



**5000128836- PURCHASE OF PRATT BUTTERFLY VALVES FOR THE
JEFFERSON PARISH EASTBANK WATER PLANT**
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com
14-Nov-2019 12:14:46 AM



Bid Number 50-128836

**Purchase of Pratt butterfly valves for the Jefferson Parish Eastbank
Water Plant**

November 18, 2019 at 11:00 am

ATTENTION VENDORS!!!

**Please review all pages and respond accordingly, complying with all provisions
in the technical specifications and Jefferson Parish Instructions for Bidders and
General Terms and Conditions. All bids must be received in the Purchasing
Department by the bid due date and time.**

**Jefferson Parish Purchasing Department
200 Derbigny Street
General Government Building, Suite 4400
Gretna, LA 70053
Buyer Name: Rae Lynn Scott
Buyer Email: rscott@jeffparish.net
Buyer Phone: 504-364-2688**

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

DATE: 11/12/2019

BID NO.: 50-00128836

JEFFERSON PARISH
PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: RSCOTT@jeffparish.net

Bids will be received until 11:00 AM, 11/18/2019 via online at www.jeffparishbids.net or by hand delivery, USPS mail or other courier service to Purchasing Department, 200 Derbigny Street (General Government Building), Suite 4400, Gretna, LA 70053. For convenience, bidders may also submit bids in the East Bank Purchasing Department, Suite 404, Jefferson Parish Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Jefferson LA 70123. However, if submitting bids on the day of bid opening, bidders must submit at the West Bank location only.

All bids submitted are subject to these instructions and general conditions and any special conditions and specifications contained herein, all of which are made part of this bid proposal reference. By submitting a bid, vendor agrees to comply with all provisions of Louisiana Law, as well be in compliance with the Jefferson Parish Code of Ordinances, Louisiana Code of Ethics, applicable Jefferson Parish ethical standards and Jefferson Parish Resolution No. 113646 and/or Resolution No. 113647. A copy of these resolutions may be obtained from the Office of the Parish Clerk, Suite 6700, Jefferson Parish General Government Building, 200 Derbigny Street, Gretna, LA 70053. You may also obtain a copy by visiting the Purchasing Department webpage at purchasing.jeffparish.net and clicking on On-line forms.

All vendors submitting bids should register as a Jefferson Parish vendor if not already yet registered. Registration forms may be downloaded from <http://purchasing.jeffparish.net> and by clicking on Vendor Information. Current W-9 forms with respective Tax Identification numbers and vendor applications may be submitted at any time; however, if your company is not registered and/or a current W-9 form is not on file, vendor registration is mandatory. Further, a current W-9 form and respective Tax Identification number must be supplied upon contract execution, should you be awarded a contract and/or issued purchase order. Failure to do so may result in delay of payment.

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Delivered, anywhere within the Parish as designated by the Purchasing Department. JEFFERSON PARISH WILL ACCEPT ONE BID ONLY FROM EACH VENDOR. Items bid must meet specifications. JEFFERSON PARISH will accept one price for each item unless otherwise indicated. Two or more prices for one item will result in bid rejection. Bidders are required to complete, sign and return the bid form and/or complete and return the associated line item pricing forms as indicated. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit prices shall prevail.

JEFFERSON PARISH reserves the right to award contracts or place orders on a lump sum or individual item basis, or such combination, as shall in its judgment be in the best interest of JEFFERSON PARISH. Every contract or order shall be awarded to the LOWEST RESPONSIVE and RESPONSIBLE BIDDER, taking into consideration the CONFORMITY WITH THE SPECIFICATIONS and the DELIVERY AND/OR COMPLETION DATE

PROTESTS: Only those vendors that submit bids in response to this solicitation may protest any element of the procurement, in writing to the Director of the Purchasing Department. Written protest must be received within 48 hours of the release of the bid tabulation by the Purchasing Department. After consultation, the Parish Attorney's Office will then respond to protests in writing. (For more information, please see Chapter 2, Article VII, Division 2, Sec. 2-914.1 of the Jefferson Parish Code of Ordinances.)

JEFFERSON PARISH reserves the right to cancel all or any part of an order if not shipped promptly. No charges will be allowed for parking or cartage unless specified in the quotation. The order must not be filled at a higher price than quoted. JEFFERSON PARISH reserves the right to cancel at any time and for any reason by issuing a THIRTY (30) day written notice to the contractor.

JEFFERSON PARISH requires all products to be new (current) and all work must be performed according to standard practices for the project. Unless otherwise specified, no aftermarket parts will be accepted. Unless otherwise specified, all workmanship and materials must have at least one (1) year guaranty, in writing, from the date of delivery and/or acceptance of the project. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

If this bid requires a pre-bid conference (see Additional Requirements section), bidders are advised that such conference will be held to allow bidders the opportunity to identify any discrepancies in the bid specifications and seek further clarification regarding instructions. The Purchasing Department will issue a written response to bidders' questions in the form of an Addendum.

All formal Addenda require written acknowledgment on the bid form by the bidder. Failure to acknowledge an Addendum on the bid form shall cause the bid to be rejected; JEFFERSON PARISH reserves the right to award bid to next lowest responsive and responsible bidder in this event.

USE OF BRAND NAMES AND STOCK NUMBERS: Where brand names and stock numbers are specified, it is for the purpose of establishing certain minimum standards of quality. Bids may be submitted for products of equal quality, provided brand names and stock numbers are specified. Complete product data may be required prior to award.

Quantities listed are for bidding purposes only. Actual requirements may be more or less than quantities listed.

Bidders are not to exclude from participation in, deny the benefits of, or subject to discrimination under any program or activity, any person in the United States on the grounds of race, color, national origin, or sex; nor discriminate on the basis of age under the Age Discrimination Act of 1975, or with respect to an otherwise qualified handicapped individual as provided in Section 504 of the Rehabilitation Act of 1973, or on the basis of religion, except that any exemption from such prohibition against discrimination on the basis of religion as provided in the Civil Rights Act of 1964, or Title VI and VII of the Act of April 11, 1968, shall also apply. This assurance includes compliance with the administrative requirements of the Revenue Sharing final handicapped discrimination provisions contained in Section 51.55 (c), (d), (e), and (k)(5) of the Regulations. New construction or renovation projects must comply with Section 504 of the 1973 Rehabilitation Act, as amended, in accordance with the American National Standard Institute's specifications (ANSI A1 17.1-1961).

Jefferson Parish and its partners as the recipients of federal funds are fully committed to awarding a contract(s) to firm(s) that will provide high quality services and that are dedicated to diversity and to containing costs. Thus, Jefferson Parish strongly encourages the involvement of minority and/or woman-owned business enterprises (DBE's, including MBE's, WBE's and SBE's) to stimulate participation in procurement and assistance programs.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

IN ACCORDANCE WITH STATE REGULATIONS JEFFERSON PARISH OFFERS ELECTRONIC PROCUREMENT TO ALL VENDORS

This electronic procurement system allows vendors the convenience of reviewing and submitting bids online. This is a secure site and authorized personnel have limited read access only. Bidders are encouraged to submit electronically using this free service; while the website accepts various file types, one single PDF file containing all appropriate and required bid documents is preferred. Bidders submitting uploaded images of bid responses are solely responsible for clarity. If uploaded images/documents are not legible, then bidder's submission will be rejected. Please note all requirements contained in this bid package for electronic bid submission.

Please visit our E-Procurement Page at www.jeffparishbids.net to register and view Jefferson Parish solicitations. For more information, please visit the Purchasing Department page at <http://purchasing.jeffparish.net>.

ADDITIONAL REQUIREMENTS FOR THIS BID

PLEASE MATCH THE NUMBERS PRINTED IN THIS BOX WITH THE CORRESPONDING INSTRUCTIONS BELOW.

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1. All bidders must attend the MANDATORY pre-bid conference and will be required to sign in and out as evidence of attendance. In accordance with LSA R.S. 38:2212(l), all prospective bidders shall be present at the beginning of the MANDATORY pre-bid conference and shall remain in attendance for the duration of the conference. Any prospective bidder who fails to attend the conference or remain for the duration shall be prohibited from submitting a bid for the project.
2. Attendance to this pre-bid conference is optional. However, failure to attend the pre-bid conference shall not relieve the bidder of responsibility for information discussed at the conference. Furthermore, failure to attend the pre-bid conference and inspection does not relieve the successful bidder from the necessity of furnishing materials or performing any work that may be required to complete the work in accordance with the specification with no additional cost to the owner.
3. Contractor must hold current applicable JEFFERSON PARISH licenses with the Department of Inspection and Code Enforcement. Contractor shall obtain any and all permits required by the JEFFERSON PARISH Department of Inspection and Code Enforcement. The contractor shall be responsible for the payment of these permits. All permits must be obtained prior to the start of the project. Contractor must also hold any and all applicable Federal and State licenses. Contractor shall be responsible for the payment of these permits and shall obtain them prior to the start of the project.
4. A LA State Contractor's License will be required in accordance with LSA R.S. 37-2150 et. seq. and such license number will be shown on the outside of the bid envelope. Failure to comply will cause the bid to be rejected. Additionally if submitting the bid electronically, then the license number must be entered in the appropriate field in the Electronic Procurement system. Failure to comply will cause the bid to be rejected.
5. It is the bidder's responsibility to visit the job site and evaluate the job before submitting a bid.
6. Job site must be clean and free of all litter and debris daily and upon completion of the contract. Passageways must be kept clean and free of material, equipment, and debris at all times. Flammable material must be removed from the job site daily because storage will not be permitted on the premises. Precautions must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

7. PUBLIC WORKS BIDS: All awards for public works in excess of \$5,000.00 will be reduced to a formal contract which shall be recorded at the contractor's expense with the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. A price list of recordation costs may be obtained from the Clerk of Court and Ex-Officio Recorder of Mortgages for the Parish of Jefferson. All awards in excess of \$25,000.00 will require both a performance and a payment bond. Unless otherwise stated in the bid specifications, the performance bond requirements shall be 100% of the contract price. Unless otherwise state in the bid specifications, the payment bond requirements shall be 100% of the contract price. Both bonds shall be supplied at the signing of the contract.
8. NON-PUBLIC WORKS BIDS: A performance bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The performance bond shall be supplied at the signing of the contract.
9. NON-PUBLIC WORKS BIDS: A payment bond will be required for this bid. The amount of the bond will be 100% of the contract price unless otherwise indicated in the specifications. The payment bond shall be supplied at the signing of the contract.
10. All bidders must comply with the requirements stated in the attached "Standard Insurance Requirements" sheet attached to this bid solicitation. Prior to contract executions/purchase order issuance, the successful bidder will be required to provide final insurance certificates which shall name Jefferson Parish as an additional insured in accordance with the instructions in the aforementioned "Standard Insurance Requirements" sheet.
11. A bid bond will be required with bid submission in the amount of 5% of the total bid, unless otherwise stated in the bid specifications. Acceptable forms shall be limited to cashier's check, certified check, or surety bid bond. All sureties must be in original format (no copies). If submitting a bid online, vendors must submit an electronic bid bond through the respective online clearinghouse bond management system(s) as indicated in the electronic bid solicitation on Central Auction House. No scanned paper copies of any bid bond will be accepted as part of the electronic bid submission.
12. This is a requirements contract to be provided on an as needed basis. JEFFERSON PARISH makes no representations on warranties with regard to minimum guaranteed quantities unless otherwise stated in the bid specifications.
13. Freight charges should be included in total cost when quoting. If not quoted FOB DELIVERED, freight must be quoted as a separate item. Bid may be rejected if not quoted FOB DELIVERED or if freight charges are not indicated on bid form.
14. PUBLIC WORKS BIDS - Completed, Signed and Properly Notarized Affidavits Required; This applies to all solicitations for construction, alteration or demolition of public buildings or projects, in conformity with the provisions contained in LSA-RS 38:2212.9, LSA-RS 38:2212.10, LSA-RS 38:2224, and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Conviction Affidavit, Non-Collusion Affidavit, Campaign Contribution Affidavit, Debt Disclosures Affidavit and E-Verify Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
15. NON PUBLIC WORK BIDS - Completed, Signed and Properly Notarized Affidavits Required in conformity with the provisions contained in LSA – RS 38:2224 and Sec 2-923.1 of the Jefferson Parish Code of Ordinances. For bidding purposes, all bidders must submit with bid submission COMPLETED, SIGNED and PROPERLY NOTARIZED Affidavits, including: Non-Collusion Affidavit, Debt Disclosures Affidavit and Campaign Contribution Affidavit. For the convenience of vendors, all affidavits have been combined into one form entitled NON PUBLIC WORKS BID AFFIDAVIT. This affidavit must be submitted in its original format, and without material alteration, in order to be compliant and for the bid to be considered responsive. A scanned copy of the completed, signed and properly notarized affidavit may be submitted with the bid, however, the successful bidder must submit the original affidavit in its original format and without material alteration upon contract execution. Failure to comply will result in the bid submission being rejected as non-responsive. The Parish reserves the right to award bid to the next lowest responsive and responsible bidder in this event.
16. The ensuing contract for this bid solicitation may be eligible for FEMA reimbursement and/or Federal funding/reimbursement. As such, the referenced appendix will be applicable accordingly and shall be considered a part of the bid documents. All applicable certifications must be duly completed, signed and submitted with bid submission. Failure to submit applicable certifications with bid submission will result in bid rejection.

It shall be the duty of every parish officer, employee, department, agency, special district, board, and commission: and the duty of every contractor, subcontractor, and licensee of the parish, and the duty of every applicant for certification of eligibility for a parish contract or program, to cooperate with the Inspector General in any investigation, audit, inspection, performance review, or hearing pursuant to Jefferson Parish Code of Ordinances Section 2-155.10(19). By submitting a bid, vendor acknowledges this and will abide by all provisions of the referenced Jefferson Parish Code of Ordinances.

DATE: 11/12/2019

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 4

BID NO.: 50-00128836

JEFFERSON PARISH

PURCHASING DEPARTMENT
P.O. BOX 9
GRETNA, LA. 70054-0009
504-364-2678

VENDOR: 27118 BLANK BID COPY VENDOR

BUYER: RSCOTT

As per LSA-RS 47:301 et seq., all governmental bodies are excluded from payment of sales taxes to any Louisiana taxing body. Quotations shall be based on F.O.B. Agency warehouse or jobsite, anywhere within the Parish as designated by the Purchasing Department.

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JEFFERSON PARISH is expecting all products to be new and all work to be done in workman-like manner, according to standard practices. Any deviations or alteration from the specifications must be indicated on the bid form for each item and upon request, product data for same must be submitted by the time specified by the Purchasing Department.

DELIVERY: FOB JEFFERSON PARISH	
INDICATE DELIVERY DATE ON EQUIPMENT AND SUPPLIES	<u>See Attached</u>
INDICATE STARTING TIME (IN DAYS) FOR CONSTRUCTION WORK	_____
INDICATE COMPLETION TIME (IN DAYS) FOR CONSTRUCTION WORK	_____

In the event that addenda are issued with this bid, bidders MUST acknowledge all addenda on the bid form. Bidder must acknowledge receipt of an addendum on the bid form as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: None

NUMBER: _____

NUMBER: _____

NUMBER: _____

LOUISIANA CONTRACTOR'S LICENSE NO.: (if applicable) _____

*** ALL BIDDERS MUST COMPLETE SECTION BELOW ***	
FIRM NAME: <u>Technology International, Inc.</u>	
SIGNATURE: (Must be signed here) <u>Rifat Habib</u>	TITLE: <u>Business Development Exec.</u>
PRINT OR TYPE NAME: <u>Rifat Habib</u>	
ADDRESS: <u>1349 South International Pkwy, Suite 2411,</u>	
CITY, STATE: <u>Lake Mary, Florida</u>	ZIP: <u>32746</u>
TELEPHONE: <u>(407) 359-2373</u>	FAX: <u>(407) 359-2372</u>
EMAIL ADDRESS: <u>tii@tii-usa.com</u>	

TOTAL PRICE OF ALL BID ITEMS: \$ 2,300.00

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00128836

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	2.00	EA	<p>PURCHASE OF PRATT BUTTERFLY VALVES FOR THE JEFFERSON PARISH EASTBANK WATER PLANT</p> <p>0010 6 INCH PRATT TYPE MKII WAFER BUTTERFLY VALVE</p> <p>WATER DEPT.-EB WATER PLANT-MERVIN GRAVES</p> <p>SEE SPECIFICATIONS</p> <p>LOCATION:</p> <p>JEFFERSON PARISH EB WATER PLANT 3600 JEFFERSON HWY., BLDG. D JEFFERSON, LA 70121</p> <p>ATTN: MERVIN GRAVES 504-838-4398</p>	<p>\$1,150.00</p>	<p>\$2,300.00</p>

***Please see our Equipment Proposal TII/LA/1119/12731 attached.

6 INCH PRATT TYPE MKII WAFER BUTTERFLY VALVE

Butterfly Valve for Jefferson Parish Department of Public Works – Water (East Bank) **6 inch Pratt Type MKII Wafer Butterfly Valve-JPWTP Version (Duplicate of Pratt Valve Package, with originally included options and features as previous valve Package Serial Number 1365222003-KX). Class 150B Valve with MDT-2S Gear Actuator (with Position Indicator), 5 X 4 Duracyl Non-Metallic Cylinder Actuator With Dual Speed Controls, Manual Over-Ride, and 4-Way Control Solenoid Manifold. MDT to be equipped with back-up Hand Jack. Type CS Stainless Steel Control Rods are required.**

In strict accordance with the below specifications:

Butterfly Valve shall be of the tight-closing, rubber-seat type with rubber seats that are securely fastened into the valve body. (Seat on Disc design is prohibited). No metal-to-metal seating surfaces shall be permitted. Valve shall be bubble-tight at rated pressure with flow in either direction and shall be satisfactory for applications involving operations after long periods of inactivity.

Valve body shall be constructed of ASTM A-536 Ductile Iron. Ends shall be Wafer Type.

Valve disc shall be CF-8M Stainless Steel with Stainless Steel edge cover.

Valve shaft shall be turned, ground, and polished, and constructed of 18-8 304 Stainless Steel.

All seats shall be synthetic rubber compound. Seats shall be retained in the valve body by mechanical means without retaining rings, segments, screws, or hardware of any kind in the flow stream, and protected from high velocity by recess mounting in the valve body. Seats that use rectangular epoxy keys and non-metallic cartridge inserts are not acceptable. The seat and disc mating edge shall be of a design that allows up to one (1) degree off center tolerance in the closed position without leakage.

Valve shall be fitted with sleeve-type bearings. Bearings shall be corrosion resistant and self-lubricating. Bearing load shall not exceed 1/5 of the compressive strength of the bearing or shaft material.

Shaft seals shall be self-adjusting chevron type. Shaft seals shall be of a design allowing replacement without removing the valve shaft.

MDT valve actuator unit shall be traveling nut type and shall be fully grease packed. The actuator shall have stops in the open/closed position. The valve actuator shall have a mechanical stop in the actuator, which will withstand an input torque of 450 ft./lbs. against the stop. The traveling nut shall engage alignment groove in the housing.

The MDT actuator shall have a built-in packing leak bypass to eliminate packing leakage into the actuator housing.

All surfaces of the valve shall be clean, dry, and free of grease before painting. Standard Pratt/Jeff Parish painting applies. The valve surfaces except for the disc edge, rubber seat and finished portions shall be evenly coated with a suitable primer (in compliance with Federal Specification TT-C-494B and AWWA Standard C504). Valve/Actuator packages meeting the general criteria of the subject AWWA standard but not meeting all additional requirements of this specification will not be acceptable.

Valve must be in full compliance with AWWA C504-87 Standard, Class 150B and equal in all respects to Pratt Model MKII.

MDT Manual Actuator

Manual actuator gear unit shall be of the traveling nut, self locking type and shall be designed to hold the valve in any intermediate position between fully open and fully closed without creeping or fluttering. Actuator shall be equipped with mechanical stop-limiting devices to prevent over travel of the disc in the open and closed positions. Valve shall close with a clockwise rotation. Actuator shall be fully enclosed and designed to produce the specified torque with a maximum pull of 80 lb. on the hand crank. Actuator components shall withstand an input of 450 ft.lbs. at extreme operator position without damage. Manual actuator shall be Pratt MDT type.

Cylinder Actuators

Cylinder actuator for the quarter turn valve shall be of double acting non-metallic type design utilizing a cast iron head traveling nut, AWWA style gear of scotch yoke or link and lever design. The non-metallic Pratt 5X4 Duracyl Cylinder shall have a kinetic rod/shaft suitable for integrating directly into the MDT Actuator unit without modification or additional hardware of a third-party.

The cylinder actuator shall meet the requirements of this specification and the requirements of AWWA C-504 and C540. Cylinder actuator shall move the valve to any position from full open to full closed with a maximum of 125 lbs. and a minimum of 40 psig of air, oil or water pressure applied to the cylinder. All wetted parts of the cylinder must be non-metallic except for the cylinder rod (shaft) and tie rods, which shall be 18-8 Stainless Steel.

Rod seals shall be of non-adjusting wear compensating type. Rod wiper for removing deposits inside the cylinder shall be provided in addition to the external dirt wiper. The piston design shall be three-piece with L-shaped cup seals.

The crosshead shall have integral tracks in the housing and dove to prevent side loading of the traveling nut. A relief shall be provided between the valve body and housing to vent line fluid to atmosphere. A manual hand crank mechanical over-ride shall be provided on the cross head

Cylinder actuator shall be fitted with a Pratt 8344 4-Way Solenoid Manifold (configured for potable water as an operating media) to serve as main control valves for the dual acting cylinder. Solenoid coils shall be provided which will be suitable for use with the same voltage and current type as was the coils on original Serial Number 1365222003-KX package.

Dual Speed Control valves shall be included to limit main valve opening/closing speed.

A Manual Over-Ride control must be included.

Other Required Hardware

Pratt Type CS Stainless Steel Tie Rods are required as part of the valve/actuator package.

Warranty

The Standard Warranty of the Henry Pratt Company must be included with the subject valve/actuator package (at no additional cost). Bidder must be an authorized representative of the Henry Pratt Company with full authorization to perform warranty service at Jefferson Parish.



Technology International, Inc.
 1349 South International Pkwy, Suite 2411
 Lake Mary, FL 32746
 Tel: (407) 359-2373
 Fax: (407) 359-2372
 E-mail: tii@tii-usa.com
 Website: www.tii-usa.com

Equipment Proposal

Description: Purchase of Pratt Butterfly Valves for the Jefferson Parish Eastbank Water Plant

Solicitation #: 5000128836

Agency: Jefferson Parish Government

Our Ref: TII/LA/1119/12731

Date: 11/15/2019

In response to your quote request for Purchase of Pratt Butterfly Valves for the Jefferson Parish Eastbank Water Plant, Technology International, Inc. is pleased to submit the following for consideration:

ITEM NO.	QTY	DESCRIPTION/ MODEL NO.	UNIT PRICE	EXTD. PRICE
1	2	6" Flow Line Butterfly Valve: Water Style, Ductile Iron Body, 200 PSI SS Disc, 431 SS ISO Shaft, EPDM Seat, Bare Shaft <u>Includes:</u> <ul style="list-style-type: none"> • Flow Line Series 20 Air Actuator, Size 0300, Double Acting, 90 Degree Rotation, Std. Seals & Coatings, ISO Mtg. • 2"-6" Flow Line Manual Override with Handwheel • Flow Line Series 50 Solenoid Valve, 4 Way Single Coil, Nema 4, Namur, 100 VAC, Standard Coil, Cable Clamp Connections • 1/4" Brass Breather Vent, Flat • Flow Line Pneumatic Actuator Speed Controller, Namur Mount, 5/2 Way (NF2) 	\$1,150.00	\$2,300.00
See attached data sheets				
<u>Total price for all above.....</u>			<u>\$2,300.00</u>	

Warranty: Manufacturer's Standard warranty applies. One (1) year warranty.

Delivery:

- Estimated delivery is **7 WEEKS** after receipt of order and approved submittal
- All delivery dates quoted are subject to manufacturer's confirmation at time of order.
- Submittal data will be provided for approval after receipt of order (if applicable).
- Customer to provide equipment and personnel to unload.
- TII will deliver good title (MSO) to the Agency upon payment confirmation. The Agency is responsible for its own title work and registration (if applicable).

Freight: Freight Included to Jefferson, LA 70121.

Validity: Quote is valid for 30 days.

Payment Terms: NET 30

Prompt Payment discount: 1/4 % 10 days

Technology International, Inc. Corporate data:

We are a small business and our Tax Payer Identification Number (TIN): 650342335. The above price quoted does not include any sales, excise or similar taxes. If applicable agency must accrue and remit it directly."

We trust that this proposal will meet your requirements and we look forward to hearing from you.

If you have any questions or need more information, please contact us by phone at 407-359-2373, fax at 407-359-2372 or email us at tii@tii-usa.com

Respectfully submitted,



Rifat Habib
Business Development Exec.
Technology International, Inc.

FlowLine

Series 70/71

Wafer & Lug Style
Sizes 1" - 12"



Cartridge Seated Butterfly Valves

KEY FEATURES

Body

- One piece ribbed wafer and lugged body is Polyester coated as standard for a superior appearance and excellent resistance to external corrosion.
- Heavy duty ISO 5211 Top plate is slotted for ease of actuation and engineered to accept direct mounting of operators.
- Standard extended neck provides full clearance for 2" of insulation.

Disc

- Streamlined design offers higher Cv and lower pressure drop.

Shaft

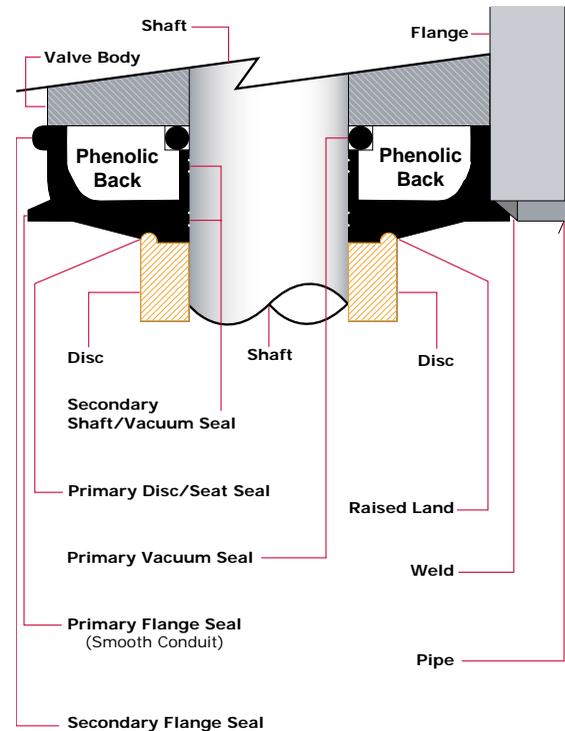
- Triple shaft seals support the primary seal on machined radius of the disc. Our triple shaft seals ensure a dry stem design.
- Two secondary shaft seals are located inside the seat shaft holes and an environmental shaft seal eliminates contaminants from entering the shaft bore.
- Two self lubricated bronze bearings offer consistent torque valves and eliminate side loading.

Seat and Flange Seals

- Field replaceable, phenolic bonded cartridge seat provides no movement of the elastomer which is a common failure point of many resilient flexible seat designs.
- Torque fluctuation is eliminated by our phenolic bonded elastomer seats.
- Our dual purpose primary flange seal is widened offering additional compression of the elastomer against various flanges resulting in a positive seal.
- This resulting primary flange seal provides a smooth flow conduit for media and prevents build up in crevices created by traditional seat designs.
- Molded secondary flange seals assure no leakage when used with weld neck, slip on, and threaded flanges and eliminates the need for gaskets or O-rings.

Disc/Shaft Connection

- A high strength Double D drive ensures a positive shaft to disc connection.
- Disc floats inside the seat for positive sealing and extended seat life.
- No pins or bolts are exposed to flow.
- Offset shaft retainers mechanically retain the shaft in the body ensuring a blow out proof design.



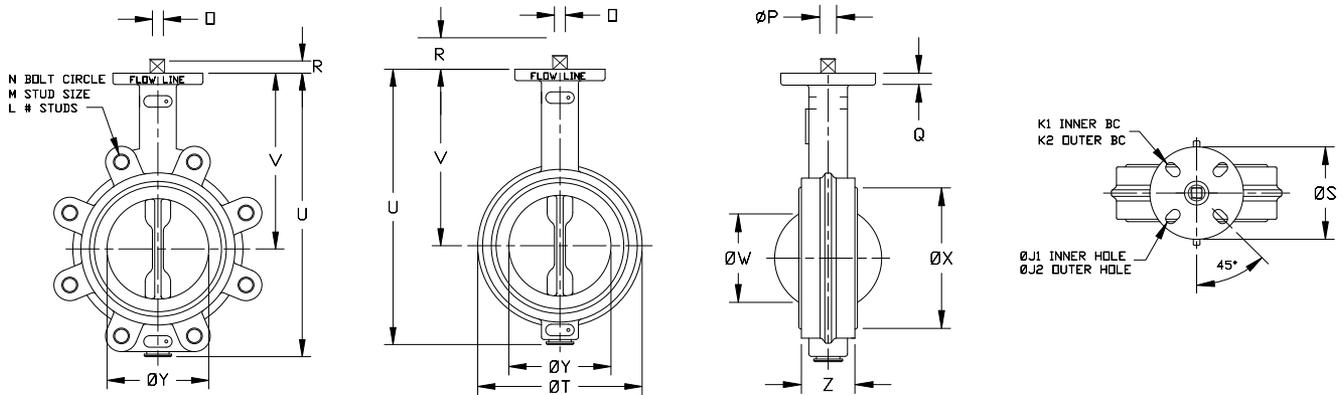
Shaft Sealing Method

- Disc shaft holes surrounded by a 360° machined radius are in constant contact with the flattened area of the seat.
- This design is far superior to resilient flexible seat designs that depend on the “squeeze” effect of the disc and seat interference which allows leakage behind the seat and up the shaft.
- The Flow Line shaft seal is achieved through a continuous pressure exerted from the flattened area of the seat to the machined radius of the disc.
- This sealing mechanism is further enhanced by forces exerted on the seat and shaft providing a secondary seal resulting in media free disc, shaft and seat connection.

Applicable Standards

- ANSI B16.1 Conforms to ANSI Class 125 flange drilling.
- ANSI B16.5 Conforms to ANSI 150 flange drilling.
- ANSI B16.42 Conforms to ANSI Class 150 flange drilling, body wall thickness and pressure-temperature ratings.
- ANSI B16.104 Exceeds Class VI shutoff requirements.
- API 609 Butterfly Valve Category A.
- AWWA C504 Diameter of stainless steel shaft exceeds AWWA Class 75B standard. Body wall thickness exceeds the AWWA Class 150B standard for butterfly valves.
- MSS SP-25 Markings and identification conform to the requirements.
- MSS SP-67 Butterfly Valves
- ISO 5211 Actuator Mounting
- USCG Category “A” Title 46, CFR, Part 56
- ABS American Bureau of Shipping

DIMENSIONS



Valve Size	Z	Y	X	W	V	U	T	S	R	Q	P	O	Lug Drilling			Top Plate Drilling				Weight (lb)	
													N	M	L	K1	K2	#holes	J1		J2
2	1.74	2.25	2.65	1.46	5.62	8.44	4.12	4.00	0.827	.44	.551	0.551	4.75	5/8-11	4	2.76	3.25	4	.39	.41	8
2-1/2	1.86	2.81	3.15	2.14	6.12	9.19	4.88	4.00	0.827	.44	.551	0.551	5.50	5/8-11	4	2.76	3.25	4	.39	.41	10
3	1.86	3.31	3.78	2.74	6.38	9.69	5.38	4.00	0.827	.44	.551	0.551	6.00	5/8-11	4	2.76	3.25	4	.39	.41	11
4	2.11	4.19	4.78	3.60	7.12	11.00	6.88	4.00	0.827	.44	.551	0.551	7.50	5/8-11	8	2.76	3.25	4	.39	.41	17
5	2.24	5.06	5.84	4.58	7.75	12.12	7.75	4.00	0.92	.44	.670	0.670	8.50	3/4-10	8	2.76	3.25	4	.39	.41	23
6	2.24	6.06	7.03	5.62	8.25	13.25	8.75	4.00	0.92	.44	.670	0.670	9.50	3/4-10	8	2.76	3.25	4	.39	.41	29
8	2.54	7.94	8.96	7.43	9.44	15.56	11.00	6.00	1.063	.56	.866	0.866	11.75	3/4-10	8	4.02	5.00	4	.53	.53	44
10	2.74	10.00	11.09	9.38	11.25	18.69	13.38	6.00	1.063	.56	.866	0.866	14.25	7/8-9	12	4.02	5.00	4	.53	.53	66
12	3.24	11.94	13.09	11.35	12.19	21.69	16.12	6.00	1.063	.56	.866	0.866	17.00	7/8-9	12	4.02	5.00	4	.53	.53	99

CLASS II TORQUES (Inch-Pounds)

Shutoff Pressure	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"
50 PSI SHUTOFF	66	96	150	225	350	450	750	1325	2250
75 PSI SHUTOFF	98	141	237	261	504	651	1050	1778	2990
100 PSI SHUTOFF	103	148	249	343	531	685	1105	1872	3147
125 PSI SHUTOFF	107	155	260	376	553	714	1151	1950	3279
150 PSI SHUTOFF	110	158	265	384	564	728	1275	1989	3345
175 PSI SHUTOFF	121	175	283	417	632	814	1337	2320	3923
200 PSI SHUTOFF	132	192	300	450	700	900	1500	2650	4500
250 PSI SHUTOFF	145	211	318	486	770	990	1695	2995	5085
285 PSI SHUTOFF	160	232	337	528	847	1089	1915	3384	5746

Cv VALUES

Valve Size	10°	20°	30°	40°	50°	60°	70°	80°	90°
2	2	3.5	8	21	40	87	108	141	170
2-1/2	3	5	11	27	52	121	172	253	332
3	8	16	23	50	92	147	224	420	473
4	17	33	57	110	182	297	462	773	913
5	47	94	143	231	380	578	908	1485	1650
6	91	182	248	396	627	902	1386	2063	2178
8	116	231	330	528	858	1452	2508	4158	4257
10	223	446	633	935	1320	2090	3630	6710	7095
12	303	605	825	1320	2063	3135	5528	10230	10780

Notes:

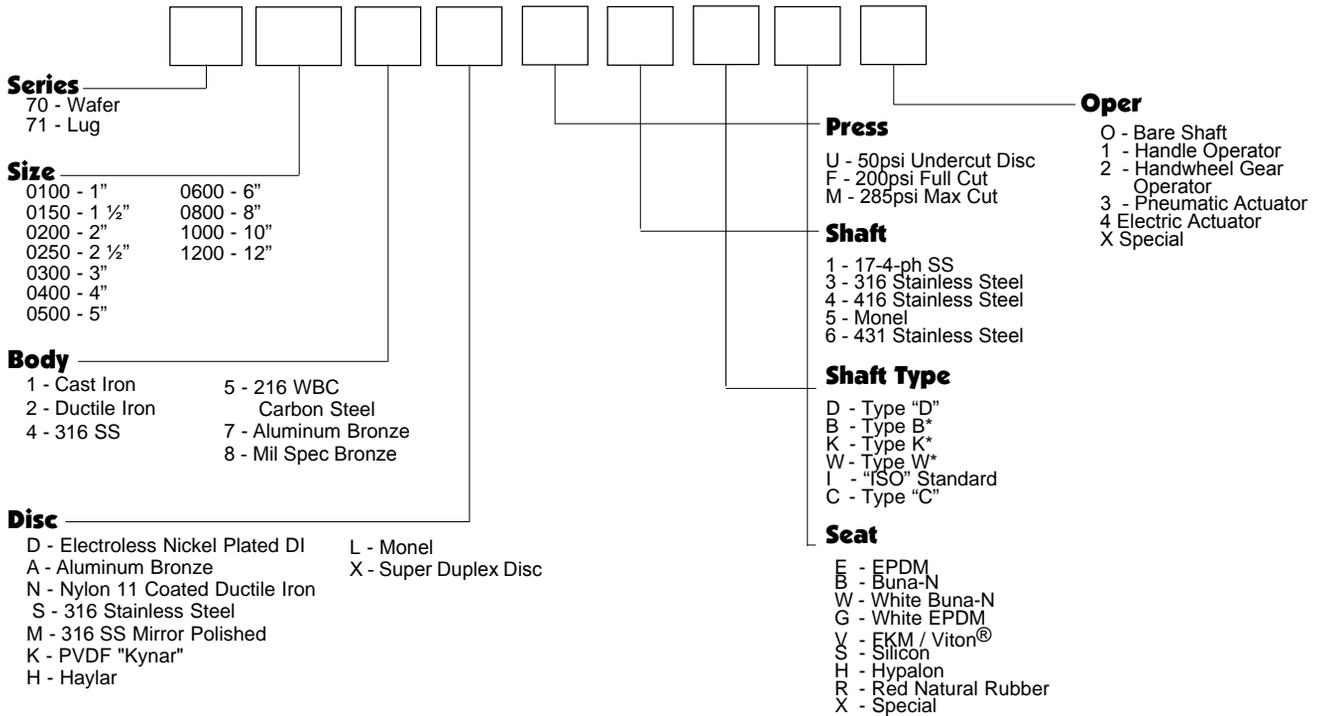
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4. Do not apply a safety factor to the above torque values when sizing actuators.
5. Dynamic Torque should always be a consideration when sizing valves with high differential pressures.
6. For 3 way tee assemblies multiply the above torques by 1.5.

Class II

- Valve to be operated a minimum of once a month.
- Temperature well within resilient seat limits.
- Line media is a self lubricating. (Aqueous liquids)
- Minor chemical attacks on seat.
- Disc corrosion and media deposits to be mild.

SPECIFICATIONS

HOW TO ORDER



* Designates shaft types sold as automated packages or bare shaft design only.

Recommended Specifications

- Polyester coated ribbed wafer or lug bodies to provide extended necks for insulation and be able to install between ANSI 125/150 flanges. Lug design in sizes 1" - 12" to be fully rated for dead end service without any modification.
- Streamlined disc design with no pins or screws in the flow path and designed for high Cv and lower pressure drop.
- Upper and lower shaft design to utilize triple shaft seals as standard.
- Blow out proof design utilizing a Double D drive for a positive disc/shaft connection.
- Pressure responsive 360° sealing design will use constant pressure between machined radius on disc and flatted area of the seat.
- Valve to be Flow Line Series 70 wafer or Flow Line Series 71 lug design.

Components

Qty	Description	Qty	Description
1	Body	2	Shaft Retainers
1	Disc	1	Bearing Retainer
1	Upper Shaft	1	Environmental Shaft Seal
1	Lower Shaft	2	Secondary Shaft Seals
1	Seat	1	Thrust Bearing
		1	Inboard Bearing

Materials of Construction 1" - 12"

Body

- Cast Steel ASTM A-216 WCB
- 316 Stainless Steel ASTM A-351 CF8M
- Cast Iron ASTM A-126 Class B
- Ductile Iron ASTM A-536 (65-45-12)
- Ductile Iron ASTM A-395 (60-40-18)

Disc

- Electroless Nickel Plated Ductile Iron ASTM A-536 (65-45-12)
- Aluminum Bronze ASTM B-148 (954)
- Nylon 11 Coated Ductile Iron ASTM A-536 Grade (65-45-12)
- 316 Stainless Steel ASTM A-351 (CF8M)

Stem

- 316 Stainless Steel ASTM A-276 Type 316
- 416 Stainless Steel ASTM A-582 Type 416

Seat

- EPDM - FDA Food Grade -30° to + 275°
- Buna-N - FDA Food Grade 0° to +180°
- White Buna-N - FDA Food Grade 0° to + 180°
- Viton® - FDA Food Grade 0° to + 375°
- Silicon - FDA Food Grade -80° to + 450°
- Hypalon 0° to + 180°
- Red Natural Rubber 0° to + 150°

Viton® is a registered trademark of the E. I. DuPont De Nemours Company. FKM is the ASTM D1418 designation for Fluorinated Hydrocarbon elastomers such as Viton® (DuPont) and Fluorel® (3M).

FEATURES

- 
- Slotted ISO 5211 top plate and shaft for flexibility of direct mounting options
 - Environmental shaft seal to keep contaminants from entering shaft bore
 - Offset shaft retainers mechanically retain the shaft ensuring a blow out proof design
 - One piece ribbed Polyester coated body with extended neck
 - Streamlined disc with no pins or screws in flow path
 - Primary seal provides a smooth flow conduit and prevents media buildup in crevices normally found with traditional designs
 - Independent seals provide full vacuum rating
 - High strength upper and lower shafts with triple shaft seals
 - Two self lubricated bronze bearings to eliminate side loading
 - Double D Drive for a positive disc/shaft connection with no pins or bolts exposed to flow
 - Proven pressure responsive 360° sealing method uses constant pressure between machined radius on disc and flatted area of the seat that eliminates the "squeeze" of the interference seat design our competition relies on
 - Phenolic bonded cartridge seat with primary and secondary seals provide no movement of the elastomer
 - Two secondary shaft seals located inside the seat shaft holes

The **Series 70 wafer** style and **Series 71 lug** style are heavy duty cartridge seated butterfly valves compatible ANSI 125/150 weld neck, slip on, and threaded flange standards. 2" - 12" valves are fully rated to 200 psi, bi-directional, dead end service. Valves with undercut discs to 50 psi are also available through the size range. Valves with Max cut Disc to 285 psi are also available through size range. All Series 70/71 valves, regardless of the rated working pressure, are vacuum rated to 29.92" of Mercury Gauge (0 Micron).

COATINGS

Flow Line Series 70 and 71 butterfly valve bodies are Polyester coated as standard. Polyester is a significant upgrade to paint or two part epoxy coatings. Our standard Polyester coating offers outstanding protection against abrasion and corrosion. The Flow Line Polyester coating is not affected by outdoor exposure and maintains excellent resistance to UV rays.

TEST	RESULT
Salty Fog Test	No change in excess of 2000 hours
Outdoor Weathering (UV Rays)	No noticeable change in excess of 12 months
50% Sulfuric Acid Test	No change for 48 hours

INSTALLATION, MAINTENANCE AND ASSEMBLY

Handle Kit



The Flow Line Handle Kit is designed for manual on/off and throttling service for quarter turn, resilient seated butterfly valves ranging from 2" - 12". The Polyester coated ductile iron handle kit includes the handle assembly with a locking lever and bolt on plate notched at 10 degree increments. The notched plate also includes on/off stops to prevent over travel of the handle and can be used with a padlock as standard. Other available options include an Infinite Throttling Handle Kit, Memory Stop and a 2" Square Nut.

Handwheel Gear Operator



The Flow Line Handwheel Gear Operator is designed for manual on/off and throttling service for quarter turn butterfly valves ranging from 2" - 12". The handwheel gear operator is constructed with a heavy duty, Polyester coated ductile iron housing, is completely self lubricated and weatherproof. Along with the gear operator, it also includes a valve position indicator, ductile iron handwheel and mechanical travel stops for field adjustment. Other available options include a Chainwheel Kit, Padlock Kit and a 2" Square Nut.

Actuation



Series 21 spring return actuators are available throughout the size range.



Series 50 solenoid valves are available in 1/8", 1/4", and 1/2"NPT.



Series 52 and 53 limit switches provide local and remote valve position.



Series 55 and 56 positioners are available with either a 3-15 psi or 4-20 MADC signal.

Installation

To install, simply close the valve, position between the flanges and assemble the valve to the flanges with studs or cap screws. Do not use flange gaskets. Flow Line Series 70 and 71 butterfly valves can be installed with the disc closed. Before hand tightening the flange bolts, fully open the disc to ensure disc O.D. clearance with pipe I.D. Hand tighten the flange bolts and close the valve to check for valve disc and pipe clearance. If contact is made, reposition as necessary and tighten all flange bolts to proper torque specification.

Maintenance and Repair

No regular maintenance or lubrication is required. Factory assembly procedures provide adequate lubrication for the life of the valve. To replace any component, remove valve from the line by fully closing valve disc. Spread flanges, remove all bolts then remove valve from line.

Testing

All Flow Line Series 70 and 71 butterfly valves are bi-directionally tested to 130 percent of rated working pressure. Test certification is available upon request at time of order.

Flanges

ANSI 125/150 cast iron, steel, raised face, flat faced weld neck, slip on and threaded flanges are suitable for use with Flow Line butterfly valves. Please contact the factory for proposed installation with plastic flanges.

Warranty

All products manufactured by Flow Line Valve and Controls are warranted against defects in material and workmanship for a period of 1 year from date of installation.

All statements, technical information and recommendations in the bulletin are for general use only. Flow Line Valve and Controls is not responsible for suitability or compatibility of these products in relation to system requirements. Consult Flow Line Valve and Controls distributors or factory for the specific requirements and material selection for your intended application. Flow Line Valve and Controls reserves the right to change or modify product design or product without prior notice. Flow Line Valve and Controls is not responsible for editorial or pictorial errors within this literature.



Flow Line

FlowLine



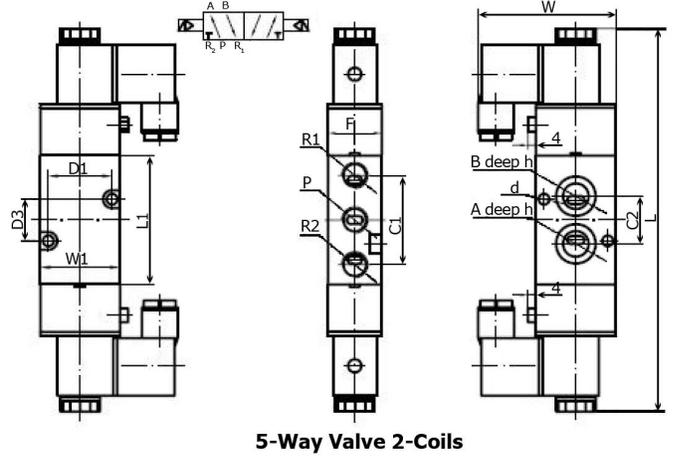
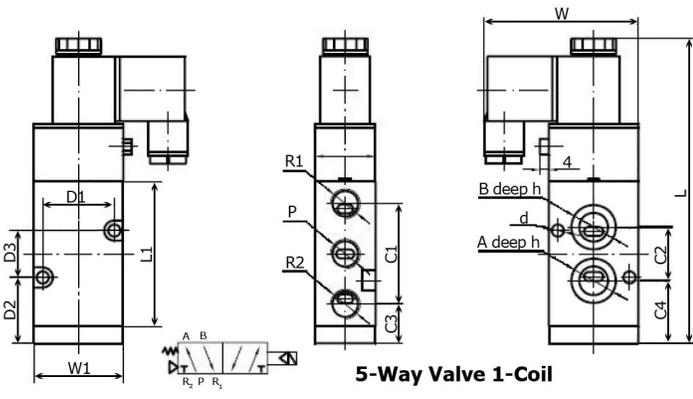
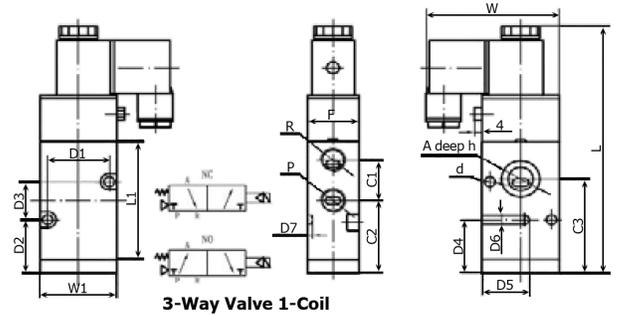
**1/4" Solenoid Valve
Namur Mount**

Series 50

FEATURES

Specifications

Port Connections: 1/4" NPT
Power Consumption: AC: 4.0VA, DC: 2.8W
Duty Cycle: Continuous (100%)
Shortest Excitation Time: 0.05 sec
Coil Voltages: 12 & 24 VDC, 120 & 220 VAC 50/60Hz
Protection Class: NEMA 4, 4X, NEMA 7 & 9
Coil Insulation: Class F standard, Class H optional
Operating Speed: 5 cycles per second
Ambient Temperature Range: 40F~122F, -40F optional
Coil Connections: Cable Gland, 1/2" Conduit/Potted leads, Din connector with potted leads
Valve Design: Pilot operated hi-flow spool, Cv 1.40
Media: Lubricated or non-lubricated air
Operating Pressure Range: 22psi and 120psi
Materials: Body: Hard Anodized Aluminum, Polyester coated.
 Spool & Piston: Aluminum, Spring: Stainless Steel, Seals: Buna N, Screws: Stainless Steel



Dimensions

Valve	D2	D3	D4	D5	D6	d	L	L1	W	W1	F
3-Way-1-Coil	28	24	28	24.5	5	5.5	136.5	65	69	40	27
5-Way-1-Coil	28	24	N/A	N/A	N/A	5.5	136.5	65	69	40	27
5-Way-2-Coils	24	N/A	N/A	N/A	N/A	5.5	193	65	69	40	27

Valve	P	R1	R2	A	B	h	C1	C2	C3	C4	D1
3-Way-1-Coil	1/4"	1/4"	N/A	19.8	N/A	1.4	22.5	40	52	N/A	32
5-Way-1-Coil	1/4"	1/4"	1/4"	20	20	1.4	45	24	17.5	28	32
5-Way-2-Coils	1/4"	1/4"	1/4"	20	20	1.4	45	24	N/A	N/A	32

Dimensions in MM Reference 10MM=0.393"

* Note: Consult factory for additional options.

Flow Line Valve and Controls, Inc.

How to Order

How to Order

Part Numbering System

Style	Porting	Nema	Size and CV	Connection	Voltage	Coil Rating	Coil Connecting
1	2	3	4	5	6	7	8

1 Style	
50	Namur

2 Porting	
3001	3 way single coil
4001	4 way single coil
3002	3 way dual coil
4002	4 way dual coil

3 Nema Rating	
4	Nema 4, 4X
7	Nema 7,9

4 Size and CV	
5	1/8" .78 cv
6	1/4" .89 cv
7	1/4" 1.40 cv
8	1/2" 2.79 cv

5 Connections	
N	Namur
P	Pipe In

6 Voltages	
1	12VDC
2	24VDC
3	24vac
4	36vac
5	120vac
6	220vac
7	380vac

7 Coil Rating	
9	Standard
8	Class F
7	Class H

8 Voltages	
A	Cable Clamp
B	Cable Clamp w/ light
C	1/2" Conduit
D	1/2" Conduit w/ light
E	Potted Cable
F	Potted Cable w/ light
G	Potted Coil N-7

* Note: Consult factory for additional options.

FlowLine

Series 70/71

*Wafer & Lug Style
Sizes 1" - 12"*



Cartridge Seated Butterfly Valves

KEY FEATURES

Body

- One piece ribbed wafer and lugged body is Polyester coated as standard for a superior appearance and excellent resistance to external corrosion.
- Heavy duty ISO 5211 Top plate is slotted for ease of actuation and engineered to accept direct mounting of operators.
- Standard extended neck provides full clearance for 2" of insulation.

Disc

- Streamlined design offers higher Cv and lower pressure drop.

Shaft

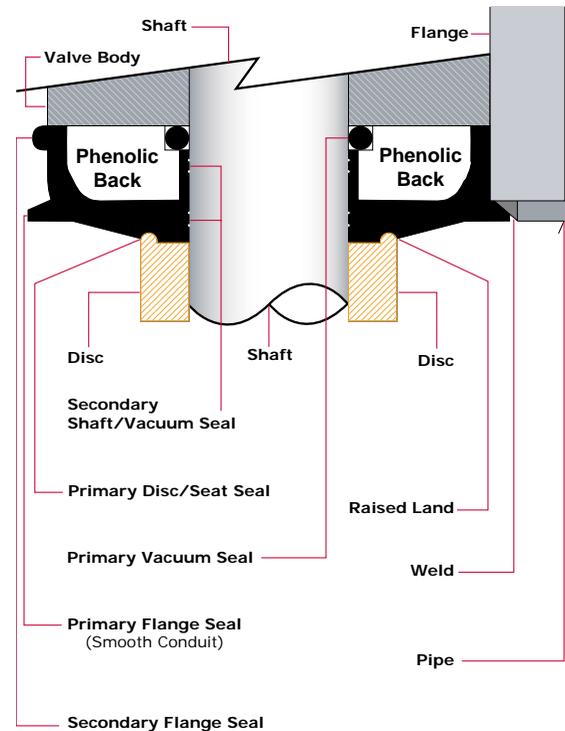
- Triple shaft seals support the primary seal on machined radius of the disc. Our triple shaft seals ensure a dry stem design.
- Two secondary shaft seals are located inside the seat shaft holes and an environmental shaft seal eliminates contaminants from entering the shaft bore.
- Two self lubricated bronze bearings offer consistent torque valves and eliminate side loading.

Seat and Flange Seals

- Field replaceable, phenolic bonded cartridge seat provides no movement of the elastomer which is a common failure point of many resilient flexible seat designs.
- Torque fluctuation is eliminated by our phenolic bonded elastomer seats.
- Our dual purpose primary flange seal is widened offering additional compression of the elastomer against various flanges resulting in a positive seal.
- This resulting primary flange seal provides a smooth flow conduit for media and prevents build up in crevices created by traditional seat designs.
- Molded secondary flange seals assure no leakage when used with weld neck, slip on, and threaded flanges and eliminates the need for gaskets or O-rings.

Disc/Shaft Connection

- A high strength Double D drive ensures a positive shaft to disc connection.
- Disc floats inside the seat for positive sealing and extended seat life.
- No pins or bolts are exposed to flow.
- Offset shaft retainers mechanically retain the shaft in the body ensuring a blow out proof design.



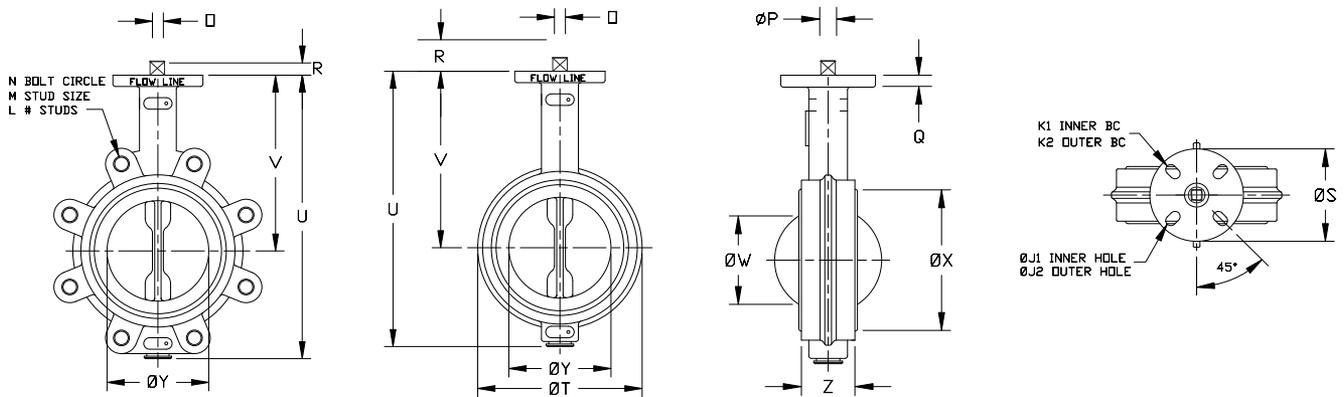
Shaft Sealing Method

- Disc shaft holes surrounded by a 360° machined radius are in constant contact with the flattened area of the seat.
- This design is far superior to resilient flexible seat designs that depend on the “squeeze” effect of the disc and seat interference which allows leakage behind the seat and up the shaft.
- The Flow Line shaft seal is achieved through a continuous pressure exerted from the flattened area of the seat to the machined radius of the disc.
- This sealing mechanism is further enhanced by forces exerted on the seat and shaft providing a secondary seal resulting in media free disc, shaft and seat connection.

Applicable Standards

- ANSI B16.1 Conforms to ANSI Class 125 flange drilling.
- ANSI B16.5 Conforms to ANSI 150 flange drilling.
- ANSI B16.42 Conforms to ANSI Class 150 flange drilling, body wall thickness and pressure-temperature ratings.
- ANSI B16.104 Exceeds Class VI shutoff requirements.
- API 609 Butterfly Valve Category A.
- AWWA C504 Diameter of stainless steel shaft exceeds AWWA Class 75B standard. Body wall thickness exceeds the AWWA Class 150B standard for butterfly valves.
- MSS SP-25 Markings and identification conform to the requirements.
- MSS SP-67 Butterfly Valves
- ISO 5211 Actuator Mounting
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10	2.74	10.00	11.09	9.38	11.25	18.69	13.38	6.00	1.063	.56	.866	0.866	14.25	7/8-9	12	4.02	5.00	4	.53	.53	66
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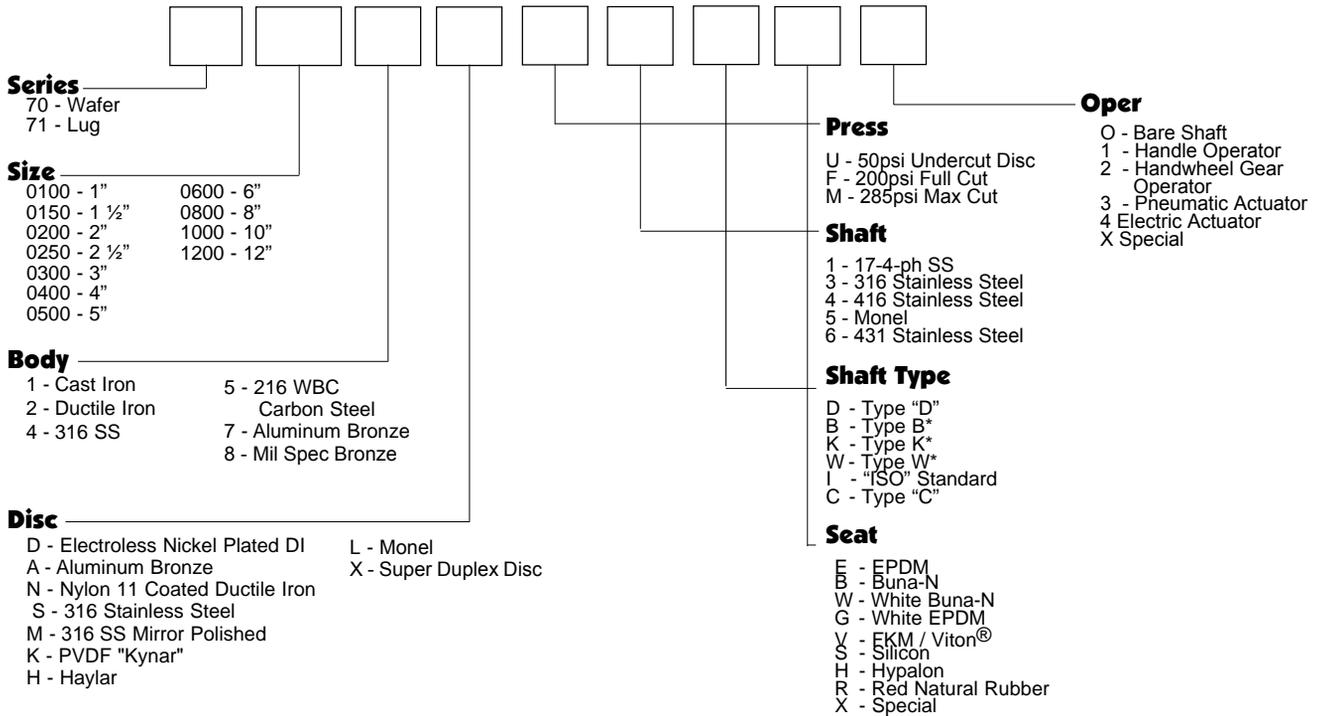
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1	Disc	1	Bearing Retainer
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1	Lower Shaft	2	Secondary Shaft Seals
1	Seat	1	Thrust Bearing
		1	Inboard Bearing

Materials of Construction 1" - 12"

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- 316 Stainless Steel ASTM A-351 CF8M
- Cast Iron ASTM A-126 Class B
- Ductile Iron ASTM A-536 (65-45-12)
- Ductile Iron ASTM A-395 (60-40-18)

Disc

- Electroless Nickel Plated Ductile Iron ASTM A-536 (65-45-12)
- Aluminum Bronze ASTM B-148 (954)
- Nylon 11 Coated Ductile Iron ASTM A-536 Grade (65-45-12)
- 316 Stainless Steel ASTM A-351 (CF8M)

Stem

- 316 Stainless Steel ASTM A-276 Type 316
- 416 Stainless Steel ASTM A-582 Type 416

Seat

- EPDM - FDA Food Grade -30° to + 275°
- Buna-N - FDA Food Grade 0° to +180°
- White Buna-N - FDA Food Grade 0° to + 180°
- Viton® - FDA Food Grade 0° to + 375°
- Silicon - FDA Food Grade -80° to + 450°
- Hypalon 0° to + 180°
- Red Natural Rubber 0° to + 150°

Viton® is a registered trademark of the E. I. DuPont De Nemours Company. FKM is the ASTM D1418 designation for Fluorinated Hydrocarbon elastomers such as Viton® (DuPont) and Fluorel® (3M).

FEATURES

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- Slotted ISO 5211 top plate and shaft for flexibility of direct mounting options
 - Environmental shaft seal to keep contaminants from entering shaft bore
 - Offset shaft retainers mechanically retain the shaft ensuring a blow out proof design
 - One piece ribbed Polyester coated body with extended neck
 - Streamlined disc with no pins or screws in flow path
 - Primary seal provides a smooth flow conduit and prevents media buildup in crevices normally found with traditional designs
 - Independent seals provide full vacuum rating
 - High strength upper and lower shafts with triple shaft seals
 - Two self lubricated bronze bearings to eliminate side loading
 - Double D Drive for a positive disc/shaft connection with no pins or bolts exposed to flow
 - Proven pressure responsive 360° sealing method uses constant pressure between machined radius on disc and flatted area of the seat that eliminates the "squeeze" of the interference seat design our competition relies on
 - Phenolic bonded cartridge seat with primary and secondary seals provide no movement of the elastomer
 - Two secondary shaft seals located inside the seat shaft holes

The **Series 70 wafer** style and **Series 71 lug** style are heavy duty cartridge seated butterfly valves compatible ANSI 125/150 weld neck, slip on, and threaded flange standards. 2" - 12" valves are fully rated to 200 psi, bi-directional, dead end service. Valves with undercut discs to 50 psi are also available through the size range. Valves with Max cut Disc to 285 psi are also available through size range. All Series 70/71 valves, regardless of the rated working pressure, are vacuum rated to 29.92" of Mercury Gauge (0 Micron).

COATINGS

Flow Line Series 70 and 71 butterfly valve bodies are Polyester coated as standard. Polyester is a significant upgrade to paint or two part epoxy coatings. Our standard Polyester coating offers outstanding protection against abrasion and corrosion. The Flow Line Polyester coating is not affected by outdoor exposure and maintains excellent resistance to UV rays.

TEST	RESULT
Salty Fog Test	No change in excess of 2000 hours
Outdoor Weathering (UV Rays)	No noticeable change in excess of 12 months
50% Sulfuric Acid Test	No change for 48 hours

INSTALLATION, MAINTENANCE AND ASSEMBLY

Handle Kit



The Flow Line Handle Kit is designed for manual on/off and throttling service for quarter turn, resilient seated butterfly valves ranging from 2" - 12". The Polyester coated ductile iron handle kit includes the handle assembly with a locking lever and bolt on plate notched at 10 degree increments. The notched plate also includes on/off stops to prevent over travel of the handle and can be used with a padlock as standard. Other available options include an Infinite Throttling Handle Kit, Memory Stop and a 2" Square Nut.

Handwheel Gear Operator



The Flow Line Handwheel Gear Operator is designed for manual on/off and throttling service for quarter turn butterfly valves ranging from 2" - 12". The handwheel gear operator is constructed with a heavy duty, Polyester coated ductile iron housing, is completely self lubricated and weatherproof. Along with the gear operator, it also includes a valve position indicator, ductile iron handwheel and mechanical travel stops for field adjustment. Other available options include a Chainwheel Kit, Padlock Kit and a 2" Square Nut.

Actuation



Series 21 spring return actuators are available throughout the size range.



Series 50 solenoid valves are available in 1/8", 1/4", and 1/2"NPT.



Series 52 and 53 limit switches provide local and remote valve position.



Series 55 and 56 positioners are available with either a 3-15 psi or 4-20 MADC signal.

Installation

To install, simply close the valve, position between the flanges and assemble the valve to the flanges with studs or cap screws. Do not use flange gaskets. Flow Line Series 70 and 71 butterfly valves can be installed with the disc closed. Before hand tightening the flange bolts, fully open the disc to ensure disc O.D. clearance with pipe I.D. Hand tighten the flange bolts and close the valve to check for valve disc and pipe clearance. If contact is made, reposition as necessary and tighten all flange bolts to proper torque specification.

Maintenance and Repair

No regular maintenance or lubrication is required. Factory assembly procedures provide adequate lubrication for the life of the valve. To replace any component, remove valve from the line by fully closing valve disc. Spread flanges, remove all bolts then remove valve from line.

Testing

All Flow Line Series 70 and 71 butterfly valves are bi-directionally tested to 130 percent of rated working pressure. Test certification is available upon request at time of order.

Flanges

ANSI 125/150 cast iron, steel, raised face, flat faced weld neck, slip on and threaded flanges are suitable for use with Flow Line butterfly valves. Please contact the factory for proposed installation with plastic flanges.

Warranty

All products manufactured by Flow Line Valve and Controls are warranted against defects in material and workmanship for a period of 1 year from date of installation.

All statements, technical information and recommendations in the bulletin are for general use only. Flow Line Valve and Controls is not responsible for suitability or compatibility of these products in relation to system requirements. Consult Flow Line Valve and Controls distributors or factory for the specific requirements and material selection for your intended application. Flow Line Valve and Controls reserves the right to change or modify product design or product without prior notice. Flow Line Valve and Controls is not responsible for editorial or pictorial errors within this literature.



Flow Line