## MMS

## **End-of-Life Information**

Grundfos MMS submersible motors 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

- MMS submersible motors contains motor liquid with monopropylene glycol.
- 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.
- Rotor core can be recycled by use of shredder technology to separate the different materials, copper or aluminium and electro steel.

Designation	Name	Material	Special disassembly considerations
1	Sand shield + diaphragm	Rubber or SS plate	
2	Shaft seal	Rubber + SS plate +seal faces in carbon, ceramic or silicon carbide	
	Motor liquid	Monopropylene glycol + water	
3	NEMA flange	Cast iron or SS casting	Carbon bush (press fit)
4	Winding house	Cast iron or SS casting	
5	Shaft	Shaft extension + N - side in SS, rest in mild steel. Balancing rings in mild steel	Friction welding zones under balancing rings.
	Rotor core	Lamination – electro steel. Copper bars + copper short circuiting rings alternative die cast aluminium	
6	Thrust bearing rotating	Cast iron + carbon or ceramic ring	Glued



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7	Thrust bearing stationary	Carbon shoes Mesh - SS 1.4301 Support – cast iron MMS6; SS casting MMS12000; brass with vulcanised rubber	Some contains antimon
8	End shield	Cast iron or SS casting	
9	Stator	Lamination – electro steel Winding wire – copper insulated with PVC or PE/PA Insulation material - polyester	
	External bolts and nuts	SS grade	
Additional materials:			





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