



A d v a n c e d Treatment Solutions

An ecological and integral solution to prolong the life of your garments and gear

Initial[®]

Rentokil-Initial

Rentokil Initial

Protecting People. Enhancing Lives.

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Rentokil Initial provides services that protect people and enhance lives. We protect people from the dangers of pest-borne disease, the risks of poor hygiene or from injury in the workplace. We enhance lives with services that protect the health and wellbeing of people, and the reputation of our customers' brands. We are one of the largest business services companies in the world providing Pest Control, Hygiene and Workwear services. We operate in over 60 countries.

Rentokil

The Experts in Pest Control

Rentokil Pest Control

The world's leading commercial pest control company – No.1 in Europe, Pacific, Asia & Africa. Leading technical capability and unique proprietary products. Well established network for developing and sharing capability

Rentokil

Specialist Hygiene

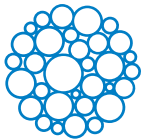
Rentokil Specialist Hygiene

A reliable and unique service solution of hygienic and technical maintenance through deep cleaning. Years of expertise maintained by continuous training (internal education & U+). Aim for sustainability.



Ambius

A global service which includes plants, scenting, artwork and daily fruit delivery. Can provide anything from single plants in containers to lavish plant displays in offices, hotels and even cruise liners , ...



Hygiene

Initial Hygiene

Provision and maintenance of products such as air fresheners, sanitisers, feminine hygiene units, hand dryers, paper & linen towel dispensers, soap dispensers, toilet paper dispensers and floor protection mat.



Workwear

Initial Textiles

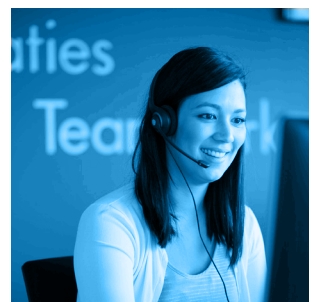
Clean, well maintained workwear for your staff create a pleasant and productive working environment. We provide fully customized solutions for your textile needs, so you can focus on your business. Now and in the future.



Cleanrooms

Initial Cleanroom Services

You can expect our service to be tailored to meet your personal needs. We develop customised cleanroom clothing and air lock concepts for you, and offer individual client training sessions on-site at your business.





Advanced Treatment Solutions

We as an experienced service provider are continuously searching for Advanced technologies in order to anticipate the evolving demands from our customers. Treatments within our new facility allow us to treat garments/gear in an ecological way, including items which could not be treated before and thus prolonging their life. We listen to your needs and focus on meeting these in Solutions specifically for you.



Initial together with Tersus developed a special machine in which we can clean with Liquid CO₂

Advanced: a new technology which continuously evolves and offers new opportunities.

Treatments: decontaminating, cleaning, DWR, ... we can apply high-end treatments to prolong the life of your gear, provide additional protection and safe gear. All in a very gentle way, not changing the base of the garment/gear.

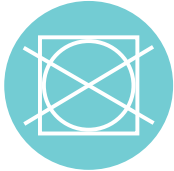
Solutions: more than just cleaning, we provide integral solutions for your company. From picking up your garments/gear in 24h, cleaning, decontaminating, controlling these on functionalities, making them water repellent, different lease options up to personalised delivery solutions. We will do everything to take care of your garments/gear, so you can focus on your activities.

Key advantages



No Water

- Longer lifetime in quality and visually. This means your gear will keep its representative functions.
- No shrinkage - garments will not change shape due to water.
- No color loss nor change.
- No damage to the fabric or other materials due to the water, water typically makes fibres swell which causes fibre and color loss. Leather becomes hard. Wool can felt. Other materials just cannot withstand water.



No drying

- No loss of fibres in LCO2 as no drying is needed. During each drying process a considerable amount of fibres are lost, in long term this causes fabric to degrade and tear, less comfort and more damage to the fabric. High temperature used for drying can of course also seriously damage your gear and equipment.
- So no drying means a longer life of the garment.



Low temperatures:

- During the whole cycle the temperature is between 12°C - 22°C.
- The temperature has no influence on stain removal, unlike water-processes. So we can maintain very gentle temperatures in order not to harm the garments or equipment.



Water-repellent: DWR - Durable Water Repellent

- LCO2 is hydrophobic and can apply a water-repellent finish on any type of garment or article. This protects the garments from stains, but can also increase comfort in wet or moist environments. We can achieve a spray test up to 80% on garments which were not water-repellent before, 100% up to previously treated articles.

LCO2 treatments

Environmentally friendly



- Detergents
 - ➔ use of **environmentally friendly detergents** and in controlled quantities.
 - ➔ As LCO2 is a very good solvent for oil and grease, no harsh chemicals are needed to remove these stains (as would be the case in water)
- Detergents compliant with: Zero Discharge of Hazardous (ZDHC)



- **Controlled waste** - closed cycle:
 - ➔ The LCO2 is continuously filtered to eliminate bigger particles from LCO2
 - ➔ After each bath the LCO2 is distilled, what is left is just the waste like oils, fats, ... which can then be disposed of in a controlled way. No contamination of water nor air.



- **Renewable resource** for cleaning
 - ➔ CO2 is reclaimed from other industries - where it could be considered as harmful if not collected
 - ➔ Non flammable, colorless and odorless



- **Circular process**
 - ➔ Initial converts CO2 that would normally be emitted into the atmosphere, in an environmental friendly solvent. 98% of the CO2 is re-used after each cleaning process
- Lower use of energy as no drying is needed.

Solutions

Prolongs lifetime of garments and other gear:

All the above characteristics results in your garment or gear having a longer lifetime:

- ➔ No water: this means no expanding of the fibers which causes color loss, pilling, creases, felting, ...
- ➔ No heat: the drying process after water-wash often causes shrinkage, color change and pilling due to the mechanical action of the dryer.
- ➔ DWR - Water repellency: stains and dirt will 'slide' off the fabric. The DWR prevents the stains from penetrating into the fabric/fibre and thus not causing a stain in the first place.
- ➔ Gear can be cleaned which could not be cleaned before. Instead of being thrown away, they can be used multiple times or by multiple users.
- ➔ Garments which are heavily soiled by oil and grease can easily be cleaned without damaging it.



Clean gear which could not be cleaned before

- No Water, No Drying and Low Temperatures give us the opportunity to clean gear which could not be properly cleaned before!

For example:

- ➔ Bulletproof and cut proof vest can be LCO2 cleaned; this removes odors, oils and makes them less stiff and thus more comfortable. Shoes and gloves are other examples.



Safe and environmentally friendly alternative to traditional drycleaning with perc (Tetrachloroethylene)

- Perc is classified by IARC (International Agency for Research on Cancer) as "Overall evaluation Tetrachloroethylene is probably carcinogenic to humans (Group 2A)"
 - ➔ The same and even better results, but no pollution of ground and water, and no traces of perc on your garments.
 - ➔ Compared to perc drycleaning, LCO2 cleaning is more gentle with delicate fabrics such as wool or silk because no drying is needed.



LCO2 treatments

Safety

Decontamination:

- ➔ For firefighter gear LCO2 removes toxic PAC's. It is proven that the garment can be considered safe according to the thresholds defined in Ökotex. Ökotex is a certification based on REACH, but more strict, specifically for textile articles.



Visibility:

- ➔ Reflectivity performance of retroreflective striping is increased by LCO2 cleaning
- ➔ Fluorescent colors maintain their color characteristics.



Fire-retardant:

- ➔ LCO2 removes all oils and greases, making the gear better fire-retardant as these flammable traces are eliminated.



LCO2: how it works

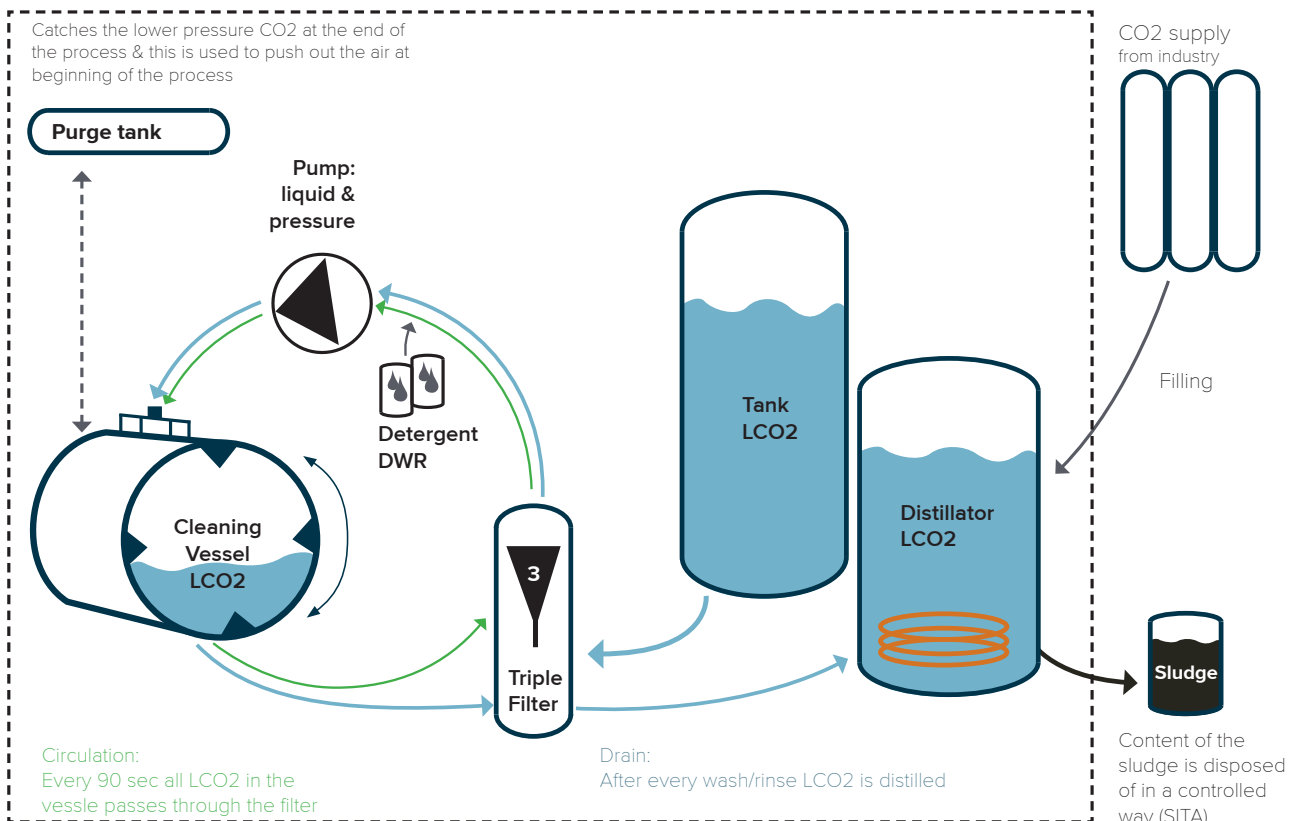
Instead of washing in water, we wash in LCO2: liquid carbon dioxide. CO2 is a gas which becomes liquid at pressure of 50bar and T of 12-22°C

The patented machine technology comes from our partner Tersus. A renowned company in the USA who is the leader on the development of LCO2 cleaning equipment.

Natural characteristics of CO2		Advanced Cleaning Solutions		Future
Extremely fine liquid	Lipophilic	Water repellent DWR application	Detergent + Filter + distillation	Bleach
<ul style="list-style-type: none"> • Low density • Low viscosity (10x smaller than water) • Low surface tension 	<ul style="list-style-type: none"> • Lipophilic: natural solvent for oil, grease and lipids • Environmentally friendly: no extra detergent is needed for greasy stains 	<ul style="list-style-type: none"> • Hydrophobic: applies the water-repellent on the 'dry' (no water) fabric more efficiently • No or less heat needed to fix DWR 	<ul style="list-style-type: none"> • <u>Detergent</u>: components encircle the dirt particles, so they are carried in LCO2 • <u>Filter</u>: LCO2 is continuously filtered and dirt is caught in the filter (5µ/1µ) • <u>Distilled</u>: LCO2 is distilled after every bath: oil and grease in sludge • No redeposition 	<ul style="list-style-type: none"> • To develop further • Dirt can be removed but the remaining color-stain is sometimes still visible • Research on enzymes
<ul style="list-style-type: none"> ▶ Decontamination ▶ LCO2 passes through the fibers and membranes 	<ul style="list-style-type: none"> ▶ Dissolved stains like fat, grease, oil, ... are carried away 	<ul style="list-style-type: none"> ▶ Re-activation of water-repellent ▶ Make non water-repellent fabrics water-repellent 	<ul style="list-style-type: none"> ▶ Removal of dirt particles ▶ Clean LCO2 	<ul style="list-style-type: none"> ▶ To develop further

The Tersus system has patented 2 door system, this way we can load the dirty garments on one side and unload the machine in a separate, clean area.





Cleaning process in general

- Addition of selected detergents
- LCO2 cleans the clothes by washing baths and rinsing baths
- LCO2 circulates continuously through a filter up to 1 micron
- After cleaning the liquid is returned to gas => therefore no drying required
- After each wash bath the LCO2 is distilled = separation of dirt (water, oil, surplus chemicals) and clean CO2. The dirt is transported to the sludge tank, not in the sewer

Removal of dirt particles:

- Detergents: Addition of specific LCO2 detergents
 - ➔ Detergent: components encircle the dirt particles, these are carried in LCO2
- Filter: LCO2 is continuously filtered and dirt is caught in the filter
 - ➔ No redeposition
- Distilled: LCO2 is distilled after every bath: oil and grease in sludge
 - ➔ Wash with clean LCO2



Advanced
Treatment Solutions

Additional Services



RFID

- Trace your gear, log data,
- Add own data onto to the RFID
- Overview via web-platform



Aqua Wave: PH-neutral washing

- Water-wash technology for delicate fabrics
- Bio-degradable detergents from Christeyns
- Provides a complete solution for all your apparel



Logistics & Service

- Flexible solutions to your needs



Quality control

- Our trained personnel can conduct controls on request
 - Reflectivity of striping
 - Water-repellent
 - Tears and other damages
 - ...

Opportunities:

Bullet proof vests



Gloves, leather



Shoes



High Visibility



Outdoor



Corporate



Rags



Other



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Initial[®]