



ECO-TECH™, INC.

*Innovative Code Listed Products for the
Water Treatment & Plumbing Industry*

Eco-Tech™ DLA Series
DRAIN LINE ADAPTERS

DEALER CATALOG & PRICE LIST

Effective March 2011

Model DLA-9™

Model DLA-12™

Model DLA-D™

Model DLA-G™

Model DLA-G15™

Model DLA-G20™

Model DLA-TAG™

*Excellent Performance
Complementary Appearance*



IAPMO/UPC & IPC (All Models)
ASTM F 409 (Model: DLA-9/12)
ASME A112.1.3 (DLA-G Series)

Dear Water Treatment & Plumbing Professional,

Eco-Tech is dedicated to providing useful and innovative solutions for the water treatment and plumbing industry. We bring a unique product to market designed to assist dealers of quality water treatment equipment with the best installations possible, and most importantly, satisfied customers. Prior to our series of Drain Line Adapters, the only drain connection available to install an undercounter RO was the drain saddle.

Eco-Tech sold the first DLA-9 and DLA-12 in January 1995. Since that time, our product line has expanded and our series of drain connections have met with wide acceptance from dealers, plumbers, manufacturers, distributors, building and health department inspectors from coast to coast. IAPMO has listed all of our models, and they are engraved with the UPC (Uniform Plumbing Code) logo. Three of our models are third party tested to either ASME Standard A112.1.3 for airgaps, or ASTM Standard F 409. Eco-Tech maintains excellent patent protection, and we are engaged in an ongoing program to obtain additional patents, certifications, and listings.

The installer of an RO system or softener will find it very useful to have one or more of our DLA models available on the truck in order to accomplish a routine installation, or solve most plumbing challenges encountered. Drain saddles are code violations subject to failure and *red tagging* during inspections. The dripping gurgling noise, and repeated clogging caused by the saddle are responsible for most of the problems normally associated with airgap faucets. Below are four reasons why our Drain Line Adapters should replace the drain saddle:

- 1.) The DLA-9 or DLA-D, and in most cases, the DLA-12 will reduce or eliminate reject water noise.
- 2.) The DLA-9 and DLA-12 are very clog resistant due to their recessed conical design and polypropylene construction. The DLA-D is self cleaning in that it actually creates a venturi in the RO reject water tubing. During the operation of a dishwasher or disposal (or both, when simultaneously in the drain cycle), a suction is generated which can be felt through the RO faucet airgap port.
- 3.) The DLA-12 and DLA-D installation looks very professional and will not be accidentally rotated or bumped out of alignment by moving supplies or replacing a waste basket under the sink. Typically, the DLA-12 installs in about one to three minutes, while the drain saddle requires about five minutes. The DLA-9, 12 & D eliminate the use of electric drilling into wet pipes with several different bits to achieve the desired hole size. They eliminate the close alignment of the drilled pipe, to the hole of a self adhesive gasket, to the outlet of a drain saddle, followed by the insertion of a threaded connector which may leak at the threads.
- 4.) The DLA-D bypasses existing plumbing and eliminates the need to tie into potentially corroded pipes. When a single compartment kitchen sink with a disposal is encountered, a DLA-9 or DLA-D is indispensable.

The DLA-G airgap series provide a convenient ready made airgap for softeners, RO's and condensate lines. Model DLA-TAG twin inlet dishwasher airgap is a welcome addition to our product line for RO installations with high flow rates and dual compartment dishwashers requiring two airgaps to the drain. Models DLA-G15 & G20 provide female inlet threads to accommodate Schedule-40 rigid pipe connections when required by code. We will introduce more products as they become available, and we appreciate the acceptance with which our inventions have been received.

Thank you,



David Bowman / President

Eco-Tech, Inc.
1860 N. Obispo Ave., Suite H
Signal Hill, CA 90755-1279
E-mail: sales@ecotech-DLA.com

Visit Us Online: www.ecotech-DLA.com

Do it Right Do it to Code

"The Smart Alternative to the Drain Saddle"

A quality water treatment system calls for a professional installation from start to finish. Use an Eco-Tech™ Drain Line Adapter to finish the job your customers deserve.



PATENTED



ASTM F 409
ASME A112.1.3

MADE IN USA

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▼ TIPS & SUGGESTIONS

To enhance the use of a DLA, it is best to install the reject water tubing as short and direct as possible, avoiding kinks and sags (see variations below). Depending on the quality of RO reject water, it may be helpful to install a quick connect union vertically on the drain line immediately beneath the airgap faucet/sink in order to quick-change that section of reject water tubing between the faucet and DLA-9, 12, or D. A pipe cleaner type brush or similar device can be used to ream out the remaining tubing/airgap of bacterial growth back up the other direction as well. All this can be done quickly and inexpensively during every filter change, thereby reducing or eliminating callbacks. These suggestions, along with the use of a DLA, will remedy most problems normally associated with airgap faucets.

Variations: Some installers have reported overcoming unusually difficult noise problems by taking the following steps:

DLA-12 horizontal (waste-ell) installation:

Rotate branch outlet of Tee (facing straight up at sink) down 45 degrees, then orient DLA-9/12 adapter up toward airgap faucet accordingly. Do not *back-pitch* (dip below horizontal) the adapter or tubing.

DLA-12 vertical (tailpiece) installation:

Rotate branch outlet of Tee toward airgap faucet. Add a new horizontal waste-ell (cut short to length) closer toward airgap faucet, then insert DLA-9/12 adapter into socket of new waste-ell, and orient toward airgap faucet reject water tube. This will shorten the length of tubing significantly, and may reduce the noise factor in higher flow/output RO systems.

DLA-D/dishwasher installation: A DLA-D installed downstream of an airgap faucet, and in tandem with a dishwasher, will perform optimally when the dishwasher has its own (sink mounted) airgap.

Note: Always run a significant amount of water in sink to replace the trap water seal on all installations where the trap has been removed and then replaced. Failing to do so may temporarily increase the noise factor and allow sewer gas to accumulate in kitchen.

DLA-9TM Reverse Osmosis DRAIN LINE ADAPTER

The DLA-9 solves an RO installation problem that nothing else can.*

Specific to the single compartment sink with disposal configuration, the DLA-9 provides a method of connecting RO reject water tubing using the DLA-9/12 Drain Line Adapter and standard plumbing fittings.








The DLA-9 is commonly used in small condominiums, apartments and cottages.

- Provides an RO drain connection where a drain saddle cannot
- Comes in kit form with all the fittings and instructions needed for installation
- Uses standard plumbing fittings to meet code requirements nationwide
- Choice of push-in or barb inlet sizes
- Unique design reduces reject water noise
- Resists clogging with fewer “callbacks”
- Solid professional connection
- No drilling into wet pipes
- Fast easy installation
- IAPMO/UPC & IPC Listed
- ASTM F 409

* Model DLA-D may be used instead of a DLA-9.



LIST OF PARTS ENCLOSED

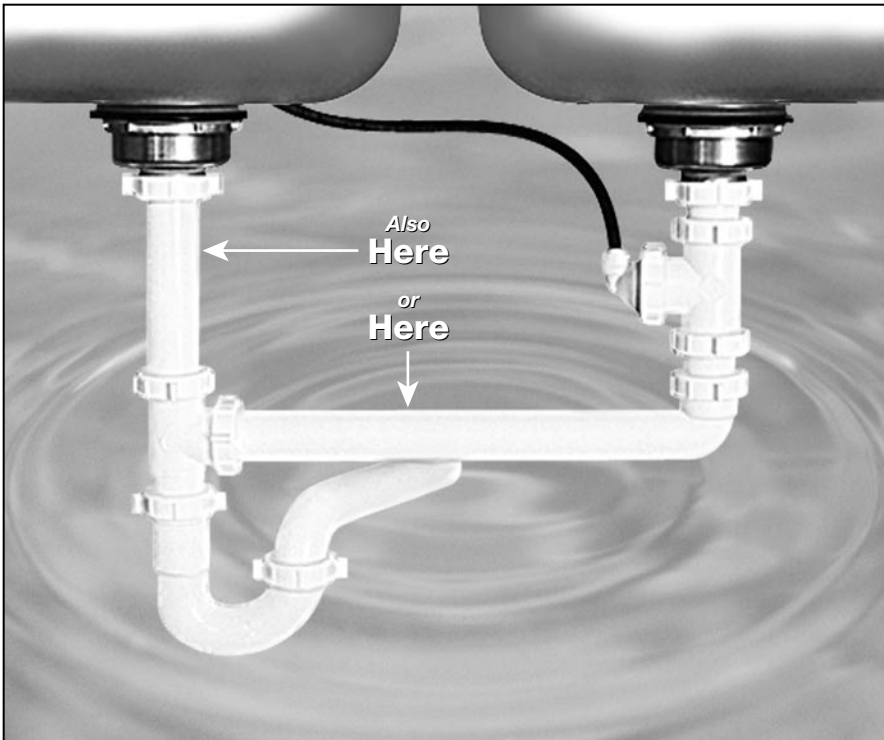
| | | |
|---|---|---|
| 1 | — Drain Line Adapter with Push-In or Barb Connection (DLA-9/12) |  |
| 1 | — Disposal (Baffle) End Outlet Tee |  |
| 1 | — Flanged Tailpiece |  |
| 2 | — Slip Joint (S.J.) Wing Nuts |  |
| 2 | — Slip Joint (S.J.) Beveled Washers |  |

The Eco-Tech DLA-9 Drain Line Adapter converts the plumbing of a single sink with disposal to receive the reject water from an undercounter reverse osmosis appliance, distillation system or softener which has an automatic backwash feature.

Installation time is typically 3 to 5 minutes. (Detailed instructions are included in package)

DLA-12TM Reverse Osmosis DRAIN LINE ADAPTER

The DLA-12 can be used anywhere a drain saddle is typically installed undercounter, providing a solid professional connection.







The DLA-12 will not be accidentally rotated or bumped out of alignment when moving supplies or replacing a waste basket under the sink.

Do it Right ➤ **Do it to Code**
"The Smart Alternative to the Drain Saddle"



- Connects RO drain to a single sink without disposal, or any multi-compartment sink
- Uses standard plumbing fittings to meet code requirements nationwide
- Comes in kit form with all the fittings and instructions needed for installation
- Unique design reduces reject water noise
- Choice of push-in or barb inlet sizes
- Resists clogging with fewer "callbacks"
- No drilling into wet pipes
- Fast easy installation
- IAPMO/UPC & IPC Listed
- ASTM F 409

LIST OF PARTS ENCLOSED

- | | |
|--|---|
| 1 — Drain Line Adapter with Push-In or Barb Connection (DLA-9/12)..... |  |
| 1 — 3-Way Repair Tee..... |  |
| 3 — Slip Joint (S.J.) Wing Nuts..... |  |
| 3 — Slip Joint (S.J.) Beveled Washers..... |  |

The Eco-Tech DLA-12 Drain Line Adapter provides a code listed alternative to the use of the drain saddle for installation on all single sinks without a disposal, or any multi-compartment sink.

3 Installation time is typically 1 to 3 minutes. (Detailed instructions are included in package)

DLA-DTM Reverse Osmosis DRAIN LINE ADAPTER

The DLA-D Universal Drain Line Adapter is designed for installation on all garbage disposals where the dishwasher drain inlet is located.

INSTALLATION **WITH** DISHWASHER (Wye Configuration)






INSTALLATION **WITHOUT** DISHWASHER (Converts to Straight-in Connection)



- Universal adapter accommodates 1/2" • 5/8" 3/4" • 7/8" dishwasher drain hose
- Converts for installation with or without a dishwasher drain line connection
- Comes in kit form with all the fittings and instructions needed for installation
- Simple installation bypasses existing plumbing with no pipes to undo
- Push-in 1/4" • 3/8" • 1/2" quick connect and 1/2" barb inlet sizes to choose from
- Self cleaning venturi resists clogging with fewer callbacks
- Silent operation eliminates most reject water noise
- Solid professional connection
- No drilling into wet pipes
- Fast easy installation
- IAPMO/UPC & IPC Listed



LIST OF PARTS ENCLOSED

| | |
|--|--|
| 1 — Drain Line Adapter with Push-In Connection or Barb Insert (DLA-D)..... |  |
| 1 — Hose Coupler..... |  7/8" 3/4" |
| 2 — Marine Stainless Steel Hose Clamps..... |  1/2 - 5/8" |

The Eco-Tech DLA-D Drain Line Adapter provides a code listed alternative to the use of the drain saddle for fast easy installation on all disposals. The DLA-D provides a welcome solution when height clearance is minimal or the 1 1/2" tubular plumbing is visibly corroded.

Installation time is typically 1 to 3 minutes. (Detailed instructions are included in package)

DLA-GTM Multipurpose Airgap DRAIN LINE ADAPTER

The DLA-G multipurpose standpipe airgap is designed for residential and commercial water softeners and RO's.



- Connects softener and RO drains to all material Sch.-40 standpipes
- Uses standard plumbing fittings to meet code requirements nationwide
- Removable and reusable for rentals and temporary installations
- Positive connection ensures a safe and professional installation
- Convenient selection of push-in/quick connect, Jaco and barb sizes
- Comes in kit form with instructions and fittings needed for installation
- Splash and mist free under 15 gpm
- 2 vertical inches of airgap
- Fast easy installation
- IAPMO/UPC & IPC Listed
- ASME A112.1.3

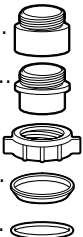
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MADE IN USA

LIST OF PARTS ENCLOSED

- 1 — Drain Line Adapter with Push-In, Compression or Barb Connection (DLA-G)...
- 1 — 1 1/2" Schedule-40 (Hub x Male Pipe Thread) Trap Adapter.....
- 1 — 1 1/2" Schedule-40 (Spigot x Male Pipe Thread) Trap Adapter.....
- 1 — 1 1/2" Slip Joint (S.J.) Wing Nut.....
- 1 — 1 1/2" Slip Joint (S.J.) Beveled Washer.....
- 1 — 1 1/2" Nitrile O-Ring (for alternate use instead of washer).....

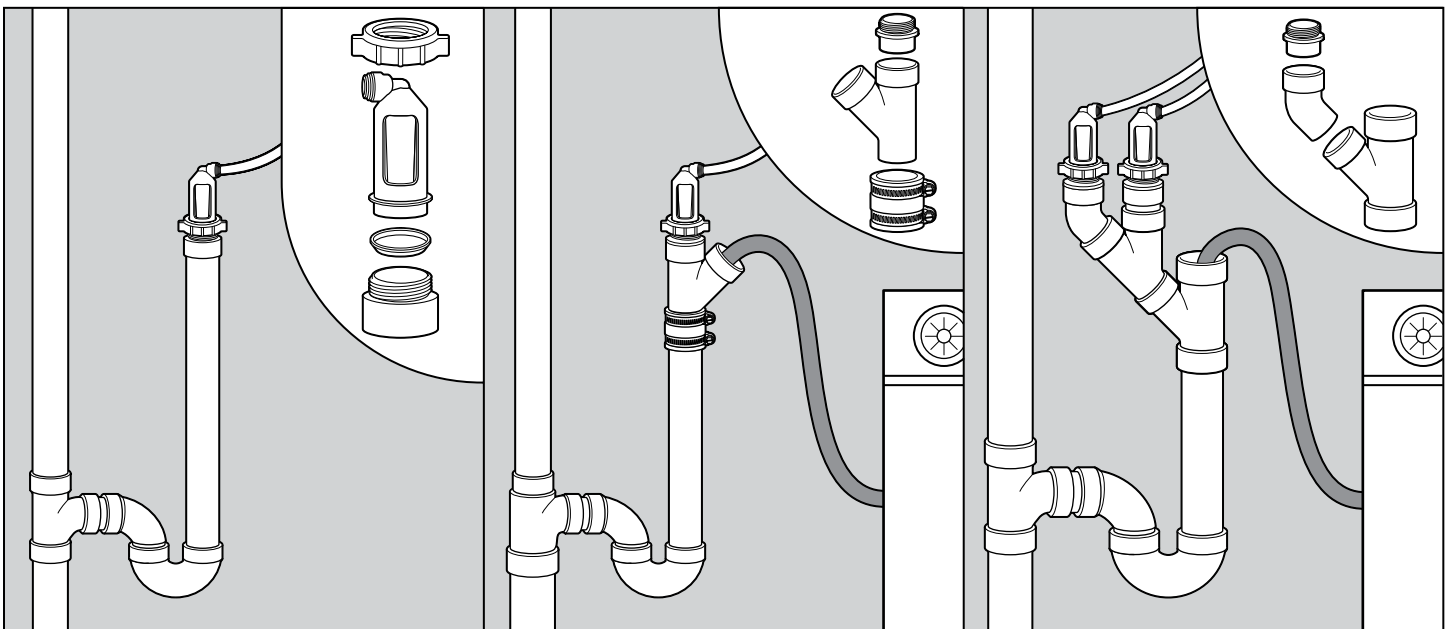


The Eco-Tech DLA-G

Drain Line Adapter provides a true airgap for all Schedule-40 DWV standpipes.

Installation time is typically 1 to 3 minutes. (Instructions are included in package)

Here are three practical standpipe configurations:



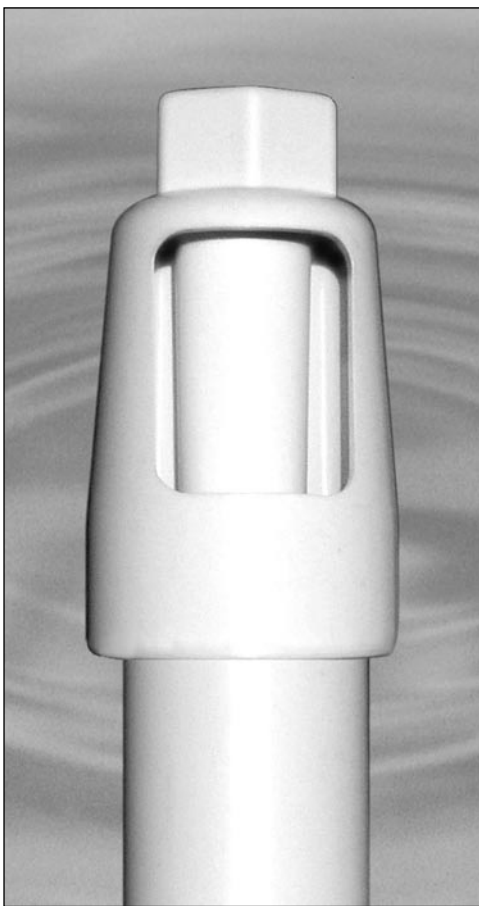
Combination water softener / RO / washing machine drain configurations

DLA-G15TM Multipurpose Airgap DRAIN LINE ADAPTER

The DLA-G15 multipurpose standpipe airgap is designed for residential and commercial water treatment equipment and condensate lines that require an airgap discharge to the drain.

The DLA-G15 is perfect for applications where rigid Schedule-40 pipe must be plumbed to an approved airgap device.

The DLA-G15 provides a convenient ready made true airgap for all Schedule-40 DWV standpipes.



- Features a 1/2" or 3/4" female thread inlet for versatility of MIPT Schedule-40 nipples and adapters
- Installs onto 1 1/2" ABS or PVC Schedule-40 standpipes
- Fits into the Hub / Socket of 2" ABS or PVC Schedule-40 fittings
- Made from white ABS resin to ASTM specifications for 1 1/2" and 2" Schedule-40 pipe and fittings
- Solid connection ensures a safe and professional installation
- Proprietary design prevents splash or spray from escaping through the airgap window
- Accommodates high flow rates
- 2 vertical inches of airgap
- Fast easy installation
- IAPMO/UPC & IPC Listed
- ASME A112.1.3

1/2" or 3/4" INLET x 1 1/2" OUTLET

CAUTION: Use an approved ABS to PVC transition cement such as IPS, Oatey or Hercules which is NSF Certified and meets ASTM D 3138 when connecting to PVC pipe. No additional instructions are provided with this product.

Installation time is typically 1 to 3 minutes.



DLA-G20TM Multipurpose Airgap DRAIN LINE ADAPTER

The DLA-G20 multipurpose standpipe airgap is designed for commercial water treatment equipment and condensate lines that require an airgap discharge to the drain.

The DLA-G20 is perfect for applications where rigid Schedule-40 pipe must be plumbed to an approved airgap device.

The DLA-G20 provides a convenient ready made true airgap for all Schedule-40 DWV standpipes.



1" INLET x 2" OUTLET

- Features a 1" female thread inlet for versatility of MIPT Schedule-40 nipples and adapters
- Installs onto 2" ABS or PVC Schedule-40 standpipes
- Made from white ABS resin to ASTM specifications for 2" Schedule-40 fittings
- Solid connection ensures a safe and professional installation
- Proprietary design prevents splash or spray from escaping through the airgap window
- Accommodates high flow rates
- 2 vertical inches of airgap
- Fast easy installation
- IAPMO/UPC & IPC Listed
- ASME A112.1.3



CAUTION: Use an approved ABS to PVC transition cement such as IPS, Oatey or Hercules which is NSF Certified and meets ASTM D 3138 when connecting to PVC pipe. No additional instructions are provided with this product.

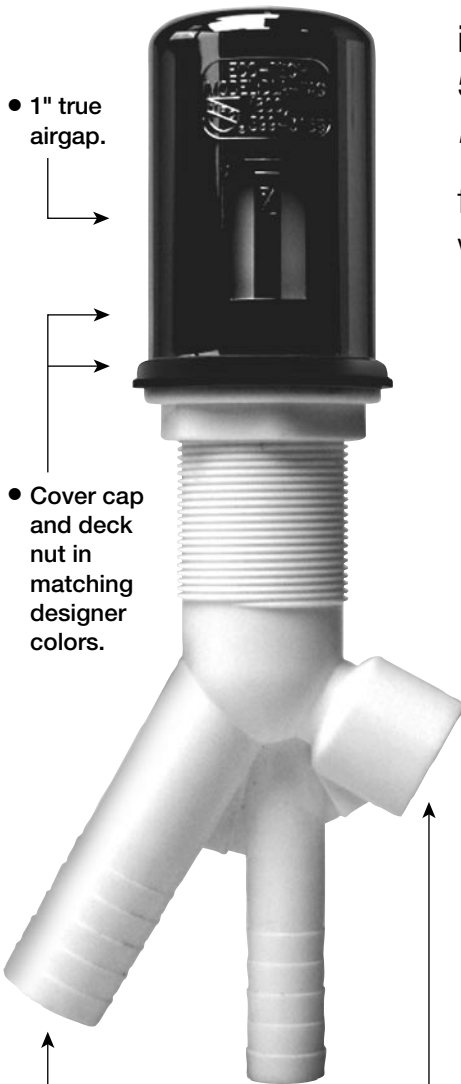
Installation time is typically 1 to 3 minutes.

DLA-TAG™ *Dual Inlet / High Flow* COMBINATION DISHWASHER AIRGAP

The DLA-TAG is a combination twin inlet airgap designed for dual compartment dishwashers, under counter reverse osmosis appliances and water softeners.

The DLA-TAG features a versatile 1/2" female thread inlet that provides the option of using a 1/4", 3/8", 1/2" or 5/8" push-in adapter, or various barb adapter sizes.

The DLA-TAG is a true airgap that will accommodate flow rates from high output reverse osmosis membranes without the need for an airgap faucet.



• 1" true airgap.

• Cover cap and deck nut in matching designer colors.

• Typical 7/8" barb size outlet to disposal or branch tailpiece.

• Typical 5/8" dishwasher drain hose inlet barb size.

• 1/2" female thread inlet for a wide range of adapters and uses.

- Perfect for dual compartment dishwashers requiring two airgaps to the drain
- Large inlet chambers and inner cap design accommodate high flow rates and prevent clogging
- Install new or replace existing single inlet dishwasher airgap
- Perform maintenance easily from counter top if clogging ever occurs
- Available in bright chrome, solid colors and metallic finishes
- True 1" vertical airgap open to atmosphere
- Comes fully assembled (see list of parts enclosed)
- Perfect for non-airgap RO faucets
- Reduces or eliminates noisy RO drains
- Full ported inlets and outlet
- IAPMO/UPC & IPC Listed



LIST OF PARTS ENCLOSED

- | | |
|--|--|
| 1 – Main Body..... | |
| 1 – Inner Cap..... | |
| 1 – Compression Top Nut..... | |
| 1 – Deck Mount Middle Nut..... | |
| 1 – Undercounter Bottom Nut..... | |
| 1 – Chrome Cover Cap..... | |
| 1 – Deck Gasket..... | |
| 1 – Inner Cap Custom O-Ring..... | |
| 1 – Choice of Barb or Push-In Adapter..... | |

Installation time is typically the same as conventional dishwasher airgaps.

Eco-Tech Drain Line Adapter & Drain Saddle Characteristics

| Characteristics | Drain Saddle | DLA-9 | DLA-12 | DLA-D |
|-------------------------|------------------------|---------------------|-------------|---------------------|
| Customer Satisfaction | Sometimes* | YES | YES | YES |
| Noise Reduction | NO | YES | Sometimes** | YES |
| Clog Resistant | NO | YES | YES | YES |
| Fewer Callbacks | NO | YES | YES | YES |
| Ease of Installation | Fair | Fair | Good | Excellent |
| Average Time to Install | 3–5 Minutes | 3–5 Minutes | 1–3 Minutes | 1–3 Minutes |
| Tools Required | Screwdriver/Drill/Bits | Hacksaw/Screwdriver | Hacksaw | Hacksaw/Screwdriver |
| IAPMO/UPC & IPC Listed | NO | YES | YES | YES |
| ASTM Standard F 409 | NO | YES | YES | NO |
| Prohibited Fitting | YES*** | NO | NO | NO |

* Customer may be willing to accept code violation, noise, clogging and callbacks.

** The DLA-12 may be silent in configuration-A depending on flow rate and “sheeting” of water. The DLA-12 is normally silent in configuration-B (see DLA-12 instruction sheet).

*** Drain type saddles are designated prohibited fittings by the Uniform Plumbing Code (UPC/IAPMO) and by the International Plumbing Code (IPC/BOCA, ICBO, and SBCCI), and by the National Standard Plumbing Code (NSPC/PHCC), which determine safe and effective materials and plumbing installation practices throughout the United States (see code sections prohibiting the use of drain saddles below).

Standpipe Airgap Characteristics

| Characteristics | Typical Airgap | DLA-G | DLA-G15 | DLA-G20 |
|-----------------------------------|----------------|-------|---------|---------|
| Removable/Reusable | NO | YES | NO | NO |
| Splash/Spray Resistant | NO | YES | YES | YES |
| Quick Connect Push-In Inlet | NO | YES | NO | NO |
| Barb Insert Inlet | NO | YES | NO | NO |
| JACO Compression Inlet | NO | YES | NO | NO |
| Female Thread Inlet | NO | NO | YES | YES |
| IAPMO/UPC & IPC Listed | Some Models | YES | YES | YES |
| ASME A112.1.3 | Some Models | YES | YES | YES |
| Listed for 1/2" & 3/4" FIPT Inlet | NO | NO | YES | NO |
| Listed for 1" FIPT Inlet | NO | NO | NO | YES |

Dishwasher Airgap Characteristics

| Characteristics | Typical Dishwasher Airgap | Model DLA-TAG |
|------------------------|---------------------------|---------------|
| Ease of Installation | Good | Good |
| Access from Countertop | Sometimes* | YES |
| Quiet Operation | Poor – Fair | Excellent |
| Clog Resistant | Poor – Fair | Excellent |
| True Airgap | Sometimes** | YES |
| Vertical Airgap Window | NO | YES |

* Some dishwasher airgaps must be un-installed from the countertop in order to clear trapped particles.

** Some dishwasher airgaps are actually vents and do not qualify as true airgaps. The DLA-TAG has more than 1" of vertical airgap.

Code Sections Prohibiting the Use of Drain Saddle Connections

International Association of Plumbing and Mechanical Officials IAPMO
 1997 Uniform Plumbing Code / UPC...pages 18 & 19
 Section 311.0 Prohibited Fittings and Practices
 Section 311.1 No...band or saddle shall be used as a drainage fitting...
 Section 311.2 No drainage vent or piping shall be drilled and tapped for the purpose of making connections thereto...

International Conference of Building Officials ICBO
Southern Building Code Congress International, Inc. SBCCI
Building Officials and Code Administrators International, Inc. BOCA International
 1997 International Plumbing Code / IPC...page 53
 Section 707 Prohibited Joints and Connections
 Section 707.1 Prohibited joints. The following types of joints and connections shall be prohibited:
 6.) saddle type fittings

Plumbing Heating Cooling Contractors National Association PHCC
 1996 National Standard Plumbing Code / NSPC...page 73 (illustrated)
 Section 2.4 Fittings and Connections in Drainage Systems
 Section 2.4.1 Prohibited Fittings
 No running threads or saddles shall be used in the drainage system. No drainage or vent piping shall be drilled, tapped, burned or welded.

To Order:

Eco-Tech, Inc.
 1860 N. Obispo Ave., Suite H
 Signal Hill, CA 90755-1279

Call Toll Free (800) 399-3159
Phone (562) 597-6702
Fax (562) 597-6759