

Discover the EZstrip Family™



*Unique
Maintenance In Place
(MIP) technology!*

Watch demonstrations on a
smartphone:



 **AXFLOW**

Advantages of the EZstrip™ product family

Maintenance In Place

Quick and easy replacement of main wearing parts, without the use of power tools and without having to remove the pump/Muncher from the system.

Slow speed

Less wear means longer life for the pump/Muncher, allowing longer periods between routine maintenance.

Overpressure protection

To comply with the Pressure Equipment Directive pumps can be supplied with suitable overpressure protection.

Baseplate

The pumps can be delivered on a baseplate. This is a frame on which the pump and drive unit are mounted together to simplify installation.

Material and construction

Sold in cast iron and stainless steel, with a large choice of rotor and stator materials to suit individual applications.

Energy-efficient motors

Mono Munchers already have low energy consumption, and in addition to this, we install energy efficient motors on both pumps and Munchers to reduce operating costs further.

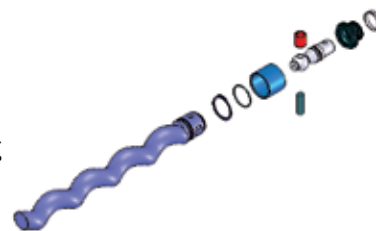
EZparts™

To ensure that your EZstrip progressive cavity pump continues to perform as new, Mono has supplemented the EZstrip product family with EZparts.

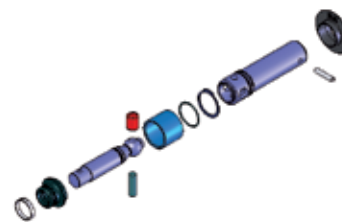
These pre-assembled kits are for both rotor/coupling rod and shaft/coupling rod assemblies. They are available in a variety of rotor and stator materials,

designed for today's demanding and diverse applications.

- EZparts are pre-assembled by Mono technicians and consist of Mono original parts and lubricants.
- Two-year factory warranty.
- Designed for optimal performance.



*Assembly of rotor/
coupling rod*



*Assembly of shaft/
coupling rod*

EZstrip™

Transfer pump



'Dismantle the pump in less than 2½ minutes'

The most important member of the family is the **EZstrip Transfer pump**. This unique pump has a detachable split suction chamber and split coupling rod. This allows for quick, easy inspection and cleaning of the pump internals. It also allows for a fast replacement of the pump rotor and stator, without any disconnection from the pipework. Maintenance work that previously took an entire day can now be carried out in half an hour. Replacement of the stator and rotor takes less than ten minutes. A major advantage of the EZstrip compared to split stator technology is that there can be no leakage between the two stator halves and that there is no seal line to trap grit which wears the rotor. Because standard stators are used, we have not compromised on performance or service life, and can therefore maintain the conventional pressure of 6 bar per stage, with up to a maximum of 24 bar for a 4-stage implementation.

Specifications:

Maximum capacity	165 m ³ /h
Maximum pressure	24 bar
Temperature	-10 °C to 100 °C

Example

Thickened sludge (6-9% TS)

In order to expand the capacity of the sludge fermentation, a waste water facility required three new progressive cavity pumps.

The mechanically thickened sludge with 6-9% dry matter is fed to the fermentation tank at 30 m³/h, at a nominal pressure of 10 bar. The pressure load of 12 bar is important, as too are other properties such as the fact that maintenance and inspections should be easy to carry out because the abrasive medium has a wearing effect on the equipment.

Mono EZstrip met both these conditions.

Since the suction chamber is easy to remove, the rotating parts can be inspected within a minute. The stator and rotor can also be changed within 10 minutes, without the need to disconnect the pump from the pipework. Additionally, since a standard stator and rotor was used, there was no need to limit the pressure capability per stage or shorten the time interval between services. Since the wastewater facility already had experience with Mono EZstrip in other applications, the decision was easy to make.



EZstrip™

Cake pump



'With a cake pump maintenance is very easy'

The EZstrip™ Cake pump provides the same advantages as the EZstrip Transfer Pump, but for products with high viscosity, such as diluted and thickened sludge. Therefore, the pump is provided with an enlarged rectangular inlet and a special feed auger. A side inlet flange is optional, allowing for secondary products to be mixed with the main product. These cake pumps are often integrated with the dewatering equipment installed in a plant. Despite this, the maintenance of the

EZstrip cake pump is performed in-situ, including the replacement of the feed auger, main shaft and gaskets – without the existing pipework being disconnected. The stator and rotor can be replaced in 6 minutes, which is unique for this type of pump!

Specifications:

Maximum capacity	49 m ³ /h
Maximum pressure	24 bar
Temperature	-10 °C to 100 °C

Example

Sewage sludge from the centrifugal separator (22-28% TS)

As part of the project to minimise maintenance downtime, a wastewater facility has installed an EZstrip cake pump in one of its treatment plants. This pump is used to pump the dewatered sludge from the centrifuge to a storage tank. Since the pump is integrated with the centrifuge, the facility had to be stopped for long periods of time, even for minor maintenance jobs. For major maintenance work, it was necessary to dismantle parts of the facility so that the

pump could be transported to the workshop. That meant high maintenance costs.

The new EZstrip cake pump has been specifically developed to minimise maintenance down time and costs because it does not need to be disconnected from the pipework.

"Installation of the EZstrip cake pump provides continuous, reliable operation for sludge processing and reduces the plant's downtime, which means minimal risk to water quality," says the project engineer.



EZstrip™

TR Muncher



‘Reduces the fixed percentage of the lower maintenance costs’

The latest addition to the EZstrip™ family is the **EZstrip™ TR Muncher**. It includes the well-known CT203 and CT205, and now also the new CT201, the smallest unit in the series. With the TR Muncher range, the entire cutter stack can be removed from the housing as a cartridge, without needing to disconnect the unit from the pipework. In the case of the CT201 the cutters can also be inspected and removed through the front cover. All units in the TR Muncher series operate at slow speeds, resulting in lower energy consumption, vibration and noise than macerators operating at high speeds. The two shafts are equipped with cutters separated by spacers, so that there is a real “positive displacement” solids grinding. When these solids reach the slowly rotating cutter stacks, they are torn apart by the differential speed of the two shafts of cutters. The design of the cutters ensures solids are cropped, sheared or crushed by the high torque cutters. The TR Munchers have inclined cutter stacks, so that heavy solids fall out of the flow into integral trash traps below them. In conjunction with the PLC control, this ensures the optimal operation of the Mono TR Muncher.

Specifications:

Maximum capacity untreated waste water	440 m ³ /h
Maximum capacity 4% sludge	330 m ³ /h

Example

Primary sludge to cyclone separator

On sand-rich sites a cyclone separator should be used to separate sand out of the inlet flow. Unfortunately the cyclone separator is often clogged by the larger solid contaminants in the water, especially during the “first flush” after prolonged dry periods. Here sand and dirt percentage could vary from 0.5 – 6%. After consultation with AxFlow, the Mono EZstrip TR Muncher was chosen for installation in the inlet pipeline. Not only could this low-speed Muncher handle a dry matter content of at least 8-10%, but maintenance of the machine can also be carried out easily and quickly, without permanently blocking off and disconnecting the pipeline. The effectiveness of the munching in combination with the simple maintenance ensures cleaning of a fault-free installation with minimal operational cost.





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fluidity.nonstop® is our promise and our commitment to offer service, product quality, performance and expertise at an unprecedented level. Based on a position of unique excellence, we are the leading supplier of pumps for the process industry, a position we intend to maintain by working consistently and continuously to give you the very best service.

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