



**AWAS
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**AWAS Branch
Offices Germany**

Dresden
Oberhaching
Tribsees
Wildau

**AWAS Branch
Offices International**

Warsaw / Poland
Moscow / Russia
Lviv / Ukraine
Tashkent / Uzbekistan
Sibiu / Romania
Zagreb / Croatia
Salenstein / Switzerland
Techiman / Ghana

AWAS product range:

-  **treating**
Water recycling
Sector-specific processes
Biological treatment plants
Chemical/physical treatment
Adsorption plants
-  **separating**
Separators for light liquids
Large separator plants
Simultaneous oil- and particles separation
-  **clarifying**
Biological reactors
UV-A-bio water processor
Cavitation-biology
-  **service**
Analysis
Project planning
Installation
Maintenance
General inspection

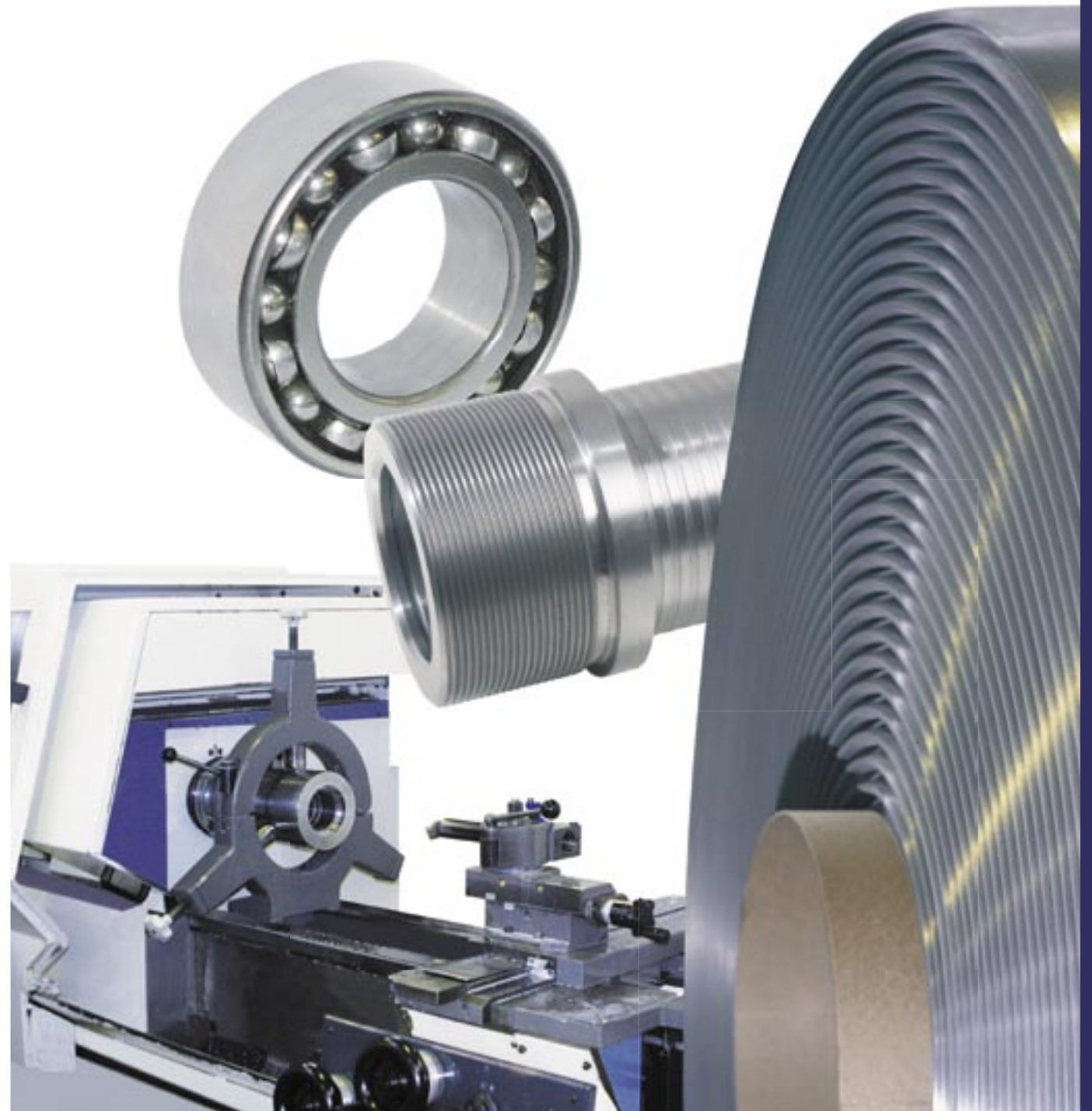


• Regelmäßige Betreuung
• Fachbetrieb gemäß VDI 2206



Metal industry

Waste water treatment plant
Water recycling



Waste water and process water treatment at metal industry

Waste water-, recycling- and process water treatment at metal industry

There are many sources of waste water in the metal industry. These waters contain various pollutants and need to be treated, so that purified water can be discharged to the sewer. By selection and combination of several treatment steps specific process waters may also be recycled. Therefore a waste water treatment plant – central or local – is required in order to meet the local Governmental effluent limits or the necessary water quality for re-use. Benefit from our long lasting, international experience!

Clearance surfaces, where metal and supplies are stored or transhipped:

Large paved and asphalted areas will cause heavy water streams during rain fall. Employment of our technology offers a direct oil-/sludge-treatment and/or limiting of discharge rain water.

AWAS solution:

Coalescence separator ac. to EN 858 class I System AWAS-Galaxie

Specific AWAS features:

- **simultaneous separation of oil and sludge**
- **non-clogging**
no devices installed in the separator which might clog or reduce the flow
- **no coalescing filters or corrugated plates**
no cleaning or replacement of coalescence devices
- **low-maintenance**
no spare parts required
- **storage and retain**
of light liquids in case of oil disaster
- **monitoring (optional)**
via process control by online monitoring of inflow, overflow and outflow
- **expandable (optional)**
by combination of storage, limiting, bypass and overflow technology.



Galaxie 2002 for clearance surface dewatering at stock yards or transhipment spaces for metal.

Waste water treatment for wash down yards and immersion cleaning of metal parts, which are prepared for repairing and varnishing.

Ingredients like emulsions as well as heavy metal and other adherences require a separate treatment. The Employment of our further technology offers an effective treatment and cleaning and/or recycling of this waste water.

AWAS solution:

(additional to mentioned solutions on the left side)

- **Chemical/physical emulsion splitting plant as flotation- or charge splitting plant**
- **filtering and sterilisation**



ADF-flotation with chamber filter-press

Process- and circulation water treatment at the industry:

Metal industry transact huge amount of process water – loaded with light liquid, sludge and other pollutants – and reuse it for environmental and economic reasons.

AWAS solution:

Separator AWAS-Galaxie-Tower Circulation water treatment: Biolife

Specific AWAS features:

- **Simultaneous separation and conduction of light liquids, sludge and particles**
- **recycling of**
 - a) treated process water
 - b) light liquids
 - c) sludge



Galaxie-Tower for process- and circulation water treatment.



Cooling lubricant at grinders:

Cooling lubricant, used for reduction of temperature during the grinding operation, requisite purifying of aluminium oxide abrasive and metal particles. They also cover healthy risks by fungal and bacteria.

AWAS - member of CEGRIS II:

CEGRIS II – the EU research programme – a development of modern treatment technology for circulation of cooling lubricant.

Since 2006 – within the CEGRIS programme – AWAS generated a new combined technology for effective separation of ascent oil and settleable particles, bacteria and fungal by:

AWAS solution:

AWAS Galaxie-oil-particles separator at full stream

AWAS-Coolants-micro bubble flotation at full stream – optional at bypass.

Results after installation of AWAS technology:

Long service life and physiological harmless Coolants by:

- A) $\geq 99,9$ % reduction of germ, bacteria, yeast and fungal
- B) $\geq 99,9$ % separation of ascent oil
- C) particles separation up to $\geq 10 \mu\text{m}$

We would like to place a test system – adapt to your needs - at your disposal. Use our technological advantage.