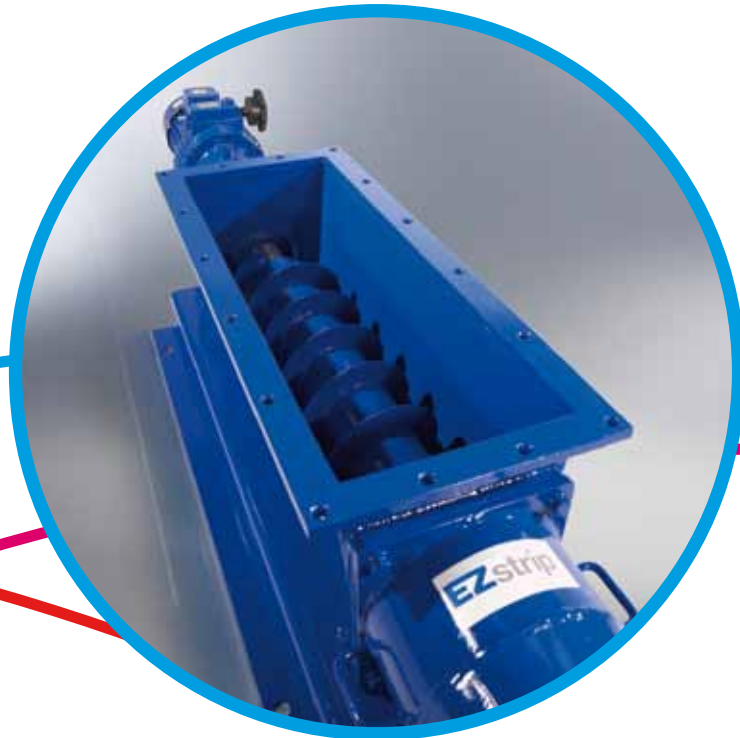
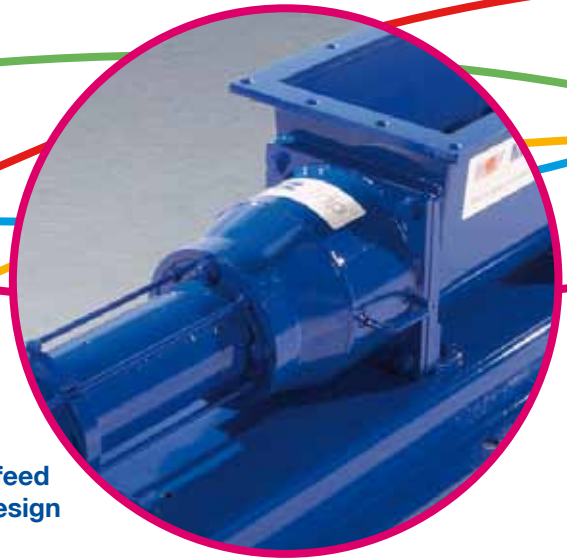


# EZstrip™ Cake Pump





**Innovative feed chamber design**

## Cake Pump Maintenance Made Easy!

Following the successful launch of the revolutionary EZstrip™ progressing cavity pump, NOV Mono has developed another innovation to provide an engineered solution to make the process of maintaining a cake pump easy.

The EZstrip cake pump features a specially designed feed chamber which is easily disconnected allowing access to the rotor and screw conveyor assembly. The rotor can then be separated from the conveyor allowing removal of the rotor and stator while in-situ, without disconnecting suction and delivery pipework.

This process can take as little as 6 minutes. Imagine the time savings you could achieve when maintaining an EZstrip cake pump!

## Remove blockages in two simple steps

### 1. Remove bolts to disconnect the feed chamber



### 2. The feed chamber is pulled back to allow full access to the pin joint area for removal of any blockages or compressed cake



## Features & Benefits

The EZstrip cake pump is designed with a large auger inlet and screw conveyor. The screw conveyor extends to the compression area to help push the sludge cake into the cavities of the rotor and stator and provide consistent pumping.

The range is available in cast iron, with a choice of rotor and stator materials and a variety of hopper sizes.

- Quick and easy to maintain in place
- Reduced maintenance downtime and labour savings
- No need to disconnect suction and discharge pipework, even when removing the screw conveyor
- Detachable feed chamber supplied as standard
- WIMES specification Efficiency 1 motors supplied as standard

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**Capacity** up to 49m<sup>3</sup>/h

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**Pressure** up to 24 bar

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**Temperature** -10°C up to 100°C

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**Typical applications:** Thickened sludge cake (upto 40% dry solids content), dewatered sludge, sludge blending, including lime powder dosing and lime slurry dosing in conjunction with barrier layer injection



## Maintain in Place (M.I.P.)

To minimize the downtime and cost involved when maintaining a progressing cavity pump, the EZstrip cake pump can be fully maintained in place, without disconnecting pipework or removing the hopper.

Once the pumping elements have been disconnected, the middle support foot allows the feed chamber and rotor and stator to be turned, to assist removal of these parts. Alternatively, the complete assembly can be lifted out and returned to your workshop or bench for maintenance.

A full drive train including rotor, stator and screw conveyor can be removed in just 8 minutes using standard tools.

**3. Disconnect the rotor assembly from the screw conveyor**



**4. Unscrew the tie bars and pull the tie bar assembly away from the discharge flange**



**5. Turn the feed chamber and rotor and stator into position and secure**



**6. Unscrew the rotor from the stator**

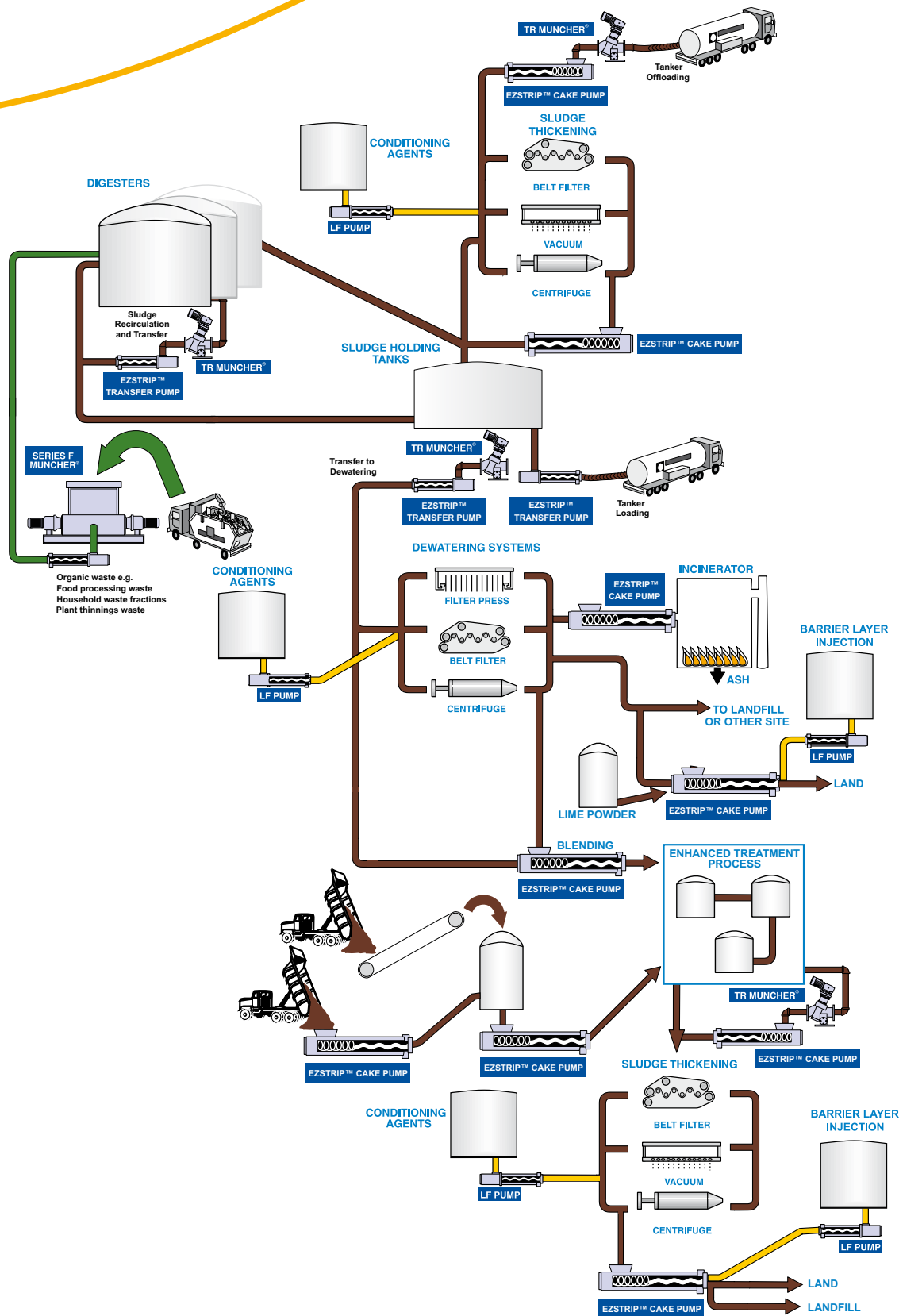


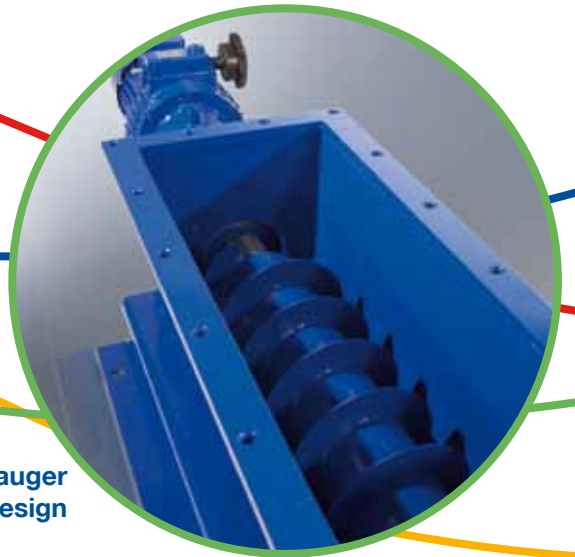
**7. Remove the feed chamber**



**8. Remove the stator**







Large auger design

## Sludge Treatment Applications

### Blending

High dry solids sludge cake is mixed within an EZstrip cake pump, with a low dry solids sludge, to produce a sludge with a consistent dry solids content.

This increases the efficiency of the downstream processes by removing variations in sludge consistency.

An EZstrip cake pump, which comes with a side inlet port for the wet sludge (as standard) and fitted with a ribbon auger, is used to provide efficient blending of the sludge.

Complete packages comprising cake blending pump, wet sludge pump and proportional flow control system can be supplied.

### Barrier Layer Injection

This is a process for injecting a lubricant into the delivery pipe work in order to reduce the friction losses and hence the operating pressure.

Complete systems can be supplied including injection pump, injection manifold and control system.

### Thickening

Sludge is mixed with conditioning agents and then thickened to reduce the water content. Cake pumps are used to transfer the thickened sludge to the next stage of the process or to holding tanks.

### Dewatering

Sludge is passed through either a filter press, belt press or centrifuge system, where solids are separated from the water to produce a high dry solids cake. The EZstrip cake pump forms part of this process by transferring the cake either to the next stage of the process or to a holding area awaiting disposal or transfer to another site.

Cake pump hopper level control packages are available for any thickened sludge or cake pump transfer application. These include discharge or thickened sludges, cakes from various types of thickeners or dewatering devices either by simple switched level devices or closed loop systems to suit specific requirements.

### Lime Slurry Dosing

Part of the blending process, but lime slurry is added to the sludge to eliminate pathogens.

The lime can be added before or after dewatering and a cake pump transfers the mixture to the next process.

### Lime Powder Dosing

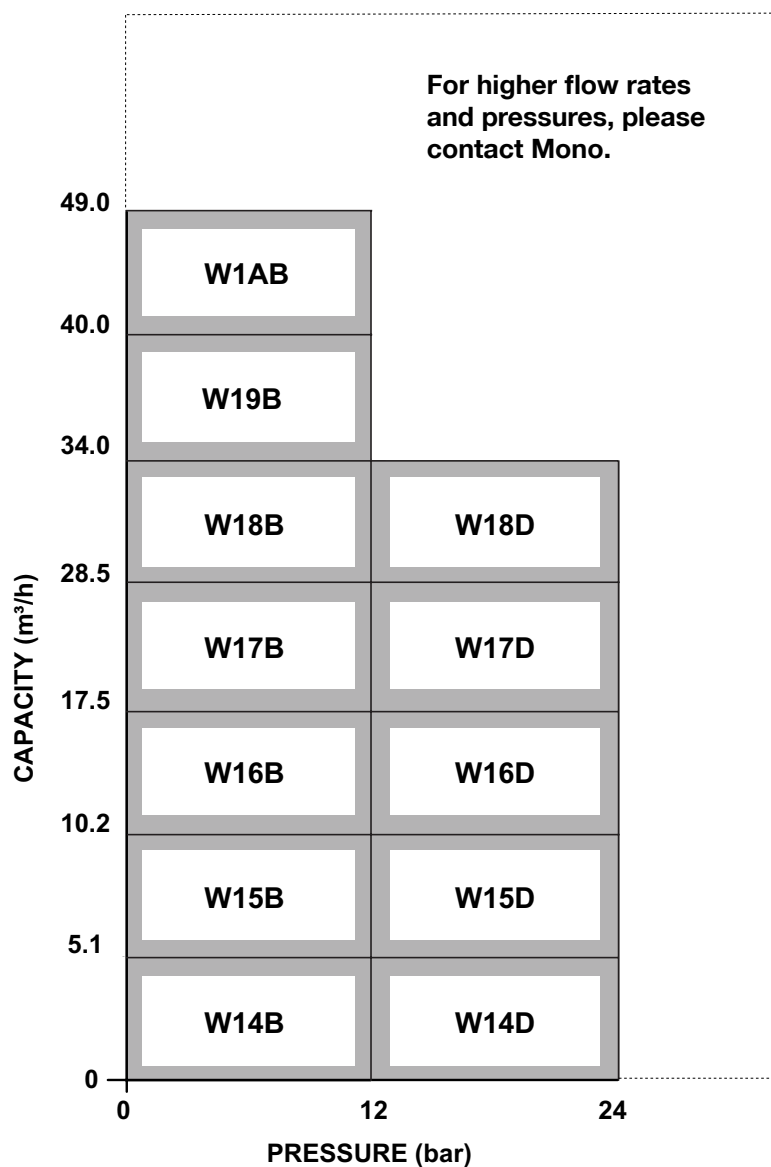
To increase the dry solids content and to eliminate pathogens to Log 6 or class A requirements, lime powder is mixed directly with sludge cake in the cake pump hopper.

Complete lime systems can be supplied including lime storage silo, lime powder feed screws, cake pump and control systems to meet your particular requirements.

### Digestion

Imported sludge and organic waste can be transferred to the digestion process with the combination of a Muncher® and EZstrip pump.

## Performance Data



### Auger (Feed Screw)

Large auger design as standard. Ribbon auger available to assist blending/conveying of product into the pump.

### Bridge Breaker

Option of a separate bridge breaker mounted directly on top of the hopper to ensure optimum filling of the auger feed screw.

### Side Inlet Port

Allows addition of thin sludge for blending and can also be used for draining the pump.

### Dry Run Protection Device

Supplied as standard.

### Over Pressure Protection

To comply with Pressure Equipment Directive (P.E.D.) pumps can be supplied with suitable over pressure protection device.

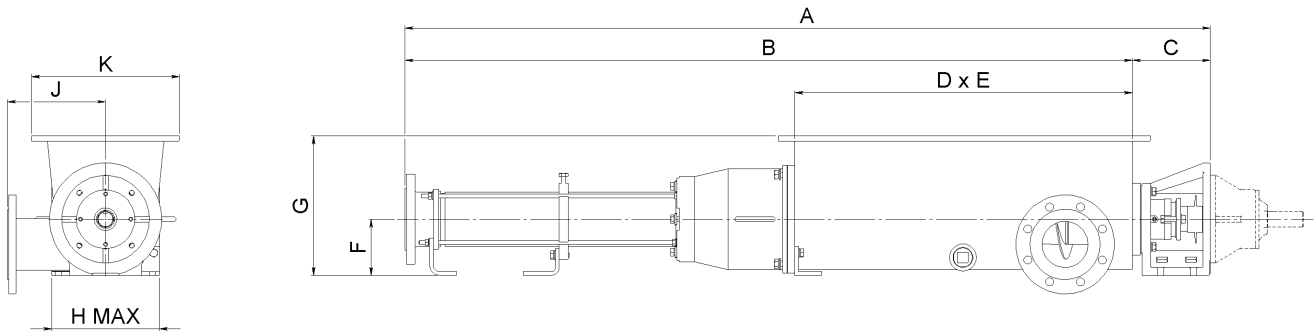
### Baseplate

Pumps can be supplied on a baseplate to ease installation.



Easy access to the pin joint area

## Dimensions



MODEL	A	B	C	D	E	F	G	H	J	K
W14B	1636	1468	168	750	250	112	282	210	270	290
W14D	2084	1907	177	750	250	125	295	210	270	290
W15B	1797	1623	174	750	250	125	310	240	320	290
W15D	2386	2182	204	750	250	150	335	240	320	290
W16B	2216	2012	204	1000	360	150	375	290	320	400
W16D	2923	2691	232	1000	360	160	382	290	320	400
W17B	2410	2202	208	1000	360	175	415	335	320	400
W17D	3352	3089	263	1000	360	225	465	335	320	400
W18B	2584	2343	241	1000	360	225	505	385	350	400
W18D	3533	3268	265	1000	360	225	505	400	350	400
W19B	2768	2535	233	1000	360	225	505	430	350	400
W1AB	3100	2834	266	1000	360	250	550	475	350	400

\* Can be supplied with either fixed speed inverter rated or mechanical variable speed drive.

All dimensions in mm's and for guidance only. For full certified drawings, please contact Mono.

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