

Eric G. Maurer (GA Bar # 478199)
(*pro hac vice*)
Cynthia J. Lee (GA Bar # 442999)
(*pro hac vice*)
PERILLA KNOX & HILDEBRANDT LLP
5871 Glenridge Drive, Suite 350
Atlanta, GA 30328
Telephone: 470-657-9519
Facsimile: 877-389-6779
Email: e.maurer@pkhip.com
Email: c.lee@pkhip.com

David Martinez (State Bar No. 193183)
ROBINS KAPLAN LLP
2121 Avenue of the Stars, Suite 2800
Los Angeles, California 90067
Telephone: (310) 552-0130
Facsimile: (310) 229-5800
Email: dmartinez@robinskaplan.com

Li Zhu (State Bar No. 302210)
ROBINS KAPLAN LLP
555 Twin Dolphin Drive, Suite 310
Redwood City, California 94065
Telephone: (650) 784-4040
Facsimile: (650) 784-4041
Email: lzhu@robinskaplan.com

Counsel for Plaintiff Danco, Inc.

**IN THE UNITED STATES DISTRICT COURT
CENTRAL DISTRICT OF CALIFORNIA
SOUTHERN DIVISION**

DANCO, INC. a Delaware corporation,

Plaintiff,

v.

FLUIDMASTER, INC.,

Defendants.

Case No. 8:23-cv-01156-AB-DFM
Honorable Judge Andre Birotte, Jr.

**PLAINTIFF'S DISCLOSURE OF
ASSERTED CLAIMS/PRELIMINARY
INFRINGEMENT CONTENTIONS**

**PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS/PRELIMINARY
INFRINGEMENT CONTENTIONS**

1 Plaintiff Danco, Inc. (“Danco”) hereby serves this Disclosure of Asserted
2 Claims/Preliminary Infringement Contentions on Defendant Fluidmaster, Inc. (“Fluidmaster”).
3 Simultaneously herewith, Danco is producing documents accompanying its preliminary
4 infringement contentions.

5
6 These preliminary infringement contentions are based upon Danco’s good faith evaluation
7 of publicly available information and documents that are known to Danco at this time. Danco,
8 therefore, reserves the right to supplement and/or amended these contentions in view of further
9 investigation and discovery, the Court’s claim construction ruling, and/or any other reason
10 permitted under the Local Rules or Federal Rules of Civil Procedure.

11 I. DISCLOSURE OF ASSERTED CLAIMS

12
13 **A. Each claim of each patent in suit that is allegedly infringed by each opposing party,**
14 **including for each claim the applicable statutory subsections of 35 U.S.C. §271**
asserted

15 At the present time, and subject to its express reservation of rights to supplement or amend
16 these contentions as may be appropriate in view of further discovery, further investigation, and/or
17 the Court’s claim construction ruling, Danco alleges that Fluidmaster has infringed one or more of
18 at least the following claims pursuant to 35 U.S.C. § 271(a), (b), (c), and (f):

- 19 1. U.S. Patent No. 9,103,105 (“the ‘105 Patent”) – Claims 1-7, 9, 11-18, 20-24;
20 2. U.S. Patent No. 9,139,993 (“the ‘993 Patent”) – Claims 1-5, 8, 10-17, 19-20; and
21 3. U.S. Patent No. 10,934,698 (“the ‘698 Patent”) – Claims 1-14.
22

23 II. PRELIMINARY INFRINGEMENT CONTENTIONS

24 **A. Each accused apparatus, product, device, process, method, act, or other**
25 **instrumentality (“Accused Instrumentality”) of each opposing party of which the**
26 **party is aware. This identification shall be as specific as possible. Each product, device,**
27 **and apparatus shall be identified by name or model number, if known. Each method**
28 **or process shall be identified by name, if known, or by any product, device, or**

1 **apparatus which, when used, allegedly results in the practice of the claimed method**
2 **or process.**

3 At the present time, and subject to its express reservation of rights to supplement or amend
4 these contentions as may be appropriate in view of further disclosures by Fluidmaster, discovery,
5 further investigation, and/or the Court's claim construction ruling, Danco identifies the following
6 Fluidmaster fill valves, as follows:

- 7 1. Fluidmaster 400H series fill valves and kits including/utilizing 400H series fill valves
8 or their equivalent(s);
- 9 2. Fluidmaster PRO45H series fill valves and kits including/utilizing PRO45H series fill
10 valves or their equivalent(s);
- 11 3. Fluidmaster 400A series fill valves and kits including/utilizing 400A series fill valves
12 or their equivalent(s); and
- 13 4. Fluidmaster PRO45U/PRO45HR series valves and kits including/utilizing
14 PRO45U/PRO45HR series fill valves or their equivalent(s).

15
16 **B. A chart identifying specifically where and how each limitation of each asserted claim**
17 **is found within each Accused Instrumentality, including for each limitation that such**
18 **party contends is governed by 35 U.S.C. § 112(6), the identity of the structure(s), act(s),**
19 **or material(s) in the Accused Instrumentality that performs the claimed function.**

20 At the present time, and subject to its express reservation of rights to supplement or amend
21 these contentions as may be appropriate in view of further discovery, further investigation, and/or
22 the Court's claim construction ruling, Danco will serve preliminary infringement claims charts for
23 the asserted patents and Accused Instrumentalities contemporaneously herewith as Exhibits A-J.

24 **C. For each claim which is alleged to have been indirectly infringed, an identification of**
25 **any direct infringement and a description of the acts of the alleged indirect infringer**
26 **that contribute to or are inducing that direct infringement. Insofar as alleged direct**
27 **infringement is based on joint acts of multiple parties, the role of each such party in**
28 **the direct infringement must be described.**

1 Danco contends that Fluidmaster indirectly infringed and continues to infringe the above-
2 identified patents and claims by actively inducing, encouraging, and/or materially contributing to the
3 infringement by directing, instructing, and encouraging its employees, distributors, and/or customers to
4 install and use the Accused Instrumentalities in an infringing manner. Specifically, Fluidmaster has
5 directed, instructed, and encouraged its employees, distributors, and/or customers to install and use the
6 Accused Instrumentalities in an infringing manner in its product packaging and product advertising, by
7 providing support and technical assistance, by providing demonstrations, and by providing instructions
8 or instructional materials. When using, assembling, or installing the Accused Instrumentalities in
9 accordance with Fluidmaster's directions and instructions, purchasers and users of Fluidmaster's
10 Accused Instrumentalities directly infringe the asserted claims of the above-asserted patents. Further,
11 Fluidmaster was and is aware that the Accused Instrumentalities are especially made for or adapted for
12 use in a manner that infringes the above-asserted patents and claims, and Fluidmaster is further aware
13 that the Accused Instrumentalities are not staple articles or commodities of commerce suitable for non-
14 infringing use and, in fact, have no non-infringing use.

15
16 **D. Whether each limitation of each asserted claim is alleged to be literally present or**
17 **present under the doctrine of equivalents in the Accused Instrumentality**

18 At the present time, and subject to its express reservation of rights to supplement or amend
19 these contentions as may be appropriate in view of further discovery, further investigation, and/or
20 the Court's claim construction ruling, Danco claims that each element of each asserted claim is
21 literally present in each of the Accused Instrumentalities. To the extent not literally present, Danco
22 claims that each element of each asserted claim is present under the doctrine of equivalents in the
23 Accused Instrumentalities.
24

25 **E. For any patent that claims priority to an earlier application, the priority date to which**
26 **each asserted claim allegedly is entitled**
27

1 At the present time, and subject to its express reservation of rights to supplement or amend
2 these contentions as may be appropriate in view of further discovery, and/or further investigation,
3 Danco states the following:

- 4 • The claims of the '105 Patent claim priority to earlier U.S. patent application No.
5 10/798,606, filed on Mar. 11, 2004.
- 6 • The claims of the '993 Patent claim priority to earlier U.S. patent application No.
7 No. 10/798,606, filed on Mar. 11, 2004.
- 8 • The claims of the '698 Patent claim priority to earlier U.S. patent application No.
9 No. 10/798,606, filed on Mar. 11, 2004.

11 **F. If a party claiming patent infringement alleges willful infringement, the basis for such**
12 **allegation.**

13 Upon information and belief, at least as early as the issue date of each of the asserted patents,
14 Fluidmaster had notice of the above-asserted patents and notice that it infringed and continues to
15 infringe the above-asserted patents. With notice of the above-asserted patents and infringement
16 thereof, Fluidmaster made, offered to sell, and sold its Accused Instrumentalities and continues to
17 make, offer to sell, and sell its Accused Instrumentalities, despite an objectively high likelihood
18 that its actions constituted infringement of the patents, a likelihood that was either known or so
19 obvious that it should have been known to Fluidmaster. Notwithstanding knowledge of its
20 infringement, Fluidmaster deliberately and intentionally continued to make, offer to sell, and sell
21 its Accused Instrumentalities and continues to make, offer to sell, and sell its Accused
22 Instrumentalities. Danco expressly reserves the right to supplement or amend these contentions in
23 view of further discovery and/or in view of further investigation.

24 Danco expressly reserves its right to supplement this document production as may be
25 appropriate in view of further discovery and/or further investigation.

1 DATED: February 23, 2024

PERILLA KNOX & HILDEBRANDT LLP

2 BY: /s/ Eric G. Maurer

3 Eric G. Maurer (GA Bar # 478199)

4 (*pro hac vice*)

5 Cynthia J. Lee (GA Bar # 442999)

6 (*pro hac vice*)

PERILLA KNOX & HILDEBRANDT LLP

5871 Glenridge Drive, Suite 350

7 Atlanta, GA 30328

8 Telephone: 470-657-9519

Email: e.maurer@pkhip.com

9 Email: c.lee@pkhip.com

10 David Martinez (State Bar No. 193183)

11 ROBINS KAPLAN LLP

2121 Avenue of the Stars, Suite 2800

12 Los Angeles, California 90067

13 Telephone: (310) 552-0130

Facsimile: (310) 229-5800

14 Email: dmartinez@robinskaplan.com

15 Li Zhu (State Bar No. 302210)

ROBINS KAPLAN LLP

555 Twin Dolphin Drive, Suite 310

16 Redwood City, California 94065

17 Telephone: (650) 784-4040

Facsimile: (650) 784-4041

18 Email: lzhu@robinskaplan.com

19 ***Counsel for Plaintiff Danco, Inc.***

CERTIFICATE OF SERVICE

I hereby certify that on February 24, 2024, a true and correct copy of the foregoing PLAINTIFF'S DISCLOSURE OF ASSERTED CLAIMS/PRELIMINARY INFRINGEMENT CONTENTIONS has been served by electronic mail pursuant to Federal Rule of Civil Procedure 5(b)(2)(E), with a copy sent to all attorneys of record for Fluidmaster, Inc:

Mark D. Litvack (State Bar No. 102851)
Carolyn S. Toto (State Bar No. 233825)
PILLSBURY WINTHROP SHAW
PITTMAN LLP
725 South Figueroa Street, 36th Floor
Los Angeles, CA 90017
Telephone: (213) 488-7100
Facsimile: (213) 629-1033
Email: mark.litvack@pillsburylaw.com
Email: carolyn.toto@pillsburylaw.com

Ranjini Acharya (State Bar No. 290877)
PILLSBURY WINTHROP SHAW
PITTMAN LLP
2550 Hanover Street
Palo Alto, CA 94304-1115
Telephone: (650) 233-4500
Facsimile: (650) 233-4545
Email: ranjini.acharya@pillsburylaw.com

DATED: February 24, 2024

PERILLA KNOX & HILDEBRANDT LLP

/s/ Eric G. Maurer

Eric G. Maurer

EXHIBIT A

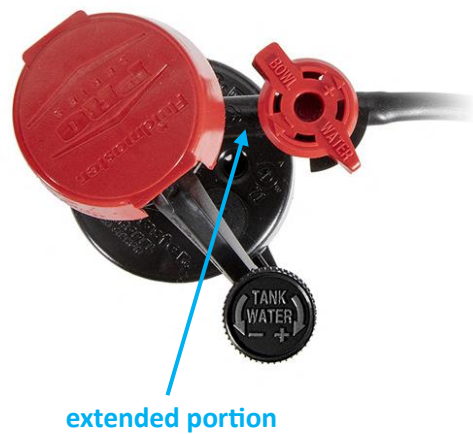
DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.

Case No. Case No. 8:23-cv-01156-AB-DFM

U.S. Patent No. 9,103,105	
Claim	Fluidmaster PRO45H series fill valves and kits including/utilizing PRO45H series fill valves or their equivalent(s)
1. A system, comprising: a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

a body comprising an extended portion,
wherein the extended portion is integrally
molded with the body, wherein the extended
portion forms a bowl fill outlet port;



a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a bowl fill restriction configured to attach directly to the extended portion of the body, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



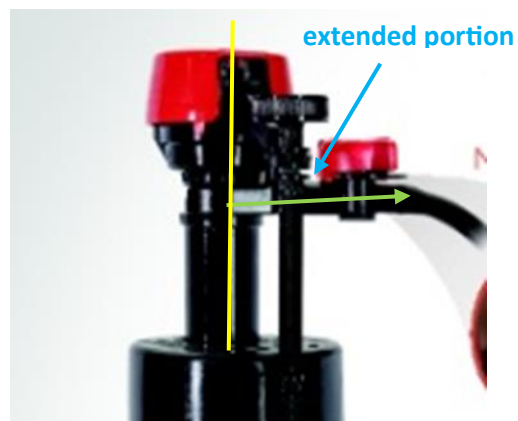
restriction inserts into extended portion

a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.



tube directs water to overflow

2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.



Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein a portion of the bowl fill restriction is configured to insert into the extended portion of the body.



restriction inserts into
extended portion

4. The system of claim 1, wherein the bowl fill restriction is configured to be clamped to the extended portion of the body.

Bowl fill restriction as depicted above clamps onto the extended portion



clamp

bowl fill restriction

5. The system of claim 1, wherein the bowl fill restriction is configured to be snapped onto the extended portion of the body.

Bowl fill restriction as depicted above snaps onto the extended portion



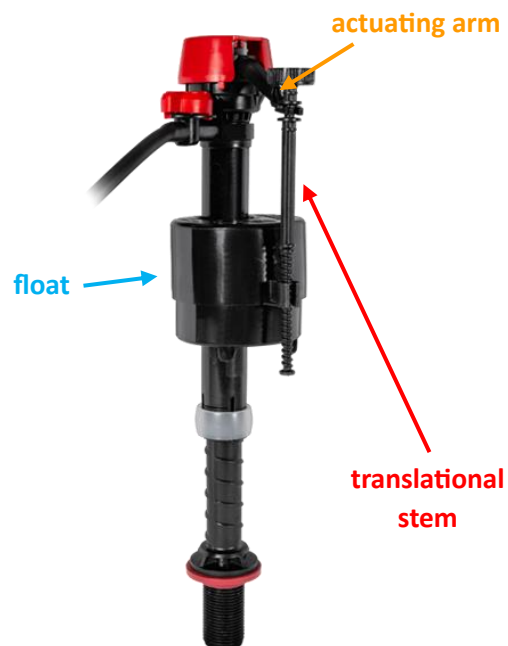
snap fit

water flow regulator

6. The system of claim 1, wherein the toilet fill valve further comprises:

a float; and

an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the bowl fill restriction and a translational stem that extends from the float to a free end of the actuating arm.



float

actuating arm

translational stem

7. The system of claim 1, wherein the bowl fill restriction further comprises a nipple that is configured to insert into the tube.



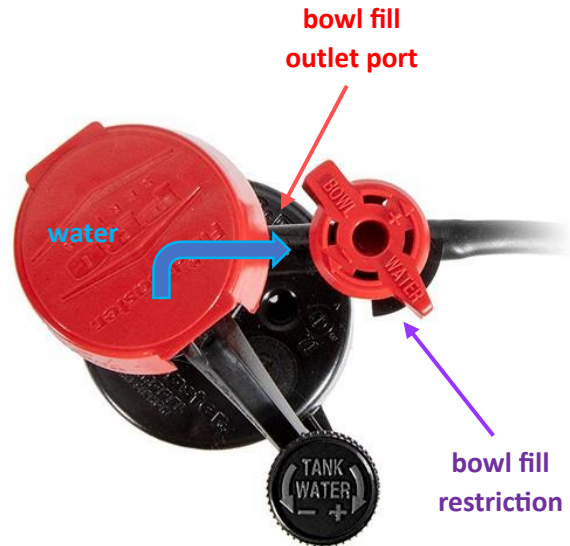
9. A method, comprising:

receiving, via a water inlet of a toilet fill valve, water from a water supply;

providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

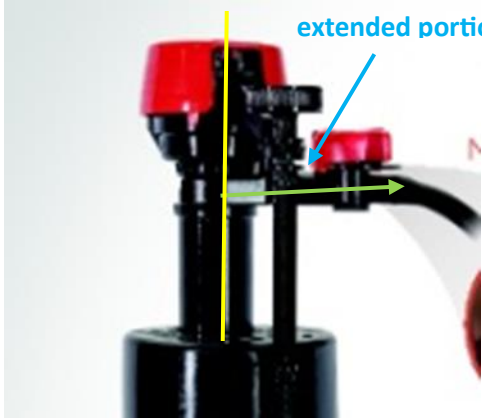


providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a bowl fill restriction, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the bowl fill restriction is in direct contact with the extended portion of the toilet fill valve, wherein the bowl fill restriction is constructed as a single piece, wherein the bowl fill restriction causes a flow of the second portion of the water to be constricted;



providing, via the bowl fill restriction, the second portion of the water to a tube that is in direct contact with the bowl fill restriction; and



providing, via the tube, the second portion of the water to a toilet tank overflow tube.	
11. The method of claim 9, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	Bowl fill restriction dial allows adjustment of water level in bowl and the toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
12. The method of claim 11, wherein the water level is determined at least in part by the bowl fill restriction.	Water flow regulator dial allows adjustment of water level in bowl.
13. The method of claim 9, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve
14. The method of claim 9, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.	 Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)
15. A method, comprising:	

attaching a bowl fill restriction directly to an extended portion of a body of a toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the bowl fill restriction is configured to constrict a flow rate of water that flows out of the bowl fill outlet port;	 bowl fill restriction
inserting a protrusion of the bowl fill restriction into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body; and	 recess locking protrusion bowl fill restriction
attaching a tube directly to the bowl fill restriction, wherein the tube is configured to direct the water from the bowl fill restriction directly to a toilet tank overflow tube.	 tube directs water to overflow
16. The method of claim 15, further comprising preventing the bowl fill restriction from detaching from the extended portion of the body.	Bowl fill restriction as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion

17. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises clamping the bowl fill restriction to the extended portion.

Bowl fill restriction as depicted above clamps onto the extended portion



clamp

bowl fill restriction

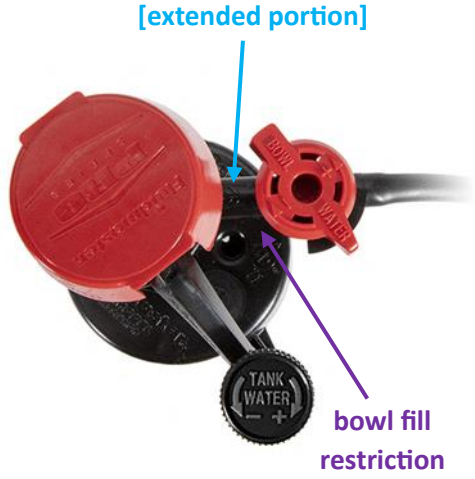
18. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.

Bowl fill restriction as depicted above snaps onto the extended portion



snap fit

water flow regulator

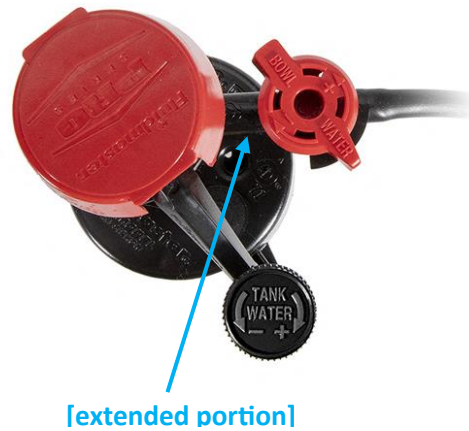
20. The method of claim 15, wherein attaching a bowl fill restriction directly to the extended portion of the body of the toilet fill valve further comprises inserting a portion of the bowl fill restriction into the extended portion of the body.	 The diagram shows a side view of a toilet fill valve assembly. A red cap is on the left. A black body extends to the right. A red bowl fill restriction is attached to the end of the black body. A blue arrow points to the end of the black body, labeled "[extended portion]". A purple arrow points to the bowl fill restriction, labeled "bowl fill restriction". A circular component labeled "TANK WATER" is visible below the main assembly.
22. The method of claim 9, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the toilet fill valve.	 The diagram shows a side view of a toilet fill valve assembly. A red cap is on the left. A black body extends to the right. A red bowl fill restriction is attached to the end of the black body. A green arrow points to a recess in the black body, labeled "recess". A blue arrow points to a locking protrusion on the bowl fill restriction, labeled "locking protrusion". A purple arrow points to the bowl fill restriction, labeled "bowl fill restriction".
24. A system, comprising:	

a toilet fill valve that comprises:

Accused Fluidmaster fill valve is a toilet fill valve:



a body comprising an extended portion that forms a bowl fill outlet port, wherein the extended portion is integrally molded with the body;

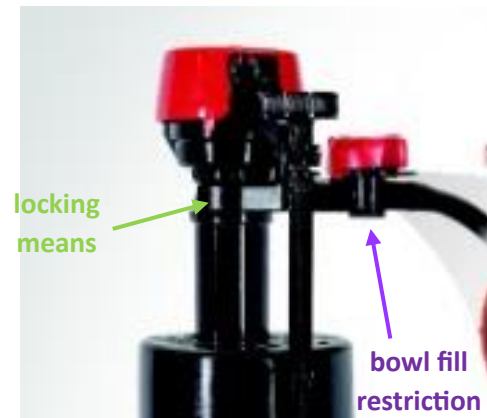


a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a bowl fill restriction configured to attach directly to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction comprises means for locking the bowl fill restriction to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



a tube configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction to a toilet tank overflow tube.



EXHIBIT B

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.

Case No. Case No. 8:23-cv-01156-AB-DFM

U.S. Patent No. 9,103,105	
Claim	Fluidmaster 400H series fill valves and kits including/utilizing 400H series fill valves or their equivalent(s)
1. A system, comprising:	
a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

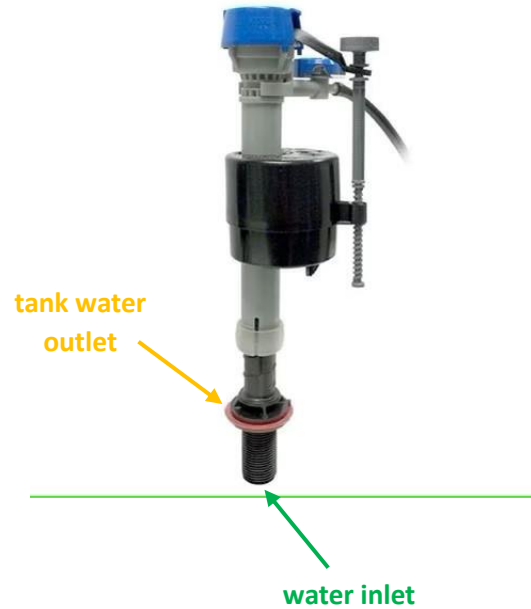
a body comprising an extended portion,
wherein the extended portion is integrally
molded with the body, wherein the extended
portion forms a bowl fill outlet port;



extended
portion

a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a bowl fill restriction configured to attach directly to the extended portion of the body, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



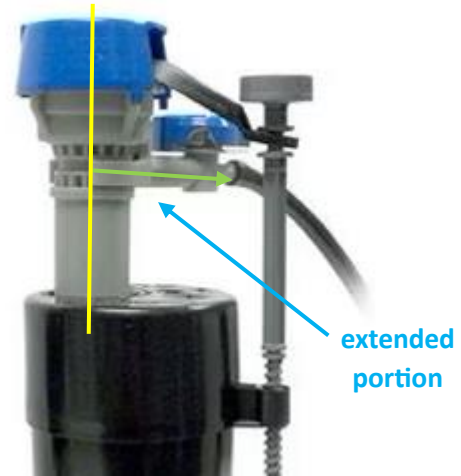
restriction inserts into extended portion

a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.



tube directs water to overflow

2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.

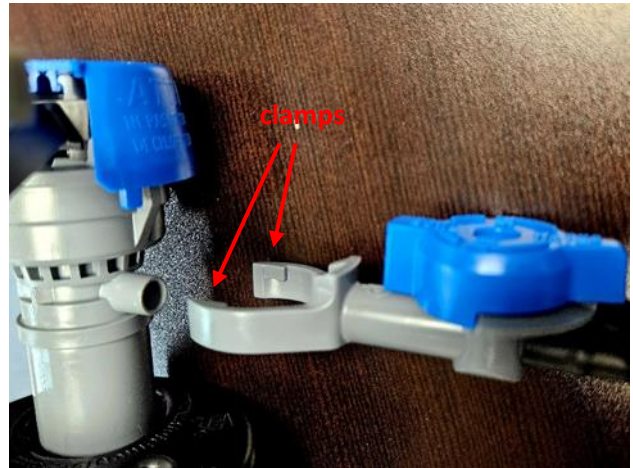


Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

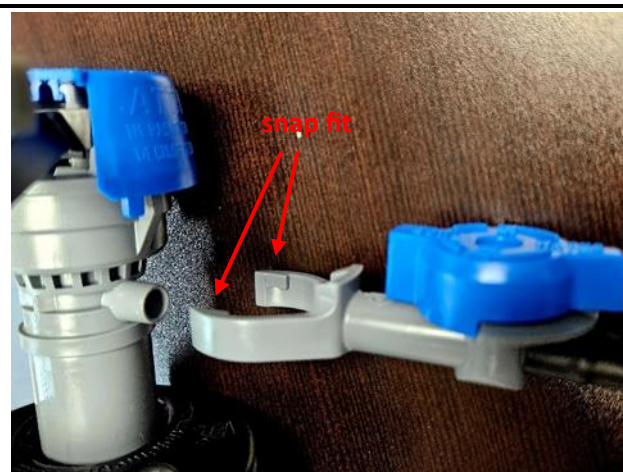
3. The system of claim 1, wherein a portion of the bowl fill restriction is configured to insert into the extended portion of the body.



4. The system of claim 1, wherein the bowl fill restriction is configured to be clamped to the extended portion of the body.



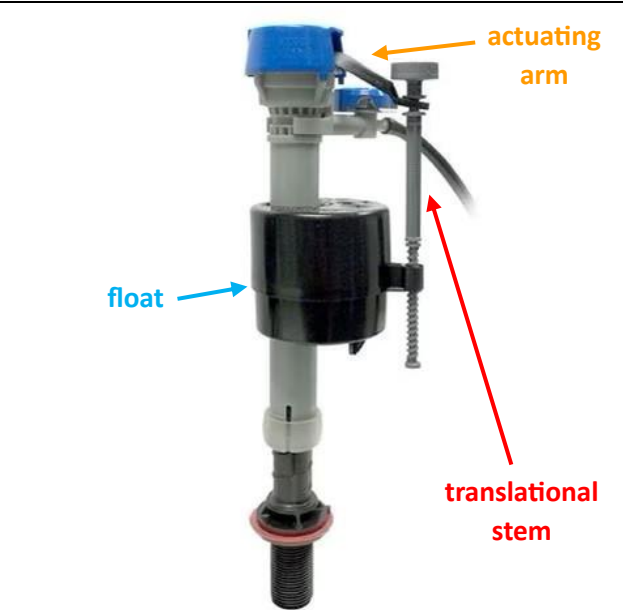
5. The system of claim 1, wherein the bowl fill restriction is configured to be snapped onto the extended portion of the body.



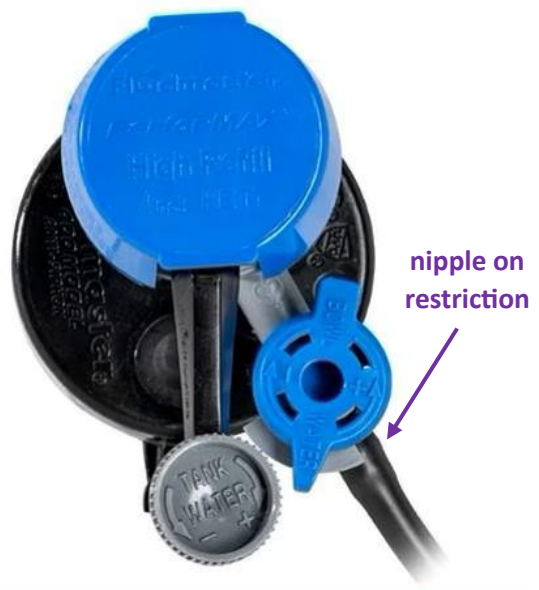
6. The system of claim 1, wherein the toilet fill valve further comprises:

a float; and

an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the bowl fill restriction and a translational stem that extends from the float to a free end of the actuating arm.



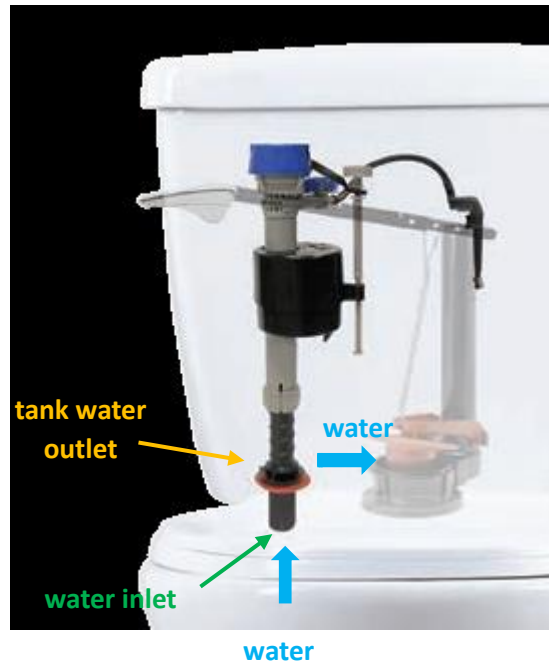
7. The system of claim 1, wherein the bowl fill restriction further comprises a nipple that is configured to insert into the tube.



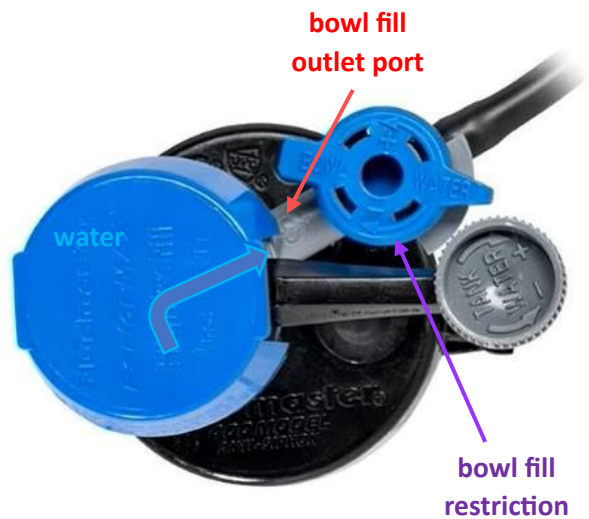
9. A method, comprising:

receiving, via a water inlet of a toilet fill valve, water from a water supply;

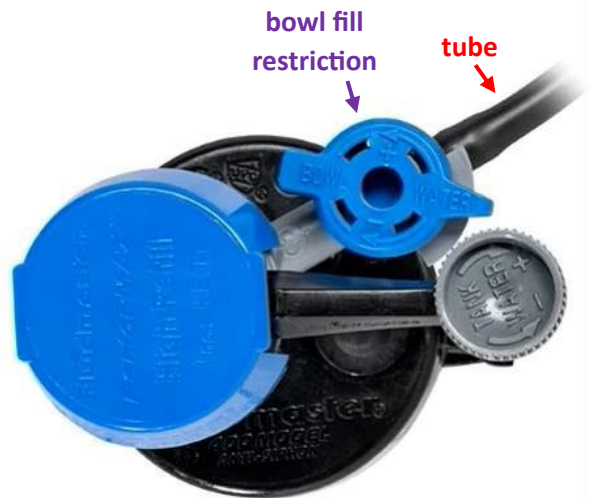
providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

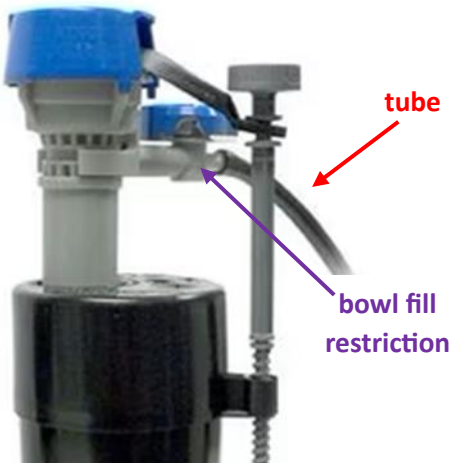


providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a bowl fill restriction, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the bowl fill restriction is in direct contact with the extended portion of the toilet fill valve, wherein the bowl fill restriction is constructed as a single piece, wherein the bowl fill restriction causes a flow of the second portion of the water to be constricted;



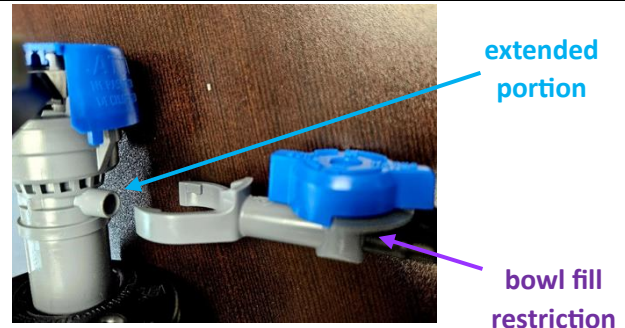
providing, via the bowl fill restriction, the second portion of the water to a tube that is in direct contact with the bowl fill restriction; and



providing, via the tube, the second portion of the water to a toilet tank overflow tube.	 The tube depicted above carries water to the toilet tank overflow tube/pipe
11. The method of claim 9, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	Bowl fill restriction dial allows adjustment of water level in bowl and the toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
12. The method of claim 11, wherein the water level is determined at least in part by the bowl fill restriction.	Bowl fill restriction dial allows adjustment of water level in bowl.
13. The method of claim 9, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve
14. The method of claim 9, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.	 Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

15. A method, comprising:

attaching a bowl fill restriction directly to an extended portion of a body of a toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the bowl fill restriction is configured to constrict a flow rate of water that flows out of the bowl fill outlet port;



inserting a protrusion of the bowl fill restriction into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body; and



attaching a tube directly to the bowl fill restriction, wherein the tube is configured to direct the water from the bowl fill restriction directly to a toilet tank overflow tube.



16. The method of claim 15, further comprising preventing the bowl fill restriction from detaching from the extended portion of the body.

Bowl fill restriction as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion

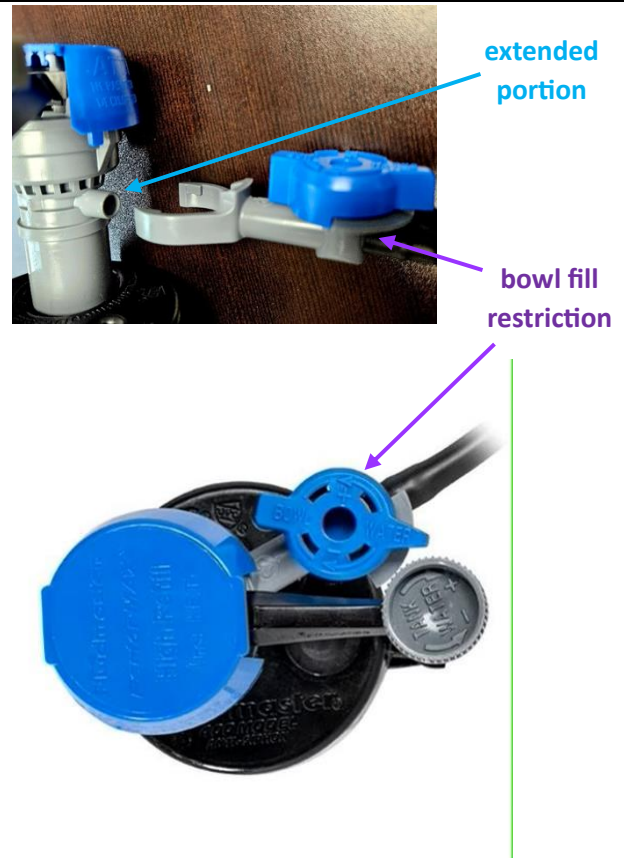
17. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises clamping the bowl fill restriction to the extended portion.

Bowl fill restriction as depicted above clamps onto the extended portion

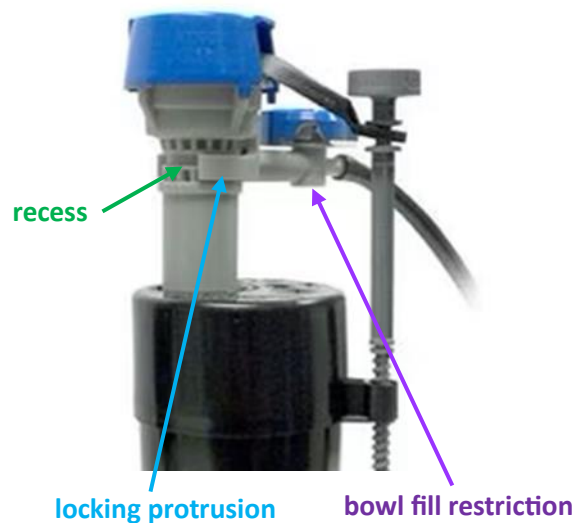
18. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.

Bowl fill restriction as depicted above snaps onto the extended portion

20. The method of claim 15, wherein attaching a bowl fill restriction directly to the extended portion of the body of the toilet fill valve further comprises inserting a portion of the bowl fill restriction into the extended portion of the body.



22. The method of claim 9, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the toilet fill valve.



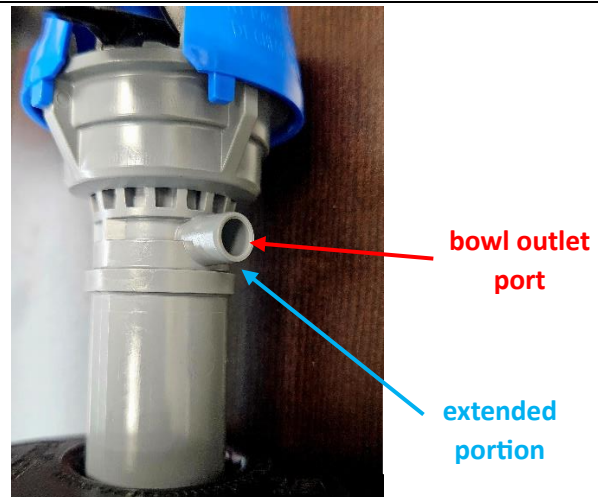
24. A system, comprising:

a toilet fill valve that comprises:

Accused Fluidmaster fill valve is a toilet fill valve:

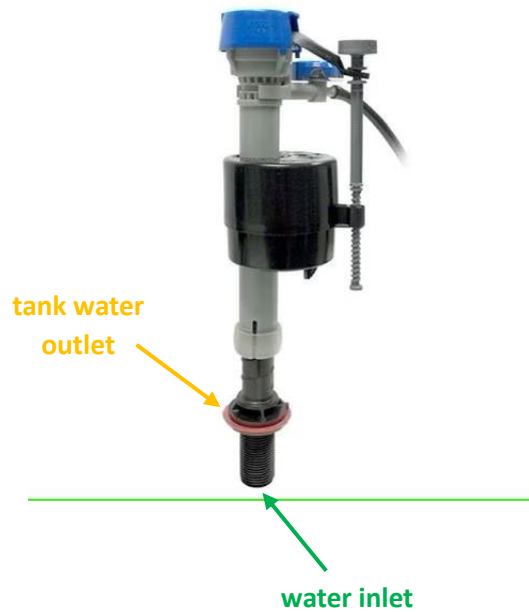


a body comprising an extended portion that forms a bowl fill outlet port, wherein the extended portion is integrally molded with the body;



a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a bowl fill restriction configured to attach directly to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction comprises means for locking the bowl fill restriction to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



a tube configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction to a toilet tank overflow tube.



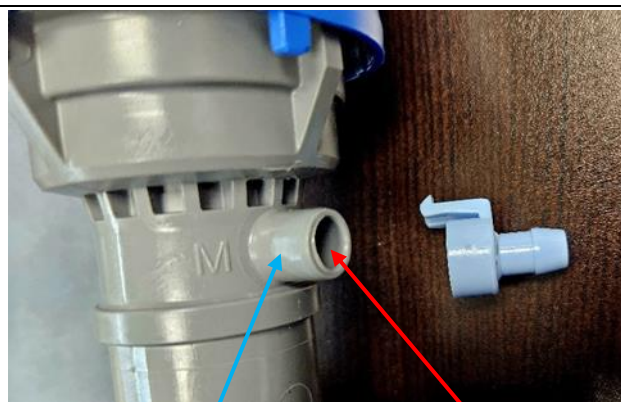
tube directs water to overflow

EXHIBIT C

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.

Case No. Case No. 8:23-cv-01156-AB-DFM

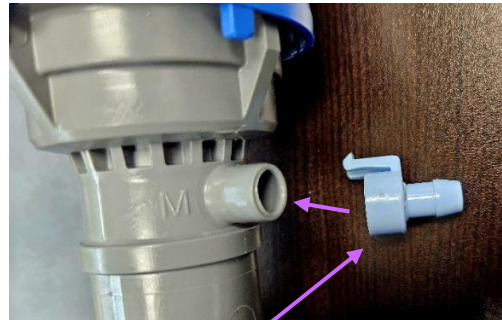
U.S. Patent No. 9,103,105	
Claim	Fluidmaster 400A series fill valves and kits including/utilizing 400A series fill valves or their equivalent(s)
1. A system, comprising: a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 
a body comprising an extended portion, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port;	 extended portion bowl fill outlet port

a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a bowl fill restriction configured to attach directly to the extended portion of the body, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and

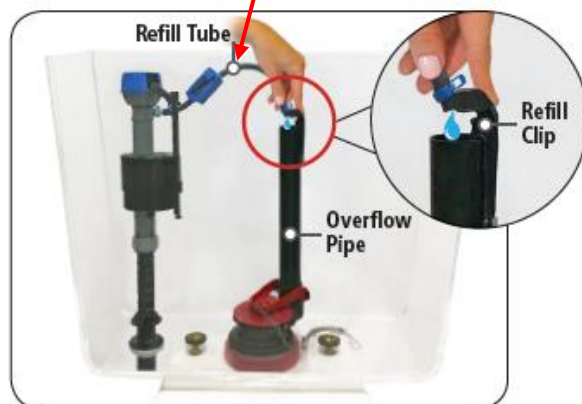


bowl fill restriction inserts into extended portion

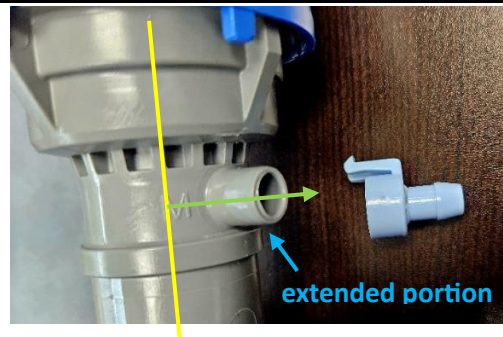


a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.

tube directs water to overflow

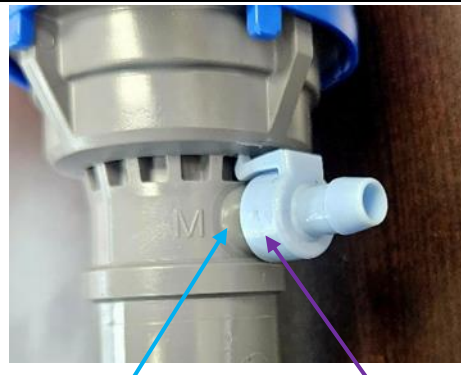


2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.



Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein a portion of the bowl fill restriction is configured to insert into the extended portion of the body.



extended portion bowl fill restriction

4. The system of claim 1, wherein the bowl fill restriction is configured to be clamped to the extended portion of the body.



restriction clamps to toilet fill valve

5. The system of claim 1, wherein the bowl fill restriction is configured to be snapped onto the extended portion of the body.

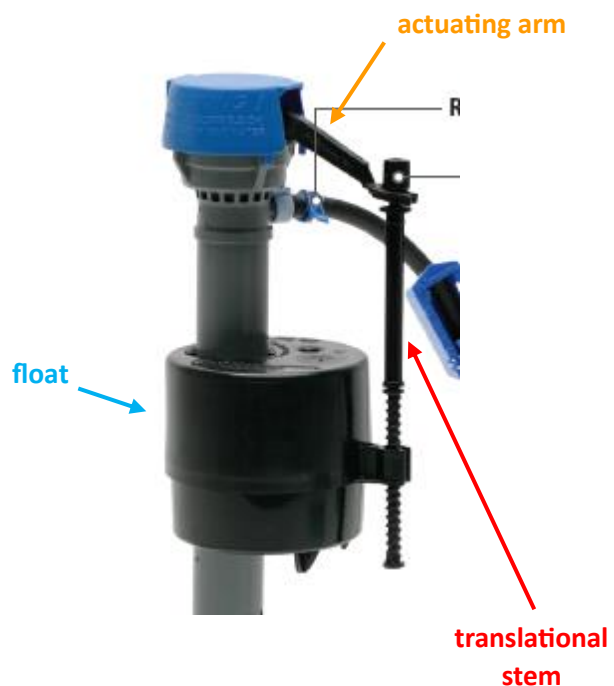


regulator snaps onto toilet fill valve

6. The system of claim 1, wherein the toilet fill valve further comprises:

a float; and

an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the bowl fill restriction and a translational stem that extends from the float to a free end of the actuating arm.



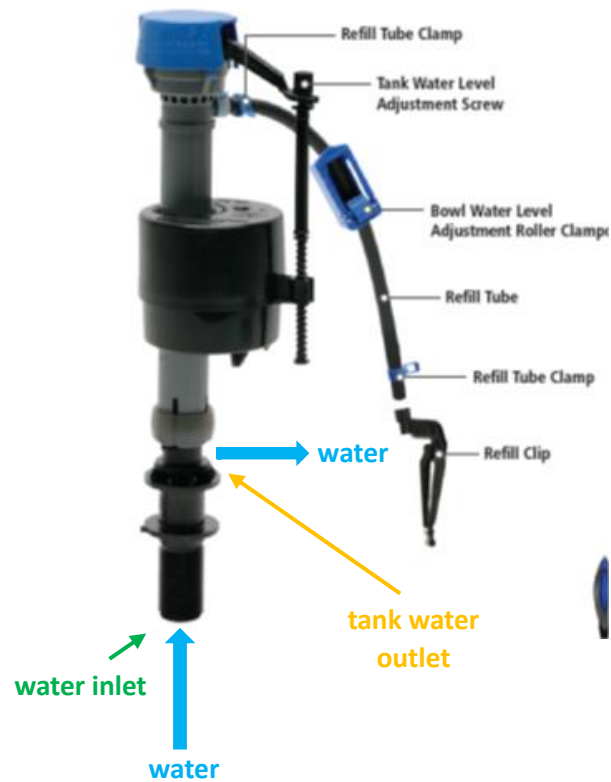
7. The system of claim 1, wherein the bowl fill restriction further comprises a nipple that is configured to insert into the tube.

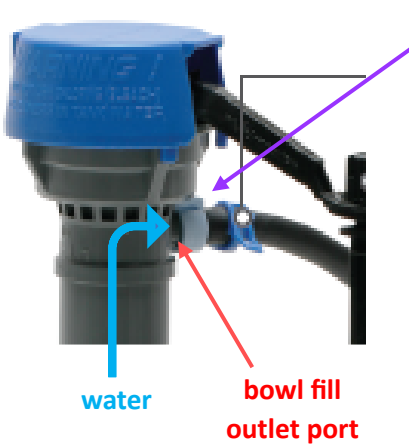


9. A method, comprising:

receiving, via a water inlet of a toilet fill valve, water from a water supply;

providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;



providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a bowl fill restriction, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the bowl fill restriction is in direct contact with the extended portion of the toilet fill valve, wherein the bowl fill restriction is constructed as a single piece, wherein the bowl fill restriction causes a flow of the second portion of the water to be constricted;	 The diagram shows a cross-section of a toilet fill valve assembly. A blue cap is on top. A black pipe extends from the side. A red arrow points to a small blue component labeled 'bowl fill outlet port'. A purple arrow points to a black component labeled 'bowl fill restriction'.
providing, via the bowl fill restriction, the second portion of the water to a tube that is in direct contact with the bowl fill restriction; and	 The diagram shows a cross-section of a toilet fill valve assembly. A blue cap is on top. A black pipe extends from the side. A red arrow points to a black component labeled 'tube'. A purple arrow points to a black component labeled 'bowl fill restriction'.
providing, via the tube, the second portion of the water to a toilet tank overfill tube.	The tube depicted above carries water to the toilet tank overfill tube/pipe
11. The method of claim 9, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	The toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level

12. The method of claim 11, wherein the water level is determined at least in part by the bowl fill restriction.

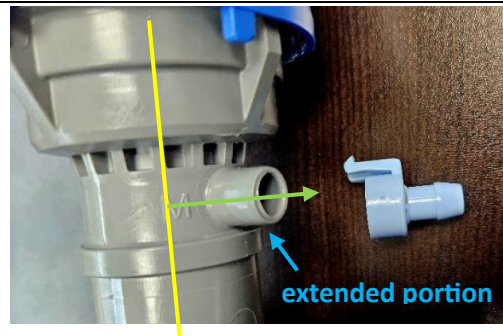


Bowl fill restriction determines water level

13. The method of claim 9, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.

The **bowl fill outlet port** depicted above is a portion of the body of the toilet valve

14. The method of claim 9, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.



Extended portion (in blue) **extends radially** (in green) from **longitudinal axis** of valve (in yellow)

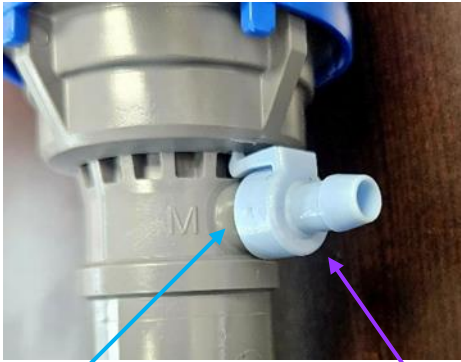
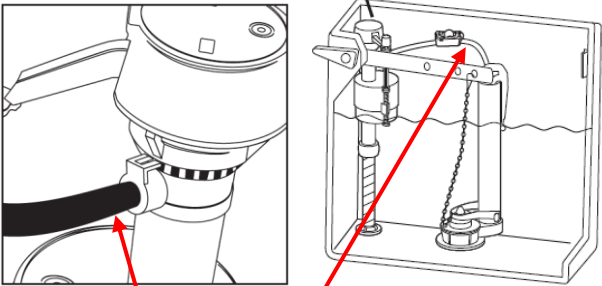
15. A method, comprising:

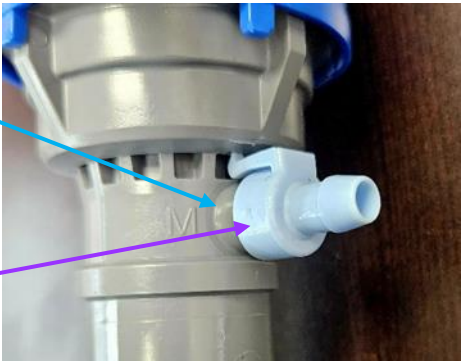
attaching a bowl fill restriction directly to an extended portion of a body of a toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the bowl fill restriction is configured to constrict a flow rate of water that flows out of the bowl fill outlet port;



extended portion

bowl fill restriction

inserting a protrusion of the bowl fill restriction into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body; and	 extended portion bowl fill restriction
attaching a tube directly to the bowl fill restriction, wherein the tube is configured to direct the water from the bowl fill restriction directly to a toilet tank overflow tube.	 tube directs water to overflow
16. The method of claim 15, further comprising preventing the bowl fill restriction from detaching from the extended portion of the body.	Bowl fill restriction as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion
17. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises clamping the bowl fill restriction to the extended portion.	Bowl fill restriction as depicted above clamps onto the extended portion
18. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.	Bowl fill restriction as depicted above snaps onto the extended portion

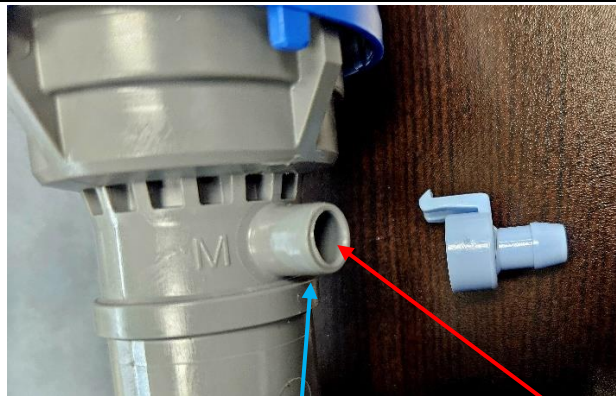
20. The method of claim 15, wherein attaching a bowl fill restriction directly to the extended portion of the body of the toilet fill valve further comprises inserting a portion of the bowl fill restriction into the extended portion of the body.	 extended portion bowl fill restriction
21. The system of claim 1, wherein the bowl fill restriction is constructed of a single piece.	
22. The method of claim 9, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the toilet fill valve.	 protrusion of bowl fill restriction
23. The method of claim 15, wherein the bowl fill restriction is constructed of a single piece.	
24. A system, comprising:	

a toilet fill valve that comprises:

Accused Fluidmaster fill valve is a toilet fill valve:



a body comprising an extended portion that forms a bowl fill outlet port, wherein the extended portion is integrally molded with the body;



extended portion

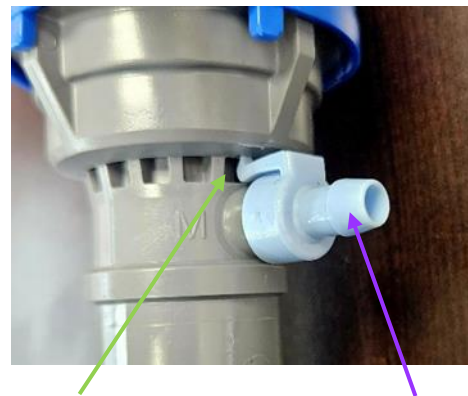
bowl fill outlet port

a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a bowl fill restriction configured to attach directly to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction comprises means for locking the bowl fill restriction to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



a tube configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction to a toilet tank overflow tube.

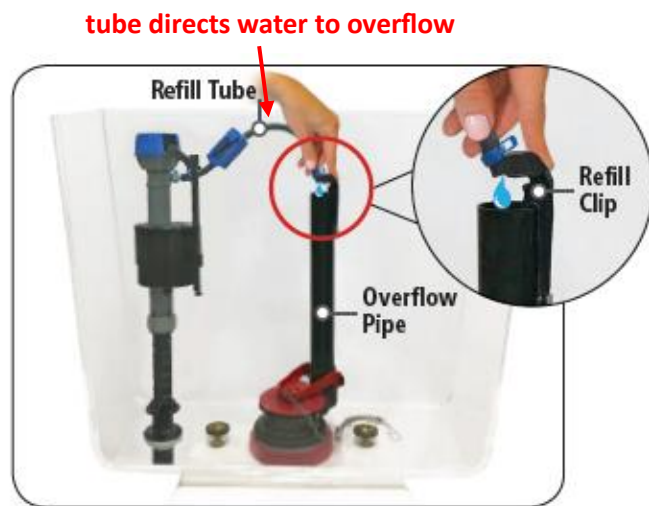


EXHIBIT D

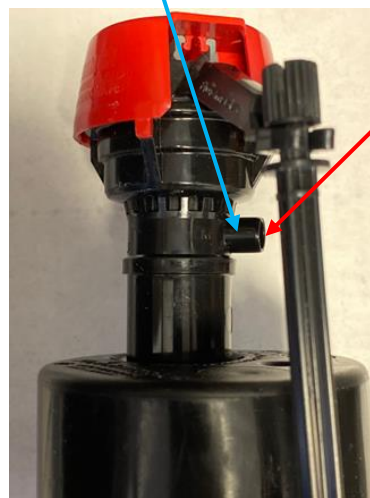
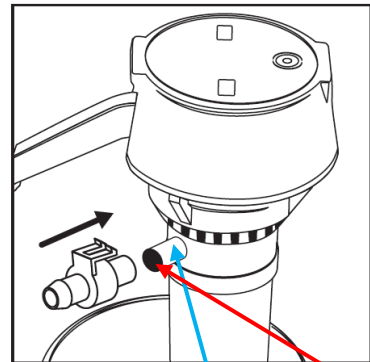
DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.

Case No. Case No. 8:23-cv-01156-AB-DFM

U.S. Patent No. 9,103,105	
Claim	Fluidmaster PRO45U/PRO45HR series fill valves and kits including/utilizing PRO45U/PRO45HR series fill valves or their equivalent(s)
1. A system, comprising:	
a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

a body comprising an extended portion,
wherein the extended portion is integrally
molded with the body, wherein the extended
portion forms a bowl fill outlet port;



a water inlet configured to receive water from a water source; and



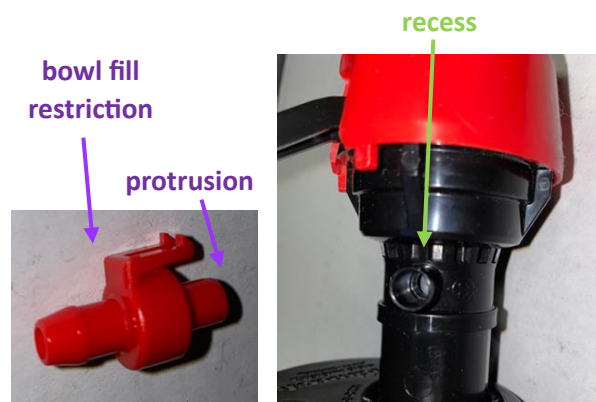
water inlet

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;

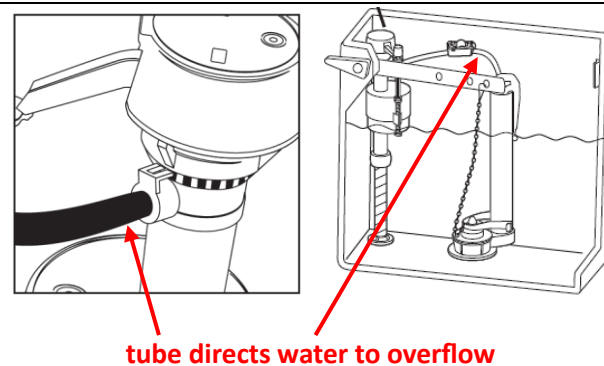


tank water outlet

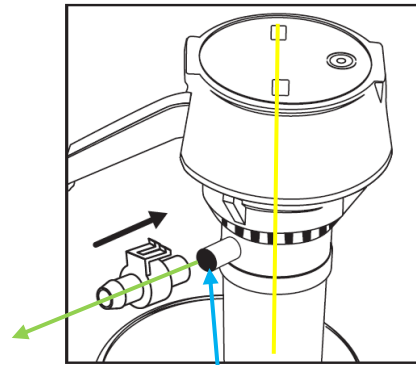
a bowl fill restriction configured to attach directly to the extended portion of the body, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



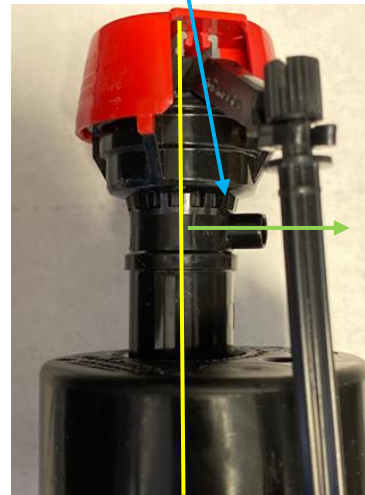
a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.



2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.

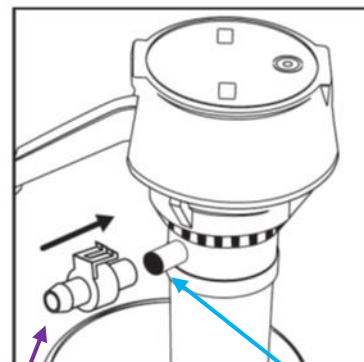


extended portion



Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein a portion of the bowl fill restriction is configured to insert into the extended portion of the body.

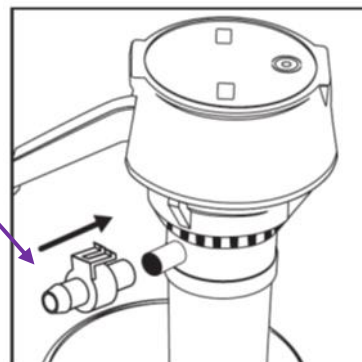


bowl fill restriction

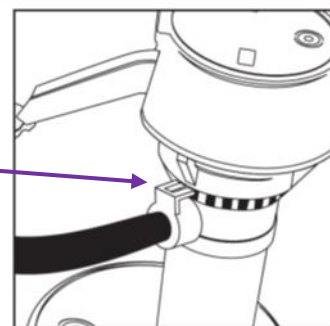
extended portion

4. The system of claim 1, wherein the bowl fill restriction is configured to be clamped to the extended portion of the body.

restriction
clamps onto
toilet fill
valve

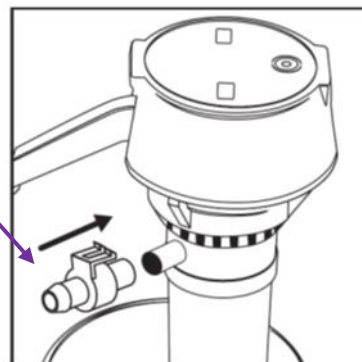


restriction
clamps onto
toilet fill
valve

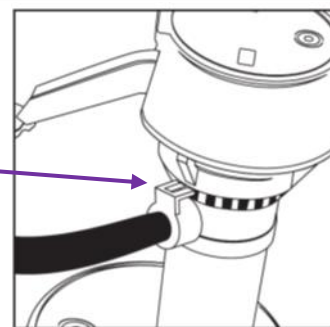


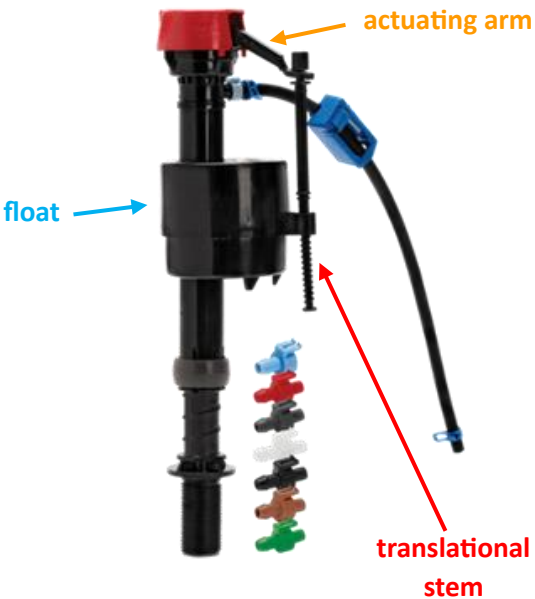
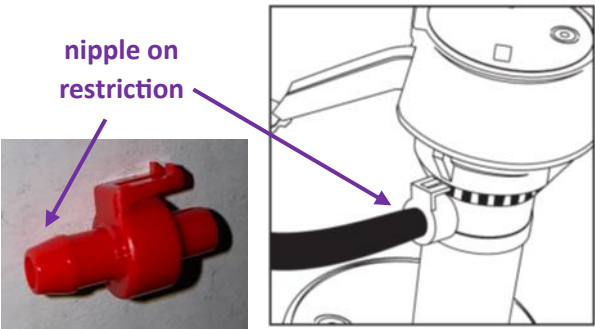
5. The system of claim 1, wherein the bowl fill restriction is configured to be snapped onto the extended portion of the body.

restriction
snaps onto
extended
portion



restriction
snaps onto
extended
portion



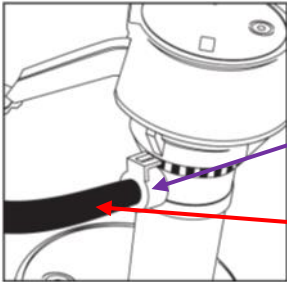
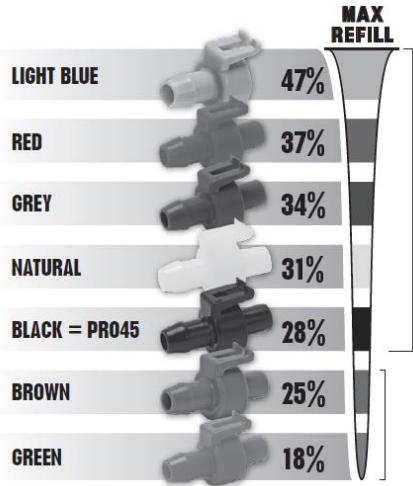
6. The system of claim 1, wherein the toilet fill valve further comprises:	 The diagram shows a vertical toilet fill valve assembly. A black float is attached to a vertical stem. A blue actuating arm is connected to the float and extends radially. A red translational stem is also shown, extending from the float. Below the main assembly, several small, colorful (blue, red, black, green) components are shown, likely representing different configurations or parts of the system.
a float; and	
an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the bowl fill restriction and a translational stem that extends from the float to a free end of the actuating arm.	
7. The system of claim 1, wherein the bowl fill restriction further comprises a nipple that is configured to insert into the tube.	 The image shows a close-up of a red plastic nipple on a restriction. A purple arrow points from the text 'nipple on restriction' to the nipple. To the right, a line drawing shows a cross-section of a tube with a restriction, and a black tube is shown inserted into the restriction.
9. A method, comprising:	

receiving, via a water inlet of a toilet fill valve, water from a water supply;

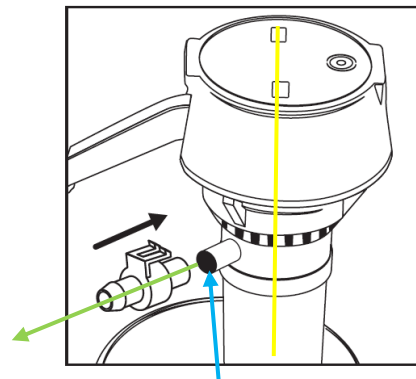


providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

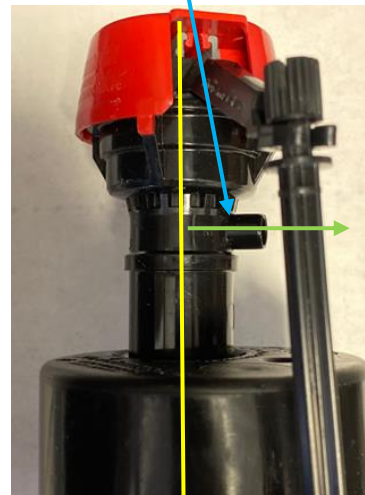


providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a bowl fill restriction, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the bowl fill restriction is in direct contact with the extended portion of the toilet fill valve, wherein the bowl fill restriction is constructed as a single piece, wherein the bowl fill restriction causes a flow of the second portion of the water to be constricted;	 bowl fill outlet port bowl fill restriction
providing, via the bowl fill restriction, the second portion of the water to a tube that is in direct contact with the bowl fill restriction; and	 bowl fill restriction tube
providing, via the tube, the second portion of the water to a toilet tank overfill tube.	The tube depicted above carries water to the toilet tank overfill tube/pipe
11. The method of claim 9, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	The toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
12. The method of claim 11, wherein the water level is determined at least in part by the bowl fill restriction.	 Bowl fill restriction inserts determine water level
13. The method of claim 9, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve

14. The method of claim 9, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.



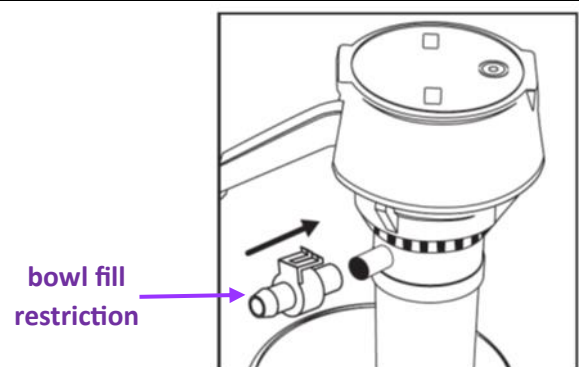
extended portion



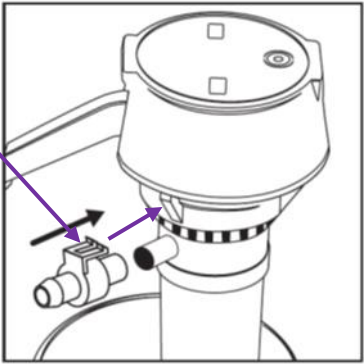
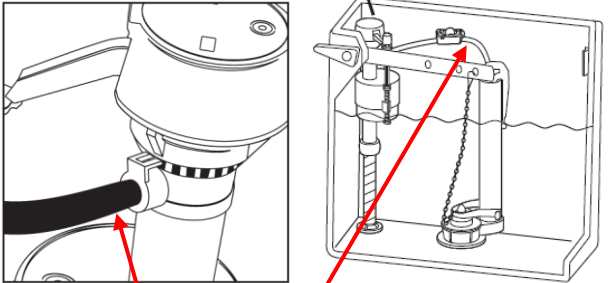
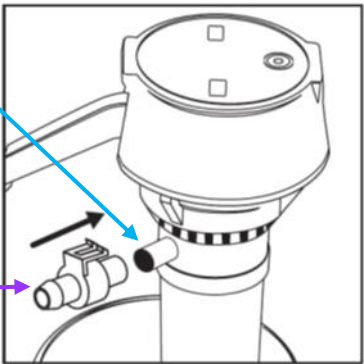
Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

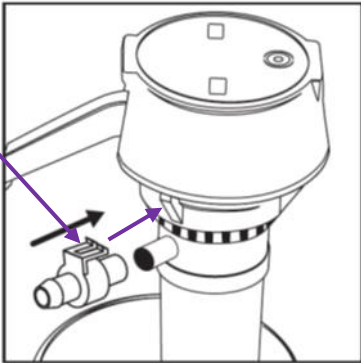
15. A method, comprising:

attaching a bowl fill restriction directly to an extended portion of a body of a toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the bowl fill restriction is configured to constrict a flow rate of water that flows out of the bowl fill outlet port;

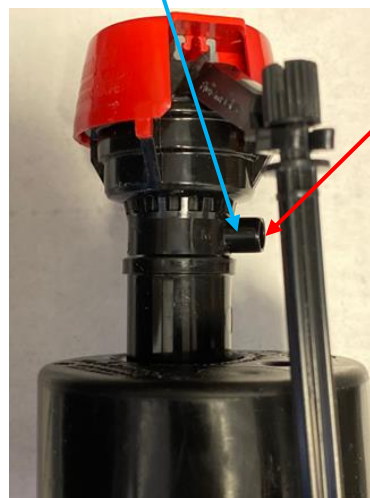
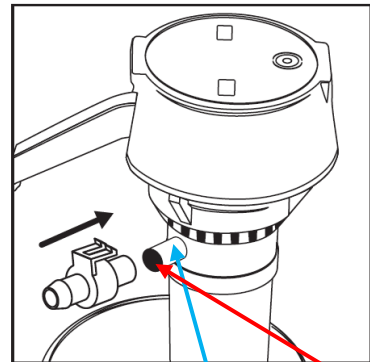


bowl fill restriction

inserting a protrusion of the bowl fill restriction into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the body; and	 protrusion of bowl fill restriction
attaching a tube directly to the bowl fill restriction, wherein the tube is configured to direct the water from the bowl fill restriction directly to a toilet tank overflow tube.	 tube directs water to overflow
16. The method of claim 15, further comprising preventing the bowl fill restriction from detaching from the extended portion of the body.	Bowl fill restriction as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion
17. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises clamping the bowl fill restriction to the extended portion.	Bowl fill restriction as depicted above clamps onto the extended portion
18. The method of claim 16, wherein preventing the bowl fill restriction from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.	Bowl fill restriction as depicted above snaps onto the extended portion
20. The method of claim 15, wherein attaching a bowl fill restriction directly to the extended portion of the body of the toilet fill valve further comprises inserting a portion of the bowl fill restriction into the extended portion of the body.	 extended portion bowl fill restriction

21. The system of claim 1, wherein the bowl fill restriction is constructed of a single piece.	
22. The method of claim 9, wherein the bowl fill restriction comprises a protrusion that is configured to insert into a recess in the toilet fill valve to lock the bowl fill restriction to the extended portion of the toilet fill valve.	
23. The method of claim 15, wherein the bowl fill restriction is constructed of a single piece.	
24. A system, comprising:	
a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

a body comprising an extended portion that forms a bowl fill outlet port, wherein the extended portion is integrally molded with the body;



a water inlet configured to receive water from a water source; and



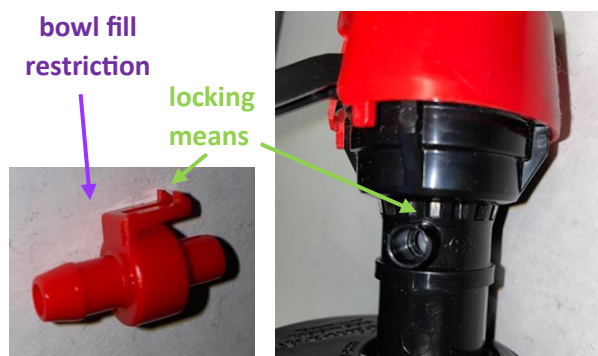
water inlet

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



tank water outlet

a bowl fill restriction configured to attach directly to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction comprises means for locking the bowl fill restriction to the extended portion of the body of the toilet fill valve, wherein the bowl fill restriction is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the restriction is configured to constrict a flow rate of the second portion of the water that flows through the bowl fill restriction; and



a tube configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction to a toilet tank overflow tube.

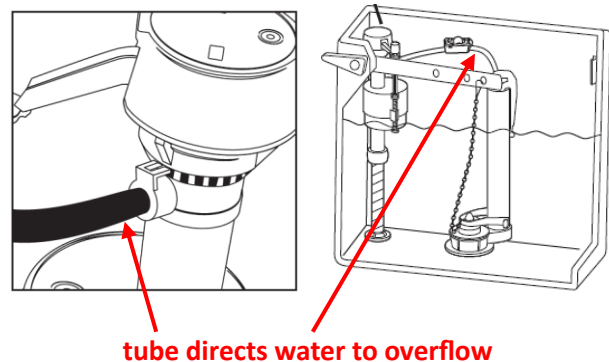
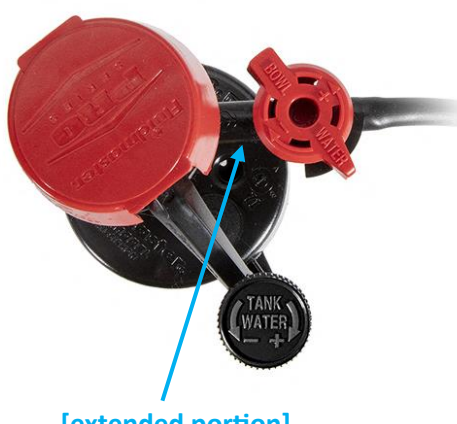


EXHIBIT E

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.
Case No. Case No. 8:23-cv-01156-AB-DFM

U.S. Patent No. 9,139,993	
Claim	Fluidmaster PRO45H series fill valves and kits including/utilizing PRO45H fill valves or their equivalent(s)
1. A system, comprising: a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 
a body comprising an extended portion, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port;	 [extended portion]

a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;

tank water outlet

water inlet

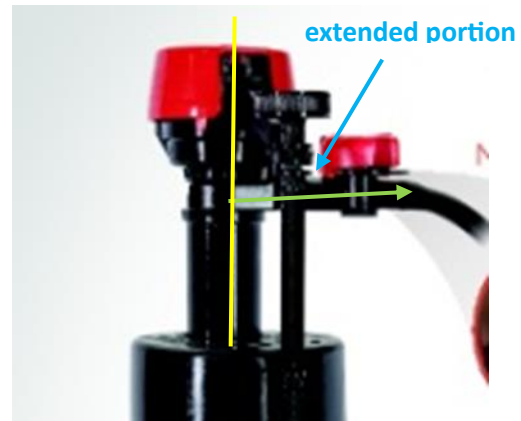
a water flow regulator configured to attach directly to the extended portion of the body, wherein a portion of the water flow regulator is configured to insert into, and come into contact with, the extended portion of the body, wherein the water flow regulator is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the water flow regulator is configured to constrict a flow rate of the second portion of the water that flows through the water flow regulator; and

regulator inserts into extended portion

a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.

tube directs water to overflow

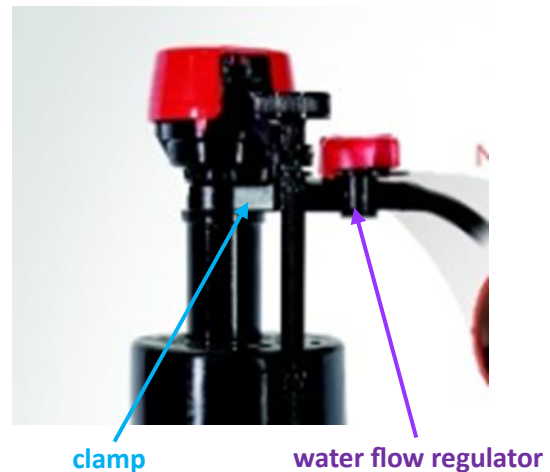
2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.



Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein the water flow regulator is configured to be clamped to the toilet fill valve.

Water flow regulator as depicted above clamps onto the extended portion



4. The system of claim 1, wherein the water flow regulator is configured to be snapped onto the toilet fill valve

Water flow regulator as depicted above snaps onto the extended portion



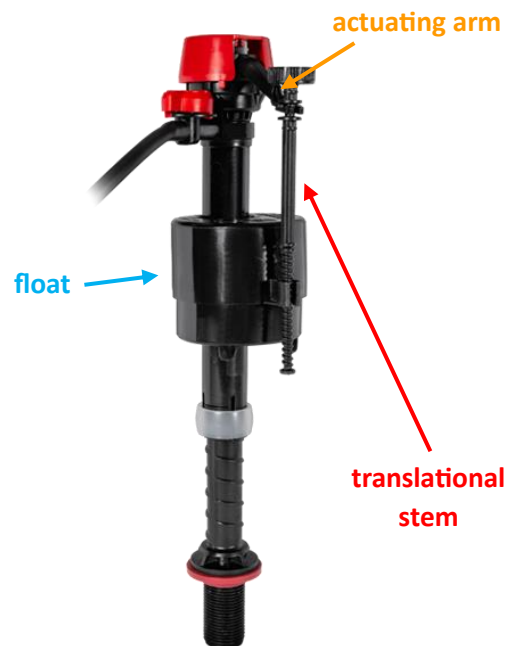
snap fit

water flow regulator

5. The system of claim 1, wherein the toilet fill valve further comprises:

a float; and

an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the water flow regulator and a translational stem that extends from the float to a free end of the actuating arm.



float

actuating arm

translational stem

6. The system of claim 1, wherein the water flow regulator further comprises a nipple that is configured to insert into the tube.



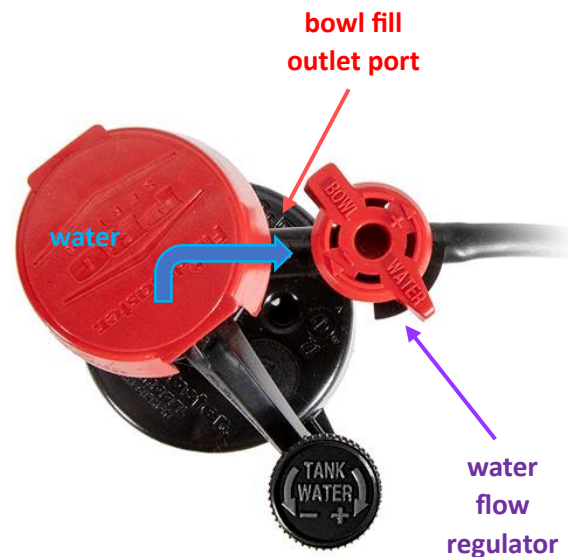
8. A method, comprising:

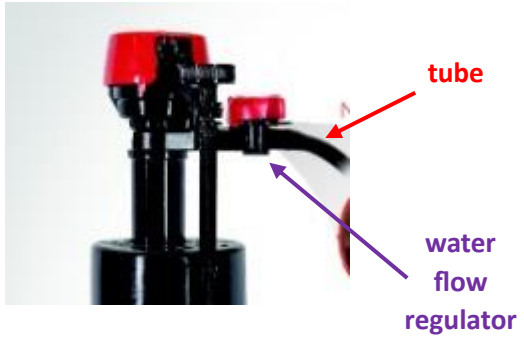
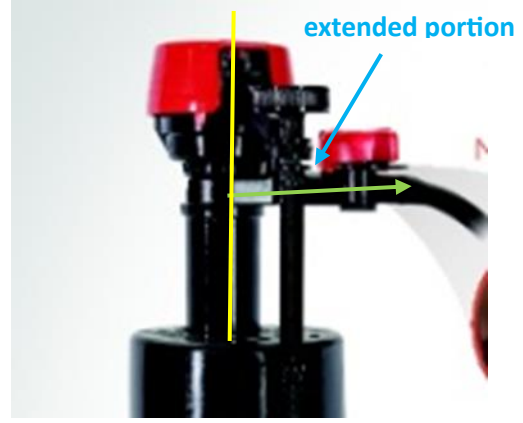
receiving, via a water inlet of a toilet fill valve, water from a water supply;

providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

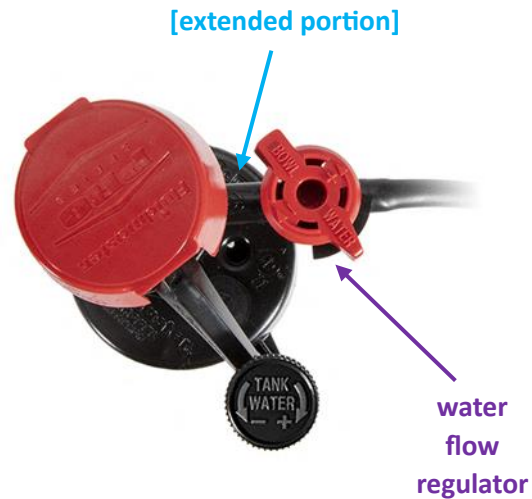


providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a water flow regulator, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the water flow regulator is in contact with the extended portion of the toilet fill valve, wherein a portion of the water flow regulator inserts into the extended portion of the toilet fill valve and comes into contact with the extended portion of the toilet fill valve;



restricting, using the water flow regulator, a flow of the second portion of the water;	Water flow regulator depicted above restricts the flow of of the second portion of water
providing, via the water flow regulator, the second portion of the water to a tube that is in contact with the water flow regulator; and	
providing, via the tube, the second portion of the water to a toilet tank overfill tube.	The tube depicted above carries water to the toilet tank overfill tube/pipe
10. The method of claim 8, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	Water flow regulator dial allows adjustment of water level in bowl and the toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
11. The method of claim 10, wherein the water level is determined at least in part by the water flow regulator.	Water flow regulator dial allows adjustment of water level in bowl.
12. The method of claim 8, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve.
13. The method of claim 8, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.	 Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)
14. A method, comprising:	

inserting a portion of a water flow regulator into an extended portion of a body of a toilet fill valve, the portion of the water flow regulator coming into contact with the extended portion of the body of the toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the water flow regulator is configured to constrict a flow rate of water that flows out of the bowl fill outlet port; and



attaching a tube directly to the water flow regulator, wherein the tube is configured to direct the water from the water flow regulator directly to a toilet tank overflow tube.



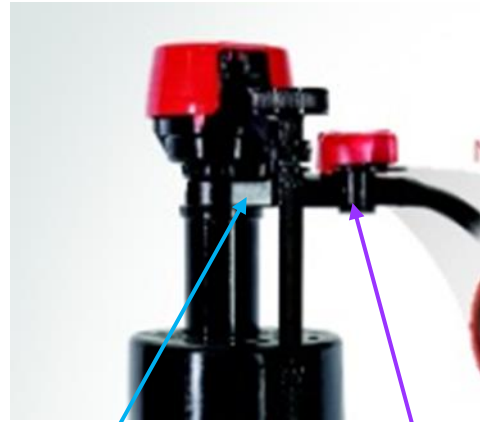
tube directs water to overflow

15. The method of claim 14, further comprising preventing the water flow regulator from detaching from the extended portion of the body.

Water flow regulator as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion

16. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises clamping the water flow regulator to the extended portion.

Water flow regulator as depicted above clamps onto the extended portion



clamp

water flow regulator

17. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.

Water flow regulator as depicted above snaps onto the extended portion



snap fit

water flow regulator

19. The system of claim 1, wherein the water flow regulator comprises an adjustable water flow regulator that is configured to adjust the flow rate of the second portion of the water based at least in part on a setting of the adjustable water flow regulator.

Water flow regulator dial allows adjustment of water level in bowl.

20. The method of claim 14, wherein the water flow regulator comprises an adjustable water flow regulator that is configured to adjust the flow rate of the water based at least in part on a setting of the adjustable water flow regulator.

Water flow regulator dial allows adjustment of water level in bowl" by adjusting the flow rate of the water.

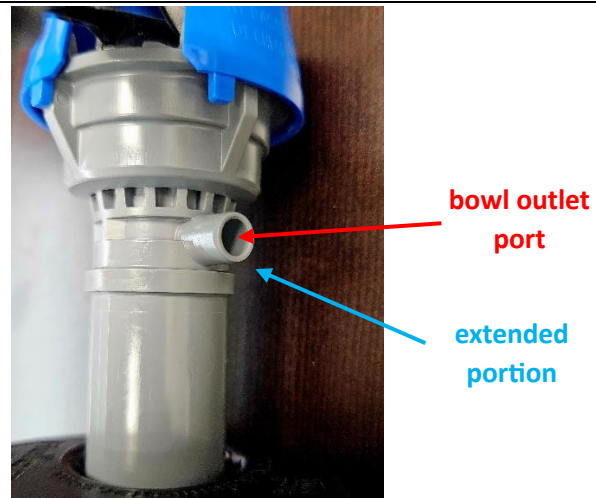
EXHIBIT F

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.
Case No. Case No. 8:23-cv-01156-AB-DFM

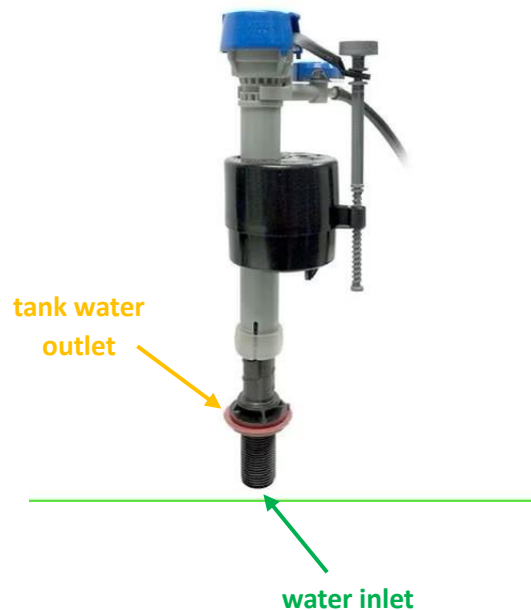
U.S. Patent No. 9,139,993	
Claim	Fluidmaster 400H series fill valves and kits including/utilizing 400H series fill valves or their equivalent(s)
1. A system, comprising: a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

a body comprising an extended portion, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port;



a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



a water flow regulator configured to attach directly to the extended portion of the body, wherein a portion of the water flow regulator is configured to insert into, and come into contact with, the extended portion of the body, wherein the water flow regulator is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the water flow regulator is configured to constrict a flow rate of the second portion of the water that flows through the water flow regulator; and



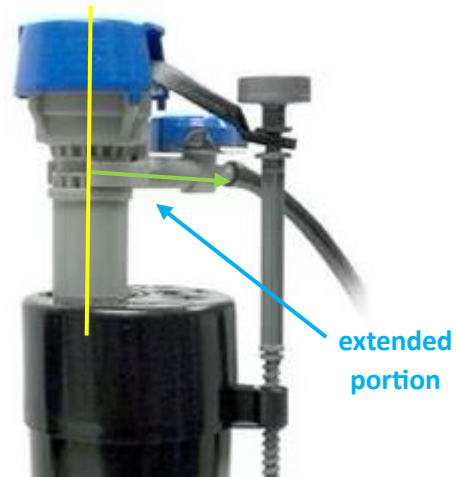
regulator inserts into
extended portion

a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.



tube directs water to overflow

2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.



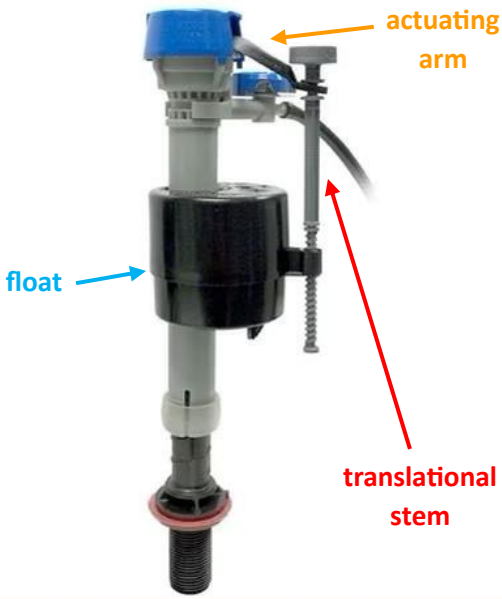
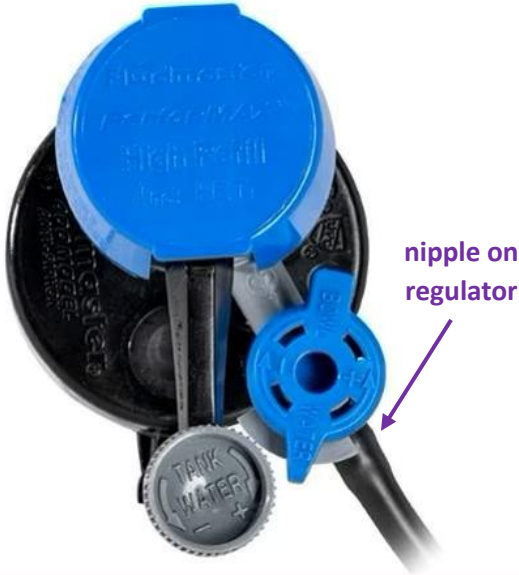
Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein the water flow regulator is configured to be clamped to the toilet fill valve.



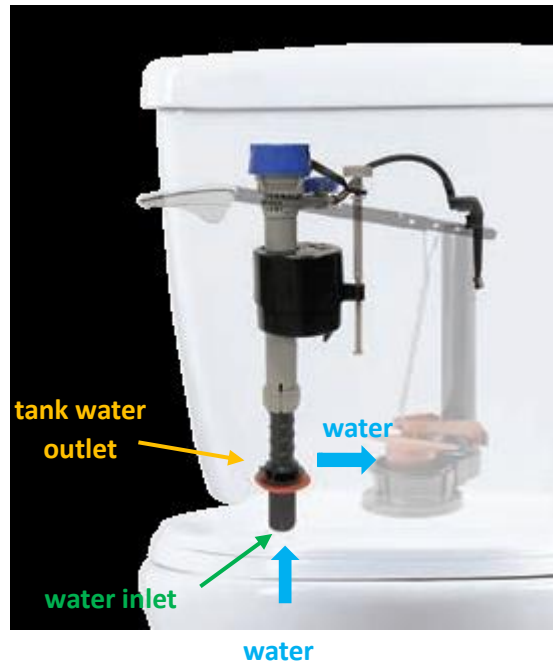
4. The system of claim 1, wherein the water flow regulator is configured to be snapped onto the toilet fill valve



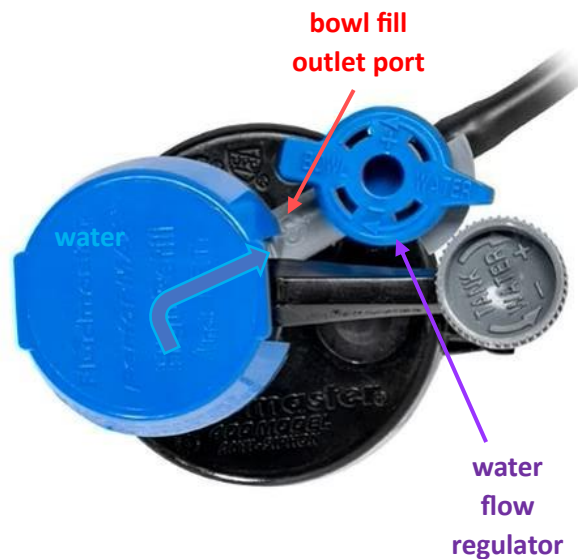
5. The system of claim 1, wherein the toilet fill valve further comprises:	
a float; and	
an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the water flow regulator and a translational stem that extends from the float to a free end of the actuating arm.	
6. The system of claim 1, wherein the water flow regulator further comprises a nipple that is configured to insert into the tube.	
8. A method, comprising:	

receiving, via a water inlet of a toilet fill valve, water from a water supply;

providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

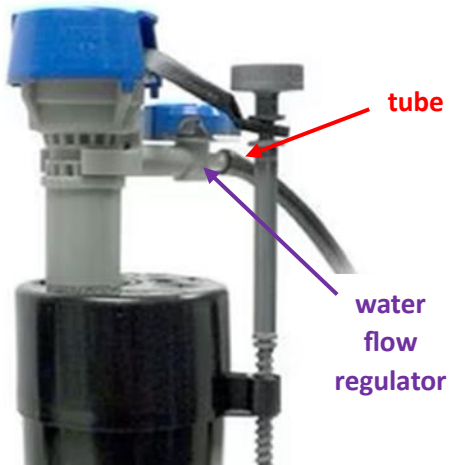


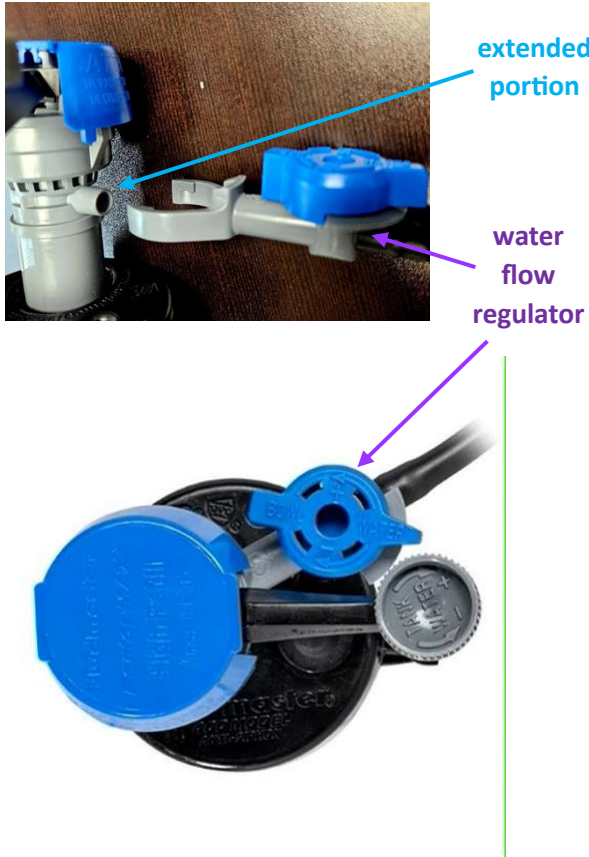
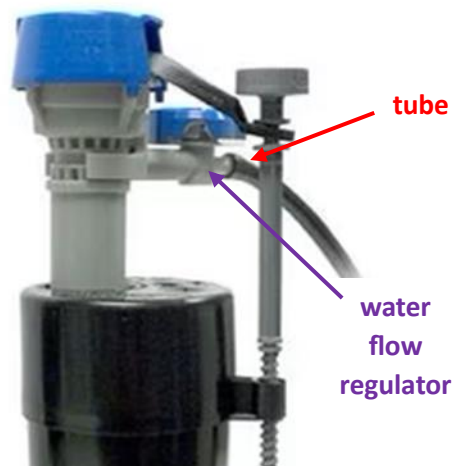
providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a water flow regulator, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the water flow regulator is in contact with the extended portion of the toilet fill valve, wherein a portion of the water flow regulator inserts into the extended portion of the toilet fill valve and comes into contact with the extended portion of the toilet fill valve;



restricting, using the water flow regulator, a flow of the second portion of the water;

Water flow regulator depicted above restricts the flow of of the second portion of water

providing, via the water flow regulator, the second portion of the water to a tube that is in contact with the water flow regulator; and	
providing, via the tube, the second portion of the water to a toilet tank overfill tube.	The tube depicted above carries water to the toilet tank overfill tube/pipe
10. The method of claim 8, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	Water flow regulator dial allows adjustment of water level in bowl and the toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
11. The method of claim 10, wherein the water level is determined at least in part by the water flow regulator.	Water flow regulator dial allows adjustment of water level in bowl.
12. The method of claim 8, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve.
13. The method of claim 8, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.	 Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

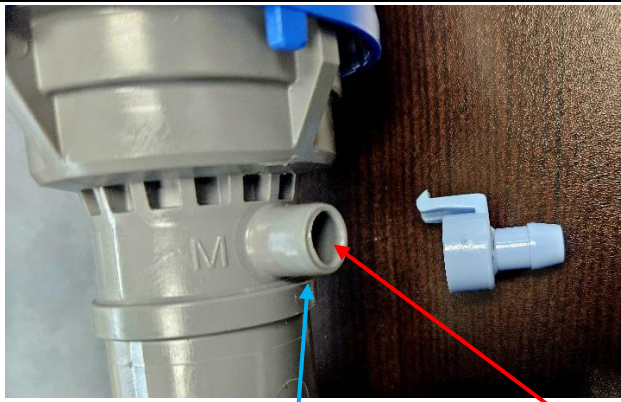
14. A method, comprising: inserting a portion of a water flow regulator into an extended portion of a body of a toilet fill valve, the portion of the water flow regulator coming into contact with the extended portion of the body of the toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the water flow regulator is configured to constrict a flow rate of water that flows out of the bowl fill outlet port; and	 extended portion water flow regulator
attaching a tube directly to the water flow regulator, wherein the tube is configured to direct the water from the water flow regulator directly to a toilet tank overflow tube.	 tube water flow regulator
15. The method of claim 14, further comprising preventing the water flow regulator from detaching from the extended portion of the body.	Water flow regulator as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion

16. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises clamping the water flow regulator to the extended portion.	Water flow regulator as depicted above is clamped onto extended portion
17. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.	Water flow regulator as depicted above snaps onto extended portion
19. The system of claim 1, wherein the water flow regulator comprises an adjustable water flow regulator that is configured to adjust the flow rate of the second portion of the water based at least in part on a setting of the adjustable water flow regulator.	Water flow regulator dial allows adjustment of water level in bowl.
20. The method of claim 14, wherein the water flow regulator comprises an adjustable water flow regulator that is configured to adjust the flow rate of the water based at least in part on a setting of the adjustable water flow regulator.	Water flow regulator dial allows adjustment of water level in bowl by adjusting the flow rate of the water.

EXHIBIT G

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.
Case No. Case No. 8:23-cv-01156-AB-DFM

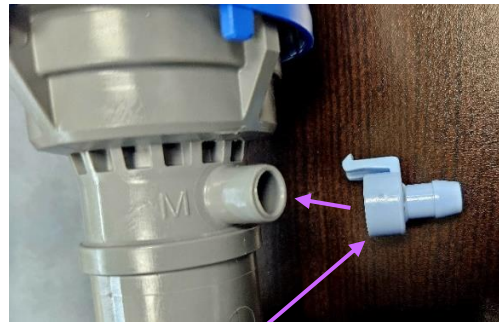
U.S. Patent No. 9,139,993	
Claim	Fluidmaster 400A series fill valves and kits including/utilizing 400A series fill valves or their equivalent(s)
1. A system, comprising: a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 
a body comprising an extended portion, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port;	 extended portion bowl fill outlet port

a water inlet configured to receive water from a water source; and

a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



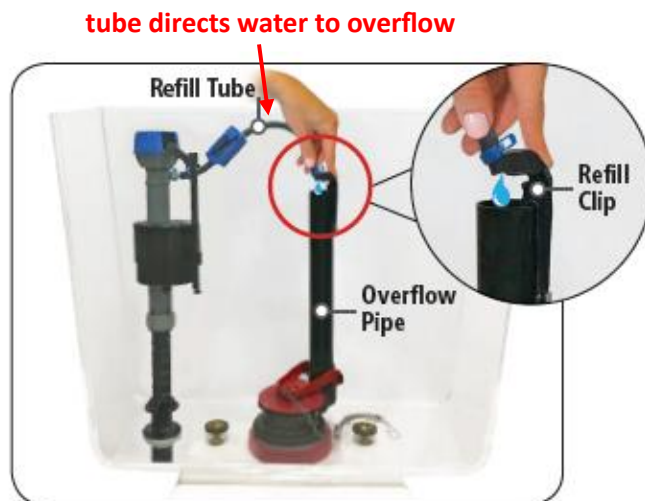
a water flow regulator configured to attach directly to the extended portion of the body, wherein a portion of the water flow regulator is configured to insert into, and come into contact with, the extended portion of the body, wherein the water flow regulator is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the water flow regulator is configured to constrict a flow rate of the second portion of the water that flows through the water flow regulator; and



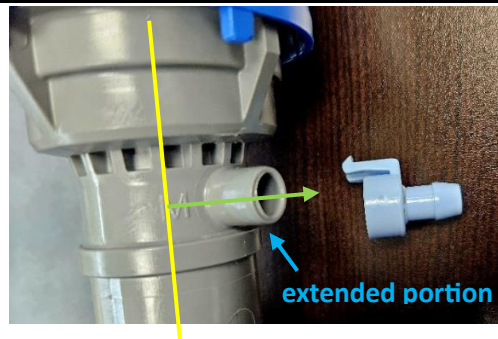
water flow regulator inserts into extended portion



a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.



2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.



Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein the water flow regulator is configured to be clamped to the toilet fill valve.

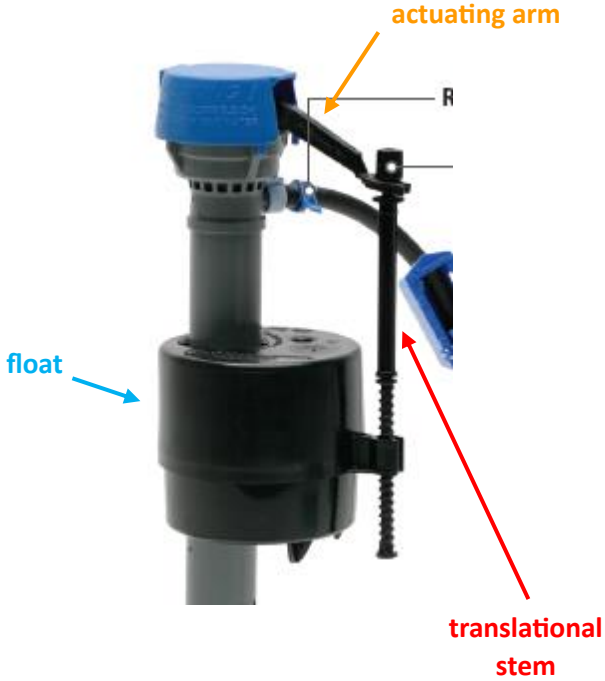


regulator clamps to toilet fill valve

4. The system of claim 1, wherein the water flow regulator is configured to be snapped onto the toilet fill valve

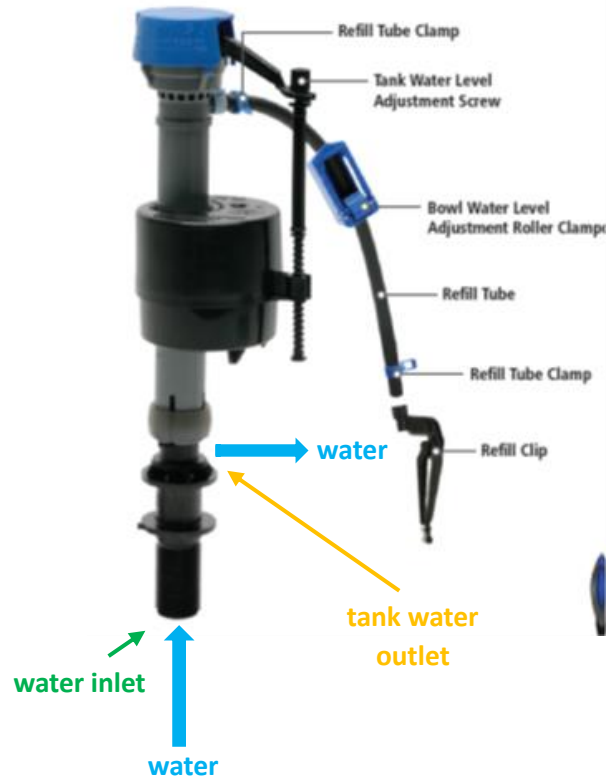


regulator snaps onto toilet fill valve

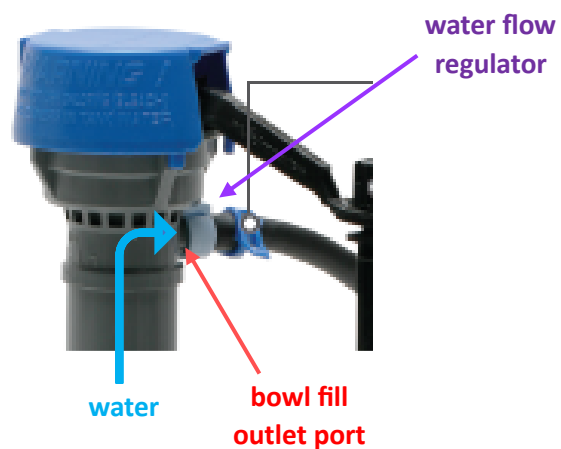
5. The system of claim 1, wherein the toilet fill valve further comprises:	 The diagram shows a side view of a toilet fill valve assembly. A blue cap is at the top. A black arm, labeled 'actuating arm', extends from the top. A blue float is attached to a vertical black stem, labeled 'translational stem'. A blue arrow points to the float, and an orange arrow points to the actuating arm. A reference numeral 'R' is also present.
a float; and	
an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the water flow regulator and a translational stem that extends from the float to a free end of the actuating arm.	
6. The system of claim 1, wherein the water flow regulator further comprises a nipple that is configured to insert into the tube.	 This section contains two images. On the left, a close-up of a white plastic nipple with a purple arrow pointing to it from the label 'nipple on regulator'. On the right, a larger image showing a hand inserting a similar white plastic nipple into a horizontal tube of a toilet fill valve assembly. A purple arrow points from the label to the nipple in the assembly.
8. A method, comprising:	

receiving, via a water inlet of a toilet fill valve, water from a water supply;

providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

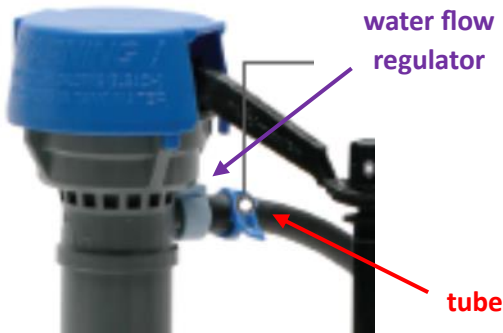


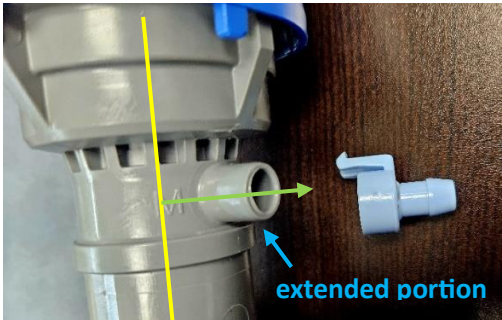
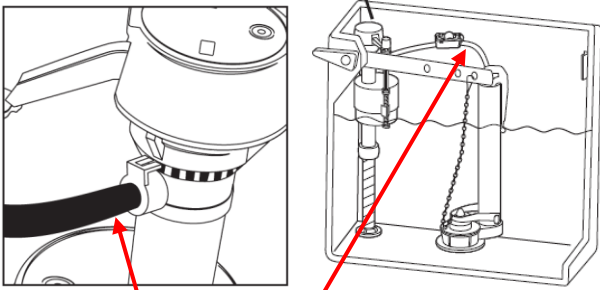
providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a water flow regulator, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the water flow regulator is in contact with the extended portion of the toilet fill valve, wherein a portion of the water flow regulator inserts into the extended portion of the toilet fill valve and comes into contact with the extended portion of the toilet fill valve;



restricting, using the water flow regulator, a flow of the second portion of the water;

Water flow regulator depicted above restricts the flow of of the second portion of water

providing, via the water flow regulator, the second portion of the water to a tube that is in contact with the water flow regulator; and	
providing, via the tube, the second portion of the water to a toilet tank overfill tube.	The tube depicted above carries water to the toilet tank overfill tube/pipe
10. The method of claim 8, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	The toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
11. The method of claim 10, wherein the water level is determined at least in part by the water flow regulator.	 Water flow regulator determines water level
12. The method of claim 8, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve

13. The method of claim 8, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.	 Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)
14. A method, comprising: inserting a portion of a water flow regulator into an extended portion of a body of a toilet fill valve, the portion of the water flow regulator coming into contact with the extended portion of the body of the toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the water flow regulator is configured to constrict a flow rate of water that flows out of the bowl fill outlet port; and	 water flow regulator
attaching a tube directly to the water flow regulator, wherein the tube is configured to direct the water from the water flow regulator directly to a toilet tank overflow tube.	 tube directs water to overflow
15. The method of claim 14, further comprising preventing the water flow regulator from detaching from the extended portion of the body.	Water flow regulator as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion

16. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises clamping the water flow regulator to the extended portion.	Water flow regulator as depicted above clamps onto extended portion
17. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.	Water flow regulator as depicted above snaps onto extended portion

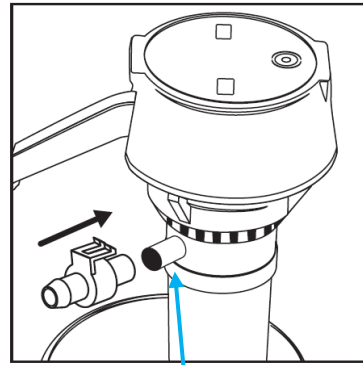
EXHIBIT H

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.
Case No. Case No. 8:23-cv-01156-AB-DFM

U.S. Patent No. 9,139,993	
Claim	Fluidmaster PRO45U/PRO45HR series fill valves and kits including/utilizing PRO45U/PRO45HR series fill valves or their equivalent(s)
1. A system, comprising:	
a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

a body comprising an extended portion, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port;



extended portion



a water inlet configured to receive water from a water source; and



water inlet

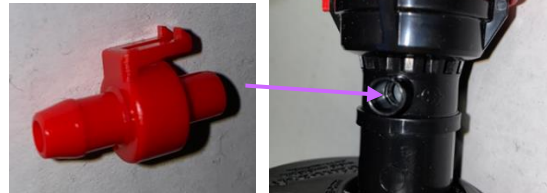
a tank water outlet configured to provide a first portion of the water to a toilet tank during at least a portion of a flush cycle;



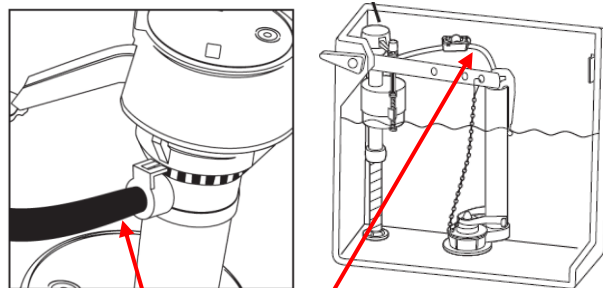
tank water outlet

a water flow regulator configured to attach directly to the extended portion of the body, wherein a portion of the water flow regulator is configured to insert into, and come into contact with, the extended portion of the body, wherein the water flow regulator is configured to receive a second portion of the water from the bowl fill outlet port during at least a portion of the flush cycle, wherein the water flow regulator is configured to constrict a flow rate of the second portion of the water that flows through the water flow regulator; and

regulator inserts
into extended
portion

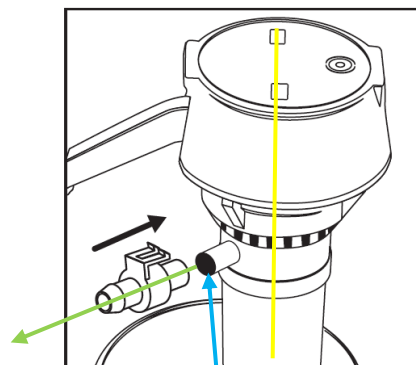


a tube that is configured to attach directly to the bowl fill restriction, wherein the tube is configured to direct the second portion of the water from the bowl fill restriction directly to a toilet tank overflow tube.

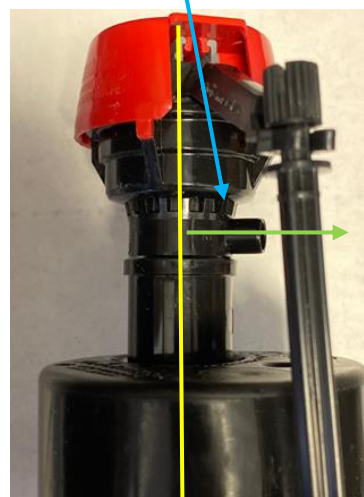


tube directs water to overflow

2. The system of claim 1, wherein the extended portion of the body extends radially from a longitudinal axis of the toilet fill valve.



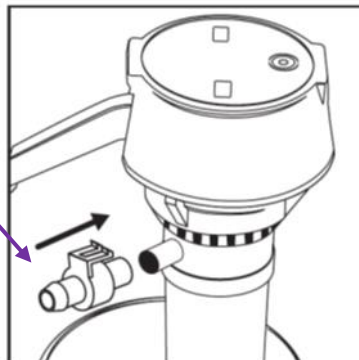
extended portion



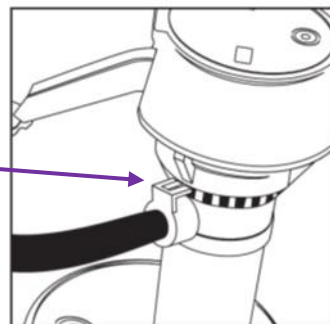
Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

3. The system of claim 1, wherein the water flow regulator is configured to be clamped to the toilet fill valve.

regulator
clamps onto
toilet fill
valve

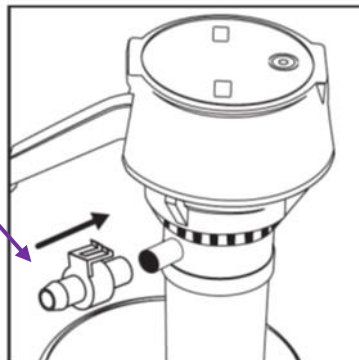


regulator
clamps onto
toilet fill
valve

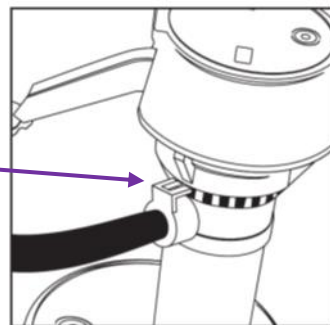


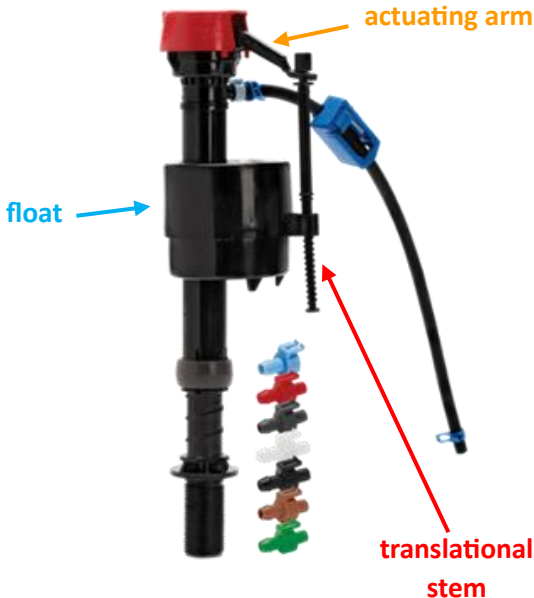
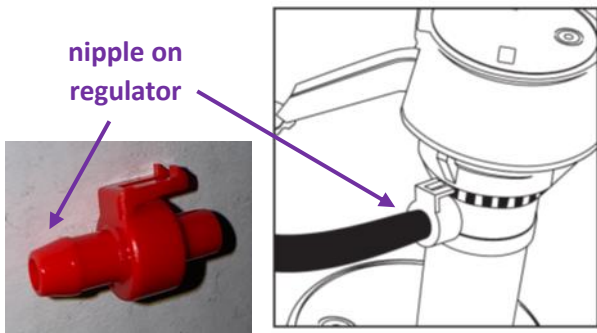
4. The system of claim 1, wherein the water flow regulator is configured to be snapped onto the toilet fill valve

regulator
snaps onto
toilet fill
valve



regulator
snaps onto
toilet fill
valve



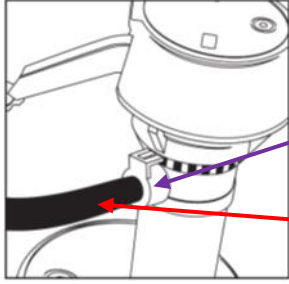
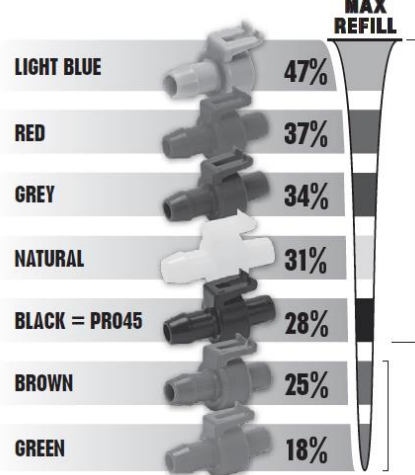
5. The system of claim 1, wherein the toilet fill valve further comprises:	 The diagram shows a vertical toilet fill valve assembly. A black float is attached to a vertical stem. An orange actuating arm is connected to the float and extends radially. A red translational stem extends from the float down to a series of colored valves (blue, red, white, black, green). Labels with arrows point to the float, actuating arm, and translational stem.
a float; and	
an actuating arm coupled to the float, wherein the actuating arm extends radially relative to a longitudinal axis of the toilet fill valve, wherein the actuating arm is angularly offset relative to the bowl fill valve, thereby preventing an interference with the water flow regulator and a translational stem that extends from the float to a free end of the actuating arm.	
6. The system of claim 1, wherein the water flow regulator further comprises a nipple that is configured to insert into the tube.	 The diagram shows a close-up of a water flow regulator. A red nipple is shown on the regulator, which is configured to insert into a tube. A label with an arrow points to the nipple on the regulator.
8. A method, comprising:	

receiving, via a water inlet of a toilet fill valve, water from a water supply;

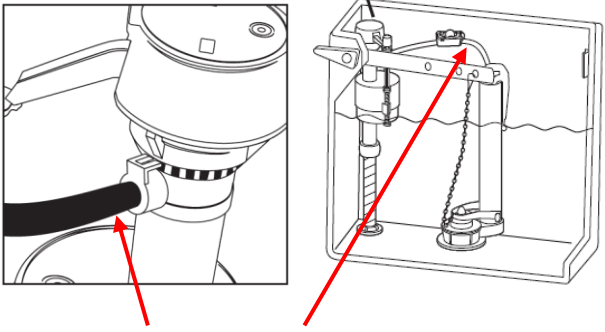
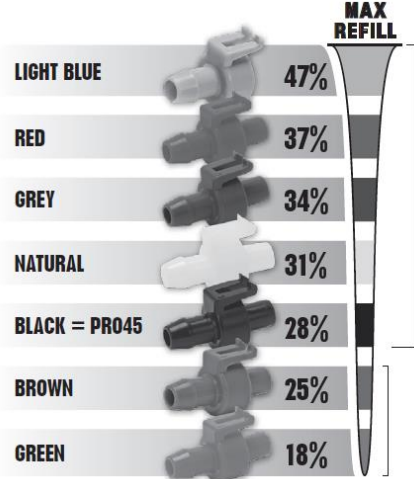


providing, via a tank water outlet of the toilet fill valve, a first portion of the water to a toilet tank;

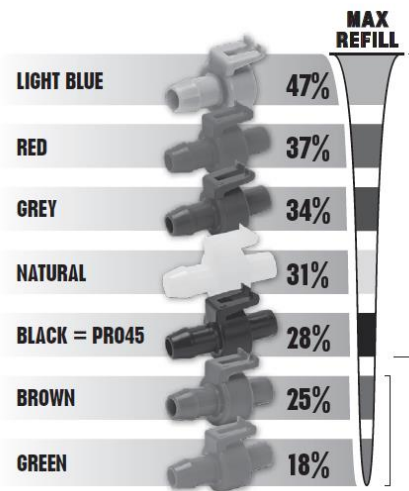


providing, via a bowl fill outlet port of the toilet fill valve, a second portion of the water to a water flow regulator, wherein an extended portion of the toilet fill valve forms the bowl fill outlet port, wherein the extended portion is integrally molded with the toilet fill valve, wherein the water flow regulator is in contact with the extended portion of the toilet fill valve, wherein a portion of the water flow regulator inserts into the extended portion of the toilet fill valve and comes into contact with the extended portion of the toilet fill valve;	 bowl fill outlet port water water flow regulator
restricting, using the water flow regulator, a flow of the second portion of the water;	Water flow regulator depicted above restricts the flow of of the second portion of water
providing, via the water flow regulator, the second portion of the water to a tube that is in contact with the water flow regulator; and	 water flow regulator tube
providing, via the tube, the second portion of the water to a toilet tank overfill tube.	The tube depicted above carries water to the toilet tank overfill tube/pipe
10. The method of claim 8, further comprising terminating, using the toilet fill valve, the flow of the second portion of the water so that a water level in a toilet bowl is at a predefined level.	The toilet fill valve terminates the flow of the second portion of the water when the float rises to the point that the actuator arm terminates the flow of water at a predefined level
11. The method of claim 10, wherein the water level is determined at least in part by the water flow regulator.	 MAX REFILL LIGHT BLUE 47% RED 37% GREY 34% NATURAL 31% BLACK = PR045 28% BROWN 25% GREEN 18% Water flow regulator inserts determine water level

12. The method of claim 8, wherein the extended portion of the toilet fill valve is a portion of a body of the toilet fill valve.	The bowl fill outlet port depicted above is a portion of the body of the toilet valve
13. The method of claim 8, wherein the extended portion of the toilet fill valve extends radially from a longitudinal axis of the toilet fill valve.	Extended portion (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)
14. A method, comprising: inserting a portion of a water flow regulator into an extended portion of a body of a toilet fill valve, the portion of the water flow regulator coming into contact with the extended portion of the body of the toilet fill valve, wherein the extended portion is integrally molded with the body, wherein the extended portion forms a bowl fill outlet port, wherein the water flow regulator is configured to constrict a flow rate of water that flows out of the bowl fill outlet port; and	water flow regulator

attaching a tube directly to the water flow regulator, wherein the tube is configured to direct the water from the water flow regulator directly to a toilet tank overflow tube.	 tube directs water to overflow																
15. The method of claim 14, further comprising preventing the water flow regulator from detaching from the extended portion of the body.	Water flow regulator as depicted above is affixed to the extended portion in a manner such that the water flow regulator does not detach from the extended portion																
16. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises clamping the water flow regulator to the extended portion.	Water flow regulator as depicted above clamps onto the extended portion																
17. The method of claim 15, wherein preventing the water flow regulator from detaching from the extended portion further comprises snapping the bowl fill restriction to the extended portion.	Water flow regulator as depicted above snaps onto the extended portion																
19. The system of claim 1, wherein the water flow regulator comprises an adjustable water flow regulator that is configured to adjust the flow rate of the second portion of the water based at least in part on a setting of the adjustable water flow regulator.	 <table border="1"> <thead> <tr> <th>Color</th> <th>Flow Rate</th> </tr> </thead> <tbody> <tr> <td>LIGHT BLUE</td> <td>47%</td> </tr> <tr> <td>RED</td> <td>37%</td> </tr> <tr> <td>GREY</td> <td>34%</td> </tr> <tr> <td>NATURAL</td> <td>31%</td> </tr> <tr> <td>BLACK = PR045</td> <td>28%</td> </tr> <tr> <td>BROWN</td> <td>25%</td> </tr> <tr> <td>GREEN</td> <td>18%</td> </tr> </tbody> </table> Adjustable water flow regulator inserts determine water level	Color	Flow Rate	LIGHT BLUE	47%	RED	37%	GREY	34%	NATURAL	31%	BLACK = PR045	28%	BROWN	25%	GREEN	18%
Color	Flow Rate																
LIGHT BLUE	47%																
RED	37%																
GREY	34%																
NATURAL	31%																
BLACK = PR045	28%																
BROWN	25%																
GREEN	18%																

20. The method of claim 14, wherein the water flow regulator comprises an adjustable water flow regulator that is configured to adjust the flow rate of the water based at least in part on a setting of the adjustable water flow regulator.



Water flow regulator inserts determine water level

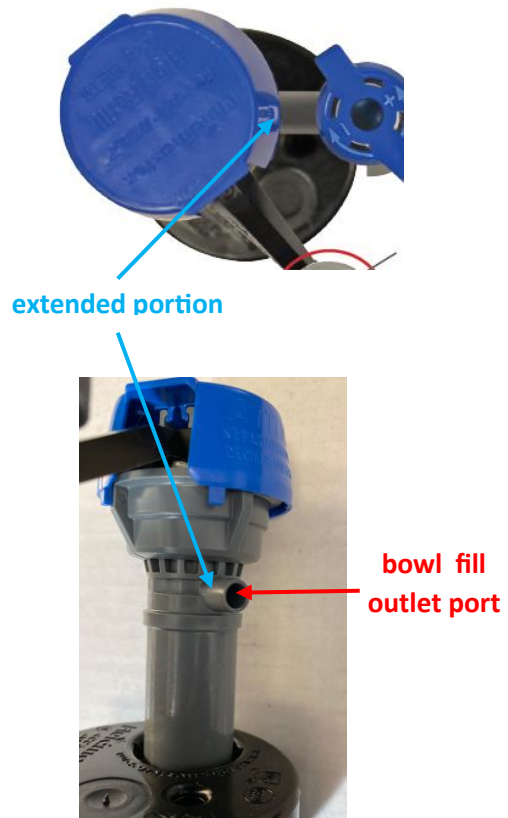
EXHIBIT I

DANCO'S PRELIMINARY INFRINGEMENT CONTENTIONS

Danco, Inc. v. Fluidmaster, Inc.
Case No. Case No. 8:23-cv-01156-AB-DFM

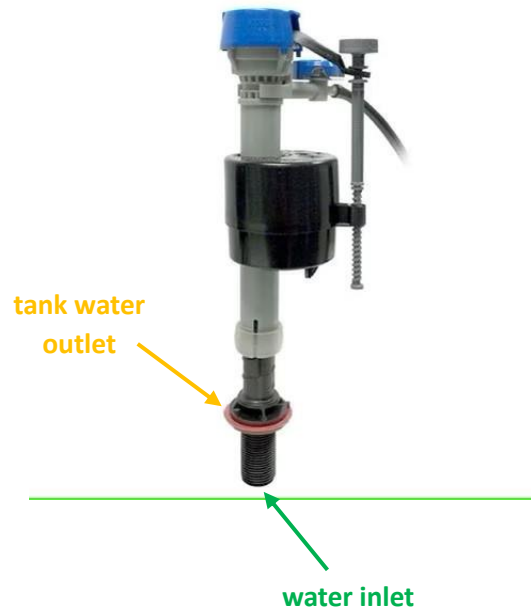
U.S. Patent No. 10,934,698	
Claim	Fluidmaster 400H series fill valves and kits including/utilizing 400H series fill valves or their equivalent(s)
1. A system, comprising: a toilet fill valve that comprises:	Accused Fluidmaster fill valve is a toilet fill valve: 

a body comprising an extended portion that forms a bowl fill outlet port;

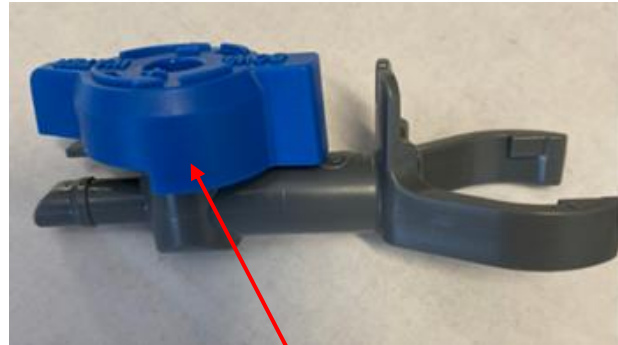


a water inlet configured to couple to a water source; and

a tank water outlet configured to output water to a toilet tank;

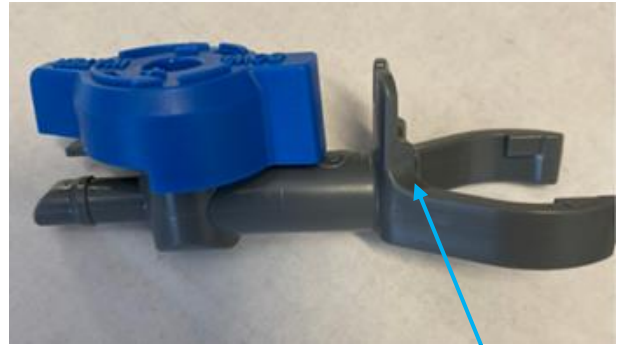


a bowl fill valve configured to attach directly to the body of the toilet fill valve, the bowl fill valve comprising:



bowl fill valve

a bowl fill valve inlet port configured to mate directly to the bowl fill outlet port of the body of the toilet fill valve;



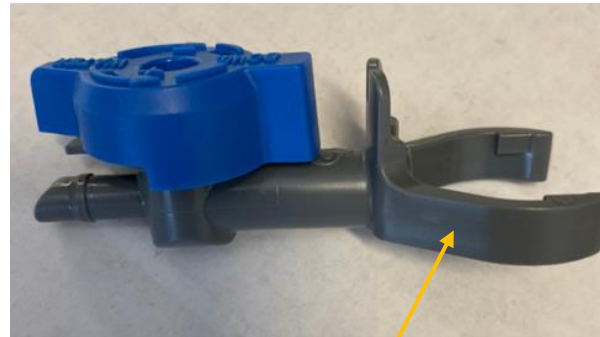
bowl fill inlet port

a bowl fill valve outlet port;



**bowl fill valve
outlet port**

a protrusion configured to insert into a recess of the toilet fill valve and retain the bowl fill valve to the toilet fill valve, the protrusion being configured to snap fit into the recess;



protrusion



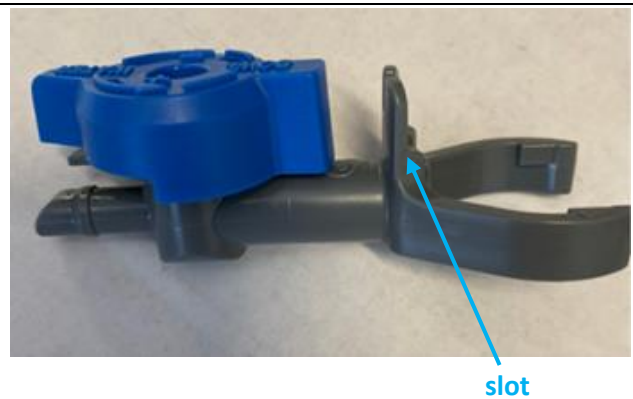
recess

a water flow adjustment handle; and

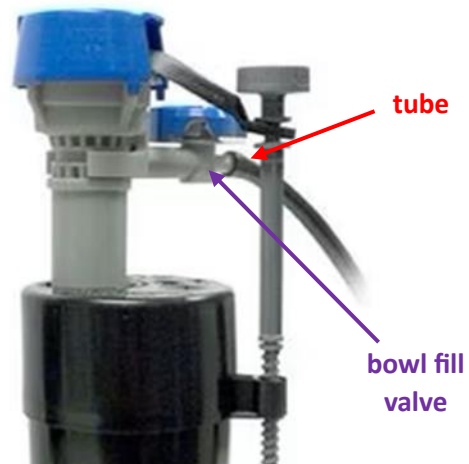
water flow adjustment handle



a slot configured to receive an extension of the toilet fill valve and prevent rotation of the bowl fill valve relative to the toilet fill valve; and



a tube configured to attach directly to the bowl fill valve outlet port of the bowl fill valve.



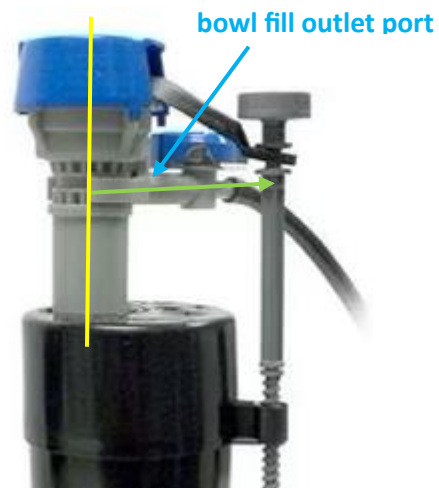
2. The toilet system of claim 1, wherein the bowl fill outlet port comprises a male end, and wherein the bowl fill valve inlet port comprises a female receptacle for the male end of the bowl fill outlet port.

Bowl fill valve outlet port as depicted above fits inside bowl fill valve inlet port in a male-female configuration.

3. The toilet system of claim 1, wherein the protrusion of the bowl fill valve is an annular protrusion located on a bowl fill valve side wall of the bowl fill valve, wherein the recess of the toilet fill valve is an annular recess located on a bowl fill outlet port side wall of the bowl fill outlet port, wherein the slot of the bowl fill valve is located on the bowl fill valve side wall, and wherein the extension of the toilet fill valve is a rib on the bowl fill outlet port side wall.



4. The toilet system of claim 1, wherein the bowl fill outlet port extends radially from a longitudinal axis of the body of the toilet fill valve.

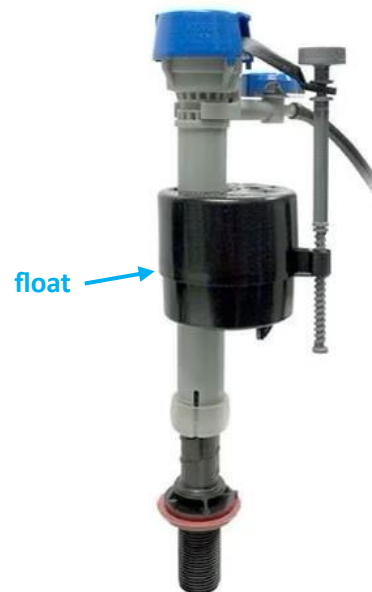


Bowl fill outlet port (in blue) extends radially (in green) from longitudinal axis of valve (in yellow)

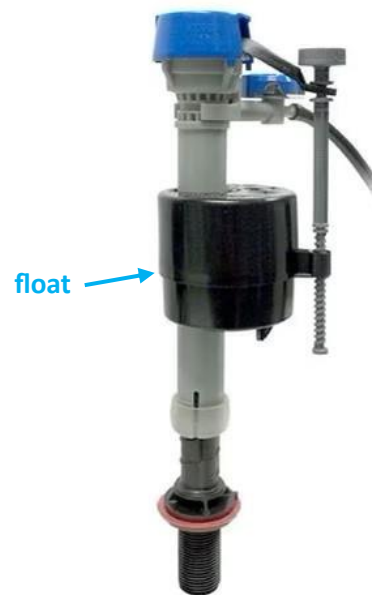
5. The toilet system of claim 4, wherein the toilet fill valve further comprises an actuation arm that extends radially from the longitudinal axis of the body of the toilet fill valve, and wherein the actuation arm is angularly offset relative to the bowl fill outlet port.



6. The toilet system of claim 1, wherein the toilet fill valve further comprises a float configured to move along at least a portion of the body of the toilet fill valve.

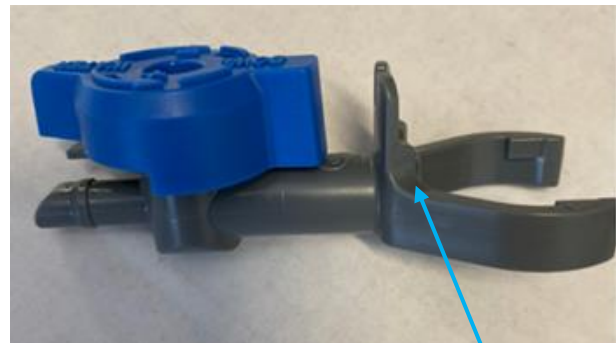


7. The toilet system of claim 6, wherein the at least a portion of the body of the toilet fill valve extends through the float.



8. A bowl fill valve, comprising:

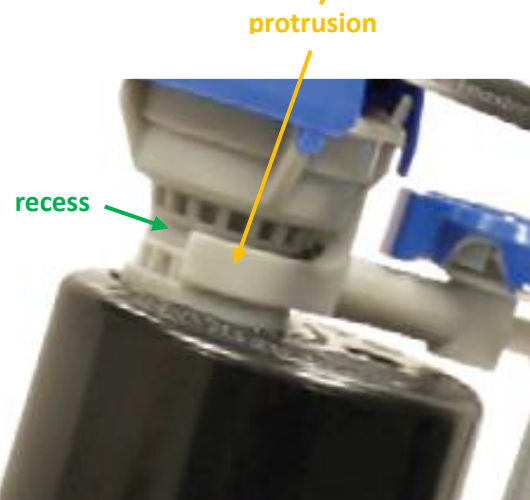
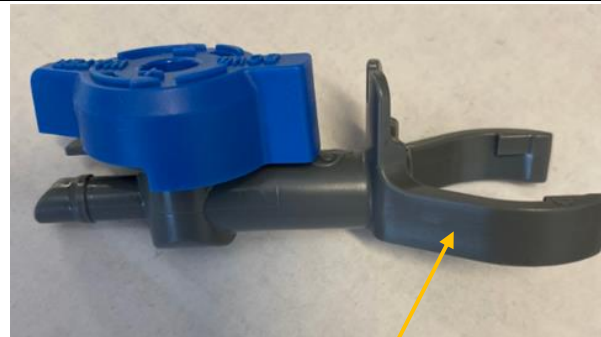
a bowl fill valve inlet port configured to mate directly to a bowl fill outlet port of a body of a toilet fill valve;



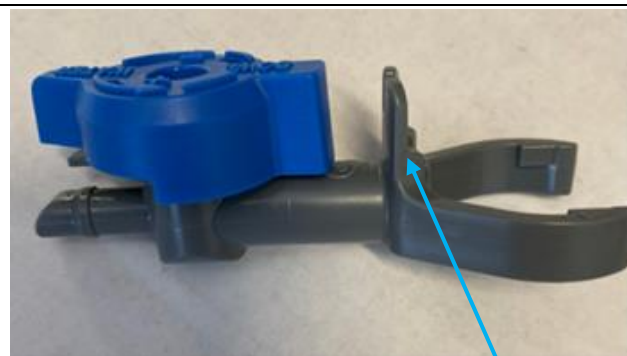
a bowl fill valve outlet port configured to attach directly to a tube that provides water from the bowl fill valve outlet port to an overflow tube;



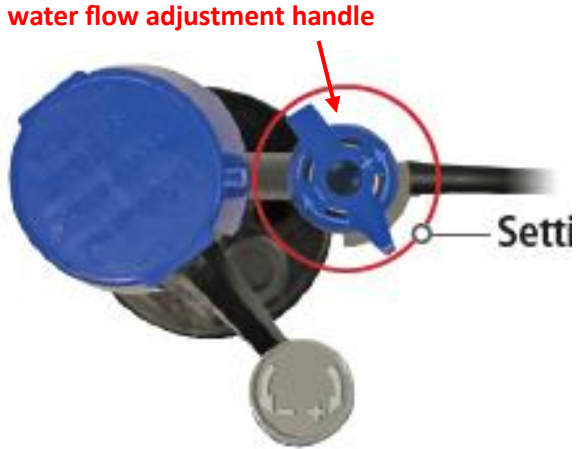
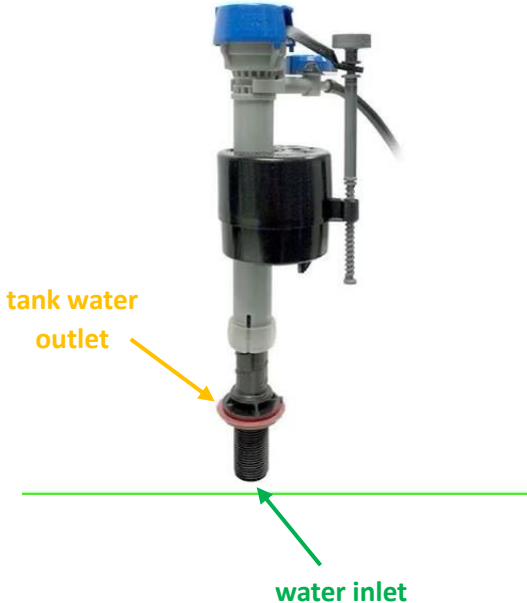
a protrusion configured to insert into a recess of the toilet fill valve and retain the bowl fill valve to the toilet fill valve, the protrusion being configured to snap fit into the recess;



a slot configured to receive an extension of the toilet fill valve and prevent rotation of the bowl fill valve relative to the toilet fill valve; and



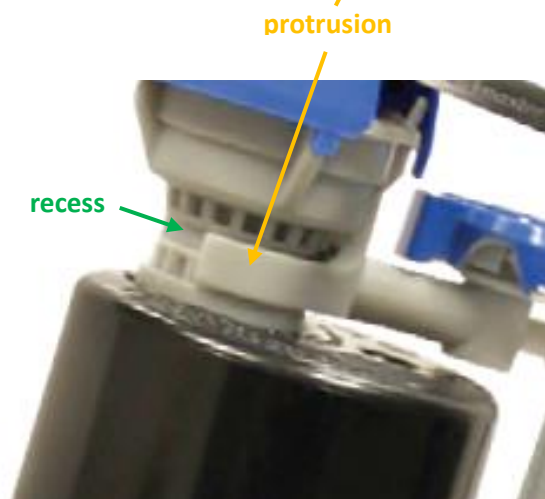
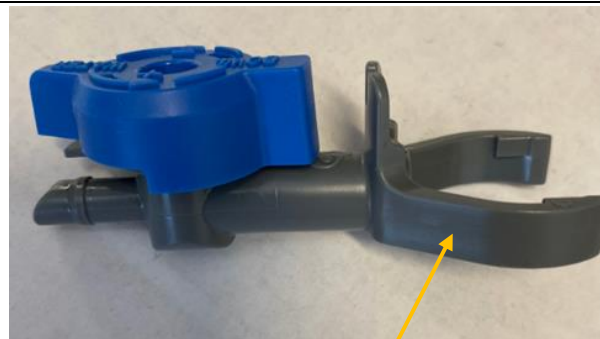
slot

a water flow adjustment handle being configured to adjust water flow from the bowl fill valve inlet port to the bowl fill valve outlet port.	
9. The bowl fill valve of claim 8, wherein the bowl fill valve inlet port comprises a female receptacle for a male end of the bowl fill outlet port.	Bowl fill valve outlet port as depicted above fits inside bowl fill valve inlet port in a male-female configuration.
10. A method, comprising:	
coupling a water inlet of a toilet fill valve to a water source;	
attaching a bowl fill valve directly to a body of the toilet fill valve by at least:	

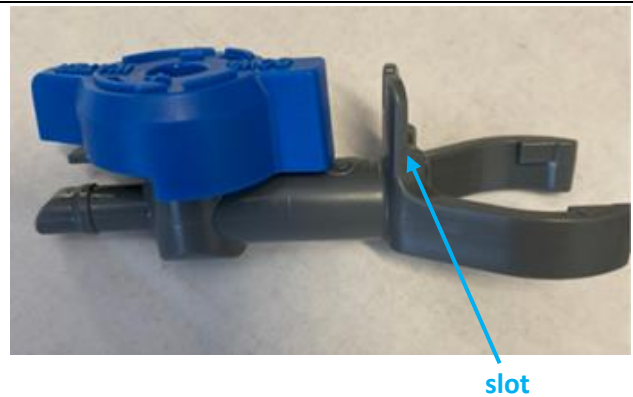
mating a bowl fill valve inlet port of the bowl fill valve directly to a bowl fill outlet port that extends from the body of the toilet fill valve;



snap fitting a protrusion of the bowl fill valve into a recess of the toilet fill valve; and



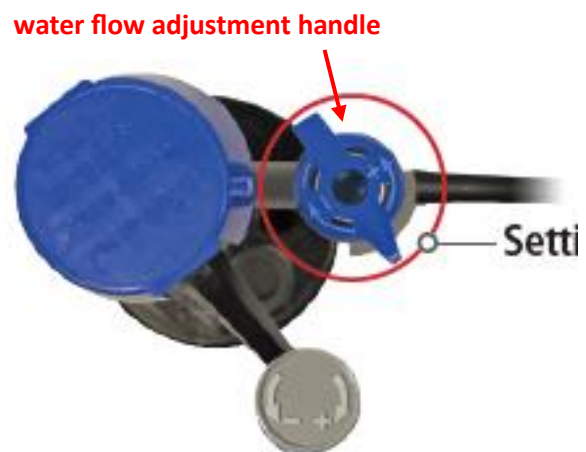
inserting an extension of the toilet fill valve into a slot of the bowl fill valve, wherein the slot is configured to prevent rotation of the bowl fill valve relative to the toilet fill valve; and



attaching a tube directly to a bowl fill valve outlet port of the bowl fill valve.



11. The method of claim 10, further comprising adjusting a flow of water out of the bowl fill valve.



12. A bowl fill valve, comprising:

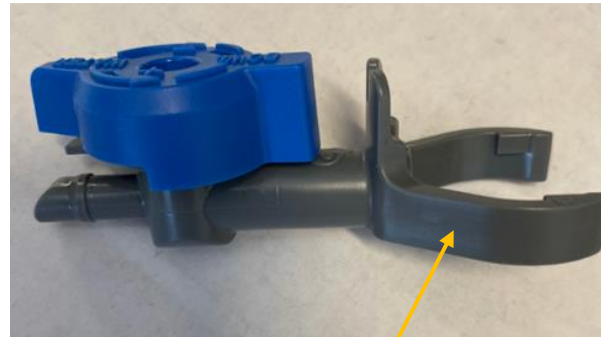
a bowl fill valve inlet port configured to mate directly to a bowl fill outlet port of a body of a toilet fill valve;



a bowl fill valve outlet port configured to attach directly to a tube that provides water from the bowl fill valve outlet port to an overflow tube;



a protrusion on the bowl fill valve configured to snap fit into a recess of the toilet fill valve and retain the bowl fill valve to the toilet fill valve;

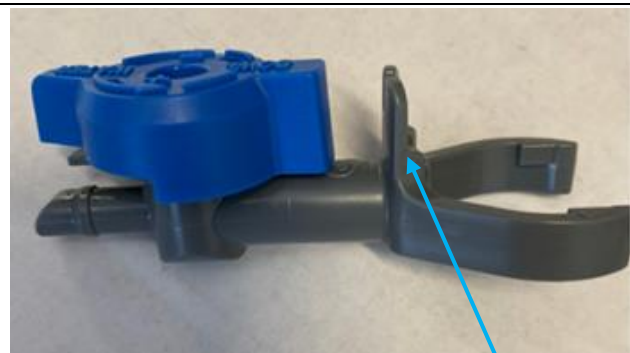


protrusion



recess

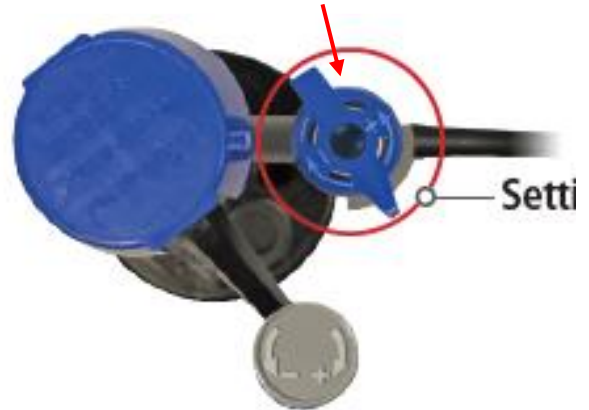
a slot configured to receive an extension of the toilet fill valve and prevent rotation of the bowl fill valve relative to the toilet fill valve; and



slot

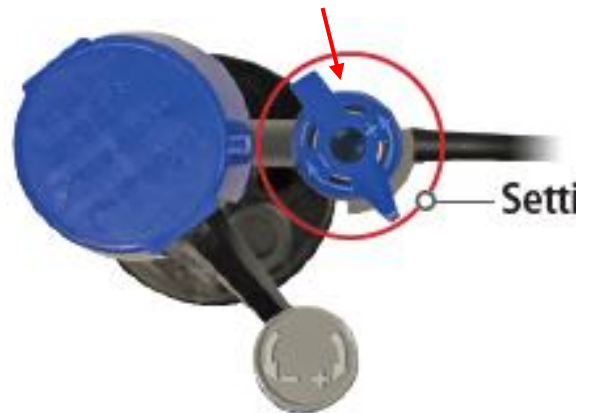
means for adjusting water flow out of the bowl fill valve outlet port.

water flow adjustment handle



13. The bowl fill valve of claim 12, wherein the means for adjusting water flow out of the bowl fill valve outlet port comprises an adjustment handle.

water flow adjustment handle



14. The toilet system of claim 1, wherein the bowl fill valve inlet port is configured to be inserted within a portion of the bowl fill outlet port.

Bowl fill valve outlet port as depicted above fits inside bowl fill valve inlet port in a male-female configuration.