

Serial No.
Year made:



Centrifugal Separator WTEZA, WTFZA, WTDZA

Wolftechnik Filtersysteme GmbH
Malsheimer Straße 67
71263 Weil der Stadt
Tel: ++49 (07033)7014-0
Fax: ++49 (07033)7014-20
eMail: vertrieb@wolftechnik.de
Internet: www.wolftechnik.de



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1. Description

With Wolftechnik Centrifugal Separators solids removal efficiency is predicated by the difference in specific gravity between the liquid and the separable solids. By the special internal flow configuration of the centrifugal separator the liquid is set into a circular flow. The centrifugal forces affect the particles and lead to excellent removal efficiency. Wolftechnik Centrifugal Separators are especially effective in removing hard and solid particles like glass, sand or metal. Wolftechnik Centrifugal Separators can be manufactured out of Carbon steel, stainless steel or plastic. With the complete identical inner construction the three versions differ in the approach to the inlet chamber and the collection chamber.



WTEZA

Compact, closed functional unit available in 5 sizes for flow rates from 5 m³/h to 40 m³/h.



WTDZA

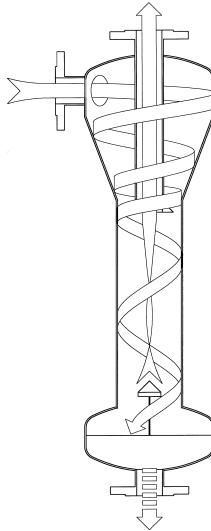
The inlet chamber with a flat cover and the flanged dished bottom can be opened for inspections. Three sizes from 10 m³/h to 40 m³/h flow rate are available



WTFZA

The economical mixture between WTEZA and WTDZA with a flanged outlet and stand with a hand hole for inspection of the collection chamber. This version is available in four sizes from 65 bis 150 m³/h flow rate

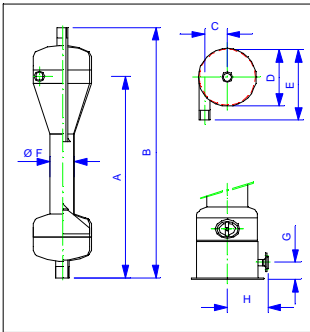
2. Functional Description



- The liquid with the solids enter the unit tangentially, which sets up a circular flow
- The cone accelerates the motion and the centrifugal forces affect the particles.
- The centrifugal force throws particles heavier than the liquid to the wall of the central pipe.
- Due to gravity and the movement the particles float gently downwards into the collection chamber. The movement slows due to the sudden increase in diameter.
- The solids free liquid is drawn into the separator's vortex.
- The solids accumulated in the collection chamber are purged at periodic intervals, either manually or using an automatic system.

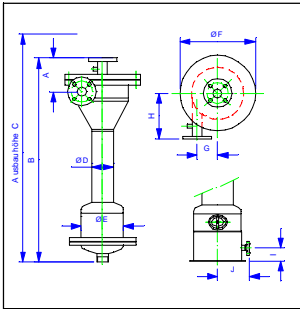
3. Technical Specification Flow rate
 Differential pressure
 Solid removal efficiency

Depending on the flow rate the differential pressure and the solid removal efficiency is changing. The numbers in the list above are corresponding to the numbers of the flow rate.



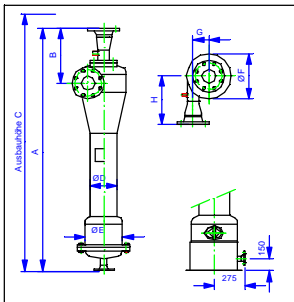
Model	Flow [m³/h]	dp [bar]	p _{max} [bar]	Inlet Outlet	Drain	A	B	C	D	E	F
WTEZA002	2	1,2	10	¾" AG	½" AG	387	475	45	114	142	48
WTEZA005	5	1,2	10	¾" AG	¾" AG	460	560	54	139	160	76
WTEZA010	10	1,2	10	1 ¼" AG	¾" AG	500	635	67	168	250	89
WTEZA025	25	1,2	10	2" AG	1" AG	730	895	110	273	372	114
WTEZA040	40	1,2	10	DN 65	1" AG	832	1050	104	273	400	140

Material: stainless steel 1.4301 pickled and passivated or C-steel, varnished



Model	flow [m ³ /h]	dp [bar]	p _{max.} [bar]	Inlet Outlet	Drain	A	B	C	D	E	F	G	H
WTDZA010	10	1,2	10	DN 32	DN 20	135	760	100	89	168	250	70	190
WTDZA025	25	1,2	10	DN 50	DN 32	190	1100	1400	114	219	375	112	200
WTDZA040	40	1,2	10	DN 65	DN 40	215	1206	1515	139	219	375	106	285

Material: Stainless steel 1.4301 pickled and passivated or Carbon steel, varnished.



Modell	flow [m ³ /h]	dp [bar]	p _{max.} [bar]	Inlet Outlet	Drain	A	B	C	D	E	F	G	H
WTFZA065	65	1,4	10	DN 100	DN 40	1760	400	2200	194	273	324	117	350
WTFZA080	80	1,4	10	DN 100	DN 40	1890	350	2300	219	355	355	133	375
WTFZA120	120	1,4	10	DN 125	DN 40	1950	375	2350	244	355	400	143	400
WTFZA150	150	1,4	10	DN 125	DN 40	2095	390	2550	244	355	400	143	400

Type WTFZA080 to WTEZA150 with stand and hand hole but no flange to open collection chamber.
Material: Stainless steel 1.4301 pickled and passivated or Carbon steel, varnished.

3. Safety Instructions

Fundamental and important instructions for your safety:

WTZA Centrifugal Separators are determined for the filtration of liquids. Especially WTZA Centrifugal Separators should not be used for:

- Liquids whose chemical resistance against the used materials is not guaranteed.
- Liquids whose operation temperature is exceeding the maximum operation temperature shown in the technical specification.
- Liquids whose operation pressure is exceeding the maximum operation pressure shown in the technical specification.



A different use or use over it has to be considered as not to be made under the arrangements. For damages resulting out of this the manufacturer does not accept the responsibility.

If you have to carry out maintenance services or repairs please notice the following instructions:

- The centrifugal separator is a pressure vessel and can be under pressure.
- Before opening the centrifugal separator please make sure, that the vessel is not under pressure and that all inlet and outlet lines to the vessel are closed.
- Protect all inlet and outlet lines against unintentional or unauthorised opening.
- When opening the centrifugal separator take notice of all instructions which have to be observed when handling the hauling product (e.g. protection clothes, no smoking...).
- Before restart of operation make sure, that all mechanical and other protection instruments are mounted tidy and that the vessel is closed orderly.

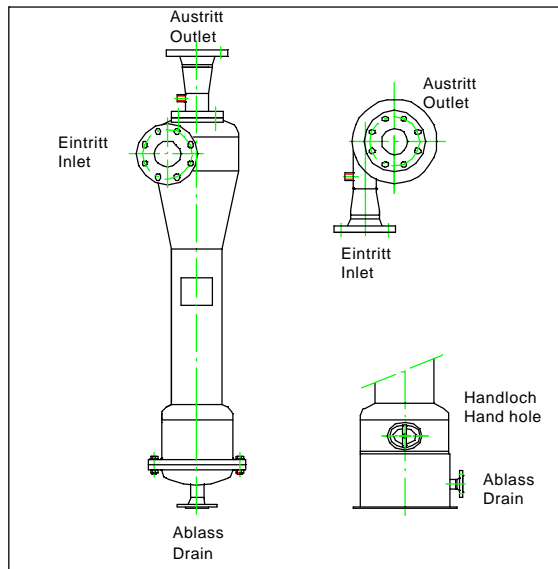


5. Installation

The centrifugal separator has to be installed in a standing position, so that the pipe connection for the inlet is located horizontal and the cover with the outlet at the top. The drain is located vertical to the bottom. The inlet line has to be connected to the inlet, the outlet line to the outlet. The drain has to be connected to the drain line.

For tight sealing we recommend a PTFE sealing tape or a sealing paste suitable for medium and application. The versions with flanged connections have to be installed with a gasket suitable for pressure temperature and medium.

For controlling and monitoring the pressure drop it is recommended to install pressure gauges and shut off valves in front of and behind the centrifugal separator. For solid discharge of the collection chamber the drain can be hooked up by suitable ball valves or by an automatic purge system



6. Operation

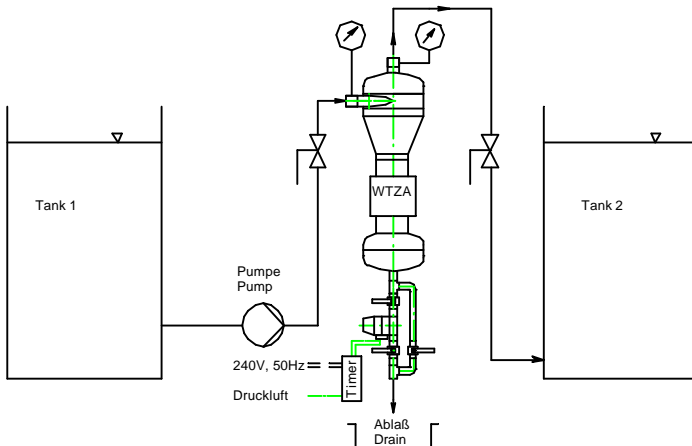
For start of operation and filter exchange proceed as follows:

- Close inlet, outlet and drain
- Start pump
- Slightly open inlet and outlet to fill up the vessel
- The centrifugal separator will be set under pressure now
- Check the filter housing for leakage
- In case of leakage close inlet and outlet again, open vent to discharge the pressure in the centrifugal separator. Drain the liquid. Check the centrifugal separator for damaged parts and replace them. Restart operation again.
- If there is no leakage when setting under pressure first the outlet and then the inlet can be opened completely.
- The centrifugal separator is now ready for operation.

The dirt from the collection chamber must be removed in periodical intervals during operation. This can be done with a simple ball valve or with an automatic purge system.

The interval depends on the quantity of the dirt. Should the dirt prone to be lumpy the purging time should be longer and the opening intervals should be more often. We recommend to optimise the interval after the installation of the separator.

As a first interval it is recommended to open the valve every half an hour for about 3-4 seconds.



7. Maintenance

During operation please take care of the following:

- max. operating pressure and max. operating temperature should not exceed.
- pressure shocks should be avoided.
- no leakage is be found.
- the inspections are made according to the instructions.

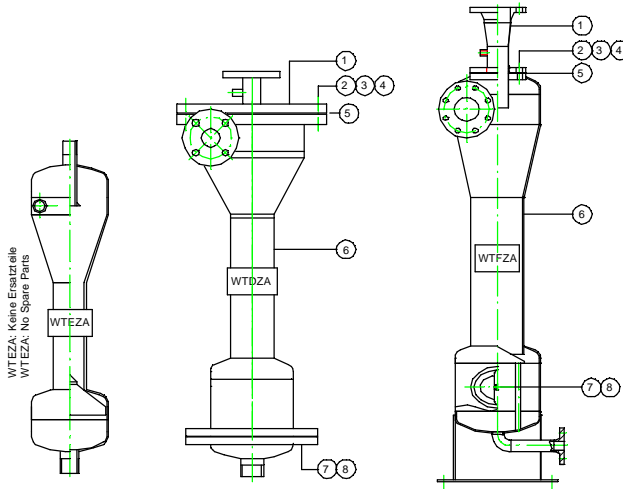
If you have to carry out maintenance services or repairs please notice the following instructions:



- The centrifugal separator is a pressure vessel an can be under pressure.
- Before opening the centrifugal separator please make sure, that the vessel is not under pressure and that all inlet and outlet lines to the vessel are closed.
- Protect all inlet and outlet lines against unintentional or unauthorised opening.
- When opening the centrifugal separator take notice of all instructions which have to be observed when handling the hauling product (e.g. protection clothes, no smoking...).
- Before restart of operation make sure, that all mechanical and other protection instruments are mounted tidy and that the vessel is closed orderly.

Please always think about your safety and therefore respect the company safety instructions, and the regulations of the government when carrying out maintenance services or repairs at the filter housing.

8. Spare parts



Pos.	Designation	Material	Order-Designation	Order-No.
1	Cover	1.4571/St37	WTDZA-010-Deckel-T/-C	#999994
			WTDZA-025-Deckel-T/-C	#999994
			WTDZA-040-Deckel-T/-C	#999994
	Flanged outlet pipe		WTFZA-065-Tauchrohr-T/-C	#999994
			WTFZA-080-Tauchrohr-T/-C	#999994
			WTFZA-120-Tauchrohr-T/-C	#999994
			WTFZA-150-Tauchrohr-T/-C	#999994
2	Screw M16x65	A2	WTZA-Schraube	#999994
3	NutM16	A2	WTZA-Mutter	#999994
4	Washer	A2	WTZA-Scheibe	#999994
5	Gasket	Klingersil	WTDZA-010-Deckeldichtung	#999994
			WTDZA-025-Deckeldichtung	#999994
			WTDZA-040-Deckeldichtung	#999994
			WTFZA-065-Flanschdichtung	#999994
			WTFZA-080-Flanschdichtung	#999994
			WTFZA-120-Flanschdichtung	#999994
			WTFZA-150-Flanschdichtung	#999994
6	Body	1.4571/St37	-----	-----
7	Hand hole / Bottom	1.4571/St37	WTZA-OAB51 /WTDZA-bottom	#999994
8	WTFZA-Gasket	Viton	WTZA-Handlochdichtung	#000504
	WTDZA-Gasket	Viton	WTDZA-Bodendichtung	#999994

9. CE-Declaration of Conformity

Declaration of Conformity

According to Annex II of Directive 97/23/EC

We,

Wolftechnik Filtersysteme GmbH
Malmsheimerstraße 67
71263 Weil der Stadt

declare that our product

Centrifugal Separator
WTEZA, WTFZA, WTDZA

to which this declaration is referring to, is in compliance with the directive 97/23/EG and was subjected to the following conformity assessment procedure

Module A

The monitoring is performed by

TÜV SÜDWEST, CE-0036
OR
TÜV HESSEN, CE-0091

Weil der Stadt

(Name, Signature)



Wolftechnik Filtersysteme GmbH