The global economy is in constant need of power, which is still mainly provided by coal, oil and gas – fossil fuels that are finite and harmful to the environment over their whole value chain. Other more sustainable resources have been in use for decades on a smaller scale, but are gaining more and more attention now due to the global effort to develop and install solutions that will minimize CO_2 emissions. Private and public initiatives are pushing things forward, and the renewable energy business is striving towards the common goal of a clean environment for future generations.

And we as ANDRITZ – and as a supplier of state-of-the-art flue gas treatment systems – are your professional and reliable partners in achieving this goal.

ANDRITZ

Flue Gas Treatment Solutions for W2E and S2E

ANDRITZ Air Pollution Control provides flue gas treatment plants for the a wide range of different industries.

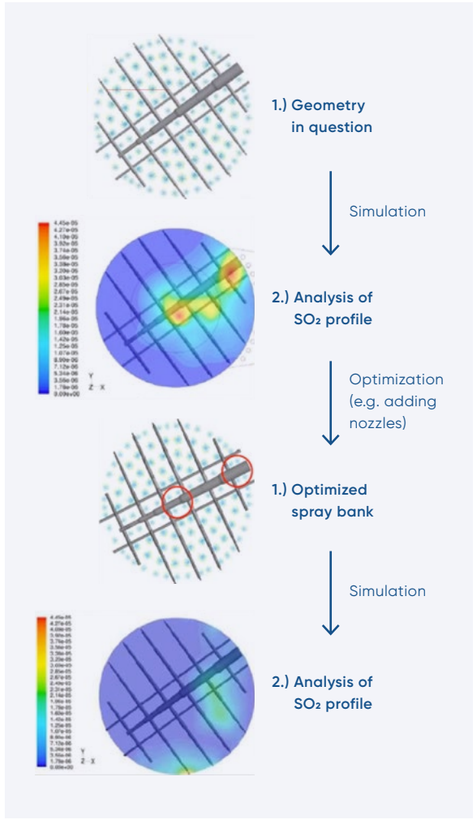
Waste incineration can be a tricky business. Even though your fuel undergoes pre-treatment in most cases, you must always be ready to cope with surprises. And this means you have to be prepared for anything and everything that comes your way. With our broad portfolio and long-term experience, ANDRITZ is capable of providing its customers with unique, tailored solutions that allow meeting legal requirements while still keeping an eye on efficiency and profitability. Our flexible technologies are able to react quickly and automatically to changes in fuels and other process parameters keeping all emission limit values.

The scope of supply and services ranges from

- New-built (up to turnkey installations – EPC)
- Modernization and revamping of fabric filters and electrostatic precipitators (ESP)
- Modernization and retrofitting of single-stage and multi-stage scrubber systems
- Assistance and organization of maintenance and revision activities, including parts service

The product portfolio includes wet, dry, and semi-dry technologies for removal of acid pollutants (SOx, HCl, HF), particulate matter, heavy metals (especially mercury), dioxins and furans, as well as selective catalytic reduction (SCR) technologies for the removal of NOx.

ANDRITZ is a technology group operating globally, with more than 30,000 employees, annual revenue of more than six billion euros, and a global network of manufacturing facilities. We are proud to look back on almost 130 years of experience in the exhaust gas cleaning sector, with numerous references in many different industries. ANDRITZ flue gas cleaning technologies are operating successfully in plants all over the world.



BAT/BREF DRIVEN UPGRADE AND RETROFITS

Our Upgrade & Retrofit department elaborates solutions in close cooperation with our customers in order to comply with new emission requirements.

Whatever the problem is, we will make your plant future-proof. Our application range extends from optimization of existing plants to comply with the new emission limits (BREF compliance, SO_2, dust, Hg, etc.), to solve daily operational problems as well as analysis and improvement of operating costs and availability of the entire plant or individual parts of it.

When it comes to enhancing scrubber separation efficiency for acid gas components such as SO_2, HCl and HF successful upgrades, using the patented ANDRITZ FGDplus technology for example, have been performed already in power stations. Especially in dedusting our enhanced portfolio includes upgrades of ESP's or fabric filter optimization to improve particulate matter (PM) emissions.

No matter whether you are looking for consulting, a cost estimate or a survey – we will support your individual modernization project and develop a customized solution together with your own experts. Using our many years of experience and sophisticated technologies, such as CFD simulation, we will show you what is possible while still keeping a close eye on implementation deadlines and investment costs.

FLUE GAS TREATMENT FOR WASTE-TO-ENERGY (W2E)

In Singapore, the NEA (National Environment Agency) is currently installing the world's largest integrated waste management facility. In phase 1 alone, 2,900 tons of municipal and industrial waste per day will be fed to the state-of-the-art thermal treatment plant. ANDRITZ is a proud contributor to this groundbreaking project, supplying the flue gas treatment plant for the waste incineration facility. Firstly, dust emissions are reduced to < 6 mg/Nm³ by means of fabric filters, and then a subsequent multiple-stage scrubbing system reduces acid gas components like SOx and HCl to < 20 and < 3 mg/Nm³, respectively. Phase 3 contains another four treatment lines of the same type.

FLUE GAS TREATMENT FOR SLUDGE-TO-ENERGY (S2E)

ANDRITZ's portfolio also extends to smaller-scale flue gas treatment projects such as the sludge incineration facility currently being installed in Tubli, near Manama, Bahrain. It will be the first of its kind in the region, burning sludge from the neighboring Tubli wastewater treatment plant. The scope of supply incorporates a semi-dry flue gas treatment system consisting of an ANDRITZ TurboSorp reactor with subsequent fabric filter in a new, compact ANDRITZ design. The plant consists of two lines, each processing approximately 18,000 Nm³/h.

CLEAN AIR FOR A BETTER PLANET

We provide tailor-made environmental solutions focused on reducing emissions and improving performance and efficiency, helping you meet changing market conditions and comply with your asset strategies. Our offering covers the entire flue gas line to control particulate matter, SOx and other acid gases, Hg and heavy metals, VOCs/HAPs, NOx, and CO_2 emissions.

With our broad portfolio of best-available technologies for various industrial processes, combined with innovative engineering and strong project execution, ANDRITZ is the ideal partner to help you meet stringent emission regulations. Regional proximity for service activities further ensures optimal operation and superior lifecycle performance of your key equipment and auxiliary components.

Contact us all over the world.

EUROPE*)
ANDRITZ AG
p: +43 316 501 2895
clean-air-AT@andritz.com

EUROPE NORDICS
ANDRITZ AB
p: +46 705 187 710
clean-air-SE@andritz.com

CENTRAL & SOUTH EUROPE
ANDRITZ Ingenieria S.A.
p: +34 91 663 64 09
clean-air-SE@andritz.com

FINLAND & BALTICS
ANDRITZ OY
p: +358 40 860 5310
clean-air-FI@andritz.com

POLAND & EAST EUROPE
ANDRITZ AG
p: +48 782 887 777
clean-air-PL@andritz.com

USA
ANDRITZ Inc.
p: +1 470 892 4562
clean-air-US@andritz.com

CHILE
ANDRITZ Chile Ltda.
p: +56 2 462 4605
clean-air-CL@andritz.com

BRAZIL
ANDRITZ Ltda.
p: +55 41 2103 7601
clean-air-BR@andritz.com

MEXICO & CENTRAL AMERICA
ANDRITZ S.A. de C.V.
p: +52 443 323 1530
clean-air-MX@andritz.com

CHINA & SOUTHEAST ASIA
ANDRITZ (China) Ltd.
p: +86 21 3122 2198
clean-air-CN@andritz.com

JAPAN
ANDRITZ KK
p: +81 78 330 5885
clean-air-JP@andritz.com

INDIA
ANDRITZ India Private Limited
p: +91 44 4293 9393
clean-air-IN@andritz.com

*) Headquarters and all other European countries

ANDRITZ.COM/CLEAN-AIR