

Efficient Drying

Energy-minimized and Clever

REPIT[®]vision

ECONVECT[®]



TAIFUMO[®]vision



Spirit of Air



The Best Answer to Energy Discussions:



Equipped for any case: Plant solution for fast handling of any damage size

WOLF is Developing Innovations

- ▶ Energy-saving systems in all kinds of operation
- ▶ Accelerated and perfected water paint evaporation technology
- ▶ Most modern process control

TAIFUNO®vision-technology is the term for spray booths with highest energy efficiency, high operating convenience and best production capacity. With this technology package, the WOLF combi-booth TAIFUNO®vision is a top-class brand product.

Cost pressure onto bodyshops is rising more and more. For this reason, our engineers are pushing the development of efficient, economical and reliable spraying and drying systems with new ideas.

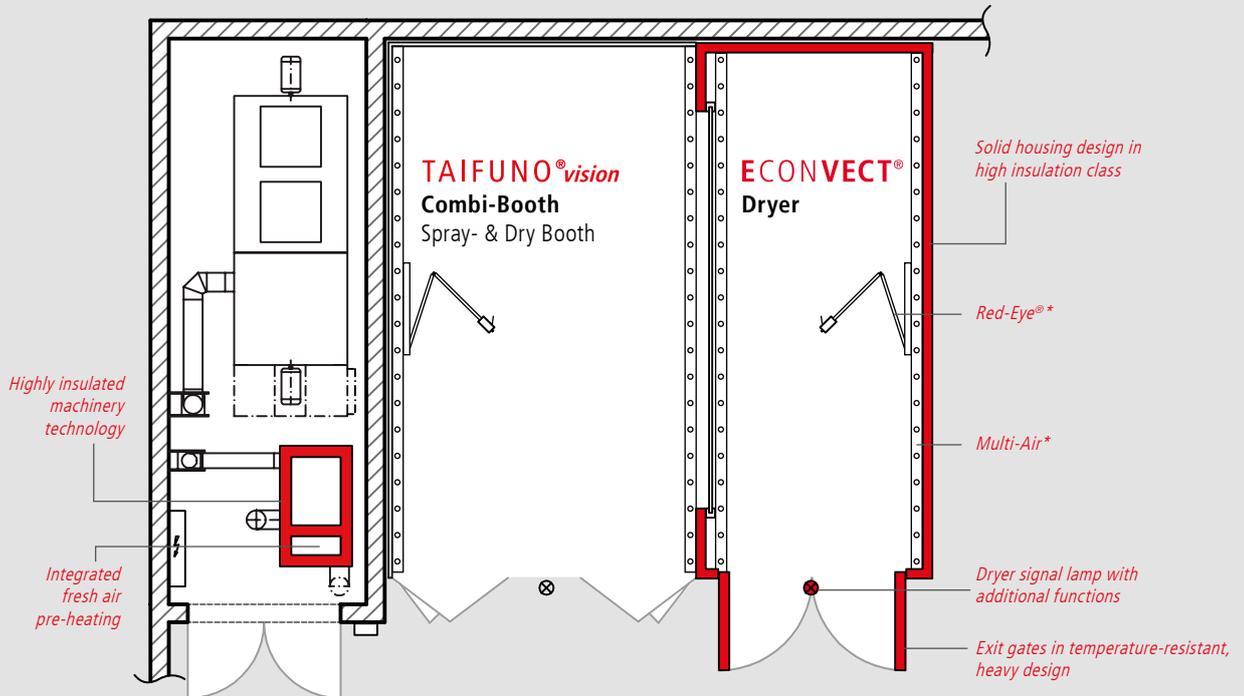
Future Challenge for High Throughputs

The requirements of bodyshops regarding efficiency and profitability of damage repair are increasing. For the bodyshop, this means a possibly quick passage control in spraying and drying process at possibly low operating costs. Especially for energy costs, there are still significant saving potentials by booth conception and constructional measures.

A bodyshop planning a spraying capacity of more than 8 jobs a shift needs 2 combi-booths for this throughput. The alternative and much more efficient solution is the combination of a combi-booth with an dryer for 1 or 2 cars.

Advantages of Booth-Dryer-Combination

- ▶ There are no heating-up and cooling-down cycles
- ▶ so that the required heating capacity in the dryer is definitely below the drying heating capacity of the combi-booth
- ▶ Energy costs per working job are definitely lower compared to combi-booth
- ▶ since the booth is not blocked for drying, the number of jobs is significantly higher
- ▶ compared to a booth with integrated infrared drier, the number of possible jobs is much higher
- ▶ investment is much lower compared to two combi-booths



The combination for maximal efficiency: TAIFUNO[®]vision Spraying & Drying Booth and ECONVECT[®] Dryer

The Energy-minimized Dryer ECONVECT[®]

By intensive development work, WOLF engineers have reached a further improvement in dryer construction.

The term ECONVECT[®]* (Efficient Convection) stands for an especially energy-saving dryer construction. The previous limits of energy-saving in a dryer can be exceeded.

The combination of TAIFUNO[®]-technology and energy-minimized dryer for 1 and 2 cars achieves a technical level enabling bodyshops to work efficiently, profitably and at high quality.

ECONVECT[®] Base Design

The base design of the energy-minimized dryer includes

- ▶ a solid housing design in high insulation class
- ▶ a highly insulated machinery technology
- ▶ an integrated fresh air pre-heating without additional energy (heat recovery)

Housing Design in High Insulation Class

For a maximal heat insulation at the housing, solid, 100 mm thick housing panels with an incombustible, tight mineral fibre insulation are used.

The exit gates are produced in temperature-resistant, heavy design, so that only lowest transmission losses may be possible. The door glazing* is equipped with insulated glass.

Integrated Fresh Air Pre-heating

With a newly conceived, integrated fresh air pre-heating, the outdoor air is led via a special heat exchanger unit, before the air flow is entering the heating room. Thus, a saving of approx. 50 % of fresh air pre-heating is reached.

Highly Insulated Machinery Technology

In dryer construction, the recirculating machineries are often neglected and the heating areas not insulated sufficiently. However, high heat losses are essentially influencing the gas or oil consumption.

Being a specialist also in heating and air-condition technology, WOLF tackles exactly such critical points.

In total, WOLF reaches a reduction of operating costs for the dryer of approx. 25 % with these measures.

*optional

Multi-Air - Fast Drying at Low Temperatures



New prospects in drying technology: In connection with Red-Eye® and Multi-Air System, the ECONVECT® Dryer guarantees lowest energy costs at max. number of jobs and perfect hardening.

Multi-Air

In addition to the positive experience in water paint evaporation, the patented Multi-Air Technology has established itself also for drying clear paints.

More and more customers are convinced of the advantages of the system for clearcoat drying.

Time is Energy: The Object Temperature

Drying time is composed of heating-up to object temperature and remaining time at object temperature.

The Multi-Air system offers two essential advantages:

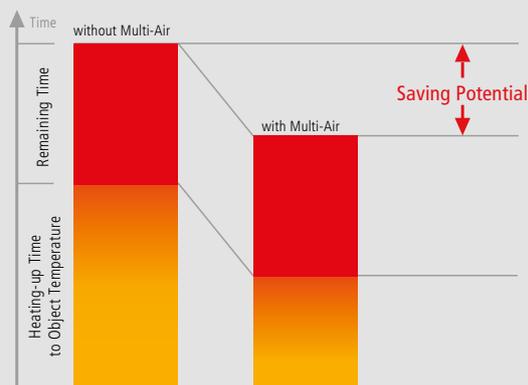
► Advantage 1

By the WOLF Multi-Air System, object temperature is reached much faster, so that the total drying time is much shorter, creating further potential for additional jobs.

► Advantage 2:

During residence time, the recirculating air temperature can - due to the very good heat transfer on the work piece surface - be lowered closely to object temperature. If drying is controlled by Red-Eye® System, the recirculating air temperature is automatically reduced to the min. required value.

Saving Potential with Multi-Air



Dryer machinery: fully insulated, energy-minimized, quiet



No degree too much, no minute too long: Red-Eye® Technology for energy-saving and safe drying acc. to object temperature.

Red-Eye®

The Red-Eye® System* is one of the mostly sold equipments of our product range. The advantages of this technology are convincing.

By this kind of regulation, no indirect parameter like recirculating air temperature, but the reality is directly recorded, making the process more exact and secure and above all reducing the heating costs.

Mind your Energy Consumption

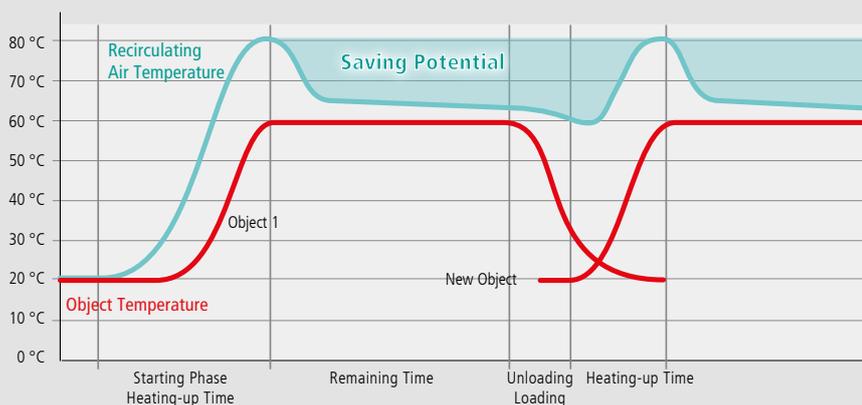
Compared to booths where drying is done in „blind flight“, i.e. acc. to experience values, the actual object temperature can be determined with Red-Eye® at any time and energy consumption can be regulated to the required temperature value.

The layout (below) shows that the recirculating air temperature is nearing the object temperature after reaching it. With Multi-Air switched on at this time, the recirculating air temperature is automatically reduced towards object temperature, so that much energy is saved.

Maximal Control Convenience

The drying programme is running fully automatically. You only have to direct the Red-Eye® Sensor to the drying surface and to touch the requested drying programme. Anything else is regulated automatically now.

Saving Potential with Red-Eye®



*optional

Green Technology - Use Regenerative Energy



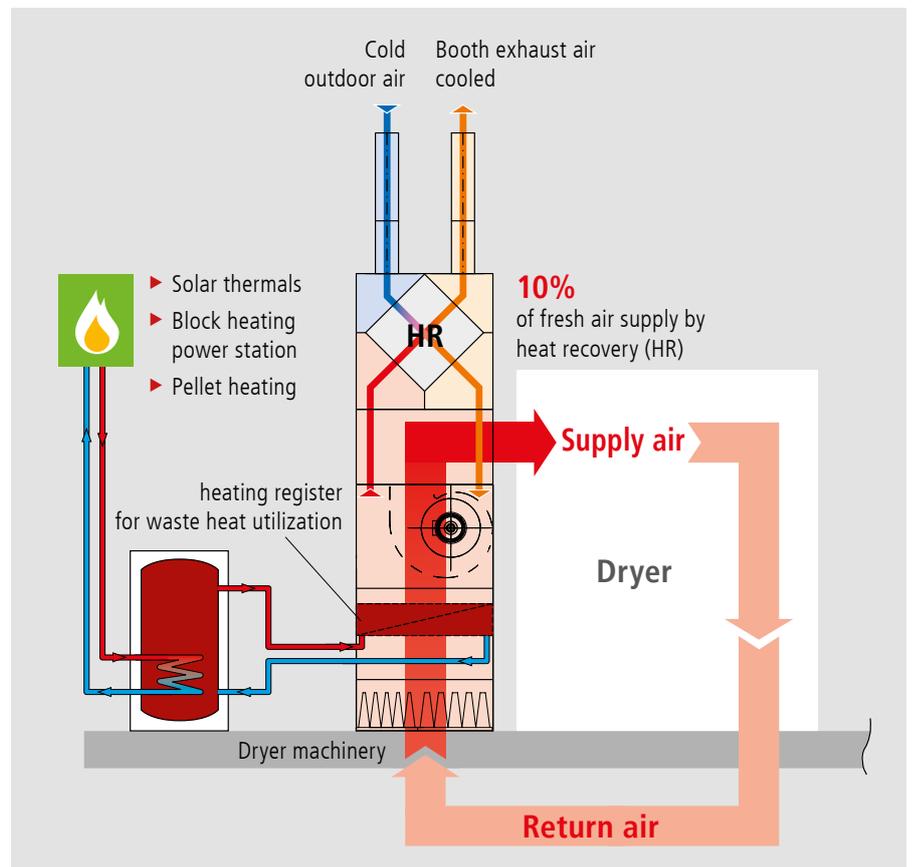
Additional saving of energy and costs: Green Technology concept for optimal use of alternative energy sources.

Green Technology Drying Technology

Alternative energies and existing waste heat, for example from block thermal power stations, pellet heatings or solar thermals, can be fed as a warm water circulation into the dryer machinery.

Using the heat of a block thermal power station or a solar thermal plant is especially interesting during drying process because of the permanent energy requirement in summer even at higher outside temperatures. In most cases, a warm water peak load boiler is added to these energy sources. Experience from already realized projects shows that the consumption of primary energy can be reduced drastically.

We are pleased to support you in your planning.





Everything under control: Energy cost calculator gives overview of operating costs

Intelligent Control System

Colour management, perfect surfaces and efficient processes are today's requirements to the profession of vehicle painter. Responsibility is correspondingly high and there is little time for supervising and controlling plant technology.

Therefore, intelligence of the control system is more and more integrated into the control processes running in background.

Easy Handling

Perfect hardening of painted surfaces and energy consumption as low as possible. These demands become reality with future technologies made by WOLF despite easiest handling.

- ▶ Selection of pre-programmed drying programmes
- ▶ Automatic addition of **Multi-Air** System
- ▶ Supervision of drying time
- ▶ **Red-Eye**® process control

▶ Dryer-Standby-Function

for quickly drying clear paints.

When the dryer is not occupied (any more), it is switched manually or completely automatically into energy-saving mode, depending on booth equipment.

Full Survey

By the dryer signal lamp* and the respective additional functions, you have your „cycle time“ completely under control.

You are being informed visibly of the current situation of the drying process.



*optional



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