

SUSTAINABLE **EFFICIENCY**



SUSTAINABLE SOLUTIONS & INNOVATION IN LAUNDRY SERVICES

EFFICIENCY IS INTELLIGENCE.



Energy

Energy optimization is fundamental in a laundry. Our machines have been designed for greater energy savings with this in mind.

Welcome to Danube.

At Danube we know how important efficiency is and we are very aware of our commitment to the environment.

That is why we have developed a new state-of-the art product range with low consumption and high energy savings for their entire life span.



Water

Saving water and using it properly are our goals, we do not want to waste it.

We offer washing machines with optimized design and programming as well as a unique accessory, the AQUABAC: water recovery tanks.



Technology

We apply the latest technology to offer very efficient laundry machinery.



Chemicals

We design our washing machines with features to ensure the most accurate use of chemicals.

BECAUSE
YOUR WELLNESS
IS ALSO
OUR CONCERN

Machinery is the tip of the iceberg in a laundry.
At Danube we look at the part we can't see,
to optimize resources throughout its life cycle.

Washing

Investment

12%

Water

11%

Electricity

21%

Detergent

56%

100 %
of resources

Drying

Investment

10%

Electricity

3%

Gas

87%

Ironing

Investment

19%

Electricity

5%

Gas

76%

*Example of a standard laundry with 50% flat linen and 50% towelling, during the first 10 years of life.



1 HIGH G FACTOR THE MOST EFFICIENT SPINNING.

The average low speed washing of the competition has a 100 G Factor.

- ⊕ Precision
- ⊖ Consumption

WEN Washing machine
Factor G **200**

WEM Washing machine
Factor G **300**

WED Washing machine
Factor G **450**

LOW



65% RM

MEDIUM



55% RM

HIGH



47% RM

Medium-sized sheet 100% cotton. 6 minutes spinning

LOW RESIDUAL MOISTURE RESULTS IN MORE EFFICIENT DRYING.

Drying time



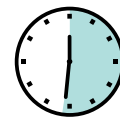
45 min.
+13.5 min.

+15.5%



38 min.
+6.5 min.

+8%



31.5 min.

Energy consumption



+15.5%



+17.5%



Extra expense



Year



Year

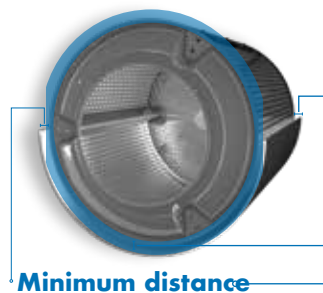
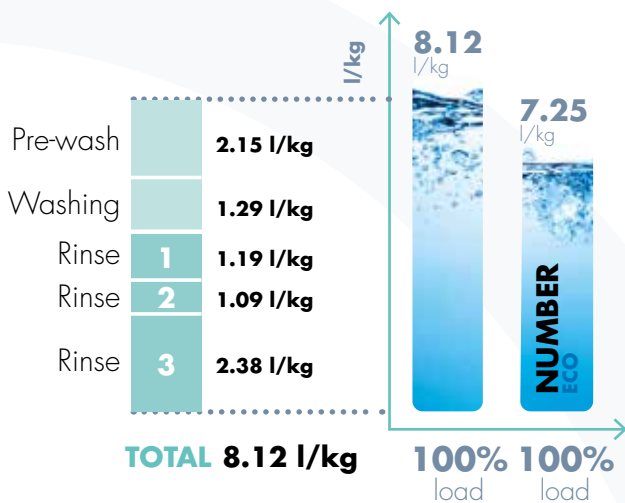


Calculation made to process 49,500 kg a year (3093 cycles)

Washing machines



2 LOW WATER CONSUMPTION

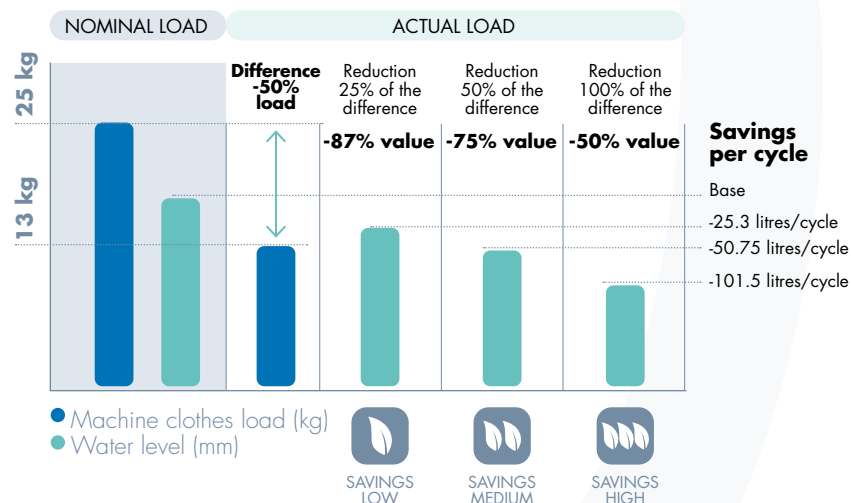


- + Precision
- Consumption of water, of energy and of chemicals



3 WATER SAVINGS

We save water using the weighing system and the saving programme

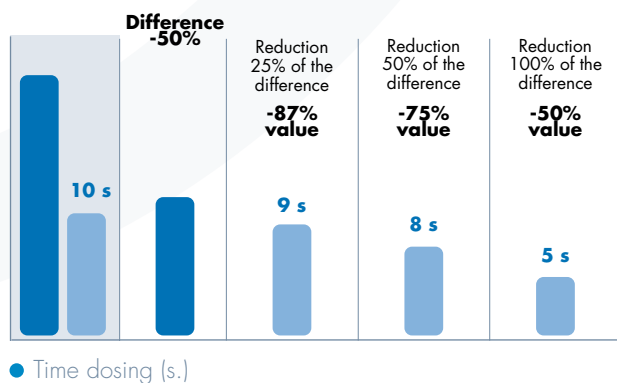


YOU CHOOSE THE SAVINGS LEVEL



- + Precision
- Consumption of water of energy

4 CHEMICALS SAVINGS



Seconds/Dosing

Washing machine 25 kg high speed:
Example Medium Load



- + Precision
- Dosing time

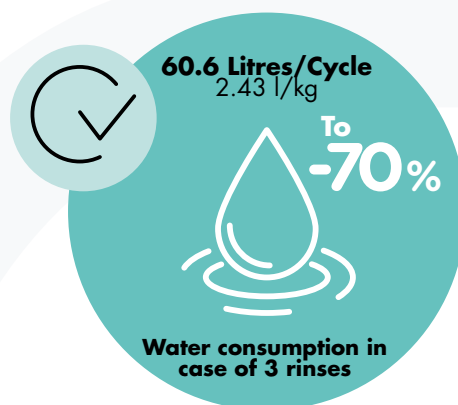
5 AQUABAC

Water recovery tanks.

To save up to 70% of water.

Standard program example	l/kg	Washing machine 25 kg High speed
Pre-wash	2.15 l/kg	53.75 l
Washing	1.29 l/kg	32.25 l
Rinse 1	1.19 l/kg	29.75 l
Rinse 2	1.09 l/kg	27.25 l
Rinse 3	2.38 l/kg	59.5 l
TOTAL 8.12 l/kg		TOTAL 202 l

RESULT NEW CONSUMPTION



Example

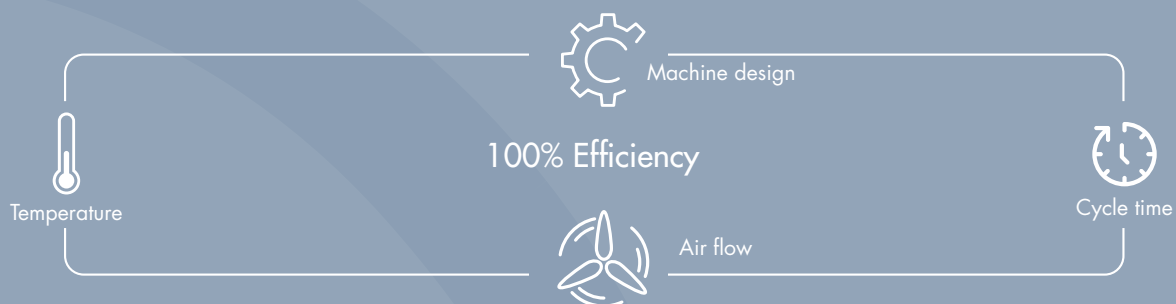
The rinse water 3 passes to the rinse 1 and 2

The rinse water 1 and 2 passes to the prewash

The rinse water 1 passes to the wash



1 DANUBE TUMBLE DRYER RANGE: COMPARISON ACCORDING TO EFFICIENCY.



RANGES FEATURES	SILVER	SILVER + CARE DRY	GOLD
CARE DRY smart moisture control.	No	Yes (option included)	Standard
AIR RE-CYCLE: Air recovery.	No	No	Standard
Double glazed	Option	Option	Standard
THERMAL INSULATION	No	No	Standard
Cycle time Time reduction	38 min	33.5 min -4.5 min	31.5 min -6.5 min
		-11.8%	-17.1%
Energy (kWh) Savings	12.38 kWh/cycle --	10.89 kWh/cycle -12.1%	10.31 kWh/cycle -16.7%
Production To process 49,500 kg a year (3093 cycles)			
Hours a year	1959	1727 (-232)	1624 (-335)
Savings Euros/year	-	€-588	€ -804
Return on investment		0.85 (10.2 months)	1 (12 months)



335 hours
x **25 Euros**
(cost company)
€8,375

Tumble dryers

2 CARE DRY SMART MOISTURE CONTROL

+ Precision
- Time

Optimized rotation speed

Smart moisture control adapts the drum rotation speed to the humidity level of each drying phase.

rotation
speed "rpm"

% RM
moisture sensor



Time
cycle (min.)

**CARE DRY
OFF**

37 min

**CARE DRY
ON**

34 min
-3 min



Reduction
time

Reference
100%

-8.82%

To process 49,500 kg of clothes a year (3093 Cycles)



Hours a
year

1907

1753
(-154 hours)



Savings
possible year

-

-450 Eur/year



Cost option

-

0 Euros

Time

-

Immediate



The moisture sensor automatically adjusts the cycle time to the set point moisture of the clothes.

3 FILTER AND TURBINE OPTIMIZED DESIGNS

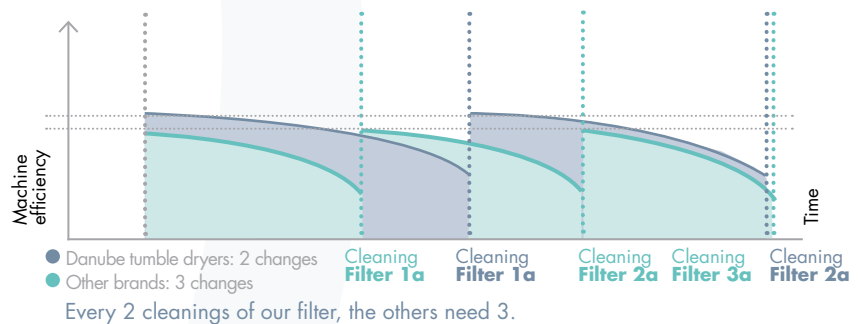
30%

MORE EFFECTIVE
SURFACE



Filter in drawer format

- ✓ Easy to open
- ✓ Easy to clean
- ✓ More ergonomic
- ✓ More surface (+30%)



Stainless steel filter mesh

As an option

Choose the size of the stainless-steel mesh you want between standard 0.3 mm, 0.6 and 1.2 mm.



Improves the time for more machine efficiency

- 1 Reduced frequency of filter cleaning with the dedication time for it
- 2 More efficient cycle time between each filter cleaning, improving the overall machine performance.
- 3 More machine available time

+20%

OF INCREASED
PERFORMANCE
THANKS
TO THE DESIGN.



Turbine: air flow, with models of different sizes.

Turbine and box assembly optimized outlet

The design, curves, elbows, and diameter have been optimized to get the most out of the airbox assembly with the turbine.

3 GOLD RANGE

THE RANGE WITH
THE MOST FEATURES TO
ENSURE DRYING EFFICIENCY

AIR RE-CYCLE

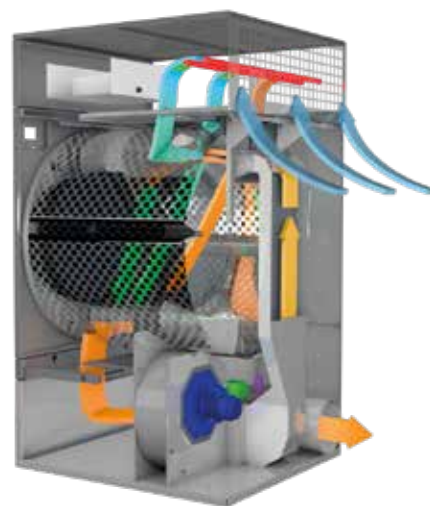
Smart air recirculation system.

Taking advantage of the hot, almost dry air, we shorten drying times and reduce energy consumption.



GOLD RANGE

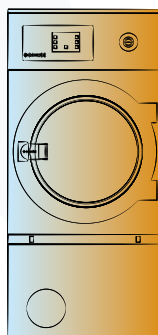
- ✓ **AIR RE-CYCLE**
Air recovery system for increased energy efficiency.
- ✓ **CARE DRY**
Smart moisture control
- ✓ **THERMAL INSULATION**
Full isolated air flow circuit.
- ✓ **OPTIMAL FLOW**
Optimized axial-radial full air flow.
- ✓ **REVERSING DRUM**
Standard in all models.
- ✓ **BIG FLUFF FILTER**
New filter with larger surface and improved air flow.



Thermal insulation

to keep heat inside the machine

- ALL AIR FLOW CIRCUIT ISOLATED
- DOUBLE GLAZED DOOR
- AIR CHANNELS
- DOUBLE PANEL



THERMAL INSULATION



NO THERMAL INSULATION

4 HEAT PUMP REASONS FOR AND ADVANTAGES OF INSTALLING A HEAT PUMP

✓ When the customer prioritizes energy efficiency over drying time

✓ When a smoke vent cannot be installed

40%

Of consumption with respect to the electric model

✓ When we have power limitation installed

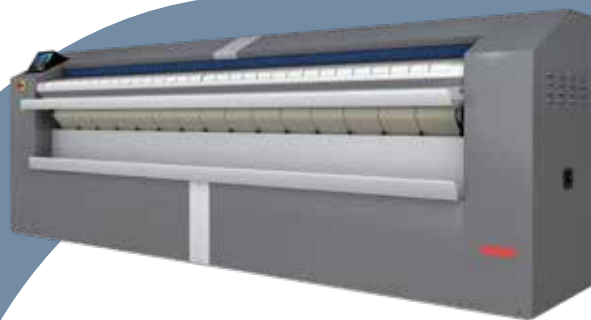
✓ Due to the difficulty of getting gas installations or certifications

Accessory AQUABAC

100% of cooling water from the heat pump dryer is collected in the Aquabac for the next wash.



Flatwork dryer ironers



1 RADIANT BURNER: THE MOST EFFICIENT.

ADVANTAGES



- ✓ With a similar gas consumption, the hourly **productivity** of the flatwork ironer **increases by 25 %** compared to the same machine with atmospheric gas burners.
- ✓ They can be used in places at high altitudes and without the oxygen level problem affecting combustion.

Atmospheric burner



Radiant burner

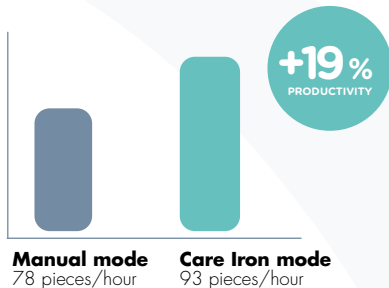


2 CARE IRON

- ⊕ Production
- ⊖ Energy

Automatic regulation of ironing speed according to residual moisture in the linen. Standard in 650 mm, optional in 500 mm

Example in **Flatwork ironer ø 650**



ADVANTAGES

- ✓ Energy savings
- ✓ Increased production
- ✓ Delicate treatment of garments

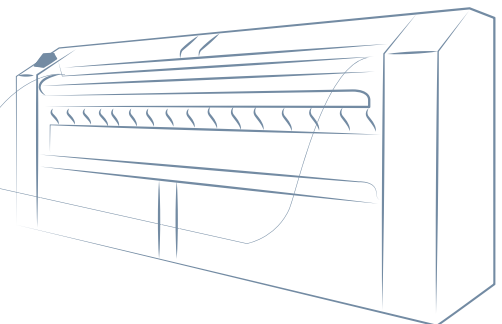
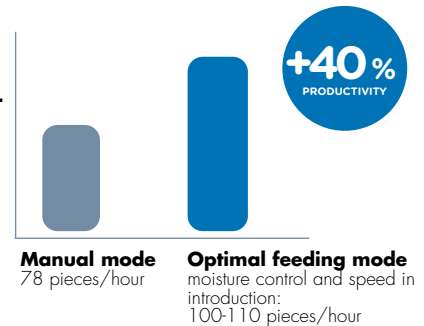
OPTIMIZED IRONING TIME



3 HPS

The linen introduction sensor and LED lights help to adapt feeding speed to optimize productivity.

Example in **Flatwork ironer ø 650**



4 BUILT-IN LONGITUDINAL FOLDER

- ✓ Efficiency in the process, which goes from manual to automatic.
- ✓ High speed folding for greater productivity.
- ✓ LED indication of availability to save time.
- ✓ Automatic mode to detect sheet dimensions: efficiency and time saving.



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www.danube-international.com
www.danube.fr

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DANUBE International
Parc d'Activités de Sologne - CS 10026
41600 Lamotte-Beuvron - FRANCE
Tél.: +33 (0)2 54 88 05 76
Fax: +33 (0)2 54 96 89 04
Hotline: +33 (0)2 54 88 83 22
support@danube.fr
SAV: +33 (0)2 54 88 83 65
Logistique commandes:
+33 (0)2 54 88 05 76
info@danube-international.com



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