

THE ATRES GROUP

ANAEROBIC TECHNOLOGY. REGENERATIVE ENERGY SYSTEMS.

ANALYTICS Specialized Laboratory

RESEARCH Piloting · Research · Development

> ACADEMY Seminars · Training

CONSULTING Studies · Engineering

PRODUCTS Supporting anaerobic processes

The atres group offers engineering services in the field of industrial wastewater treatment and waste utilisation. We offer our customers professional support solving technical, processing and biological problems, from planning and starting up to operating and expanding a biogas or waste water treatment plant.

atres runs its own independent laboratory in Freising-Weihenstephan that specialises in biogas with modern analytics. Attached is a pilot plant for research and development.

The owner-run company was founded in 2006 by Gunther Pesta after many years of research at the Technical University of Munich in Weihenstephan. His recognised specialist knowledge, the interdisciplinary team of the atres group, and the close cooperation with science and research means that atres works with cutting-edge technology.

This particular competence distinguishes the academy and atres. Customers can use atres to guide them through the entire project - from planning and starting up to operating and expanding a biogas or waste water treatment plant - or just through the individual steps.





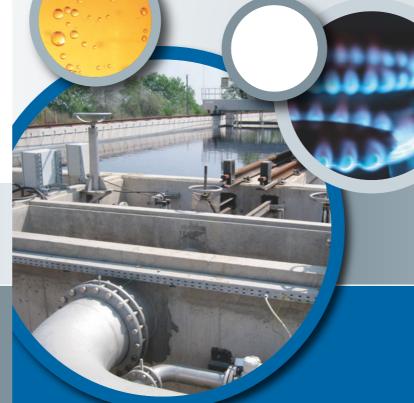
www.atres-group.com

ATRES Owner: Dipl.-Ing. Gunther Pesta

Phone: +49 (0) 8161/40 54 2-0 Fax: +49 (0) 8161/40 54 2-22

International Water Association







Consulting · Engineering Implementation

WASTE WATER QUESTIONS





WE ARE PARTNER OF OUR CUSTOMERS ASSURING SUCCESS - STEP BY STEP:

A holistic concept design asks for detailed knowledge

- Waste water-Check for estimating potentials and designing concepts
- Efficiency-Check for optimizing operating waste water treatment plants
- Investment-Check for revamping facilities or extending capacities

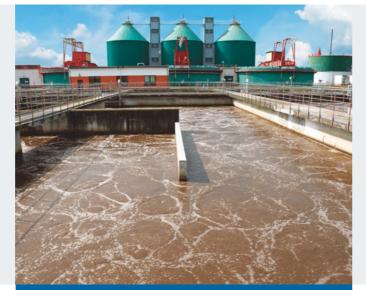
WASTE WATER TREATMENT PLANTS FOR THE FOOD AND BEVERAGE INDUSTRY

One-stop services in design and commissioning



Atres and TBP Upcon - together we are focussing on your success!

- High skills and know-how regarding waste water treatment (anaerobic, aerobic)
- Specialists in the handling of biogas
- Long-time expertise and experience in industrial plant engineering and construction



Biogas out of by-products and industrial waste waters

- Indirect or direct discharger
- Aerobic, anaerobic or combined
- Process water by upcycling of effluents
- Heat recovery from waste water

Manufacturer independent design *Tailor made concepts* International

- Conceptual and processing design
- Engineering and approvals
- Start up and take over
- Supervision and optimization

BIOGAS **OUT OF ORGANIC BY-PRODUCTS**

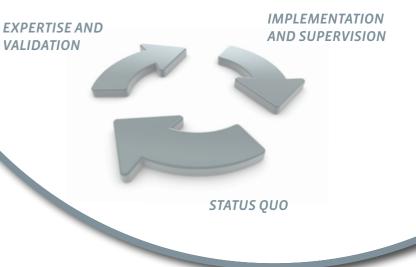
Innovative residues' management by means of anaerobic digestion

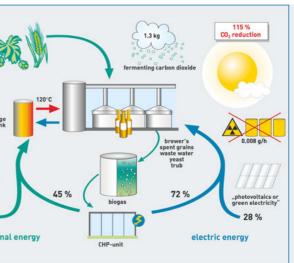
The Green Brewery how to manage a zero fossil CO2 beer production! 24 t spent grains, trub, surplus yeast Input: 3.400 m³_N biogas (60 vol.-% methane) Output: 73.000 MJ gross energy (resp. 2.000 | fuel oil) Option: Biogas out of waste water 10.000 MJ gross energy (resp. 270 l fuel oil) Key figures:

Production of 1.000 hl sales beer 90.000 MJ demand on thermal energy:









Concept for a zero fossil CO2 beer production

Biogas out of brewer's spent grains provides*

• 70 % of the electric energy demand • 40 % of the thermal energy demand

*by combusting biogas in a combined heat and power unit (CHP)