

HIGHLY EFFICIENT FULLY AUTOMATIC FLUE GAS RECIRCULATION

World's first standard and highly efficient controlled flue gas recirculation (**RGR+**) for primary air

NEW

RGR+
Technology (Rezi)



**RECORD
HOLDER**

Official world record on 03 April 2020 as the most efficient hybrid biomass heating system (non-condensing) with 98% efficiency in conventional nominal load with pellet fuel.



EFFICIENT AND INNOVATIVE

Highly efficient controlled flue gas recirculation for the primary air supply. Part of the flue gas is premixed with fresh air and supplied to the combustion area under the grate via innovative air ducts.

- ✓ The **RGR+** achieves intensive performance and combustion optimisation with different fuels (wood chips or pellets)
- ✓ The innovative fresh air control slider (pos. C) incl. air actuator regulates the primary fresh air flow range fully automatically. The hot reci flue gas as well as the fresh air is fed into an air duct (pos. A) under the grate, ideally mixed. In the secondary area, a fresh-air control slide (pos. D) ensures a fully automatic fresh-air supply by means of a fresh-air servomotor, and doses fresh air that is supplied via an air duct (pos. B) above the grate
- ✓ This creates a perfect air supply for optimum combustion with maximum efficiency and minimum emissions
- ✓ Generation of lowest emission and dust values, in connection with the standard lambda control (ideal combustion conditions)
- ✓ Lower thermal load on components due to lower combustion temperatures
- ✓ Innovative avoidance of slag formation by falling below the ash melting points
- ✓ Significant reduction of NOx emissions
- ✓ Intelligent and innovative control of perfect air volumes for optimum combustion

ALTERNATIVE SYSTEMS

- ✗ If alternative systems do not have a standard fully automatic primary flue gas recirculation system, which regulates the primary air fully automatically via the control system, sub-optimal combustion values could occur with different material qualities, which could also lead to slag formation.