

DOCKETED

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Water Saving Dual-Flush/Half-Flush Handles for Commercial Flushometers

See attached document.

Additional submitted attachment is included below.



Advanced Modern Technologies Corporation

High Efficiency Plumbing Systems and Devices



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About AMTC



- AMTC is the leading innovative designer and manufacturer of energy efficient, high quality, reliable, and cost effective washroom automation systems and water saving devices for commercial washrooms.
- AMTC's Patented Micro-Cam Technology for automatic sensor flush valves and faucets is the industry's most innovative and best performing technology.
- AMTC has been granted 26 U.S. and several International patents pertaining to washroom automation and water conservation products.
- AMTC's award winning products are easy to install and maintain, have a quick pay-back in water savings, and deliver on their promised performance.

Notable Customers:

**Douglas
Emmett**

CBRE
CB RICHARD ELLIS

AMC
THEATRES®



World Class Product Portfolio



World class product portfolio with the most innovative and best performing equipment

High Efficiency Dual-Flush Manual Flush Handle



Save Water Immediately



Models:
ADH-100-16
ADH-100-35



Benefits:

- **Green Solution** - Reduces Water Usage by Approx. 25%-50%
- **No Behavioral Change Required** by Users to Start Saving Water
- Low Cost Solution to Achieve High Efficiency Standards – Can Earn LEED Points
- Promotes Eco Friendly Image of Facility
- Eliminates Costly Replacement of Porcelain Fixtures
- Easily Converts Most Commercial Water Closet (Toilets) into High Efficiency Fixtures
- No Costly Professional Installation Required
- Excellent Return on Investment (ROI)

Features:

- Retrofit Handle for Water Closet (Toilets)
- Unique Patented Internal Mechanism
- Push Handle DOWN for Reduced Flush
- Pull Handle UP for Full Flush
- Universal Usage Instructions on Handle

DUALFLUSH® Water-Saving Toilet System

*Pull Up
For Solid Waste*

*Push Down
For Liquid Waste*

By properly using this Dual-Flush Toilet System you are doing your part to conserve water and demonstrating your commitment to preserving the environment.

(800) 874-7822 • www.smtcorporation.com

**The competition offers a Dual-flush handle that yields water savings in the opposite direction.
UP for water savings = Wrong Way!**

DUALFLUSH® Offers Positive ROI

DUALFLUSH® for Toilets- ROI Example

| | | |
|---|--|-----------------------|
| 1 | Current Gallons Per Flush (GPF)* | 1.60 GPF |
| 2 | GPF After Installation of the AMTC DUALFLUSH® | 1.27 GPF |
| 3 | Water Savings Per Flush After Installation (1-2) | 0.33 GPF |
| 4 | Average Annual Fixture Usage** | 39,000 Flushes |
| 5 | Annual Water Savings Per Fixture (3x4) | 12,870 Gallons |
| 6 | Estimated Water/Sewer Rate Cost Per 1,000 Gallons of Water | \$9.00 |
| 7 | Annual Savings Per DUALFLUSH® Installed [(5x6)/1,000] | \$115.83 |

* Current Federal law requires that commercial toilets manufactured and sold after January 1, 1992 must use no more than 1.6 GPF. Toilets installed prior to 1992 may be flushing as high as 3.5 GPF - 4.5 GPF.

** For a ladies room install, it is estimated that a woman will visit the ladies room an average of three times per day (one full flush, and two half flushes). This will result in an average of 1.27gpf (one @ 1.6gpf and two @ 1.1gpf). It should be noted that this is less than the amount utilized by the High Efficiency Toilet (HET) standard of 1.28gpf.

*** An average annual toilet fixture usage of 39,000 cycles is assumed (based on 50 users per toilet, three times per day for 260 days).

High Efficiency Half-Flush Manual Flush Handle



Save Water Immediately



Model:
ADH-101

HALF-FLUSH™
Water-Saving Urinal System

A diagram of the AMTC Half-Flush Manual Flush Handle (Model ADH-101) showing the green handle and the circular dial with a green arrow pointing down. The AMTC logo is visible on the handle.

By using this Water-Saving Urinal System you are doing your part to conserve water and demonstrating your commitment to preserving the environment.

The AMTC logo is located at the bottom of the diagram.

(800) 874-7822 • www.amtccorporation.com

Benefits:

- **Green Solution** - Reduces Water Usage by Approx. 50%
- **No Behavioral Change Required** by Users to Start Saving Water
- Low Cost Solution to Achieve High Efficiency Standards - Can Earn LEED Points
- Promotes Eco Friendly Image of Facility
- Eliminates Costly Replacement of Porcelain Fixtures
- Easily Converts Most Commercial Urinals into High Efficiency Fixtures
- No Costly Professional Installation Required
- Excellent Return on Investment (ROI)

Features:

- Retrofit Handle for Urinals
- Unique Patented Internal Mechanism
- Push Handle **DOWN** for Reduced Flush
- Universal Usage Instructions on Handle

HALF-FLUSH® Offers Positive ROI

HALF-FLUSH® for Urinals- ROI Example

| | | |
|---|---|-----------------------|
| 1 | Current Gallons Per Flush (GPF)* | 1.00 GPF |
| 2 | GPF After Installation of the AMTC HALF-FLUSH® | 0.50 GPF |
| 3 | Water Savings Per Flush After Installation (1-2) | 0.50 GPF |
| 4 | Average Annual Fixture Usage** | 40,000 Flushes |
| 5 | Annual Water Savings Per Fixture (3x4) | 20,000 Gallons |
| 6 | Estimated Water/Sewer Rate Cost Per 1,000 Gallons of Water | \$9.00 |
| 7 | Annual Savings Per HALF-FLUSH® Installed [(5x6)/1,000] | \$180.00 |

* Current Federal law requires that urinals manufactured and sold after January 1, 1992 must use no more than 1.0 GPF. Urinals installed prior to 1992 may be flushing as high as 3.0 GPF - 5.0 GPF.

** Certain of AMTC's competitors cite an average annual urinal fixture usage of 40,000 cycles (based on 77 users per urinal, two times per day for 260 days). Certain competitors offering waterless urinals cite 40,000 cycles per fixture.

High Efficiency Sensor Flush Valves - Automatic Janitor



Model :
HSM-801-RAJ

Enabling Technology:



- Micro-Cam Technology
- Water and Humidity Proof Circuitry
- Proprietary Programming
- Designed to Easily Retrofit onto Existing Flushometers
- Patented Design



The Automatic Janitor is a programmable automatic flush control device for urinals that saves water by controlling the flush intervals based upon elapsed time ONLY (no sensor mode). The Automatic Janitor is ideally suited for high traffic applications such as schools and arenas and is available as a complete flushometer or as a retrofit. The Automatic Janitor was designed to be used in conjunction with a urinal deodorizer/screen to provide for ultimate water efficiency while eliminating odors.

Key Features:

- Programmable Settings Allow Flushing Once Every 1, 2, 4, 6, 8, 12 or 24 Hours For Ultimate Water Savings
- Converts Existing Urinal into HEU (High Efficiency Urinal)
- Periodic Full Flush Maintains Plumbing System
- Mechanical Flush Option (For Custodial Staff-Using Special Key)
- Fully Sealed Design
- Durable Metal Frame
- Quick and Easy Installation and Programming
- Quiet Operation
- Retrofit and Complete Flushometer Models Available
- Residual Income Potential from Deodorizer/Screen
- 5-Year Warranty

URINAL OPTIONS/OBSERVATIONS



1.0gpf Urinal

- Inlet Pipes show slight deposits after **6 months**



**0.125gpf Urinal
(Ultra Low Flow)**

- Inlet Pipes show minor deposits after **6 months**



**Waterless Urinal
(Cartridge Type)**

- Inlet Pipes show major deposits after **6 months**



AUTOMATIC JANITOR FOR URINALS

| | | AMTC's Automatic Janitor | 0.125gpf Ultra Low Flow Urinal | Waterless Urinal (cartridge type) | 1.0gpf Urinal |
|--|---|--------------------------|--------------------------------|-----------------------------------|---------------|
| | Side by Side Cost Analysis Assumptions | | | | |
| 1 | Gallons per flush (gpf) | 1.00 | 0.125 | 0 (zero) | 1.00 |
| 2 | Daily Users per Urinal | Irrelevant | 39 | 39 | 39 |
| 3 | Typical Use per Day / per User | 2 | 2 | 2 | 2 |
| 4 | Combined Water / Sewer Rate per 1,000 Gallons | \$9.00 | \$9.00 | - | \$9.00 |
| 5 | Uses per Cartridge | - | - | 3,500 | - |
| 6 | Cost per Cartridge | - | - | \$55.00 | - |
| 7 | Days of Operation per Year | 260 | 260 | 260 | 260 |
| 8 | Total Uses per Year | 40,000 | 40,000 | 40,000 | 40,000 |
| | Annual Water Usage Comparison | | | | |
| 9 | Water Use (Gallons/Day) (Line 1 x Line 2 x Line 3) | 12* | 9.75 | - | 78 |
| 10 | Water Use (Gallons/Year) (Line 1 x Line 8) | 3,120* | 5,000 | - | 40,000 |
| 11 | Cartridge Use (Quantity/Year) | - | - | 7.42 | - |
| | Annual Operating Cost Comparison | | | | |
| 12 | Annual Flush Valve Maintenance Costs | \$20.00 | \$20.00 | - | \$45.00 |
| 13 | Cartridge Cost (Year) (Line 6 x Line 11) | - | - | \$408.10 | - |
| 14 | Water / Sewer Cost [(Line 10 / 1000) x Line 4] | \$28.08 | \$45.00 | - | \$360.00 |
| 15 | Total Annual Operating Cost (Line 12 + Line 13 + Line 14) | \$48.08 | \$65.00 | \$408.10 | \$405.00 |
| | Estimated Annual Savings Comparison | | | | |
| 16 | Estimated New System Purchase Price | \$220.00 | \$600.00 | \$399.00 | \$450.00 |
| 17 | Installation Time | 5 Minutes | 2 Hours | 1-1/2 Hours | 2 Hours |
| 18 | Installation Cost (\$125.00/Hour) | \$12.50 | \$250.00 | \$187.50 | \$250.00 |
| 19 | Total Annual Operating Cost (Line 12 + Line 13 + Line 14) | \$48.08 | \$65.00 | \$408.10 | \$405.00 |
| 20 | First Year Cost (Line 15 + Line 16 + Line 18) | \$280.58 | \$915.00 | \$994.60 | \$1,105.00 |
| 21 | Ten Year Cost (Line 15 x 9 years + Line 20) | \$713.30 | \$1,500.00 | \$4,667.50 | \$4,750.00 |
| *: Figures provided for AMTC's Automatic Janitor are based on one flush every two hours. | | | | | |

- **First & Only High Efficiency Faucet (HEF) in the Market for Ultimate Water Savings** 
- **Multiple Power Sources (Hybrid Design)**   
- **Reliable Micro-Cam Technology**  
- **More Hygienic Environment**
- **Low Lead Compliant**
- **5-Year Warranty**

Multi-Laminar Spray



Full Stream Aerated



Full Stream Laminar



FIXEDFLO[®] High Efficiency Sensor Faucet Line



The FIXEDFLO[®] is the first and only high-efficiency faucet (HEF) system providing ultimate water savings through a non-adjustable or "fixed" water flow. The FIXEDFLO[®] sensor faucet system utilizes a uniquely designed and proprietary internal water flow mechanism that allows the faucet to stream at a pre-set flow rate that cannot be externally altered, even by the use of an aerator.

Key Features:

- The first and only High-Efficiency Faucet (HEF) system of its kind – flow rate may not be externally altered.
- Available in 0.35 and 0.5gpm flow rates.
- Designed specifically for facilities where water conservation is a priority.
- Includes all of the additional features of AMTC's HybridFlo[®] Faucet System.

Enabling Technology:

- Micro-Cam Technology
- Patented Ball Relief Valve Mechanism
- Flow Pin Regulating Flow Rate
- Patented Design



Models: AEF-300FF, AEF-300-SMFF, AEF-301FF, AEF-302FF, AEF-303FF, AEF-304FF, AEF-305FF, AEF-306FF



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