



Landia Chopper Pumps

The True Chopper Pump
Perfected since 1950

Landia[®]

ENGINEERED TO LAST





An exploded view diagram of a Landia chopper pump assembly. The diagram shows the main pump housing on the left, a circular impeller in the center, and a detailed view of the external chopping system on the right. The chopping system includes a circular base with multiple blades and a central shaft. Various bolts, nuts, and mounting brackets are shown in their relative positions, illustrating the assembly process.

Landia Chopper Pumps

THE UNIQUE CONCEPT

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

The chopping system is completely 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 wastewater applications, in biogas plants, the food industry, mining, paper mills 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 wastewater with food waste, paper, fats and wet wipes
- Abattoir wastewater 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.



➤ Biogas, Preparation Tank

A key to success in anaerobic digestion-type biogas plants is proper preparation of the waste to be introduced to the digester. Landia's heavy duty chopper pumps are the obvious choice for this application.



At this site in France, different kinds of left-over bread waste is effectively mixed and chopped by a Landia long shaft chopper pump (model MPG-I). The optional mixing nozzle makes it possible to continuously recirculate the waste to the desired homogeneity, before it is pumped to the digester.



➤ Unscreened Wastewater

The Landia chopper pump has in many cases proved to be an excellent choice for sewage containing rags, tissues, debris, etc.

The pumps featured on this photo are installed in a lift station at a large convention hall in San Francisco. The many rubber gloves and other debris in the sewage proved too big a challenge for the alleged "non-clog" pumps already installed. After installing the Landia chopper pumps, these problems were all eliminated.





➤ Food, Grease and Wet Wipes

People flush all sorts of things beside human waste and toilet paper down the drains. This creates problems for sewage pumps in terms of blockages resulting in downtime and costly maintenance. Food, grease and wet wipes are the primary sewer abuse offenders.

Several clients across the world are experiencing problems with existing sewage pumps. Strong fibrous materials, such as wet wipes tend to clog the pumps resulting in unexpected maintenance and increased costs.



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



➤ Tomatoes and Leaves

Landia chopper pumps are not only used for pumping purposes. In many cases the unique chopper design is utilized as part of the pre-treatment process in biogas and AD facilities. By means of recirculation the solids, be it vegetable, fibers or food waste, are cut into smaller and smaller particles opening up the structure and hence provide access for the anaerobic bacteria with an increased biogas production as a result.

Biotech Services in the UK each day disposes some sixteen pallets (850 lbs per pallet) of tomato leaves. The masses of thick tomato leaves first have to be fed into a hopper, from where they are chopped by a macerator. Up to 40% dry matter, the leaves have a very thick consistency, so pre-treatment is vital. At this stage, a stainless steel Landia MPTKR chopper pump is utilized to break down the organic plant material in a reception tank, otherwise its natural healing ability would make it go solid.



➤ Fish Waste

Environmental protection is a growing concern worldwide and regulations on waste handling are becoming more stringent. Landia's versatile chopper pumps offer many possibilities within the area of waste and by-products management.

The Landia dry-installed chopper pump in this photo is integrated in a process tank, and is used for converting fish waste to a liquid silage. This process is made possible by the introduction of formic acid in combination with the chopper system on the pump inlet. The corrosive environment caused by the acid is no problem for the Landia pump, as this model features stainless steel (AISI316) hydraulic components.

A Complete Pumping Product Line

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:

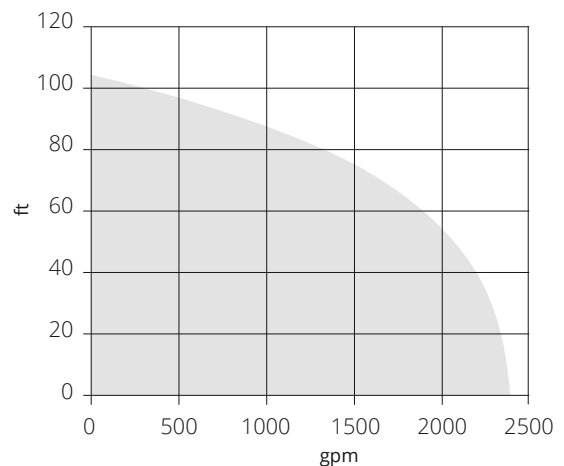
- Open impeller design
- Motors from 1.8 - 60 HP, also available in explosion proof design
- Single or extended knife systems
- Special hardened pump components for abrasive applications
- Pump casings and impellers in surface-coated cast iron or in stainless steel
- Adaption to existing Installations
- Extensive line of equipment for e.g. combined pumping and mixing



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".

Performance Coverage



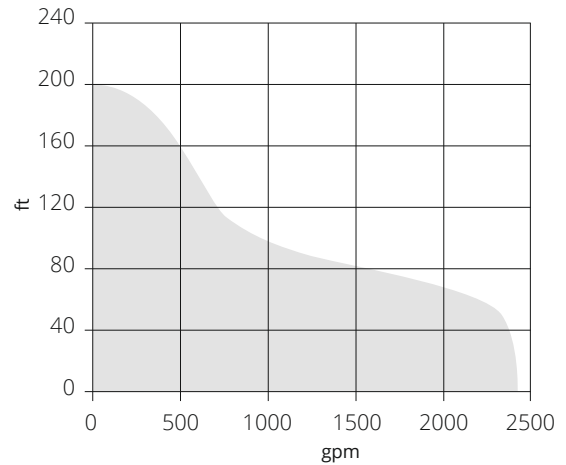
Pump with
feeding auger,
extended knife
system and
mixing nozzle

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.



Performance Coverage



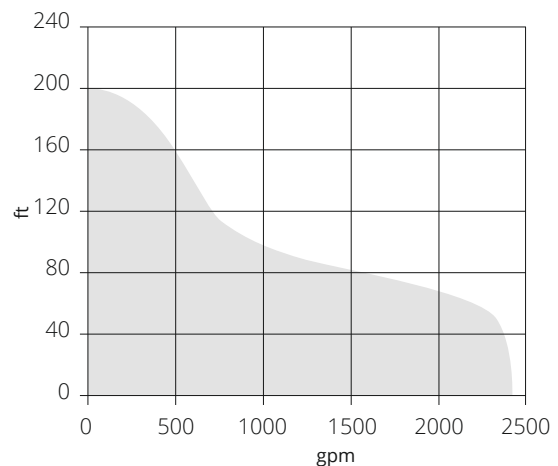
Chopper Pump for Dry Installation Model MPTK-I

The pump is suitable for new or existing installations in horizontal or vertical configuration.

Landia's chopper pumps are often used to replace other pumps that were clogging. This has given Landia extensive experience in customized retrofit installations with a minimal amount of changes to existing infrastructure.



Performance Coverage



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 US, Germany, Norway, the UK and China – plus a worldwide network of professional distributors.

Distributor:

