



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

**5000144559-Purchase of Butterfly Valves for The Jefferson Parish
Eastbank Water Plant**
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com
11-Mar-2024 09:37:41 AM



BID NUMBER- 50-00144559

**Purchase of Butterfly Valves for The
Jefferson Parish Eastbank Water Plant**

BID DUE: March 11, 2024 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 on the Purchasing Department's eProcurement site, www.jeffparishbids.net, by the bid due date and time. Late bids will not be accepted.

**Jefferson Parish Purchasing Department
200 Derbigny Street
General Government Building, Suite 4400
Gretna, LA 70053
Purchasing Specialist II Name: SHANNA FOLSE
Purchasing Specialist II Email: sfolve@jeffparish.net
Purchasing Specialist II Phone: 504-364-2680**

DATE: 3/05/2024

INVITATION TO BID
THIS IS NOT AN ORDER

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BID NO.: 50-00144559

JEFFERSON PARISH

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

VENDOR: 27118 BLANK BID COPY VENDOR

PURCHASING SPECIALIST:
SFOLSE@jeffparish.net

Bids will be received until 11:00 AM, 3/11/2024 via online at www.jeffparishbids.net.

LATE BIDS WILL NOT BE ACCEPTED

NOTE: ONLY BIDS WRITTEN IN INK OR TYPEWRITTEN, AND PROPERLY SIGNED BY A MEMBER OF THE FIRM OR AUTHORIZED REPRESENTATIVE, WILL BE ACCEPTED. PENCIL AND/OR PHOTOSTATIC FIGURES OR SIGNATURES SHALL RESULT IN BID REJECTION. HOWEVER, ELECTRONIC SIGNATURES AS DEFINED IN LSA - R.S. 9:2602(8) ARE ACCEPTABLE. SIGNATURE MUST BE A SECURED DIGITAL SIGNATURE.

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. 136353 and/or Resolution No. 141125 as amended. 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, Gretn, 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. Vendors may experience a delay in payment if your company is not a registered vendor with Jefferson Parish.

Jefferson Parish is exempt from paying sales tax under LSA-R.S. 47:301 (8)(c). All prices for purchases by Jefferson Parish of supplies and materials shall be quoted in the unit of measure specified and unless otherwise specified, shall be exclusive of state and local taxes. The price quoted for work shall be stated in figures. In the event there is a difference in unit prices and totals, the unit price shall prevail. 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 by the bidder placing the Addendum number in the appropriate section. 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.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

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 A117.1-1961).

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.

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 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 electronic envelope. Failure to comply will cause the bid to be rejected. When submitting the bid electronically, 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.

INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

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. Precaution must be exercised at all times to safeguard the welfare of JEFFERSON PARISH and the general public.
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 stated 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. Failure to comply with this instruction will result in bid rejection.
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. All sureties must be in original format (no copies). When 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 an as needed basis contract. 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.

DATE: 3/05/2024

BID NO.: 50-00144559

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INSTRUCTIONS FOR BIDDERS AND GENERAL CONDITIONS

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 as per the appendix instructions. Failure to submit applicable certifications as per the appendix instructions will result in bid rejection.

17. For this project, the Contractor shall not pay any state or local sales or use taxes on materials and equipment which are affixed and made part of the immovable property of the project or which is permanently incorporated in the project (hereinafter referred to as "applicable materials and equipment"). All purchases of applicable materials or equipment shall be made by the contractor on behalf of and as the agent of Jefferson Parish (Owner), a political subdivision of the State of Louisiana. No state and local sales and use taxes are owed on applicable materials and equipment under the provisions of Act 1029 of the 1991 Regular Session - Louisiana Revised Statute 47:301(8)(c). Owner will furnish to contractor a certificate form which certifies that Owner is not required to pay such state or local sales and use taxes, and contractor shall furnish a copy of such certificate to all vendors or suppliers of the applicable materials and equipment, and report to Owner the amount of taxes not incurred.

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: 3/05/2024

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 5

BID NO.: 50-00144559

JEFFERSON PARISH

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

VENDOR: 27118 BLANK BID COPY VENDOR

PURCHASING SPECIALIST:
SFOLSE

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.

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 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 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

7 weeks

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 by placing the addendum number as indicated. Failure to acknowledge any addendum on the bid form will result in bid rejection.

Acknowledge Receipt of Addenda: NUMBER: 0

NUMBER: _____

NUMBER: _____

NUMBER: _____

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

***** ALL BIDDERS MUST COMPLETE SECTION BELOW *****

FIRM NAME:

Water Technology Resources

SIGNATURE:

(Must be signed here)

TITLE:

Vice President

PRINT OR TYPE NAME:

Matt Waldor

ADDRESS:

9201 E Bloomington Frwy Suite Z

CITY, STATE:

Bloomington MN

ZIP:

55420

TELEPHONE:

(952) 641-9004

FAX:

()

EMAIL ADDRESS:

Sallywaldor@wtrvalves.com

TOTAL PRICE OF ALL BID ITEMS: \$ 12,900.00

DATE: 3/05/2024

INVITATION TO BID FROM JEFFERSON PARISH - continued

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BID NO.: 50-00144559

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	6.00	EA	<p>PURCHASE OF BUTTERFLY VALVES FOR THE JEFFERSON PARISH EASTBANK WATER PLANT</p> <p>0010 6" flanged butterfly valve with hydraulic actuator</p> <p>Rubber Seated Butterfly Valve SIZE: 6 inch (150mm) END CONNECTION: Flanged Drilling BODY MATERIAL: Cast Iron PACKING: Self Adjusting -20 to 290°F (-29 to 143°C) SEAT MATERIAL: Terpolymer of Ethylene Propylene & A Diene; Temperature -20 to 290°F (-29 to 143°C) SERVICE CLASS: AWWA Class 150 B DISC MATERIAL: Ductile Iron with 316 Stainless Steel Edge SHAFT MATERIAL: 316 Stainless Steel COATING: Interior 8 mils minimum of Blue Epoxy with Standard (SP10) EXTERIOR: 8 mils minimum of Blue Epoxy with Standard (SP10) surface prep ACTUATOR: T-Series Cylinder; Water Hydraulic; 4 in Dia SWITCH: (2) Stonel Switches; Mechanical SPDT; 2 Conduit Conn; type 1,3,4,4X, 5,6,7,9,12 and 13 WEIGHT (approx): 65lbs / 30kgs MIN VALVE TEMPERATURE: -20°F MAX TEMPERATURE: 290°F SET UP TEXT: Switch Action: OPEN_CLOSE</p> <p>PURPOSE: Replacement valves for P3 flushbacks at the EB Water Treatment Plant</p> <p>DELIVERY ADDRESS: JEFFERSON PARISH EB WATER PLANT 3600 JEFFERSON HWY., BLDG D JEFFERSON, LA 70121</p>	\$ 2,150.00	\$ 12,900.00



**Water
Technology
Resources**



VF-7 SERIES

Centric Butterfly Valves

Water Technology Resources – WTR Valves

VF-7 SERIES Centric Butterfly Valves

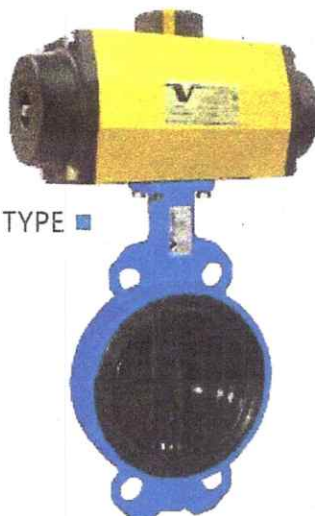
PRODUCT CHARACTERISTICS

- Boot Seat Design with Cartridge Seat Features and Benefits Allowing Easy Disassembly and Seat Change
- Wafer Body , Full Lug Body, Double Flanged Body In Cast Iron, Ductile Iron, Cast Steel, 304 and 316SS
- Working Pressures to 250 psig
- Undercut Disc for Low Torque, Low Pressure Applications
- Full Dead End Service
- Full Shaft Bearings, Top, Bottom, and Above the Seat for Disc Stability and Higher Working Pressures
- Investment Cast Low Profile Disc for Low Pressure Drops
- Vacuum Service to 760 torr (29.9" Hg) Without Seat Vulcanizing
- Spline Attachment Shaft to Disc Without Pins in Flow Stream
- Full Material /Pressure Certs on Request
- ISO-5211 Compliant to Fit All ISO-5211 Actuators (short, square shaft)
- Available in Double D Design Shaft

APPLICATIONS

HVAC
Ship Building
Petrochemical
Fire Control
Seawater
Flue Gas
Desulphurization

WAFER TYPE ■



■ WAFER TYPE

PRODUCT CHARACTERISTICS

Model No.	VF-730	VF-733	VF-737
End Connection	Wafer	Lug	Double Flanged
Flange Drilling	ANSI 125/150	ANSI 125/150	ANSI 150
	JIS 10K, PN10, PN16	JIS 10K, PN10, PN16	JIS 10K, PN10, PN16
Size	1 1/2"-40"	1 1/2"-24"	14"-72"
Seat	Resilient		
Temperature Range	-4 °F ~400 °F (-20°C ~204°C)		

Remark:

1. Wafer valve comes with positioning holes for ease of installation
2. Dimensions of Stainless steel valves are different from Iron Valves, see Page 13 for details

- **PRESSURE RATINGS:** Bi-Directional Bubble Tight Shutoff
230 psig ---- 1 1/2" -12" (Opt to 24")
150 psig ---- 14" -72"

- **SEAT TEST PRESSURE:** (PER ISO 5208)
260 psig ---- 1 1/2" -12" (Opt to 24")
160 psig ---- 14" -72"

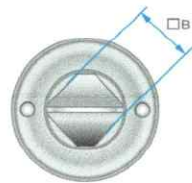
- **SHELL TEST PRESSURE:** (PER ISO 5208)
260 psig ---- 1 1/2" -12" (Opt to 24")
160 psig ---- 14" -72"

- **Optional Material/ Pressure on request**

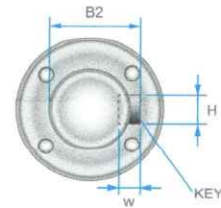


VF-737 FLANGE TYPE DN 350~1800 INCH 14~72

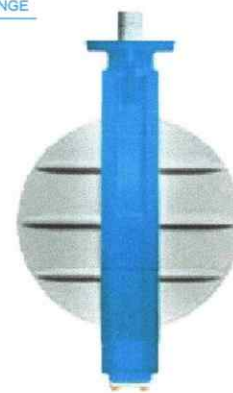
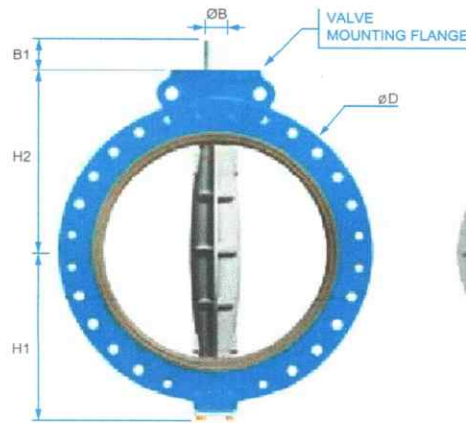
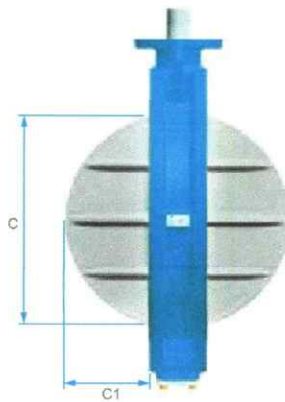
DIMENSIONS



DN 350~DN 600
INCH 14~24"



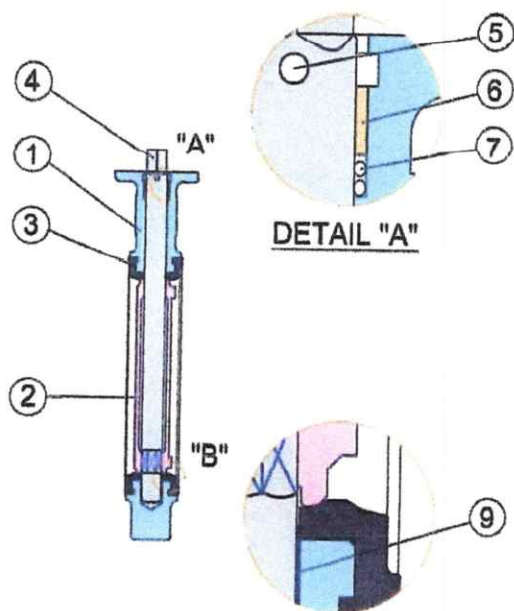
DN 650~DN 1800
INCH 26~72"



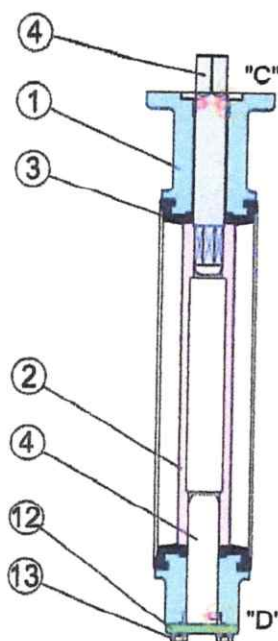
UNIT : INCHES

Size	Face to Face	Dimensions					Mounting flange (ISO 5211)		Shaft end					Thickness of Flange	Weight
Inch	L	H1	H2	φD	C	C1	VALVE		φB	B1	B2	Key (H*W)	□B	T	Lbs
							ISO(Std)/ OPT	PCD(Std)/ OPT							
14	3.07	11.93	12.95	21.06	12.80	0.28	F12/F14	4.92/6.50	1.38	1.14	--		1.06	46.20	152
16	4.02	13.19	14.21	23.62	14.76	0.31	F12/F14	4.92/6.50	1.38	1.14	--		1.06	48.40	209
18	4.49	14.29	15.47	25.51	16.65	0.51	F14/F16	6.50/6.61	1.89	1.50	--		1.42	59.40	284
20	5.00	15.63	16.81	28.15	18.62	0.75	F14/F16	6.50/6.61	1.89	1.50	--		1.42	66.00	354
22	6.06	16.77	18.70	30.00	19.96	1.06	F14/F16	6.50/6.61	1.89	1.50	--		1.42	68.20	420
24	6.06	18.07	19.37	33.07	22.05	1.42	F16	6.61	2.36	1.89	--		1.81	79.20	546
26	6.50	19.25	20.28	34.25	23.90	1.85	F16	6.61	2.56	3.54	2.74	.70X.47	-	88.00	647
28	6.50	20.12	22.17	36.50	25.79	2.68	F16	6.61	2.95	3.54	3.12	.79X.47	-	88.00	724
30	7.48	2.13	23.03	39.25	27.24	3.54	F25	10.00	2.95	4.33	3.12	.79X.47	-	88.00	948
32	7.48	23.31	24.80	41.73	28.98	4.37	F25	10.00	3.15	4.33	3.44	.94X.63	-	96.80	1115
36	7.99	24.88	25.98	46.06	33.11	5.04	F25	10.00	3.35	4.33	3.64	.94X.63	-	101.20	1366
38	8.50	26.85	28.70	48.74	35.00	5.63	F25	10.00	3.74	4.33	3.95	1.10X.63	-	110.00	1650
40	8.50	27.48	29.49	50.75	37.05	6.38	F30	11.73	3.94	6.10	4.15	1.10X.63	-	110.00	1782
42	8.50	29.96	32.01	52.99	38.54	7.17	F30	11.73	3.94	6.10	4.15	1.10X.63	-	110.00	1890
44	8.50	30.24	32.05	55.24	40.39	7.32	F30	11.73	4.33	7.09	4.58	1.26X.71	-	110.00	2048
48	10.00	32.05	34.25	59.49	44.57	8.43	F30	11.73	4.33	7.09	4.58	1.26X.71	-	123.20	2554

1. Inside Pipe Diameter > C



Size 1.5" to 12.0" **DETAIL "B"**



Size 14.0" to 24.0" **DETAIL "D" For DI. & CI. Body**

No.	Name	Materials	Specifications		Remark
			JIS	ASTM	
1	Body	CAST IRON	FC 200	A126 Cl. B	
		DUCTILE IRON	FCD 400	A395	
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
2	DISC	DUCTILE IRON	FCD 400	A395	Nylon 11 coated
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	
			SCS 14A	A351 Gr. CF8M	
		ALU-BRONZE	ALBC2	B148 C95400	
3	SEAT	NBR (NITRILE)			-10° ~ 80C° (14° ~ 176°F)
		EPDM			-20° ~ 120C° (-4° ~ 248°F)
		WHITE EPT		100PSIG MAX	-20° ~ 140C° (-4° ~ 284°F)
		NEOPRENE (CR)			0° ~ 80C° (32° ~ 176°F)
		SILICON		100PSIG MAX	-20° ~ 180C° (-4° ~ 356°F)
		HYPALON (CSM)			-20° ~ 135C° (-4° ~ 275°F)
		VITON		100PSIG MAX	-18° ~ 204C° (-0.4° ~ 400°F)
4	STEM	STAINLESS STEEL	SUS 410	A 182 Gr. F6A	
			SUS 304	A 182 Gr. F304	
			SUS 316	A 182 Gr. F316	
5	PIN	STAINLESS STEEL	SUS 304	A 182 Gr. F304	
6	BUSHING	DELTRIN			
7	O-RING	NBR (NITRILE)			
8	THRUST RING	STAINLESS STEEL	SUS 304	A 240 Gr. 304	
9	BUSHING	BRONZE	BC6	B62	For cast iron and ductile iron body
10	BUSHING	RTFE+STAINLESS STEEL	RTFE+SUS316	RTFE+A240 Gr. 316	For stainless steel body
11	UPPER COVER	CAST IRON	FC 200	A126 Cl. B	For cast iron and ductile iron body
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	For stainless steel body
12	BOTTOM COVER	CAST IRON	FC 200	A126-B	For cast iron and ductile iron body
		STAINLESS STEEL	SCS 13A	A351 Gr. CF8	For stainless steel body
13	BOLT	STEEL			
14	BOLT	STEEL			

Water Technology Resources - WTR Valves

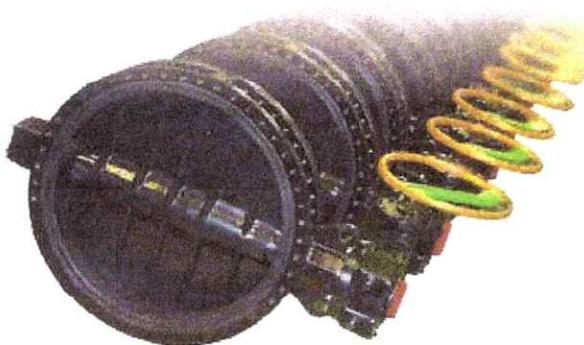
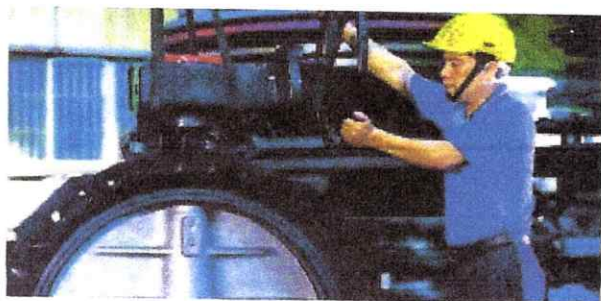
DESIGN STANDARDS

End Connection: Wafer, Lugged, Flanged
Wall Thickness: AWWA C504, ASME B 16.34
Mounting Flange: ISO 5211
Design: ISO 5208, AWWA C504, ASME B16.34,
Face to Face: API 609, ISO 5752, AWWA C504(54"~72")
Pressure Test: ISO 5208, AWWA C504(54"~72")
Marketing System: MSS-SP-25
EX Certificate: ATEX 94/9/EG Group II Category 2 GD
ABS Certificate: ABS Steel Vessel Rules 1-1-7/7,4-6-2/5.11



CERTIFICATE

- American Bureau of Ships
Design Assessment
Manufacturing Assessment
Ship Side
- SGS Food Grade(FDA)- EPDM, EPT
- CRN- All Provinces
- GOST Certificate
- ATEX- EX Certificate



Certificate

Nuclear Actuators

Hanna Cylinders' quarter turn and rising stem nuclear actuators are constructed to withstand severe duty applications. All of our nuclear actuators are manufactured in accordance to the standards of our 10CFR50 appendix B quality assurance program. Hanna supplies all 3 sections (cylinder, center mechanism {scotch yoke design}, and spring pack) which allows us to be unique in the marketplace.

1. Our quarter turn mechanisms are manufactured in (3) frame sizes with torque values ranging from 1,000 ft/lbs ~ 150,000 ft/lbs.
2. Designed for inside / outside containment & safety / non-safety related applications.
3. Qualify to IEEE 323-2003, IEEE 344-1987, & IEEE 382-1996 specifications.
4. Qualify to latest Westinghouse specifications:
 - APP-PV11-Z0-001 rev. 0 (valve specification)
 - APP-PV11-Z0R-001 rev. 0 (data sheet report)
 - APP-GW-VP-010 rev. 0 (EQ for valves)
5. High pressure direct spring actuators for rising stem valves.
6. Air and hydraulic valving panels, optional override accessories for nuclear & non-nuclear applications.



Hanna Cylinder Repair

Hanna Cylinders is ideally suited to handle all cylinder repair requirements from strip to evaluation to rebuild. Hanna operates out of a 175,000 square foot facility with 40 foot clear height, 25 ton crane capacity and testing up to 10,000 psi. We are experts in handling large, complex cylinders from tear down to rebuild. Hanna has over 100 years of experience in the repair of cylinders from 1.5 to 40 inch bore and up to 400 inch stroke. Hanna maintains an extensive seal kit and component parts inventory. We offer rapid turnaround 24 hour delivery. Customer location chrome repair is available. Our company has dedicated in-plant repair customer service personnel and a design staff to assist in all aspects of the repair process including the cross-over obsolete cylinders. Company technical personnel will promptly provide our customers with the critical data to make an informed decision to rebuild or purchase a new cylinder. When it comes to cylinder repair there is only one choice, Hanna Cylinders.



Hanna Cylinders, 804 East Park Avenue, Suite 101, Libertyville, IL 60048
Phone: 847-990-7700 **Fax:** 847-680-6991 **Toll Free:** 866-950-6257
Email: sales@hannacylinders.com **Website:** hannacylinders.com

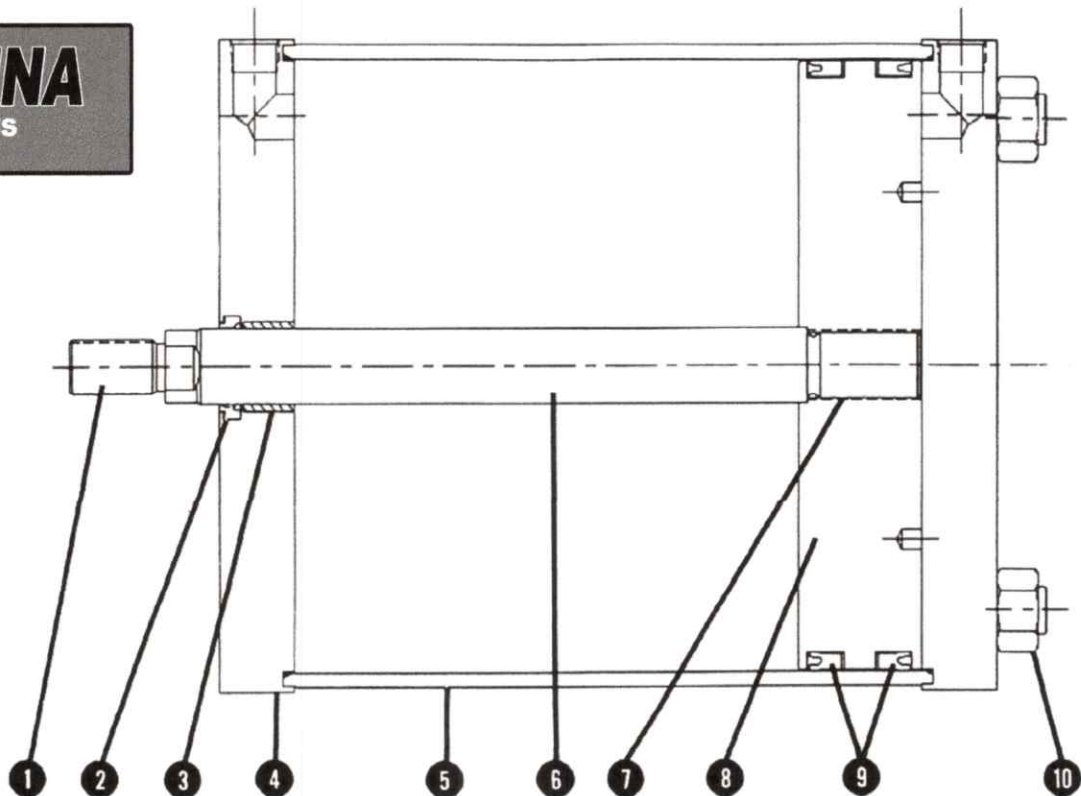


Series LA
Air/Water Cylinders

- High-Tech Duralon® Rod Bearing
- 150 PSI Air or Water Pressure Ratings
- 3.25" – 26.00" Bore Sizes
- MX3 and ME3 Mounting Styles
- AWWA Construction Available
- Optional Bronze or Stainless Steel Construction Available

SERIES LA AIR/WATER CYLINDERS

HANNA
cylinders



Series LA Features and Benefits

1. Piston Rod End

Integral thread construction, precision machined for close concentricity.

2. Rod Seal and Wiper

Self-regulating, pressure-energized Buna N material prevents contaminants from entering cylinder.

3. Duralon Rod Bearing

Non-metallic bearing is impervious to corrosion, has an extremely low coefficient of friction and requires no lubrication to the bearing surface. Capable of sustaining much higher compressive loads than either bronze or cast iron.

4. Heads

Steel heads are precision machined to assure accurate alignment and close concentricity between piston, tube, piston rod and rod bearing.

5. Tubing

Steel tubing is precision-honed to 16 rms, and chrome-plated for corrosion resistance.

6. Piston Rod

Hanna's piston rods are machined to a close tolerance with minimum stock removal to maximize shank size and reduce stress. Relief grooves are machined in areas of high stress to guard against fatigue failures. All sizes are hard chrome-plated for scratch and corrosion resistance, and polished to a 6-8 micro-inch finish.

7. Piston-to-Rod Connection

Piston rods are piloted to the piston to ensure concentricity, then bonded by an anaerobic adhesive, torqued and pinned.

8. Piston

One piece ductile iron piston is threaded to piston rod, and furnished with breakaway spirals on each side.

9. Piston Sealing System

Two Buna U-cups seals are self-regulating and pressure-energized for excellent sealing capabilities.

10. Tie-Rods and Tie-Rod Nuts

Tie-rods and tie-rod nuts are made of high strength, corrosion-protected steel.