

# Recirculation Pump AXP-I

An axial propeller pump designed to pump large amounts of liquids with low back pressure. The pump is most often used at sewage treatment plants for recirculating sludge, but it can also be used in, for example, drainage and for recirculation in fish farming facilities.

## APPLICATION EXAMPLES

- Recirculation in active sludge processes
- Aqua culture, recirculation

## PROPELLER RPM

360 rpm – gear 1:4.5 or 1:5

480 rpm – gear 1:3.5



## MATERIAL OF CONSTRUCTION

Motor housing and oil chamber	Cast iron AISI A48-40B
Propeller and volute insert	Stainless steel AISI 304
Gear	Cast iron AISI A48-40B
Gear output shaft	Shaft steel AISI 9840 (no contact with 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 set	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

## SURFACE TREATMENT

2-component coating: RAL 7005 (Mouse Grey)

Mouse Grey

## 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

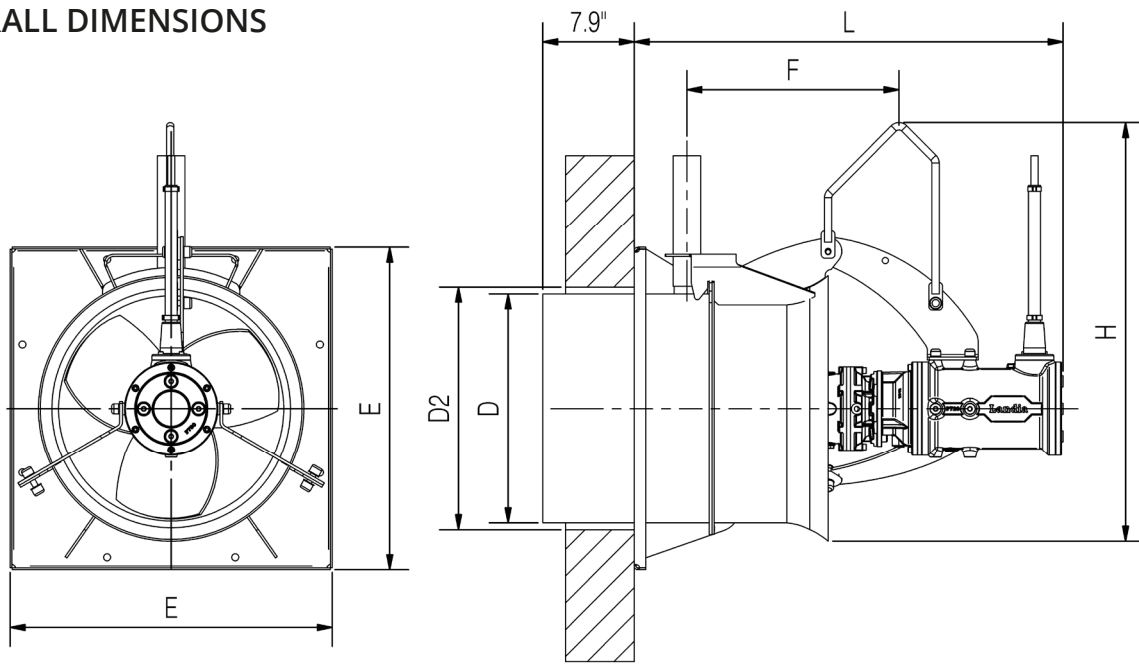
Moisture detection system (optional)

**ELECTRICAL 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	Class I, Groups C & D (option for selected models)
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]		[%]
AXP-I 500 3.6 HP-360 rpm	3.6	1720	5.3	460	Y	34	0.75	81.0
AXP-I 500 6.5 HP-360 rpm	6.5	1735	9.0	460	Δ	66	0.78	85.0
AXP-I 500 9.0 HP-480 rpm	9.0	1745	11.0	460	Δ	72	0.88	86.0
AXP-I 500 17.9 HP-480 rpm	17.9	1755	22.0	460	Δ	152	0.84	88.4
AXP-I 800 17.9 HP-360 rpm	17.9	1755	22.0	460	Δ	152	0.84	88.4
AXP-I 800 30.2 HP-360 rpm	30.2	1760	36.0	460	Δ	241	0.85	90.0

OVERALL DIMENSIONS



Model	D		D2 [inch]	E [inch]	F [inch]	H [inch]	L [inch]	Weight [lb]
	[mm]	[inch]						
AXP-I 500 3.6 HP-360 rpm	ø500	ø19.7	ø20.9	27.8	15.9	37.2	33.7	201
AXP-I 500 6.5 HP-360 rpm	ø500	ø19.7	ø20.9	27.8	18.3	35.6	37.8	238
AXP-I 500 9.0 HP-480 rpm	ø500	ø19.7	ø20.9	27.8	20.3	35.4	39.6	251
AXP-I 500 17.9 HP-480 rpm	ø500	ø19.7	ø20.9	27.8	22.6	35.6	40.9	364
AXP-I 800 17.9 HP-360 rpm	ø800	ø31.5	ø32.7	40.7	20.5	57.1	43.5	562
AXP-I 800 30.2 HP-360 rpm	ø800	ø31.5	ø32.7	40.7	22.8	57.1	45.7	683

We reserve the right to make technical alterations.