



NEW

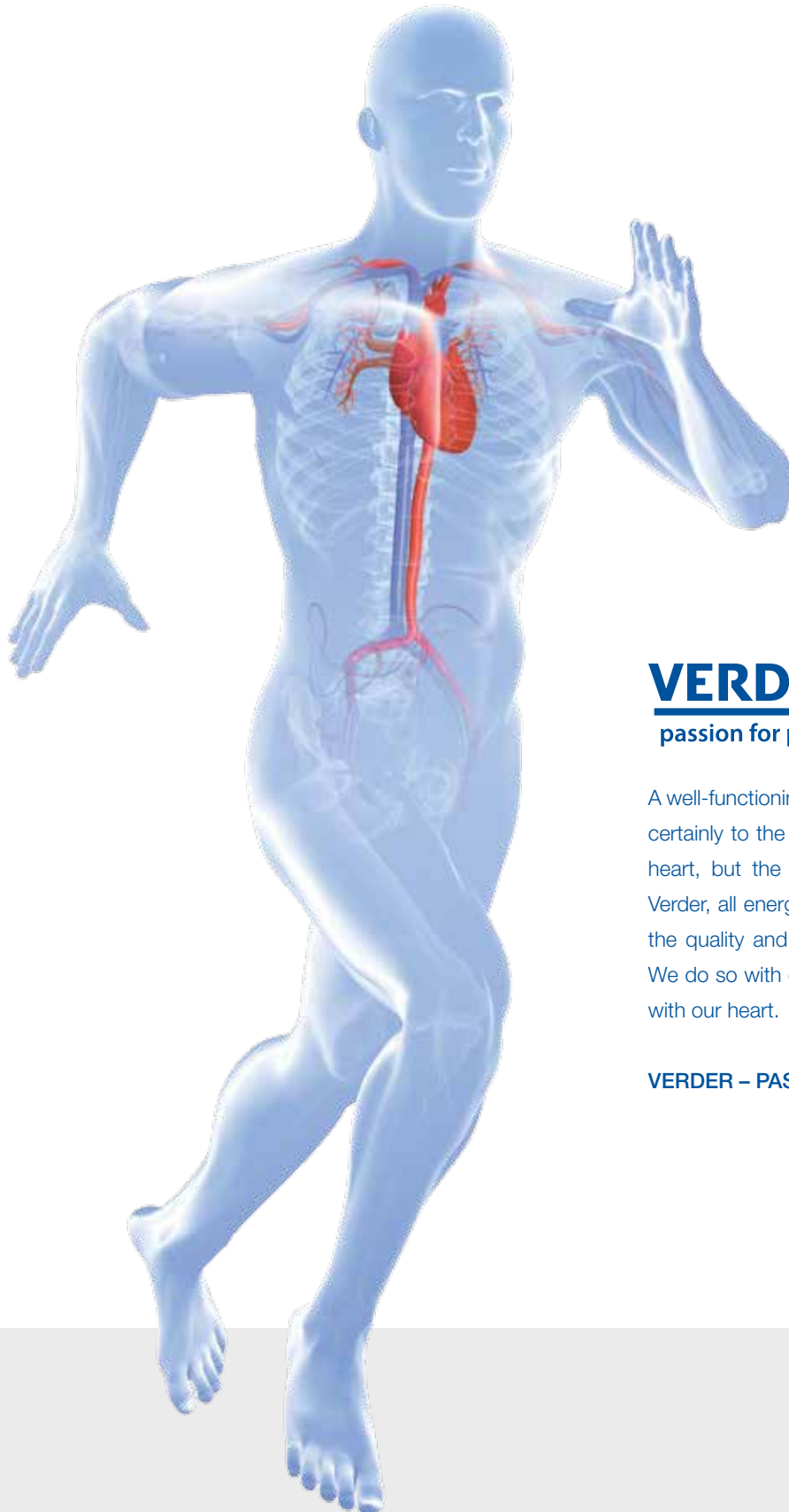
Packo High Shear Pump

More stability, increased quality!



Increase your productivity today:

- Improved stability and durability increasing the quality of the end product
- Efficiency improvement between 70 and 100%
- Single solution for both pumping and mixing
- Special design for easy maintenance & installation



VERDER

passion for pumps

A well-functioning pump helps you succeed. That applies certainly to the most important pump in life, the human heart, but the same goes for pumps in business. At Verder, all energy and attention is focused on improving the quality and performance of our pump and service. We do so with energy, dedication and most importantly, with our heart.

VERDER – PASSION FOR PUMPS



Packo High Shear Pump

Packo is manufacturer of industrial, food and pharma hygienic centrifugal pumps. All pumps are electro polished. The Packo shear mixer pump is mainly used for in-line mixing, homogenisation and dispergation applications. The shear is generated between the rotor and an innovative and optimized perforated (patented) stator. The shear can be optimized and increased by raising the speed of rotation. Shear rates up to 40.000 s⁻¹ can be achieved at a maximum speed of 3600 rpm!

The final goal is to achieve a homogeneous solution of two liquids with high difference in viscosity and or density and to obtain a particle size reduction for emulsions and particles. This creates a smooth operational performance, with the unique precision and quality our Packo centrifugal pumps are known for.

Pumping with a Packo high shear pump will result in a more stable and increased quality of the end product.

The benefits

- Extremely high efficiency,
50% less energy consumption
- Use of standardized components
- Easy maintenance
- Several seal configurations available
- ATEX available
- Monobloc execution, easy installation
- Easy to clean (CIP and SIP)
- Self pumping
- High mechanical & hydraulic shear
- Rapid solid dissolving
- Very quiet operation



Series SFP2 & SFP3

More stability, increased quality!



NEW



STATOR

Working principle

1. Pumping effect generates a powerful suction drawing liquid and solids into the rotor/stator package.
2. Centrifugal forces drives liquid/solids to the periphery of the pump casing while it is subjected to a 'milling' action between the ends of the rotor blades & the inner wall of the stator.
3. Finally an intensive hydraulic shear is generated as the liquid/solids are forced, at high velocity, out through the patented perforated stator to the outlet of the shear pump.



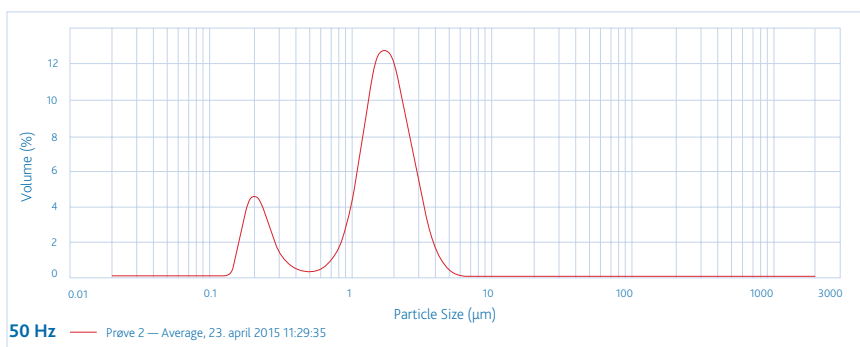
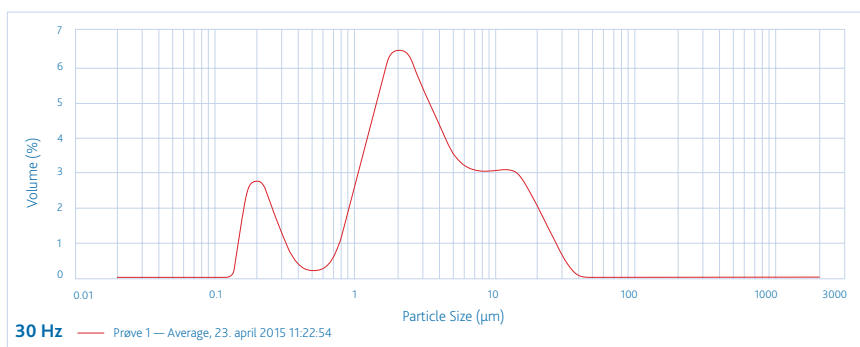
The stator

Thanks to the special designed patented stator together with small clearance between rotor and stator, an important shear will be generated resulting in a significant particle size reduction (between 1.4 and 2 μm)! A smaller particle size will result in a more stable final product!



Particle size reduction

Particle size from a customer trial with a dairy based formulation with 3.5% AMF (Anhydrous Milk Fat)



Sample test externally by 3rd party on a Malverne instrument using Laser diffraction.

Types

SFP2/32-160	35 m ³ /h	2,5 bar	max. 11 kW	max. 750 cP	shear up to 30000 s ⁻¹
SFP2/40-160	50 m ³ /h	2,5 bar	max. 11 kW	max. 750 cP	shear up to 30000 s ⁻¹
SFP3/80-160	130 m ³ /h	2,0 bar	max. 22 kW	max. 1000 cP	shear up to 30000 s ⁻¹
SFP3/100-200	200 m ³ /h	5,0 bar	max. 45 kW	max. 1000 cP	shear up to 40000 s ⁻¹



Typical applications

→ Mixing of 2 liquids

- with a large different specific gravity (f.i. honey in water)
- having a large different viscosity (f.i. oil in butter)
- that are difficult to mix (f.i. oil in water)

→ Dispersing of solids in liquids

(f.i. toothpaste in water)

→ Dispersion of gas in liquids

(f.i. foamed desserts)

Dairy

- Recombined milk
- Drink yogurt

Beverage

- Soda syrups & concentrate
- Sucrose solution
- Green tea

Food

- Hummus
- Salsa & hot sauce
- Fruit puree

Personal Care

- Shampoo & conditioner
- Sanitizer gel

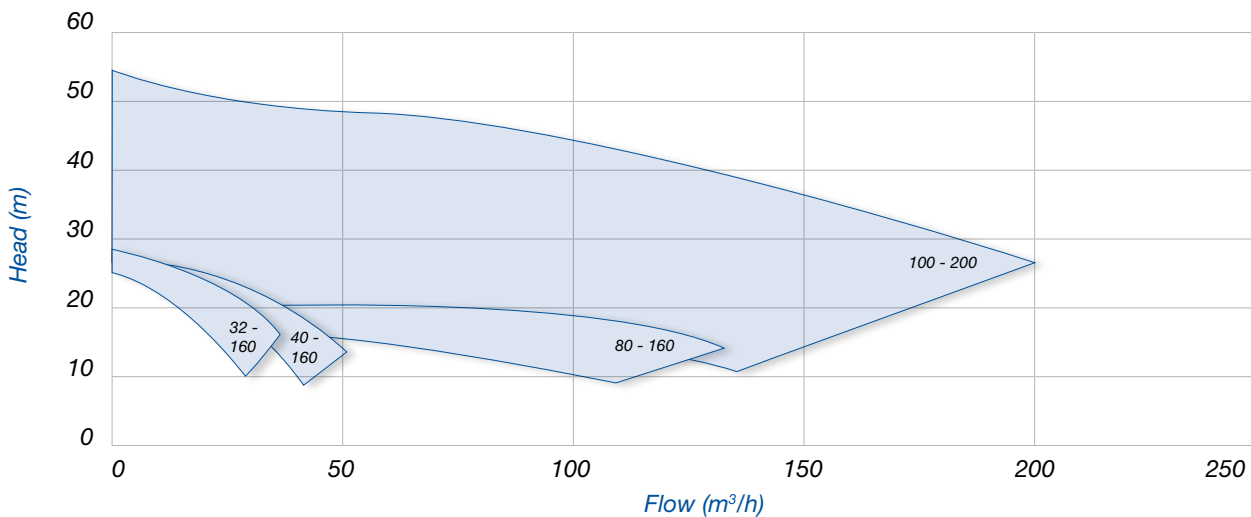
Bio-pharm

- Media prep
- Buffer solution
- Glucose

Industrial

- Paintballs
- Edible oil refining
- Pigment dispersion

Performance SFP2 & SFP3



VERDER LIQUIDS BV

Utrechtseweg 4a
NL-3451 GG Vleuten
PO Box 1
NL-3450 AA Vleuten

TEL +31 (0)30 677 92 11
FAX +31 (0)30 677 14 02
info@verder.com
www.verderliquids.com

AT Wien BE Aartselaar/Diksmuide/Zedelgem BG Sofia CH Basel CN Shanghai CZ Praha DE Haan/
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