

Heat pumps for commercial projects



UTILISING NATURAL ENERGY AND PROCESS HEAT

Heating and cooling with
efficient systems for business
and industry application

HEAT PUMPS

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Professional ground source heat pumps for indoor installation (closed loop)



SWP size 1
37 - 69 kW



SWP size 2
70 - 160 kW

Professional ground source heat pumps for indoor installation (open loop)



WWP size 1
55 - 110 kW

Air source heat pumps

Indoor installation

Outdoor installation



LW 310
31 kW



LW 310A
31 kW



Efficient and successful

Efficiency and renewable heat

The supply of heat for residential, commercial and industrial properties accounts for a large percentage of their overall energy consumption. Improving energy efficiency is therefore one of the energy policy objectives. Increased energy efficiency and renewable heat mean more environmental relief and from an economic point of view, lower heating and running costs.

The heat pump has already established itself with an increasing market share for new build detached and semi-detached houses. In Germany its market share is 25 percent, in Switzerland it is as high as 80 percent. An increasing number of companies and local authorities are opting for heat pumps for use in large facilities.

Expertise and quality

Alpha-InnoTec's large heat pump expertise and quality made in Germany are convincing arguments, with a product range offering up to 160 kW per unit with far higher outputs in cascade.

Heat pumps can be easily integrated into a building management system. Utilisation of waste heat in industrial or commercial processes is also possible. A change from oil and gas to heat pump technology can often be used to achieve substantial savings – e.g. running costs and CO₂ emissions.

14 reference installations from all over the world

Read about commercial projects implemented with Alpha-InnoTec products from page 10 onwards.

Your advantages:

- ▶ Planning & design support
- ▶ Comprehensive, integrated system solutions
- ▶ Low heating and running costs
- ▶ For new build and modernisation projects
- ▶ Can be integrated in building management systems (BACnet)
- ▶ Remote access via the internet



A strong offer

The environment between economy and ecology!

Economy

Alpha-InnoTec has outstanding heat and refrigeration technology know-how. The sustainable energy concepts, combined with highly developed heat pump technology, cut heating and running costs by up to 50 percent and more.

Thanks to an abundance of free environmental heat, low maintenance requirements, improved building fabric and significant developments in efficiency, larger heat pumps ensure a quick return on investment.

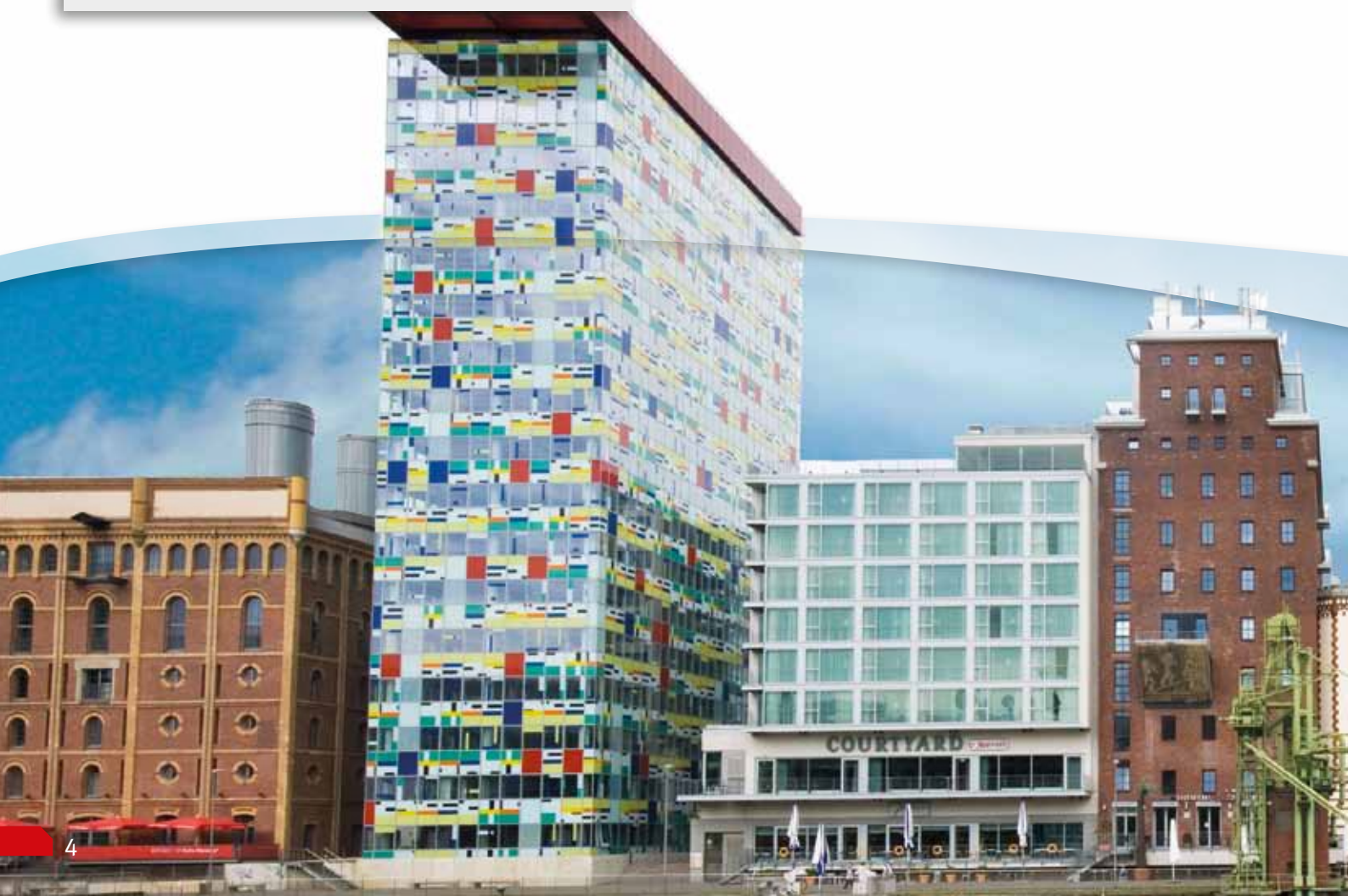
Ecology

Heat pumps operate with up to 80 percent stored solar heat from the ground, water or air. Only 20 percent electrical energy is required for the operation.

Alpha-InnoTec and its trade partners work with you to achieve the objective of optimising your operational energy requirements.

Your advantages:

- Heating and cooling with one unit
- Heat recovery from waste heat
- Cascadable for very high heating output
- Ground source heat pump up to 160 kW (in single unit)
- Low sound pressure level down to 39 dB(A)
- Small space requirement – small footprint



Heat pumps with high capacities!

Heat pumps

In apartment buildings, office and administration complexes, hotels and in industrial and commercial buildings, heat pumps are superior to conventional concepts, not only economically but also environmentally.

Even more powerful

When installing up to four units in cascade, capacities up to 800 kW are possible with ground source heat pumps. Integrated systems controlled by a building management system can achieve an even higher heating capacity.

The units can be switched on and off as and when necessary to enable economic operation.

Active and passive cooling

If the installation is planned well, full air conditioning with chillers can be omitted with no loss of comfort and instead passive or active cooling is used.

Only heat pump systems offer the possibility for heating and active/passive cooling with one system using free environmental energy.



First hand energy management!

BACnet/IP – perfect teamwork

The BACnet/IP virtual network enables Alpha-InnoTec heat pumps to be integrated into a building management system.

Luxtronik 2.0 – optimally controlled

The Jog Dial controller enables several heat generators to be controlled, is BACnet compatible and can output data logs via the USB port.

The Luxtronik 2.0 controller makes the heat pump the central control unit for heating, domestic hot water and cooling in the building.

Control your heating from your phone



Your advantages:

- Intuitive operation via the jog dial
- Full graphic display with self-explanatory menu function
- USB connection (for reading out data or for software updates)
- Start-Up Wizard
- Automatic screed heating program
- Separate mode setting
- Weather compensated control of several heating circuits

Setting, monitoring, full control!

Remote diagnosis and control

AlphaWeb enables remote diagnosis and control. It is therefore especially suitable for landlords, facility management firms, contractors and industrial companies. Owners and engineers are therefore able to identify problems faster and can rectify them quickly. No demand for unnecessary trips to the site. That saves time and money. All that is demanded is a DSL connection.

Support par excellence

On registering the heat pump on the Alpha-Inno-Tec web server, if necessary, Alpha-InnoTec can provide assistance for the engineer or owner.

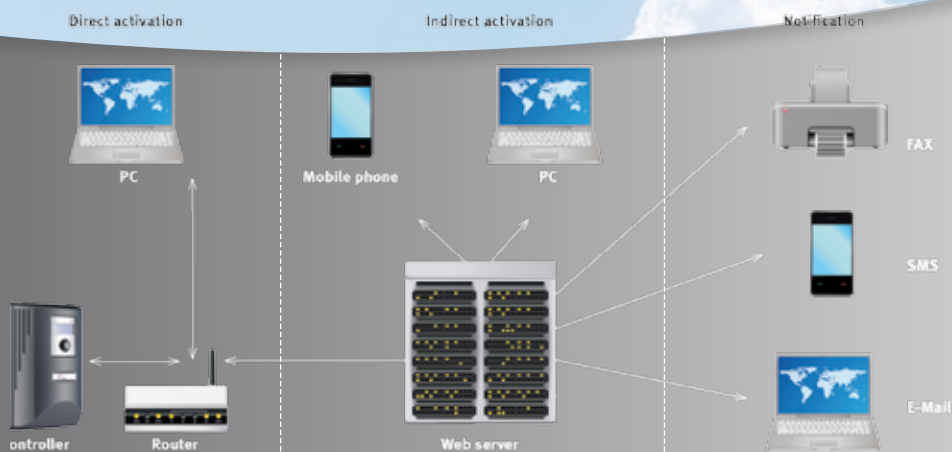
AlphaWeb enables remote diagnosis and control from almost anywhere.

Your advantages:

- ▶ Self-explanatory, user-friendly menu assistance
- ▶ Remote diagnosis, troubleshooting and control, worldwide over the internet
- ▶ Fault message sent by SMS, e-mail or fax
- ▶ Faster and better service support
- ▶ No additional hardware necessary



AlphaWeb always available, whenever you want it!



Different heat sources

Reliable heat from nature!

All heat pumps draw heating energy from a heat source (air, ground or water).

This can take place via supply wells (open loop), probes/collectors (closed loop) or directly (air).



SWP series
Size 1



WWP series
Size 1



SWP series
Size 2

Unique in design and performance!

Water/water heat pumps (open loop)

Water/water heat pumps achieve very low heating and running costs, they can be easily operated as monovalent installations, i.e. without additional heat generators. Active cooling is also possible with the water/water heat pumps.

Ground source heat pumps (closed loop)

Ground source heat pumps can also be used as monovalent installations. Passive cooling via ground probes and active cooling for higher cooling capacities can easily be realized. Flow temperatures of up to 70° C are possible with SWP-H units.

Air source heat pumps

Alpha-InnoTec's air source heat pumps can be installed quickly, easily and cost-effectively, because the heat source air can be tapped with little effort. The units are available for indoor and outdoor installation.

Outstanding: The coefficient of performance

With this product range, Alpha-InnoTec is one of the market leaders. With air source heat pumps, flow temperatures and coefficients of performance (COP) are achieved, which are close to those of ground source heat pumps.



LW 310



LW 310 A

Aviation Academy in Estonia

Heating 3,800 m² with energy from the air



The Estonian Aviation Academy

This university-like higher education institution is state-owned and provides aviation diplomas and training of aviation specialists in Estonia. They provide contemporary, high-quality and efficient aviation education for the specialists needed in Estonia like pilots of helicopters and aircrafts or maintenance personnel. Its modern design bears resemblance to an aircraft propeller and is quite an eyecatcher.

The six air source heat pumps with a total heating energy output of 186 kW provide heating and domestic hot water preparation. The heating distribution system combines different options, like heating via

ventilation, radiators and underfloor heating. With an expected return on investment of 6 years, this proves to be not only an ecological, but also economical solution.

Plant data for Academy in Estonia	
Heat pump:	Air source heat pump LW 310A, 31,0 kW, 6 no. Total output 186 kW
Heat source:	Ambient air
Additional heating source:	Natural gas boiler
Heating distribution system:	Heating via ventilation, radiators and underfloor heating; production of DHW
Heating area:	3 800 m ²
Annual energy need:	800 MWh
Costs/consumption values	
Running costs:	25 000 EUR
Comparative costs of natural gas heating:	48 000 EUR
Payback period:	6 years



137 flats on 20,000 m²!



Impressive output from the garden

A masterly project is being implemented in the middle of the venerable town of Amersfoort. The extensive project with a total area of approx. 20,000 square metres includes 137 flats.

The heat demand is covered by three Alpha-InnoTec SWP 820 heat pumps. The flats are supplied via a distribution system for heating and cooling. The heat pumps are installed in the plant room of the underground car park.

Plant data for Amersfoort

Heat pump:	3 no. Alpha-InnoTec Professional, ground source, SWP 820 Heating capacity: 105 kW each, COP = 5.3 (B10/W35)
Planning & design:	Lowergy Concepts, Nathan Import/Export B.V.



Housing development in Norway

Heat directly from the sea!



Challenges are our strength

It was a particular challenge to heat a multi-family dwelling with seawater and a ground source heat pump.

Since November 2005, 30 flats in a 5-storey, multi-family dwelling have been heated by the heat pump and an oil-fired boiler as the second heat generator.

Another 9 plants are currently being planned. The heat distribution system used is underfloor heating. The entire project was subsidised by the state bank. The proximity to the sea and the option of implementing the heat pump system via contracting were decisive.

Plant data with bivalent heating mode in Steinkjer, Norway	
Heat pump:	Alpha-InnoTec Professional, ground source, SWP 540, Heating capacity: 54.4 kW, COP = 4.2 (Bo/W35)
Heat source:	Seawater with titanium intermediate heat exchanger
Planning & design:	Alpha-InnoTec Norge AS, 4033 Stavanger
Installation:	Rør & Varme AS, Magistratbakken 29, 7711 Steinkjer
Costs/consumption values (conversion period April 2010)	
Investment costs:	NOK 360,000 (EUR 45,000)
Annual energy demand:	approx. 324,000 kWh
Consumption costs:	approx. NOK 60,000 / year (approx. Euro 7,500 / year)

Housing development in the Czech Republic

300 kW taken from the air!



Heating with heat source air in Prague

With an area of 2,749 ha and a total of 79,000 residents, Prague 5 is one of the largest districts in Prague. It is located on the left bank of the River Moldau in the immediate vicinity of the historical city centre.

Air source heat pumps installed indoors

In November 2009, the extensive residential complex with 3 buildings was completed. In total, 94 residential units are supplied with heat and domestic hot water from 6 heating rooms by 12 air source heat pumps (1st housing block - one heating room, 2nd housing block - two heating rooms, 3rd housing block - three heating rooms).

Plant data for Czech Republic, Prague 5	
Heat pump:	12 x Alpha-InnoTec LW 250, Heating capacity: 23.5 kW each, COP = 3.2 (A2/W35)
Heat source:	Air
Planning & design:	TEPLO AIT a.s. Plzeň, Lochotínská 18, PSČ 30100
Installation:	TEPLO AIT a.s. Plzeň, Lochotínská 18, PSČ 30100
Costs/consumption values (conversion period April 2010)	
Investment costs:	CZK 5,821,070 (EUR 230,000)
Annual energy demand:	870,000 MWh
Electricity consumption / year:	approx. 322 MWh (generated from hydroelectric power station)
Consumption costs:	CZK 700,000/year (EUR 28,000)
Comparative costs Central heat:	CZK 1,570,000/year (EUR 50,000)

Administration building in Germany

Active environmental protection!



Heating and cooling with geothermal energy

The extension of the Federal Agency for Nature Conservation conforms to the latest building ecology requirements. With EUR 9.8 million, it is no more expensive than a conventional building of this size.

Since 2005, the Federal Agency for Nature Conservation in Bonn has heated and cooled the 3,700 m² usable space of its extension with a ground source heat pump. Geothermal energy is acquired from around 80 metre deep boreholes.

Plant data for the Federal Agency for Nature Conservation in Bonn	
Heat pump:	Alpha-InnoTec Professional ground source, SWP 1250 Heating capacity: 125.1 kW, COP: 4.3 (Bo/W35)
Heat source:	16 x double U-tube geothermal probes 32 x 2.9 mm laid at a depth of 80 to 120 metres
Passive cooling:	Cooling capacity approx. 60 kW
Planning & design:	Ing. Büro Hinz und Schwarz, 50679 Köln-Deutz
Installation/probe borehole:	Firma Sadurski, 33818 Leopoldshöhe
Miscellaneous:	Bivalent operation with second heat generator (district heating)
Costs/consumption values (conversion period April 2010)	
Investment costs:	approx. Euro 215,000
Annual energy demand:	approx. 116 kW
Electricity consumption / year:	approx. 224,372 kWh
Consumption costs:	approx. Euro 5,475 / year approx. Euro 465 / month approx. Euro 5,60 / m ²
Comparative costs of oil Gas:	approx. Euro 16,288 / year · 66 % saving approx. Euro 13,035 / year · 57 % saving



Playfully heated!

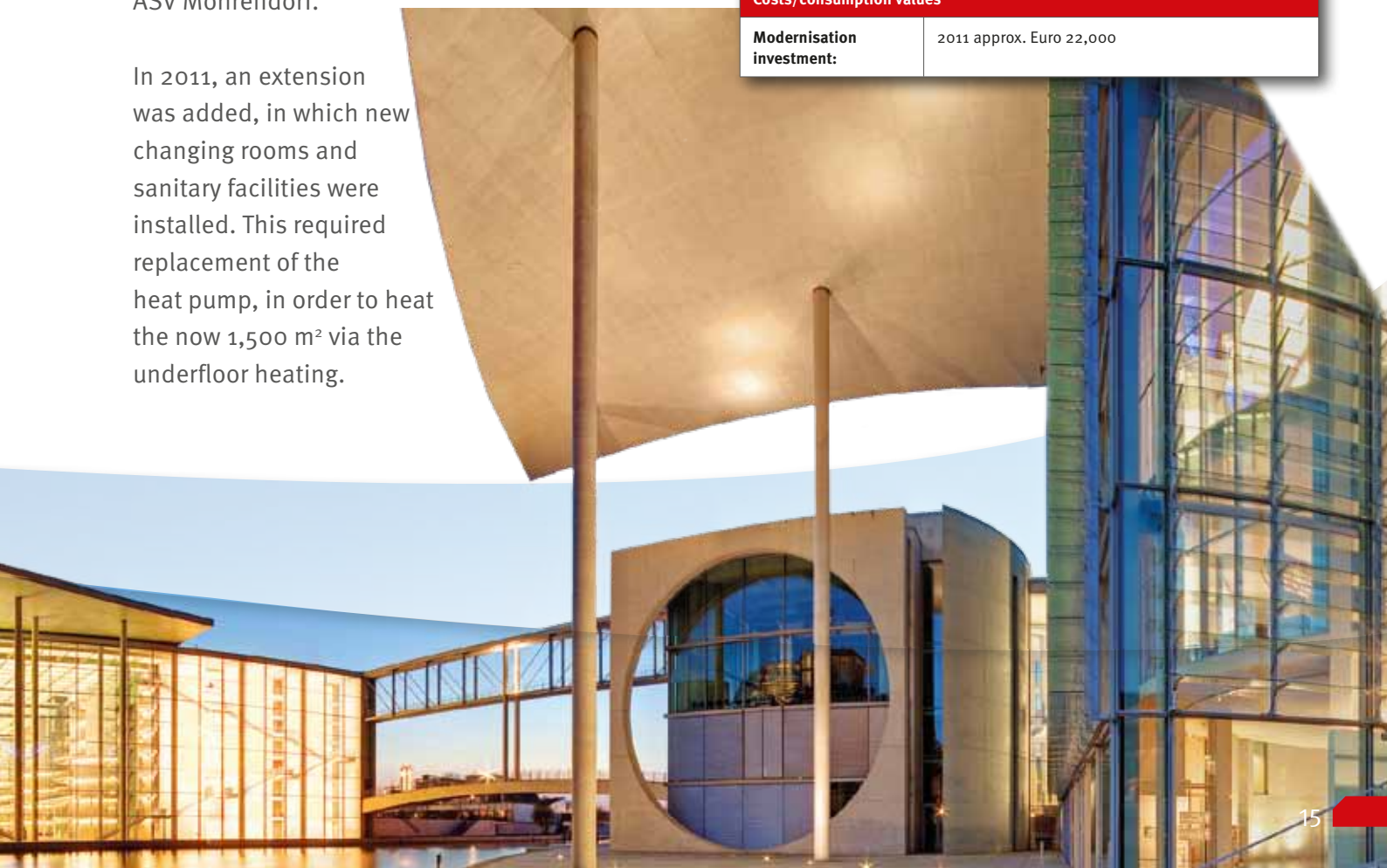


Sports and leisure centre in Möhrendorf

In 2000, the local authority in the Franconian town of Möhrendorf near Erlangen invested its money by building a clubhouse with sports field. It was already thinking ecologically at the time and installed a heat pump with brine collector under the grassed gravel area. Since then the sports venue has been run by ASV Möhrendorf.

In 2011, an extension was added, in which new changing rooms and sanitary facilities were installed. This required replacement of the heat pump, in order to heat the now 1,500 m² via the underfloor heating.

Plant data for heating and hot water in Möhrendorf	
Heat pump:	Alpha-InnoTec Professional ground source, SWP 691, heating capacity: 68.6 kW, COP = 4.6 (Bo/W35)
Heat source:	Horizontal collector with 30 brine collector circuits on an area of 50 x 60 m
Planning & design:	Firma Pillipp and Alpha-InnoTec
Installation/ probe borehole:	Firma Pillipp Möhrendorf
Costs/consumption values	
Modernisation investment:	2011 approx. Euro 22,000



Museum and restaurant in France

Modern heating in old buildings!



Heating with groundwater

The “water mill of Eschwiller” is very well known in the Lorraine region. It is home to the local district administration, a restaurant (approx. 50 seats), group accommodation and a museum. The heat pumps replace the old oil-fired heating and supply the Volmunster administration office, the museum, the hostel and the restaurant.

The mill was built in the 18th century and was completely renovated in 1976.

Plant data for Moulin d'Eschwiller in Volmunster (France)	
Heat pump:	Alpha-InnoTec ground source heat pump 2x WWC 440X, heating capacity 88.4 kW, COP 5.3 with W10/W35 (information to EN 14511)
Heat source:	Water
Heating/cooling distribution system:	Heating with fan coils and domestic water heating
System components:	TPS 500 buffer tank
Heated/cooled area:	800 m ²
Costs/consumption values	
Consumption costs:	Euro 3,300 / year
Heating energy demand:	88 kW
Heating energy demand:	126,500 kWh / year
Comparative costs of oil Gas:	7,300 Euro / 55 % saving 5,850 Euro / 44 % saving
Payback period:	8 years including subsidy from the government

Exemplary waste heat usage!

1598 kW
system output



Heating with geothermal energy, wastewater and exhaust air

The Grand SPA Lietuva in Druskininkai is heated or cooled as and when necessary by the combination of air source and ground source heat pumps in cascades.

GrandSPA is the name of a 3-star hotel and SPA centre. The recreational facility is located in the centre of the spa town Druskininkai. Here everything is located under one roof: Residential and sanatorium rooms, doctors' rooms, dining hall, sports, and concert and exhibition rooms.

This combination of air and ground source cascades uses different heat sources very efficiently.

Plant data for Grand SPA in Druskininkai (Lithuania)	
Heat pump:	Air source heat pump LW330A, 33 kW, 8 no. total output 264 kW Air source heat pump LW310A, 31 kW, 10 no. total output 310 kW Ground source heat pump SWP1600, 161.6 kW, 6 no. total output 969.6 kW Ground source heat pump SWP540, 54 kW, 1 no. total output 1598 kW
Heat source:	Waste heat of the ventilation system, waste water, ground probe field 104 x U-tube, depth 100-130 m, Total depth approx. 12,500 m
Heating/cooling distribution system	Heating via underfloor heating, convectors Cooling via fan coils, floor.
Active / passive cooling:	Passive cooling, capacity approx. 460 kW
Costs/consumption values	
Running costs:	Euro 115,000 - 135,000 per year
Heating energy demand:	1,000 kW
Annual energy demand:	4,000.000 - 4,500.000 kWh
Comparative costs of district heating:	Euro 308,000 - 350,000
Payback period:	approx. 7 years



The “White Manor House” in Poland

Energy from the ground perfectly used!



Bialy Dwor (The “White Manor House”)

It was designed in 1926 by the famous architect Antoni Jaworski. In the years following it quickly became one of the most luxurious guest accommodation facilities in Gdynia.

Its present day appearance is based on a reconstruction, which includes a historic core, windows and door openings and several external details and the colouring. The “White Manor House” is therefore today a unique example of the manor house style, even if the apartments have now been replaced by hotel rooms, from which visitors overlook the bay of Danzig.

Plant data for Bialy Dwor in Gdynia (Poland)

Heat pump:	Alpha-InnoTec Professional ground source SWP 850H
Heat source:	Ground; 15 ground probes, each 100 m deep
Heating/cooling distribution system	3/4 underfloor heating, 1/4 duct radiators
System components:	2 x WWS 507, TPS 800
Heated/cooled area:	2,166 / 500 m ²
Application description:	Heating and passive cooling

Indoor tennis centre in the Czech Republic

Strong performance in elegant design!



Heat taken from the air

The 7 air source heat pumps of the LW 330A series, installed as a cascade, demonstrate the heating capacity possible with ambient air: Heat supply for the indoor tennis and badminton courts and all associated facilities such as sanitary facilities, changing rooms, etc.

The indoor tennis and badminton courts are located in Brno, the second largest metropolis in the Czech Republic. In the summer of 2009, the owner decided to radically reduce the heating costs for the sports centre.

Whereas the heat used to be provided by a conventional central heating system, 7 air source heat pumps with a total heating capacity of approx. 230 kW and 2 buffer tanks with 4,000 litre capacity now do the job.

Plant data for heating and hot water in Brno

Heat pump:	7 x Alpha-InnoTec LW 330A Heating capacity: 33.0 kW each, COP = 3.8 (A2/W35)
Heat source:	Air
Installation:	KLIMAKOM, spol.s r.o., Zámecká 4,643 00 Brno - Chrlice

Costs/consumption values (conversion period April 2010)

Investment costs:	approx. CZK 4,808,710/year (EUR 190,000)
Annual energy demand:	540 MWh
Electricity consumption / year:	approx. 216 MWh (generated from hydroelectric power station)
Consumption costs:	approx. CZK 496,800/year (EUR 18,800)
Comparative costs of central heating:	approx. CZK 1,320,000/year (EUR 50,000)



Supermarket in Hungary

Cold from heat, heat from cold!



Fresh food counter and freezer chests contribute to heating

The large and diverse food department and several retail shops of the CBA supermarket with an area of 4,000 m² are heated and supplied with hot water via ground probes and two ground source heat pumps connected in series.

The waste heat of the many refrigerators is also used for improved energy efficiency through heat recovery.

Plant data for heating from waste heat in Budapest	
Heat pump:	2 x Alpha-InnoTec Professional, ground source, SWP 1600 Heating capacity: 161.6 kW each, COP = 4.4 (Bo/W35)
Heat source:	32 probe boreholes @ 120 metres deep
Installation date:	September-December 2005
Installation/ probe borehole:	Thermo Kft. Hungary 1122, Budapest Krisztina krt. 27
Costs/consumption values (conversion period April 2010)	
Investment costs:	approx. HUF 47,240,000 / year (EUR 177,800)
Running costs:	approx. HUF 4,000,000 / year (EUR 15,000)
Annual energy demand:	approx. 750,000 kWh
Electricity consumption / year:	approx. 200,000 kWh
Cost savings compared to oil:	approx. HUF 18,600,000 / year (EUR 70,000)



Waste heat converted into heating energy!



Not a single degree of heat is given away

The decision in favour of the heat pump was made, above all, due to the ability to recover heat from the waste heat of the production machines.

In January 2006, Thermotec Systemtechnik AG switched from oil-fired heating to a heat pump. The office building, production facilities and storage rooms, with a total area of 3,500 m² are supplied. The waste heat from the production is completely sufficient for the heating demands in winter.

Plant data for groundwater heat pump in Erstfeld	
Heat pump:	1x Alpha-InnoTec Professional, water source, WWP 500X, Heating capacity: 51.6 kW, COP = 5.2 (W ₁₀ /W ₃₅)
Heat source:	Waste heat from the production process is routed to a storage tank. If no waste heat is available, the groundwater is used as a heat source.
Costs/consumption values (conversion period April 2010)	
Investment costs:	approx. CHF 35,000 (EUR 24,300)
Electricity consumption / year:	approx. 12,000 kWh
Consumption costs:	approx. CHF 1,300 / year (EUR 900)
Cost savings compared to oil:	approx. CHF 4,000 / year (EUR 2,800) 68 % saving



Logistics centre in Switzerland

Heating and cooling with air!



Bivalent operation with an existing oil-fired boiler

When the logistics centre was extended, the existing oil-fired heating was supplemented with efficient ground source heat pumps. The heating system is operated bivalently, with alternative heat pump and oil-fired heating.

Air/brine heat exchangers are used as the heat source for the heat pumps. These are installed on the roof of the logistics centre. Thanks to these heat exchangers, the heat pumps can also be used for cooling. This means that the temperatures in the warehouses can be kept to 16 °C - 18°C in the summer.

A higher-level control system controls the four ground source heat pumps with eight compressors according to demand and in stages; they are used for heating and cooling the system.

Plant data for the logistics centre in Schachen	
Heat pump:	4 x Alpha InnoTec Professionell ground source heat pumps, SWP 1600, capacity; 161.6 kW each, COP 4,4 (Bo/W35)
Heat source:	Air/brine heat exchanger
Heating/cooling distribution system:	Fan convectors
Additional heat generators:	Oil heating 400 kW
Costs/consumption values	
Running costs:	CHF 110,000 / year
Heating capacity:	approx. 480 kW
Cooling capacity:	approx. 400 kW (AT +32 °C)
Annual energy demand:	approx. 1,500,000 kWh/year

For the environment's sake – heating with air!



Environmental energy from the roof

The 2 existing oil-fired boilers were replaced with an air source heat pump cascade consisting of 3 x LWA 330. Today the air source heat pumps operate in combination with a 90 kW boiler in bivalent mode (oil-fired boiler share approx. 150 operating hours per year). The heat pump plant is used to heat the 2,600 m² and 14 m high building services product warehouse of Th. Meurer AG in St. Vith.

The plant was designed to provide a pleasant working temperature of approx. 14°C in the warehouse with outdoor temperatures of -12 °C. It was installed by Th. Meurer AG. With a 10 kW photovoltaic system on the roof, Th. Meurer AG not only produces environmentally friendly heating energy, but also inexpensive electricity.

Plant data for MEURER logistics centre in St. Vith (Belgium)	
Heat pump:	3 x air source heat pump LW 330 A, Heating capacity: 33.0 kW each, COP 3,8 (A2/W35)
Heat source:	Air
Heating/cooling distribution system	Underfloor heating in the warehouse for sanitary and heating products
Additional heat generators:	Bivalent in combination with an existing 90 kW boiler (only used if outdoor temperatures below -10°C)
System components:	3 x LW 330A with 1500 l buffer tank
Heated/cooled area:	2,700 m ² - height 14 m
Costs/consumption values	
Application description:	Indoor temperature 12-14 °C with outdoor temperatures as low as -15 °C in the winter
Consumption costs:	approx. Euro 9,411 / year
Heating energy demand:	approx. 180 kW
Annual energy demand:	approx. 260,870 kWh
Comparative costs of oil:	approx. Euro 22,926 / 58 % saving
Gas:	approx. Euro 18,216 / 48 % saving
Payback period:	3.85 years



About us

Experience and expertise!

Alpha-InnoTec is one of the leading manufacturers of heat pumps in Europe. With our innovative solutions we repeatedly set new standards. Numerous satisfied customers with a heat pump already profit from our high level of know-how. Within the industry, the quality brand Alpha-InnoTec has long since become synonymous with perfected and durable engineering “Made in Germany”, on which you can always completely rely in everyday use.

A high standard for us, as well as a clear pledge to our customers, that we will fulfil, today and in the future. Not only with our production facility in the Franconian village of Kasendorf, one of the most modern heat pump factories in the world.

The heat pump specialists – we do our best to ensure your well-being.

Your advantages:

- In-house training
- Certified quality production ISO 9001
- Certified environmental production ISO 14001
- Heat pumps certified with several quality labels (e.g. EHPA, TNO, NFPK, MCS, etc.)
- 39,000 m² total area
- 15,000 m² production and logistics area
- Up to 50,000 heat pump units per year



Perfect service from the outset – we are pleased to be there for you in person!

Quality is not a matter of chance!



Even though we can produce up to 50,000 units a year in our factory, an Alpha-InnoTec heat pump is no mass product.

On the contrary: Behind it is state-of-the-art engineering knowledge and intensive development, and above all, sound workmanship.

Each individual heat pump is produced by our employees with the utmost care and runs through a strict quality assurance process. Only when we are one hundred percent satisfied with our product it may actually be delivered. Not without reason nearly all Alpha-InnoTec heat pumps bear the European quality seal. In addition, we regularly have our units thoroughly tested by independent external test institutes ...

...and always receive top grades.

The future of the heat pump is called Alpha-InnoTec.

Your advantages:

- ▶ Europe-wide service partner network
- ▶ Sales in more than 20 European countries



The heat pump specialists



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Professional ground source heat pumps, size 1

Indoor installation	Performance data for Bo/W35 to EN 14511		Limits of application		Unit	
	Heat output [kW]		Heating circuit [°C]	Heat source [°C]	Dimensions [mm] B x D x H	Weight [kg]
	1 compressor	COP 1 compressor				
SWP 371	37,2	4,80	20 to 65	-5 to 25	1350 x 912 x 1030	371
SWP 451	45,0	4,80	20 to 65	-5 to 25	1350 x 912 x 1030	385
SWP 581	57,6	4,80	20 to 65	-5 to 25	1350 x 912 x 1030	441
SWP 691	68,5	4,60	20 to 65	-5 to 25	1350 x 912 x 1030	484
SWP 291H	27,5	4,30	20 to 70	-5 to 25	1350 x 912 x 1030	319
SWP 561H	53,8	4,50	20 to 70	-5 to 25	1350 x 912 x 1030	521

Professional ground source heat pumps, size 2

Indoor installation	Performance data for Bo/W35 to EN 255				Limits of application		Unit	
	Heat output [kW]		COP		Heating circuit [°C]	Heat source [°C]	Dimensions [mm] B x D x H	Weight [kg]
	1 compressor	2 compressor	1 compressor	2 compressor				
SWP 1100	57,0	107,5	4,4	4,3	20 to 55	-5 to 25	1400 x 913 x 1847	870
SWP 1250	66,3	125,1	4,4	4,3	20 to 55	-5 to 25	1400 x 913 x 1847	935
SWP 1600	85,6	161,6	4,5	4,4	20 to 55	-5 to 25	1400 x 913 x 1847	1000
SWP 700H	37,1	70,0	4,2	4,1	20 to 65	-5 to 25	1400 x 913 x 1847	930
SWP 850H	46,5	88,0	4,2	4,1	20 to 65	-5 to 25	1400 x 913 x 1847	935
SWP 1000H	53,0	100,0	4,2	4,1	20 to 65	-5 to 25	1400 x 913 x 1847	965

Professional water/water heat pumps

Indoor installation Size 1	Performance data for W10/W35 to EN 255				Limits of application		Unit	
	Heat output [kW]		COP		Heating circuit [°C]	Heat source [°C]	Dimensions [mm] B x D x H	Weight [kg]
	1 compressor	2 compressor	1 compressor	2 compressor				
WWP 550X	28,3	53,4	5,4	5,3	20 to 60	7 to 25	920 x 950 x 1690	560
WWP 700X	38,2	72,0	5,5	5,4	20 to 60	7 to 25	920 x 950 x 1690	570
WWP 900X	47,1	88,9	5,4	5,2	20 to 60	7 to 25	920 x 950 x 1690	580
WWP 1100X	57,0	107,6	5,4	5,3	20 to 60	7 to 25	920 x 950 x 1690	610

Air source heat pumps, outdoor installation

Outdoor installation	Performance data for A2/W35 to EN 14511				Limits of application		Unit	
	Heat output [kW]		COP		Heating circuit [°C]	Heat source [°C]	Dimensions [mm] B x D x H	Weight [kg]
	1 compressor	2 compressor	1 compressor	2 compressor				
LW 310A	16,8	31,0	3,6	3,5	20 to 60	-20 to 35	1779 x 1258 x 2127	573

Air source heat pumps, indoor installation

Indoor installation	Performance data for A2/W35 to EN 14511				Limits of application		Unit	
	Heat output [kW]		COP		Heating circuit [°C]	Heat source [°C]	Dimensions [mm] B x D x H	Weight [kg]
	1 compressor	2 compressor	1 compressor	2 compressor				
LW 310	16,8	31,0	3,6	3,5	20 to 60	-20 to 35	795 x 1323 x 1887	540

With Alpha-InnoTec heat pumps you make the right choice!



The production of Alpha-InnoTec products is TÜV monitored



Alpha-InnoTec is a member of:
Bundesverband WärmePumpe (BWP) e.V.
European Heatpump Association (EHPA)
FWS Fördergemeinschaft Wärmepumpen Schweiz



Alpha-InnoTec is certified to
ISO 9001 (quality) and ISO 14001
(environment)



Alpha-InnoTec products
bear the CE marking

**FOR FURTHER INFORMATION, THE ALPHA-INNOTEC SALES PARTNER (SEE PAGE 26)
IN YOUR COUNTRY WILL BE PLEASED TO HELP YOU.**



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