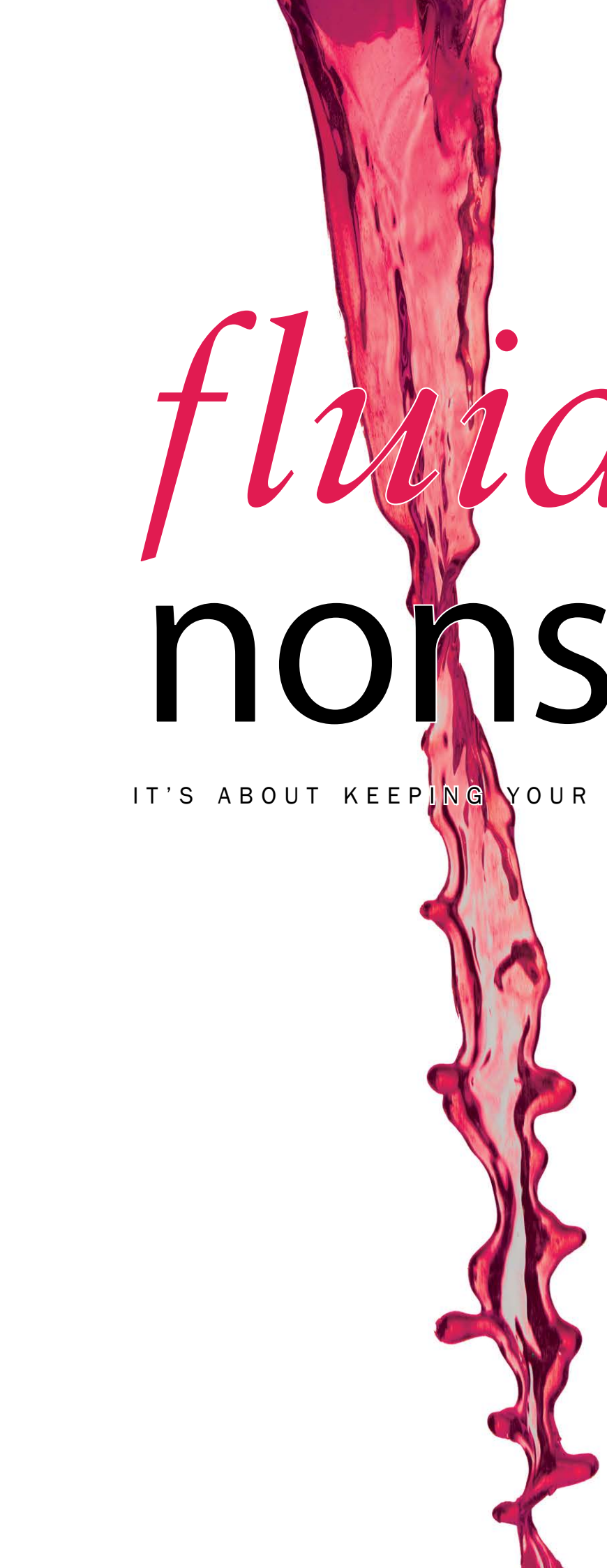


fluidity.

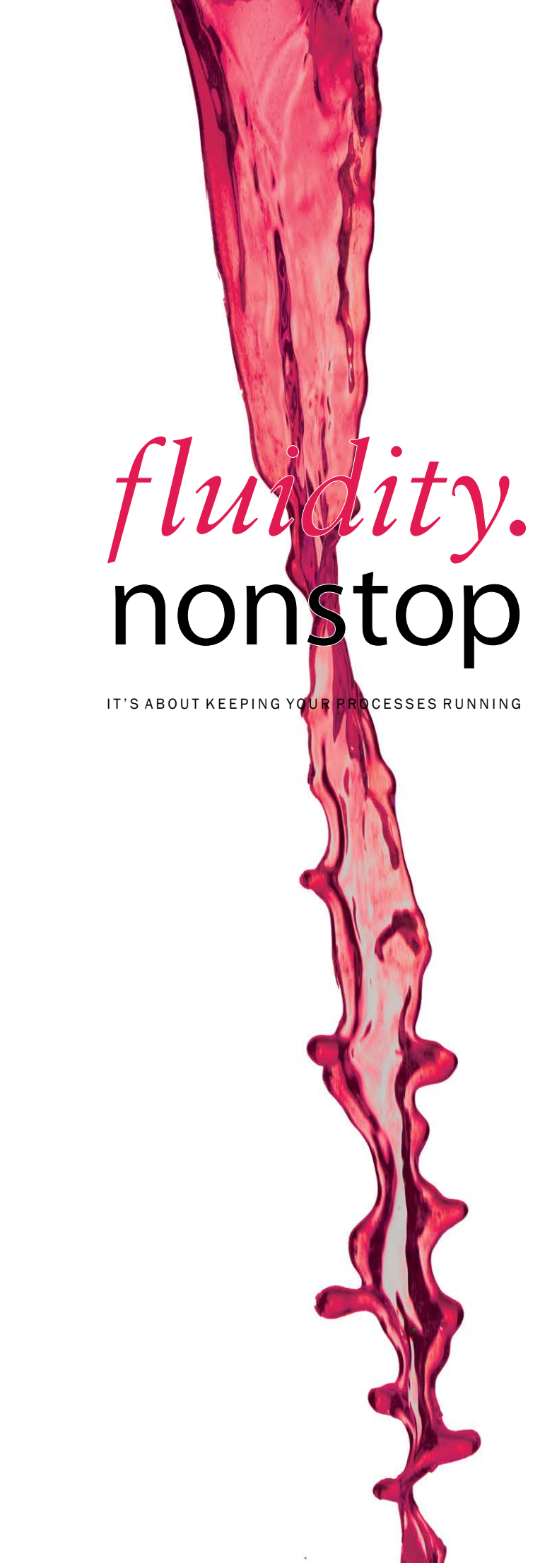
nonstop

IT'S ABOUT KEEPING YOUR PROCESSES RUNNING

Magnetic Drive

Canned

AxFlow



fluidity.
nonstop

IT'S ABOUT KEEPING YOUR PROCESSES RUNNING

About AxFlow

Part of Axel Johnson AB with sales of over 7 billion euro and 20,000 employees worldwide, the AxFlow Group is one of Europe's largest suppliers of process pumps with offices a presence in 26 European countries and employing nearly 500 people in total.

In the UK AxFlow has over 50 years history operating from 5 locations across the country from which it supplies a large range of process pumps and a comprehensive pump service and repair package.

AxFlow has developed *fluidity.*nonstop a concept through which we provide products and services that encompass all aspects connected with the smooth running of process pumps.

The most comprehensive portfolio of process pumps in the UK

Our magnetic drive pump range isn't just limited to centrifugal pumps but includes turbine, gear and vane pumps. Additionally, we are one of the biggest suppliers of canned pumps in the UK.

WERNERT-PUMPEN

Incorporated in 1920 Wernert Pumpen has always been at the forefront of pump innovation having developed the first plastic centrifugal pump back in 1927. Since then, Wernert have become word leaders in the manufacture of plastic lined pumps.

LEDERLE Hermetic

Established in 1875 Hermetic have been manufacturing canned motors since 1951 and remain the leading European canned pump manufacturer having supplied over 180,000 units around the world.

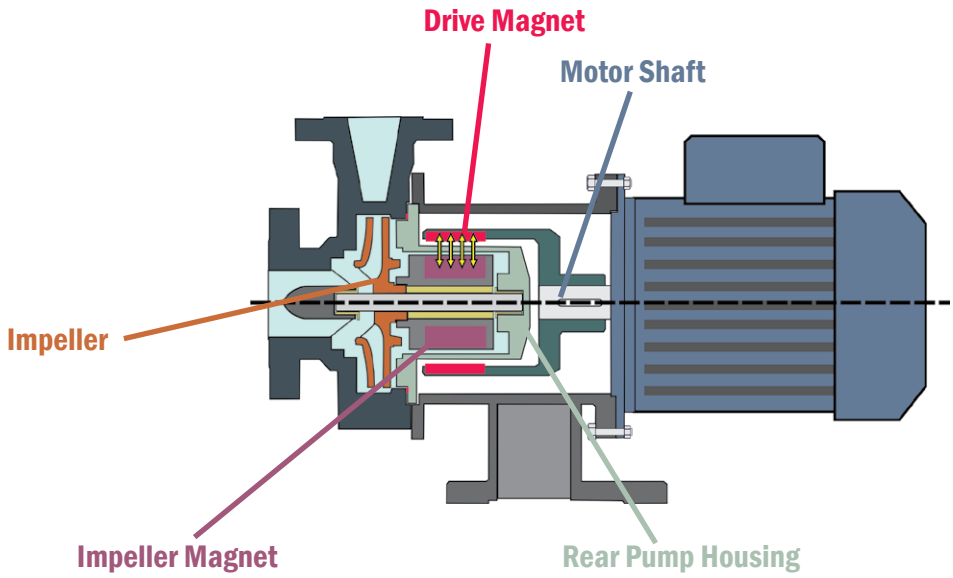
Gruppo Aturia

The oldest pump manufacturer in Italy tracing it's routes back to 1889, Gruppo Aturia manufactures pumps for the utilities, process and oil/gas sectors. Gruppo Aturia absorbed the entire workforce of Caster Pumps several years which allows them to supply direct replacements for the majority of original caster models.

PULSAFEEDER
A Unit of IDEX Corporation

Pulsafeeder has been a leader in fluid handling technology since the early 1940's, when they pioneered the hydraulically actuated diaphragm metering pump principle. Following this they have also become experts in magnetically driven gear pumps.

		Material				Seal Type	ATEX	Self Priming	Max m	Max m^3/hr	Max bar	Max °C	Page Nos
Centrifugal													
SDM	Aturia	SS				Mag Drive	Ex		20	27	25	200	4
NDM	Aturia	SS	DX	HST		Mag Drive	Ex		100	200	50	300	4
PCM	Aturia	PP	PVDF			Mag Drive	Ex		45	100	10	80	5
PCM-SP	Aturia	PP	PVDF			Mag Drive	Ex	✓	45	100	10	80	5
SMKM-M	Aturia	SS	HST	DX		Mag Drive	Ex		370	1500	64	300	6
KSMKM-M	Aturia	SS	HST	DX		Mag Drive	Ex		370	2000	64	300	6
NM	Wernert	PE	PVDF	PTFE	PP	Mag Drive	Ex		140	180	16	165	7
CN-CNF	Hermetic	SS	HST	DX		Canned	Ex		250	1600	1200	360	12
CAM	Hermetic	SS	HST	DX		Canned	Ex		1200	300	500	360	12
CNP	Hermetic	SS	HST			Canned	Ex		290	1000	50	425	13
TCN - TCAM	Hermetic	SS	HST	DX		Canned	Ex		250	1600	500	250	13
Turbine													
PTM	Aturia	PP	PVDF			Mag Drive	Ex		60	15	10	80	8
PTM-SP	Aturia	PP	PVDF			Mag Drive	Ex	✓	60	15	10	80	8
STM	Aturia	SS	HST	DX	TI	Mag Drive	Ex		90	10	100	300	9
SDTM	Aturia	SS	HST	DX	TI	Mag Drive	Ex		180	12	18	300	9
Vane													
SVM	Aturia	SS				Mag Drive	Ex	✓	130	1.8	13	300	10
Gear													
Isochem & Eco	Pulsafeeder	SS	HST			Mag Drive	Ex	✓	170	13.6	17	232	10
Eclipse	Pulsafeeder	PVDF	SS	Alloy C		Mag Drive	Ex	✓	138	7.5	13.8	93	11
Envirogear	Maag	SS	CS	DI		Mag Drive		✓	138	45.4	13.8	260	11



Magnetically driven pumps transfer power using a **drive magnet** which is attached to the **motor shaft** that turns the **impeller magnet** via the **magnetic field** (that passes through the **rear pump housing**), which is connected to the **impeller** within the pump chamber.

This means that the **motor shaft** does not pass through the **rear pump housing** eliminating the need for any seals; because of this magnetically driven pumps offer many advantages over traditionally sealed pumps:

Reliable and Long Lasting

There are no seals to leak, and as the internal components are held in place by the magnetic couple friction and therefore wear is significantly reduced within the pump chamber.

Reduced Maintenance

There is virtually no maintenance requirement as there are no seals to replace. If for some reason maintenance is required, the pump chamber assembly can be easily disengaged from the motor bracket.

Chemical Resistance

Not only can magnetically driven pumps be constructed from numerous metallic alloys but also a wide range of chemically inert plastics making it possible to eliminate any metal from coming into contact with the liquid.

Liquid Containment

As no shaft passes through the rear pump chamber, magnetically driven pumps over complete containment of the liquid.

Wide Thermal Range - 150°C to + 300°C

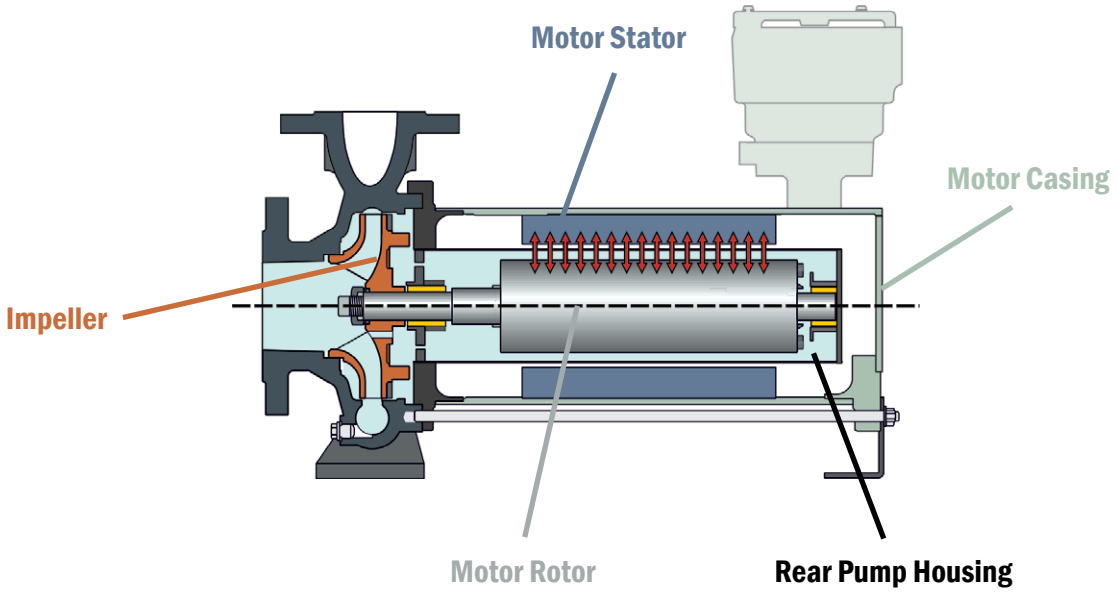
As the motor shaft does not enter the pump chamber and the air gap between the rear pump chamber and drive magnet acts as a thermal barrier, magnetically driven pumps can minimise heat transfer into chilled liquids and are capable of handling high temperature fluids.

High System Pressures

If the rear housing is manufactured from materials such as Titanium or Hastelloy then some of our magnetic drive pumps are able to withstand system pressures of up to 100 bar.

Motor Overload Protection

If overloaded, the magnetic coupling breaks drive to provide protection for the motor from burn-out.



Canned pumps integrate with the motor itself thereby utilising the **electromagnetic field** between the **motor stator** and the **rotor** (which is positioned within the **rear pump chamber**) to turn the **impeller.**

Canned pumps are therefore also seal-less and can offer additional benefits to magnetically driven pumps.

Reliable and Long Lasting

There are no seals to leak, and as the internal components are held in place by the magnetic couple friction and therefore wear is significantly reduced within the pump chamber.

Double Liquid Containment

Not only is the liquid is contained within the pump chamber which like a magnetic drive pump is hermetically sealed but, the motor casing provides an additional containment vessel around the liquid.

Reduced Noise

As the rear pump chamber is contained within the motor casing, canned pumps offer very low noise levels.

Compact Construction

As the rear of the pump is incorporated within the motor itself the overall dimensions of canned pumps are significantly reduced.

Wide Thermal Range - 120^{0}C to +400^{0}C

In a similar way to a magnetically driven pump the air gap between the rear pump chamber and motor components acts as a thermal barrier so canned pumps can minimise heat transfer into chilled liquids. They are also capable of handling high temperature fluids with the use of an internal cooling/lubricating circuit.

Very High System Pressures

Using the correct rear housing materials, Hermetic canned pumps can withstand system pressures of up to 1,200 bar.

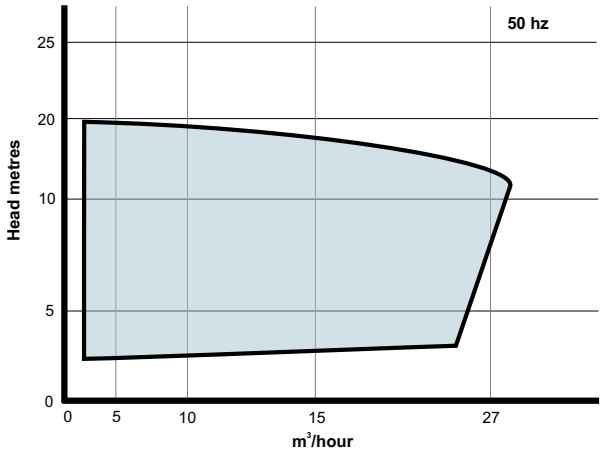
High ATEX T Class

AxFlow's Hermetic pumps are rated to T6 ATEX temperature class.

SDM

Compact, sturdy and simple centrifugal transfer pumps made from 316 stainless steel designed to handle a wide range of acids, solvents, alkalis and refrigerants. Fitted with Samarium Cobalt magnets, SDM pumps can be configured to handle liquids up to 200°C.

St Steel
PTFE
Carbon
EPDM
Viton
FEP



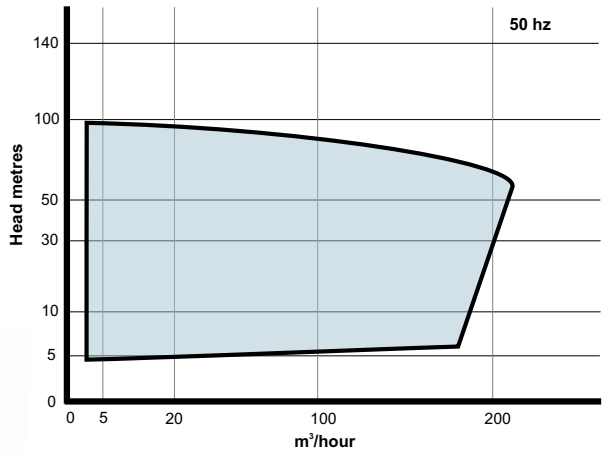
- No mechanical seals to leak or service.
- BSP, NPT, PN or ANSI connections.
- Can be mounted vertically.
- Vacuum welded internal magnets available.
- Can be constructed to suit off shore applications.

Centrifugal | Corrosive Liquids | ATEX | Refrigerants | Maximum 200 °C | Maximum 25 bar

NDM

High quality magnetically driven ISO 2858 pumps. NDM pumps have hydraulically and hydro-statically balanced pump chambers and Hastelloy rear housings, Samarium Cobalt magnets and Silicon Carbide bearings as standard. They are available as either a long or close coupled construction.

St Steel
Hastelloy
Dup St St
SiC

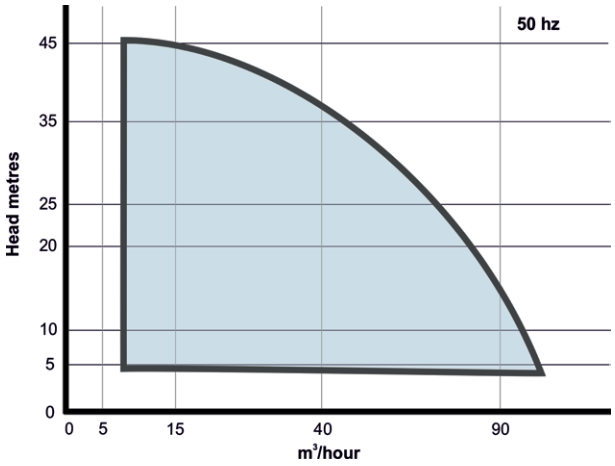


- 1.5 mm rear housings.
- Oil lubricated ball bearings.
- Incoloy or Hastelloy constructions available.
- Back pull out design with screw-on impeller.
- Available with self cleaning filters.

Centrifugal | Corrosive Liquids | ATEX | Maximum 300 °C | Maximum 25 bar

PCM

Robust mag drive pumps machined from solid blocks of plastic. Being magnetically driven, PCM pumps have no drive seals to leak and their solid construction offers an alternative to lined pumps.

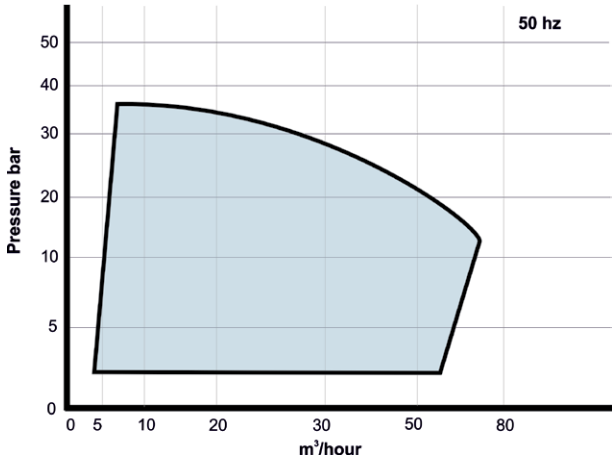


PP
PVDF
PTFE
Carbon
EPDM
Viton
FEP

- Chemically resistant.
- PN10 or ANSI 150.
- Can be mounted vertically.
- PP - PVDF.
- Can be mounted vertically.

PCM-SP

Robust mag drive pumps machined from solid blocks of plastic. Being magnetically driven, PCM pumps have no drive seals to leak and their solid construction offers an alternative to lined pumps.

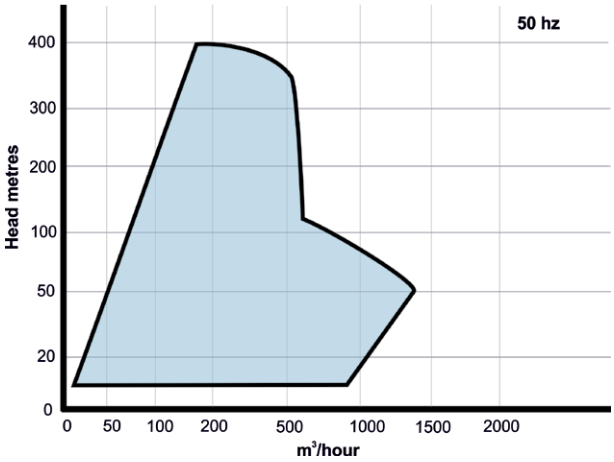


PP
PVDF
PTFE
Carbon
EPDM
Viton
FEP

- Chemically resistant.
- PN10 or ANSI 150.
- PP - PVDF.
- Available as a vertical column pump.

SMKM-M

A range of single stage overhung process pumps to API 685 OH2. Thrust is balanced by means of holes and wear rings in the back side of the impeller, residual thrust is absorbed by a double angular contact ball bearing selected for safe operation up to 100,000 hours. Also available as mag drive API 685.

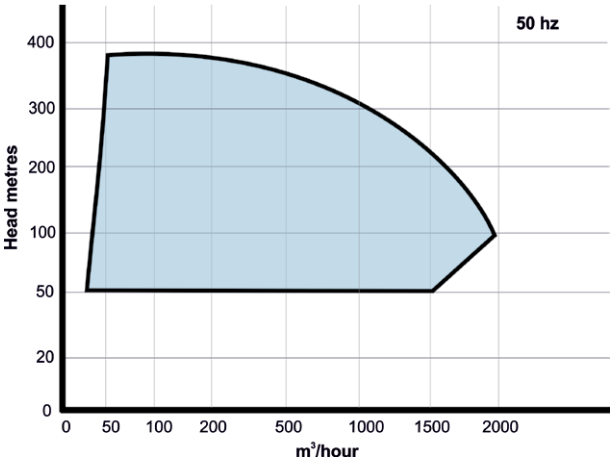


Carb Steel
St Steel
Dup SS
Super Dup

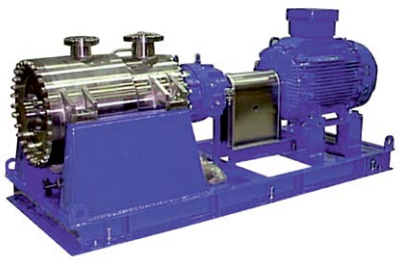
- Statically and dynamically balanced impellers.
- Compartmentalized approach to axial thrust.
- Double angular contact ball bearings.
- Single, double and balanced seals.
- All types of API seal catered for.

KSMKM-M

A range of single stage and two stage process pumps to API 685 BB2. Thrust is balanced by means of holes and wear rings in the back side of the impeller, residual thrust is absorbed by a double angular contact ball bearing selected for safe operation up to 100,000 hours. Also available as mag drive API 685.



Carb Steel
St Steel
Dup SS
Super Dup

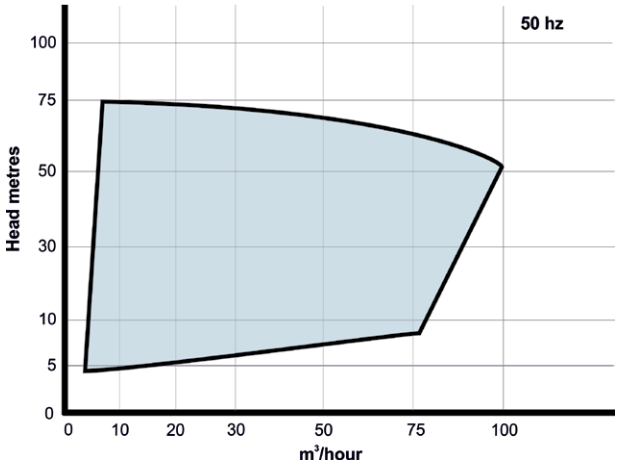


- Statically and dynamically balanced impellers.
- Compartmentalized approach to axial thrust.
- Double angular contact ball bearings.
- Single, double and balanced seals.
- All types of API seal catered for.

NM

ISO 2858 plastic lined pumps designed to convey aggressive, solid ladened and toxic liquids. They are designed around a solid pump casing which results in a particularly robust construction. The mechanically sealed pumps are also able to handle abrasive liquids when manufactured in PE.

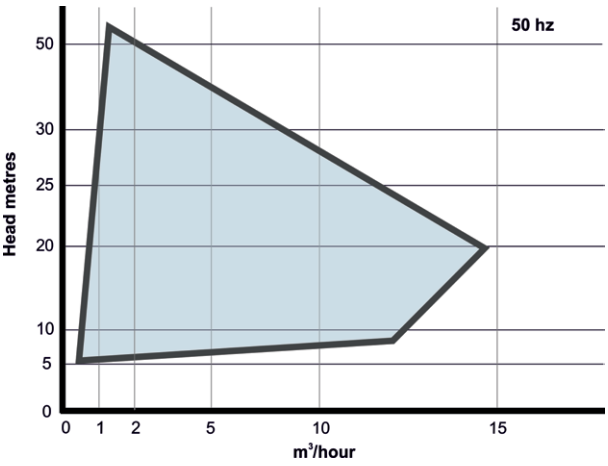
PTFE
PE
PP
PVDF



- Thick-Walled casing and liners.
- Fully metal clad enclosure.
- Sealed for life roller bearings.
- Semi-open or closed impeller.
- PE - PVDF - PP - PTFE.

PTM

Magnetically driven regenerative turbine pumps for low flow - high head duties. PTM pumps offer an extremely cost effective alternative to multi-stage pumps and are available with self priming chambers. Being magnetically driven the liquid is contained within a seal-less chamber that cannot leak.



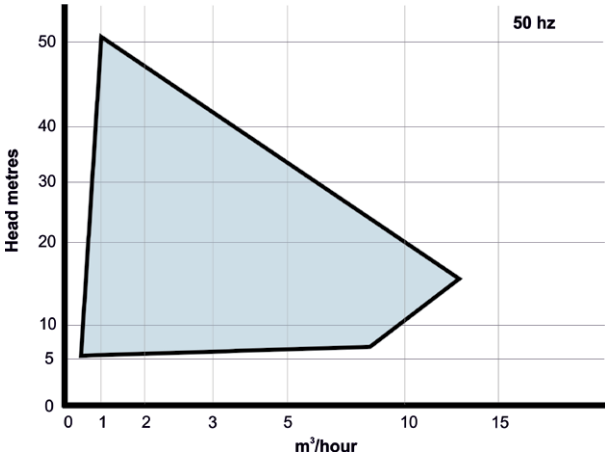
PP
PVDF
PTFE
Carbon
EPDM
Viton
FEP

- No mechanical seals to leak or service.
- Chemically resistant.
- Threaded or flanged.
- Can be mounted vertically.
- Will pump 20% entrained gases.
- PP - PVDF.

Turbine | Corrosive Liquids | ATEX | Maximum 80 °C | Maximum 10 bar

PTM-SP

Magnetically driven regenerative turbine pumps for low flow - high head duties. PTM pumps offer an extremely cost effective alternative to multi-stage pumps and are available with self priming chambers. Being magnetically driven the liquid is contained within a seal-less chamber that cannot leak.



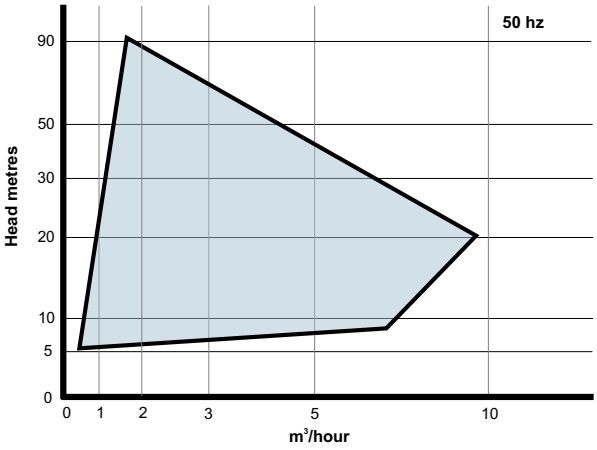
PP
PVDF
PTFE
Carbon
EPDM
Viton
FEP

- No mechanical seals to leak or service.
- Chemically resistant.
- Threaded or flanged.
- Can be mounted vertically.
- Will pump 20% entrained gases.
- PP - PVDF.

Turbine | Self Priming | Corrosive Liquids | ATEX | Maximum 80 °C | Maximum 10 bar

STM

High specification regenerative turbine pumps for high heads/ low flow applications. Because STM pumps are machined from solid metal, they are offer an extremely wide range of design options and construction materials. Comply to API 685.

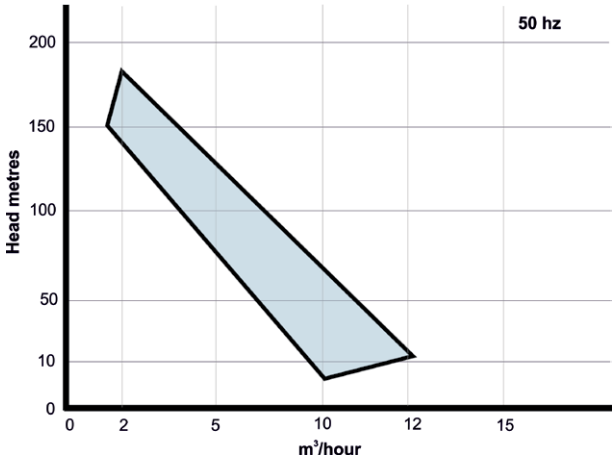


St Steel
Hastelloy
Dup St St
Titanium
PTFE
Carbon
EPDM
Viton
FEP

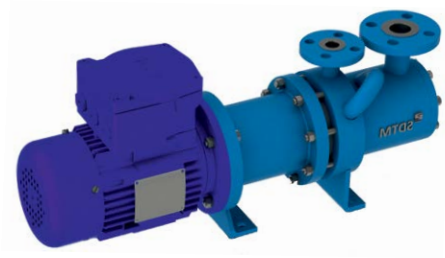
- No mechanical seals to leak or service.
- High system pressure capability up to 200 bar.
- Will pump up to 20% entrained gasses.
- Can be vertically mounted.
- Polished internal surfaces available.
- Threaded, Tri-Clamp, PN or ANSI flanges.
- Can be mounted vertically.

SDTM

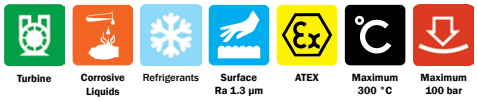
SDTM magnetic drive process pumps have been especially designed for liquefied gases such as NH3, CO2, LPG and butane. They particularly suit refrigeration applications due to their ability to cope with thin liquids and the containment provided by the magnetic coupling. Comply to API 685.



St Steel
Hastelloy
Dup St St
Titanium
PTFE
Carbon
EPDM
Viton
FEP

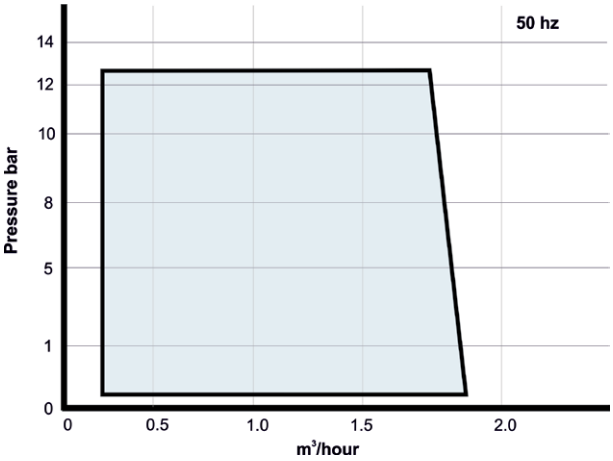


- Statically and dynamically balanced impellers.
- Compartmentalized approach to axial thrust.
- Double angular contact ball bearings.
- Single, double and balanced seals.



SVM

Robust, high specification mag drive rotary vane pumps designed with a flow path which produces no pulsation. SVM pumps can be configured to a range of different applications and will pump fluids up to 300 ºC.

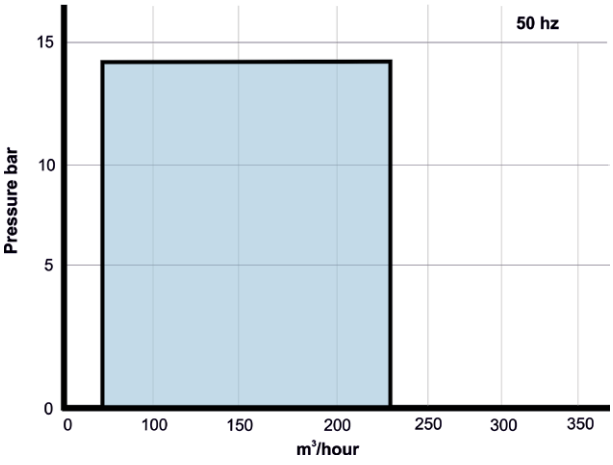


St Steel
Carbon
SiC
EPDM
Viton

- High heads - low flows.
- Viscous or thin liquids.
- Available with metallized graphite.
- Dry running capability.
- Threaded, PN, Tri-Clamp or ANSI flanges.
- SS plus options of Duplex and Hastelloy.

Isochem

Magnetically driven external gear pumps available in various materials and designed for the handling of low and high viscosity liquids – even in continuous or cyclic operations. The are self priming and bi-directional and offer additional product containment and a leak free seal-less design.

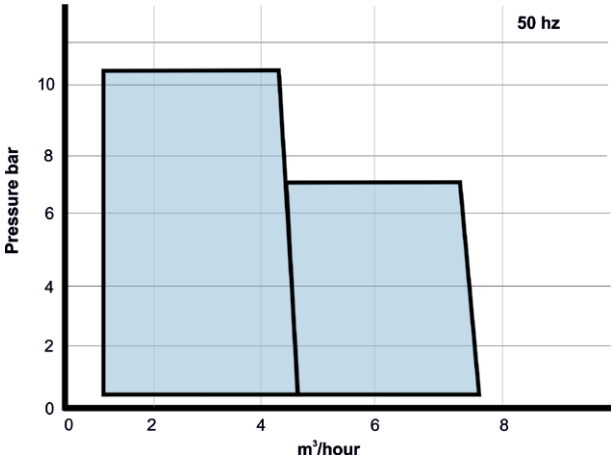


St Steel
Alloy 20
Hastelloy
PEEK
PTFE

- Additional product containment.
- Seal-less leak free construction.
- Bi-directional.
- Lubricated by process fluid.
- Self priming.
- Can handle non lubricating fluids.
- Accuracy of +/- 5%.

Eclipse

Magnetically driven external gear pumps available in both metallic and PVDF materials and designed for the handling of low and high viscosity liquids. Based on a simple 16 component design they offer additional product containment and a leak free seal-less construction.

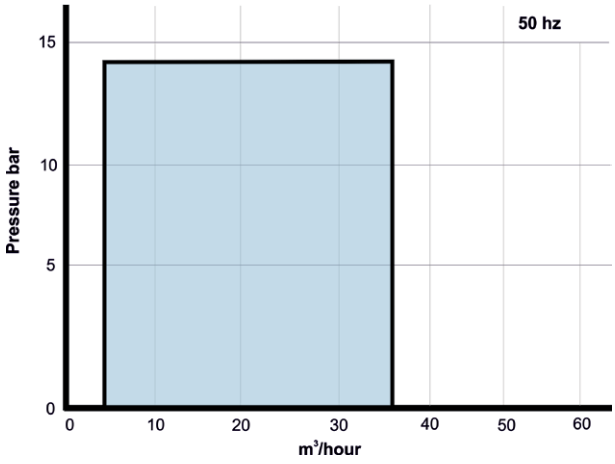


St Steel
Alloy C
PVDF
SiC
Carbon
ETFE
EPDM
Viton

- Additional product containment.
- Seal-less leak free construction.
- Bi-directional.
- Lubricated by process fluid.
- Easy to maintain.
- Universal flanges with PTFE insert.

Envirogear

Magnetically driven internal gear pumps featuring a revolutionary support system that effectively eliminates leaks and mechanical wear. This makes them a solution for environmentally conscious fluid handling of both thin and viscous products.

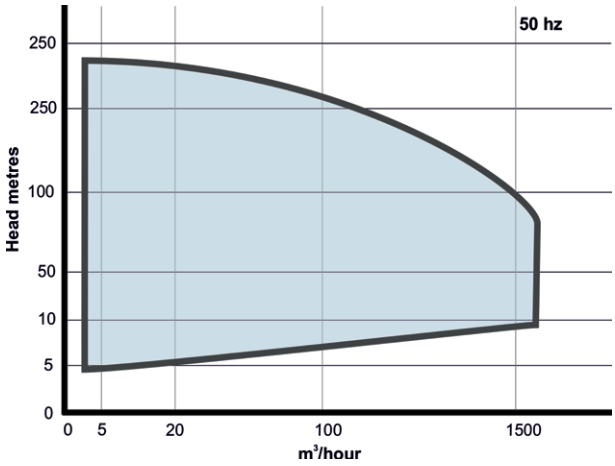


St Steel
Carb Steel
Ductile Iron
SiC
Carbon
Viton
FEP

- Patented between-the-bearing support system. High reliability and durability
- Bi-directional.
- Lowest overall cost of ownership
- Single-fluid-chamber seal-less design.

CN-CNF-CNK

Canned pumps to ISO 2858 for liquids that require high containment. Primary containment is provided by the stator can with secondary containment provided by the stator housing and terminal box. Having only one hydro-dynamically balanced rotor, experience has shown that operation periods well in excess of 5 years without maintenance are considered normal.

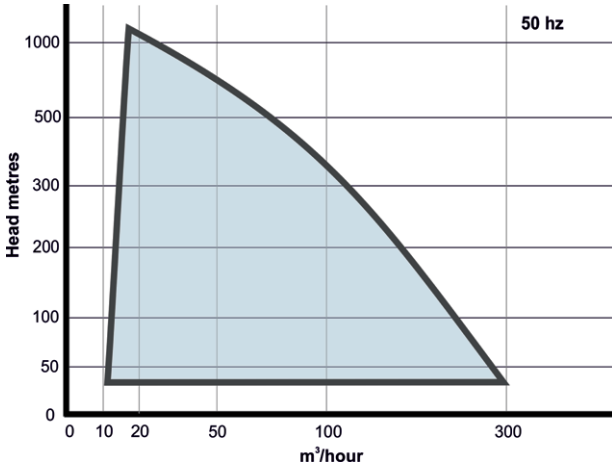


Cast Iron
Steel
St Steel
Hastelloy
Dup St St

- Double containment of liquid.
- No mechanical seals to leak or service.
- 180 month mean time before failure.
- Reduced footprint and easy installation.
- ATEX certified up to T6.
- CNF Axillary Impeller for high vapour pressures.
- CNK (cooled motor) design.
- System pressures up to 1200 bar

CAM - CAM Tandem

The CAM range of canned pumps utilise are multi-stage, canned pumps that provide a high containment solution to low flow high head applications.

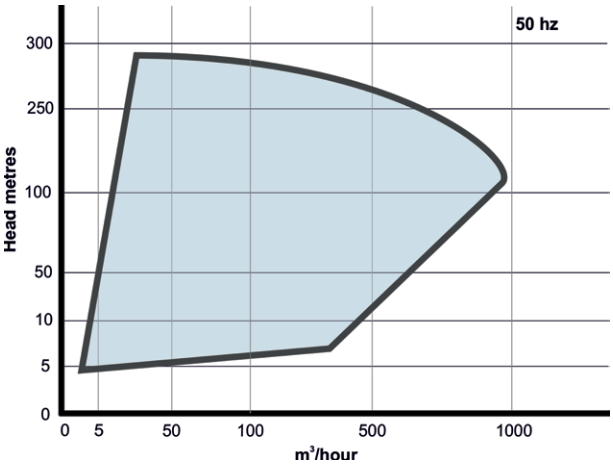


Cast Iron
Steel
St Steel
Hastelloy
Dup St St

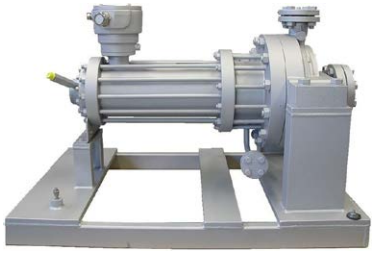
- Double containment of liquid.
- No mechanical seals to leak or service.
- 180 month mean time before failure.
- Reduced footprint.
- Easy installation.
- ATEX certified up to T6.

CNP

The CNP range of canned pumps utilise API610 hydraulics, combined with canned pump technology to provide a fully compliant API685 seal-less pump. As they provide high levels of containment and a integral pump/motor construction, they offer a trouble free API solution without the complex seal systems.



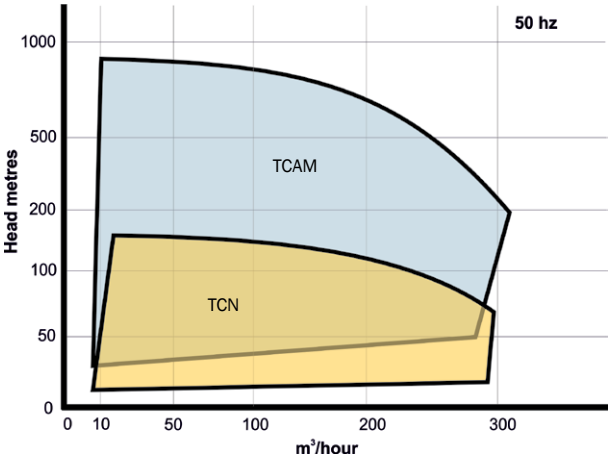
Steel
St Steel
Hastelloy
Dup St St



- Double containment of liquid.
- Extremely long service life.
- Reduced footprint.
- Simplified installation.
- ATEX certified up to T6.
- Reduced instrumentation.

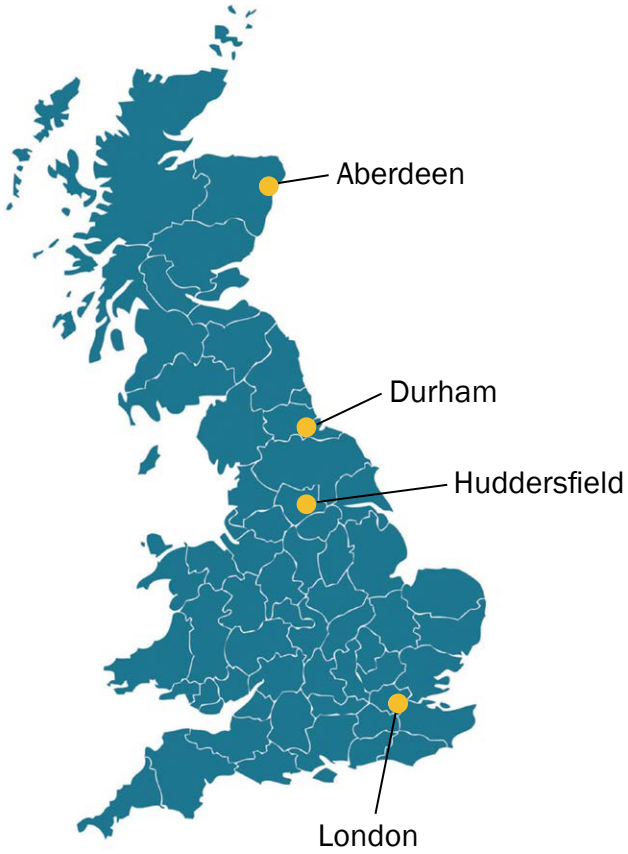
TCN - TCAM

Hermetic's vertical canned pumps eliminates the rotating shaft used by traditional line shaft pumps. They also provide exceptional liquid containment and require much less space above the mounting plate.



Steel
St Steel
Hastelloy
Dup St St

- Double containment of liquid.
- Extremely long service life.
- Reduced footprint.
- Simplified installation.
- ATEX certified up to T6.
- Reduced instrumentation.



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