

JOB REPORT VISCO JET® TANK AGITATOR VJ500

FOR THE PAINT, COATING AND ADHESIVE INDUSTRY



A SUSTAINABLE FUTURE WITH VISCO JET®

Our customer is a manufacturer of sustainable label solutions for the food, cosmetics, pharmaceutical and chemical industries with global production and an international distribution network. An important component of high-quality and sustainable label solutions is, among other things, the right adhesive and its quality.

The customer planned a retrofit for an existing agitator which was equipped with a 3-stage propeller solution and a drive power of 22 kW. The aim of the retrofit was to increase process efficiency and product quality as well as reduce operating costs.

After reviewing all requirements, we designed an agitator for the customer that enables energy savings of 65% as well as a sustainable reduction of the operating costs and improved product quality.

TANK INFORMATION

Tank type	Stainless steel tank with conical bottom
Diameter	2.200 mm
Height	3.500 mm

PRODUCT INFORMATION

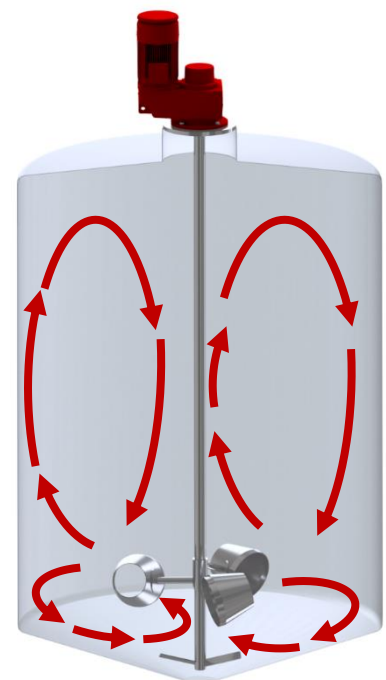
Product	Adhesive
Density	1.000 kg/m³
Viscosity	1.000 mPas

THE EXISTING AGITATOR

Agitator type	Tank agitator with propeller
Drive power	22 kW
Impeller	Propeller with three impeller levels
Material	1.4301

THE NEW VISCO JET® AGITATOR SOLUTION

Agitator type	VJ500
Drive power	7,5 kW
Impeller	VISCO JET® CLASSIC inclusive residual impeller with one impeller level
Shaft diameter	70 mm
Material	1.4301



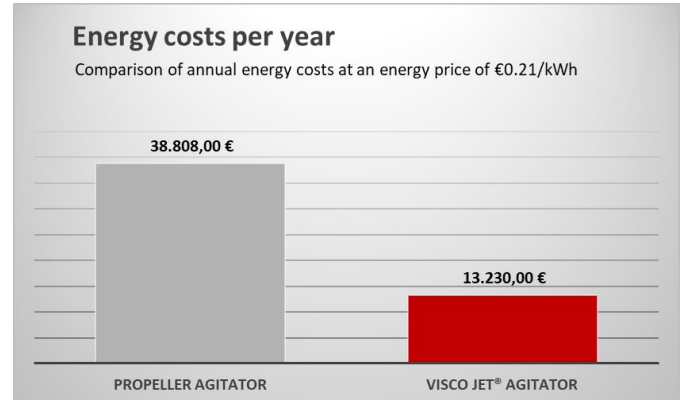
THE ADVANTAGES OF THE SOLUTION AT A GLANCE

INCREASING ENERGY EFFICIENCY

By reducing the drive power from 22 kW to 7.5 kW at the agitator, an energy saving of 65% and thus a significant increase in energy efficiency is achieved.

With a 3 shift operation with 350 working days per year as well as an energy price of 0,21 €/ kWh a direct cost saving of about 25.570,00 € per year is gained.

In addition, the reduction of the drive power saves approx. 51 tons of CO₂ per year, so that a direct contribution to a more sustainable production of the customer is realized by the retrofit of the agitator.



Comparison of the existing agitator and the new VISCO JET® agitator solution

OPTIMIZATION OF THE TOTAL COST OF OWNERSHIP

By using VISCO JET® agitator technology, the total cost of ownership can be sustainably reduced. The significantly lower drive power in relation to the propeller as well as the greatly reduced speeds of the VISCO JET® agitator lead to low wear of the agitator components and thus to lower maintenance requirements, less downtime in production and lower spare parts costs.

IMPROVED PRODUCT QUALITY

In order to ensure a complete homogenization of the adhesive and thus the desired product quality for further processing, the VJ500 tank agitator was designed with a VISCO JET® CLASSIC including a residual impeller. The agitator was individually designed for the tank geometries and the agitating task and achieves an optimal flow structure within the tank so that the entire medium in the tank is captured. "Such a strong flow in the tank could not be achieved with the old agitator" said our customer enthusiastically after the installation and commissioning of the new VISCO JET® agitator. Due to the additional use of a residual impeller, an optimal homogenization is maintained even when emptying the tank until the end.

Would you also like to make your agitating process more efficient and sustainable?

If you have any questions, please contact your worldwide VISCO JET® distributor or the VISCO JET® team!