Job Name	Contractor
Job Location	Approval
	Contractor's P.O. No.
Engineer	Contractor's P.O. No.
Approval	Representative

# **LEAD FREE\***

## **Series 957, 957N, 957Z**

#### Reduced Pressure Zone Assemblies

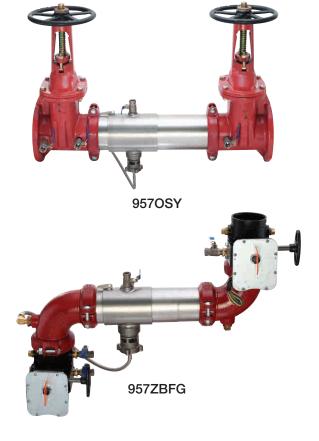
Sizes: 2½" - 10" (65 - 250 mm)

Series 957, 957N, 957Z Reduced Pressure Zone Assemblies provide protection to the potable water system from contamination in accordance with national plumbing codes. Series 957, 957N, 957Z are normally used in health hazard applications for protection against backsiphonage or backpressure.

Series 957 is also available with SentryPlus<sup>™</sup> Alert technology to detect catastrophic relief valve discharge that could potentially cause flooding, and issue a multi-channel alert (call, email, text) to selected users so they can take action to avoid potentially costly flooding.

#### **Features**

- 2½", 3" and 4" (65, 80 and 100mm) sizes available with quarter-turn ball valve shutoffs
- Replaceable check disc rubber
- Extremely compact design
- 70% Lighter than traditional designs
- 304 (Schedule 40) stainless steel housing & sleeve
- Groove fittings allow integral pipeline adjustment
- Patented torsion spring checks provide lowest pressure loss
- Unmatched ease of serviceability
- Bottom mounted cast stainless steel relief valve
- Available with grooved butterfly valve shutoffs





#### 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.

#### NOTICE

Inquire with governing authorities for local installation requirements

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



#### **Specifications**

The Reduced Pressure Zone Assembly shall consist of two independent torsion spring check modules, a differential pressure relief valve located between and below the two modules, two drip tight shutoff valves, and required torsion spring check modules and relief valve shall be contained with a sleeve accessible single housing constructed from 304 (Schedule 40) stainless steel pipe with groove end connections. Torsion spring checks shall have replaceable elastomer discs and in operation produce drip tight closure against the reverse flow of liquid caused by backpressure or backsiphonage. Assembly shall be a Watts Regulator Company Series 957, 957N, 957Z.

#### NOTICE

When installing a drain line on Series 957 backflow preventers, use 957AG air gaps. See ES-AG/EL/TC for additional information.

#### **Available Models & Options**

Suffix:

NRS – non-rising stem, resilient seated gate valves
OSY – UL/FM outside stem and yoke resilient seated gate valves

BFG – UL/FM grooved gear operated butterfly valves

with tamper switch

QT – 21/2" - 4" (65 - 100mm) quarter-turn ball valves

\*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

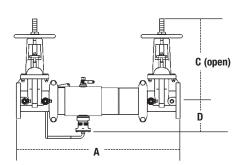
\*\*\*\*ALERT with SentryPlus™ Alert flood detection system

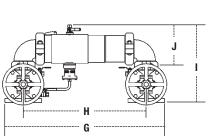
\*Available with grooved NRS gate valves – consult factory

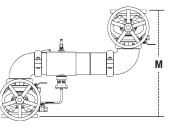
\*\*Post indicator plate and operating nut available - consult factory

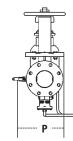
\*\*\*Consult factory for dimensions

\*\*\*\* Not available with the 957N or 957Z



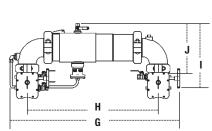


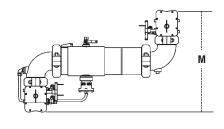


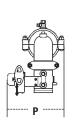


957, 957N, 957Z

SI	SIZE (DN) DIMENSIONS WEIGH															GHT	нт												
		А		C (OSY)		C (NRS)		D		G		Н		1		J		М		P		957NRS		9570SY		957N NRS		957N OSY	
in	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.	lbs.	kgs.
21/	65	30¾	781	16%	416	93/8	238	61/2	165	291/16	738	21½	546	15½	393	813/16	223	211/4	540	93/16	234	118	54	128	58	126	57	136	62
3	80	31¾	806	181/8	479	101/4	260	611/16	170	301/4	768	221/4	565	171//8	435	93/16	233	23	584	10½	267	134	61	148	67	147	67	161	73
4	100	33¾	857	223/4	578	123/16	310	7	178	33	838	23½	597	18½	470	915/16	252	261/4	667	<b>11</b> <sup>3</sup> ⁄ <sub>16</sub>	284	164	74	164	74	187	85	187	85
6	150	431/2	1105	301//8	765	16	406	81/2	216	443/4	1137	33½	851	233/16	589	131/16	332	341/4	870	15	381	276	125	298	135	317	144	339	154
8	200	49¾	1264	37¾	959	<b>19</b> <sup>15</sup> ⁄ <sub>16</sub>	506	911/16	246	541//8	1375	401//8	1019	277/16	697	<b>15</b> <sup>11</sup> / <sub>16</sub>	399	367//8	937	<b>17</b> <sup>3</sup> ⁄ <sub>16</sub>	437	441	200	483	219	516	234	558	253
10	250	57¾	1467	45¾	1162	23 <sup>13</sup> / <sub>16</sub>	605	<b>11</b> <sup>3</sup> ⁄ <sub>16</sub>	285	66	1676	49½	1257	32½	826	<b>17</b> <sup>5</sup> ⁄16	440	441/2	1124	20	508	723	328	783	355	893	405	950	431







#### 957NBFG, 957ZBFG

SIZ	SIZE (DN) DIMENSIONS															
		(	3	ŀ	1	ı		J		N	1	P		957N/957Z		
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	
21/2	65	321/2	826	23	584	15½	394	91/2	241	19¾	502	<b>11</b> <sup>13</sup> ⁄ <sub>16</sub>	300	67	30	
3	80	34	864	24	610	<b>16</b> 5⁄16	414	101/16	256	211/4	540	121//8	308	70	32	
4	100	35%	905	25½	648	173/16	437	1015/16	279	23½	597	125/8	321	87	39	
6	150	461/2	1181	351/4	895	201/2	521	13½	343	271/4	692	15	382	160	73	

#### Dimensions — Weight

#### Materials

Housing & Sleeve: 304 (Schedule 40) Stainless Steel

Elastomers: EPDM, Silicone and Buna-N Torsion Spring Checks: Noryl®, Stainless Steel Check Discs: Reversible Silicone or EPDM Test Cocks: Bronze Body Nickel Plated Pins & Fasteners: 300 Series Stainless Steel

Springs: Stainless Steel

#### Pressure - Temperature

Temperature Range:  $33^{\circ}F - 140^{\circ}F$  (0.5°C - 60°C) Maximum Working Pressure: 175psi (12.1 bar)

#### Dimensions — Weight continued

# C

#### **Approvals**

- Approved by the Foundation for Cross-Connection Control and Hydraulic Research at The University of Southern California (FCCCHR-USC)
   (Excluding 'N' Pattern – 10", 'Z' Pattern – 6" and 10")
- AWWA C551-92





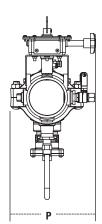






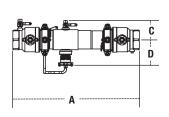
1013 B64.4 (\*\*BFG & OSY Only)

For additional approval information please contact the factory or visit our website at Watts.com

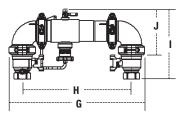


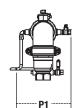
#### 957 BFG

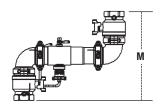
SIZ	SIZE (DN) DIMENSIONS													
		A	1	C	;	D	)	F	)					
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.			
4	100	29	737	7¾	197	6%	162	9½	241	66	30			
6	150	36½	927	911/16	246	77/16	189	141/4	362	122	55			











#### 957QT

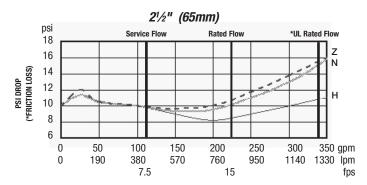
SI	DIMENSIONS DIMENSIONS															WEIGHT								
		A		С		D		G		Н		I	J	J		M		Р		P1		QT		QTN
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in. mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.	lbs.	kgs.
2 1/	2 65	271/2	698	47/8	124	67/8	175	301/4	768	21½	546	16 <sup>1</sup> / <sub>16</sub> 407	11%	289	19 <sup>7</sup> /8	505	115/16	287	<b>11</b> <sup>5</sup> ⁄ <sub>16</sub>	287	46	21	57	26
3	80	28	711	47/8	124	6 <sup>7</sup> /8	175	301/4	768	221/4	565	16% 420	11%	289	20 <sup>7</sup> /8	531	115/16	287	<b>11</b> <sup>5</sup> ⁄ <sub>16</sub>	287	56	25	67	30
4	100	283/4	730	47/8	124	67/8	175	301/4	768	23½	597	18 <sup>5</sup> / <sub>16</sub> 465	11%	289	243/8	619	115/16	287	<b>11</b> 5/16	287	76	34	87	39

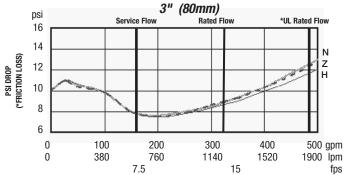
#### Capacity

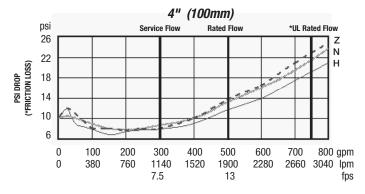
Series 957, 957N, 957Z flow curves as tested by Underwriters Laboratory.

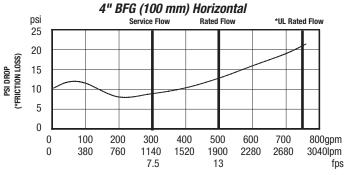
Flow characteristics collected using butterfly shutoff valves

\_\_\_\_\_ Horizontal \_\_\_\_\_ N-Pattern \_\_\_\_ Z-Pattern





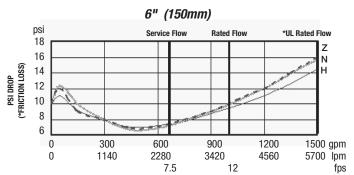


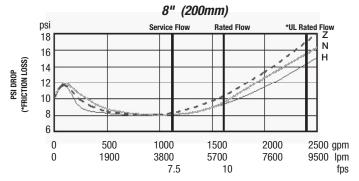


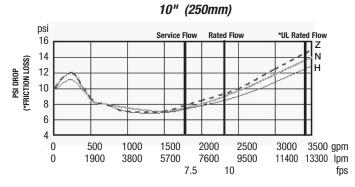
# **WATTS**®

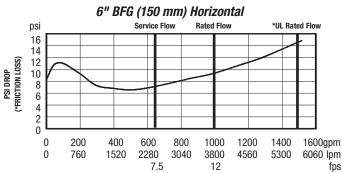
### Flow capacity chart identifies valve performance based upon rated water velocity up to 25fps

- Service Flow is typically determined by a rated velocity of 7.5fps 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 10fps.









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