

CLIMATE CHANGE AND VENTILATION TECHNOLOGY

**COMFORT
VENTILATION**

 **PICHLER**

Systematic ventilation.



The European construction industry faces new challenges that are brought on by the climate change. Both the direct temperature changes and weather variations and the measures for achieving the climate goals must be taken into consideration.

ENVIRONMENT AND CONSTRUCTION

HOW THE CONSTRUCTION INDUSTRY IS INFLUENCED BY THE CLIMATE CHANGE

CLIMATE CHANGE

Our climate is changing. The annual average temperatures are rising steadily from year to year. The amounts of precipitation in winter and spring are increasing. The summers are getting hotter and drier. Meteorologically extreme events occur more and more frequently. Heavy rainfall, wet snow, hail, debris flows and flooding no longer are exceptional phenomena. We are living in a time where we are already starting to feel the first consequences of the climate change. And yet it's a time where we can still change course.

EU ENERGY AND CLIMATE GOALS

In addition to further energy and climate goals, the reduction of the greenhouse gas CO₂ (which is one of the major driving forces of global warming) is at the top of the to-do list of our united Europe. The European Union has targeted a minimum greenhouse gas reduction of 40 percent until 2030 (in comparison to 1990). To achieve these goals, the member states are called upon to implement appropriate measures to save energy, increase the energy efficiency and to promote renewable energies and innovative technologies.

IMPACTS ON THE CONSTRUCTION INDUSTRY

Both the climate change and the measures for achieving the climate goals have a strong impact on the construction industry. The buildings must withstand the freak weather and extreme events to be expected in the future. The higher temperatures in summer require possibilities of cooling, shading, and lots more. Furthermore, the housing technology and energy supply of the buildings must be implemented in an economical and energy-efficient fashion. The carbon emissions caused by heating and hot water production are to be as low as possible. The increasing importance of electric power is to be met by the production of self-sufficient power, e.g. by means of photovoltaics and intelligent energy management systems. This makes the buildings more independent so as to guarantee a reliable power supply.





With innovative, intelligent ventilation technology systems like for example our PKOM⁴ heat pump combination unit, we at PICHLER are making a valuable contribution to environment and climate protection.

INNOVATIVE HOUSING TECHNOLOGY

NEW HOUSING TECHNOLOGY SYSTEMS
IN RESPONSE TO THE CLIMATE CHANGE

ENERGY EFFICIENCY IN BUILDINGS

In Austria, the stricter requirements of the EnEV energy saving decree have applied for this since 2016. This decree serves to further improve the energetic quality of new buildings. In compliance with Article 2, Section 2 of the EU Directive 2010/31/EU and the amendment of 30 May 2018, as of 31 December 2020 new buildings must be nearly zero-energy buildings. Furthermore, the modernization of old buildings is steadily gaining in importance. Old buildings are thermally renovated, made energy efficient and are equipped with innovative, intelligent housing technology. The trend is no longer to create new buildings, but to renovate old buildings.

THE HOUSING TECHNOLOGY OF THE NEXT GENERATION

With the new demands that are posed to residential buildings and work buildings, also the requirements with regard to housing technology are changing. The systems must be highly functional, energy efficient, economical, environmentally compatible, space-saving, cost-effective and easy to install. Low-maintenance and durable compact packages with a high degree of pre-fabrication are simply integrated into the overall system as plug-and-play solutions. Interfaces to other subsystems are mandatory. Everything is smart, user-friendly and, on top of that, all products even provide an aesthetic appeal. Due to the legally required thick construction covers that prevent a natural exchange of air, the value of the housing ventilation also increases.

INNOVATIVE PICHLER SYSTEMS

Modern ventilation technology can make a valuable contribution to environment and climate protection. We at Lufttechnik PICHLER are convinced of this. For the development of our systems, we therefore take all requirements mentioned above into consideration – and some others as well. In this way we're able to design excellent solutions such as the PKOM⁴ heat pump combination unit, which covers the four functions of ventilation, heating, cooling and hot water production and which is used in low-energy houses/efficiency houses. Moreover, with its smart functions, it can be easily combined with other systems (e.g. a photovoltaics system for solar power generation). In this way, it provides for a perfect indoor climate in a sustainable and highly efficient fashion – and it contributes to stopping the global climate change.





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