

BRINKMANN-Horizontal End Suction Pumps SBC820...1120



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Brinkmann–Horizontal End Suction Pumps Series SBC820...1120

Contents

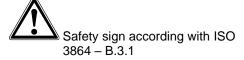
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1 Indication to the manual

This operating manual gives basic instructions which are to be observed during installation, operation and maintenance of the pump. It is therefore imperative that this manual be read by the responsible personnel and operator prior to assembly and commissioning. It is always to be kept available at the installation site.

1.1 Identification of safety instructions in the operating manual

Safety instructions given in this manual non-compliance with which would affect **safety** are identified by the following symbol:



or where electrical safety is involved, with:

Safety sign according with ISO 3864 – B.3.6

The signal word **WARNING** indicates a hazardous situation which, if not avoided, could result in death or serious personal injury.

The signal word **CAUTION** indicates a hazardous situation which, if not avoided, could result in minor or moderate personal injury.

The signal word **ATTENTION** indicates a hazardous situation which, if not avoided, may cause a risk to the machine and it's function.

2 Description of product

2.1 General description of the pump

Pumps of the series SBC are one-stage rotary pumps. The impellers are fixed on the driving shaft extension. The pump shaft and motor shaft are interconnected by means of a shaft clamp.

The cutting unit is cutting the chips and the semiopen impeller with its large clearances allows to pump the particles along with the coolant fluid from the machine back to the filter. The SBC pumps are capable of handling chip to coolant ratios of up to 1.5% by weight.

Pump and motor form a compact and space-saving unit.

All pumps are equipped with double mechanical seal.

These pumps are for horizontal installations next to or underneath a tank. The pumps are foot mounted and must be screwed down in order to ensure a secure stance.

2.2 Intended use

These pumps are not self-priming and must be gravity fed.

The pumps of the series SBC are suited for cutting aluminum chips or similar materials and for pumping these materials along with the coolant fluid.

An agitator located at the pump suction helps to break up and separate any large bundles of chips or birds' nests which reach the pump suction.

Pay attention of the limit of application in table 1!

The cutter pumps are intended for installation in machines and cannot be operated alone.

Limit of Application (Table 1)

Туре	SBC
Mediums	Coolants, cooling- and cutting-oils on request.
Flashing point of the medium to be pumped	≥ 150 °C
Chip material	Aluminium max. chip to coolant ratio by weight: 1.5%
Chip geometry	Chip bundles to max. Ø 100 mm
Kinetic viscosity of the medium	45 mm²/s
Temperature of me- dium	0 80 °C
Dry running	Dry running causes in- creased wear and should be avoided. During the test of the direc- tion of rotation (< 30 s) per- missible.
min. delivery vol- ume	1.5 % of Q max.
Switching-on fre- quency per hour	The pump SBC should be operated in continual opera- tion mode, not pulsed mode .
Ambient tempera- ture	40 °C
Set-up altitude	1000 m



Risk of fire and explosion! Pump may not be used in potentially explosive environments.

ATTENTION

The pumps are to be operated within their design limits.

Applications outside of these limits are not approved. The manufacturer is not responsible for any damages resulting from use of the pumps in such applications.

2.3 Technical data

	Max. del. pressure bar / spec.	Max. del. volume	Dimensions		Length	Weight	Power 50 / 60 Hz
Туре	weight 1	l/min	H mm	h mm	l mm	kg	kW
SBC820	1.6	1000	780	518	328	85	4.0 / 4.55
SBC1120	2.0	1100	810	518	358	89	5.5 / 6.3

Pipe connection: Suction side DN125/PN16, Pressure side G 2. The motor is surface-cooled and compliant with DIN IEC 34 and EN 60034 (protection degree IP 55).

3 Safety instructions

When operating the pump, the safety instructions contained in this manual, the relevant national accident prevention regulations and any other service and safety instructions issued by the plant operator are to be observed.

3.1 Hazards in the event of non-compliance with the safety instructions

Non-compliance with the safety instructions may produce a risk to the personnel as well as to the environment and the machine and results in a loss of any right to claim damages.

For example, non-compliance may involve the following hazards:

- Exposure of people to electrical, mechanical and chemical hazards
- Endangering the environment due to hazardous substances being released
- Failure of important functions of the machines/plant
- Failure of specified procedures of maintenance and repair

3.2 Unauthorized modes of operation

- Pump may not be used in potentially explosive environments. Risk of explosion!
- Pump and discharge piping are not designed to hold any weight and may not be used as a step ladder.

3.3 Remaining Risk

Risk of Injury!

Risk of squeezing or crushing body parts when installing or removing the pump exists.

- Proper and secured lifting tools must be used.

Risk of burns!

 The pump must have cooled down sufficiently prior to commencing any repair, maintenance or installation.

3.4 Qualification and training of operating personnel

- The personnel responsible for operation, maintenance, inspection and assembly must be adequately qualified.
- Scope of responsibility and supervision of the personnel must be exactly defined by the plant operator.
- If the staff does not have the necessary knowledge, they must be trained and instructed, which may be performed by the machine manufacturer or supplier on behalf of the plant operator. Moreover, the plant operator is to make sure that the contents of the operating manual are fully understood by the personnel.

3.5 Safety instructions relevant for operation

- If hot or cold machine components involve hazards, they must be guarded against accidental contact.
- Guards for moving parts (e.g. coupling) must not be removed from the machine while in operation.
- Any leakage of hazardous (e.g. explosive, toxic, hot) fluids (e.g. from the shaft seal) must be drained away so as to prevent any risk to persons or the environment. Statutory regulations are to be complied with.
- All service work must be carried out by qualified service personnel.
- The pumps are only secured safely if properly attached to the floor or underneath a tank.
- The female threads on the motor MUST NOT be used to lift the entire pump and motor assembly.
- Sharp-edged components (e.g. Impellers) must only be touched with suitable work protection, e.g. with protective gloves.
- Reassure that pump is disconnected from power source and cannot be switched on.

The by the machine generated noise level depends on the type of chip material pumped.

- It is the responsibility of the machine owner to ensure that no harm from noise is caused to the machine operating personnel. i.e. PPE such as ear protection should be supplied and worn by the operator.
- Local regulations with respect to maximum allowed noise levels must be complied with at all times.

3.6 Safety instructions relevant for maintenance, inspection and assembly work

- Any work on the machine shall only be performed when it is at a standstill, it being imperative that the procedure for shutting down the machine described in this manual be followed.
- Pumps and pump units which convey hazardous media must be decontaminated.
- On completion of work all safety and protective facilities must be re-installed and made operative again.
- Prior to restarting the machine, the instructions listed under "Start up" (see point 6.1) are to be observed.

3.7 Signs on the pump

- It is imperative that signs affixed to the machine, e.g:
 - arrow indicating the direction of rotation
 - symbols indicating fluid connections

be observed and kept legible.

3.8 Unauthorized alterations and production of spare parts

Any modification may be made to the machine only after consultation with the manufacturer.

Using spare parts, standard parts, and accessories authorized by the manufacturer is in the interest of safety. Use of other parts may exempt the manufacturer from any liability.

4 Transport and storage

Danger of clamping, crushing and cutting when transporting the pump!

- Protective packaging should remain on the pump end until its installation.
- The pumps may only be transported in a horizontal position and hooks or straps must be attached on the motor and pump end.

ATTENTION

- Protect the pump against damage when transporting.
- Pump may not be placed on its pump end!
- Do not use the pump shaft for connecting any transportation aids such as hooks or straps.

Risk of injury by discharging fluid!

Pumping fluid that remains inside the pump after shut down can freeze during low temperature conditions and cause damage and cracks to pump components, such as the pump body. As a result, after restart of the pump the pumping fluid can then discharge through such cracks under high pressure and cause severe injury.

- Pumps must be drained prior to their storage.
- Store pump in dry and protected areas and protect it against penetration of foreign bodies.
- Always store pump above the freezing point!

5 Installation and Connection

5.1 Mechanical installation

Risk of clamping or crushing body parts when installing or removing the pump exists!

 Pump must be secured with appropriate hoist.

- During any assembly or disassembly process the pumps must be secured against tipping trough ropes for example at all times.
- The pumps must be securely mounted to the tank.

Risk of cutting and crushing!

If the pipe work is installed under tension and with stress on the pump, the discharge port can break off and the pipe work can collapse.

- Discharge piping must be installed without tension or stress with proper support.
- Discharge piping must never be used as a step ladder.
- Do not prop up the pressure line via the joining socket.
- The pump must never under any circumstances be used as a point for securing the piping.
- No forces or torques from the piping may be allowed to affect the pump.
- Pipes must be intercepted directly before the pump and connected with no tension.
- Piping, tank and pumps must be mounted without any tension.

ATTENTION

 Maximum tightening torque for piping connections is 170 Nm!

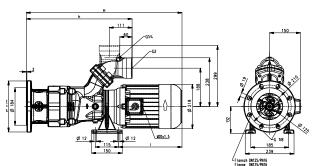
ATTENTION

 When installed the space around the pump must be large enough to provide sufficient cooling of the motor.

The fluid inlet is on the face side of the flangeconnected pump mechanism.

The clearance between the suction opening and the tank floor should be large enough to prevent the suction opening from becoming blocked even if the coolant is heavily polluted and the pump has not been operated for long periods.

- To obtain the full flow rate it is recommended to choose for the pipework the nominal bore diameter of the pumps cross section for connection.
- Pipe bends should be used, not pipe angles.
- The pipework must be qualified for occuring hydraulic pressure.
- The positions of the foot and pressure connection can be moved around the circumference to 3 different positions. On the S-type, the pipe connection can also be set to normal or parallel alignment to the pump axis.



Drawing 1



Risk of injury by ejected parts!

The pump may only be operated if installed within a suitable tank with proper enclosures!

As particles and/or chips can be redirected from the pump suction at a high velocity, the tank design must incorporate appropriate protection, i.e. a tank cover, that prevents such objects from being ejected out off the tank.

Risk of crushing and cutting by moving parts!

- The pump must be mounted in that way that rotating parts under the cover of the coolant tank can not be touched!

WARNING

Risk of fire and explosion!

The creation of an ignition spark with the presence of an ignitable aerosol can lead to risk of fire and explosion!

When pumping cooling- and cutting oils the following is to be adhered to:

- The geometry of the tank must be designed and executed in such a way that no flammable aerosol can develop (i.e. through velocity) during operation of the pump.
- The necessity of mist collection / exhaustion must be investigated and determined.
- In order to avoid the formation of an ignition spark, no foreign particles may enter the tank.

5.2 Electric wiring

WARNING

Electric shock!

All service work must be carried out by qualified service personnel. Pump must be disconnected from the power source and all rotating parts must stand still. Reassure that pump is disconnected from power source and cannot be switched on.

- Verify that there is no voltage at the terminal board!
- According to the European Standard EN809 a motor overload must be installed and properly set to the full load amps stated on the pump name plate.



Risk of injury by uncontrolled start-up of the pump or by missing emergency shut off switch!

Unwanted pump start-up or missing shut off switches can cause severe injury through ejected parts from the pump discharge or from cutting or pulling body parts into the pump suction.

- Reassure that pump is disconnected from power source and cannot be switched on.
- It is the responsibility of the machine operator to decide whether or not an additional emergency switch must be installed.



Risk of electric shock

Our asynchronous motors can optionally be fitted with temperature sensors in the form of triplet PTC thermistors, which are used for thermal monitoring of the motor windings. Please note that the temperature sensors meet the insulation requirements of basic insulation. The improper connection of the triplet PTC thermistors to evaluation units that do not have a protective function against overvoltage in the event of a fault can lead to voltages dangerous to the touch and electric shock.

Please check whether the evaluation units you intend to use are permissible for the electrical connection of the temperature sensors.

5.2.1 Circuit

WARNING

Electric shock!

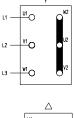
Tension voltage and frequency must correspond with the shown specification on the nameplate.

- The pump must be wired so that a solid longterm electrical connection is ensured.
- Establish a solid ground connection.

The electrical wiring must be performed according to the wiring diagram shown inside the terminal box cover.

(Please see above sample wiring diagrams):

Wiring diagram e.g.



Star connection 3 x 400 V, 50 Hz resp. 380-415 V, 50 Hz



Delta connection 3 x 230 V, 50 Hz resp. 220-240 V, 50 Hz

Drawing 2

LZ

L3

There may be no foreign objects such as dirt, particles or humidity inside the terminal board.

 Mount terminal board cover to motor tight against dust and humidity and close up all unused wiring ports.

ATTENTION

When Variable Frequency Drives are used interfering signals might occur. Non-sinus shaped supply voltage from a variable frequency drive might result in elevated motor temperatures.

6 Start up / Shut down

6.1 Start up

ATTENTION

- After connection the electrical wires, close the terminal box. Briefly start the motor (max. 30 sec.).
- Check the rotation according to the arrow on the top of the motor.

If the direction is incorrect change over two of the power leads.

6.2 Shut down

WARNING

Electric shock!

All service work must be carried out by qualified service personnel. Pump must be disconnected from the power source and all rotating parts must stand still. Reassure that pump is disconnected from power source and cannot be switched on.

- Verify that there is no voltage at the terminal board!
- Open terminal box and disconnect the power leads.
- Empty out the pump.

7 Operation

Risk of injury by uncontrolled start-up of the pump or absence of emergency shutt of switch!

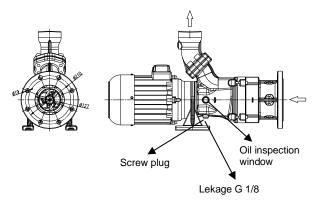
Unwanted pump start-up or missing shut off switches can cause severe injury through ejected parts from the pump discharge or from cutting or pulling body parts into the pump suction.

- Reassure that pump is disconnected from power source and cannot be switched on.
- It is the responsibility of the machine operator to decide whether or not an additional emergency switch must be installed.

Liquid level

These pumps are not self-priming and must be gravity fed.

Possible leakage must be drained away so as to prevent any risk to persons or the environment.







Risk of fire and explosion!

The creation of an ignition spark with the presence of an ignitable Aerosol can lead to risk of fire and explosion.

The fluid level must be above the suction mouth of the pump during pumping of coolingand cutting oils in order to avoid the possibility of the creation of an ignition spark.

- Unwanted objects, such as broken tools or indexing plates which still lie under the pump after stopping the working process must be taken out in regular intervals!
- Any repair or maintenance work must be performed after the pump has been turned off and the shaft has come to a complete stop. Risk of injury!

See provided warning label!

 If the pump should lock up and cease, shut pump down (see point 6.2) and disconnect from power supply. Pump must be uninstalled and removed from the system prior to its repair.

ATTENTION

Pulsed mode causes increased wear due to the return flow of chips and additional load on the bearings.

- The SBC pump should be operated in continual operation mode, not pulsed mode!
- The pump should transport medium without chips for 1-2 minutes before being switched off!

8 Servicing and Maintenance



Risk of burns!

 The pump must have cooled down sufficiently prior to commencing any repair, maintenance or installation.



Risk of injury through contaminated parts!

 Pumps and pump units which convey hazardous media must be decontaminated.

ATTENTION

- The surface of the motor must be kept free of dirt.

The motor shaft is spinning in permanently greased ball bearings and does not require any special maintenance.

- On completion of work all safety and protective facilities must be re-installed and made operative again.
- Prior to restarting the machine, the instructions listed under "Start up" (point 6.1) are to be observed

8.1 Pumps with double mechanical seal (-GD)

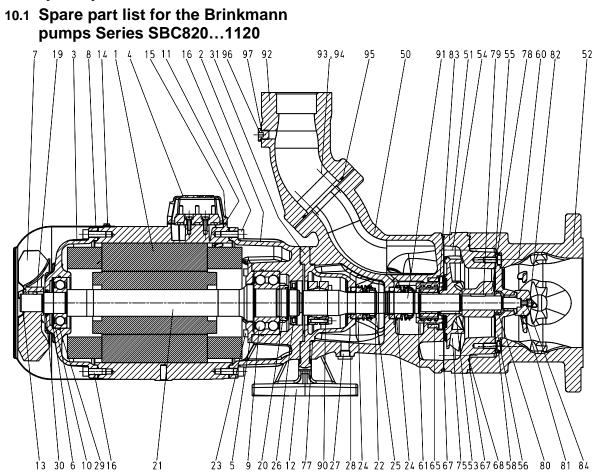
ATTENTION

Pumps with double mechanical seal (-GD) are identified by the letters GLRD stamped in on the motor side of the pump foot and must include an oil receiver with a capacity of 0.45 litres. Check this through the inspection window. Oil receiver Castrol WHITEMOR WOM14 or equivalent oil.

9 Trouble shooter's guide

Fault	Cause	Remedy
Motor does not start, no motor noise	At least two of the power supply leads have failed	Check fuses, terminals and supply leads.
	Overload has tripped	Inspect overload
Motor does not start, humming noise	One of the supply leads has failed	See above
	Impeller faulty Motor bearing faulty	Replace impeller Replace bearing
Overload trips	Pump locked up mechanically High on/of cycling frequency	Inspect pump hydraulics Check application
Power consumption is too high	Wrong direction of rotation of im- peller	See above
	Lime or other deposits mechanical friction	Clean pump mechanism repair pump
Motor overheats	High on/off cycling frequency	See above
	Wrong power supply (voltage or cycles)	Power supply must correspond with name plate rating
	Insufficient cooling	Check air flow at motor fan
Pump does not pump	liquid level too low Pump mechanism faulty Pipe blocked	Fill up liquid replace pump mechanism Clean pipe
The pump pumps no chips	Chip breaker worn or damage	Replace the chip breaker
Insufficient flow and pressure	Wrong direction of rotation of im- peller	Change over two power supply leads
	Pump mechanism silted up Worn pump mechanism	Clean pump mechanism Replace pump mechanism
Incorrect flow or pressure	Wrong power supply (voltage or cycles)	Power supply must correspond with name plate rating
Running noise/Vibration	Foreign objects in pump end Impeller damaged	Remove foreign objects Replace impeller
	Bearing/Bushing broken	Replace bearing/bushing

10 Spare part



Drawing 4

Item Description ~ . .

em	Description		Item L
1	Stator with terminal board		50 F
2	Motor flange		51 I
3	End shield		52 (
4	Terminal box		53 V
5	Bearing cover		54 5
6	Compensation disk		55 5
7	Fan		56 C
8	Fan cover		58 5
9	Ball bearing	DIN 628	60 8
10	Ball bearing	DIN 625	61 E
11	Gasket		65 8
12	Pump foot		67 (
13	Retaining ring		68 C
14	Spiral-shaped screw	DIN 750	-
15	Socket head cap screw	DIN 84	77 (
16	Socket head cap screw with lock	DIN 912	78 5
19	Parallel pin	DIN 7	79 V
20	Shaft nut		80 8
21	Motor shaft with rotor		81 A
22	Shim ring		82 8
23	Socket head cap screw	DIN 912	83 8
24	Mechanical seal		84 8
25	Circlip		90 S
26	Shaft seal		91 I
27	Oil inspection window		92 .
27	Screw plug	DIN 908	93 5
28	Sealing ring	DIN 760	
29	O-ring		95 (
30	Shaft seal		96 5
31	Socket head cap screw with lock	DIN 912	97 S

Item Description

50	Pump body		
51	Intake cover		
52	Connection cover		
53	Woodruff key	DIN	6888
54	Socket head cap screw with lock	DIN	912
55	Shim ring		
56	Chip breaker with bearing bush		
58	Socket head cap screw with lock	DIN	912
60	Socket head cap screw with lock	DIN	912
61	Bushing cartridge assembly		
65	Socket head cap screw	DIN	912
67	O-ring		
68	- 3		
75	Impeller		
77	O-ring		
78	Suction screw		
79	Woodruff key	DIN	6888
80	Shaft nut		
81	Agitator		
82	Socket head cap screw with lock	DIN	912
83	Shim ring		
84	Serrated lock washer		
90	Shaft clamp		
91	Insert shaft		
92	Joining socket		
93	Socket head cap screw	DIN	912
94	Spring washer	DIN	7980
95	O-ring		
96	Screw plug	DIN	908
97	Sealing ring	DIN	7603

10.2 Indications to the spare part order

Spare parts are available from the supplier. Standard commercially available parts are to be purchased in accordance with the model type. The ordering of spare parts should contain the following details:

1. Pumptype

e.g. SBC1120

- 2. Pump No.
 - e.g. 06248082

The date of the construction year is a component of the pumps type number.

- **3. Voltage, Frequency and Power** Take item 1, 2 and 3 from the nameplate
- 4. Spare part with item No. e.g. connection cover item No. 52

11 Repair Instructions / Replacing the rotary mechanical seal / the shaft clamp

11.1 Replacing the rotary mechanical seal



Risk of injury due to sharp edges on pump components, i.e. impeller blades!

- Wear safety gloves!
- Disconnect the pump electrically and mechanically.
 - Note the markings on the pump components prior to dismantling.
 - When completely dismantling a unit with dual axial face seals, drain the medium in the blocking chamber through the screw plug (27).
- Loosen the socket head cap screws (60) and remove the connection cover (52).
- Loosen the Socket head cap screws (82) and remove the agitator (81) with serrated lock washer (84).
- Loosen the socket head cap screws (58) and remove the shim ring (55) and the chip breaker (56).
- Loosen the shaft nut (80) and remove the suction screw (78).
- Loosen the socket head cap screws (54) and remove the intake cover with o-ring (67).
- Use two screwdrivers to push the impeller (75) from the insert shaft (91). Insert the screwdrivers between the impeller (75) and the pump body (50).
- Remove the woodruff key (53) from the insert shaft (91). Loosen the socket head cap

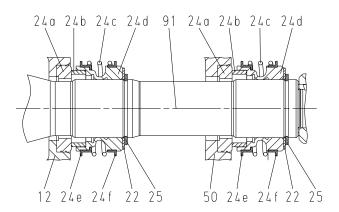
screws (65) and remove the bushing cartridge assembly (61) with the shim ring (83).

- Remove the circlip (25) and the shim ring (22).
- Remove the rotating axial face seal unit (24b-24e).
- Loosen the Socket head cap screws (31) and remove the pump body (50).
- Remove circlip (25) and shim ring (22) and remove the rotating axial face seal unit (24b-24e).
 - To replace the insert shaft, see position 11.2).
 - When changing an axial face seal, remove the stationary axial face seal unit (24a) from the pump body (50) and pump foot (12). Clean the seat of the seal and the pump parts!
- The mechanical seal (24) should now be completely replaced. If necessary replace the o-rings (67), (77) and impeller (75).
- Fit a new mechanical seal.
- The sliding surfaces of the axial face seal must be free of dirt and grease. Lightly moisten the collar (24a) with prill water and press the stationary axial face seal unit (24a) into the pump body (50) and pump foot (12).
 - Slide the rotating axial face seal unit (24b-24e) onto insert shaft (91) and fix in position using shim ring (22) and circlip (25).
- The remainder of the reassembly process is to be completed in the opposite order of the prior described dismantling process.

ATTENTION

Assembly help and detailed instruction is demanded for the assembly of the pump and adjusting of the cutting unit!

 Request the required documents from the manufacturer.



Drawing 5

11.2 Dismantling the insert shaft



Drawing 6

 Disconnect the inline pump from the mains both electrically and mechanically.



Risk of burns!

The pump must have cooled down sufficiently prior to commencing any repair or maintenance.



Risk of squeezing or crushing body parts when installing or removing the pump exists!

- Secure pump with appropriate hoist.
- Remove pump from system. Secure pump against tipping over, i.e. use ropes to secure pump.
- Empty out the Pump and dismantle the pump unit.

Risk of injury due to sharp edges on pump components, i.e. impeller blades!

- Wear safety gloves!
- Dismantle the pump body and the pump foot.

Risk of injury by discharging parts!

- Do not, under any circumstances, remove the screws on the shaft clamp (1) completely.
- Loosen the screws on the shaft clamp (1).
- Remove the insert shaft (2) and shaft clamp (1) off the motor shaft (3).

11.3 Assembling the insert shaft and motor shaft



Risk of jamming or crushing during pump installation or removal!

- Secure pump with appropriate hoist.

ATTENTION

- Clean the contact surfaces of the insert shaft (2) (inside) and the motor shaft (3). They must not be lubricated or oiled.
- Disassemble the fan cover and the fan from the motor. Set the pump down on the end of the shaft (a fixture must be used).
- Position the shaft clamp (1) (use a new shaft clamp) in the centre of the cranked clamping diameter (2) of the insert shaft.
- Insert the motor shaft (3) into the insert shaft (2).
- Tighten:
- Mark the first screw and tighten all the screws evenly by hand, one after the other in a clockwise direction (not cross-ways).
- Use a torque screwdriver to tighten each screw first with 2 Nm then with 3.5 Nm and finally with 5 Nm (in a clockwise direction again).
- Repeat the last turn (with 5 Nm) 3 times.



Risk of injury due to sharp edges on pump components, i.e. impeller blades! - Wear safety gloves!

- Mount the pump foot and the pump body.
- The remainder of the reassembly process is to be completed in the opposite order of the prior described dismantling process.

ATTENTION

Assembly help and detailed instruction is demanded for the assembly of the pump and adjusting of the cutting unit!

- Request the required documents from the manufacturer.
- Note torques for the screw connections!

Tightening torques for screwed connections

Thread - \emptyset	M5	Μ	16	M8	M16
Strength classes	8.8	8.8	12.9	8.8	8.8
Tightening torque (Nm)	3 Nm	4.5 Nm	16 Nm Item 82	20 Nm	60 Nm

- Position the pump laterally and fill the pump blocking chamber (-GD) with oil until it reaches the oil inspection window (27) (0.45 litres).
- Fit the sealing ring (28) and screw on the screw plug (27).
- Pump Installation. Secure pump against falling over. i.e. with use of safety straps.
- Reconnect immersion pump as described in point 5.

ATTENTION

 When putting the pump back into use, make sure the direction of rotation is correct (see point 6.1)!

12 Disposal

When disposing of the pump or the packaging materials the local and national regulation for proper disposal must be complied with.

 Prior to its disposal, the pump must be completely drained and decontaminated if necessary.

13 Declarations of conformity

13.1 UK declaration of conformity

		UK declaration of	f conformity			
Manufacturer Brinkmann Pumpen, K. H. I Friedrichstraße 2 D-58791 Werdohl Germany	Brinkmar	nn GmbH & Co. KG				
This declaration of conform the following product.	nity is iss	sued under the sole responsibility o	of Brinkmann Pumps and belongs to			
Product name						
Horizontal End-Suction Pu	mps					
Type SBC82	01120					
The named product describe	d above o	complies with the following statutory re	equirements of United Kingdom:			
UK SI 2008 No. 1597		pply of Machinery (Safety) Regulati				
UK SI 2016 No. 1091		ctromagnetic Compatibility Regula				
UK SI 2020 No. 1647	The Re	• • • •	rdous Substances in Electrical and			
The following exception claimed: No.12 (6a), No.7		ordance with table 1, "Table of o	exempted applications" are			
The following designated sta	ndards ar	nd technical specification have been a	applied:			
EN 809:1998+A1:2009+AC: EN IEC 61000-3-2 :2019 +A EN IEC 61000-6-2 :2019		EN ISO 12100:2010 EN 61000-3-3 :2013+A1 :2019 +A2 EN IEC 61000-6-3 :2021	EN 60204-1:2018 :2021 +A2 :2021/AC :2022 EN IEC 63000 :2018			
Additionally the following standard has been applied: EN 60034-1 :2010/AC :2010						
The instructions contained in the operating manual for installation and start up the pump have to be fol- lowed.						
Brinkmann Pumpen, K. H.	Brinkmar	nn GmbH & Co. KG				
Werdohl, 06.06.2024						
Dik Wantt	Dih Whith Dr. H. Abou Dayé K. H. Brinkmann GmbH & Co. KG					
DrIng. Dirk Wenderott			Friedrichstraße 2, D-58791 Werdohl			
Chief Product Officer (CPO) Head of Engineering			Representative of documentation			

13.2 EC declaration of conformity

EG-Konformitätserklärung

EC declaration of conformity / Déclaration de conformité CE / Declaración de conformidad CE

Hersteller / Manufacturer / Constructeur / Fabricante

Brinkmann Pumpen, K. H. Brinkmann GmbH & Co. KG

Friedrichstraße 2, D-58791 Werdohl

Produktbezeichnung / Product name / Désignation du produit / Designación del producto

Cutterpumpen / Horizontal End-Suction Pumps / Pompes Broyeuses / Bombas Trituradoras

Typ / Type / Tipo SBC820...1120

Das bezeichnete Produkt stimmt mit den folgenden Richtlinien des Rates zur Angleichung der Rechtsvorschriften der EG-Mitgliedsstaaten überein:

The named product conforms to the following Council Directives on approximation of laws of the EEC Member States: Le produit sus-mentionné est conforme aux Directives du Conseil concernant le rapprochement des législations des Etats membres CEE:

El producto designado cumple con las Directivas del Consejo relativas a la aproximación de las legislaciones de los Estados Miembros de la CEE:

2006/42/EG	Richtlinie für Maschinen
2006/42/EC	Council Directive for machinery
2006/42/CE	Directive du Conseil pour les machines
2006/42/CE	Directivas del Consejo para máquinas
2014/30/EU	Richtlinie für elektromagnetische Verträglichkeit

2014/30/EUCouncil Directive for Electromagnetic compatibility2014/30/UEDirective du Conseil pour Compatibilité électromagnétique2014/30/UEDirectivas del Consejo para Compatibilidad electromagnética

2011/65/EU und 2015/863/EU	RoHS Richtlinien
2011/65/EU and 2015/863/EU	RoHS Directives
2011/65/UE et 2015/863/UE	Directives RoHS
2011/65/UE y 2015/863/UE	RoHS Directivas

Folgende Ausnahmen gem. Anhang III RoHS (2011/65/EU) werden in Anspruch genommen: 6a, 6b. The following exceptions in accordance with appendix III RoHS (2011/65/EU) are claimed: 6a, 6b. Les exceptions suivantes selon l'annexe III RoHS (2011 / 65 / UE) sont revendiquées : 6a, 6b. Las siguientes excepciones conforme al apéndice III RoHS (2011/65 / UE) son requeridas: 6a, 6b.

Hinsichtlich der elektrischen Gefahren wurden gemäß Anhang I Nr. 1.5.1 der Maschinenrichtlinie 2006/42/EG die Schutzziele der Niederspannungsrichtlinie 2014/35/EU eingehalten.

With respect to potential electrical hazards as stated in appendix I No. 1.5.1 of the machine guide lines 2006/42/EC all safety protection goals are met according to the low voltage guide lines 2014/35/EU.

Conformément à l'annexe I N° 1.5.1 de la Directive "Machines" (2006/42/CE) les objectifs de sécurité relatifs au matériel électrique de la Directive "Basse Tension" 2014/35/UE ont été respectés.

Con respecto al potencial peligro eléctrico como se indica en el apéndice I No. 1.5.1 del manual de la máquina 2006/42/CE, todos los medios de protección de seguridad se encuentran según la guía de bajo voltaje 2014/35/UE.

Die Übereinstimmung mit den Vorschriften dieser Richtlinien wird nachgewiesen durch die vollständige Einhaltung folgender Normen:

Conformity with the requirements of this Directives is testified by complete adherence to the following standards:

La conformité aux prescriptions de ces Directives est démontrée par la conformité intégrale avec les normes suivantes:

La conformidad con las prescripciones de estas directivas queda justificada por haber cumplido totalmente las siguientes normas:

Harmonisierte Europ. Normen / Harmonised Europ. Standards / Normes europ. harmonisées / Normas europ. Armonizadas

EN 809 :1998+A1 :2009+AC :2010	EN ISO 12100 :2010	EN 60204-1 :2018	EN IEC 61000-3-2 :2019 +A1 :2021
EN 61000-3-3 :2013+A1 :2019 +A2	:2021 +A2 :2021/ZAC :2022	EN IEC 61000-6-2 :2019	EN IEC 61000-6-3 :2021
EN IEC 63000 :2018			

Nationale Normen / National Standards / Normes nationales / Normas nacionales : EN 60034-1 :2010/AC :2010

Die Hinweise in der Betriebsanleitung für den Einbau und die Inbetriebnahme der Pumpe sind zu beachten. The instructions contained in the operating manual for installation and start up the pump have to be followed. Les indications d'installation / montage et de mise en service de la pompe prévues dans l'instruction d'emploi doivent être suivies.

Tenga en cuenta las instrucciones en el manual para la instalación y puesta en marcha de la bomba.

Brinkmann Pumpen, K. H. Brinkmann GmbH & Co. KG

Werdohl, 06.06.2024

Dr.-Ing. Dirk Wenderott Chief Product Officer (CPO) Head of Engineering Dr. H. Abou Dayé K. H. Brinkmann GmbH & Co. KG Friedrichstraße 2, D-58791 Werdohl Dokumentationsbevollmächtigter / Representative of documentation/ Mandataire de documentation / Mandatario de documentación