

General

Centrifugal chemical pumps are used for pumping acid and alkalis and other low-viscosity, aggressive liquids and neutral media.

The MB motor pump is a single-stage, normal-priming centrifugal pump in block design with horizontal axis. The MB pump has an open impeller for low-viscosity, acid and alkaline solutions with low solid matter content. The pump head assembly consists of high-quality plastic materials with hydraulically efficient spiral casing.

Description of mechanical seal

Mechanical seals basically consist of two perfectly plane surfaces. One surface rotates with the shaft, while the other is stationary. The sealing effect is achieved by the direct contact between the two plane surfaces. The stationary counter-ring is normally fixed in position. The sliding ring is able to move axially and radially in order to compensate the shaft deflections during operation. This axial mobility enables mechanical seals to be fitted within practicable manufacturing tolerances, the accuracy required being dependent on the design of the seal.



Drive

There is a choice of:

- three-phase motors with extended rotor shaft, 2900 min⁻¹, 230/400 V, 50 Hz, IP 55, insulation class F.
- a.c. motors with extended rotor shaft, 2900 min⁻¹, 230 V, 50 Hz, IP 55, insulation class F.

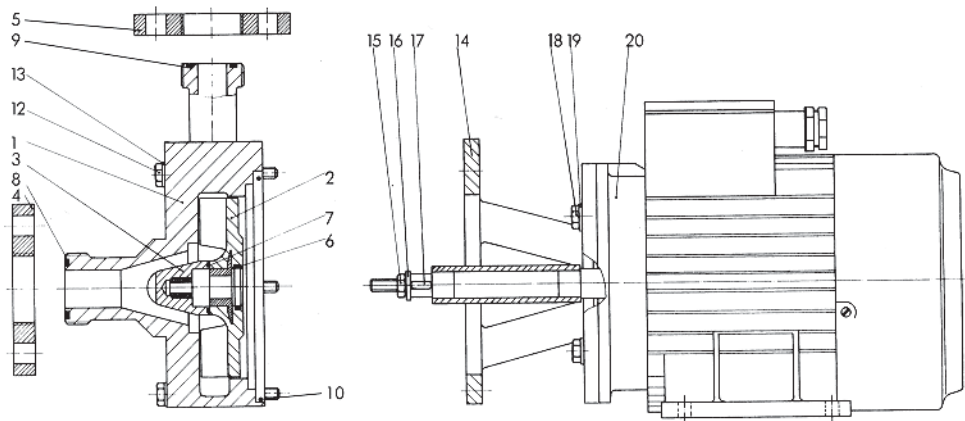
Connections

Standard version with male thread fitted on suction and pressure side for connection of standard unions.

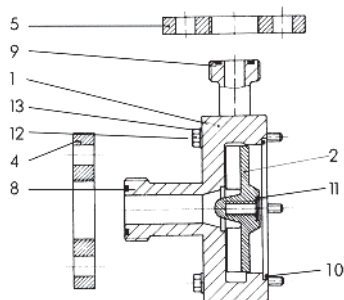
Materials	PP max. 80° C	PE max. 60° C	PVC max. 60° C	PVDF max. 120° C
Housing	PP	PE	PVC	PVDF
Impeller	PP	PVDF	PVDF	PVDF
O-rings	EPDM, FPM			
Mechanical seal	C2/Sic - EPDM, FPM - 1.4571, Hastelloy C4			
Shaft sleeve	Synthetic resin impregnated carbon			
Intermediate piece	Cast iron with chemically resistant coating			
Screws	A4			

Technical Features

Pump head MB 20-100/20-120/25-140 Drive



Pump head MB 15-85



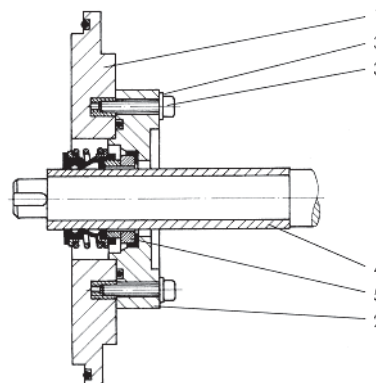
Pump head

- 1 Spiral casing with connection
- 2 Impeller
- 3 Impeller cap
- 4 Flange suction side
- 5 Flange pressure side
- 6 O-ring (impeller)
- 7 O-ring (impeller cap)
- 8 O-ring (suction connection)
- 9 O-ring (pressure connection)
- 10 O-ring (spiral casing)
- 11 Gasket
- 12 Hex. screw
- 13 Washer

Drive

- 14 Intermediate piece
- 15 Hex. nut
- 16 Washer
- 17 Adjusting spring
- 18 Hex. screw
- 19 Washer
- 20 Electric motor

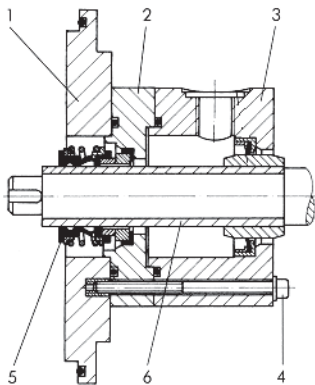
Shaft seal



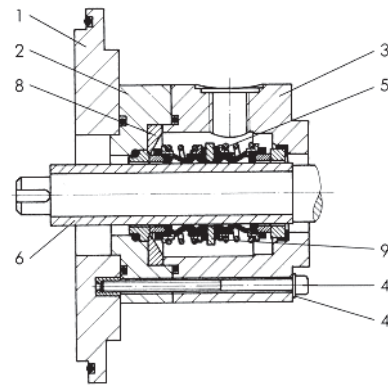
Mechanical seal type B2I,
single acting, internal

- 1 Back plate
- 2 Counter-ring flange
- 3 J-hex. screw ring with washer
- 4 Shaft sleeve
- 5 Mechanical seal set

Shaft seal



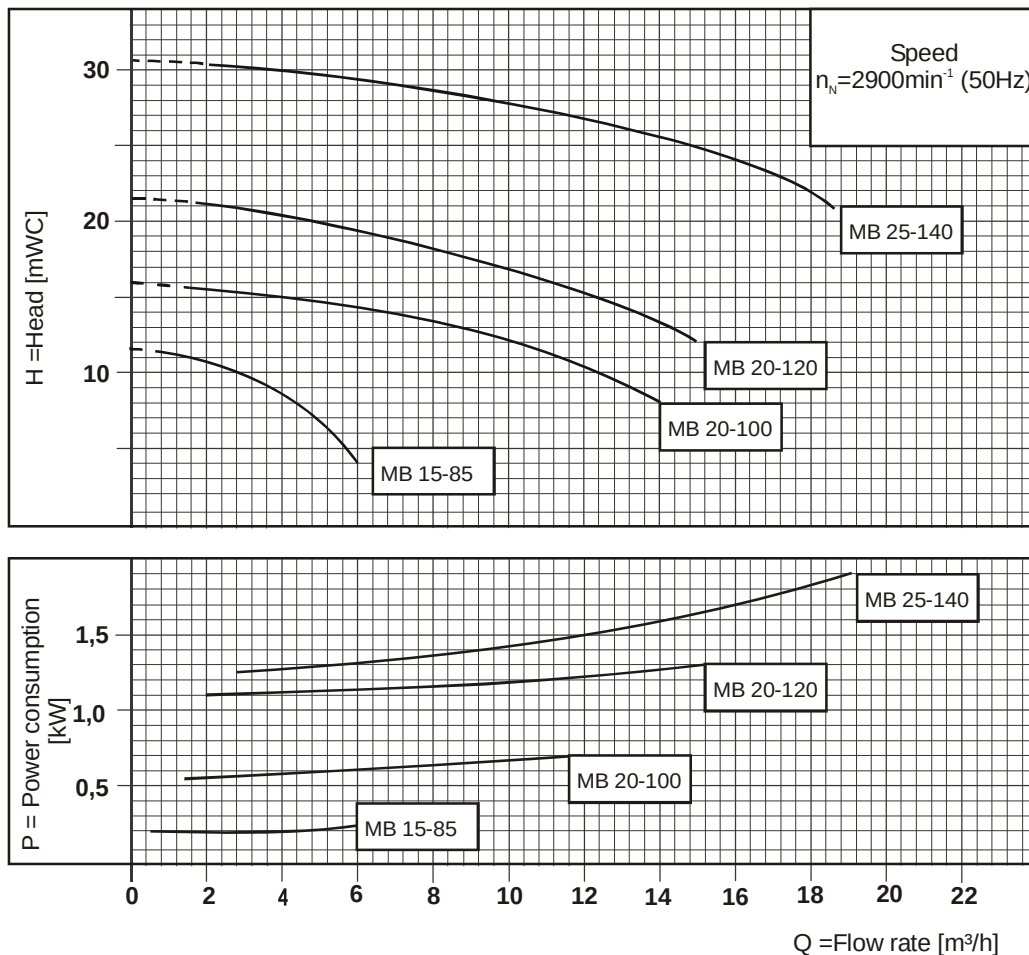
Mechanical seal type B2Q,
single acting, with quenching chamber



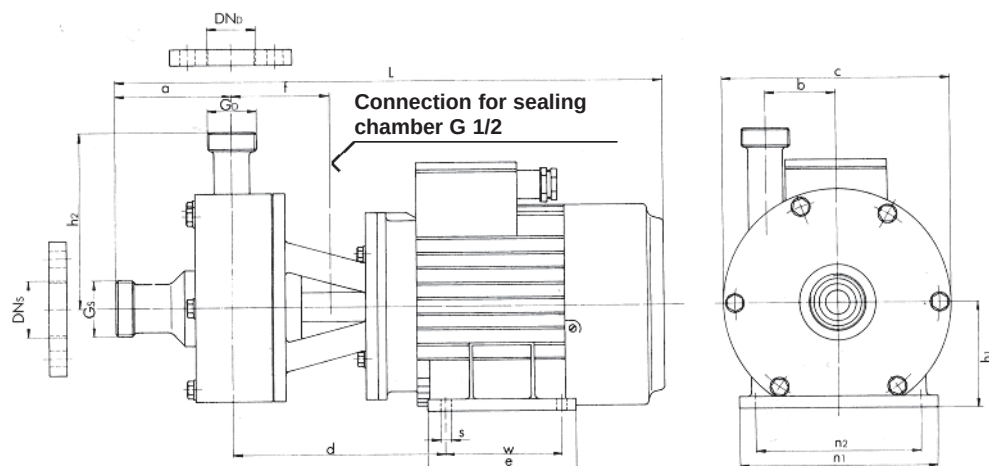
Mechanical seal type B2D,
double acting, with sealing chamber

- | | |
|---------------------------------|---------------------------------------|
| 1 Back plate | 6 Shaft sleeve (at B2Q with impeller) |
| 2 Counter-ring flange | 8 Disengagement lock |
| 3 Quenching/Sealing chamber | 9 Spacer ring |
| 4 J-hex. screw ring with washer | |
| 5 Mechanical seal set | |

Performance curves



Dimensions



Pump type	Thread-connection*		Flange** PN 10 DIN 2501		Pump dimensions													Sealing chamber f	Quenching chamber f	Motor Power (kW)
	G _D	G _S	DN _D	DN _S	a	h ₁	h ₂	w	e	ø s	b	n ₁	n ₂	c	d	~ L				
MB 15-85	G 1	G 1 1/4	15	20	75	71	100	90	106	7	40	132	112	125	137	373	60	60	0,37	
MB 20-100	G 1 1/4	G 1 1/2	20	25	100	80	150	100	126	10	60	150	125	195	174	452	87	83,5	1,1	
MB 20-120	G 1 1/4	G 1 1/2	20	25	100	90	150	100	127	10	60	167	140	195	180	476	87	83,5	1,5	
MB 25-140	G 1 1/2	G 2	25	32	100	90	150	125	145	10	60	167	140	195	180	486	87	83,5	2,2	

* Standard version

** Special version

Part number 80							
Series MB			Mechanical seal				
Size	Material Pump Head	Material Elastomers	B2I G** M***		B2Q G** M***		B2D
MB 15-85	PP	EPDM	000 000	000 002	000 006	000 008	000 010
		FPM	000 001	000 003	000 007	000 009	000 011
	PE*	EPDM	000 012	000 014	000 018	000 020	000 022
		FPM	000 013	000 015	000 019	000 021	000 023
	PVC*	EPDM	000 024	000 026	000 030	000 032	000 034
		FPM	000 025	000 027	000 031	000 033	000 035
	PVDF	EPDM	000 036	000 039	000 045	000 048	000 051
		FPM	000 037	000 040	000 046	000 049	000 052
MB 20-100	PP	EPDM	000 100	000 102	000 106	000 108	000 110
		FPM	000 101	000 103	000 107	000 109	000 111
	PE*	EPDM	000 112	000 114	000 118	000 120	000 122
		FPM	000 113	000 115	000 119	000 121	000 123
	PVC*	EPDM	000 124	000 126	000 130	000 132	000 134
		FPM	000 125	000 127	000 131	000 133	000 135
	PVDF	EPDM	000 136	000 139	000 145	000 148	000 151
		FBM	000 137	000 140	000 146	000 149	000 152
MB 20-120	PP	EPDM	000 200	000 202	000 206	000 208	000 210
		FPM	000 201	000 203	000 207	000 209	000 211
	PE*	EPDM	000 212	000 214	000 218	000 220	000 222
		FPM	000 213	000 215	000 219	000 221	000 223
	PVC*	EPDM	000 224	000 226	000 230	000 232	000 234
		FPM	000 225	000 227	000 231	000 233	000 235
	PVDF	EPDM	000 236	000 239	000 245	000 248	000 251
		FBM	000 237	000 240	000 246	000 249	000 252
MB 25-140	PP	EPDM	000 300	000 302	000 306	000 308	000 310
		FPM	000 301	000 303	000 307	000 309	000 311
	PE*	EPDM	000 312	000 314	000 318	000 320	000 322
		FPM	000 313	000 315	000 319	000 321	000 323
	PVC*	EPDM	000 324	000 326	000 330	000 332	000 334
		FPM	000 325	000 327	000 331	000 333	000 335
	PVDF	EPDM	000 336	000 339	000 345	000 348	000 351
		FPM	000 337	000 340	000 346	000 349	000 352

* Impeller in PVDF

** Metal components of stainless steel 1.4571

*** Metal components of Hastelloy C4

These instructions should be read carefully before installing and commissioning the pump. Every JESCO pump is dimensioned, tested and supplied according to the data of the order. If the operating conditions change at a later date (e.g. different medium, viscosity, temperature, feed conditions, etc.) we must check and confirm, if necessary, in the specific case whether the pump can be operated correspondingly. We cannot accept any liability for damage caused by misuse or failure to observe the operating instructions.

General

Description of the pump

Centrifugal chemical pumps are used for pumping acids and alkalis and other low-viscosity, aggressive liquids and neutral media.

Before each pump is dispatched, it undergoes a thorough functional test, including measurement of the discharge rate, the pump head and the power consumption of the drive motor.

Each pump has a nameplate showing the type designation and rating, and a corresponding plate for the motor data. In the event of queries, please refer to these plates.

Description of mechanical seal

Mechanical seals basically consist of two perfectly plane surfaces. One surface rotates with the shaft, while the other one is stationary. The sealing effect is achieved by the direct contact between the two plane surfaces. The stationary counter-ring is normally fixed in position.

The sliding ring is able to move axially and radially in order to compensate the shaft deflections during operation. This axial mobility enables mechanical seals to be fitted within practicable manufacturing tolerances, the accuracy required being dependent on the design of the seal.

Type B2I

Single-acting, loaded, internal seal, independent of direction of rotation. Combination of sliding materials in silicon carbide (SiC). Bellows and secondary seals of EPDM or FPM. Metallic parts of stainless steel (1.4571) or Hastelloy C4.

Type B2Q

Single-acting, loaded, internal seal, independent of direction of rotation, with quenching chamber. The chamber is sealed from the atmosphere by a shaft sealing ring to prevent deposits and/or reduction of the temperature in the area of the mechanical seal. Combination of sliding materials in silicon carbide (SiC). Bellows and secondary seals of EPDM or FPM. Metallic parts of stainless steel (1.4571) or Hastelloy C4.

Type B2D

Double-acting, loaded, internal seal, independent of direction of rotation, arranged back-to-back with sealing chamber. This arrangement is the most usual form of double-acting seals used with difficult, chemically particularly aggressive media. Combination of sliding materials in silicon carbide (SiC). Bellows and secondary seals of EPDM or FPM. Metallic parts of stainless steel (1.4571).

Quenching fluid

A clean, usually cold liquid is used for quenching, which must be highly compatible with the medium in order to prevent any chemical reaction. The quenching pressure should not exceed 0.5 bar.

Function of quenching:

- Prevention of crystallizing rings (air seal)
- Absorption of leakage
- Cooling of sliding rings
- Monitoring of leakage rate
- Lubricating film stabilization in vacuum operation

Important:

In order to avoid dry running of the radial seal on the atmosphere side, sealing systems fitted with a quenching chamber must always be supplied with quenching liquid (see quenching fluid installation).

Sealing liquid

For their operation back-to-back double-acting seals require a sealing liquid under pressure flowing through the sealing space from bottom to top. The sealing pressure must be 1 to 2 bar higher than the pressure of the medium to be sealed so that both seals only have to seal against the neutral sealing liquid. The sealing liquid must have good compatibility with the pumped medium.

Function of sealing:

- Prevention of contact between pumped liquid and atmosphere
- Formation of lubricating film between the sliding rings
- Cooling of sliding rings
- Monitoring of leakage rate

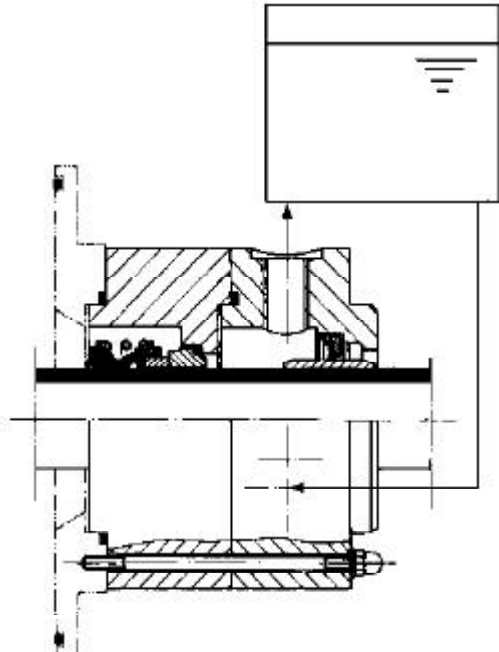
Important:

To avoid dry running of the mechanical seal on the atmospheric side, sealing systems provided with a sealing chamber must always be supplied with sealing liquid (see sealing liquid installation).

Supply systems for mechanical seals

Quenching fluid installation

The quenching chamber can be supplied as follows:



Quenching liquid from high level tank; circulation of liquid by thermo-siphon action or additional pumping device.

Requirements for quenching fluid:

- Compatible with medium to be sealed
- Suitable regarding corrosion resistance of all parts contacted
- Free from solid matter
- Must not tend to form deposits
- Good lubricating properties
- High specific thermal capacity
- High evaporation temperature
- Not affecting the environment
- Easy procurement and high availability
- Quenching pressure should not exceed 0.5 bar

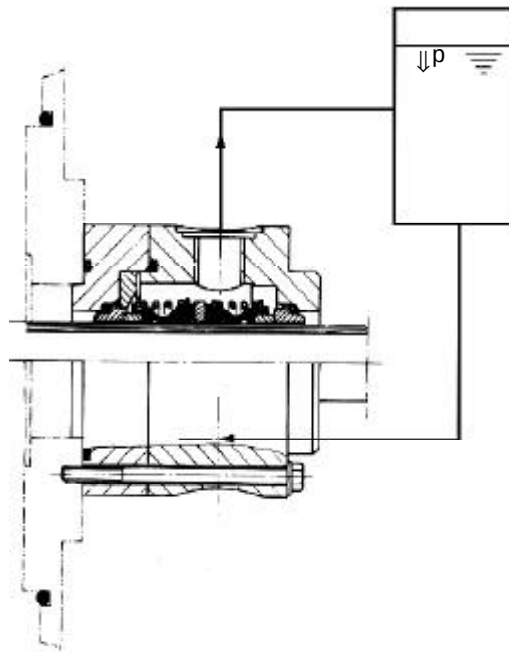
Sealing liquid installation

Double-acting mechanical seals basically need a sealing system, which meets the following requirements:

- The space between the mechanical seal on the product and atmospheric sides must be filled with clean sealing liquid.
- During operation the pressure of the sealing liquid must always be 1.0 to 2.0 bar higher than the pressure to be sealed.

Installation diagram for sealing chambers:

Sealing system with thermo-siphon circuit



Requirements for sealing liquid:

- Compatible with medium to be sealed
- Suitable regarding corrosion resistance of all parts contacted
- Free from solid matter
- Must not tend to form deposits
- Good lubricating properties
- High specific thermal capacity
- High evaporation temperature
- Not affecting the environment
- Easy procurement and high availability
- During operation the sealing pressure must always be 1.0 to 2.0 bar higher than the pressure to be sealed.

Note on temperature:

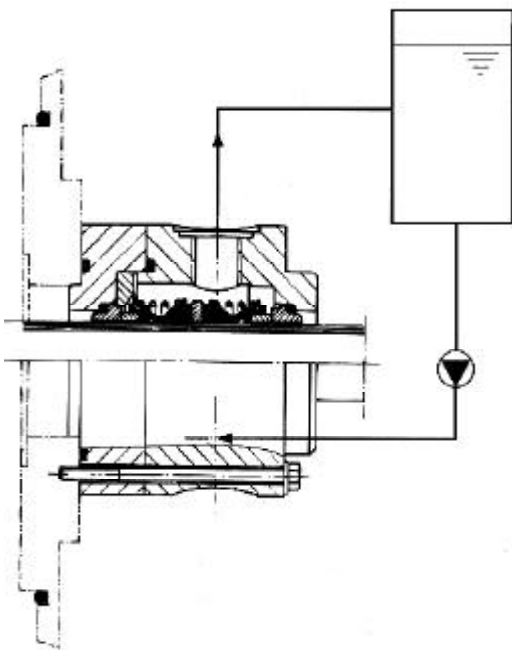
The outlet temperature must not exceed 60°C and should lie approx. 40°C below the evaporation temperature of the sealing liquid.

- A continuous exchange of liquid should take place to prevent overheating in the sealing chamber (by thermo-siphon action or circulating device).

The following functions of the sealing system result from these basic conditions:

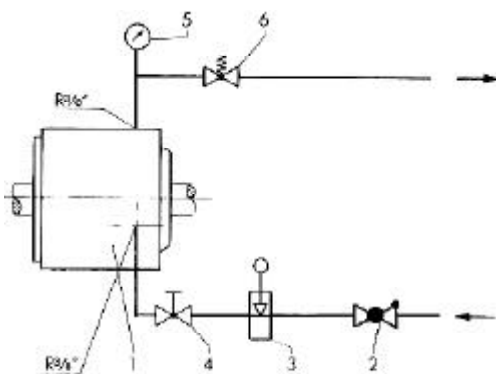
- Generation of pressure in the sealing chamber
- Leakage compensation
- Circulation of sealing liquid

Sealing system with circulation device outside the mechanical seal



Regulation of the sealing pressure

The sealing pressure can be regulated according to the following diagram:



Legend

- | | |
|------------------------|------------------------------|
| 1 Sealing chamber | 4 Flow control valve |
| 2 Non-return valve | 5 Pressure gauge (0- 10 bar) |
| 3 Float-type flowmeter | 6 Backpressure valve |

Transportation and storage of pump

No special precautions are necessary for transportation and storage of plastic centrifugal pumps under normal ambient conditions. At ambient temperatures below -10°C, however, it must be specially ensured that cast metal parts in particular are protected against impact stress by suitable packing. The pump connectors must be closed.

When putting a pump into service after several years of storage, the following measures must be taken:

- Check elastomer seals for elastic properties
 - replace if necessary.
- Check if the mechanical seals can be turned
 - otherwise, fill the pump head with water and check after a few minutes if they can be turned. If still not, you should repair the mechanical seals.

Warranty

Every pump is given a functional test before dispatch with measurement of rate of delivery, pump head and power consumption of the drive motor. A warranty for durability of materials can only be provided if the exact operating conditions were known when the system was designed.

Excluded from the warranty are all sealing elements and damage resulting from non-observance of these operating and maintenance instructions.

Our "General Sales Conditions" have over-riding priority.

General technical safety information

The operating safety of the pump is only guaranteed if used for the intended purpose. Refer to data sheet.

Removal of environmentally hazardous leaking media conveyed must comply with the statutory regulations.

Avoid danger of accidents during installation and disassembly. Ensure the stability of the pump during installation. Secure installation parts against falling. Support or underlay loose components.

Connecting flanges, tapped holes and other openings on pumps must be closed during transportation and storage.

EC machine guidelines

- Any work done on the whole pump arrangement may only be carried out by authorized and trained personnel.
- According to the Machine Guidelines 89/392/EEC, these products are not regarded as machines; they can, however, be built into installations which are regarded as machines. In this case, please observe the following note!



Note

We distinctly emphasize that operation is prohibited until it has been confirmed that the machine (plant) into which the products have been built corresponds to the conditions of the EC Machine Guidelines 89/392/EEC. A respective declaration of conformity is supplied with the product on request.

Installation

Fixing the pump

The pump should be mounted on a stable, flat supporting surface, using the appropriate screws at the base of the pump.

Nominal widths

The nominal widths of the pipes should be larger than those of the pump connections. The width of short pipes should be large enough to ensure that the resistance to flow is as small as possible, especially in the suction pipe. For long pipes the economical width should be determined from case to case.

Changes in cross-section and direction

Abrupt changes in cross-section and direction as well as unduly sharp bends should be avoided.

Supporting and flange mounting

Pipes should be connected to the pump without stress. They should be supported close to the pump and screwed on easily so as to avoid distortion.

Suction or intake pipe

Unequal nominal widths

Unequal nominal widths of suction connections and horizontal suction pipes should be compensated for by eccentric spacers.

Laying pipes

To prevent the formation of air pockets, the suction pipe must rise towards the pump, the intake line being layed with a slight downward gradient.

If local conditions do not permit the suction pipe to rise continuously, a venting device should be provided at its highest point.

Foot valve and suction strainer (suction operation)

For suction operation the intake pipe must be equipped with a foot valve to prevent the pump and suction pipe from emptying at standstill.

The suction filter must be installed so that dirt from the swamp or air from the liquid cannot enter the pipe.

Shutoff valve

A shutoff valve should be integrated in the pressure pipe close to the pump to regulate the flow of pumped medium.

Prevention of reverse flow

When long pressure pipes or high pressures are involved, a backstop must be installed. The pump is mechanically relieved, and the pumped medium is prevented from flowing back. In this way harmful pressure surges on the pump and foot valve can be avoided.

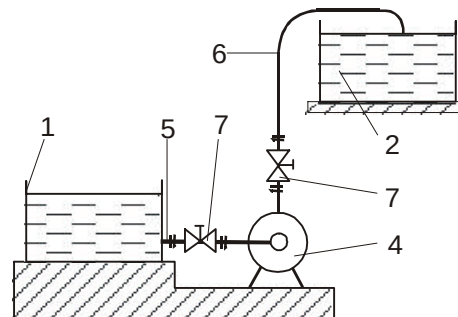
Suction action

Chemical motor pump units are not self-priming. They only operate satisfactorily when the medium flows to the pump. When the medium is clean, the pump can operate in the suction mode when a foot valve is used. When a priming chamber is provided, the suction mode is also possible (see examples of installations).

Examples of installations

Flooded operation

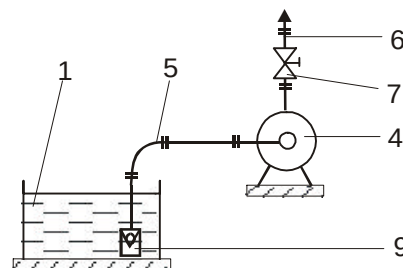
As long as the level of the tank liquid is maintained above the height of the pump head, the pump will not run dry. The level can be controlled reliably by a suitable level switch.



1 Storage tank 2 Receiving tank 4 Centrifugal pump
5 Suction pipe 6 Pressure pipe 7 Shutoff valve

Suction operation with non-return valve

The use of this suction mode is only recommended with clean media which ensuring the safe functioning of the non-return valve.

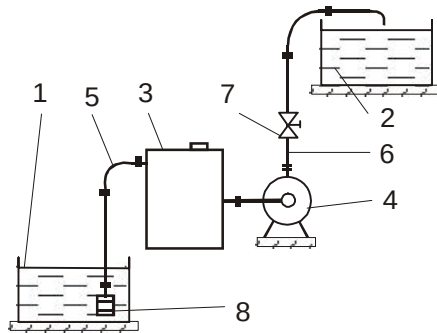


1 Storage tank 4 Centrifugal pump
5 Suction pipe 6 Pressure pipe
7 Shutoff valve 9 Non-return valve

Suction operation with priming chamber

The priming chamber must be filled before starting. The level is maintained when the pump is running because the vacuum formed in the suction pipe primes the liquid into the priming chamber.

The volume of the priming chamber has to match the capacity of the pump as well as suction pipe volume.

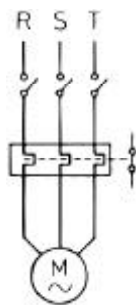


Legend

- | | |
|-------------------|--------------------|
| 1 Storage tank | 2 Receiving tank |
| 3 Priming chamber | 4 Centrifugal pump |
| 5 Suction pipe | 6 Pressure pipe |
| 7 Shut-off valve | 8 Suction filter |

Electrical connection

The electric motors mounted on the pump should be connected according to the instructions printed inside the terminal box cover. In addition to the usual fuses, each pump motor must be protected by a thermal motor protection switch (see fig.). The external electrical connection should be made by a qualified electrician in accordance with local regulations.



Motor data

3-phase motor with extended rotor shaft and reinforced bearings; otherwise to IEC Standards, speed 2900 rpm, voltage 3x230/400 V, enclosure IP55, insulation class F, mounting B3/B14.

Pump type	Rated motor output (kW)	Rated current (A)	
		230 V	400 V
MB 15 - 85	0.37	1.53	0.88
MB 20 - 100	1.1	4.3	2.5
MB 20 - 120	1.5	5.5	3.2
MB 25 - 140	2.2	7.8	4.5

Commissioning

Before the unit is started, it must be filled, vented and perfectly tight.

Filling and venting of the pump

The pump is filled and vented at the same time as the system. While filling, it is advisable to turn the pump shaft slowly by hand.

Direction of rotation

The motor must rotate in the direction indicated by the arrow on the motor casing. To check the direction of rotation the motor may be briefly switched on. Rotation in the wrong direction affects the discharge capacity and can result in damage to the pump.

Starting

Shutoff valve

The shutoff valve in the pressure pipe must be closed.

Switching on the motor

Insufficient venting

If the discharge head does not rise with increasing speed, switch off the pump and re-vent the unit.

Adjusting the discharge values

After reaching the operating speed, the shutoff valve on the pressure side should be opened to such an extent that the necessary discharge values are attained.

The discharge flow can be increased provided that the maximum load of the motor is taken into account.

Operating against a closed shutoff valve

It is essential to avoid operation for any length of time against a closed shutoff valve, because apart from the pumped fluid becoming warm, the pump might be damaged.

ATTENTION - dry running

It is also essential to ensure that the mechanical seal does not run dry - even for a short time - as this can damage the sliding faces and prevent the shaft seal from functioning correctly.

Switching off the pump

Pressure pipe

If a non-return valve is fitted in the pressure pipe, the shutoff valve may remain open. If there is no non-return valve in the pressure pipe, the shutoff valve must be kept closed.

Motor

Switch off the motor.

Switching the pump on again

Before switching on again, make sure that the pump shaft is not rotating. If the shutoff valve in the pressure pipe is leaking or not fully closed, it is possible that the pump shaft may rotate backwards due to the reverse flow of the pumped medium.

Changing the operating data**Higher density of the pumped medium**

If the density of the pumped medium is higher than assumed when ordering, or when the pump was originally dimensioned, it is essential to make sure that the motor is not overloaded.

Higher flow rate

If the flow rate is higher than mentioned in the order or originally dimensioned, it is important to ensure that the head is still adequate. If it is not, this could result in cavitation and thus damage to the pump.

Measures to be taken in the case of longer standstills

If the concentration of the pumped liquid is likely to change, or if it may crystallize when the pump is out of operation for a longer time, the pump must be emptied and flushed with a conserving liquid.

Maintenance

Chemical motor pump units of the MB series require hardly any maintenance. As a standard, they are fitted with a high-quality, maintenance-free mechanical seal which is automatically adjusted by spring action. The bearings of the electric motor are permanently lubricated. Therefore maintenance of the complete pump unit is reduced to a mere inspection of the following points at regular intervals:

- Does the pump attain the desired capacity (discharge flow/head)?
- Is any unusual noise or vibration of the pump or motor observed?
- Is the mechanical seal perfectly tight?
- Is the temperature rise of the motor normal?

Mounting and dismantling

JESCO centrifugal pumps should only be dismantled with reference to the sectional drawings provided.

Spiral casing

- Loosen fixing screws (7).
- Remove spiral housing (1) forwards.

Impeller

- Unscrew impeller cap (2a) (not for MB 15-85). (Caution: left-hand thread).
- Release fastening nut (2e).
- Remove impeller forwards from the motor shaft.
- For MB 15-85 unscrew impeller (2) (left-hand thread).

Mechanical seal

- Carefully remove back plate (11) forwards, together with the mechanical seal (see mechanical seal drawing).
- In order to dismantle the counter-ring flange of the mechanical seal, detach the flange from the back plate (12 resp. 43). (Loosen screws, 13 resp. 34).

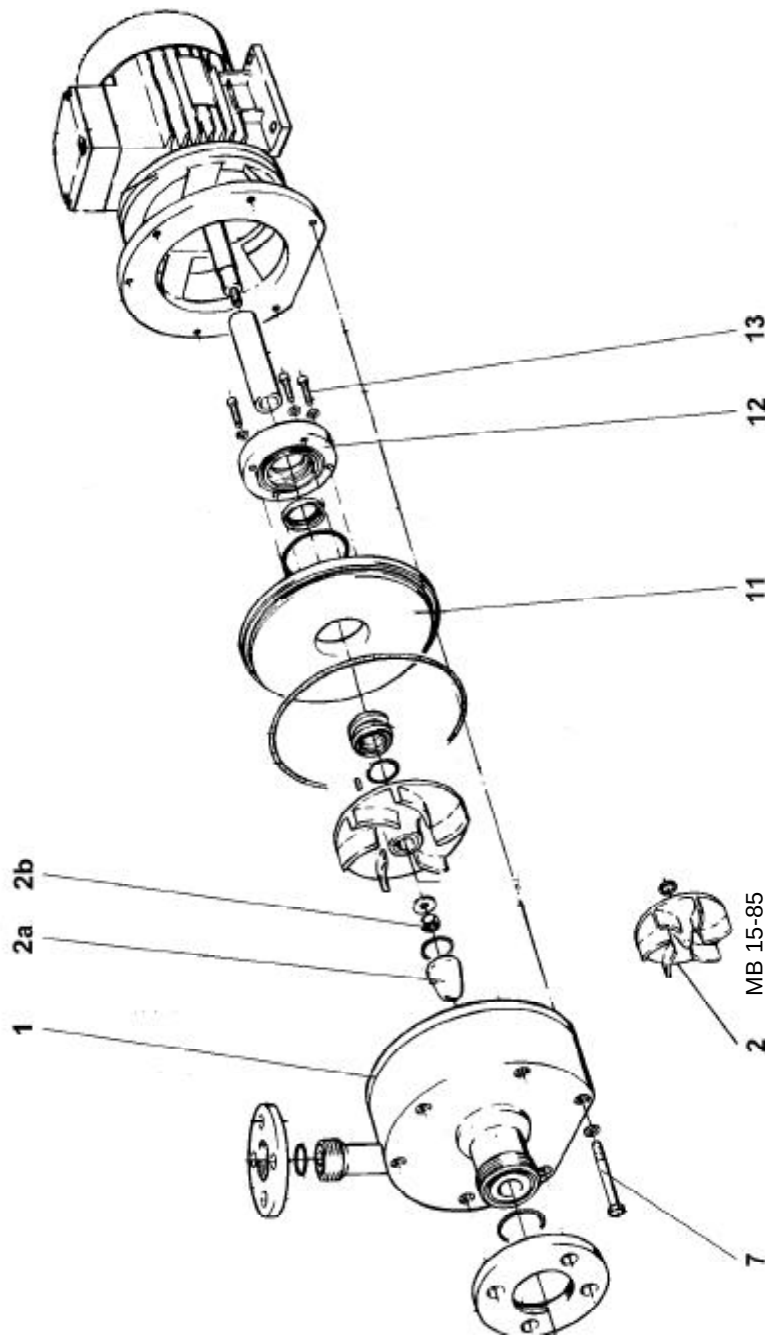
Follow the relevant assembly instructions for mounting the mechanical seals used.

Mounting the pump

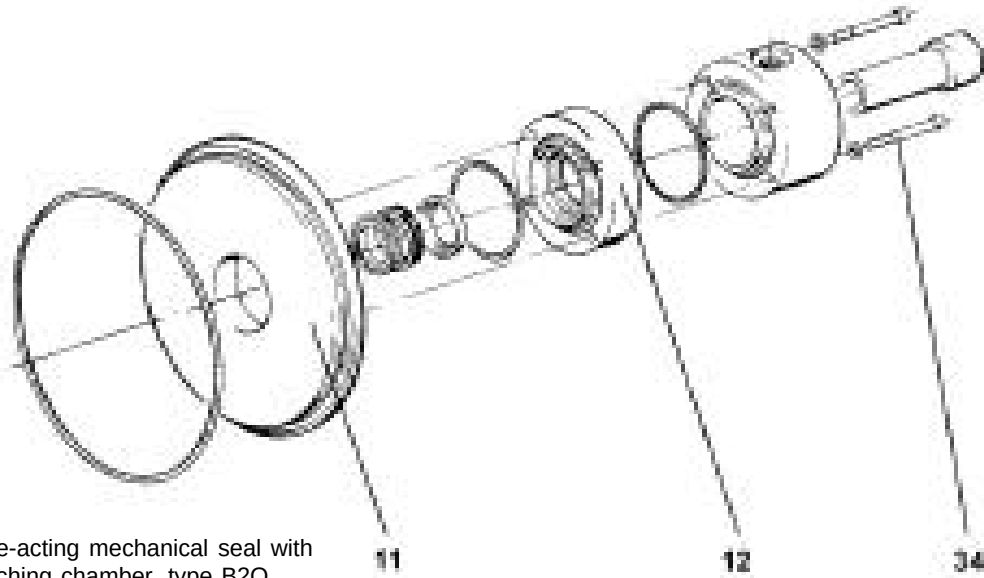
- The pump is assembled in reverse order.
- Ensure that the O-rings are firmly seated. (Always use new O-rings.)
- It is essential that assembly is stress-free.

Version MB 15 - 85

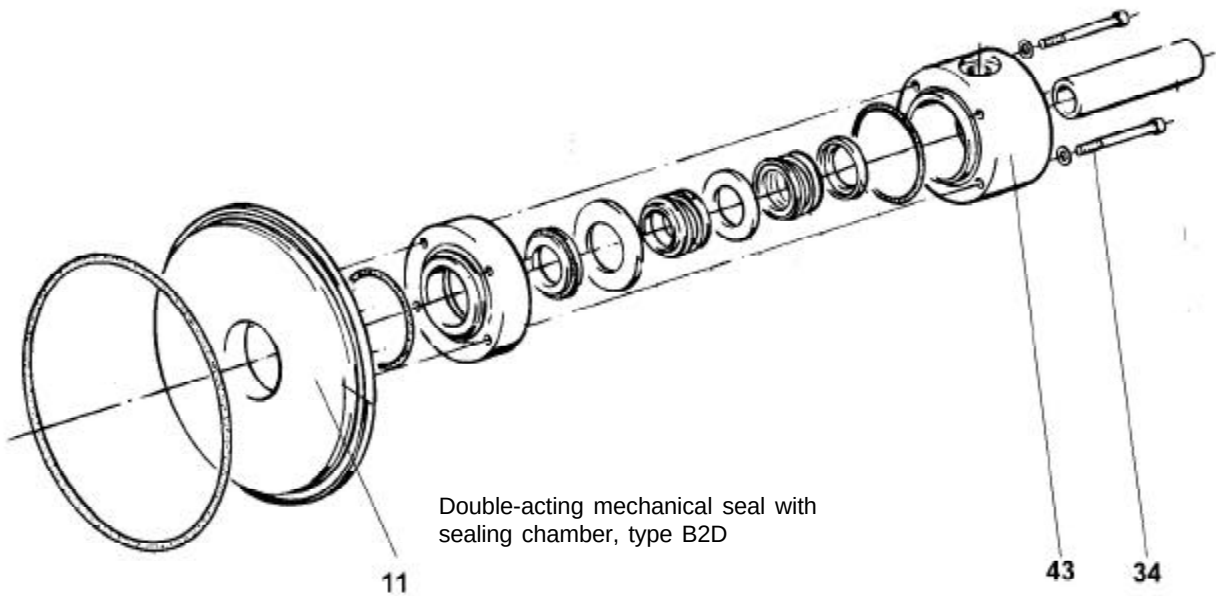
Inner, single-acting mechanical seal type B2I



Chemical Motor Pump Unit MB



Single-acting mechanical seal with quenching chamber, type B2Q



Double-acting mechanical seal with sealing chamber, type B2D

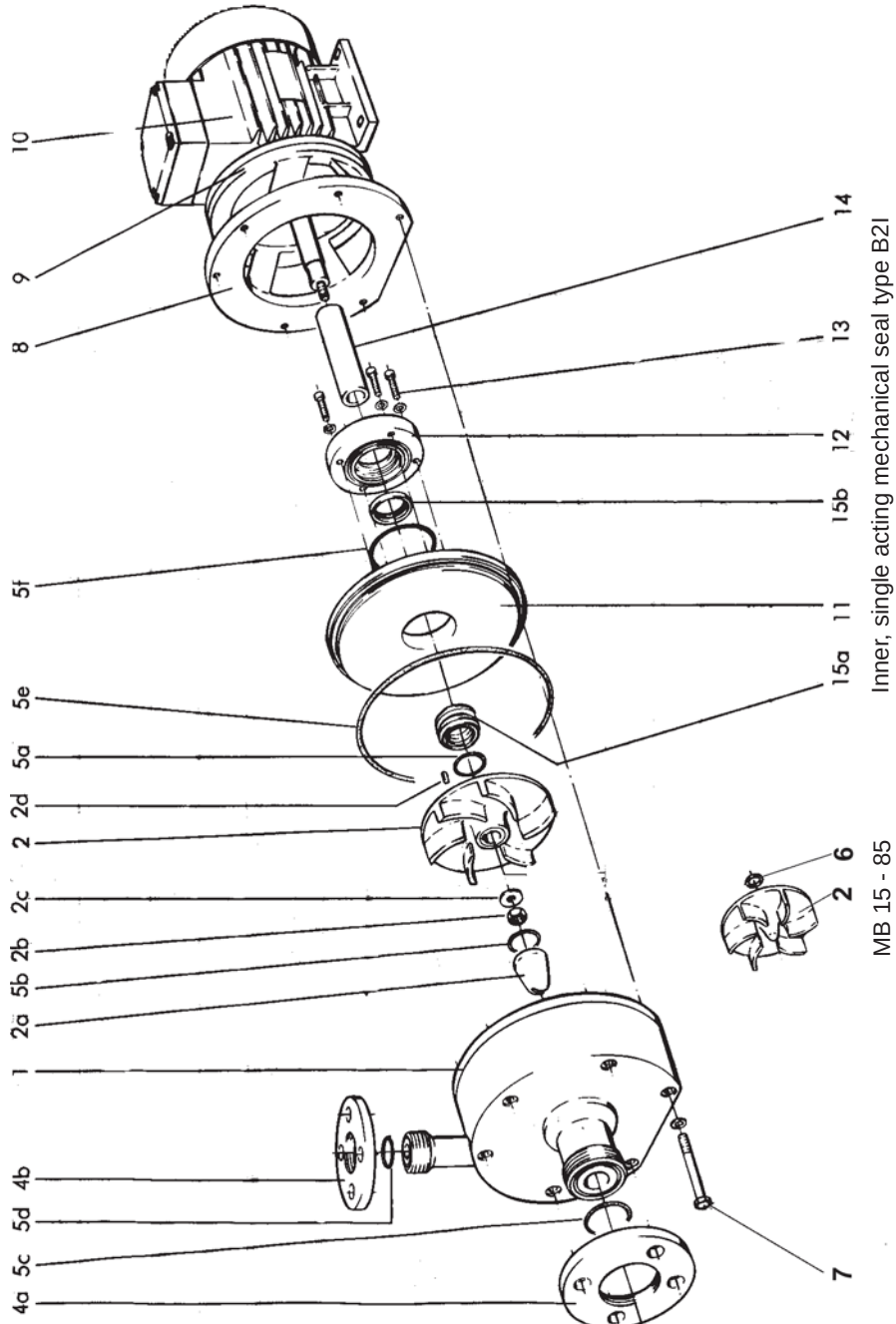
Chemical Motor Pump Unit MB

5. Troubleshooting

In the event of any faults that occur the following overview may be treated as instructions on how to determine their possible causes.

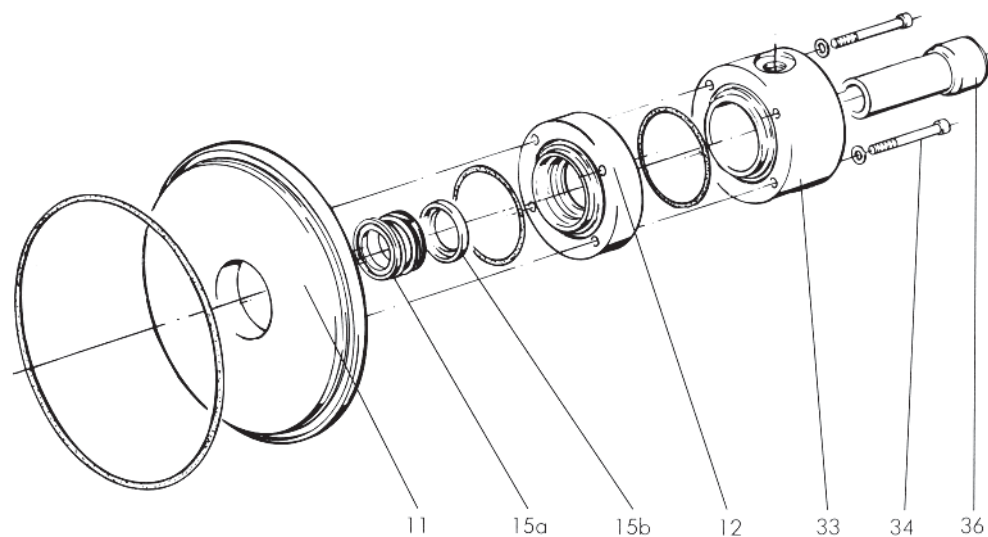
If faults occur that are not mentioned here, or if they cannot be traced back to the causes listed and remedied, consult the supplier.

Fault	Cause	Remedy
Pump not pumping	Motor rotating in wrong direction	Exchange 2 mains leads
	Pump primes in air	Check suction pipe, foot valve and mechanical seal for leakage
	Pump not adequately filled	Fill pump to pressure connection
	Suction pipe contains air pockets	Lay the piping to that air can escape
	Existing back-pressure higher than maximum pump pressure	Use a larger pump
Pump discharge insufficient	Stop valve in suction and pressure pipe not fully open	Fully open the stop valve
	Piping or impeller blocked	Clean piping and the impeller
	Geodetic head too large	Use a larger pump
	Piping resistance greater than assumed	Lay pipes with larger cross-section or use a larger pump.
	Suction head too high (formation of steam in the pump, cavitation)	Clean suction strainer, foot valve and suction pipe, enlarge cross-section, or mount pump at a lower position.
	Viscosity of the pumped medium higher than assumed	Dilute or preheat (to observe max. operating temp.)
	Priming of air	Check suction pipe and mechanical seal for leakage Seal suction pipe, replace seal
Pump discharge too high	The head in the installation is lower than that of the pump	Throttle the stop valve on the pressure side Possibly install a smaller pump
Motor overloaded	Pump pumping too much	See above "Pump discharge too high"
	Solids in the pump	Open the pump and clean it
	Impeller fouling casing; Causes: - Impeller not fixed tight enough - Impeller deformed by excessive-temperature	- Examine impeller fixing and tighten up if necessary - Replace impeller and eliminate reason for excess temperature
	Pump distorted	Connect piping free from stress
	Density or viscosity of medium too high	Check discharge data, fit a larger motor
Unsteady or noisy running	Pump discharge too high	See under "Pump discharge too high"
	Suction head too high	See under "Pump discharge insufficient"
	Cross section of suction pipe too small	Enlarge cross-section of suction pipe
	Stop valve on suction side throttled too severely	Open stop valve
	Motor bearing damaged	Examine bearing, renew if necessary
Shaft seal (mechanical seal) dripping	Mechanical seal worn	Install a new mechanical seal
	Mechanical seal unsuitable for the medium handled	Consult the supplier - install the appropriate mechanical seal
Pump dripping from casing	Piping does not fit into the pipe connections	Adjust the piping to match
	Sealing material unsuitable	Use correct sealing material
	Spiral casing leaking	Tighten up connections and fixing screws Examine O-ring and replace if necessary

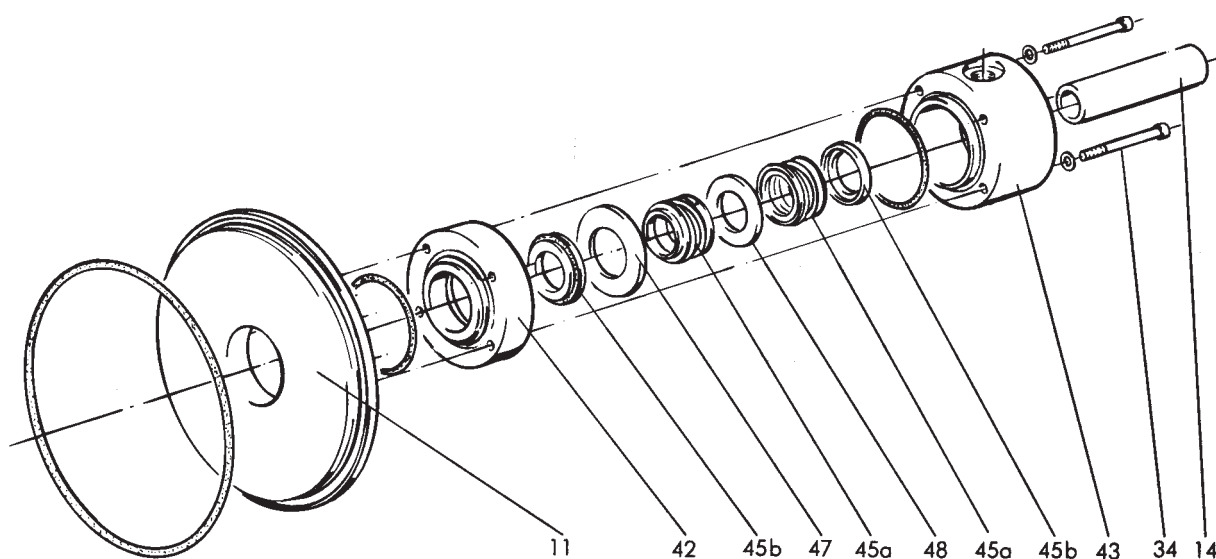


Chemical Motor Pump Unit MB

Chemical Motor Pump Unit MB



Single acting mechanical seal with quenching chamber type B2Q



Double acting mechanical seal with sealing chamber type B2D

Item	Description	Material	Qty	Part number for pump type			
				MB 15-85	MB 20-100	MB20-120	MB 25-140
1	Spiral casing	PP	1	52500	52502	52205	52504
		PVDF	1	52501	52503	52503	52505
		PE	1	72500	72502	72502	72504
		PVC	1	72501	72503	72503	72505
2	Impeller kit	PP/EPDM	4	68700	68702	68704	68706
		PP/FPM	4	69149	69151	69153	69155
		PVDF/EPDM	4	68701	68703	68705	68707
		PVDF/FPM	4	69150	69152	69154	69156
2a	Impeller cap	PP	1	---	50287	50287	50287
		PVDF	1	---	50288	50288	50288
4a-b	Flange kit	GFK	2	68028	68029	68029	68030
5a-f	O-ring seal kit	EPDM	4	68720	68724	68724	68728
		FPM	4	68721	68725	68725	68729
		FPM/FEP	4	68722	68726	68726	68730
6	Gasket	EPDM	1	81179	---	---	---
		FPM	1	81678	---	---	---
7	Hex. screw with washer	A4	6	68037	68038	68038	68038
8	Intermediate part	GG	1	25345	52346	52346	52346
9	Hex. screw with washer	A4	4	68039	68040	68040	68040
10	E-motor standard 230/400V	div.	1	52349	52350	52351	52413
11	Back plate	PP	1	52530	52532	52532	52532
		PVDF	1	52531	52533	52533	52533
		PE	1	72530	72532	72532	72532
		PVC	1	72531	72533	72533	72533
12	Counter-ring flange	PP	1	52534	52536	52536	52536
		PVDF	1	52535	52537	52537	52537
		PE	1	72534	72536	72536	72536
		PVC	1	72535	72537	72537	72537
13	Hex.socket head screw w. washer	A4	8	68041	68042	68042	68042
14	Shaft sleeve	Carbon	1	50071	50072	50072	50072
		PVDF	1	50922	50073	50073	50073
15	Mechanical seal kit	EPDM/A4	div.	60078	60082	60082	60082
		FPM/A4	div.	60079	60083	60083	60083
		EPDM/C4	div.	60080	60084	60084	60084
		FPM/C4	div.	60081	60085	60085	60085
33	Quenching chamber with shaft sealing ring	PP	2	68760	68764	68764	68764
		PVDF	2	68761	68765	68765	68765
		PVC	2	68763	68767	68767	68767
34	Hex.socket head screw w. washer	A4	8	68780	68176	68176	68176
36	Shaft sleeve with ball race	Carbon	2	68770	68772	68772	68772
		PVDF	2	68771	68773	68773	68773
42	Counter-ring flange	PP	1	52538	51697	51697	51697
		PVDF	1	52539	51698	51698	51698
		PE	1	72538	71697	71697	71697
		PVC	1	72539	71698	71698	71698
43	Sealing chamber	PP	1	52540	52542	52542	52542
		PVDF	1	52541	52543	52543	52543
		PVC	1	72541	72543	72543	72543
45	Mechanical seal kit	EPDM/A4	1	68750	68754	68754	68754
		FPM/A4	1	68751	68755	68755	68755
47	Disengagement lock	PVDF	1	---	51701	51701	51701
48	Spacer ring	PP	1	51934	51748	51748	51748
		PVDF	1	51731	51702	51702	51702

EU-Konformitätserklärung

Der Unterzeichnete Lutz-Jesco GmbH, Am Bostelberge 19, 30900 Wedemark, bestätigt, dass die nachfolgend bezeichneten Geräte in der von uns in Verkehr gebrachten Ausführung die Anforderungen der harmonisierten EU-Richtlinien, EU-Sicherheitsstandards und produktspezifischen Standards erfüllen. Bei einer nicht mit uns abgestimmten Änderung der Geräte verliert diese Erklärung ihre Gültigkeit.

(EN) EU Certificate of Conformity

The undersigned Lutz-Jesco GmbH, Am Bostelberge 19, 30900 Wedemark, hereby certifies that, when leaving our factory, the units indicated below are in accordance with the harmonised EU guidelines, EU standards of safety and product specific standards. This certificate becomes void if the units are modified without our approval.

(FR) Certificat de conformité aux directives européennes

Le constructeur, soussigné: Lutz-Jesco GmbH, Am Bostelberge 19, 30900 Wedemark, déclare qu'à la sortie de ses usines le matériel neuf désigné ci-dessous était conforme aux prescriptions des directives européennes énoncées ci-après et conforme aux règles de sécurité et autres règles qui lui sont applicables dans le cadre de l'Union européenne. Toute modification portée sur ce produit sans l'accord express de Jesco supprime la validité de ce certificat.

(ES) Declaración de conformidad de la UE

El que subscribe Lutz-Jesco GmbH, Am Bostelberge 19, 30900 Wedemark, declara que la presente mercancía, objeto de la presente declaración, cumple con todas las normas de la UE, en lo que a normas técnicas, de homologación y de seguridad se refiere, En caso de realizar cualquier modificación en la presente mercancía sin nuestra previa autorización, esta declaración pierde su validez.

(NL) EU-overeenstemmingsverklaring

Ondergetekende Lutz-Jesco GmbH, Am Bostelberge 19, 30900 Wedemark, bevestigt, dat het volgende genoemde apparaat in de door ons in de handel gebrachte uitvoering voldoet aan de eis van, en in overeenstemming is met de EU-richtlijnen, de EU-veiligheidsstandaard en de voor het product specifieke standaard. Bij een niet met ons afgestemde verandering aan het apparaat verliest deze verklaring haar geldigheid.

(HU) EG (EK)– Egyezőségi nyilatkozat

A Lutz-Jesco GmbH, Am Bostelberge 19, 30900 Wedemark ezúton kijelenti, hogy a szóban forgó termék annak tervezése és szerkezeti módja, valamint forgalomba hozott kivitele alapján a vonatkozó alapvető biztonság technikai és egészségügyi követelményeknek és az alábbi felsorolt EG –irányelveknek minden szempontból megfelel. A terméken engedélyünk nélkül végrehajtott módosítások következtében jelen nyilatkozat érvényét veszíti.

Bezeichnung des Gerätes:	Chemie-Kreiselpumpe
Description of the unit:	Chemical Centrifugal Pump
Désignation du matériel:	Pompes centrifuges
Descripción de la mercancía:	Bombas centrifugas
Omschrijving van het apparaat:	Centrifugaalpompen
A termék megnevezése:	Vegyipari centrifugálszivattyúk

Typ / Type / Tipo / Típusjelölés:

MB

EU-Richtlinie / EU directives/
Directives européennes / Normativa UE /
EU-richtlijnen / Vonatkozó EG-irányelvek

2006/95/EG

98/37/EG

Harmonisierte Normen / harmonized
standards / Normes harmonisées /
Estándares acordemente / Toegepaste
normeringen / Hatályos normák

EN ISO 12100-1 : 2003

EN ISO 12100-2 : 2003

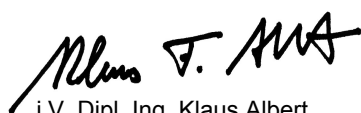
EN 809 : 1998

EN 50081-1 : 01.92

EN 50081-2 : 08.93

EN 50082-1 : 01.92

EN 50082-2 : 03.95



i.V. Dipl. Ing. Klaus Albert
Lutz-Jesco, Wedemark, 01.06.2008

Technische Leitung / Technical Departement Manager / Direction technique /
Dirección Técnica / Hoofd technische dienst / Műszaki irodavezető

UK Declaration of Conformity

We hereby certify that the device described in the following complies with the relevant fundamental safety and sanitary requirements and the listed UK regulations due to the concept and design of the version sold by us.

If the device is modified without our consent, this declaration loses its validity.

Description of the unit:

Chemical Centrifugal Pump

Type:

MB

Directives:

2016 No. 1101, The Electrical Equipment (Safety) Regulations 2016
2008 No. 1597, The Supply of Machinery (Safety) Regulations 2008

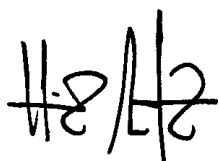
The protective aims of the Low Voltage Directive 2016 No. 1101 were adhered to in accordance with Annex I, No. 1.5.1 of the Machinery Directive 2006/42/EC.

Harmonized standards:

BS EN 1092-1, BS EN 10216-2, BS EN 10253-2

Authorized person for documentation:

Lutz-Jesco GB Ltd.
Unit C1, Loades Ecoparc, Blackhorse Road
Exhall, Coventry
CV7 9FW
Great Britain



Heinz Lutz
Chief Executive Officer
Lutz-Jesco GmbH
Wedemark, 28.07.2022

Lutz-Jesco GmbH
Am Bostelberge 19
30900 Wedemark
Germany

Declaration of Harmlessness

Please fill out a separate form for each appliance!

We forward the following device for repairs:

Device and device type:

Part-no.:

Order No.:

Date of delivery:

Reason for repair:

.....

.....

Dosing medium

Description:

Irritating: ☐ Yes ☐ No

Properties:

Corrosive: ☐ Yes ☐ No

We hereby certify, that the product has been cleaned thoroughly inside and outside before returning, that it is free from hazardous material (i.e. chemical, biological, toxic, flammable, and radioactive material) and that the lubricant has been drained.

If the manufacturer finds it necessary to carry out further cleaning work, we accept the charge will be made to us.

We assure that the aforementioned information is correct and complete and that the unit is dispatched according to the legal requirements.

Company / address:

Phone:

.....

Fax:

.....

Email:

Customer No.:

Contact person:

Date, Signature:

Warranty Application

Please copy and send it back with the unit!

If the device breaks down within the period of warranty, please return it in a cleaned condition with the complete warranty application, filled out.

Sender

Company: Phone: Date:

Address:

Contact person:

Manufacturer order no.: Date of delivery:

Device type: Serial number:

Nominal capacity / nominal pressure:

Description of fault:.....

.....

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.....

.....

Service conditions of the device

Point of use / system designation:.....

.....

.....

Accessories used (suction line etc.):.....

.....

.....

.....

.....

Commissioning (date):

Duty period (approx. operating hours):

Please describe the specific installation and enclose a simple drawing of the chemical feed system, showing materials of construction, diameters, lengths and heights of suction and discharge lines.