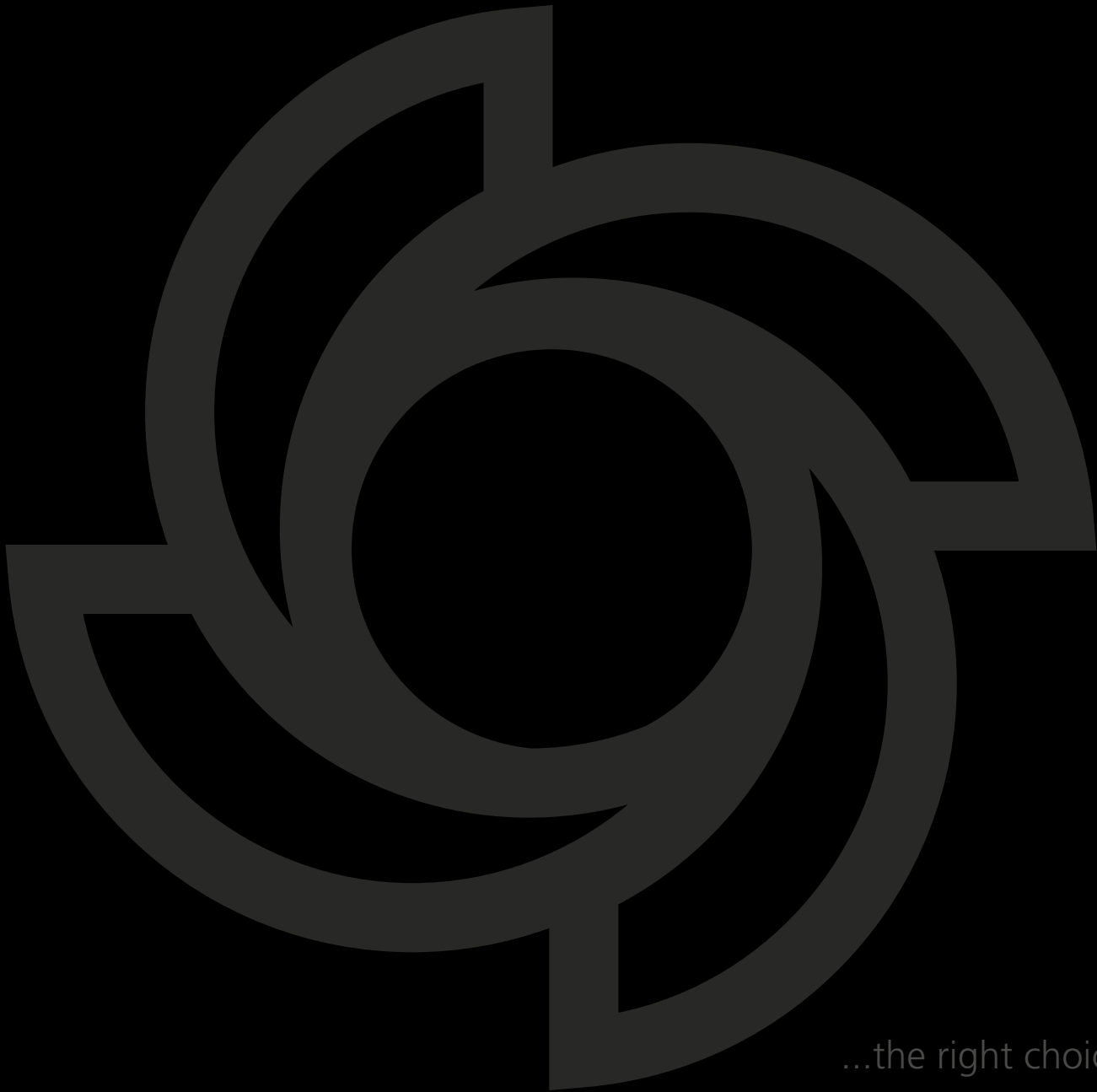


Pumps UK Ltd | Making the right choice...



...the right choice for

Product | Service | Knowledge

PRODUCT RANGE

www.cdrpumps.co.uk



CDR Pumps are a leading independent pump manufacturer for the chemical, nuclear and pharmaceutical industries for over 60 years, over twenty of which are from our UK Head Office in Northamptonshire. Since opening the doors in 1998, CDR have gone from strength to strength bringing you a company which has the product, service and knowledge to support the chemical, nuclear and pharmaceutical industries on a global scale, small enough to give each of you the individual care and attention you need yet big enough to pro-actively support multi-site, multi-national blue-chip chemical companies. A holistic approach provides you with a complete, all-round service from initial enquiry throughout the entire specification and sales process, installation and most importantly after sales service and support.



Our global manufacturing facility in Milan is strategically located to support our customers across the world and it is from here that our unique patented pump lining technology is applied to magnetically driven and mechanically sealed lined pumps which increases the life span of your pump and reduces the risk on wear damage or contamination.



ABOUT CDR PUMPS

An extensive range of fluid handling solutions focusses on process safety, reliability, energy saving and efficiency is available to you whether you need a solution straight away, made to your precise specifications, on service exchange or on consignment.

Pumps are available as metallic or a non-metallic pump option depending on your requirements and our team work closely with you to ensure you have the right solution in place.



To find out more, talk to a sales engineer by calling 01933 674777 or email sales@cdrpumps.co.uk

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MAGNETICALLY DRIVEN CENTRIFUGAL PUMPS

Magnetically driven centrifugal pumps are specifically designed for hazardous duties. Due to the seal-less technology these pumps feature a zero-vapour loss design which prevents leakage of fluids and emissions of volatile, toxic and flammable chemicals.

Mag drive pumps are ATEX certified and have traditionally been suited to the chemical and pharmaceutical industries.

RunSafe SiC is a diamond coated bearing option which significantly extends the life of your pump in low viscosity, air entrained and high temperature applications.



METALLIC PUMPS

Metallic pumps can be manufactured in:

- Stainless Steel
- Hastelloy C
- Pump cartridge assemblies are available for metallic magnetic drive pumps

NON-METALLIC PUMPS

Non-metallic pumps can be manufactured in:

- Polypropylene
- PVDF (Polyvinylidene Fluoride)
- ETFE (Ethylene Tetrafluoroethylene)
- PFA (PerFluoroAlkoxy)

FEATURES:

- Pump range covers duties from 1m³/hr up to 320m³/hr
- Maximum pressure 16 bar
- Available from 0.12kw motors up to 90kw motors
- Zero vapour loss on hazardous liquids
- ATEX Certified for flammable liquids
- No mechanical seals
- Capable of handling a wide variety of liquids with up to 2% fines

PP LINING



PVDF LINING



PFA LINING



THE ALL NEW SOLIDS HANDLING MAG DRIVE PUMP

Say **goodbye** to fluid contamination with the first solids handling magnetically driven centrifugal pump

Say **goodbye** to mechanical seals

Say **goodbye** to external flushing systems

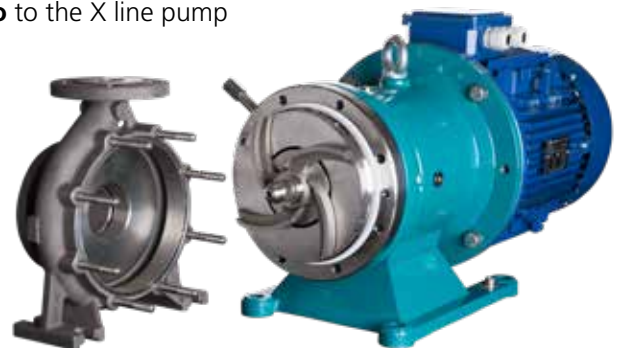
Say **hello** to the unique new open impeller

Say **hello** to zero-vapour loss

Say **hello** to the X line pump

CDR's new solids handling mag drive pump has been designed to transfer fluids which do contain particulates removing the need for external flushing systems and mechanical seals.

Pumps are currently available in Stainless Steel 316 or PFA Lined making them the right choice for a wide variety of fluids.



MECHANICALLY SEALED CENTRIFUGAL PUMPS

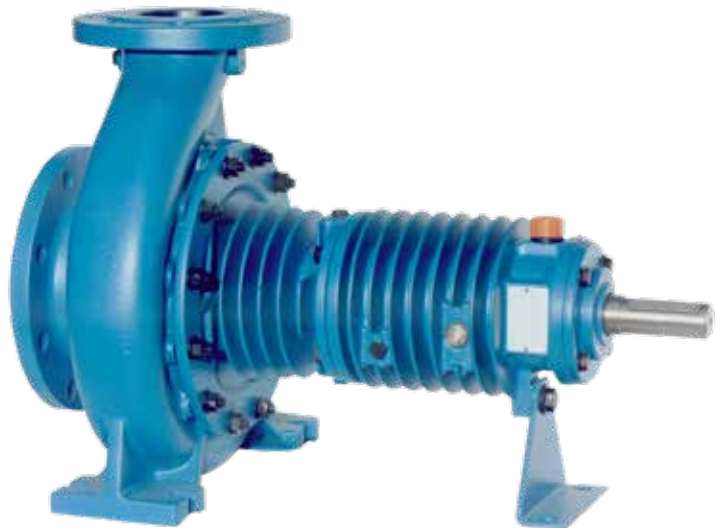


Mechanical Seal Pumps are specifically designed for harsh, abrasive and/or toxic fluids containing solid elements including dirty fluids and high viscosity fluids. With a choice of open or closed impellers on centrifugal pumps, mechanical seal pumps are the right choice for contaminated, dirty or highly viscous fluids. Mechanically sealed side channel pumps also give you the option for pumping gas entrained liquids.

Mech Seal pumps can be produced to ATEX certification if required and are an ideal choice for the chemical, pharmaceutical and nuclear industries amongst others. A popular choice, mech seal pumps are available in both metallic and non-metallic options from Polypropylene and PVDF lined to Stainless Steel and Super Duplex.

MATERIALS:

- Cast Iron
- Ductile Iron
- Hastelloy C
- Stainless Steel
- Super Duplex
- PFA (PerFluoroAlkoxy)
- PVDF (Polyvinylidene Fluoride)
- Polypropylene



FEATURES:

- Maximum flow 500 m³/h
- Maximum pressure 16 bar
- Maximum temperature up to 350°C
- DIN 24256
- Large variety of impellers
- Suitable for contaminated fluids
- Options for either high or low viscosity fluids
- High hydraulic efficiencies & low NPSH requirements
- Shaft sealing by packed stuffing box, single or double mechanical seals
- Pump casing and seal housing can be provided with heating or cooling chambers





ASHTON PUMPS LIMITED

CDR Pumps offer the very latest in AOD pumps with the acquisition of Ashton Pumps offering units manufactured from Polypropylene, PVDF, PTFE, Aluminium, Cast Iron, Stainless steel and exotic alloys from ¼" through to 3" pumps. The pump range includes the newly designed air motors providing up to **30% saving on air consumption** and with modular design air valve for ease of maintenance and overhaul.

The air operated diaphragm pump is probably the most popular positive displacement pump. Due to the way they work, they are ideal for abrasive and corrosive materials, for viscous and self-priming applications and are capable of handling fluids with solids present making them a great choice for many differing applications. Durable, low cost, easy to maintain and dead-head capable, air operated diaphragm pumps will not be damaged if they are to be run dry. The variety of different materials these pumps are available in means they can be used in a wide range of different applications with ATEX certified pumps and hygienic options available.



ALUMINIUM

- Capable of handling a wide variety of products from water, oils, grease, hydro-carbons, paint, inks, paper and pulp etc.

NON-METALLIC PUMPS

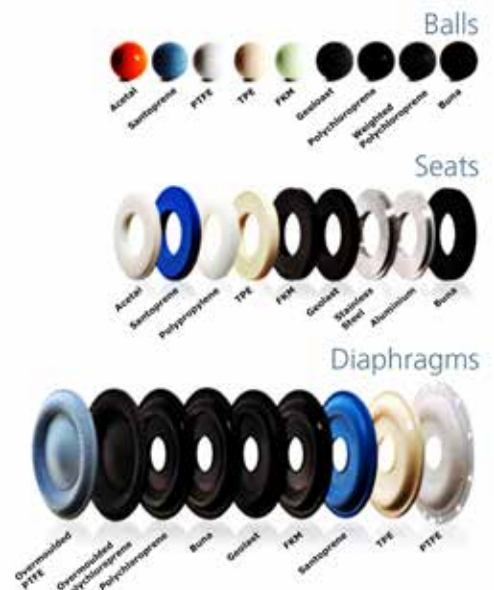
- Available in a variety of materials, from Polypropylene, PVDF (Kynar) & Acetal
- Capable of handling a wide variety of products from acid, alkaline, hydro-carbons, pharmaceutical, water treatment, paints and inks etc.

STAINLESS STEEL

- Capable of handling a wide variety of products from acids, alkalis, pharmaceuticals, food & beverage, hydro-carbons, paints and inks etc.

FEATURES:

- Available in different sizes, ranging from 1/4" through to 3" ports
- Pumping up to a maximum capacity of 35m³/hr
- ATEX certified for EExd hazardous areas
- Sealless design, no mechanical seals or pack glands
- Lubrication free, non-stall easy to access air valve design
- Completely pneumatically driven, no need for electric
- Wide range of spares interchangeability, keeping down time & stock holdings to a minimum
- Dry running capabilities
- Inherent self-priming design
- Easy to strip, assemble & maintain



ELECTRONICALLY-OPERATED DOUBLE DIAPHRAGM PUMPS

ASHTON
PUMPS LIMITED

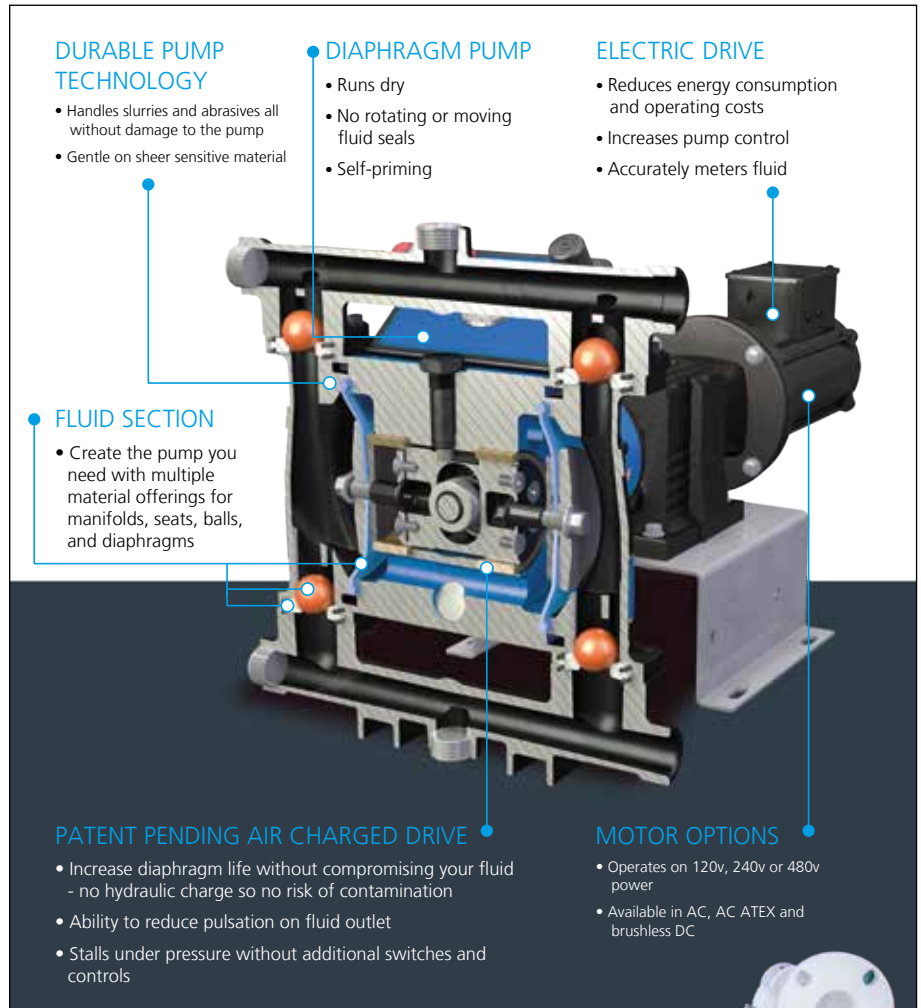
THE REVOLUTIONARY EODD

The only electric diaphragm pump on the market, the EODD pumps are ideal for applications that require low pulsation and a smooth flow. The patented air charged drive allows for the elimination or reduction of pulsation WITHOUT expensive pulsation dampeners or surge tanks.

- State of the art technology allows pump to stall under pressure preventing pump failures from clogged lines or closed valves
- Energy efficient electric drive reduces energy consumption up to 5x compared to traditional air operated diaphragm pumps
- Seal-less diaphragm pump design eliminates leaking and failures due to run-dry pump condition

BENEFITS:

- Energy efficient
- Low pulsation
- Self-priming
- Stalls under pressure
- Smooth flow
- More control, ideal for batching & metering
- FDA approved options



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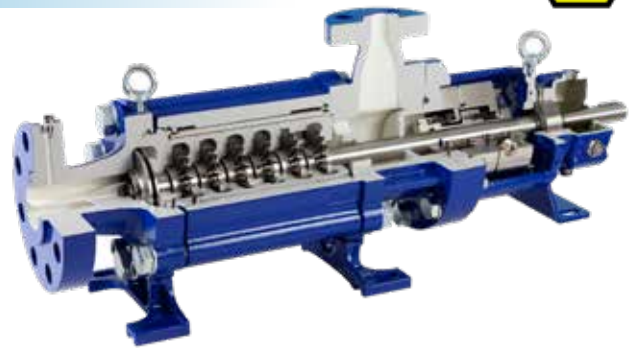
t: 01933 674777
e: sales@cdrpumps.co.uk

SIDE CHANNEL PUMPS



Side-Channel pumps sit in the void between a centrifugal pump and a positive displacement pump. Capable of low NPSH, these low-flow high-head pumps are available as a mechanically sealed unit or as a magnetically driven unit for volatile or toxic fluids. The modular design of the side-channel pump there are thousands of custom variations available to you.

Side-channel pumps are able to handle gas entrained fluids with up to 50% gas content; with a temperature range of -20° up to 120° as standard, modifications can be made to cover temperature ranges from -75° up to 220°. A wide variety of material options include casings manufactured in ductile iron, super duplex SS, stainless steel AISI 316 and Bronze with the addition of brass for the impeller and hastelloy and Carbon fibre reinforced polymer containment shells on magnetically driven pumps.



FEATURES:

- Low NPSH to prevent cavitation
- Self-priming
- Able to handle gas entrained and vapour laden fluids
- Modular design gives thousands of combinations
- Magnetic drive and mechanical seal pumps available

BENEFITS:

- Low NPSH: Can operate with as little as 0.35m
- Low flow: Ideally suited to low flow applications, as low as 0.4 m³/hr
- High pressure: 8 to 9x higher pressure can be achieved compared to a centrifugal pump (up to 100 bar)
- Suction lift: Self-priming suction lift of up to 8.5m
- Low viscosity: These pumps can also handle lower viscosity compared to most pumps in the market today



LIQUID RING VACUUM PUMPS

Liquid ring vacuum pumps are rotating positive displacement pumps which compress gas using a rotating impeller.

Available as single stage or two-stage, pumps can handle high volumes of vapours, condensable gases and liquids and when clean water is used as the service liquid, the aspirated air is 'washed' meaning it is free from contaminants such as oil, carbon or plastics.

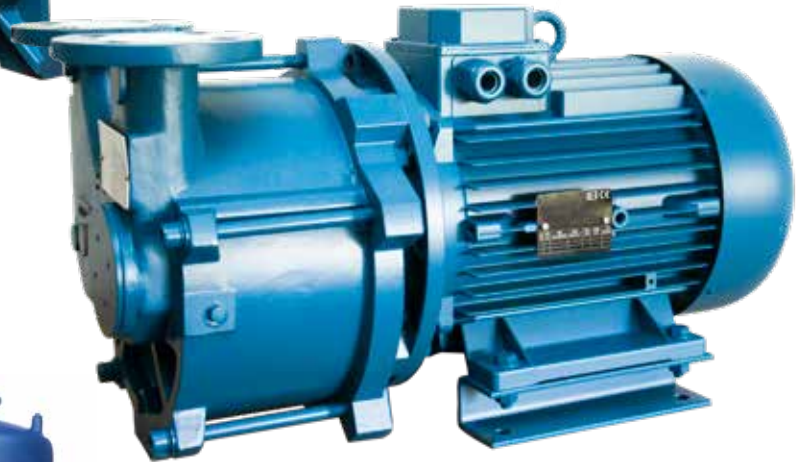
Manufactured to ISO 9001, liquid ring vacuum pumps have been designed and manufactured with simplicity in mind – fewer components make for easier maintenance. Single mechanical seals are available as standard with the option to upgrade to double if required.

With minimal moving parts, there is no metal-to-metal contact which significantly reduces vibration, noise and wear & tear.



MATERIALS:

- Cast Iron incl. Ni Resist d2b
- Ductile Iron
- Hastelloy B and C
- Stainless Steel AISI 316 and AISI 904 (Uranus B6)
- High Strength Super Duplex for increased strength and corrosion resistance



BENEFITS:

- ATEX certified pumps available
- Extensive range of manufacturing materials
- Robust and easy to maintain
- Can handle gases and vapours
- Capacity up to 3500m³/h
- Max vacuum 33mbar



POLYMER CONCRETE BASEPLATES

Traditionally, folded or fabricated Mild Steel or stainless-steel base plates are the most popular choice and are very common but they are not without their limitations – corrosion and distortion being two major concerns and proven to reduce Mean Time Between Planned Maintenance (MTBPM). This scientifically formulated, corrosion-resistant concrete material is designed for casting machine bases and other structural components. It is a blend of pure silicon dioxide ceramic quartz aggregate, high strength epoxy resin and selective additives. Overall, Polymer Concrete Baseplates are considerably less expensive – especially when you factor in the increased reliability and lifetime of your equipment due to their vibration-resistant and corrosion resistant properties. The polymer concrete baseplate will improve the safety of your site, improve the lifespan of your pumps and allow you to standardise your baseplates across all pump ranges.



THE ADVANTAGES OF POLYMER CONCRETE BASEPLATES:

- Flat mounting surface to 0.16mm/metre
- Significantly improved vibration damping compared to conventional steel bases
- Reduces grouting and installation problems saving time and money
- Excellent resistance to twisting
- Corrosion resistant to most chemicals
- Multiple inserts for all motor frames
- Designed to accommodate close-coupled installations



POXYBLOCK KITS
includes all stainless steel hardware



DRIP RIM
optional for increased fluid containment



MOTOR ADJUSTS
for fast, precise alignment



STILT MOUNTING
for non-grouted installations

MOBILE PUMPING STATION

The Mobile Pumping Station has been designed as a safe reliable mobile pump specifically for the safe loading and unloading of Intermediate Bulk Containers.

The standard mobile pumping station consists of a magnetically driven centrifugal pump or a 1" air-operated diaphragm pump. These mobile pumping stations can easily be customised with recirculation pipework. If you require a mobile pumping station to handle solids or viscous liquids we can also offer this unit with a diaphragm pump in a large variety of materials including solid PTFE. Ideal for tanker loading & IBC applications.



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PUMP CARTRIDGE ASSEMBLY

Keep your site running with our revolutionary new pump cartridge system. The cartridge assembly is a pre-assembled rotating element, complete with; impeller, internal magnet, all bearings, bearing support and all gaskets.

REDUCES DOWNTIME

Due to its integral design, engineers can replace the cartridge in a matter of minutes.

REDUCES RISK

Minimises mis-installation as this comes as a complete unit.

REDUCES COST

These cartridges are an economical way for keeping spares on the shelf to cover your existing magnetically driven CDR pumps.

The cartridge assembly is a pre-assembled rotating element, complete with all gaskets and bearings, pre-built, which means that you simply have to remove the pump from the front casing and replace the rotating element new assembly. The assembly itself includes all components including Impeller, Internal magnet, Sleeve bearings, bearing support and all gaskets to make it a quick and reliable procedure.



PUMP PROTECTION

DIGITAL LOAD MONITOR

The digital load monitor is the fastest and most accurate system to protect your pump from the following:

- Dry running
- End of curve operation
- Close valve operation



As operating conditions on a pump curve change due to dry running, blocked discharge line, closed valves, empty supply tanks etc, the power monitor automatically trips the motor before mechanical damage and failure to the pump occurs.

Low Power Alarm – for example, to stop a pump in the event of dry-running, and

High Power Alarm – for example, to stop a feeder when blocked.

PT100 THERMOCOUPLE

Temperature monitoring of process liquid or heat increase due to closed valve operation can be monitored by use of a PT100 thermocouple, measuring temperature directly in the area of the Isolation shell to avoid detrimental operating temperatures.



PUMP TRAINING



CDR Pumps are providing centrifugal pump 'reliability focussed' training to a number of customers. The training sessions are structured for Project Engineers, Maintenance Engineers and purchasing professionals who are users of centrifugal pumps and involved in the operation of pumps, plant problem solving, reliability or plant improvements. A key issue we look at is also energy efficiency and identify how we can save plants often substantial energy usage and bottom line profit.

The course will cover the following key topics:

- Pumping fundamentals** Giving an understanding of how centrifugal pumps operate and understanding fully a pump performance curve.
- Pump design** Looking at the key design features of centrifugal pumps, the important 'bits' and principal of how they work reliably and efficiently.
- Problem solving** Troubleshooting looking at vibration, power consumption, vibration, duty variations and how pump performance is linked to the process plant.
- Failure analysis** Looking at modes of failure, the causes, the indicative signs of wear, but more importantly the remedy and cost-effective protection to eliminate failure, potential loss of containment, production and plant down time.



Candidates will receive a Certificate of Attendance for inclusion in CPD portfolio's.

Course are held four times a year at our Wellingborough head office, periodically at strategic locations across the UK or can be held at your own facility. **To book your place or to find our more information, call us today on 01933 674777 or email sales@cdrpumps.co.uk**



AFTER SALES SERVICE AND REPAIR

The reliability and effectiveness of your pumps is crucial to the day to day running of your site – your process depends on them and our job doesn't end when your equipment has successfully been installed; we work alongside you to ensure your fluid handling solutions remain operational and that any unforeseen downtime is as brief as possible.

With an extensive range of pumps and spares available to support your plant, our experienced team of engineers are on hand to provide advice, assist in overhaul and operation as well as provide an on and offsite repair facility.



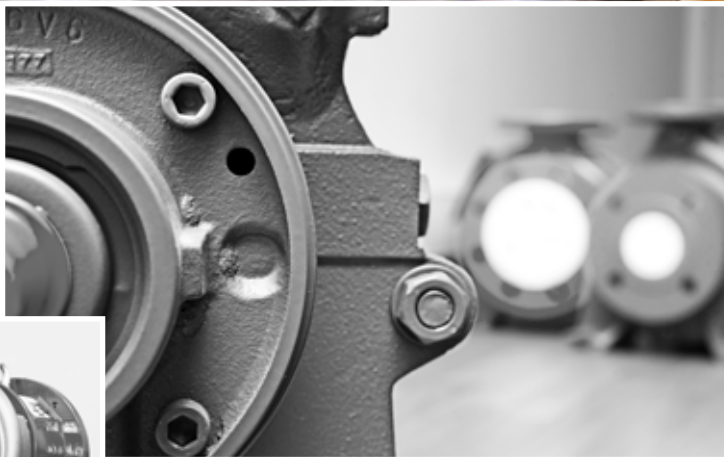
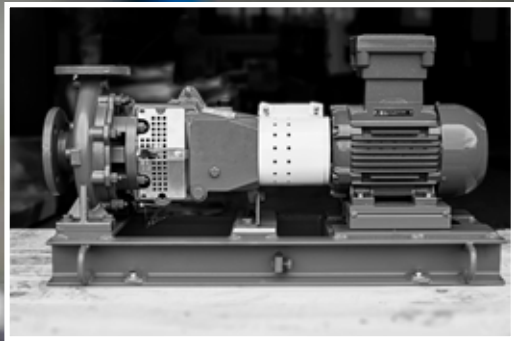
Technical support and advice

Root cause analysis

Service exchange

Consignment stock





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