







The microfilter "par excellence"



To be unique you have to be different: this is what we think and what we believe in. Since the first day.

Like Nuove Energie there's only Nuove Energie. Since 1980 we manufacture wastewater treatment machines that are different from all the others, result of engineering intuitions out of the ordinary:

it is not a coincidence that they are entirely built in stainless steel, they stand out for revolutionary internal mechanisms and they are internationally patented and certified.









Human and Technology: two different aspects of the same Company. If technology is the goal, human value is the way to achieve it: you can't have one without the other.

One Company, two distinctive features. Strong and outstanding. The technologic one, which is put into effect with well-advanced products, and the human one, which is represented by all those people who every day, with the same effort as ever, develop the highest technology and the most advanced engineering. Never stopping.

Conoscreen®

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The value of Water.

#### What do we talk about when we talk about water?

We talk about an element that we take for granted: we only need to turn the faucet on to see it flow. But water is a truly precious element. It is so valued to be called Blue Gold. It is therefore to be saved and not to be wasted.

Nuove Energie has always worked with water and for water.

We have understood that recovering water is not only important, but it can become fundamental for those companies that work with big amounts of it and for which the water reuse represents real economic benefits. The experience we've gained in these years led us to the realization of extraordinary and incomparable microfiltration machines: in order to meet the always more specific requests of the companies with more specific products.

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The worldwide patented microfilter, perfect for the maximum fibrous material recovery and the consequent reuse of the filtered water.

The Conoscreen® microfiltration and self-cleaning capacity is enhanced when in the fluid there are wool, thin textile fibers, hair, light dust and algae, which are materials that can cause problems to the other filters.

Choosing the Conoscreen® technology means choosing the best, with the guarantee of several advantages: the microfiltration of extremely small particles and the decrease of wastewater overflows, which unloads the job of the wastewater treatment plants.

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Conoscreen® CSS: the same quality at a whole new price.
Conoscreen® CSS grew out of the experience of over 1.500 microfilters manufactured, the simplified version of the standard machine: lower costs, but always the same results.

The Conoscreen® CSS system is just as good as the standard product, but with its own features: simple to install, easy to use and with reduced purchase costs. A solution also realized in a particularly compact version in order to meet the needs of those companies that work with smaller water amounts, but that still look for guaranteed results and certain savings.

# DYNAMIC-TANGENTIAL FILTRATION: THE BEST TECHNOLOGY POSSIBLE.

#### Conoscreen®'s conception is simple, but extremely efficient: it stops the particles that the others would let through.

The main feature and the uniqueness of Conoscreen® have a specific name: Dynamic-Tangential Filtration. Basically, the wastewater crosses the rotating filtration surface tangentially instead of orthogonally, as it does in the other filters. This guarantees great advantages. The angle of incidence between the influent and the filtering media, combined with the continuous disks rotation, allows to separate the micro particles contained in the wastewater.

 Better filtration quality thanks to the conical disks

The conical shape of the disks guarantees an additional increase of the Dynamic-Tangential Filtration efficiency.

Oblique crossing

The solid particles cross the filtering mesh in an oblique way getting held inside the disks.

• Larger amount of held material

The conical shape of the disks guarantees the creation of an additional filtration layer, called pre-coat, which improves the filtration quality.

Self-cleaning system

The larger amount of held material leads to a better filtering meshes self-cleaning, as a result of the friction.

Higher flow rate

The exclusive and patented Conoscreen® technology allows to filter large amounts of water.

### Orthogonal filtration

The 100 microns diameter solid particle, is able to pass through the mesh, whose diameter is the same as the particle's.

#### **Tangential filtration**

The inclination to the water flow crossing surface keeps the 100 microns diameter particle from crossing the mesh.

From the inlet chamber to the ducts, from the automatic solids discharge to the automatic washing: in every component is held the concept of perfection.

All the mechanisms in Conoscreen® tend to perfection: each element is designed to develop a machine with a working principle with no equal.

#### Inlet chamber

The inlet chamber has an anti-vortex and anti-backflow feeding system.

#### Pair of conical disks

One or more pairs of rotating conical disks equipped with a filtering mesh, hold the TSS up to a 30 microns diameter.

#### **Inlet ducts**

The influent reaches the conical disks through a specific duct: while the liquid part passes tangentially through the filtering mesh, the solid part gets stopped between the conical disks.

#### **Automatic solids discharge**

When the accumulation and thickening of the solids reach a certain level, the part in excess gets automatically discharged through an anterior opening inside the conical disks.

#### **Solids dryness regulation**

The discharged solids dryness can be regulated by operating on the disks rotation speed or through the insertion of a disk cover located inside the conical disks.

#### Filtered water discharge

The microfiltered water is discharged through specific openings and can be later recycled or treated.

#### **Automatic washing**

The Conoscreen® microfilter is equipped with a pressure washing system with spraying nozzles, automatable for the maintenance operations.



#### All it takes is to look at our plus to understand the uniqueness of Conoscreen® and see the deep difference between us and our competitors.

Some details describe Conoscreen® at first sight. The material used, the internal mechanisms and the filtration type are the result of over 30 years of research, always on the side of excellence.



#### 100% Stainless steel

The machine is entirely built in stainless steel, to keep the resistance unchanged over the years.



#### Total raw material recovery

The microfilter is designed and manufactured to completely recover the raw material.



**Dynamic-Tangential Filtration**The inclination to the water flow crossing surface guarantees the excellence of the filtration.



#### **Exceptional mechanisms**

All the internal mechanisms are designed to guarantee extraordinary performances.

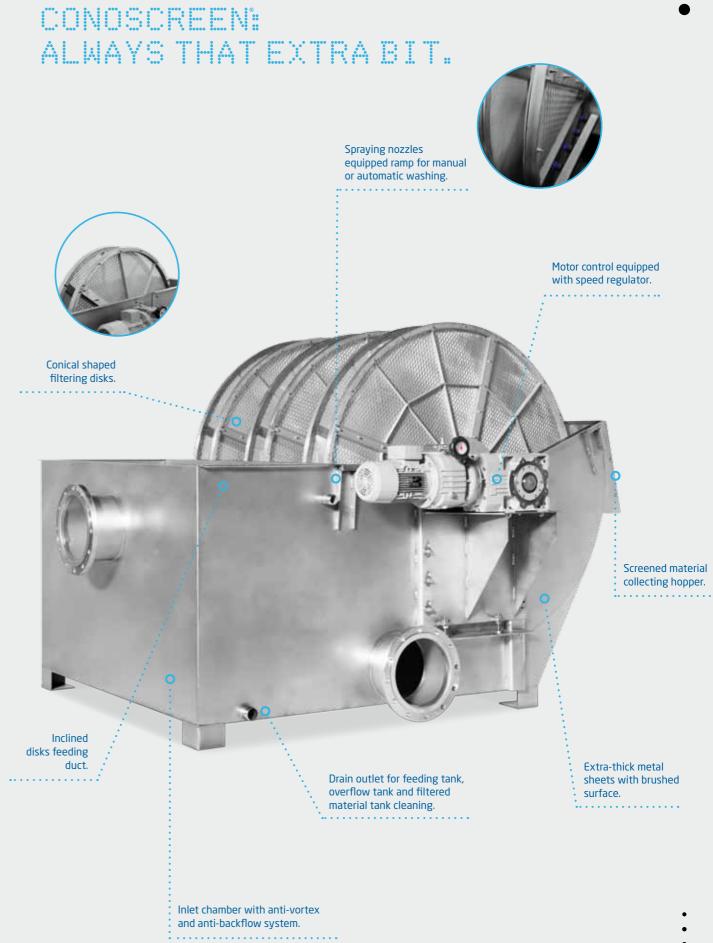


#### Simple to use

The machine has an intuitive and totally autonomous working principle.



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## SAME EFFICIENCY.

Conoscreen® first started in the tanning industry and ended up evolving to reach all those industrial sectors where the raw material recovery and the filtered water reuse are fundamental.

The variety of sectors in which Conoscreen® is employed proves it extremely flexible: fields that are apparently apart from each other can use our technology and exploit all its advantages.

















#### **TANNING INDUSTRY**

- Liming bath microfiltration with hair recovery
- Tanning bath recirculation
- Buffering dust removal microfiltration
- Final discharge
- Microfiltration before chrome recovery plant



### PAPER MILLS INDUSTRY

- Fibers recovery and thickening from the "whitewaters"
- Cloth washing water filtration for recirculation
- Wastewater filtration
- Solids partial unloading to the flotation units (Krofta)



#### **TEXTILE INDUSTRY**

DYEING PLANTS AND PRINTING HOUSES, COTTON AND WOOLEN MILLS, INDUSTRIAL LAUNDRIES

- Heated water microfiltration before heat recovery in order to avoid the clogging of the heat exchangers
- Textile fibers separation to unload the wastewater treatment plants
- Soda recycling in the mercerizing process
- Hair removal from cotton and wool washing waters



#### **WOODEN INDUSTRY**

- Scrubbers recirculation water microfiltration in MDF plants



#### PETROCHEMICAL AND PLASTIC MATERIALS INDUSTRY

- Microfiltration of oil-contaminated products before their incineration and of drain waters
- Recovery for recycling of polymer fragments, PVC particles, polyethylene particles, synthetic resins and other raw materials
- Microfiltration with recovery of PVC and SBR rubber production wastewaters
- Recovery and reuse of washing waters from plastic material recycling industries
- Microfiltration of the scrubber recirculation water in the dust suction plants



#### **FOOD INDUSTRY**

- Tomato juice recovery from the peeling machine rollers in the tomato conserve industry
- Pear, peach and potato peeling waters recovery and reuse
- Fruit and vegetables washing waters recovery and reuse
- Microfiltration before the wastewater treatment plants for all the food industries, including meat and seafood



## **ZOOTECNIC INDUSTRY**

- Recirculation of the water used to wash the poultry slaughterhouse cages
- Microfiltration of the water before entering into the wastewater treatment plant in poultry-pig-bovine slaughterhouses and farms
- Microfiltration before and after the digesters
- Hatcheries washing water microfiltration
- Protein contents recovery through microfiltered organic material



#### CIVIL SECTOR

- Water microfiltration after coarse screening or solid waste grinding in the wastewater treatment plants
- Improving or even replacement of the primary sedimentation
- Biological plants overload removal
- Lowering of the amount of sludge to be digested or dried
- Overboard discharge filtration close to seaside resorts
- Cesspool sludge filtration (septic tanks)

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Some people are frightened by challenges, some others are thrilled by them.
Exceeding the limits is our signature.
Permanent and unmistakable.

In every project is held our bravery.

Our capacity to develop ideas out of the ordinary, our determination to pursue extraordinary results, our wish to improve ourselves, our leaning towards experimentation.

Our identification marks.

Since the first day.

Steel is our raw material, the element we molt to create solutions with a heart and a soul. Because behind every single product, there's always a team of people.

Men and women who combine their ability and passion every day to develop the most advanced technologies and achieve the most ambitious goals.

We could have let ourselves drifting.
Instead, we have decided to do something more:
build innovative systems, different and unique.
In every aspect. Because there are people who look
forward and people who, like we do, look to infinity.

Nuove Energie.
A name, a story,
a new conception of the future.

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