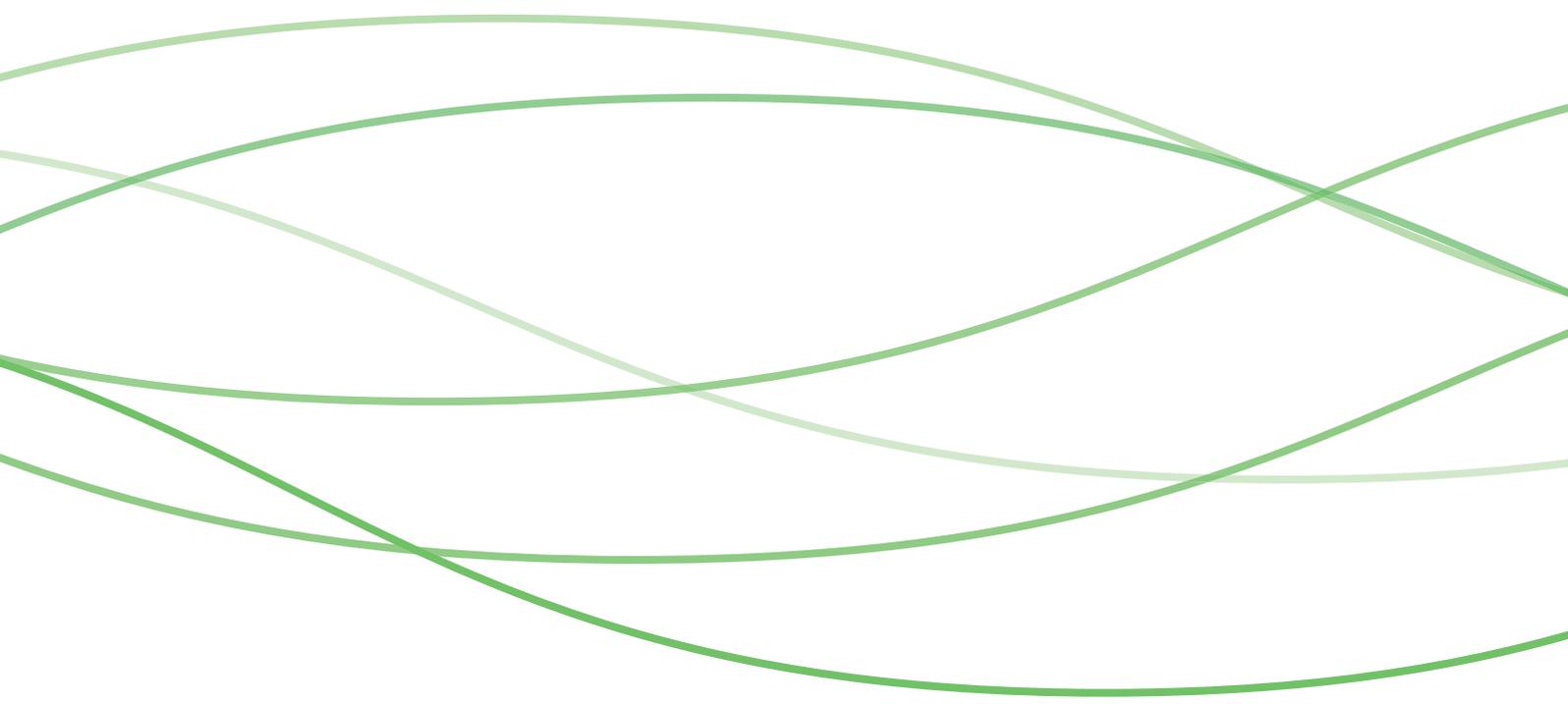
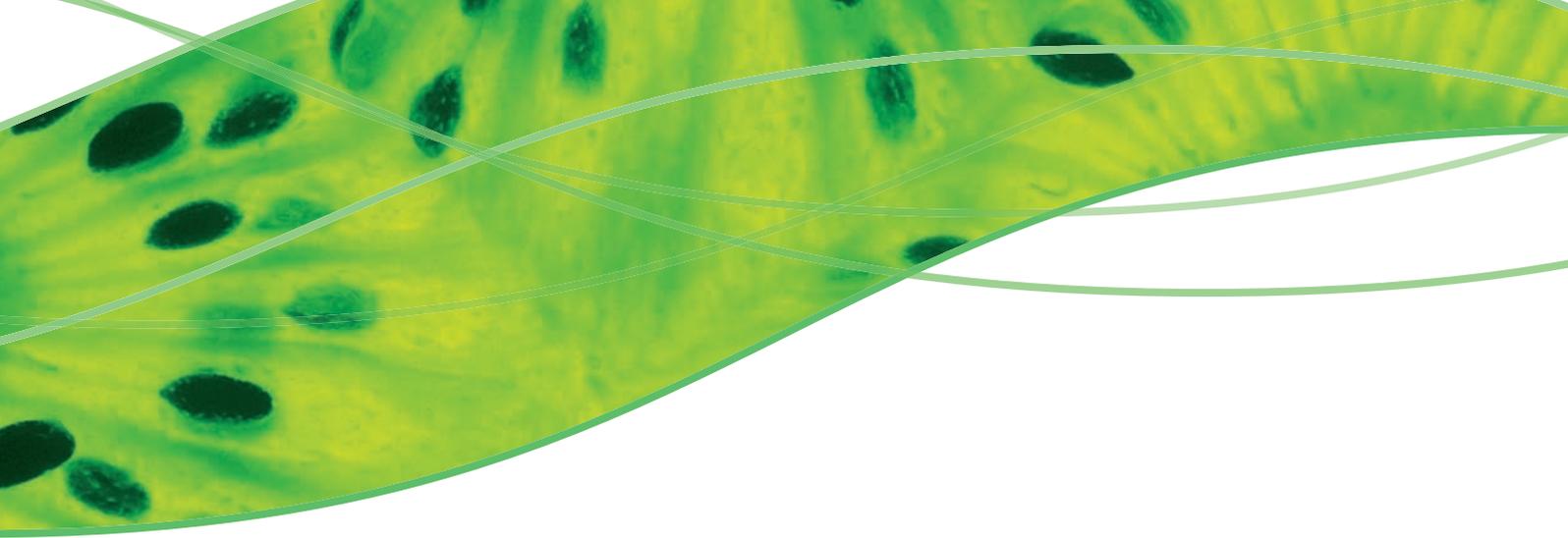


Food & Beverage Solutions



One Company, Unlimited Solutions





Mono is a leading name in the design, manufacture and supply of progressing cavity pumps, grinders, screens and packaged solutions, worldwide. We have 7 international sites and a global distribution network, as well as over 70 years' experience in providing a range of products for the multiple application requirements of today's industries.

Our strong heritage and global success has been recognised, supported and further enhanced by our parent company, National Oilwell Varco (NOV), who are world-leaders in the oil and gas industry.

Mono's expertise extends to supplying customers with a product that will perform to the necessary duty requirements in the chemical, pharmaceutical, mineral, mining, waste water, pulp and paper, oil and gas, and of course food and beverage industries.

Why Choose Mono?

Our approach to selecting the best product for the food and beverage industry ensures that you get an individual and tailored solution that's right for your process. We can test and analyse a sample to identify the correct material selection for a hygienic or non-hygienic pump. We can also supply a macerator to prevent pump, or pipework blockages or utilise the advantages of the progressing cavity pump principle to avoid damage to a shear sensitive product.

Our large client portfolio includes Tate & Lyle, Grampian Food Group, Premier Foods, British Sugar and Cadbury Schweppes – a representation of our continued success in this industry.



Solutions for the Food & Beverage Industry



Hygienic Pumps

Manufactured from food-approved materials, these have a polished stainless steel construction and a one-piece suction chamber to reduce the risk of product contamination.



Transfer Pumps

Constructed with interchangeable components and sealed pin joints, transfer pumps are designed to ensure reliable operation and a long service life when transferring food and drink products.



Widethroat Pumps

Feature an enlarged inlet and screw conveyor to assist viscous products into the pumping element. Dry solids approaching 40%, such as slurries or thick non-flowing pastes can easily be pumped.



Dosing Pumps

Their smooth action and output proportional to speed provides a high degree of accuracy and control. Ideal for applications where relatively small amounts of intermittent or continuous product is being added to the mix, such as food ingredients.



Munchers

A range of grinders incorporating cutters to macerate solids within a flow and prevent pump or pipework blockages. Especially beneficial in the reduction of waste, or to help in the biological breakdown of waste in the recycling process.



Packaged Solutions

A Muncher can be packaged with a transfer pump or widethroat pump to simultaneously macerate and pump a product, smoothly and efficiently.

Applications

Bakery	Batter	Meat, Fish & Poultry	Sausage meat	Fats & Oils	Cod oil	
	Butter		Pork fat slurry		Corn oil	
	Egg		Animal fat		Lard	
	Dough		Pet food		Linseed oil	
	Glazes		Fish		Peanut oil	
	Frosting		Potatoes		Vegetable oil	
	Yeast slurry		Mashed potatoes		Rapeseed	
Beer & Wine	Cake mix	Fruit & Vegetables	Fruit purée	Sauces & Preserves	Coconut oil	
	Beer		Chocolate		Soya bean oil	
	Brewers yeast		Cocoa butter		Mayonnaise	
	Wine, lees, must		Liquor		Ketchup	
Dairy	Milk	Confectionery	Fondant	Beverages	Apple sauce	
	Cottage cheese		Caramel		Jam	
	Cream		Liquorice		Honey	
	Peanut butter		Marzipan		Golden syrup	
	Yoghurt		Nougat		Horseradish	
	Coffee whitener		Sugar & Starch Molasses		Glucose syrup	Mustard
	Ice cream				Corn starch	Salad cream
Custard	Sugar starch	Fruit concentrate				

Support Services

Project management and installation is an area where Mono can offer you additional expertise and support. 3D design of equipment installation into your new or existing plant can be managed by Mono's dedicated team. Qualified engineers, working to health and safety regulations, can install all the necessary equipment quickly to minimise downtime on your production lines.

For routine maintenance of Mono equipment, spares can be purchased online at www.mono-pumps.com or direct from Mono or our distributor network. Planned maintenance contracts are also available to help you keep your equipment working to maximum performance.

Contact a Mono engineer for further details or a process evaluation.



Understanding Your Process Needs



Transfer pump and Muncher for biodegradable waste

Hygiene

We provide hygienic pumps, especially designed to satisfy the most stringent hygienic requirements to prevent product contamination and spoiling.

Cleaning

Our pumps can be used for clean in place (CIP) procedures and bypass ports are available as an option to allow the system to be cleaned via a dedicated CIP or SIP (steam in place) system.



Hygienic pumps transferring honey

Viscous Products

For highly concentrated viscous products, our pumps can run at slow speeds and can also be fitted with enlarged inlets and an auger to help convey the product into the pumping element.

Shear Sensitive Liquids

The progressing cavity pump principle does not rely on any centrifugal action to generate pressure energy, so there are no large changes in velocity, which would inevitably damage shear sensitive products.



Widethroat pump transferring meat purée

Minimal Product Damage

The large continuous cavities of our pumps and the gentle pumping action ensure solids in the flow, which have to be kept intact, are not damaged.

Solids in Suspension

The rolling action of the metal rotor within the resilient stator means any solids that become trapped are released quickly, reducing abrasive wear.

Material Selection

We manufacture the critical components of our pumps, helping us to retain complete control over the quality of the material selected, to ensure a longer life. Food approved rubber in white or black can be supplied.

Self-Priming and Suction Lifts

Unlike other pump technologies, the progressing cavity pump is designed to self-prime and suction lift up to 8.5m.

Limited Space

As the drive forms an integral part of the unit, the pump is ideal for space-saving installations.

Pump Blockages

A Muncher can be used to reduce solids within a flow to a small particle size, allowing easy transfer of a product to the next process.

Waste Management and Recycling

A Muncher can also be used to reduce the volume of biodegradable waste by up to 40%.

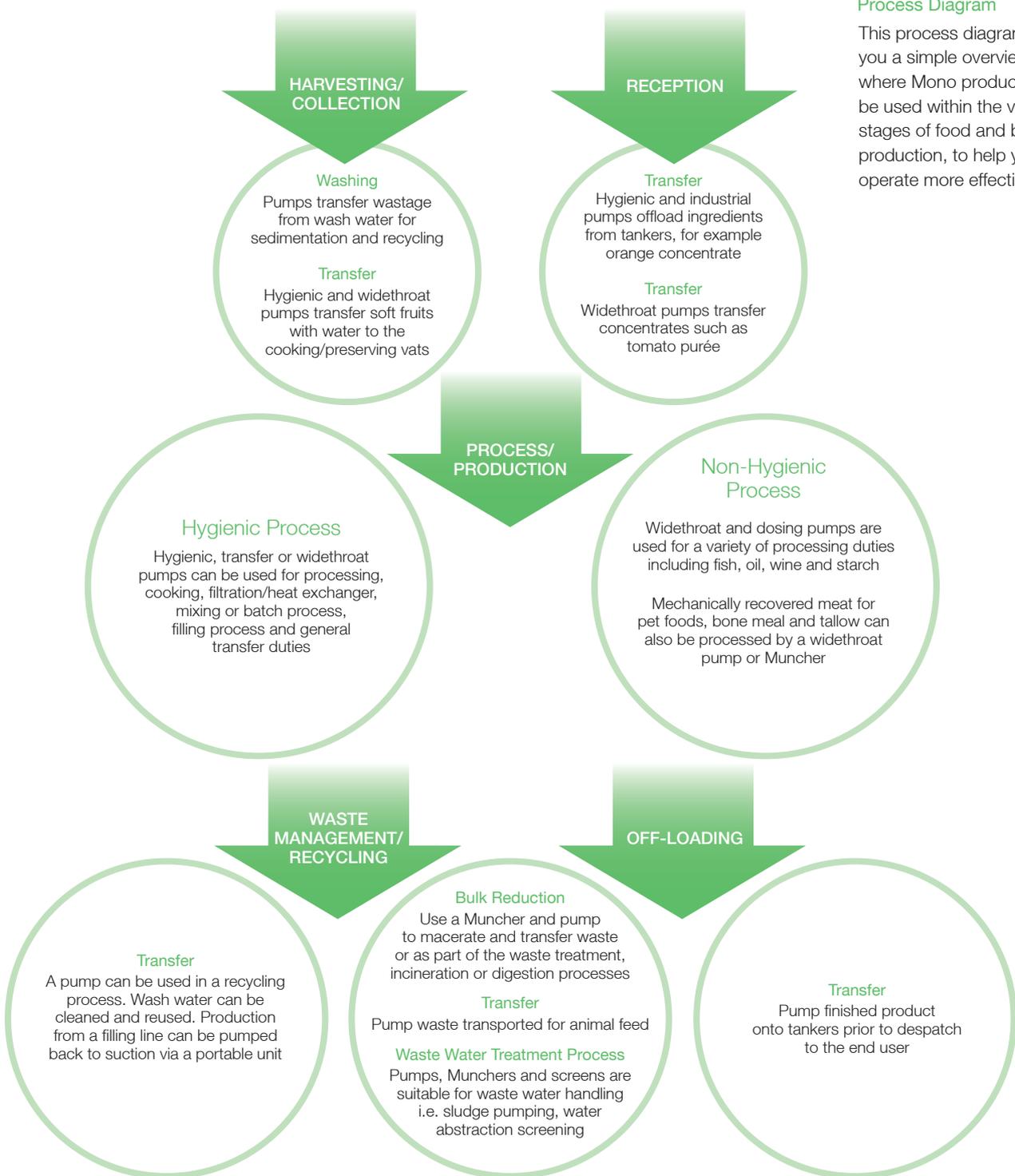
Water Treatment

Some plants treat their own waste water for re-use or disposal into the main drainage system. Mono products are widely used by Water PLC's at local treatment works as part of the treatment process.



Process Diagram

This process diagram gives you a simple overview of where Mono products can be used within the various stages of food and beverage production, to help your plant operate more effectively.



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