

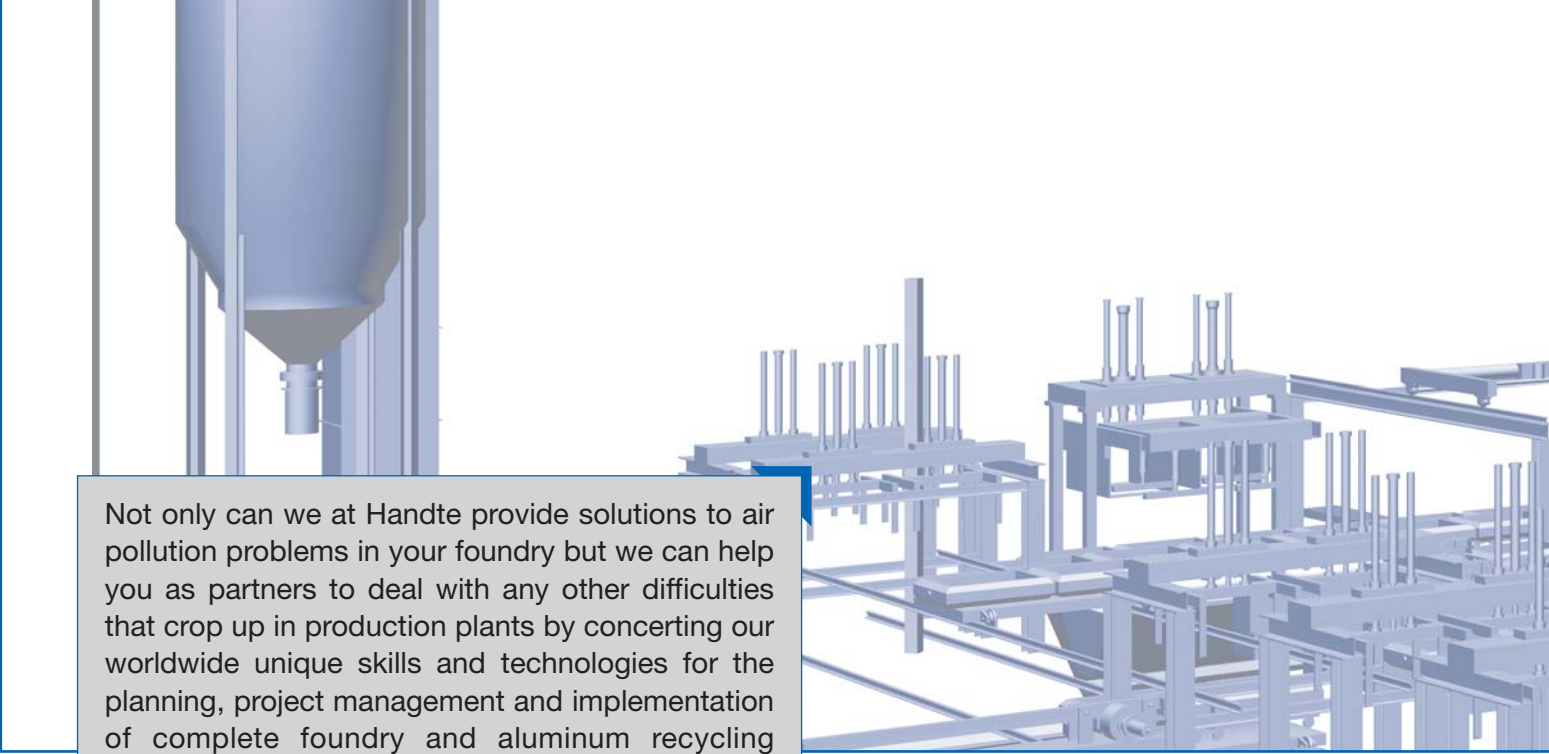
Consistent High-Tech Casting Solutions



Plant engineering and complete filter solutions for:

- ▼ **Induction furnace melt shops**
- ▼ **Cupola furnace melt shops**
- ▼ **Aluminum recycling plants**

As results alone count - Handte provides a unique combination of planning and production skills for foundries!



Not only can we at Handte provide solutions to air pollution problems in your foundry but we can help you as partners to deal with any other difficulties that crop up in production plants by concerting our worldwide unique skills and technologies for the planning, project management and implementation of complete foundry and aluminum recycling plants.

Our know-how and expertise ensure the trouble-free integration of the very latest in filter, safety and recording technologies just as much as the successful integration of new sections and the implementation of complete plants by our globally-active partners.

Skills in the foundry sector:

For more than 100 years, Handte Umwelttechnik has been constructing, designing and supporting filter solutions for the foundry and metalworking sector:

- Handte itself can design, customize or expand any filter application required
- New plants can be equipped on schedule according to state-of-the-art engineering and smoothly integrated into existing production processes



Wet washing process

e.g. STW, STWV, STZV using Venturi scrubbers

- A tried-and-proven process for exhaust air purification, especially suitable for use in explosive areas e.g. aluminum processing

Extraction in a foundry/abrasive blasting plant
Strahlanlagen Volumes: 240,000 Bm³/h

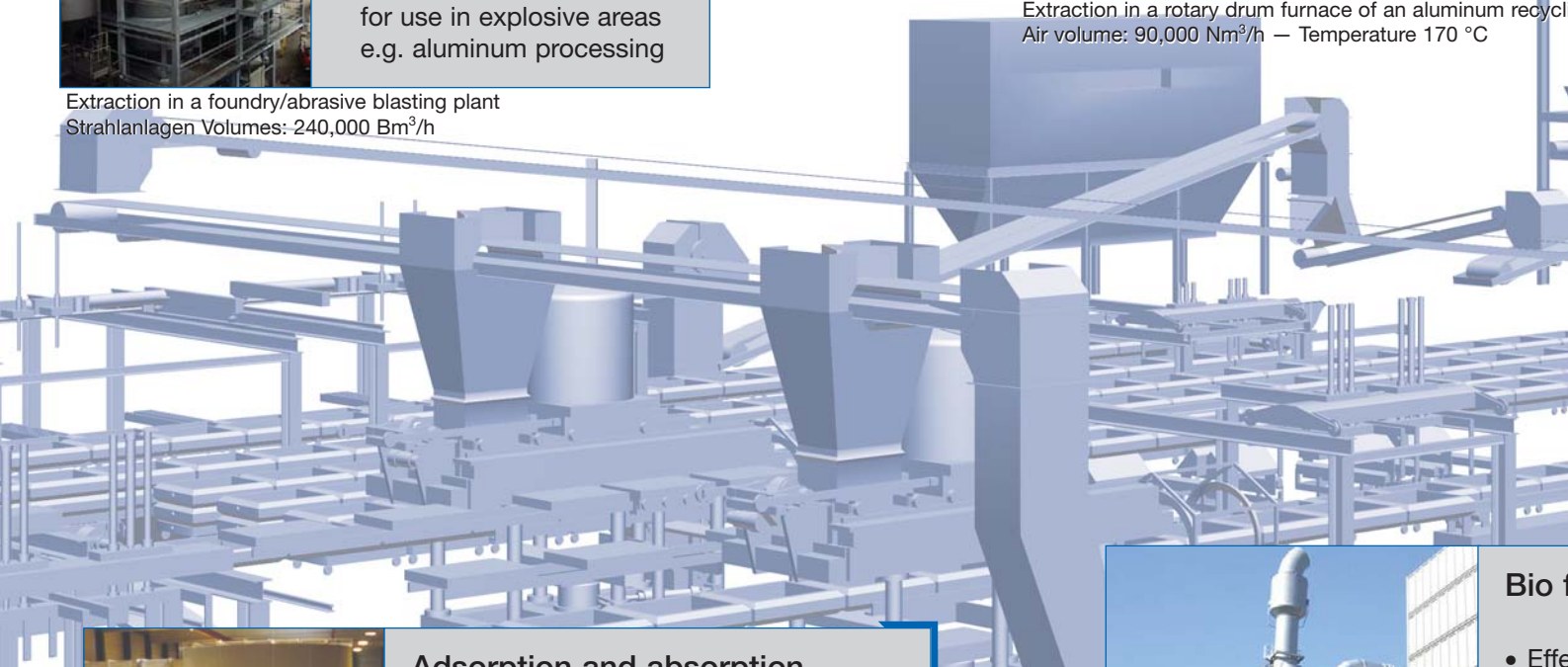


Dry-type filtration

e.g. cylindrical bag filter, micropore plate

- Separation of free-dusts, fine dusts, c
- High separation rate
- energy efficiency
- Comprehensive range

Extraction in a rotary drum furnace of an aluminum recycling plant
Air volume: 90,000 Nm³/h — Temperature 170 °C



Adsorption and absorption systems

e.g. amine scrubber in the core production, fixed-bed adsorbers e.g. in odor separation, wall bed adsorber, entrained flow adsorbers, filler scrubber

- Practically 100% filtration efficiency
- Low gas-side pressure loss
- Intensive material exchange, maximum air purification

Extraction of phenol in a gravity die-casting unit
Volumes: 1,000,000 Bm³/h



Bio filtration

- Effective for odors
- High efficiency
- Flexible

Extraction in an aluminum foundry
Volumes: 120,000 Bm³/h

Experiences in High-Tech filtration:

Filter technology for use in foundries in particular in aluminum melt shops and gray iron induction and cupola furnace melt shops needs to consider specific peculiarities:

- Special thermal conditions
- Ensuring process-relevant sequences of motion, freedom of motion, access to work places and transport ways
- Consideration of swivel ranges and similar operations
- Integrative planning of supply air, exhaust air and extraction

n system

filter, cartridge-type
te filter

flowing, problematic
chippings
te and high-level

ange of applications

ing unit



Extraction in transfer lines
Volumes: 70,000 Bm³/h

Oil and emulsion aerosol separation

e.g. oil aerosol separator,
emulsion aerosol separator for
CNC processing machines

- Can be used for single or group separation
- Long service-life
- Service-friendly

filtration

ective odor abatement e.g.
ing the cooling-off period
ch follows the casting pro
s, in the knock-out station
l sand preparation
xible choice of scrubbers



Manufacture, assembly and service

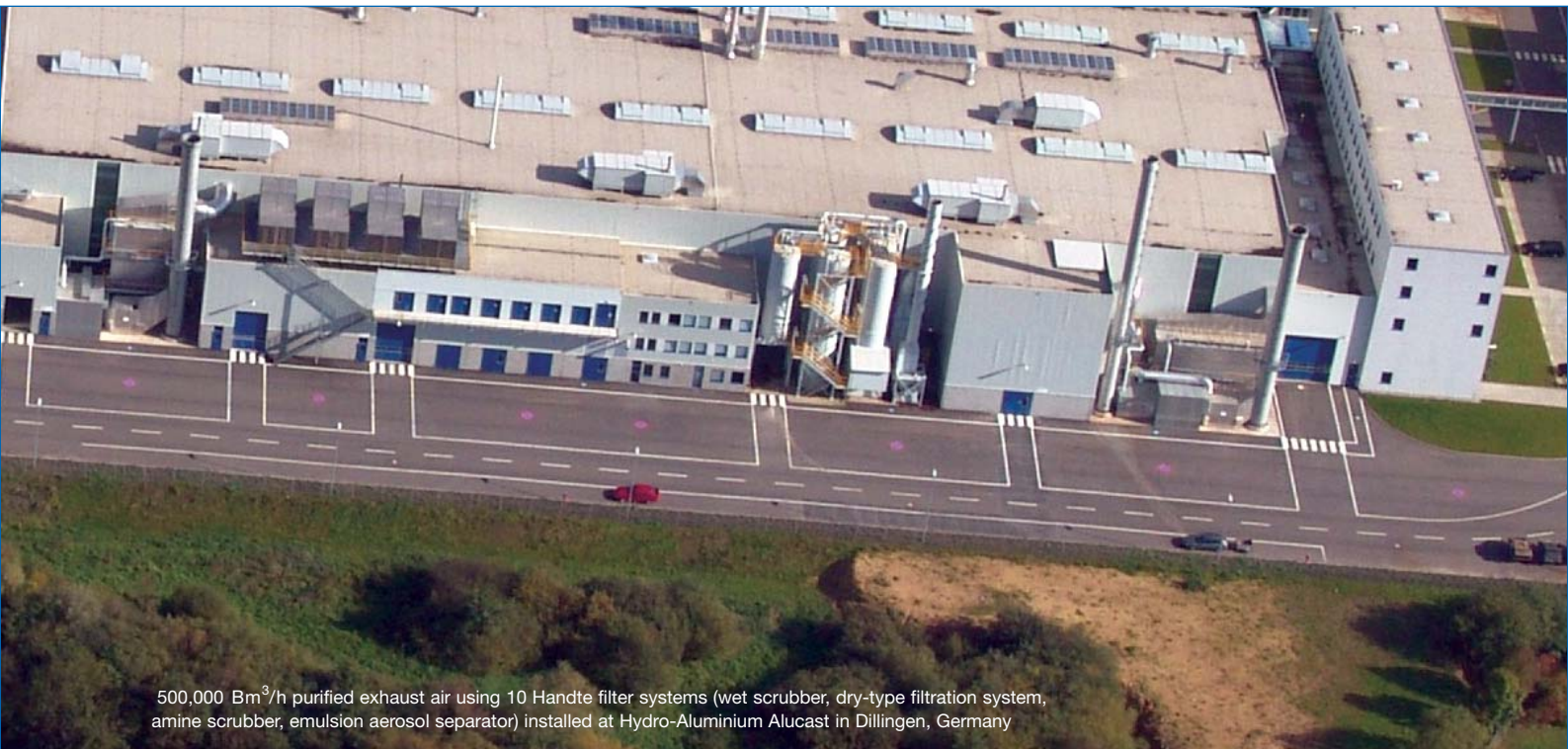
- Manufacturing, delivery and assembly of turn-key plants meeting the latest European standards and regulations
- Servicing and maintenance
- Dust and gas analyses, emission monitoring

Advantages for your production :

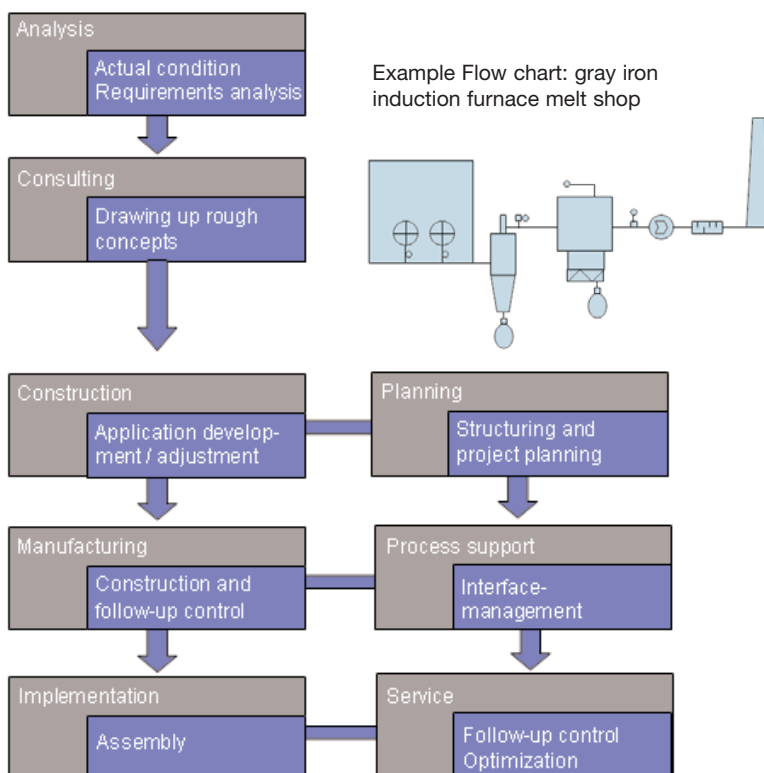
Our designers and engineers are engaged all over the worldwide in projects for reputed customers and are in constant contact with research institutes, planning offices, official approval bodies and industrial associations thus ensuring advantages for ourselves and for you the customer through:

- the use and development of state-of-the-art technologies to meet the very highest safety and quality standards
- Partnerships with special purpose high-tech providers and project partners
- Skills exchange throughout all industrial sectors to optimize integration solutions

Foundry plants and technologies from just one company. State-of-the-art production standards and maximum efficiency



Our integrative project strategy



As the demands made on products today are manifold and complex, practically no customer these days would even dream of buying a ready-made filter component! That is why we work together with a partner who is backed by many years of experience in implementing planning, improvement and management projects all over the world in the machine and foundry sector.

An integrative strategy which allows:

- the successful implementation and optimization of complete foundry plants
- the optimization of existing plants
- the integration of new segments

For use in the following areas:

Non-ferrous and heavy metals
Iron foundries
Steel plants

Fordern Sie uns und unsere Kompetenz in allen Bereichen der Umwelttechnologie:

Set us a challenge and let us demonstrate our skills for any sector of environmental engineering:

Nasswaschverfahren

- ▼ Dynamische Nassabscheider

Trockenfiltration

- ▼ Micropore-Plattenfilter
- ▼ Schlauchfilter
- ▼ Taschenfilter
- ▼ Patronenfilter

Aerosolabscheidung

- ▼ Mechanische Öl-Emulsionsnebelabscheider
- ▼ Elektrostatische Abscheidung

Geruchseliminierung/VOC

- ▼ Biowäscher/Hochleistungsbiofilter
- ▼ Nichtthermisches Plasmaverfahren

Absorptionsverfahren

- ▼ Füllkörperwäscher

Adsorptionsverfahren

- ▼ Festbettadsorber
- ▼ Wanderbettadsorber
- ▼ Flugstromadsorber

Erfassungslösungen

- ▼ Bearbeitungsmaschinen

Arbeitsplatzlösungen

- ▼ Kabinen
- ▼ Schallschutz

Sicherheitstechnik

- ▼ Explosionsschutz
- ▼ Brandschutz

Wet cleaning processes

- ▼ Dynamic wet scrubbers

Dry filtration

- ▼ Micropore plate filter
- ▼ Bag filter
- ▼ Sack filter
- ▼ Cartridge-type filter

Separation of particulate matter

- ▼ Mechanical oil-emulsion vapor scrubber
- ▼ Electrostatic precipitation

Deodorization/VOC

- ▼ Bio-scrubber/High-performance bio-filters
- ▼ Non-thermal plasma processes

Absorption processes

- ▼ Fillers scrubber

Adsorption processes

- ▼ Fixed-bed adsorber
- ▼ Moving-bed adsorber
- ▼ Entrained flow adsorber

Recording solutions

- ▼ Processing machines

Work place solutions

- ▼ Cabins
- ▼ Noise protection

Safety engineering

- ▼ Explosion protection
- ▼ Fire protection



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