

## Containerized slurry system saves on costs and power consumption

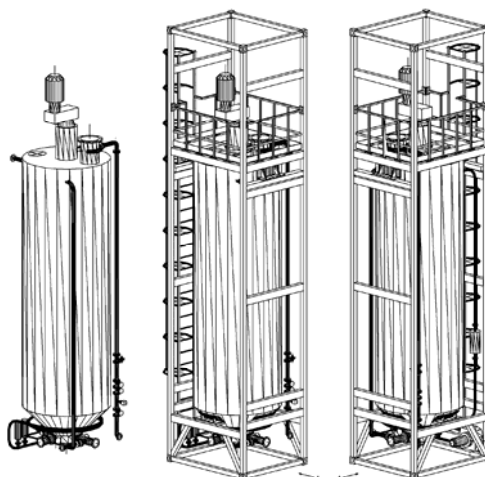
Weir Minerals Netherlands has been successfully promoting the High Concentrated Slurry Disposal (HCSD) concept since the 1980's. In order to facilitate promotion of HCSD, the Pump Systems formula was introduced as many end users were not familiar with GEHO® positive displacement pumps in combination with this concept. Weir Minerals Netherlands was requested not only to supply GEHO® PD pumps but, depending on specific project requirements, to also provide additional services or hardware, ranging from basic system design to turn key projects. During recent years, Weir Minerals Netherlands executed numerous system related projects in the coal fired power generation to handle ash slurry applications and generated a continuous drive for innovative developments. The latest development is a Containerized Slurry System.

### Slurry mixing and control system

The Containerized Slurry System (CSS) is a slurry mixing and control system designed to fit into a 40 or 20 foot container frame, which enables easy transportation by ship or truck. Within the CSS, dry ash is mixed with water to form a homogeneous slurry. A control loop in combination with a water dosing unit ensures continuous, optimum monitoring and control of the slurry quality.



GEHO® piston diaphragm pump, model ZPM 700, for high density fly ash disposal.



### Advantages

The Containerized Slurry System from Weir Minerals Netherlands offers a fully functional and integrated slurry system to the end users. This total package solution has many benefits:

- No need for extensive local (detailed) engineering
- A reduction of site work to a bare minimum, thus minimizing project investment costs and project lead time as much as possible.

- Reduction of installation area, spare parts usage and power consumption due to the new design feature of mixing and homogenization combined in one step.

The development of this proven containerized slurry system is a further example of Weir Minerals Netherlands' continuous drive for innovation to offer the best slurry equipment solutions to our customers.

### Scope of supply

The CSS is comprised of the following components:

- container frame with tank
- ash inlet(s)
- vertical mixer
- level sensor
- control loop with hose pump
- water dosing unit
- drain valve
- outlet valve(s)
- flush valve(s)
- system control PLC

A 40 foot container can mix up to 100 tph of dry ash (slurry flow 120 m<sup>3</sup>/h), a 20 foot container up to 50 tph (slurry flow 60 m<sup>3</sup>/h). As part of the Weir Minerals Netherlands' scope, complementary items required for the completion of the ash slurry system will also be supplied:

- WARMAN® booster pump(s)
- strainer(s)
- strainer isolation, flush and drain valves
- GEHO® PD pumps
- pump discharge isolation and drain valves
- ISOGATE® valves
- Pressure spools

A containerized slurry system can mix dry fly ash with water or a mixture of dry fly ash with dry or moist bottom ash with water. Optionally the internals of the tank and the outside of the vertical mixer can be lined with rubber for corrosive ash slurries.



*High density slurry disposal: an environmentally friendly method allowing for re-use of the disposal area.*

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