

# POPTR-I

POPTR-I is a flexible and efficient mixer that is mounted through the side of the tank wall. The three-blade propeller and the relatively low propeller speed, makes it well-suited for mixing liquids with a high viscosity, such as drained or digested sludge. The optimal motor cooling function makes it an ideal choice for liquids with high temperatures.



## APPLICATION EXAMPLES

- Sludge tanks
- Mixing system for digestion tanks
- Hot liquids

## PROPELLER RPM

300 rpm – gear 1:4.5 or 1:5

## MATERIAL OF CONSTRUCTION

Motor housing	Cast iron EN-GJL-250
Oil chamber	W1.4404/AISI316
Propeller	Stainless steel W1.4301 W1.4404/AISI316 (optional)
Protection jacket over gear box	W1.4404/AISI316
Gear	Cast iron EN-GJL-250 (no contact with the liquid)
Gear output shaft	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	A4
Exterior sealing system	1 oil sealing ring made of nitrile Wear bush made of stainless steel W1.4301/AISI304 with ceramic coating Mechanical shaft seal: silicon carbide/silicon carbide
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 0–30 °C SP 100 Liquid temperature 30–60 °C GS 220 GS 220 (with moisture detection)
Grease type	High temperature grease

## SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 4,300 operational hours/minimum once a year. After a maximum of 12,900 operating hours, the mixer must be disassembled from the
Grease lubrication/inspection	Every three days
Motor	Lifetime lubricated bearings
Gear	Periodic oil change Calculated service life >100,000 operating hours
Propeller	Periodic grease lubrication

## SURFACE TREATMENT

Machinery enamel: RAL 9005 (Jet Black)	Jet Black
2-component coating: RAL 7005 (Mouse Grey) (optional)	Mouse Grey

## MONITORING FUNCTIONS

Thermistor

Moisture detection system (optional)

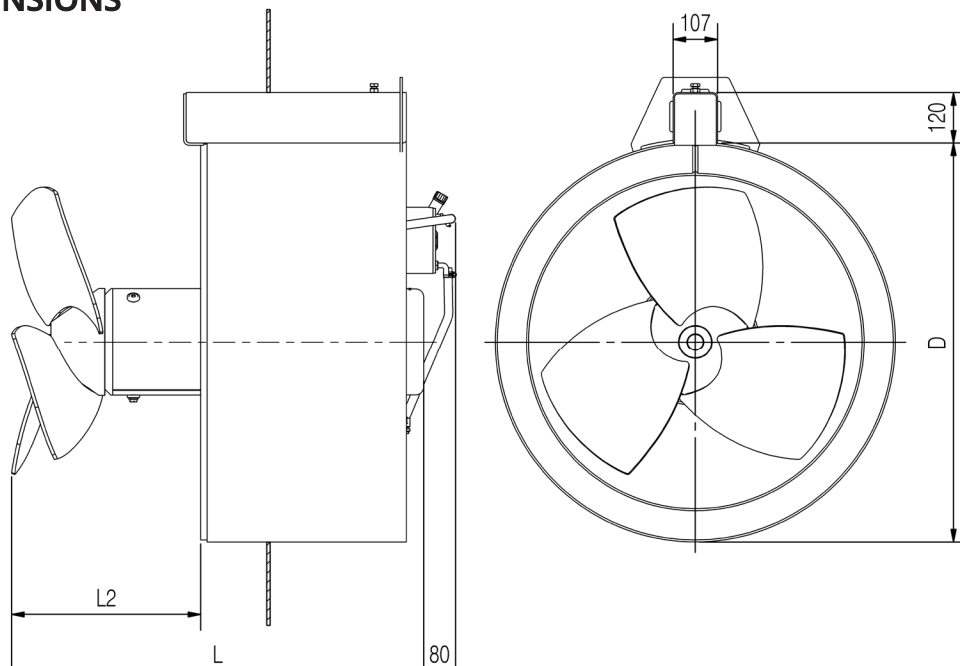
**ELECTRICAL DATA POPTR-I**

Motor type	3-phase AC motor
Nominal voltage	400 V
Minimum voltage allowed	360 V
Nominal frequency	50 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 55
Insulation class	F
Start function	Soft starter required

Model	Item number	Nominal power	Motor	Full load current (400 V)	Connection method	Start current (DOL)	cos phi	Efficiency
		[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
POPTR-I 11.0 kW-300 rpm	1114511	11.0	1,455	21.5	Δ	146	0.84	87.9
POPTR-I 18.5 kW-300 rpm	1114518	18.5	1,460	35.0	Δ	238	0.85	89.3
POPTR-I 11.0 kW-300 rpm	1134511	11.0	1,470	22.5	Δ	176	0.78	90.3
POPTR-I 18.5 kW-300 rpm	1134518	18.5	1,470	37.5	Δ	240	0.78	91.2

For voltages others than 400 V/50 Hz please refer to the attached Appendix.

## OVERALL DIMENSIONS



Model	Item number	Propeller diameter [mm]	L [mm]	L2 [mm]	D [mm]	Axial pressure - operation [N]	Axial pressure - start [N]	Weight [kg]
POPTR-I 11.0 kW-300 rpm	1114511	ø770	990	460	ø963	3,000	5,000	318
POPTR-I 18.5 kW-300 rpm	1114518	ø770	1005	445	ø963	5,000	8,400	335
POPTR-I 11.0 kW-300 rpm	1134511	ø770	1045	460	ø963	3,000	5,000	331
POPTR-I 18.5 kW-300 rpm	1134518	ø770	1025	445	ø963	5,000	8,400	410

The shroud casing and angle of the POPTR-I is adjusted in accordance with the tank's condition and dimensions.

Be aware that the tank must be able to withstand the force from the mixer (both axial and vertical). Landia's built-in casing for the mixer does not replace the material that is removed from the tank wall. The tank supplier must design the necessary reinforcements around the hole for the mixer.

We reserve the right to make technical changes.