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[Operationally reliable biogas production with the HUBER Sludgecleaner STRAINPRESS®](#)

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[Hot and greasy – sludge screening with the STRAINPRESS®](#)



Two insulated STRAINPRESS® machines for grease sludge screening, below a container into which the screenings are discharged

On the way from a sewage treatment works to an energy park – Stadtentwässerung Dresden undertake a variety of measures on STP Kaditz to achieve this goal.

One of these measures is the acceptance and treatment of foreign material for co-fermentation in the digesters. They want to use the energy-rich grease sludge to increase the gas production in the two 10,500 m³ digesters and thus achieve a significantly higher energy production in the two block heat and power plants.

The grease separator contents delivered by tanker vehicles are passed through a stone trap before they arrive in the buffer tanks where

the grease sludge is mixed with the scum from the sewage treatment plant and heated to 50 °C with exhaust heat from the block heat and power plant. Before the energy-rich grease sludge can be pumped into the digester, non-fermentable foreign materials must however be removed. Such materials, for example films, parts of packing material, cutlery or waste tableware, would otherwise lead to expensive maintenance work on digester equipment, heat exchangers, pumps or the downstream sludge dewatering system.

STP Dresden-Kaditz has used HUBER STRAINPRESS® machines to screen the primary sludge since 2008 already. STRAINPRESS® units allow for sludge screening directly in the pressure pipeline – with integrated screenings dewatering.

This system has proven its capability on STP Dresden-Kaditz for many years already.



Delivery of grease sludge

Two other advantages of the STRAINPRESS® play an important role when screening grease separator contents:

The STRAINPRESS® can also be used with hot media flows. As the cylindrical machine is covered with an insulation, the operating staff is not faced with the problem of hot surfaces. Due to the completely enclosed design of the machine there is no uncontrolled spreading of potentially explosive atmospheres or nasty odours inside the operational building. These can be removed by suction in the subsequent intermediate tank. From this intermediate tank the screened grease sludge is pumped into the digesters.

As the grease sludge that is delivered to site comes from various different sources, the type and concentration of the sludge in the individual tanker vehicles can differ greatly. The sludge screening system reacts automatically and adjusts the frequency of screen surface cleaning and the dewatering pressure to suit the varying sludge and screenings qualities.

This automatic adjustment ensures constant screening results and a stable screenings dewatering degree even with grease sludges of varying properties.

The plant for processing external sludge on STP Dresden-Kaditz was put into operation in summer 2012. Two STRAINPRESS® sludge screening units have since treated the hot grease sludge very reliably.

About 500 t external sludge are received each month in the two sludge acceptance lines. The amount of screenings separated by the STRAINPRESS® units lies between 15 and 25 t.

With the acceptance of external grease sludge the generated electricity from the block heat and power plant could be increased to beyond the expected result. The two STRAINPRESS® units contribute a considerable share to the stable and reliable operation of the complete grease sludge acceptance plant.

A member of the HUBER Group

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