

DUALL

**Odor Control
Chemical Scrubbers**

*COST EFFECTIVE
DUALLAST® FRP AND
THERMOPLASTIC SCRUBBERS,
FANS AND VENTILATION PRODUCTS*



*QUINTESSENTIAL™ WITH
MIXED FLOW EXHAUSTER*



*PTMD WITH
DUALL NH FAN*



*PT500 WITH
DUALL DUCTING*

*Municipal and Industrial
Odor Control Specialists*

*Known for our quality,
Proven to be dependable*

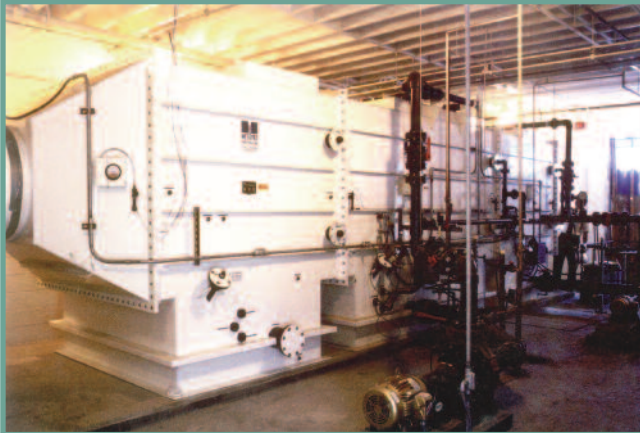
Duall...Leaders in Odor Control System Design and Manufacturing

COMPLETE ODOR CONTROL CD
ASK FOR OUR

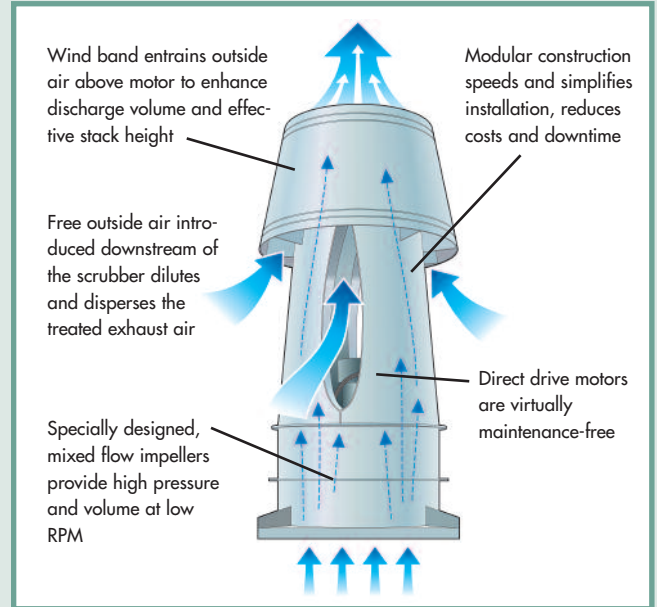
Duall has designed and manufactured odor control systems for more than 40 years.

Duall has manufactured and tested systems from 100 cfm to more than 60,000 cfm. We have installed systems from the coldest climates of Canada to the hot and abrasive conditions of Texas and Arizona. And we have designed systems to withstand 150 mph hurricane winds in Florida and seismic zone 4 requirements in California.

QUINTESSENTIAL™ SCRUBBER SYSTEM WITH MIXED FLOW EXHAUST TECHNOLOGY



Material of Construction: 100% Corrosion Resistant UV Stabilized PVC
Application: Wastewater Treatment Plant Odors
Problem: H₂S, NH₃ and RSC's
Solution: **Multi-Stage, Multi-Chemistry QuintEssential™ Scrubber**



PTMD LOW PROFILE PACKAGED SCRUBBER SYSTEMS



Material of Construction: UV Thermoplastic
Application: Sludge Digestion
Problem: H₂S, DMS/DMDS
Solution: **Single Stage PTMD**

Tested	Inlet	Outlet	Removal Efficiency
H ₂ S	17 ppmv	.005 ppmv	99.97%
DMS/DMDS	29 ppmv	NON-DETECTABLE	



Material of Construction: DUALLast® FRP
Application: Dewatering and Lime Stabilization Odors
Problem: H₂S and NH₃
Solution: **Multi Stage PTMD**

Tested	Inlet	Outlet	Removal Efficiency
H ₂ S	50 ppmv	< .1 ppmv	> 99.8%
NH ₃	20 ppmv	< .2 ppmv	> 99%

For a detailed proposal visit www.dualldiv.com or call (989) 725-8184

PT500 PACKED TOWER SCRUBBER SYSTEMS



Material of Construction: FRP
 Application: 175,000 Total CFM Wastewater Treatment Plant Odors
 Problem: H₂S
 Solution: **PT-500 Systems with Duall Ducting**

ADVANTAGES OF DUALLAST® FRP



Material of Construction: DUALLast® - the Ultimate FRP Construction
 Problem: H₂S and other odors
 Solution: **Single Stage PTMD**

Tested Compound	Inlet	Outlet	Removal Efficiency
H ₂ S	75 ppmv	0.3 ppmv	> 99.5%

EQUIPMENT DESIGNS

Whether your requirements are based on space limitations, system flexibility, maximum efficiency, or a combination of all these, we have a system for you.

- Packed bed towers
- Low profile packaged systems
- Horizontal cross-flow scrubbers
- Single-stage
- Multi-stage
- Multi-chemistry

QUALITY CONTROL AND PROJECT MANAGEMENT

In-house fabrication of our systems in thermoplastics or DUALLast® FRP allows us to constantly monitor manufacturing quality and meet delivery schedules.

MINIMUM AIR VOLUME

Duall is expert in ventilation design. Covers, shields, hoods, and curtains can reduce initial system costs and continuously save on operating expenses.

FIELD SERVICES, ENGINEERING, INSTALLATION, START-UP AND OPERATOR TRAINING

BUDGET DESIGN AND ASSISTANCE

Ask for our "Budget Design" package which includes:

- Performance requirements
- Written specifications
- System and PID drawings
- Component sizing (pumps, fans, motors, etc.)
- Annual operating cost estimation
- System budget price

As the saying goes, "the last shall be first"... unique DUALLast® FRP construction extends service life; and assures stronger and more corrosion resistant products at competitive costs.

- PVC corrosion resistant inner liner is a minimum 1/8" thick (125 mils), compared to 20-50 mils for typical FRP composites
- Homogenous thermoplastic inner liner is not subject to costly weeping and crazing failures often associated with solid FRP construction
- Thermoplastic lined vessels can be spark tested to ensure leakproof construction which is not always assured in solid FRP fabrications
- Outer FRP shell provides maximum U.V. resistance and structural strength for very high wind or vacuum applications
- DUALLast® is NSF 61 approved by the National Sanitation Foundation International for use in potable water applications
- Only DUALLast® FRP offers our unique Extended Service Life Warranty

For a detailed proposal visit www.dualldiv.com or call (989) 725-8184

SOLID PVC VENTILATION SYSTEM HOODS AND DUCT



Cost effective thermoplastic odor capture enclosures and ducting are available for DAF processes, belt filter presses, lime stabilization tanks, and many other applications. Hoods and ducting are available in corrosion resistant FM4910 approved materials.

DUAL FANS

Manufactured in our factories, Duall Model RB, NH and MFE fans are performance certified by AMCA. Our fan impellers are manufactured of FRP encapsulated steel providing the ultimate combination of corrosion resistance and structural integrity.



Duall NH Fans



SUCCESSFUL APPLICATIONS

Municipal Waste Treatment

- | | |
|-----------------------|-----------------------------------|
| Aeration Basins | Compost Facilities |
| Holding Tanks | Anaerobic Digesters |
| Dewatering Facilities | Lift Stations |
| Clarifiers | Headworks |
| Sludge Dryers | Bio Roughing Towers |
| Municipal Solid Waste | Industrial Wastewater Toll Plants |

Industrial Odor Control

- | | |
|------------------------------|-------------------------|
| Chemical Processing | Compost Facilities |
| Pharmaceutical Fermentations | Reactor Vents |
| Coating Processes | Food & Spice Processing |
| Storage Tanks | Animal Rendering Plants |
| Compost Facilities | Paint Stripping |
| Fish & Poultry Processing | Drying Processes |
| Pulp & Paper Manufacturing | Breweries |

Some Typical Odors Controlled by Duall

- | | |
|------------------|------------------|
| Hydrogen Sulfide | Amines |
| Alcohols | Chlorine |
| Ketones | Phenols |
| Aldehydes | Acrylates |
| Acetic Acid | Mercaptans |
| Creosols | Carboxylic Acids |
| Dimethydisulfide | Dimethylsulfide |
| Ammonia | Butyric Acid |



Duall Mixed Flow Exhausters with effective stack height of 60 feet.

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A Met-Pro Product Recovery/Pollution Control Technologies Business

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