

PRODUCT GUIDE www.wattsreg.com

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### Introduction

#### Protecting Our Drinking Water

As a contractor, engineer, inspector or end-user, you're acutely aware of the potential hazards posed by cross connections in domestic and public water distribution systems. Any compromises in protection can result in serious health threats and potential property damage. Fortunately, Watts Regulator offers a variety of proven products to help prevent back-siphonage backflow.

#### Presenting Watts Full Line of Vacuum Breakers

At Watts Regulator, we offer a variety of proven products to help prevent backflow and back siphonage. Our Series 800M4QT Pressure Vacuum Breakers, Series 008PCQT Anti-Siphon, Spill Resistant Vacuum Breakers, 800M4FR Freeze-Resistant Pressure Vacuum Breakers, 800MQT Compact Pressure Vacuum Breakers and ideal for use in both health and non-health hazard applications.

Since these devices provide back-siphonage protection only, they must not be installed where backpressure can be introduced, such as systems with downstream elevated piping or pressure pumps. They are, however, ideal for continuous-pressure applications, including irrigation sprinkler systems, chemical plating tanks, photo processing tanks, and livestock watering systems.

Our point-of-use Series 8 hose connection atmospheric anti-siphon vacuum breakers are designed for use on hose bib connections downstream of the last control valve. These devices can be used in health hazard applications.

Our Series 188AA, 288, 289 and N388 atmospheric anti-siphon vacuum breakers for piping systems are ideal for use on irrigation systems, process tanks and dispensers. These devices can be used in health hazard applications.

The following pages of this guide detail the applications, performance and specifications of the Watts line of vacuum breaker solutions.

# Series 800MQT, 800MCQT

**Compact Pressure Vaccuum Breakers** 

Sizes: 1/2", 3/4"

#### Description

Designed to prevent back-siphonage of contaminated water into the potable water supply. Features space-saving design and integral test cocks for easy testing to insure proper operation. Commonly used on plumbing or industrial process water systems and other continuous pressure piping system applications where the water enters the equipment at or below its flood rim. The disc float and check valve are suitable for temperatures up to 210°F (98.9°C). The durable silicone disc on the float and the check valve have high heat and shock resistance.

### Standards 🚯 📾 🕅

This valve complies with the ASSE, IAPMO listed, file No. 1913 and CSA B64.1.2. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California.

**Important:** Inquire with governing authorities for local installation requirements.

#### Specifications

An anti-siphon pressure vacuum breaker shall be installed where indicated on the plans to prevent the back-siphonage of contaminated water. This assembly is not to be used where there is a possibility that a backpressure condition may develop. The assembly shall include a bronze-bodied pressure vacuum breaker with two integral ball valve shutoffs and test cocks. The assembly shall meet the requirements of ASSE Standard 1020 and CSA B64.1.2. Approved by the Foundation for Cross-Connection Control and Hydraulic Research at the University of Southern California. The valve shall be a Watts Regulator Company Series 800MQT.







#### Materials

Bronze body, brass hood, bronze bonnet, silicone rubber vent disc and check valve disc, bronze check valve seat, polyethylene disc holder float.

#### Options

800MCQT - Chrome finish.

#### Dimensions/Weight (Approx.)





MODEL	ORDERING CODE	SIZ	E (DN)	WEIGHT			
		in.	mm	lbs.	kgs.		
800MQT	0384996	1/2	15	3	1.4		
800MCQT	0384997	1/2	15	3	1.4		
800MQT	0385006	3/4	20	3	1.4		
800MCQT	0385008	3/4	20	3	1.4		



# Series 008PCQT Anti-Siphon, Spill Resistant, Vacuum Breakers

Sizes: 3/8", 1/2", 3/4" and 1"

#### Description

Designed for indoor point-of-use applications to prevent back-siphonage of contaminated water into the potable supply. Separation of the water supply from the air inlet is accomplished by means of a diaphragm seal. This feature protects against any spillage during start-up. The patented design is standardly supplied with Tee handles and is available in left-handed or right-handed outlets, satin chrome, with strainer, and internally polymer coated to prevent mineral deposits.

# Standards 📾

Tested and certified to meet ASSE Standard 1056. IAPMO classified.

3%" and 1" 008PCQT approved by the Foundation for Cross-Connection Control and Hydronic Research at the University of Southern California.

Important: Inquire with governing authorities for local installation requirements.

#### Specification

An anti-siphon, spill-resistant vacuum breaker (SVB) shall in installed, in accordance with the manufacturer's instructions, as noted on the plans. The valve shall consist of a onepiece modular check and float assembly made of engineered thermoplastic and housed in a bronze body. Springs shall be stainless steel. The valve shall be constructed with a molded diaphragm separating the air inlet from the potable water supply to prevent spillage. The valve shall be a Watts Regulator Company Series 008PCQT.

#### Materials

Bronze body, stainless steel springs, bonnet and disc holder injection molded of PPO, EPDM vent disc and silicone rubber check disc.

#### Pressure/Temperature

Max. pressure: 150psi (10 bars) Min. pressure: 8psi (55 kPa) Working temperature: 33°F to 180°F (0.6°C to 82°C)

#### Options:

008PCQT-L - Left 008PCQT-SC - Satin Chrome Finish 008PCQT - Internal Polymer Coating 008PCQT-S - Internal Polymer Coating with Strainer

# 







#### Dimensions/Weight (Approx.)

ORDERI	NG CODE	SIZE	E (DN)			DIMENS	SIONS			WE	IGHT
				E	В		1		E		
008PCQT	008PCQT-SC	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
0385422	0385432	<sup>3</sup> /8	10	5 <sup>1</sup> /2	140	3 <sup>15</sup> /16	100	3 <sup>1</sup> /8	79	1.6	.73
0385423	0385433	1/2	15	5 <sup>3</sup> /4	146	4 <sup>3</sup> /16	106	33/8	86	1.7	.77
0385430	0385434	3/4	20	7	178	4 <sup>5</sup> /8	117	41/2	114	3.8	1.72
0385431	0385435	1	25	<b>7</b> 1/2	191	51/8	130	41/8	124	4.8	2.18
008PCQT-S	008PCQT-S			В	S						
0385441	0385441	<sup>3</sup> /8	10	77/8	200	3 <sup>15</sup> /16	100	31/8	79	3.4	1.54
0385442	0385442	1/2	15	81/2	216	4 <sup>3</sup> / <sub>16</sub>	106	33/8	86	3.5	1.59
0385443	0385443	3/4	20	10 <sup>1</sup> /4	260	4 <sup>5</sup> /8	117	<b>4</b> <sup>1</sup> / <sub>2</sub>	114	5.6	2.54
0385444	0385444	1	25	<b>11</b> <sup>3</sup> / <sub>16</sub>	284	51/8	130	47/8	124	7.6	3.45



# Series 800M4QT Pressure Vacuum Breakers

Sizes: 1/2" - 2"

#### Description

Providing superior protection in a compact design, this valve is designed to prevent back-siphonage of contaminated water into a potable water supply. It is ideal for turf irrigation systems, industrial process water systems, and other continuous pressure piping system applications where the water enters the equipment at or below its flood rim. The disc float and check valve are suitable for temperatures up to 140°F (60°C). The resilient silicone rubber sealing float O-ring and seal check disc are resistant to heat, shock and chemical attack.



#### Standards 🕚 📾 🕅

Tested and certified in conformance with ANSI/ASSE 1020, CSA B64.12 and IAPMO. Approved by the USC Foundation for Cross-Connection Control and Hydraulic Research, Manual Section 10.

Important: Inquire with governing authorities for local installation requirements.

#### **Specifications**

A pressure anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the back-siphonage of contaminated water. This assembly is not to be used where there is a possibility that a back pressure condition may develop. The assembly will incorporate an acetal bonnet with silicone rubber O-ring seal and silicone rubber seat disc. The valve shall have replaceable seats. Check assembly shall be guided over its full stroke by 'V' notch guides. The assembly shall meet the requirements of ANSI/ASSE Standard 1020. The valve shall be a Watts Regulator Company Series 800M4QT.

#### Materials

Bronze body, stainless steel springs, celcon bonnet, silicone rubber vent disc and check valve disc, Noryl® plastic check valve seat and polypropylene disc holder float.

#### Pressure/Temperature

Max. pressure: 150psi (10 bars) Min. pressure: 15psi (55 kPa) Working temperature: 33°F to 140°F (0.6°C to 60°C)

#### Suffix

SH Stainless Steel handles

#### Dimensions/Weight (Approx.)

В		
	Α	

ORDERING CODE	SIZE	(DN)		DIMENSIONS												
				A B C D E G												
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs.
0387096	1/2	15	6 <sup>1</sup> /8	156	61⁄4	159	2%16	65	311/16	94	37/8	98	21/4	57	4	1.8
0388001	3/4	20	<b>6</b> <sup>1</sup> / <sub>2</sub>	165	6 <sup>1</sup> /2	165	2%16	65	315/16	100	4 <sup>1</sup> /8	105	21/4	57	4	1.8
0388002	1	25	<b>7</b> <sup>1</sup> / <sub>2</sub>	191	<b>7</b> <sup>1</sup> / <sub>2</sub>	191	23/4	70	43/4	121	47/8	124	37/16	87	6	2.7
0387126	11/4	32	87/8	225	85/8	229	31/4	83	5 <sup>3</sup> /4	146	6 <sup>1</sup> /8	156	5	127	11	5.0
0387114	11/2	40	<b>9</b> <sup>1</sup> / <sub>4</sub>	235	9	229	31/4	83	6 <sup>1</sup> /4	159	6 <sup>3</sup> /8	162	5	127	14	6.4
0387112	2	50	105/8	270	<b>9</b> 1/2	241	31/4	83	6 <sup>3</sup> /8	162	7	178	5	127	19	8.6















# Series 800M4FR

Freeze-Resistant Pressure Vacuum Breakers

Sizes: 1/2" - 2"

#### Description

Designed to prevent back-siphonage of contaminated water under continuous pressure into the potable water supply. Its superior design protects the valve body and internal components during sudden freeze conditions. Water inside the PVB freezes from the outside-inward.

As the ice forms and expands, causing a buildup of pressure in excess of 350-450psi, the 800M4FR relieves the pressure through a unique relief valve built into the plastic float.

Test cocks are positioned low for winterization draining. The 800M4FR is reusable with the relief valve designed to automatically re-seat. It will not discharge through the relief valve during normal operation. (The built-in relief valve is not designed to provide freeze protection for the entire irrigation system.)

Patent

#5551473

### Standards 🐠 📾 🐯

Tested and certified in conformance with ANSI/ASSE 1020, CSA B64.12 and IAPMO. Approved by the USC Foundation for Cross-Connection Control and Hydraulic Research, Manual Section 10.

Important: Inquire with governing authorities for local installation requirements.

#### Specifications

A pressure anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the back-siphonage of contaminated water. This assembly is not to be used where there is a possibility that a back pressure condition may develop. The assembly will incorporate an acetal bonnet with silicone rubber O-ring seal and silicone rubber seat disc. The valve shall have replaceable seats. Check assembly shall be guided over its full stroke by 'V' notch guides.

The assembly shall include an internal, built-in relief valve designed to protect the internal components and the backflow body from freezing. The relief valve shall be repeatable, automatically re-seating when the pressure within the valve is below the set point of the freeze relief valve.

The assembly shall meet the requirements of ANSI/ASSE Standard 1020.

The valve shall be a Watts Regulator Company Series 800M4FR.

#### Materials

Bronze body, stainless steel springs, Celcon® acetal bonnet, silicone rubber vent disc and check valve disc, Noryl® plastic check valve seat and polypropylene disc holder float.

#### Pressure/Temperature

Max. pressure: 150psi (10 bars) Min. pressure: 15psi (55 kPa) Working temperature: 33°F to 140°F (0.6°C to 60°C)

#### Suffix

SH - Stainless Steel Handles

#### Dimensions/Weight (Approx.)

Same as 800M4QT on page 6.

ORDERING CODE	SIZI	E (DN)	ORDERING CODE	SIZE (DN		
	in.	тт		in.	тт	
0388013	1/2 15		0388016	1 <sup>1</sup> /4	32	
0388014	<sup>3</sup> / <sub>4</sub> 20		0388017	11/2	40	
0388015	1	25	0388018	2	50	





\* Now Available, Watts Box Insulated Enclosures. For more information, send for ES-WB or ES-WB-T.

# **Series 8/S8** Hose Connection Vacuum Breakers

Size: 1/2", 3/8", 3/4"

#### Description

Series 8 is a line of unique vacuum breakers specially made to permit the attachment of portable hoses to hose thread faucets. Designed to prevent the flow of contaminated water back into the potable water supply, these devices require no plumbing changes, and screw directly onto a sill cock.

Series 8 can be used on a wide variety of installations, such as service sinks, swimming pools, photo developing tanks, laundry tubs, wash racks, dairy barns, marinas and general outside gardening uses.

Watts Series S8C is a unique device specially made for use with tub and shower hand spray sets. The device is screwed directly between shower head and hose. Its purpose is to prevent the flow of contaminated water back into the potable water supply.

#### Standards 🕚 📾 🕾

Tested and certified under ANSI A1121.3 (ASSE 1011). Certified by CSA B64.2. IAPMO listed.

Important: Inquire with governing authorities for local installation requirements.

#### Specifications

A hose connection type anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the back-siphonage of contaminated water. Internal components shall be stainless steel and plastic for corrosion resistance. Valve shall have resilient seating in both the check and air inlet seats. This device is not to be used under continuous pressure or where the possibility of a back pressure condition may develop. The valve shall be ASSE approved and shall meet the requirements of ANSI A112.1.3, ASSE Standard 1011. The valve shall be a Watts Regulator Company Series 8.

#### Materials

Brass body, stainless steel working parts, durable rubber diaphragm and disc.

#### Pressure/Temperature

Working pressure: 125psi (8.6 bars) Maximum temperature: 180°F (82°C)

#### Dimensions/Weight

MODEL	ORDERING CODE	SIZE (	DN)	DIME	NSION	rox.)	WEIGHT			
					A	E	3			
		in.	mm	in.	mm	in.	тт	0Z.	gm.	
8	0061982	<sup>3</sup> /4 HT	20	1 <sup>3</sup> /8	35	11/2	38	4	113.4	
8A	0061877	3/4 HT	20	11/2	38	1 <sup>3</sup> /4	38	4	113.4	
8AC	0063055	3/4 HT	20	11/2	38	11/2	38	4	113.4	
8B	0061983	3/4 HT	20	11/2	38	1 <sup>3</sup> /8	35	4	113.4	
8BC	0065986	3/4 HT	20	13/8	35	1 <sup>1</sup> / <sub>2</sub>	38	4	113.4	
8C	0061985	<sup>3</sup> /4 HT	20	1 <sup>3</sup> /8	35	1 <sup>1</sup> /2	38	4	113.4	
NF8	0061854	<sup>3</sup> /4 HT	20	1 <sup>1</sup> / <sub>2</sub>	38	2	50	5.3	151.2	
NF8C	0061855	3/4 HT	20	<b>1</b> ½	38	2	50	5.3	151.2	
8P	0061868	3/4 HT	20	13/4	44	13/8	35	2	56.7	
8FR	0061853	3/4 HT	20	1 <sup>3</sup> /4	44	13⁄4	38	4	113.4	
S8	0061852	1/2 F**	15	<b>1</b> <sup>1</sup> / <sub>4</sub>	32	11/2	38	1.5	42.5	
S8C	0061867	1/2 F**	15	1 <sup>1</sup> /4	32	11/2	38	4	113.4	
S8C	0062029	<sup>3</sup> /8 F**	10	1 <sup>1</sup> /4	32	1 <sup>1</sup> / <sub>2</sub>	38	4	113.4	



HT = Hose threaded connections, female inlet x male outlet connection \*\*Female threaded inlet x male NPT outlet connection



#### Models

No. 8 - Removable hose connection vacuum breaker, non-draining feature.

No. 8A - Patented "Non-Removable" hose connection vacuum breaker, manually drainable. Note: only install on sill cocks containing four full threads.

**No. 8B** - Hose connection vacuum breaker, with break-away set screw for tamper-resistant installation, manually drainable.

**No. NF8** - Hose connection vacuum breaker, for wall and yard hydrants. Permits manual draining for freezing conditions.

**No. 8P** - Patented "Non-Removable" hose connection vacuum breaker, drainable, constructed of corrosion-resistant, thermoplastic.

No. 8AC, 8C, 8BC or NF8C - Same as above but furnished with chrome finish.

**No. 8FR** - Patented with freeze relief feature. Protects the valve from freeze damage with or without the hose attached.

No. S8 - Plain Brass

No. S8C - Polished Chrome Finish



Installation - Inside Service Sink

# Series 188A/288A

### Atmospheric Vacuum Breakers for Irrigation Systems (188A) Hot or Cold Water Anti-Siphon Vacuum Breakers (288A)

Size: 3/4" - 2 188A / 1/4" - 3" 288A

#### Description

Designed to prevent the backsiphonage of contaminated water into the potable water supply. Features a lightweight, durable "disc float" suitable for temperatures up to 180°F (82°C) which closes the atmospheric vent to prevent spilling under all rates of flow. Upon downstream demand, the vent disc assembly rises, sealing the atmospheric vent, allowing water to flow. A loss of supply pressure or the creation of a negative supply pressure causes the vent disc assembly to drop, opening the atmospheric vent and closing the supply side orifice. This prevents backflow by allowing atmospheric pressure to satisfy a vacuum condition on the supply side of the valve. Recommended for low flow installations such as laboratory equipment which use small amounts of water. Contains a durable silicone disc which has high heat and water hammer shock resistance and ensures tight seating with the lightest of seating contacts.

#### Standards 🕸 📾

Tested and certified to meet ASSE 1001. IAPMO classified, CSA B64.1.1 through 1". **Important:** Inquire with governing authorities for local installation requirements.

#### Specifications

An atmospheric-type anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the backsiphonage of contaminated water. This device is not to be used under continuous pressure or where there is a possibility that a back pressure condition may develop. The device shall meet the requirements of ASSE Standard 1001, ANSI A112.1.1 and CSA B64. The valvel shall be a Watts Regulator Company Series 188A/288A.

#### Materials

Brass body construction with bronze internal trim. Durable silicone seat disc features excellent chemical and heat resistance. Plastic disc float minimizes deposits and scaling. Size  $\frac{1}{4}$  - 1" in either plain brass or polished chrome,  $1\frac{1}{4}$  - 3" in plain brass finish.

#### Pressure/Temperature

Working pressure: 125psi (8.6 bars) Maximum temperature: 180°F (82°C)













#### Dimensions/Weight

PLA	AIN BRASS	POLISH	IED CHROME	POLIS	POLISHED CHROME		e (DN)			DIN	IENSION	S (appro	ох.)			WE	IGHT
MODEL	ORDERING CODE	MODEL	ORDERING CODE	MODEL	ORDERING CODE			А		В		С		D			
						in.	mm	in.	mm	in.	тт	in.	mm	in.	mm	OZ.	gm.
_	_	288A	0336380	288A-C	0339977	1/4	6	13/4	44	21/4	57	<b>1</b> <sup>1</sup> / <sub>4</sub>	32	1	25	6	170
_	—	288A	0336390	288A-C	0339985	<sup>3</sup> /8	10	13/4	44	2 <sup>1</sup> /4	57	11/4	32	1	25	6	170
—	_	288A	0336400	288A-C	0339980	1/2	13	2	50	2 <sup>3</sup> /4	70	11/2	38	11/4	32	8	227
188A	0340971	288A	0336410	288A-C	0339990	<sup>3</sup> /4	19	2 <sup>1</sup> /4	57	3	76	11/2	38	1 <sup>1</sup> /2	38	18	510
188A	0340972	288A	0336416	288A-C	0350096	1	25	27/8	73	35/8	92	17/8	48	1 <sup>3</sup> /4	44	28	794
188A	0340973	288A	0336500	_	—	<b>1</b> 1/4	32	27/8	73	33/4	95	11/8	48	11/8	48	34	964
188A	0340974	288A	0336510	—	—	11/2	38	35/8	92	4 <sup>1</sup> / <sub>2</sub>	114	2 <sup>1</sup> /4	57	21/4	57	54	1531
188A	0340975	288A	0336515	_	—	2	50	4	100	51/8	130	25/8	67	<b>2</b> <sup>1</sup> / <sub>2</sub>	64	84	2381
—	—	288A	0336517	_	—	2 <sup>1</sup> / <sub>2</sub>	63	<b>6</b> <sup>1</sup> / <sub>2</sub>	165	<b>7</b> <sup>1</sup> / <sub>2</sub>	191	41/2	114	3	76	256	7258
	_	288A	0336520	—	_	3	76	<b>6</b> <sup>1</sup> / <sub>2</sub>	165	8	200	45⁄/8	117	33/8	86	274	7768 9

# Series N388 Hot or Cold Water Anti-Siphon Vacuum Breakers

Sizes: 1/4" and 3/8"

#### Description

Designed to prevent the backsiphonage of contaminated water into the potable supply. Features a lightweight durable "disc float" suitable for temperatures up to 180°F (82°C) which closes the atmospheric vent to prevent spilling under all rates of flow. Recommended for low flow installations such as laboratory equipment which use small amounts of water. Contains a durable silicone disc which has high heat and water hammer shock resistance and ensures tight seating with the lightest of seating contacts.

Full-Size Orifice - All Series N388 valves have a full-size orifice to ensure pipe size capacity. Water passages are streamlined to provide high water flow with minimal pressure loss.

#### Standards 🐠 📾 🕅

Tested and certified to meet ASSE 1001, CSA B64.1.1 Important: Inquire with governing authorities for local installation requirements.

#### Specifications

An atmospheric-type anti-siphon vacuum breaker shall be installed where indicated on the plans to prevent the backsiphonage of contaminated water. This device shall include a lightweight disc float with silicone disc for tight seating. The device is not to be used under continuous pressure or where there is a possibility that a back pressure condition may develop. The device shall meet the requirements of ASSE Standard 1001 and CSA B64-1.1. The valve shall be a Watts Regulator Company Series N388.

#### Materials

Available in bronze (N388), satin chrome (N388-SC) and polished chrome finish (N388-C). Durable silicone disc and high heat resistance.

#### Pressure/Temperature

Working pressure: 125psi (8.6 bars) Maximum temperature: 180°F (82°C)



#### **Dimensions/Weight**

MODEL	ORDERING CODE	SIZE	(DN)		DIMENSIONS (approx.)								
				А		В			E				
		in.	тт	in.	mm	in.	mm	in.	mm	lbs.	kg.		
N388	0354819	1/4	8	1 <sup>3</sup> /4	44	<b>2<sup>5</sup>/</b> 16	59	3/4	19	.50	.2		
N388-C	0354917	1/4	8	1 <sup>3</sup> /4	44	<b>2<sup>5</sup>/</b> 16	59	3/4	19	.50	.2		
N388	0354817	<sup>3</sup> /8	10	1 <sup>3</sup> /4	44	2 <sup>3</sup> /8	60	7/ <sub>8</sub>	22	.75	.3		
N388-C	0354919	<sup>3</sup> /8	10	1 <sup>3</sup> /4	44	2 <sup>3</sup> /8	60	7/8	22	.75	.3		









# Series 289 Spill Resistant Atmospheric Vacuum Breakers

Sizes: 3/8", 1/2", 3/4", and 1"

#### Description

Designed for indoor point-of-use applications with continuous supply pressure to prevent backsiphonage of contaminated water into the potable water supply. Separation of the water supply from the air inlet is accomplished by means of a diaphragm seal. This feature protects against any spillage during start-up operation.

### Standards 画

Tested and certified to meet ASSE 1001. (3/8" and 1/2" sizes only) Important: Inquire with governing authorities for local installation requirements.

#### **Specifications**

A spill-resistant atmospheric vacuum breaker 289 shall be installed as noted on the plans. The valve shall consist of a one-piece modular check and float assembly made of engineered thermoplastic and housed in a bronze body. Springs shall be stainless steel. The valve shall be constructed with a molded diaphragm separating the air inlet from the potable water supply to prevent spillage. The valve shall be a Watts Regulator Company Series 289.

#### Materials

Bronze body, stainless steel springs, PPO bonnet and disc holder, EPDM diaphram and vent disc, silicone rubber check disc.

#### Pressure/Temperature

Maximum pressure: 150psi (10.3 bars) Minimum pressure: 8psi (55.1 kPa) Working temperature: 33°F to 180°F (0.5°C - 82°C)













#### Dimensions/Weight

MODEL	ORDERING CODE	SIZE	E (DN)		DIMENSIONS (approx.)											
					A B C		D			E						
		in.	mm	in.	mm	in.	mm	in.	тт	in.	mm	in.	mm	lbs.	kg.	
289	0385450	<sup>3</sup> /8	10	2	51	33/4	95	13/8	35	23/8	60	11/2	38	.9	.4	
289	0305451	1/2	15	2	51	<b>3</b> <sup>3</sup> /4	95	1 <sup>3</sup> /8	35	2 <sup>3</sup> /8	60	11/2	38	1	.4	
289	0305452	3/4	20	33/4	95	5	127	2 <sup>1</sup> / <sub>2</sub>	64	2 <sup>1</sup> / <sub>2</sub>	64	2 <sup>3</sup> /8	60	3	1.4	
289	0385453	1	25	33/4	95	5	127	2 <sup>1</sup> / <sub>2</sub>	64	2 <sup>1</sup> / <sub>2</sub>	64	23/8	60	4	1.8	

# The Best In The Business

# **Commercial Products**

Watts offers a diverse range of commercial products, including:

- Gate, Globe & Check Valves
- Flow Measurement & Balancing Valves
- Ball Valves
- Butterfly Valves
- Hot Water Extender Tempering Valves
- Strainers
- T&P Relief Valves
- Pressure Regulators
- Wall Hydrants
- Water Hammer Arrestors

# **Backflow Preventers**

Watts Regulator provides a wide variety of backflow preventers for residential and commercial uses, including:

- Reduced Pressure Zone
- Reduced Pressure Detector Assemblies
- Double Check Valves
- Double Check Detector Assemblies
- Dual Check Valve Backflow Preventers
- Intermediate Atmospheric Vent
- Automatic Control Valves

Watts delivers a full family of automatic control valves, including:

- Pressure Reducing Valves
- Pressure Relief and Sustaining Valves
- Altitude Valves
- Rate of Flow Valves
- Flood Protection Valve

- Atmospheric Vacuum Breakers
- Pressure Vacuum Breakers
- Hose Connection Vacuum Breaker
- Spill Resistant Vacuum Breaker
- Backflow Prevention Enclosures
- - Pump Control Valves
  - Float Valves
  - Solenoid Control Valves
  - Check Valves





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