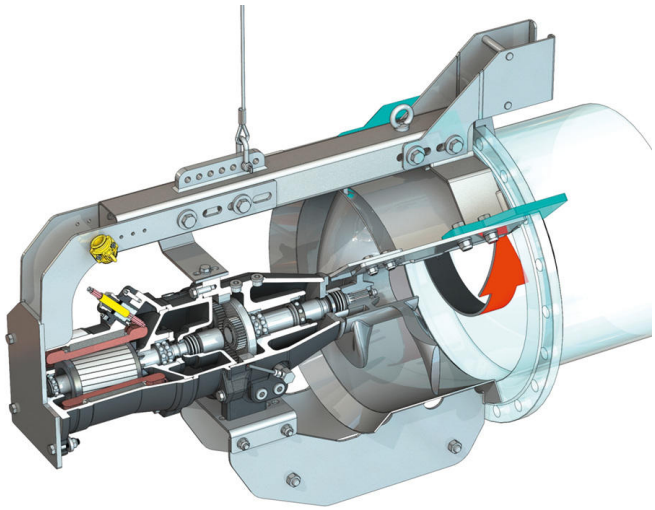
Recirculation pump

Flumen OPTI-RZP 50-4.34-4/8



Unit

Max. weight* *m*	180 kg
Explosion protection ATEX	optional
Explosion protection FM	optional
Protection class motor	IP68

Propeller

Propeller model	3-blade propeller with self-cleaning hub; clogging- and entwining-free
Nominal propeller diameter *Dnom*	500 mm
Propeller speed *n*	337 1/min
Transmission ratio	4.250

Filling quantities and types

Filling prechamber	Gear oil CLP220
Filling volume prechamber *V*	1.20 l
Filling gear chamber	Gear oil CLP220
Fill volume gear chamber *V*	0.50 l
Filling sealing chamber	White oil
Fill volume sealing chamber *V*	1.10 l

Motor/electronics

Motor type	T 17-4/8R (Ex)
Motor design	Submersible motor – surface-cooled
Mains connection	3~400 V, 50 Hz
Rated current I_N	7.90 A
Starting current - direct I_A	37.00 A
Starting current - star-delta I_A	13.00 A
Power consumption $P_{1\,max}$	4.50 kW
Rated power P_2	3.5 kW
Speed original *n*	1410 1/min
Motor efficiency class	-
Efficiency η_M	78.0 %
Power factor $cos\ \varphi_{100}$	0.82
Min. fluid temperature T_{min}	3 °C
Max. fluid temperature T_{max}	40 °C
Max. immersion depth	20 m
Insulation class	H
Max. switching frequency *t*	15 rph
min. switching break *t*	3 min
Starting torque *M*	46 Nm
Moment of inertia	0.0073 kg/m²
Motor bearings	1 grooved ball bearing, 1 two-row inclined ball bearing

Materials

Motor housing	5.1301, EN-GJL-250
Static gaskets	FKM
Motor shaft	1.4021, X20Cr13
Seal, gear/sealing chamber	SiC/SiC, Q1Q1VGG
Gear housing	5.1301, EN-GJL-250
Planetary gear	1.7131, 16MnCr5
Hollow gear	1.5216, 17MnV6
Sun gear	1.7131, 16MnCr5
Output shaft	1.4462, X2CrNiMoN22-5-3
Seal, gear chamber/prechamber	FKM
Sealing chamber	5.1301, EN-GJL-250
Seal on the fluid side	SiC/SiC, Q1Q1VGG
Seal bushing	1.4571, X6CrNiMoTi17-12-2
Propeller	1.4408, GX5CrNiMo19-11-2
Flow housing	1.4571, X6CrNiMoTi17-12-2

Gear

Gear construction type	m 2.0 as per DIN 780-1:1977-05 /P10 (ISO54:1996-12); sun and planetary gears case hardened and sanded, internal gear butt-jointed
Gear bearings	Three needle roller bearing (planetary), one two-row inclined ball bearing and one grooved ball bearing (output shaft)
Service life L_{h10}	100,000 operating hours, ISO 281:2007-02

*maximum weight including accessories