

# Co-incineration of sewage sludge with household waste at Smitred Pluzunet

**The SMITRED plant is located in Pluzunet, France. Sewage sludge from external suppliers is co-incinerated with about 50,000 tons/year of household waste.**

The plant – more than 20 years old – has been extended to co-incinerate sludge in 2015. The customer treats between 3000 to 6000 tons of sewage sludge per year with a dry solid content of 25 % max.

To install a complex sludge handling system into an existing plant environment is not an every day task for the operators of a waste treatment plant. Putzmeister is offering more than 30 years of experience in exactly doing that.

A sludge handling system with Putzmeister piston pumps using high density sludge piping has several advantages:

- The powerful piston pump technology which can even overcome several 100 m enables the customer to choose a place of installation for a sludge receiving bunker even far away from the incinerator.
- The pipeline can easily be adapted to the existing building and installation. Routing of the sludge pipeline is much easier than with any other transport technology (eg. screw transport).
- Pipeline transport (hermetically sealed pipes) reduces smell and leakages in the installation to a minimum.
- Especially the KOS (S-tube) piston pump increases the availability of a sludge handling system which can even handle large particles of up to approx. 100 mm.

## Putzmeister scope of delivery:

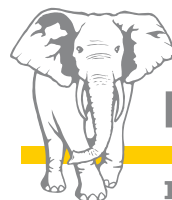
- Feeding screw SHS 3132 SH (ATEX)
- Double-piston pump with S-transfer tube KOS 1040 HP (ATEX)
- Hydraulic power pack HA 45 CI
- Foreign body separator FKA 200
- Delivery line ZX flanges
- Lubricant injection system station BLI
- Control cabinet (Siemens S7 PLC)



Silo discharge screw SHS 3132 SH feeding the KOS 1040 double-piston pump with S-transfer tube



Sludge receiving bunker with typical Putzmeister A-fold lid



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## The sludge is first filtered by a Putzmeister foreign body separator

The sludge is pumped through a pipeline into a kiln and will be co-incinerated with household waste. The pipeline can easily be adapted to existing building requirements, which gives the customer the possibility to move the transport line to his individual needs. The optimum solution to refit a pumping system into an existing installation. The high pressure pipeline has a length of 90 m and a diameter of 150 mm.

## BLI unit for better sludge pumping

By injecting a small amount of a lubricant into the pipeline the energy consumption to pump the sludge through the pipeline is reduced significantly. Sludge handling becomes even more economical.

## Technical data

Medium	sewage sludge
Dry solid content	25 %
Output	1.0 – 7.0 m <sup>3</sup> /h
Max. delivery pressure	64 bar
Drive power installed	45 kW



Sludge delivery line with Putzmeister ZX coupling system

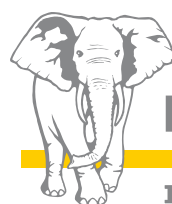


The sludge is distributed by 4 pinch valves to the hopper of the kiln



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