



*fluidity.*  
**nonstop**

IT'S ABOUT KEEPING YOUR PROCESSES RUNNING



Tank Farm

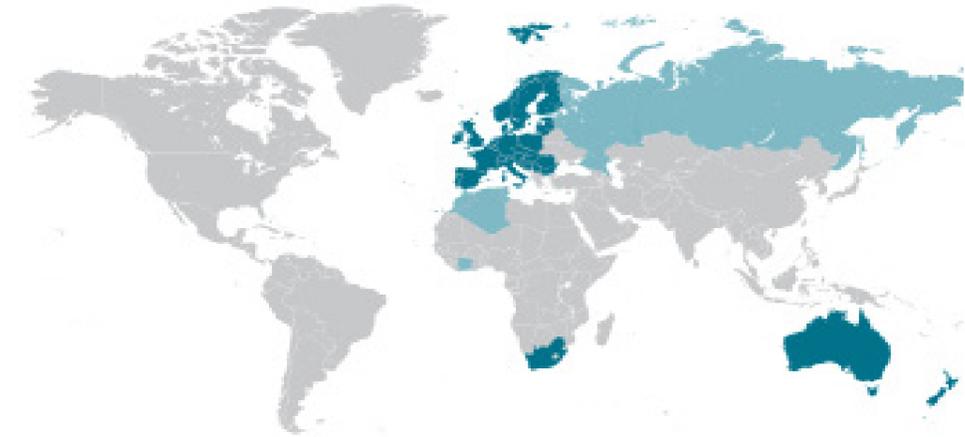
 AxFLOW

# Chemical Pump Experts

AxFlow has been supplying pumps to the Chemical Process Sector for over 50 years so we understand that it's about reducing down time, safe liquid handling and lowering life cycle costs. With the largest range in the UK, we believe that we can always offer the most suitable solution for every application.



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 28 European countries, South Africa, Australia and New Zealand.



## Range Summary

	Materials	Seal Type	ATEX	Solids	Self Priming	Max m3/hr	Max Diff Pressure	Max System bar	Max °C	Min °C	Max cP	
<b>Centrifugal Pumps</b>												
ND	Aturia	SS,CS,DX, SDX,HST,TI,MONEL	Mech	☹️		1700	140 m	16	300	-20	300	
NDM	Aturia	SS,CS,DX, SDX,HST,TI,MONEL	Mag Drive	☹️		200	100 m	25	300	-50	300	
NE	Wernert	PE,PVDF,PTFE,PP	Mech	☹️	☑️	1800	140 m	16	90	-5	300	
NM	Wernert	PE,PVDF,PTFE,PP	Mech	☹️	☑️	70	70 m	16	80	-5	300	
SP	Wernert	PE	Mech	☹️	☑️	4000	47 m	4.7	80	-5	300	
SDM	Aturia	SS,CS,DX, SDX,HST,TI,MONEL	Mag Drive	☹️		27	20 m	25	200	-50	150	
PCM	Aturia	PP,PVDF	Mag Drive	☹️		100	45 m	10	80	-20	150	
PCM-SP	Aturia	PP,PVDF	Mag Drive	☹️	☑️	70	38 m	10	80	-20	150	
Basis	Argal	PP,PTFE	Mag Drive	☹️		4	7 m	6	80	-20	150	
Prima	Argal	PP,PTFE	Mag Drive	☹️		12	12 m	6	80	-20	150	
Route	Argal	PP,PTFE	Mech, Mag Drive	☹️		50	48 m	10	100	-20	150	
Frontiera	Argal	PP,PTFE	Mag Drive	☹️		90	42 m	10	100	-20	150	
CN-CNF-CNK	Hermetic	SS,CI,HST,DX,CS	Canned	☹️		1600	270 m	1200	450	-120	50	
CAM	Hermetic	SS,CI,HST,DX,CS	Canned	☹️		300	1000 m	1200	360	-120	50	
TCN - TCAM	Hermetic	SS,CI,HST,DX,CS	Canned	☹️		1600	270 m	1200	450	-120	50	
CNP-CNPF	Hermetic	SS,CI,HST,DX,CS	Canned	☹️		1000	300 m	1000	425	-120	50	
SMKM	Aturia	CS,SS,DX,SDX,TI	Mech	☹️		1400	400 m	25	450	-20	300	
KSMKM	Aturia	CS,SS,DX,SDX,TI	Mech	☹️		2000	400 m	25	450	-20	300	
SMKM-M	Aturia	CS,SS,DX,SDX,TI	Mag Drive	☹️		1400	400 m	25	450	-20	300	
Rhino	Argal	PP,PTFE	Mag Drive	☹️	☑️	17	20 m	10	100	-20	100	
Hippo	Argal	PP,PVC,PVDF	Mech	☹️	☑️	45	30 m	10	100	-20	150	
Saturn Evo	Argal	FRP	Mech	☹️	☑️	1350	150 m	16	115	-35	150	
NKPF	Wernert	PP,PVDF	Seal-less	☹️	☑️	700	120 m	16	115	0	300	
VKPF - VKKF	Wernert	PP,PVDF	Seal-less	☹️	☑️	700	120 m	16	115	0	300	
Saturnsub	Argal	FRP	Seal-less	☹️	☑️	900	85 m	10	40	0	150	
Equipro	Argal	PP,PVDF	Seal-less	☹️	☑️	12	m	10	100	-20	150	
KGK	Argal	PP,PVDF	Seal-less	☹️	☑️	200	80 m	10	90	-10	150	
<b>Turbine</b>												
Eik	Argal	PP,PTFE	Mag Drive	☹️	☑️	22	3 m	10	100	-20	150	
PTM	Aturia	PP,PVDF	Mag Drive	☹️		15	55 m	6	80	-20	150	
PTM-SP	Aturia	PP,PVDF	Mag Drive	☹️	☑️	12	50 m	6	80	-20	150	
STM	Aturia	SS,CS,DX, SDX,HST,TI,MONEL	Mag Drive	☹️		10	90 m	100	350	-50	150	
SDTM	Aturia	SS,CS,DX, SDX,HST,TI,MONEL	Mag Drive	☹️		12	170 m	100	350	-50	150	

	Materials	Seal Type	ATEX	Solids	Self Priming	Max m3/hr	Max Diff Pressure	Max System bar	Max °C	Min °C	Max cP	
<b>AODD Pumps</b>												
Original Plastic	Wilden	PP,PVDF	None	☹️	☑️	22	4.5 bar	8	107	0	20,000	
Original Metal	Wilden	SS,AL,DI	None	☹️	☑️	50	8 bar	20	176	0	20,000	
Advanced Plastic	Wilden	SS,AL,DI	None	☹️	☑️	35	8 bar	8	107	0	20,000	
Advanced Metal	Wilden	SS,AL,DI	None	☹️	☑️	50	8 bar	20	176	0	20,000	
E series	Alamtec	PE,PTFE	None	☹️	☑️	18	7 bar	7	120	-10	10,000	
Chemisor	Alamtec	SS	None	☹️	☑️	25	7 bar	7	176	-10	10,000	
<b>Vane Pumps</b>												
NP-SNP-HXL	Blackmer	SS,DI	Mech	☹️	☑️	250	140 bar	20	260	-20	22,000	
P Series	Blackmer	SS,CI	Mech	☹️	☑️	100	12 bar	14	250	-5	22,000	
SVM	Aturia	SS,CS,DX, SDX,HST,TI,MONEL	Mag Drive	☹️	☑️	2	13 bar	350	300	-50	200	
<b>Lobe Pumps</b>												
Universal 2	Waukesha	SS,CS,DX, SDX,HST,TI,MONEL	Mech	☹️	☑️	100	35 bar	35	148	-40	1 million	
<b>Peristaltic Pumps</b>												
APY	Realax	SI,TY,NR,SO	Seal-less	☹️	☑️	0.09	2 bar	2	100	-20	10,000	
ISI	Realax	NRB,EPDM,SI,SOL,NR,HYP	Seal-less	☹️	☑️	1.5	8 bar	8	120	-20	25,000	
IP	Realax	NRB,EPDM,SI,SOL,NR,HYP	Seal-less	☹️	☑️	25	8 bar	8	120	-20	25,000	
RP	Realax	NRB,EPDM,SI,SOL,NR,HYP	Seal-less	☹️	☑️	50	15 bar	15	120	-20	25,000	
<b>Eccentric Disc Pumps</b>												
S Series	Mouvex	SS	Seal-less			12	10 bar	10	80	0	3,000	
C - SLS Series	Mouvex	SS	Seal-less			8	16 bar	16	80	0	3,000	
<b>Metering Pumps</b>												
MD/ML	OBL					2	12 bar	12	45	0	100	
<b>Plunger Pumps</b>												
	OBL					10	400 bar	400	45	0	100	
<b>Hydraulic Diaphragms</b>												
	OBL					3.8	125 bar	125	100	0	100	
Pulsa	Pulsafeeder	SS,Alloy 20,HST,TI,MONEL,PVC,P'	Seal-less			18	250 bar	250	350	0	5,000	
PulsaPro 900	Pulsafeeder	SS,Alloy 20,HST,PVC,PTFE	Seal-less			15	1000 bar	1000	370	0	3,000	
Pulsar	Pulsafeeder	SS,Alloy 20,HST,TI,MONEL,PVC,P'	Seal-less			0.6	250 bar	250	110	0	200	
<b>Gear pumps</b>												
Eco Chemgear	Pulsafeeder	SS,Alloy 20,Hast	Mech	☹️	☑️	220	14 bar	14	232	-50	1 million	
Isochem	Pulsafeeder	SS,Alloy 20,Hast	Mag Drive	☹️	☑️	220	14 bar	14	232	-50	11,000	
Eclipse	Pulsafeeder	ETFE,PVDF	Mag Drive	☹️	☑️	8	11 bar	11	93	-50	11,000	
Envirogear	Maag	SS,CS,DI	Mag Drive	☹️	☑️	35	14 bar	14	260	-50	50,000	

Please note all technical information is approximate, please consult AxFlow GB before specifying any product.

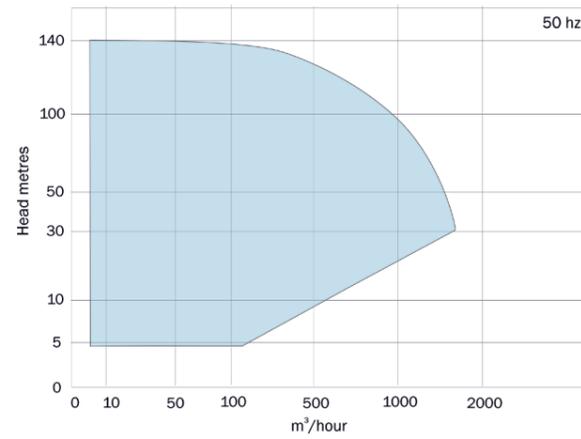
### ND

High quality ISO 2858 - ISO 5199 process pumps refined over many years service life to offer an efficient and balanced pump design. They are available in a very wide range of materials. Most components are stocked resulting in short lead times.

- St Steel
- Dup St St
- S Dup St St
- Hastelloy
- Titanium
- Carb St
- Monel



✓ Corrosive Liquids



- Dynamically balanced impellers.
- Oil lubricated ball bearings.
- Back pull out design.
- Labyrinth seals on bearing supports
- Heating jackets.
- Single, double, flushed API 682 seals.
- Optional Refrigerated seal chamber.



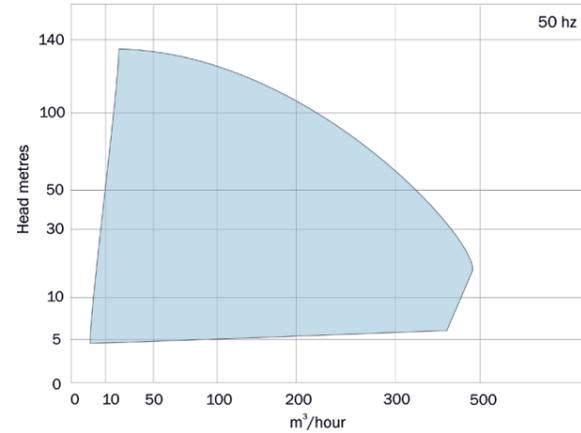
### NDM

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

- St Steel
- Hastelloy
- Dup St St



✓ Corrosive Liquids



- No mechanical seals to leak or service.
- Oil lubricated ball bearings.
- Incoloy or Hastelloy constructions available.
- Back pull out design with screw-on impeller.
- Available with self cleaning filters.



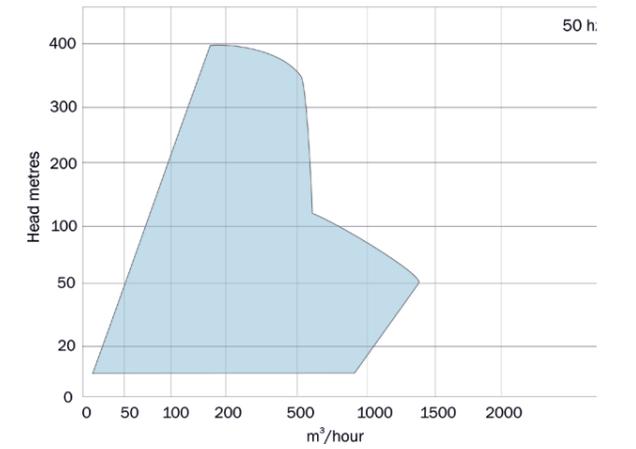
### SMKM-KSMKM

A range of API 610 and API 685 process pumps. SMKM are the single stage OH2 version while KSMKM pumps are BB2 and can be constructed as two stage units. Both are available magnetically coupled.

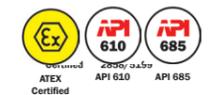
- Carb Steel
- St Steel
- Hastelloy
- Duplex
- S Duplex
- Titanium



✓ Corrosive Liquids  
✓ Refrigerants



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



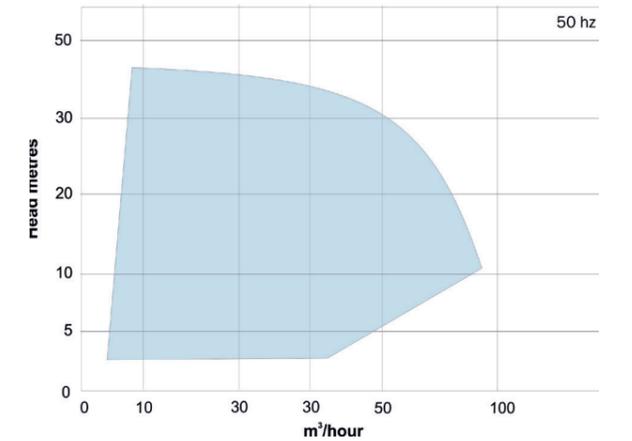
### Frontiera

A suite of magnetically driven and mechanically sealed pumps. All components in contact with the pumped liquids are realised in PP or E-CTFE and the pump is covered with a solid armour made of AISI 316 for making the pump more robust and chemically more resistant.

- PP
- ETFE
- EPDM
- Viton
- FEP



✓ Self Priming  
✓ Corrosive Liquids



- No mechanical seals to leak or service.
- Chemically resistant.
- Threaded or flanged.
- Can be mounted vertically.
- PP - PVDF.



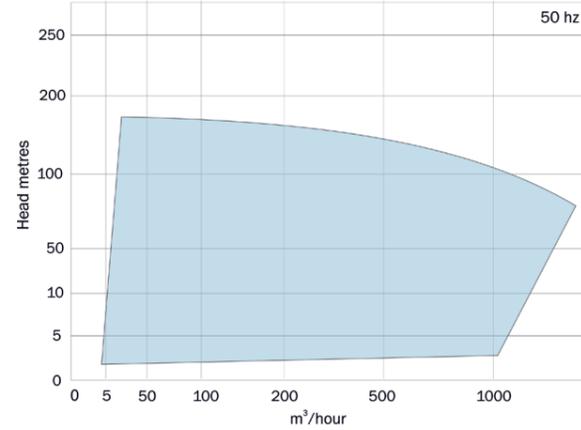
### CN-CNF-CNK

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
- Duplex



- Corrosive Liquids
- Refrigerants



- 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

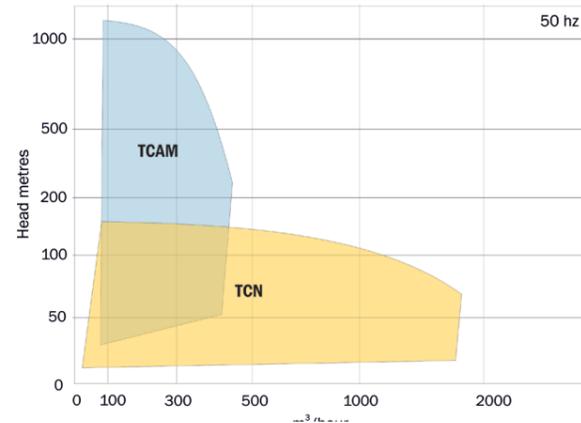
The CAM range of canned pumps utilise are multi-stage, canned pumps that provide a high containment solution to low flow high head applications.

High pressures can be achieved with Tandem units in which the stages are arranged on both sides of the motor.

- Cast Iron
- Steel
- St Steel
- Hastelloy
- Duplex



- Corrosive Liquids
- Refrigerants



- 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.



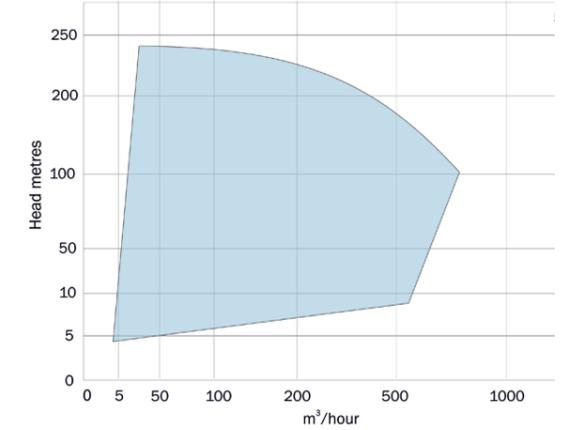
### CNP-CNPF-CNPF

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 an integral pump/motor construction, they offer a trouble free API solution without the complex seal systems.

- Steel
- St Steel
- Hastelloy
- Duplex



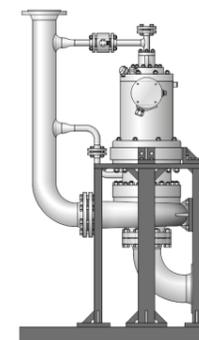
- Corrosive Liquids
- Refrigerants



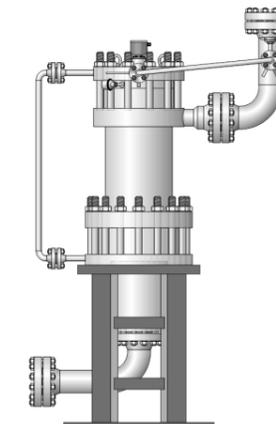
- Double containment of liquid.
- Extremely long service life.
- Reduced footprint.
- Simplified installation.
- ATEX certified up to T6.
- Reduced instrumentation.



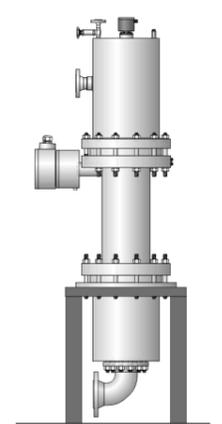
### Vertical arrangements for LPG applications



- Type CNV and CNFV
- Single-stage design
  - Suitable for pressure gases / Liquefied gases



- Type CAMTV
- Multistage design
  - With pressure barrel for high system pressure
  - Suitable for pressure gases / Liquefied gases



- Type CAMTV-Tandem
- Multistage design
  - Tandem design
  - With pressure barrel for high system pressure
  - Suitable for pressure gases / Liquefied gases.

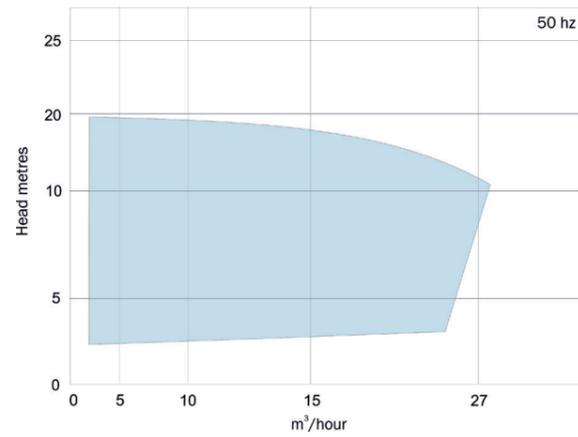
### SDM

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



- Corrosive Liquids
- Refrigerants



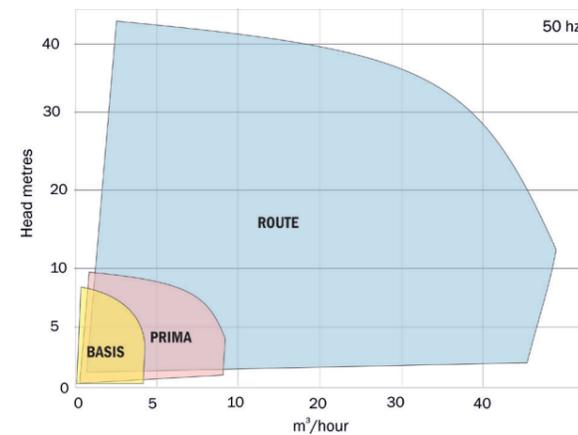
- No mechanical seals to leak or service.
- BSP, NPT, PN or ANSI connections.
- Can be mounted vertically.
- Vacuum welded internal magnets available.
- Can be constructed to suit off shore applications.

### Argal

Argal plastic pumps are available both magnetically driven and with mechanical seals and a host of options including ATX, dry run protection and reinforced housings.

AxFlow stock popular sizes of Basis, Prima and Route models in the UK with a 24 hour delivery.

- PP
- ETFE
- PTFE
- Carbon
- EPDM
- Viton
- FEP



### Basis

Small recirculation pumps identical in dimension to lwaki pumps and available with 50/60 Hz UL approved motors making them ideal for OEM applications.

- Interchangeable with lwaki models.
- Chemically resistant polypropylene.
- Threaded or hose connections.
- DC motors available.
- **24 hr delivery on many models.**



### Prima

A suite of magnetically driven pumps with three internal configuration of construction to cater for applications that range from clean water, waste water and slightly abrasive liquids, strong alkali and acid solutions.

- Chemically resistant PP or ETFE
- Threaded or flanged.
- Short term dry running option.
- **24 hr delivery on mainly models.**



### Route

Magnetically driven and mechanically sealed pumps able to handle a wide selection of chemical transfer duties. They are available with an option that protects them against dry running and an external stainless steel support to improve the robustness of the casings.

- Chemically resistant PP or ETFE
- BSP, NPT threads.
- ISO, ANSI and JIS flanges.
- Dry running option.
- Housing reinforcement option.
- **24 hr delivery on many models.**





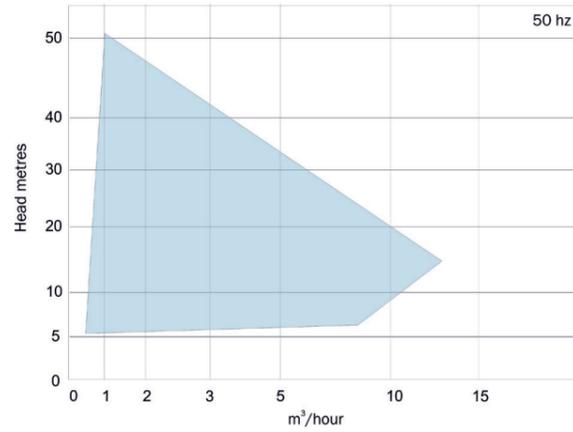
### PTM & PTM-SP

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



- ✓ Self Priming
- ✓ Corrosive Liquids



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



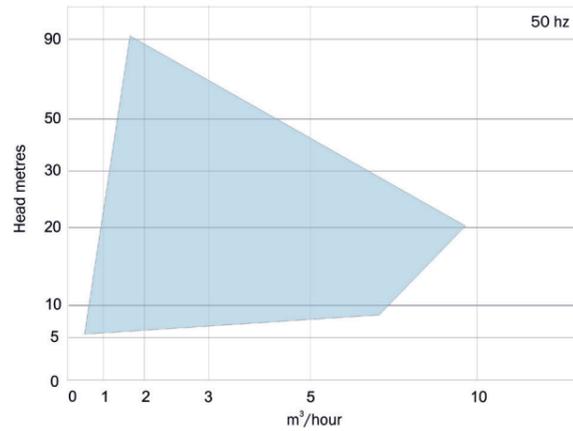
### STM

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

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



- ✓ Corrosive Liquids
- ✓ Refrigerants



- 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.



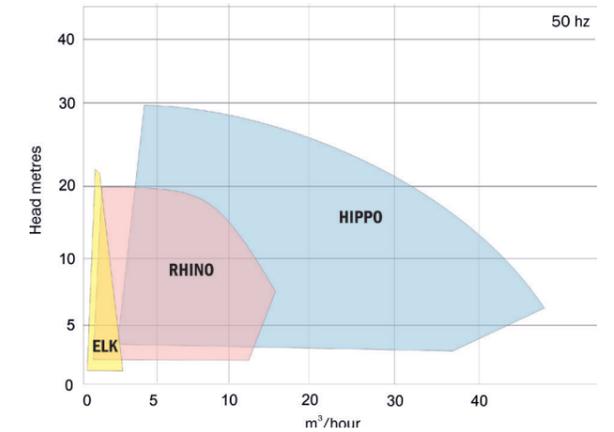
### Argal Self Priming Pumps

**ELK** mag drive pumps with a reversible flow and a priming capability of up to 6m. PP and ETFE  
**Rhino** mag drive pumps with a priming capability of up to 6m. PP and ETFE  
**Hippo** mechanical sealed pumps able to handle liquids with suspended solids and prime up to a height of 5m.

- PP
- PVDF
- ETFE
- PVC



- ✓ Corrosive Liquids
- ✓ Self Priming



- Thick-Walled casing parts.
- A range of sealing types.
- PP - PVDF - PVC - ETFE.
- Reversible flows.

### Saturn Evo

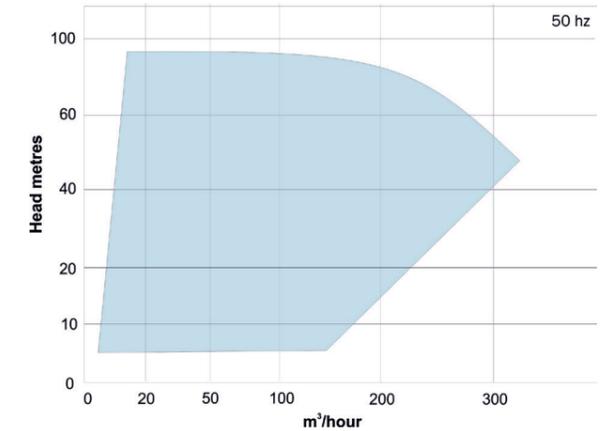
An extremely comprehensive suite of fibreglass pumps that offer a cost effective solution to applications that require both chemical resistance and resilience to abrasion.

Saturn Evo pumps offer low NPSHr and the ability to fit a range of single and double seals.

- FRP



- ✓ Solids
- ✓ Corrosive Liquids
- ✓ Abrasive Liquids



- Single piece pump casing.
- Bearings positioned to prolong their life.
- Close and long coupled units available.
- Can be fitted with easy to clean inlet filters.
- Impeller adjustment possible by relocating the shaft.



Centrifugal

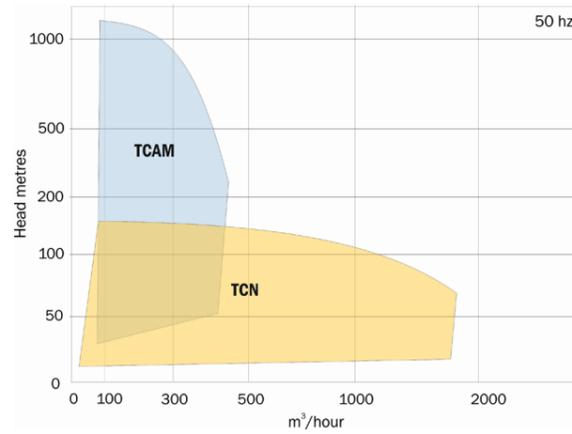
### NKPF-NKKF-VKPE-VKKF

**VKPE/VKKF** pumps are heavy duty vertical plastic lined sump pumps designed to convey aggressive, solid laden liquids. They have no seals to leak or maintain and no bearings in the liquid. **NKPE/NKKF** are seal-less side tank mounted plastic lined pumps with outer metallic construction suitable for liquids with a high suspended solids content.

- PE
- PVDF
- PP
- PTFE



- ✓ Solids
- ✓ Corrosive Liquids
- ✓ Abrasive Liquids



- Thick-Walled metallic casing parts.
- Bearings positioned above mounting plate
- Sealed for life roller bearings.
- PE - PVDF - PP - PTFE.
- Can run dry for short periods.
- True cantilever design with no bearings in the liquid.

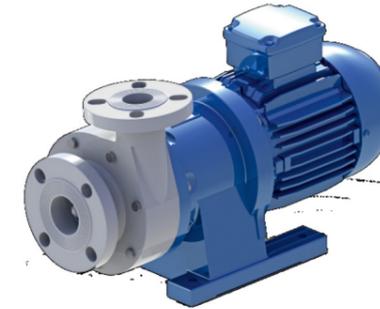


Centrifugal

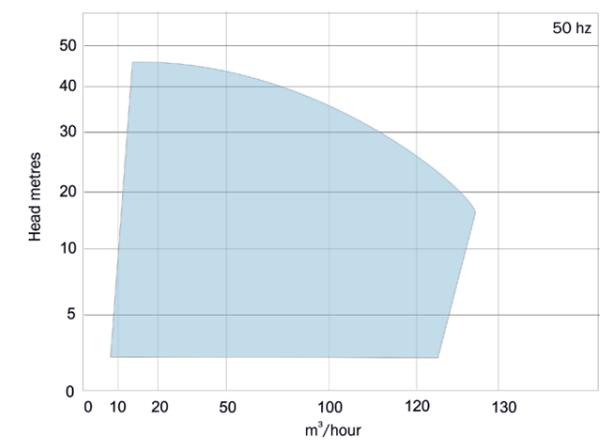
### PCM

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



- ✓ Self Priming
- ✓ Corrosive Liquids



- No mechanical seals to leak or service.
- Chemically resistant.
- PN10 or ANSI 150.
- Can be mounted vertically.
- PP - PVDF.



### Argal Vertical Pumps

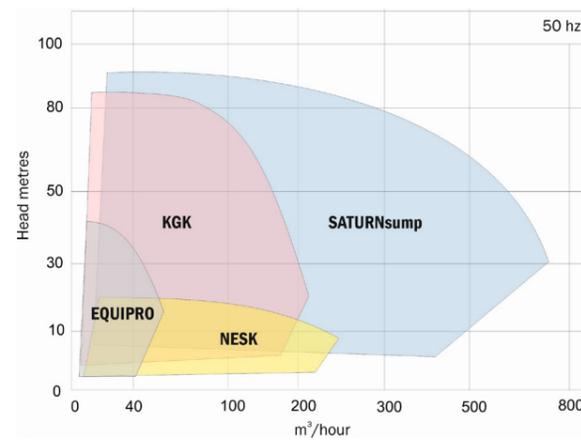
**Equipro** are seal-less circulation pumps designed for use in the surface treatment industry. **KGK** pumps are robust plastic sump pumps with shafts up to 4m long.

**SaturnSump** pumps are fibreglass sump pumps designed to handle waste and contaminated water with column lengths of up to 5m.

- PP
- PVDF
- FRP



- ✓ Solids
- ✓ Corrosive Liquids



- Thick-Walled casing parts.
- Bearings positioned above mounting plate.
- Semi open impellers.
- Sealed for life roller bearings.
- PVDF - PP.
- Can run dry for short periods.
- True cantilever design with no bearings in the liquid.



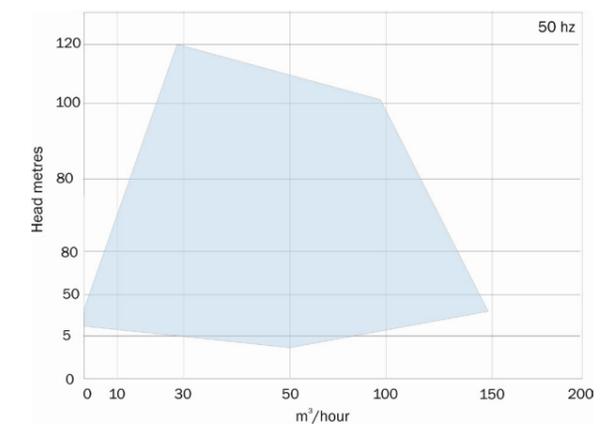
### J Series

The J self-priming centrifugal pumps are used in applications requiring a fast priming capacity from demanding suction heights combined with the ability to transfer and manage polluted, waste and abrasive fluids with suspended solids.

- St Steel
- Cast Iron
- Hastelloy
- Dup St St
- Titanium
- PP
- PVDF
- EPDM
- Viton
- FEP



- ✓ Self Priming
- ✓ Corrosive Liquids
- ✓ Refrigerants
- ✓ Low shear



- High
- Solids Handling
- Self-priming capacity without auxiliary system



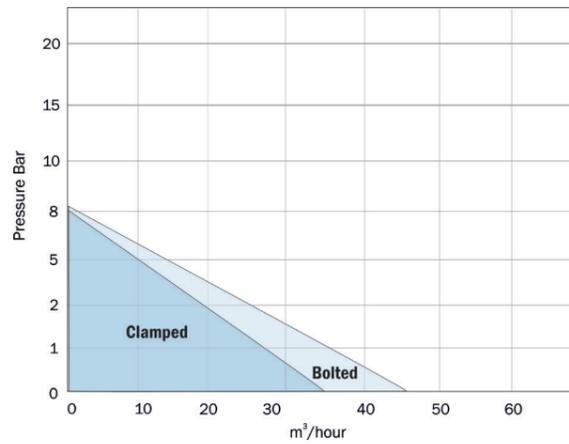


### Clamped and Bolted Plastic

Wilden's Clamped Series AODD pumps are designed for utilitarian applications that require a robust construction. The Bolted Series AODD pumps are constructed with bolts to give a better diaphragm seal to cope with varying discharge pressures. They both utilise ProFlo Shift which automatically optimizes air consumption and eliminates overcharging of the air chamber.

- PP
- PVDF
- PFA
- Buna
- EPDM
- Viton
- Neoprene
- Santoprene
- Hytrel
- Polyu'thane
- PTFE

- Solids
- Self Priming
- Corrosive Liquids
- Abrasive Liquids



- Reliable and robust.
- Dry priming and dry running.
- Single-point exhaust option.
- Can be dead headed without damage.
- Will deliver variable flow and pressure.
- Sizes 1/4" to 3".



### E Series

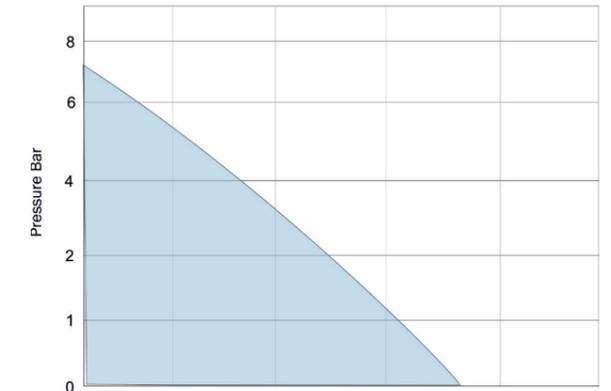
The E-Series represents the latest generation of plastic air-operated AOD pumps. They are machined from solid blocks of plastic and all housing bolts are tightened against a diaphragm ring allowing for an extremely secure unit. They are ATEX rated and their bodies can be made from PE or PTFE.

- PE
- PTFE
- EPDM
- PTFE
- NBR

- Solids
- Self Priming
- Corrosive Liquids
- Abrasive Liquids



E Series



- Reliable and robust.
- Dry priming and dry running.
- High levels of liquid containment.
- Extremely resistant to aggressive chemicals.
- Will deliver variable flow and pressure.
- Sizes 1/2" to 3".
- NPT, DIN or ANSI flange connections.

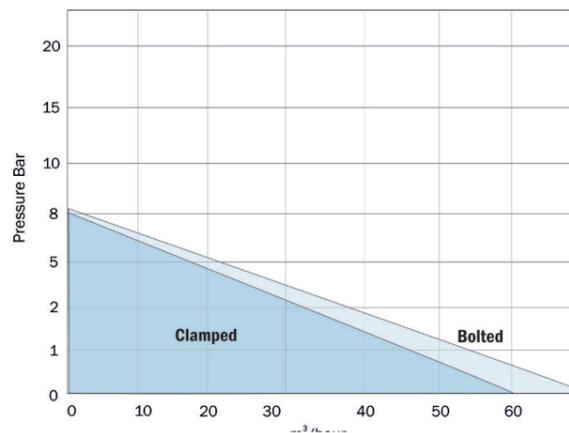


### Clamped/Bolted Metal

Wilden's ClampedSeries AODD pumps are designed for utilitarian applications that require a robust construction. The Bolted Series AODD pumps are constructed with bolts to give a better diaphragm seal to cope with varying discharge pressures. They both utilise ProFlo which automatically optimizes air consumption and eliminates overcharging of the air chamber.

- St Steel
- Aluminium
- Cast Iron
- Buna
- EPDM
- Viton
- Neoprene
- Santoprene
- Hytrel
- Polyu'thane
- PTFE

- Solids
- Self Priming
- Corrosive Liquids
- Abrasive Liquids



- High discharge pressures.
- Reliable and very robust.
- Improved product containment.
- Dry priming and dry running.
- Single-point exhaust option.
- Can be dead headed without damage.
- Will deliver variable flow and pressure.
- Sizes 1/2" to 4".



### Chemisor

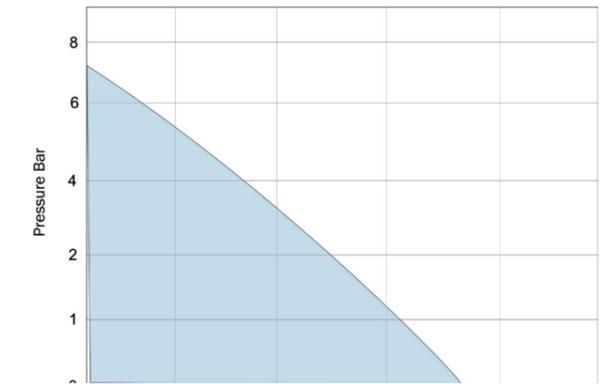
These metal pneumatic diaphragm pumps feature soft contours, smooth flow channels and no dead spaces. CHEMICOR pumps contain a central block made of PA or conductive PE.

- St Steel
- EPDM
- PTFE

- Solids
- Self Priming
- Corrosive Liquids
- Abrasive Liquids



Chemisor



- Reliable and robust.
- Dry priming and dry running.
- Can be dead headed without damage.
- Will deliver variable flow and pressure.
- NPT or BSP connections.
- Sizes 3/4" to 2".





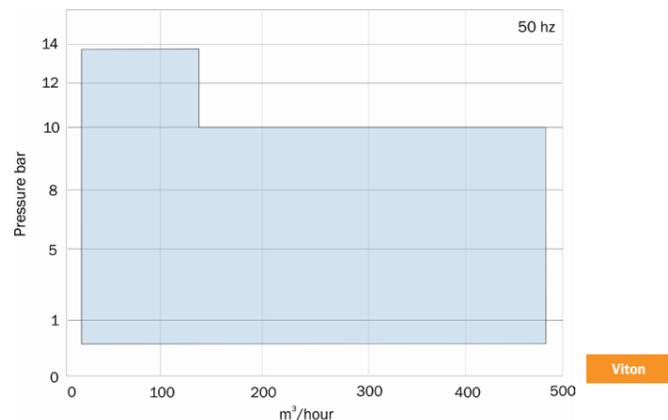
Vane

### NP - SNP - HXL Series

Blackmer NP pumps are specifically designed to offer maximum versatility for handling a wide variety of liquids. The NP pump is ideal for applications that have varying fluid viscosities and temperatures. NP pumps can be fitted with double mechanical seals. SNP denotes stainless steel and HXL high flows.

- Cast Iron
- St Steel
- Duravane
- EC Laminate
- Bronze
- Viton
- PTFE

- Self Priming
- Corrosive Liquids
- Refrigerants
- Low shear



- Jacketed pump heads available.
- Excellent self-priming and dry run capabilities.
- Symmetrical bearing support assures even loading and wear for long life.
- Adjustable relief valve protects pump against excessive pressures.
- Vanes can be replaced without removing the pump from the piping system.

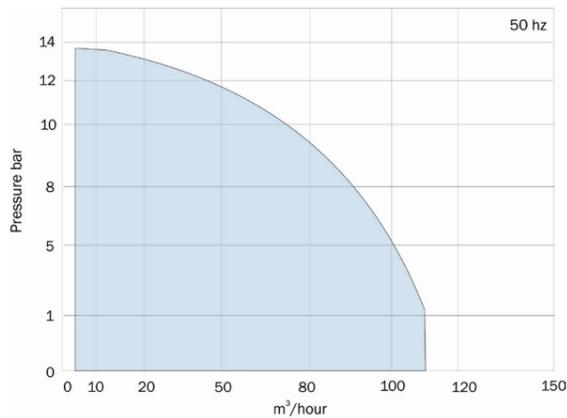


### P Series

The Mouvex P Series vane pump cover a large range of industrial applications, from thin fluids to very viscous products, whether they are non-lubricating, abrasive or corrosive.

- St Steel
- Cast Iron
- Viton
- Nitrile

- Low Shear
- Self Priming



- CIP and SIP compatible.
- Performance remains constant over time.
- Dry-run capability.
- Can be supplied with built-in heating or cooling jackets.



Vane



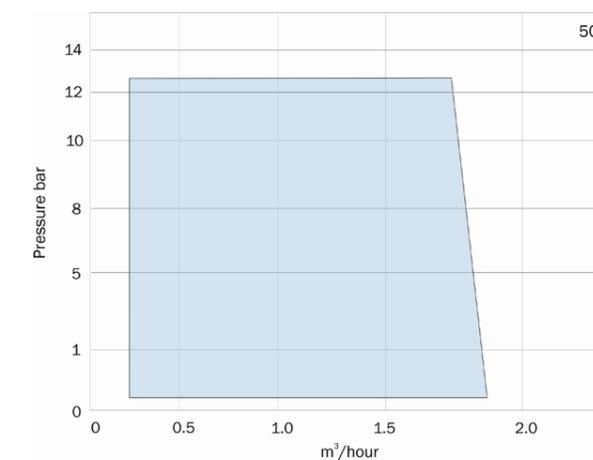
Rotary Piston

### SVM-SVP

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 °C.

- St Steel
- Hastelloy
- Dup St St
- Titanium
- PP
- PVDF
- EPDM
- Viton
- FEP

- Self Priming
- Corrosive Liquids
- Refrigerants
- Low shear



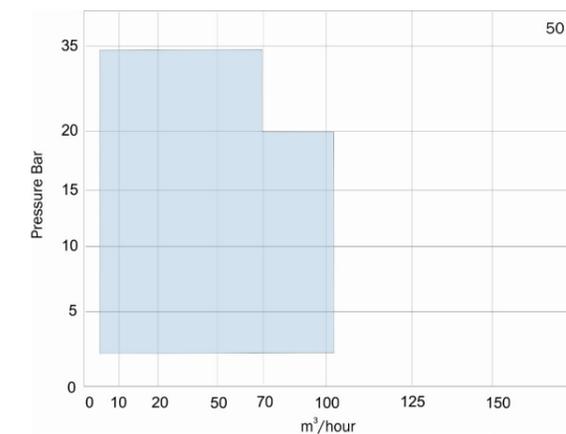
- High heads - low flows.
- Viscous or thin liquids.
- Available with metallized graphite.
- Dry running capability.
- Threaded, PN, Tri-Clamp or ANSI flanges.
- SS plus options of Duplex and Hastelloy.

### Universal

Built around Waukesha arc shaped rotor wings resulting in a long sealing path, the Universal 2 Series offers the same low pump slippage, easy maintenance, long service life and the ability to pump liquids with both high and low viscosity as the Universal 1 but at higher flows and pressures.

- St Steel
- EPDM
- Viton
- Silicone
- PTFE
- FEP
- Buna

- Solids
- Low Shear
- Self Priming
- Corrosive Liquids
- Abrasive Liquids



- Bi-directional flow.
- Gentle pumping action.
- Free draining pump housing.
- Dry running with flushed seal.
- Can pump large solids.
- Can pump a wide range of viscosities.

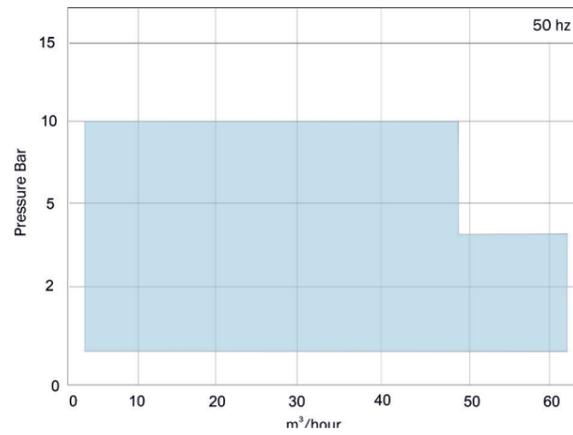


### Eccentric Disc

#### C, CLS G-FLO Series

The unique eccentric disc concept provides gentle handling and high-volume efficiency. The C and SLS Series pumps are particularly suited to tanker off loading and can completely clear the line of product.

- St Steel
- Ductile iron
- Viton
- FEP



- ✓ Solids
- ✓ Self Priming
- ✓ Corrosive Liquids

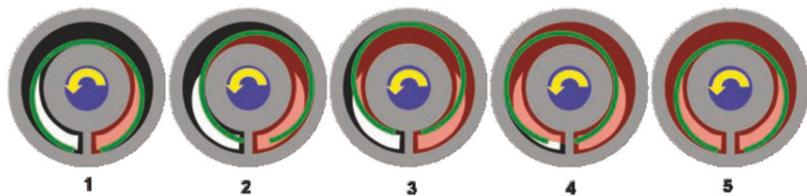


- Seal-less
- Self priming.
- High product recovery.
- Pumped product constantly renewed.
- Output not affected by viscosity variation
- Low linear speed.



#### Eccentric Disc Pump Technology

The Eccentric disc pumps consist of a cylinder and pumping element mounted on an eccentric shaft. As the eccentric shaft is rotated, the pumping element forms chambers within the cylinder, which increase in size at the intake port, drawing fluid into the pumping chamber. The fluid is transported to the discharge port where the pumping chamber size is decreased. This action squeezes the fluid out into the discharge piping



#### Advantages Of Mouvex Eccentric Disc Pumps

- Due to its clean-in-place capability, cleanliness is easily maintained without the need to dismantle the pump
- They are self-priming and can dry prime
- Combine low-shear with high-volume efficiency
- Ideal for product recovery
- No mechanical seals, therefore prevents leakage and reduces maintenance time



### Peristaltic

#### APY

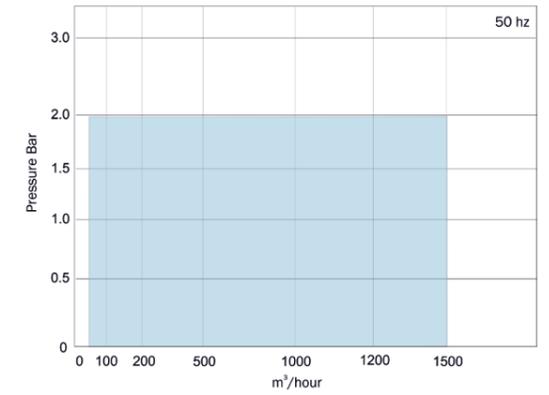
APY tube pumps are ideal for lower pressures and low flow applications providing accurate dosing of small quantities of up to 90 l/h and up to 2 bar pressure. The three roller design cuts vibration and tube replacement is quick and easy.

- Silicone
- Norprene
- Tygon
- Solva



- ✓ Solids
- ✓ Low Shear
- ✓ Self Priming
- ✓ Corrosive Liquids

#### APY



- Suction lift to 6 metres.
- Electronic equipment for batch applications.
- Plastic baseplate with leakage container.
- Reversible rotation.
- High dosing accuracy.
- Corrosion resistant.
- Sanitary tubes to FDA.



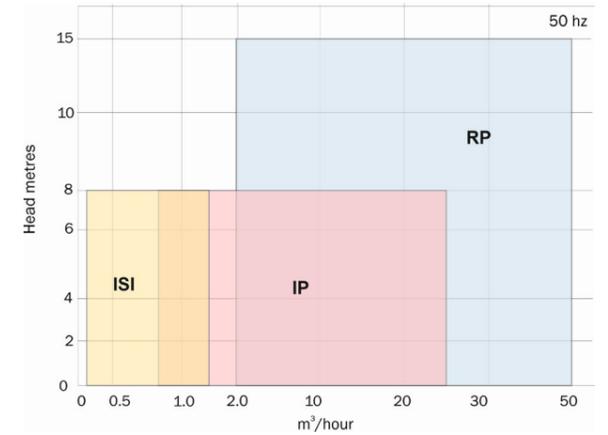
#### ISI - IP - RP

A suite of industrial hose pumps that utilise shoes or rollers to compress the hose rather than rollers giving a more even and longer sealing area. They are fitted with inverter driven motors and have sturdy reinforced hoses.

- EPDM
- Silicone
- Norprene
- NR
- NBR
- HYPALON



- ✓ Solids
- ✓ Low Shear
- ✓ Self Priming
- ✓ Corrosive Liquids



- Suction lift to 9 metres.
- Reversible rotation.
- Hose leakage detector available.
- Can be accompanied with pulsation dampeners.
- Electronic equipment for batch.
- FDA materials available.
- Available with Tri-clamp, DIN 1.1851, SMS, NPT, PP, PVDF connections.





Metering

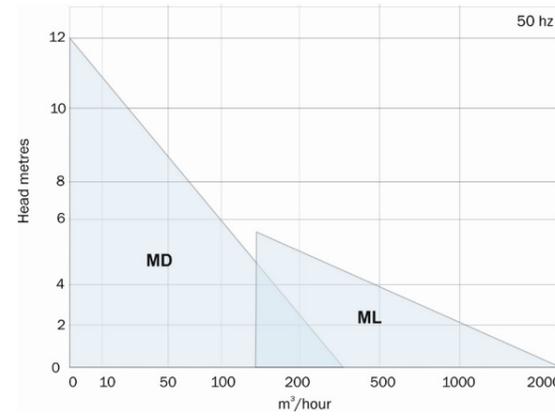
### OBL Mechanical Diaphragm

Mechanically actuated diaphragms which offer a chemically resistant, seal-less option for low pressure applications. The OBL's unique (patented) mechanical diaphragm design ensures linearity between flow rate and percentage of stroke. The flow rate is virtually unaffected by the working pressure variations.

- St Steel
- PP
- PVC
- PVDF
- PTFE
- Viton



- Self Priming
- Corrosive Liquids



- Simple and robust spring return plunger pump.
- Low maintenance costs due to small number of components.
- Suited to aggressive fluids.
- Single and multiple head arrangements possible.
- Spring or positive return.
- Available with a stroke length actuator.



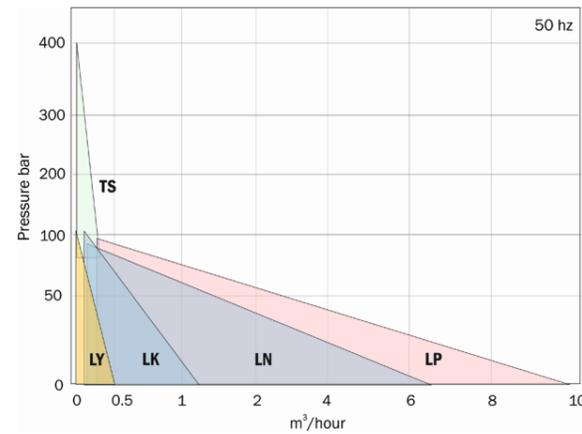
### OBL Plunger

A comprehensive range of plunger metering pumps with ceramic plungers that comply with API 675 for high pressure applications. They can be used singularly or in multiple head units and feature a simple linear adjustment dial.

- St Steel
- PVC
- PVDF
- Viton



- Self Priming
- Corrosive Liquids



- Simple and robust plunger metering pump.
- Low maintenance costs due to small number of components.
- Available with a stroke length actuator.
- Single and multiple head arrangements possible.



Metering

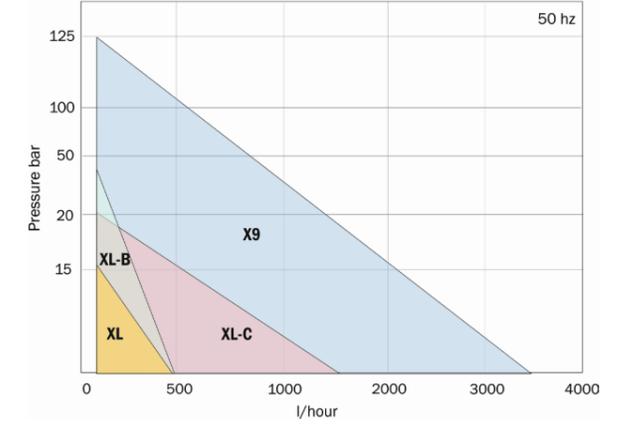
### OBL Hydraulic Diaphragm

Hydraulically actuated diaphragm pumps which offer the product containment of mechanical diaphragm units and the high pressure capabilities of plunger type pumps. They feature built-in relief valves, air purge valves and mechanically actuated replenishing diaphragms that guarantee a constant hydraulic balance.

- St Steel
- PVC
- PVDF
- PTFE
- Viton



- Self Priming
- Corrosive Liquids



- Longer diaphragm life.
- Suited to aggressive fluids.
- Single and multiple head arrangements possible.
- Available with a range of actuators.
- Comply with API 675.
- Available with a double diaphragm construction.



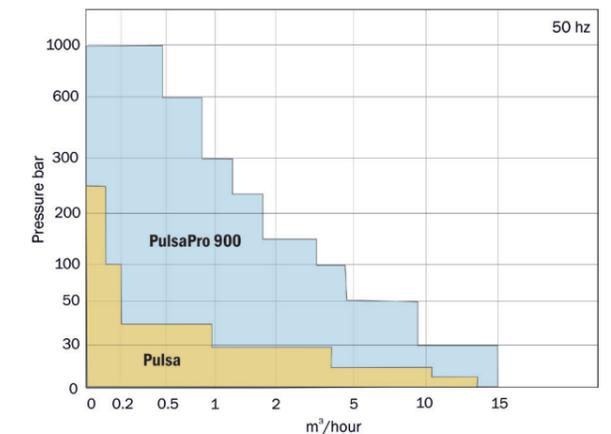
### Pulsa - PulsaPro 900

Pulsa Series are high specification metering pumps available with three different diaphragms designs to prevent over deflection, for high viscosity liquids and self priming applications. The PulsaPro 900 is a more rugged range for high flows and pressures. One of the most innovative features of the PulsaPro 900 is the unique gearbox design which allows for up to four heads.

- St Steel
- Hastelloy
- Alloy C
- Monel
- PVC
- PTFE
- Viton
- PTFE
- CSM
- PFA



- Self Priming
- Corrosive Liquids



- Vertical or horizontally mounted motors.
- Hydraulically balanced diaphragms - no wear point.
- 1 yr warranty on wear parts, 5 on gear train
- Manual adjustment mechanism to ±0.5% accuracy.
- A wide range of control signal options.
- Dual scale % and flow units.
- API 675.





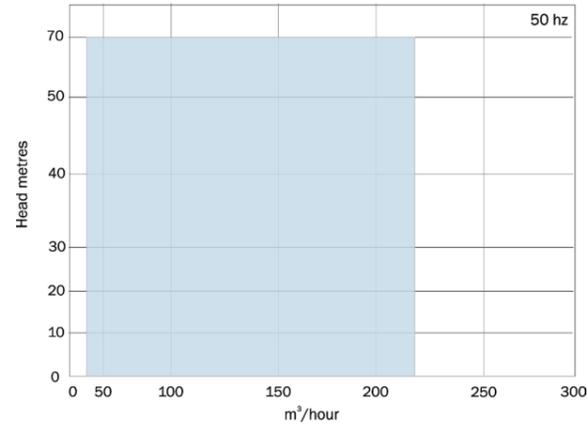
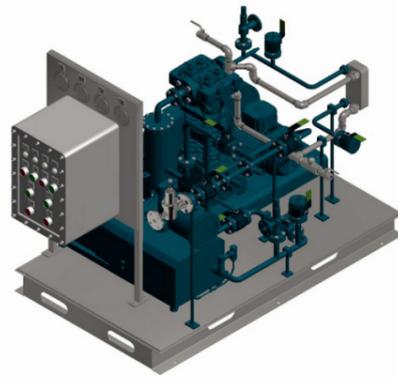
## Compressors

### Blackmer Vapour Recovery Systems

A comprehensive and range of vapour recovery systems offering a compression ratio of up to 9 and ideal for LPG/propane, butadiene, natural gas, sulphur dioxide, and refrigerants.

They can include integrated heat exchangers, control panels and additional vacuum pumps.

- St Steel
- Duct Iron
- NBR
- Viton
- PTFE
- Neoprene



- Oil free design.
- High efficiency valves move more volume
- Heavy-duty, precision-ground crankshaft.
- Pressure assisted piston rings for positive.
- Pressure lubricated bearings.
- Self-adjusting piston rod seals.
- Pressure and temperature indicators.



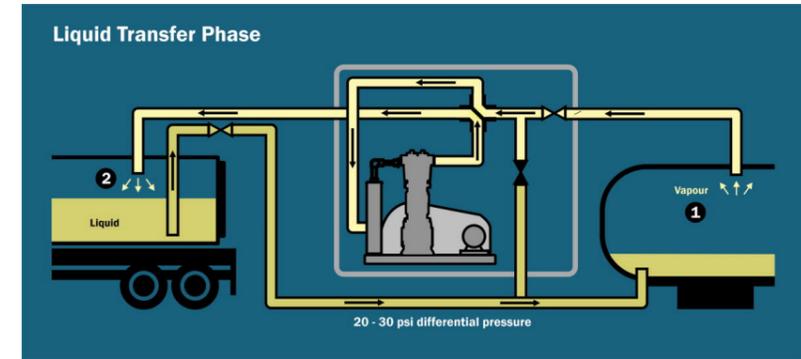
AxFlow focus on Blackmer compressor technology for product and vapor recovery. Blackmer are the industry leaders in vapour recovery units VRU as their oil-free, reciprocating compressors are designed for specific applications in LPG and NH3 gas handling, product transfer and vapor recovery.

Designed specifically for liquified gas transfer duties, AxFlow's systems use Blackmer vertical piston compressors which come in single or two stage versions with air or water cooling. The Blackmer single-stage reciprocating compressor creates a lowpressure area in the compression chamber, when the piston moves from the highest point of the stroke to the lowest point. The gaseous product (at a higher pressure in the tank) moves into the compression chamber whereupon this volume of gas is reduced as the piston moves to the top of the stroke with a corresponding increase in pressure.

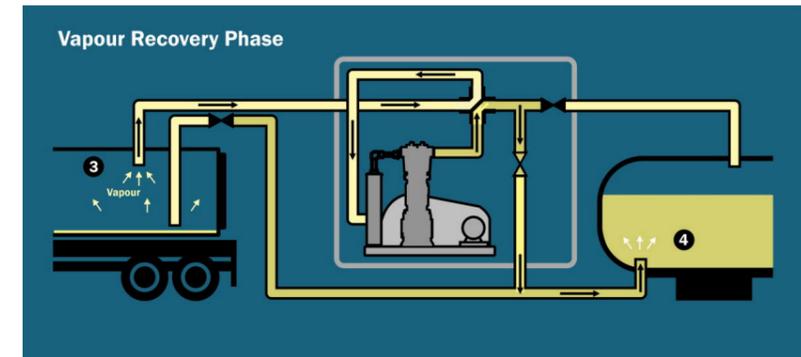


### HOW VAPOUR RECOVERY SYSTEMS WORK

In order to ensure safe handling and optimum product recovery, Hall International uses AxFlow vapour and liquid transfer systems for offloading tankers and for storage duties. It makes sound economic sense to make sure that any product that remains in a tanker or bulk container is extracted for recycling and storage for future use. Also, if a tanker is to be used for another product, it needs to be thoroughly cleaned to prevent crosscontamination it is essential that the tanker is completely free of any liquid and vapour before cleaning can commence.



The compressor takes the vapours from the empty receiver tank 1 and compresses them into the delivery tank 2 thereby pushing the liquid out and into the receiver tank.

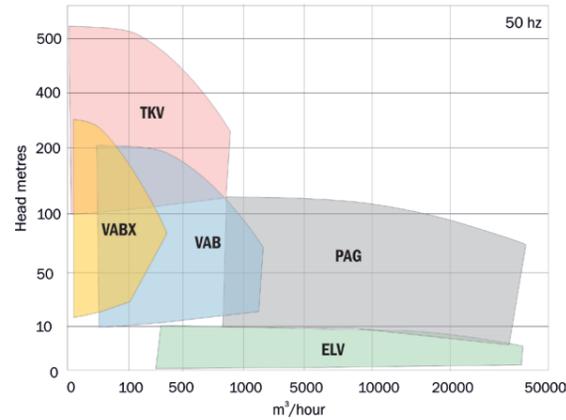


The compressor sucks the vapours from the empty delivery tank 3 and compresses it into the receiver tank 4 thereby completely emptying the delivery tank.

### Gruppo Aturia Semi-Submersible Pumps

Gruppo Aturia have been making vertical pumps since the 1890's and remain at the forefront of the industry. The Aturia range of vertical pumps includes semi-submersible cantilever pumps and submersible pumps and utilises centrifugal, mixed flow (turbine pumps) and axial flow pump technologies.

Applications for our Aturia vertical pumps include: Seawater lift pumps, borehole pumps, fire fighting pumps and drainage pumps.



#### VAB - VABX

The VAB and VABX ranges are multi-stage mixed flow (turbine) pumps to API 610 VS1 and VS6 when barrel pumps.

- Cast Iron
- Carb Steel
- St Steel
- Bronze
- Duplex
- S Duplex



 Mixed Flow
  25 bar
  Viscous 50 cP
  +90 °C 0 °C
  ATEX Certified
  VS1

#### TKV

The TKV range are multi-stage radial flow (centrifugal) pumps to API 610 VS1 and also VS6 when barrel pumps.

- Cast Iron
- Carb Steel
- St Steel
- Bronze
- Duplex
- S Duplex



 Centrifugal
  64 bar
  Viscous 50 cP
  +90 °C 0 °C
  ATEX Certified
  VS1

#### PAG

PAG pumps are high flow mixed flow (turbine) pumps to API 610 VS1, VS2 and VS6 when barrel pumps.

- Cast Iron
- Carb Steel
- St Steel
- Bronze
- Duplex
- S Duplex



 Mixed Flow
  25 bar
  Viscous 50 cP
  +90 °C 0 °C
  ATEX Certified
  API 610
  VS1

#### ELV

ELV are single or two stage axial flow pumps to API 610 VS3 and VS6 barrel pumps.

- Cast Iron
- Carb Steel
- St Steel
- Bronze
- Duplex
- S Duplex

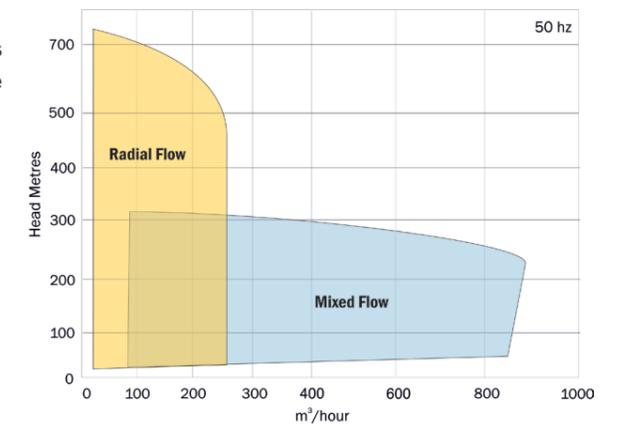


 Axial Flow
  25 bar
  Viscous 50 cP
  +90 °C 0 °C
  ATEX Certified
  VS1

### Gruppo Aturia Submersible Pumps

An extremely comprehensive range of fully submersible pumps including both mixed and radial flow models. They are available in sizes from 6 to 14”.

- Designed with the minimum number of wearing components.
- Impellers are dynamically balanced and splined to the shaft.
- The shafts are driven by coaxial bearing bushes and protected by sleeves.
- All the pumps are provided with NRVs.



#### Mixed Flow

Mixed flow submersible pumps can be fitted with standard Aturia 400v and 690v motors or purpose made MV and HV motors.

- Cast Iron
- Carb Steel
- St Steel
- Bronze
- Duplex
- S Duplex



 Mixed Flow
  70 bar
  Viscous 50 cP
  +30 °C 0 °C
  ATEX Certified

#### Radial Flow

Radial flow (centrifugal) models are available in sizes from 6” to 12” for low flow high head applications.

- Cast Iron
- Carb Steel
- St Steel
- Bronze
- Duplex
- S Duplex

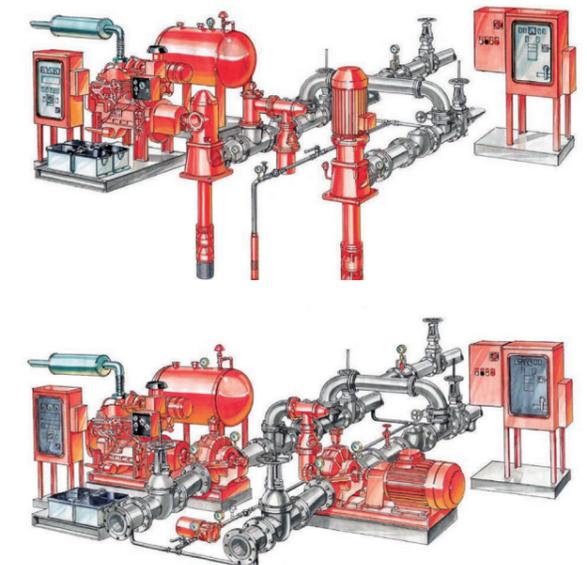


 Centrifugal
  70 bar
  Viscous 50 cP
  +30 °C 0 °C
  ATEX Certified

### Fire Fighting Systems

Audoli & Bertola” is a division of Gruppo Aturia and operates exclusively in the fire fighting field as supplier of water fire fighting packages in compliance with the European Standards (EN 12845 e EN 12259-12) and the American Standards (NFPA 20).

Audoli & Bertola is the only Italian pumps manufacturer to have obtained from “Factory Mutual” the approval for its vertical turbine pumps and split case pumps for a range of capacities from 500 USGPM to 3500 USGPM, at 50 ÷ 60 Hz and Diesel Driven. ATEX: Packages and Pumps for ATEX Classified area are available for Electrical Pump and Diesel Engine Driven Pump Fire-Fighting services.



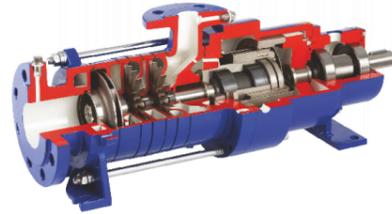


### Centrifugal

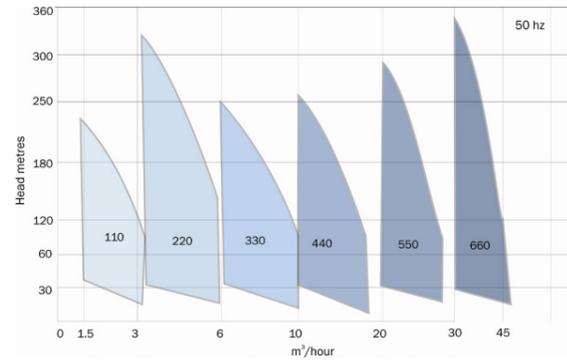
#### SEMA

The SEMA model is a proven state-of-the-art multi-stage, radially split segmented pump that combines the functionality of a low NPSH first stage impeller with the performance of a side channel design.

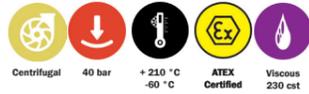
Ductile Iron  
Dup St St



- ✓ High pressures
- ✓ Gas Separation
- ✓ Self-Priming
- ✓ Heat removal



- Sectioned seal camber
- Sealing Flexibility
- Impeller balance holes
- Multi-stage modular design
- First stage suction impeller allows low NPSH requirements
- Pressure containing components rated at 40 bar
- Unique hydraulic design is pulsation free and produces high pressure



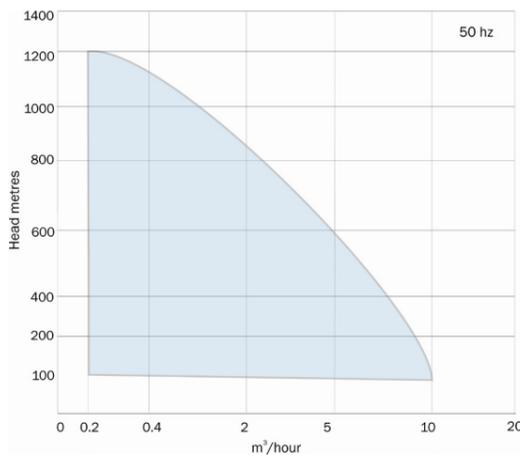
#### SHP

Volatile process fluid. Low flow rates with high head. Limited NPSH! The revolutionary SHP model incorporates numerous API 610 features and has been designed to operate in unique and challenging conditions

API C-6  
API A-8



- ✓ High pressures
- ✓ Gas Separation
- ✓ Self Priming
- ✓ Low NPSHr



- Open "star" impeller and side casing
- Single or dual cartridge seals. Dry running secondary and API 682 compliant seals are available.
- A newly designed impeller and suction lift casing
- Standard MOC's are C-6 and A-8. Variations for low temperature services are available.
- Materials of construction meet API 610 guidelines.

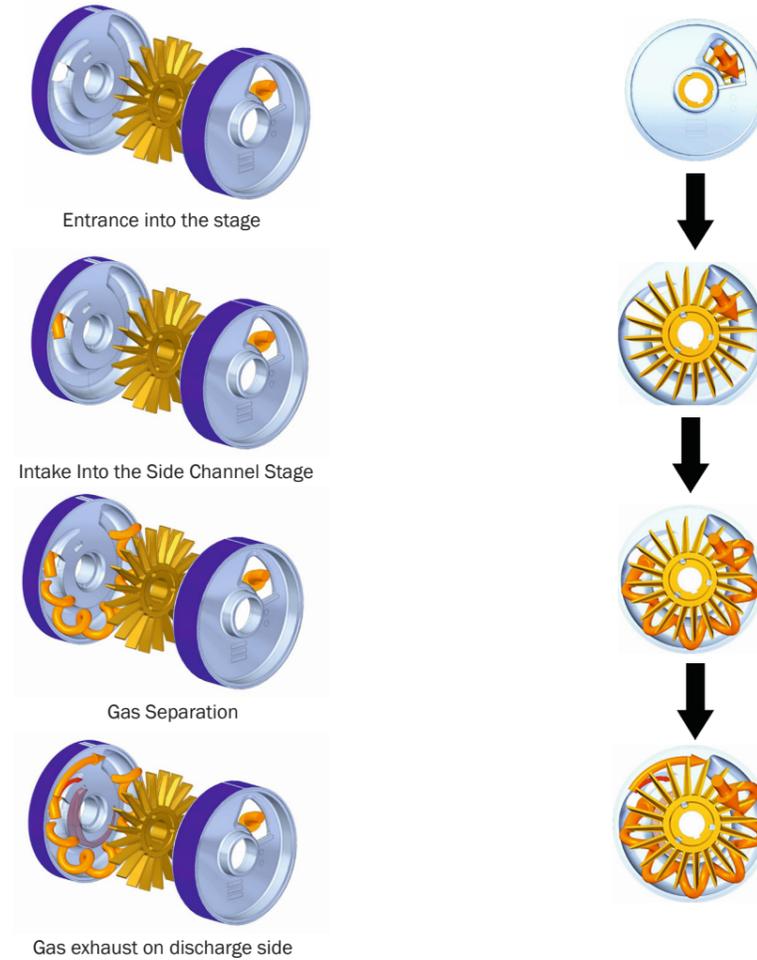


### Centrifugal

#### How Side Channel Pumps Work

AxFlow now supply Flexible Impeller pumps from SERO PumpSystems, the world's only exclusive manufacturer of side channel pumps. Since the issuance of their first side channel pump patent in 1929, SERO has continued to revolutionize the industrial pump industry. Specializing in individually configured pumping systems.

#### Design Of The Multifunction Hydraulics





**R-M-S**

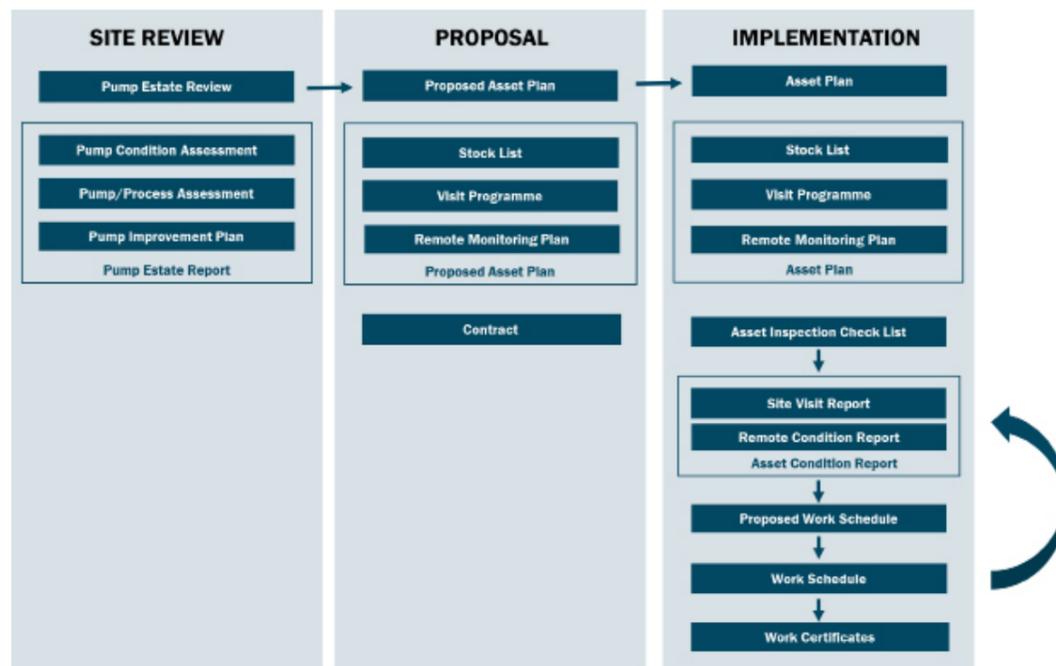
AxFlow has brought together its portfolio of experience and abilities, built up over the last 65 years of process pumps and their maintenance into one system. The R-M-S system is both comprehensive and flexible and covers both on-site and off-site capabilities; is centred around the maintenance work cycle and specific customer benefits. It is available across the whole UK from our 6 Technical Service Centres.

The R-M-S system is configured around the three main stages of the typical ongoing maintenance work cycle.

A **Review** of the pumps.  
 The subsequent **Monitoring** of the pumps.  
 Resulting in the **Scheduling** of maintenance and repair work.



**The Process**



**Contracts**

The R-M-S system can be delivered to suit your site and company's requirements. To assist in the process of identifying the most suitable approach we have created three contract types as a basis from which to work.

**CONTRACT A - AD HOC**

A flexible contract with minimal commitment whereby you would contact us for site inspections and maintenance work when required.

- Free pump review
- Pre agreed scheduled site inspection prices held for duration of contract
- Remote monitoring if required.

**CONTRACT B - PLANNED VISITS**

Scheduled visits based on a fixed monthly/quarterly payment.

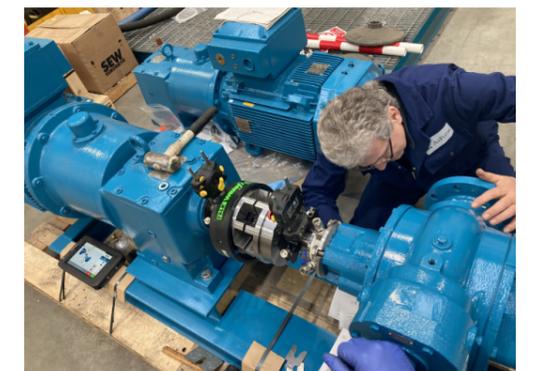
- Free pump review
- Scheduled site inspections.
- Fixed pump inspection prices for duration of contract.
- Remote monitoring if required.
- Fixed monthly payments for quarterly/Half yearly site inspections.
- 24 hours emergency call out.
- Stocked critical spares.
- Free pump removal/reinstallation.



**CONTRACT C - SCHEDULED INSPECTIONS MONITORING & MAINTENANCE**

Scheduled visits and prepaid maintenance work based on a fixed monthly/quarterly payment.

- Free pump review
- Scheduled site inspections.
- Fixed pump inspection prices for duration of contract.
- Remote monitoring if required.
- Fixed monthly payments for quarterly/Half yearly site inspections.
- 24 hours emergency call out.
- Stocked critical spares.
- Free pump removal/reinstallation.
- Free 4 hour run test new pumps.
- Free technical on-site visits.
- Free RCA training.
- Reduced price for mechanical seals.
- Guaranteed response time.
- Bad actor analysis.
- Free training.
- On site expert.
- Monthly charge.





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