



# DUMECH

## Turnkey Solution for Ventilation Systems

Dumech Limited Company  
[www.dumech.com](http://www.dumech.com)

# About Us

Dumech LLC is an ISO 9001:2015 certified company based in Al Quoz Industrial Area, Dubai. Dumech has been active in the UAE since 2007 and also started its Saudi Arabia branch in 2023. Dumech mainly focuses on to Design, Production, Installation, and Commissioning of various types of Ventilation Products, Ventilation Systems, Structural Steel Fabrication & Erections, and Oilfield and Marine Supplies.



Excellent Warranty Terms.  
Ask Us about it



Ready? Talk to our Sales Rep  
Call: +966 53 804 0908

## Specialized In

COMMERCIAL KITCHEN	AIR CONDITIONING	INDUSTRIAL SOLUTIONS	INDUSTRIAL FANS
Kitchen Ventilation Design	Design / Heat load calculation	Dust Collection Systems	Centrifugal Fan
Normal Hoods, Mist & UV Ventless Hoods	Chilled water AC, FAHU, AHU	Fume Extraction Systems	Axial Fan
SS/MS/GI ducts (ASHRAE Stds.)	DX AC, FAHU, AHU	Paint Booth (Dry & Wet)	Wall mounted fan
Ecology Units	VRF/VAV Systems	Cyclone/Scrubbers	Inline box fan
Ventilation Fans	PI/SS/MS/GI ducts (ASHRAE Stds.)	Warehouse Ventilation	Roof Extractor fan
Mist Guard	Grills / Diffusers	Evaporative Cooling Systems	Pedestal fan

## Certifications & Approvals







# **Kitchen Solutions**

**WE PROTECT YOUR NEGLIGENCE AND  
UNCERTAINTY WITH OUR EXPERTISE**



# AIR TREATMENT FROM KITCHENS

DUMECH equipment are more reliable and provide you with prudent investment which can, with proper installation, operation, and regular maintenance gives trouble-free operation and long service life. DUMECH equipment are highly efficient and fully automated and can be used over a variety of cooking operations.

## ADVANTAGES:

Low maintenance. Minimal grease deposition on the duct inner wall. Reduce the risk of fire. A grease trap helps stifle flames from spreading in the event of a fire.

## Mist Hoods

### Why DUMECH Mist Hoods?

- Easily Serviceable.
- Fully automatic operation. Auto shut off in case of fire.
- Completely 100% Stainless Steel 304 weld construction.
- All metal design makes them more durable.
- IP 65, V-0 fire rates LED lights (Operating Temperature from -40°C to 150°C).
- Reduces the buildup of grease in the duct line.
- Reduces fire hazards in the hood as well as in the duct.
- User-friendly HMI interface Control Panel with energy efficient system.
- Exhaust fan and hood interlinking option in the control panel.
- Factory-installed spray and manifold assembly.
- The "JET AIR VENT " principle is applied in Makeup air to reduce the airflow to 70% against design requirements based on DW172 standards, thereby reducing the energy consumption.
- Water consumption monitoring system and warning alarm system.
- Water wash system (optional).
- Demand Control System (optional)

### Application:

- Barbeque, Rotisserie, Tandoor oven, Jospier oven



## Ventless Hood

### Features and Benefits:

- No extensive ductwork. Reduce the risk of fire.
- Easy to install, easy maintenance and saves labor.
- Three-stage filtration ensures an oil /odor-free system.
- Three stages involve Pre-filter, ESP, and Carbon filter. (Factory tested certified filters). ESP (UL Listed, CE certified )
- High-efficiency cascade filters (VDI & ATSM tested)
- Cascade filter complies with NFPA 96 filter requirements, ETL listed to UL-1046 & UL -S649
- Three times more efficient than normal baffle filters.
- High-efficiency activated carbon filters eliminate odor.
- CE-certified stainless steel centrifugal fan with a 2-year warranty.
- HMI on Hood face for easy operation.
- UL Listed bulkhead lights in the hood.
- Filter status (clean/blocked)
- Advanced Hood operation time settings (ON/ OFF)
- Incorporated fire suppression system

### Application:

Fryer, Griddle, Oven, Induction cooker, Steamer





# UV Hood

Some of the key features of DUMECH UV hoods are

- Stainless steel 304-grade or 316-grade construction.
- Fully automated operation.
- Eliminates grease deposits in the hood plenum and duct line.
- Highly efficient UL-listed Baffle filters / VDI-tested Cascade filters.
- IP 65, V-0 fire rates LED lights (Operating Temperature from -40°C to 150°C).
- Highly efficient UVC lamp with a UV lamp life of up to 16000 hrs.
- User-friendly HMI interface Control Panel.
- Safety alarms are displayed in 3 levels (Low Airflow / Baffle filter /UV rack door).
- Auto shut off in case of fire (optional).
- IP65-rated Control Panel.
- Easy access to UV rack for maintenance.
- The "JET AIR VENT " principle is applied in introducing Makeup air to reduce the airflow to 70% against design requirements based on DW172 standards and thereby reducing the energy consumption.

**Application:**

Fryer, Griddle, Oven, Induction cooker, Steamer



# Mist Guard

Mist guard is made of Stainless steel 316-grade materials, and it comprises of Primary mesh filter for grease filtration, SS-316 spray nozzles, and finally mist eliminator. Mist guard is the latest technology used for reducing the temperature and grease content in the fume extracted from the kitchen. The contaminated high-temperature air passes through the primary mesh filters where the grease and ash will get trapped.

In the second stage, the water is sprayed through high-pressure nozzles, so that the air is mixed with water spray and gets into the collection tray and finally drains. The temperature of the air will come down after this stage and finally, the air is passed through the mist eliminator before leaving the air through the duct.

**APPLICATION:**

Pizza ovens, Tandoor, Barbeque, Rotisseries.



# Ecology Unit



Dumech ecology units use various stages of filtration in the system including ESP, Bag filters, Activated Carbon Filters, UVC, HEPA, and mist guard making 100% efficient oil and smoke free system.

**Selection of Ecology Unit:**

In commercial kitchens, determine type of food to be cooked. Is it light duty, medium duty, heavy duty or extra heavy duty cooking. This will determine right selection of filters and stages of filtration required inside the Ecology Unit. Our filters are UL listed, tested for its highest performance in Test Lab.

## Kitchen Ventilation Turnkey Solutions

SITE VISIT • CONSULTATION • DESIGN • EXECUTION • COMMISSIONING



AUTHORIZED DISTRIBUTOR OF



Donaldson®  
FILTRATION SOLUTIONS

Donaldson.  
Torit® DCE

# Dust Collection & Fume Extraction System

TURNKEY SOLUTIONS FROM WORLD  
LEADING FILTER MANUFACTURER



# DUST COLLECTION SYSTEM

A Dust collection system is an air quality improvement system used in industrial, commercial and home production shops to improve breathable air quality and safety by removing particulate matter from the air and environment. Dust collection System Work on the basic formula of capture, convey and collect.





# Fume Extraction System

When harmful liquid vaporizes and mixes with ambient air creates a toxic environment for the people who are working in the same area.

We are engaged in manufacturing of fume extraction systems to provide the best suitable and safe working environment for the people without any health hazards.

We use different stages of filtration like Scrubbers, Bagfilters, Activated/Impregnated Carbon filters, HEPA filters etc for treating fumes generating from various industries. We are specialized in Fume hood ventilation for the laboratories.



## PAINT BOOTH

We are manufacturing different types of spray booths as mentioned below

Dry Type:

- Cross Flow Booth
- Down Draft Booth
- Semi Down Draft Booth
- Side Down Draft Booth

Water Booth Types:

- Water Curtain
- Water Wash.





# General Ventilation / Evaporative Cooling

General ventilation refers to a ventilation system that encompasses an entire work space or area. General ventilation systems circulate fresh air through a work space through exterior air intakes. Air from outside the workplace is mixed with the indoor air. General ventilation of a workplace is only appropriate if the space does not generate high concentrations of fumes, dust, or other airborne contaminants. This is because a general ventilation system does not remove contaminants from the air, but merely dilutes them by mixing the work space's air with a fresh supply from outdoors.

A general ventilation system may also be used to control temperature and humidity within the workplace. General ventilation is may also be called dilution ventilation or fresh air ventilation.



## Air Conditioning







# Fans & Blowers

WE DRIVE AIR IN YOUR WAY



# Axial Fans



TUBULAR (DIRECT)



TUBULAR (BELT)



PANEL FANS



WALL MOUNTED



ROOF  
VENTILATORS



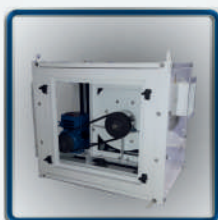
PEDESTAL



MARINE FANS

# Centrifugal Fans

## Low Pressure Fans



INLINE PANEL



INLINE BOX (DIRECT)



INLINE BOX (BELT)

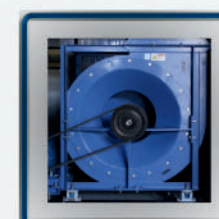
## Medium Pressure Fans



AXIAL-RADIAL  
(DIRECT)



AXIAL-RADIAL (BELT)

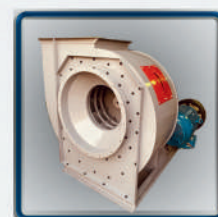


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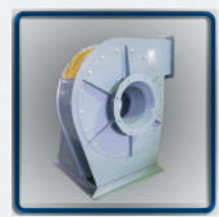
## High Pressure Fans



RADIAL  
BLADE (DIRECT DRIVE)



BACKWARD CURVE  
(BELT DRIVE)



RADIAL (BELT DRIVE)

## WHY DUMECH?



SITE  
INSTALLATION  
GUIDANCE



READILY  
AVAILABLE  
SPARE PARTS



FAN  
SELECTION  
SUPPORT



Certified





# MACHINE SHOP

Our Machine Shop is fully equipped with all types of machineries that includes Heavy Duty Lathes, Milling Machine, Drilling Machine, Slotting, Shaper, Horizontal Boring, Gear Hobbing, etc.

We undertake all types of jobs such as Straight Turning, Taper Turning, Shoulder Turning, Eccentric Turning, Thread Cutting, Chamfering, Grooving Forming, Drilling, Reaming, Counter Boring, Taper Boring, Internal Thread Cutting, Taping, Under Cutting, Key Ways, Groove, Slots and Heat Treatments, etc.

All the machines are operated by skilled and well experienced technicians to do jobs with a higher degree of accuracy under the supervision of highly qualified engineers and production supervisors.



# FABRICATION

We undertake design, Fabrication of Storage Tanks, Hopper, Handrail, Platforms, Walkways, Doors and Gates, Exhibition Stands and Canopies.

We have a dedicated team of qualified Engineers, Draftsman, experienced highly skilled Technicians and Supervisory Staffs support to carry out the fabrication jobs as per the drawing. We assure you the completion of the jobs in a timely and professional manner.



Stage 1



Stage 2



Stage 3



**BUILD YOUR BUSINESS WITH DUMECH**

## DUMECH LIMITED COMPANY



**Saudi Arabia**

Al Sulay Industrial Area,  
Riyadh, Saudi Arabia



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