



# Landia Chopper Pumps

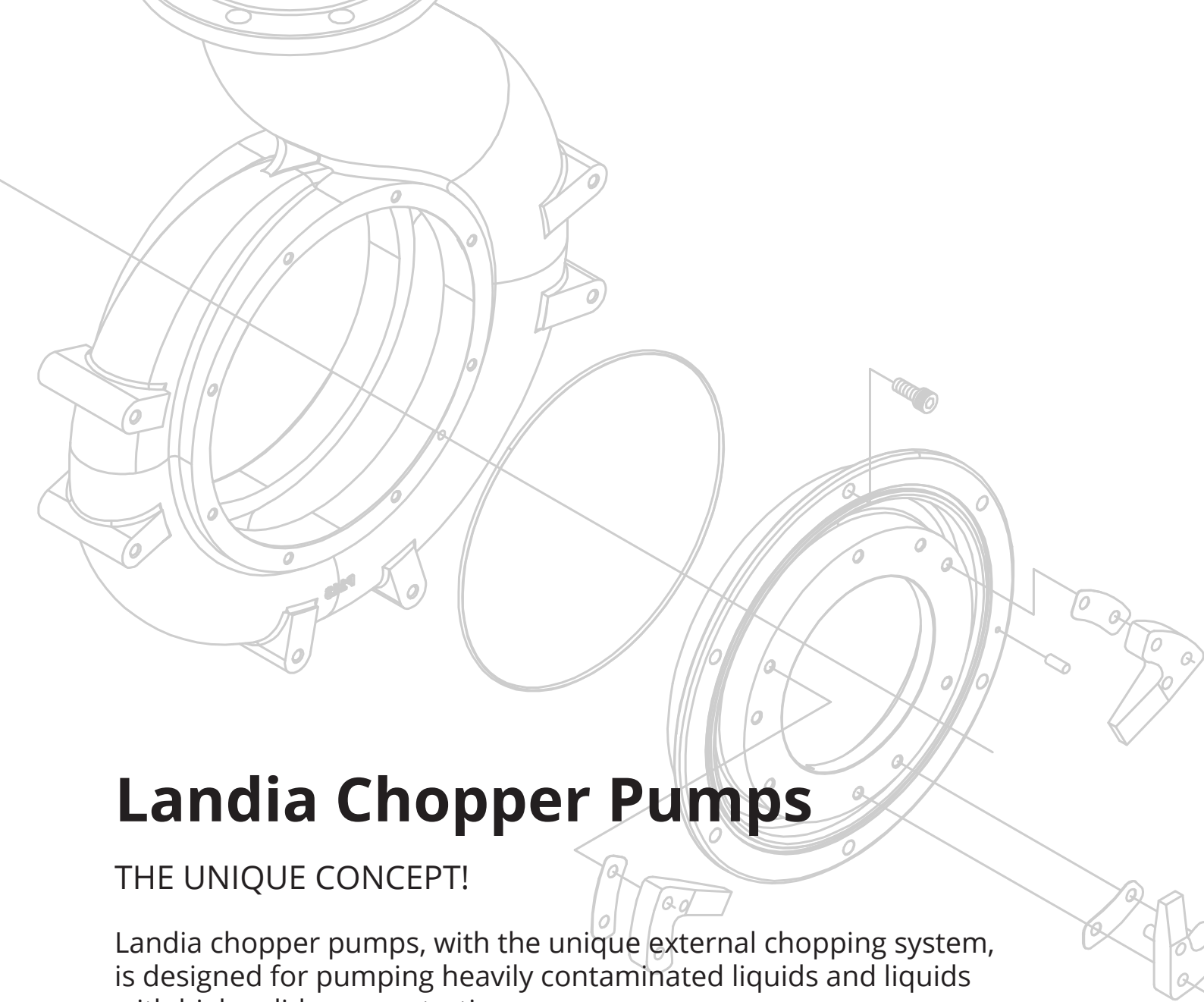
The true non-clog pump  
Perfected since 1950



**Landia**<sup>®</sup>

**ENGINEERED TO LAST**





# Landia Chopper Pumps

## THE UNIQUE CONCEPT!

Landia chopper pumps, with the unique external chopping system, is designed for pumping heavily contaminated liquids and liquids with high solids concentration.

The chopping system is clearly separated from the pump casing and the impeller. This prevents blocking of the pump and its subsequent piping as all chopping is completed before the liquid enters the pump housing. The wear on the pump casing, impeller and sealing system is significantly reduced due to the chopping system design.

Due to the open impeller design the Landia Chopper Pump is also ideal for pumping high viscosity liquids. If the pumped liquid is abrasive, the pumps are available with special hardened pump components which will extend the lifetime significantly compared to standard material.

Most Landia chopper pumps are also available in AISI 316 stainless steel for acidic liquids.

Landia chopper pumps can be found in waste water applications, on biogas plants, the food industry, mining etc. The applications are numerous and in general a Landia chopper pump takes over where other pumps give up.

# Landia Heavy Duty Chopper Pumps

- recommended by satisfied customers

Thousands of Landia chopper pumps are in operation throughout the world.

Among the applications are:

- Domestic waste water with food waste, paper, fats and vegetables
- Abattoir waste water with bones, intestines, feathers, hair and fat
- Sludge, organic waste, slurry and straw at biogas plants
- Waste oil from repair shops etc.
- Fish and fish waste
- Paper pulp and paper waste
- Cooling water with hard solids

Many other tasks can also be carried out by means of Landia's unique concept for chopping and pumping.



## ➤ Out of deep water

At the Danish deep-water port of Fredericia, close to the international route of the Great Belt, a Landia Chopper Pump has enabled a shipping company to complete a crucial delivery of PFAD (palm fatty acid distillate).

Following a major fire at the port, Nagro A/S urgently needed to transfer the distillate from a 2700 m<sup>3</sup> tank to a ship that was on its way to the strategically vital strait between Denmark's major islands of Zealand and Funen.

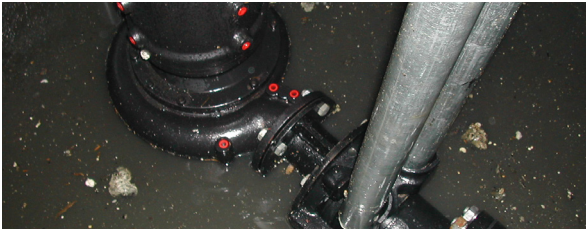
For a total head of 24m, maximum reliability and high (minimum 150 m<sup>3</sup>h) flow was essential (not just at the pump). Short delivery time was also critical to avoid the huge expense of the ship unnecessarily docked on standby.

Landia's Jacob E. Holdgaard, commented: "Nagro A/S has been using our mixers for almost 16 years, without any problems whatsoever. The timing and performance of this urgent new installation was extremely important, but we were very confident with the capability of our 30kW MPTK Chopper Pump".

He added: "It is purpose-built for pumping heavily contaminated fluids, including those with a high solids content. The knife system at the pump's inlet ensures hassle-free operations under conditions in which many other pumps have problems with clogging. Naturally, we were very pleased to be able to protect our customer from what could have been an extremely costly delay".

Since 2002, Nagro A/S have purchased a Landia POD-I mixer, plus twelve Landia POPTR-I side entry-mixers.

Designed for mixing fluids such as sludge, digested biomass or fish silage, the Landia POPTR-I uses relatively low revolutions per minute. Mounted through the side of a tank wall (concrete or steel), which means that all service and maintenance can take place outside, the tank does not need to be emptied, nor the mixer lifted out of the tank. In addition, the Landia POPTR-I can also mix very hot fluids, because the electric motor benefits from optimal cooling conditions.



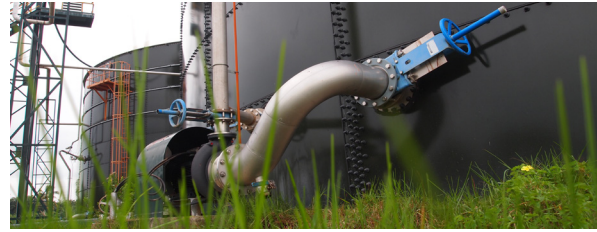
## ➤ Food, Fat and Wet Wipes

People put all sorts of things beside human waste and toilet paper down the drains. This creates problems for the sewage pumps in terms of blockages with time consuming and costly maintenance as a result. Food fat and wet wipes are the primary sewer abuse offenders.

Several clients in England and Germany had problems with existing sewage pumps. After every rainfall, textile toilet articles such as wet wipes clogged the pumps, resulting in unexpected maintenance and increased costs.



Landia chopper pumps have - whether submersible or dry installed - solved the problems with significantly reduced costs as a result.



## ➤ Handling of stormwater

New 6" chopper pumps designed and manufactured by Landia are helping a large UK water utility improve its handling of stormwater at a sewage treatment works near Luton.

Following the successful installation of a 6" MPTK-I 150 series chopper pumps, the utility has since purchased two more of the Landia units, which are especially suited for the pumping of wastewater and sludge with coarse solids.

"We have a lot of issues with wet wipes and rags being put into our sewers which block our pumps and have been forced to install this apparatus due to the worsening problem of sewer abuse, which is people putting anything other than human waste and toilet paper down the drains".



## ➤ Greenland Pump Station

In Greenland's capital city, Nuuk (population approximately 17,500), pumps made by Landia have solved a troublesome clogging situation at an important pump station.

A common problem worldwide, even in this city that is home to one third of Greenland's people, existing pumps were constantly getting clogged by items such as wet-wipes and sanitary products.

But after plumbing company HJ-TEK A/S installed two of Landia's immersed chopper pumps in the pump well, the problem was quickly solved. Designed with a patented knife system, this Landia Chopper Pump is already proving extremely reliable, with the added bonus of it also reducing energy usage at the pump station by 50%.

Worldwide, an increasing number of Landia Chopper Pumps and Landia AirJets are being installed as the long-term solution to pump/lift station/wet well clogging, where they ensure that no blanket or crust forms. By continuously reducing the particle size of solids, call-outs by maintenance personnel are reduced to just routine inspections, creating significant savings on labour costs. Furthermore, there is no longer a need for vac truck hire.

# A Complete Pumping Programme

Landia chopper pumps are available in many types and models in cast iron or stainless steel and can be tailor-made for your pumping system.

The numerous outstanding advantages of the pumps ensure the optimum performance.

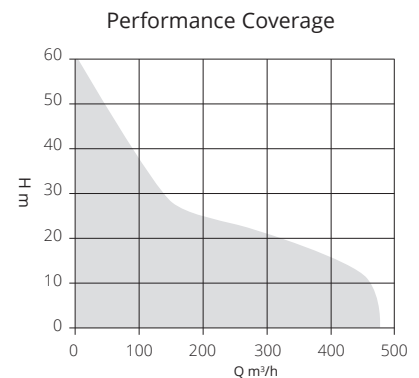
## We supply the pumps with:

- Non-clog impeller
- Motors from 0.55 to 37 kW, also available in explosion proof design
- Single or extended knife systems
- Special hardened pump components for abrasive applications
- Adaption to existing installations
- Pump casings and impellers in surface-coated cast iron or in acid resistant stainless steel
- Extensive line of equipment for e.g. combined pumping and mixing



## ➤ Submersible Chopper Pump Model DG-I

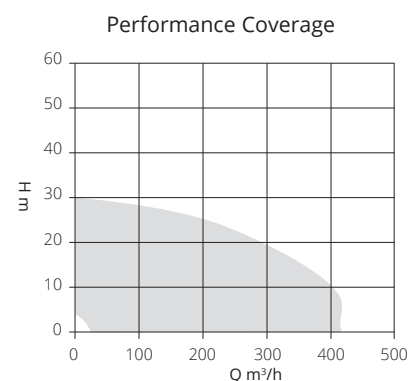
In addition to the complete submersible pump installation with coupling flange in vertical installation, we are also able to supply pumps for horizontal installation or with an adapter for existing installations.



## ➤ Long Shaft Chopper Pump for Wet Well Installation Model MPG-I

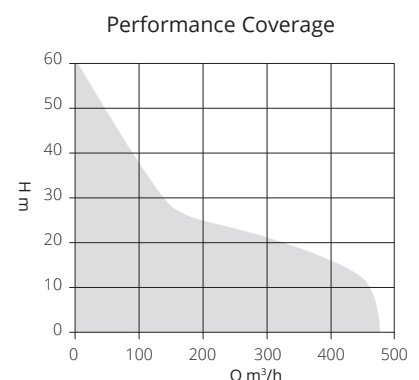
Extremely sturdy pump with liquid lubricated bearings. Almost maintenance-free. Especially suited for combined pumping and efficient mixing. Sizes: 4", 5" and 6".

Pump with shredder propeller and extended knife system.



## ➤ Chopper Pump for Dry Installation Model MPTK-I

The pump can be mounted in new or existing installations. Horizontal or vertical installation.



# Landia is much more - than just chopper pumps!

Landia is a pump and mixer manufacturer offering a comprehensive range of pumping and mixing solutions, suitable for numerous applications within the wastewater industry. Please see examples below.



## > Submersible Flowmaker POP-I 300

Landia POP-I 300 is a versatile and efficient heavy duty mixer. The three-blade propeller and the low propeller rpm makes it ideal for the mixing of high viscosity liquids such as dewatered sludge.

The POP-I 300 is available also in solid stainless steel SS316- typical for the use in the chemical- or food industry.



## > Submersible Flowmaker POPL-I

The POPL-I is a low speed flowmaker for mixing and flow creation of large volumes of water at the lowest possible power consumption.

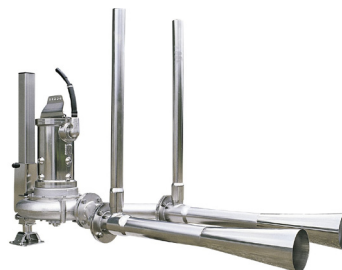
A unique feature of the POPL-I is the adjustable propeller blades that make it possible to change their angle or setting. This special feature - exclusive to Landia - optimizes power consumption.

We know from experience that the POPL-I propeller (made from stainless steel) will last forever, which is why we offer a LIFETIME WARRANTY on the propeller blades!



## > AirJet Aerators

The Landia AirJet is available as submersible, dry installed or as a floating unit. Extremely flexible non-clogging aeration system that requires no external blower or compressor.



## > Landia GasMix

Landia GasMix is an external anaerobic digester mixing system that not only simplifies service- and maintenance, but also has a very positive effect on biogas production.



Landia was founded in 1933 and is today a modern, successful manufacturer of a comprehensive range of chopper pumps, propeller mixers and aerators, offering customised solutions and systems for difficult to handle liquids with high dry matter content, liquid biomass and other organic waste.

Our customers are involved in the conception and construction of biogas plants, municipal and industrial wastewater treatment, processing of by-products and waste from the food industry, agricultural slurry handling and much more.

We support our customers through our subsidiaries and offices in the UK, Germany, Norway, the US and China – plus a worldwide network of professional distributors.

Distributor:

**Landia**<sup>®</sup>

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