



**FLOWPLANT®**

Engineering excellence in high-pressure  
pump systems

MANUFACTURERS OF THE  
**HARBEN**  
PUMP

# HARBEN PUMPS BROCHURE

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Innovative High-Pressure Pumps: Demonstrating unparalleled reliability, resilient performance, and outstanding run-dry capability.

# BENEFITS

Renowned for their exceptional efficiency, reliability, and innovative design, Harben Pumps have carved a niche for themselves in the market, becoming the go-to choice for a wide range of industries that demand powerful and efficient cleaning solutions.



The reputation of Harben Pumps within the market is a testament to their exceptional quality and performance. Over the years, they have consistently delivered outstanding results in the most demanding industrial settings, earning the trust of professionals across various sectors. The commitment to innovation, efficiency, and reliability has solidified their position as a leader in the high-pressure water jetting industry.

Get in touch today on  
[sales@flowplant.com](mailto:sales@flowplant.com)  
or call 01722 325424 today.



## WHAT SETS HARBEN APART



**EXCEPTIONAL EFFICIENCY** - Harben Pumps are engineered to deliver industry leading efficiency in high-pressure applications. With their innovative design and cutting-edge technology, they ensure that fluid is pressurised and delivered with precision, resulting in effective cleaning with minimal water and energy consumption.



**VERSATILITY** - Harben Pumps are versatile pumps that find application in various industries, from construction and manufacturing to oil and gas, mining, and beyond. They can effectively remove stubborn deposits, paint, corrosion, and even cut through concrete, showcasing their adaptability and wide range of applications.



**REDUCED ENVIRONMENTAL IMPACT** - The efficient water usage of Harben Pumps contributes to a reduced environmental footprint. By minimising water consumption and utilising high-pressure water jets instead of harsh chemicals, they offer an eco-friendlier cleaning solution.



**LONGEVITY AND DURABILITY** - Crafted with high-quality materials and precision engineering, Harben Pumps boast impressive durability and longevity. This ensures a prolonged operational life, minimising downtime, and maintenance costs.

1

**ABILITY TO RUN DRY** - Harben pumps, exhibit the remarkable capability to operate indefinitely without water (can run dry). Even when pushed to maximum power for extended periods, these pumps remain undamaged.

2

**VERSATILE FLUID COMPATIBILITY** - As well as fresh water and sea water, the Harben Pump effortlessly handles a variety of different fluids, making it an ideal choice for diverse applications.

3

**SOLIDS HANDLING** - With an impressive 150-micron tolerance, the Harben Pump is your ultimate solution for pumping fluids with solids and debris.

4

**ROBUST RELIABILITY** - Built to last, the Harben Pump's durability stems from its extraordinary dry-running ability, versatility, and impeccable engineering.

5

**UK MANUFACTURE** - When you choose the Harben Pump, you're not just investing in cutting-edge design – you're choosing British excellence, precision-engineered by Flowplant Group Ltd.





## THE POWER BEHIND THE PRESSURE

The pumps work on the **radial piston design** principal using one way valves in conjunction with tubular diaphragms fitted with an internal support or mandrel. The pumped fluid which passes through this diaphragm is surrounded by a cylindrical pressure chamber or barrel, in the ends of which inlet and delivery valves are fitted.

The pumps' crankcase, which contains the only moving parts, is fitted with a mineral hydraulic HLP oil which performs two tasks; 1. The lubrication of all moving parts within the crankcase, 2. As a means of pressure to compress the diaphragm.

As the shaft rotates, the piston advances and its ports pass the end of the cylinder, sealing the chamber. Further advance causes the trapped oil to compress the diaphragm around the mandrel expelling the water in the diaphragm through the delivery valve into the delivery manifold. As the piston retreats, the diaphragm reverts to its tubular form drawing water through the inlet valve. Any oil slippage past the piston during the delivery stroke is made up through the piston ports as they open to the crankcase oil.

All mechanical parts, with the exception of the inlet and delivery valves, run in the oil flooded crankcase and so are unaffected by contamination from the pump fluid or by running dry.

Most high pressure pumps require very clean fluids, free from solids. However the Harben pumps **can handle fluids with solids up to 150 microns**, giving them the ability to work in more challenging applications. Inlet conditions for Harben pumps are flooded

suction; pressure feeding is not necessary, making the system design easier. If the inlet fluid supply is interrupted or stopped, then the **Harben pump can run dry without damage** – another benefit of this great product.

Arrangements are made on both 'P' type and Century series pumps for the incoming fluid to cool the crankcase oil. The use of standard diaphragm/barrel assemblies provides a choice of flows, depending on the number of barrels fitted to the crankcase. The multiple barrels (or cylinders) also ensures a smooth flow with limited pulsations.

**The product range includes** the Hi-Q pump with pressures up to 280 bar (4,000 psi), the 'P' type pump with pressures up to 420 bar (6,000 PSI) and the larger Century Series pump with pressures up to 700 bar (10,000 PSI). All pumps are designed to be directly coupled and flange mounted and can be supplied in bare-shaft form, skid mounted, trolley mounted, trailer or truck mounted. Pumps can even be mounted on underwater ROV's. Diesel drive, electrical drive and hydraulic drive options are available.

For more details on the range and performance options scan the QR code below or contact the sales team on 01722 325424 or email [sales@flowplant.com](mailto:sales@flowplant.com).





# IN MORE DETAIL

Their exceptional efficiency, versatility, and reliability set Harben pumps apart from the competition, making them the preferred choice for industries that demand powerful and efficient cleaning solutions.

**CENTURY PUMPS** - High pressure diaphragm pumps capable of pressures up to **700 bar** and flows to **200 lpm**. Available with **4 or 8 cylinders** requiring from 20 to 115Kw depending upon the pressure and flow configuration chosen.

**P TYPE PUMPS** - High pressure diaphragm pump capable of pressures up to **415 bar** and flows to **72 lpm**. Available with **3, 4, 6 or 8 cylinders** requiring from 7.5 to 37Kw depending upon the pressure and flow configuration chosen.

**HI-Q PUMP** - High pressure diaphragm pump capable of pressures up to **280 bar** and flows to **101 lpm**. Available in a **4 cylinder** format requiring up to 50Kw depending upon the pressure and flow configuration chosen.

Harben high pressure diaphragm pumps can be used in numerous pumping applications because they are efficient, reliable and easy to maintain. All are available in a choice of diesel or electric drive powers with a range of gearbox ratios to suit requirements.



## CENTURY PUMP

Pump low lubricity fluid with ease. Multi-cylinders therefore minimal pulsations. Simple to pressure compensate for subsea applications. Compact and lightweight



## P TYPE PUMP

Unrivalled reliability and long service intervals. Variable pressure and flow options without piston changes. Pump sea water without modification. Configure for use with hot water up to 70c.



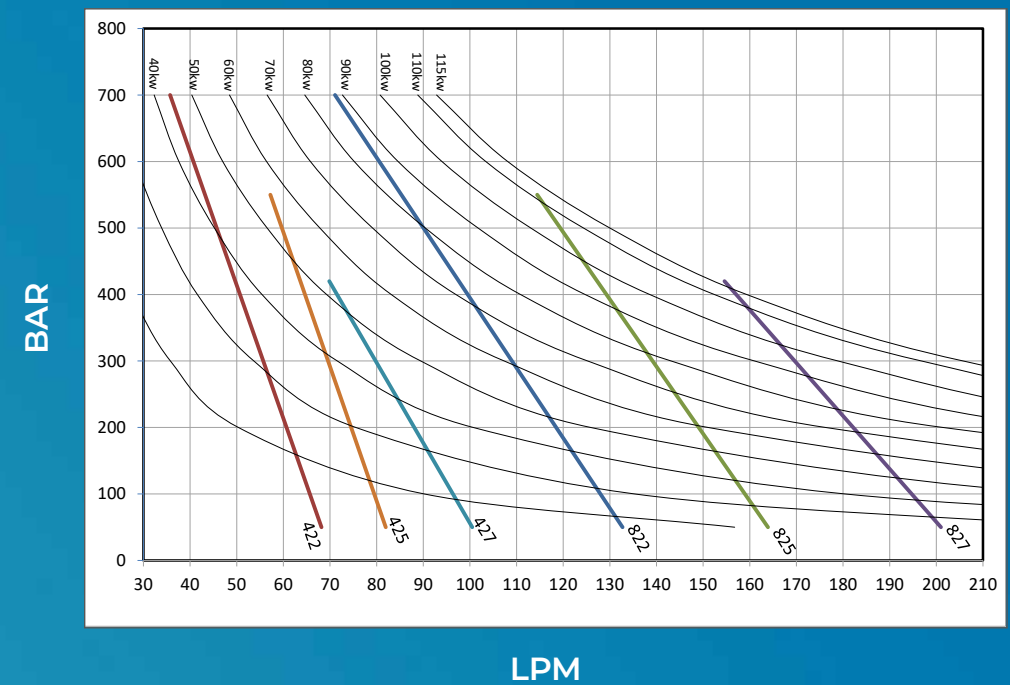
## HI Q PUMP

High flow and pressure characteristics. Unrivalled reliability and low running costs. Pump low lubricity fluid with ease. Simple to pressure compensate.

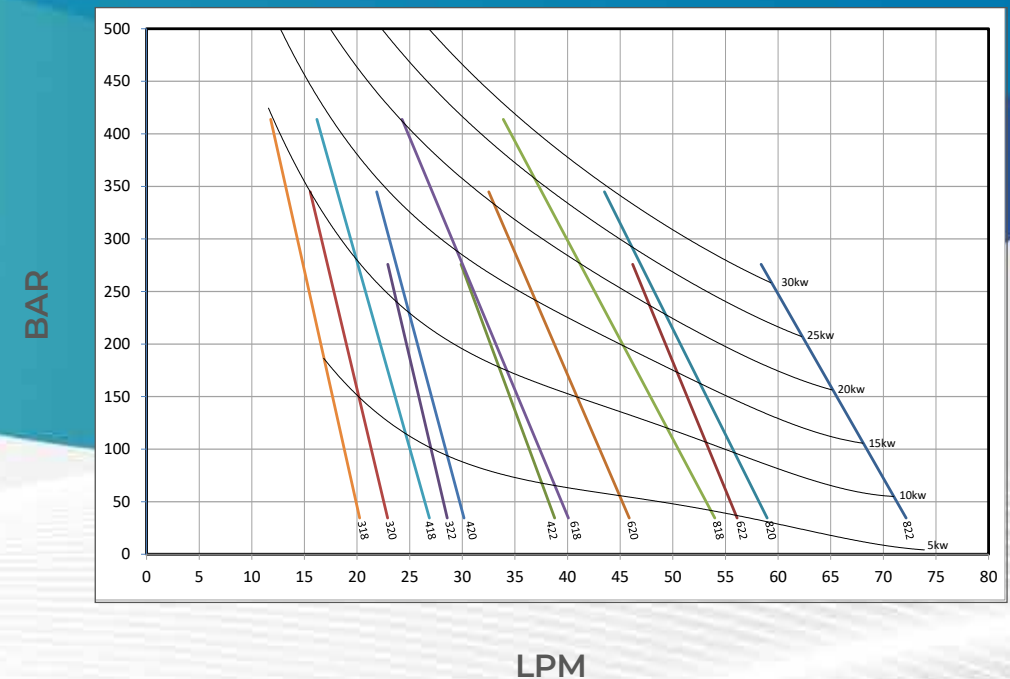


Pumps can be supplied with ATEX certification, allowing the pumps to be used in Zone 1 or Zone 2 hazardous areas.

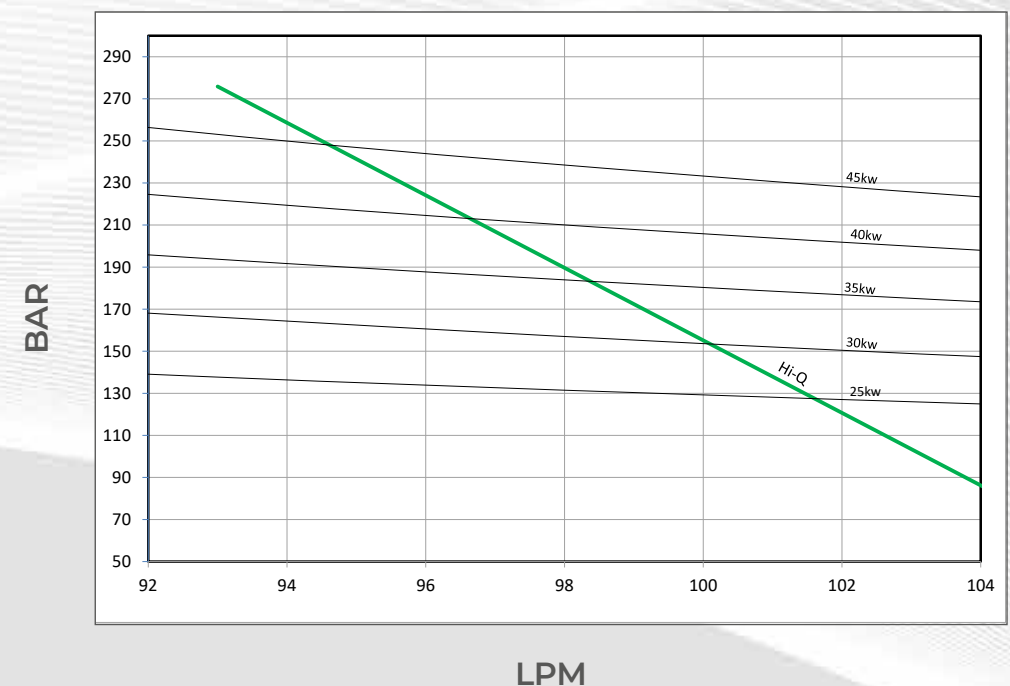
CENTURY PERFORMANCE CHART  
1200 RPM



P-TYPE PERFORMANCE CHART  
1250 RPM



HI Q PERFORMANCE CHART  
1000 RPM





# BACK-UP & SERVICE

This section provides an overview of the services available for Harben Pumps, including servicing options, warranty coverage, training programs, and the extensive distributor network.



**DISTRIBUTOR NETWORK** - Harben pumps are backed by the world's most comprehensive network of distributors, so wherever you are, whatever the job, the back-up is there.



**WARRANTY** - All Harben pumps are thoroughly tested and checked before they leave the plant and come with a full 12 months warranty.



**SERVICING** - We also operate a servicing and maintenance division which can either advise customers' own engineering staff or undertake work in the field or at the plant depending on the nature of the task.



**TRAINING** - Operator and safety training can be provided, with our experienced trainers and hands-on sessions, you'll gain the skills and knowledge you need to operate your Harben pump safely and effectively.



**SPARES** - A comprehensive range of spares are stocked at Flowplant and all approved distributors.



**CUSTOMISATION** - We can cater for custom requests for specialist systems or applications. Get in touch with the team to discuss your specific requirements.

With their positive displacement technology, minimal environmental impact, and renowned reputation, Harben

Pumps continue to revolutionise the way industries approach high-pressure water jetting, driving efficiency and productivity to new heights.



## INNOVATION INTEGRITY EXCELLENCE

**WE** are an innovative and focused engineering company.

**WE** encourage open and honest partnerships in all our activities.

**WE** care deeply about what our customers think of our products.

**WE** work hard to ensure that the projects entrusted to us are delivered in a safe and environmentally aware manner which exceeds expectations.



Partnership  
with Clients



Safety &  
Quality



Reliable &  
Consistent



Scan the QR to find out more  
about the Harben Pumps Range.

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