

E-Z Tray[®]

The #1 Choice in Sliding Tray Air Stripper Technology



The only self-contained Air Stripper
certified by NSF to NSF/ANSI Standard 61

QED's E-Z Tray[®] and E-Z Stacker[®] Air Strippers are covered by U.S. Patents: 5,518,668; 8,523,152; and 8,678,353

 **QED**[®]
Innovative Environmental Products

Leadership in Technology, Design, and Support

QED leads the way in innovative air strippers,
making them easier to operate and maintain:

1. The original, patented sliding-tray air strippers
2. From the top process technology experts in the industry, with 20+ years of successful air stripper application experience
3. Continued innovation for improved performance and reduced maintenance costs



E-Z Tray®

- Lower long-term O&M costs due to easier tray maintenance than tower-type or stacking tray strippers
- Lightweight, slide-out trays that don't require hoists, regardless of the size of the air stripper
- Requires less building space, which can lower building costs



E-Z Stacker®

- Sized and priced to be the economical choice for low to moderate-flow cleanup applications
- Highly efficient VOC removal
- Positive-seal engineering prevents leakage problems

Highly effective VOC removal rates and lightweight trays that allow for quick and easy maintenance by one person

Uncoated stainless steel



No-stick coating

Air flows up through perforated trays creating a turbulent froth zone with a high air-to-liquid surface area for mass transfer of volatile organic compounds (VOCs).



A conventional air stripper needs more than twice the access and tray removal space as an E-Z Tray® Air Stripper.



Optional hinged door allows for easy access without door removal.



Slide-out trays allow maintenance by one person.



E-Z Stacker® Air Strippers provide a lower cost solution for low flow removal of volatile organic compounds (VOCs) from groundwater.



Sliding Tray Air Strippers

E-Z Tray®

Exclusive Design Results
in VOC Removal Efficiencies
of up to 99.99%
at Flow Rates up to
1,000 GPM.



The only self-contained Air Stripper certified by NSF to NSF/ANSI Standard 61



The E-Z Tray® Air Stripper is a sliding tray, stainless steel air stripper used to remove volatile organic compounds (VOCs) from contaminated groundwater and waste streams. The exclusive design of the E-Z Tray stripper results in very high removal efficiencies in an easier to maintain process unit.

Any air stripping process subject to fouling conditions has to contend with periodic cleaning in order to retain treatment efficiencies and capacity. Tower air strippers can become maintenance headaches when the tower packing becomes clogged and cemented together with bio-fouling or precipitants. When the perforated trays in stacking tray air strippers become fouled they require major disassembly, cranes or hoists, and lots of access space.

Unlike traditional air strippers, E-Z Tray Air Strippers from QED use removable, lightweight, front slide-out trays. This unique feature provides many advantages, including one person cleaning and less building space.

E-Z Tray Air Strippers are available in configurations with 4 or 6 trays, with maximum flow rates from 50 gpm (4-100 Lpm) all the way up to 1,000 gpm (3,784 Lpm).

High Capacity Process Air Strippers

These air strippers are engineered to serve in larger, process-type projects involving multiple treatment stages, where they are an effective component of large-scale water or wastewater processes in manufacturing, refining, chemical processing, and other industries. They can act as a pre-treatment stage for other process elements, such as large aerobic bio treatment units, removing VOCs at much lower airflow rates to reduce the costs of off-gas treatment.

All of this, combined with the easier maintenance and a smaller footprint, has led QED's E-Z Tray sliding tray Air Strippers to become the preferred choice for major remediation and process stream projects in the U.S. and abroad.

The Advantages of E-Z Tray over Conventional Air Strippers

E-Z Tray Air Strippers

- Single person cleaning
- Easy process monitoring and inspection, even while in operation
- Reduced footprint for installation and maintenance
- High removal efficiencies easier to maintain
- Easily modeled online to facilitate process evaluation

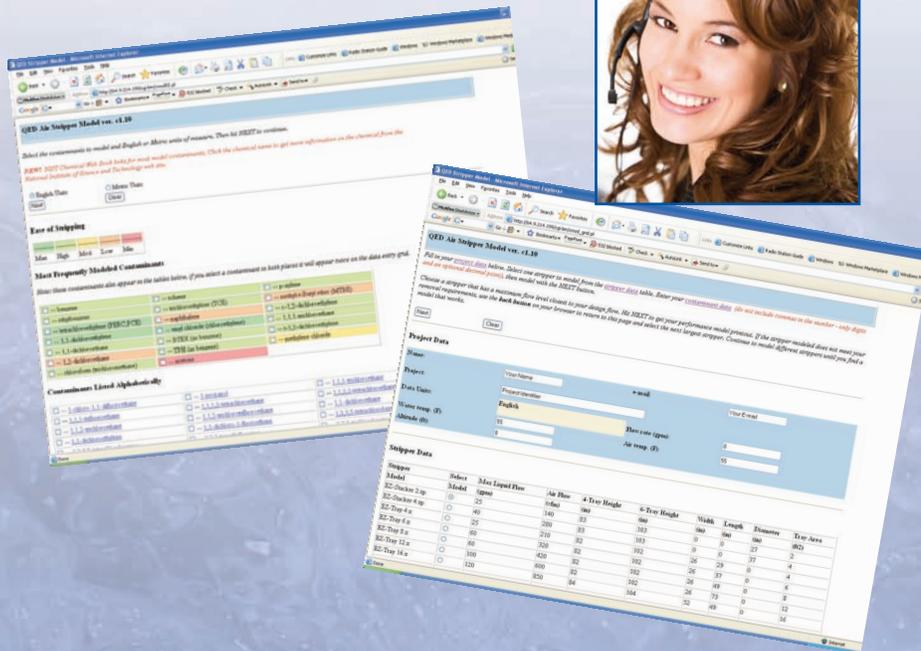
Tower Air Strippers

- Packing condition and liquid and air flow distribution are very difficult to observe
- Small footprint but very tall structure required
- More difficult to keep operating at design performance
- More complex process design assistance required
- Laborious packing replacement and interior cleaning required

Stacking Tray Air Strippers

- Major disassembly steps and crew needed
- Difficult or impossible to observe air and liquid flow distribution during operation
- Lots of space needed for disassembly, to access all sides and to lift and store tray stages
- More difficult to keep operating at design performance
- Online modeler not offered

Online Modeler with Accessible Technical Support!



How it Works

As contaminated groundwater enters through the top of the air stripper, millions of air bubbles are forced by blower pressure up through the perforated trays. This creates a turbulent froth zone with an extremely high air-to-liquid surface area for mass transfer of volatile organic compounds (VOCs) from liquid to air. Using the froth instead of a conventional tower packing delivers high VOC removal efficiencies even under fouling conditions, and it is easier to inspect and maintain.

The first Online Performance Modeler, developed to assist you in selecting the most effective air stripping package for your groundwater cleanup project

Try it for yourself today! Use our exclusive online stripper modeler at www.qedenv.com/modeler to spec the exact size and configuration for your project. Then talk to a QED applications specialist toll-free at **(800) 624-2026** for fast, free system design assistance and a price quote.



The only self-contained Air Stripper certified by NSF to NSF/ANSI Standard 61

“QED’s E-Z Tray® Air Stripper is the first self-contained air stripper that has earned certification from NSF International, demonstrating QED’s dedication to enhancing water quality,” said Theresa Bellish, Business Unit Manager for NSF International. For the details on the certification visit www.qedenv.com/airstripper.

Stacking Tray Air Strippers

E-Z Stacker®

**Innovative Stacking Design
Delivers Economical,
Reliable Air Stripping**



Low-Cost, Low-Maintenance, Low-Flow Performance

The innovative design of E-Z Stacker® Air Strippers delivers many advantages to environmental consultants, remediation contractors, and end users.

E-Z Stacker models are sized and priced to be the most economical choice for many low to moderate flow cleanup applications (up to 40 gpm). Low capital expense and low O&M requirements make the difference.

The unique E-Z Stacker configuration consists of a series of integrally molded shell / tray modules. The multiple sieve tray design uses forced-draft air bubble generation to provide rapid, effective VOC removal.

Easy Disassembly for Routine Cleaning is a Quick, Simple One-person Job

The whole stack (4 or 6 trays) can be taken apart by releasing just four or six connections. Trays have no loose parts when disassembled, and cannot be reassembled incorrectly. Two sizes are available in four or six tray versions, for maximum flow ranges from 1-40 gpm.

Engineered for Maximum Ruggedness and Reliability

Every element of the heavy-duty HDPE construction has been engineered for durable, reliable performance with a multi-step positive seal against leakage.

The plastic construction makes for a low cost, corrosion-resistant air stripper for installations where the waste water has high chloride content, such as energy operations waste water.

Positive-Seal Construction for Leak-Free Performance

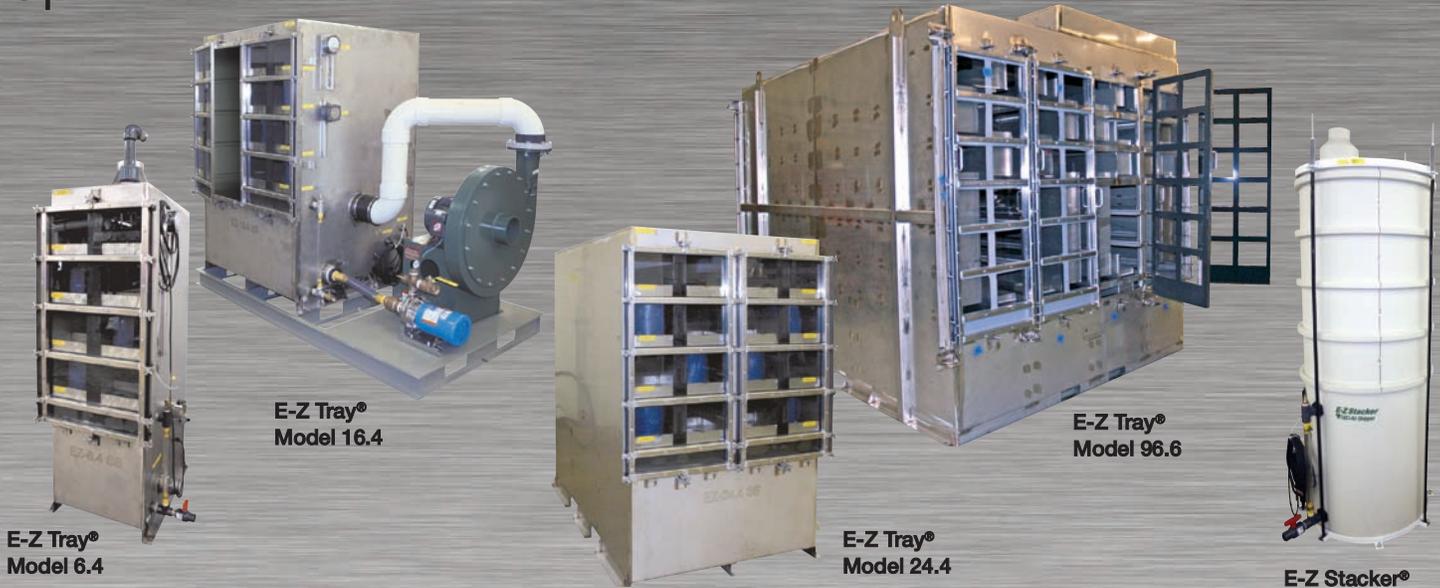
Cylindrical shape provides consistent tray-to-tray contact with no loose or weak points from corners or edges. And, the unique 360 degree lockdown ring, made of solid 2x2x.25 steel angle stock, applies even pressure to the whole circumference of the complete stack.

Tray bottom geometry prevents contact between the water and the gaskets, to further reduces chance of leaking. While heavy-duty gaskets are captured on both inboard and outboard edges to eliminate creeping out of position. Continuous molded-in o-ring bead provides optimum gasket compression.

Unlike tedious, potentially weak tray-to-tray latches, the whole stack sets down securely with just four or six easy-access connections.

The competition just doesn't stack up! Call QED today to talk to one of our Applications Specialists about which E-Z Stacker model is the best choice for your project.

Specifications



E-Z Tray® Stainless Steel, Removable Tray Air Stripper Specifications

Model No.	Max. Flow Range gpm (Lpm)	Dry Weight lbs. (kg)	Oper. Weight lbs. (kg)	Shell Dimension DxWxH in. (cm)	Trays Per Tier lbs. (kg)	Active Area ft. ² (m ²)	Nominal Air Flow cfm (m ³ /min)	Add'l Space for Tray Removal* in. (cm)
4.4	1-50 (4-189)	630 (286)	985 (447)	30 x 34 x 82 (76 x 86 x 208)	4 x 29 (4 x 13)	2.8 (0.26)	210 (5.95)	27 (69)
4.6	1-50 (4-189)	780 (354)	1,219 (553)	30 x 34 x 102 (76 x 86 x 259)	6 x 29 (6 x 13)	2.8 (0.26)	210 (5.95)	27 (69)
6.4	1-65 (4-246)	790 (358)	1,285 (583)	39 x 34 x 82 (99 x 86 x 208)	4 x 40 (4 x 18)	3.8 (0.35)	320 (9.06)	37 (94)
6.6	1-65 (4-246)	978 (443)	1,591 (722)	39 x 34 x 102 (99 x 86 x 259)	6 x 40 (6 x 18)	3.8 (0.35)	320 (9.06)	37 (94)
8.4	1-75 (4-284)	955 (433)	1,615 (733)	51 x 34 x 82 (130 x 86 x 208)	4 x 50 (4 x 23)	5.6 (0.52)	420 (11.9)	47 (119)
8.6	1-75 (4-284)	1,182 (536)	1,956 (887)	51 x 34 x 102 (130 x 86 x 259)	6 x 50 (6 x 23)	5.6 (0.52)	420 (11.9)	47 (119)
12.4	1-120 (4-454)	1,165 (528)	2,105 (955)	75 x 34 x 82 (191 x 86 x 208)	4 x 60 (4 x 27)	8.8 (0.82)	600 (17.0)	72 (183)
12.6	1-120 (4-454)	1,442 (654)	2,606 (1,182)	75 x 34 x 102 (191 x 86 x 259)	6 x 60 (6 x 27)	8.8 (0.82)	600 (17.0)	72 (183)
16.4	1-150 (4-566)	1,625 (737)	2,870 (1,302)	52 x 59 x 84 (132 x 150 x 213)	8 x 50 (8 x 23)	11.1 (1.03)	850 (24.1)	47 (119)
16.6	1-150 (4-566)	2,011 (912)	3,553 (1,612)	52 x 59 x 104 (132 x 150 x 264)	12 x 50 (12 x 23)	11.1 (1.03)	850 (24.1)	47 (119)
24.4	1-250 (4-946)	2,100 (953)	3,980 (1,805)	75 x 59 x 84 (191 x 150 x 213)	8 x 60 (8 x 27)	17.5 (1.63)	1,300 (36.8)	72 (183)
24.6	1-250 (4-946)	2,599 (1,179)	4,926 (2,234)	75 x 59 x 104 (191 x 150 x 264)	12 x 60 (12 x 27)	17.5 (1.63)	1,300 (36.8)	72 (183)
36.4	1-375 (1,420)	3,200 (1,451)	6,085 (2,760)	75 x 98 x 96 (191 x 249 x 244)	4 x 60 (4 x 27)	26.3 (2.4)	1,900 (53.8)	72 (183)
36.6	1-375 (1,420)	3,900 (1,769)	7,532 (3,416)	75 x 98 x 116 (191 x 249 x 295)	6 x 60 (6 x 27)	26.3 (2.4)	1,900 (53.8)	72 (183)
48.4	1-500 (1,893)	5,000 (2,270)	12,500 (5,670)	124 x 76 x 96 (315 x 193 x 244)	16 x 60 (16 x 27)	27 (2.51)	2,600 (73.6)	72 (183)
48.6	1-500 (1,893)	5,500 (2,495)	13,000 (5,897)	124 x 76 x 116 (315 x 193 x 295)	24 x 60 (24 x 27)	27 (2.51)	2,600 (73.6)	72 (183)
72.4	10-750 (2,839)	6,400 (2,903)	14,600 (6,622)	149 x 98 x 100 (378 x 249 x 254)	4 x 60 (4 x 27)	52.5 (4.88)	3,800 (108)	2 x 72 (2 x 183)
72.6	10-750 (2,839)	7,800 (3,538)	15,100 (6,849)	149 x 98 x 120 (378 x 249 x 305)	6 x 60 (6 x 27)	52.5 (4.88)	3,800 (108)	2 x 72 (2 x 183)
96.4	10-1,000 (3,785)	11,000 (4,990)	25,000 (11,340)	149 x 124 x 100 (378 x 315 x 254)	32 x 60 (32 x 27)	54 (5.02)	5,200 (147)	2 x 72 (2 x 183)*
96.6	10-1,000 (3,785)	11,500 (5,216)	30,000 (13,608)	149 x 124 x 120 (378 x 315 x 305)	48 x 60 (48 x 27)	54 (5.02)	5,200 (147)	2 x 72 (2 x 183)*

Standard construction is 304 SS, other alloys upon request. *Allow additional space for accessory components (blower, piping, etc.).

E-Z Stacker® Cylindrical, Poly, Low-flow Air Stripper Specifications

Model	Flow gpm (Lpm)	Dry Weight lbs. (kg)	Operation Weight lbs. (kg)	Shell Dim. Diam.xH in. (cm)	No. Trays and Weight: lbs. (kg)	Active Area: ft. ² (m ²)	Nominal airflow: cfm (m ³ /min)
EZ-2.4P	1-25 (4-94.6)	103 (46.72)	483 (219)	27 x 83 (68.6 x 210.8)	4 @ 18 (8.2)	2.6 (0.24)	140 (3.96)
EZ-2.6P	1-25 (4-94.6)	135 (61.3)	531 (240.9)	27 x 103 (68.6 x 261.6)	6 @ 18 (8.2)	2.6 (0.24)	140 (3.96)
EZ-4.4P	1-40 (4-151.4)	155 (70.3)	1,004 (455.4)	37 x 83 (94.0 x 210.8)	4 @ 37 (16.8)	5.8 (0.54)	280 (7.93)
EZ-4.6P	1-40 (4-151.4)	203 (92.1)	1,134 (514.4)	37 x 102 (94.0 x 259.1)	6 @ 37 (16.8)	5.8 (0.54)	280 (7.93)

* skid mounted

A comprehensive collection of QED's Air Stripper Case Studies can be found online at: www.qedenv.com/Airstrippers



Removing Trichloroethene (TCE) from Drinking Water

The U.S. Army Corps of Engineers decided that the most logical and cost effective groundwater treatment choice was low-profile air strippers. Air stripping is a simple, reliable, and proven technology for the removal of TCE from water supplies.



Treating Vinyl Chloride in Drinking Water with 99.99% Removal Efficiency

The Cedarburg, Wisconsin Light and Water Utility installed an E-Z Tray Air Stripper in a discreet addition to their existing production pump building to treat groundwater containing vinyl chloride that has been traced back to a nearby landfill.



Removing Chlorinated Solvent Contamination in Australia

A Superfund site in Sydney, Australia chose E-Z Tray Air Strippers organized in series (40 units total) to overcome all of the site's challenges. The client would have used packed towers, but was concerned about workers having easy access to maintain the units, and the highly corrosive environment.



Ballast Water Treatment on Alaskan Coastline

An Alaskan oil terminal collects and treats contaminated ballast water before discharge, while dealing with extreme fluctuations of liquid temperatures and contaminant concentrations. QED ran different scenarios using our on-line air stripper performance model, and the site selected four of the largest 1,000 gallon per minute E-Z Tray units.



Pre-treating Using Air Strippers

Two pharmaceutical plants in Puerto Rico use large SBR systems to treat wastewater. New regulations require them to treat the SBR off-gas. Instead of installing a very large CATOX, they decided to pre-treat the wastewater with a more efficient E-Z Tray Air Stripper before it enters the SBRs so they can use a much smaller CATOX unit.



Using a Compact Design to Treat a Gasoline Spill in a Residential Area

A petroleum company installed compact E-Z Tray Air Strippers on a small lot in a high-end residential neighborhood on Long Island, New York. Compact shipping containers were used to house three E-Z Tray units and other equipment in the same space that would have been totally filled by just one traditional stripper.

Watch previously recorded webinars at qedenv.com/webinars
Visit www.youtube.com/QEDmovies to view two online movies



2355 Bishop Circle West
Dexter, MI 48130 USA
800-624-2026
T: 734-995-2547
F: 734-995-1170
info@qedenv.com
www.qedenv.com

1565 Alvarado Street
San Leandro, CA 94577 USA
800-624-2026
T: 510-346-0400
F: 510-346-0414
info@qedenv.com
www.qedenv.com