

## ENERGY-SAVING AND FAST ECO-IGNITION

The reliable, silent, fast and energy-saving ECO ceramic igniter is highly efficient and saves costs

**NEW**

at Sommerauer



- ✓ Reduction of power consumption from ca. 1500 to 250 watts ensures savings of over 1200 watts!

### EFFICIENT AND ECONOMICAL ECO IGNITION PROCESS

The noiseless energy-saving ceramic igniter ensures reliable and economical ignition of the fuel, eliminating the need for a complex and expensive hot air blower

- ✓ Maximum energy saving due to extremely fast ignition (<3min!) and lower power consumption (no hot air blower necessary)
- ✓ Silent and safe operation with integrated ignition monitoring
- ✓ Energy savings of over 90%

## ALTERNATIVE SYSTEMS

- ✗ If alternative systems use hot air blowers to ignite the fuel, more energy is consumed, they are more expensive to buy and noisier to operate.

## POWER-SAVING SOLID COMBI-DRIVE TECHNOLOGY

With the ECOS, one ECO drive motor provides the drive for the entire cleaning equipment

**NEW**

at Sommerauer

**Low energy motor only 0,05 kW!**



### ECO drive motor drives the entire ECOS cleaning mechanism very efficiently and economically

The newly developed, innovative and CFD-calculated water-flushed combustion chamber geometry, with the inclined combustion chamber wall, ensures an effective higher efficiency of the ECOS.

- ✓ The fully automatic ECOS cleaning devices (heat exchanger cleaning, E-Filter cleaning basket, E-Filter electrode cleaning, the ash push floor, ash discharge screw) are only driven by an ECO drive motor
- ✓ This design is particularly energy-saving due to a direct drive

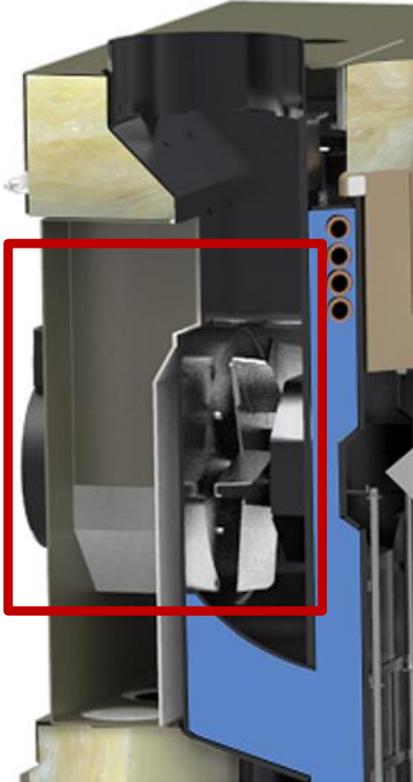
## ALTERNATIVE SYSTEMS

- ✗ Alternative systems could use several drive motors to drive the various cleaning devices. This would result in higher energy costs, greater wear and tear and a higher cost factor.

# SPEED-CONTROLLED EC INDUCED DRAFT FAN IN ECO MODE

Lowest emissions and highest efficiency with the highly efficient EC induced draft fan from Sommerauer

**NEW**  
at Sommerauer



## With EC to 45% less power consumption!

### MAXIMUM SAFETY WITH UNDERPRESSURE IN ENERGY-SAVING ECO MODE

Extremely quiet and equipped with electronic speed control, the EC induced draft blower has up to 45% less power consumption in ECO mode than conventional AC induced draft blowers.

- ✓ Energy-saving EC induced draught fans in ECO mode with electrical speed control keep operating costs extremely low
- ✓ You achieve up to 45% less power consumption than conventional AC induced draft blowers
- ✓ Ensures the exact amount of air required (primary and secondary air volumes) and stabilises it during combustion (permanent optimisation of combustion)
- ✓ A significantly higher efficiency is achieved than with conventional induced draft blowers
- ✓ Air volumes are adapted fully automatically to different material qualities and individual output ranges by means of precise speed and lambda control in ECO mode, thus ensuring ideal combustion conditions
- ✓ Permanent monitoring and optimisation of combustion for maximum operational reliability

- ✓ Maximum operating comfort through speed control and underpressure control

## ALTERNATIVE SYSTEMS

- ✗ If alternative systems were to use induced draft blowers with AC motors, they would have lower efficiency, higher power consumption, consume more electricity and could not have electrical speed control.

# LARGE-VOLUME TWO-CHAMBER ROTARY VALVE

The system offers maximum operational reliability and innovative efficiency, with no risk of burn-back

**NEW**

**Open designed chambers & energy saving motor only 0,25 kW!**

Pos.1



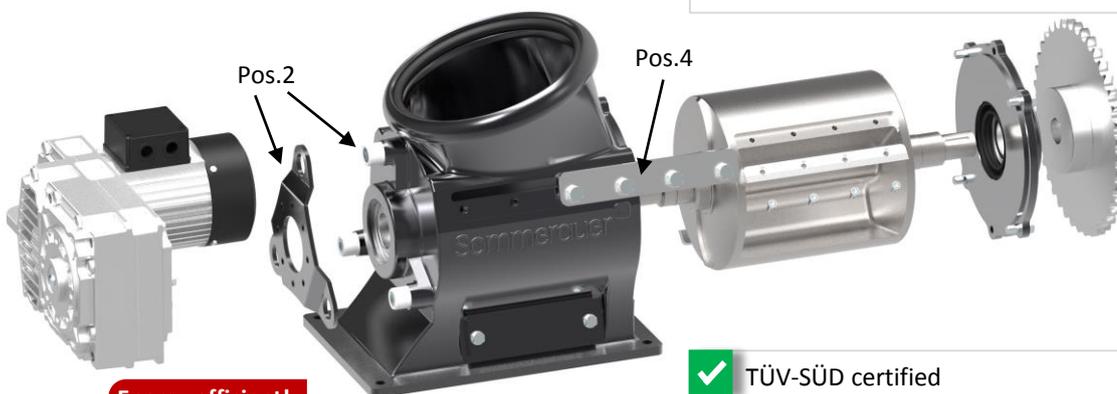
## MAXIMUM SAFETY WITH INNOVATIONS

In contrast to alternative single-chamber rotary valves, this sophisticated, large-volume, two-chamber system ensures the important continuous material transport into the combustion zone. With this optimum dosage of the fuel, ideal combustion values are achieved.

- ✓ Rotary valve with large-volume dual-chamber technology for 100% burn-back safety (Pos.1)
- ✓ Triple torque support (three-point bearing) with integrated noise absorbing attachments (Pos.2). Torsion of the rotary valve motor and noise are silently avoided
- ✓ Continuous and trouble-free material transport guaranteed by two-chamber technology (Pos.3)
- ✓ With the exchangeable and hardened cutting edges (Pos.4) it is very energy-saving and efficient
- ✓ Low wear and energy consumption, especially for coarse wood chips (up to P31S, formerly G50)



Pos.3



**Energy efficient!**  
only **0,25 kW**  
drive power

- ✓ Big filling volume (4 litres) of the transport chambers
- ✓ Low power requirement (low energy consumption) and quiet operation, as the motor (0.25 kW) of the stoker auger also drives the rotary valve
- ✓ TÜV-SÜD certified
- ✓ With large sealing surfaces highest burn-back safety
- ✓ With 200 mm one of the largest rotor diameters on the market
- ✓ Modular cleaning bars, for removal of fuel dust at the rotor

## ALTERNATIVE SYSTEMS

**✗** If an alternative system has a rotary valve with e.g. a single-chamber system, it could be that this does not ensure continuous material transport. Thus, it is possible that no optimal metering of the fuel into the combustion zone is achieved. As a result, it is possible that optimal combustion values cannot be achieved. If two-chamber systems are used that use pocket-shaped cast chambers, it could be that coarse pieces of wood get wedged in the narrow gaps and reduce the filling volume of the chambers. This could lead to smaller chambers (smaller filling volume) and uneven material transport, which can contribute to poorer combustion values. Furthermore, the pockets could become clogged, causing the material transport to stop and the heating system to shut down automatically with an error message.

## ECO-SCREW CHANNEL - EFFICIENCY AND SAFETY

The well thought-out new asymmetrical design of the screw channel increases the overall operational reliability

**NEW**

**Screw is protected up to 60%!**



### GEOMETRY RAISES EFFICIENCY AND LOWERS COSTS

The ECOS has a highly efficient safety **ECO** screw channel with maximum operational reliability.

- ✓ Thanks to a special side drive technology, the asymmetrical **ECO** screw channel does not lead up to 60% of the fuel directly in the screw, but next to it in the channel extension. This means that larger pieces of wood and foreign bodies can be transported without any problems
- ✓ Especially smooth and quiet operation at maximum flow rate
- ✓ Minimum wear of the screw and screw channel
- ✓ Extremely low power consumption and therefore very energy-saving

## ALTERNATIVE SYSTEMS

✗ If alternative systems were to be equipped with screw channels without an asymmetrical shape, no foreign objects (nails, other metallic objects) could be guided laterally past the screw. This could lead to heavy wear, damage and high costs.

## MODULAR DISCHARGE CHANNEL AND SCREW CONVEYOR

The discharge channel and the discharge screw can be extended by standard extension modules



- ✓ Modular asymmetrical screw channel for the storage room with flexible expansion possibilities

✓ Extremely flexible installation options

✓ Triple torque support (three-point bearing) with integrated noise absorbing attachments (Pos.1). Twisting of the discharge motor and noise are silently avoided

✓ Gear motor (discharge screw) with 0.25 kW

✓ Quick and easy installation

✓ No cutting or welding is required for structural length changes

## ALTERNATIVE SYSTEMS

✗ If alternative systems use discharge channels and screw conveyors that are not modular, this could lead to inflexibility in installation. If a section has to be replaced due to damage (assembly, flex and welding work), high costs could be incurred.