










*High Performance
Wet Scrubbers*



LOOKING FOR SAFE SOLUTIONS TO HAZARDOUS SUBSTANCES IN YOUR PRODUCTION PROCESSES?

	Steam	Washing machines, waste treatment, soldering, die-casting machines, releasing spark discharge material removal machines, paint-stripping units, electro-plating
	Fumes	Welding, laser applications, smelt furnaces, engine test rigs, cut-off machines, foundries, crematories, baking and glass smelting processes, incineration plants
	Aluminum Magnesium Dust	Minimal lubrication, grit production, chip removal, de-burring, brushing, separating, finishing processes, forging processes
	Aluminum Magnesium Chippings	Drilling, machining, rough machining, sawing, de-burring, forming processes
	Rubber/Leather/Plastic Fumes	Shoe manufacture, tire re-treading, plastics processing, foils production, extruders
	Fibers/Fluff/Textile Dust	Polishing processes, paper machines, waste sorting systems, textile processing recycling plants, insulation material production, asbestos abatement
	Sticky Powders	Pharmaceutical processes, manufacturing of foodstuffs, animal feed, dyes mold and die manufacture, printing machines, tire and chip production, adhesive applications, textile finishing, mixing and conveying plants
	Greasy Vapors	Canteens, animal carcass disposal plants, food production, wash units, mix stations, pharmaceutical products, de-greasing plants, meat processing industry
	Flammable/Explosive Dusts	Grinding processes, finishing, polishing, blasting machines, explosives production, forging presses, grain processing, printed circuit board production, brake test rigs
	Carbon Dusts	Bentonite applications, furnace soot, mix stations, tire production, cement industry, mining, mold and die production, dye production

ALL OF THE DIFFERENT TYPES OF WET SCRUBBERS PROVIDE NUMEROUS ADVANTAGES:

- No filter elements required
- The safest solution when dealing with flammable/explosive materials
- Compliance with TALuft
- Compliance with BG guidelines, in particular BGR104/109/204
- Universal applications
- High-level separation combined with safe operating modus
- Space-saving, modular design
- Low-maintenance assembly
- Individually available in steel, stainless steel, plastic

Choose the best size of wet scrubber for any volume of air:

Dimensions	Volumes CFM	
18	81,620	
17	69,960	
16	55,968	
15	46,640	
14	34,980	
13	28,320	
12	16,324	
11	12,243	
10	8,745	
9	6,413	
8	5,247	
7	4,198	
6	3,148	
5	2,099	
4	1,399	
3	1,049	
2	700	
1	420	

Type series wet scrubber: STW STWSTWR STZV

Agents, Paint vapors, Cooling aggregates, Units, Lead Production, Electro-galvanizing	
Tempering, Die-casting, Glory Holes, Fire Protection	
Grinding and Polishing	
Recycling systems	
Modeling, Textiles Manufacturing	
Food Processing, Grain Processing	
Plastics Processing, Ceramic Coating	
Bio-Filtration Units	
Recycling and Drying Units, Power Plant Engineering, Mining	
Electrodes Manufacturing	
	

TYPE STWV:

Extremely versatile combined with robust design to meet a wide variety of applications.

Functional features:

The Handte STWV wet scrubber works with an integrated ventilator. Pollutants are separated from the air stream by means of a combination of water swirl and disintegration principle. Pollutant-laden air enters the middle section at a tangent and then deflected. An air flow is routed to generate a strong swirl of water through which the contaminated raw gas must pass. Ultrafine particles are filtered out by means of the ventilator blade which is simultaneously employed as a disintegrator whereby non-separated particles are mixed intensively with water and flung through centrifugal force into a wall of water to achieve a high level of separation. The wetted particles flow back into the bottom part of the equipment together with the scrubbing fluid where they then settle in the water-stilling zone and the cleansed gas escapes through the central ventilation pipe.

TYPE STW:

Specially designed for dealing with fibers and fluff; particularly in combination with sticky dusts.

Functional features:

The Handte STW wet scrubber is a combination of centrifugal and water separator with a downstream ventilator which works on the water swirl principle. The pollutant-laden air is introduced at a tangent and settles as an eddy sink on the surface of the water. The special routing of the air flow generates an intensive swirl of water through which the pollutant-laden gas stream is led. Intensive mixing with the scrubbing fluid causes the pollutants to bond and precipitate. The radial-mounted separating spiral separates the liquid through centrifugal force from the pollutants bound up in it from the gas stream. The cleansed air is sucked in by the downstream ventilator and then blown out.

TYPE STZV:

The absolute top class solution for meeting the very highest demands in scrubbing.

Functional features:

The Handte STZV wet scrubber is designed to incorporate the highly-efficient Venturi principle. Pollutant-laden air is led at a tangent to the scrubber via a Venturi throat sprayed with scrubbing liquid. The air is accelerated in the upstream Venturi throat and the scrubbing liquid finely atomized. The high relative velocity of the air stream and the scrubbing liquid causes an intensive mixing of the media whereby the pollutants agglomerate/settle in the liquid droplets. In the downstream centrifugal droplet separator the pollutant-laden scrubbing fluid is separated from the air stream. The cleansed air escapes through the central pipe to the ventilator which is mounted on the clean gas side. The separated sludge in the sediments area can be disposed over via a variety of discharge systems.

TYPE STWV SCRUBBER SPECIFICATIONS

STWV - SIZE	2	3	5	5	6
AIR FLOW (CFM)	700	1050	1400	2100	3150
PRESSURE DROP ("W.G.)	7.2	8.4	8.4	8.4	8.4
PRESSURE DROP AV("W.G.)	2	2.8	2.8	2.8	3.2
MOTOR SPEED RPM	3000	3000	3000	3000	3000
VOLTAGE	230/460	230/460	230/460	230/460	230/460
FREQUENCY	60	60	60	60	60
PROTECTION	IP55	IP55	IP55	IP55	IP55
NOISE EMISSION LEVEL ACCORDING DINEN ISO 7744 AT OUTLET 1.0 M DISTANCE (DBA)	80	84	86	89	92
MEASURING AREA NOISE LEVEL ACCORDING TO DIN EN ISO 3744 WITH CONNECTING PIPE IN 1.0 M DISTANCE (DBA)	65	69	69	72	72
STWV-K WITH REMOVABLE BIN ON					
BASE PART NUMBER	9000541	900543	9000542	9000544	900545
HEIGHT INCHES	67.7	71.9	79.2	89.4	107.9
BODY DIA INCHES	20"	25"	28"	32"	44"
WEIGHT, LBS	420	552	728	948	1810
WATER CHARGING VOLUME	21	32	43	54	106
STWV-T WITH DISPOSAL FUNNEL & STANDS					
BASE PART NUMBER	9000547	900548	9000549	9000550	9000551
HEIGHT INCHES	113.4	124	130.3	150.4	166
BODY DIA INCHES	20"	25"	28"	32"	44"
WEIGHT, LBS	573	706	838	1081	2050
WATER CHARGING VOLUME, GALLONS	35	43	56	93	148

OPTIONS

- W54 heavy steel sludge bin
- 25" Sludge Bin, steel
- 31.5" sludge bin, steel
- 25" sludge bin for aluminum application
- 31.5" sludge bin for aluminum application
- Screen basket inlet for 25" sludge bin
- Screen basket for 31.5" sludge bin
- Shut Off Valve
- Automatic water level control NO surface cleaner
- Automatic water level control with surface cleaner
- Other options for automatic level control available

EFFECTIVE SOLUTIONS

Our skilled and qualified team of engineers are engaged in designing and implementing the best solutions for all individual requirements. Employing the best technology and selecting optimal components and accessories, we can ensure operational availability and economic efficiency.

Selection of components:

Modular system components ensure the best possible use; these include:

Attached Ventilators/adjacent ventilators



Ventilator -V
Mounted ventilator with Direct Drive

Water Level Control:



Mechanical float gauges (WR)

Sludge Discharge Facilities:



Bin



Bin with strainer basket

Electrical Controls

Electronic/protection/stored-program controls

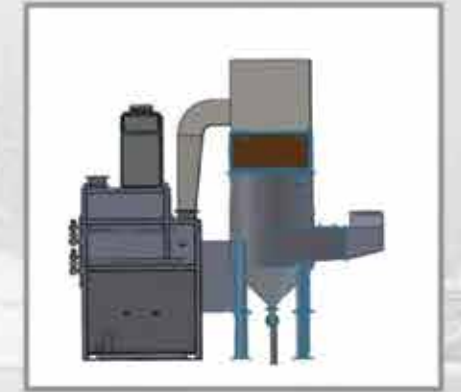
Selection of accessories

Our comprehensive range of accessories allows you utmost flexibility and includes:

- Heating elements for frost-free outdoor installations
- Measuring and control instrumentation for monitoring operations
- Suction line spray for caking media and fire protection
- Ring spray in cylinder of wet scrubber for caking mediums
- Sludge cart (slewable/tiltable)
- Compressed air injector system for cleansing workplaces/machines
- Sound insulation



CAPTURE HOODS, PIPING, AND CLEAN AIR SOLUTIONS



Maximum Performance of Clean Industrial Air Quality

- System Engineering and design
Solid Works 3D engineering
- Certified Air Specialist for onsite air quality testing
- Capture Hoods and Piping available in metric and standard options. Leak free pipe systems for wet or dry applications.
- Complete equipment installation, startup, and operator training. Proven success with guaranteed results. Backed by manufacturer Custom Air Flow Transitions

Test Result for Mist Separators			
Test Time	Intake Air	Exhaust Air	Air Speed
28 seconds	0.295 mg/m ³	0.0041 mg/m ³	3900 fpm
39 seconds	4.12 mg/m ³	0.0398 mg/m ³	3920 fpm
20 seconds	0.398 mg/m ³	0.003 mg/m ³	3980 fpm
30 seconds	0.005 mg/m ³	0.0045 mg/m ³	3840 fpm
30 seconds	1.17 mg/m ³	0.161 mg/m ³	2400 fpm
20 seconds	5.401 mg/m ³	2.801 mg/m ³	3560 fpm

METHODOLOGY OF DUST TRAK ANALYZING

DUSTTRAK monitoring provides a reliable exposure assessment by measuring particle concentrations. This testing method has a continuous particle concentration laser photo meter which provides readout and documentation of potential levels of airborne contaminants such as dust, smoke, fumes, and mist. The DUSTTRAK measures the mist/dust levels in milligrams (mg) / cubic meter (m³). These test results are a snapshot of the actual conditions at any given time and will act as a guide to meet the air quality levels as recommended by OSHA and NIOSH.



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