



Alternative Fuels

A buffer against rising oil and gas prices

Utilization instead of disposal

In view of rising ecological demands, SAACKE places special weight on the development of „clean“ firing systems for environmentally friendly combustion of nearly all gaseous, liquid and dust fuels.

One of the focal points is the development of firing systems for alternative fuels that are frequently generated as by-products in industrial production and have to be disposed of according to legal standards in an environmentally sound and usually costly manner.

SAACKE has developed various burner technologies that not only guarantee low-pollution combustion of alternative fuels, such as animal fats, lean gases and dust, but also enable their energetic utilization.

Industrial by-products are turned into valuable sources of energy that replace natural gas and other expensive primary fuels and thus substantially reduce energy costs.

Purchase of such a firing system therefore pays off quickly. In many cases this additionally results in a significant reduction in emissions of greenhouse gases, particularly CO₂.

Gaseous, liquid or dust

Such potential savings can be found in a number of sectors. SAACKE firing plants for alternative fuels are used, for example, in the steel, food and chemical industry.

An SSB-LCG swirl burner, for instance, ensures that lean gases with a low heating value, such those generated as a by-product in steel production, are burned completely.

SAACKE has also developed a special burner for the utilization of biogenic fuels. During the distillation of soy and sugar into bioethanol molasses or vinasse are generated. These liquid by-products, which have a very low heating value, can be energetically utilized with a SAACKE SSB-LCL burner.

As a result, 80 percent of the fossil fuels required for bioethanol production can be saved.

For combustion of dry, fossil and non-fossil and fossil industrial by-products with a very low heating value, like wood dust or pulverized coal, SAACKE employs a special dust burner. This burner allows utilizing the thermal energy contained in dust and many other dry waste products for industrial purposes through economic and low-pollution combustion.



Lean gas flame



Glycerine flam



Animal fat flame



Vínasse flame

References: Alternative fuels

Fuel	Sector	Burner	Reference
Gas			
Blast furnace gas	Steel/Metal Industry	SSBG-LCG	Arcelor Mittal Bremen
Formalin gas	Chemical Industry	SSBG-LCG	SILEKOL Sp.z.o.o. Polska
Biogas (incl. landfill a. sewage gas)	Food Industry/Biofuel	DDZG	Südzucker Plattling
Biogas (incl. landfill a. sewage gas)	Wood Processing	DDZG	Papier- u. Kartonfabrik Varel
Biogas (incl. landfill a. sewage gas)	Food Industry/Biofuel	SKVGD	Paulaner Brewery
Biogas (incl. landfill a. sewage gas)	Food Industry/Biofuel	SKVJG	Asia Fructose, Thailand
Refinery gas	Refinery	SKVG / DDG	PCK Schwedt
Refinery gas	Chemical Industry	SGD	UCB Gent
Refinery gas	Food Industry/Biofuel	TEMINOX GLS	Brewery Angarsk, Russia
Vent gases	Chemical Industry	SSBG	Taminco, Belgium
Coke oven gas	Steel/Metal Industry	TEMINOX GS	Westfalenhütte Thyssen, Dortmund
Mine gas	Energy/District Heat Supplier	SKVGD	Public services Gelsenkirchen
Liquid – High heating value			
Animal fat	Food Industry/Biofuel	SKVG-SF	Anglo Beef Products
Animal fat	Waste Incineration	SKV-SF	SARIA France
Animal fat	Waste Incineration	SKV-SF	TBA Plattling
Vegetable oil	Food Industry/Biofuel	JGL	Privatmolkerei Bauer
Glycerine	Food Industry/Biofuel	SKV-SF	COANSA, SOS Group, Spain
Biooil / biodiesel	Energy/District Heat Supplier	SKV-A	Aaabenraa Fjernvarme, Denmark
BPA (Bisphenol A)	Chemical Industry	SKVG-SF	Bayer Antwerp and Thailand
Toluene	Chemical Industry	TEMINOX GS (modified)	Conti Hannover
Styrene	Chemical Industry	SKVGD	Dow Rheinmünster
Styrene	Chemical Industry	SKV	Chi Mei Taiwan
Alcohol waste / fusel oil	Chemical Industry	SKVG	Deko Lüdinghausen
Cooking oil	Food Industry/Biofuel	SKVGR	Intersnack Grevenbroich
Rapeseed oil	Other	SKVJ	German National Parliament, Berlin
Liquid – Low heating value			
Vínasse	Food Industry/Biofuel	SSBGL-LCL	IMCOPA Brazil
Polymer solution	Chemical Industry	SSBL-LCL	INEOS, Dormagen
Wastewater concentrate	Chemical Industry	SSBG-LCL	ZTS, Poland
Pulverised fuels			
Lignite	Minerals/Building Material	SSBG-D	Knauf Iphofen
Lignite	Food Industry/Biofuel	SSBG-D	Jülich sugar plant
Petrolkoks	Minerals/Building Material	SSBL-D	Polysius, Spain
Saw dust	Wood Processing	SSBG-D	Kornospan
Wood dust	Wood Processing	SSBS-D	Thermopal Leutkirch
Rape extraction meal	Other	SSBG-D	Project
Permentation substrate	Food Industry/Biofuel	SSBG-D	Project
Coffee husks	Minerals/Building Material	SSBL-D	Lafarge, Kenia

For further information, please visit: www.saacke.com