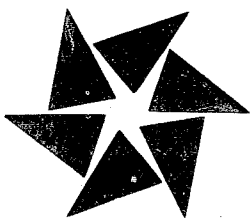
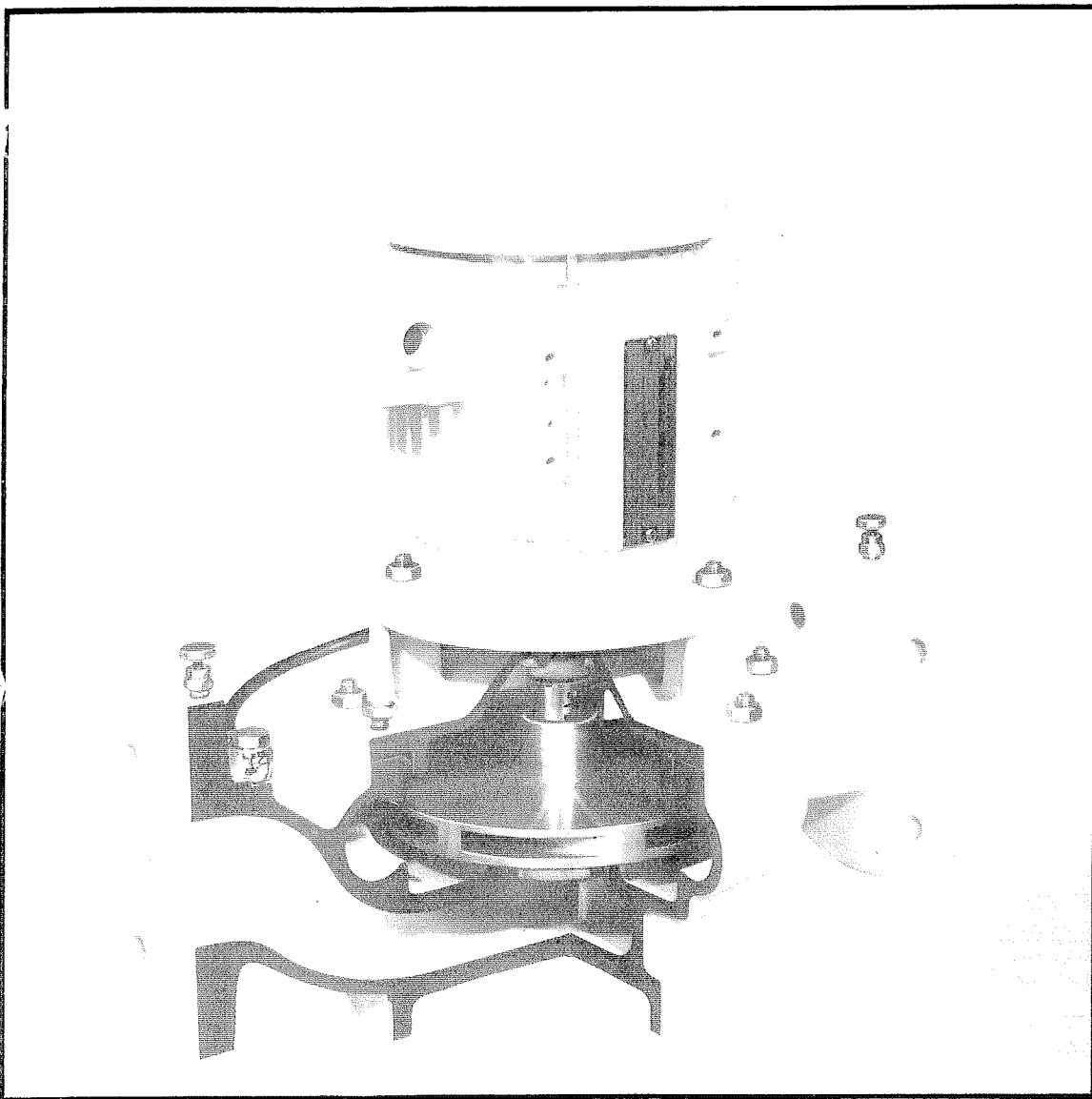


Pullen

SC/SK Pipeline Pumps



**For Central Heating
Hot Water Supply and
Chilled Water**



Introduction

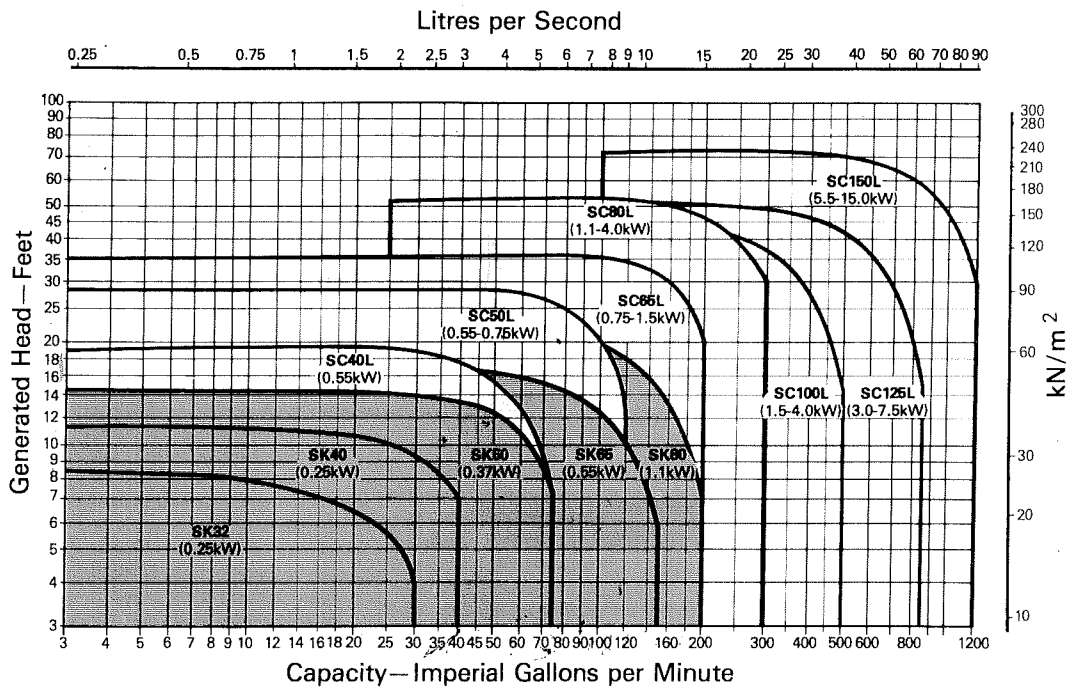
The Pullen 'SC' and 'SK' ranges of close-coupled vertical in-line pumps are the result of the continual process of innovation and refinement of design pursued by Pullen Pumps. Designed and manufactured to the highest standards, they incorporate the best materials and are backed by the superb service which has become associated with any Pullen pump.

'SC' and 'SK' pumps are ideal for central heating, hot water supply† and chilled water applications. They are of economic construction and are simple to install in either horizontal or vertical pipelines.*

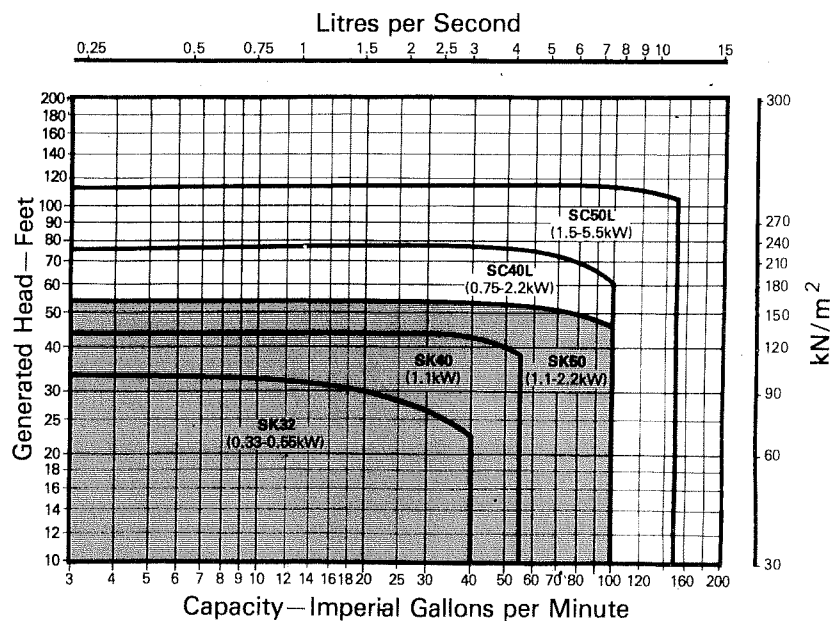
All pumps in the range are of the back pull-out design, enabling routine maintenance to be carried out without disturbing pipeline connections. They are fitted with self-adjusting mechanical seals featuring hard-wearing ceramic seats.

The 'SK' range consists of low-head circulators in which the motor shaft is shielded from the pumped liquid by the impeller hub. Pumps in this range are suitable for handling water at temperatures up to 115°C and for system pressures up to 7 or 8 bar, depending on the pump size (see dimension tables).

Performance Characteristics at 50 Hz



Standard Pump Curves at 1450 rpm




Standard Pump Curves at 2900 rpm

'SC' pumps are designed for applications with head and flow requirements greater than the 'SK' performance range and are suitable for handling water at temperatures up to 125°C and for system pressures up to 8 bar. A particular design feature of these pumps is the use of an extended stainless steel motor shaft, on to which the impeller is keyed. This ensures that the impeller and shaft seal run perfectly true. Improved seal performance has been achieved by a special design of seal housing, unique to Pullen Pumps, which improves seal interface lubrication, thereby increasing the life and capability of the seal.

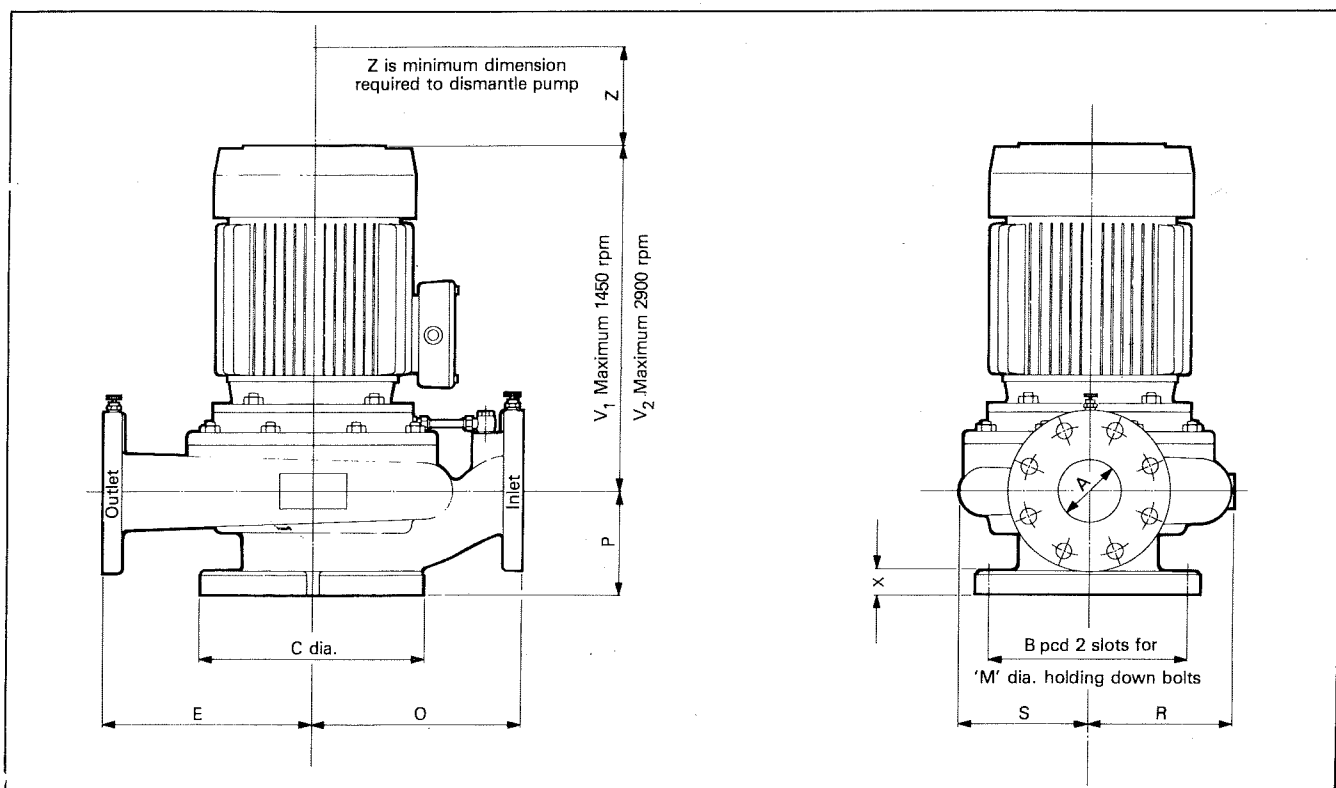
Pumps in both ranges are normally close-coupled to three-phase motors, however, certain pumps can be offered with single-phase motors.*

Counterflanges are available as an extra for sizes up to 150mm. Standard counterflanges stocked are to BS4504 NP16. Screwed flanges on pump sizes up to and including 80mm. Welding flanges on pump sizes 100mm to 150mm.

† All pumps can be supplied to meet WRC requirements for potable water application. 

*See back page.

Dimensions (millimetres)



Pump	A	B	C	E	M	O	P	R	S	V1*	V2*	X	Z	Approx Weight kg		Max. Capability of Standard Pump	
														1450	2900	Temp°C	Pressbar
SC40L	40	140	170	170	10	170	85	116	102	361	395	25	75	30	35	125	8
SC50L	50	175	210	200	10	200	95	140	122	361	523	30	80	42	78	125	8
SC65L	65	195	230	230	12	230	110	163	140	394	—	30	85	53	—	125	8
SC80L	80	245	280	260	12	260	130	185	160	362	—	30	105	105	—	125	8
SC100L	100	260	295	280	12	280	145	203	175	440	—	30	115	125	—	125	8
SC125L	125	310	345	330	12	330	175	228	195	514	—	34	140	175	—	125	8
SC150L	150	340	385	375	16	375	200	262	225	678	—	43	155	285	—	125	8
SK32	32	112	140	115	10	115	84	80	80	262	262	20	100	21	21	115	7
SK40	40	130	155	135	10	135	93	88	85	266	286	22	110	26	30	115	7
SK50	50	155	185	165	10	165	105	106	103	268	345	28	110	33	42	115	7
SK65	65	175	205	175	10	175	111	116	113	286	—	29	120	42	—	115	7
SK80	80	200	235	200	12	200	127	130	127	303	—	36	130	51	—	115	8

*These dimensions vary slightly depending on the make of motor fitted. All flanges are to BS4504 NP16 as standard.

Material Specifications

Casing and Backcover

Manufactured from close-grained cast iron to BS1452 Grade 220, machined to fine limits.

Impeller

'SC' Range:

Manufactured from close-grained cast iron to BS1452 Grade 220, dynamically balanced and runs in renewable phosphor-bronze sealing rings.
High-grade gunmetal (bronze) impeller to BS1400 Grade LG2-C is available at extra cost.

'SK' Range:

Cast in high-grade gunmetal (bronze) to BS1400 Grade LG2-C, dynamically balanced and runs in renewable phosphor-bronze sealing rings.

Mechanical Seal

All 'SC' and 'SK' range pumps are fitted with seals of the flexible bellows type, having carbon running against a stationary ceramic seat.

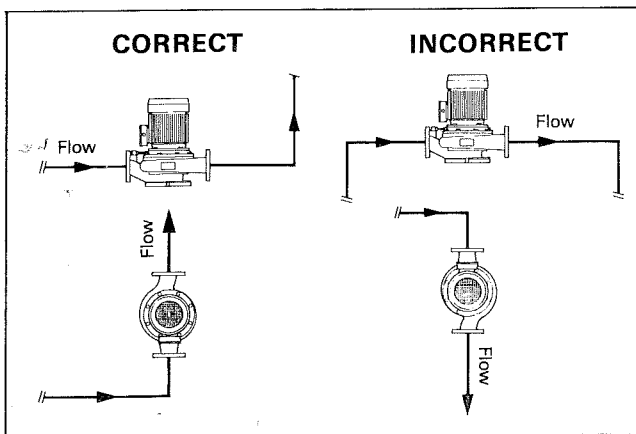
Motors

TEFC (IP54) or drip-proof (IP22) squirrel-cage type to metric BS requirements, with windings insulated to class 'F'.

Installation

Location

Pullen 'SC' and 'SK' Pumps may be fitted in a horizontal or vertical pipeline and must be arranged so that the adjacent pipework can be vented of air before start up. The sketches below indicate the correct and incorrect methods of installation.



Pumps should be located as near the source of water supply as possible.

In boiler houses it is advisable to keep electrically driven pumps and their starters away from the vicinity of the boiler or flues because of the high ambient temperatures in these regions.

See leaflet SG201 and SGC201 for gunmetal in-line pumps with screwed connections and leaflet DP201 for twin 'SC' and 'SK' pump arrangements.

As we are constantly endeavouring to improve standards, we reserve the right to alter details given without prior notice.

Motor Shaft

'SC' Range:

High-grade stainless steel to BS970 Grade 431S29, ground to fine limits.

'SK' Range:

High-grade steel ground to fine limits. Extended into the pump and shielded from the pumped liquid by the impeller hub.

Impeller Screw

'SC' Range and 'SK80' only:

Stainless steel for resistance to corrosion.

Impeller Key

'SC' Range:

Stainless for resistance to corrosion.

'SK80' only:

High quality key steel protected from corrosion by the impeller hub.

Impeller Drive Pin

'SK32' to 'SK65':

High tensile spring steel.

Tests

All pumps are fully tested before they leave our works, to ensure perfect running. Performance characteristics are guaranteed in accordance with BS5316 Part 1.

Pumps fitted with Single-Phase Motors

Single-phase motors inherently transmit higher noise levels than three-phase motors.

Precautions should be made to minimise the transmission of vibration to pipework and building structures in cases where plant is positioned close to domestic premises, i.e. Flats, Hospitals and Schools.

Pullen Pumps can advise on this subject.

Mini Automatic Changeover Panel



Pullen Pumps manufacture electrical control equipment for the complete range of pumps. For applications with one continuously-running pump plus a standby, the Pullen Mini Automatic Changeover Panel provides overload protection plus automatic switching of duty pump status in the event of an overload condition. A direct-on-line starter is provided for each pump motor. Available for motors up to 4kW on 415volt 3-phase 50Hz, and up to 1.5kW on 240volt 1-phase 50Hz.

See Data Sheet No. AEDS 016.

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