



CENTRALBIDDING
FROM CENTRAL AUCTION HOUSE

5000124702 VALVE, BALL, 1-1/4 INCH APOLLO NO. 77-140-NL
Jefferson Parish Government

Project documents obtained from www.CentralBidding.com

14-Nov-2018 07:53:35 AM

DATE: 11/13/2018

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 1

BID NO.: 50-00124702

JEFFERSON PARISH

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

VENDOR:

BUYER: CGASPER@jeffparish.net

Bids will be received until 11:00 AM, 11/20/2018 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 submitted a bid in response to this solicitation may submit a protest in writing to the Director of the Purchasing within 48 hours of bid opening. The Purchasing Director will review it in connection with the Parish Attorney's Office as appropriate and a written response will be provided as soon as possible.

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 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.

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 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. 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.



JEFFERSON PARISH

Department of Purchasing

Michael S. Yenni
Parish President

Renny Simno
Director

November 2018

CHANGES TO JEFFERSON PARISH BIDDING PROCEDURES

- **As of November 13, 2018, for all advertised (2:00 pm) bids, the bid tabulation will be released to the vendors 14 days from the bid opening date.**

Other continued changes:

- Bid submissions can be delivered to the Joseph S. Yenni Building, 1221 Elmwood Park Blvd., Suite 404, Jefferson, LA 70123 or General Government Building, 200 Derbigny St., Suite 4400, Gretna, LA 70053. Bidders may submit bid submission to the East Bank location, pending authorization in each bid package. **Bidders should carefully read and must respond accordingly per the requirements of the bid packages. NOTE: Bidders submitting bids on the day of bid opening, bidders must submit at the West Bank location only.**
- For all advertised sealed bids, written evidence of signature authority must be included with bid submission.
- Current W9 Forms 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, a current W-9 form must be supplied upon contract execution, should you be awarded a contract and/or issued a purchase order.
- **Proof of insurance in the form of a current certificate evidencing coverages is required with bid submission from all bidders.** Bidders must read the insurance requirement attachment included in each bid package for specific instructions. Upon contract execution, successful bidder must produce final insurance certificates in accordance with Jefferson Parish insurance requirements.

Bidders should reference the "Additional Requirements" section of the bid instructions and/or the "Important Notice to Bidders" included in the bid package for specific requirements to respond accordingly.

For more information, please call Jefferson Parish Purchasing at 504-364-2678.

Joseph S. Yenni Building -- 1221 Elmwood Park Blvd., Ste. 404, Jefferson, LA 70123
Office 504.364.2678

General Government Bldg. -- 200 Derbigny St -- Suite 4400 - Gretna, LA 70053
Office 504.364.2678

Email: Purchasing@jeffparish.net Website: www.jeffparish.net

DATE: 11/13/2018

INVITATION TO BID
THIS IS NOT AN ORDER

Page: 4

BID NO.: 50-00124702

JEFFERSON PARISH

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

VENDOR:

BUYER: CGASPER

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

5.7 DAYS

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: _____

NUMBER: _____

NUMBER: _____

NUMBER: _____

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

*** ALL BIDDERS MUST COMPLETE SECTION BELOW ***	
FIRM NAME:	LOUISIANA Utilities Supply Co
SIGNATURE: (Must be signed here)	TITLE: Sales
PRINT OR TYPE NAME:	
ADDRESS:	Louisiana Utilities Supply Co 901 Labarre Rd
CITY, STATE:	Suite 200 Metairie, LA 70001
TELEPHONE:	FAX: 504 831-4179
EMAIL ADDRESS:	KATIE.DUPS@ferguson.com

TOTAL PRICE OF ALL BID ITEMS: \$ 2853.20

INVITATION TO BID FROM JEFFERSON PARISH - continued

BID NO.: 50-00124702

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
1	12.00	EA	VALVE BALL, ADAPTER PVC, COUPLING PVC, PIPE 3 IN X 20 FT AND VARIOUS OTHER WAREHOUSE SUPPLIES FOR JEFFERSON PARISH SEWERAGE WAREHOUSE EB 0001 - Valve, ball, 1-1/4 inch, no lead brass, female pipe threads on each end, 600 psi cwp 150 psi wsp Apollo Brand No. 77-140-NL or equal (0622530)	\$ 64.80 ea	\$ 777.60
2	25.00	EA	0002 - Adapter, PVC, schedule 80, female, 1 in female socket x female thread, electrical fittings are not acceptable (0690720)	\$ 3.50 ea	\$ 87.50
3	100.00	EA	0003 - Coupling, PVC, Schedule 80, 1 inch, female socket x female socket electrical conduit is not acceptable (0690240)	\$ 1.75 ea	\$ 175.00
4	20.00	EA	0004 - Coupling, PVC, schedule 80, 3 in, female socket x female socket, Fastenal no. 470491, electrical conduit fittings are not acceptable (0690320)	\$ 8.80 ea	\$ 176.00
5	60.00	EA	0005 - Adapter, male, schedule 80 pvc, 2 inch socket x male thread, must be constructed as one piece, electrical conduit is not acceptable, (0690930)	\$ 6.90 ea	\$ 414.00
6	300.00	LF	0006 - Pipe, 3 in x 20 ft, schedule 80 PVC, plain ends, electrical conduit is not acceptable (0691120)	\$ 2.46 pr ft	\$ 738.00
7	6.00	EA	0007 - Elbow, PVC, schedule 80, 90 degree, 4 in, female socket x female socket, electrical fittings are not acceptable (0690180)	\$ 10.00 ea	\$ 60.00
8	6.00	EA	0008 - Flange, PVC, schedule 80, 4 inch, one-piece solid, socket-type	\$ 9.45 ea	\$ 56.70

specs
attached

DATE: 11/13/2018

INVITATION TO BID FROM JEFFERSON PARISH - continued

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BID NO.: 50-00124702

SEALED BID

ITEM NUMBER	QUANTITY	U/M	DESCRIPTION OF ARTICLES	UNIT PRICE QUOTED	TOTALS
9	24.00	EA	(0690860) 0009 - Bushing, reducer, 3/4 in x 1/2 in, schedule 80 PVC, male thread x female thread (0691930)	1.75 ^d ea	1800
10	6.00	EA	0010 - Valve, ball, PVC, schedule 80, true union, 1-1/2 in, to include female socket ends and FPT ends (0692040) Specs attached	\$58.40 ea	\$350.40

B286883

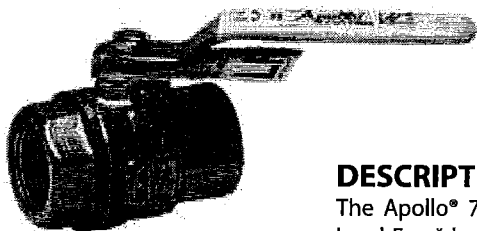
'Apollo' Valves

SUBMITTAL SHEET

LEAD FREE

77CLF Series

Bronze Full Port Ball Valve



Job Name:	
Job Location:	
Engineer:	
Contractor:	
Tag:	
PO Number:	
Representative:	
Wholesale Distributor:	



DESCRIPTION

The Apollo® 77CLF "Contractor Series" 2 piece ball valve features a de-zincification resistant, Lead Free* bronze body, premium "multi-fill" MPTFE seats and stem packing, and a Lead Free* "Solid Ball" design that delivers true full-port flow performance. Cast and machined in Apollo's South Carolina manufacturing plants using proven Lead Free* materials.

FEATURES

- Easily Identifiable White Handle and Blue "Lead Free" Hang Tag
- EZ-Solder™ Lead Free Bronze
- Lead Free* Brass & Bronze Materials
- NSF/ANSI 61 Section 8, Annex F & G
- Multi-Fill PTFE Seats & Seals.
- Manufactured and 100% Factory Tested in the USA

PERFORMANCE RATING

- Maximum Pressure: 600 psi CWP, 150 SWP
- Maximum Temperature: 500°F
- Vacuum service to 29 in. Hg

APPROVALS

- MSS SP-110; Ball Valves
- NSF/ANSI 61 Section 8, Annex F & G
- NSF/ANSI 372 Lead Free
- ANSI 3rd Party Approval to 0.25% Lead Max.
- CSA B51 CRN: OC10908.5C
- IAPMO R&T / UPC - IGC 157
- City of Los Angeles DBS

OPTIONS (For 1/4" to 2")

- (-01) Standard
- (-04) 2-1/4" Stem Extension
- (-07) Tee Handle
- (-10) S.S. Handle and Nut
- (-11) Thermo-Seal™ Insulating Tee Handle
- (-27) Locking Handle
- (-92) Standard lever with Balancing Stop
- (-94) 2-1/4" Stem Extension with Balancing Stop

MODELS

- 77CLF100/200 Series - Standard Trim
- 77CLF140/240 Series - 316 SS Ball & Stem

STANDARD MATERIALS LIST

Part Name	Material
Gland	B16 Brass
Nut	Zinc Plated Steel
Packing	MPTFE
Seat	MPTFE
Stem	C27451 Lead Free* Brass
Ball	C27451 Lead Free* Brass Cr. Plated or B283, C37700
Retainer	C27451 Lead Free* Brass or B283, C37700 (1/4"-1/2") B584-C89836 Lead Free* Bronze (3/4"-2 1/2")
Body	B584-C89836 Lead Free* Bronze
Handle	Zinc Plated Steel w/ Vinyl Grip

- Continued on the next page.

* LEAD FREE: The wetted surfaces of this product shall contain no more than 0.25% lead by weighted average. Complies with Federal Public Law 111-380. ANSI 3rd party approved and listed.

Apollo Valves, Manufactured by **Conbraco Industries, Inc.**
701 Matthews Mint-Hill Road, Matthews, NC 28105 USA
www.apollovalves.com | (704) 841-6000

This specification is provided for reference only. Conbraco Industries Inc. reserves the right to change any portion of this specification without notice and without incurring obligation to make such changes to Conbraco products previously or subsequently sold. Please visit our website @ www.apollovalves.com for the most current information.



Figure 340N, 340NF, and 350N THERMOPLASTIC VALVES

FNWTM

FULL PORT TRUE-UNION BALL VALVE

Figure 340N - PVC with NPT and SW Ends*

Figure 340NF - PVC with 150# Flanges

Figure 350N - CPVC with NPT and SW Ends*

SW only on sizes over 2". NPT is available upon request.

Valve Features

- Full Port Design
- Pressure Rating: 150 PSI
- Temperature Range:
 - PVC: 41°F to 122°F (5°C to 50°C)
 - CPVC: 32°F to 194°F (0°C to 90°C)
- Certified to NSF 61 Annex G
- EPDM or FPM (Viton®) Seals
- O-ring Energized Seats (up to 2")
- Bidirectional Flow *
- Adjustable Seat Tightness
- Easy Disassembly with Handle
- Easy Replacement Reduces Down Time
- Can Be Modified for Actuator Installation

* Note that the valve has a preferred flow direction indicated by the embossed arrow on the body. The preferred flow direction orients the carrier upstream so that downstream piping can be removed with valve closed.

Standards

Figure 340N Connections:

- Threaded: ASTM D-2464, ref. ANSI B1.20.1
- Socket: ASTM D-2467

Figure 340NF Connections:

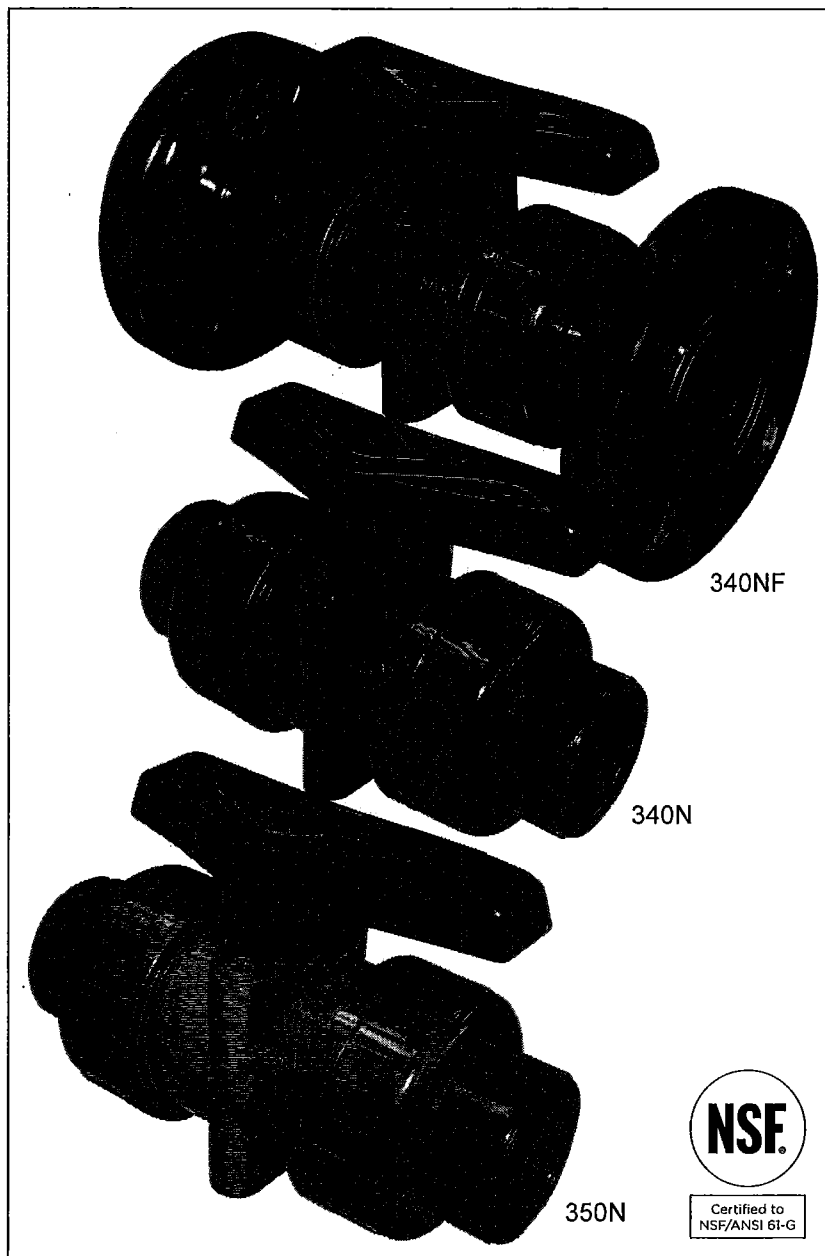
- Flanged: ANSI B16.5, Class 150

Figure 350N Connections:

- Threaded: ASTM F437
- Socket: ASTM F439

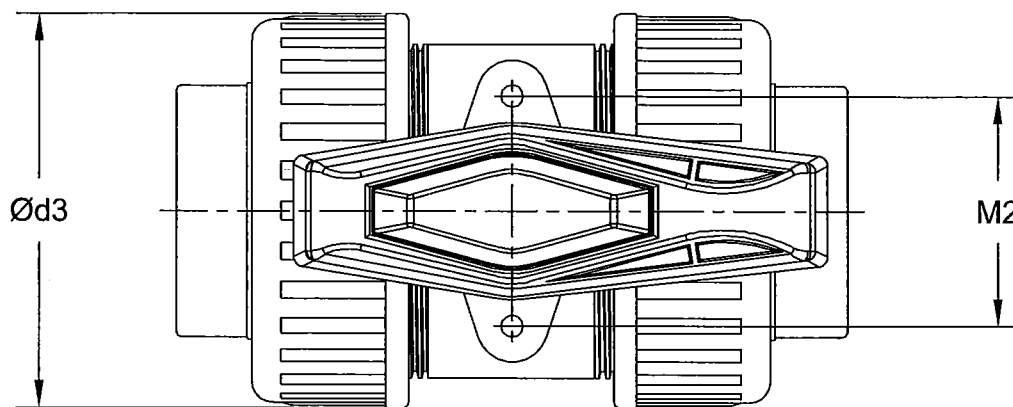
Materials:

- PVC: Cell Classification 12454 per ASTM D1784 (formerly Type I, Grade 1)
- CPVC: Cell Classification 23447 per ASTM D1784 (formerly Type IV, Grade 1)

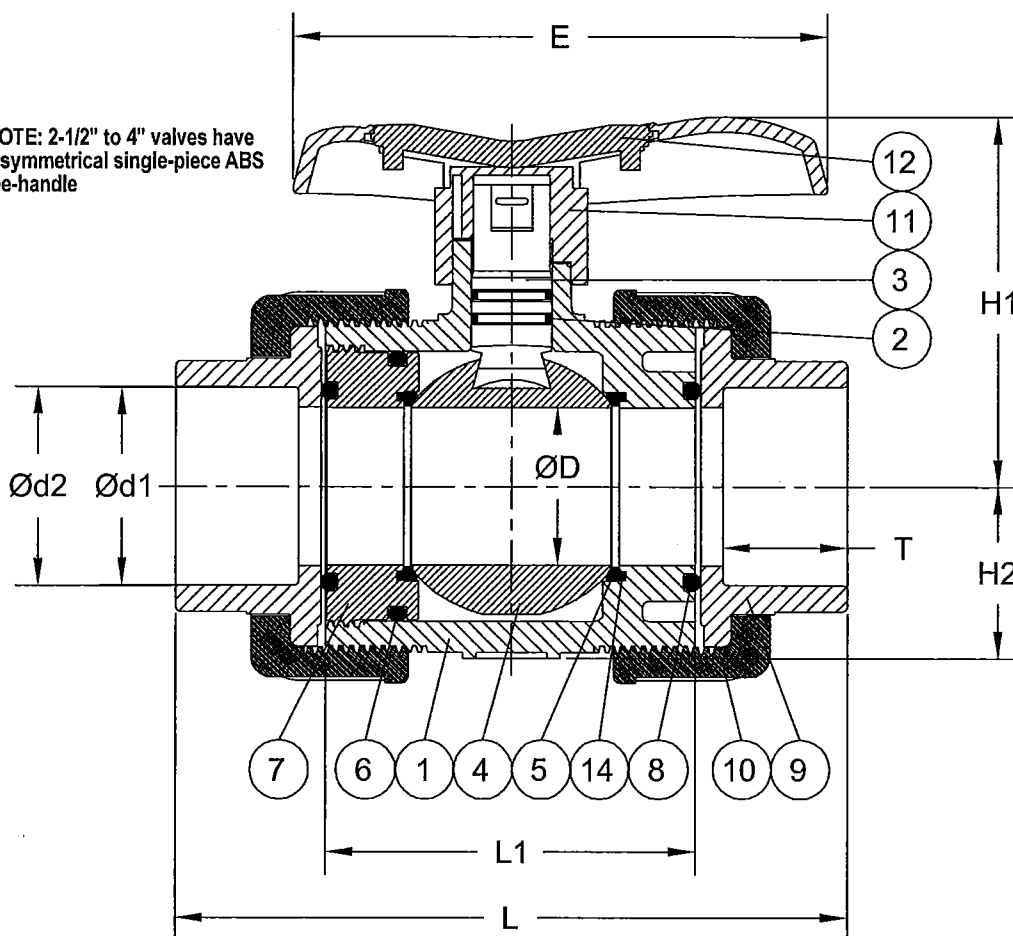


Options

FNW offers many options and modifications for valves. These include, but are not limited to: Actuation including chain wheels, worm gear operators, pneumatic and electric operators, control accessories, stem extensions, and custom mounting hardware. Contact FNW with your specific application needs.



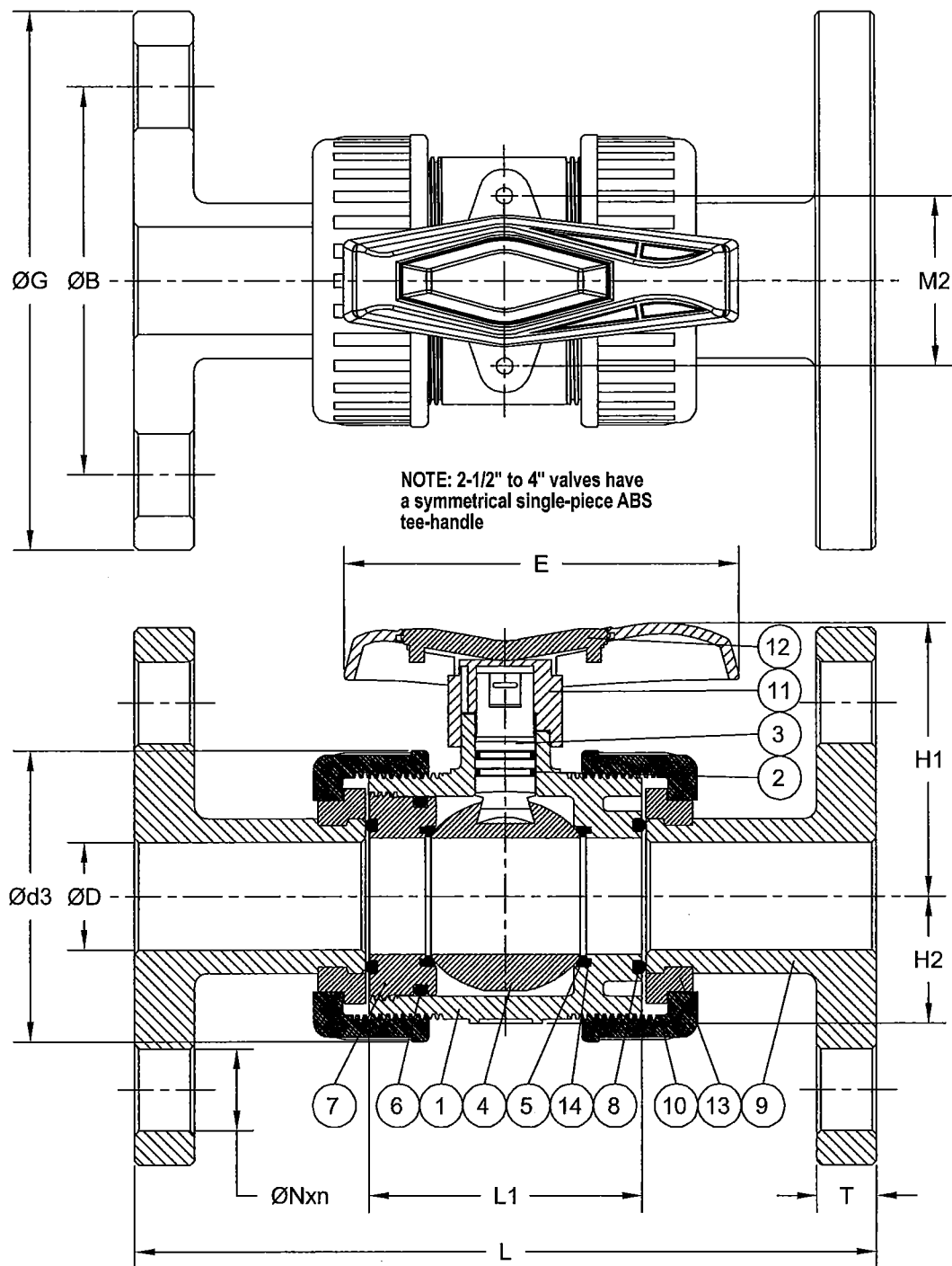
NOTE: 2-1/2" to 4" valves have a symmetrical single-piece ABS tee-handle



Dimensions (inches) Figure 340N and 350N

Size	ØD	E	L	L1	Ød1	Ød2	Ød3	T	H1	H2	M2
1/2	0.512	3.03	4.49	2.36	0.84	0.85	1.82	0.87	1.81	0.83	1.18
3/4	0.709	3.74	5.31	2.87	1.05	1.06	2.19	1.00	2.24	1.02	1.30
1	0.906	4.33	5.87	3.11	1.31	1.32	2.62	1.13	2.76	1.30	1.57
1-1/4	1.181	5.00	6.69	3.46	1.66	1.67	3.23	1.25	2.95	1.54	1.85
1-1/2	1.496	5.63	6.93	3.74	1.89	1.91	3.88	1.38	3.70	1.61	2.05
2	1.890	6.46	8.15	4.49	2.37	2.39	4.72	1.50	4.45	2.09	2.76
2-1/2	2.402	7.09	10.83	5.35	2.87	2.89	5.51	1.75	4.57	*	*
3	2.717	8.82	11.97	6.22	3.49	3.52	6.30	1.88	5.12	*	*
4	3.898	10.94	13.07	6.93	4.49	4.52	8.86	2.25	7.01	*	*

* 2-1/2" to 4" valves do not have bosses for mounting pad. Saddle mounts, sold separately, are available for actuation purposes.



Dimensions (inches) Figure 340NF

Size	$\varnothing D$	E	L	L1	$\varnothing d1$	$\varnothing d2$	$\varnothing d3$	T	H1	H2	M2	$\varnothing N$	n
1/2	0.512	3.03	5.63	2.36	2.40	3.50	1.82	0.51	1.81	0.83	1.18	0.63	4
3/4	0.709	3.74	6.77	2.87	2.76	3.86	2.19	0.55	2.24	1.02	1.30	0.63	4
1	0.906	4.33	7.36	3.11	3.11	4.25	2.62	0.55	2.76	1.30	1.57	0.63	4
1-1/4	1.181	5.00	7.48	3.46	3.50	4.61	3.23	0.63	2.95	1.54	1.85	0.63	4
1-1/2	1.496	5.63	8.35	3.74	3.90	5.00	3.88	0.63	3.70	1.61	2.05	0.63	4
2	1.890	6.46	9.21	4.49	4.76	5.98	4.72	0.63	4.45	2.09	2.76	0.75	4
2-1/2	2.402	7.09	10.20	5.35	5.51	7.01	5.51	0.71	4.57	*	*	0.75	4
3	2.717	8.82	11.97	6.22	5.98	7.52	6.30	0.71	5.12	*	*	0.75	4
4	3.898	10.94	14.65	6.93	7.52	9.02	8.86	0.71	7.01	*	*	0.75	8

* 2-1/2" to 4" valves do not have bosses for mounting pad. Saddle mounts, sold separately, are available for actuation purposes.

About PVC

Unplasticised Polyvinyl Chloride, or PVC, is the most widely used of all plastics and commonly used for pressure pipes, fittings, and valves. It is rigid, suitable for above and below ground applications. PVC has good chemical resistance and is odorless and tasteless. It is for use with liquids and gases with temperatures +32°F to +140°F* (for higher temperatures see CPVC) at a wide range of operating pressures. Some poorer quality PVC can leach chemicals into water which can build up in recirculation systems, however most modern pipe is built to specific standards (e.g. BS3505/6, ASTM D 1785, ASTM D2241, DIN 8061/2, KIWA 49, BS4346 PART 1, DIN 8063) to control this. ASTM D1784 controls the compounds for rigid PVC and CPVC.

* Note: Other materials within valves besides PVC and CPVC can have an affect on the temperature limits of the valve. Temperatures noted above are for the thermoplastic material alone.

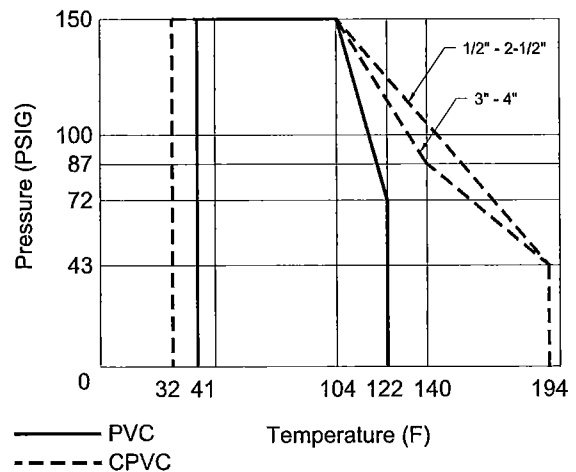
About CPVC

Chlorinated Polyvinyl Chloride, or CPVC, has been offering the process industry superior corrosion resistance, mechanical strength, and excellent life-cycle economics in a single package. Conceptually, CPVC is a PVC homopolymer that has been subjected to a chlorination reaction. It is generally inert to most mineral acids, bases, salts, and paraffinic hydrocarbon solutions. CPVC is not recommended for use with chlorinated or aromatic hydrocarbons, esters, or ketones. The upper temperature limit on CPVC is 200°F*. There is no lower temperature limit on CPVC and the material will withstand pressure. However, at very cold temperatures, the material will become brittle and the impact strength will decline.

Standard Materials

Ref. No.	Description	Material				Qty
		340N & 340NF		350N		
		EPDM Seals	Viton Seals	EPDM Seals	Viton Seals	
1	Body	PVC		CPVC		1
2	Stem O-ring	EPDM	FPM (Viton®)	EPDM	FPM (Viton®)	2
3	Stem	PVC		CPVC		1
4	Ball	PVC		CPVC		1
5	Seat	PTFE				2
6	Carrier O-ring	EPDM	FPM (Viton®)	EPDM	FPM (Viton®)	1
7	Carrier	PVC		CPVC		1
8	Union O-ring	EPDM	FPM (Viton®)	EPDM	FPM (Viton®)	2
9	End Connector/ Flange	PVC		CPVC		2
10	Union Nut	PVC		CPVC		2
11	Handle	ABS				1
12	Handle Insert	ABS				1
13	Set Ring (340F only)	PVC		CPVC		2
14	Seat O-ring (up to 2" only)	EPDM	FPM (Viton®)	EPDM	FPM (Viton®)	2

Pressure/Temperature



Torques, Cv & Weights

Size	Torque (in-lbs)	Cv	Wt. (Lbs.)
1/2	18	12.5	0.48
3/4	27	28	0.73
1	36	50.9	0.99
1-1/4	54	81	1.39
1-1/2	71	150	2.27
2	106	230	3.41
2-1/2	178	360	7.13
3	230	485	11.97
4	371	768	11.97

Figure Number Matrix

F N W 340N E G			
BODY TYPE		SEALS	SIZE CODES
340N = PVC w/ NPT & SW ends to 2" (SW only over 2", NPT upon request)		E = EPDM	1/2 = D 2 = K
340NF = PVC w/ FLANGED ENDS		V = FPM (VITON®)	3/4 = F 2-1/2 = L
350N = CPVC w/ NPT & SW ends to 2" (SW only over 2", NPT upon request)			1 = G 3 = M
			1-1/4 = H 4 = P
			1-1/2 = J