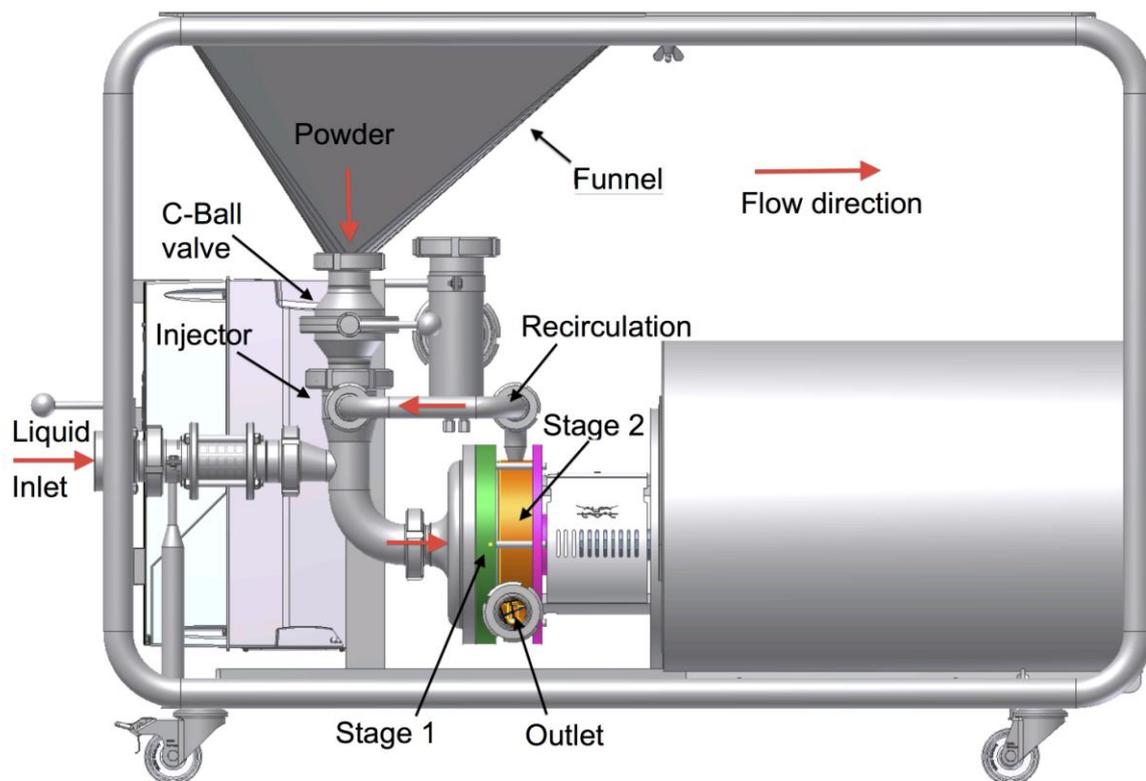


How it works

Construction

The Hybrid Powder Mixer S15 and M15 is comprised of a two-stage pump with one rotor-stator stage and one pump stage fitted with a motor with a frequency converter. A funnel is used for introduction of powder through an injector system. The construction is mounted on a stainless steel frame.



Operating principle

The two-stage inline Hybrid Powder Mixer is installed in a circulation loop connected to an existing batch tank. This user-friendly mobile unit has a built-in table to facilitate handling heavy bags of powder. The table easily slides into position for convenient placement of the bags during mixing and also functions as a lid to cover the funnel when it is not in use. Operation is easy because the operator only needs to control one valve during mixing. Cleaning-in-place is just as easy.

Stage 1

After adding liquid ingredients to the tank, the Hybrid Powder Mixer circulates the liquid over the tank. To provide additional high-efficiency mixing in tanks with volumes larger than 1 - 2 m³, it is recommended to install the Alfa Laval Rotary Jet Mixer in the tank.

After powder is added in the funnel, the valve under the funnel is opened. This is the only valve that the operator must control during mixing. The injector positioned under the valve then creates an under pressure in the funnel outlet, drawing the powder into the rotor-stator and blending the powder and liquid into a homogeneous mixture.

Stage 2

An impeller pumps the powder-liquid mixture back to the tank while part of the powder-liquid mixture is sent through the injector back to Stage 1.

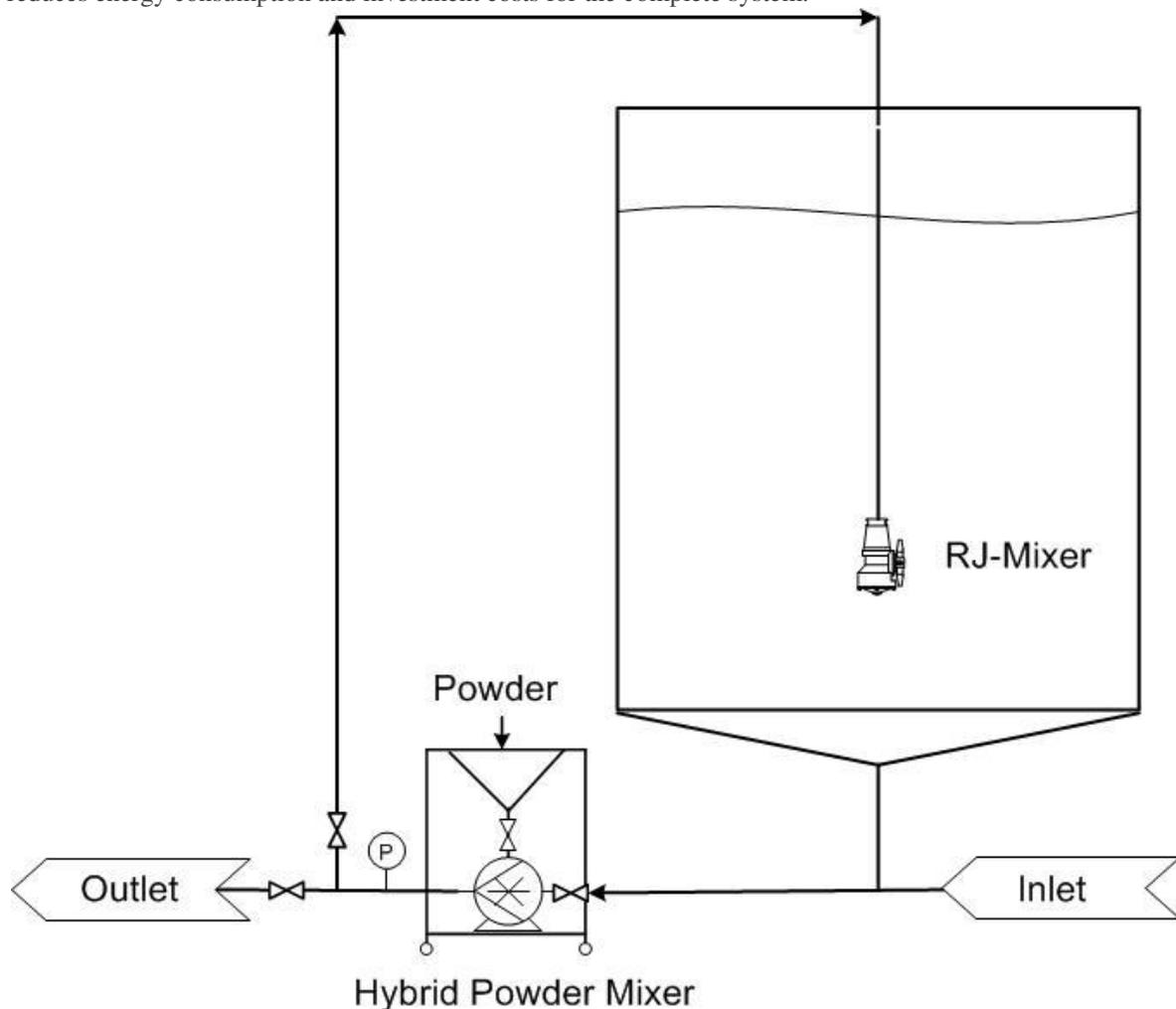
The liquid flow in the injector creates the under pressure in the funnel outlet, which enables the dynamic suction of the powder into the liquid.

Cleaning

After mixing is complete, the Hybrid Powder Mixer may be used as a discharge pump or, when used with the Alfa Laval Rotary Jet Mixer, as a CIP pump to clean the tank interior.

Alfa Laval Hybrid Powder Mixer

Installing the Alfa Laval Hybrid Powder Mixer in combination with a Alfa Laval Rotary Jet Mixer dramatically reduces energy consumption and investment costs for the complete system.



Other powder mixers

Other powder and tank mixing solutions require up to four electric drives, due to extra boost pumps and additional mixing equipment.

