

# MS4000

## End-of-Life Information

Grundfos MS4000 must be disposed of according to local regulations by using a public or private waste collection service. If this is not possible, contact the nearest Grundfos company or service workshop.

### Safety risks

Safety risk related to materials used

- MS4000 contains motor liquid with monopropylene glycol.
- Hermetically sealed stator with embedding material – risk of explosion if exposed to temperature > 120 deg C.
- Grinding in SS poses risk of dust with Cr and Ni.

Safety risk related to handling the product

- Electrically burned motors can contain health hazardous substances formed by burning of various insulation materials.
- Motor and motor liquid can contain substances present in the media it has been in (pay attention in case of radioactive media – biological growth etc.)

### Disassembly of the product

- Submersible motor can be disassembled into main components using standard tools.
- Shaft can be pressed out of rotor core – tungsten carbide bushes in bearing areas are present.
- Stator + rotor core can be recycled by use of shredder technology to separate the different materials, copper, SS, electro steel and insulation materials.

Designation	Name	Material	Special disassembly considerations
1+2	Sand shield + diaphragm	Rubber	
11	Shaft seal housing	SS casting	
	Motor liquid	Monopropylene glycol + water	
10	Shaft seal	Rubber + seal faces (tungsten carbide and or ceramic)	
7	Shaft	Shaft extension in SS, rest in mild steel	Tungsten carbide rings can be heated to release them from shaft
	Rotor core	Lamination – electro steel Copper bars + short circuiting rings	
8	Bearing bracket	Mild steel + ceramic bushes	Press fit
5	Upper bearing pipe	Cast iron + ceramic bushes	Press fit
7	Thrust bearing	Cast iron + ceramic ring	Glued

	rotating		
8	Thrust bearing stationary	Carbon shoes Mesh - SS 1.4301 Support – cast iron	Some contains antimon
5+9	Locking ring + bearing retainer	Mild steel	
11	End shield	SS plate	
9	Hermetically sealed stator	Shell + end cover &nbsp;– SS 1.4301 Top – SS casting Embedding material – sand and epoxy Winding wire – Insulated copper Stator lamination – electro steel Some stators with small PCB in top.	
	Bolts and nuts	SS grade	
<b>Additional materials:</b>			

