

Memorandum



Date: September 8, 2025

To: Buchanan City Commission

From: Tony McGhee

Subject: Purchase of Grinder Pumps for Mill Pond Apartments Lift Station

Background

In May 1981, the City of Buchanan entered into an agreement with the developer of the Mill Apartments (Attachment A), which included the City assuming ownership and maintenance responsibilities for a lift station serving the development.

Since that time, the lift station at Mill Pond Apartments has experienced recurring issues with pump clogging. So far this year, the pumps have required servicing or removal nine times, with four of those incidents occurring within the past six weeks. The primary cause of these clogs is rags and other debris entering the system through the sewer lines from surrounding buildings in the development.

This problem has persisted for years despite repeated correspondence between the City and the property management company reminding tenants of proper disposal practices. Unfortunately, it is virtually impossible to prevent inappropriate items from being flushed, and once they reach the pump, they cannot be traced to a specific unit.

Regularly pulling and cleaning the pumps is not only labor-intensive but also costly and disruptive. Each incident requires significant staff time, specialized equipment, and, in some cases, emergency response to prevent service disruptions or potential sanitary sewer overflows. These repeated interventions divert staff from other critical maintenance tasks, accelerate equipment wear, and increase long-term costs.

To address this ongoing issue, staff solicited quotes for the purchase and installation of grinder pumps at the lift station. While this requires an upfront investment, the long-term savings from reducing frequent pump removals and cleanings—along with improved operational reliability—will significantly benefit the wastewater operating budget. Quotes were requested from three vendors; two suppliers responded. DuBois-Cooper submitted a quote of \$9,430.00, and Solberg Knowles & Associates submitted a quote of

Memorandum

\$11,038.00. The quotes and detailed specifications are included in Attachment B for your review.

Recommendation

Due to the operational inefficiencies caused by the absence of grinder pumps at the Mill Pond Apartments Lift Station, staff recommends purchasing a Homa Grinder Pump from DuBois-Cooper for \$9,430.00. Funding for this purchase is available in the FY25/26 Sewer Maintenance and Operations Budget.

Attachment A: Lift Station Agreement

Attachment B: Grinder Pump Quotes

Attachment A



MILL POND APARTMENTS
E. SMITH ST.

CONTRACT FOR SERVICE CONNECTION

This Agreement, made this 14th day of MAY, 1981, between the CITY OF BUCHANAN, a Municipal Corporation of the County of Berrien, with principle offices at 107 W. Front Street, Buchanan, Michigan 49107, hereinafter referred to as "City" and C & W ASSOCIATES, a Michigan Limited Partnership, with principle offices at 3027 Niles-Buchanan Road, Buchanan, Michigan 49107, hereinafter referred to as "Developer".

WITNESSETH

WHEREAS, the parties hereto are desirous of completing a water, sewer and storm sewer project pursuant to Plans and Specifications attached hereto, dated the 21 day of APRIL, 1981, and identified as APARTMENTS FOR THE ELDERLY, and

WHEREAS, the Developer is desirous of obtaining municipal waste water and water services from City to its site, and

WHEREAS, the City is desirous of completing its storm water drain system for the Liberty Heights and Parkridge areas of the municipality to cross Developers real estate, and

WHEREAS, the City has the power to do any public work or make any public improvement by the employment of necessary labor and the purchase of the necessary supplies and materials pursuant to Charter,

NOW THEREFORE, It is agreed as follows:

1) PROJECT: The project contemplated hereunder is shown in the Plans and Specifications attached hereto, dated the 21st day of APRIL, 1981, and identified as: APARTMENTS FOR THE ELDERLY.

2) COST OF PROJECT: City shall act as the fiscal agent for said project; shall purchase all materials and supplies such as pipe, lift station and hydrants up to but not exceeding Thirty-two Thousand Five Hundred and No/100 (\$32,500.00) Dollars.

Developer, through its contractor, Brown County Construction Company, a Michigan Corporation, shall contribute at no charge to the City, labor and machinery for the services shown herein below.

In the event any change orders are necessary and agreed, the parties shall compute the costs of said modification and mutually agree to the manner of payment, if any.

3) EASEMENTS: Developer shall grant easements to City for the installation, operation, and maintenance of said water, waste-water (sewage) and storm water systems as shown on said plan.

4) LIFT STATION: Developer shall arrange for installation of the lift station shown on the plans and specifications including the electrical connections; City shall connect main to lift station. In the event City shall reverse the flowage or the said lift station shall no longer be required, City may remove and relocate said lift station.

5) PROJECT: Developer, or its contractor, Brown County Construction Company hereby agrees to provide the following services to the project at no cost to the City:

a. Excavate trench pursuant to specifications for:

- i. 24" storm line to basin
- ii. 12" storm line
- iii. Off-site sewer main from existing line to site.

223 225 1/2 Front St.
P.O. Box 72
Buchanan, Michigan 49107
Area Code 616 695-1500

Desenberg, Morris, L'Esper & Carlin
A Professional Corporation

2727 N. John Street Rd
P.O. Box 152
Huronville, Michigan 49127
Area Code 616 429-1535

- b. Install all on-site water lines, meters and remote read-outs.
- c. Excavation, grading and seeding storm ponding basin to meet requirement of emergency storm run-offs pursuant to Plans and Specifications.
- d. All on-site sanitary laterals.
- e. Such other services as shall be mutually upon agreed by the parties.

City shall at no cost to Developer, or its said contractor, purchase all materials for said project; provided, however, City's obligation hereunder shall not exceed the sum of Thirty-two Thousand Five Hundred and No/100 (\$32,500.00) Dollars. In the event materials or supply costs exceed said figure, Developer will promptly reimburse City for said expenses. In addition, the City shall perform the following services:

- a. Installation and back-fill of:
 - i. 24" storm line to storm ponding basin
 - ii. 12" storm line
 - iii. Sanitary sewer main from existing line to site.

6) SCHEDULING: The supervisor of the Department of Public Works and Developer's designated agent shall be responsible for the scheduling of all project construction. The parties hereto shall use their best efforts to coordinate said construction to accommodate the work schedule of Developer.

7) SUPERVISION: All construction hereunder shall be under the direct supervision of the designated City Engineer and subject to the statutes of the State of Michigan and the Ordinances of the City of Buchanan.

IN WITNESS WHEREOF the parties hereto have set their hands and seals the day and date first above written.

CITY OF BUCHANAN, a Municipal
Corporation of the County of
Berrien

Attest:
Herbert D. Russell
Herbert D. Russell, City Clerk

By: Ray Berry
Ray Berry Mayor
subject to FMAA project proceedings
C & W ASSOCIATES, a Michigan
Limited Partnership
By: Bette J. Unger P.O.A.
Partner
By: [Signature]
Partner

BROWN COUNTY CONSTRUCTION COMPANY,
A Michigan Corporation

By: Samuel E. Story
Its: President

Attachment B





905 Penniman | P.O. Box 6161 | Plymouth, MI 48170
T: 734-455-6700 | F: 734-455-6711
E: sales@duboiscooper.com
www.duboiscooper.com

QUOTATION

Quoted To:

Buchanan WWTP
302 N. Redbud Tr
bookkeeper@cityofbuchanan.com
BUCHANAN, MI 49107

Quote Number: 222817

Quote Date: Jul 10, 2025

Page: 1

Customer ID	Good Thru	Payment Terms	Sales Rep
BUCHANAN WWTP	8/9/25	Net 30 Days	HOMA

Quantity	Item	Description	Unit Price	Amount
1.00	OC4X4	Homa OC4X4-170 / 2.9T/C non FM 32' cable	8,780.00	8,780.00
1.00	GS1050	Homa Go Switch Includes Freight	650.00	650.00
			Subtotal	9,430.00
			Sales Tax	
			TOTAL	9,430.00

Quote Accepted By: _____

Technical Information

OC4X4-170/2,9T/C FM



Operating data

Flow	0 US g.p.m.
Head	49 ft
Shaft power P2	
Pump efficiency	%
Required pump NPSH	
Pump type	Single pump
No. of pumps	1
Fluid	Water, clean

Pump

Pump Code	OC4X4-170/2,9T/C FM
Impeller	Vane impeller with cutter sys.
Impeller size	170 mm
Solid size	
Discharge port	4" ANSI
Suction port	DN100

Motor

Rated voltage	230/ 460V
Frequency	60 Hz
Rated power P2	3.0 hp
Rated speed	1750 rpm
Number of poles	4
Efficiency	81 %
Rated current	8 / 4A
Degree of protection	IP 68

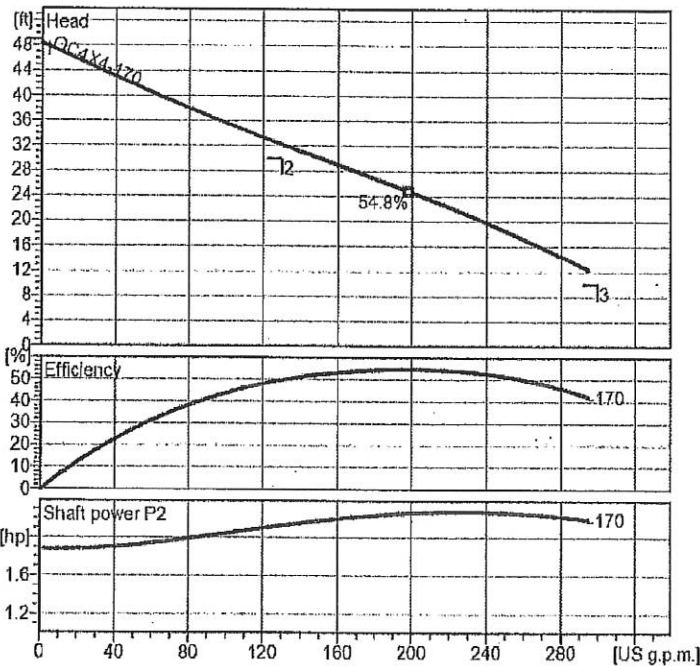
Materials

Motor housing	Cast Iron ASTM A48;Cl.40B
Pump housing	Cast Iron ASTM A48;Cl.40B
Impeller	Hard cast iron ASTM A532 IIIA, 60HRC
Wear plate with cutter	Hard cast iron ASTM A532 IIIA, 60HRC
Suction cover	Cast Iron ASTM A48;Cl.40B

Motor shaft	AISI 430 F Stainless Steel
Bolts	AISI 304 Stainless Steel
Elastomers	Nitrile Rubber

Mechanical seal on motor side	SiC / SiC
Mechanical seal on medium side	SiC / SiC
Lower Bearing	Double row angular ball bearing
Upper Bearing	Deep Groove Ball Bearing

Testnorm: HI Standard Sect. 11.6.5.4



Wet well installation with coupling kit (T, 150...200)
Dimensions in mm [inch], letters see table

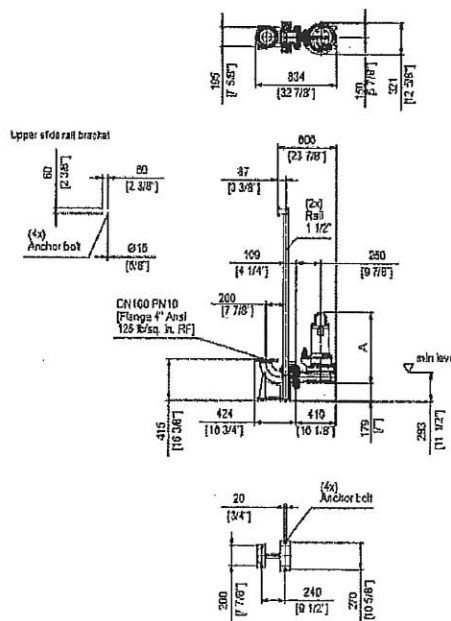


Table Dimensions (mm)

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2.0.1 - 26.01.2024 (Build 1.47)

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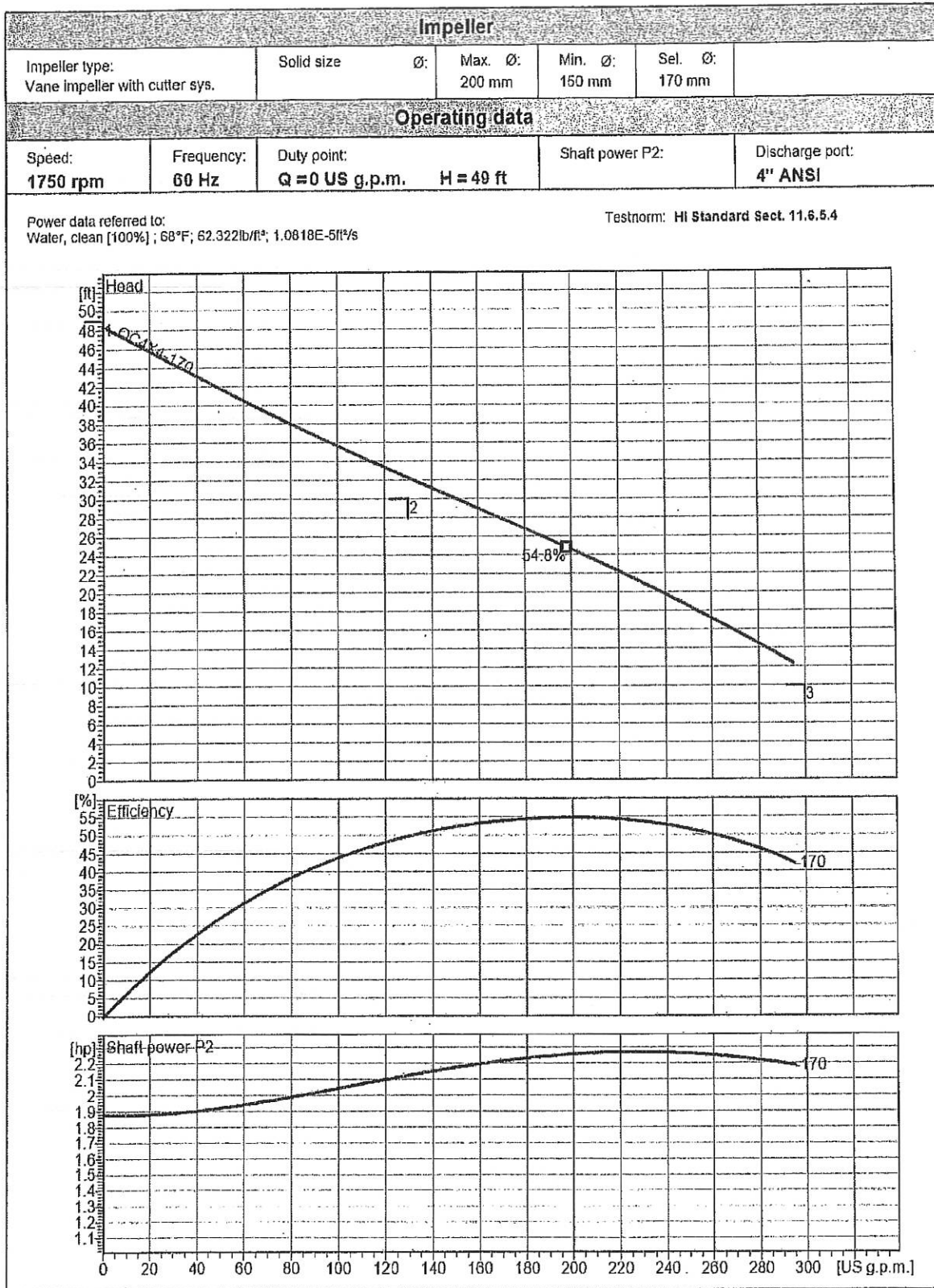
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Date:

2025-07-09

Performance Curve

OC4X4-170/2,9T/C FM



2.0.1 - 26.01.2024 (Build 147)

Project	Project no.:	Created by:	Page: 2	Date: 2025-07-09
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Dimensions

OC4X4-170/2,9T/C FM

Wet well installation with coupling kit (T, 150...200)
Dimensions in mm [inch], letters see table

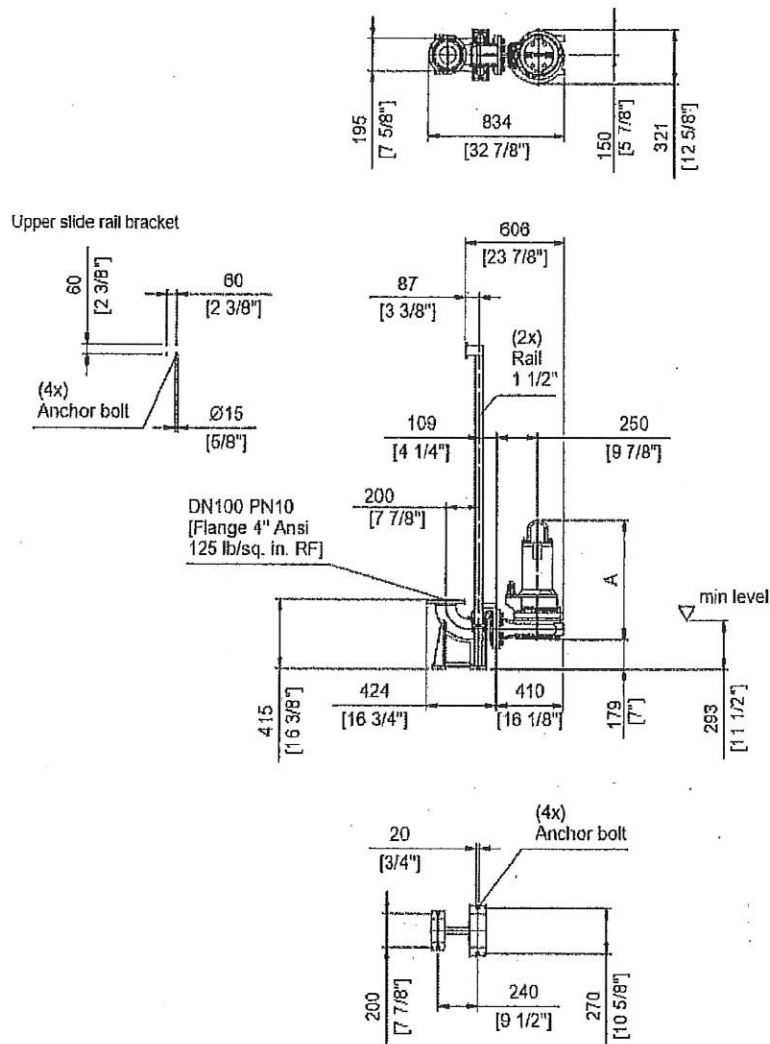


Table Dimensions

A (mm)

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min level = Minimum fluid level for intermittent operation (S3)

2.0.1 - 26.01.2024 (Build 147)

Project

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Date:
2025-07-09

Technical Data

OC4X4-170/2,9T/C FM



Operating data			
Flow	0 US g.p.m. US g.p.m.	Head	49 ft ft
Shaft power P2	hp	Static head	0 ft
Pump efficiency	%	Required pump NPSH	ft
Pump type	Single pump	No. of pumps	1
Fluid	Water, clean	Temperature	68 °F
Density	62.32 lb/ft³	Kin. viscosity	1.082E-5 ft²/s

Pump			
Pump Code	OC4X4-170/2,9T/C FM	Speed	1750 rpm
Suction port	DN100	Head	Max. 48.4 ft
Discharge port	4" ANSI		Min. 12.4 ft
Impeller type	Vane impeller with cutter sys.	Flow	Max. 295.0 US g.p.m.
Solid size	mm	Pump efficiency max.	54.8 %
Impeller Ø	170 mm	Required rated power max. P2	2.3 hp

Motor			
Motor design	Submersible motor	Insulation class	H
Motor name	AM173.3,5T/4/3	Degree of protection	IP 68
Frequency	60 Hz	Temperature class	T3C
Rated power P2	3.0 hp	NEMA code	D
		Explosion protection	Class I; Div. 1, Grp. C&D
Rated speed	1750 rpm	Efficiency at % rated power	100% 81.0 %
Rated voltage	230 / 460 V 3~		75% 83.0 %
Rated current	8.0 / 4 A		50% 84.0 %
Starting current, direct starting	30.4 / 15,3 A	cos phi at % rated power	100% 0.87
Starting current, star-delta	A		75% 0.83
Starting mode	Directly		50% 0.74
Power cable	10G1,5	Control cable	
Type of power cable	H07RN8-F PLUS	Type of control cable	
Cable length	32.8 ft	Service factor	1.15
Shaft seal	Mechanical seal on motor side	SiC / SiC	
	Mechanical seal on medium side	SiC / SiC	
Bearing	Lower Bearing	Double row angular ball bearing	
	Upper Bearing	Deep Groove Ball Bearing	
Remarks			

Materials / Weight			
Motor housing	Cast Iron ASTM A48;CI.40B	Motor shaft	AISI 430 F Stainless Steel
Pump housing	Cast Iron ASTM A48;CI.40B	Bolts	AISI 304 Stainless Steel
Impeller	Hard cast iron ASTM A532 III	Impellers	Nitrile Rubber
Wear plate with cutter	Hard cast iron ASTM A532 III	60HRC	
Suction cover	Cast Iron ASTM A48;CI.40B		
Weight aggregate	242.6 lb		

2.0.1 - 26.01.2024 (Build 147)

Project	Project no.:	Created by:	Page: 4	Date: 2025-07-09
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Solberg Knowles & Associates

A DIVISION OF GASVODA & ASSOCIATES

Helping people use water efficiently

Office 231-652-1934

info@solbergknowles.com

www.solbergknowles.com

Solberg Knowles & Associates

55 E Roosevelt Ave

Zeeland, MI 49464

Cell: 708-413-8183

Proposal

TO: City of Buchanan

Date: July 16th, 2025

ATTN: Terry Burns

Project: Barnes chopper pump for Mill Pond
Station

The seller hereby offers the following equipment subject to all terms & conditions noted on this contract:

We are pleased to offer the following proposal for your review and consideration on the above named project. Kindly review our offer in its entirety and let us know of any further questions or requirements. This offer is for providing the equipment listed herein for installation by others.

QTY	DESCRIPTION	\$
1	Barnes 4XSCDF30N4 pump -4 inch discharge, hydraulic series F, 3 HP, 1750 rpm, 208-230 volts, 3 phase, impeller trimmed to 160mm, Impeller Material DuctileIron, Carbon / Ceramic Upper, Sil Car / Sil Car Lower seal, Explosion Proof = Y, 5 Year Full Warranty from Shipment *143213XP-MBM	10,055.00
1	Cord, LV, 12/4, 18/4, 50' *125496XF	833.00
	Shipping	150.00

Lead time: 2-5 weeks

Total Investment: \$11,038.00

Project:

Page 2 of 3

This proposal and the attached terms and conditions cannot be modified in any way except by expressed written approval of Gasvoda & Associates, Inc.

Gasvoda & Associates reserves the right to request purchase orders be written directly to the manufacturers per the manufacturers terms and conditions included in their scopes.

TERMS:	100% 30 days NET.
FREIGHT:	☒ FOB Factory included to jobsite, unloading by others.
START-UP:	☐ days included Additional start up, if required, will be billed at our standard rate.
TAXES:	ALL applicable taxes must be added.
SUBMITTAL DATA:	N/A weeks after receipt of order (If Required).
DELIVERY:	2 to 5 weeks based on longest lead time item.
DURATION:	This proposal is valid for 30 days after which we reserve the right to review or withdraw.

Solberg Knowles & Associates

ACCEPTED:

(Authorized signature)

BY: Kyle Tryan
Kyle Tryan - Sales Engineer

Title:

Date:

AUTHORIZATION TO PROCEED:

Authorization to proceed with placing the proposed equipment on order must be acknowledged by the return of this document properly executed where required. Such acknowledgment will be considered as your acceptance of this proposal understanding the terms stated above and on the reverse side of this proposal. No submittals will be started and no equipment will be released to manufacturing prior to our receiving your formal authorized return of this document.

Thank you for the opportunity to provide our proposal. Please do not hesitate to call with any further questions or requirements.

Please be sure to fill in the required "Ship To" information below and return it at the time of placing your order. Failure to do so will result in shipment of the equipment to the Buyers address.

Additional Information (Complete if necessary):

BILL TO:

SHIP TO:

PURCHASE ORDER
NUMBER:

SPECIAL
MARKINGS:

TAXABLE:

☐ No ☐ Yes

TAX EXEMPT
ID#:

Additional Information (Complete if necessary):

SOLBERG KNOWLES & ASSOCIATES TERMS AND CONDITIONS OF SALETERMS

1. Terms of payment are 100% net due 30 days from "date of shipment & invoice" for all orders less than \$100,000.
2. Terms and conditions for orders totaling more than \$100,000.00 are based on progress payments as follow:
 - A) 10% of net order total due upon delivery of submittal data for review and approval with no retainage allowed.
 - B) 10% of remaining net order total due at time of release to production with no retainage allowed.
 - C) Entire balance of remaining net order total due within 30 business days after delivery and invoicing with no retainage allowed.*Start-up services will not be scheduled prior to receipt of full and final payment is received, with no exceptions.*

CONDITIONS

1. General

Subject only to any credit terms which Seller may extend, the total purchase price hereunder is due at such time, within or after the estimated shipment period specified on the face hereof, as said equipment is ready to be shipped. Buyer shall pay in full all invoices within the time for payment specified therein and BUYER'S PAYMENT OBLIGATION IS NO WAY DEPENDENT OR CONTINGENT UPON BUYER'S RECEIPT OF PAYMENT FROM ANY OTHER PARTY. Any balance owed by Buyer for 30 days or more after the same becomes due is subject to a 1-1/2% per month delinquency charge until paid. In addition to all other amounts due hereunder, Buyer shall reimburse Seller in full for all collection costs or charges, including reasonable attorney's fees, which Seller may incur with respect to the collection of past due amounts from Buyer.
2. Warranty

Seller warrants only that said equipment is free from defects in materials and workmanship as set forth in Seller's standard Certificate of Warranty furnished to Buyer at the time of final shipment. Seller makes no other warranty concerning said equipment beyond that set forth in said Certificate and expressly disclaims any warranty of merchantability or fitness for any particular process not described in the applicable drawings and specifications.

Seller's sole responsibility with respect to any equipment which proves to be defective as to materials or workmanship is either to replace or to repair the same as is set forth in said Certificate of Warranty. Unless authorized in writing by Seller, Seller is not responsible for any charge or expense incurred for the modification, servicing or adjusting of said equipment after the same has been delivered to Buyer.
3. Liability of Seller

Seller is not liable in any event hereunder for any consequential, incidental, or liquidated damages or penalties.
4. Claim Period

Buyer shall immediately inspect said equipment upon receipt thereof. Seller is not obligated to consider any claim for shortages or non-conformance unless notified thereof by Buyer within 10 days after Buyer's receipt of said equipment.
5. Cancellation

Should Buyer cancel this agreement without Seller's prior written consent, Seller may, at its option, recover from Buyer a cancellation charge of not less than 20% of the purchase price hereunder.
6. Taxes

Sale may be subject to state sales tax depending on the state. Gasvoda & Associates requires proof of exemption for all nontaxable sales. Regardless of exemption status, Gasvoda & Associates proposal does not include any sales tax. Payment of any sales tax remains the responsibility of the purchaser.
7. Fees

All credit card charges will be subject to a 3% processing fee.
8. Storage

If at such time, within or after the estimated shipment period specified on the face hereof, as Seller notifies Buyer that said equipment is ready to be shipped Buyer requests a delay in shipment, Seller may, at its option, agree to store said equipment for a period of time determined by Seller, provided that such agreement will not affect Buyer's obligation to pay in full all invoices as they become due, and provided further that for each month, or portion thereof, said equipment is stored by Seller, Buyer shall pay to Seller as a storage fee an amount equal to 1% of the balance due hereunder.
9. Drawings, Illustrations and Manuals

Catalog and proposal drawings, bulletins, and other accompanying literature are solely for the purpose of general style, arrangement, and approximate dimensions. Seller may make any changes Seller deems necessary or desirable.
10. Insurance

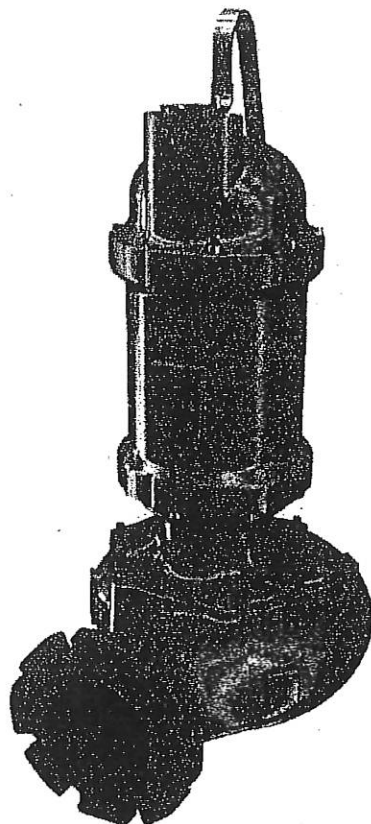
We have made no allowances for special insurance requirements including but not limited to "Waiver of Subrogation", "Form GC2010", liquidated damages, or anything beyond what is specifically spelled out as being included herein. We reserve the right to amend our offering for anything required outside of the specific items/services spelled out as being included. An exception must be in writing and authorized by Gasvoda & Associates.
11. Start Up

NO START UP WILL BE MADE PRIOR TO 100% PAYMENT. Warranty is invalid without authorized start up.
12. Operations and Maintenance Manuals

We include standard manufacturers O & M manuals as provided by the manufacturer. Special conditions of bid documents concerning O & M manuals and / or the modification of manuals to meet specific requirements of the bid documents are the contractors responsibility.

4(X)SCDF – 3 HP

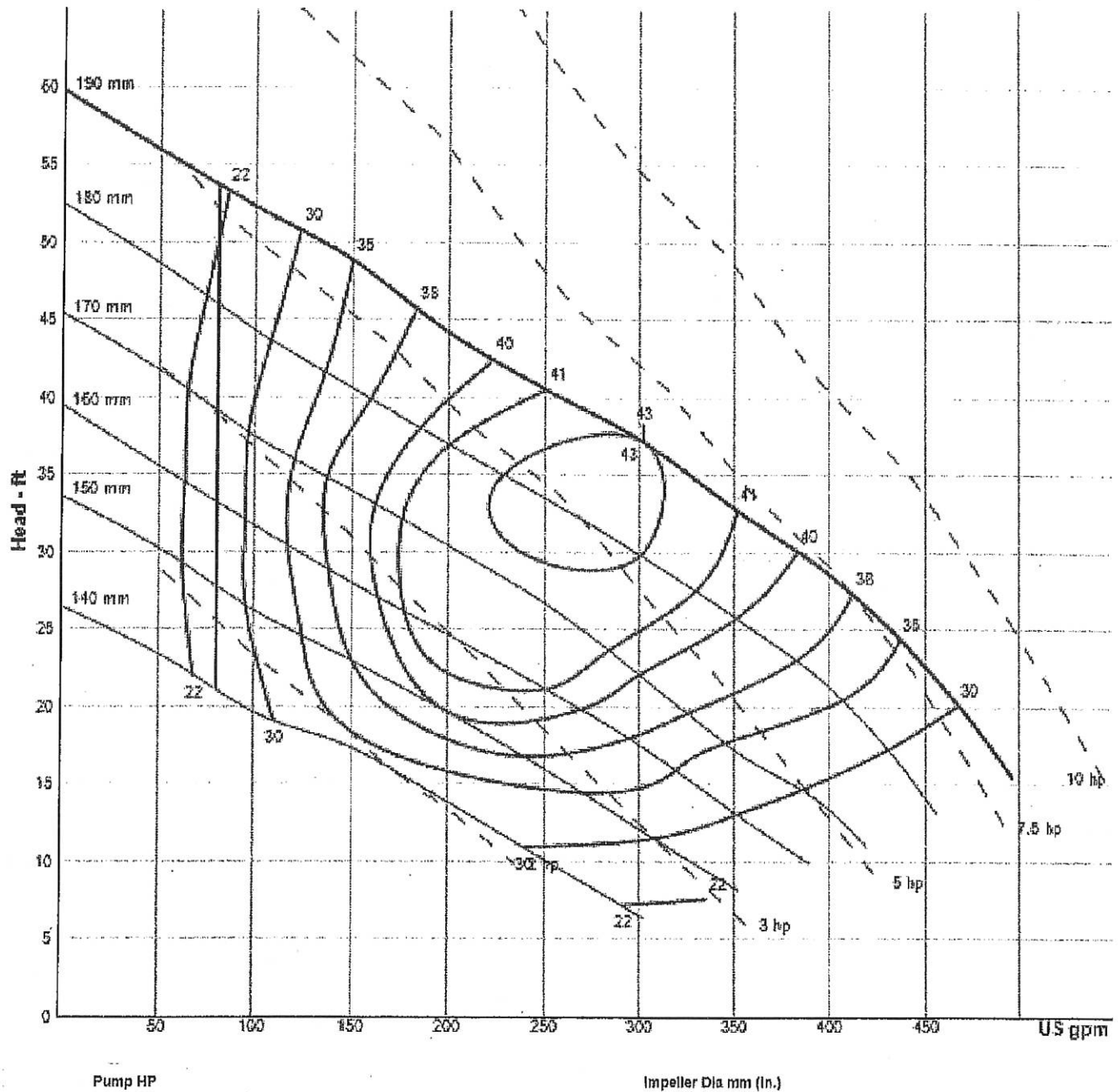
Explosion Proof



Specifications

DISCHARGE:	4", 125 lb. Horizontal flange slotted to accommodate 100mm ISO flanges
LIQUID TEMPERATURE:	104°F (40°C) Continuous
VOLUTE:	Cast Iron ASTM A-48, Class 30
STRIKER PLATE:	440C Stainless steel heat treated to 53-60 HRC hole pattern to accommodate 4" 125 # flange
WEAR RING:	C954 Lead-Free Bronze
SPEED:	1760 RPM
IMPELLER:	• Design: Enclosed Dual-Vane, with pump out vanes on back side. Dynamically balanced ISO G6.3. • Material: Ductile Iron ASTM A-536, 65-45-12
SLICING BLADE:	440C Stainless steel heat treated to 53-60 HRC
SHAFT:	416 Stainless steel
O-RINGS:	Buna-N
HARDWARE & LIFTING BAIL:	300 Series stainless steel
PAINT:	Axalta™ Corlar® Epoxy, two coats
SUBMERGENCE:	Max Depth 66ft (20m)
CORD ENTRY:	Custom molded, quick connected for sealing and strain relief (18 & 21 Frame ONLY)
POWER CORD:	CSA certified submersible power cable 2000V - ordered separately
MOTOR HOUSING:	Cast Iron ASTM A-48, Class 30
SEAL PLATE:	Cast Iron ASTM A-48, Class 30
SEAL:	• Design: Tandem mechanical, oil filled reservoir • Material: - Inboard: Carbon rotating face, Ceramic stationary face - Outboard: Silicon carbide rotating face, silicon carbide stationary face - Elastomer: Buna-N - Hardware: 300 Series stainless steel
UPPER BEARING:	• Design: Single row, ball, oil lubricated • Load: Radial
LOWER BEARING:	• Design: Double row, ball, oil lubricated • Load: Radial & thrust
MOTOR:	• Design: NEMA B - Three Phase Torque Curve Oil-Filled, Squirrel Cage Induction, Inverter Duty rated per NEMA MG1 • Insulation: Class H Varnish & Magnet Wire
THREE PHASE:	Requires overload protection to be included in control panel
MOISTURE SENSOR:	Normally open (N/O), requires relay in control panel
TEMPERATURE SENSOR:	Three normally closed (N/C). To be wired in series with control circuit
OPTIONAL EQUIPMENT:	White Iron Impeller, seal material, impeller trims, cord length
MARKINGS:	CSA

Curves



Pump HP	Impeller Dia mm (In.)
7.5	180 (7.09)
5	160 (6.30)
3	140 (5.51)

** Select impeller diameter when ordering

Model Information

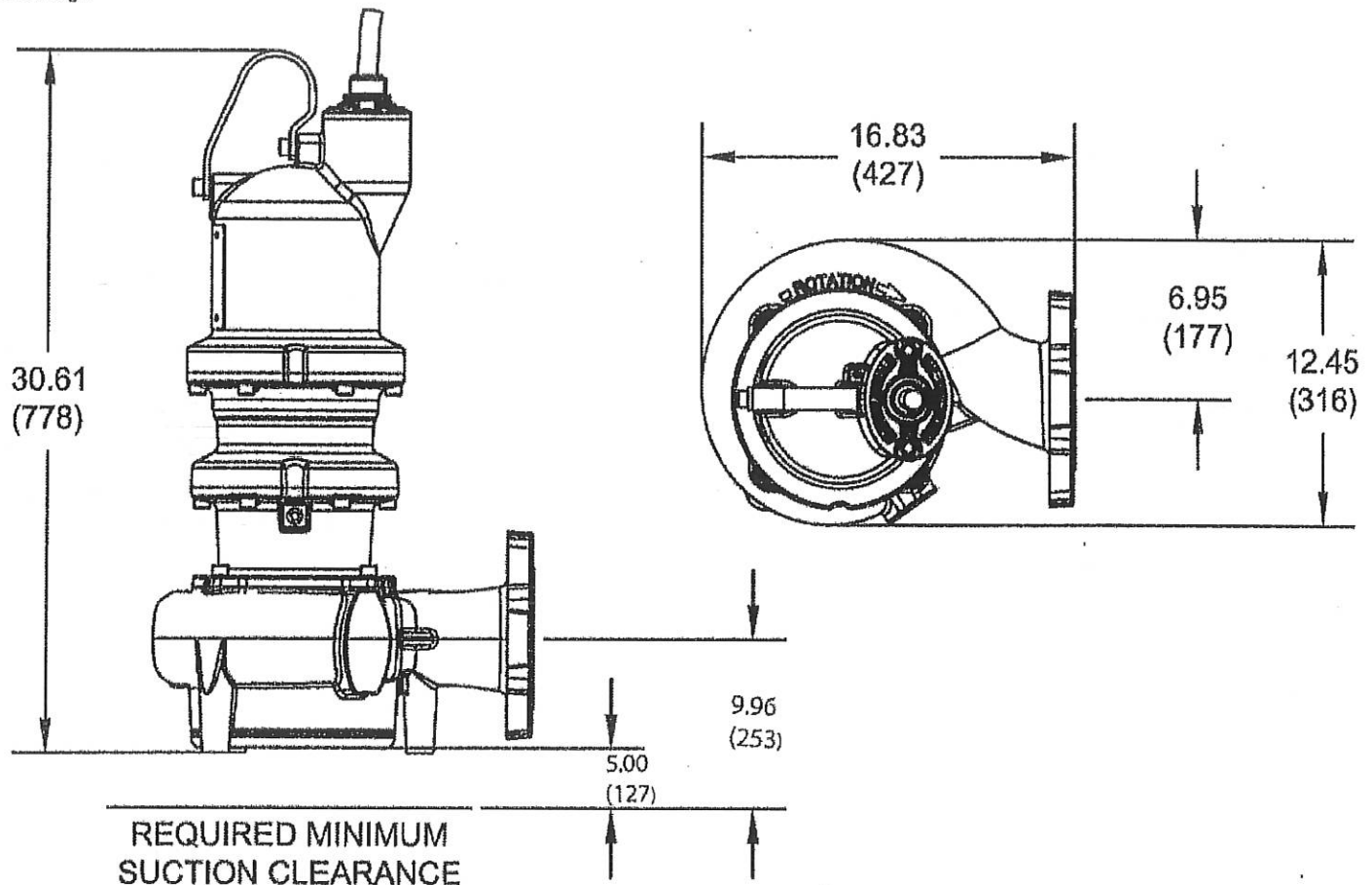
PUMP MODEL NUMBER –	4XSCDF30N4 –
VOLTAGE/PHASE	230/3
EXPLOSION PROOF, CLASS I, DIVISION 1, GROUPS C & D	T4
DRIVER FRAME	18
VOLTAGE/PHASE	230/3
HZ	60
RPM	1750
NEMA START CODE	K
FULL LOAD AMPS	9.2
SERVICE FACTOR	1.2
SERVICE FACTOR AMPS	10.6
LOCKED ROTOR AMPS	65.8
CORD PART NUMBER	125496
CORD SIZE	12/4 - 18/4
WEIGHT (LBS)	265



IMPORTANT

MOISTURE AND TEMPERATURE SENSOR LEADS ARE INTEGRAL TO POWER CORD.
 PUMP RATED FOR OPERATION AT $\pm 10\%$ VOLTAGE AT MOTOR.
 ▲ CORD SUFFIX: XC - 30 FEET, XF - 80 FEET, XJ - 75 FEET, OR XL - 100 FEET.
 ▲ CORD SOLD SEPARATELY.
 * SELECT IMPELLER DIAMETER WHEN ORDERING.

Drawings



All dimensions are in inches (mm)

IMPORTANT

1. MOISTURE AND TEMPERATURE SENSORS MUST BE CONNECTED TO VALIDATE THE CSA LISTING.
2. A SPECIAL MOISTURE SENSOR RELAY IS REQUIRED IN THE CONTROL PANEL FOR PROPER OPERATION OF THE MOISTURE SENSORS. CONTACT BARNES PUMPS FOR INFORMATION CONCERNING MOISTURE SENSING RELAYS FOR CUSTOMER SUPPLIED CONTROL PANELS.
3. THESE PUMPS ARE CSA LISTED FOR PUMPING WATER AND WASTEWATER. DO NOT USE TO PUMP FLAMMABLE LIQUIDS.
4. INSTALLATIONS SUCH AS DECORATIVE FOUNTAINS OR WATER FEATURES PROVIDED FOR VISUAL ENJOYMENT MUST BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE ANSI/NFPA 70 AND/OR THE AUTHORITY HAVING JURISDICTION. THIS PUMP IS NOT INTENDED FOR USE IN SWIMMING POOLS, RECREATIONAL WATER PARKS, OR INSTALLATIONS IN WHICH HUMAN CONTACT WITH PUMPED MEDIA IS A COMMON OCCURRENCE.
5. THIS PUMP IS NOT APPROPRIATE FOR THOSE APPLICATIONS SPECIFIED AS CLASS 1 DIVISION 1 HAZARDOUS LOCATIONS (ONLY APPLICABLE FOR NON-EXPLOSION PROOF MODELS)

Product Resources

Engineering Specification

I/O Manual (1B FRAME)

BAF	Close Adapter
Intermediate Rail Supports	Wedge Adapter
Flygt Adapter	Cable Rack for Level Control
Flygt MiniCAS Adapter	Conditioning Stand
Pump Monitor Relay	Lifting Chain
Ball Check Valve	Control Float (Explosion Proof Series Only)
Control Float (Standard Series Only)	

Station Drawings