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Wedge Wire Strainers

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# Wedge Wire Strainers

The robust WWS Filter with its motor-driven cleaning device is suitable for the separation of suspensions as well as the continuous separation of solid particles from liquids which viscosities may range from water-thin to pasty. It so offers a wide range of application possibilities throughout the entire processing industry.



The liquid flows from the outside to the inside of the wedge wire screen and leaves the filter housing through the higher placed exit. Between the lower placed entrance and the upper exit a seal is placed, limiting any cross contamination between lower (dirt) part and upper (clean) part.

Dirt and particles are retained on the outside of the screen and are continuously removed from the filter element with a flexible scraper blade. The dirt is directed to the sump by a laminar flow in the filter and collected in the bottom part of the filter housing. This collection chamber can be purged either manually or automatically through a valve. An automatic purge system can be set up including an actuator and a time controller or pressure differential initiated valves. The installation of a manual bypass is advised. Liquid losses are limited. Clogging of the filter is almost impossible because of the special construction of the wedge shaped filter element. The filter fineness is established by the width between the wedge formed wires. The elements can be changed without any special tool. The automatic strainer is available skid-mounted and can be supplied for wall or machine attachment or as stand-alone unit. The filter housing is constructed in two parts and is easy to open. By loosening the quick clamps or hexagonal bolts the lower part, included the sump, can be removed downwards (only the larger models require dismounting upwards, removing cover, motor and filter element simultaneously). The filter elements can be removed without special tools and are easy to clean, if required. The various designs, made of (stainless) steel and with or without heat jacket, enable this versatile filter to be employed for numerous applications.

# EXAUXILL Nederland BV

## Applications

Beverage industry: wineries (must filtration), breweries, distilleries, etc.

**Car industry & metal working**: degreasing baths, cooling liquids, lubrication liquids, greases, cooling water, washing and scrubbing water, process water, water from cutting processes, etc.

**Chemical industry**: ammonia, solvents, softening agents, glycol's, adhesives, chemical base materials, suspensions, lye's, waste liquids, washing liquids, distillation and reaction fluids, surfactants. For preliminary and coarse filtering upstream of distillation columns, reactors, flue gas scrubbers, pumps, fine filters, filling plants, etc.

Cosmetic industry: soaps, fats, essences, tooth pastes, etc.

**Food industry**: sweets, dairy products, fats, flavors, concentrates, treacle's, fatty acids, cooling oils, molasses, fruit concentrates and juices, syrups, chocolate mass, egg mass, etc.

**Minaral oil industry**: oils, greases, solvents, waste oils, diesel oils, lubricating oils, heating oils, heat transfer fluids, reclaimed oils, etc.

Paint & color industry: varnishes, dispersions, coatings, tar products, etc.

**Plastic industry**: base products, PVC & PU pastes, rubber products, silicones, etc.

**Other industries**: i.e. electro, optic, pulp & paper, leather and sugar industries.

### **Features**

- Permanent cleaning without stops
- No waste or disposal of filter cartridges
- Minimal product loss during purging
- Can be used for all kinds of liquids
- Filters from 35 µ till 3 mm available
- Maximal temperature up to 200°C
- High differential pressure
- Rugged two part housing
- Outside inside filtration
- No product contamination
- Purging by ball or automatic valves
- Taylor made execution possible.

#### **Benefits**

- No cartridge use
- Self-cleaning
- No interruption of production process
- Easy to dismount and inspect
- Solidly built filter housing
- Low operation costs
- Limited maintenance, uncomplicated, rugged, reliable design
- Continuous cleaning of the filter surface ensures minimum pressure drop
- Filtration level 35 µ 3,0 mm
- The use of different construction materials and equipment facilitates application possibilities for the filter in every field of industry
  - Installed before pumps or other equipment the filter extends the life of such components and prolongs the service life of fine filters.



Specifications small systems				
	150-WWS-25-1	150-WWS-25-2		
Capacity *	3,5 m³/h	3,5 m <sup>3</sup> /h		
Inlet	R 1"	R 1"		
Outet	R 1"	R 1"		
Drain	R ¾"	R 3/4"		
Vent	R 1/8"	R 1/8"		
Quick closure	16 bar	16 bar		
Total height A	765 mm	845 mm		
Built in height B	300 mm	300 mm		
Size C	100 mm	100 mm		
Inlet D	27 mm	27 mm		
Outlet E	27 mm	27 mm		
Diameter H	88 mm	86 mm	G	
Height G	445 mm	525 mm		
Exit K	75 mm	75 mm		
Volume	1,5 liter	1,8 liter		
Power	0,02 kW	0,02 kW		
Weight	12 Kg	12,5 Kg		
Remark: * the stated capacity	is related to clean wat	er and 100 µ element		

Free filter surface				
50 Micron	4,76%			
100 Micron	9,10%			
150 Micron	14,6%			
200 Micron	16,7%			
500 Micron	33,3%			

Size and filter surface of elements					
Туре	Maat	Filter oppervlakte			
WWS 25	Ø 47 x 185 mm	240 cm <sup>2</sup>			
WWS 50	Ø 70 x 215 mm	415 cm <sup>2</sup>			
WWS 65	Ø 70 x 340 mm	695 cm <sup>2</sup>			
WWS 80	Ø 110 x 340 mm	1055 cm <sup>2</sup>			





Specifications larger systems					
	150-WWS-50	150-WWS-65	150-WWS-80		
Capacity	13 m³/h	25 m³/h	35 m³/h		
Inlet	R2" or Flange DN 50	Flange DN 65	Flange DN 80		
Outlet	R2" or Flange DN 50	Flange DN 65	Flange DN 80		
Drain	R2" or Flange DN 50	R2" or Flange DN 50	R2" or Flange DN 50		
Vent	R 3⁄4"	R 3⁄4"	R 3⁄4"		
House closure	Clamp screw	Clamp screw	Clamp screw		
Built in height A	910 mm	1010 mm	1075 mm		
Diameter B	370 mm	370 mm	465 mm		
Height C	370 mm	470 mm	520 mm		
Height D	500 mm	600 mm	660 mm		
Height E	300 mm	400 mm	400 mm		
Volume	10,5 liter	12,5 liter	22,5 liter		
Power installed	0,12 kW	0,12 kW	0,12 kW		
Weight	41 Kg	47 Kg	81 Kg		
* the stated capacity is related to clean water and 100 μ element					



## Automatic control system (AS-S01)

#### **Operation principle**

The cleaning process is controlled by a signal from a differential pressure switch and/or an integrated timer (option). Pushing a test button makes it possible to start up the cleaning process at any time.

#### Normal operation

The cleaning process starts when a signal is sent from the pressure differential switch, the integrated time or test button, to the Siemens Logic during five seconds. After one of these signals, the motor of the wedge wire rotation will run approximately three turns around for fifteen seconds.

The same signal starts a timer which indicates another signal after ten seconds. It will open the purge valve for about five seconds.

On the Siemens-Logic the intervals can be changed.

