

# BID DOCUMENTS

- A) BID – DWTP REHAB WELL 30
- B) PUR 23-005
  
- C) DECEMBER 15, 2022

COMPANY NAME: Amerine Systems Inc

CONTACT NAME: Garrett Amerine

ADDRESS: 10866 Cleveland Avenue  
Oakdale Ca 95361

TELEPHONE NUMBER: 1-209-847-5968

EMAIL: gda@amerinesys.com  
S.deweerd@amerinesys.com

2 Emails -

**BID TO BE SUBMITTED**

Quantity	Material	Price
1	Well Motor and Pump	\$ 224,650. <sup>00</sup>
1	Sounding Tubes	\$ 350.00

The bidder warrants this equipment for a minimum period of 1 years.

Complete delivery will be made within 154 calendar days from award of bid.

Any questions regarding specifications should be directed to Patricia Monesi, Procurement Division, at telephone (209) 937-8357.

Amerine Systems Inc  
FIRM

10866 Cleveland Avenue  
ADDRESS Oakdale Ca 95361

Sam D. Amerine  
SIGNED BY

President  
TITLE OR AGENCY

12/15/2022  
DATE

(209) 847-5968  
TELEPHONE

**NOTE:** Bidders are to mark their sealed bids to clearly indicate the content as:

- A) DWTP Rehab Well 30
- B) PUR 23-005
- C) December 15, 2022

**IF YOU DO NOT WISH TO BID, PLEASE RETURN YOUR BID IMMEDIATELY STATING REASON.**

**BIDDER'S AGREEMENT**

In submitting this bid, as herein described, the bidder agrees that:

1. They have carefully examined the specifications and all other provisions of this form and understand the meaning, intent, and requirements of same.
2. They have reviewed and understand all clarifications/questions/answers on the City's website at [www.stocktonca.gov/adminbid](http://www.stocktonca.gov/adminbid).
3. They will enter into written contract and furnish the item(s)/service(s) in the time specified in strict conformity with the specifications and conditions contained therein for the price quoted by the bidder on this bid.
4. The proposed price is inclusive of all freight and handling charges and includes delivery to the City of Stockton, Municipal Service Center, or if specified, to the alternate point of delivery shown in the specifications.
5. They have signed and notarized the attached Non-Collusion Affidavit form whether individual, corporate or partnership. Must be "A Jurat" notarization.

Amerine systems Inc

10866 Cleveland Avenue  
Oakdale Ca 95361

FIRM

*[Signature]*

ADDRESS

President

SIGNED BY

TITLE OR AGENCY

gda@amerine sys . com

E-MAIL ADDRESS

**NOTE:** Bids are invalid which are unsigned, or not accompanied by **\$10%** a bidder's bond. If erasures or interlineations appear on your bid form, they must be initialed by the person preparing the bid. Bids shall be mailed or delivered to:

OFFICE OF THE CITY CLERK  
FIRST FLOOR, CITY HALL  
425 NORTH EL DORADO STREET  
STOCKTON, CALIFORNIA 95202-1997

On or before **2:00 p.m. December 15, 2022**, and publicly opened immediately thereafter in the City Council Chambers.

**SPECIAL NOTE: U.P.S. OR OTHER SPECIAL HANDLING SERVICES DO NOT DELIVER DIRECTLY TO THE CITY CLERK'S OFFICE. BIDDERS ARE ADVISED THAT IF A SPECIAL HANDLING SERVICE IS USED, BIDS MAY NOT REACH THE CITY CLERK'S OFFICE IN TIME FOR BID OPENING AND WILL BE REJECTED AND RETURNED TO BIDDER.**

NON-COLLUSION  
AFFIDAVIT FOR INDIVIDUAL BIDDER

No. 1  
STATE OF \_\_\_\_\_ )ss.  
County of \_\_\_\_\_ )  
(insert)

\_\_\_\_\_ being first duly sworn, deposes and says: That on behalf of any person not named herein; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation to put in a sham bid, or that such other person, firm or corporation shall or should refrain from bidding; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Bidder.

\_\_\_\_\_  
(Signature Individual Bidder)

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal \_\_\_\_\_

Signature \_\_\_\_\_

No. 2  
AFFIDAVIT FOR CORPORATION BIDDER

STATE OF California )ss.  
County of Stanislaus )  
(insert)

Gary Amerine being first duly sworn, deposes and says: That they are the President of Amerine Systems Inc a corporation, which corporation is the party making the foregoing bid, that such bid is genuine and not sham or collusive, or made in the interest or behalf of any person not named herein; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation to put in a sham bid, or that such other person, firm or corporation shall or should refrain from bidding; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Bidder.

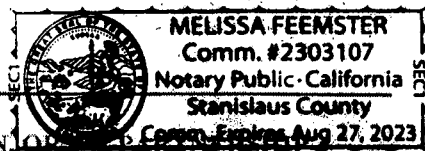
Gary D Amerine  
(Signature Corporation Bidder)

Subscribed and sworn to (or affirmed) before me on this 15th day of December, 2022

by Gary D Amerine, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal Melissa Feemster

Signature Melissa Feemster



No. 3  
AFFIDAVIT FOR FIRM, ASSOCIATION, OR PARTNERSHIP  
STATE OF \_\_\_\_\_ )ss.  
County of \_\_\_\_\_ )  
(insert)

each being first duly sworn, depose and say: That they are a member of the firm, association or co-partnership,

designated as \_\_\_\_\_ who is the party making the foregoing bid; that the other partner, or partners, are \_\_\_\_\_ that such



bid is genuine and not sham or collusive, or made in the interest or behalf of any person not named herein; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation shall or should refrain from proposing; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Bidder.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal \_\_\_\_\_

Signature \_\_\_\_\_

**EXHIBIT A- SAMPLE CONTRACT - SEPARATE ATTACHMENT**

**EXHIBIT B- INSURANCE REQUIREMENTS-SEPARATE ATTACHMENT**

## BIDDER'S CHECKLIST

Did You:

- \*  Complete the following bid documents (FROM THIS PACKET ONLY SUBMIT PAGES 18 to 22, along with any illustrations/brochures):
  - \*  Sign and notarize by jurat certificate the "Non-Collusion Affidavit" form. An "All-Purpose Acknowledgment" form will not be sufficient.
  - \*  Complete and sign the "Bid to be Submitted" form.
  - \*  Sign the "Bidder's Agreement" form. **Include (with bid) name and e-mail address for City contact, if different from signatree**
  - \*  Recheck your math on each item extension and total column. Do not superimpose numerals on your bid forms. If erasures or interlineations appear on your bid form, they must be initialed by the person preparing the bid.
  - \*  Include your **10%** bidder's security, bidder's bond, certified or cashier's check. **NOTE:** As information, the City will **NOT** accept company or personal checks for bid security.
  - \*  Include self-addressed, unstamped envelope (#10, 4- 1/8 x 9- 1/2) with bidder's security. **Please DO NOT seal your security, bidder's bond, certified or cashier's check in this envelope.** It is for returning the security to the bidder AFTER project award.
  
- \*  Submit one (1) ORIGINAL of all bid documents. Additionally, submit one (1) flash drive with an electronic version of the bid documents.
  
- \*  Review all clarifications/questions/answers on the City's website at [www.stocktonca.gov/adminbid](http://www.stocktonca.gov/adminbid)
  
- \*  Deliver sealed bid to City Hall, City Clerk's Office (1st floor), 425 North El Dorado Street, Stockton, CA 95202, before **December 15, 2022, at 2:00 p.m.** Sealed bid shall be marked "Bid" and indicate project name, number, and bid opening date.  
**Please note that some overnight delivery services do not deliver directly to the City Clerk's Office. This could result in the bid arriving in the City Clerk's Office after the bid opening deadline and therefore not being accepted. NOTE: The Stockton City Clerk's office is closed from 12 noon to 1 p.m. for lunch.**

- A) DWTP REHAB WELL 30
- B) (PUR 23-005)
- C) DECEMBER 15, 2022

### CONTACT INFORMATION:

Information on Bid Process/Clarification/Technical Data
Patricia Monesi Procurement Specialist (209) 937-8357 e-mail: <a href="mailto:stocktonbids@stocktonca.gov">stocktonbids@stocktonca.gov</a>

\*If not completed as required, your bid may be voided.

\***DISCLAIMER:** The City does not assume any liability or responsibility for errors/omissions in any document transmitted electronically.

\*THIS FORM IS FOR YOUR INFORMATION ONLY AND DOES NOT NEED TO BE SUBMITTED WITH YOUR BID.

# BID DOCUMENTS

- A) BID – DWTP REHAB WELL 30
- B) PUR 23-005
  
- C) DECEMBER 15, 2022

**COMPANY NAME:** Pump Repair Service Company

**CONTACT NAME:** Wayne Archer

**ADDRESS:** P.O. Box 34327, San Francisco, CA 94134

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**TELEPHONE NUMBER:** 415-467-2150

**EMAIL:** warcher@pumprepairservice.com

**BID TO BE SUBMITTED**

Quantity	Material	Price
1	Well Motor and Pump	\$ 338,400 <sup>00</sup>
1	Sounding Tubes	\$ 2000 <sup>00</sup>

The bidder warrants this equipment for a minimum period of 1 1/2 years.

Complete delivery will be made within 34 calendar days from award of bid.

Any questions regarding specifications should be directed to Patricia Monesi, Procurement Division, at telephone (209) 937- 8357.

Pump Repair Service Company  
FIRM

P.O. Box 34327, San Francisco, CA 94134  
ADDRESS

  
SIGNED BY Wayne Archer

President  
TITLE OR AGENCY

12/15/2022  
DATE

( 415 ) 467-2150  
TELEPHONE

**NOTE:** Bidders are to mark their sealed bids to clearly indicate the content as:

- A) DWTP Rehab Well 30
- B) PUR 23-005
- C) December 15, 2022

**IF YOU DO NOT WISH TO BID, PLEASE RETURN YOUR BID IMMEDIATELY STATING REASON.**



**BIDDER'S AGREEMENT**

In submitting this bid, as herein described, the bidder agrees that:

1. They have carefully examined the specifications and all other provisions of this form and understand the meaning, intent, and requirements of same.
2. They have reviewed and understand all clarifications/questions/answers on the City's website at [www.stocktonca.gov/adminbid](http://www.stocktonca.gov/adminbid).
3. They will enter into written contract and furnish the item(s)/service(s) in the time specified in strict conformity with the specifications and conditions contained therein for the price quoted by the bidder on this bid.
4. The proposed price is inclusive of all freight and handling charges and includes delivery to the City of Stockton, Municipal Service Center, or if specified, to the alternate point of delivery shown in the specifications.
5. They have signed and notarized the attached Non-Collusion Affidavit form whether individual, corporate or partnership. Must be "A Jurat" notarization.

Pump Repair Service Company \_\_\_\_\_

P.O. Box 34327, San Francisco, CA 94134 \_\_\_\_\_

FIRM

ADDRESS

  
\_\_\_\_\_

President \_\_\_\_\_

SIGNED BY Wayne Archer

TITLE OR AGENCY

warcher@pumprepairservice.com \_\_\_\_\_

E-MAIL ADDRESS

**NOTE:** Bids are invalid which are unsigned, or not accompanied by **\$10%** a bidder's bond. If erasures or interlineations appear on your bid form, they must be initialed by the person preparing the bid. Bids shall be mailed or delivered to:

**OFFICE OF THE CITY CLERK  
FIRST FLOOR, CITY HALL  
425 NORTH EL DORADO STREET  
STOCKTON, CALIFORNIA 95202-1997**

On or before **2:00 p.m. December 15, 2022**, and publicly opened immediately thereafter in the City Council Chambers.

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**NON-COLLUSION  
AFFIDAVIT FOR INDIVIDUAL BIDDER**

No. 1

STATE OF \_\_\_\_\_, \_\_\_\_\_)ss.

County of \_\_\_\_\_  
(insert)

\_\_\_\_\_ being first duly sworn, deposes and says: That on behalf of any person not named herein; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation to put in a sham bid, or that such other person, firm or corporation shall or should refrain from bidding; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Bidder.

\_\_\_\_\_  
(Signature Individual Bidder)

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal \_\_\_\_\_

Signature \_\_\_\_\_

**No. 2 AFFIDAVIT FOR CORPORATION BIDDER**

STATE OF California, \_\_\_\_\_)ss.

County of San Francisco  
(insert)

Wayne Archer being first duly sworn, deposes and says: That they are the President of Pump Repair Service Company a corporation, which corporation is the party making the foregoing bid, that such bid is genuine and not sham or collusive, or made in the interest or behalf of any person not named herein; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation to put in a sham bid, or that such other person, firm or corporation shall or should refrain from bidding; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Bidder.

Wayne Archer  
(Signature Corporation Bidder)

Subscribed and sworn to (or affirmed) before me on this 13 day of December, 2022

by Wayne Archer, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal \_\_\_\_\_

Signature pdcr



**No. 3 AFFIDAVIT FOR FIRM, ASSOCIATION, OR CO-PARTNERSHIP**

STATE OF \_\_\_\_\_, \_\_\_\_\_)ss.

County of \_\_\_\_\_  
(insert)

each being first duly sworn, depose and say: That they are a member of the firm, association or co-partnership, designated as \_\_\_\_\_ who is the party making the foregoing bid; that the other partner, or partners, are \_\_\_\_\_ that such

bid is genuine and not sham or collusive, or made in the interest or behalf of any person not named herein; that said Bidder has not colluded, conspired, connived or agreed, directly or indirectly with, or induced or solicited any other bid or person, firm or corporation shall or should refrain from proposing; and has not in any manner sought by collusion to secure to themselves any advantage over or against the City, or any person interested in said improvement, or over any other Bidder.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Signature)

Subscribed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

by \_\_\_\_\_, proved to me on the basis of satisfactory evidence to be the person(s) who appeared before me.

Seal \_\_\_\_\_

Signature \_\_\_\_\_

**INVITATION FOR SEALED BID (IFB)  
DWTP REHAB WELL 30  
FOR THE CITY OF STOCKTON, CALIFORNIA  
PUR 23-005**

**ADDENDUM No. #1**

DATE: 11/21/2022

To All Potential Bidders:

- A. This Addendum shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Amendment shall govern and take precedence. **BIDDERS MUST SIGN THE ADDENDUM AND SUBMIT IT WITH THEIR BIDS.**
- B. Bidders are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each bidder's bid is submitted with full knowledge of all modifications and supplemental data specified herein.

**PLEASE NOTE THE FOLLOWING QUESTIONS/ANSWERS/CHANGES AND CLARIFICATIONS TO (PUR 23-005). THE CITY'S RESPONSES TO QUESTIONS SUBMITTED ARE IN BLUE**

Questions & Answers

1. Is there a cost estimate/range available for this project and a construction start/end date?  
There is no cost estimate for this project. The construction start/end date does not have an official start and end date, however a "notice to proceed" letter will be sent out the first week of April 2023 and is expected to end by December 2023.
2. Can you please provide Engineer's Estimate for the DWTP Rehab Well 30 Project?  
Refer to the answer in question 1.
3. Confirming that the pre-bid was not mandatory.  
The job walk was not mandatory.
4. To remove the pump and motor, the building needs to be moved (slid) out of the way. Who will be doing that work?  
City staff will be doing all the electrical, plumbing, and mechanical work to move (slide) the building.

5. What is the information on the name plate?

Pump Information:

Pump Size/Type: 15MQ  
Number of Stages: 3

Motor Information:

Serial Number: 0404MS003103-1  
Stage: 3  
Head: 261  
Speed: 1760  
Phase: 3

Duty Information:

GPM: 2200

**BIDDER MUST ACKNOWLEDGE THIS ADDENDUM BY SIGNING BELOW AND ATTACHING THE SIGNED ADDENDUM TO THE BID FORM:**

Company Name Pump Repair Service Co.

Contact Person Wayne Archer

Signature 

Date 12/2/22

**Bids Due** – Promptly by 2:00 P.M., Thursday, December 15, 2022, at the City Clerk's Office.

-----City of Stockton Use Only below this line-----

Addendum acknowledged and signed? \_\_\_\_\_ (Procurement Specialist's initials)



Bid Bond

KNOW ALL MEN BY THESE PRESENTS,

That We, Pump Repair Service Co. of P.O. Box 34327, San Francisco, CA 94134 as Principal, and Contractors Bonding and Insurance Company of Peoria, Illinois, as Surety, an Illinois corporation duly licensed to do business in the State of California, are held and firmly bound unto City of Stockton, as Obligee, in the penal sum of Ten Percent of Amount Bid (10% of Amount Bid), for the payment of which the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, joint and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, That whereas the Principal has submitted, or is about to submit, a proposal or a bid to the Obligee on a contract for DWTP REHAB WELL 30

NOW, THEREFORE, if the aforesaid principal shall be awarded the contract, the said Principal will within the period specified therefore, or if no period be specified, within ten (10) days after the notice of such award enter into a contract and give bond for the faithful performance of the contract, then this obligation shall be null and void. In the event the person, firm, or corporation is awarded the contract and the said bidder shall fail, neglect, or refuse to enter into a contract to said equipment or materials, then the amount therein mentioned in the bidder's bond accompanying the bid of said person, firm, or corporation shall be declared to be forfeited to the City.

PROVIDED AND SUBJECT TO THE CONDITION PRECEDENT, that any suits at law or proceedings in equity brought or to be brought against the Surety to recover any claim hereunder must be instituted and service had upon the Surety within ninety (90) days after the acceptance of said bid of the Principal by the Obligee.

SIGNED, SEALED AND DATED this 9<sup>th</sup> day of December, 2022.



Pump Repair Service Co.

Principal

By: [Signature]

Contractors Bonding and Insurance Company

Surety

By: [Signature]

Haley A. Anderson, Attorney-in-Fact



# POWER OF ATTORNEY

## RLI Insurance Company Contractors Bonding and Insurance Company

9025 N. Lindbergh Dr. Peoria, IL 61615  
Phone: 800-645-2402

### Know All Men by These Presents:

That this Power of Attorney is not valid or in effect unless attached to the bond which it authorizes executed, but may be detached by the approving officer if desired.

That **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, each an Illinois corporation, (separately and together, the "Company") do hereby make, constitute and appoint:

Jacquelyn M. Norstrom, John P. Harney, Josefina Rojo, Haley A. Anderson, Cassandra L. Stone, Steven L. Wulff, Pramod Venkatesh,  
jointly or severally

in the City of Chicago, State of Illinois its true and lawful Agent(s) and Attorney(s) in Fact, with full power and authority hereby conferred, to sign, execute, acknowledge and deliver for and on its behalf as Surety, in general, any and all bonds and undertakings in an amount not to exceed Twenty Five Million Dollars (\$25,000,000.00) for any single obligation.

The acknowledgment and execution of such bond by the said Attorney in Fact shall be as binding upon the Company as if such bond had been executed and acknowledged by the regularly elected officers of the Company.

**RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, as applicable, have each further certified that the following is a true and exact copy of a Resolution adopted by the Board of Directors of each such corporation, and is now in force, to-wit:

"All bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President, or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or Agents who shall have authority to issue bonds, policies or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

IN WITNESS WHEREOF, the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, as applicable, have caused these presents to be executed by its respective Vice President with its corporate seal affixed this 25th day of August, 2021.



**RLI Insurance Company**  
**Contractors Bonding and Insurance Company**

By: B. W. Davis  
Barton W. Davis Vice President

State of Illinois }  
County of Peoria } SS

### CERTIFICATE

On this 25th day of August, 2021, before me, a Notary Public, personally appeared Barton W. Davis, who being by me duly sworn, acknowledged that he signed the above Power of Attorney as the aforesaid officer of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** and acknowledged said instrument to be the voluntary act and deed of said corporation.

I, the undersigned officer of **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company**, do hereby certify that the attached Power of Attorney is in full force and effect and is irrevocable; and furthermore, that the Resolution of the Company as set forth in the Power of Attorney, is now in force. In testimony whereof, I have hereunto set my hand and the seal of the **RLI Insurance Company** and/or **Contractors Bonding and Insurance Company** this 9th day of December, 2022.

By: Catherine D. Glover  
Catherine D. Glover Notary Public

**RLI Insurance Company**  
**Contractors Bonding and Insurance Company**

By: Jeffrey D. Fick  
Jeffrey D. Fick Corporate Secretary




State of Illinois  
County of Cook

On this 9<sup>th</sup> day of December 2022, before me personally appeared  
Haley A. Anderson, known to me to be the Attorney-in-fact of  
Contractors Bonding and Insurance Company, the corporation that executed the  
within instrument, and acknowledged to me that such corporation executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal, at my office in the  
aforesaid county, the day and year in this certificate first above written.



  
\_\_\_\_\_  
(Notary Public)

(Seal)





**NSF 61 CERTIFIED**  
*Pump, Motor, Column, Cord*

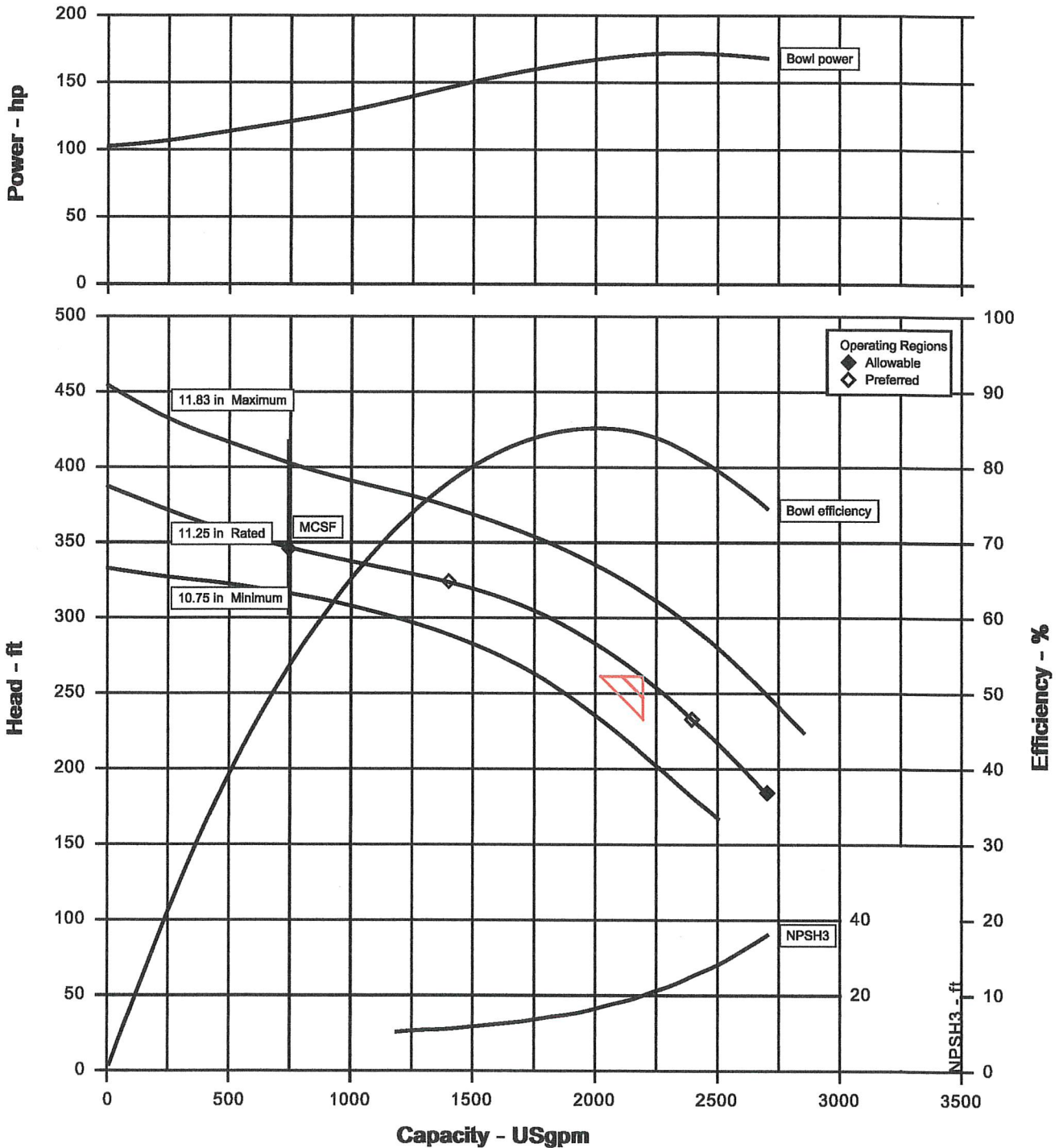
Pump size & type / Stages : 15EMM / 3  
 Based on curve no. : EC-2377  
 Impeller diameter : 11.25 in

Customer : PUMP REPAIR SERVICE CO INC  
 Item number : 15EMM-3  
 Service : -  
 Flowserve reference : 4314845347  
 Date : December 6, 2022

Capacity : 2,200.0 USgpm  
 Head : 261.00 ft  
 Density / Specific gravity : - / 1.000  
 Pump speed : 1,760 rpm  
 Ns / Nss (per eye) : 1,519 / 9,100 (US)  
 Test tolerance : ANSI/HI 14.6 Grade 1U

CURVES ARE APPROXIMATE, PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS; CAPACITY, HEAD, AND EFFICIENCY.

Bowl performance shown below is corrected for materials, viscosity and construction.



Bowl head of 261.47 ft corresponds with 261 ft head at low liquid level adjusted for elevation and friction losses.



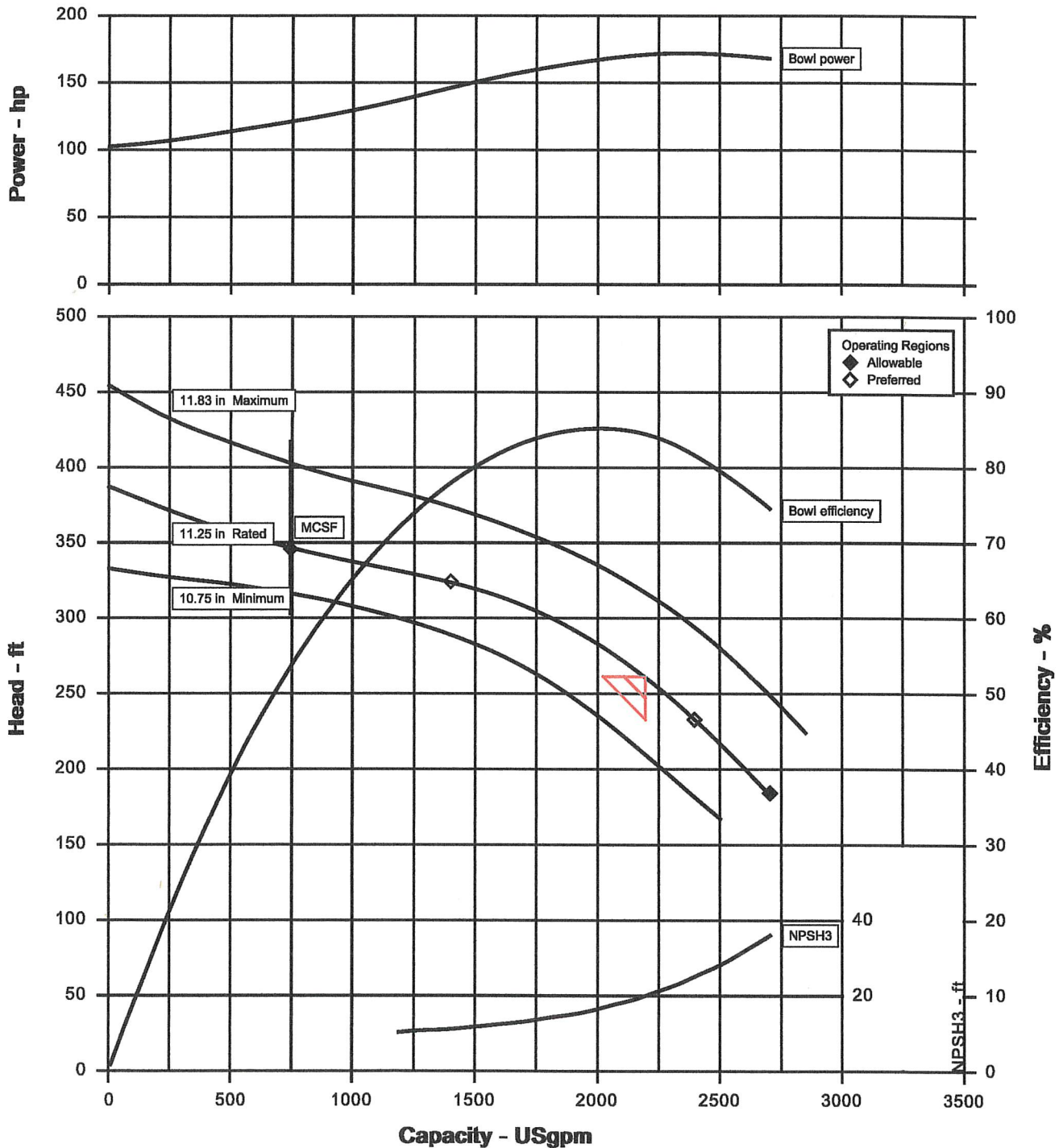
Pump size & type / Stages : 15EMM / 3  
 Based on curve no. : EC-2377  
 Impeller diameter : 11.25 in

Customer : PUMP REPAIR SERVICE CO INC  
 Item number : 15EMM-3  
 Service : -  
 Flowserve reference : 4314845347  
 Date : December 6, 2022

Capacity : 2,200.0 USgpm  
 Head : 261.00 ft  
 Density / Specific gravity : - / 1.000  
 Pump speed : 1,760 rpm  
 Ns / Nss (per eye) : 1,519 / 9,100 (US)  
 Test tolerance : ANSI/HI 14.6 Grade 1U

CURVES ARE APPROXIMATE, PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS; CAPACITY, HEAD, AND EFFICIENCY.

Bowl performance shown below is corrected for materials, viscosity and construction.



Bowl head of 261.47 ft corresponds with 261 ft head at low liquid level adjusted for elevation and friction losses.





Pump Division

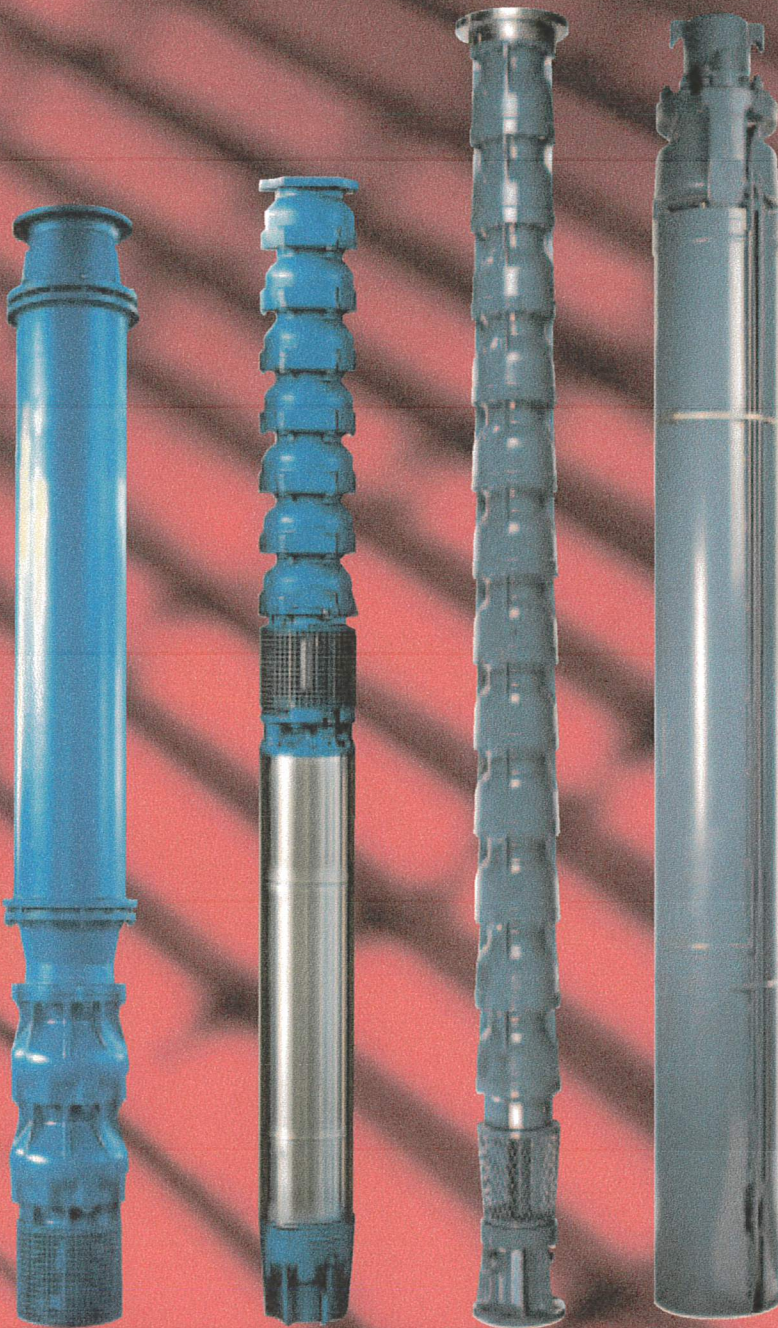
## ***SUBM***

***Submersible  
Motors - Pumps***



***Byron Jackson<sup>®</sup>  
Oil Filled  
Design***

***Pleuger<sup>®</sup>  
Water Filled  
Design***

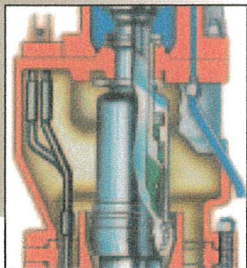




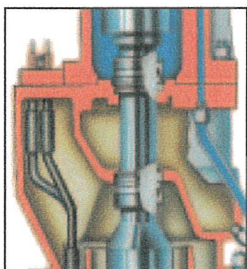
**Byron Jackson  
Oil Filled  
Design**

Byron Jackson oil filled submersible units are built for the most demanding deep well services. Rugged, reliable and long lasting, these units offer significant total life cycle cost savings.

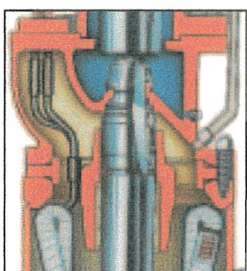
**Seal Options**



**Mercury seal**  
Zero leakage, zero wear for absolute reliability



**Double mechanical seal**  
A high quality alternative to the mercury seal



**Single, pressurized mechanical seal**  
For hydrocarbon services and non-vertical applications

**Services**

- Municipal
- Industrial
- Process
- Offshore
- Mining
- Irrigation
- Power

**Typical Applications**

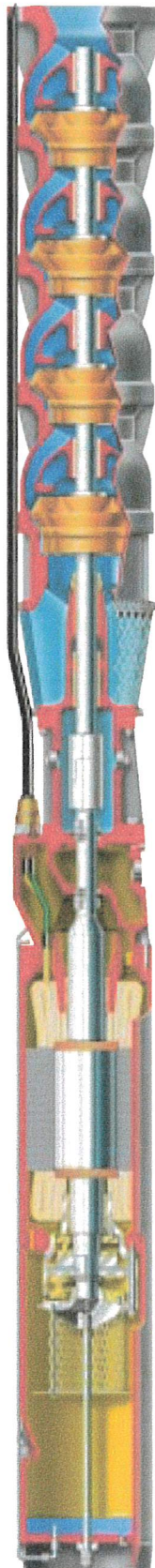
- Potable water
- Storage cavern
- Sea water
  - Fire protection
  - Ballast
- Dewatering
- Pressure boosting
  - Fountains
- Geothermal
- Water injection system
- Pipelines

**Operating Parameters**

- Flows to 4500 m<sup>3</sup>/h (19 800 gpm)
- Heads to 800 m (2600 ft)
- Motor sizes to 1500 kW (2000 hp)
  - Speeds from 1000 to 3600 rpm
  - 2, 4 and 6 pole designs (other designs available)
  - 200 to 6600 volt
  - 50 & 60 Hz frequencies
  - Variable frequency drive and high temperature motor options

**Accredited for water handling services**

- NSF Standard 61 Certification according to criteria established jointly by the U.S. ASME and NSF International
- Certification program accredited by RvA, the Dutch Council for Accreditation



**Standard Design Features Motors**

- Oil filled with internal self contained force feed, filtered, cooled oil circulation system to maintain continuous lubrication
- Vacuum pressure impregnated (VPI) epoxy, Class F insulation system for superior insulation and long service life
- Double-acting thrust bearing system for continuous up or down thrust capability
- Special metallurgy available for corrosive services
- Suitable for use with variable frequency drives for improved pumping efficiency
- Models available for high temperature ( $\geq 90^{\circ}\text{C}$  [200°F]) and high suction pressure services

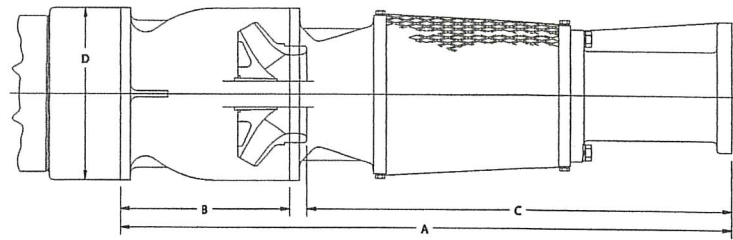
**Pumps**

- Heavy duty and high efficiency impellers and bowl cases
- Wide variety of materials available to suit any application
- Dynamically balanced impellers to minimize vibration and maximize service life
- Dual bearings between pump and motor for maximum shaft support
- Highly efficient suction inlet design

**Cables**

- Sealed power cable plug-in feature for reliability and ease of installation; no need for field splicing

**Byron Jackson Adaptations**  
**Submersible Pump (SVTP)**  
**Dimensions and Weights**



*15 EMM - 3 Stages*

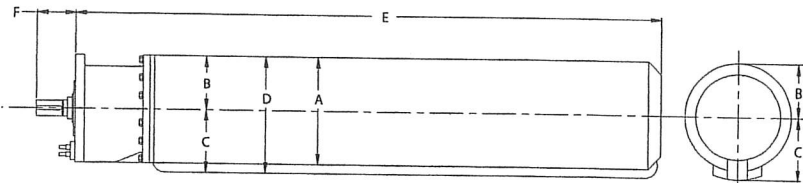
Bowl		Motor			A	B	C	D	Available Top Case Outlet Sizes	Bowl Connection	Well I.D.		Weight (lbs.)	
Model	Impellers	Size	Volts	Poles	Length of One Stage Unit	Length of Additional Stage	1st Stage Impeller Location				Min.	Recom'd	1st Stage	Add'l Stage
14EM	M	10	460	4	42.13	12.12	27.38	13.44	8, 10	Flanged	16	16	740	135
		12	460/2300		45.88		31.13				16	16		
		14	460/2300		43.31		29.56				16	16		
		17	2300/4000		46.81		32.06				18	20		
14EN	L,M	10	460	4	43.00	13.00	27.38	13.44	8, 10	Flanged	16	16	780	175
		12	460/2300		46.75		31.13				16	16		
		14	460/2300		44.18		29.56				16	16		
		17	2300/4000		47.68		32.06				18	20		
14EB	L,M	10	460	4	43.31	13.31	27.38	13.31	8, 10	Flanged	16	16	740	135
		12	460/2300		47.06		31.13				16	16		
		14	460/2300		44.50		29.56				16	16		
		17	2300/4000		48.00		32.06				18	20		
15EM	M	10	460	4	53.94	12.75	38.13	14.75	10, 12	Flanged	18	18	775	173
		12	460/2300		56.00		40.19				18	18		
		14	460/2300		54.19		38.38				18	18		
		17	2300/4000		55.25		39.44				18	20		
15EH	L,M	10	460	4	54.57	13.38	38.13	14.75	10, 12	Flanged	18	18	785	186
		12	460/2300		56.63		40.19				18	18		
		14	460/2300		54.82		38.38				18	18		
		17	2300/4000		55.88		39.44				18	20		
15EB	L,M	10	460	4	56.44	15.25	38.13	15.25	12, 14	Flanged	18	18	780	180
		12	460/2300		58.50		40.19				18	18		
		14	460/2300		56.69		38.38				18	18		
		17	2300/4000		57.75		39.44				18	20		
15MQ	L,H	10	460	4	55.63	14.44	38.13	14.44	10,12	Flanged	16	18	800	200
		12	460/2300		57.69		40.19				16	18		
		14	460/2300		55.88		38.38				16	18		
		17	2300/4000		56.94		39.44				18	20		
16EN	L,M	14	460/2300	4	55.94	14.50	37.72	14.75	10,12	Flanged	18	20	1020	230
		17	2300/4000		57.00		38.78				20	20		
17EP	L,M	14	460/2300	4	56.94	15.50	37.72	17.63	10,12	Flanged	18	20	1150	360
		17	2300/4000		58.00		38.78				20	20		
17MQ	L,H	14	460/2300	4	58.19	16.75	37.72	16.88	10,12	Flanged	18	20	1100	310
		17	2300/4000		59.25		38.78				20	20		
17ETH	L,H	12	460/2300	4	77.87	16.88	45.83	16.88	12	Flanged	24	24	1200	345
		14	460/2300		76.06		43.81				24	24		
		17	2300/4000		77.13		44.87				24	24		
18EK	L,M	17	2300/4000	4	57.94	16.50	37.72	17.50	10,12, 14	Flanged	20	20	1180	390
		21	4000/6000		59.00		38.78				24	24		
18EN	L,M	17	2300/4000	4	57.94	16.50	37.72	17.50	10,12, 14	Flanged	24	24	1180	390
		21	4000/6000		59.00		38.78				24	24		
18CK	L,H	17	2300/4000	4	57.44	16.00	37.72	18.25	12, 14, 16	Flanged	24	24	1190	400
		21	4000/6000		58.50		38.78				24	24		
20EK	L,H	17	2300/4000	4	64.25	19.00	41.50	20.00	12, 14, 16	Flanged	24	24	1575	535
		21	4000/6000		66.62		43.88				24	24		
20EN	L,M	17	2300/4000	4	64.25	19.00	41.50	20.00	12, 14, 16	Flanged	24	24	1575	535
		21	4000/6000		66.62		43.88				24	24		
20EP	L,M	17	2300/4000	4	64.25	18.00	41.50	20.32	12, 14, 16	Flanged	24	24	1555	515
		21	4000/6000		66.62		43.88				24	24		
20CK	L,H	17	2300/4000	4	64.25	18.00	41.50	20.50	12, 14, 16	Flanged	24	24	1580	540
		21	4000/6000		66.62		43.88				24	24		
24CK	L,H	17	2300/4000	4	68.25	23.25	47.63	21.00	12, 14, 16	Flanged	28	28	1700	650
		21	4000/6000		70.63		43.13				28	28		

**Note:** For other or larger sizes consult factory.  
 All dimensions given in inches, weight in pounds.  
 Dimensions and weights are approximate and subject to change - Do not use for construction.



## Submersible Motors and Pumps Cross Sectional Drawings

**Byron Jackson**  
**Electical Data**  
**4-Pole Submersible Motors**  
**1800 RPM - 3 Phase - 60 Cycle**

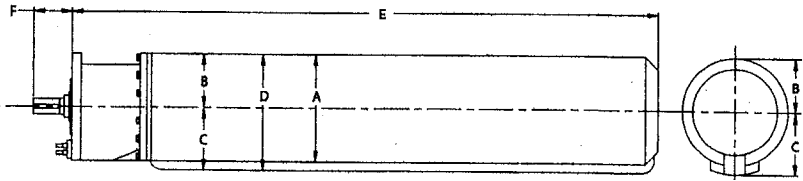


MOTOR SIZE	HORSE-POWER	VOLTAGE	AMPS		RPM	1/2 LOAD		3/4 LOAD		FULL LOAD		
			RATED CURRENT	STARTING CURRENT		NO LOAD CURRENT	FULL LOAD SPEED	P.F.	Efficiency	P.F.	Efficiency	P.F.
8	20	460	28	430	15	1750	59.0	78.0	71.0	85.0	77.0	86.0
	25		34	350	15	1735	64.0	79.0	74.0	85.0	79.0	86.0
	30		40	300	15	1720	68.0	82.0	77.0	86.0	82.0	85.0
10	40	460	51	470	18	1770	71.0	83.0	80.0	86.0	85.0	87.0
	50		63	360	18	1760	77.0	85.0	84.0	87.0	86.0	86.0
	60		81	425	35	1770	61.0	82.0	73.0	86.0	80.0	87.0
	75		96	360	35	1760	68.0	85.0	78.0	87.0	84.0	87.0
	100		127	415	45	1765	70.0	86.0	80.0	88.0	84.0	88.0
12	125	460	165	437	74	1760	61.0	86.0	73.0	88.0	79.0	90.0
	150		195	370	74	1751	66.0	88.0	74.0	89.0	80.0	90.0
	175		230	377	100	1752	67.0	85.0	73.0	88.0	80.0	89.0
	200		263	330	100	1742	70.0	86.0	75.0	88.0	80.0	89.0
	125	2300	34	435	14	1758	62.0	87.0	71.0	89.0	77.0	90.0
	150		39	370	14	1748	66.0	88.0	74.0	89.0	80.0	90.0
	175		47	391	18	1751	67.0	85.0	73.0	88.0	79.0	89.0
	200		53	340	18	1742	70.0	86.0	75.0	88.0	80.0	89.0
14	125	460	153	440	50	1756	84.0	83.0	88.0	86.0	88.0	87.0
	150		181	440	55	1754	83.0	83.0	88.0	87.0	88.0	88.0
	200		242	485	85	1760	77.0	86.0	83.0	88.0	87.0	89.0
	250		310	488	120	1760	73.0	84.0	81.0	88.0	84.0	90.0
	300		367	420	120	1751	76.0	85.0	83.0	88.0	85.0	90.0
	125	2300	30	405	7	1750	88.0	83.0	88.0	85.0	89.0	87.0
	150		36	420	10	1750	88.0	83.0	88.0	85.0	89.0	87.0
	200		48	380	14	1750	87.0	84.0	88.0	86.0	88.0	88.0
	250		61	491	20	1760	81.0	83.0	84.0	86.0	87.0	88.0
	300		73	405	20	1751	84.0	84.0	86.0	86.0	88.0	88.0
17	300	2300	76	440	20	1773	76.0	87.0	81.0	88.0	83.0	89.0
	350		89	408	23	1770	79.0	87.0	82.0	88.0	83.0	89.0
	400		101	400	26	1769	79.0	87.0	82.0	88.0	83.0	89.0
	450		114	430	33	1774	80.0	87.0	81.0	88.0	83.0	89.0
	500		127	385	33	1770	80.0	87.0	82.0	88.0	83.0	89.0
	600		152	430	45	1774	76.0	87.0	81.0	88.0	83.0	89.0
	700		175	430	56	1770	74.0	85.0	81.0	88.0	83.5	89.5
	300	4000	44	529	15	1778	75.0	87.0	78.0	88.0	83.0	89.0
	350		51	447	17	1773	77.0	87.0	80.0	88.0	83.0	89.0
	400		58	474	18	1775	76.0	87.0	80.0	88.0	83.0	89.0
	450		66	496	22	1777	73.0	86.0	78.0	88.0	82.0	89.0
	500		73	475	22	1775	76.0	87.0	80.0	88.0	83.0	89.0
	600		87	420	26	1774	77.0	87.0	81.0	88.0	83.0	89.0
	700		102	440	33.5	1770	73.5	84.5	80.5	88.0	83.0	89.0
21	800	4000	115	430	29	1762	76.0	80.0	83.0	85.0	86.0	87.0
	1000		144	408	33	1760	77.0	80.0	84.0	85.0	86.0	87.0
	1250		180	450	44	1768	77.0	80.0	84.0	85.0	86.0	87.0
	1500		216	420	49	1767	77.0	80.0	84.0	85.0	86.0	87.0
	600	6600	54	410	14	1760	76.0	78.0	83.0	83.0	86.0	84.0
	800		71	425	18	1762	76.0	79.0	83.0	83.0	86.0	85.0
	1000		89	450	23	1764	76.0	79.0	83.0	83.0	86.0	85.0
	1250		112	410	26	1760	77.0	80.0	84.0	84.0	86.0	85.0
	1500		132	415	31	1760	77.0	80.0	84.0	84.0	86.0	86.0

Standard Motor Service Factor is 1.1.

## Submersible Motors and Pumps Cross Sectional Drawings

**Byron Jackson**  
**Dimensions and Weights**  
**4-Pole Submersible Motors**  
**1800 RPM - 3 Phase - 60 Cycle**



Motor Size	Horse-power	Voltage	Standard Flat Cable Size (AWG)	Down Thrust Capacity At Pump Shutoff (ft-lbs)		Outside Diameter of Stator (Inches)	CL To Outside Of Motor			Overall Width of Motor (B+C) (Inches)	Length of Motor (Inches)	Shaft Extension (Inches)	Shipping Weight of Motor (Pounds)	Horse-power
				UP	DOWN		A	B	C					
8	20	460	# 2	2,400	4,900	7.250	3.625	4.125	7.750	67.50	5.688	660	20	
	25												660	25
	30												660	30
10	40	460	# 2	4,900	7,200	9.250	4.625	5.125	9.750	68.75	6.625	1540	40	
	50												1540	50
	60												1785	60
	75												1785	75
	100												1850	100
	125												1950	125
12	150	460	# 1/0	7,200	10,800	11.000	5.500	6.125	11.625	99.75	7.813	1950	125	
	175												1950	150
	200												2050	175
	200												2050	200
	150												1950	125
	175												1950	150
14	200	2300	# 4	7,200	10,800	11.000	5.500	6.125	11.625	103.75	7.813	2050	175	
	250												2050	200
	300												2050	200
	125												1950	125
	150												1950	150
	175												1950	150
14	200	460	# 1/0	10,800	16,700	12.750	6.375	7.188	13.562	96.50	7.813	2470	125	
	150												2570	150
	250												2800	200
	300												3100	250
	300												3100	300
	125												2570	125
17	150	2300	# 4	10,800	16,700	12.750	6.375	7.188	13.562	100.50	7.813	2570	125	
	200												2800	150
	250												3000	200
	300												3100	250
	300												3100	300
	300												3470	300
17	350	2300	# 4	10,800	16,700	15.000	7.500	8.625	16.125	106.50	8.875	3470	300	
	400												3740	350
	450												4030	400
	500												4300	450
	600												4450	500
	700												4900	600
17	300	4000	# 2	10,800	16,700	15.000	7.500	8.625	16.125	106.50	8.875	3470	300	
	350												3740	350
	400												4030	400
	450												4300	450
	500												4450	500
	600												4900	600
21	600	4000	# 1/0	14,000	28,000	20.000	10.000	11.000	21.000	134.50	9.5	5000	600	
	800												5500	800
	1000												6520	1000
	1250												8800	1250
	1500												10000	1500
	1500												10000	1500
21	600	6600	Special	14,000	28,000	20.000	10.000	11.000	21.000	134.50	9.5	5000	600	
	800												5500	800
	1000												6520	1000
	1250												8800	1250
	1500												10000	1500
	1500												10000	1500

Flat cables must be submerged during operation on all motors.





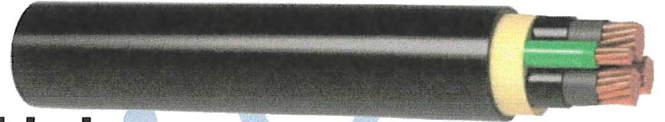
**pumpwire**

WE SPECIALIZE IN SUBMERSIBLES



spec **P7311A-SP**

**SUBMERSIBLE PUMP  
5000V MV-90**



**XLP Power Cable, Non-Shielded**

**INSULATION: (XLPE) CROSS-LINKED POLYETHYLENE**

**JACKET: Overall PVC Sunlight Resistant Black**

**CONDUCTORS: MV-90 rated 90°C Wet or Dry 2400 Volts (5000V<sup>+</sup>) per UL 1072**

**SIZES: 6 AWG - 350 MCM**



**1.0 APPLICATIONS:**

**1.1** For use primarily in raceways and cable trays in industrial applications as specified by the National Electric Code. These cables are capable of continuous operation at a maximum conductor temperature of 90°C for normal operation. Cables are rated 2,400 volts and 90°C in wet or dry locations.

**2.0 CONSTRUCTION:**

**2.1 Conductor:**  
Class B, Compact, Concentric Stranded Bare Copper per ASTM B3 & B496

**2.2 Conductor Shield:**  
The conductor shall be shielded with an extruded semi-conducting, thermosetting polymeric layer over the conductor, applied in tandem with and firmly bonded to the insulation

**2.3 Insulation:**  
Cross-Linked Polyethylene (XLP)

**2.4 Ground:**  
PVC/Nylon (THHN/THWN) per UL 83; Stranding per ASTM B3, B787 (19-Strand Combination Unilay)

**2.5 Assembly:**  
The insulated conductors and ground are cabled together with non-wicking fillers. A binder tape is helically applied over the cabled assembly. An overall PVC jacket is extruded over the binder tape.

**2.6 Jacket:**  
Black, Sunlight Resistant Polyvinyl Chloride (PVC)

**2.7 Surface Print:**  
PAIGE PUMP CABLE P7311A-SP (UL) E66602 4/0 AWG CMPCT CU 3/C XLP 2400V NON-SHIELDED 90C WET OR DRY 3 AWG GRN GND MV-90 SUN RES --- 5000V ICEA [YEAR] [SEQ. FTG. MARKS]

**3.0 STANDARDS:**

**3.1 UL 1072 - Type MV-90 Power Cables**

**3.2 ICEA S-96-659 (NEMA WC 71) - Non-Shielded Cables rated 2001-5000 Volts for use in the Distribution of Electrical Energy\***

#### 4.0 DIMENSIONS:

PAIGE PART #	CONDUCTOR			INSULATION THICKNESS	GROUND WIRE		Overall Jacket Thickness	Overall Size AWG or Nom. OD	Nom. Weight (Lbs/Mft)	Ampacity
	Size AWG or Nom. OD KCMIL	No. of Strands	Nominal O.D.	mils	Size - Strand (AWG)	PVC/ Nylon				
070690	6	7	169	90	6-19	30/5	80	1022	705	75
070700	4	7	213	90	6-19	30/5	80	1117	894	97
070705	2	7	268	90	6-19	30/5	80	1236	1184	130
070710	1	19	299	90	4-19	40/6	80	1303	1254	155
070715	1/0	19	336	90	4-19	40/6	80	1383	1676	180
070720	2/0	19	376	90	4-19	40/6	80	1469	2002	205
070730	4/0	19	475	90	3-19	40/6	110	1743	2934	280
070745	350	37	616	90	2-19	40/6	110	2063	4536	385

All dimensions are nominal and subject to normal manufacturing tolerances. Unit of Measure is mils unless noted otherwise. Ampacity of an Insulated Triplexed or Three Single-Conductor Copper Cables in Isolated Conduit in Air Based on Conductor Temperatures of 90°C and 105°C and Ambient Air Temperature of 40°C per 2011 NEC Table 310.60(C)(73)