HIGH TECH HEAT PUMPS

FOR ME AND NATURE

OCHSNER
HEAT PUMPS

CONTENTS

THE BEST FOR THE CLIMATE

Heating has never been as efficient and clean as it is with a heat pump. The technology uses existing energy and brings it to where it is needed in living and working areas. Nothing is burnt and the efficiency is outstanding. This makes heat pumps the optimal heating solution – clean and economical to run, today and in the future.

Efficiency: using available energy

Heat pumps use energy already present in the air, water or ground to heat and cool rooms and to produce hot water. As a result, their efficiency is particularly high: one kWh of electricity invested generates an average of 4 kWh of heat. A heat pump therefore creates the gift of energy.

Climate protection: no CO_2 emissions

The story is very different for combustion solutions with their associated losses, where more energy has to be supplied than is needed. This is because a lot of heat is lost via the chimney, and climate-damaging exhaust gases are emitted with these traditional technologies. A heat pump, on the other hand, works absolutely cleanly, which is why it is subsidised in many places.

Independence from oil and gas

Choosing a heat pump not only saves costs and actively contributes to climate protection, but also means you are not reliant on oil, gas and other fuels.

2.6 MILLION TONNES OF CO_2 SAVED

Thanks to OCHSNER heat pump customers, CO_2 emissions have been reduced by more than 2.6 million tonnes since 1978!

WHY CHOOSE OCHSNER?

There are many reasons for choosing OCHSNER: the expertise, the quality and the service. Every single OCHSNER heating heat pump is manufactured specifically to customer requirements, then tested on a heat pump test bench in accordance with the European standard and commissioned by our in-house technical customer service team. Ensuring reliability for many years to come.

State of the art manufacturing – made in Austria

OCHSNER heat pumps are manufactured exclusively in Austria from high quality materials and components, and using state of the art manufacturing processes such as 3D printing. Through its intensive research and development work, OCHSNER also ensures that its products become even more efficient and resource-saving.

Strength from tradition – 152 years of OCHSNER

The OCHSNER family business was founded back in 1872. Many systems have been installed over the years for high profile customers across the world, including the US Navy and NASA. The range includes both piston and screw compressors with up to 500 kW output.

OCHSNER Wärmepumpen GmbH was founded in 1978 and the company has become synonymous with energy awareness, exceptional quality standards and a flair for innovation. OCHSNER was one of the first European manufacturers to produce heat pumps on an industrial scale. Today, the company is recognised as an international technology leader. Since 1992, OCHSNER has specialised exclusively in the development and manufacture of heat pumps.

Confirmed efficiency and proven quality

For many years, OCHSNER heat pumps in the OCHSNER AIR and AIR HAWK series have been achieving record-breaking levels of efficiency and outstandingly low noise emissions, whilst ensuring the lowest possible heating costs. In geothermal energy, too, OCHSNER is a leader in energy efficiency.

ISO certified

OCHSNER is certified according to the latest ISO standards, namely ISO 9001, ISO 14001 and ISO 50001.

Wellness for your home

OCHSNER heat pumps are particularly versatile: they provide heating and domestic hot water, can optionally cool and extend your swimming season as a pool heater.

Environmentally friendly refrigerants

OCHSNER heat pumps are operated with modern, future-oriented, environmentally friendly refrigerants.

Smart home connectivity

OCHSNER heat pumps can be integrated into smart home systems and can be controlled via PC, tablet or smartphone from home or anywhere in the world, if required.

Smart grid and photovoltaic ready

Smart grid functionality will allow you to take advantage of attractive tariffs resulting from power surpluses for operating your heat pump interactively with the grid of the future. In addition, it enables the use of power from a domestic PV system.

Competent and reliable – your OCHSNER Customer Service*

At OCHSNER, the personal care of customers does not end as soon as a system is sold. When you choose OCHSNER, you receive competent and reliable support from the company's own technical customer service team.

OCHSNER and the WWF

As partners of the WWF CLIMATE GROUP, OCHSNER and other renowned companies are committed to effective climate protection. Together, we aim to bring climate-conscious thinking and action into the mainstream of politics, industry and society.

* The services listed are only available in certain countries; please contact our country representatives if you have any queries.

TODAY, MORE THAN

180,000

OCHSNER HEAT PUMPS
ARE SUCCESSFULLY IN USE

A variety of case studies from your area can be found at www.ochsner.com.

A heat pump
eliminates your reliance on oil, gas and other fuels.

ENERGY SOURCES

Air

Air is available everywhere in unlimited supply. OCHSNER has developed horizontal split system technology even further, to make air source heat pumps more economical than ever.

This system is great for new builds and even better for refurbishing existing buildings. This applies particularly where disturbing the ground is generally too complex. Technical innovations by OCHSNER enable efficient use of air as the heat source, even at low outside temperatures. Furthermore, our products are characterised by their high operational reliability and low sound emissions. Air source heat pumps are also well suited for use in bivalent systems.

Water

Where groundwater is available at an adequate depth, in sufficient amounts and at the right temperature, it offers the best possible seasonal performance factors. A constant temperature of 8 to 12°C guarantees an optimum heating mode. It requires two wells – a supply well and a return well. The return well should be at least 15 metres away from the supply well in the flow direction of the groundwater.

For 1 kW of heating output, approximately 250 litres of groundwater are required per hour. The capacity must be verified by a continuous pump test. The amount of suspended matter in the water must be within certain thresholds, so a water analysis must be carried out. In addition, a permit is required from the local water board.

Geothermal energy – brine

With this system, geothermal energy is collected by means of a brine circuit and transferred to the heat pump. Geothermal brine collectors can be installed in three different ways:

- Where there is sufficient land available, horizontal collectors are the most affordable option. The area covered depends on the method of construction and thermal insulation of the building, as well as the soil conditions.
- A spiral-shaped deep trench collector is an alternative that takes up somewhat less physical space.
- Geothermal probes requiring deep drilling can also be set into the ground. The boreholes are typically drilled to a depth of 100 metres, and are ideal when little space is available. Planning permission is needed for this.

THE FUNCTIONAL PRINCIPLE

Heat pumps generate heat without combustion. This makes them fundamentally different from gas, oil or wood-fired heating systems. The heat pump process itself produces no emissions of any kind. The majority of energy comes from the environment. Electricity is only used to drive heat pump operation. The coefficient of performance (COP) shows how efficient the equipment is. A COP of 4 means that 4 kW of heating output is generated from 1 kW of electricity. 3 kW is thus freely available from the air, ground or groundwater.

How does a heat pump work?

Heat pumps transfer environmental energy from a source such as the air, ground or groundwater to another system, usually a heating or domestic hot water system. The temperature level is raised via a thermodynamic process.
The key element here is a refrigerant with a very low boiling point that is evaporated, compressed and condensed in a multi-stage process.

Heat absorption from environmental energy

The refrigerant is evaporated in an evaporator, which draws heat from the air, ground or groundwater. Under low pressure it changes its physical state from liquid to vapour and absorbs energy from the source.

Temperature rise under pressure

After this, a compressor compresses the vapour under high pressure, raising its temperature in the process. One of the clever things about an OCHSNER heat pump is the optimal ratio between temperature rise and electricity consumption.

Heat transfer to the heating system

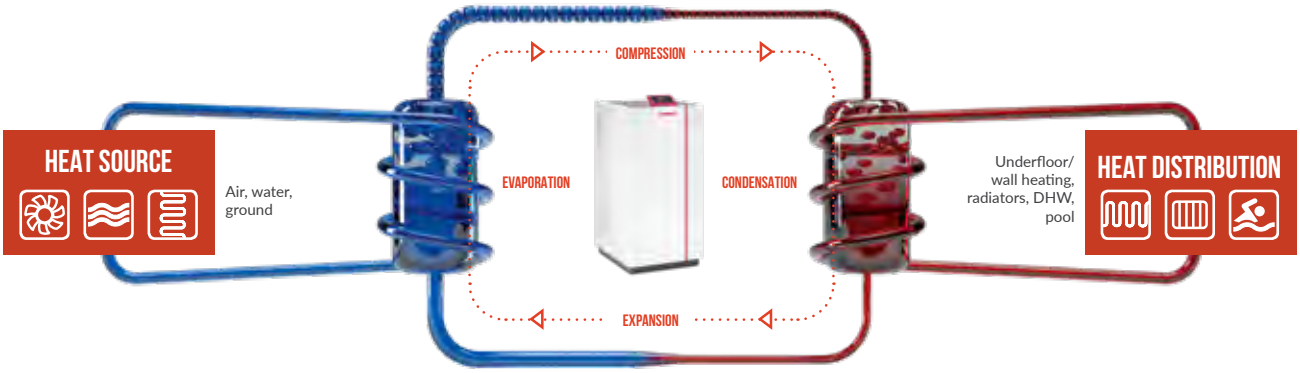
The refrigerant vapour generated under high pressure and high temperature is condensed in a condenser which is designed as a heat exchanger. Here the heat produced is transferred to the heating or domestic hot water system, and the refrigerant cools down.

Expansion and renewed heat absorption

Afterwards, the refrigerant flows through an expansion valve and loses pressure. Expansion cools it again significantly and it returns to the temperature and pressure level from the beginning of the process. Now it can reabsorb energy, and the thermodynamic heat pump process starts again.

> The majority of energy comes from the environment.

HEAT PUMP FUNCTION



IDEAL FOR **REFURBISHMENT**

HEAT PUMP – UNPROBLEMATIC FOR OLDER BUILDINGS

The idea that a heat pump only makes sense for new builds is widespread – and a misconception. Thanks to their high efficiency, OCHSNER heat pumps are also the right choice when refurbishing older buildings for climate friendly and cost saving heating in the future.

High levels of efficiency ensure high flow temperatures

Thanks to their maximum efficiency and technology for achieving very high flow temperatures, OCHSNER heating heat pumps are suitable for use in new builds with underfloor heating and in existing buildings with radiators. This means that the use of older properties can be perfectly harmonised with the requirements relating to climate protection and running costs. Various subsidy programmes support energy efficient refurbishment and thus reduce construction costs too.

More space in the building

Using a heat pump usually means more space in the building. Where previously large boilers and possibly oil tanks took up entire areas, there is now more storage space or even usable living space.

Particularly quiet operation

Noise emissions are a particularly sensitive issue in established neighbourhoods with old buildings. Here you can rest assured: air/water heat pumps from OCHSNER are among the quietest on the market. In addition, the versions with a horizontally mounted fan – which include the AIR and AIR HAWK series – have the design benefit of expelling air upwards rather than to the side. This prevents air currents that could be noticed from adjacent properties.

Highly efficient and ultra-quiet OCHSNER AIR HAWK heat pump in use for an older building.

This renovated older building in Salzburg is just one of tens of thousands of examples of how OCHSNER heat pumps can also be successfully integrated into existing buildings.

Case studies at www.ochsner.com

OCHSNER AIR/WATER HEAT PUMPS

ENERGY FROM THE AIR

The outdoor units in the OCHSNER AIR & AIR HAWK series are available in numerous RAL colours.

Straightforward installation

Air/water heat pumps offer a significant advantage in that they are simple and thus economical to install. That's because these systems are designed to be flexible when it comes to location and installation.

Depending on the required heating output, the indoor unit is typically not much bigger than a refrigerator and can therefore be easily located in a basement, utility, hobby or laundry room, etc. The outdoor unit can be installed in the garden or on top of a garage, carport or flat roof, for example.

Minimal or no excavation work required

Air/water heat pumps are a popular choice for both new and existing buildings as the ground does not need to be disturbed, or only to a minimal extent. An air/water heat pump can be installed almost everywhere without much effort.

Particularly quiet operation

You don't need to worry about noise protection: OCHSNER heat pumps guarantee the lowest sound levels for years and are usually approved even in areas with very strict noise level requirements.

A range of systems

As a technology leader, OCHSNER offers various systems for utilising air as a heat source: split appliances with fixed speed or inverter technology.

OCHSNER high tech air/water heat pumps are designed as split systems. This means that the fan unit and the actual heat pump are separated and linked by a suitable connection line. In this case, the fan is installed outdoors and the heat pump is installed inside the building.
Note: the heating water is always heated without losses inside the house, no matter which model you choose.

Heat pumps in the OCHSNER AIR FALCON series work with vertical fans, whilst the OCHSNER AIR and OCHSNER AIR HAWK use "table-top" evaporators with fans that are installed horizontally.

OCHSNER AIR/WATER HEAT PUMPS

4-78*
KW HEAT LOAD

* many times more in a cascade

IN A NUTSHELL:

HOW AN AIR/WATER HEAT PUMP WORKS

A fan draws in outdoor air, from which energy drawn via the heat exchanger causes the refrigerant in the heat pump to evaporate. Within the heat pump circuit, the refrigerant is brought up to a higher temperature by compression, making usable energy available for heating buildings and DHW heating. Air is available in unlimited amounts, everywhere and at all times. With OCHSNER systems, air even at sub-zero outdoor temperatures can be used as an efficient heat source.

EFFICIENCY AT ANY SIZE

The OCHSNER AIR series delivers peak performance in terms of energy efficiency, sound levels and operational reliability. With flow temperatures up to 65°C, it also works effectively in conjunction with radiators and can be used in renovation projects or in bivalent heating systems. Thanks to heating outputs up to 78 kW (or even 600 kW in a cascade setup), it is possible to design tailor-made systems – for detached houses, apartment blocks, hotels, administrative buildings and commercial properties.

Engineered for high efficiency

All appliances in the OCHSNER AIR series have a horizontally arranged air heat exchanger with a surface area that is also larger than comparable models of other manufacturers. Due to this generous sizing and special design, the evaporator takes maximum energy from the air. As a result, the AIR heat pumps can efficiently provide heat even at sub-zero temperatures.

Whisper-quiet in use

Slow running fans reduce noise emissions. The fan's fully modulating operation provides infinitely variable adjustment of the evaporator for heat pump operation. Furthermore, there is hardly any audible air flow because the air is expelled upwards. This prevents any unpleasant air currents from near the outdoor unit. In silent mode, which is integrated as standard, the low sound emissions are reduced further again, and OCHSNER even offers a Super Silent Package for installation in particularly sensitive areas.

Maximum operational reliability

Thermodynamic de-icing ensures that any ice between the fan edge and air flow nozzle is quickly defrosted. For efficiency, the required energy is only provided for the fan itself. The direction of rotation of the fan changes after each defrosting process, blowing condensate out downwards from the heat exchanger. This helps to increase efficiency, save energy and reduce running costs. It also means the intervals between defrosting can be maximised. During longer periods of inactivity, an anti-blocking function ensures the fan starts properly. The intelligent control unit provides just the right power needed at all times to prevent any fan wheel blockage.

Efficiency and climate protection for larger properties

OCHSNER AIR air/water heat pumps can be used for larger residential or commercial buildings in particular to help both protect the climate and reduce energy costs in a significant way. A climate neutral heating system is also a factor in boosting the attractiveness of housing associations, hotels and businesses to tenants, guests and customers.

Suitable for new build and renovation projects

Flow temperatures up to 65°C can be achieved with all OCHSNER AIR heat pumps. This means they are suitable for providing heating and DHW in new builds as well as refurbishment projects. These solutions are therefore the perfect alternative to geothermal and groundwater heat pumps in situations where those cannot be used.

Individual installation arrangements for outdoor units

Even where space is at a premium, a suitable installation location can be found for the quiet-running horizontal bench evaporators. In many cases, the appliances can be installed at ground level in open spaces. Alternatively, installations on roofs or in open underground parking areas are possible too.

MANY YEARS OF EXPERIENCE WITH LARGER PROPERTIES

OCHSNER has many years of experience in project planning and sizing heat pump systems for larger buildings. System designers, investors and operators benefit from comprehensive support for their projects. The OCHSNER Customer Service team also provides fast, reliable assistance when it comes to maintenance, service work and repairs.

HEATING + COOLING

7- 78** KW HEAT LOAD

DHW UP TO 65°

SILENT MODE

*Peak value – measured on an OCHSNER AIR 18 model at an outdoor temperature of 2°C and a water temperature of 35°C to the relevant test standard for heat pumps EN14511

COP 4.4*

Heating, hot water and cooling

In larger buildings, OCHSNER AIR air/water heat pumps can meet all the demand for heating energy and domestic hot water. They can also be upgraded to provide cooling. Active cooling is possible via surface heating systems or special radiators as well as via fan coils in appropriately equipped commercial buildings.

High quality materials

The OCHSNER horizontal split evaporator casings are manufactured using high quality materials. OCHSNER therefore offers a ten year warranty against rusting – and is the only manufacturer to do so.

Tank and RoomTerminal not included in scope of delivery

** many times more in a cascade

AIR/WATER HEAT PUMPS **OCHSNER AIR HAWK**

THE SKY'S THE LIMIT!

The OCHSNER AIR HAWK air/water heat pumps excel due to their exceptionally low sound levels, outstanding efficiency and long service life. This makes the series the first choice for anyone looking for a sustainable solution for heating and cooling buildings of almost all sizes. The appliances are also suitable for energy efficient new builds as well as for renovating existing properties.

Highest COPs and world record for quiet operation

With a coefficient of performance of up to 5 or more, the OCHSNER AIR HAWK models have set an industry benchmark for energy efficiency. And thanks to their horizontally arranged heat exchanger and demand-driven fan speed, they also produce outstandingly low noise emissions: with a sound pressure level of 28 dB(A), the AIR HAWK 208 is the quietest air/water heat pump ever to be measured at the Buchs heat pump test centre in Switzerland. The models with higher outputs are also outstanding, due to their minimal sound emissions, which can be reduced even further in silent mode.

Maximum service life thanks to fully modulating operation

All models in the OCHSNER AIR HAWK series are fully modulating. This means that they continuously adjust the fan and compressor output to the current heat demand. A heating buffer tank is then not required in many cases, reducing investment costs and eliminating tank losses. Furthermore, switching cycles are reduced to a minimum as the heat pumps run almost without interruption during the winter season due to the modulation. This maximises the service life and reliability of the appliances, which are equipped with compressors of the highest quality.

Heating, cooling, dehumidification

With additional equipment, the entire AIR HAWK range can also be used for active climate control via underfloor and other surface heating systems. Designed for higher outputs, the AIR HAWK 518, 726 and 1850 models further provide the option of cooling and room dehumidification via fan coils, independently of the surface heating system. These OCHSNER heat pumps also achieve outstanding energy efficiency when used for climate control.

Perfectly suited to refurbishing older buildings as well

As even high flow temperatures of 65°C** can be easily achieved with the OCHSNER AIR HAWK appliances, these heat pumps are also perfectly suited to refurbishing older buildings in conjunction with radiators. High tech therefore successfully combines functionality, ecology and economy - even in older properties.

COP OF OVER **5***

*Peak value – measured on an OCHSNER AIR HAWK 518 model at an outdoor temperature of 2°C and a water temperature of 30°C to the relevant test standard for heat pumps (14825)

4-43# KW HEAT LOAD

HEATING + COOLING

EXTRA QUIET

OTS OCHSNER TRONIC SMART

#) many times more in a cascade

** 60°C for the AIR HAWK 1850

AIR HAWK series split indoor unit

AIR HAWK 208 and AIR HAWK 518 split outdoor unit

INCREDIBLY EFFICIENT, UNBELIEVABLY QUIET

Maximum efficiency – even for large buildings

With the AIR HAWK 208, 518, 726 and 1850 models, the series covers an output range of 4 to 43 kW, making it suitable for a wide variety of applications. It offers tailor-made solutions for detached and two-family houses, but also for commercial and office buildings. By cascading the larger systems, even very high output demands of up to 160 kW can be met.

High end control system and interfaces for building automation

All OCHSNER AIR HAWK air/water heat pumps come with the high end OCHSNER TRONIC SMART (OTS) control system. In addition to allowing you to operate your heating system remotely via an app, it also enables integration into smart home or more complex building management systems. This makes for easier maintenance and can help to reduce energy costs, e.g. through automatic use of surplus PV power.

More about the exceptional ease of use and all the possibilities available to you through the OTS, such as operation via app, remote maintenance, online updates and smart home integration, can be found on page 32.

AIR HAWK 726

The OCHSNER AIR HAWK 208 and AIR HAWK 1850 models are winners of the "Energy Genius" innovation award from the Austrian Federal Ministry of Sustainability and Tourism.

PIONEER IN CLIMATE PROTECTION

With the AIR HAWK series, OCHSNER is focusing resolutely on sustainability and climate protection. Only refrigerants with a GWP (global warming potential) well below 700, which is the maximum limit prescribed by the EU Fluorinated Greenhouse Gases Regulations for the year 2030 onwards, are used. The refrigerant itself and the systems' low charge volume reduce the CO_2 equivalence, i.e. the global warming potential.

ENERGIE GENIE 2024

AIR HAWK 1850

GREAT VALUE FOR MONEY IN THE COMPACT SEGMENT

The AIR FALCON air/water heat pump offers OCHSNER's technological leadership for the compact segment and is especially suitable for detached houses with low temperature or bivalent heating systems.

Flow temperatures up to 60°C

The OCHSNER AIR FALCON delivers flow temperatures of up to 60°C and is therefore suitable for more than just supplying surface heating systems.

Groundbreaking control

OCHSNER TRONIC SMART control technology meets all current and future requirements and can be directly integrated into the building automation system. The control technology is extremely straightforward to set up and operate with the OCHSNER app using a smartphone or other tablet if preferred.

Modulating compressor, climate friendly refrigerant

The output-dependent compressor in the outdoor unit ensures matching to the current heat demand. The GWP (global warming potential) of the R32 refrigerant used is well below the limits set by the Fluorinated Greenhouse Gases Regulations for the year 2030 onwards.

Heating and cooling with one appliance

The new AIR FALCON is not only suitable for heating mode in colder months but also for cooling in the summer. It actively cools by extracting heat from the building – for pleasant temperatures 365 days a year.

Compact, quiet indoor unit or complete solution with Multi Tower

The highly compact and extremely quiet indoor unit of the heat pump requires an installation area of just 0.27 m². The AIR FALCON 212 is alternatively offered as a complete solution in conjunction with the OCHSNER MULTI TOWER. It ensures a supply of heating energy and domestic hot water from a footprint of just half a square metre. The MULTI TOWER can be installed quickly and easily in a utility room or hallway.

OCHSNER MULTI TOWER
ideal for small spaces

COMPACT INDOOR UNIT with additional tank

GROUND SOURCE HEAT PUMPS **OCHSNER TERRA & TERRA FOX**

TECHNOLOGY FOR MAXIMUM EFFICIENCY

In most cases, ground source heat pumps use the ground around a building as an energy source. However, other sources of energy can conceivably serve as heat suppliers as well. This makes the OCHSNER TERRA and compact TERRA FOX models extremely versatile. They also deliver maximum efficiency and service life.

Versatile and efficient

Geothermal energy is essentially heat from solid energy sources. These might be soil layers beneath the Earth's surface or concrete elements, e.g. in a stable. All of these applications require ground source heat pumps that extract heat from the respective energy source via a liquid (brine). This system is extremely efficient and a key component of the energy transition in dense urban centres in particular.

Exploitation with horizontal collectors or geothermal probes

Heat from the ground can be tapped either via collectors laid horizontally in the earth or geothermal probes sunk vertically. Horizontal collectors require enough space which must not be built on or sealed. Geothermal probes require less space although permits are needed.

High quality and durable stainless steel heat exchangers

The brine absorbs energy in the heat source and transports it to the heat pump. Efficiently designed evaporators ensure minimal losses while the heat is transferred to the refrigerant. OCHSNER uses stainless steel plate heat exchangers for this as standard, which ensure maximum durability in conjunction with the closed nature of the system.

Passive cooling with ground source heat pumps

OCHSNER ground source heat pumps can be configured such that they can also be used for passive cooling in summer. The heat pump transfers heat from surface heating systems to the ground via geothermal probes. Since the ground is cooler than the air in the house in summer, with temperatures constantly in the region of 10°C, room temperatures can be lowered by a few degrees using minimal energy. The running costs are negligible, because only the circulation pump for the brine in the geothermal probes is activated.

Ideal for utilising surplus PV power

The OCHSNER TERRA heat pumps can be combined with DHW tanks of different sizes. This allows for maximum PV self-consumption: as the heat pump heats a large buffer tank while the sun is shining during the day, the system can be largely operated with solar power even in the winter.

Refrigerator-sized system

For the OCHSNER TERRA FOX appliances, the ground source heat pump and a large stainless steel DHW tank with a 260 litre delivery capacity are installed in a single casing. It is no bigger than a fridge freezer. This means the entire system can fit in even the small utility rooms of today's houses. It can also be installed in the living space, such as in a kitchenette, without attracting particular attention. The very low sound power level of 32 to a maximum of 36 dB(A) plays its part in this too.

Modulating pump operation

The heat pumps in the OCHSNER TERRA FOX series are modulating. This means they continuously adapt their output and speed to the heat demand. This lowers power consumption and increases service life.

Available in three output stages

The compact OCHSNER TERRA FOX ground source heat pumps are available in three output stages: for a building heat load of 2 to 8 kW, 3 to 12 kW and 4 to 16 kW. Flow temperatures of up to 65°C are no problem either, which makes the appliances in this series the ideal choice for older buildings as well.

Heat from groundwater

The OCHSNER TERRA FOX heat pumps are also suitable for recovering heat from groundwater. For this, well water is conveyed via a submersible pump to an intermediate circuit heat exchanger that absorbs the heat and then releases it to the connected ground source heat pump.

6-78* KW HEAT LOAD

OCHSNER TERRA

2-16 KW HEAT LOAD

OCHSNER TERRA FOX

HEATING/ PASSIVE COOLING

* many times more in a cascade

WATER/WATER HEAT PUMPS **OCHSNER AQUA**

ENERGY FROM WATER

Groundwater heat pumps occupy a special position among all the heat pumps. They do not draw thermal energy from the earth or ambient air, but from a source that enables the highest COPs: groundwater. This is because groundwater has a fairly consistent temperature of between 8 and 12°C all year round.

As groundwater has a consistent source temperature, its temperature level must be raised less than that of other heat sources for heating. Permits are required from relevant water authorities to use groundwater as a heat source for a heat pump.

The well builder, drilling contractor or your OCHSNER system partner can assist you with your application.

Several conditions must be met to use groundwater as a heat source:

- **Sufficient amount of water**
- **Water quality (analysis)**
- **Permit from the local water board**
- **Supply and return wells**

OCHSNER AQUA

HEATING/ PASSIVE COOLING

7- 99* KW HEAT LOAD

HIGHEST COPS

* many times more in a cascade

EVEN GREATER RELIABILITY...

OCHSNER offers a special series based on **shell and tube heat exchangers** for even greater robustness with water as the heat source.

This means even higher efficiency and operational reliability for users thanks to:

- **Especially resistant materials**
- **Improved corrosion resistance due to thicker walls**
- **Less sensitivity to contamination from suspended sediment in the groundwater**
- **The possibility of flushing the heat exchanger/source system in compliance with relevant standards**

SOFT START
with phase and rotational direction monitoring integrated as standard

HIGH EFFICIENCY CIRCULATION PUMPS

SHELL AND TUBE HEAT EXCHANGERS
for extended limits of use incl. service valves with flushing nozzles

SPEED CONTROLLED SUBMERSIBLE PUMPS FOR REDUCED POWER CONSUMPTION

FLOW SENSOR WITH CONTINUOUS MEASUREMENT

OCHSNER **DHW TANKS**

STORING + SAVING

DHW tanks can reduce the running costs of heat pumps even further and also ensure that their service life is increased. What's more, they play a major role in DHW hygiene. We ensure that every OCHSNER heat pump is combined with the optimally matched tank – for optimum function and maximum service life.

Ideal for PV power

Heat pump buffer tanks and DHW tanks fulfil an important function in the use of electricity from renewables. Large tanks make it possible to provide a heat store for power surpluses, e.g. during sunshine. The heat is available for later use, for example at night or when the sky is overcast.

This is currently already a worthwhile investment for making the best use of electricity from your own photovoltaic system. In future, it will be possible to use and buffer electricity for your home even more efficiently from the Smart Grids – the planned intelligent power grids.

> With its wide spectrum of tanks, OCHSNER offers the right solution for every application.

Heat pump buffer tank*

Buffer tanks (thermal stores) serve to receive heat, store it with minimum losses and transfer it to the heating system on demand. For optimum operation of the heat pump system, OCHSNER relies on buffer tanks with stratified tank technology. Sufficient DHW is then available, even when the tank is far from fully charged. OCHSNER heat pump buffer tanks are also perfectly matched to the heat pump thanks to their appropriately sized connection dimensions.

UNIFRESH® DHW TANK

The Unifresh® DHW tank combines high hygiene standards with economic efficiency and can be used purely as a DHW module or as a combined heating buffer and DHW storage tank.

- **Suitable for heat pumps and/or boilers**
- **High delivery capacity – due to extended corrugated indirect coil made from stainless steel with a large surface area for DHW heating**
- **Legionella bacteria cannot develop thanks to instantaneous DHW heating**
- **OCHSNER stratification principle – for optimum stratification and heating system efficiency when used as a buffer tank**
- **Sufficient connectivity – for various heat generators or heating systems, thermometer, sensor, electric immersion heater, etc.**
- **High quality rigid PU foam insulation**
- **Can be combined with solar thermal systems (Unifresh® Solar version)**

Heat pump freshwater modules

Heat pump freshwater modules provide the same functionality as the Unifresh®, since they also prevent the risk of legionella bacteria developing as only fresh water is heated. Heat pump freshwater modules can be connected to any heat pump buffer tank.

Heat pump DHW tanks

If domestic hot water is heated by a heating heat pump, instead of a hot water heat pump in the Europa series, this DHW will be stored in an external heat pump DHW tank. OCHSNER's home climate manager ensures that sufficient DHW is available as a priority at all times.

In the future, heat pump buffer tanks and heat pump DHW tanks will gain in significance as energy buffers, including with regard to smart grid functionality.

*Professionally designed buffer tanks are already eligible for an additional subsidy in Germany (market incentive programme).

HOT WATER HEAT PUMPS **OCHSNER EUROPA**

NATURALLY HOT WATER

A hot water heat pump extracts heat from the indoor air, for example from basements, pantries/storage rooms and ancillary rooms, and uses this for domestic hot water heating. OCHSNER offers the largest range of heat pump solutions exclusively for DHW heating – functioning independently of the heating system. Thanks to the relatively constant source temperatures, OCHSNER hot water heat pumps are highly efficient and reliably provide water temperatures of up to 65°C.

Efficient and environmentally friendly DHW heating, independent of your heating system

Hot water heat pumps make it possible. The perfect complement to heating heat pumps and boilers, they can be installed as an alternative to solar thermal systems or in combination with them.

The Europa series of hot water heat pumps offers the following key benefits:

- **Highly efficient and durable**
- **Environmentally responsible DHW heating with air/ exhaust air as the heat source**
- **European EHPA Quality Label**
- **Very quiet running**
- **Quick positioning and installation: simply connect the appliance to the power supply and hot & cold water pipework**
- **Smart, simple-to-operate control technology with touchscreen (depending on the model)**
- **DHW up to 65°C in heat pump mode**
- **Can be combined with PV systems**
- **Also suitable for refurbishment projects, to complement existing oil, gas or biomass boilers**

Generate DHW separately and turn off your heating system in summer

There are many situations in which it is a good idea to separate your central heating and DHW heating systems. One significant benefit is that the central heat generator can be switched off outside the heating season, which saves energy over the long term. The fact is that many heat generators are oversized when it comes to DHW heating outside the heating season. As an additional benefit, switching your heating system off during the summer months extends its service life.

Waste heat from your house

Hot water heat pumps generally use warm indoor air to heat and provide water. Ambient air from the interior is transferred to a refrigerant inside the heat pump. This refrigerant is compressed by a compressor and then used for generating hot water via a heat exchanger. This way, energy efficient use can be made of waste heat, particularly from secondary rooms or storage spaces such as a boiler room, larder or a store room.

Ideally suited to retrofitting

Due to their operating principle and their high efficiency, hot water heat pumps are suitable for new build as well as for retrofitting in detached and two-family houses. Separating the heating system from DHW heating as an energy saving measure can be achieved quickly and simply. Hot water heat pumps are also a worthwhile investment which will pay off over the long term, if you are looking to replace your old electrically heated DHW tank.

Europa 333
Genius

Europa 250 DK

Europa Mini IWP

You will find details and application examples for all EUROPA models at www.ochsner.com.

Storage capacity 17 kWh
with a COP of 3.8 as per the Quality Label tests performed at the heat pump test centre in Buchs (CH) according to EN16147.

EUROPA 333 GENIUS

The EUROPA 333 Genius is a hot water heat pump with 300 litre tank volume, controllable additional heating element and Modbus interface.
This enables a connection to the building management system or the inverter and thus the optimised use of on-site PV power. Available surplus power up to an electric output of 2.1 kW can be used on an infinitely variable basis via the heat pump and controllable electric immersion heater to store the energy as domestic hot water. Depending on the surplus power and storage capacity available, the heat pump is switched ON/OFF and the remainder is regulated via the electric immersion heater. This allows even very small amounts of solar energy to be converted into heat. This concept is unparalleled on the market.

Winner of the "Energy Genius" innovation award from the Austrian Federal Ministry of Sustainability and Tourism.

SMART GRID FUNCTION

Avail yourself of electricity from your own PV system as your preferred option for DHW heating. This is kind on your pocket and the environment, and reduces CO_2 emissions. You can also exploit the favourable tariffs we expect to see with the power grid of the future!

SMART GRID FUNCTION FOR THE MODELS

- **EUROPA 333 GENIUS**
- **EUROPA 300 L**
- **EUROPA MINI IWP**

TIPTRONIC PLUS S* CONTROLLER WITH TOUCHSCREEN

- DHW control with adjustable anti-legionella mode
- Ventilation function with integral speed control
- Real time clock (time programs for DHW, hygiene and ventilation modes)
- Heat pump operation with defrost function for use at air temperatures down to -10°C
- Solar control as standard for on-site solar thermal systems (can be configured on site) for Europa 333 Genius model

* for the EUROPA 333 Genius and EUROPA 300 L models

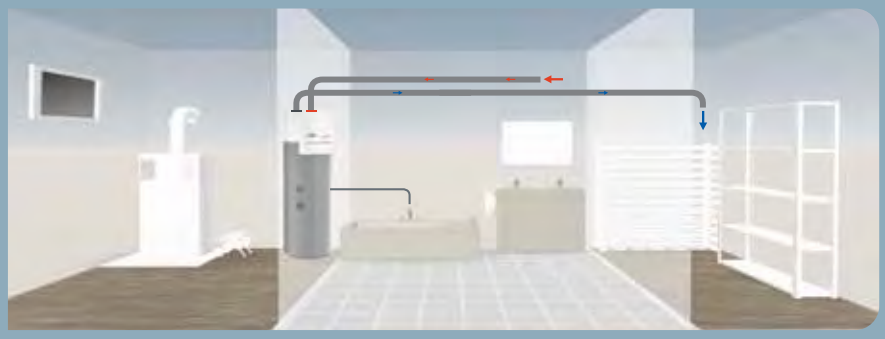
MORE THAN JUST DHW HEATING

EUROPA multifunctional appliances can also dry, cool and provide proper ventilation.

EXAMPLE A

Europa 250 DK, 333 Genius, 300 L and Mini IWP/IWPL models

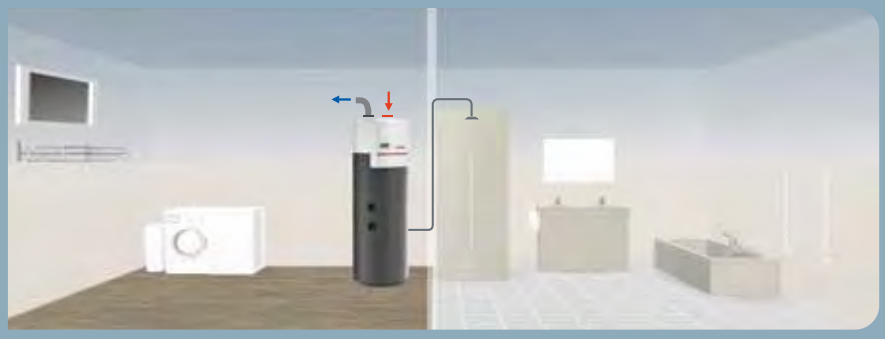
- Installation in a boiler room
- DHW heating using indoor air
- Additional benefit – cooling effect in a pantry, storage room or wine cellar



EXAMPLE B

Europa 250 DK, 333 Genius, 300 L and Mini IWP/IWPL models

- Installation in a laundry room
- DHW heating using indoor air
- Additional benefit – laundry can be dried in the installation room



OTHER AREAS OF APPLICATION FOR THE OCHSNER EUROPA MINI

IN COMBINATION WITH A HEATING SYSTEM

When used with an existing DHW tank of a conventional heating system, it only needs to operate during the heating season – saving energy and increasing its service life.

- Installation in a boiler room
- DHW heating using indoor air
- Additional benefit – laundry can be dried in the installation room

HIGH DEMAND FOR DHW

Two or more Europa Minis combined with an external DHW tank – for large volumes of hot water, for example in multi-occupancy residential buildings or commercial operations with a high demand for domestic hot water (such as hairdressers).

- Installation in a laundry or boiler room
- DHW heating using indoor air
- Additional benefit – laundry can be dried in the installation room

OCHSNER HIGH CAPACITY HEAT PUMPS

LARGE-SCALE USE

OCHSNER has been developing, designing and manufacturing heat pumps for large scale use for many years. In industrial plants, data centres, residential complexes and many other large properties, customers trust in the reliable supply of heating and/or cooling energy from OCHSNER high capacity heat pumps. Downtimes here mean more than just a cold apartment.

OCHSNER is aware of this responsibility and is consequently uncompromising in its approach to quality assurance and factory acceptance. Our high capacity heat pumps only ever leave the factory after exhaustive functional testing, ready to reliably carry out their work for many years to come.

Design

Hydraulic design principles apply equally to standard heating heat pumps and high capacity heat pumps. Having been involved in many different projects with the highest energy supply requirements over the years, our engineers have built up additional expertise in large scale system design. We are happy to advise customers on their construction projects.

Technology

The technical components that make up a high capacity heat pump must be able to endure vibration-induced stress. That is why OCHSNER has always insisted on low-vibration screw compressors with purely rotary movement for refrigerant compression. This minimises the stress on all components, including electronic parts in the control cabinet.
Quite simply, a heat pump cannot work without reliable heat transfer on both the source and heating sides. OCHSNER therefore chooses the highest grade system components here as well, such as robust shell and tube heat exchangers – optimised for maximum operational reliability and COPs. Advanced technology made in Austria!

P2d series – special technology for maximum efficiency

With the wide temperature range of the energy sources (8°C – 42°C) and the high flow temperature on the condenser side (up to 82°C), a robust design with maximum operational reliability is a prerequisite. Specially developed heat exchangers in combination with a high temperature scroll compressor and sophisticated electronic refrigerant control ensure that the heat pump achieves maximum efficiency at virtually every operating point, thereby maximising the energy savings in industrial applications.

The OCHSNER MEGATRONIC controller plays a big role in this. It not only optimises internal machine processes, but also regulates peripherals such as circulation pumps and valves at the highest level in order to achieve the maximum possible system efficiency as well.

This series is an increasingly popular choice for industrial renovation projects thanks to its compact design.

Infinite application areas

Whether in the food-processing industry for hot water production, heat recovery from refrigeration systems or increased CHP efficiency through engine cooling – there are virtually no limits to the possible uses of this series.

OCHSNER P2d

OCHSNER HIGH CAPACITY HEAT PUMP

Selection of case studies from
many installed large scale systems

- **Berlin Palace**
- **Biomass heating plant in Hall, Tyrol**
- **District hospital in Schwaz**
- **BVB Basel**
- **Planchy GESA in Bulle**
- **IKEA Wuppertal, Berlin-Lichtenberg, Innsbruck**
- **FRONIUS Wels**
- **VATTENFALL Hamburg**
- **CITYGROUP Frankfurt**
- **FERNWÄRME Vienna**
- **UNIVERSITÉ DE BOURGOGNE Dijon**
- **Wäscherei Rotenburger Werke, Rotenburg**

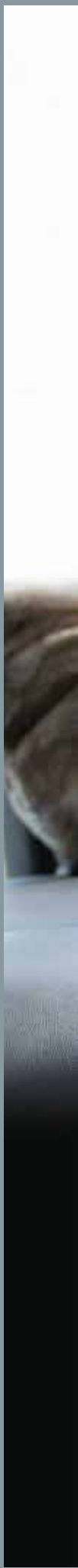
PORTFOLIO

With a broad heating output range of 30 to 2500 kW, our engineers can always choose the most suitable size of heat pump. Dual compressor heat pumps are used in systems with very high heating and/or cooling demands and a wide output control range. There are also practically no limits to the working temperature with OCHSNER high capacity heat pumps. Source temperatures of between -10°C and +80°C and flow temperatures of up to 130°C speak for themselves and further underline OCHSNER's technological leadership.

OCHSNER **TRONIC SMART** AND THE OCHSNER **APP**

INCREDIBLE EASE OF USE AND SMART SETUPS

The OCHSNER TRONIC SMART control system, together with the OCHSNER app, constitutes the central control interface for the heat pumps in the AIR HAWK and AIR FALCON series. The clever high tech electronics ensure maximum efficiency and long term operational reliability. The varied functions can be easily put to good use thanks to the very intuitive operation via the OCHSNER app and integral touchscreen. The highly developed electronics enable smart control, seamless documentation and internet communication.



Futureproof high tech control technology

OCHSNER TRONIC SMART meets the demands of today and tomorrow and is perfectly tailored to the highly efficient OCHSNER air/water heat pumps. The control technology with a large touchscreen makes it extremely easy to configure and operate a heating system. The wide range of setting and monitoring options provides for more convenient living and increased efficiency. The control system is easily networked with smart home and building management systems as well as the internet via interfaces. Additional sensors and actuators can be quickly and simply integrated.

Perfect control system for optimum efficiency and operational reliability

The clever electronics improve convenience, efficiency and operational reliability in respect of the entire system. Costs are lowered by runtime optimisation of the heat pump, speed controlled heating circulation pumps and multi stage control of the electric auxiliary heater. Continuous sensor monitoring and constant precalculation of the required values improve efficiency and the operational reliability of the refrigerant circuit. In heat pump cascades, there is the option of parallel heating and cooling.

Excellent user experience with the OCHSNER app

The new OCHSNER app fulfils the wishes of the smartphone generation and brings all of the OCHSNER TRONIC SMART functionality and further features directly to mobile devices. With its ultra-modern look and feel plus outstanding usability, it makes operating and controlling the heat pump extremely easy, self-explanatory and versatile. As required, the intuitive interface can be used in light or dark mode* on smartphones and tablet PCs – according to user preference. With an internet connection, all of the features of the OCHSNER app can be used from anywhere. So the user always has an overview and stays in full control.

Always up to date with a smartphone or tablet

Users have access to additional features in conjunction with the OCHSNER app. Comprehensive documentation, logged values and statistics provide them with graphs* that clearly display important parameters such as power consumption, runtimes and heat generation. Input errors are detected and immediately flagged* to ensure the system runs reliably and smoothly at all times. The OCHSNER Customer Service team can be contacted via phone and email directly from the app. Warnings and faults can often be dealt with via remote maintenance if the customer enables remote control functions.

*Features in the new OCHSNER app from Q3/2024

It has never been so simple to network OCHSNER heat pumps with your smart home.

The new OCHSNER app is available from Q3/2024

OCHSNER **TRONIC EASY**

ALL SET

OCHSNER has focused on achieving a highly user friendly concept in the OCHSNER TRONIC EASY home climate manager for heat pump system control.

OCHSNER RoomTerminal

Straightforward operation through interactive communication

Understandable texts guide you reliably through the menu, whilst graphics depict the system in an easily comprehensible way. Along with all functions for the heat pump, the OTE controller regulates DHW heating, cooling mode and swimming pool heating. Additional heat generators such as boilers and other heat consumers can also be controlled.

OCHSNER RoomTerminal (optional)

Heating system operation from the convenience of your living room or anywhere in the world! The OCHSNER RoomTerminal with the latest touchscreen technology offers outstanding ease of use in a modern design. The device is surface mounted, allowing for the integrated temperature and humidity sensors, while a cable provides a reliable connection.

The RoomTerminal version enables easy and quick integration of the heating system into the home network and control of everything via a PC, tablet or smartphone.

Access via web-enabled smartphones or tablets integrated as standard when using the RoomTerminal with touchscreen! Function also depends on the internet/mobile provider and the system user's network firewall settings.

OTE FEATURES AT A GLANCE:

- **Full graphic with text display**
- **Simplest operation with just two buttons and a logical menu structure**
- **Weather-compensated or room temperature-dependent control of the heating curve**
- **Flexibly programmable timer**
- **Adaptive DHW control**
- **Anti-legionella mode**
- **Central matching of all system components**
- **Heating mode automatically switched off in summer**
- **Safety management and flow monitoring as standard for maximum operational reliability**
- **Remote access via internet connection**

INDIVIDUAL TEMPERATURE CONTROL, INCREASED SAVINGS

OCHSNER's control units for temperature regulation in individual rooms not only increase living comfort, but also significantly reduce energy costs. Savings of more than 20% are possible.

Exactly the temperature you want, in every room

The individual room temperature controllers from OCHSNER measure the temperature in each room and then control the actuator at the heating distributor – entirely according to the occupants' specifications. For example, it can be comfortably warm in the living room or bathroom and somewhat cooler in the bedroom.

Optimising energy costs

Being able to precisely control the heating energy is not only convenient, but also very economical; after all, nowhere is unintentionally heated too much. It is not uncommon for the use of individual room controllers to save another 20% of energy costs or more compared to an uncontrolled surface heating system.

Full flexibility

The OCHSNER individual room temperature controllers are available in a wired version with a connection module that allows up to 8 control zones. As many as 12 different zones can be set up with the wireless version.
In addition, the wireless controllers can be retrofitted without any cables having to be laid. They also offer more flexibility: if a piece of furniture is moved to the position of a controller, it can be quickly relocated.
A change in height is also easily achieved.

There is a lot to be said for individual room temperature controllers from OCHSNER when installing a new heating system:

- **Considerable increase in living comfort**
- **Potential of significant savings on energy costs**
- **Control via app possible**
- **Very easy to install**
- **Automatic hydronic balancing**
- **Individual room control mandatory in Germany**
- **Full flexibility with the wireless version, even when retrofitted**

OCHSNER CUSTOMER SERVICE

ALWAYS THERE FOR YOU!*

AVAILABLE **365 DAYS** A YEAR!

UP TO **7 YEARS** MANUFACTURER'S WARRANTY*

The personal care of our customers does not end once a system is sold. OCHSNER's own technical customer service team will provide you with competent and reliable support on request.*

Commissioning

Our technical customer service team commissions your OCHSNER heating heat pump and provides on-site system training. Your new heat pump system is adapted to your individual circumstances and conditions.

Repairs

Any necessary repairs to your heat pump are carried out by our Customer Service engineers, who are qualified electricians, refrigeration engineers and heating specialists.

Leakage test

Heat pumps are classed as refrigeration equipment and are partially subject to the provisions of the Fluorinated Greenhouse Gases Regulations (EU 517/2014). Your OCHSNER Customer Service would be pleased to carry out any required tests. Please check the terms and conditions on our website at www.ochsner.com.

Availability

The OCHSNER technical customer service team is available to you across all of Austria, Germany, Poland and Switzerland 365 days a year, including Sundays and public holidays. If you would like to discuss your individual situation, please contact us via one of our hotlines below.

Spare parts

Our Customer Service engineers always carry the most frequently needed spare parts in their service vehicles. More than 2000 products are also available immediately for express dispatch from our central spare parts warehouse.

Heat pump maintenance

To safeguard your investment in the long term, we recommend regular maintenance of your heat pump. The OCHSNER Customer Service team will check the condition of the system. This assures you of permanently low running costs, extends the service life of your system and prevents possible faults. A correctly performed service not only helps to save energy but also protects the environment.

Country-specific regulations also call for regular checks and maintenance of heating appliances by the operator. You can rely on OCHSNER Customer Service, which will check the appliance's functionality, efficiency and safety features, as well as the equipment used to control and regulate the system.

All-inclusive packages

We recommend an OCHSNERcare® package or maintenance contract to ensure the visual inspection and care of the heat pump is carried out at regular intervals.

OCHSNERcare®

When you purchase your OCHSNER heat pump, you have the option of acquiring the OCHSNERcare® all-inclusive package directly from your OCHSNER system partner. This includes commissioning of the heat pump by our Customer Service, five-year statutory checking of your heat pump, maintenance in accordance with the manufacturer's instructions and a five-year manufacturer's warranty*. You also have the option of extending this manufacturer's warranty to up to seven years with an OCHSNER maintenance contract.

OCHSNER maintenance packages - up to seven-year manufacturer's warranty

If you only decide to opt for regular maintenance after purchasing your heat pump, we recommend concluding a maintenance contract directly with OCHSNER. OCHSNER's statutory warranty can then be upgraded to a manufacturer's warranty* lasting up to seven years.

The OCHSNER technical Customer Service team for heat pumps is exclusively staffed by employees who meet all approval requirements in respect of refrigeration. This means we can find the right solution for a specific situation directly.

Our customers have the security of knowing that they will receive outstanding support from OCHSNER's Customer Service team and that their investment is in safe hands – after all, nobody knows their heat pump as well as OCHSNER!

* The services listed are only available in certain countries; please contact our country representatives if you have any queries.

You can reach our Customer Service department via this hotline:

+43 (0)5 04245 - 7999 kundendienst@ochsner.at

SPECIFICATION

OCHSNER HEATING HEAT PUMPS

Appliance type	DIMENSIONS Indoor unit (HxWxD)	DIMENSIONS Outdoor unit (HxWxD)	FLT max.	Suitable for building heat load (from – to)*	SCOP	ETAs	ENERGY EFFICIENCY CLASS	VERSION
AIR/WATER HEAT PUMPS	[mm]	[mm]	[°C]	[kW]		[%]	[°C]	**OCHSNER AIR HAWK**
OCHSNER AIR HAWK 208	1289 x 600 x 680	1261 x 1292 x 965	65	4 - 8	4.46	175.2	A+++ / 35	Heating/cooling**
OCHSNER AIR HAWK 518	1287 x 600 x 680	1261 x 1292 x 965	65	8 - 14	5.04	198.7	A+++ / 35	Heating/cooling**
OCHSNER AIR HAWK 726	1287 x 600 x 683	1262 x 2224 x 965	65	14 - 22	5.04	198.6	A+++ / 35	Heating/cooling**
OCHSNER AIR HAWK 1850	1287 x 600 x 683	1461 x 2268 x 1070	60	22 - 43	4.74	186.3	A+++ / 35	Heating/cooling**
AIR/WATER HEAT PUMPS								**OCHSNER AIR**
OCHSNER AIR 11	1289 x 600 x 680	1104 x 1292 x 965	65	7 - 12	4.21	163.0	A++ / 35	Heating/cooling**
OCHSNER AIR 18	1289 x 600 x 680	1104 x 1292 x 965	65	11 - 18	4.70	182.0	A+++ / 35	Heating/cooling**
OCHSNER AIR 23	1289 x 600 x 680	1104 x 2224 x 965	65	17 - 22	4.43	171.0	A++ / 35	Heating/cooling**
OCHSNER AIR 29	1289 x 600 x 680	1104 x 2224 x 965	65	22 - 28	3.78	148.0	A+ / 35	Heating/cooling**
OCHSNER AIR 41	1289 x 600 x 680	1104 x 2224 x 965	65	28 - 41	3.83	150.3	A++ / 35	Heating/cooling**
OCHSNER AIR 85	1889 x 680 x 698	1364 x 2225 x 1930	65	50 - 78	4.32	169.6	A++ / 35	Heating/cooling**
AIR/WATER HEAT PUMPS								**OCHSNER AIR FALCON**
OCHSNER AIR FALCON 212	1289 x 400 x 683	998 x 940 x 384	60	6 - 10	4.18	164.3	A++ / 35	Heating/cooling**
OCHSNER AIR FALCON 212 T200	1942 x 693 x 809	998 x 940 x 384	60	6 - 10	4.18	164.3	A++ / 35	Heating/cooling**

Standard colours:

Standard colour AIR HAWK:
RAL 9017
(traffic black)

Standard colour AIR HAWK:
RAL 9016
(traffic white)

Standard colour AIR 11 – 41:
RAL 7016
(anthracite grey)

The outdoor units in the OCHSNER AIR & AIR HAWK series are available in numerous RAL colours.

Because of the 3-layer paint used, the actual colour of the outdoor unit can deviate from the RAL sample card.

Appliance type	DIMENSIONS (HxWxD)	FLT max.	Suitable for building heat load (from – to)*	SCOP	ETAs	ENERGY EFFICIENCY CLASS	VERSION
GEOTHERMAL HEAT PUMPS BRINE	[mm]	[°C]	[kW]		[%]	[°C]	**OCHSNER TERRA**
OCHSNER TERRA 8	1289 x 600 x 680	65	6 - 8	5.33	205.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA 11	1289 x 600 x 680	65	8 - 11	5.60	216.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA 14	1289 x 600 x 680	65	11 - 14	5.28	203.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA 18	1289 x 600 x 680	65	14 - 18	4.93	189.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA 27	1289 x 600 x 680	65	18 - 27	4.72	181.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA 40	1889 x 680 x 698	65	34 - 40	5.09	193.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA 76	1889 x 680 x 698	65	64 - 78	4.46	167.0	A++ / 35	Heating/passive cooling**
OCHSNER TERRA FOX 208	1863 x 598 x 703	65	2 - 8	5.57	215.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA FOX 312	1863 x 598 x 703	65	3 - 12	5.67	219.0	A+++ / 35	Heating/passive cooling**
OCHSNER TERRA FOX 416	1863 x 598 x 703	65	4 - 16	5.76	222.0	A+++ / 35	Heating/passive cooling**
WATER/WATER HEAT PUMPS							**OCHSNER AQUA**
OCHSNER AQUA 11	1289 x 600 x 680	65	7 - 10	6.44	247.0	A+++ / 35	Shell&tube HE***, Heating/passive cooling**
OCHSNER AQUA 14	1289 x 600 x 680	65	10 - 12	6.43	246.0	A+++ / 35	Shell&tube HE***, Heating/passive cooling**
OCHSNER AQUA 17	1289 x 600 x 680	65	12 - 17	6.52	250.0	A+++ / 35	Shell&tube HE***, Heating/passive cooling**
OCHSNER AQUA 22	1289 x 600 x 680	65	17 - 22	6.61	253.0	A+++ / 35	Shell&tube HE***, Heating/passive cooling**
OCHSNER AQUA 36	1289 x 600 x 680	65	28 - 36	6.08	232.0	A+++ / 35	Heating/passive cooling**
OCHSNER AQUA 54	1889 x 680 x 698	65	46 - 54	6.26	240.0	A+++ / 35	Heating/passive cooling**
OCHSNER AQUA 97	1889 x 680 x 698	65	84 - 99	5.53	210.0	A+++ / 35	Heating/passive cooling**

OCHSNER HOT WATER HEAT PUMPS

Appliance type	DIMENSIONS (ØxH)	COP to EN16147	SCOPW to VDI 4650-1: 2016	LOAD PROFILE	MAX. WATER TEMPERATURE	ENERGY EFFICIENCY CLASS	VERSION
HOT WATER HEAT PUMPS	[mm]				[°C]		**OCHSNER EUROPA**
OCHSNER Europa 333 Genius	657 x 1838	3.82	4.73	XL	65	A+	DHW heating
OCHSNER Europa 300 L	657 x 1838	3.40	4.25	XL	65	A+	DHW heating
OCHSNER Europa 250 DK	657 x 1625	2.71	3.38	L	65	A+	DHW heating
OCHSNER Europa Mini IWP	657 x 432	3.16	4.34	XL	60	A+	DHW heating
OCHSNER Europa Mini IWPL	657 x 432	2.71	3.38	XL	60	A	DHW heating

* Guideline values for product selection. A system-specific layout is required.
The "Suitable building heat load" figures are guide values for systems in the "Average" climate zone (as per ErP Directive).
** Optional
*** Shell and tube heat exchanger

OCHSNER
HEAT PUMPS

W838e P 05/2024

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