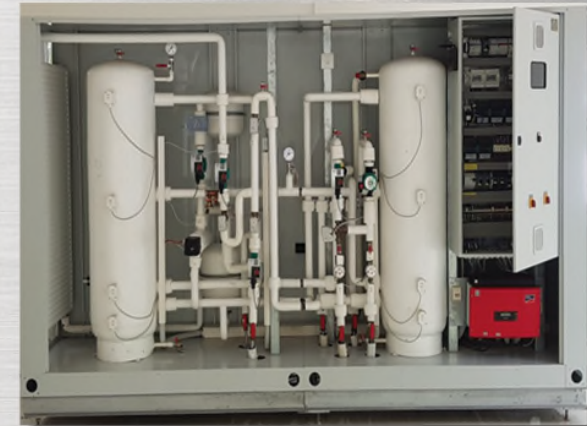


# PRODUCTS AND SERVICES





# OUR SERVICES AT A GLANCE

- Control & Management of Energy (smart, efficient, regenerative, sustainable)
- Passive House & Low Energy House (complete technology, house-central)
- Solar, Photovoltaics, Power Storage (climate protection, lower costs)
- Wind Power Plants (power generation)
- Heat Pumps (electricity, heat and cold)
- Air conditioning (cooling, heating, dehumidifying)
- Drinking water treatment, Drinking stations (bacteria-free, hot and cold)
- Grey water utilization (hygienic process water)
- Sea Water Desalination/Water Softening (drinking water, process water)
- Training & Education (in use worldwide)



Company Headquarters in Leipzig/Saxony



Company Headquarters in Leipzig/Saxony



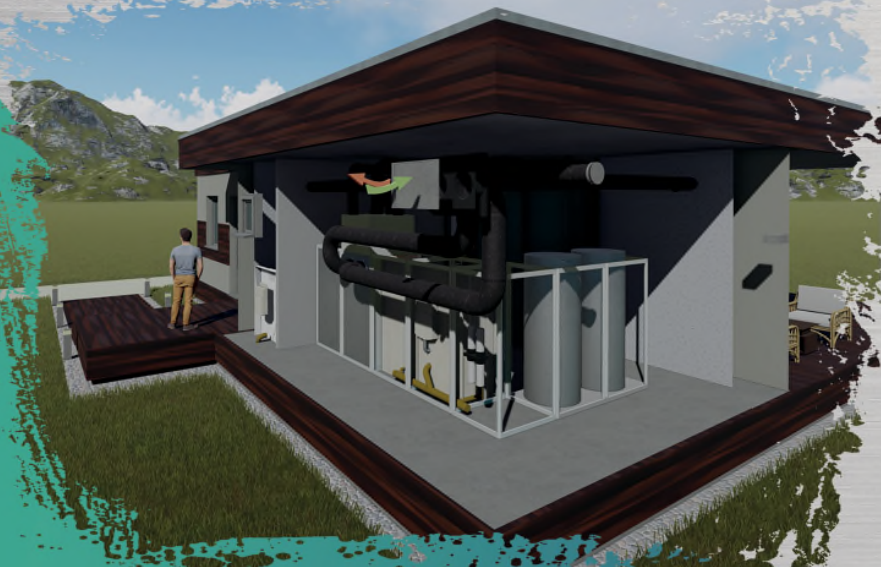
## PASSIVE HOUSE AND LOW-ENERGY HOUSE

- Compact energy center without oil, gas or coal
- Supply media that are obtained on demand from the sun and from the air
- Air conditioning as required: ventilation, cooling, heating, humidity, hygiene
- Electricity via solar modules and energy storage



- Tank for storage of gained drinking water
- Smart control with visualization, monitoring and remote control
- Ideal for passive and low-energy houses

**Conclusion:** network-independent full supply of a residential building with all the media necessary for life

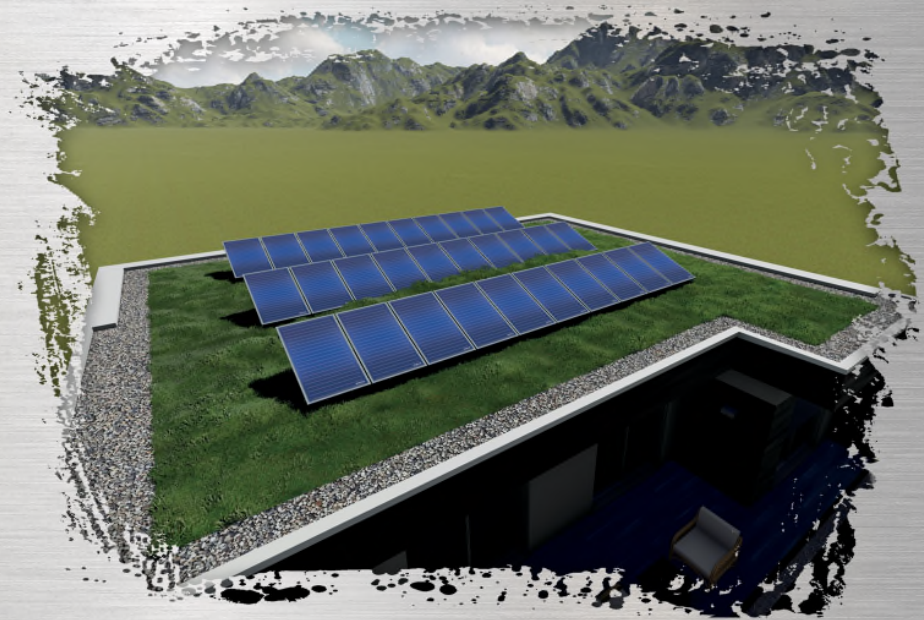




# SOLAR, PHOTOVOLTAICS & POWER STORAGE



- Solar kit for photovoltaic power via solar modules and energy storage for small to largest requirements
- Self-sufficient and needs-based power supply in different power levels
- All necessary components and installation material included



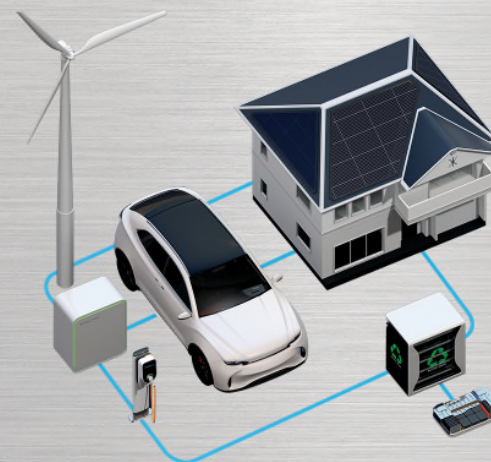
- Electricity via solar modules and energy storage
- Including design and assessment of needs
- Smart control with visualization, monitoring and remote control via tablet, PC, App
- Grid-independent power supply for residential, commercial and industrial use



# WIND POWER PLANTS

- Regenerative energy from wind power for small to medium requirements
- Horizontal or vertical design
- High efficiency, available 24 hours, day and night
- Self-sufficient and needs-based power supply in different power levels

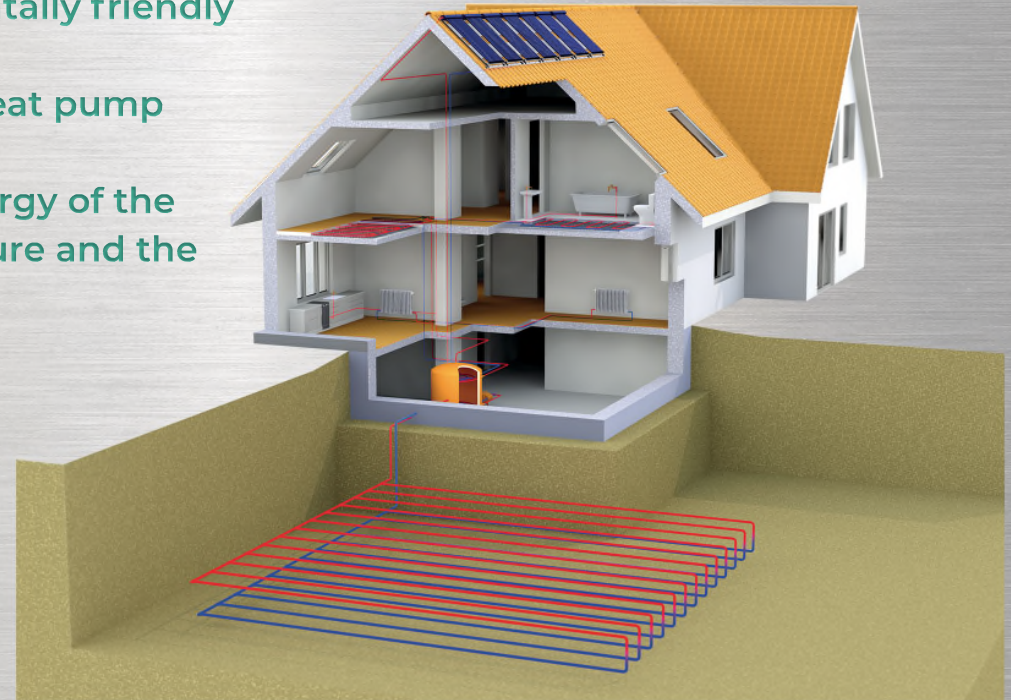
- Including design and assessment of needs
- Inverter, smart control with visualization, monitoring and remote control via tablet, PC, App
- Grid-independent power supply for residential, commercial and industrial use





## HEAT PUMPS

- Air, ground or water thermals provide environmentally friendly energy for heating or cooling
- Versions as air-to-air heat pump, brine-to-water heat pump and water-to-water heat pump
- Work particularly economically, if the thermal energy of the environment can be gained with a high temperature and the required temperature in the heating system is low

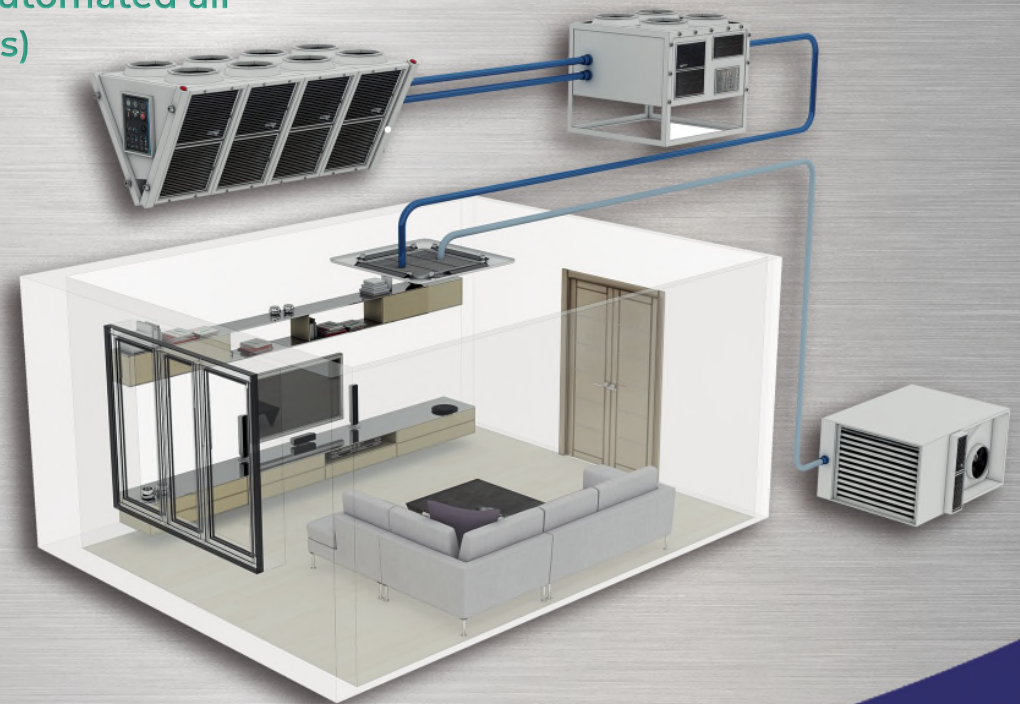


- Can be operated in warm temperatures as air conditioning
- Optimum energy supply of modern buildings in combination with photovoltaic and solar thermal systems
- Sustainability through decoupling of fossil energy sources
- Very low operating and maintenance costs in combination with energy storage hot water
- Including planning and calculation



# AIR CONDITIONING

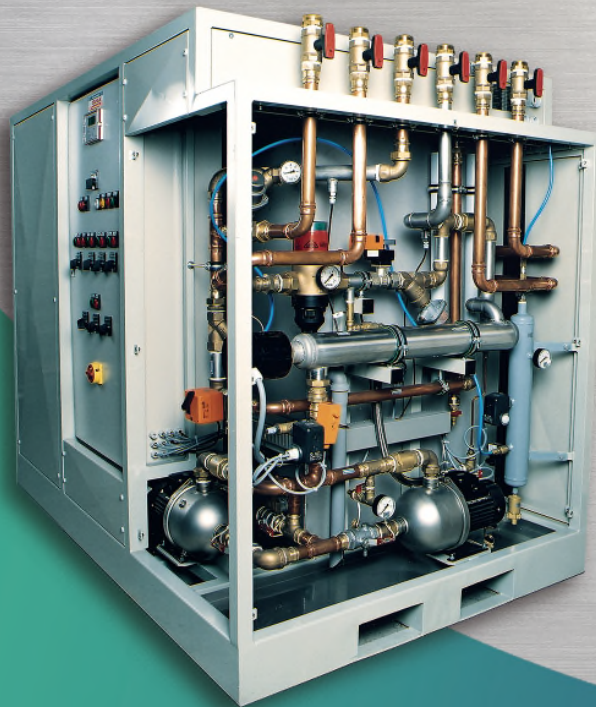
- System for controlled building and living room air conditioning
- Cold, heat and dehumidification
- VOC / CO<sub>2</sub> monitoring,
- Air quality filter and oxygen supply
- Energy recovery from exhaust air up to 85%
- Air exchange rate in accordance with Directive DIN 1946-6
- Ideal for passive houses and "0" energy buildings
- Volume flow control varecon® in conjunction with automated air quality sensors (Volatile Organic Compounds Sensors)
- Including planning and calculation





# DRINKING WATER TREATMENT

- Patented technology for pure drinking water, warm and cold
- Professional cleaning, disinfection and softening for drinking water installations of all kinds according to the German guidelines DVGW W557, W291 and DIN 1988
- Drinking water for the private and commercial sector as well as in large-scale drinking water installations of industrial objects such as shopping centers, sports facilities, office complexes, hotels, theaters and schools



- Drinking water for hygiene-relevant and medical facilities such as clinics, hospitals, nursing homes and medical practices
- Cleaning and disinfecting water in pipelines and mobile drinking water installations for special vehicles, shipping, rail traffic
- Cleaning and disinfecting water in wells, water supply systems, drinking water storage and silos



## DRINKING STATIONS

- Hydration stations with patented technology for pure drinking water, hot and cold
- Oases with drinking water for urban lifestyle
- System-integrated 100% continuous disinfection of the drinking water through constant through-heating and UV-anti-legionella function

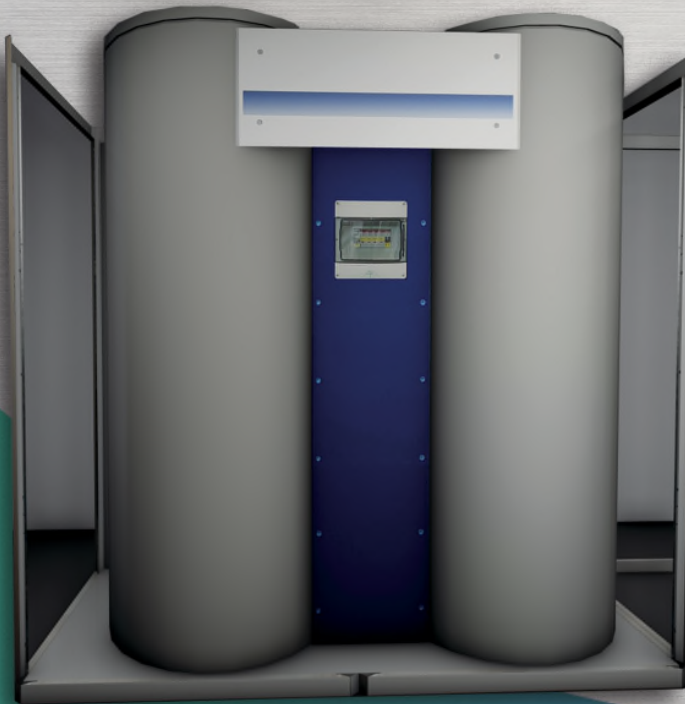


- Control system varecon® for controlling the quality of drinking water, the temperature as well as the charging and circulation volume flow
- Vertical and horizontal construction, piping in stainless steel, galvanized frame parts
- All functions comply with the latest German or EC-compliant laws and guidelines for hygienic drinking water supply



## GREY WATER UTILIZATION

- Grey water: according to European standard 12056-1, faeces-free, low-polluted waste water, such as water from rainwater, shower, bathtub, hand basin and washing machine
- Oxidative and pure biological treatment by means of membrane filters and fluidized bed reactors to "process water"
- Treated process water is available for toilet flushing, hand washing and showering
- Further revaluation of the process water by means of UV disinfection and filter technology make the change to drinking water quality is possible





# SEAWATER DESALINATION

- Compact seawater desalination with maximum reliability, continuous operation and easy operation
- Production of drinking water or operating and cooling water by pressure-controlled reverse osmosis for splitting the water solution into its energetic and molecular structure
- Self-learning electronic volume flow control
- A membrane filter can hold back salt, bacteria, viruses, an oversupply of lime and toxins such as heavy metals





## WATER SOFTENING

- Compact water softening with maximum reliability, continuous operation and easy operation
- For small households and single-family houses with different capacity levels for every consumption and water hardness
- Guarantee for soft, gentle water, prevents expensive limescale damage early
- Extremely economical and low-maintenance, corrosion-resistant and splash-proof





# CONTROL & MANAGEMENT OF ENERGY

- varecon® system technology - smart, efficient, regenerative, sustainable
- Optimization of energy costs and consumption: transparent, innovative and effective for every building size and all types of buildings
- Remote operation and full control by process control system and building management system
- All systems integratively networked and digitized online
- varecon® process controlling
- Cloud-based database management
- Forecast: weather / environmental data
- Simple and clear operation
- Monitoring, analysis and identification
- Safety, comfort























## TRAINING & EDUCATION

- Training and education worldwide in the field of system engineering, energy efficiency and energy management
- Focus: Green technology, renewable energy supply and sustainability
- Best practice: real functioning training systems and extensive teaching material
- Special qualifications of construction industry experts in the areas of energy efficiency, building automation, process and industrial technology and electrical systems
- Supply of appropriate work procedures and technologies for work on electrical equipment and on voltage-carrying equipment, in areas such as:
  - Technical equipment for power generation, climate, water treatment
  - Building automation
  - Energy efficiency equipment
  - Electronic installations
  - Switchgears
  - Electrical distribution network / working under voltage
- Models and visual aids for practical training
- Certificate of the European eurenac - European Academy for efficient use of energy in buildings





# REFERENCES OVERVIEW

 <p>Mercedes-Benz</p> <p>Mercedes Benz Ludwigsfelde</p>	<p>BMW AG Niederlassung Leipzig Alte Messe</p> 	 <p>Stadt Leipzig</p>	 <p>Sparkasse</p> <p>Kreisparkasse Naunhof</p>
 <p>VW Werk Mosel</p>	 <p>Bauhaus Dessau</p>	 <p>COMMERZBANK ARENA</p>	 <p>Thomaskirche Leipzig Freistaat Sachsen</p>
 <p>Bundeswehr</p> <p>Bundeswehrcaserne in Lindhardt, Marienberg und Leipzig</p>	 <p>NATO Airbase Ramstein und Grafenwöhr</p>	<p>Stadtwerke Leipzig</p> <p>Alles ganz einfach.</p> 	 <p>ibis</p> <p>ACCOR hotels</p>
 <p>FLUGHAFEN LEIPZIG-HALLE</p> <p>Internationaler Airport Leipzig / Halle</p>	<p>DAIMLERCHRYSLER</p> <p>Daimler Chrysler Maybachcenter Sindelfingen</p>	 <p>GEWANDHAUS ZU LEIPZIG</p>	<p>KREISKRANKENHAUS ALIENBURG gumbert</p>  <p>Kreis Krankenhaus Altenburg Thüringen</p>
<p>Freie Universität</p>  <p>Berlin</p>	 <p>UNIVERSITÄT LEIPZIG 1409 2009 ALMA MATER LEIPZENSIS</p> <p>Universität Leipzig</p>	<p>BELANTIS</p> <p>Vergnügungspark Leipzig</p>	 <p>RED BULL Arena Leipzig</p>



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generate energy sustainably • distribute • control • save



[www.baumsr.de](http://www.baumsr.de)