

KOENIG & BAUER

Koenig & Bauer MetalPrint

Retrofit thermal incinerators EcoTNV and HighEcon

A clean sweep!



we're on it.

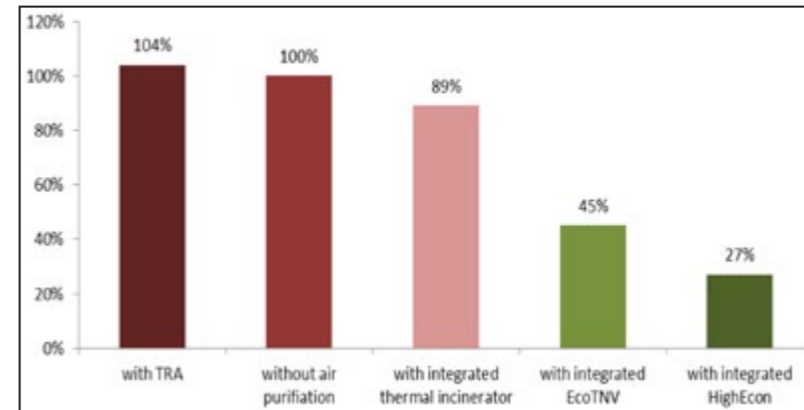
Retrofit thermal incinerators EcoTNV and HighEcon – A clean sweep!

At Koenig & Bauer, we are working continuously on innovations to further improve your printing and coating lines. With our upgrades you stay up-to-date with the latest technological developments. In that way you continue to decorate metal sheets to the highest standards.

The thermal drying of coated metal sheets requires a high level of energy input in order to generate the necessary amount of heat. Through drying the applied coatings a large amount of solvent is released into the exhaust air. Subsequently the contaminated air needs to be purified by applying suitable methods of exhaust air treatment.

The thermal incinerator systems EcoTNV and HighEcon have been exclusively developed by Koenig & Bauer MetalPrint. The unique concept is second to none in the industry. EcoTNV and HighEcon fully remove organic compounds from the exhaust air and transform these almost residue-free into the non-hazardous substances water and carbon dioxide. At the same time operating cost can be drastically reduced by heat and energy recovery.

The integrated Eco TNV and the integrated HighEcon systems both reliably purify the solvent-laden exhaust air of coating lines and at the same time deliver the necessary energy to operate the drying oven. The unique concept of EcoTNV and HighEcon results in significant reduction of gas consumption due to its controlled, flexible high-performance main heat exchanger. On top of this, additional energy is recovered through the fresh-air heat exchanger. In that way the gas consumption of a sheet drying oven can be reduced by up to 30%.



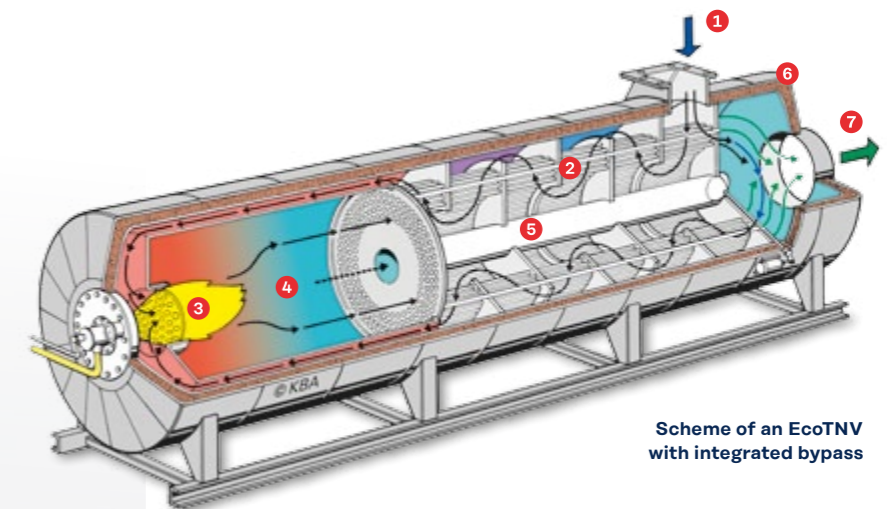
Tab1: Exemplary calculation gas consumption; sheet drying oven without air purification = 100%

The integrated HighEcon system is especially developed for high performance coating lines. The maximum energy savings are reached when running a solvent load of 50 kg/h or more. During ongoing production as well as during make-readies or stand-by the supplied amount of fresh-air is flexibly controlled in accordance with the effective solvent load. In consequence, only the actually required air flow needs to be heated. This special concept of air volume control guarantees maximum heat recovery. The energy efficiency of the unique HighEcon concept is unbeatable.

For the integrated EcoTNV system the supplied amount of fresh-air is permanently set in accordance with the maximum amount of solvent released into the exhaust air. The flexible high-performance heat exchanger is fully self-regulated in line with the respective production situation. In this way a significant reduction in gas consumption is ensured – even compared to drying ovens without air purification.

It is now the right time to retrofit your existing coating line with EcoTNV or HighEcon

- minimising solvent and CO₂ emissions
- reduction of energy and operating cost
- attractive return-on-investment
- low maintenance
- long service life
- easy operation



Scheme of an EcoTNV with integrated bypass

- 1 Exhaust air inlet
- 2 Tubular heat exchanger
- 3 KXB-burner
- 4 Combustion chamber
- 5 Internal bypass
- 6 Insulation
- 7 Purified air outlet



Our recommendation

Simply contact our experts to determine the potential savings of your coating line based on your individual production parameters.

