

## Waste Water Treatment Isle sur la Sorgue - France

2010

Multi stage blowers V-Centrif 100.07 with synchronous motors – LSRPM® (Hybrid permanent Magnet) are used for the aeration of sludge basin in a waste water treatment plant (serving to 70 000 inhabitants) .

### Customer Overview

L'Isle-sur-la-Sorgue is a town and commune on the Sorgue river south eastern France. This city has a water treatment plant where the applied treatment is activated sludge - prolonged aeration.



### Challenge

Reduction of costs installations

Civil works at minimum costs (no specific basement, reduced foot print)

Easy installation (weight less 30% than an usual blower package; on anti-vibration plots)

Energy earnings

Earnings of 200 MW a year representing an annual earnings of 12 000 € (0.06€/kW)

Total return of 95 %, (earnings of more than 10 % with regard to a solution with asynchronous motor / speed increaser with transmission (pulley-belts.)

Less accessories

No inlet butterfly valve which also has an effect on sound level

No blow-off system (valves & silence)

No pulley-belts

### Solution

We installed 3 multi stage blowers V-Centrif 100.07 with synchronous motors.

Gas: Air

Differential pressure : 900 mbar

Flow: 5200 Nm<sup>3</sup>/h

Shaft power :195.4 kW

Max Speed : 4249 rpm

Temperature : 30°C

**Description :**

Synchronous motor LSRPM 250-SE  
Frequency converter Leroy Somer MD 270 T  
Control and regulation Panel TC5300 A VFD  
Speed control by regulation

	LSRPM	Equivalent asynchronous 250 kW FLS 355 LA
Weight	310 kg	1400 kg
Dimensions	810x470 x655 mm	1305x710x910 mm



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