AQUAEX Waterwash Extraction Booths and Systems

For Powder Coating, Paint Spraying and Dust Extraction.

RDM Aquaex Booths are based on a tried and tested system manufactured by RDM for over 20 years.

Designed to remove Toxic Fumes, Paint and Powder dust from spray shops and other industrial environments, ensuring healthy and suitable working conditions and compliance with inspectorate requirements.
A water scrubbing tower is used to prevent particles being exhausted to atmosphere.

APPLICATIONS:

- Powder Coating.
- Paint Spraying.
- Polishing/Finishing.
- Isocyanate spraying.
- Dust and fume extraction.

FEATURES:

- No filters to replace.
- Complies with all current safety and environmental legislation.
- Fully modular construction.
- Belt drive fan(s) with external motor(s).
- Choice of flameproof fans.
- Water curtains of stainless steel.
- Simple maintenance by removing clipped in front panel.
- Heavy duty centrifugal pump with tungstan seals.
- Supplied complete with loose starters, all chemicals, all sealants and fixings.
- Duct work and full installation service available.

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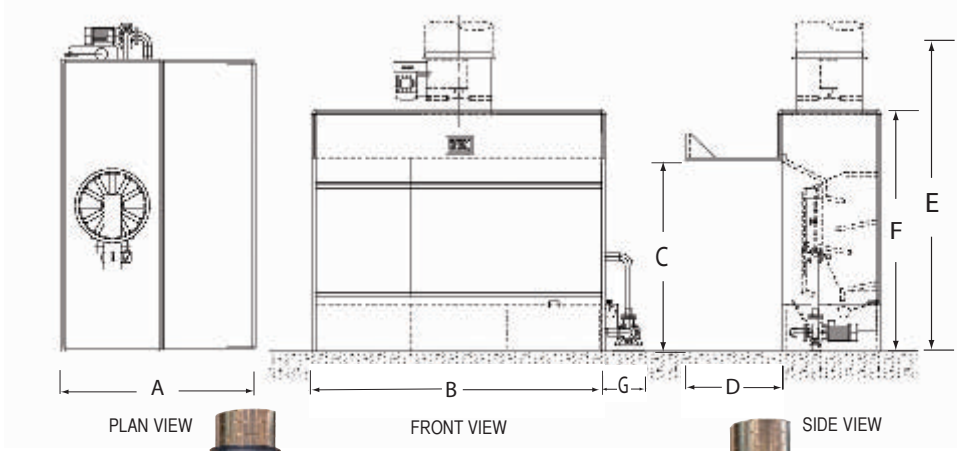
AQUAEX *Dimensions and Fan Performance Information*



AQUAEX

Standard Waterwash Booths with Front Canopy *(can be ordered with various canopy size options)*

Please refer to price list and data booklet

Model								DUCT	FAN(S)	Pump	Output
	A	B	C	D*	E	F	G	Size mm		Kw	CFM (M3/Minute)
NWB1000	2040	1000	2000/2500	1000	3020	2540	450	450	2.2	3.0	3500(99)
NWB1500	2040	1500	2000/2500	1000	3020	2540	450	600	3.0	3.0	7000(198)
NWB2000	2040	2000	2000/2500	1000	3070	2540	450	710	3.0	3.0	7000(198)
NWB2500	2040	2500	2000/2500	1000	3070	2540	450	710	3.0	3.0	8000(226)
NWB3000	2040	3000	2000/2500	1000	3070	2540	450	710	4.0	3.0	10500(297)
NWB3500	2040	3500	2000/2500	1000	3200	2540	480	762	7.5	4.0	12000(339)
NWB4000	2040	4000	2000/2500	1000	3200	2540	480	762	7.5	4.0	14000(396)
NWB4500	2040	4500	2000/2500	1000	3070	2540	480	2 x 710	2 x 3.0	4.0	14000(396)
NWB5000	2040	5000	2000/2500	1000	3070	2540	480	2 x 710	2 x 3.0	4.0	14000(396)
NWB5500	2040	5500	2000/2500	1000	3070	2540	480	2 x 710	2 x 4.0	4.0	21000(594)
NWB6000	2040	6000	2000/2500	1000	3070	2540	480	2 x 710	2 x 4.0	4.0	21000(594)

Standard Booth with Canopy

Wash Tower Only (no canopy)

AQUAEX

Extended Height Washtowers *(can be ordered with canopy of various sizes if required)*

Model								DUCT	FAN(S)	Pump	Output
	A	B	C	D*	E	F	G	Size mm		Kw	CFM (M3/Minute)
NWE1500(EH)	1040	1500	3000/3500	*	4070	3040	450	710	3.0	3.0	7000(198)
NWE2000(EH)	1040	2000	3000/3500	*	4070	3040	450	710	3.0	4.0	10500(297)
NWE3000(EH)	1040	3000	3000/3500	*	4200	3040	450	828	7.5	4.0	12000(339)
NWE3500(EH)	1040	3500	3000/3500	*	4070	3040	480	2 x 710	2 x 4.0	4.0	21000(594)
NWE4000(EH)	1040	4000	3000/3500	*	4070	3040	480	2 x 710	2 x 4.0	4.0	21000(594)
NWE4500(EH)	1040	4500	3000/3500	*	4200	3040	480	2 x 762	2 x 7.5	4.0	22000(622)
NWE5000(EH)	1040	5000	3000/3500	*	4200	3040	480	2 x 762	2 x 7.5	4.0	28000(792)
NWE5500(EH)	1040	5500	3000/3500	*	4200	3040	480	2 x 762	2 x 7.5	5.5	28000(792)
NWE6000(EH)	1040	6000	3000/3500	*	4200	3040	480	2 x 828	2 x 7.5	5.5	28000(792)

*Optional canopy sizes can be specified. Refer to data and price booklet. **Pump can be fitted to left or right.**
.All dimensions are nominal and in mm. Other sizes and fan outputs available. Motors are 415v 3 phase 50Hz as standard. Others are available.

Aquaex 'P' Series. Enhanced Models suited to Powder Coating Applications

These booths offer real advantages for powder coating including:
Very low cost, Very safe as the water quenches the powder eliminating 'fire hazard', no need for fire sensing or suppression. Large easy spray area. Can be used for Powder / Paint and Primers. Small footprint. No large seperate filters.

Additional 'P' Series features:

. White powder coated canopy for easy cleaning and bright interior.
. Lighting included and dustproofed to IP66.
. Speed control for extract fan, allows extraction to be suited to the work.
. Heavy duty pump strainer.
. Long life pump seals.
. Fancheck 5 system allows spraying only while fans are running.

How the AQUAEX System Works

Fume and particle laden air is drawn into the wash chamber between the top of the water tank and the base of the stainless steel curtain, it is then drawn up inside the wash chamber tower by fans mounted at the top, and extracted via ducting to atmosphere. Inside the wash chamber the laden air is impinged by a large volume of water sprayed by a series of scrubbing nozzles which are fed by the centrifugal pump. The water tank contains denaturing chemicals that cause particles to settle harmlessly in the wash tank.
A series of baffles inside the wash chamber tower prevents loss of water through the fans. The pump also supplies water to a trough at the top of the stainless steel curtain causing water to cascade down the front forming a water screen.
This water then re-enters the booth at the air inlet at the base of the stainless steel curtain. Since the air speed is high at this point the water significantly assists the scrubbing process as well as protecting the booth.

Aquaex Booths for Paint Spraying

These booths offer significant advantages for Paint Spraying including:
Low life cost compared to Dryfilter booths,
Very safe, the water quenches the paint overspray eliminating Fire Hazards,
Simple Paint disposal by tanker,
Superb operator conditions,
Huge variety of size and extract rating options.

Aquaex Booths for Powder Coating

These booths offer real advantages for Powder Coating including:
Low capital cost, Very safe, the water quenches the powder eliminating Fire Hazards,
No need for expensive fire suppression and sensing,
Large easily used open spray area,
Simple powder disposal by tanker,
Superb extraction and operator conditions,
Can be used for Powders, Paints, Etching etc.
Small footprint, no large seperate filters required.

STANDARD SPECIFICATION CONSTRUCTION
From first quality 18 SWG galvanised steel sheets forming a modular bolted panelwork system, 16 SWG, or heavier used in support panels. All panels have 40mm/15mm double folded return edges for additional strength and to facilitate jointing. All bolts are bright zinc plated.

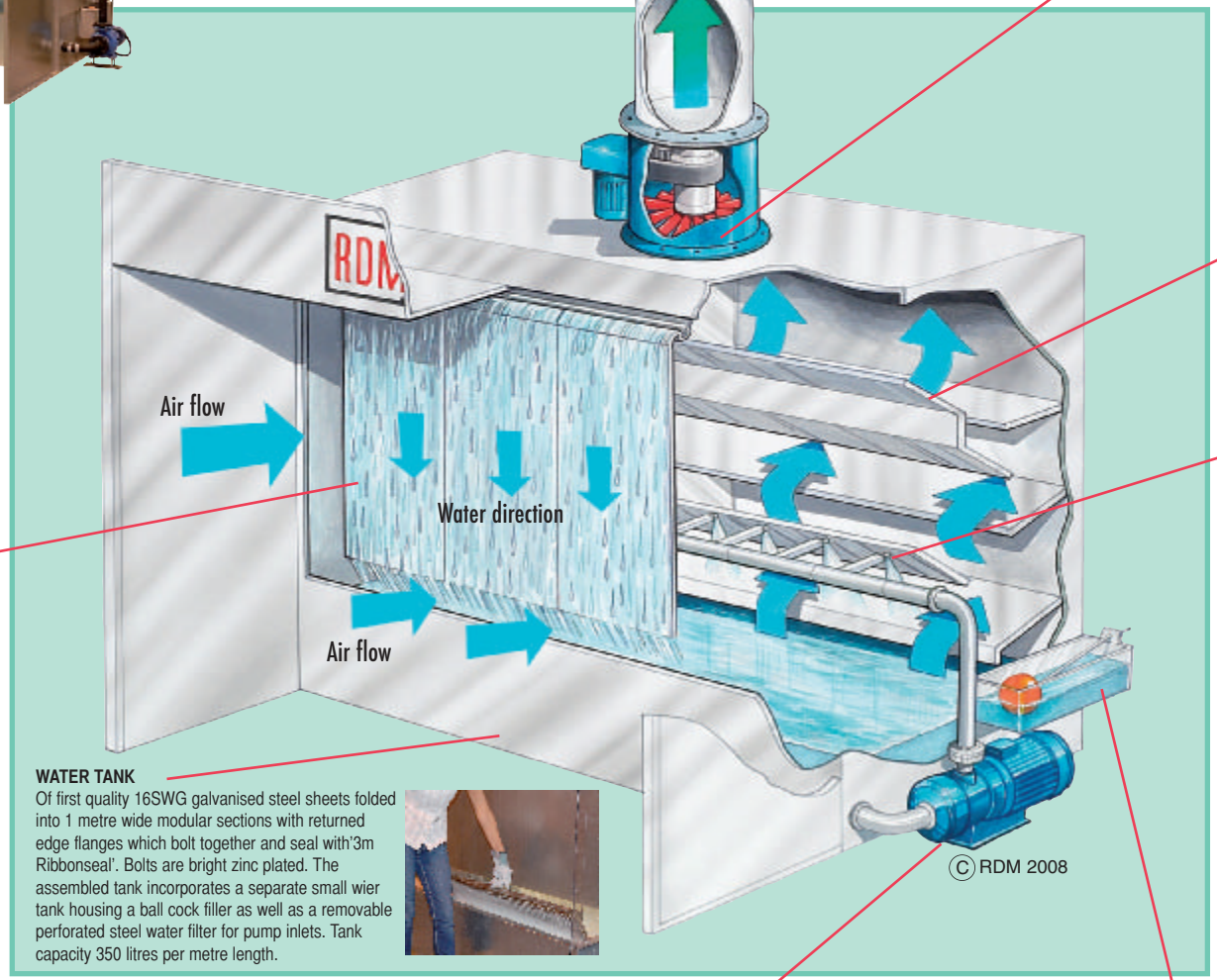
MOTORS
3 phase - 415 volts - 50Hz as standard, Squirrel cage type. Available to IP54, or IP55, or fully flameproof layouts. Usually of Brook, or Asea manufacture.

FANS
All fans are of the belt driven axial flow type with polypropylene or nylon aerofoil section impellors. All bearings are sealed and the belt tunnel is sealed from the airstream. External motors sit on large adjustment plates. Most fan cases have integral access doors.

CHEMICALS
Booths supplied as standard with pack of spraybooth additive. Liquid or powder chemicals are available to suit specific applications.

LIGHTING
(Optional) Special 18 SWG panels for roof, or sides with a strengthening frame spot welded into place carry a rough cast wired glass insert 8mm thick. Glass is either retained by a rubber seal, or sits on a ribbonseal strip. Illumination is provided by standard 'Fitzgerald' twin fluorescent lights usually 5ft long, complete with white angled reflector. Side lights are mounted on heavy duty steel hinges.

WATER CURTAIN
In one metre sections across the full length of wash tower. Each section has a galvanised steel trough at the top with brass levelling screws, a rolled galvanised steel scroll with angle and reach adjustment and a bright, folded 18 SWG stainless steel front curtain one metre high (standard) clipped into place for easy maintenance removal.



WATER TANK
Of first quality 16SWG galvanised steel sheets folded into 1 metre wide modular sections with returned edge flanges which bolt together and seal with'3m Ribbonseal'. Bolts are bright zinc plated. The assembled tank incorporates a separate small wier tank housing a ball cock filler as well as a removable perforated steel water filter for pump inlets. Tank capacity 350 litres per metre length.

WATER RECOVERY
the extracted water laden air strikes a minimum of six angled, oversized baffle plates which trap any airbourne water particles. The air is then caused to turn sharply into the top plenum chamber to centrifugally remove any remaining moisture.

WATER SCRUB SYSTEM
A 2 1/2"nominal bore steel manifold pipe across the full length of the wash tower. Three brass spray nozzles per metre length feed from the pipe. each nozzle is 12.7mm diameter. hollow cone type. Nominal spray pressure 20PSI. One 3/4" nominal bore riser pipe per metre section with a brass gate valve supplies water to troughs at the top of the water curtain.

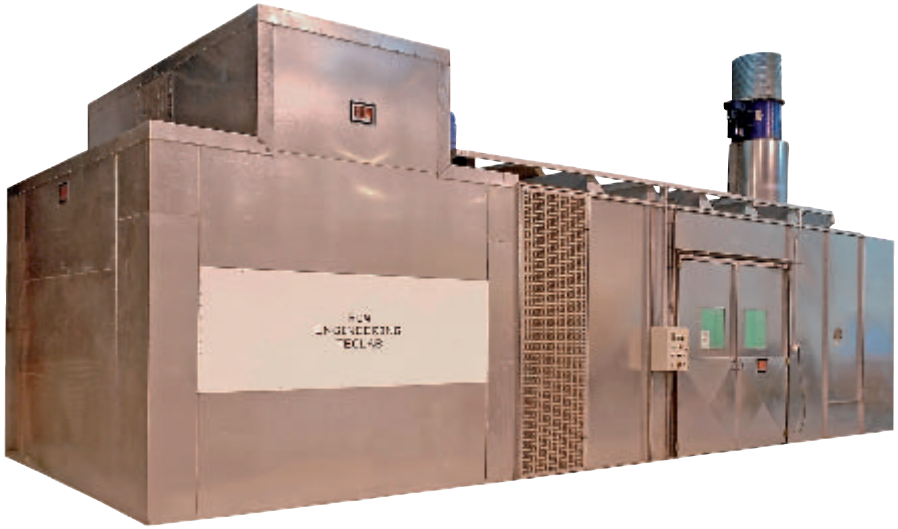
CONTROL GEAR
One direct-on-line no volt release type push button starter, with thermal overload housed in an IP55 enclosure is supplied for each motor. Comprehensive control panels available at extra cost.

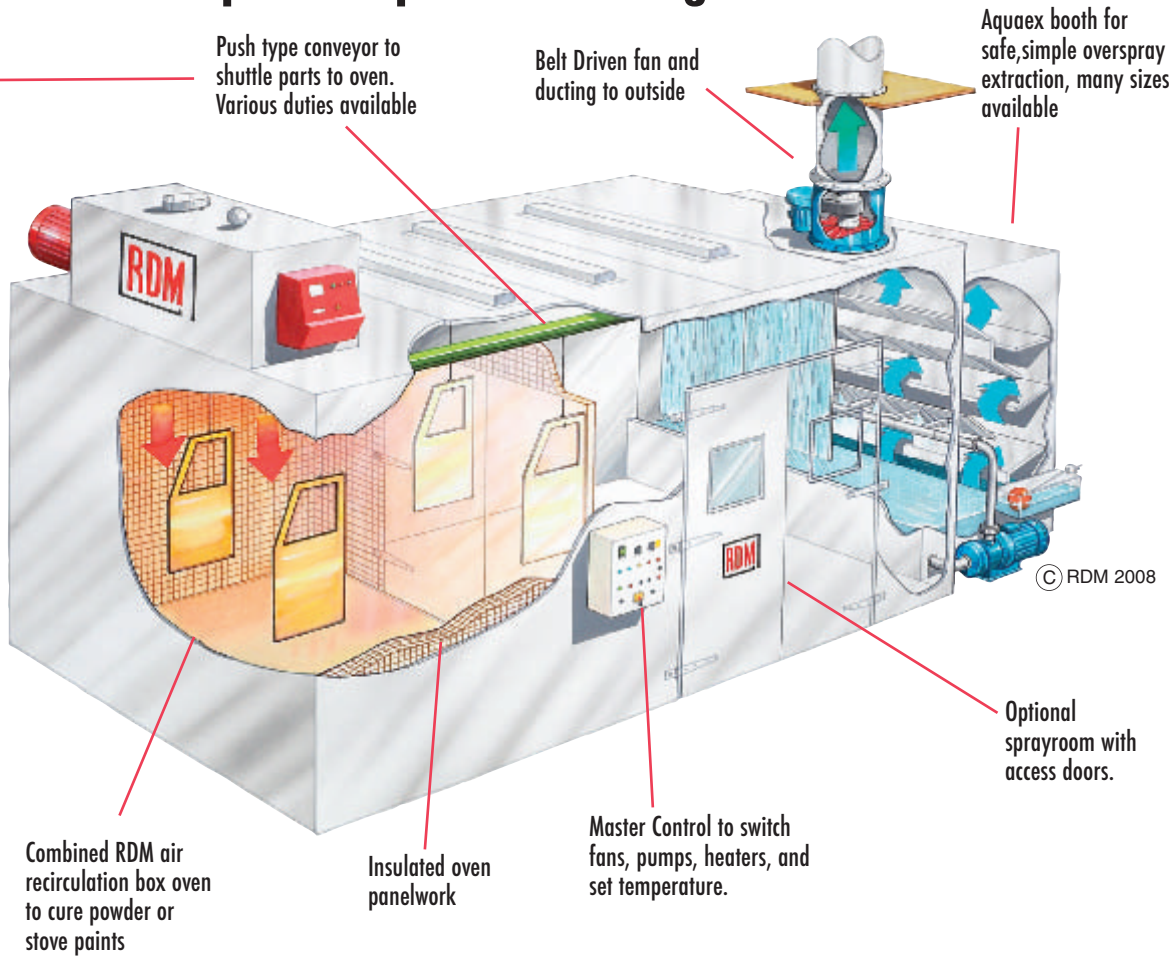
FANCHECK 5
Ensure spraying cannot commence unless the fans are running. Fancheck 5 allows air to the guns when it senses the fans are powered.{optional}

PUMP SET
A heavy duty self priming centrifugal pump is mounted on a stand alongside the water with 2 1/2" nominal bore steel delivery pipes with flexible inlet connection.Typical circulation rate 850 litres per minute(3 metre model).

AQUAEX

Typical combined booth, room, oven and push conveyor
An ideal package for batch paint or powder coating





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All booths manufactured to Quality Standard ISO 9001

Designed and manufactured entirely in the UK.

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