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Company: City of Palm Bay
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From: Robert Maxwell

Date: 7/19/2021
No. Pages: 6
Quote No.: 2121REM1
Terms: N30 (WAC)
F.O.B.: Shipping point
Freight: included

Conditions of Service: Replacement seepex Cake Pump to commission #: 823663.2

We are pleased to quote as follows:

Qty.	Description	Price Each	Delivery
1	Seepex Cake Pump <ul style="list-style-type: none"> Commission#: 823663.2 Model: BTHE 35-24 / B2-B2-L8-F0-GAM Assembled Package Includes: inlet feed hopper with ribbon auger, new rotor, stator, 25hp motor c-faced to a gear reducer, new TSE temperature switch, ultra-sonic level sensor. (reusing existing base and control panel) <p>Notes: *Please see additional data sheets for more information</p>	\$92,450.00	8-10 weeks
Quotation valid for 60 days			

Best Regards,
Robert Maxwell

qty.: 1

Progressive cavity pump
BTHE 35-24 / B2-B2-L8-F0-GAM
Application data

Conveyed product	Dewatered Sludge Cake
Remark	Duplicate to Commission #823663
Flowability	not flowable
Viscosity	low viscosity (< 500 cP/mPas)
Solids content	not specified
Size of solids	not specified
Density	unknown, 1 kg/dm³ assumed
Product temperature	32°F - 113°F
pH value	5-9
Kind of operation	continuous
Operating hours	8 h/day
Location	indoor, humid atmosphere
Altitude of installation	up to 1000 m assumed
Surrounding temperature	normal (32-113°F)

Performance data

	Capacity	Pressure	Speed	
	15 USGPM	250 psi	69 rpm	min
	25 USGPM	250 psi	89 rpm	max
Starting torque	1000 lb.ft			
Req. operating power at pump shaft	9.4 HP			
Inlet pressure	flooded (pressureless)			
NPSHr	6.8 ft			

Tolerances according to SEEPEX standards.

Materials and executions

Installation	horizontal
Direction of rotation	counter clockwise (left)
Lantern - Design	with cover plates
Lantern - Material	EN-JL 1040 (gci-25)
Feed hopper - Design	Inlet hopper with separation, drain plug, and w/ cleanout and 4" Ansi Flush Conn in Pos 2
Feed hopper - Material	1.0037 (st. 37-2)
Feed hopper - Connection design	1500 x 400 mm
Feed hopper - Hopper position	position 1
Feed hopper - Flushing connection	ANSI 4" Class 150
Feed hopper - Flushing connection position	position 2
Pressure branch - Design	standard
Pressure branch - Material	EN-JL 1040 (gci-25)
Pressure connection	5" ANSI B16.5 Class 300 RF
Joint - Design	UJ-sleeve prot. both sides 1.4404, divided
Joint - Material	standard, holding bands 1.4301
Joint - Universal joint sleeve: material	NBR - Perbunan
Coupling rod - Design	with stator-sided feed screw
Coupling rod - Material	1.0037 (st. 37-2)
Ribbon auger - Design	reinforced w/ stiffening ring
Ribbon auger - Material	1.0037 (st. 37-2)
Rotor - Design	standard
Rotor - Material	1.0503 (C45) / AISI 1045
Rotor - Coating	ductile chromium coating
Stator - Design	standard, with TSE, sensor sleeve 1.4404
Stator - Material	NBR - Perbunan
Shaft sealing	mechanical seal

Code	GAM - single acting mechanical seal
Quench	design 3 With refillable supply tank. Quench chamber is filled with SEEPEX 50300 (glycerine) or for food applications with SEEPEX 60200, container is empty and has to be filled before commissioning. - capacity of supply tank: approx. 140 ml - materials of construction: nickel plated brass, plexiglass, NBR
Shaft diameter	100 mm
Make	Burgmann
Rotating/stationary seal face	SiC SiC
Elastomers	FPM
Spring	1.4571 / AISI 316Ti
Metal parts	1.4571 / AISI 316Ti
Type	MG1-G60 Q1Q1 VGG
Casing - material	1.4408 / ASTM A351 grade CF8M
Casing - connection standard	NPT
Plug-in Shaft - Design	standard
Plug-in Shaft - Material	1.4021 / AISI 420
Bolting - Design	completely stainless steel
Painting - Number of colors	single-colored
Painting - Painted components	complete combination
Painting - Color	Epoxy System (SEEPEX Blue)
Painting - Surface protection	std. surface protection C2 (NDFT 95 µm)

Drive

Type	Gear & Motor at freq. inv. (Inverter is not included)		
Make	SEW		
Model	RF107AM284RS		
Mounting position	B5		
Ratio (i)	29.49		
	Norm	Min	Max
Speed	72 rpm	69 rpm	89 rpm
Motor speed	1800 rpm	1714 rpm	2224 rpm
Frequency	60 Hz	57 Hz	74 Hz
Make	Baldor		
Model	CECP4103T		
Rated output	25 HP		
Rated speed	1800 rpm		
Mounting position	NEMA C-face/footed		
Flange diameter	11.25		
Shaft diameter	1.875		
Starting	direct on frequency inverter		
Efficiency class	IE1		
Terminal box position acc. to supplier	not specified		
Cable entry position acc. to supplier	not specified		
Voltage	230/460 V		
Frequency	60Hz		
Enclosure	TEFC		
Thermal class	F		
Winding protection	M23A NO T-stats		
Anti condensation heaters	E30 - 120V Space Heater		
Remark for drive	PREMIUM EFFICIENT TEFC (20:1 CT)		
Remark for drive	w/ Anti-Reversal Backstop (BS to allow CW rotation when viewing end of GR output shaft)		

The frequency inverter has to follow a linear U/f characteristic curve (constant torque).

It's essential to have a minimum overload capability of 150% for at least 60 seconds. (see technical data sheet)

Dry running protection device (TSE)

Design	standard design, complete - sensor sleeve fitted to the stator of the pump with integrated temperature sensor - connection head (IP55) - separate TSE control device suitable for mounting inside a control panel
Voltage	110-115 V / 50-60 Hz
Temperature coefficient	NTC
Material sensor sleeve	1.4404 / AISI 316L
Material connection head	aluminium

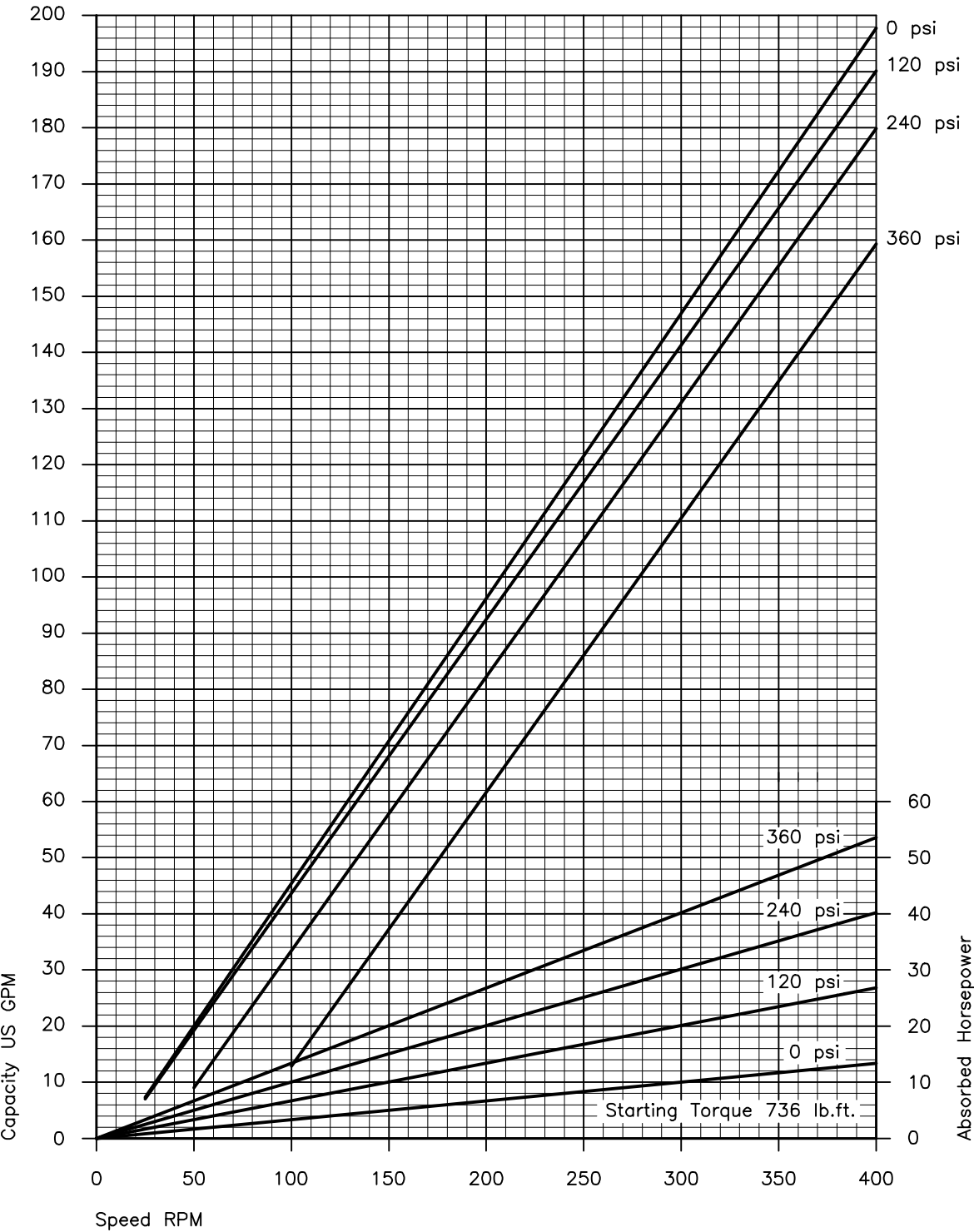
Packing

Type of packing	skid (US)
Type of transport	truck
Quantity of pumps per package	1 pump per package

Accessories

Design	Qty (1) – Endress& Hauser FDU91 Ultrasonic Level Sensor w/ 5meter cables and SGREHFDU91RG1AA Alignment Unit FAU40-2G SGREHFAU402G and Measuring Transducer FMU90 (for wall mounting) Output signal 4-20mA / Connection Voltage 90-253 VAC, 50-60Hz SGREHFMU90R11CA
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Characteristic Curves
Size
35-24



Values based upon water 68°F ; For notes on drive selection refer to PER

Hudson Pump & Equipment
A Division of Tencarva Machinery Company

Quotation Terms and Conditions

Tencarva Machinery Company dba Hudson Pump & Equipment ("Tencarva") agrees to contract with Buyer for the sale of the equipment described herein (the "Products") and services to be performed by Tencarva in connection the Products (the "Services") only if Buyer's acceptance of Tencarva's offer to sell contains all of the terms set forth herein. Tencarva hereby objects to any additional terms. Any confirmatory action by the Buyer or acceptance of the Products or Services shall constitute assent to these terms and any additional terms set forth therein shall not be effective or binding.

1. The Services are warranted to be performed in a workmanlike manner. The determination of compliance with this warranty will be based on testing under controlled conditions with calibrated instruments in accordance with the standards of the Hydraulic Institute or other nationally recognized accreditation standards. If any nonconformity with this warranty appears within 45 days after the Services are performed, the exclusive obligation of Tencarva shall be to re-perform the nonconforming Services in a conforming manner. Such a correction of nonconformities shall be Buyer's exclusive remedy with respect to the Services delivered or performed by Tencarva. Tencarva's liability on any claim shall in no case exceed the purchase price allocable to the Services which gives rise to the claim.

2. To the extent assignable, Tencarva shall assign to Buyer, without recourse to Tencarva, all warranties of the manufacturer of the Products made with respect to the Products. Tencarva makes NO IMPLIED WARRANTIES OF ANY TYPE, WHETHER OF MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE with respect to the Products or Services, and no warranties or guaranties, express or implied, are made by Tencarva except as specifically provided herein.

3. IN NO EVENT SHALL TENCARVA BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS AND ATTORNEY'S FEES, WITH RESPECT TO THE PRODUCTS OR SERVICES OR OTHERWISE. Tencarva shall have no liability with respect to any installation adjustments, repairs or other work done upon or in connection with the Products by Buyer or others. Any cause of action against Tencarva arising out of or relating to the Products or the Services shall expire unless brought within one year of time of accrual thereof.

4. Once placed, orders for the Products or Services by Buyer may be canceled only with Tencarva's approval upon payment by Buyer for work performed and/or expenses incurred by Tencarva to the date of cancellation. Buyer shall pay Tencarva for interest on any amount not paid when due at a rate of one and one half percent (1 1/2%) per month, or the maximum rate permitted by law, whichever is less, together with all costs of collection. All prices for Products and Services are exclusive of all taxes. Wherever applicable, any tax or taxes will be added to the invoice as a separate charge to be paid by Buyer.

5. To the extent that Products or any portion thereof are supplied according to Buyer's design or instructions, are modified by Buyer, are combined by Buyer with equipment or things not furnished hereunder, or are used by Buyer to perform a process or produce a product, and by reason of said design, instructions, modification, combination, performance or production, a suit or proceeding is brought against Tencarva, Buyer shall defend, indemnify, release and hold harmless Tencarva, its directors, officers, employees, agents, representatives, successors and assigns against any and all liability, suits, actions, or proceedings, at law or in equity, and from any and all claims, demands, losses, judgments, penalties, damages, costs and expenses arising therefrom and in connection therewith, including, without limitation, patent infringement claims.

6. Buyer shall supply to Tencarva, in a timely fashion, all required technical information, including drawing approval and all required documentation. Tencarva shall not be liable for loss, damage, delay, and/or late delivery due to causes beyond its reasonable control, including, without limitation, late delivery by the manufacturer of the Products, fire, strike or concerted action of workmen, act or omission of any governmental authority, or delays in transportation. In the event of delay due to any such cause, the date of delivery will be postponed by such length of time as may be reasonably necessary to compensate for the delay.



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From: Robert Maxwell

Date: 7/19/2021
No. Pages: 2
Quote No.: 21821REM2
Terms: N30 (WAC)
F.O.B.: Shipping point
Freight: included

Conditions of Service: removal/installation of seepex Cake Pump

We are pleased to quote as follows:

Qty.	Description	Price Each	Delivery
1	<p>Seepex Cake Pump Installation</p> <ul style="list-style-type: none">• Removal of existing cake pump and installation of replacement new seepex cake pump• Includes crane• Includes all new gaskets, hardware and paint touch up of base and pump.• Includes start up assistance <p>Notes:</p> <p>1) Above does not include any of the electrical work as it was discussed to be done by the city ie: unwire motor, TSE, ultrasonic level transducer and then rewire once installation of new unit is complete.</p> <p>2) From the pictures and dimensions, we and the crane company believe we have enough room to remove the pump without removing any overhead piping. However, if we get the job the crane company would like to come out and verify the spacing. If it is deemed necessary to remove, we can offer that at a cost of \$4,250.00 or the city may elect to do themselves per conversation.</p>	\$11,500.00	-
Quotation valid for 60 days			

**Best Regards,
Robert Maxwell**

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5. To the extent that Products or any portion thereof are supplied according to Buyer’s design or instructions, are modified by Buyer, are combined by Buyer with equipment or things not furnished hereunder, or are used by Buyer to perform a process or produce a product, and by reason of said design, instructions, modification, combination, performance or production, a suit or proceeding is brought against Tencarva, Buyer shall defend, indemnify, release and hold harmless Tencarva, its directors, officers, employees, agents, representatives, successors and assigns against any and all liability, suits, actions, or proceedings, at law or in equity, and from any and all claims, demands, losses, judgments, penalties, damages, costs and expenses arising therefrom and in connection therewith, including, without limitation, patent infringement claims.

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