

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

LEAD FREE*

Colt™ Series C400-FS

Reduced Pressure Zone Assemblies

2½" – 10"

Colt Series C400-FS Reduced Pressure Zone Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. The series is normally used in health hazard applications for protection against backsiphonage, backpressure and the fouling of either check valve. Series C400-FS features Lead Free* construction to comply with Lead Free* installation requirements.

The series include an integrated flood sensor to detect excessive water discharges from the relief valve. The flood sensor relays a signal that triggers a multichannel alert (call, email, text) to notify personnel about potential flooding.

NOTICE

An add-on connection kit is required to activate the integrated flood sensor. Without the connection kit, the flood sensor is a passive component and will not communicate with any other device. (A retrofit sensor connection kit is also available for existing installations. For more information, download RP/IS-A-C400/C500-FS.)

Features

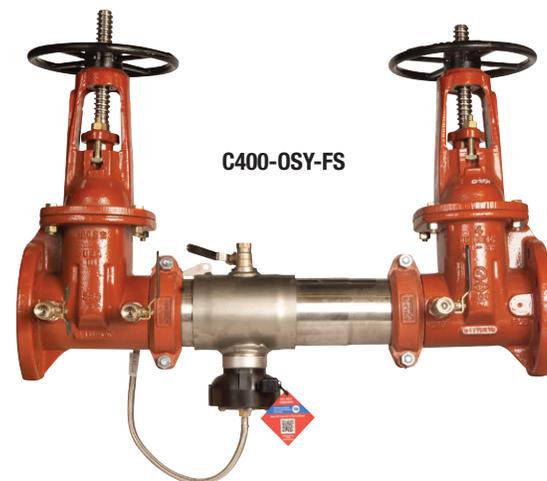
- Extremely compact design
- 70% lighter than traditional designs
- Type 304 (Schedule 40) stainless steel housing and sleeve
- Groove fittings for integral pipeline adjustment
- Patented link check for lowest pressure loss
- Unmatched ease of serviceability
- Available with grooved butterfly valve shutoffs
- Configurable for horizontal or N-pattern installation
- Replaceable check disc rubber
- Integrated sensor for flood detection
- Flood alert feature activated with add-on sensor connection kit

*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Ames Fire & Waterworks product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Ames Fire & Waterworks Technical Service. Ames Fire & Waterworks reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Ames Fire & Waterworks products previously or subsequently sold.



C400N-BFG-FS



C400-OSY-FS

NOTICE

Use of the integrated flood sensor does not replicate the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide proper drainage in the event of a discharge.

Watts® is not responsible for the failure of alerts due to connectivity or power issues.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

Inquire with governing authorities for local installation requirements.

AMES
FIRE & WATERWORKS
A WATTS Brand

Specification

The Colt C400 Reduced Pressure Zone Assemblies shall consist of two independent Link Check modules, a differential pressure relief valve located between and below the two modules, two drip tight shutoff valves, and required test cocks. Link Check modules and relief valve shall be contained within a sleeve accessible single housing constructed from Type 304 (Schedule 40) stainless steel pipe with groove end connections. Link Checks shall have reversible elastomer discs and in operation produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. Lead Free* Reduced Pressure Zone Assemblies shall be constructed using Lead Free* materials. It shall comply with state codes and standards, where applicable, requiring reduced lead content. Assembly shall be Colt C400 as manufactured by the Ames Fire & Waterworks, and shall include an integrated sensor for flood detection.

Materials

Housing & Sleeve: Type 304 (Schedule 40) stainless steel

Elastomers: EPDM, silicone, and Buna 'N'

Link Checks: Noryl®, stainless steel

Check Discs: Reversible silicone or EPDM

Test Cocks: Lead Free* bronze body

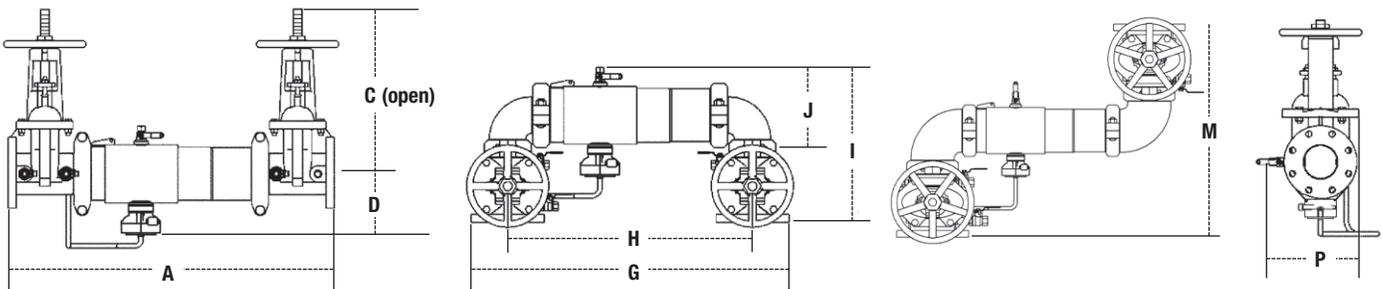
Pins & Fasteners: 300 Series stainless steel

Springs: Stainless steel

Configurations

- Horizontal
- "Z" pattern horizontal
- "N" pattern horizontal

Dimensions – Weights



C400, C400N, C400Z

SIZE	DIMENSIONS														WEIGHT													
	A		C (OSY)		C (NRS)		D		G		H		I		J		M		P		C400				C400N			
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	NRS		OSY		NRS		OSY	
2½	30¾	781	16¾	416	9¾	238	6½	165	29¼	738	21½	546	15½	393	8¾	223	21¼	540	9¾	234	118	54	128	58	126	57	136	62
3	31¾	806	18¾	479	10¼	260	6½	170	30¼	768	22¼	565	17¾	435	9¾	233	23	584	10½	267	134	61	148	67	147	67	161	73
4	33¾	857	22¾	578	12¾	310	7	178	35¾	905	23½	597	18½	470	9¾	252	26¼	667	11¾	284	164	74	164	74	187	85	187	85
6	43½	1105	30¾	765	16	406	8½	216	44¾	1137	35¼	895	23¾	589	13¾	332	34¼	870	15	381	276	125	298	135	317	144	339	154
8	49¾	1264	37¾	959	19¾	506	9½	246	54¾	1375	40¾	1019	27¾	697	15¾	399	36¾	937	17¾	437	441	200	483	219	516	234	558	253
10	57¾	1467	45¾	1162	23¾	605	11¾	285	66	1676	49¾	1257	32½	826	17¾	440	44½	1124	20	508	723	328	783	355	893	405	950	431

Noryl® is a registered trademark of SHPP Global Technologies B.V.

* The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

**Options for the gate valve:

- Consult factory for dimensions.
- Available with grooved NRS gate valves; consult factory.
- Post indicator plate and operating nut available; consult factory.

Approvals

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC), excluding 6" Z-pattern configuration
- AWWA C511-97



For additional approval information, contact the factory or visit our website at www.amesfirewater.com.

Model/Option

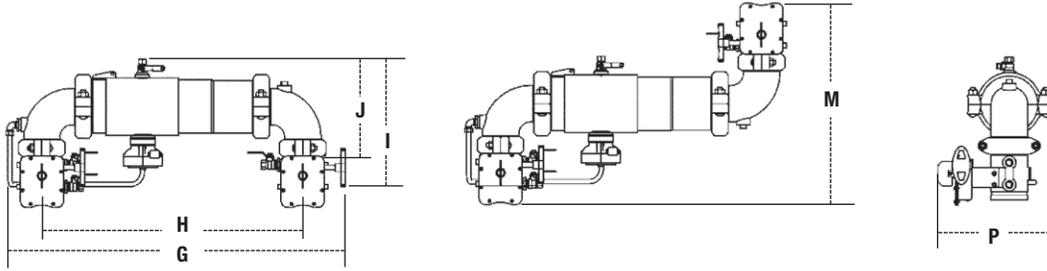
- FS – Integrated sensor for flood detection
- NRS – non-rising stem resilient seated gate valves
- OSY – UL Classified and FM Approved outside stem and yoke resilient seated gate valves
- BFG – UL Classified and FM Approved grooved gear operated butterfly valves with tamper switch
- OSY FxG** – Flanged inlet gate connection and grooved outlet gate connection
- OSY GxF** – Grooved inlet gate connection and flanged outlet gate connection
- OSY GxG** – Grooved inlet gate connection and grooved outlet gate connection

Pressure – Temperature

Temperature Range: 33°F – 140°F (0.5°C – 60°C)

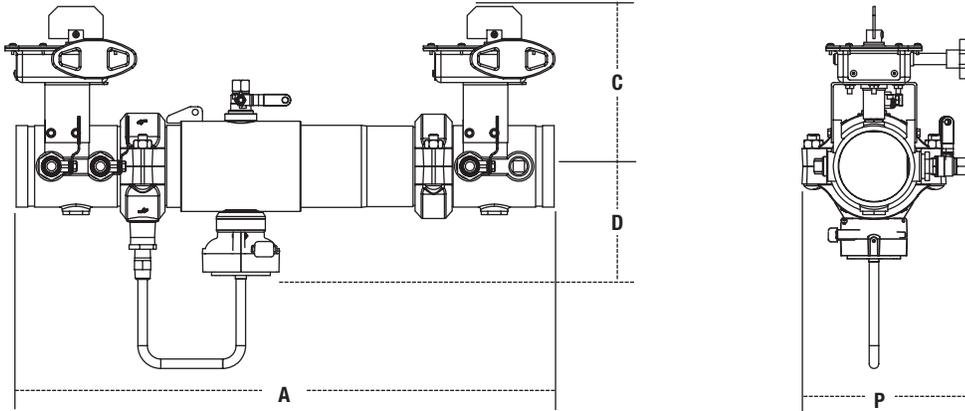
Maximum Working Pressure: 175 psi (12.1 bar)

Note: When installing a drain line on the Series C400 backflow preventer, use 400/500 air gap. Download ES-A-AG/EL/TC for additional information.



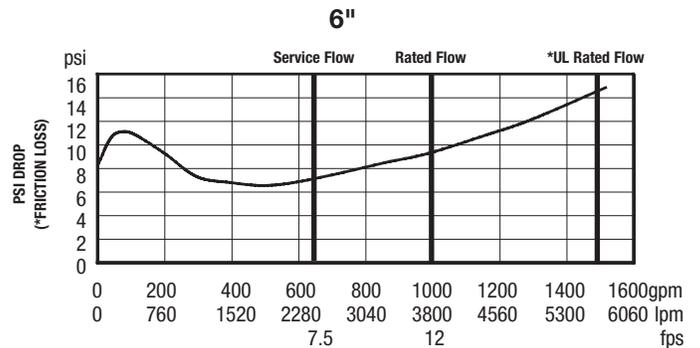
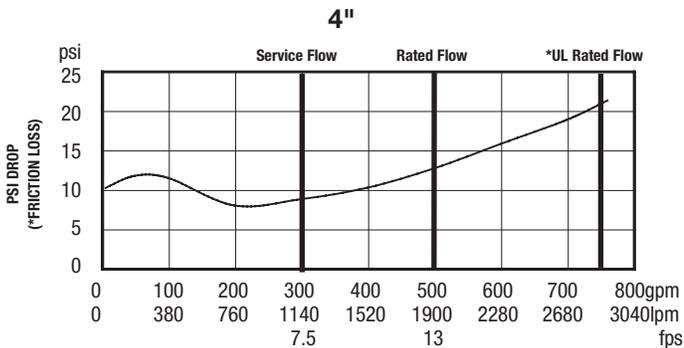
C400NBF, C400ZBF

SIZE		DIMENSIONS										WEIGHT			
in.	in.	G	mm	H	mm	I	mm	J	mm	M	mm	P	mm	C400N, C400Z	
														lb	kg
2½	23	584	584	23	584	15½	394	9½	241	19¾	502	11 ¹³ / ₁₆	300	67	30
3	24	610	610	24	610	16 ⁵ / ₁₆	414	10 ¹ / ₁₆	256	21¼	540	12 ¹ / ₈	308	70	32
4	35 ⁵ / ₈	905	905	35 ⁵ / ₈	905	17 ⁷ / ₁₆	437	10 ¹⁵ / ₁₆	279	23½	597	12 ⁵ / ₈	321	87	39
6	35¼	895	895	35¼	895	20½	521	13½	343	27¼	692	15	382	160	73



C400 BFG

SIZE		DIMENSIONS					WEIGHT				
in.	in.	A	mm	C	mm	D	mm	P	mm	lb	kg
4	29	737	737	7¾	197	6 ⁵ / ₈	162	9½	241	66	30
6	36½	927	927	9 ¹ / ₁₆	246	7 ⁷ / ₁₆	189	14¼	362	122	55



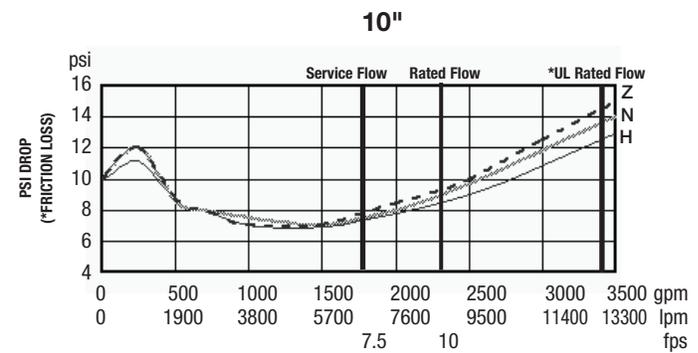
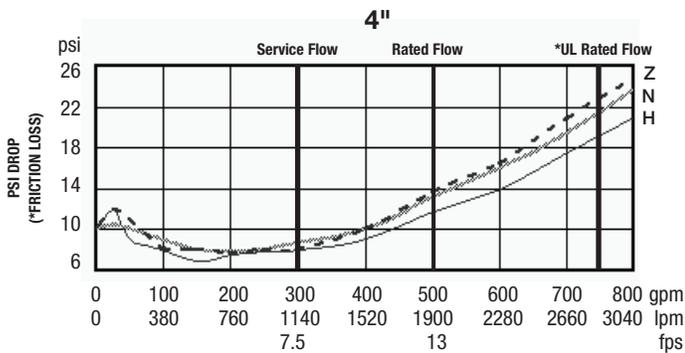
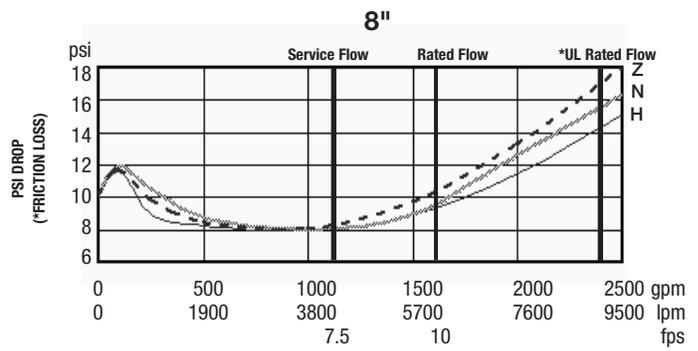
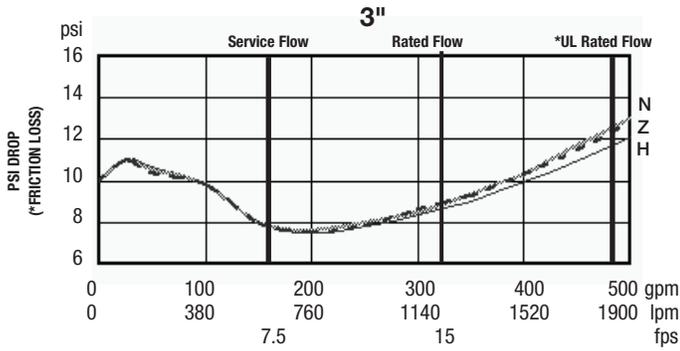
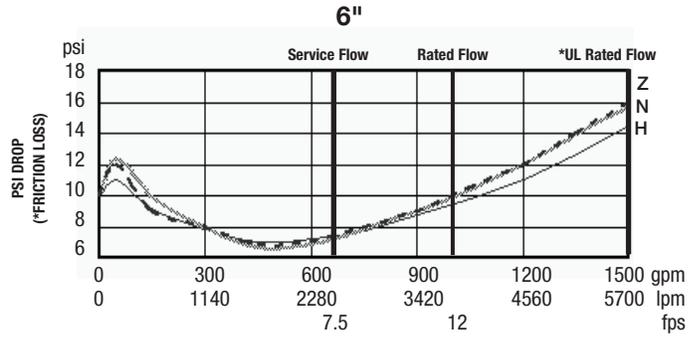
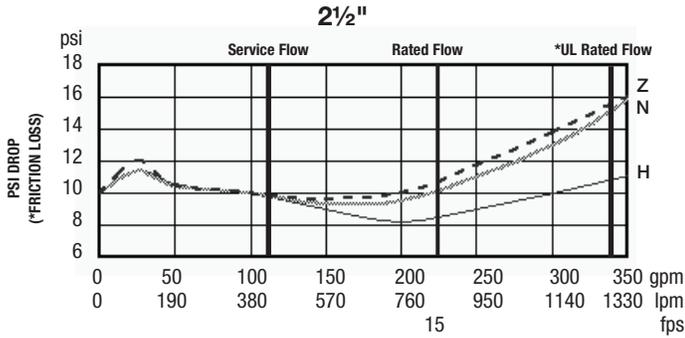
Capacity

UL Classified and FM Approved certified flow characteristics.
 N and Z flow characteristics collected using butterfly shutoff valves.

— Horizontal — N - Pattern - - - - Z - Pattern

Flow capacity chart identifies valve performance based upon rated water velocity up to 25 fps.

- Service Flow is typically determined by a rated velocity of 7.5 fps based upon Schedule 40 pipe.
- Rated Flow identifies maximum continuous duty performance determined by AWWA.
- UL Flow Rate is 150% of Rated Flow and is not recommended for continuous duty.
- AWWA Manual M22 (Appendix C) recommends that the maximum water velocity in services be not more than 10 fps.



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