



construction managers

general contractors

design builders

SUBMITTAL REVIEW

Project # 417 The Residences at Echelon

Date: December 19, 2017

Submittal Number: 33 1000 03 a
Water Backflow Double Check Valve

Sequence Number: 22

Subcontractor: KAT Excavation
Bart Fisher

Submit To: NSPJ Architects
Tim Hauschild

SUBMITTAL FOR APPROVAL

Job Name/No: 417 The Residences at Echelon

☒ REVIEWED ☐ REVISE & RESUBMIT
☐ REVIEWED& NOTED ☐ REJECTED

Submittal received for general compliance with the Contract Documents. Contractor's review does not relieve sub/vendor of responsibility for dimension, quantities, accuracy or completion of submittals or from any responsibilities required by terms and conditions of Subcontract/PO with Luke Draily Construction Co., Inc.. Sub/Vendors shall follow all manufacturer installation instructions. Installing contractor shall be responsible to coordinate with trades for hookup, supports, routing, etc.

By: JDW Date: _____

Engineering Solutions	Shop Drawing Review
Project: Echelon	Date: 12-19-17
Submittal#: Water 1	By: MJS
<input type="checkbox"/> APPROVED	<input type="checkbox"/> REJECTED
<input checked="" type="checkbox"/> APPROVED AS NOTED	

**Need to see a drawing for the vault



Model 350A

Double Check Valve Assembly

Application

Designed for installation on potable water lines to protect against both backsiphonage and backpressure of polluted water into the potable water supply. The Model 350A shall provide protection where a potential health hazard does not exist. Ideal for use where Lead-Free* valves are required.

Standards Compliance (Horizontal & Vertical)

- ASSE® Listed 1015
- AWWA Compliant C510 (with gates only), and C550
- IAPMO® Listed
- Certified to NSF/ANSI 372* by IAPMO R&T
- CSA® Certified
- UL® Classified
- C-UL® Classified
- FM® Approved
- NYC MEA 220-04-M Vol 2 (2 1/2" - 8")

• Approved by the Foundation for Cross Connection Control and Hydraulic Research at the University of Southern California

- NSF® Listed-Standard 61, Annex G*

*(0.25% MAX. WEIGHTED AVERAGE LEAD CONTENT)

Materials

Main valve body	Ductile Iron ASTM A 536 Grade 4
Access covers	Ductile Iron ASTM A 536 Grade 4
Coatings	FDA Approved electrostatic epoxy finish
Internals	Stainless steel, 300 Series NORYL™, NSF Listed
Fasteners & springs	Stainless Steel, 300 Series
Seal ring	EPDM (FDA approved)
O-ring	Buna Nitrile (FDA approved)

Features

Sizes: 2 1/2", 3", 4", 6", 8", 10"

Maximum working water pressure 175 PSI

Maximum working water temperature 140°F

Hydrostatic test pressure 350 PSI

End connections

(Grooved for steel pipe)

(Flanged)

AWWA C606

ANSI B16.1

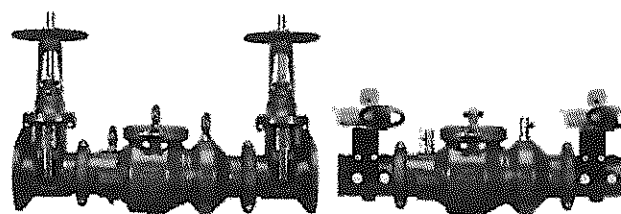
Class 125

Dimensions & Weights (do not include pkg.)

MODEL SIZE	WEIGHT											
	WITHOUT GATES		WITH NRS GATES (GXF)		WITH OS&Y GATES (GXF)		WITH NRS GATES (GXG)		WITH OS&Y GATES (GXG)		WITH BUTTERFLY VALVES (GXG)	
	in.	mm	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg
2 1/2	65	90	41	18.4	83.5	192	87	176	80	184	83.5	108.8
3	80	89	40.5	204	92.5	210	95.3	194	88	200	90.8	109.4
4	100	76	34.5	220	100	230	104	194	88	204	93	108
6	150	128	57.2	346	157	362	164	316	143	332	151	178
8	200	286	130	738	335	762	335	738	335	738	335	394
10	250	339	153.8	966	438.2	1024	464.5	844	382.8	902	409.1	511

MODEL SIZE	DIMENSION (approximate)																						
	A		A WITH BUTTERFLY		B LESS GATE VALVES		C		D		E OS&Y OPEN		E OS&Y CLOSED		E NRS GATE		E WITH BUTTERFLY VALVES		F		G		
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	
2 1/2	65	35 1/8	892	32 1/8	816	20 1/8	511	4 1/2	114	7 1/4	184	16 3/8	416	13 7/8	352	11 3/8	289	8	203	6	152	45 1/4	1150
3	80	36 1/8	918	33	838	20 1/8	511	4 1/2	114	7 1/4	184	18 7/8	479	15 5/8	397	12 3/8	314	8	203	6	152	46 7/8	1191
4	100	38 1/4	972	33 1/4	845	19 7/8	505	4 1/2	114	8	203	22 3/4	578	18 1/4	464	14 3/4	375	9 1/8	232	6	152	53 3/8	1356
6	150	47 1/4	1200	40 1/4	1022	25 7/8	657	5 1/2	140	10	254	30 1/8	765	23 3/4	603	19	483	10 1/8	257	7	178	65 3/8	1661
8	200	62	1575	55	1397	38 1/2	978	10	254	11	279	37 3/4	959	29 1/4	743	22 1/2	572	11 15/16	303	8 1/2	216	86 3/8	2194
10	250	64 5/8	1642	58 1/2	1485	38 1/2	978	10	254	12	305	45 3/4	1162	35 3/8	899	26 1/2	673	13 5/16	338	8 1/2	216	94 3/8	2398

Attention:
Model 350A
(grooved body)
& Model 350
(flange body)
have different
lay lengths.



(with OSY gates)

(with BGVIC valves)

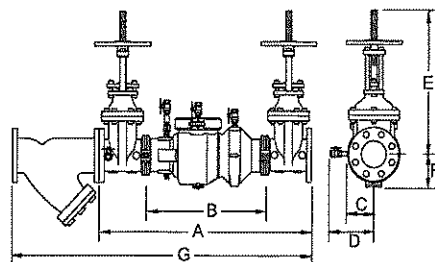


Options

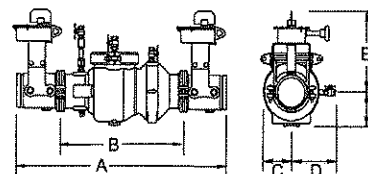
(Suffixes can be combined)

- ☐ - with flanged end NRS gate valves (standard)
- ☐ FSC - with epoxy coated wye type strainer (flanged only)
- ☐ G - with grooved end NRS gate valves
- ☐ GF - with grooved inlet gate connection and flanged outlet gate connection
- ☐ FG - with flanged inlet gate connection and grooved outlet gate connection
- ☐ L - less shut-off valves (grooved body connections)
- ☒ OSY - with flanged end OS&Y gate valves
- ☐ OSYG - with grooved end OS&Y gate valves
- ☐ PI - with Post Indicator Gate Valves
- ☐ BGVIC - with grooved end butterfly valves with integral supervisory switches
- ☐ Accessories
- ☐ Repair kit (rubber only)
- ☐ Thermal expansion tank (Model XT)
- ☐ OS & Y Gate valve tamper switch (OSY-40)

MODEL 350A
with OSY &
FSC option



MODEL
350A with
BGVIC option



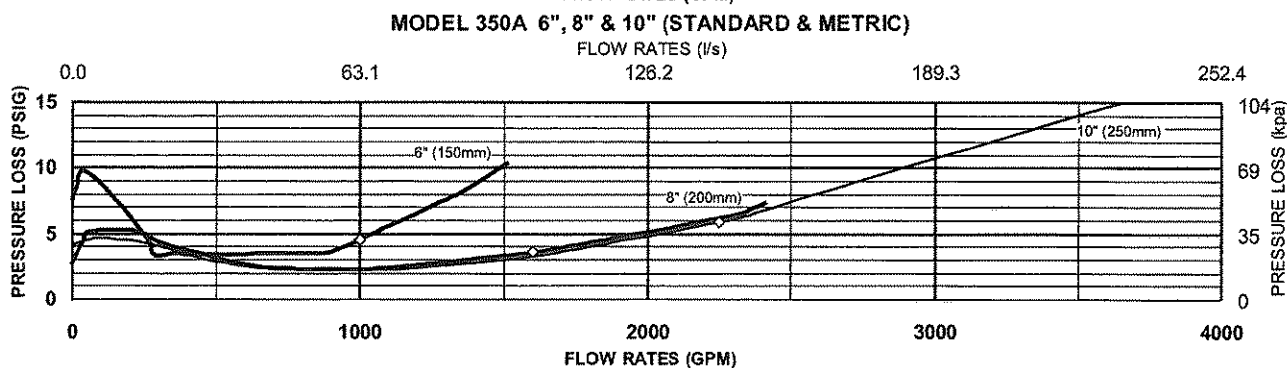
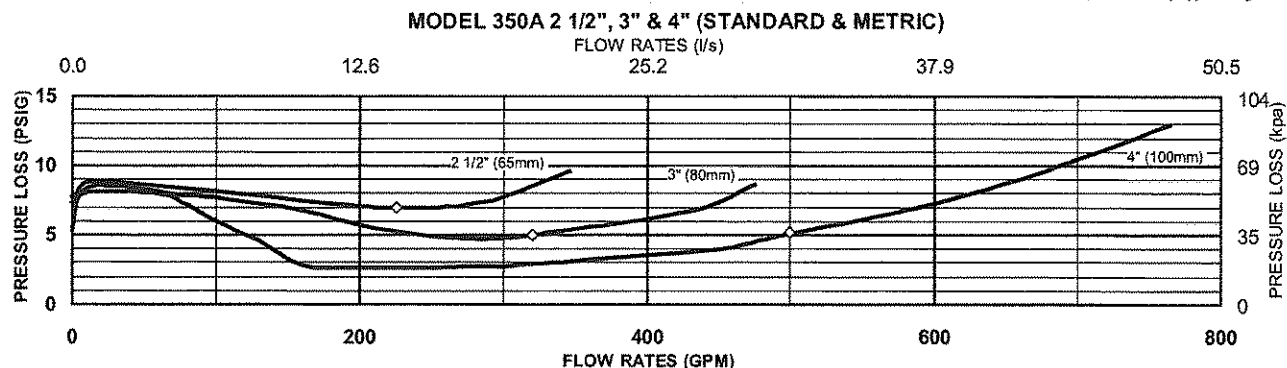
Zurn Industries, LLC | Wilkins
1747 Commerce Way, Paso Robles, CA U.S.A. 93446 Ph. 855-663-9876, Fax 805-238-5766
In Canada | Zurn Industries Limited
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 Ph. 905-405-8272, Fax 905-405-1292

www.zurn.com

Rev. C
Date: 12/13
Document No. BF-350A
Patent No. 5, 913, 331
Product No. Model 350A

Flow Characteristics

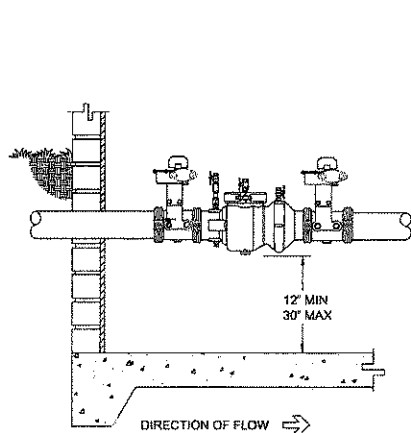
◇ Rated Flow (established by approval agencies)



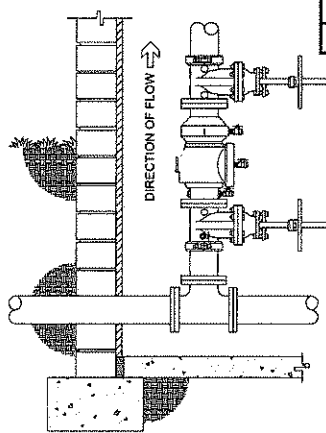
Typical Installation

Local codes shall govern installation requirements. Unless otherwise specified, the assembly shall be mounted at a minimum of 12" (305mm) and a maximum of 30" (762mm) above adequate drains with sufficient side clearance for testing and maintenance. The installation shall be made so that no part of the unit can be submerged.

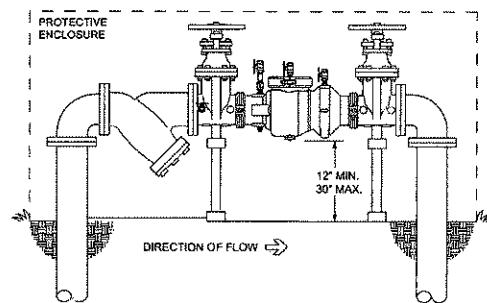
Capacity thru Schedule 40 Pipe (GPM)				
Pipe size	5 ft/sec	7.5 ft/sec	10 ft/sec	15 ft/sec
2 1/2"	75	112	149	224
3"	115	173	230	346
4"	198	298	397	595
6"	450	675	900	1351
8"	780	1169	1559	2339
10"	1229	1843	2458	3687
12"	1763	2644	3525	5288



**INDOOR INSTALLATION
MODEL 350ABGVIC**



**INDOOR INSTALLATION
(VERT.) MODEL 350A**



**OUTDOOR INSTALLATION
MODEL 350AFS**

Specifications

The Double Check Backflow Prevention Assembly shall be certified to NSF/ANSI 372, ASSE® Listed 1015, and supplied with full port gate valves. The main body and access cover shall be epoxy coated ductile iron (ASTM A 536 Grade 4), the seat ring and check valve shall be NORYL™, the stem shall be stainless steel (ASTM A 276) and the seat disc elastomers shall be EPDM. The checks shall be accessible for maintenance without removing the device from the line. The Double Check Backflow Prevention Assembly shall be a ZURN WILKINS Model 350A.

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