

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

360 rpm – gear 1:4.5 or 1:5

MATERIAL OF CONSTRUCTION

Motor housing	Cast iron AISI A48-40B
Oil chamber	AISI 316
Propeller	Stainless steel AISI 304 AISI 316 (optional)
Protection jacket over gear box	AISI 316
Gear	Cast iron AISI A48-40B (no contact with the liquid)
Gear output shaft	Shaft steel W1.6511/9840 (no contact with the liquid)
Bolts	AISI 316
Exterior sealing system	1 oil sealing ring made of nitrile Wear bush made of steel AISI 304 with ceramic coating Mechanical shaft seal: silicon carbide/silicon carbide
Interior sealing system	Mechanical shaft seal: silicon carbide/silicon carbide
Oil type	Liquid temperature 32–86 °F SP 100 Liquid temperature 86–140 °F GS 220 GS 220 (with moisture)
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 284 °F

Moisture detection system (optional)

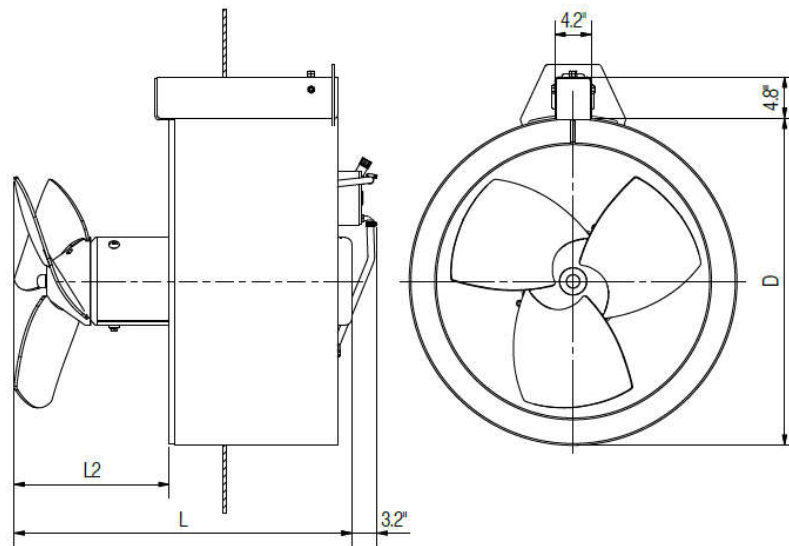
ELECTRICAL DATA

Motor type	3-phase AC motor
Nominal voltage	460 V
Minimum voltage allowed	415 V
Nominal frequency	60 Hz
Applicable for VFD operation	Yes
Ingress protection rating	IP 55
Insulation class	F
Start function	Soft starter required

Model	Nominal power	Motor	Full load current (460 V)	Connection method	Start current (DOL)	cos phi	Efficiency
	[kW]	[rpm]	[A]	Y/Δ	[A]		[%]
POPTR-I 9.0 HP-360 rpm	9.0	1,745	11.0	Δ	72	0.88	86
POPTR-I 17.9 HP-360 rpm	17.9	1.755	22.0	Δ	152	0.84	88.4
POPTR-I 30.2 HP-360 rpm	30.2	1,760	36.0	Δ	241	0.85	90

For voltages others than 460 V/60 Hz please refer to the attached Appendix.

OVERALL DIMENSIONS



Model	Propeller diameter [inch]	L [inch]	L2 [inch]	D [inch]	Axial pressure - operation [N]	Axial pressure - start [N]	Weight [lb]
POPTR-I 9.0 HP-360 rpm	ø24.5	34.3	15.8	ø33.9	1,400	4,000	463
POPTR-I 17.9 HP-360 rpm	ø30.0	38.9	18.1	ø37.9	3,000	5,000	701
POPTR-I 30.2 HP-360 rpm	ø30.5	39.5	17.55	ø37.9	5,000	8,400	739

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.