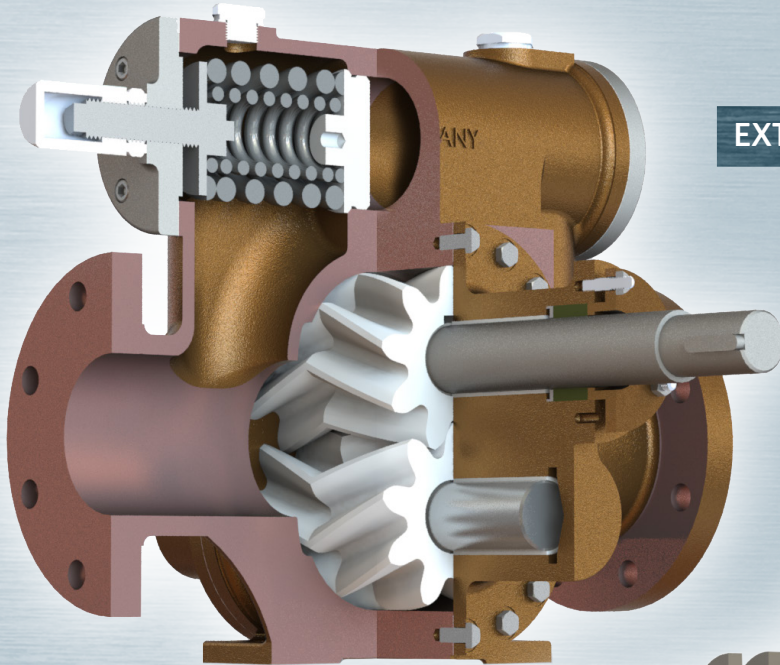
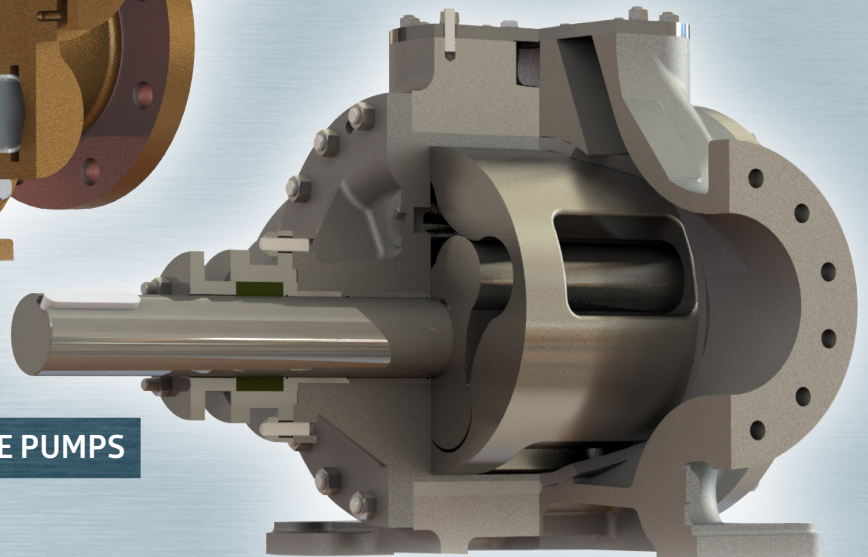


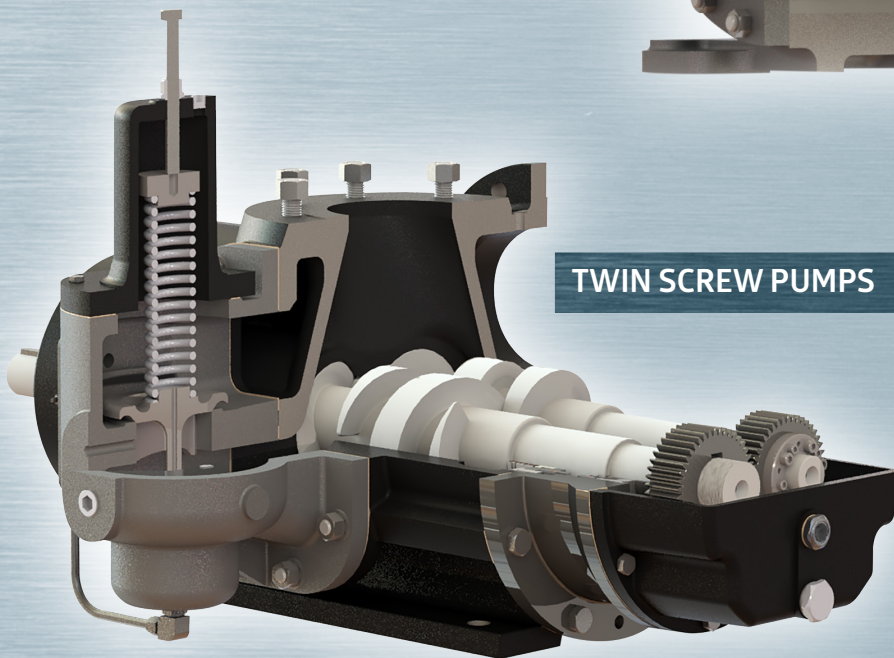
Positive Pumping Solutions



EXTERNAL GEAR PUMPS



INTERNAL LOBE PUMPS



TWIN SCREW PUMPS

Introduction

Albany Pumps designs and manufactures a wide range of standard, customised and specialised positive displacement pumps in the UK. If you require an external gear pump, a twin screw pump or an internal lobe pump, we think you've found the right place:

- Established in 1901
- Employee ownership with a Trust to guarantee longevity
- UK Manufacturing facilities
- Standards for every industry ATEX, CE, BSI, VdS and API.
- 100+ countries sold to worldwide
- Over 10,000 proven application stories
- We also own, manufacture and can support all of these brands:
 - Stothert & Pitt
 - Crown
 - Stanhope
 - Stanwin
 - Brooke
 - Handoll
 - Barclay Kellett

How to use this guide

This Guide is designed to assist you in the understanding of our Gear, Screw and Lobe pump ranges and therefore help in the specification and order of pumps.

The matrix on the back page helps you to identify the ranges of pumps we have had success with in your particular industry. We often have more than one range or even type of pump that we have used in your industry and therefore offer a choice wherever possible. This choice may be an economy range or a lifelong range depending upon your capital expenditure requirements or could be industry-led by need for specification/certification, such as API or VdS.

We have applications engineers across the UK and worldwide who can assist you in pump selection against process data given and your own individual needs.

Each product featured throughout these pages has its own downloadable technical brochure. See our website.



Your local agent:

Global Sales and Service

Head Office and Manufacturing Centre

Albany Engineering Company Ltd
Church Road, Lydney
Gloucestershire, GL15 5EQ
United Kingdom

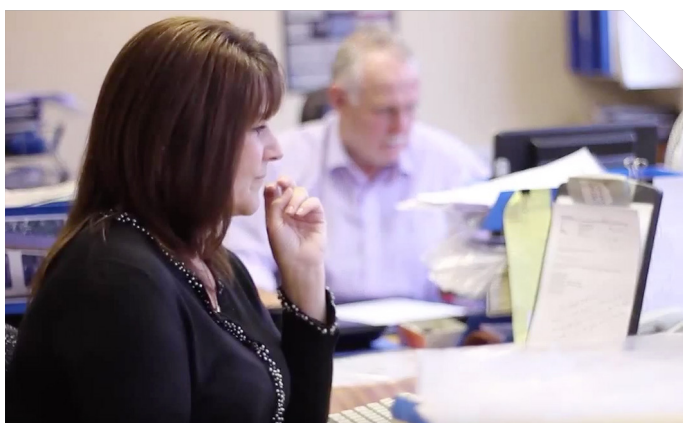
t: +44 (0) 1594 842 275
Head Office (Option 1)

e: sales@albany-pumps.co.uk

 @albanypumps

 albany-pumps





Employee-owned, British manufacturer

Albany became an employee owned company in 2015 thereby adding lifelong stability to our British heritage. The company also prides itself on our long associations with some of the world's leading companies and our position on the supplier lists of these companies allowing supply of all types of pumps in addition to our own portfolio of products.

These companies, and pump suppliers, welcome this exclusive situation enabling the purchase and supply of the world's leading brands through one unique brand.

Our customers

We make a wide range of standard, customised and special pumps to meet our customers' needs. Our pumps are sturdy and reliable and are in use in a wide range of industries all over the world. Our pumps are exported to as many as 40 countries every year in every continent of the world, and are used in many different markets, as shown below.

Industry sectors

Throughout this brochure industry sectors are indicated by the following colour codes:

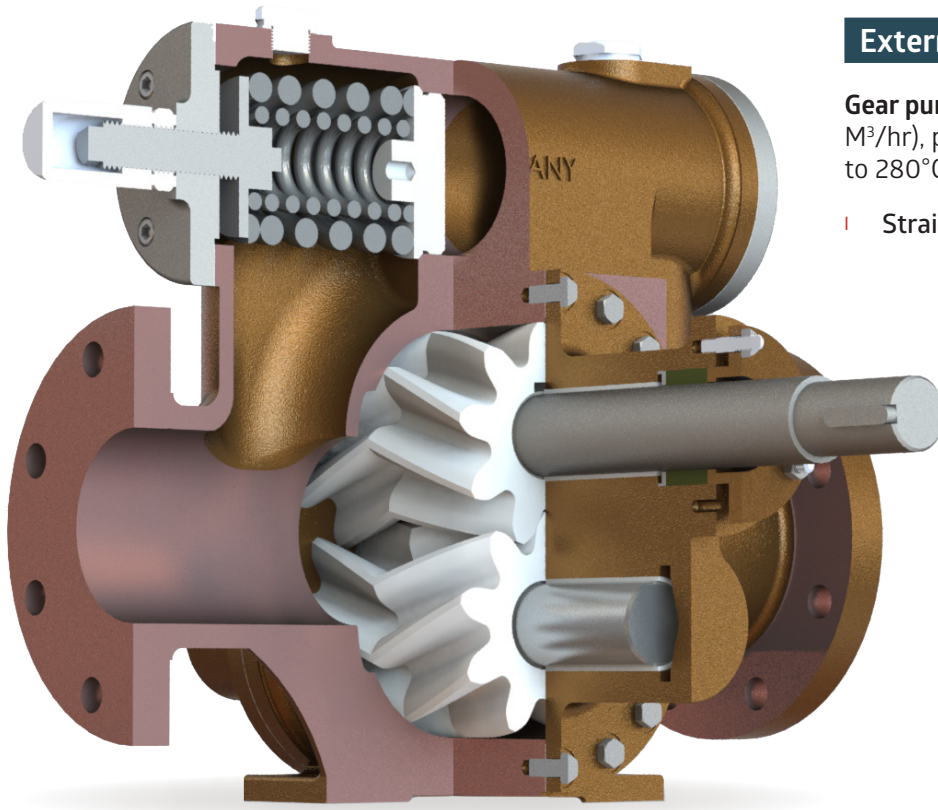
-  General and Chemical
-  Bitumen
-  Fire
-  Dispenser Machines
-  Food Industry
-  Lubrication
-  Marine
-  Oil & Gas
-  Refrigeration and HVAC
-  Feed Milling



The Albany positive pump range

The Albany concept

We do things a little differently at Albany. We are a traditional engineering manufacturing company specialising in positive displacement gear, screw and lobe pumps. We pride ourselves on bespoke pump design to suit the most stringent requirements. We have manufactured all our pumps in the UK since we started trading in 1901 and we have developed a portfolio of over 50,000 proven applications.



External gear pumps: pages 10-13

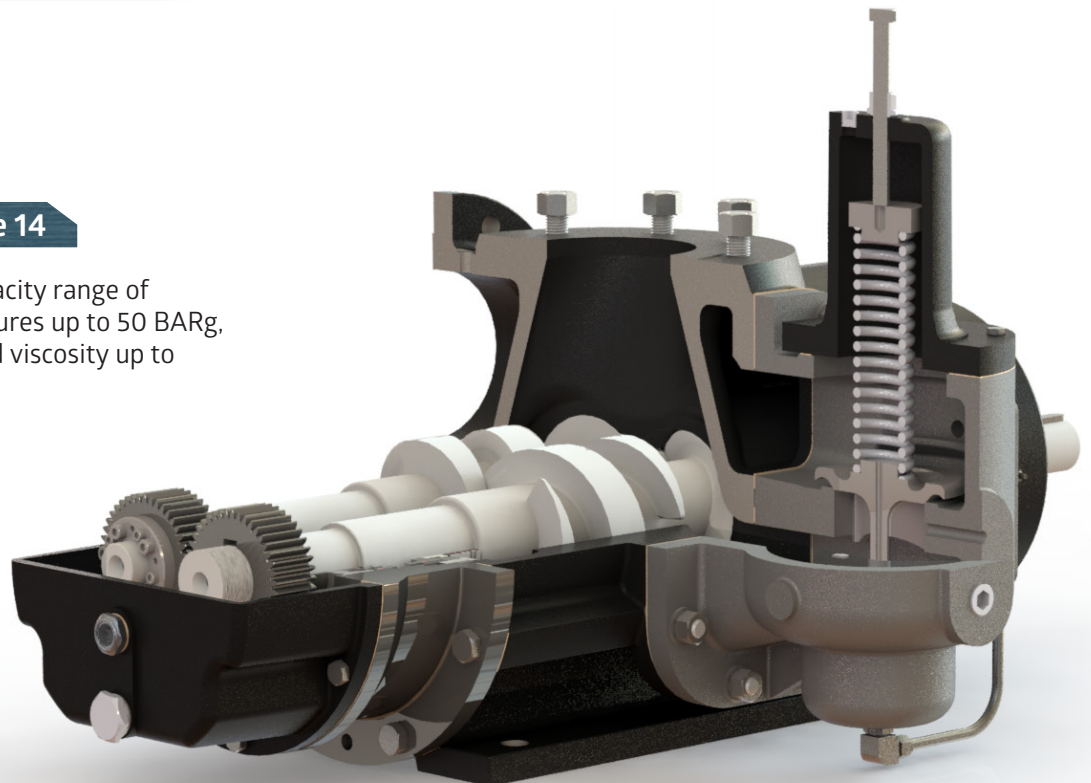
Gear pumps with capacities up to 2000 L/min (120 M³/hr), pressures up to 40 BARg, temperatures up to 280°C and viscosity up to 250,000 cSt.

- Straight Spur, Single or Double Helical Gears

Twin screw pumps: page 14

Twin screw pumps with a capacity range of 15 M³/hr to 1000 M³/hr, pressures up to 50 BARg, temperatures up to 300°C and viscosity up to 6000 cSt.

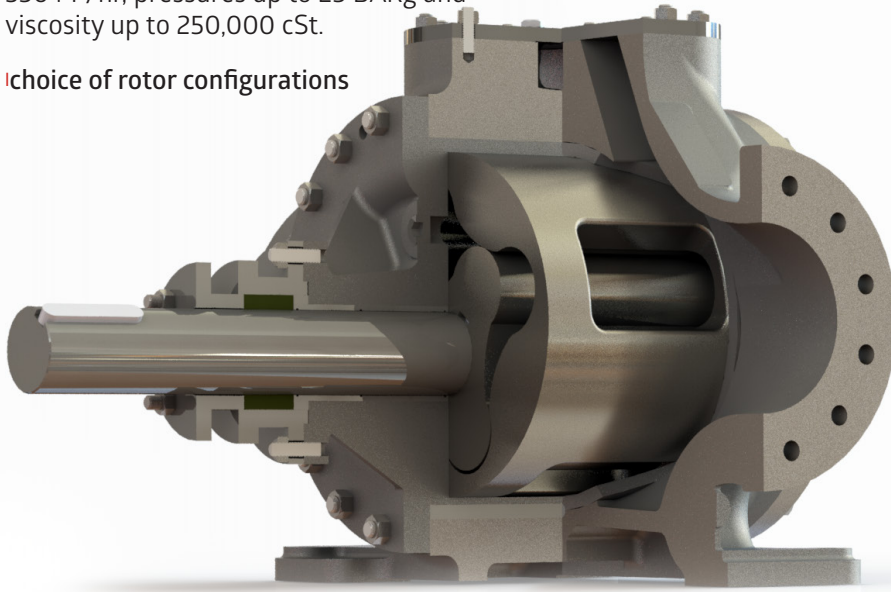
- Multi-pitched screws



Internal lobe pumps: page 15

Lobe pumps covering flows up to 350 M³/hr, pressures up to 25 BARg and viscosity up to 250,000 cSt.

choice of rotor configurations



We offer a choice of integral or external relief valve

Integral – all pumps can be supplied with an additional housing on the casting or machined body containing a preset pressure relief valve system. Depending upon speed of pump 100%, or a reduced percentage of flow is relieved internally from the outlet side to the inlet side of the pump.

Some pumps can have the addition of a handwheel operated lifting device for easy start.

External – all pumps can be supplied with a pipeline relief valve of customer's or Albany choice mounted directly adjacent to the delivery port of the pump.

Pump materials:

Albany pumps are available in the following materials:

Aluminium	AL	Ni-resist®	NR
Cast Steel	CS	Nylon	NY
Cast Iron	CI	Polypropylene	PP
Gunmetal	GM	Stainless Steel	SS
Hastelloy®	HY	Super Duplex	SD

ALBANY PUMPS DELIVER:

- Maximum temperature 300°C.
- Maximum pressure 50 BARg.
- High suction lift capability, typically 4 metres (gear) and 7 metres (screw).

Gear Pump benefits:

- Robust, reliable and proven design
- Compact
- High temperature range
- Ability to customise
- Wide viscosity range

Screw Pump benefits:

- Hydraulic balance
- Low net positive inlet pressure
- Compactness
- Wide temperature range
- Smooth flow
- Quiet running
- Multi-pitch, scroll and screw clearance options are available

Lobe Pump benefits:

- Handle high viscosity fluids
- High temperature range
- Heating options available
- Replaceable inner and outer lobe components



ATEX

Albany pumps marked with the logo comply fully with the electro-static hazard requirements defined in ATEX Directive 94/9/EC Group II Category 2.



CE MARK

The range of products shown in this literature complies with the relevant sections of the Machinery Directive 98/37/EC and carry the CE mark.



BSI

Albany Pumps is BSI ISO 9001 approved for excellence in quality of product and service. All our procedures comply with ISO 9001 standards.



VdS

Certain pumps within the Albany Pumps product range are VdS certified.

Pumping solutions for your industry

Experience

At Albany Pumps we have been developing our expertise since 1901. Our positive displacement pumps can be found in a wide variety of industries the world over. If you require a Gear Pump, a Twin Screw Pump or a Lobe Pump, we have many years of collective experience within our Employee Owners and we are experts in the following industries. Get in contact with us for more information about these particular industry solutions and we will be pleased to assist you.

With our ranges of gear, lobe and twin screw pumps, Albany are sure to be able to satisfy your positive displacement pump needs.

General and Chemical

Albany manufactures a wide range of pumps suitable for varied applications in a wide variety of materials. Our Customer Service and Sales Teams are on hand to discuss your particular requirements and recommend a choice of pumps, in a choice of materials and technologies for general and chemical applications.

Bitumen

We understand how important reliability is for plant operators utilising bitumen pumps. We are the leading manufacturer of these pumps for the UK market with a proven track record of supply. Pumps are also widely exported. Albany has developed a simple leak free seal cartridge system which eliminates wasted product and has environmental benefits. Correctly maintained seals have been known to exceed five years life. We have good after sales back up with parts readily available from our UK factory.

Fire

Albany supply gunmetal or stainless steel cased foam concentrate gear pumps. They are used on fire trucks and fixed installations both off-shore and on-shore in the world's oil and gas production and manufacturing industries, and in other hazardous areas where fire fighting equipment is required. The pumps will supply up to 1600 litres per minute of foam liquid at pressures up to 22 BARg, with screw pumps available to supply up to 180 M³/hr (3000 litres per minute). Albany's engineering expertise includes a high level of customisation, ensuring that pumps can be supplied to meet the exacting needs of the fire fighting market.

Certain pumps are VdS Certified.



Dispensing Machines

Albany manufactures stainless steel gear pumps for bottle filling, sampling and transfer in the food and chemical industries. Our products are tried and tested and we offer many options to configure the pump for our users. Typically, a bank of such pumps will be used in a high speed machine for the dispensing and blending of toiletries and cosmetics. Our pumps are easily taken apart and cleaned simply by undoing four nuts.

Food and Beverage Industries

Albany make pumps for vegetable oils, hot (220°C) and cold, used in industrial fryers, blending plants and in storage. We supply heated pumps for chocolate, cocoa liquor and cocoa butter. Albany's GJ range of stainless steel pumps is ideal for a wide variety of food and chemical applications. Bottle filling and transfer are specialties. For animal feeds Albany supply molasses pumps for metering, circulation and road and marine transport. Molasses pumps can be fixed or truck mounted. They can be supplied for spraying applications. In some instances, special light weight pumps with aluminium casings have been made for truck mounted molasses applications. We also make corrosion resistant pumps for fats, oils, curbing agents and flavours. Heated versions can be supplied when required.

New food ranges of pumps are being developed. Please contact us for further details.

Lubrication

Many of the world's gas turbines and air and gas compressors are lubricated by an Albany gear pump. We've also made many pumps for the lubrication of large diesel engines. Our pumps are often driven directly from the turbine or compressor, but can also sometimes be driven by an electric motor. More than one pump will be required in many applications, as there is a main pump, an auxilliary pump and sometimes an emergency pump. Albany also manufacture so called 'jacking pumps', which are used for priming lubrication systems. We are always pleased to discuss the design of pumps for OEM applications.



Marine

Albany has supplied gear pumps to ships in the Maritime industry since the British Royal Navy purchased its first Albany Pump in 1903. Albany manufactures twin-screw pumps which find many applications in naval ships, airbases, docks and re-fuelling depots. Outputs up to 600 m³/hr with pressures up to 50 BARg for burner applications are covered. Some furnace fuel applications use lobe pumps, which Albany also manufacture. These are made to designs originally produced by Stothert & Pitt in Bath.

Albany Pumps now produce a new range of Screw Pumps, the AS range, which builds upon the traditional Stothert & Pitt designs. As well as Naval applications, other armed forces uses include lubricating oil pumps, for fuel oil transfer (including helicopter refuelling) and as fixed or portable pumps for bulk fuel handling, fuel oil burners, pumping coolants (to cool radar and sonar equipment), cleaning liquids, de-icing, foam pumps for fire fighting, and as sea water transfer pumps on submarine trim systems, as well as for many special duties. Small motorised and hand operated fuel pumps are also supplied for military vehicles.

Oil & Gas

Albany have been supplying pumps for many uses in the world's oil & gas markets for over 50 years. Turbines and compressors from a number of manufacturers incorporate API 676 Albany pumps; these include the main, auxiliary and emergency pumps for critical lubrication duties. Differing positive displacement pump requirements in the refineries are often satisfied by Albany gear pumps and twin screw pumps. Requirements might be for pumping high or low viscosity fluids. Our self-priming gear pumps and screw pumps are often used for various requirements such as line stripping.

Refrigeration and HVAC

Albany Pumps manufactures a range of pumps suited to refrigeration and HVAC applications. Our pumps are used in commercial refrigeration, heating, ventilation and air conditioning systems worldwide for pumping liquid refrigerants and oils. Our relevant pumps ensure the safe and controlled transmission of refrigerants and are known to last for decades before requiring replacement.

Molasses and Feed Milling

Albany's gear pumps are used for molasses and run off in the world's sugar factories. Our nylon and stainless steel cased pumps are inert to most cleaning fluids. Albany Internal lobe pumps are ideal for abrasive products such as thick juices in beet and cane sugar production. Albany supplies pumps for Molasses duties running at up to 960 rpm. Cast Iron pumps are used with stainless steel shafts. Beet molasses can be abrasive so hardened internals are supplied when needed. Sometimes customers ask for gunmetal or bronze casings, because the molasses is acidic.



Technical product literature

Refer to our website for specific downloads of individual product brochures, installation operation and maintenance manuals and application data.

Certification

We have individual pump certification from VdS and can generally comply with API 676.

Our company is certified ISO 9001:2015 and has a policy of continuous quality improvement.

3.1 and 2.2 material certification is available on our C, D, E, F, & G style gear pumps and all screw pumps to cover wetted parts. Petrochem bolting can also be complied where specified.

Painting

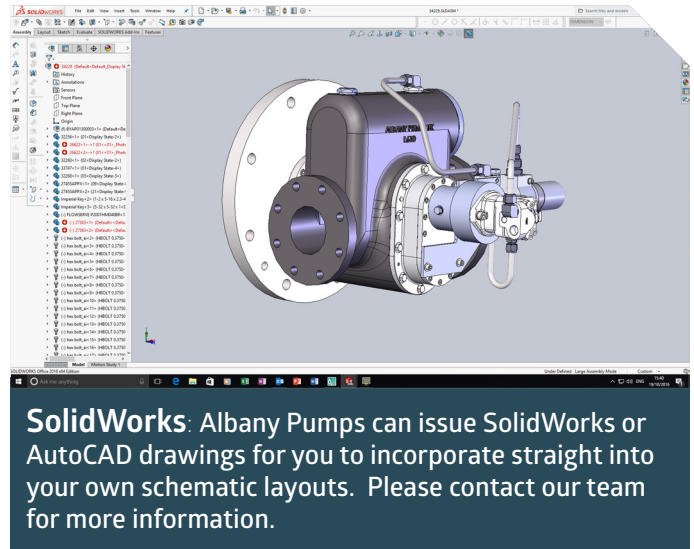
Our pumps are typically painted to an internal painting procedure. We can accommodate special paint finishes including offshore and NACE.

Other brands

Albany has purchased seven other pump companies and/or manufacturing rights: Crown, Stothert and Pitt, Brooke, Handoll, Stanhope, FF Pumps, Barclay Kellett. Spares and replacement pumps are available for many of their products.

Contracts

Our team is dedicated to maintaining accurate procedures, timescales and deliveries. We ensure customers' test requirements and inspection plans are met. Witness testing is available when required.



Documentation

Standard packages are available which include DXF and STEP downloads, General Arrangement and Cross Sectional Drawings, Typical or Actual material identification data. Customised packages are also available and contract documentation can be supplied in multiple languages. Please liaise with our customer services department for specific choices.

Distribution network

Albany have agents, distributors and our own sales/service personnel all over the world. Refer to our website for your local assistance.

OEM: Original equipment manufacturers

We work with companies to design products to suit their own needs and then work with them, often for many decades.

We can designs and manufactures pumps for tight spaces, Vertical pumps, horizontal pumps, pumps with or without baseplates, pumps to hang under vessels or on the side of diesel engines . . . this is our heritage.

No-one in the pump industry has more experience than Albany supplying OEMs.

Customer Services Department

Our Customer Services team is here to help with your queries. Please do contact them and they will do their utmost to help you.

customerservices@albany-pumps.co.uk

Tel +44 (0) 1594 842 275



Economy or Lifelong

Albany manufactures pumps to suit all budgets. Although every pump that leaves our factory is built to our high quality standards, we recognise that some of our customers prefer economy over longevity (specification dependent).

Warranties on our Pumps

Albany Pumps aims to offer our customers high quality products with excellent performance. All our products come with a Standard 12 months Warranty, which can be extended. We encourage our customers to speak to us if extension is of interest. In the event of any concerns, our reactive service team can assess and if required, we aim to have an engineer on site with you anywhere in the world within 48 hours.

With over 100 years of experience in pump design and manufacture, we have a great deal of know-how about real-life situations. With our latest innovations and Customer Support Teams in place, we have the drive and enthusiasm to ensure you have all the support you want – at the level you wish for.

We have engineers who can make regular site visits and support by email or telephone. Options include vibration monitoring check, bearing temperature check, noise level check and visual inspection. Speak to us to agree the level of support you require for your Albany Pump.

The standard warranty is provided with the pump. For pricing and full details of other options, please contact us on +44 (0) 1594 842 275.

For more information please contact our Customer Services Manager: customerservices@albany-pumps.co.uk



G: External gear type pump range

The G range is Albany's family of external gear pumps. And what a family – we have a large number of different styles to accommodate numerous different applications and markets for gear pumps:

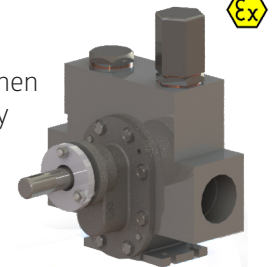
G: A Style: General purpose pumps

Materials: CI | CS



The GA range is Albany's general purpose pump, the origins of which can be traced back to 1901 when the company first started. It is capable of handling the widest variety of liquids, including extremely viscous. These pumps offer a durable, robust design ensuring ease of use and maintenance.

With a large choice of pump sizes, materials and sealing options to suit all applications, the GA range can be adapted to suit any customer or OEM application. Bespoke mountings and additional components and pipework allow simplified fitment to the final application. Use CEFG pumps for 3.1 certification.



Maximum working pressure 25 BARg	Pump size range 1/2" - 4"	Maximum temperature 200°C	Flow rate up to 2300 L/min
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G: B Style: Heated and unheated pumps

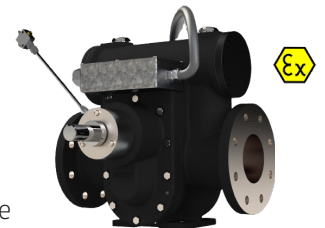
Material: CI



The GB range is a heated gear pump (unheated option available) designed for pumping products that have to be heated to be pumpable. The design can incorporate heating by thermostatically controlled electricity, thermal oil or steam. Heated gear pumps are typically used for Bitumen, Crude Oil or Refined Tar among other generally viscous fluids. Our pumps are often supplied with a greaser which can be mounted remotely to allow easy greasing of the seal cartridge and giving the best possible service life.

The GB style features a seal cartridge to avoid leakage normally associated with bitumen pumps.

Ask for our Eezi Grease leak-free bitumen pump



Maximum working pressure 12 BARg	Pump size range 1/2" - 6"	Maximum temperature 220°C	Flow rate up to 1600 L/min
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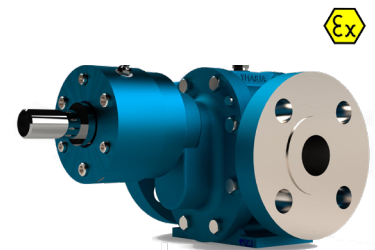
G: C Style: Compressor/turbine pumps

Material: CS



The GC range is a sturdy double bearing pump primarily used by OEMs especially in the compressor industry. These pumps offer extra rigidity around the drive shaft and specific internal options. The range is capable of use within a high system pressure layout. It is often customised to fit directly in customers' machines, with suitable framework, mountings and pipework. Specialised paint finishes are also catered for.

The GC style features extremely high pressure capability including high suction pressure but low differential pressure applications. Radial and axial location bearing options are offered as well as vertical and horizontal formats. (For API use GG style pumps.)



Maximum working pressure 70 BARg (system)	Pump size range 3/4" - 4"	Maximum temperature 220°C	Flow rate up to 1400 L/min
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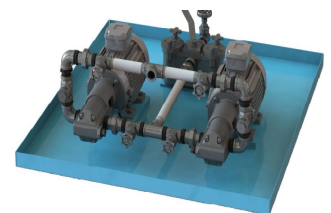
G: D Style: Duplex Pump Sets

Highly customisable range of pump sets



The GD range provides a ready made baseplate mounted twin pump system, with a main pump and a standby. When ordered, the product arrives on a baseplate ready to go with twin pumps, filters and suitable plumbing.

There are many applications for the GD series of Duplex Pumps. Typical are roof mounted generators, high rise air conditioning, hospital incinerators, day tanks and boiler feeds.



Maximum working pressure 10 BARg	Pump size range 1/4" - 2 1/2"	Maximum temperature 95°C	Flow rate up to 217 L/min
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AL Aluminium | CS Cast Steel | CI Cast Iron | GM Gunmetal | HY Hastelloy | NR Ni-resist | NY Nylon | PP Polypropylene | SD Super Duplex | SS Stainless Steel
 General and Chemical | Bitumen | Fire | Dispenser Machines | Food Industry | Lubrication | Marine | Oil & Gas | Refrigeration | Sugar



G: External gear type pump range

G: E Style: 3.1 Certified fire/foam pumps (VdS)

Materials: CI* | GM | SS



Albany is a market leader in the field of foam concentrate pumps and the GE range is our standard foam concentrate pump: a popular choice for many years in the fire industry. Certain models are VdS certified. The pumps can be run on water for 10 minutes at duty point or for 1 hour total at minimum 1000 rpm, 10 BARg maximum. Contact us for details of NFPA20 compliance.

Designed for fixed and vehicle applications, GE style pumps can be supplied as a pump only unit, or mounted on a baseplate and driven by a prime mover such as an electric motor or a diesel engine. For the ultimate in safety, we offer pumps directly coupled to a Pelton (water) wheel. The latter are popular in offshore and refinery applications.



Maximum working pressure 22 BARg	Pump size range 1/2" - 4"	Maximum temperature 180°C	Flow rate up to 1600 L/min
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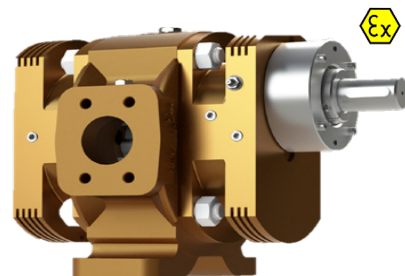
G: F Style: 3.1 Certified fire/foam pumps

Materials: CI* | GM | SS



As with the GE range, the GF range is primarily a foam concentrate pump, the difference being these pumps are designed for liquids of a lower viscosity. Pumps can be tested on lower viscosity liquids including water for up to 30 hours (on water) before foam use. With a lipseal shaft sealing, the pump is capable of dry running (will surpass industry requirement). Available as a pump only unit or mounted on a baseplate coupled to a prime mover.

In order to meet water test requirements, prior to use, the bearings, rotors and shafts in the pumps have been significantly adjusted to suit these applications.



Maximum working pressure 18 BARg	Pump size range 1 1/4" - 3"	Maximum temperature 80°C	Flow rate up to 1300 L/min
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G: G Style: 3.1 Certified oil and gas pumps

Materials: CS | SS



The GG range is a robust pump series designed with the oil and gas industry in mind. These pumps are often used in applications where a high system pressure is required.

All materials are certified 3.1 (actual). The pumps can be compliant with API 676 making them suitable for a variety of API applications recognising mechanical seal, potential relief valve and bedplate with drain requirements. Petrochemical bolting options are available for this range. NACE specifications can be provided.



Maximum working pressure 60 BARg	Pump size range 1/2" - 4"	Maximum temperature 220°C	Flow rate up to 1400 L/min
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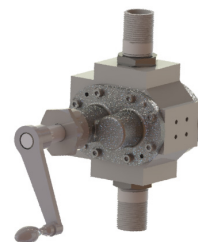
G: H Style: Hand operated pumps

Material: CI



The GH range comes with a handle fitted to allow for hand operation.

This range is mainly used for light applications such as barrel emptying and vehicle refuelling in remote areas. These hand operated, heavy-duty pumps are ideal for utility and emergency uses and in places where there is no supply of electricity.



Maximum working pressure 2 BARg	Pump size range 1/2" - 1 1/2"	Maximum temperature 80°C	Flow rate up to 20 L/min
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AL Aluminium | CS Cast Steel | CI Cast Iron | GM Gunmetal | HY Hastelloy | NR Ni-resist | NY Nylon | PP Polypropylene | SD Super Duplex | SS Stainless Steel
 General and Chemical | Bitumen | Fire | Dispenser Machines | Food Industry | Lubrication | Marine | Oil & Gas | Refrigeration | Sugar

* Cast Iron is 2.1 certified



G: External gear type pump range

G: S Style: Vertical pumps

Materials: AL | CI | GM | HY | SS



The GS range is a vertical pump derived from the GA range and can incorporate pipework of up to 4 metres. This is a highly customisable range, as we can supply a wide range of pumps in a choice of mounting plates with columns in different lengths and styles.

The ability to submerge the pump in the fluid is popular in various industries including bitumen and liquid sulphur. Grease is available for intermediate bearings as required. We also make stainless steel pumps for solvent applications.



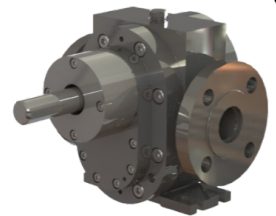
Maximum working pressure 15 BARg	Pump size range 1/2" - 3"	Maximum temperature 200°C	Flow rate up to 1400 L/min
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G: T Style: Extreme life pumps

Materials: CI | CS



The GT range is a ball and roller design pump. This range is ideal for use in remote locations where extremely long life and minimum maintenance is required as the pumps can be left unattended for decades. The range can be used on clean lubricating oils and other applications involving lubrication of rotating equipment with rotating element bearings rather than bushes used in the pump design. The pumped fluid lubricates the pump bearings.



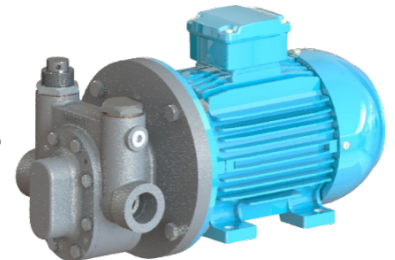
Maximum working pressure 30 BARg	Pump size range 1/2" - 6"	Maximum temperature 220°C	Flow rate up to 1600 L/min
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G: V Style: Compact pumps

Materials: CI | CS | GM



The GV range is a direct drive design ideal for cooling applications normally with a three phase TEFV motor (EEExd motors also available). This means that the pump is built directly onto a special motor drive shaft resulting in a compact design. Typical applications include machine tools, sprayers, packaging machinery, bottle washing, de-icing, damp proofing, timber treatment, oil and solvent recycling, fuel oil systems, pressure testing, processing, de-greasing, general circulation, lubrication and transfer duties. Pumps can be supplied as a single unit or as a Duplex pump set.



Maximum working pressure 15 BARg	Pump size range 1/4" - 1 1/2"	Maximum temperature 80°C (120°C special)	Flow rate up to 217 L/min
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G: X Style: Customised pumps

All materials



Special pumps. How do you define a range of pumps which is only constrained by our customer's requirements? At Albany, we are always willing to speak to you about producing a special product to meet your needs and many diverse pumps have been produced within the GX range.

Note: Customised pumps are also available in our Screw (SX) and Lobe (LX) ranges.

More information and application examples of the GX range can be found later in the brochure on page 21.



Maximum working pressure 40 BARg	Pump size range 1/4" - 6"	Maximum temperature 280°C	Flow rate up to 2300 L/min
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AL Aluminium | CS Cast Steel | CI Cast Iron | GM Gunmetal | HY Hastelloy | NR Ni-resist | NY Nylon | PP Polypropylene | SD Super Duplex | SS Stainless Steel
 General and Chemical Bitumen Fire Dispenser Machines Food Industry Lubrication Marine Oil & Gas Refrigeration Sugar



S: Twin screw type pump range

Albany Pump's S range is a versatile series of Screw pumps that can handle fluctuating flow rates and pressures without losing efficiency. This range is renowned for their low noise levels, high reliability and long life.

S: A Style: Internal seal/external bearing pumps

Materials: CI | CS | SS



Albany's standard design with internally flushed DIN mechanical seals and external bearings for liquids with non-lubricating properties. It has an excellent suction lift capability of up to 7 metres. With single piece screw shafts for mechanical integrity and low flex. Available with sump heating options on some sizes. Also with or without an internal relief valve to comply with API 676. This style has been designed as a modern replacement for the original Stothert & Pitt range. (Original model SH3)



API

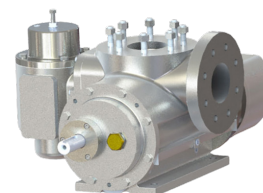
Maximum working pressure 30 BARg	Pump size range 3" - 14"	Maximum temperature 200°C	Flow rate up to 1800 M³/hr
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S: B Style: External bearing pumps

Materials: CI | CS | SD | SS



This is similar to the SA style but allows a greater choice of sealing arrangements including API676 types and higher temperature and pressure operation. Again with various heating options and internal relief valve choice. (Original model SH2)



API

Maximum working pressure 30 BARg	Pump size range 3" - 14"	Maximum temperature 300°C	Flow rate up to 1800 M³/hr
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S: C Style: Internal bearing pumps

Materials: CI | CS | SD | SS



The SC style is only suitable for non-abrasive lubricating liquids. The bearings and timing gears are lubricated by the pumped liquid. It has only one mechanical seal making it a lower cost option with clean lubricating liquids. Heating and relief valve options are available. (Original model SH1)



Maximum working pressure 30 BARg	Pump size range 3" - 14"	Maximum temperature 200°C	Flow rate up to 1800 M³/hr
----------------------------------	--------------------------	---------------------------	----------------------------

S: VA Style: Vertical internal seal/external bearing pumps

Materials: CI | CS | SD | SS



The VA range is mostly used for clean liquids of low viscosity and is similar to the SA style. This range is popular in maritime applications where space saving capability is a benefit. (Original model SV3)



Maximum working pressure 20 BARg	Pump size range 3" - 10"	Maximum temperature 200°C	Flow rate up to 600 M³/hr
----------------------------------	--------------------------	---------------------------	---------------------------

S: VB Style: Vertical internal bearing pumps

Materials: CI | CS | HY | SD | SS



The VB range is for clean lubricating liquids and is based on the SC style. It has a small footprint and ideal for confined spaces. (Original model SV1)



Maximum working pressure 30 BARg	Pump size range 3" - 12"	Maximum temperature 200°C	Flow rate up to 1000 M³/hr
----------------------------------	--------------------------	---------------------------	----------------------------

We can supply direct replacements for all of the Stothert & Pitt pumps made, using our library of their original drawings dating back to the 1930s.

We are also able to manufacture customised Twin screw pumps (S: X Style) for special requirements.

AL Aluminium | CS Cast Steel | CI Cast Iron | GM Gunmetal | HY Hastelloy | NR Ni-resist | NY Nylon | PP Polypropylene | SD Super Duplex | SS Stainless Steel

General and Chemical | Bitumen | Fire | Dispenser Machines | Food Industry | Lubrication | Marine | Oil & Gas | Refrigeration | Sugar

Note:

All pump ranges can be made from a variety of materials to suit the product being pumped. See flow rate charts on pages 22-23. All pump ranges contain different pump size styles suitable for the pump duty required.

Albany Pumps is well-known for its design and manufacture of lobe pumps for over 100 years. Albany Pumps specialise in high and low viscosity pump models that are ideal for the gentle handling of sensitive process fluids.

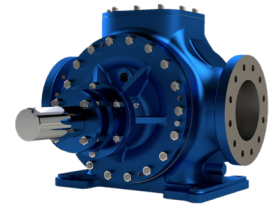
L: A Style: High viscosity pumps

Materials: CI | CS | GM | SS



The LA range is the 3:4 rotor pump which is typically used for higher viscosity fluids running at reduced speed through gearboxes. These pumps are classically used in the sugar industry, but have many other applications. These pumps have a replaceable liner and all other components are designed for maximum efficiency and total life cost. There are versions of these pumps available that work on a faster running concept that gives better flow rates.

The pumps can be partially cleaned via an inspection cover. Internal or external bearing options are available for this range.



Maximum working pressure 25 BARg	Pump size range 1" - 14"	Maximum temperature 200°C	Flow rate up to 350 M³/hr
---	---------------------------------	----------------------------------	----------------------------------

L: B Style: Low viscosity pumps

Materials: CI | CS | GM | SS



The LB range uses 7:8 for pumping chocolate and other such liquids often at higher pressures. The pumps have a low NPIP requirement and are faster running than the LA style. Internal or external bearing options are available for this range.



Maximum working pressure 20 BARg	Pump size range 2" - 9"	Maximum temperature 200°C	Flow rate up to 300 M³/hr
---	--------------------------------	----------------------------------	----------------------------------

We are also able to manufacture customised Internal lobe type pumps (L: X Style) for special requirements.

C: Centrifugal type pump range

Albany's Centrifugal range of pumps has been designed to accommodate the heavy-duty requirements of applications including food. These pumps are available in both horizontal and vertical designs.

C: Centrifugal pumps (customised)

Materials: CI | SS



A wide range of centrifugal pumps are offered by Albany. We manufacture both horizontal and vertical pumps. We make column pumps with high temperature capabilities. We manufacture pumps to the original Stothert and Pitt designs, and can offer direct replacements where they are required. This range of pumps does not comply with international standards.



Maximum working pressure 16 BARg	Pump size range 1" - 5"	Maximum temperature 220°C	Flow rate up to 1600 L/min
---	--------------------------------	----------------------------------	-----------------------------------

AL Aluminium | CS Cast Steel | CI Cast Iron | GM Gunmetal | HY Hastelloy | NR Ni-resist | NY Nylon | PP Polypropylene | SD Super Duplex | SS Stainless Steel

General and Chemical | Bitumen | Fire | Dispenser Machines | Food Industry | Lubrication | Marine | Oil & Gas | Refrigeration | Sugar

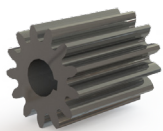


Pump Options

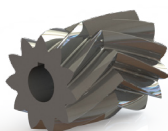
To build the pump that you require, we have a number of options.

We know from over 100 years of experience the type of rotors, screws or lobes you require. We offer a variety of different pump mountings, choice of rotation, different prime movers and the type of connections to suit your application.

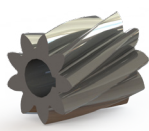
Rotor styles



Straight spur



Double helical
(noise reducing)



Single helical
(9 or 19 teeth – capacity)

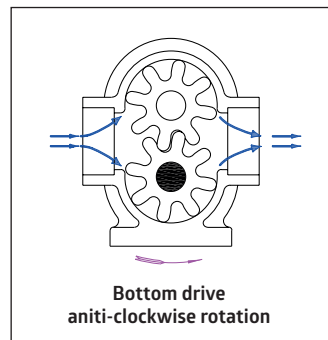
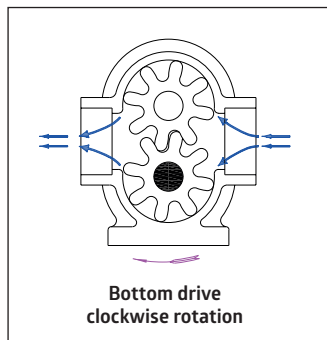
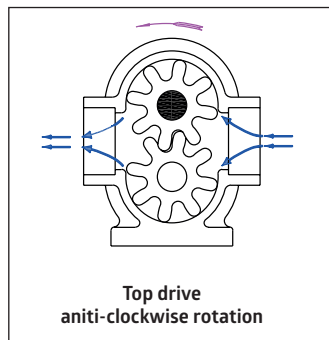
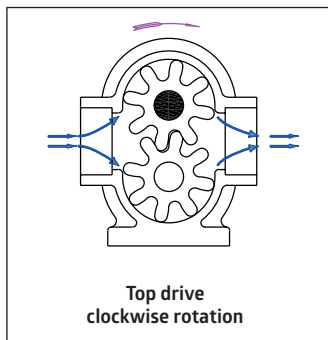
Pump connections

You can have whatever style of connection you need to suit your particular application.

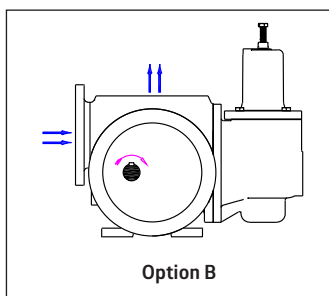
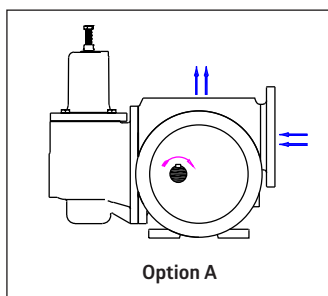
Standard connections include:

- BSP(T), BSP(P), NPT
- ANSI 150/300
- DIN 10/16/25/40
- BS Table D/E/F/H
- Dairy RJT/IDF/ISS/Triclamp
- Victaulic®
- SAE

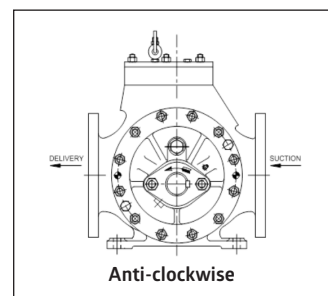
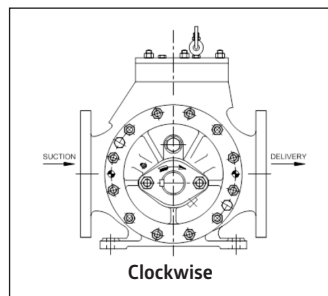
External Gear pump rotations (looking at drive shaft)



Twin Screw pump rotations

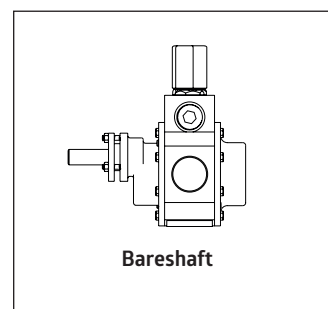
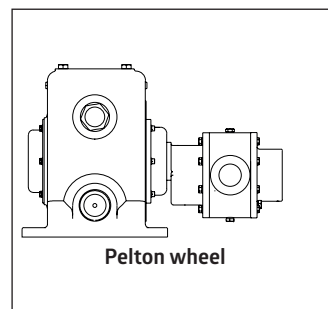
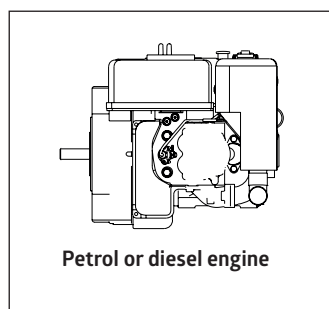
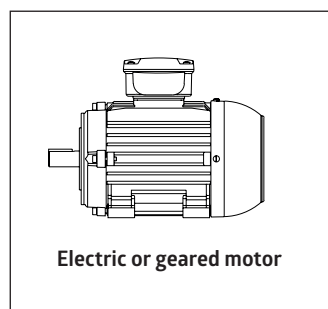


Internal Lobe pump rotations

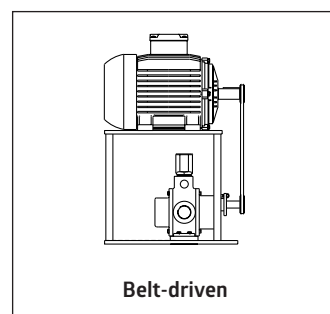
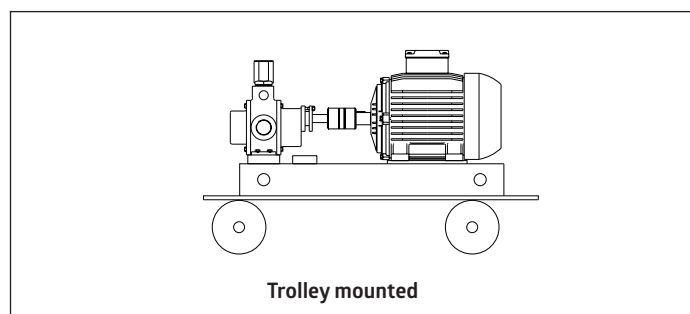
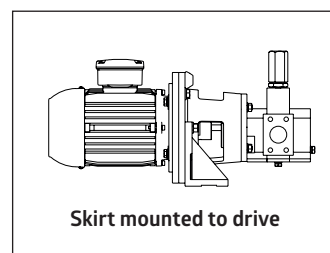
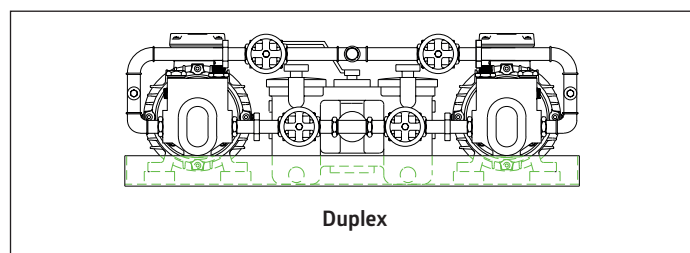
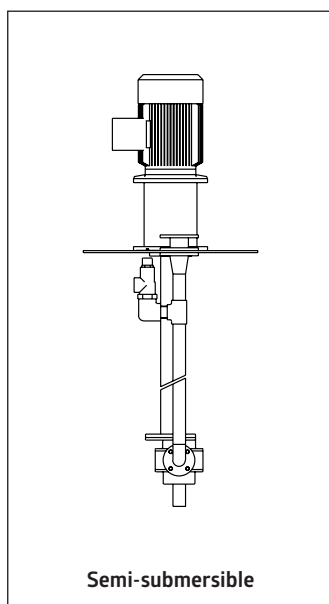
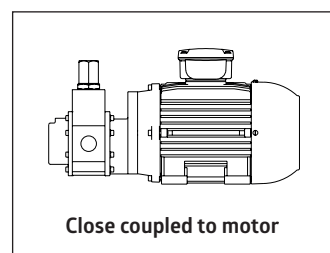
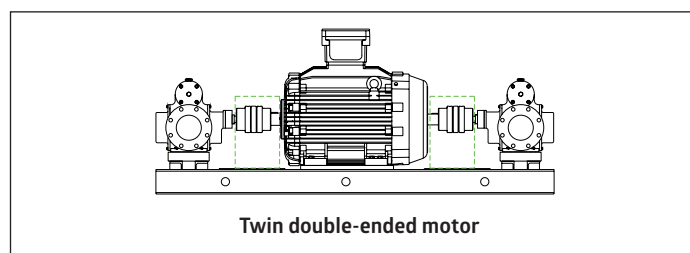
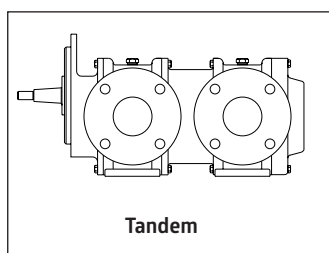
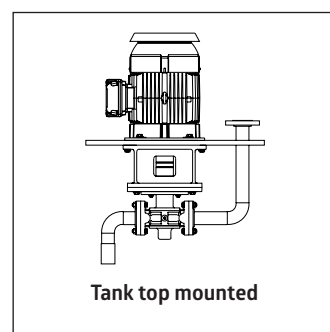
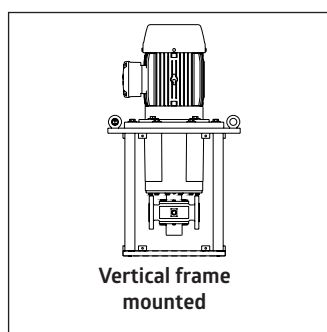
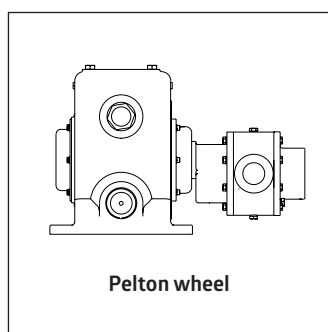
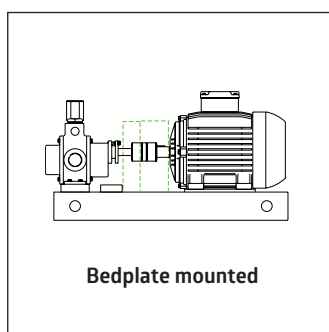
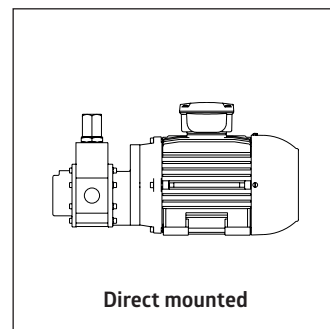
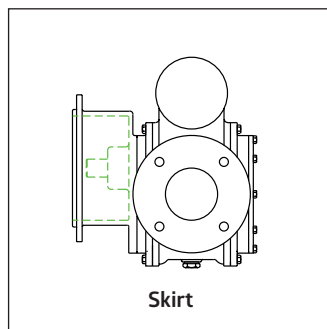
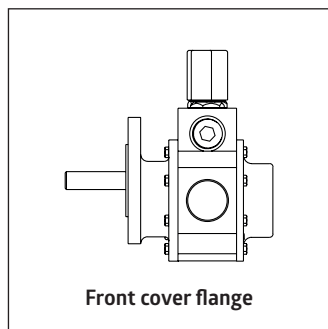
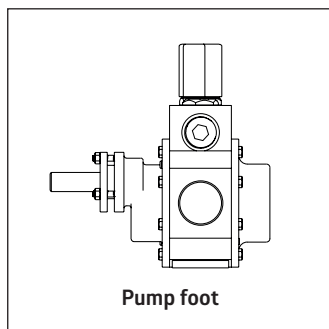


Split lobe options are available in this range for higher speed applications.

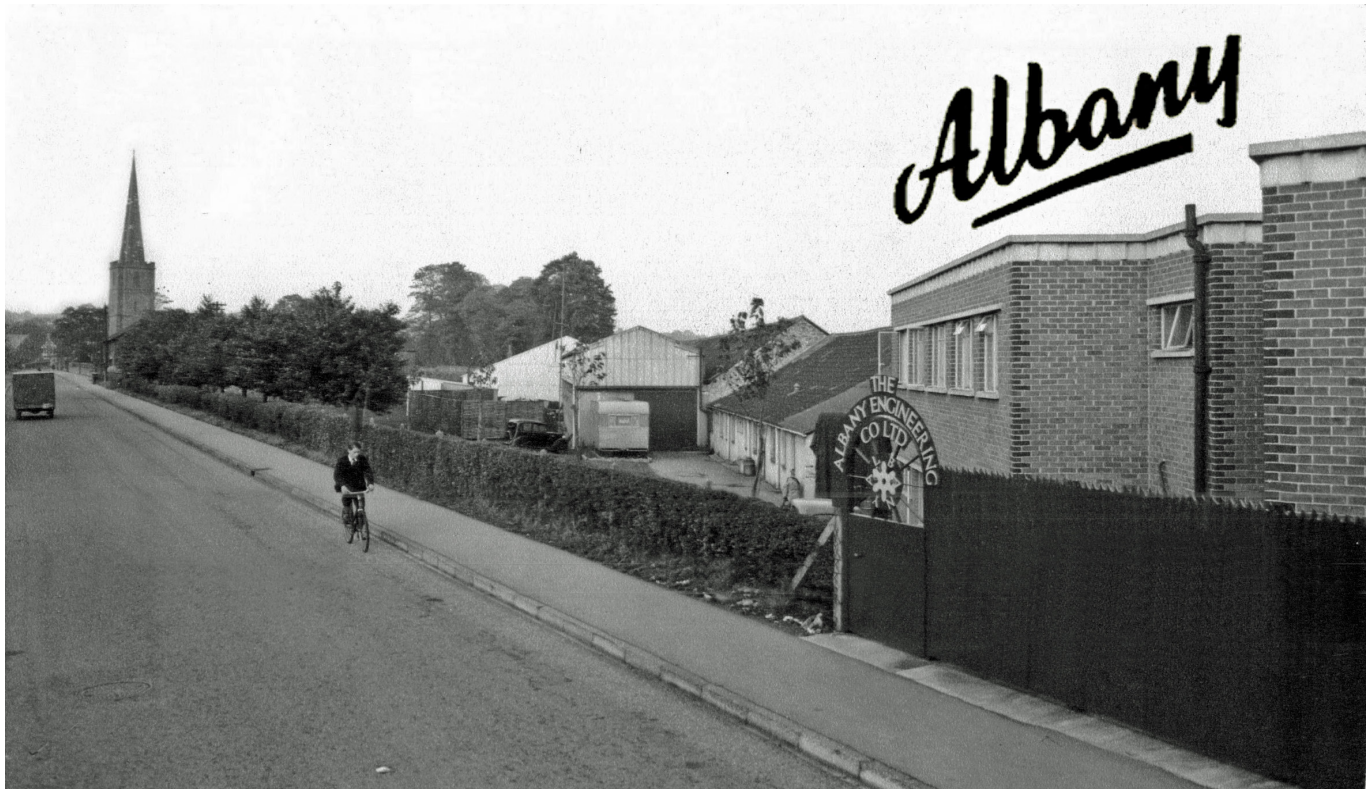
Prime mover options



Pump mounting and layout options



Albany Pumps History



Albany has been manufacturing pumps at our two acre site at Lydney in the Forest of Dean since 1946. Albany Pumps was started in 1901 in the Old Kent Road area of South London. We worked out of a small workshop and associated brass foundry controlled by R. White & Co. Mineral Water Manufacturers, which had already existed for about 10 years.

In 1904 a patent (No. 25,222) was obtained and through years of various improvements to gear pump designs, we created other patents and product features. We built our business in London until the factory was sadly destroyed on the third day of the Blitz in 1940



The photograph above is a rare view of the factory in London, complete with belt driven machinery. The view on the right shows the factory in Lydney, probably taken in the 1950s. Although the location remains the same, on-going investment in the latest machining and manufacturing equipment continues to transform the business.

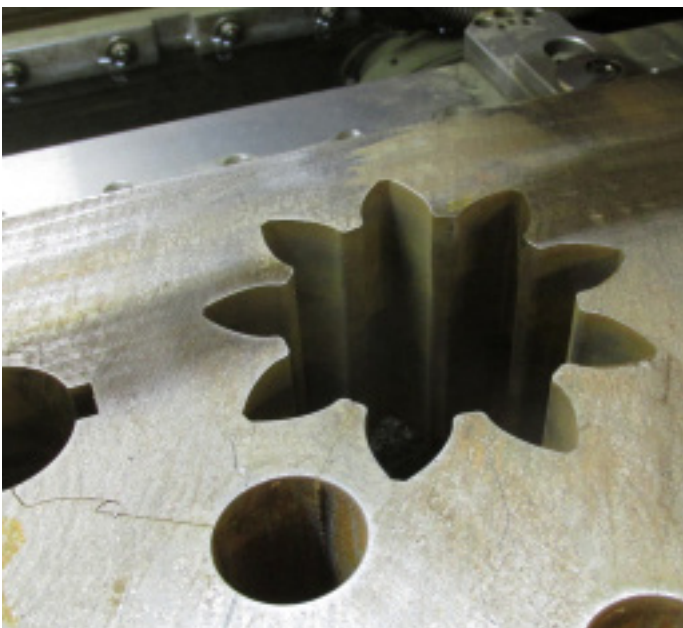


Albany has taken over numerous other pump manufacturers. Notable are Crown and Stanhope but the most important was the Stothert and Pitt pump manufacturing business. This brought Screw pumps to the Albany catalogue which are a key part of our pump range now.



Albany Pumps manufacturing process uses the latest in CNC machines. The picture above shows the body of one of our largest gear pumps being machined in our largest CNC machine.

The picture below shows how gears are cut using our EDM machine.



We have our own test facility and every single pump we manufacture is tested to ensure that it meets our customers' requirements. We have the ability to test on a variety of oils and water.

Albany has invested in our own solar panel arrays on the roof of our factory. This is working well and on good days, provides a significant proportion of our electricity requirements.



Over 100 years of applications all in one database

Albany Pumps has been leading the way in pump solutions for industrial processes for decades. Our experience spans a wide variety of markets and we have examples of case studies in these markets to draw upon, creating an enviable resource for our clients.

We have unsurpassed experience across a wide range of industries, we have successfully developed a database of over 30,000 projects. Our team of expert technical engineers is able to offer advice based on these successful projects. Below is a selection and we have many more. To discuss your particular needs and to find out about our relevant experience, please feel free to contact our sales team and look on our website for the full database.



Success keeps flowing for edible oil producer (M11/701)

Albany's skill in handling all types of fluids came in useful when, in 1995, we supplied 26 pumps to a world famous company producing edible oils. The business was won against strong competition from stainless steel rotary lobe pumps. The pumps are used for various light to medium oils up to 250 centistokes. They operate at 940 rpm at a flow rate of up to 2400 gallons per hour. The pumps are AP100 size and all have 4.0 kW motors. These pumps have British Standard 10 Table 'D' flanges in 1½" size, made in cast iron with double helical carbon steel rotors, nitride steel shafts and long life bearings. Copper and copper alloys are not present in the pumps at the direction of the customer.

Our pumps are resilient by design and feature an unmatched reliability. To date, the pumps we installed in 1995 are still working 24/7 in the company with minimal spare parts necessary, providing a low maintenance solution.

A small snapshot of our application database to help evaluate your next project.

Slippery soap solution cleaned up by HD060 pump (M16/778)

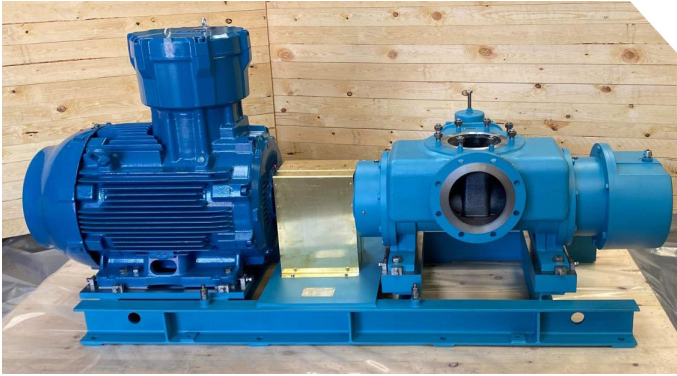
As a high-volume manufacturer of soaps and other personal care items, PZ Cussons' factory encountered some "sticky" situations over the years. Liquid soap is unwelcome on factory floors and Cussons, manufacturers of the famous Imperial Leather range, were experiencing rather too much of it at their Nottingham factory. Thorough investigation revealed that a stainless steel lobe pump in the factory regularly developed trouble with its seals.

Having heard of Albany Pumps before, PZ Cussons turned to Albany Pumps for a pump solution. Albany Pumps were asked if they could supply a pump which would cope with the duty, withstand steam purging and stay soap-tight. Our team of technical engineers evaluated the requirement and recommended a standard cast iron 3in HD060 pump with a mechanical seal – at much lower cost than the lobe pump. The order was placed and the pump delivered with ease.

Cussons' plant engineers were surprised by its small size and frankly sceptical that it could handle the duty. However, the HD060, offering high performance in a compact package, not only achieved the required delivery but has needed little attention since installation. Cussons' engineering staff were convinced, and specified the same model pumps for a plant they built in Nigeria.



	A	B	C	D	E	F	G
	LIQUID(1)	SERIAL No.	CustOrd	QTY	FLOW (LPM)	RPM	Pump Style
1	OLIVE OIL	M11/701	CAP1997	12	2400 GPH		GA
2	BITUMEN	M12/960	31242/P1334	1	0	720	GB
3	BITUMEN	M21/037	70093	2	606.13	720	GB
4	SILICON	M16/306	0	1	4.55	140 TO 159	SB
5	ALKYD RESIN	M27/545	BBP7718	1	108	287	GB
6	SHELL TURBO 37 OIL	M29/291	182215	1	204.57	360	GA
7	SOLVENTS	M17/582	221658	1	54.55	1420	GE
8	SOLVENTS	M17/892	226123	1	54.55	1420	GE
9	SOAP	M16/778	31NPA/46880	2	175	325	G
10	AFFF - FOAM CONCENTRATE	M23/626	104301320P	3	25	1080	GE
11	AFFF - FOAM CONCENTRATE	M23/739	090522-001	2	167	1420	GE
12							



Size 111B Twin Screw Pump for use in a Chemical Factory (M16/306)

The requirement was for a pump that could cover seven different duties including solvent cleaning.

- Output between 4.0 to 56 M³/hr.
- Viscosity varies between 0.6 – 5500 cSt.
- Differential pressure varies between 1.44 to 8.05 BARg.
- Speed is variable from 140 to 1590 rpm

Temperature varies between 25°C to 180°C, with the ability to keep the pump sealed up to 300°C on single occasions.

The external bearing pump was fitted with twin cartridge seals. The seal system is water cooled and has pressure and temperature sensors in the loop.

The pump has a cast steel body with steel shafts and an integral relief valve. It was supplied with a baseplate, coupling and an explosion proof electric motor suitable for variable speed drive.



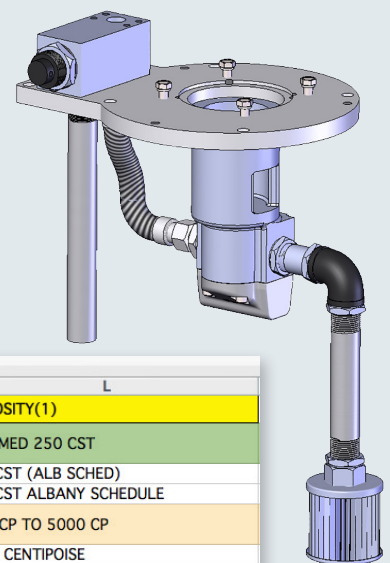
Our experience of designing and manufacturing bespoke high quality, purpose built pumps to satisfy operational, mounting and size/shape requirements is one of our strengths.

Albany is a leading manufacturer of standard and special purpose pumps for a very wide range of liquids. By means of the companies that have been incorporated into the Albany, over 500 years of experience in pumping technology is at the service of our customers.

We manufacture a very flexible range of pumps, which we constantly customise to meet the requirements of our users by producing bespoke product. We change seal types, mountings, connections and flanges to make the pump as convenient as possible. We also specify motors to the operating environment of our users, and to other criteria specified, such as voltage, environment and brand. Sometimes users specify other types of prime mover to be used to power their pumps, such as diesel engines.

For OEM applications, a complete custom design service is available. We have a complete design package using the latest Solid Modelling software. The tailoring of OEM products can include special castings and mountings, special materials and additional components such as mounting plates, pipework and valves to allow products to be supplied which are ready to be fitted on arrival. Special finishes are also available from either our in-house painting facility or where necessary by sub-contracting.

Our G, S and L range pumps can be customised to suit all individual requirements.



A G: X style pump as specified by one of our customers

Job Description	DISCHARGE(1)	TEMPERATURE	SG	VISCOSITY(1)
AP10 RV PUMP D/C TO D132M MTR MTD ON B/PLT				ASSUMED 250 CST
HD5 RV ELECT HTD PUMP (OLD TYPE)	50 PSI	280-400°F		125 CST (ALB SCHED)
HD7 (5.000D) RV PG E/HTD-240V PUMP	50 PSI	280 TO 400°F		125 CST ALBANY SCHEDULE
S&P 111 TWIN SCREW PUMP	VARIABLE: SEE ATTACH	25°C TO 180°C	.864-.990	0.55 CP TO 5000 CP
HD4 PG E/HTD-240V PUMP	7.7 BAR A	30-80°C		1500 CENTIPOISE
1.1/2" SMC RELIEF VALVE PUMP BARESHAFT	80 PSI G	0/40°C		
AP6 RELIEF VALVE EXTENDED BEARING PUMP	41 FT TOTAL HEAD	AMBIENT	.8-.9	.7 CPS.....
AP6 RELIEF VALVE EXTENDED BEARING PUMP	41 FT TOTAL HEAD	AMBIENT	.8-.9	.7 CPS.....
HD6 T109 M/SEAL PUMP	10 BAR MAX.	110°C		300 TO 500 CST AT 100 TO 95°C
AP5 EXTENDED BEARING PUMP BARESHAFT	7 BAR (5-15 BAR) (16	-		67 CST AT 8°C.....
AP9 EXTENDED BEARING PUMP (LIPSEAL) D/C TO 132M ON B/PLATE	13.5 BAR		1.05	ASSUMED 14 CST

This pump performance chart is a guide to give a feel for the size of range of pumps that Albany manufacture. For all final sizing of your applications, please refer to Albany Technical Sales Staff who are there to help.

External gear pump performance chart

Note that many intervening sizes of pump can be created by varying gear length, profile and speed.

For Gear Range Pumps below flow rates in litres per minute assuming 3.5 BARg. For GP Style refer to technical product leaflet.

Pump frame size	Branch Sizes	95% of theoretical output litres per rev	5 centistokes		15 centistokes		125 centistokes	2000 centistokes	25000 centistokes
			2800 rpm	1450 rpm	2800 rpm	1450 rpm	1450 rpm	850 rpm	100 rpm
AP040	1/2"	0.0194	-----	25.70	-----	26.30	27.70	16.40	2.09
AP050	3/4"	0.0310	-----	40.90	-----	41.80	44.00	26.40	3.02
AP060	3/4"	0.0434	107.80	59.10	110.00	60.40	63.60	38.20	5.90
AP070	1"	0.0687	165.50	90.70	170.00	92.80	97.70	58.60	9.10
AP080	1 1/4"	0.108	269.50	147.70	275.50	151.00	159.00	95.50	13.60
AP090	1 1/4" or 1 1/2"	0.162	389.00	213.60	398.00	218.50	230.00	138.00	18.20
AP100	1 1/2"	0.195	-----	257.00	-----	263.00	277.00	171.40	22.70
AP110	2"	0.273	-----	360.50	-----	368.60	388.00	235.00	27.00
AP115	2 1/2"	0.351	-----	462.00	-----	473.00	498.00	300.00	35.90
AP120	2 1/2"	0.486	-----	628.00	-----	642.00	676.00	-----	-----
AP130	3" or 4"	0.729	-----	962.00	-----	984.00	1036.00	-----	-----
AP135	4"	1.03	-----	1354.00	-----	1385.00	1458.00	-----	-----
AP140	4"	1.2	-----	1531.00	-----	1565.00	1648.00	-----	-----
HD030	1 1/2"	0.273	-----	363.00	-----	371.50	391.00	236.40	27.30
HD040	2"	0.386	-----	506.00	-----	517.00	545.00	336.40	40.00
HD050	2 1/2"	0.491	-----	650.00	-----	665.00	700.00	418.00	50.00
HD060	3"	0.66	-----	868.00	-----	888.00	935.00	559.00	66.00
HD070	3"	0.805	-----	1062.00	-----	1086.00	1144.00	682.00	81.80
HD080	4"	1	-----	1312.00	-----	1342.00	1413.00	864.00	100.00
HD100	4"	1.32	-----	-----	-----	-----	1883.00	1150.00	132.00
HD110	6" / 4"	1.75	-----	-----	-----	-----	2661.00	1761.00	183.00
HD120	4"	3	-----	-----	-----	-----	3872.00	2319.00	227.00
HD140	8"	5	-----	-----	-----	-----	-----	3864.00	445.00
N Style									
25375	1/4"	0.0033	-----	4.80	-----	4.83	4.90	2.93	-----
25750	1/2"	0.0068	-----	10.00	-----	10.00	10.10	6.05	-----
25150	1/2"	0.0135	-----	20.40	-----	20.43	20.50	12.07	-----
25200	1/2"	0.0176	-----	27.30	-----	27.37	27.50	16.46	-----
40130	1"	0.0310	-----	43.00	-----	43.80	45.00	26.92	-----
40175	1"	0.0413	-----	57.00	-----	58.00	60.00	35.90	-----
40275	1 1/4"	0.0650	-----	90.00	-----	92.30	95.00	57.90	-----
56225	1 1/4"	0.108	-----	147.00	-----	148.00	150.00	90.00	10.50
56325	1 1/2"	0.156	-----	211.00	-----	212.00	215.00	128.00	15.00
56450	2 1/2"	0.216	-----	294.00	-----	296.00	298.00	177.00	20.80
J Style									
Pump frame size		95% of theoretical output litres per rev	1 centistokes		15 centistokes		125 centistokes	750 centistokes	975 centistokes
			2800 rpm	1450 rpm	2800 rpm	1450 rpm	1450 rpm	960 rpm	720 rpm
JS110	1/2" or 3/4"	0.0067	-----	5.40	-----	8.10	8.30	4.90	3.15
JS120	1/2" or 3/4"	0.0113	-----	10.50	-----	14.00	14.75	9.10	6.25
JS130	1/2" or 3/4"	0.0182	-----	21.00	-----	24.00	24.50	15.50	11.10
JS140	1/2" or 3/4"	0.0225	-----	23.00	-----	29.00	30.75	19.50	14.00
JS210	1 1/2"	0.0256	-----	24.00	-----	30.50	32.50	22.40	16.25
JS220	1 1/2"	0.0410	-----	31.00	-----	41.00	45.00	30.60	22.50
JS230	1 1/2"	0.0580	-----	43.00	-----	60.00	65.00	44.60	32.50
JS240	1 1/2"	0.0615	-----	50.00	-----	70.00	78.25	53.75	39.10

Twin screw pump performance chart

For the Screw type Pumps: flow rates in meters cubed per hour at 3.5 BARg.

Note that many intervening sizes of pump can be created by varying the screw pitch and the speed of the pumps.

Pump frame size	95% of theoretical output litres per rev	5 centistokes		15 centistokes		125 centistokes	2000 centistokes	25000 centistokes
		2800 rpm	1450 rpm	2800 rpm	1450 rpm	1450 rpm	850 rpm	100 rpm
AS080	0.186	28.31	12.43	28.90	13.03	14.62	8.78	0.21
AS095	0.320	50.17	22.85	51.01	23.68	25.92	15.49	0.66
AS111	0.475	75.10	34.65	76.23	35.78	38.81	23.15	1.15
AS121	0.760	123.40	58.73	124.78	60.11	63.80	37.89	2.54
AS125	0.747	120.54	57.05	121.98	58.49	62.32	37.04	2.37
AS135	0.941	153.29	73.04	154.99	74.73	79.26	47.06	3.18
AS145	1.136	-----	88.62	-----	90.58	95.81	56.86	3.97
AS150	1.231	-----	96.41	-----	98.50	104.09	61.75	4.37
AS160	1.546	-----	122.80	-----	125.19	131.58	77.98	5.86
AS170	1.904	-----	153.40	M ³ /hr	156.09	163.29	96.67	7.64
AS180	2.202	-----	177.81	-----	180.83	188.92	111.81	8.96
AS196	2.751	-----	225.86	-----	229.41	238.91	140.29	11.58
AS206	3.30	-----	271.14	-----	275.08	285.91	168.81	14.40
AS210	4.43	-----	372.28	-----	376.48	387.69	228.74	21.09
AS235	4.83	-----	403.77	-----	408.66	421.73	248.95	22.51
AS265	7.04	-----	596.67	-----	602.72	618.89	364.93	34.54
AS292	9.43	-----	809.86	-----	816.58	834.54	491.58	48.51
AS350	16.34	-----	1425.91	-----	1434.70	1458.21	857.91	88.73

Internal lobe pump performance chart

For the L Lobe type Pumps: flow rates in litre per minute at 3.5 BARg

Pump frame size	95% of theoretical output litres/rev	15 centistokes	125 centistokes	750 centistokes	1500 centistokes	2500 centistokes	9500 centistokes	20000 centistokes	20000 centistokes
		1450 rpm	1450 rpm	950 rpm	720 rpm	450 rpm	300 rpm	200 rpm	100 rpm
LA001	0.022	-----	-----	-----	-----	11.30	6.80	4.5	2.30
LA114	0.071	-----	-----	-----	-----	34.50	22.70	15.0	7.50
LA112	0.130	-----	-----	-----	-----	61.30	41.00	27.3	13.60
LA002	0.238	-----	-----	-----	-----	116.00	75.00	50.0	25.00
LA003	0.464	-----	-----	-----	-----	-----	146.00	97.7	48.80
LA004	0.713	-----	-----	-----	-----	-----	224.00	150.0	75.00
LA005	1.224	-----	-----	-----	-----	-----	391.00	262.0	131.0
LA006	1.785	-----	-----	-----	-----	-----	-----	-----	188.0
LA007	2.966	-----	-----	-----	L/min	-----	-----	-----	312.0
LA008	5.657	-----	-----	-----	-----	-----	-----	-----	595.0
LA009	8.292	-----	-----	-----	-----	-----	-----	-----	872.0
LA010	11.315	-----	-----	-----	-----	-----	-----	-----	1191.0
LB01A	0.020	27.50	30.0	20.0	15.00	-----	-----	-----	-----
LB01B	0.040	56.00	60.0	40.0	30.50	-----	-----	-----	-----
LB114	0.057	80.00	85.0	57.0	43.00	-----	-----	-----	-----
LB112	0.102	150.00	156.0	100.0	77.00	-----	-----	-----	-----
LB02A	0.159	-----	-----	161.0	120.00	-----	-----	-----	-----
LB02B	0.244	-----	-----	243.0	184.00	-----	-----	-----	-----

Larger sizes are available. Please call Sales Department for further details.

The Albany Pump: Selection chart

A quick guide to the style of pump to suit your industry and application

INDUSTRY	SAMPLE APPLICATIONS	GEAR RANGE STYLE	SCREW RANGE STYLE	LOBE RANGE STYLE
GENERAL & CHEMICAL	Non-corrosive	G: ABDHJNOPSVX	S: B VA VB	L: A B
	Corrosive	G: G J T	S: C VA	–
	Certified 3.1/API	G: G	S: A	–
BITUMEN	Tar and Pitch/Asphalt	G: B S X	S: B C VA VB	L: A
	For trace heating	G: A	–	L: A
	Vehicle fitting	G: O	–	–
FIRE	Foam concentrates	G: A E O S X	S: B C VA VB	–
	Water and thinner foams	G: F	–	–
	With external bearings	G: F	–	–
DISPENSER MACHINES	Food	G: A J O S X	–	–
	Cosmetics	G: J	–	–
	Paints and oils	G: J	–	–
FOOD	Oils (edible)	G: A J O P	–	–
	Glucose and chocolate	G: J S X	–	L: A B
	Fats	G: N	–	–
LUBRICATION	Compressors and turbines	G: C H T	–	–
	Transfer	G: A S X	–	–
	Economy version pumps	G: N O V	–	–
MARINE	Small footprint pumps	G: A C O R V	S: B VA VB	–
	Extreme lifetime pumps	G: X S	S: VA VB	–
	Economy pumps	G: N V	S: A C	–
OIL & GAS	Lubricating properties	G: A C E F G	S: B C VA VB	L: B
	High viscosity	G: G S X	S: A B	L: A
	Low viscosity	G: B G O T	S: C	–
REFRIGERATION	Glycols and Freon	G: A C R S	–	–
	Compact	G: V	–	–
	Heating and ventilation	G: N	–	–
MOLASSES AND FEED MILLING	Molasses	G: A O P	–	L: A
	High viscosity	G: B N S X	–	L: A
	Low viscosity	–	–	L: B