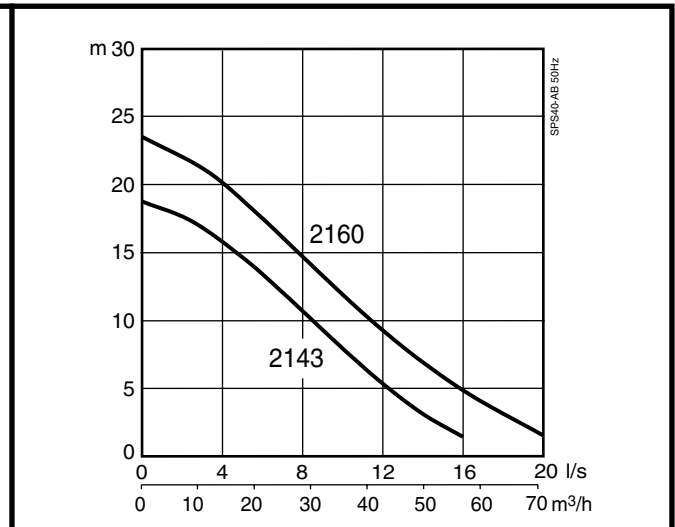
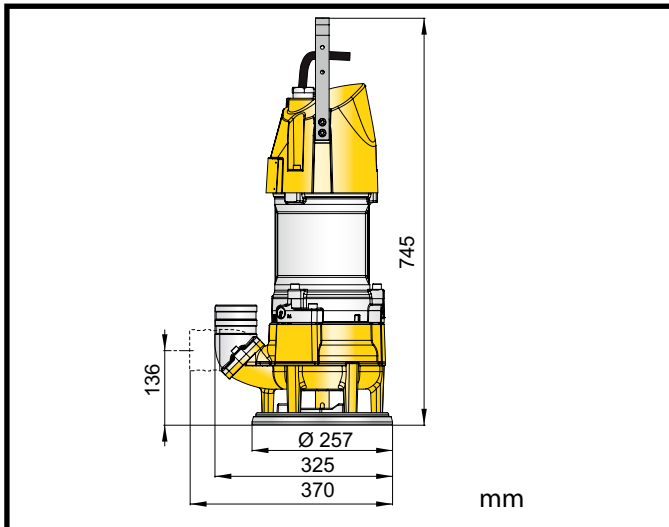


Submersible sludge pump

SPS* 40 50 Hz



Specification

Electric submersible pump.
 Maximum submergence: 20 m. Protection class IP 68.
 Max temperature of pumped medium at max power input and continuous duty 40°C.
 Max medium density 1100 kg/m³. pH of the pumped medium 5-8.
 Free passage: 45 x 55 mm. Max number of starts 30/hour.
 Min impeller diameter for duty with low water level or intermittent dry operation. Max impeller diameter requires half motor or more submersed for continuous duty. (Pump can operate lying down.)

Pump Types

SPS 40-2143
 SPS 40-2143 WIP**
 SPS 40-2160
 SPS 40-2160 WIP**

**WIP: Built in WIP Computer

Electric Motor

High efficiency IE2 IEC 600 34-30, 3-phase squirrel-cage induction motor, 50 Hz.
 Service factor 1.1. Class F insulation.
 Max. power input P₁: 4.3 kW. Motor rating P₂: 3.7 kW.
 Speed: 2860 rpm. η: 86.9 %

Voltage, V	230	400	500 - 550	690	1000
Nominal current, A	13.2	7.6	6.1	4.4	3.0

Starting Method and Motor Protection

SPS 40: Direct on line, DOL, start with built in contactor. Thermal switches built into the stator windings, connected to the contactor, stops the pump at high temperature (140 °C, ±5). Pumps for VFD or 1000 V must have terminal block instead of contactor.

SPS 40 WIP: Direct on line start (DOL 230-550 V) with built in WIP Computer, which automatically adjusts phase order by dual contactors, ensuring correct motor rotation.

The WIP Computer monitors motor temperature, by use of NTC thermistors built into stator windings, and stops the motor at high temperature. It will also stop the motor at high amperage or if a phase is missing.

Power Cable

20 m type S1BN8-F (standard cable):
 4 x 1.5 sq.mm. (230-690 V)
 20 m type NSSHÖU.../3E (heavy duty cable):
 3x2.5+3x2.5/3E+3x1.5 (control leads) (1000 V or terminal block)
 3x1.5+3x1.5/3E (230-690 V)

Shaft Seal

Double mechanical seal in oil bath.
 Primary seal: Silicon carbide on silicon carbide
 Secondary seal: Silicon carbide on carbon

Bearings

Low friction lubricated for life bearings, SKF E2/2Z
 Upper bearing: Single-row deep groove ball bearing
 Lower bearing: Double angular contact ball bearing

Materials

Motor housing:	Aluminium	EN 1706: AC-43100, ASTM AISI10mg
Handle:	Stainless steel	10088: X5CrNi18-10 (1.4301), AISI 304
Rotor shaft:	Stainless steel	10088: X20Cr13 (1.4021), AISI 420
Volute, impeller:	Nodular cast iron	1563: ENG.JS-HB150, ASTM A 536-80:60-40-18
Fasteners:	Stainless steel	10088: X5CrNiMo 17122 (1.4401), AISI 316
O-rings:	Nitrile rubber	
Coating:	2 component epoxy paint 80 µm	

Discharge Connections

2 ½", 3" (standard), 4" hose connections
 2 ½", 3", 4" G/B.S.P. threaded connections

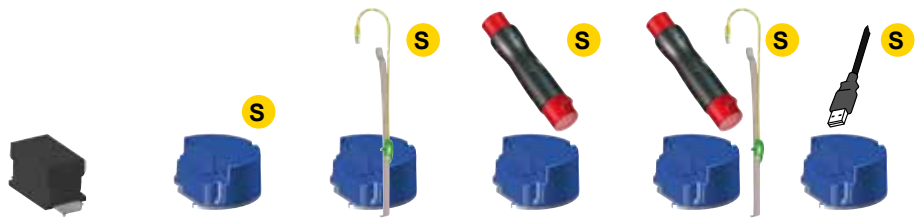
Weight (without cable)

41 kg

Options and Accessories

**WIP Plug. Level sensor. PC communication kit. ZincPro. Surface protection coating. PumpFloater. Service kit. Discharge connection accessories and hose.

*Super Drainer: **Safe, User friendly, Powerful, Economic, Reliable**
 ** WIP: **Watching, Indicating, Protecting**



Pumpex features	Pump with built-in contactor C1	SUPER Drainer with built-in WIP Computer S1	Pump with WIP Computer and level sensor S2	Pump with WIP Computer and WIP Plug S3	Pump with WIP Computer, WIP plug and level sensor S4	Pump with WIP Computer and PC Com. Kit S5
Run mode	✓	✓	✓	✓	✓	
Built-in starter	✓	✓	✓	✓	✓	
High motor temp stop - auto restart	✓	✓	✓	✓	✓	
Automatic restart after power failure	✓	✓	✓	✓	✓	
Automatic rotation correction		✓	✓	✓	✓	
Advanced automatic start sequences, 3x3-stage with auto revers in case of blocked impeller		✓	✓	✓	✓	
High current auto stop - advanced restart		✓	✓	✓	✓	
Phase failure auto stop - advanced restart		✓	✓	✓	✓	
Automatic stop at dry running / snoring			✓		✓	
Level control - automatic start at preset water level			✓		✓	
Operation selector panel				✓	✓	
Operation mode indications				✓	✓	
Warning - moisture in motor				✓	✓	
Warning - water in oil				✓	✓	
Warning - low motor insulation				✓	✓	
E-mode set indication					✓	
Socket for external USB cable connection		✓		✓	✓	✓
Pump specific info - technical data, serial no etc						✓
Pump status examination						✓
Service requirement analysis						✓
Logg - pump operating history						✓
Logg - pump failure history						✓
Logg - pump service and maintenance history						✓
Digital spare parts documentation						✓
Digital workshop manual						✓

*) Super Drainer: **S**afe, **U**ser friendly, **P**owerful, **E**conomic, **R**eliable

) WIP: **Watching, **I**ndicating, **P**rotecting

S Available exclusively in Pumpex SUPER Drainers, series PS, PSC and SPS.



PUMPEX SALES
Rökerigatan 20
SE-121 62 Johanneshov
Sweden

Tel: +46 10 130 1809
E-mail: info@pumpex.com

PUMPEX MANUFACTURING
Clonard Road
Wexford
Ireland

Tel: +353 53 91 63 200
Fax: +353 53 91 42 335
E-mail: info@pumpex.com