

## S: Twin screw type pump range

**S:** A; B; C; D and E style



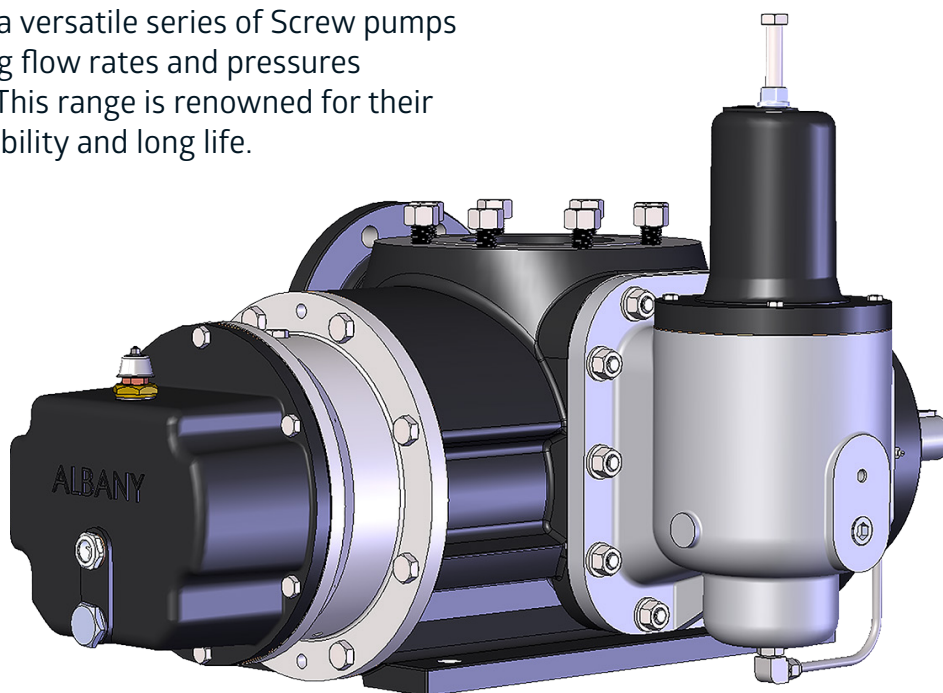
Materials: CI | CS | HY | SD | SS



API

# Albany and Stothert & Pitt 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.



Maximum working pressure <b>30 barg</b>	Pump size range <b>3" - 12"</b>	Maximum temperature <b>300°C</b>	Flow rate <b>10-1000 M<sup>3</sup>/HR</b>
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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

[www.albany-pumps.co.uk](http://www.albany-pumps.co.uk) +44 (0) 1594 842 275

### Head Office and Manufacturing Centre

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

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

e: [sales@albany-pumps.co.uk](mailto:sales@albany-pumps.co.uk)

# Albany Pumps

## S: Twin screw type pumps:

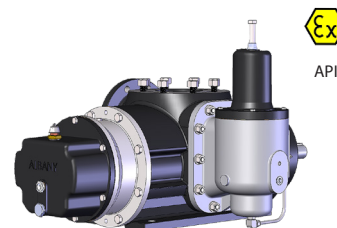
(Choose Albany or Stothert & Pitt from frame size)

### 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)



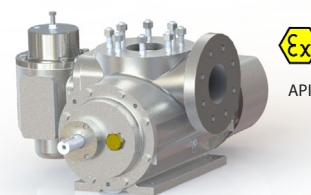
Maximum working pressure <b>30 barg</b>	Pump size range <b>3" - 10"</b>	Maximum temperature <b>200°C</b>	Flow rate <b>10-600 M³/hr</b>
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### S: B Style: External bearing pumps

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)



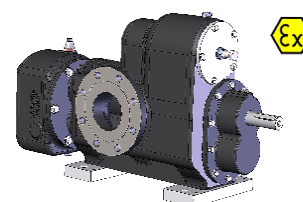
Maximum working pressure <b>30 barg</b>	Pump size range <b>3" - 10"</b>	Maximum temperature <b>300°C</b>	Flow rate <b>10-600 M³/hr</b>
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### S: C Style: Internal bearing pumps

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 <b>30 barg</b>	Pump size range <b>3" - 10"</b>	Maximum temperature <b>200°C</b>	Flow rate <b>10-600 M³/hr</b>
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### S: D Style: Vertical internal seal/external bearing pumps

Materials: CI | CS | SD | SS



The SD 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 <b>20 barg</b>	Pump size range <b>3" - 10"</b>	Maximum temperature <b>200°C</b>	Flow rate <b>10-600 M³/hr</b>
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### S: E Style: Vertical internal bearing pumps

Materials: CI | CS | HY | SD | SS



The SE 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 <b>30 barg</b>	Pump size range <b>3" - 12"</b>	Maximum temperature <b>300°C</b>	Flow rate <b>10-1000 M³/hr</b>
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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.

Albany's 24-page brochure is available as a download at [www.albany-pumps.co.uk](http://www.albany-pumps.co.uk)



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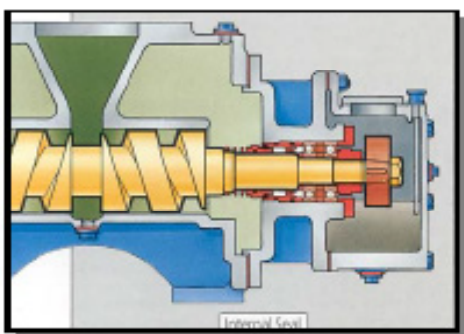


# Albany Pumps

## S: Twin screw type pumps:

**Type SA style.**

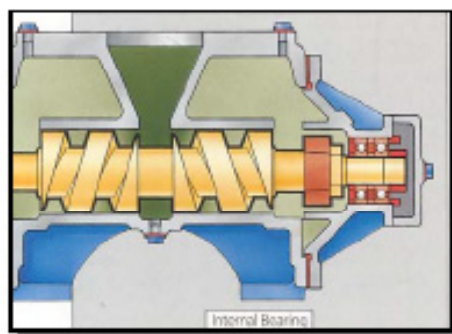
Internal seal/external bearing twin screw pump



Use: For pumping non-lubricating or light viscosity products.

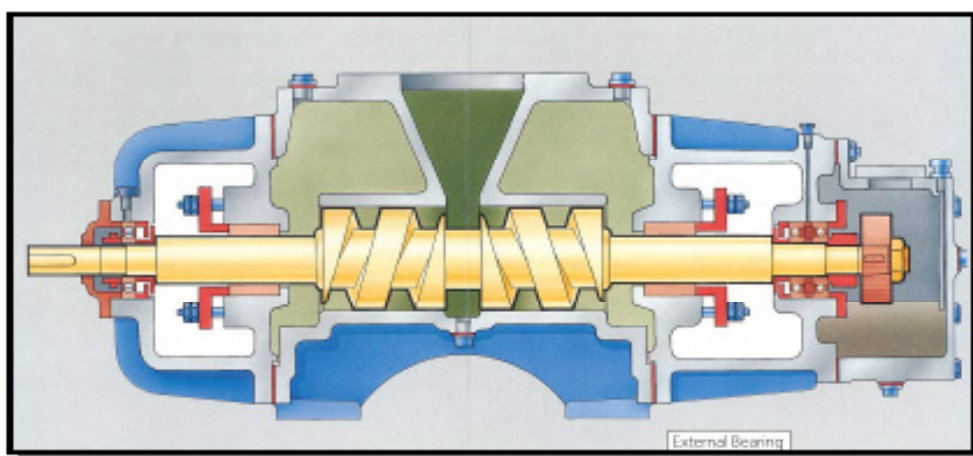
**Type SC style.**

Internal bearing twin screw pump



Use: For pumping liquids with lubricating properties.

**Type SB style. External bearing twin screw pump**



Use: For pumping non-lubricating and high viscosity liquids at pressure and elevated temperature.

### CONSTRUCTION

Albany Twin Screw pumps are fitted with hardened timing gears and locating bearings. This ensures there is no contact between the screws. The ratio between outside and root diameters is designed to provide maximum shaft stiffness which eliminates body bore wear.

### PUMPING ACTION

As the shafts rotate, the fluid is drawn to the suction ends of the casing and propelled to the central delivery area through the right and left hand scrolls. The specially designed profile of these screws provides maximum volumetric efficiency.

The mechanical seals (or packed glands) are under inlet pressure. The central discharge ensures that the shafts are hydraulically balanced to eliminate any end thrust.

### MATERIALS

Albany Twin Screw pumps are manufactured in materials best suited to the pumped liquid and to the application.

Materials currently offered cast iron, cast steel, stainless steel, aluminium bronze or gunmetal, duplex alloys. Nace specification is available.

### DRIVE ARRANGEMENTS

The pumps run at 4 pole synchronous motor speeds for normal applications. This eliminates the need for speed reducers.

Smaller pumps can run at 2 pole speeds on certain duties.

On applications such as oily water or very high viscosity (over 20,000 c/s) 6 or 8 pole, or even slower speeds, can be used.

### CAPACITY PERFORMANCE

Capacity range - 10-600 M<sup>3</sup>/hr  
Pressures - from low pressure up to 50 bars  
Viscosity's - 1-60,000 centistokes

### SUCTION PERFORMANCE

Albany Twin Screw pumps give excellent suction lift. Due to the design and gentle action of the screws the pumps require a low NPSH.

NPSH required is dependant on viscosity and speed, and can be as low as 0.5M.



## Albany Pumps

### S: Twin screw type pumps:

#### **HORIZONTAL MODELS**

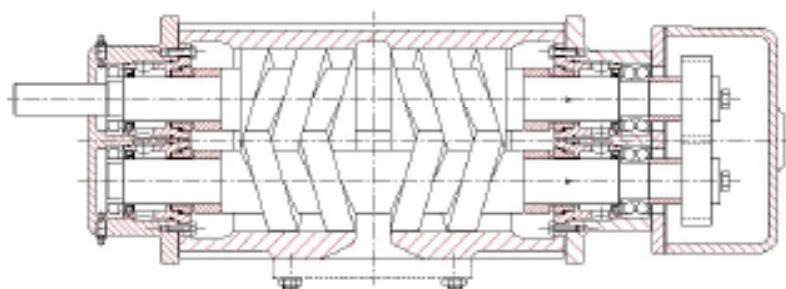
##### **DESIGN OPTIONS**

SA internal seal/external bearings for clean fuels of low viscosity.  
 SB external bearings for non-lubricating and high viscosity fluids.  
 SC internal bearings for lubricating fluids



##### **FEATURES**

- Heating options available by oil, steam, or electricity
- Cooled bearings and/or gearcases
- API 676 compliant
- Pressures up to 30 barg
- Temperatures up to 300°C



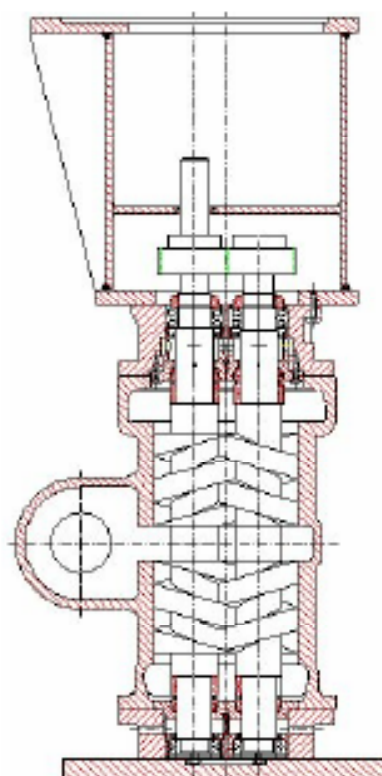
#### **VERTICAL MODELS**

##### **DESIGN OPTIONS**

SD internal seal/external bearings for clean fluids of low viscosity.  
 SE internal bearings for lubricating fluids.

##### **FEATURES**

- Vertical models save space
- With or without integral relief valve
- API 676 compliant
- Pressures up to 20 barg
- Temperatures up to 200°C



SD style

## Albany Pumps

### S: Twin screw type pumps:

Example showing A and B pitch options to indicate different flow rates

(Multi-pitch, scroll and screw clearance options are available on all styles of screw pump)

Table of Outputs and Powers for pumps handling fluids of 1 Centistoke viscosity. (50 Hertz supply)	PUMP FRAME SIZE				PRESSURE						
		Branch flange		Screw type	Pump Speed	2 BAR		4 BAR		6 BAR	
		In	mm			OUTPUT M³/h	POWER kW	OUTPUT M³/h	POWER kW	OUTPUT M³/h	POWER kW
	AS080	3	80	A	1450	15	1.6	13	2.5	10	3.4
	3	80	B	1450	20	2.0	18	3.2	15	4.4	
AS111	4	100	A	1450	39	4.2	35	6.6	31	9.0	
	4	100	B	1450	51	5.1	46	8.2	41	11	
AS135	6	150	A	1450	80	7.8	73	13	67	18	
	6	150	B	1450	104	10	98	16	92	22	
AS150	6	150	A	1450	104	10	96	17	88	23	
	6	150	B	1450	136	13	128	21	120	29	
AS170	8	200	A	1450	164	16	154	25	144	35	
	8	200	B	1450	213	19	202	31	191	43	
AS196	8	200	A	1450	238	23	224	38	210	52	
	8	200	B	1450	306	29	292	47	278	65	
AS210	8	200	A	1450	305	30	289	48	273	66	
	8	200	B	1450	395	37	379	60	363	82	
AS235	10	250	A	1450	425	43	405	67	385	92	
	10	250	B	1450	539	52	520	83	501	113	
AS265	12	300	A	1450	624	57	598	93	575	129	
	12	300	B	1450	799	71	776	116	753	161	

### Example showing all screw diameter sizes

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 <sup>3</sup> /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

Stothert & Pitt design pumps use **SS** prefix instead of **AS** on pump frame size.

## Albany Pumps

### S: Vertical twin screw type pumps:

#### Pump Output details

Table of Outputs and Powers for pumps handling fluids of 1 Centistokes viscosity. (50 Hertz supply)			50 HERTZ SUPPLY		PRESSURE (p)		PRESSURE (p)	
					6 BAR		6 BAR	
			PUMP FRAME SIZE	PUMP SPEED rev/min	OUTPUT (Q) M³/h	POWER (P) kW	PUMP SPEED Rev/min	OUTPUT M³/h
80	A	1450	10	3.4	2950	27	9.5	
	B	1450	15	4.4	2950	37	12	
111	A	1450	31	9.0	2950	75	28	
	B	1450	41	11	2950	99	35	
135	A	1450	67	18	2950	155	46	
	B	1450	92	22	2950	203	58	
150	A	1450	88	23				
	B	1450	120	29				
170	A	1450	144	35				
	B	1450	191	43				
196	A	1450	210	52				
	B	1450	278	65				
210	A	1450	273	66				
	B	1450	363	82				

These figures relate to 1 cst liquids, 50Hz supply.