



## HpE PROCESS LIMITED



**OVER 25 YEARS OF SUCCESS**

[www.hpeprocess.com](http://www.hpeprocess.com)

HpE Process has been established for over 25 years, and with over 150 years of combined company experience in hygienic fluid handling processes our level of technical sales support and services are unsurpassed. HpE Process is in a position to provide innovative, cost effective, and advanced products and system solutions for virtually any fluid flow applications.

Complimented by a comprehensive range of selected proven products, from the world's leading manufacturers, we are helping our customers to reduce plant downtime and waste.



We have selected our products carefully from the world's best manufacturers, with the aim of being able to offer the most comprehensive range of products that not only meet British, European and American standards, but also offer, in conjunction with our own experience and knowledge, cost effective solutions to the issues that are at the core of any manufacturer.

- Maximising product quality
- Reducing product waste
- Reducing water usage
- Reducing effluent costs
- Reducing energy demand
- Keeping the factory running reliably
- Low cost of ownership on plant and equipment

What follows outlines just some of the products and services that we offer and which have been supplied by HpE for over 25 years to the world's process industry, from small "new start" breweries to the world's biggest of food manufacturers.

#### Key to product usage

- ⊕ Sanitary
- ⊕ Pharma
- ⊗ Chemical
- ⊕ Hygienic
- ⊗ BioTech

“ Over 150 years combined experience allows HpE Process to meet customer demand in several industries. ”

HpE Process deliver sustainable solutions to the following industries and a few of our satisfied clients from those industries.

- Adhesives
- Architectural
- Automotive
- Beverage
- Bio Chemicals
- Bio Tech
- Brewing
- Chemical
- Confectionery
- Dairy
- Food
- Household
- Paints & Coatings
- Paper
- Personal Care
- Pharmaceuticals
- Ready Meals
- Water



## Confidence in our Service

HpE Process is your most knowledgeable supplier delivering the right product matched to the process. Tubes and fittings are the basic building blocks of any sanitary process system, but the ever present pressure on prices has led to many other suppliers offering lower grade materials. Leading to end users having to replace pipe systems as a result of:-

- Stress Corrosion Cracking (SCC)
- Seam splitting
- Chloride attack
- Porosity of castings

These threaten production, hygienic integrity and down time as repairs and unnecessary maintenance are undertaken.

## Pumps

Food producers and other industries are under constant pressure to deliver high quality yet affordable products just in time to retailers while maintaining optimum standards of hygiene to ensure consumer health and safety.

Waste and loss of production are two of the biggest barriers they face. HpE Process has been a trusted partner and adept solution provider to High Street brands for over 25 years. We have helped manufacturers reduce waste and improve reliability, boosting productivity with bespoke systems designed around customers' requirements.

## Valves

One size doesn't fit all and HpE Process propose the best option for your unique problem. Different products demand different solutions. For example, products with large solids can't pass through a butterfly valve but a ball valve is not and can never be, fully hygienic or cleanable without being disassembled. We pioneered the world's first full bore automatic and fully hygienic solution.

We offer a range of valve options that can tackle any products to ensure that production lines maintain free flow and yet can still be 100 per cent cleaned with the minimum downtime.

## Product Recovery

HpE Process has product recovery systems to suit all needs and all budgets. Our three distinct systems have been embraced by diverse organisations with unique needs. They are designed to tackle the key issues facing manufacturers, those of cleaning and reliability. Recovering product from lines that would ordinarily be wasted.

## Manways and Tank Equipment

HpE Process carries the largest stock of manways and access lids in the UK. What truly differentiates us from competitors is the combination of having more than 150 years of combined technical expertise and the largest product range available from any source. HpE Process doesn't just supply a manway/access door but supply a solution. We have the largest range of tank specific products available from any single UK source.

## Bespoke Product Solutions

We offer an unsurpassed level of advice and high quality products in sectors as diverse as household products, food and personal care that has enabled manufacturers to install effective systems that deliver uninterrupted production.

As down time is cut, waste is minimised and the investment is quickly repaid within a shorter than expected period of time, delivering commercially viable results. Incorporating personnel training the team offers a complete design, production, installation, maintenance and operation process to deliver maximum economic benefit.



## Quality Assurance

We supply to the Food and Beverage industries, where it is paramount that we work to national and international hygiene standards. Our products are EHEDG and 3A approved as well as conforming to ASME, DIN, BS, EN, ISO standards.

These approvals enable our customers to make informed choices to the sustainability of a product for each and every application.

## Inside Industry

We pride ourselves on not simply supplying products, but by supporting customers with a detailed knowledge of their industry and applications, so that products and services are tailored to their specific needs.

This approach means that we can focus on providing more than just a product, but also a complete solution that adds genuine value to our customers.

In our fully equipped workshop we can make any adaptor or special fabrication. Our qualified welders purge all welds, and finish items by polishing to customer specifications.

All work is done to food standards and we use 3A and EHEDG guidelines. Our 3D CAD facilities allow us to model jobs and seek client approval before fabrication work starts.

## Service and Repair

We service and repair pumps and valves in-house. Items are stripped and then cleaned. A report is prepared, which is then transmitted to the customer with a quotation for repair.

Once confirmed, the job is moved to our clean room facility, where re-assembly is carried out. We can perform static pressure tests, dynamic pressure and flow testing (for pumps). Items can be sanitised on rebuild or after testing.

“ The team at HpE Process were efficient and are always able to react quickly to our needs too. We are very happy with the service provided. ”



**John Trew**  
Director of Oban Ales





**Sanitary Tube  
to ASTM-A270**



**Hygienic Tube  
to EN10357**



**Pharma Tube  
to ASME BPE**



**Bends / Tees / Reducers  
to BS4825, DIN11852  
ISO2852**



**Pharma / Biotech  
Fittings to ASME BPE**

We have been a major stock holder of stainless steel tube and fittings for over 25 years, in that time we have always maintained strict standards on these products, meeting or exceeding national and international standards.

Our products combine high-quality materials, manufactured by state of the art technologies and certified processes. The tubing we supply is true process tube, not exhaust or architectural grade that has been polished up.

## Bends Tees and Reducers



We hold and supply a full range of hygienic fittings to BS4825 including, 90° Bends, 45° Bends, Pulled Equal Tees, Branch Equal Tees, Concentric Reducers, Eccentric Reducers, RJT Unions, Tri-Clamp Unions and Pipe clips.

## Union Parts

RJT 1" to 4", IDF 1" to 4", SMS (Aseptic), 3A, DIN11864 Aseptic, DIN11851 DN10 (0.5") to DN150 (6") (to suit metric or imperial tube), Clamp 0.5" to 12".

## Jacketed Pipe Fittings

HpE stock a range of bends with matched radii to allow fabrication of jacketed bends. We also stock laser cut closure plates for sealing line ends, BSP fittings vents for water connections to the jacket and a full range of de-mountable fittings for use with press-fit pipe-systems.

## Strainers and Filters

Angle pattern, Y type or In-line options, with elements in perforated tube, woven mesh, or wedge wire construction. Filters with bag or cartridge elements.



“ At HpE we aim to provide cost effective solutions, for long term gain. ”

**Andrew Allman  
MD at HpE Process**



## Versaline Butterfly Valves

Our Versaline range offers versatile and cost effective solutions for the food and beverage process.

- 1" to 4"
- RJT male, weld end or others to order
- Up to 10 bar
- Manual – lever or handwheel
- Air operated, with or without control head
- Control head with bright LED status indication
- Forged grade 316l body and disc
- EPDM or Viton seals
- Finished to < 0.8 micron Ra



## Sanitary Ball Valves



- ½" to 4"
- 2 way, or 3 way with T or L ball option
- Weld end or with screw or clamp ends
- Manual or air operated
- Feed back units and NAMUR solenoids
- Internal finish to less than 0.8 micron Ra
- BSP ball valves from ¼" to 4"



“ Our Versaline range offers versatile and cost effective solutions for food and beverage processes. ”

**Andrew Allman**  
MD at HpE Process

## Other Versaline Valves



- Non return valves
- Pressure relief (overflow – non PED)
- Pressure Relief (safety – PED)
- Sampling from line or tank
- Flow control
- Double seat butterfly valves
- Single seat routing valves
- Mixproof Valves



# Hygienic and Aseptic Process Valves

## Evoguard Process Valves

Evoguard range of process valves from Kronas Ag offer improved cost of ownership, easy maintenance with best in class seal replacement times, un-paralleled levels of hygiene with EHEDG and 3A approvals, reliability with PN25 bar designed bodies. The valves reduce operational costs with up to 30% less reduced air consumption than competitors.

- Butterfly valves
- Single seat valves with balanced plug
- Double seal valves (CIP)
- Double seat mixproof valves with balanced plug, seat lift and seat rinse
- Safety Relief (PED)
- Modulating flow control
- Aseptic single seat with stainless bellows
- Aseptic mix-proof valves

## Hygienic Shutter Arc Valves



**For gentle control of viscous and solids laden products with low pressure drop.**

The unique ARC allows full bore flow through the valves enabling the valve to be used with the DMV pigging system.

- EHEDG and 3A approved
- Manual or air operated
- Flow control version
- 2 way and 3 way T or 120 degree options

## Sampling Valves



**Sampling Valves / Systems**

- EHEDG and 3A approved
- Aseptic sampling
- Industry leading range

“ HpE was excellent in its delivery and approach to the project. From the first moment of contact the team understood our needs and what we required. ”



**Dave Hutchinson  
Meadow Foods**

## Diaphragm Valves



**Hygienic and Aseptic Diaphragm Valves**

- 2 way or multi-way
- Zero dead leg
- Manual or air operated



## Manual and Automatic Sample Valve Systems



- PEMS II – Industry standard sampler, available with 1 outlet for flame sterilisation, or 2 outlets for connection to CIP
- PEMS III – Flush fitting tank pad mounted PEMSII
- PEMS IV – tank mounted version of the PEMS II
- PEMS V – membrane sampler for use with Hypodermic syringe
- PEA air operated sampling valve
- PVL Automatic line sampler

“The project has been a huge success, their technical ability and expertise has proven invaluable in design and installation of the system.”



Paul Millard  
Priden Engineering



## MV Sanitary Plug Valves



- 2, 3, 4 or 5 way sanitary plug valve
- Manual or air operated
- Full bore for viscous and solids laden products
- Piggable
- Optional integral additional cleaning system

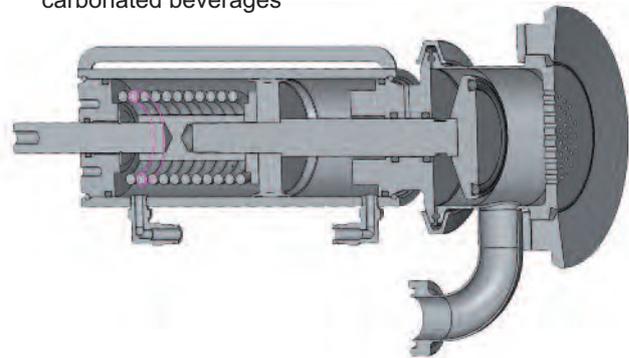


## Tank Venting and Vacuum / Pressure Relief



Tank venting and vacuum / pressure relief valves, using a complex programme. Servinox design and size their valves to fit specific applications, and ensure the best protection from the effects of vacuum that occurs during hot/cold CIP.

- BOG Valve – the most sensitive valve on the market for low pressure applications +/- 2 mBar up to + 0.5 bar
- Pressure only, vacuum only or combined
- Open vented or with collected exhaust for gas recovery
- Optional insect filters, CIP connections and heating elements
- Optional ATEX
- BOG-V is a simple cost effective 3" vent valve for -2 to +40 mBar
- HSV ultra-clean vent valve is the largest in the range, suitable for large vessels and milk silos with a vacuum side of up to 350mm it will safely protect vessels from the shock vacuum created when changing from hot to cold cycles during CIP
- XCHE is a combined tank top unit incorporating gas recovery/supply, pressure/ vacuum relief and CIP into one compact unit. 4" to 13" Tank connection for tanks holding carbonated beverages



## Tank Cleaning and Powder Intro Valves



### Tank Cleaning and Powder Introduction Valves

- Tank cleaning valve is designed to augment centrally mounted cleaning heads and enable the cleaning of those areas that the central unit cannot clean, such as mixers, manways or heating/cooling coils
- Powder introduction valve allows powders to be drawn into a vessel undervacuum while providing a clean surface for CIP

# Manways and Tank Equipment

We are suppliers of high quality, stainless steel manways and ancillary items to industry. We provide the largest range of access covers in the UK and have a dedicated website [www.manyways.co.uk](http://www.manyways.co.uk). Alongside this we have an online e-commerce website [www.brewline.co.uk](http://www.brewline.co.uk).

## Manways and Access Covers



- 0–10 bar pressure ranges with PED approval where needed
- 150mm dia to 1000mm
- Round, oval, rectangular
- Glass manways up to 600mm diameter - etched with customer logo



## Tank Sight and Light Glasses



- Hygienic (Versaline) or flanged
- 50mm to 200mm diameter
- Up to 10 bar rating
- Halogen or LED light units
- Options on switching
- Wipers



## Tank Cleaning



**Our experts will select the right machine for your application. Our Versaline range is the most diverse that any supplier can offer.**

- Static and rotary sprayballs
- Indexing jet heads for large tanks with difficult to clean products high pressure low flow cleaners to reduce cleaning time and costs
- Flush washing valves

## Flush Fitting Tank Outlet Valves



- Rising or lowering plug options
- Manual or air operated
- Single seat or double seat mix-proof
- 1" up to 6"
- Hygienic or Aseptic



## Levelling Feet



- Light duty feet, stainless stem and plastic base
- Light duty stainless stem and base – optional rubber pad
- Medium duty feet with shrouded threads for a clean look
- Medium duty feet to 3A and EHEDG standards
- Heavy duty feet
- Plastic threaded inserts and Stainless weld plates



## Centrifugal Pumps



- 0.55kw to 30kw
- Flowrate up to 140,000l/hr
- Head up to 75m

All pumps up to 7.5kw can be supplied with integral frequency inverters, electro polishing is standard, with options on specific finishes to customer specification. Motor to IE3.



## Versaline VCP Pumps



For Dairy, Beer, Beverage, Pharmaceutical and Chemical applications

- Flow rates from 5m<sup>3</sup>/hr to 273m<sup>3</sup>/hr
- Delivery heads up to 115m



## Single Stage Pumps

For dairy, brewing, soft drinks, wines, juices and CIP

- EHEDG approved
- Optional inducer for low NPSH applications such as wort transfer
- Optional heated pump casing – eg palm oil transfer
- All grade 1.4404 (316L) wetted parts
- DIN standard mech seal for low cost maintenance. One size seal fits all pumps from 0.55kw to 30 kw
- Modular design for ease of maintenance



## Multi-Stage Centrifugal Pumps

For Food and Pharmaceutical applications

- Horizontal mounting or vertical mounting (self draining)
- Flowrate up to 45,000l/hr, head up to 120m

## Sanitary 'S' type self-priming Liquid Ring Pumps

For CIP return

- Available as end suction or vertical suction designs

“ It is our job to ensure the customer is comfortable with our products, we go the extra mile. We have had demo pumps onsite running customer product to ensure they see the results for themselves, before purchase. ”

**Khawar Aziz**  
Director HpE Process



## Pharma / Aseptic Range



Pharma process, quality water distribution maintenance

- Low maintenance
- All forged or rolled components
- All grade 1,4404(316L) welded parts with options on 1,4435
- Controlled delta ferrite, with optional certification
- Full material traceability
- Optional drain connection or valve



# Positive Displacement Process Pumps

## Versatwin Screw Pumps



### For Hygienic and Aseptic applications

- EHEDG and 3A approved
- 2 pumps in one – slow speeds for product transfer, up to 4000rpm for CIP feed and scavenge
- Very low shear to product
- Low NPSH requirement
- Up to 30mm solids handling
- Self-priming and capable of handling up to 60% air / liquid mix
- Optional Vario-Twin screw feeder
- Can dry run (with flushed mech seals)
- Optional heating jacket



## Progressing Cavity Pumps



### For Industrial, Sanitary and Hygienic applications

- EHEDG and 3A approved
- Flowrates up to 260 M<sup>3</sup>/Hr, Pressures up to 48 Bar
- For Effluent, Waste Transfer and Bioreactors
- Food And Food Product Transfer
- Unique stator/rotor geometry provides longer service
- Mono-bloc construction
- Cartridge shaft seals prevent product build-up
- Cardan shaft joints are fully enclosed and fitted with needle bearings for long life
- Optional hopper feed, screw feeder and/or bridge breakers



## Dosing and Metering Pumps



Dosing pumps for additives, colours and flavours. HpE can supply a pump, but adosing pump on its own is only part of the job. We also supply back pressure valves, injectors, suction tubes and calibration tubes.

Once the liquid is dosed into a line, it also needs mixing – no problem if the product in the line is in turbulent flow, but in laminar flow systems mixing 2 streams can be difficult, with pump pulse rate significantly affecting mixer efficiency. HpE Process can size your dosing pump, product transfer pump and a static mixer as a complete system.

## In-Line and Mixing Heat Exchanger



For heating, cooling or cooking viscous products

- Static mixers
- Dynamic mixers
- Scraped surface heat exchangers

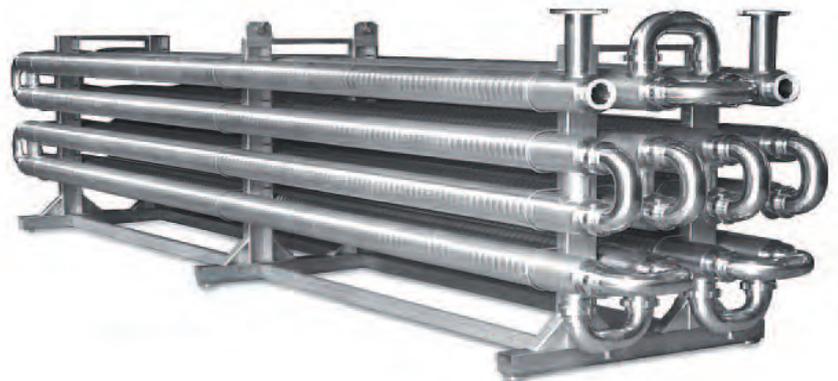
## Magnetic Traps



Jacketed in-line mag-traps for confectionery EHEDG approved in-line mag-traps for food process and CIP.

“WASTE is a major issue for food manufacturing where margins and deadlines are tight. We have helped many companies over the years.

HpE Process



# Positive Displacement Process Pumps

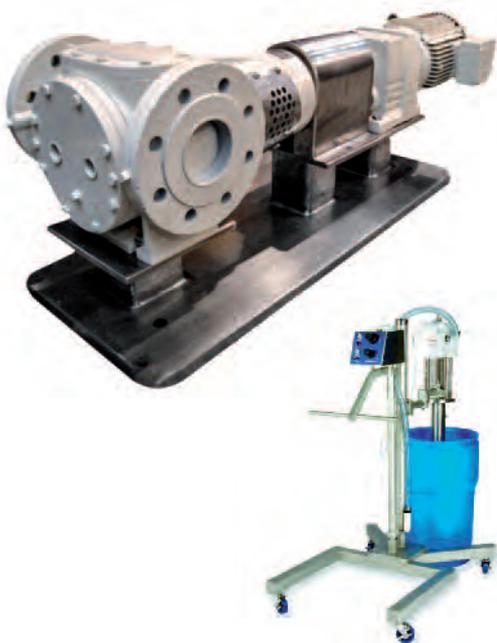
## Chocolate Pumps



Where chocolate lines are never cleaned, the industry standard pump is the internal tooth gear pump. It uses a combined PTFE packed gland / camban shaft seal arrangement and increased internal gear clearances designed specifically for your product and is fitted with heating jackets as standard.

Selection of these pumps needs some care – different types of chocolate respond differently to shear rate and the rotor tip speed of the pump can affect product quality. HpE Process have the knowledge and experience of chocolate pumping to be able to size your pump for best product quality.

These pumps are also limited to 6 bar differential pressure – any more than that and the pump separates the cocoa solids from the oils. We can select other pumps in our range for areas where higher pressure or CIP may be required.



## Unibloc Rotary Lobe Pumps



### For Food and Pharmaceutical

- Robust and reliable design, with over size shafts for long trouble free service
- Optional non-galling alloy rotors prevent pumps seizing
- Single or double mechanical seals, O ring Seals, or our unique “double O Lip seal” which combines the benefits of both O ring and Lip seal for chocolate or other difficult to seal products
- Unique “Compac” Monobloc option does away with expensive baseplates and coupling guards
- Unique “meat” pump uses composite rotors that are easily and cheaply replaced if a piece of bone gets into the pump
- Available in Hastelloy or AL6XN for pharma service – in less than 8 weeks delivery time
- Labtop range for R&D enable trouble free scale-up



“ HpE Process are PL Controls chosen partner in helping PL Controls to provide Turn-Key Automated Process Solutions both in the UK and overseas. We have a long standing relationship with HpE for over 10 years now.

Their help and expertise in assisting PL Controls with providing solutions for a variety of process solutions over the years has been invaluable. The service provided is excellent, all the staff are very proficient and professional without losing that friendly aspect.

All the hardware supplied is of a high standard along with the technical support for the hardware supplied which enable PL Controls to provide the high standards expected within the Pharmaceutical and Food/Beverage Industries.

**PL** Lee Baldwin, MD  
Controls Ltd PL Controls Ltd



## Graco Saniforce Range



### For Sanitary applications

Graco are global specialist manufacturers of pumps and equipment for moving medium to high viscosity fluids.

Their Saniforce range is designed specifically for the food industry and can cope with the stringent demands that the food manufacturers make.

HpE Process have been hygienic pump specialists for over 25 years and are delighted to have been appointed a Graco Specialist distributor.

The Saniforce range comprises air operated diaphragm pumps, air operated piston pumps and bin emptying / un-loading equipment.

All the Saniforce range are designed for food use and for strip-down cleaning.



## Graco Piston Pumps



### Available in eight different models

Graco's powerful line of sanitary piston pumps move extremely difficult materials when others cannot. They have pressure ratios up to 12:1 and are ideal for low to medium viscosity materials.

- Flow rates to 53L/ Min
- Pressures to 80 bar

## Graco Diaphragm Pumps



### Available in eight different models

Graco's powerful line of sanitary AODD pumps move extremely difficult materials when others cannot. They are ideal for low to medium viscosity materials and can be fitted with ball or flap valves for different solids handling capability.

- Flow rates to 570L/ Min gpm
- Pressures to 8 bar

## Graco Saniforce Drum Unloader Pump Systems



Graco's Saniforce drum unloaders are used in combination with either the diaphragm or piston pumps. They can evacuate medium to high viscosity products from their original 55-gallon (208L) containers, in less than 5 minutes – without diluting or shearing the material.

- Extremely fast evacuation rates up to 100 gpm (400 lpm)
- Both Graco sanitary AODD and piston pump systems are available.
- Superior plate design with inflatable wiper seals – which can be adapted to any drum or bin size and shape



HpE Process are one of our key suppliers, during the time we have worked together they have delivered an excellent service. The knowledge and “Can Do” attitude of all the staff is outstanding. The support and service that they provide has been instrumental to the growth of JJA Pak Ltd.



Jamie Ashpole, MD  
JJA Pack



- Pumps from a variety of barrels, including tapered/conical plastic drums
- Graco sanitary drum unloader pumps will unload viscosities up to 250,000 cps (including caramel)



## Premisphere Controlled Consistent, Clean

HpE Process supply the only Product Recovery System that has EHEDG approval, and one of only two that have 3A approval. Our systems are the most hygienic on the market.

The Premisphere Product Recovery System technology offers a full range of systems that can be tailored to suit any process or budget. It features a totally in line design with no off line cavities or external to internal moving parts. The Premisphere system uses magnets to control the launch and retention of the spherical pig. The use of a sphere ensures the highest standards of cleanliness, provides a longer lifespan of the pig and is fully cleanable in place.

Our Product Recovery Systems will greatly assist manufacturers with the regulations on the Integrated Pollution Prevention and Control (IPPC) Directive, relating to the waste reduction of waste, effluent and water use.

Our team of engineers have unparalleled experience in producing the right control of pipeline pigs and spheres and experience has shown that their skill and judgement will give you a reliable and cost effective system that will pay for itself in a very short time.

Premisphere (the three different types) - HpE Process design and manufacture the Premisphere fully hygienic pipeline pigging (product recovery ) system – still the only system on the market where the pig (or sphere) is cleaned with and as part of the pipeline.

However the Premisphere system is not suited to all applications – in fact, no single system can ever suite all jobs. For this reason, we also supply and support alternative pigging and product recovery systems from two other world-class manufacturers who also specialise in Hygienic pigging and product recovery systems.

Both LIAG and Servinox have many years' experience in the manufacture and installation of Hygienic product recovery systems and both have their own and unique piggable valves that compliment those systems. We have worked with

“ Since HpE installed the premisphere recovery System, we've had no issues whatsoever with regards to waste. ”



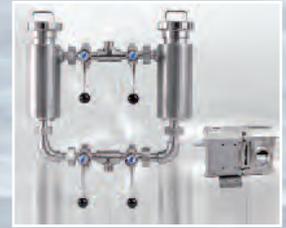
Jon Skinner  
Coleman Foods

both companies for over 25 years and have un-paralleled experience of their valves and pig systems.

The LIAG DMV system is now 3A approved for Cleaning In Place (CIP).

The combination of 3 very different systems, each having its own features, allows HpE Process to provide a product recovery system that is tailored to your process. We provide independent advice and un-biased technical support at the all-important enquiry stage for your project – and we don't stop there. We will be on site for commissioning and always available for advice and after-sales backup for the life of your investment.





**HpE Process Ltd deliver sustainable solutions to the following industries**

- Adhesives
- Architectural
- Automotive
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- Bio Chemicals
- Bio Tech
- Brewing
- Chemical
- Confectionery
- Dairy
- Food
- Household
- Paints and Coatings
- Paper
- Personal Care
- Pharmaceuticals
- Ready Meals
- Water



**HpE Process Limited**

Unit N2, Gildersome Spur, Leeds, West Yorkshire, LS27 7JZ

Telephone: 0113 252 6712 Fax: 0113 253 8125

email: [sales@hpeprocess.com](mailto:sales@hpeprocess.com) [www.hpeprocess.com](http://www.hpeprocess.com)