

echeuch
TECHNOLOGY FOR CLEAN AIR

RTO REGENERATIVE THERMAL OXIDATION

FORWARD-LOOKING TECHNOLOGY FOR
EXHAUST GAS CLEANING

SOLUTIONS YOU CAN TRUST FROM THE TECHNOLOGY LEADER

THE RIGHT SOLUTION FOR EVERY APPLICATION

As an international leader in clean air technology, Scheuch GmbH is constantly developing state-of-the-art products. The company, whose headquarters are situated in Austria, draws its innovative capacity from the experience gained through thousands of systems installed in environmental applications in various industries around the world. These insights combined with findings from many research projects form the solid basis for Scheuch's outstanding combustion expertise. With numerous patents under its belt, Scheuch is an international pioneer. When it comes to regenerative thermal exhaust air cleaning, customers benefit from an extensive range of options to help them find exactly what they need.

From its compact systems to its innovative, patented deconox® method, Scheuch offers the perfect solution to suit all kinds of industrial processes.

Regenerative thermal oxidation (RTO) is used in applications that require VOC (volatile organic compounds), CO, HCN or even odours to be removed from exhaust air, making it an important tool in protecting the environment. A well-integrated, regenerative heat recovery system enables a combustion system with hardly any additional fuels, or none at all, reducing operating expenses to a minimum. Scheuch RTO systems can be used in a wide range of applications and feature outstanding operational safety.

Our design process always starts with in-house experts analyzing the specific processes that the customer uses. Each Scheuch solution is then tailor-made, ensuring that our customers benefit from the very best service life, operational safety and energy efficiency available on the market.

WHY CHOOSE RTO FROM SCHEUCH?

- ▶ 2-bed to 7-bed modular series available
- ▶ Customized, flexible complete solutions covering each set of requirements
- ▶ Expertise spanning a wide range of industries and sectors
- ▶ Options for throughput enhancements and upgrades
- ▶ Tailored complete package, especially with regard to process engineering
- ▶ One-stop shop for flue gas cleaning systems

HIGHLIGHTS

- ▶ Option of electric heating to optimize carbon footprint
- ▶ Flexible footprint kept to a minimum to accommodate tight spaces
- ▶ Optimized poppet valves for maximum reliability with minimum maintenance
- ▶ Very little assembly involved / easy installation
- ▶ Option of extracting energy using thermal oil, steam or hot water
- ▶ Flexible choice of fuel (natural gas, propane, heating oil or biofuel)



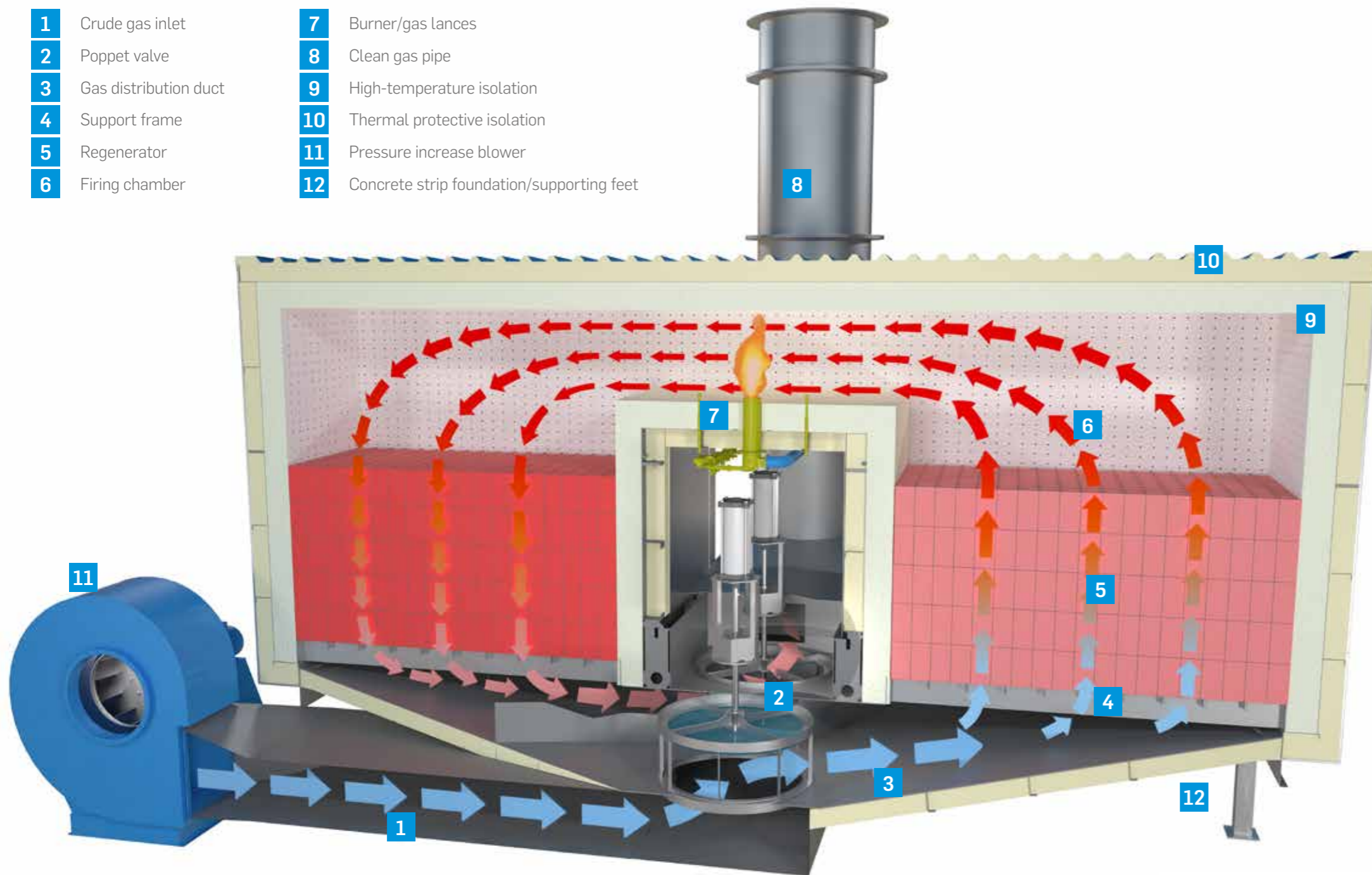
POPPET VALVE

MAKE USE OF ENERGY FROM POLLUTANTS



FUNCTIONAL DIAGRAM FOR **rto compact**

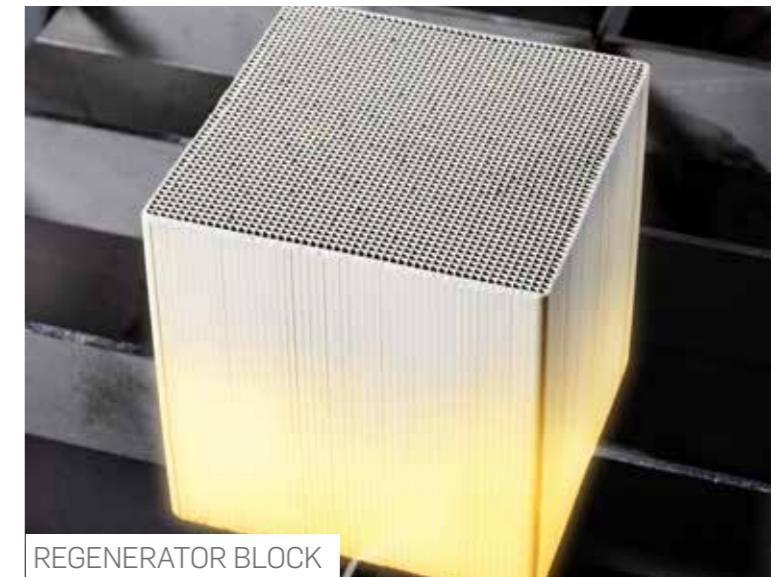
- | | |
|--------------------------------|---|
| 1 Crude gas inlet | 7 Burner/gas lances |
| 2 Poppet valve | 8 Clean gas pipe |
| 3 Gas distribution duct | 9 High-temperature isolation |
| 4 Support frame | 10 Thermal protective isolation |
| 5 Regenerator | 11 Pressure increase blower |
| 6 Firing chamber | 12 Concrete strip foundation/supporting feet |



2-tower compact system

KEY FIGURES

- ▶ 97 – 99,9 % pollutant removal
- ▶ Air quantities of 5,000 to 120,000 Nm³/h depending on chosen model
- ▶ Overall thermal efficiency up to 97 %
- ▶ Autothermal operation from 1 g/Nm³
- ▶ Pollutant concentration up to 15 g/Nm³



REGENERATOR BLOCK



HEATING ELEMENTS

EASY TO INSTALL AND OPTION OF UPGRADING

FLEXIBILITY THANKS TO MODULAR DESIGN

The compact, modular design enables Scheuch to deliver to customers in just a few subassemblies. This high degree of pre-assembly leads to greatly shortened installation times on-site and very little downtime as a result.

Our RTO product range is flexible enough to suit any of our customers' needs.

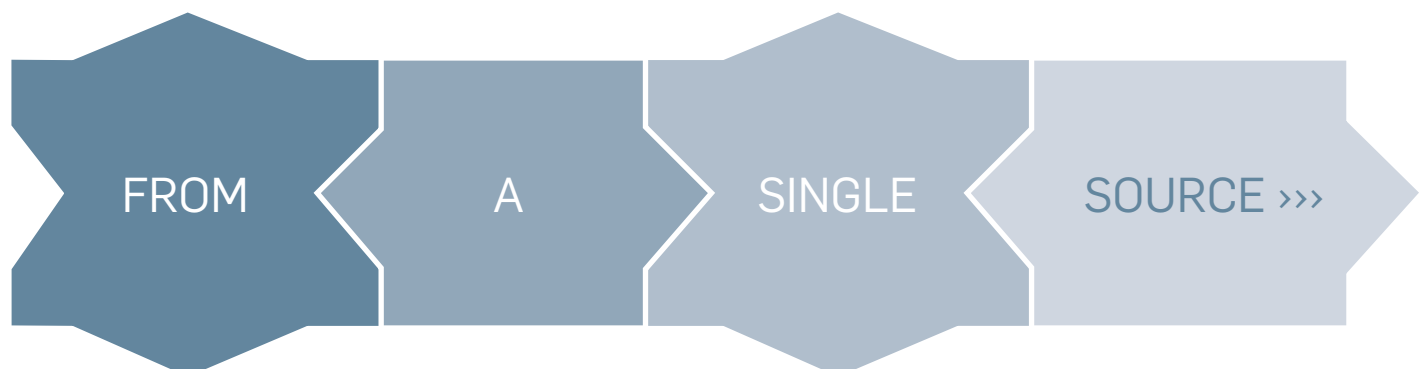
Adding towers provides a cost-effective way of extending various RTO models further down the line.

Scheuch offers RTO systems in a range of sizes, plus designs with different numbers of towers.

SIZES/TYPES

Towers	rto ^{compact}			VOC decay rate	rto ^{premium}	
	Volumetric flow Nm ³ /h				Volumetric flow Nm ³ /h	VOC decay rate
	S	M	L			
2	2.500 - 17.000	18.000 - 35.000	40.000 - 120.000	Up to 98,0 %	50.000 - 150.000	Up to 97,5 %
3	8.000 - 17.000	18.000 - 35.000	40.000 - 72.000	Up to 99,9 %	50.000 - 150.000	Up to 99,9 %
4	-	-	-	-	100.000 - 300.000	Up to 97,5 %
5	-	67.000 - 96.000	100.000 - 125.000	Up to 99,9 %	100.000 - 300.000	Up to 99,9 %
6	-	-	-	-	150.000 - 450.000	Up to 97,5 %
7	-	-	-	-	150.000 - 450.000	Up to 99,9%

A FULL RANGE OF FLUE GAS SYSTEMS ...



rto^{compact}

FOR STANDARD
APPLICATIONS

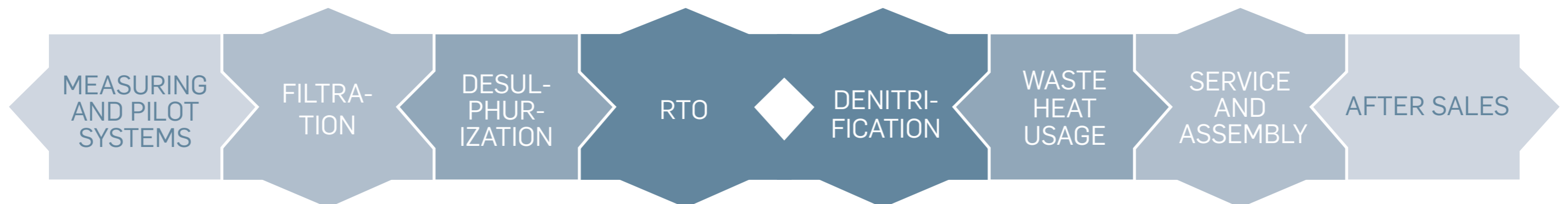
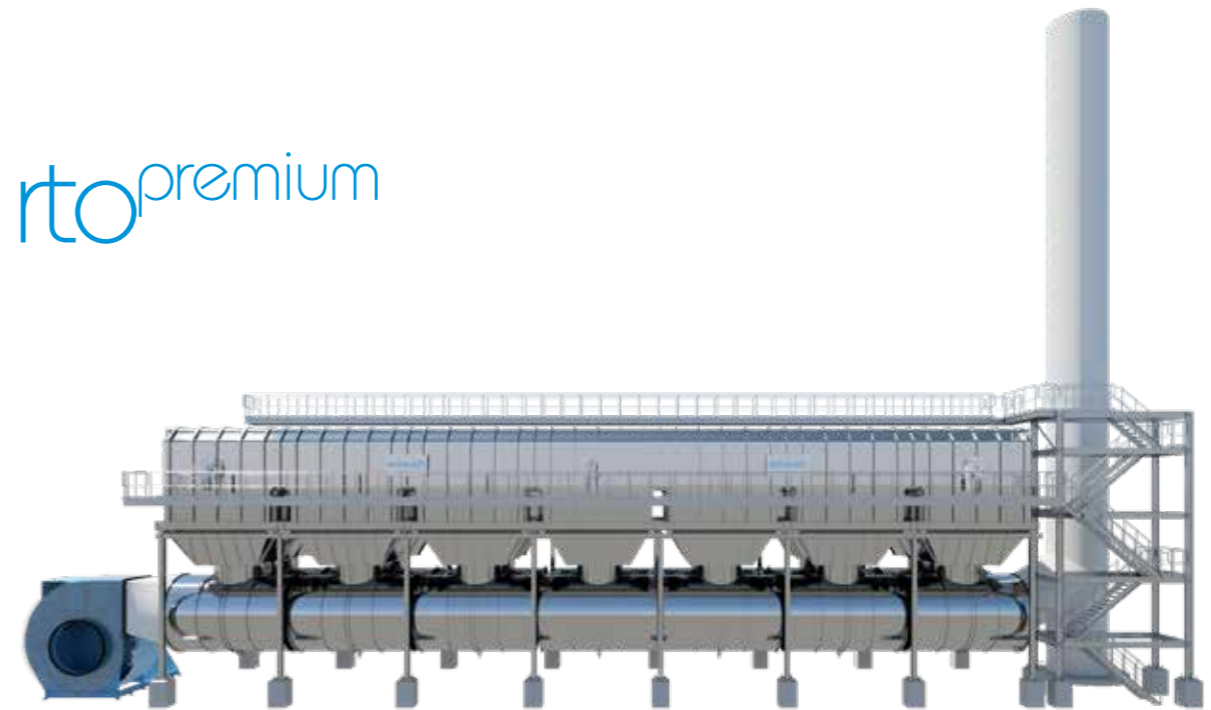
rto^{premium}

FOR ADVANCED
REQUIREMENTS

rto^{compact}



rto^{premium}





FANS



ELECTROSTATIC PRECIPITATORS



HEAT RECOVERY



DESULPHURIZATION



DENITRIFICATION



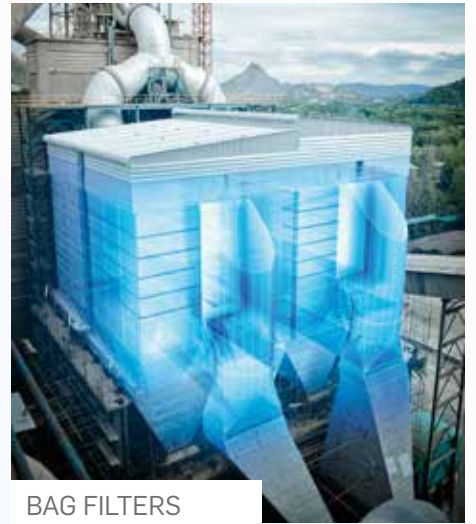
SOUND PROOFING SYSTEMS



DECONOX®



WET SCRUBBERS



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