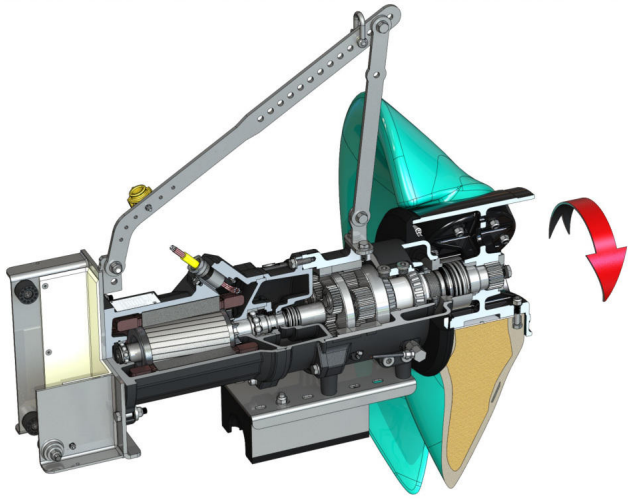
Pioneering for You

Submersible mixer

EMU TRE 321.46-4/16



Unit

Power consumption at duty point $P_{1.1}$	4.22 hp
Max. thrust *F*	607.0 lbf
Thrust to power ratio	142 lbf/hp
Max. weight* *m*	500.4 lb
Explosion protection ATEX *ATEX*	optional
Explosion protection FM *FM*	optional
Protection class motor	IP68

Propeller

Propeller model	3-blade propeller with self-cleaning hub; clogging- and entwining-free
Nominal propeller diameter *Dnom*	82.7 in (")
Propeller speed *n*	46 RPM
Transmission ratio	38.440

Filling quantities and types

Filling prechamber	Gear oil CLP220
Filling volume prechamber *V*	0.3 US gal
Filling gear chamber	Gear oil CLP220
Fill volume gear chamber *V*	0.2 US gal
Filling sealing chamber	White oil
Fill volume sealing chamber *V*	0.3 US gal

Motor/electronics

Motor type	TE 17-4/16R (Ex)
Motor design	Submersible motor – surface-cooled
Mains connection	3~460 V, 60 Hz
Rated current I_N	7.10 A
Starting current - direct I_A	60.00 A
Starting current - star-delta I_A	20.00 A
Power consumption $P_{1\ max}$	6.2 hp
Rated power P_2	5.4 hp
Speed original *n*	1747 RPM
Motor efficiency class	IE3
Efficiency η_M	87.3 %
Power factor *cos φ*	0.81
Min. fluid temperature T_{min}	37 °F
Max. fluid temperature T_{max}	104 °F
Max. immersion depth	66 ft
Insulation class	H
Max. switching frequency *t*	15 rph
min. switching break *t*	3 min
Starting torque *M*	72.3 lbf ft
Moment of inertia	0.32 lb ft²
Motor bearings	2 grooved ball bearing

Materials

Motor housing	ASTM A48, Class No. 35
Static gaskets	FKM Fluoro rubber
Motor shaft	AISI 420
Seal, gear/sealing chamber	SiC/SiC, Q1Q1VGG
Gear housing	ASTM A48, Class No. 35
Planetary gear	AISI 5115
Hollow gear	Grade 60
Sun gear	AISI 5115
Output shaft	AISI 329
Seal, gear chamber/prechamber	FKM Fluoro rubber
Sealing chamber	ASTM A48, Class No. 35
Seal bushing	AISI 316Ti
Propeller hub	60-40-15
Propeller	VE-GFRP

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	Six needle roller bearing (planetary), two tapered roller bearings (output shaft adjustable type), gearing permanently fixed
Service life L_{h10}	100,000 operating hours, ISO 281:2007-02

*maximum weight including accessories