric frame to a uniform length. The mechanism is based on blades mounted on rolling cylinders, another fixed blade and on brushes cylinders that raise the fibres to cut them easily. This treatment increases the clearness of the fabric drawing.

## Quality Control

Our articles are tested, in order to guarantee a high quality level of the production and the compliance with our customer requires and international standards. Our products are tested in internal laboratory and external certified laboratories. Furthermore, the high quality level of our products made it possible to Drago group to enter into the inner circle of the most reliable suppliers, which are able to realize “pronto all’ago” products, for some of the most prestigious international costumers of the field.



Macchina Cimatrice in sezione



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- “pronto all’ago” control: the high certainty about internal quality of our controls, made by specialised operators, has a value of absolute control of the fabric.





## New Machineries

DRAGO SPA is a company quality and innovation-oriented and this attitude pushed the business to a continuous renovation, above all in production processes where new machinery is added.

### Spinning – Steaming – Winding Machine

The program of substitution of spinning machines with last generation new model is currently underway. These machines are composed of three parts connected each other:

- Spinning: Saurer – Zinser Impact FX 451
- Steaming: OMV – Vap 40
- Winding: Schlafhorst - Autocorner 6

The new piece of machinery connection guarantees high process automatization level, then a reduction of the operator's workload. These new machines, based on sophisticated technologies, led to a significant improvement of product quality. Then, this solution has also produced an important energy saving, in fact the number of machines is decreased but quantity and quality production is increased. At present, the substitution machines program is at % of the total.





## Biella Shrunk – Kinetika

One of the new machineries introduced into the production processes, we can find the revolutionary Kinetika, produced by Biella Shrunk in collaboration with our technicians of the Verrone plant, who, thanks to their experience, are developing this project in order to obtain, actually, the best washing – finishing integrated machine in the market. Kinetika was presented to the public, for the first time, in the EICMA fair of January 2016, where it obtained a great success, above all for its innovative solutions.

Kinetika takes its name from “kinetics”, distinctive feature of the new machinery, introducing a new concept of washing which reaches surprising level effectiveness. Using powerful recirculation pumps (30Kw) and a special washing circuit equipped with spray nozzles, flat-jet type, the washing liquid is thrown like micro-drops (50/100 µm of diameter) to the fabric with high pressure.

That means high recirculation volume (L/h) which can reach a bath exchange throughout the fabric till 100 litres per fabric meter.

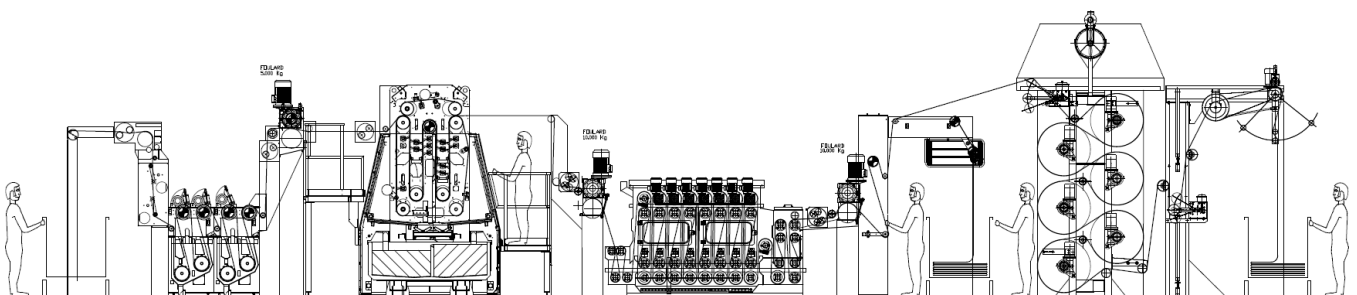
Kinetika is a modular machine, it means that, depending on necessities, it is possible to add complementary components which integrate various treatments in series.

Drago already launched the project of installation of two additional modules:

- Steaming tank with foulrad
- Dryer with 6 steamed cylinders of 800 mm of diameter



Those modules, perfectly integrated with the washing structure, will optimize the whole working process, reducing the time needed and water/electricity consumption, since the work processed by three machines will be done by a single: Kinetika



## Looms - ITEMA mod.R9500

Weaving department is actually one of the most renewed in Drago group, in fact 9 new looms were bought last year, and these machines with the other 15 looms recently introduced into the production process, make this department one of the most modern and efficient of the factory.

The management, after an attentive research, decided to purchase the R9500 models produced by ITEMA, which are classified A+ and then with a remarkable energy saving in comparison with the previous models. The new looms are also *"Green Certified"* by ACIMIT (Association of Italian Textile Machinery Manufacturers).



The substitution of the looms contributed also to the complete disposal of the "air looms" which are considered too much energy consuming and harmful to the environment.



## Energy Saving

### Thermal Energy

With a view to energy saving policy, DRAGO SPA implemented a recovery system of the thermal energy produced during some industrial process; the heat, in this way, will be reused in those processes that need it, instead of being lost into the environment. The thermal energy saving occurs thanks to an exhaust steam Recovery system installed on a particular machine: the "Ramouse" which uses the combustion of gas to produce hot air flows in order to heat the fabric. Then, the hot air produced should be lost into the environment, passing throughout the chimney but thanks to the recovery system, hot air is instead conducted to a heat exchanger, which transfers the heat of the hot air to the water, which will be used during the wet finishing processes as the scouring.

The heat recovery system was built in 2014 and in two years and a half it allowed DRAGO SPA to save more than 230.000 cubic meters of methane gas and to reduce CO2 emission of more than 430 tons.

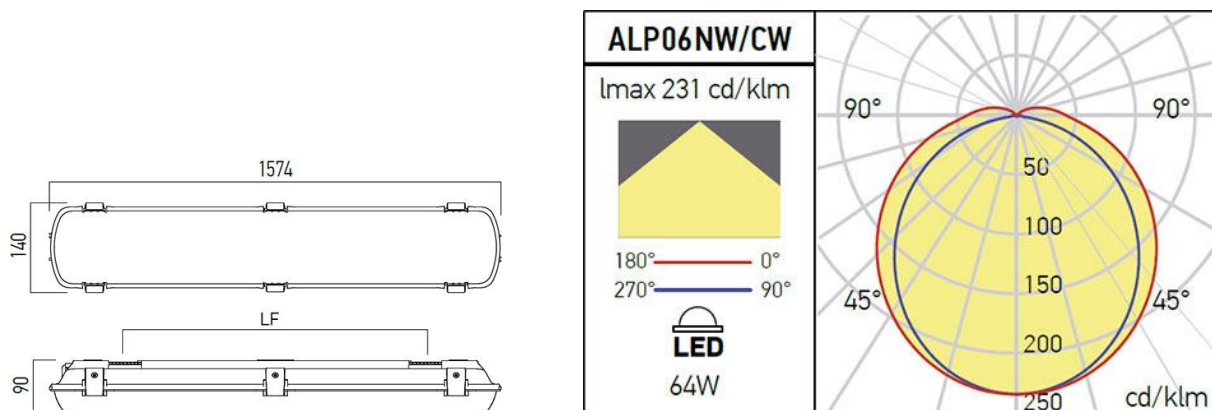
Here some numbers which briefly describe the results obtained by the described system:

Recovered Energy	CO2 Emissions	Methane Gas consumption
2225,17 (MWh)	- 431,44 tons	-231.957 Sm3



## Enlightenment

In addition, the enlightenment system has been included in the renovation and modernization process. In fact, 817 lamps has been substituted with new LED models - **ALP06NW** produced by *ARELUX*. Thanks to this optimization, it will be possible to get an energy saving equal to 130.609 kWh.



Table

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## VERRONE PLANT

	N° LAMPS	PERIOD 2015/2016				PERIOD 2016/2017			kWh SAVED
		WATT	TOT KW	YEARLY USE-h	TOT KWh	LED	WATT	TOT KWh	
WEAVING	166	116	19,26	5.520	106.293	64	58.644		47.649
DRAWING IN	20	116	2,32	1.840	4.269	64	2.355		1.914
FINISHING	179	116	20,76	3.680	76.412	64	42.158		34.253
OUTSIDE	5	250	1,25	4.000	5.000	125	2.500		2.500
OTHER DEPARTMENTS	46	828	3,77	4.000	15.088	415	7.700		7.388
<b>TOT Verrone</b>					<b>207.061</b>		<b>113.358</b>		<b>93.704</b>

## LESSONA PLANT

	N° LAMPS	PERIOD 2015/2016				PERIOD 2016/2017			kWh SAVED
		WATT	TOT KW	YEARLY USE-h	TOT KWh	LED	WATT	TOT KWh	
YARNING	230	72	16,56	7.704	127.578	64	113.403		14.175
PREPARATION	19	116	2,204	7.704	16.980	64	9.368		7.612
WAREHOUSE	90	72	6,48	3.680	21.727	64	19.313		2.414
WAREHOUSE ENTRANCE	6	250	1,5	3.680	5.520	64	1.413		4.107
WORKSHOP	21	72	1,512	2.760	4.173	64	3.709		464
OTHER DEPARTMENTS	15	250	3,75	1.840	6.900	64	1.766		5.134
OUTSIDE	20	1500	1,5	4.000	6.000	750	3.000		3.000
<b>TOT Lessona</b>					<b>188.878</b>		<b>151.973</b>		<b>36.905</b>

Yearly kWh saved of  
the Group:

**130.609**

## Revitalization of waste material

All spinning and milling processes inevitably produce a certain amount of waste and solid waste, such as wool powders, fibers, scraps, paper and plastics. The company, in full respect of the environment, has activated within its plants a system of separate collection of various by-products, which are sold to companies specializing in the processing of various production waste, thus revaluing material that should be wasted and consequently accumulated as a waste.

Below is a summary table that describes in the numbers the production of processing waste in the different phases of spinning and wool milling throughout the year 2016. Values are expressed in kg.

SOTTOPRODOTTI LANIFICIO	Totale anno 2016
BRETELLE Lanificio	13.924
SCAMPOLI	2.486
FILANDRE	1.716
FONDO CONI PURA LANA	2.174
	<b>20.300</b>

SOTTOPRODOTTI FILATURA	Totale anno 2016
LAPS	5.589
BLOUSEGG	3.507
POLVERE GG	2.434
FILANDRE GG	7.785
	<b>19.315</b>

## Recycling

Drago Spa has organized a separate collection system to which all employees must comply, thus involving the various departments and offices present in the two offices. Part of the waste is collected by the municipal service, while the remaining part is sold to specialized subjects (plastics and cardboard). In this logic the company has purchased a waste compactor, which allows and facilitates the storage of waste materials for sale. An initiative that has brought not only a better environmental impact but also an economic benefit within the company budget. Here are the updated data:

				var % 2016			var % 2016	var % 2017
2016		2017			2018			
Lessona		Lessona			Lessona			
costi ritiro	-€ 427,00	costi ritiro	-€ 162,15	-62%	costi ritiro	-€ 334,77	-22%	106%
vendita	€ 978,70	vendita	€ 3.161,20	223%	vendita	€ 3.490,90	257%	10%
Costo annuale pressa	€ 0,00	Ammortamento annuo pressa	-€ 1.800,00		Ammortamento annuo pressa	-€ 1.800,00		
		costo totale pressa 9.000 €			costo totale pressa 9.000 €			
Verrone		Verrone			Verrone			
costi ritiro	-€ 14.877,36	costi ritiro	-€ 10.541,48	-29%	costi ritiro	€ 0,00	-100%	-100%
Tasse		Tasse			Tasse			
totale	-€ 4.146,00	totale	-€ 4.102,00	-1%	totale	-€ 3.724,00	-10%	-9%
Vendita coni di filatura usati di plastica	€ 0,00	Vendita coni di filatura usati di plastica	€ 120,78		Vendita coni di filatura usati di plastica	€ 589,26		
Tot. Spesa riufiuti annua	-€ 18.471,66	Tot. Spesa riufiuti annua	-€ 13.323,65	-28%	Tot. Spesa riufiuti annua	-€ 1.778,61	-90%	-87%

## Control of Pollutants

### Chemicals

The careful management of chemicals used in production processes, in particular in finishing, is undoubtedly a primary importance task in term of environmental protection and heaty of the workers.

For this reason, the choice of suppliers is carefully taken, in order to peacefully respect national and international regulations, and also to compliance with our customers which are more attentive to the environment.

Obviously, all incoming and outgoing chemicals are constantly controlled and registered for a correct application and a safe management.

### Waste Water

In term of pollution, the management of wastewater is certainly the most critical factor in every company operating in the textile field, this is because in water in higher the risk of pollution.

DRAGO SPA owns, in Verrone, a purification plant. However, the company preferred to entrust entirely the wastewater management to an external company: CORDAR SPA Biella Servizi, which, thanks to its specialization, professionalism and experience, guarantees the higher level of control.

## New projects

Drago Spa's commitment to the environment and innovation does not stop there. In fact, some important projects are being studied:

### Photovoltaic system - Lessona

In anticipation of the upcoming thermal insulation work and related insulation of the coverage of the Lessona site, the management has started a feasibility study for the installation, always with a view to improving energy savings and consequently the related environmental impact. a photovoltaic system.

The design hypothesis is based on the possibility of covering part of the roof of the Lessona site with 1154 Benq 260 PM060PWI panels, characterized by a special anti-reflection protection able to greatly improve energy performance and relative consumption.



The plant would provide an energy production equal to 36000 KW / h per year which from an environmental point of view translates into a reduction of Tep (tons of oil equivalent) of about 67 tons per year (1ton = 5350 Kwh).

### E-Power

In the process of renewal and improvement of energy expenditure at the Lessona and Verrone plants, Drago activated the feasibility study of an E-Power system installation project.

This research is aimed at the hypothetical installation of an inductive passive "filter" with hybrid characteristics, with the ability to introduce a series of phase-by-side electromagnetic vectors into the energy flow, using a part of the input energy and causing a voltage drop proportional to the selected filtering level. The inductance is therefore not constant, but dynamically changes its value by adapting to the power absorption present in the system and thus maximizing its effectiveness. Thanks to the presence of only reactive components and switches, the losses introduced by the installation of the system can be considered void, unlike what happens in active filters with resistors and switching power devices. The hypothetical installation would entail a series of advantages both on an environmental and economic level:



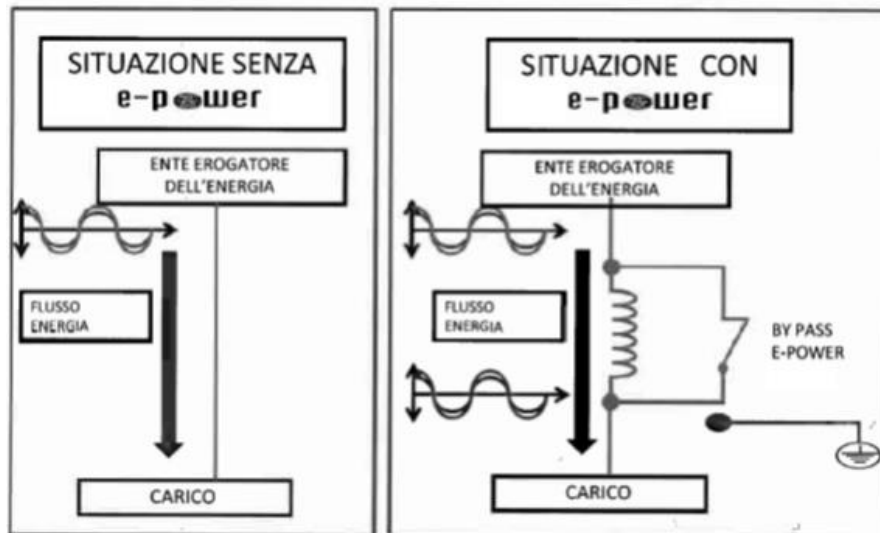
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**Energy Efficiency:** allows a variable economic saving between 3% and 10% according to the type of electrical system with the same work performed.

**Improvement of electrical power:** elimination of disturbances in the power supply.

**Environmental benefits:** every kWh saved is equivalent to 0.5 kg of lower CO2 emissions



The advanced system is also able to reduce and, for some types, eliminate disturbing phenomena on sensitive components of the system, reducing susceptibility and increasing the reliability and duration of the whole system, thanks to the lower deterioration of equipment and the reduction of maintenance operations.

## CORPORATE HEALTH AND WELFARE

### Air conditioning system

DRAGO SPA is particularly sensitive to the health of its workers and air quality is an essential element for a healthy and safe work environment. Air humidification is necessary for the correct processing of wool, but also to maintain the necessary comfort for workers' health. A dry climate, in fact, mainly involves the dryness of the respiratory tract, which becomes incapable of trapping dust, dirt and pathogens, which can more easily reach the respiratory tract. Typical consequences of an incorrectly humidified environment are: coughs, colds, bronchitis and sinusitis. For this and other reasons, in the choice of air conditioning systems we opted for the most cutting-edge solution that separately treats air and water. This creates benefits for people in the environment, such as: no airborne dust, reduced respiratory tract diseases, improved air quality, reduced temperatures. The installed system follows the most recent guidelines of the Italian Ministry of Health (Legislative Decree 81/2008 and subsequent amendments) and the German VDI 6022 certification and guarantees a healthy environment because air and water are released into the environment separately, thus avoiding the possible development of elements harmful to health. The system water is filtered with a reverse osmosis system and undergoes a UV sterilization treatment, both procedures to prevent bacterial proliferation. The plant is also designed to avoid any stagnation of water, minimizing the possibility of biofilm formation (something not possible in the case of humidification via canalization).

The plant is also efficient in terms of lower energy consumption and waste of water compared to traditional systems, resulting in a lower environmental impact.