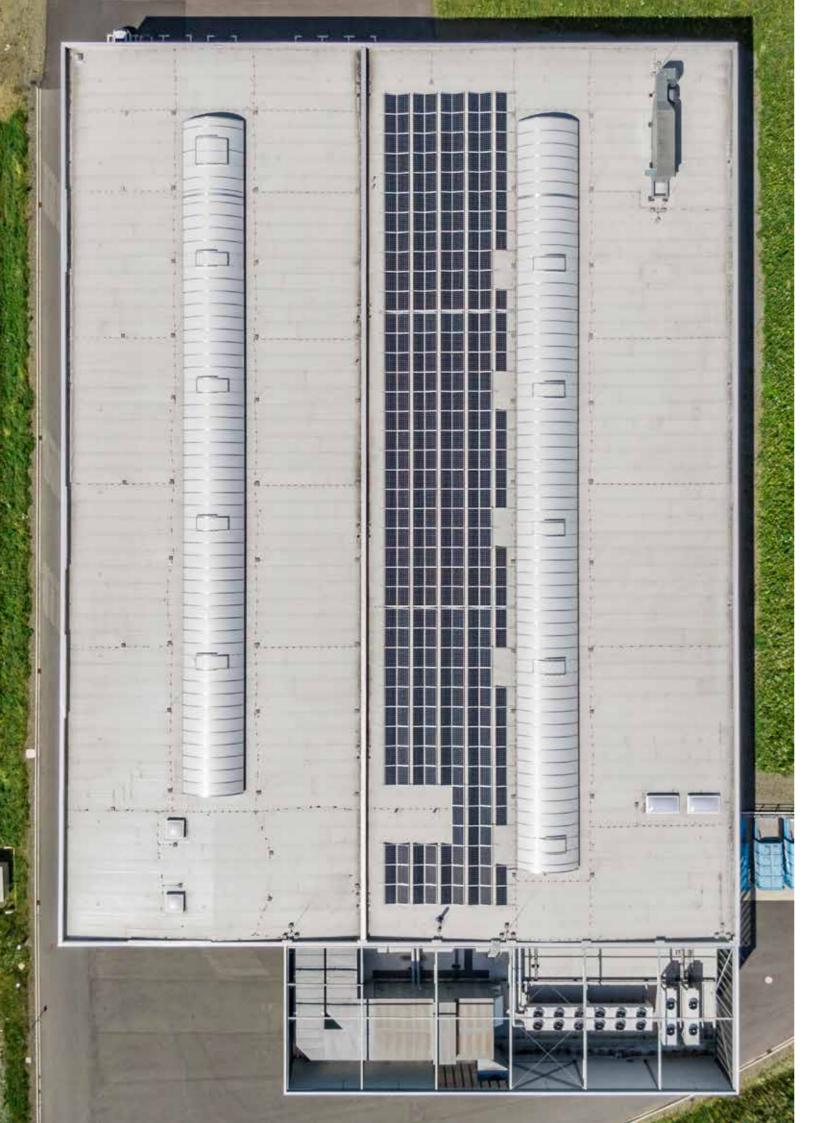






Environmentally conscious right from the start







Consistently ahead of the times

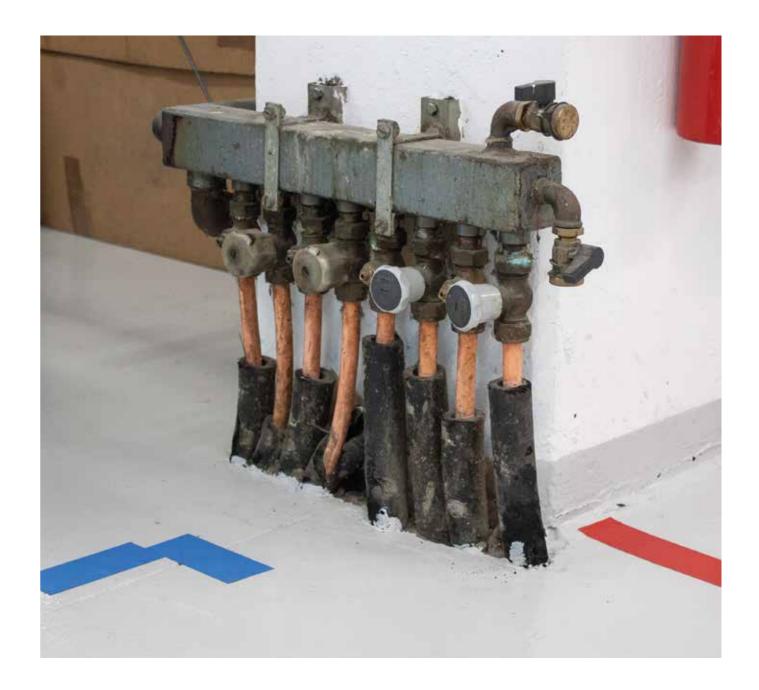
At Schulte Elektrotechnik, sustainability is a key concern alongside the symbiosis of design and function – and always has been. As far back as 1973, the company's first headquarters were fitted with climate-neutral heating systems. By making use of waste heat from the plastic injection moulding shop, we were ahead of the times in terms of energy-efficient and sustainable building services engineering. When we expanded our facilities in 2014, we switched to geothermal energy, which provides hot water for the heating systems in the winter. And now we're going one step further with our new, recently completed production and storage hall: not only is it practically a zero-energy building, it actually lies 60% below the limit values prescribed by the German Energy Saving Ordinance (EnEV)





Recycling of waste heat from the plastic injection molding shop.

Balancing energy:,Cheap night electricity



Floor heating in offices and production hall.

The architect at the time:

"You can buy many tons of heating oil for that."





Company expansion 2014

Everything without subsidies

2014



10 deep drillings of 100 m each as intermediate storage for excess energy

from the process heat.

Energy recycling on demand.



Ceilingand floor activation

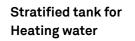
with ducts for ,gentle' air circulation.

Consistent Room temperature 21-22°C

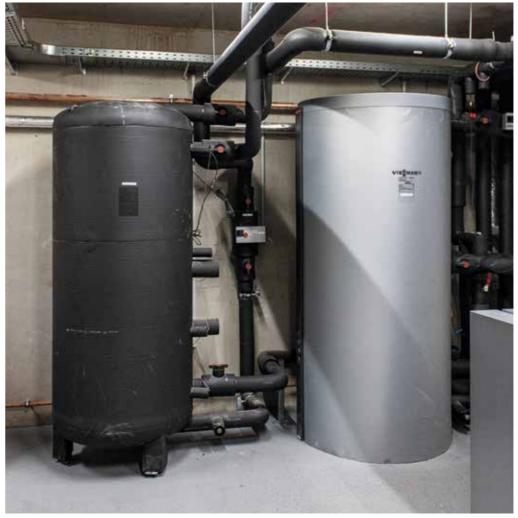
Works for 6 years excellent.







Cold and warm brine







- No ceiling lights
- no sockets and switches in the walls
- wireless control: Kinetics with EnOcean piezo technology
- Power and data lines in the floor with CP-Points
- Decentralized protection







Brine-water heat pump







Pilot project

Energy self-sufficient building - electricity - climate

Subsidy: 250.000 EUR due to 60% undercutting of the prescribed limit values

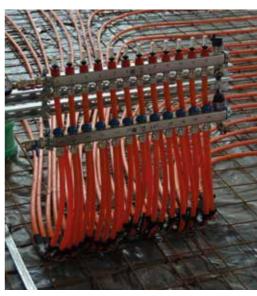




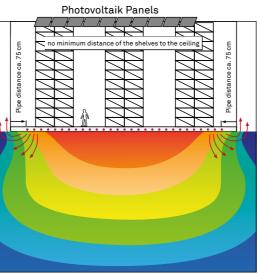
Underfloor heating

Thermally activated floor panels on the entire production and storage area; activated by photovoltaics and energy recycling.









Energy cushion.

Laterally insulated against diffusion





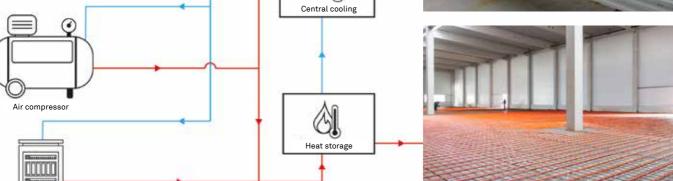
Heat recycling

of more than 80% from the ventilation in the plastic molding shop as well as cooling of the machines and no disturbing air movements.





Underfloor heating





T server room

Compressed air generator with heat recycling



Air-source heat pump with adjacent "control center"



Cooling system for process cooling with heat recycling



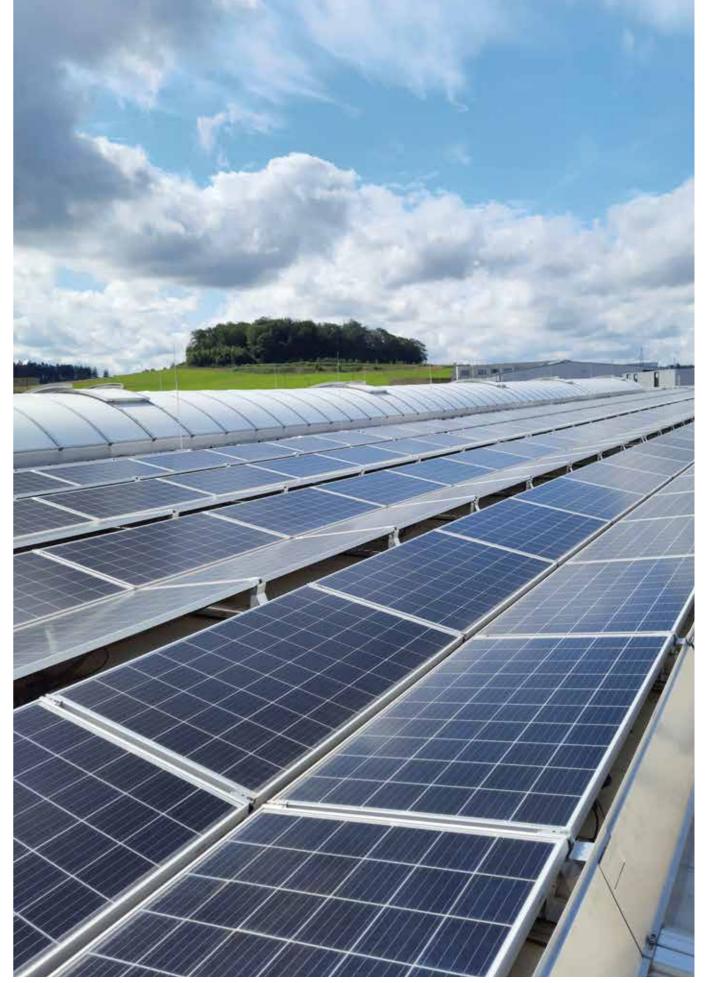


Outdoor ventilation system - 50,000 m3/hour with low vibration.



Subdistribution technology

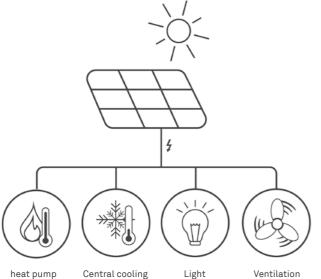
Inverter for photovoltaic system



photovoltaic system







Calculated result:

The electricity required for all heating and cooling equipment is generated by photovoltaics.

Step by Step on the way to self-sufficiency



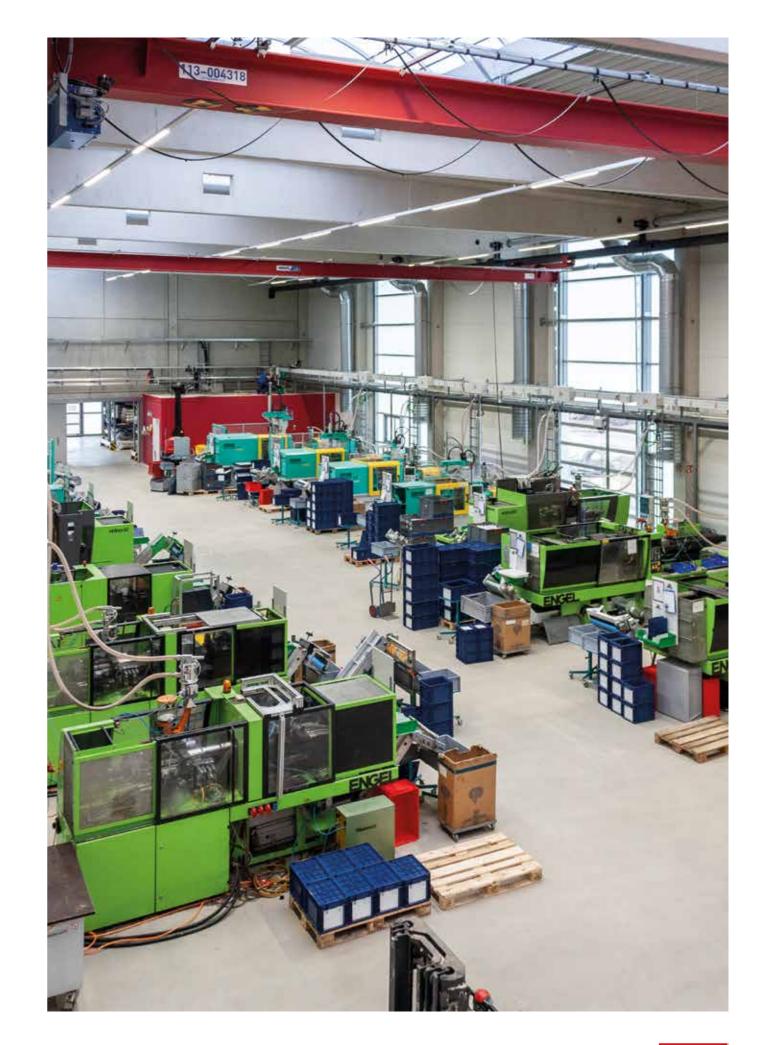


The plastic injection moulding shop

is put into overpressure by the ventilation system, thus ensuring a permanent supply of fresh air and keeping pollen and dust outside.

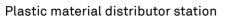














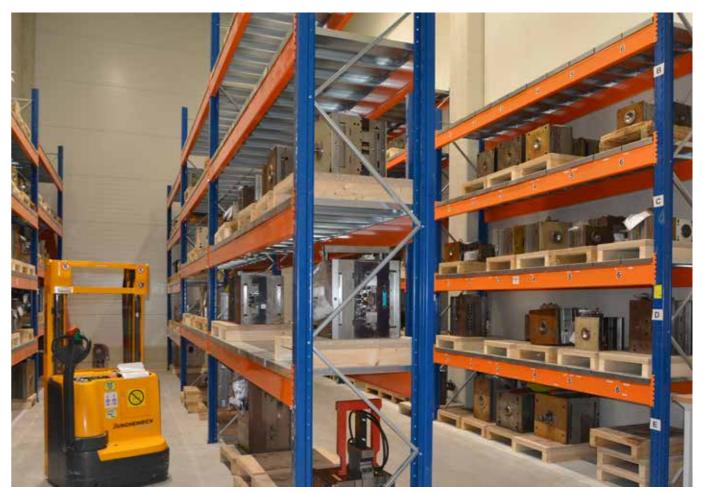
Subdistribution



Drying plant for plastic material, with vacuum valves



Shelf storage for materials



Tool storage







Bihler-Contact welding machine



Made in Germany by Schulte Elektrotechnik







Automatic switch assembly



Made in Germany by Schulte Elektrotechnik



EVOline® Product overview 2021







































