



FCT-ICON SOLID FUEL HOT GAS GENERATOR



**Use the least expensive and most
readily available solid fuels without
need for grinding**

Increase efficiency and reduce costs with the innovative FCT-ICON Solid Fuel Hot Gas Generator

Generate hot gases using solid fuels without need for a grinding system, or the associated capital expenditure, with the FCT-ICON Solid Fuel Hot Gas Generator.

The innovative technology uses the phenomenon of fluidization to facilitate the even interaction of the fuel and air, without contact with metal or moving parts, before combustion and the generation of hot gases that can be used in subsequent processes such as drying.

The FCT-ICON Solid Fuel Hot Gas Generator replaces equipment that uses traditional fuels (such as natural gas, LPG or fuel oil) to instead make use of solid fuels that may be less expensive, thereby reducing the cost of hot gas. Suitable fuel types include biomass, coal or petroleum coke among others.

Additional benefits of the system include:

- Wide working temperature range (200 to 900°C)
- High combustion efficiency
- Large burning capacity per m²/ft²
- Easy operation
- Low maintenance cost

**INNOVATIVE HOT GAS
GENERATOR FOR SOLID
FUELS.**

**INCREASES EFFICIENCY
AND ALLOWS FOR THE
USE OF THE LEAST
EXPENSIVE AND MOST
READILY AVAILABLE
SOLID FUELS WITHOUT
NEED FOR GRINDING.**

**A PROVEN ALTERNATIVE
FOR USE BY INDUSTRIES
THAT OPERATE DRYERS
OF ANY TYPE, MILLS,
BOILERS AND OTHER
RELATED EQUIPMENT.**



Contact us for a list of references or information about our most recent installations



Make use of solid fuels such as biomass, coal or petroleum coke without need for grinding, and generate immediate savings

APPLICABLE IN PROCESSES THAT NEED HOT GASES SUCH AS:

- DRUM DRYERS
- RAPID DRYERS
- SPRAY DRYERS
- HAMMER MILLS
- CEMENT & RAW BALL MILLS
- CEMENT & RAW VERTICAL MILLS

INDUSTRY APPLICATIONS

Generation of hot gases using crushed solid fuels

CAPABILITIES

Generates thermal powers from 0,1 Gcal/h upward

TEMPERATURE GAS OUTPUT

Up to 900°C

COMBURENT

Atmospheric air

FUELS

Petroleum coke (0 to 10mm)
Mineral coal (0 to 6mm)
Wood chips (10 to 30mm)
Biomass pellets
Wood pellets
Wooden briquettes
Sugarcane bagasse

BED MATERIAL

Siliceous sand

TURN DOWN

60 to 100%

Due to the characteristics of the fluidized bed component, a wide range of solid fuels can be used in the FCT-ICON Solid Fuel Hot Gas Generator. The solid fuel can either be used alone or in a mixture of more than two types.

The main physical/chemical characteristics to be considered include: grain size, moisture content, lower calorific value (normally above 2.500 kcal/kg), and melting contaminants in the ashes of the fuel.

The FCT-ICON Solid Fuel Hot Gas Generator has the following main process characteristics:

- Works at temperatures from 500°C to 900°C without forced dilution system (depends on negative system pressure)
- Works at temperatures from 200°C to 900°C with forced dilution system
- Must work with negative pressure of at least -1 mBar
- Can generate thermal powers from 0,1 Gcal/h or more, depending on the case and layout
- Has a modulation range from 60% to 100% of thermal power (may be more if multiple units installed)
- Can work with collection cyclone if particulate emission restriction exists (typical particulates are fine ash)

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Setting global performance benchmarks in pyro-processing.

FCT Combustion is the world leader in optimizing high-temperature processing plants to realize new levels of performance for productivity, emission control, fuel efficiency and flexibility to meet ever-changing requirements.

Our pyro-processing products and expertise are all based on proven and scientifically validated techniques, helping our global customers be competitive as their needs and industry conditions change. Our designs, engineering and product range are used in the world's most competitive mineral processing plants.

FCT-ICON SOLID FUEL HOT GAS GENERATOR

Unlock the performance of your process plant.

Increase efficiency and use the least expensive and most readily available solid fuels without need for grinding
- or the associated capital expenditure.

VISIT FCTCOMBUSTION.COM

Asia-Pacific

FCT Combustion

+61 8 8352 9999

sales_APAC@fctinternational.com

U.S.A & Canada

FCT Combustion Inc

+1 610 725 8840

sales_US@fctinternational.com

Europe

FCT Combustion GMBH

+49 3 222 109 6283

sales_EU@fctinternational.com

South America

FCT Combustao Consultoria Ltda

+55 11 4118 6004

sales_brazil@fctinternational.com