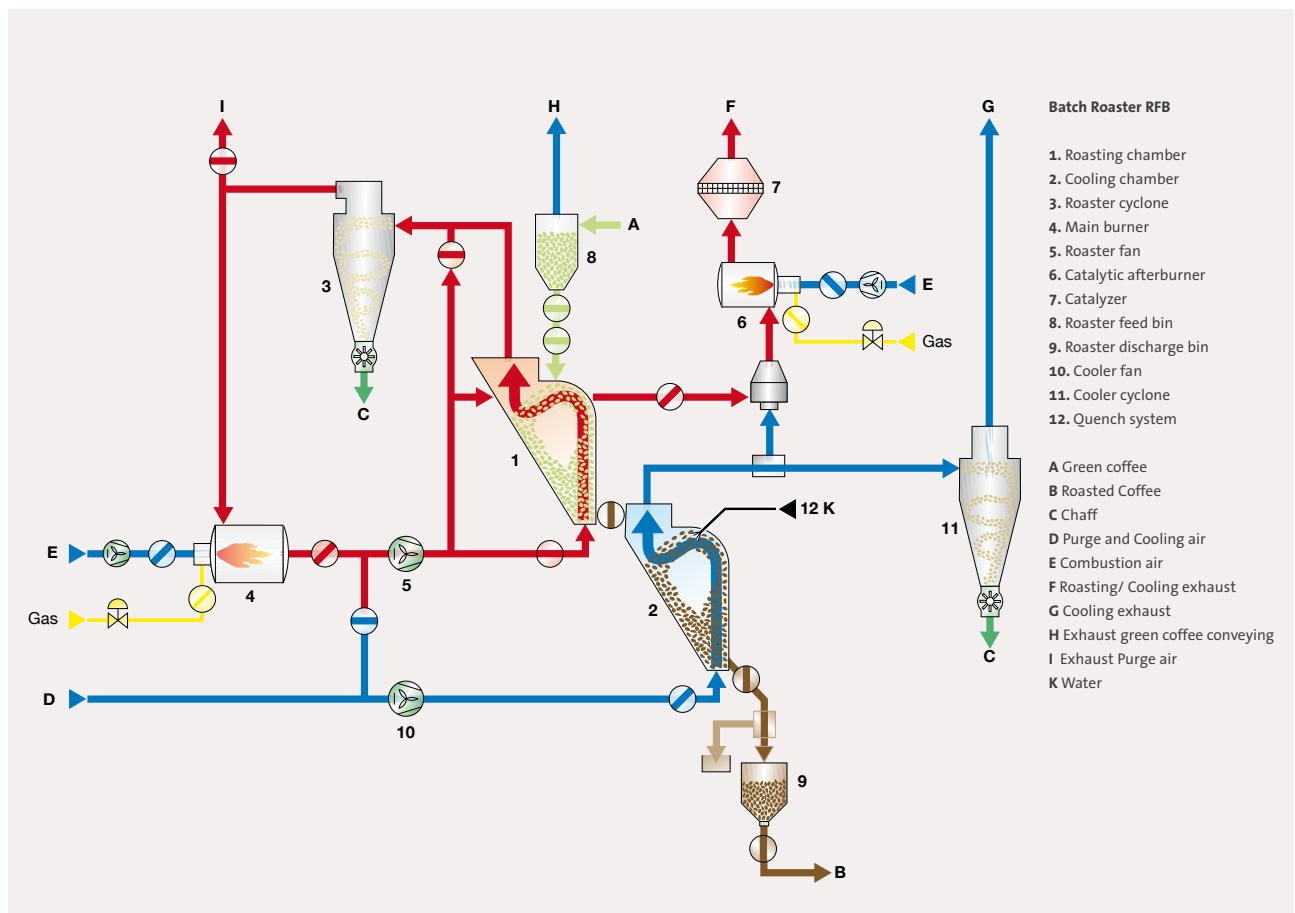


BATCH ROASTER RFB



Batch Roaster RFB

RFB ROASTING PROCESS



BATCH ROASTER RFB

The complete system consists of a roasting and cooling section, both operate separately from each other. The main aggregates – the roasting and cooling chamber – are geometrically of identical shape. It is the unique shape of the chambers which leads to a homogeneous roast and a gentle mixture of the beans. The coffee batch is lifted and bow-like conveyed from one side of the chamber to the other where it slides back to the bottom plate thus rotating around an imaginary axle. No mechanic tools or blades are necessary. At the lowest point of the chamber the discharge gate, as part of the vertical chamber wall, is located. This discharge gate is designed in such a way that the complete batch of roasted coffee beans discharges by gravity within a few seconds.

Recirculation

The heating gases are recirculated. A fan provides the required velocity and pressure for the heating medium to move the coffee during roasting. When the heating gases recirculate they pass through a channel burner which compensates for lost heat during roasting.

Bypass

During feed and discharge of the roasting chamber the heating medium by-passes the chamber maintaining temperature, volume and pressure which has the advantage of energy savings.

Catalytic Afterburner System

For cleaning of the exhaust gases catalytic afterburner systems are optionally available. The emission out of the cooler system is cleaned economically by using the roaster catalyst during the quench cycle.

Cooler

Cooling of roasted coffee is done in the same fluidized and rotating way as in the roasting chamber. For quenching purposes a number of spray nozzles are positioned in the upper part of the cooling chamber. Quenching starts automatically and instantly upon discharge of hot coffee beans from the roasting chamber.

Measuring, Control and Regulating System (MCR)

The operation of the plant is effected by a PC showing all process data of the plant on a screen display. Further screen displays, such as input of coffee types, plant parameters and controller parameters with temperature curves, facilitate the plant operation. All interferences are recorded.



Profile Roasting

If you want to find out which possibilities your coffee offers, use profile roasting in order to bring about fundamental changes in the roasting profile of your coffee. With up to 20 different temperature gradients the roasting profile of your coffee can be adjusted according to your requests.

Safety

An extensive safety system serves for a unique availability of the roasting plant. The roasting process can even be safeguarded against operating errors by means of safety switches, storage bins, sensors and detectors. The use of gravity and generous dimensioned discharge gates ensure that the coffee always leaves the danger zone.

Technical features:

- *Optimum heat transfer allows short and long roasting cycles*
- *Low energy requirements due to recirculation of heating medium*
- *Energy savings due to water quenching in the cooler*
- *Installation is flexible and adaptable to site conditions*
- *No moving parts – little maintenance – easy to operate*
- *Effective cleaning of the roaster and cooler exhaust air*
- *Flexible choice of parameters*
- *Batch sizes: from 15 kg to 400 kg*
- *Roasting cycles: 1.5 to 15 minutes*
- *Capacities: from 500 kg/h to 4500 kg/h*
- *Energy requirements: Thermal approx. 0.280 kWh/kg*
- *Electrical approx. 0.045 kWh/kg*

