



MILLS

# Quality from ventilation

 **WEGER**  
quality air, quality life

# We take on responsibility

Benefit from 30 years of experience and know-how in ventilation systems for all types of mills – according to client's or site requirements worldwide. The advantages of our solutions are evident: year-round high air quality and stable production conditions ensure higher mill performances. Heat recovery reduces energy consumption. Amortisation within 2-3 years is well guaranteed.

Our team provides comprehensive services: from design and production to delivery, installation and turnkey commissioning. All components can also be purchased individually; retrofitting of existing systems is also possible. Our reliable maintenance service will keep you up-to-date with new trends and technology. This is the key to guarantee international competitiveness.

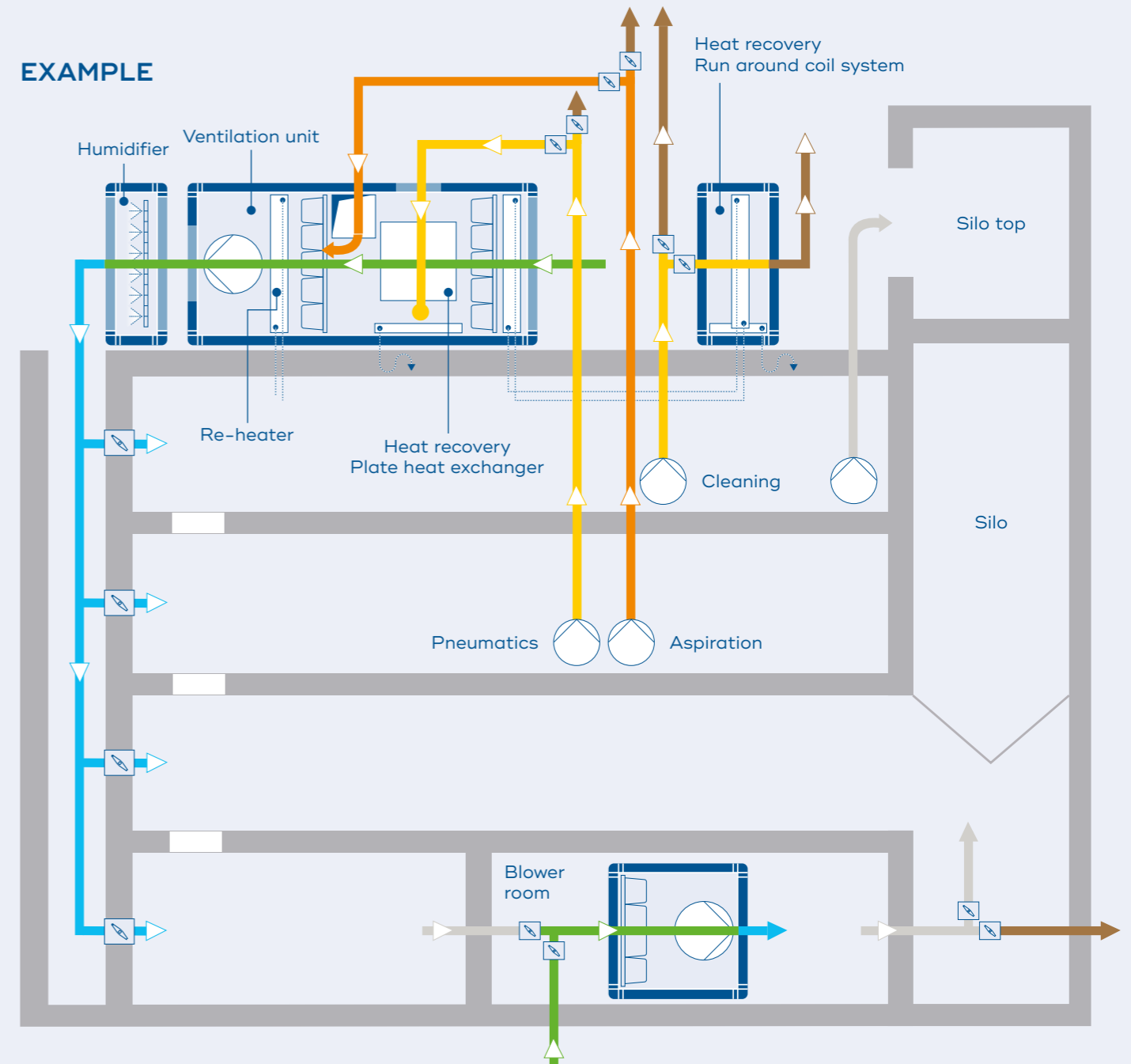
## OUR PRODUCT RANGE:

- Ventilation mill & silo
- Ventilation blower room
- Ventilation cleaning
- Heat recovery
- Supply air humidification
- Empty air cooling
- Control and automation

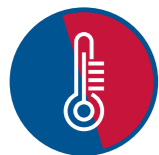
## AIR FLOWS:

- External air
- Exhaust air
- Supply air
- Extract air
- Secondary air
- Indoor air

## EXAMPLE



## YOUR ADVANTAGES WITH A WEGER VENTILATION SYSTEM:



Ultimate temperature and humidity control all year round



No condensation - productivity increase



Slight overpressure - no drafts or impurities



Air cleaned of dirt and insects



Energy saving through heat recovery



## ASSOCIATION MEMBERSHIP

Weger is a member of the Italian mill association Antim. This ensures an interchange of needs and solutions at the highest professional level.



**ANTIM**  
ASSOCIAZIONE NAZIONALE TECNICI  
DELL'INDUSTRIA MOLITORIA

# Ventilation

## VENTILATION MILL & SILO

Our mill ventilation systems provide ideal conditions for people and machineries. They assure constant temperature and humidity to be programmed – regardless the external weather conditions. The air is introduced at a low flow rate, which reduces the formation of dust. The slight overpressure also reduces drafts and the penetration of insects. To prevent condensation on the silo covers, preheated air is supplied to this area. Our systems ensure compliance with all current environmental legislation, EU certifications for heat, noise emissions and air leakage.

## BLOWER ROOM VENTILATION

In the blower room, machineries and piping generate heat themselves. Weger Systems prevent over-

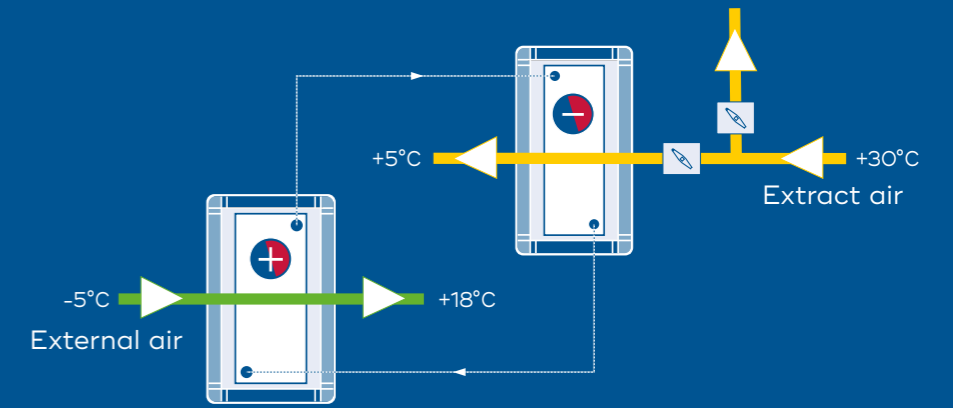
heating in the summer while in winter the waste heat is used efficiently to heat the supply air. For this purpose, the indoor air is mixed with the supply air; of course, under strict hygienic conditions and soundproofed.

## VENTILATION CLEANING

The cleaning process has special demands. For hygienic reasons, the air should be as cold as possible to prevent the proliferation of insects. In addition, this area may have a negative pressure. To permit the correct function of the machineries, they should not be exposed to direct drafts. Water-carrying pipes must be equipped with heaters if the temperature is below 0°C.

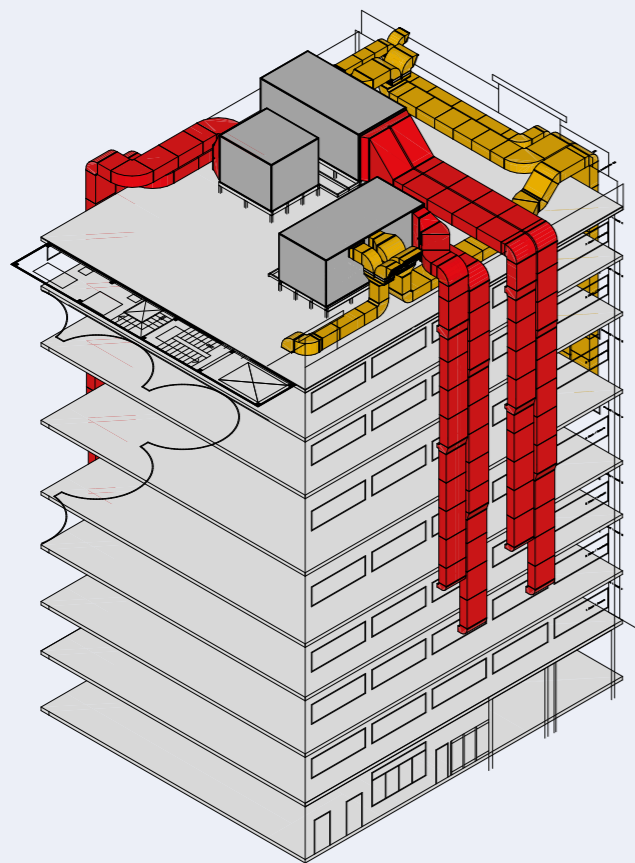
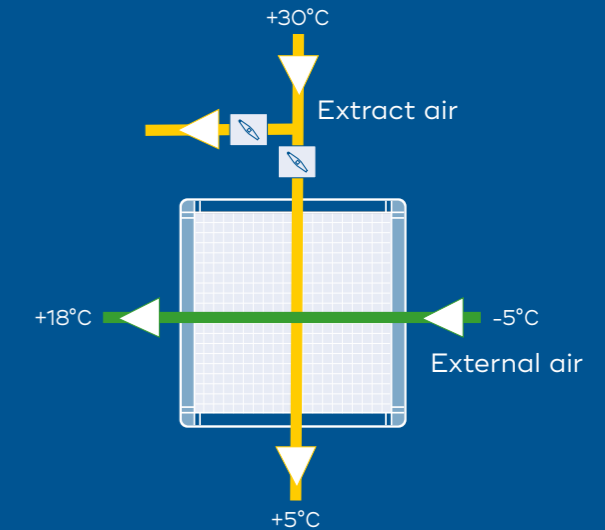
## RUN AROUND COIL SYSTEM

- indirect heat transfer from extract air to external air by water / glycol
- Heat transfer over long distances
- Retrofitting possible



## PLATE HEAT EXCHANGER

- Direct heat transfer from extract air to external air via aluminium fins
- Suitable for short distances
- Low investment
- Great savings
- Low maintenance
- Low operating costs due to low pressure drop



# Heat recovery

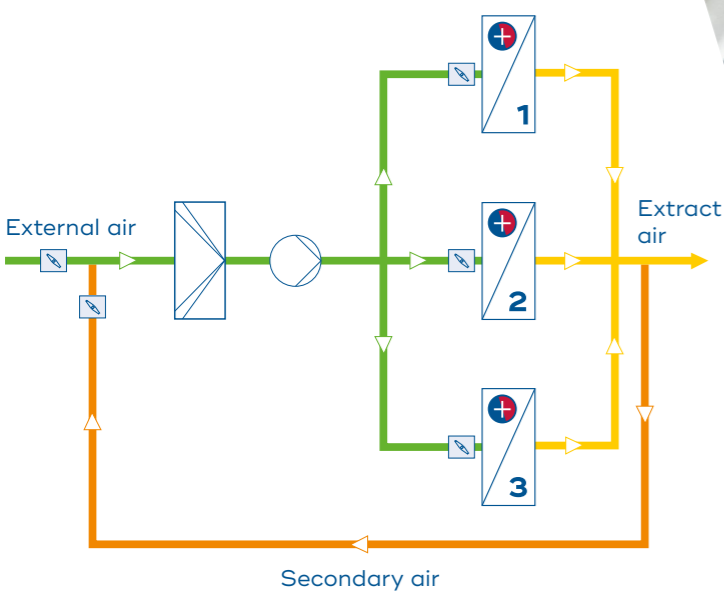
The plant efficiency increase by heat recovery can be achieved in two ways: for short distances with a plate heat exchanger, for longer distances with a run around coil system. Both systems offer a strict separation between supply and extract air. The systems are designed to avoid flour dust deposition. Access/maintenance doors are foreseen large enough. Low pressure drops make a significant reduction in life cycle cost possible. Supply and extract air can be treated according to the customer's need, with the aim to not release in the room smells and dusts of extract air.

# Supply air humidification

The hygiene regulation VDI 6022 must be observed in food processing plants. Due to the atomisation of treated fresh water in high-pressure humidifiers, there are no problems with contamination or micro-organisms. They are also 85% more energy efficient and consume less water than conventional systems. Last but not least, the maintenance can take place outside the air handling unit, ensuring 100% uptime. Honeycomb humidifiers have inorganic contact body material and therefore provide no base for bacteria and mold. An advantage of this system is that no water treatment is required and tap water can be used directly. The investment costs for this system are significantly lower than high-pressure humidifier.



# Transport air cooling



The empty air of the compressed air blower is cooled in a separate air cooler with external air. The aim is to cool the conveying air, lose less product moisture during transport and thus obtain cooler flours. This results in a higher efficiency. The cooling air temperature must always be above the dew point to prevent

condensation on the empty air side. This is achieved by adding warm return air to the external air. As soon as a blower goes into operation and its grids open, the cooling air system also switches on. The cooling air is cleaned by a coarse dust filter. The filter differential pressure is of course monitored by a sensor.



# Control and automation

Every technology is only as good as its monitoring and control systems. With the in-house "Imperia" control technology the whole system can be easily monitored from a central or remote location. The settings can be made in different languages via touch screen (7-24" inch).

Programming knowledge is not necessary, only a password is needed. Updates can be imported via USB and data can be downloaded for evaluation. And in the unlikely event of a malfunction, the system automatically reports an alarm via email.

## SOME REFERENCES:

- GoodMills Gabarinza, Germany
- GoodMills Stradunia, Poland
- Rieper Mühle, Italy
- Molino Magri, Italy
- Maismühle Cornexo, Germany
- Meyerhans Mühlen, Switzerland
- Siemer Milling, USA
- Said Salim Bakhres, Tanzania
- Rubin Mühle, Germany
- Molino Cerere, Italy



King Mill, Michigan (USA)

**Weger Walter GmbH**  
Handwerkerzone 5  
I-39030 Kiens/Ehrenburg (BZ)

T. +39 0474 565 253  
F. +39 0474 565 011  
info@weger.it  
<https://mills.weger.it>  
www.weger.it

A company from  
**südtirol**

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