

7 Service and repair

This chapter contains information on troubleshooting and correction should an error occur during operation.

Repairs to the unit must be performed by Bühler authorised personnel.

Please contact our Service Department with any questions:

Tel.: +49-(0)2102-498955 or your agent

For further information about our services and customised maintenance visit <http://www.buehler-technologies.com/service>.

If the equipment is not functioning properly after correcting any malfunctions and switching on the power, it must be inspected by the manufacturer. Please send the equipment inside suitable packaging to:

Bühler Technologies GmbH

- Reparatur/Service -

Harkortstraße 29

40880 Ratingen

Germany

Please also attach the completed and signed RMA decontamination statement to the packaging. We will otherwise be unable to process your repair order.

You will find the form in the appendix of these instructions, or simply request it by e-mail:

service@buehler-technologies.com.

7.1 Troubleshooting and fault rectification

CAUTION



Risk due to defective device

Personal injury or damage to property

- a) Switch off the device and disconnect it from the mains.
- b) Repair the fault immediately. The device should not be turned on again before elimination of the failure.



CAUTION



Hot surface

Burning hazard

According to the product type and operation conditions, the temperature of the housing may exceed 50 °C during operation.

Depending on the conditions at the installation site it may be necessary to provide these areas with appropriate warning signs.

Malfunction	Cause	Action
Pump doesn't start up	– Broken or incorrectly connected lead	– Check connection or fuse and switch
	– Defective motor	– Replace motor
Pump doesn't convey	– Defective or dirty valves	– Carefully blow out or replace valves or see chapter Replacing inlet and outlet valves.
	– Bypass valve open	– Close bypass valve
	– Defective bypass valve O-ring	– have repaired by a Bühler service technician or see Replacing the bypass valve O-ring
	– Torn bellow	– have repaired by Bühler service technician or see Replacing the bellows and cam follower-eccentric combination.
	– Broken/worn ring gear	– have repaired by a Bühler service technician or "Replacing the coupling".
Noisy pump operation	– Crankshaft out of alignment	– have repaired by Bühler service technician or see Replacing the bellows and cam follower-eccentric combination.
	– Work ring gear	– have repaired by a Bühler service technician or "Replacing the coupling".
	– Loose coupling hub	– have repaired by a Bühler service technician or tighten the stud on the coupling hub to 1.34 Nm

Malfunction	Cause	Action
Premature ring gear wear	– Engine bracket damaged	– Replace motor
	– e.g. contact with ozone influences or similar, causing a physical change to the ring gear	– Eliminate any physical changes to the ring gear
Protective device is triggering	– Coil- and terminal short circuit	– Measure insulation resistance
	– Start-up time exceeded	– Check start-up requirements
Poor performance	– Leakage	– Tighten head screws, note torque (see chapter "Maintenance").
	– Torn bellow	– have repaired by Bühler service technician or see Replacing the bellows and cam follower-eccentric combination.
	– Defective or dirty valves	– Carefully blow out or replace valves or see chapter Replacing inlet and outlet valves.

Tab. 1: Troubleshooting

7.2 Spare parts and accessories

Please also specify the model and serial number when ordering parts.

Upgrade and expansion parts can be found in our catalog.

Available spare parts:

Spare part	Item no.	Position in assembly drawings 42/025-Z02-01-2 & 42/025-Z02-02-2
Bellow	4200015	12a
Plunger / eccentric combination	4200075	10a, 11
Coupling ring gear	4220011	28c
Set of 100 °C valves	4201002	2x 17a
Set of 160 °C valves	4202002	2x 17b
Bypass O-ring (Viton)	9009115	21a

Tab. 2: Spare Parts and Accessories