Ama®-Porter S

Submersible motor pumps

Cutter device "S"
50 Hz

Fields of Application

Pumping of waste water containing solid matter or domestic sewage such as waste from toilets, washing machines, dishwashers, in intermittent operation, etc.
Surface water or rain water pumping in intermittent operation such as car park drainage.
Drainage of sumps liable to flooding.

Operating characteristics

Q : up to 17 m^3/h, (4,7 l/s).
H : up to 21 m.
Motor Power ;
1.5 kW maximum for three phase motor.
1.1 kW maximum for single phase motor.
Operating temperature up to 40ºC.
Intermittently 70ºC (3 to 5 min.).

Materials

Casing	: EN.GJL-200 / JL 1030 / FGL 200 / GG 20.
Impeller	: EN.GJL-200 / JL 1030 / FGL 200 / GG 20.
Shaft	: Chrome steel 1.4021 / X20 Cr13 / Z20 C13.

Cutter system in very hard wear resistant material.

Shaft seal	: (Motor side) Lip seal
Shaft seal	: (Pump side) Mechanical seal Silicon/Silicon
Nuts & bolts	: Stainless steel
Elastomers	: Nitrile rubber
Float switch	: Polypropylene

Pump type

Vertical single casing submersible motor pump.

Shaft seal

Twin shaft seal with intermediate oil chamber.

Motor side	: Single lip seal
Pump side	: Single mechanical seal independent of direction of rotation

Designation

Ama®-Porter **S** **B** **5** **45** **SE**

Type of pump :
S = cutter :
B = with start box
Discharge diameter
DN 50 = series **5** _ _
Size :
SE = Single-phase with float switch
NE = Single-phase without float switch
ND = Three-phase without float switch

Motor

Single phase	: 230 V - 50 Hz with built in thermal overload protection
Three phase	: 400 V - 50 Hz direct on-line starting
Motor protection	: IP68, Class F insulation in accordance with EN 60529 / IEC 529.

Please note :
Variable-speed operation of this pump is not allowed.

Operating mode S1 - submerged (max. 5 m)
Operating mode S3 - not submerged (see dimension table)

Bearings

Sealed for life radial ball bearings.

CE - EN 12 050

The pump must not be used in countries where pumps handling sewage with faeces are subject to explosion protection regulations.

KSB

Scope of Supply

Pump complete ready for installation with either stationary or transportable mounting kits.

The **SE** versions are fitted with an integral float switch.

The single-phases versions are equipped with a start box with built-in capacitors.
Tight housing, IP 56, of insulating material. The box is provided with 2 cable glands and a power supply cable with plug.

Dimension:	190 mm x 140 mm x 70 mm
Fastening:	144 mm x 98 mm
Weight:	1.2 kg

Details

- Manufactured in cast iron construction EN.GJL-200 / JL 1030 / FGL 200 / GG 20.
- Non-flameproof motor.
- Unique resin imbedded, plug connection.
- Single phase version are supplied with a 10 m electrical cable and plug.
- Three phase version supplied with a 10 m electrical cable.
- Integral cast handle for easy hanging or lifting.
- Paint coating:

  Surface treatment: SA $2^1/_2$, Sis 055900

  Primer: Ferritic Oxide 35 to 40 µm

  Top coat : environmentally-friendly KSB-standard coating, approx.40 µm, RAL 5002 (ultramarine blue).

Please note: We recommend to fit a ball non-return valve with full bore on the discharge side.

CAUTION: A swing check valve must absolutely be installed in the discharge line.

Description of installation kits

Version / Variant	SB 545 SE/NE S 545 ND
Transportable	3 feet Discharge elbow (2") Hosetail (2"/63 mm) Hose clip (∅ 60 to 80) Nuts and bolts for feet and elbow
Stationary Guide rope or rail (1 or 2) or hoop (vertical discharge connection)	Duckfoot bend 50/50 mm Claw Bracket Guiding rope or hoop 1 or 2 Rail(s) not included Anchor bolts Chain
Stationary Guide rope or 1 rail or hoop (horizontal discharge connection)	Duckfoot bend 50/2" Claw Bracket Guiding rope or hoop Rail not included Anchor bolts Chain

Thermal overload protection

Single phase version
Integral thermal overload protection within motor windings.

Three phase version
No thermal protection of the windings, current supply should be protected via a thermal overload relay installed inside the control panel and set to the current value indicated on the rating plate +15%

Advantages offered by the Ama®-Porter S pump.

Resin impregnated cable connection plug.

Your benefit:
Absolutely water tight cable entry.

Singular casing submersible motor with Class F insulation designed for optimum performance.

Your benefit:
Optimum motor design for safe operating conditions.

Single phase version protected against thermal overload by integral winding protection.

Your benefit:
Motor is protected, even in automatic operation conditions.

Side cable entry position ensures the cable is protected against damage.

Your benefit:
Safe and easy transport handling.

Three phase version, oversized motor ensuring good operating conditions.

Your benefit:
Maximum performance even under the most arduous of duties.

Plug in socket.

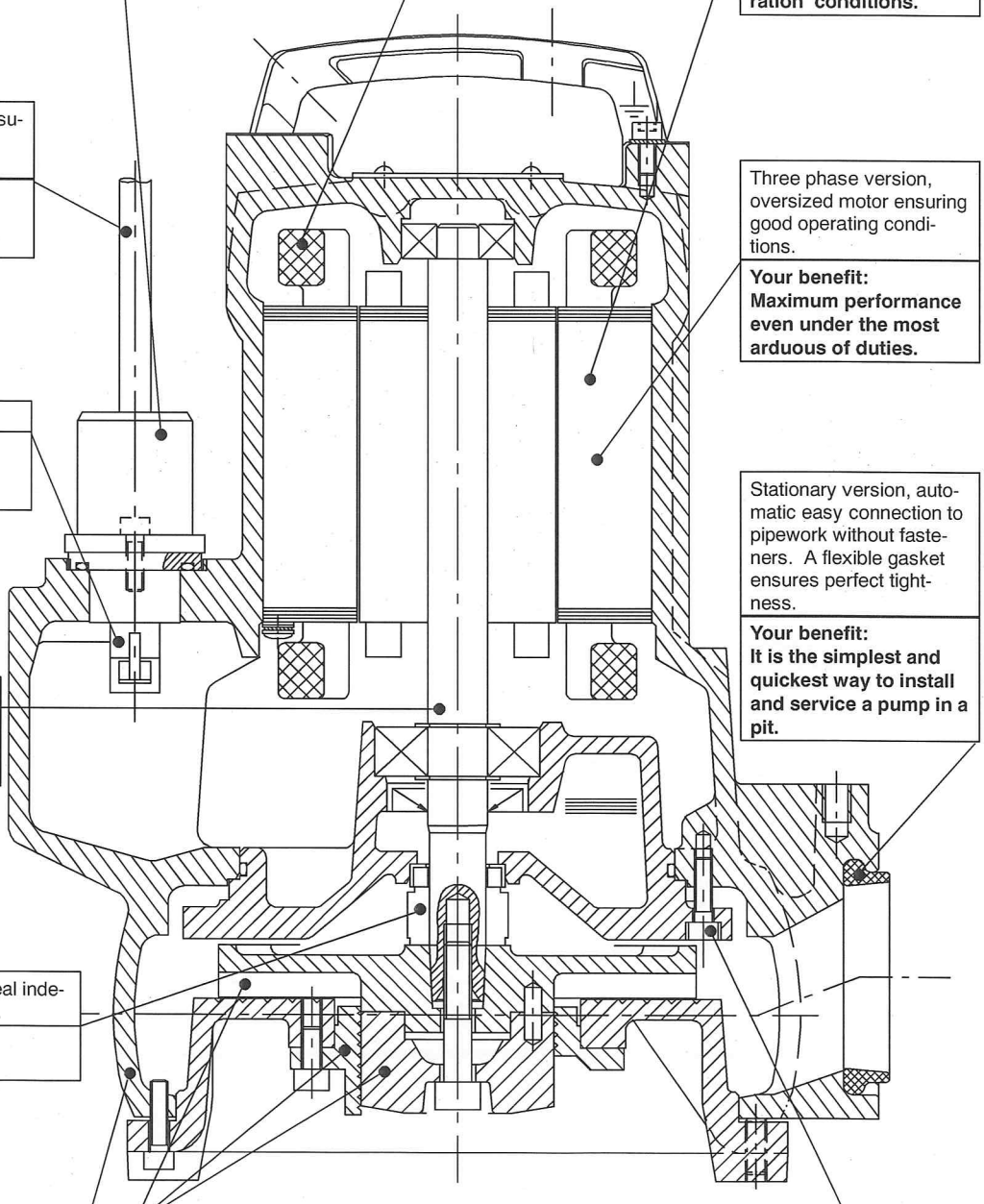
Your benefit:
Quick servicing, without risk of faulty connection

Stationary version, automatic easy connection to pipework without fasteners. A flexible gasket ensures perfect tightness.

Your benefit:
It is the simplest and quickest way to install and service a pump in a pit.

Chrome steel shaft.

Your benefit:
No corrosion, long lifetime.



Hard wearing mechanical seal independent of rotation direction.

Your benefit:
Long service life.

Pump and motor body in monobloc design reducing the number of sealing faces in the pump, reducing the risk of water ingress. Reduction of the risk of blockage due to the profiled pump casing.

Your benefit:
Watertight and service friendly

Cutter impeller (s)
Manufactured in very hard wear resistant material for waste water containing sands and long fibrous matter like domestic sewage.

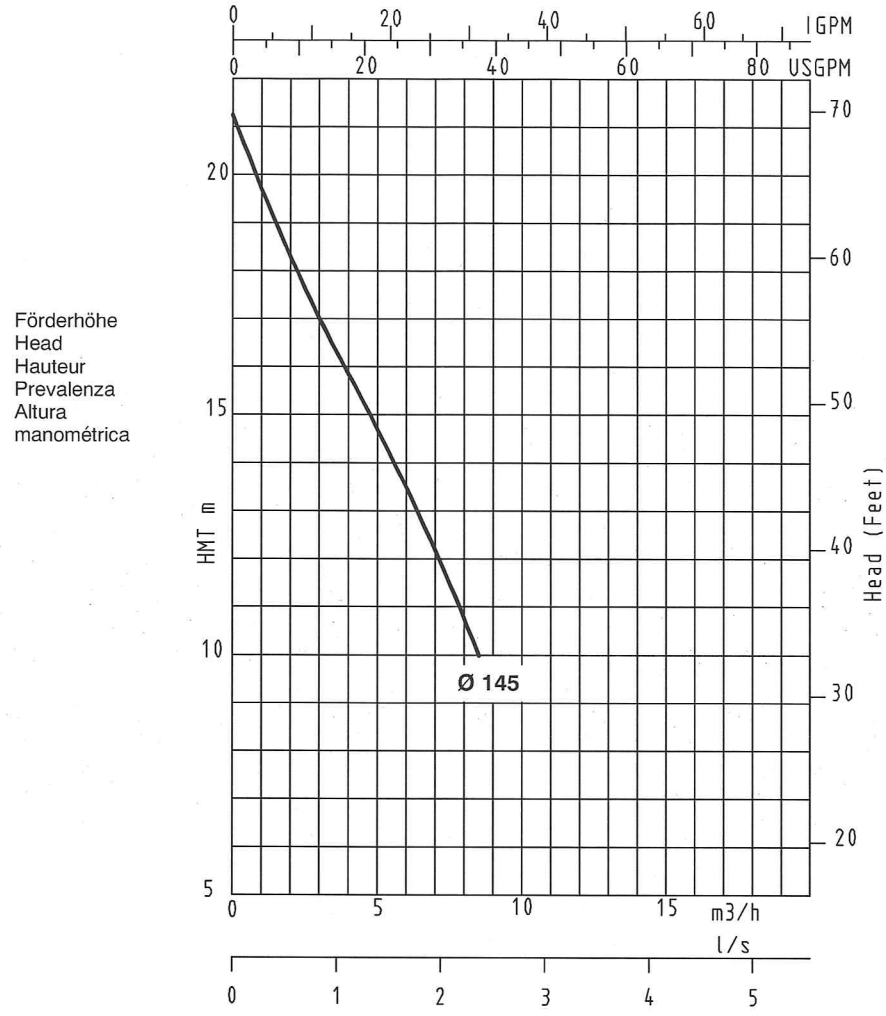
Your benefit:
Cutting action for heavily contaminated liquids
Reduced chance of blockages
Reduced sands passage
High head, low flow characteristic

Stainless steel nuts and bolts.

Your benefit:
Corrosion resistant to ensure easy removal at times of maintenance.

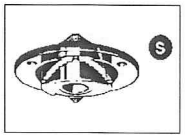
Ama®-Porter SB 545 SE/NE

2900 1/min



Förderhöhe
Head
Hauteur
Prevalenza
Altura manométrica

Laufradform
Impeller type
Forme de roue
Tipo girante
Tipo de rodete



7 mm

freier Durchgang
free passage section de passage
passaggio libero
paso libre

Kennlinien nach DIN 1944/III. Sie entsprechen der effektiven Motordrehzahl.

Curves as per DIN 1944/III. They correspond to the effective motor speed.

Courbes selon DIN 1944/III. Elles correspondent à la vitesse de moteur effective.

Curve secondo DIN 1944/III. Corrispondenti agli effettivi giri del motore.

Curvas según DIN 1944/III. Se refieren a la velocidad efectiva del motor.

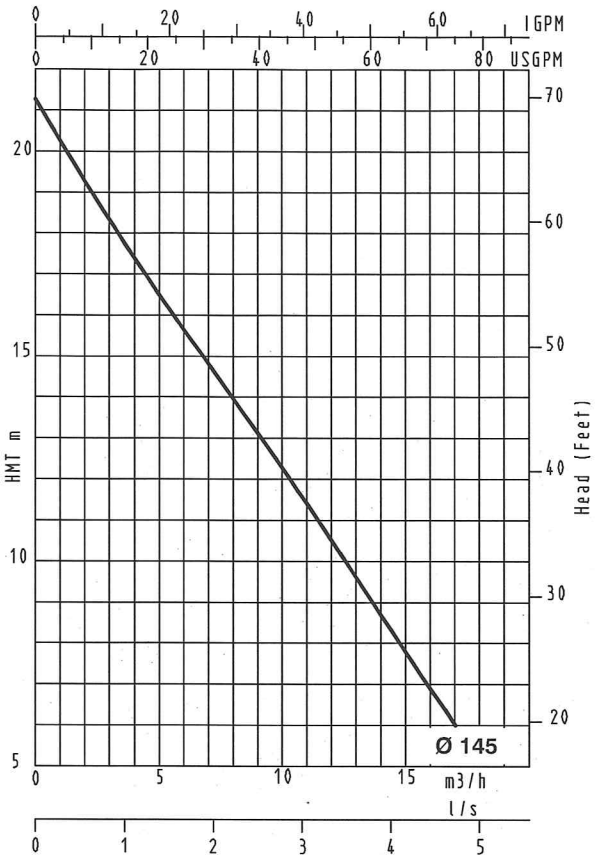
50 Hz - 1~ 230 V

Type	Impeller diameter mm	P_1 kW	P_2 kW	I_N (A)	I_D (A)	Temp. t°C	Electric cable	Outer diameter mm	Weight kg	Ident. Nr
SB 545 SE	145	1,8	1,1	8,2	18,2	40	4 x 1 mm²	10,0	26	39 018 468
SB 545 NE	145	1,8	1,1	8,2	18,2	40	4 x 1 mm²	10,0	26	39 018 469

The diagrams refer to the effective speed of the motor.
Density=1, viscosity=1 cSt.

Ama®-Porter S 545 ND

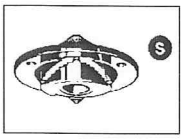
2900 1/min



Förderhöhe
Head
Hauteur
Prevalenza
Altura manométrica

Förderstrom/Capacity/Débit/Portate/Caudal

Laufradform
Impeller type
Forme de roue
Tipo girante
Tipo de rodete



7 mm
freier Durchgang
free passage section de passage
passaggio libero
paso libre

Kennlinien nach DIN 1944/III. Sie entsprechen der effektiven Motordrehzahl.

Curves as per DIN 1944/III. They correspond to the effective motor speed.

Courbes selon DIN 1944/III. Elles correspondent à la vitesse de moteur effective.

Curve secondo DIN 1944/III. Correspondenti agli effettivi giri del motore.

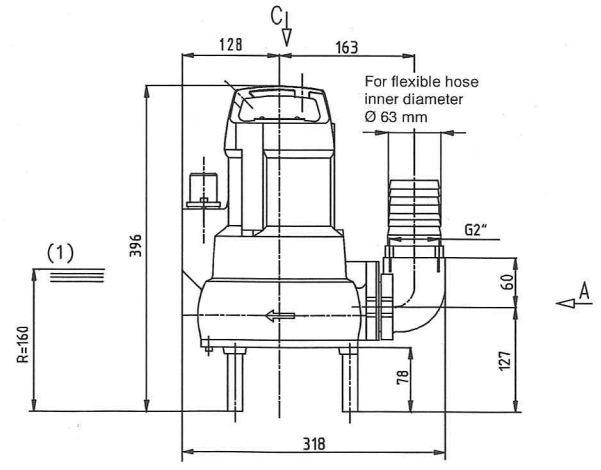
Curvas según DIN 1944/III. Se refieren a la velocidad efectiva del motor.

50 Hz - 3~ 400 V

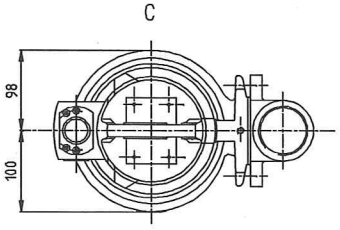
Type	Impeller diameter mm	P_1 kW	P_2 kW	I_N (A)	I_D (A)	Temp. t°C	Electric cable	Outer diameter mm	Weight kg	Ident. Nr
S 545 ND	145	2,05	1,5	3,5	18,3	40	4 x 1 mm²	10	24	39 017 859

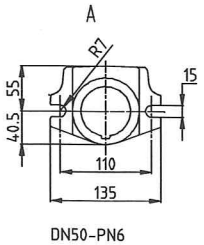
The diagrams refer to the effective speed of the motor.
Density=1, viscosity=1 cSt.

Dimensions



Ama®-Porter SB 545 SE/NE - S 545 ND
Transportable version





(1) Lowest switch off level