

Salamander Pumps



# CT range

of shower, bathroom and whole house pumps



# Salamander Pumps is one of the UK's leading manufacturers of shower and domestic water pumps.

Innovation is used throughout the organisation to create higher quality products and offer outstanding customer service at every step of the journey.

Over the last 5 years we have completely overhauled our product range, taking feedback from installers and householders and using some cutting edge technologies to make Salamander pumps some of the quietest, compact and most reliable pumps on the market.

Whether you need to power just one shower or your whole house, there is a CT Pump to help.

**Contact Pumpwise** for help before, during and after installation on 0191 516 2002 or email [tech@salamanderpumps.co.uk](mailto:tech@salamanderpumps.co.uk)



# CONTENTS

SHOWER PUMPS EXPLAINED 4

---

TECH<sub>2</sub>LOGY INSIDE 6

---

## CT FORCE

The high-quality and robust brass pump range is available as twin or single ended, positive head or universal models. Solid brass impellers and ends, and crossover technology underpins the reliability, quality and performance of this range of pumps.

---

## CT BATHROOM

With crossover technology allowing for individual outlet operation, a universal option for negative head installations and reduced noise CT Bathroom is the pump of choice for all bathroom applications.

---

## CT XTRA

The CT Xtra range raises the bar for all other 'entry level' shower pumps to follow. This range of single and twin ended shower pumps will quietly and efficiently boost hot and cold water supplies.

---

## TECHNICAL

Range comparison, dimensions, flow curves, specification and typical installation diagrams.

# SHOWER PUMPS EXPLAINED

## CONTINUOUS RATING

All Salamander pumps are continuously rated. A pump that is continuously rated, can effectively run for as long as the user chooses, without the need for the pump to shut down, to allow the pump to cool. With a large family in a household this is particularly important, many competitor pumps are not continuously rated, and will automatically shut off for 20 to 45 minutes to allow the pump to cool.

## TWIN ENDED

These pumps pump both hot and cold water supplies with one end for hot water and the other for cold. Each end then goes on to supply the outlet, which is most commonly a shower valve.

## SINGLE ENDED

These pumps operate with a single impeller to pump either cold, hot or blended water.

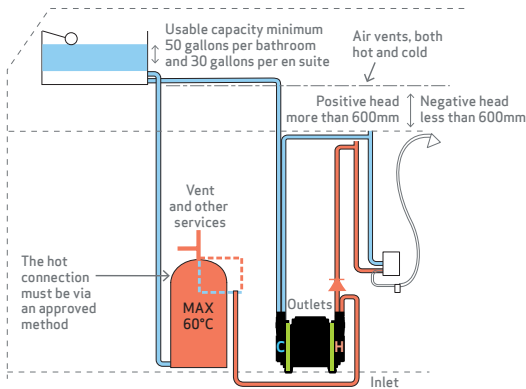
Typically, single ended pumps can be used to supply electric showers, taps, combination boilers, unvented cylinders or washing machines, but all of which must be supplied via a header tank to the pump.

## WARRANTIES

The CT Xtra and CT Bathroom ranges come with a 2 year warranty which can be extended to 3 years if the pump is registered by phone immediately after installation. The CT Force range comes with a 5 year warranty.

## POSITIVE HEAD SYSTEMS

Several different plumbing systems are used in UK homes, the most common of which is a gravity-fed system as shown in the diagram below. In these types of systems there is usually a cold water cistern in the loft with a hot water tank below it, probably in an airing cupboard. If your shower or outlets are not forceful enough due to insufficient water pressure, this can be easily remedied with the installation of a pump.



### Negative head

When the distance between the cold water storage cistern and the shower head or the highest point in the system after the pump is 600 mm or less, or when the natural flow is poor or less than 2 litres per minute (11/30 seconds hot and cold) of combined hot and cold it is possible a negative head pump may be required.

## NEGATIVE HEAD SYSTEMS (GRAVITY-FED)

If any point in the system after the pump goes within 600mm of the base of the cold water cistern or above it, including pipework, this can cause a negative head situation as there would be poor natural flow to the outlets. Negative head pumps may also be required where pumped hot meets mains cold water, where two pumps are fitted individually on hot and cold sides of the system, electric showers, washing machines and dishwashers. Some restrictive outlets such as body jets may also require a negative head pump.

# TECH<sub>2</sub>OLOGY INSIDE

We continually strive to improve our pumps and have introduced some clever technology to do this.

(CT) indicates the technology in the CT ranges.



## **CROSSOVER** (CT Force and Bathroom)

An innovatively designed bypass tube found in bathroom, universal and whole house pumps. This diverts water to the end of the pump that isn't pumping water. Typically this happens when the user switches off the one tap when filling a bath or basin. The Crossover stops the overheating /expansion of the side of the pump that isn't seeing water.



## **SOLID STATE SWITCHING** (CT)

An electronic switch which activates the pump. The switch has no moving parts, so this improves reliability, sensitivity, and extends product life.



## **DYNAMIC RESPONSE SYSTEM**

DRS is the pumps ability to react to a variation in pressure or flow. E.g. if the flow increases then the DRS will send a message to the motor to slow down, meaning that the pump maintains a consistent water output.



## **INTERROGAIT**

Technology within the pump that monitors usage e.g. how many times it has been switched on/off or how long it has been running for. It aids in the diagnosis of issues.



### **DYNAMIC PUMP CONTROL**

The intelligent electronics that run the motor at a given speed. This makes the pump more energy efficient, responsive and longer lasting.



### **NOISE/VIBRATION REDUCTION (CT)**

Product design innovation has been used to reduce the noise and vibrations in a shower pump, including noise reducing feet and specially selected materials which dampen the vibration of the motor.



### **BRUSHLESS MOTORS**

These motors allow for variable speed control, intelligently using the correct amount of electricity required to drive the pump. They have NO contacting parts which make them less likely to wear out and this combined with tighter tolerances also reduces friction and noise.



### **ADVANCED MOTOR DRIVE**

Used with brushless motors, this technology controls the spinning and speed of the motor using feedback from other parts of the pump. This allows for an instant reaction, seamless performance and energy efficiency.



### **MOTOR PUMP INTEGRATION (CT)**

The innovative product design building the motor into the pump impeller housing to allow for an extremely compact product. The design also means that the cold waterway helps cool the motor, thereby improving efficiency and product life.

# CT FORCE (UNIVERSAL)

Universal (negative head)  
brass regenerative pumps,  
ideal for delivering a  
real boost to low water  
pressure systems.



Twin ended  
only







Efficient water way design, solid brass impellers and robust brass ends make this range of pumps powerful and robust. Crossover technology, which is in all of the CT Force twin ended pumps, means they can be used for multiple or single outlet use.

Innovative engineering of the product has led to the range being awarded the Quiet Mark, and independent testing has shown the CT Force 15PT/TU to be the quietest twin ended brass pump on the market.\*

### Quiet. Powerful. Patented technology.

Pump	Application	Bar
CT Force 15TU	Twin end, universal head shower pump	1.5
CT Force 20TU	Twin end, universal bathroom pump	2.0
CT Force 30TU	Twin end, universal house pump	3.0
CT Force 20SU	Single end, universal head bathroom pump	2.0
CT Force 30SU	Single end, universal house pump	3.0

\*Independently tested, contact us for details.

# CT FORCE (POSITIVE HEAD)



Robust, brass regenerative pumps for boosting pressure to single outlets, bathrooms or the whole house.



Twin ended  
only





Quiet compact and robust, this range of brass pumps can deliver a boost to hot and/or cold supplies to thermostatic or manual mixer valves, supplying a wide range of shower types, shower heads, individual taps, cisterns and other appliances, and whole house boosting applications.

All the CT Force range is patent protected, and has received the Quiet Mark for being some of the quietest brass shower pumps on the market.\*

### Quiet. Powerful. Patented technology.

Pump	Application	Bar
CT Force 15PT	Twin end, positive head bathroom pump	1.5
CT Force 20PT	Twin end, positive head bathroom pump	2.0
CT Force 30PT	Twin end, positive head house pump	3.0
CT Force 20PS	Single end, positive head bathroom pump	2.0
CT Force 30PS	Single end, positive head house pump	3.0

\*Independently tested, contact us for details.



Salamander

# CT BATHROOM (UNIVERSAL)

Specifically designed to meet the increased demands for water supply within your en-suite, bathroom or utility room.



Twin ended  
only



FROM  
**52.5dBA**



The CT Bathroom Universal range has been specifically designed to deliver the pressure and performance needed to boost water supplies to a bathroom, en-suite or utility room. Innovative and patent protected, this range of pumps is also compact and powerful.

Suitable across a wide range of shower types and heads, single and mixer taps, these pumps will also refill your toilet cistern in double quick time.

**Quiet. Powerful. Patented technology.**

Pump	Application	Bar
CT 60BU	Twin end, universal bathroom pump	1.8
CT 80BU	Twin end, universal bathroom pump	2.6
CT 90BU	Single end, universal bathroom pump	2.6

\*Independently tested, contact us for details.



# CT BATHROOM (POSITIVE HEAD)

The pump designed  
for bathrooms.



FROM

**57.5dBA**



With their advanced design features the CT Bathroom positive head range of pumps will efficiently boost the hot and/or cold water supplies to shower, baths, basins and toilets.

CT Bathroom is the pump of choice for all bathroom applications.

**Quiet. Powerful. Patented technology.**

Pump	Application	Bar
CT 60B	Twin end, positive head bathroom pump	1.8
CT 80B	Twin end, positive head bathroom pump	2.6

\*Independently tested, contact us for details.

# CT XTRA

The hard working,  
affordable pump.



FROM  
**52.5dBA**





CT Xtra is Salamander's biggest selling range of shower pumps and probably the biggest selling range of shower pumps in the UK.

Compact in size, quiet in operation and containing patented technology this pump provides excellent value for money.

Awarded the Quiet Mark, this range of positive head regenerative pumps are some of the quietest plastic, regenerative pumps on the market.\*

### Quiet. Powerful. Patented technology.

Pump	Application	Bar
CT 50/50+ Xtra	Twin end, positive head shower pump	1.5
CT 75/75+ Xtra	Twin end, positive shower pump	2.0
CT 55/55+ Xtra	Single end, positive head shower pump	1.6
CT 85/85+ Xtra	Single end, positive head shower pump	2.1

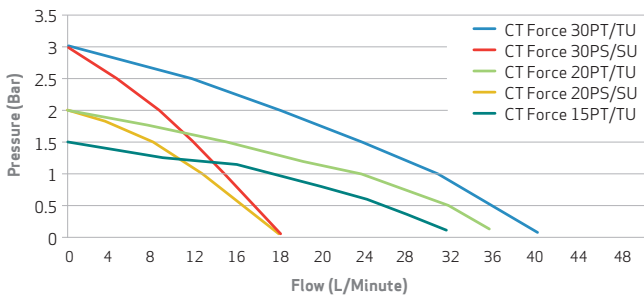
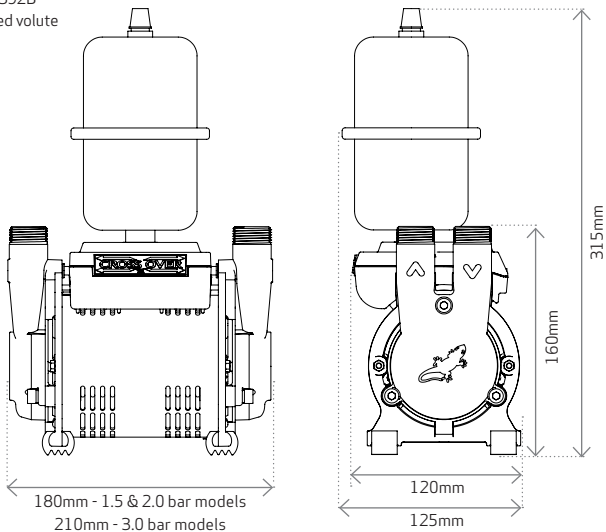
\*Independently tested, contact us for details.

## CT FORCE

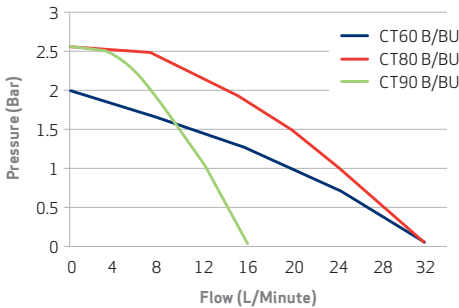
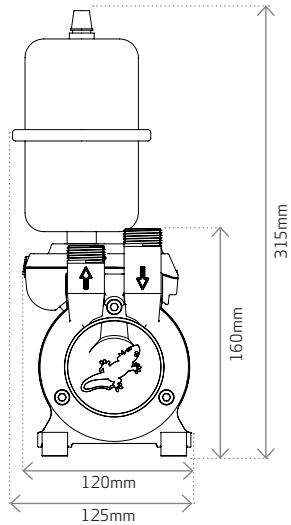
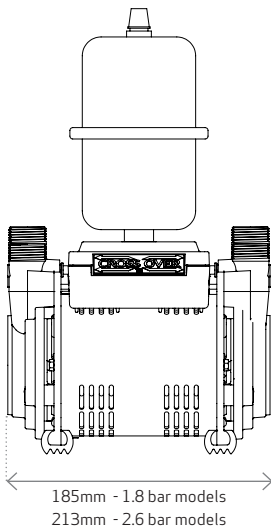
### PATENTS

GB2465392B

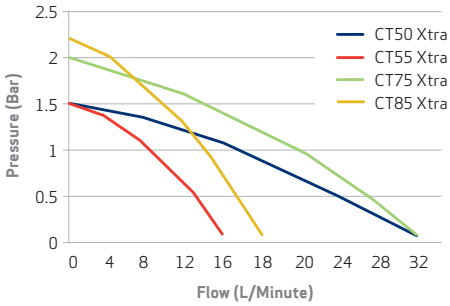
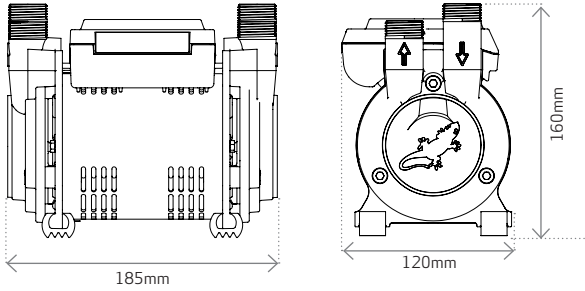
Integrated volute



**CT BATHROOM**



**PATENTS**  
GB2465392B  
Integrated volute

**CT XTRA**

# NOISE

Noise is one of the deciding factors when choosing a shower pump, which is why the CT Range of pumps have been engineered so that they are amongst the quietest on the market.

All of our pumps have been independently tested against our competitor's products and we can now say that we have some of the quietest pumps on the market.



CT Xtra and CT Force ranges have also been awarded the Quiet Mark, an international approval award programme associated with the UK Noise Abatement Society charitable foundation. Quiet Mark encourages companies worldwide to prioritise noise reduction within the design of everyday machines and appliances, and find solutions to noise problems.

For further information on noise and individual dBA ratings visit [salamanderpumps.co.uk](http://salamanderpumps.co.uk)

**CT FORCE****TWIN**

		<b>CT FORCE 15 PT/TU</b>	
<b>FEATURES</b>	Pump type		
	Mechanical seal		
	Anti-vibration feet	✓	
	Inlet isolator(s)	✓	
	Flexible hoses	4	
<b>PERFORMANCE</b>	Pressure @ 16lpm (8lpm for singles)	1.1	
	Pressure @ 8lpm (4lpm for singles)	1.3	
	Pressure @ closed head	1.5	
	Maximum water temperature		
	Pressure vessel air pre-charge	22 psi	
<b>CONNECTIONS</b>	Pump connections		
	Flexible hoses UK model	3/4"	F€
	Flexible hoses ROI model	3/4"	F€
<b>MOTOR</b>	Type		
	Duty rating		
<b>ELECTRICAL</b>	Power supply		
	Current (full load) - amps	2.0	
	Power consumption - watts	457	
	Fuse rating - amps		
	Power cable (pre-wired)		
<b>PHYSICAL</b>	Enclosure protection (IP rating)		
	Weight (excluding hoses)	4.9/5.5 kg	

				SINGLE
CT FORCE 20 PT/TU	CT FORCE 30 PT/TU	CT FORCE 20 PS/SU	CT FORCE 30 PS/SU	
Regenerative				
Nitrile / Carbon / Ceramic				
✓	✓	✓	✓	
✓	✓	✓	✓	
4	4	2	2	
1.5	2.2	1.5	2.1	
1.8	2.6	1.8	2.6	
2.0	3.0	2.0	3.0	
60°C				
28 psi	32 psi	28 psi	32 psi	
3/4" BSP				
Female x 22mm Push-Fit x 280mm long, isolating valves on all hoses				
Female x 21mm Push-Fit x 280mm long, isolating valves on all hoses				
A.C Induction Motor				
Continuously Rated				
230 V				
2.2	2.9	1.3	1.9	
531	690	304	410	
3				
1.5 metres				
IPX2				
4.9/5.6 kg	6.1/6.8 kg	4.3/5.0 kg	5.6/6.2 kg	

## CT BATHROOM

<b>FEATURES</b>	Pump type	
	Mechanical seal	
	Anti-vibration feet	
	Inlet isolator(s)	
	Flexible hoses	
<b>PERFORMANCE</b>	Pressure @ 16lpm (8lpm for singles)	
	Pressure @ 8lpm (4lpm for singles)	
	Pressure @ closed head	
	Maximum water temperature	
	Pressure vessel air pre-charge	
<b>CONNECTIONS</b>	Pump connections	
	Flexible hoses UK model	P
	Flexible hoses ROI model	
<b>MOTOR</b>	Type	
	Duty rating	
<b>ELECTRICAL</b>	Power supply	
	Current (full load) - amps	
	Power consumption - watts	
	Fuse rating - amps	
	Power cable (pre-wired)	
<b>PHYSICAL</b>	Enclosure protection (IP rating)	
	Weight (excluding hoses)	



TWIN		SINGLE	
CT BATHROOM 60B/BU	CT BATHROOM 80B/BU	CT BATHROOM 90BU	
Regenerative			
Nitrile / Carbon / Ceramic			
✓	✓	✓	
✓	✓	✓	
4	4	2	
1.2	1.8	1.8	
1.6	2.4	2.4	
2.0	2.6	2.6	
60°C			
28 psi			
3/4" BSP			
3/4" Female x 15mm Push-Fit isolating valves	3/4" Female x 22mm Push-Fit x 280mm long, isolating valves on all hoses		
3/4" Female x 21mm Push-Fit x 280mm long, isolating valves on all hoses			
A.C Induction Motor			
Continuously Rated			
230 V			
2.0	2.2	1.1	
455	484	240	
3			
1.5 metres			
IPX2			
4.0/4.5 kg	5.6/6.1 kg	4.6 kg	

**CT XTRA**

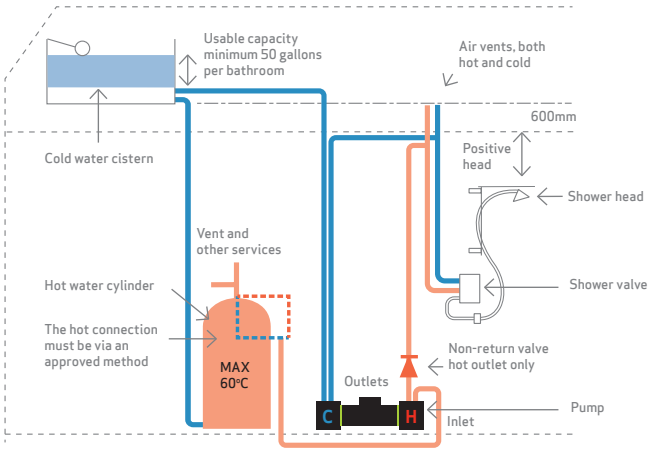
<b>FEATURES</b>	Pump type
	Mechanical seal
	Anti-vibration feet
	Inlet isolator(s) - only on '+' models
	Flexible hoses
<b>PERFORMANCE</b>	Pressure @ 16lpm (8lpm for singles)
	Pressure @ 8lpm (4lpm for singles)
	Pressure @ closed head
	Maximum water temperature
<b>CONNECTIONS</b>	Pump connections
	Flexible hoses UK model
	Flexible hoses ROI model
<b>MOTOR</b>	Type
	Duty rating
<b>ELECTRICAL</b>	Power supply
	Current (full load) - amps
	Power consumption - watts
	Fuse rating - amps
	Power cable (pre-wired)
<b>PHYSICAL</b>	Enclosure protection (IP rating)
	Weight (excluding hoses)

TWIN		SINGLE	
CT50 XTRA / 50+ XTRA	CT75 XTRA / 75+ XTRA	CT55 XTRA / 55+ XTRA	CT85 XTRA / 85+ XTRA
Regenerative			
Nitrile / Carbon / Ceramic			
✓	✓	✓	✓
✓	✓	✓	✓
4	4	2	2
1.0	1.3	1.1	1.7
1.3	1.7	1.4	2.0
1.5	2.0	1.5	2.2
60°C			
3/4" BSP			
3/4" Female x 15mm Push-Fit x 195mm long			
3/4" Female x 21mm Push-Fit x 195mm long			
A.C Induction Motor			
Continuously Rated			
230 V			
2.0	2.1	1.3	1.1
455	484	273	246
3			
1.5 metres			
IPX2			
3.6 kg	4.0 kg	3.4 kg	3.9 kg



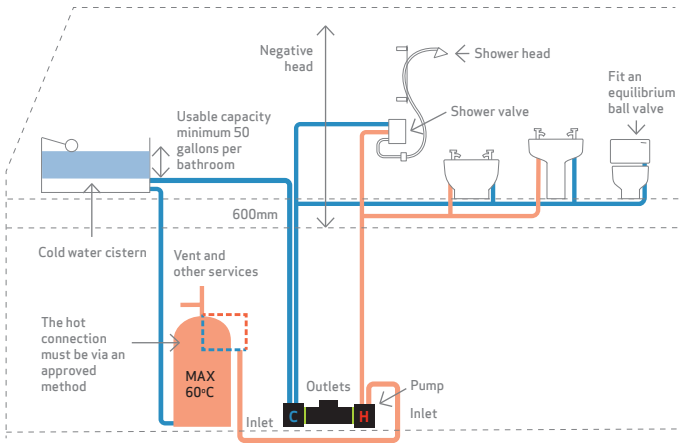


## POSITIVE HEAD SYSTEM



CT pump range twin ended positive head with up and over pipework and natural flow of 11litre/min per side.

## NEGATIVE HEAD (UNIVERSAL) SYSTEM



CT pump range twin ended universal to a bathroom in a loft conversion.

Get in touch,  
we're here to help  
call us on  
0191 516 2002

Unit 2c Colima Avenue  
Enterprise Park West  
Sunderland, SR5 3XE



[salamanderpumps.co.uk](http://salamanderpumps.co.uk)



Salamander Pumped Shower System Ltd is part of The Davidson Holdings Group  
Printed November 2017