

# POPR-I

Landia POPR-I mixers are made from stainless steel. The POPR-I mixers are available with a propeller speed of 180 or 360 rpm, with motor sizes ranging from 1.8 to 30.2 HP. They are also available in Super Duplex (SAF 2507), which is 100% resistant to sea water.

## APPLICATION EXAMPLES

- ▶ Acidic liquids
- ▶ Liquids with a high chloride content, such as at desalination plants
- ▶ Anoxic and anaerobic tanks
- ▶ SBR reactors
- ▶ Sludge tanks
- ▶ MBBR reactors
- ▶ Fish ensilage

## PROPELLER RPM

180 rpm – gear 1:6 or 1:7.25

360 rpm – gear 1:4.5 or 1:5



**MATERIAL OF CONSTRUCTION POPR-I 180 RPM**

Motor housing and oil chamber	AISI 316
Propeller	Stainless steel AISI 304 Steel AISI 316 (optional)
Protection jacket over gear box	Steel AISI 316
Gear	Cast iron AISI A48-40B (no contact with the liquid)
Gear output shaft	Shaft steel AISI 9840 (no contact with the liquid)
Bolts	Steel AISI 316
Exterior sealing system	3 oil sealing rings made of nitrile Wear bush made of stainless steel AISI 304 (ceramic coating optional) Wear bush made of steel AISI A2
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 detection)
Grease type	High temperature grease

**MATERIAL OF CONSTRUCTION POPR-I 360 RPM**

Motor housing and oil chamber	Steel AISI 316
Propeller	Stainless steel AISI 304 Steel AISI 316 (optional)
Protection jacket over gear box	Steel AISI 316
Gear	Cast iron AISI A48-40B (no contact with the liquid)
Gear output shaft	Shaft steel AISI 9840 (no contact with the liquid)
Bolts	Steel AISI 316
Exterior sealing system	1 oil sealing ring made of nitrile Wear bush made of stainless steel AISI 304 (ceramic coating optional) 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 detection)
Grease type	High temperature grease

## SERVICE AND MAINTENANCE

Recommended service interval/oil change	Maximum 4,300 operating hours/minimum once a year
Motor	Lifetime lubricated bearings
Gear	Periodic oil change Calculated service life >100,000 operating hours
Propeller	Periodic grease lubrication

## ELECTRICAL CABLE

Resistant to abrasion, oil and UV radiation.



Number of conductors:

SOOW 7AWG14

SOOW 10AWG10

23' (other lengths available upon request)

## MONITORING FUNCTIONS

Bimetal thermal sensors 248 °F

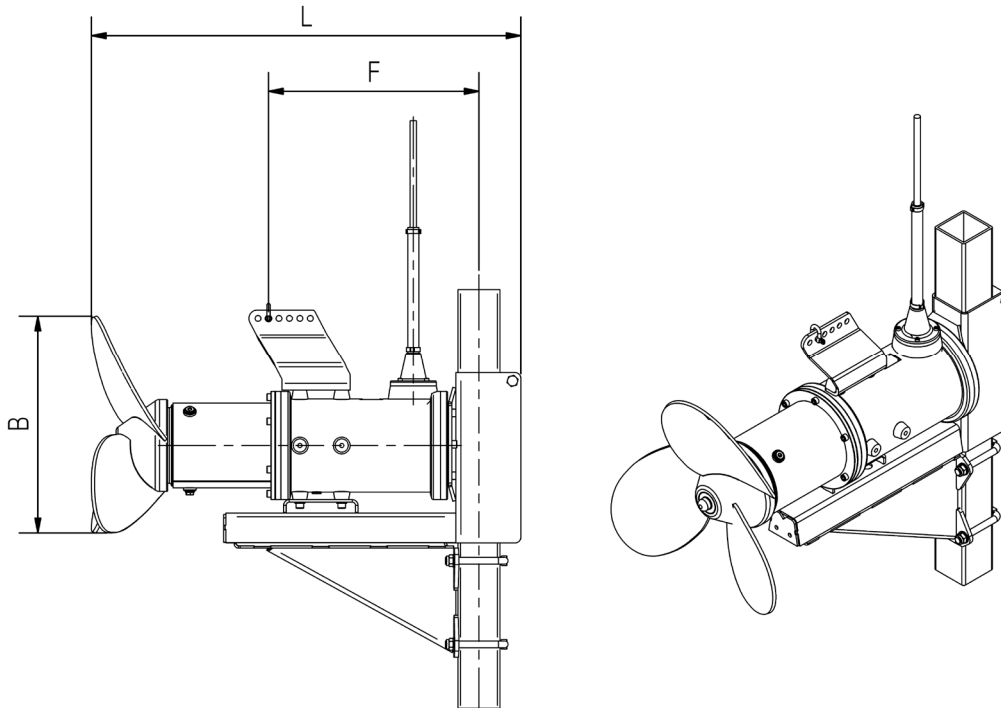
Moisture detection system (optional)

**ELETRICAL DATA**

Motor type	3-phase AC motor
Nominal voltage	460 V
Minimum voltage allowed	415 V
Nominal frequency	60 Hz
Suitable for VFD-operation	Yes
Cage class	IP 68
Insulation class	F
ATEX classification	Not possible
Variable-speed drives	Inverter Duty Rated

Model	Nominal power	Motor	Full load current (460 V)	Connection method		Start current (DOL)	cos phi	Efficiency (100%)
	[HP]	[rpm]	[A]	[V]	Y/Δ	[A]		[%]
POPR-I 1.8/1.2 HP-180 rpm	1.8	1165	2.6	460	Y	14	0.78	81.0
POPR-I 6.5/1.8 HP-180 rpm	6.5	1165	8.7	460	Δ	46	0.79	87.5
POPR-I 12.2/6.5 HP-180 rpm	12.2	1170	15.5	460	Δ	88	0.81	89.0
POPR-I 6.5 HP-360 rpm	6.5	1735	9.0	460	Δ	66	0.78	85.0
POPR-I 17.9 HP-360 rpm	17.9	1755	22.0	460	Δ	152	0.84	88.4
POPR-I 30.2 HP-360 rpm	30.2	1760	36.0	460	Δ	241	0.85	90.0

## OVERALL DIMENSIONS



Model	Standard propeller diameter [inch]	B [inch]	F [inch]	L [inch]	Guide pipe [inch]	Weight [lb]
POPR-I 1.8/1.2 HP-180 rpm IE2	ø22.6	20	15.8	35.0	3,1x3,1	260
POPR-I 6.5/1.8 HP-180 rpm IE2	ø36.6	30	19.9	45.0	3,9x3,9	414
POPR-I 12.2/6.5 HP-180 rpm IE2	ø37.4	32	20.9	46.5	3,9x3,9	571
POPR-I 12.2/6.5 HP-180 rpm IE2	ø42.5	36	20.9	48.0	3,9x3,9	571
POPR-I 6.5 HP-360 rpm	ø19.3	19	15.0	34.8	3,1x3,1	262
POPR-I 17.9 HP-360 rpm	ø29.3	25	18.7	43.1	3,9x3,9	428
POPR-I 30.2 HP-360 rpm	ø33.1	28	19.1	46.1	3,9x3,9	534

We reserve the right to make technical alterations.