

Centrifugal Separator **DELTA-ZFA**For hydrous media

The DELTA-ZFA is a logic, cost efficient and environmental-protecting way of filtration.

- Free of operating materials
- · Maintenance-free, low costs
- Compact housing
- Without moving parts
- No backflushing required
- · Constant low differential pressure
- High flow capacity
- Excellent effectiveness
- Without wear parts
- Without costs for filter cartridges, bags etc.
- Continuous separation
- Low liquid loss

OPTIONAL

- Automatic purge valve (electric or pneumatic valve)
- Special materials and coatings on request



DELTA-ZFA-VCS-2134-D

DESCRIPTION

Driven by the inlet pressure, liquid with particles is accelerated through tangential slots towards the centre of the separator. By the rotation of the liquid, a vortex is formed in the centre of the separator and by the centrifugal force a separation of heavy particles takes place. Separated particles are accumulated in the bottom collection chamber and are then periodically evacuated manually or automatically.

Centrifugal separators have no moving parts and no filter elements, screens, bags or cartridges. The DELTA-VCS separates around 98% of all particles with a specific weight of 2.6 – 2.8 kg/dm³ (sand) with a diameter of 75 micron or higher. In circulating systems or two in series arranged separators with a deposition rate of around 98% a filter rate of around 50 micron (at same specific weight) is possible. If the particles are heavier (e.g. swarf) the grade of separation gets higher.

TECHNICAL DATA

- Flow range of VCS models: 0.7 2700 m³/h. Higher flow rates by mounting of separators in parallel
- Manufactured to European norm PED 97/23/EC
- Applicable for fluids of fluid group 2, liquid. Classification: Good engineering praxis, Article 4 paragraph 3
- Pressure loss: Min. 0.3 max. 0.9 bar
- Material of housings: Carbon steel, stainless steel 304 L or 316 L standard, other materials on request, for instance carbon steel with epoxy coating
- Liquid pressure: Min. 1 bar to max. 10 bar as standard, separators for higher pressure on request, certificates for pressure test available
- Temperatures: 70°C, higher temperatures for standard models depending on the pressure (pD < 0.5 bar) are possible
- Requirements for good function:
 - Min. difference of density between particles and liquid is 20%
 - Max. viscosity of liquid: 3°E or 22 cSt
 - Max. concentration of particles: 1% by volume, higher concentration on request 0

Working principle:

Solids - free liquid is moving upwards around the vortex and exits through the

Forced by their gravity, the

Forced by their gravity, this solids are moving along the perimeter of the separation barrel, downwards to the particle collection chamber.

separator outlet

The deflector plate

located on the top of the solids collection chambe

changes the direction of the flow. Below, a spin

arrestor halts the rotating

Liquid/solids are entering tangentially and are then accelerated through inner tangential slots into the separation

Inlet

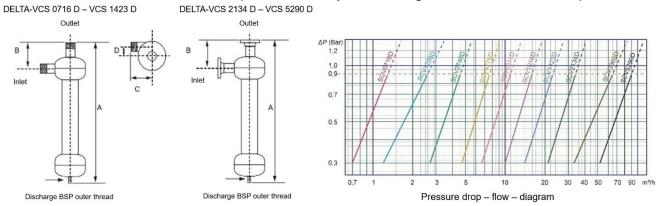
Solids/particles are either

periodically or continuously bled from

the separator collection chamber with an appropriate automatic or manual valve system.

Outlet

Purge



GENERAL TECHNICAL DATA AND DIMENSIONS

	In-/Outlet	m³/h min./max.	L/min min./max.	Α	В	С	D	Drain	Particles max.	Weight [kg]
VCS 0716D	3/8"	0,7 / 1,6	12 / 27	410	70	90	35	3/4"	6 mm	3,8
VCS 1226D	1/,"	1,2 / 2,6	20 / 43	518	111	112	60	3/4"	6 mm	9
VCS 2746D	3/4"	2,7 / 4,6	45 / 77	521	111	114	60	3/4"	6 mm	9,2
VCS 4776D	1"	4,7 / 7,6	78 / 127	759	111	114	55	3/4"	6 mm	13
VCS 6611D	1 1/4"	6,6 / 11,0	110 / 183	759	111	114	50	3/4"	9 mm	13,3
VCS 1016D	1 ½"	10,0 / 16,0	167 / 267	759	111	118	50	3/4"	9 mm	14,2
VCS 1423D	2"	14,0 / 23,0	233 / 383	800	119	140	70	3/4"	9 mm	26,2
VCS 2134D	DN65 PN16	21,0 / 34,0	350 / 567	838	125	185	65	3/4"	9 mm	33
VCS 3365D	DN80 PN16	33,0 / 65,0	550 / 1083	1000	162	210	75	3/4"	9 mm	48
VCS 5290D	DN100 PN16	52,0 / 90,0	867 / 1500	1500	270	310	75	1 ½"	9 mm	55

All dimensions are references only. All dimensions in mm

We will prepare a detailed quotation for you.

21st March 2024 - Technical changes reserved

