

Action: Approved | Denied | Other
 Date Action Taken: 9/12/2022
 Verified By: [Signature]
 Clerk's Note: N/A

**City of Wasilla
 Action Memorandum No. 22-32**

Contract Award To Alaska Roteq Corporation In The Amount Of \$46,300 For The Purchase Of Sewer Effluent Pumps.

Originator: April Dwyer, Purchasing
 Date: 8/30/2022

Agenda of: 9/12/2022

Route to:	Department Head	Signature	Date
X	Public Works Director	[Signature]	8/31/22
X	Finance Director	[Signature]	8/31/22
X	Deputy Administrator	[Signature]	9/2/22
X	City Clerk	[Signature]	9/2/2022
X	Mayor	[Signature]	9/2/22

Fiscal Impact: yes or no

Funds Available: yes or no

Account name/number/amount:

Sewer Utility - Supplies 310.4353.435.60.99 \$46,300

Attachments: Bid Totals (1 page)
 Pump Specifications (10 pages)

Summary Statement: On August 12, 2022 the City of Wasilla issued an Invitation to Bid 0812-0-2022/AD for Sewer Effluent Pumps. Five bids were received. The lowest responsive bidder is Alaska Roteq Corporation.

The Liberty FL102M-2 pump specifications have been reviewed and confirmed to be equal to the current pump in use; a Meyers P52. It is recommended that an initial order is placed for five (5) Liberty pumps.

The ABS Scavenger EF 10-1H pump specifications have been reviewed and confirmed to be equal to the current pump in use; a Meyers P102. It is recommended that an initial order is placed for fifty (50) ABS Scavenger pumps.

The bid also includes the option to purchase additional pumps as needed within one (1) year of contract award.

Staff Recommendation: Approve the Action Memorandum.

BID TOTALS

No. 0812-0-2022/AD

Sewer Effluent Pumps

August 30, 2022 @ 3pm

Contractor:	Alaska Roteq Corporation	Frontier Supply	Frontier Supply	Beckwith & Kuffel Inc.
P52 or Equal	\$9600.00	\$12,181.90	\$9,344.50	\$17,458
P102 or Equal	\$49,800	\$73,091.40	\$62,898	\$82,600
TOTAL BID	\$59,400	\$73,091.40	\$72,242.50	\$100,058

Contractor:	Ferguson Enterprises			
P52 or Equal	\$11,780			
P102 or Equal	\$70,704			
Total Bid	\$82,484			

Liberty Pumps®

FL100-Series

1hp

**Submersible
Effluent
Pumps**

**1-1/2" or 2"
Discharge**

Flange Mounted



**POWDER
COATED
TOUGH™**

**3
Year Warranty**



**Dual Sized
Discharge
1-1/2" or 2"**

- 3/4" Solids-handling
- Heavy cast iron construction
- Semi-open cast iron impeller
- Stainless steel rotor shaft
- Dual shaft seals
- Single float, mercury free level control
- Additional mounting clamp provided for optional switch mounting to pipe
 - Fully adjustable pumping range
- 2" FNPT threaded discharge with 1-1/2" FNPT flange provided
- Quick-disconnect power cord - 25' length standard
- Available in automatic and manual models

Innovate. evolve.

FL100-Series

Technical Specifications

External Construction:

Pump Volute – Gray iron casting class 25
 Pump Legs – Gray iron casting class 25
 Motor Cover – Gray iron casting class 25
 All casting shall be powder coated for corrosion resistance prior to assembly.

Motor:

Submersible 3450 RPM, oil filled and hermetically sealed. Class B insulation rating. FL100 only 17-4 PH Stainless steel. Thermally protected – single phase models. Three phase models shall have overloads incorporated into the control panel, properly sized for the horsepower and amperage of the pump.

Impeller:

Semi-open design. Cast iron construction.

Dual Shaft Seals:

FL100-Series feature upper unitized carbon ceramic and lower Viton double lip.

Fasteners:

All fasteners shall be 300-series stainless steel.

Power Cord:

25' length standard. Quick-disconnect design allows easy field replacement. (35' and 50' available on 3-phase)

Level Control:

The pump shall be controlled by a wide angle mechanical float sealed in a PVC housing. The float shall have a series plug for manual by-pass operation.

A water-stop seal shall be incorporated into the cord entry to eliminate potential water wicking into the switch.

An adjustable clamp is provided for optional pipe mounting of the float.

Discharge:

2" FNPT with 1-1/2" FNPT cast iron flange provided.

Maximum Fluid Temperature:

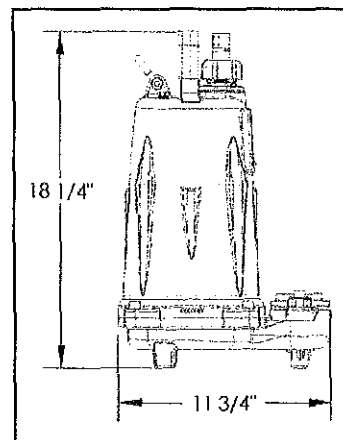
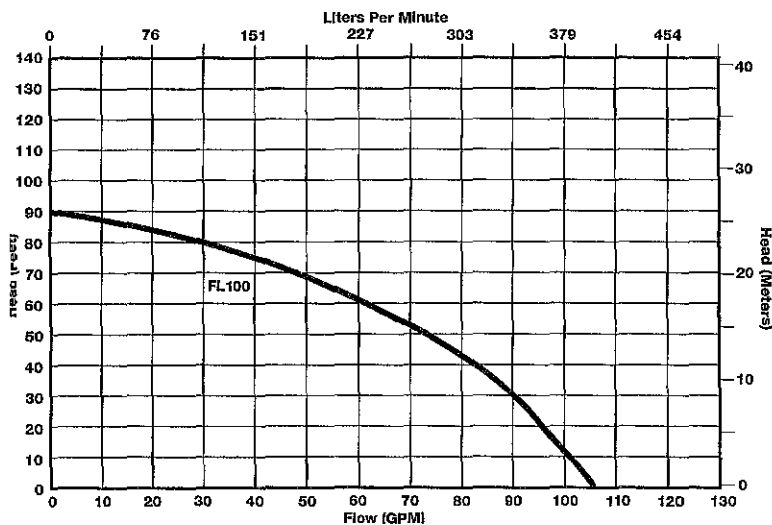
104° F (40° C) Continuous Duty

140°F (60° C) Intermittent

Models	hp.	Volts	Phase	Amps	Discharge	Automatic	Cord Length	Wgt. Lbs.
FL102M-2	1	208-230	1	12	1-1/2" & 2"	No	25'	71
FL102A-2	1	208-230	1	12	1-1/2" & 2"	Yes	25'	72
FL103M-2	1	208/230	3	9	1-1/2" & 2"	No	25'	71
FL104M-2	1	440-480	3	4.5	1-1/2" & 2"	No	25'	71
FL105M-2	1	575	3	3.3	1-1/2" & 2"	No	25'	71

NOTE: 3-phase models require a control panel for automatic operation. See control panel literature for complete specifications on panels. 35' and 50' cord options available on 3-phase models. Add "-3" suffix or "-5" suffix to model number. Example: FL103M-3 for 35' cord, FL103M-5 for 50' cord.

60 hz Performance Curve FL100-Series



Specifications subject to change without notice.

ABS SCAVENGER Effluent & Sewage Ejector Pumps

Rugged submersible pumps for residential, commercial, municipal, and industrial applications.

Unique triple seal design

ABS patented Contra Block[®] impeller with adjustable wear plate system, for clog-free operation.

Single phase models through 5 HP. Three phase models through 10 HP

Discharges, 1 1/4 to 4"

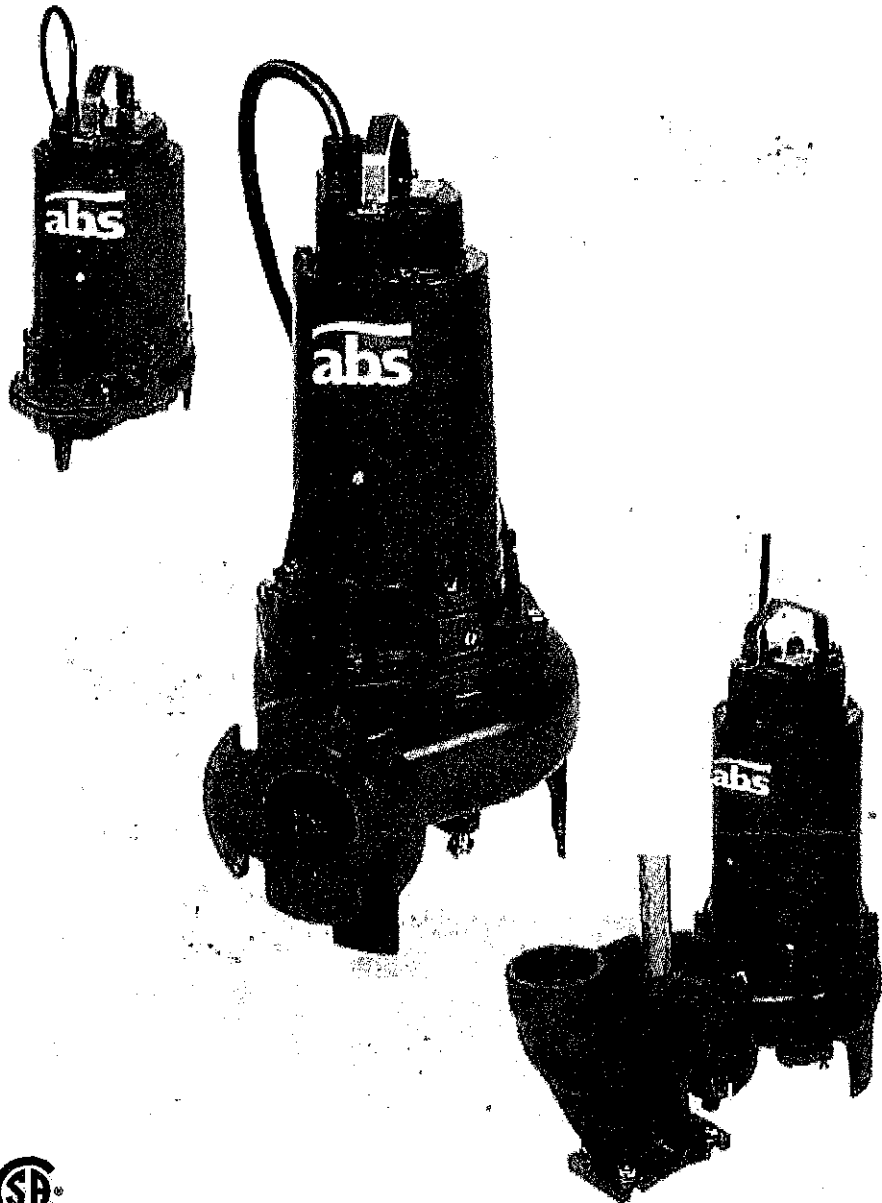
High torque capacitor start single phase motors

Rugged cast iron construction with stainless steel fasteners and motor shaft

Oil filled motors (non-toxic oil)

Stainless steel open loop lifting bale for ease of removal

Seal leakage sensor probe on models EJ30-3 and up



SCAVENGER™ Effluent & Sewage Ejector Pumps

Effluent Pumps

1 1/4 Inch Discharge

Model	HP	Phase*	RPM	Voltage**	Amps	Discharge	Solids Size	Max Head (feet)	Max Flow (gpm)	Weight (Lbs.)
EF 05W-1H	1/2	1	3450	115, 208-230	15.0, 8.3-7.5	Horiz. NPT	5/8"	73	44	68
EF 10W-1H	1	1	3450	208-230	14.4-13.0	Horiz. NPT	5/8"	108	44	70

2 Inch Discharge

EF 10W-2	1	1	3450	208-230	14.4-13.0	Vert. NPT	3/4"	73	160	62
EF 10D-2	1	3	3450	208-230/460, 575	6.4-5.8/2.9, 2.3	Vert. NPT	3/4"	73	160	57
EF 20D-2	2	3	3450	208-230/460, 575	6.8-6.1, 3.1, 2.4	Vert. NPT	3/4"	86	175	68

Sewage Ejector Pumps

2 Inch Discharge

Model	HP	Phase*	RPM	Voltage**	Amps	Discharge	Solids Size	Max Head (feet)	Max Flow (gpm)	Weight (Lbs.)
EJ 07W-2	3/4	1	1750	115, 208-230	14.0 / 7.7-7.0	Horiz. Flange ‡	2"	25	200	84
EJ 07D-2	3/4	3	1750	208-230/460, 575	5.5-5.0/2.5, 2.0	Horiz. Flange ‡	2"	25	200	80
EJ 10W-2	1	1	1750	208-230	11.1-10.0	Horiz. Flange ‡	2"	30	240	84
EJ 10D-2	1	3	1750	208-230/460, 575	5.5-5.0/2.5, 2.0	Horiz. Flange ‡	2"	30	240	80
EJ 15W-2	1 1/2	1	1750	208-230	16.6-15.0	Horiz. Flange ‡	2"	37	300	90
EJ 15D-2	1 1/2	3	1750	208-230/460, 575	7.7-7.0/3.5, 2.8	Horiz. Flange ‡	2"	37	300	84
EJ 20W-2	2	1	1750	208-230	21.0-19.0	Horiz. Flange ‡	2"	45	320	90
EJ 20D-2	2	3	1750	208-230/460, 575	9.9-9.0/4.5, 3.6	Horiz. Flange ‡	2"	45	320	84

3 Inch Discharge

EJ 10W-3	1	1	1750	208-230	11.1-10.0	Horiz. Flange	2 1/2"	30	265	77
EJ 10D-3	1	3	1750	208-230/460, 575	5.5-5.0/2.5, 2.0	Horiz. Flange	2 1/2"	30	265	70
EJ 15W-3	1 1/2	1	1750	208-230	16.6-15.0	Horiz. Flange	2 1/2"	35	300	90
EJ 15D-3	1 1/2	3	1750	208-230/460, 575	7.7-7.0/3.5, 2.8	Horiz. Flange	2 1/2"	35	300	84
EJ 20W-3	2	1	1750	208-230	21.0-19.0	Horiz. Flange	2 1/2"	44	330	90
EJ 20D-3	2	3	1750	208-230/460, 575	9.9-9.0/4.5, 3.6	Horiz. Flange	2 1/2"	44	330	84
EJ 30W-3	3	1	1750	208-230	25.4-23.0	Horiz. Flange	2 1/2"	50	450	147
EJ 30D-3	3	3	1750	208-230/460, 575	14.4-13.0/6.5, 5.2	Horiz. Flange	2 1/2"	50	450	143
EJ 50W-3	5	1	1750	208-230	29.9-27.0	Horiz. Flange	2 1/2"	57	470	161
EJ 50D-3	5	3	1750	208-230/460, 575	21.0-19.0/9.5, 7.6	Horiz. Flange	2 1/2"	57	470	154
EJ 75D-3	7 1/2	3	1750	208-230/460, 575	25.4-23.0/11.5, 9.2	Horiz. Flange	2 1/2"	67	525	161

4 Inch Discharge

EJ 30W-4	3	1	1750	208-230	25.4-23.0	Horiz. Flange	3"	46	525	154
EJ 30D-4	3	3	1750	208-230/460, 575	14.4-13.0/6.5, 5.2	Horiz. Flange	3"	46	525	150
EJ 50W-4	5	1	1750	208-230	29.9-27.0	Horiz. Flange	3"	52	550	165
EJ 50D-4	5	3	1750	208-230/460, 575	21.0-19.0/9.5, 7.6	Horiz. Flange	3"	52	550	158
EJ 75D-4	7 1/2	3	1750	208-230/460, 575	25.4-23.0/11.5, 9.2	Horiz. Flange	3"	61	600	165
EJ 100D-4	10	3	1750	208-230/460, 575	31.0-28.0/14.0, 11.2	Horiz. Flange	3"	70	620	170

*Single phase pumps from 1/2 HP through 2 HP have capacitor and thermal protection built into pump. Single phase pumps from 3 HP through 5 HP require an external capacitor start box or control panel, with overload protection. All three phase pumps require a control panel with overload protection.

** 230 Volt pumps can be operated on 208 volts without modifications.

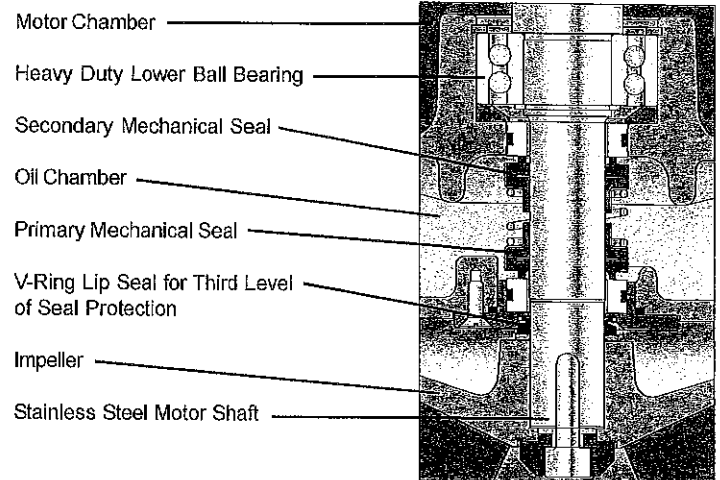
‡ Pump comes complete with bolt-on discharge elbow, 2" flange x 2" NPT, (2" flange x 3" NPT, optional).

Identification Code

E = E Series Scavenger Pump	EF 10W-1H H=High Head Version Discharge size 1 = 1 1/4 inch 2 = 2 inch 3 = 3 inch 4 = 4 inch
J = 1750 rpm Sewage Ejector Pump	
F = 3450 rpm Effluent Pump	
Motor HP (X10)	
W = Single Phase	
D = Three Phase	

Materials of Construction

Housings & Volute	Cast Iron
Impeller and Wear Plate	Cast Iron
External Hardware	304 Stainless Steel
Motor Shaft	420 Stainless Steel
Mechanical Seals	Carbon/Ceramic (optional Silicon Carbide)
Bearings	Ball Bearings
Motor Windings	Copper (class B or F depending on model)
Start Switch (1 phase)	Solid State Electronic Switch
Power Cable	Thermoplastic Elastomer, 20 feet standard
O-Rings	thru EJ20D-3, 32 feet standard on EJ30W
Oil	and up Buna-N Non-Toxic

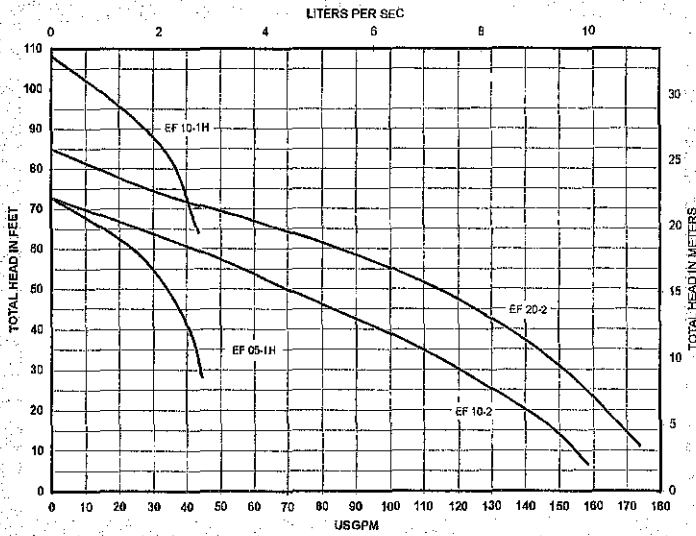


The Scavenger Triple Seal System

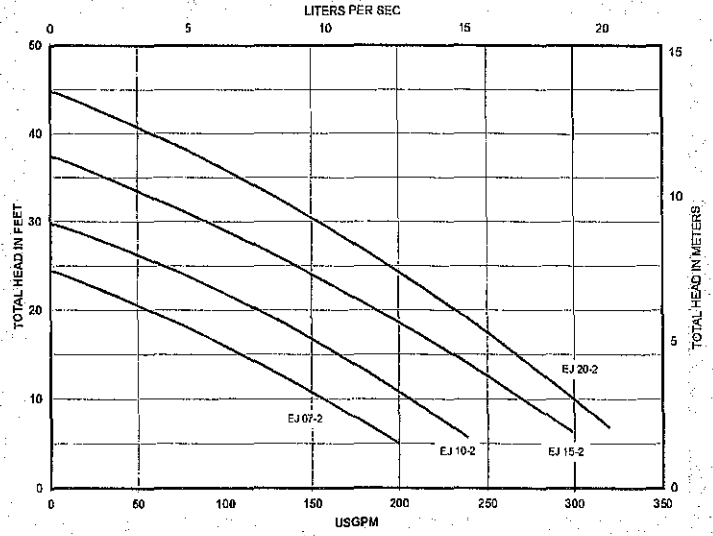
This ABS exclusive design provides three levels of sealing for outstanding reliability! A double mechanical seal located inside the oil chamber provides two full levels of sealing. An additional V-Ring type lip seal between the oil chamber and pump volute provides a third, extra level of sealing, and enhanced mechanical seal protection.

SCAVENGER™ Effluent & Sewage Ejector Pumps

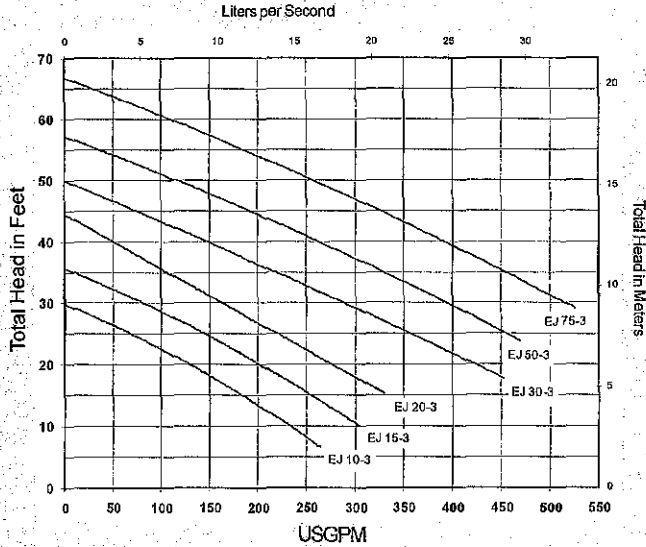
Effluent Pumps 1 1/4 & 2 Inch



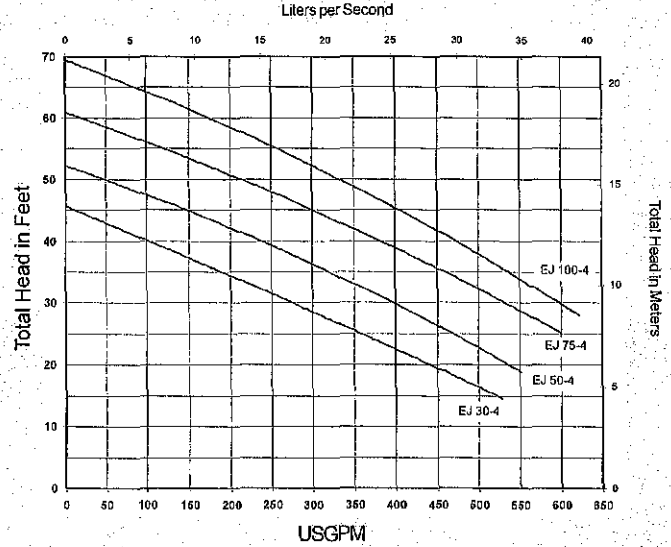
Sewage Ejectors, 2 Inch



Sewage Ejectors, 3 Inch



Sewage Ejectors, 4 Inch



Example Applications:

Commercial

Airports
Apartments & Hotels
Bus & Train Terminals
Car Washes
Condominiums
Convention Centers
Hospitals
Office Buildings
Restaurants
Shopping Malls
Trailer Parks

Industrial

Factory Sewage
Garages
HVAC Condensate
Machine Effluent
Transfer Tanks
Washdown Tanks
Waste Treatment

Marine

Ballast Transfer
Bilge Dewatering
Bilge Transfer
Dry Docks
Fish Hatcheries

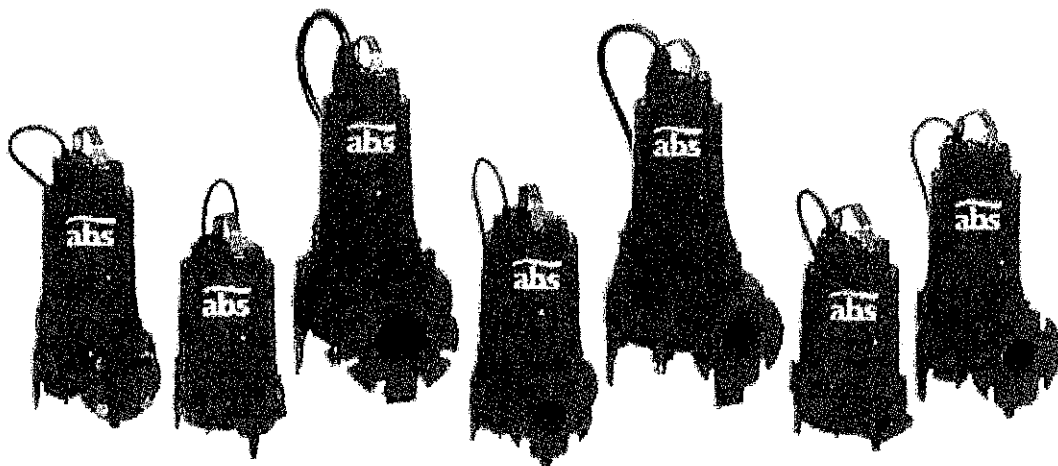
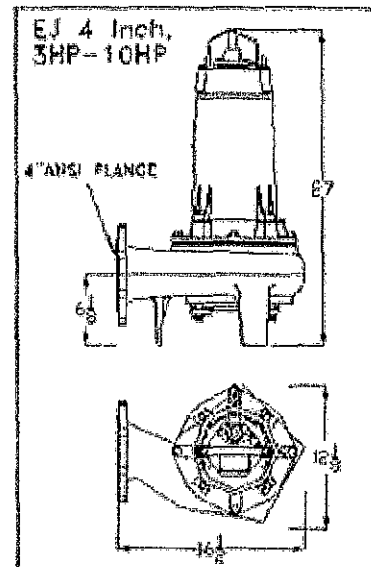
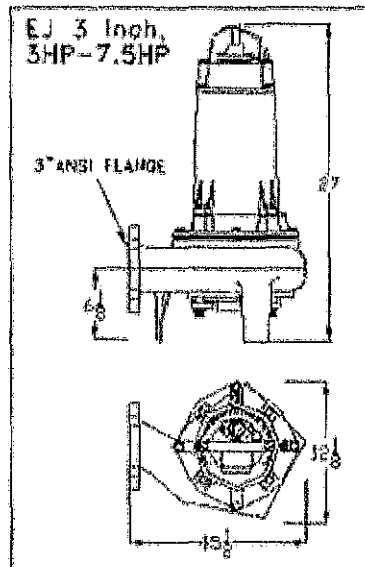
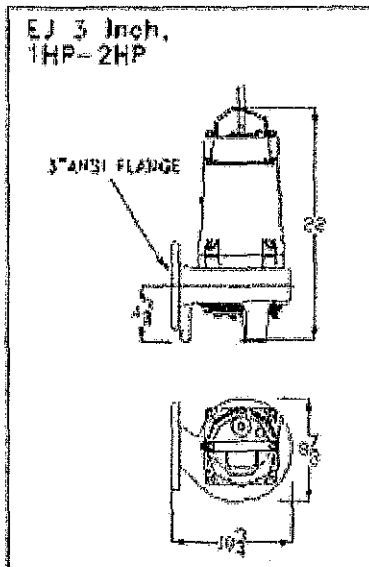
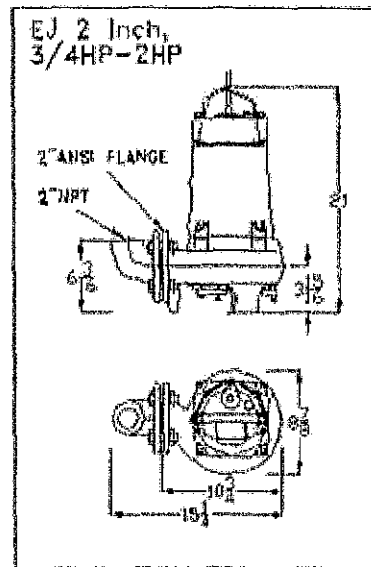
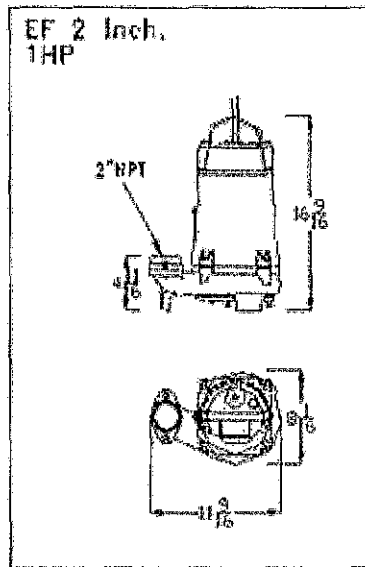
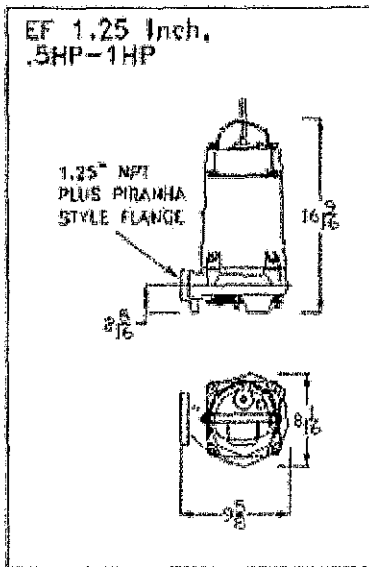
Residential & Municipal

Building Sumps
Home Sewage
Irrigation
Schools
Small Lift Stations
Water Features

Agriculture

Dairy Sewage
Irrigation
Tail Water Transfer

SCAVENGER™ Effluent & Sewage Ejector Pumps



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Fax: (203) 238-0738

Regional Offices:
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111 Maritime Drive
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Tel: (407) 330-3456
Fax: (407) 330-3404

Dewatering Division
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Western Region
11335 Sunrise Park Dr.
Rancho Cordova, CA 95742
Tel: (916) 949-7075
Fax: (916) 949-7359

ABS Canada
1401 Meyerside Drive, Unit #2
Mississauga, Ontario L5T 1G8
Tel: (905) 670-4677
Fax: (905) 670-3709

TECHNICAL DATA**SCAVENGER E SERIES****EF 10-1H**

Dwg: DS-S08-049 Rev: B Date: 11/2009

Section Scavenger Tab Effluent Page

MOTOR SPECIFICATIONS

Motor Design	NEMA design B, squirrel cage induction, oil filled, non toxic oil
Motor Type	Enclosed submersible
Insulation Class	Class B, rated at 120° C
Motor Protection	Single Phase: Internal thermal protection with automatic reset. Installer must provide circuit breaker for short circuit protection per N.E.C standards.
Service Factor	1.15
Voltage Tolerance	± 10% from name plate rating

MOTOR DATA, 60Hz

Model	Phase	Output Power bhp	Volts	Full Load Amps	Locked Rotor Amps	NEMA Code Letter	Pole/Speed (rpm)
EF 10-1H	1*	1.0	230	13.0	45.5	M	2/3450

* Start switch and capacitor integrated into top of pump.

MATERIALS of CONSTRUCTION

Upper Motor Lid	Cast Iron ASTM A48 Class 30
Motor Housing	Cast Iron ASTM A48 Class 30
Oil Chamber	Cast Iron ASTM A48 Class 30
Volute	Cast Iron ASTM A48 Class 30
Bottom Plate	Cast Iron ASTM A48 Class 30
Impeller	Cast Iron ASTM A48 Class 30
Lifting Bail	AISI 304 Stainless Steel
Oil (motor & oil chamber)	Non-toxic white mineral oil (Marcol 52)
External Hardware	AISI 304 Stainless Steel
O-Rings	Buna-N
Motor Shaft	AISI 420 Stainless Steel
Upper Bearing	Single row ball bearing
Lower Bearing(s)	Single row ball bearing
Upper Shaft Seal (secondary)	Rotating carbon face w/ stationary ceramic face
Lower Shaft Seal (primary)	Rotating carbon face w/ stationary ceramic face. Includes V-ring lip seal for lower seal protection. Option: Silicon Carbide mechanical seal

DIMENSIONS, WEIGHT, AND MISC.

Pump weight, lb. (kg)	70 (32)
Maximum submergence, ft. (m)	65 (20)
Discharge size, standard	1 ¼ inch horizontal Street 90 to 1 1/2" vertical discharge
Discharge type	NPT female thread, plus ABS Piranha type bolting flange
Maximum temp. of pumped fluid	40°C continuous, 50°C intermittent
Agency Approvals	Approved by CSA to UL 778 and CSA C22.2-108 standards

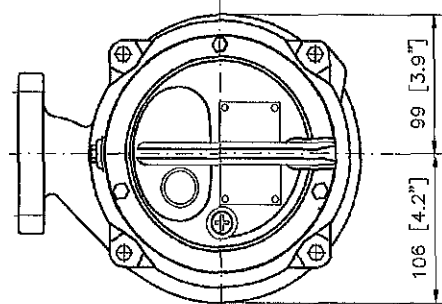
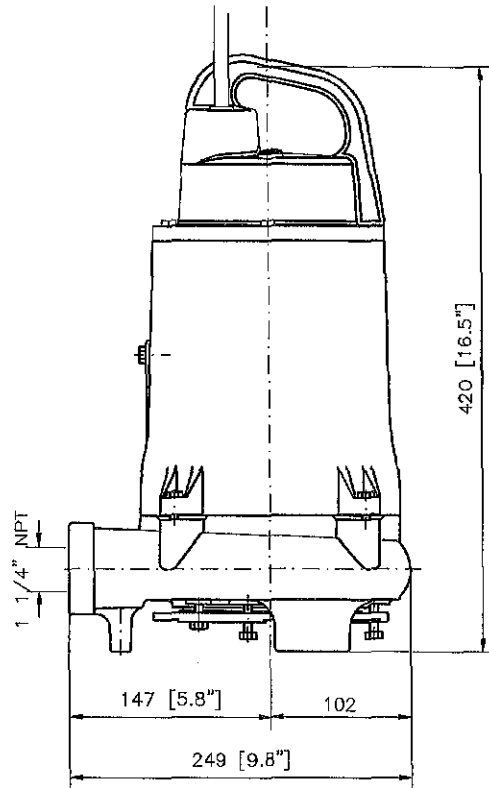
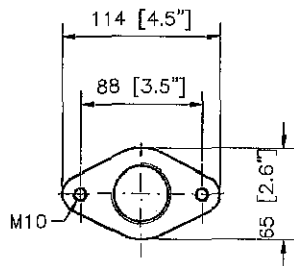
CABLE SPECIFICATIONS

POWER CABLE	DIAMETER	LENGTH	OUTER JACKET
14/3 SJEOOW	0.36in (9.2mm)	20ft (6m)	Thermoplastic elastomer

Note: Power cable suitable for all standard voltages listed in "MOTOR DATA" section.

Type Tipo	Weight Poids (lb)
EF 05W-1H	68
EF 10W-1H	68

60 Hz



SULZER

TÍTULO:
Title: EF 05W - 1H / 10W - 1H

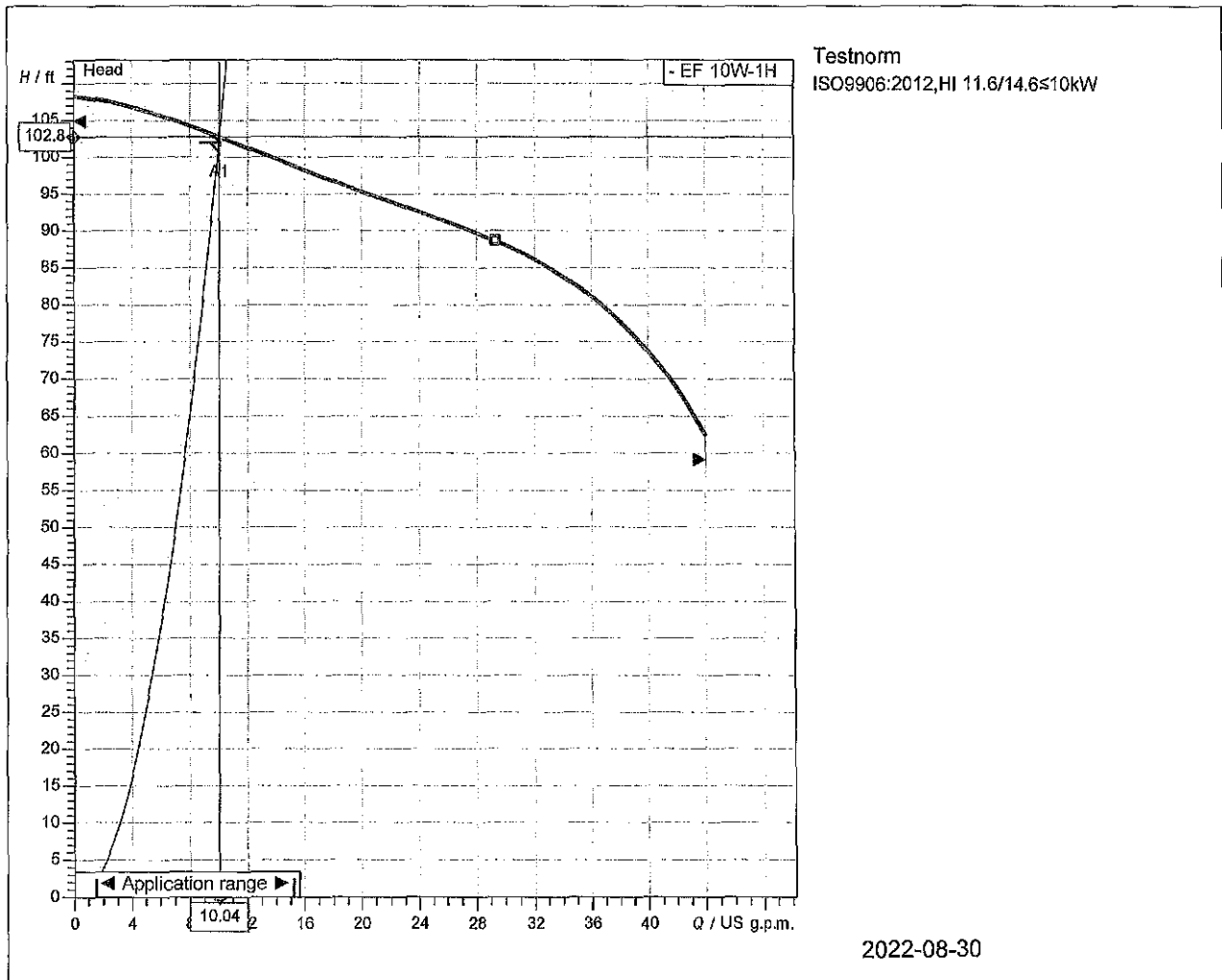
DESCRIÇÃO:
Description: DIMENSIONAL

Alterações nos são reservadas
Technical changes reserved

DATA:
date: 17/12/2003
EXECUTADO:
made by: ROR
ESCALA:
scale: S/E

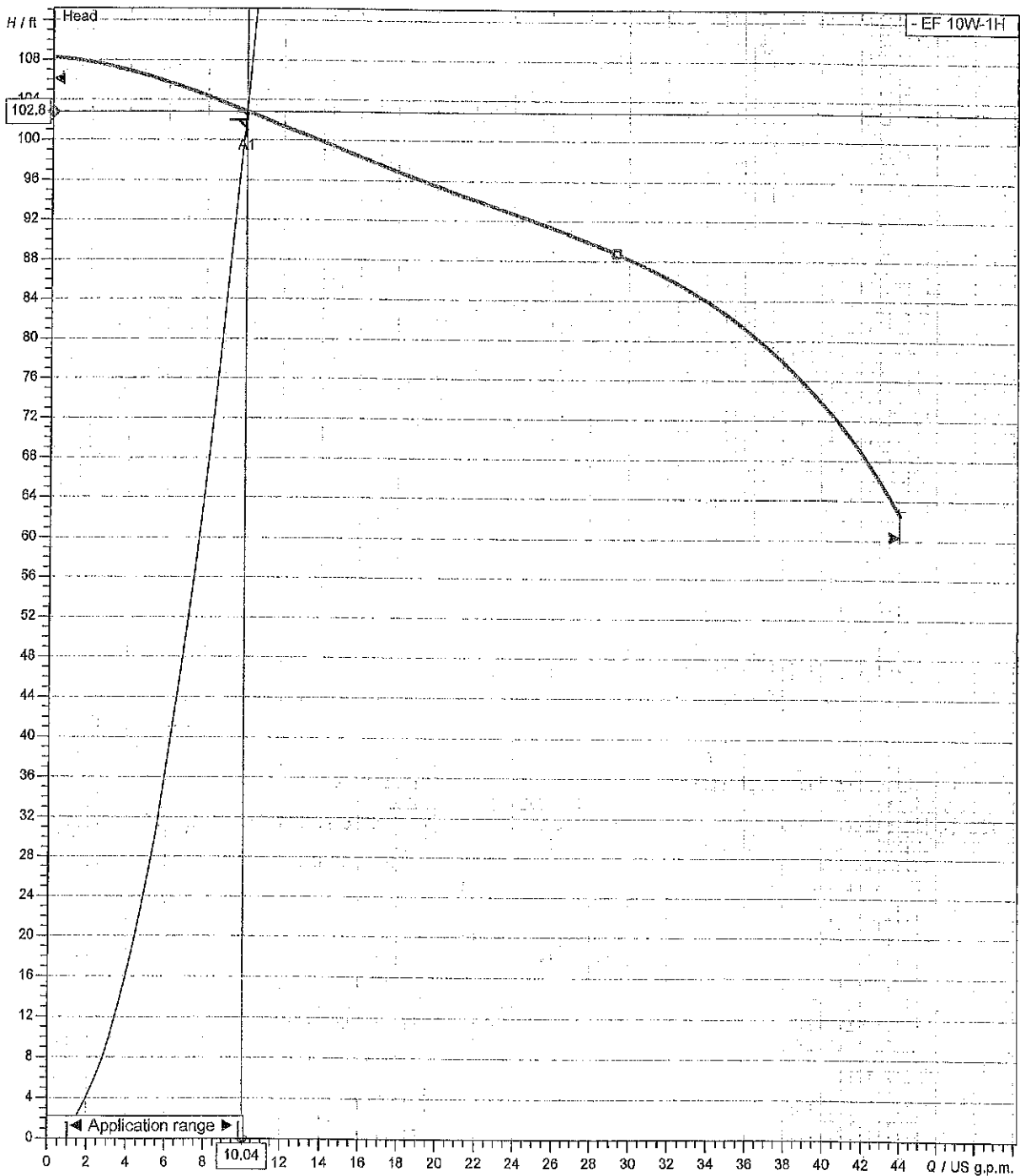
Nº / Rev.nº:
F40-0046 / 02

EF 10W-1H 60HZ



Operating data specification Flow 10.04 US g.p.m. Efficiency NPSH Temperature 68 °F No. of pumps 1		Power input Head 103 ft Rated power Fluid Water Nature of system Single head pump	
Pump data Type EF 10W-1H 60HZ Series SCAVENGER "E" SERIES N° of vanes 2 Free passage 0.63 inch Discharge flange 1-1/4" Moment of inertia		Make SULZER Impeller Contrabloc impeller, 2 vanes Impeller size 5inch Suction flange Type of installation wet well transportable (PDF)	
Motor data Rated voltage Rated power P2 Number of poles Power factor Starting current Starting torque Insulation class		Frequency Nominal Speed Efficiency Rated current Rated torque Degree of protection No. starts per hour	

Curve number		Pump performance curves			SULZER	
Reference curve EF 10W-1H 60HZ						
					Discharge 1-1/4"	Frequency 60 Hz
Density 62.32 lb/ft ³	Viscosity 1.082E-5 ft ² /s	Testnorm ISO9906:2012,HI 11.6/14.6≤10kW			Rated speed 3490 rpm	Date 2022-08-30
Flow 10.04 US g.p.m	Head 103 ft	Shaft power	Power input	Rated power P2	Hydraulic efficiency	NPSH



Impeller size 5inch	N° of vanes 2	Impeller Contrabloc impeller, 2 vanes	Solid size 0.63 inch	Revision
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Sulzer reserves the right to change any data and dimensions without prior notice and can not be held responsible for the use of information contained in this software.

Spaix® 4, Version 4.3.12 - 2020/05/28 (Build 328)
Data version June 2020