



## PLANT REPORT



## Farnham STW

### Storage Silo with Sliding Frame Discharge

The Thames Water Trident Alliance chose Saxlund International to supply this prestigious and unusual limed sludge cake handling system at their Farnham site. Because of a maximum building height on the site and since the silo had to store 800m<sup>3</sup> of limed cake material, it was necessary to supply a silo with an 11 meter diameter. To achieve this, Saxlund chose their patented two element Sliding Frame discharge machine - the largest ever constructed for such an application. It was not possible for the collection truck to drive beneath the silo as would normally be the case. A large chain conveyor was therefore supplied to transfer the limed cake from the twin screw arrangement beneath the silo's flat floor and up to the truck loading position within a gantry. The control system was also within the scope of works.

#### **Saxlund products for silo and conveying technology:**

Solids Handling Pumps ● Troughed Chain Conveyors

Screw Conveyors ● Combustion Plants

Sliding Frames ● Control Systems

Push Floors ● Rotary Valves

Elevators ● Tubefeeders





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### TECHNICAL DATA

|  |                                   |
|--|-----------------------------------|
| <b>Saxlund project ref. no.:</b>   | SUK 1038                          |
| <b>Year of construction:</b>   | 2005                              |
| <b>Material:</b>   | Limed Sewage Sludge Cake          |
| <b>Bulk density:</b>   | 1000 kg/m <sup>3</sup>            |
| <b>Dry solids content:</b>   | 25 - 35%                          |
| <b>SPECIFICATION</b>   |                                   |
| <b>Filling rate:</b>   | 15m <sup>3</sup> /hr into silo    |
| <b>Discharge rate:</b>   | 100m <sup>3</sup> /hr into trucks |
| <b>EQUIPMENT:</b>  |                                   |
| <b>1 x Silo Feed Chain Conveyor</b>  |                                   |
| <b>Type:</b>   | TKF 500                           |
| <b>Length:</b>   | 24000 mm                          |
| <b>Rate:</b>   | 15 m <sup>3</sup> /hr             |
| <b>Motor rating:</b>   | 7.5 kW                            |
| <b>1 x Limed Sewage Sludge Cake Storage &amp; Truck Loading Silo with Sliding Frame Discharge Machine (patent)</b> |                                   |
| <b>Silo diameter:</b>  | 10866mm                           |
| <b>Silo capacity:</b>  | 1186m <sup>3</sup> gross          |
| <b>Sliding Frame type:</b>   | GL-11000-SXX-2DA                  |
| <b>Hydraulic cylinder diameter:</b>  | 2 x 220mm                         |
| <b>Hydraulic power pack motor rating:</b>  | 2 x 22 kW                         |
| <b>Tank capacity:</b>  | 400 litres                        |
| <b>Discharge screw conveyor type:</b>  | DA 500                            |
| <b>Length:</b>   | 5765mm                            |
| <b>Discharge screw motor rating:</b>   | 15 kW                             |
| <b>1 x Truck loading Chain Conveyor</b>  |                                   |
| <b>Type:</b>   | TKF1200                           |
| <b>Length:</b>   | 18000mm                           |
| <b>Rate:</b>   | 100m <sup>3</sup> /hr             |
| <b>Motor rating:</b>   | 15 kW                             |

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