

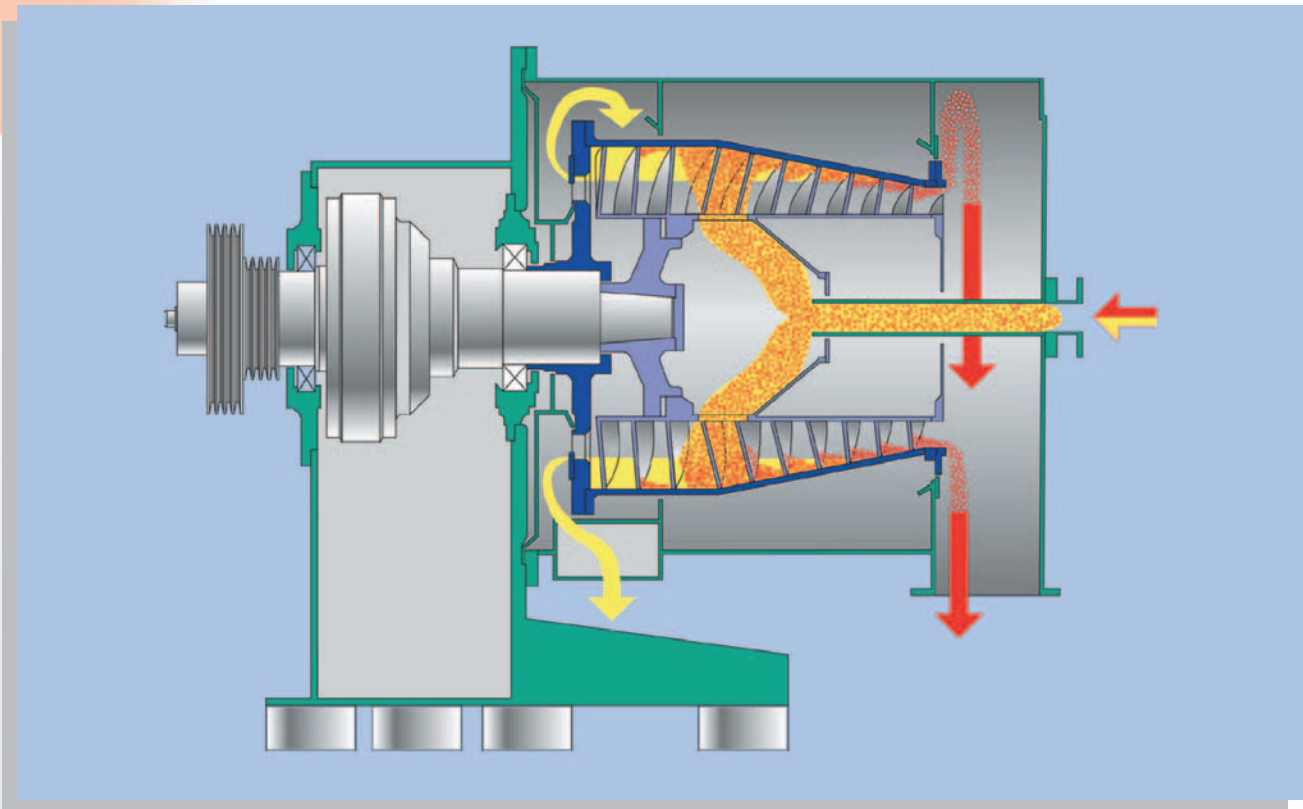
Short Bowl Decanter



Efficient separation



Short Bowl Decanter - The Solid Bowl Centrifuge



General

The rotating parts of this solid bowl centrifuge are supported at one end only, which is of particular advantage. The centrifuge rotor ends just beyond the dividing wall of the solids housing ensuring a free and unimpeded discharge of solids from the product housing.

This construction enables excellent accessibility to the rotating parts for inspection and maintenance.

Overhung rotating parts are easily cleaned by CIP-facilities and therefore guarantee the best possible cleaning, even for food production.

For gas-tight processes the product housing, which is flanged on one side, can be cost effectively sealed as there is only one point at which the shaft passes through.

The drive is separated from the product, making this centrifuge particularly suitable for high process temperatures.

As with all SIEBTECHNIK centrifuges, the gearbox and all bearings are connected to the oil lubrication system, which ensures very low maintenance and long service life.

The overhung support naturally has an influence on the diameter/length ratio in relation to the operating speed. This means that the mass of the rotating parts and the distance of the centre of gravity to the support restricts the operating speed and at the same time determines a relatively small ratio of diameter of length (λ) of the solid bowl. However, only the cylindrical section of the decanter bowl is reduced and subsequently the clarifying volume.

SHORT BOWL DECANTERS are therefore particularly suited for solids with a good sedimentation rate, i. e. for fine solids with a high specific density relative to the liquid or for solids with a sufficient particle size and settlement rate during the available retention time.

This short version has also proved an advantage for classifying solid particles.

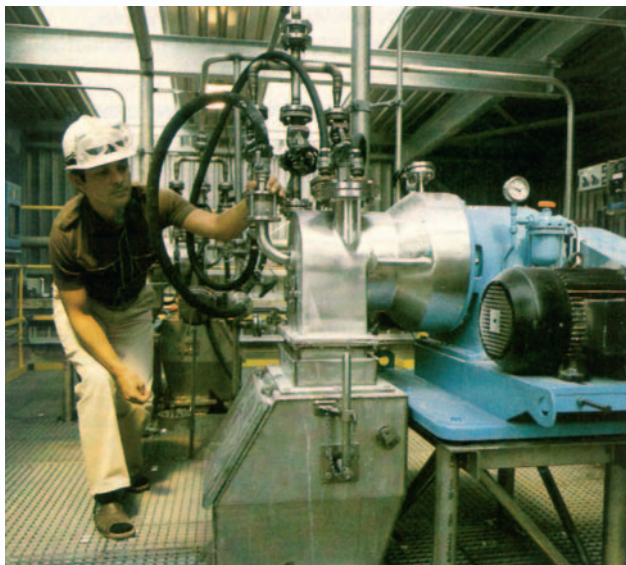
The principle

Despite the relatively short solid bowl, this decanter is a high capacity continuously operating centrifuge with optimum separation results when used in the right application.

For separating solids from liquids, the suspension is fed into the scroll body via the feed pipe. The material is discharged through feed ports into the centrifuge bowl and accelerated to the circumferential speed. Under the influence of the high G-forces the solids settle on the inner surface of the solid bowl and are conveyed by the scroll to the discharge end of the conical bowl section.

The filling volume of the cylindrical section, which effects the length of beach in the conical section, is infinitely variable by means of an adjustable weir.

The correct relation of clarifying and drying section must determined for each product by trials.



Advantages of the overhung construction

- Cost effective construction
- No shaft in the product solids area
- Uncomplicated sealing for gas-tight operation
- Easily accessible
- Simple to clean
- Identical support as Conturbex and Conthick
- Complete separation between drive and product
- Optical control of product discharge

Drive options

- Single
- Double
- Hydraulic
- Frequency converter

Solids discharge

- Free discharge
- Discharge device in the internal area (race track)
- Discharge device in the discharge housing instead of solids housing

Filtrate discharge

- Free discharge
- Scoop discharge

Sealing systems

- Open labyrinth seals
- Vapour tight seals
- Gas tight design with chamber packing
- Gas tight design with mechanical seals

Standard design

Type		SBD 140	SBD 210	SBD 250	SBD 300	SBD 360	SBD 450	SBD 600	SBD 750	SBD 900
Drive motor	kW	3	5,5	7,5	15	18	22	45	75	110
Length	mm	855	1110	1195	1250	1635	1750	2150	2550	3010
Width	mm	760	1000	1200	1220	1550	1600	2100	2250	2600
Height	mm	515	700	776	845	1015	1100	1560	1750	1950
Weight	kg	220	415	700	850	1700	1800	4000	6500	8200

Delivery Program



Screening Machines Process Equipment

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round screens
jigs
attrition machines
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Sample Taking Size Reduction Machines Laboratory Equipment

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for sample taking and preparation
jaw crushers
roller mills
hammer and hammer impact mills
vibrating mills and ball mills
rotary shredders
test grading machines
analytical screening machines
dividers
testing drums**



Centrifuges

**scroll-screen centrifuges
pusher centrifuges
sliding discharge centrifuges
vibratory centrifuges
decanter centrifuges**