

## DSE mobile centrifuge decanter ZR15046

### Description

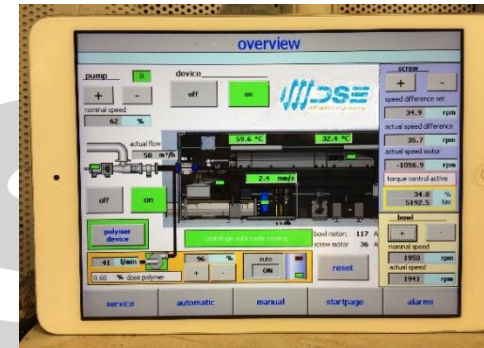
The compact DSE mobile centrifuge decanter ZR15046 is a self-contained, high-dewatering separation unit and comprises a 20 ft. heat-insulated container, a high-performance solid bowl centrifuge, an integrated powder polymer mixing and dosing unit, an eccentric screw feed pump, a spiral conveyor system, a central control cabinet, heating system, and further accessories.

The ZR15046 Decanter with variable speed drive (VSD) is a solid bowl decanting centrifuge and specially designed for high dewatering performance, high material throughput and high clarification performance at the same time in municipal and industrial applications.

High torques and high solid loadings are easily to handle due to its hd industrial model design. New drive technology has been combined with durability and reliability in a product that is easy to operate and fully adjustable. The DSE ZR15046 is directly fed by a variable eccentric screw pump.

### Structure

The DSE mobile centrifuge decanter ZR15046 including mixing and dosing unit, control panel, spiral conveyor, piping and wiring is built into a 20 ft. container (dimensions as per ISO 668; 6 058 x 2 438 x 2 280 mm) and allows therefore reduction of assembly time to a minimum.



iPad control

The VSD packages allow controlled impact of motor drive power to the centrifuge bowl, to the screw and to the feed pump. The ability to vary the speed of the bowl, the Screw and the feed pump power unit independently allows the centrifuge to be operated in the most efficient and productive manner for the intended application and wastewater condition.

The centrifuge rotating assembly is made from advanced centrifugally cast duplex stainless steel. Non-rotating components which come in contact with the process material are manufactured of corrosion resistant stainless steel. The modular centrifuge base is manufactured from carbon steel with industrial epoxy coatings. The centrifuge rotating assembly is housed in a stainless steel enclosure with fully wear protected components where the solids and liquids are discharged. All parameters are fully controlled by plc and can be applied by the operator, such as torque control and unbalance control. These parameters are self-controlled and regulated for safety reasons.

The integrated automatic powder polymer mixing and dosing unit is selected for preparation and dosing of polymer solutions for feeding of the DSE centrifuge decanter ZR15046. The unit control is user-friendly integrated in the touch screen display and a programmable logic controller (PLC) of the whole machine. This integrated control system allows an automatic preparation and dosing process. The dosing of the polymer solution into the slurry circuit is controlled by measuring of flow rate.



visualization: DSE mobile centrifuge decanter ZR15046



visualization: polymer unit of  
DSE mobile centrifuge decanter ZR15046

**Overall dimensions:<sup>1</sup>**

Length	6 058	mm
Width	2 438	mm
Height	2 891	mm
Total weight (ca.)	8 800	kg

**Technical Specifications ZR15046:**

**Centrifuge parameters**

Capacity (max.) <sup>2</sup>	10 - 28	m <sup>3</sup> /h (at 1.25 kg/l)
Solid output (max.) <sup>3</sup>	7	t/h
Inside bowl diameter	460	mm (18")
Bowl length	1 500	mm
Bowl speed (max.)	2 960	rpm (at 50 Hz)
Differential speed	0.5 – 45	rpm
Torque (max.)	9 600	Nm

**Powder polymer unit**

Flow rate (at 60 min maturing time):	4 000	l/h (15 GPM)
Flow rate (at 30 min maturing time):	8 000	l/h (30 GPM)
Dosing pump (against max. 3 bar):	700 - 6 000	l/h (3.2 - 26 GPM)

**Power supply**

Bowl drive	75	kW (100 HP)
Conveyor drive	37	kW (50 HP)
Feed pump	11	kW (15 HP)
Polymer dosing unit	2.2	kW (3 HP)
Others	10	kW (13.6 HP)
Voltage	400 V / 50 Hz	

**Kontakt**

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<sup>1</sup> dimensions of the container

<sup>2</sup> Subject to solids loading, slurry properties, soil type properties and properties along with operating conditions!

<sup>3</sup> with a moisture content ranging between 25 to 40%